



Reinforcing Added Value for EMAS (RAVE)

Exploring Measures for Strengthening EMAS Added Value to
Authorities and Organisations.

ENV.A.1/SER/2016/0027

adelphi; SSSUP; Trinomics, UBA AT; EMAS Club Catalunya
On behalf of: European Commission, DG ENV

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Executive Summary

The RAVE (Reinforcing Added Value for EMAS) project was created as a follow up to the findings of the 2015 evaluation of the European Union (EU)'s Eco-Management and Audit Scheme (EMAS) and the accompanying Fitness Check of the European Commission (EC). The study aimed to investigate three main aspects of EMAS, with an emphasis on exploring the extent of EMAS's added value over other certified and non-certified EMS and its ability to provide additional advantages for organisations and public authorities:

- Regulatory relief:
 - To what extent do the EU Member States (MS) perceive EMAS as having added value over other EMS and how might that perception of added value translate into regulatory relief?
 - Which examples of regulatory relief already exist in the MS?
 - Which measures do stakeholders most wish for? Which provide an incentive to join EMAS or remain in the scheme? Which measures might best relieve the burdens of regulators?
 - Which barriers exist to implementing regulatory relief measures for EMAS?
 - What are best practice measures in the MS and how might other states or the EU replicate these measures?
 - Can the added value of EMAS provide justification for measures that reduce the administrative and financial burden for both EMAS registered organisations and regulators in the MS?
 - To what extent can the EMAS Regulation's provisions on legal compliance justify the introduction of regulatory relief?
 - How could the EMAS Regulation be changed to increase its capacity to demonstrate organisations' legal compliance?
 - Which new regulatory relief measures could MS and the EU introduce to reflect EMAS's added value?
- Reporting:
 - Is it possible to combine the added value of EMAS' transparent and third party verified reporting with measures to reduce the burden of environmental monitoring and reporting for both organisations and authorities?
 - What types of reporting obligations currently exist in the MS?
 - Which overlaps currently exist between reporting obligations and the information in the EMAS environmental statement?
 - How do companies currently report environmental data to EMAS CBs and other public regulatory and/or inspection authorities?
 - How could the current EMAS reporting channels and/or reporting medium be adapted to facilitate more direct communication of environmental data between EMAS registered organisations, CBs, and public authorities?
 - What options exist for digitalising EMAS reporting?
- Business opportunities:
 - How do EMAS registered companies currently use the environmental statement to achieve new business opportunities?
 - What modifications could be made to EMAS reporting to improve the use of the environmental statement to discover new business opportunities?

- What measures could encourage companies to facilitate the creation of new business opportunities through the environmental statement?

Structure of the study

To answer these questions, between January and May 2017 the project team evaluated existing research, conducted four Europe-wide surveys of different interest groups and interviewed 68 stakeholders in 12 MS. The MS were selected for their varying profiles in terms of geography, industry and EMAS registration numbers. Responses to the respective surveys were received from 742 EMAS registered organisations, 225 organisations with ISO 14001 but not EMAS, 16 Member State representatives from the EMAS Committee (which advises the European Commission on matters related to EMAS), and 71 EMAS environmental verifiers and/or Accreditation and Licensing Bodies. Interview partners comprised representatives of both EMAS-registered and non-EMAS organisations, EMAS Competent Bodies and/or Member State representatives, public regulatory and/or inspection authorities, environmental verifiers, and independent environmental management experts. Additionally, in September 2017 the project team carried out follow-up interviews with six Member State representatives and one national inspection agency. In November 2017, a follow-up survey of EMAS registered organisations was conducted to confirm or clarify initial findings and to test out proposed options for regulatory relief and strengthening EMAS's guarantee of legal compliance.

Key conclusions

Added value of EMAS

- **Most Member State representatives interviewed and surveyed in the study perceive EMAS as having added value over ISO 14001 and in particular over non-certified EMS.** The main sources of added value cited were a better guarantee of legal compliance with environmental regulations; transparency and reliability in auditing and reporting, including third party verification through a specially trained environmental verifier; and transparency achieved through listing in a public register. A few Member States, however, felt that EMAS presented only small or no added value over ISO 14001, with transparency through the environmental statement presenting the main addition.
- Surveys and interviews also indicate that the validated **EMAS environmental statement** with its mandatory core indicators **provides both authorities and members of the public with more complete data than is available for most companies in the EU.** In some Member States, the availability of environmental statements and the presence of EMAS-registered organisations in a **public register** have led to **reviews through members of the public or NGOs, producing extra pressure** on organisations to comply. The public nature of the scheme also **allows policymakers and public authorities some influence on the standards** to which both organisations and their environmental verifiers are held.
- **A majority of EMAS-registered organisations felt EMAS helped them achieve legal compliance more easily and completely than with ISO 14001 alone.** Some organisations, however, reported the environmental statement as being the main or only difference between the two schemes. **A majority of surveyed environmental verifiers also found EMAS to be more effective than ISO 14001 at supporting legal compliance,** although many felt the difference was slight. Nonetheless, as documented in previous studies, **organisations experience few additional benefits and low recognition of their commitment and efforts** from policymakers, regulators and inspection authorities.
- Interviews and surveys also revealed that **many public authorities, particularly regulatory or inspection bodies, are not convinced that EMAS can effectively**

substitute for state inspections and/or other regulatory requirements and do not perceive many benefits for themselves from regulatory relief for EMAS-registered organisations. Concerns include job losses through saved resources and potential legal difficulties in justifying exceptions for certain organisations. Many of these **authorities are not familiar with EMAS and its provisions**, creating a barrier of understanding and communication between ministerial representatives of EMAS, EMAS CBs, and their colleagues in other ministries and other public authorities.

- A SWOT analysis of EMAS's ability to facilitate legal compliance revealed that the **EMAS Regulation contains more stringent legal compliance provisions than the ISO 14001 standard** for both organisations and environmental verifiers, for example by integrating full compliance as a specific requirement for auditors to verify. However, the **Regulation's lack of detail has led to differences in implementation in Member States and sowed doubts** among many policy and regulatory stakeholders as to its stringency.
- **Additional safeguards could counteract this impression and reinforce the added value of EMAS's legal compliance provisions**, thereby providing a justification for more regulatory relief measures. Options include specifying the number of man days for audits; integrating specific references to legal compliance issues within the steps of the EMAS process; and introducing optional provisions with which organisations seeking regulatory relief could comply. **Over 70% of EMAS-registered organisations responding to the November 2017 follow-up survey indicated a willingness to comply with optional measures** – specifically having their audit reports sent to inspection authorities or having verifiers use inspection agency-approved checklists during their audits - if they could receive more incentives.

Regulatory relief

- **Regulatory relief** for EMAS-registered organisations is currently **not very effective for bringing added value to organisations and for increasing registrations. Measures are unevenly spread among Member States** and unevenly implemented within countries. **Best practices exist** that Member States can share with each other and with the EU. However, **better and more frequent communication between key stakeholders** such as inspection authorities, other regulators and policymakers, EMAS representatives, and environmental verifiers about the scheme, its provisions, and the auditing work of the verifiers is essential to gaining more effective incentives for organisations to participate in the scheme.
- Surveys and interviews revealed that **organisations most desire the following types of relief measures**: tax incentives, fee reductions, fast-track permits, extensions of permit validity, and reduced reporting and monitoring requirements. While authorities benefit from tax incentives and fee reductions only indirectly through a reduction of overall environmental impacts, the other measures could bring time and resource savings to authorities as well.
- **Key barriers** to the implementation of regulatory relief are:
 - the lack of references to EMAS in EU legislation
 - the relatively weak position of environment ministries within government;
 - the lack of awareness of EMAS benefits among policymakers and regulators;
 - doubts about EMAS added value and the benefits of regulatory relief among inspection authorities in particular;

- the topic-focused and narrow work in the environmental field, which makes integrating a cross-disciplinary instrument like EMAS into sector-specific goals difficult;
 - the lack of a clear vision of how a voluntary and process-oriented instrument like EMAS can contribute to environmental policy goals set generally in a command-and-control fashion.
- To counteract these barriers, the study recommends investigating the following options:
 - **Promote EMAS integration at an early stage of the legislative process**, for example by keeping track of the creation and revision processes of EU and national environmental legislation and working to insert references to EMAS
 - **Enhance the visibility and communication of new and existing regulatory relief** measures within and across Member States, for example through dedicated communication actions involving EMAS Competent Bodies (CBs), business associations and chambers of commerce
 - **Strengthen legal support and assistance to policymakers and public administrations**, for example through the creation of dedicated legal helpdesks and/or preparing suggestions for the integration of EMAS into legislation.
 - **Tie some regulatory relief measures to performance**, for example requiring improvement in certain indicators over time
 - **Enhance communication and trust between public authorities and environmental verifiers**, for example through regular informational workshops and exchanges, specific communication between authorities and verifiers (e.g. sending audit reports) or through the creation of a licensing body that works as a bridge between regulators and verifiers

Reporting

- **EMAS-registered organisations face a double burden** of reporting in the environmental statement and to public authorities that the organisations are eager to eliminate. However, **significant differences** in reporting channels and in the level of detail between the EMAS environmental statement – which was intended for a broader audience – and legal reporting obligations **exclude the possibility of using the EMAS environmental statement as a one-stop-shop. Reporting synergies nonetheless exist** in certain topic areas that could provide regulatory relief opportunities for EMAS-registered organisations and reduce the burden for authorities.
- **Stakeholders expressed interest in moving EMAS reporting towards a more digital future** in which EMAS-registered organisations could upload information to a platform, generate an environmental statement, and potentially also use the platform to send information to authorities. **While such a step still faces significant barriers of language, administration, security, and lack of data coordination within and between Member States**, investigating the options for and usefulness of such a platform through targeted **pilot projects could provide valuable information for the future development** of EMAS reporting.
- To improve reporting synergies and heighten the usefulness of the EMAS environmental statement for organisations and authorities, the study recommends the following options:
 - **Implement regulatory relief for reporting obligations that overlap.** MS authorities may consider accepting the environmental statement as a substitute of a reporting obligation if the content and format of the statement matches their needs or if it could do so with

only small adjustments. The study identifies several reporting obligations which overlap with EMAS.

- Ensure that Annex IV of the **EMAS Regulation specifies that organisations can include additional information** to fulfil other reporting obligations
- **Encourage communication of good, benchmarked performance** in environmental statements, for example by comparing performance to legal thresholds or highlighting organisations' improvement in indicators over time.
- **Provide additional guidance from MS on how to use EMAS in integrated reporting**, for example in sustainability reports or using guidelines for combining EMAS reporting with GRI or national standards like the German Sustainability Code.
- **Investigate options for digital reporting through EMAS** to ease communication with public authorities, for example through expert consultations and small pilot projects.
- **Develop EU guidance on environmental and/or sustainability reporting**, for example by providing guidelines with benchmarks and indicators for specific sectors and adjusting the guidelines for the non-financial reporting directive to recommend streamlined quality standards for auditors/verifiers
- **Increase authorities' awareness of EMAS and its added value**, including not only EMAS provisions as mentioned above but also promoting EMAS as a tool to achieve wider policy goals
- **Encourage environmental data collection hubs** and compatible data transmission methods within – and eventually among – Member States

Business opportunities

- EMAS-registered organisations in eight case studies did not use the environmental statement to any great extent to further business opportunities, and none attributed their company's recent increase in turnover to the environmental statement. The environmental statement is too technical and detailed to reach most relevant stakeholders.
- Organisations do use EMAS in general – beyond the environmental statement – to achieve business opportunities and improve their business performance. These opportunities include reducing costs and risks and improving reputation, as well as some becoming more innovative.
- The environmental statement could not realistically be used to achieve many new business opportunities without substantially changing its content and purpose. However, a best practice emerged of using selected information from the environmental statement to advertise companies' sustainability in more targeted communication and messaging to consumers and business partners.
- Two main institutional changes could improve the usefulness of the environmental statement: increasing promotion and public awareness of EMAS from the EC and the MS, which would open up new opportunities for attracting customers and for using EMAS to gain advantages at banks and credit institutions; and encouraging networking opportunities for EMAS-registered organisations, potentially through the formation and institutional support of national, regional and local EMAS Clubs.

A closer look at the results:**The landscape in the EU: how do Member States perceive EMAS and its added value?**

Stakeholders in the 11 MS covered in the RAVE study exhibited differing opinions on the added value of EMAS, in particular compared to ISO 14001. Most MS representatives felt EMAS provided value through a higher level of legal compliance, third party verification by a specially qualified independent environmental verifier, and transparency both in reporting and by being listed in a public register. However, several representatives of MS environment ministries did not perceive this added value or saw it only in one area, e.g. reporting or third party verification. Others saw added value themselves but stated that it was difficult to convince colleagues and other authorities.

MS with high numbers of registrations and relatively high numbers of existing regulatory relief measures were most positive about EMAS added value, in particular regarding legal compliance and third party verification. All four of these countries (Austria, Germany, Italy and Spain) have implemented national – or in Spain, regional – measures that have increased trust in EMAS and its added value. Austria, Germany and Italy have licensing bodies tailored especially to qualifying environmental verifiers, allowing government authorities to design the qualification and testing programmes for the verifiers. In Austria and Germany, verifiers have to pass oral exams of their knowledge, including of legal compliance checks. Italy sends public inspectors along to the first EMAS verification to ensure a high level of compliance, while CBs in several Spanish regions meet regularly with environmental verifiers to discuss auditing procedures in their office at the regional regulatory authority.

Among most regulatory and/or inspection authorities, knowledge of EMAS requirements was often very limited and thus added value was often not perceived. Authorities also proved more reluctant than most EMAS ministerial representatives to view third party verification through a non-government body as justifying regulatory relief measures like fewer state inspections. Many authorities felt that such incentives had great potential for encouraging companies to lower their environmental impacts, but several expressed the need to implement additional guarantees that EMAS companies were indeed better performers or legally compliant. Such guarantees might potentially involve benchmarking against prior performance, legal thresholds or government designated sectoral goals in the EMAS environmental statements. They could also be achieved through closer cooperation – for instance, regular workshops on the national and regional levels – between EMAS CBs, regulatory and inspection authorities, and EMAS verifiers to reassure authorities of verifiers' auditing skills and priorities.

Which regulatory relief measures for EMAS organisations already exist in the Member States?

The study collected 219 existing regulatory relief measures for EMAS registered organisations in the 11 selected MS, with the most measures present in Germany, Italy and Spain. In Germany, more measures exist than are present in the list, particularly at regional level. The other eight countries had fewer than 15 measures each, with two countries reporting no regulatory relief measures at all and one country having only one. Of the measures collected, 47% applied only to EMAS, while 53% applied both to EMAS and ISO 14001. For the purposes of this study, regulatory relief measures refer to a wide range of incentives, most of which involve administrative savings but which also include financial measures like tax rebates or reduced fees that instead result mainly in direct financial savings.

The compendium of regulatory relief measures (Annex II) identified 12 different types of incentives. The most common type of existing regulatory relief measures were reduced reporting or monitoring requirements, which account for more than the 20% of the total. The next most common types were reductions in financial guarantees, tax breaks, and simplifications

in the application for environmental permits. Italy demonstrated the highest number of different types of measures (12 out of 12), with the most common categories being “reduction of financial guarantees” and “fast-track permits or simplifications in permit applications”. In contrast, Germany had a high total number of measures but only eight different types, with the majority comprised of reduced reporting and monitoring requirements. Spain followed a similar pattern to Germany: eight different types of measures, with tax breaks forming a clear majority.

Most of the MS promote and apply the identified measures of regulatory relief at national level. The exceptions are Italy and Spain, where regional authorities implement and promote more measures than the national government. In Germany, the national EMAS Privileges Regulation forms the legal basis for many of the regulatory relief measures and appears unique in nature among the MS studied. The Act specifically empowers and encourages national and regional implementation authorities to grant reductions in reporting and monitoring requirements to EMAS registered organisations in certain sectors.

How satisfied are organisations with existing measures?

EMAS registered organisations expressed the highest satisfaction with the following categories of regulatory relief measures: tax breaks, reductions of administrative fees, and the extension of the validity of permits and authorisations. Both EMAS registered and non-EMAS organisations expressed dissatisfaction with the current level of regulatory relief in their countries; 60% of registered organisations reported never having benefited from regulatory relief. The inadequacy of the current level of regulatory relief addressed to EMAS organisations is confirmed by the surveys of ISO 14001-certified organisations and environmental verifiers. However, more EMAS-registered organisations have benefited from regulatory relief than ISO 14001 organisations, suggesting that such measures could be an incentive for moving from ISO 14001 to EMAS.

How effective are existing measures? What benefits do they bring for organisations and authorities?

The results of the effectiveness assessment corroborate the findings of the satisfaction assessment. In particular, EMAS-registered organisations rank tax breaks first in terms of satisfaction. Even though they were not found to be very effective at reducing direct financial expenditure, tax breaks emerge as among the most effective measures at reducing technical staff costs and expenditure on external consultancies. Reductions in administrative fees are also very effective at cutting direct financial expenditure. Similarly, extensions of the validity of permits, ranked third in the satisfaction assessment, score relatively high on administrative cost savings. In line with their low satisfaction rating, EMAS-registered organisations ranked reduced inspection frequencies and monitoring requirements - the two most widespread types of regulatory relief measures for EMAS - as among the least effective measures in terms of cost savings.

Authorities also reported benefits from regulatory relief. Interviewees from regulatory authorities mentioned that EMAS-registered organisations often have better, more complete paperwork documenting legal compliance, allowing them to save time when processing permit applications and instead use their limited resources to focus on higher-risk organisations. In the UK, a similar goal was stated, although the relief was not targeted specifically to EMAS. Rather, regulatory authorities reported a high level of interest in cooperating with environmental verifiers and other auditors to lessen the regulatory burden on good performers and concentrate instead on cases of non-compliance.

Interviews, surveys and assessments indicated that the way in which a specific measure was written into law influenced its effectiveness considerably. For example, the German EMAS

Privileges Regulation provides an important basis and justification for EMAS regulatory relief in Germany. However, the Regulation's effectiveness is limited by its focus on specific types of measures and because some German *Bundesländer* have implemented the act and provide relief to EMAS organisations, while others do not. Similar examples of non-specific or non-binding recommendations to authorities or weak implementation at lower levels exist in many MS, causing the effectiveness of certain measures to vary considerably according to which authority implements the respective measures.

How important is regulatory relief for rewarding EMAS-registered organisations?

Although EMAS-registered organisations have not in past studies named regulatory relief as their main reason for joining EMAS, the follow-up survey indicates that such relief measures are an important factor in maintaining and increasing EMAS registration numbers. Organisations put in extra effort and incur extra expense to achieve the higher requirements of EMAS, and they appreciate measures that offset costs and recognise their efforts. In the follow-up survey, EMAS registered organisations indicated that they desire regulatory relief, but that current levels or measures offered are insufficient. A vast majority (80%) of respondents totally agreed or agreed that "regulatory relief measures for EMAS organisations can become an important incentive for obtaining and maintaining EMAS registration, provided policymakers increase the number and effectiveness of such measures to deliver valuable benefits to organisations".

Additionally, nearly all organisations responding to the follow-up survey feel regulatory relief would make EMAS "very attractive" or "attractive" and lead to maintaining registration:

- 64.2% of total respondents reported that the adoption of a higher number of regulatory relief measures would make EMAS "very attractive" to them and lead to their recommending EMAS to others
- 34.4% of respondents said higher numbers of regulatory relief would make EMAS "attractive"

Interviews and the original RAVE survey support this view, demonstrating that organisations appreciate some regulatory relief measures but that they in general do not benefit as much as they would like from existing measures. Organisations in many Member States do not have access to much regulatory relief at all, but would appreciate it. Overall, regulatory relief measures appear to be an important tool for encouraging organisations to reduce their environmental impacts.

Which barriers exist to implementing regulatory relief?

Using evidence from interviews and surveys, the study identified four main barriers to the implementation of regulatory relief measures for EMAS and/or ISO 14001 organisations:

- lack of integration of EMAS in European and national legislation; lack of awareness of EMAS features that could justify regulatory relief. In some cases, this lack of awareness is coupled with a lack of conviction that EMAS justifies regulatory relief, particularly among inspection authorities.
- lack of coordination and integration among different administrative levels
- Perceived misalignment between EMAS and countries' environmental priorities and/or a lack of conviction that EMAS justifies regulatory relief. The topic-focused and narrow work in the environmental field makes integrating a cross-disciplinary instrument like EMAS into sector-specific goals difficult. Additionally, on both EU and MS level, a clear vision is missing of how a voluntary and process-oriented instru-

ment like EMAS can contribute to environmental policy goals generally set in a command-and-control fashion.

Both registered organisations and public authorities from Member States cite a lack of integration of EMAS in EU legislation as a significant barrier. CBs, MS representatives, and several regulatory and inspection authorities mentioned that when EMAS is not present in EU legislation, they face considerable difficulty in integrating the scheme at a national and especially at a regional level. Government stakeholders and experts reported a frequent 1:1 transposition of EU Directives at national level, with even slight changes proving potentially difficult in the inter-ministerial negotiation process. Others mentioned that, for legal reasons, their colleagues in the environment ministries were frequently reluctant to mention EMAS in laws based on EU Directives that did not mention EMAS themselves. A similar fear of legal complications was reported among regional and local regulators.

If regulatory relief measures for EMAS are not mentioned in higher-level legislation, the integration at lower levels is made even more difficult by policymakers' and regulators' lack of familiarity with EMAS, another significant barrier. Most are not familiar with the EMAS features designed to guarantee higher levels of legal compliance and transparency. Interviewed stakeholders also complain about a lack of vertical integration and coordination between different legislative levels. This lack of integration appears to stem from both a limited integration of EMAS at the early stage of the legislative process, both at the EU and at the national levels, and a limited awareness of EMAS at the lower level of public administration.

Lastly, a perceived misalignment between EMAS's objectives and Member States' specific environmental priorities emerges as a relevant barrier to the implementation of regulatory relief measures within European countries. EMAS is indeed perceived as indirectly contributing to several environmental goals, but remains difficult to match with specific environmental objectives. Some Member States and some institutions within other Member States are also sceptical as to whether or not EMAS registered organisations should obtain relief based on registration alone. A potential solution to this barrier would be to introduce performance benchmarks (e.g. a certain level of improvement in a particular indicator) tied to specific regulatory relief measures or introducing other measures such as verifiers submitting audit reports to the inspection authorities.

To offset other barriers, potential solutions include integrating EMAS more strongly into EU legislation to increase awareness and enable a better integration into MS legislation; the development in the EU and among MS of a clear strategy for the use of voluntary instruments to achieve specific policy goals; and a better coordination between higher and lower levels of government and within ministries, particularly on transdisciplinary topics such as environmental management.

Which measures are “best practice” in the respective Member States?

Through an evaluation of the existing regulatory relief measures in Member States, the project team was able to identify 58 measures as best practice in their respective countries. These best practices were selected based on their potential to be replicated, their effectiveness (achieved results), potential to meet the need of organisations and potential to bring environmental benefits.

As the MS with the highest number of regulatory relief measures, Italy, Spain and Germany also showcase the highest number of “best practices” measures, with 17, 11 and 10 measures, respectively. The most common types of best practice measures were: reductions in reporting or monitoring requirements, tax breaks, reduced inspection frequencies, and “fast track” permits and/or reduction in the complexity of the application process.

Which aspects of EMAS added value justify regulatory relief measures?

An analysis of the reasons behind 58 selected best practice EMAS regulatory relief measures (Annex III) revealed that justifications of regulatory relief measures that are based on a characteristic unique to EMAS fall largely into the following four categories:

- 1) transparency of third party validated information (environmental statement) - this characteristic often justifies less frequent inspections or other advantages based on the large amount of transparent, public information available in the statement or allows organisations to substitute a reporting requirement for the environmental statement. Members of the public can also use the statement to exert pressure on organisations to ensure their legal compliance.
- 2) better legal compliance because of audits though environmental verifiers licensed by a public body who decides on their training/qualification requirements and demands individual exams to high standards. This reason was mentioned specifically in Germany and Austria, where environmental verifiers undergo a licensing procedure designed by the state.
- 3) better legal compliance because of special communication between public enforcement authorities and environmental verifiers, for example: inspection authorities accompanying the verifier on occasional audits; verifiers using checklists from public bodies
- 4) better transparency and legal compliance because environmental verifier checks additional documents related to permits, legal compliance, and to the environmental review during the audit

Interviewees justified some measures using reasons not necessarily unique to EMAS, for example regulatory relief based on assumed better than average environmental performance (without benchmarks), or lower risk because of audits and other parts of a certified environmental management system, without any additional assurance specific to EMAS. In most cases, these regulatory relief measures already apply to both organisations with EMAS and those with ISO 14001 but not EMAS. The addition of conditions such as improvement benchmarks (e.g. % improvement in an indicator over 2 years) or transparency requirements could connect some of these measures more strongly with information available in the EMAS environmental statement and provide an additional justification for rewarding EMAS-registered organisations.

Can best practice measures be replicated in other Member States?

Through the data gathered in interviews and surveys, the study identified three different approaches to the replication of the identified regulatory relief.

- “Top-down”: incentives adopted at a higher legislative level can be adopted as well at lower level (e.g. transfer from EU to MS, or from national to regional levels)
- “Peer to peer”: incentives are transferred horizontally between institutions operating at the same legislative level (e.g. from one MS to another MS or from one region to another region)
- “Bottom-up”: incentives adopted at a lower legislative level can be adopted as well at a higher level (e.g. transfer from MS to EU)

Each approach has different features, yet all seek to involve public institutions operating at different levels. For this reason, some approaches are better suited to replicating certain forms of regulatory relief than others. The report makes suggestions for a plan to replicate each of the best practices identified in the study according to at least one of these approaches.

As all measures could be replicated in at least the peer-to-peer approach, a series of focused workshops should be created for exchanges at all levels. At the EU level, the EU and MS can exchange information, experiences and suggestions with each other. Crucially, these higher level workshops should be complemented by national and regional workshops in the MS themselves, attended by national, regional and/or policymakers, regulators and inspection authorities. At lower levels, another element becomes necessary to address a main barrier to the adoption of regulatory relief: organisers and/or participants familiar with EMAS (e.g. the EMAS CB) should not only focus on learning about new regulatory relief measures, but also use the opportunity to present the added value of EMAS and explain how EMAS can achieve broader policy goals and justify regulatory relief measures.

Such workshops would be most effective when combined with a broader effort to facilitate exchanges between EMAS environmental verifiers and regulatory and inspection authorities, so that authorities gain a greater understanding of verifiers' qualifications and the EMAS audit process. Simultaneously, public authorities should receive assurances that resources they save through relief for EMAS organisations will be dedicated to identifying companies with worse performance. By working to improve public authorities' general knowledge of and trust in EMAS while also sharing best practices and potentially designing new measures with clear justifications tied to EMAS, EMAS representatives in all MS will have the best chance of achieving more incentives for EMAS adoption.

Projects such as BRAVE, BRAVER and ENHANCE dedicated to the development and implementation of regulatory relief for EMAS at national and regional levels throughout the EU also represent important opportunities for sharing and developing new measures. Similar projects could also be implemented at the MS level to facilitate sharing between regions of the same country.

Key added value: how effective are legal compliance requirements in the EMAS regulation?

The EMAS Regulation's obligation that all registered organisations demonstrate compliance with environmental regulations provides not only an essential added value of the scheme but also provides the justification for most EMAS incentives. EMAS's ability to support organisations' compliance with environmental regulations thus plays a key role in generating trust in the scheme and merited close investigation. Based on an analysis of survey, interview data and relevant technical and scientific literature, the project team performed a SWOT analysis to assess EMAS's usefulness as a tool for supporting legal compliance. In addition to findings in published literature that indicate that EMAS is effective in reducing the risks of non-compliance through documented and shared auditing procedures, the study paid particular attention to comparing the requirements of the EMAS Regulation to the requirements of the ISO 14001 standard. The analysis led to the following conclusions:

- **The EMAS Regulation is more specific than ISO 14001 with regard to legal compliance.** EMAS specifically requires organisations to identify and ensure compliance with environmental legislation, including having procedures in place to ensure that compliance. The EMAS Regulation also makes compliance a requirement for auditors to validate, and requires auditors to sign the "Environmental Verifiers' declaration" to confirm that they find no evidence of non-compliance. The ISO 14001 standard, by exclusively referring to the ability of the management system to ensure the compliance of the organization to environmental legislation, relieves auditors from a duty to actually assess and validate legal compliance. An explicit note to paragraph 9.1.2.2.2 of the standard indicates that "*a management system certification audit is not a legal compliance audit*".
- **Verifiers perceive EMAS as more effective than ISO 14001 in ensuring legal compliance.** 72% of surveyed environmental verifiers stated that EMAS is more ef-

fective than ISO 14001 in ensuring compliance with environmental regulations. 42% feel that EMAS is strongly or somewhat more effective, while 30% consider it moderately or slightly more effective. When Italian verifiers (the majority of the sample) are excluded, the percentage finding EMAS to be more effective than ISO 14001 to some degree jumps to nearly 90%, although only 33% consider EMAS to be strongly or somewhat more effective.

Although the survey alone cannot confirm that EMAS is more effective than ISO 14001 at ensuring legal compliance, it does confirm that environmental verifiers – those most closely inspecting the EMS processes of the organisations involved - see EMAS as a reliable and effective tool for supporting and demonstrating compliance with environmental regulations. This conclusion is supported by further evidence. For instance, the vast majority (72%) of the surveyed verifiers consider EMAS strongly or somewhat more effective than ISO 14001 in ensuring the transparency, trustworthiness and completeness of environmental reports and documentation, which are essential prerequisites for a positive relationship with authorities and indicators of responsible behaviour

- **EMAS-registered organisations find EMAS more effective than ISO 14001 at facilitating legal compliance.** The respondents of the follow-up survey of EMAS-registered organisations, nearly 80% of which were also certified according to ISO 14001, confirmed that they viewed EMAS as more effective in facilitating their organisation's compliance with environmental regulations. Slightly more than 70% held this view, while 21% neither agreed nor disagreed.
- The EMAS Regulation and EU Directives are currently not specific enough to guarantee the adoption of regulatory relief at Member State level.

Because the verification process is not specified in detail at **the level of the EMAS Regulation**, public authorities view regulatory relief with some scepticism for the following reasons:

- Authorities often have limited awareness of and no concrete reference to the role of environmental verifiers and the EMAS auditing process
- Limited detail on the verification process – particularly regarding the number of dedicated mandays involved - leads to a lack of harmonization among MS. The degree of legal compliance verification and overall perceptions of the auditing process thus may vary from country to country.
- Lack of clarity about which specific legislative areas must be included in the scope of EMAS legal compliance may further undermine authorities' confidence in the verification process.

In order to enhance EMAS's capacity to support organisations' compliance with environmental legislations and demonstrate compliance to authorities, **the EMAS Regulation should integrate specific references to legal compliance issues within its most crucial steps, from the Initial Environmental Review to the Environmental Statement.** Additional specific requirements could aim at facilitating the assessment, monitoring and management of environmental risks, while at the same time enhancing the scheme's capacity to demonstrate and guarantee legal compliance.

- The main opportunity for strengthening EMAS's capacity for demonstrating legal compliance is to enhance cooperation and communication between public authorities, inspection agencies and environmental verifiers.

At the **governance structure level**, the accreditation rules for EMAS environmental verifiers are a clear strength of the scheme. In some MS, additional levels of assur-

ance are provided, e.g. licensing through public bodies or involving authorities in the certification and verification process. These additional assurances may work to counteract some potential weaknesses of the governance structure, including the perception that the auditor may not be independent (supplier-client relationship with organisations) and concern over lack of EMAS suspension in cases of environmental accidents or sanctions.

Importantly, **organisations are willing to comply with additional optional EMAS requirements in the EMAS Regulation to strengthen legal compliance if it enables them to receive more regulatory relief.** 91% of respondents to the follow-up survey of EMAS-registered organisations stated that they would welcome new optional requirements that would serve to increase EMAS's capacity to demonstrate legal compliance *if* such measures would allow organisations to receive more regulatory relief.

Among suggested measures aiming to reassure authorities, over 70% would agree to have their EMAS audit report sent to inspection agencies. Roughly the same number would agree to verifiers using checklists designed by the inspection authority or the inspection authority approving the verifiers' checklists. Significantly fewer respondents (under 40%) would agree to an unplanned visit from an EMAS verifier in which he/she collects emissions samples or to limits on the time frame in which an organisation can have the same verifier.

Which regulatory relief measures should policymakers focus on?

The April-May 2017 surveys of EMAS-registered organisations, ISO 14001 organisations, MS representatives and EMAS environmental verifiers also asked each target group which types of regulatory relief measures they preferred. All four groups ranked tax breaks as one of the top three most effective measures. Reduced inspection frequencies also ranked in at least the top five choices of all survey groups. Although specific examples of tax breaks and fee reductions ranked well in the follow-up survey, a specific example of reduced inspection frequencies did not rank high. However, information from interviews indicates that this measure is effective only if the extended time period between inspections is significant.

Both types of organisations and environmental verifiers agreed that fast track/streamlined permits and extension of permit validity would be effective incentives, while EMAS registered organisations also placed high value on reduced reporting or monitoring requirements. MS representatives differed the most from the other groups, giving green public procurement and credit access/funding support fairly high rankings, which ranked comparatively low among the other stakeholder groups.

Overall, a clear recognition emerged that **all types of stakeholders felt tax incentives, fast track permits and extension of permit validity would be highly effective at rewarding EMAS-registered organisations for their performance.** The follow-up survey of EMAS-registered organisations supported these results and also indicated high interest in reduced administrative fees for permits and other authorisation procedures. Policymakers from the EU and MS are thus encouraged to examine potential measures in these areas first.

The follow-up survey confirmed those areas of focus, with results showing that **organisations prefer mainly measures providing financial incentives, longer permit durations, and exemptions.** Certain incentive measures were more likely to affect an organisation's decision to maintain EMAS registration than others:

- Over 70% of respondents felt that a revenue tax reduction for EMAS organisations or a 30% reduction in fees for obtaining permits for waste, emission control and water legislation would influence their decision to remain registered.

- More than 60% of respondents cited measures involving longer permit durations, exemptions from energy audit requirements, reductions in financial guarantees, exemptions from environmental impact assessments, and various tax rebates as likely to influence their registration decision.
- Organisations were comparatively less interested in concrete measures suggesting time limits for receiving EIA permits, higher mandatory thresholds for modifications and improvements, consolidated permits for a single site, and less frequent inspections.

Respondents also cited energy, waste, and industrial emissions as the three topic areas in which they would most appreciate new regulatory relief measures.

Which new measures could support incentives for EMAS in European and national legislation?

To assist in the introduction of regulatory relief measures at the European level and thus facilitate a “trickle-down” effect to MS, the project team developed 24 preliminary suggestions for integrating EMAS incentives into European legislation (Annex IV). To reflect stakeholder preferences, suggestions were made in each of the key areas of fast-track/streamlined permits, reduced reporting or monitoring requirements and reduced inspection frequencies. Tax breaks were not included because tax law remains the purview of the MS. Some of the innovative measures touched on new areas and attempted to connect EMAS to other instruments, for example Eco-Design or EU-Ecolabel.

These innovative measures are by no means the only possible options. Some measures may face extensive implementation difficulties in practice, and thus may not be the best option to achieve relief for EMAS registered organisations. Indeed, many of the existing best practices remain excellent first options both for MS that have not yet implemented them and for the EU. Nonetheless, the innovative measures demonstrate the variety of options for integrating EMAS more strongly into EU legislation and thus reinforcing the adoption of regulatory relief for all EMAS organisations throughout Europe. They also underline the importance of creating a system to examine all new environmental legislation for options to include EMAS.

Key added value: how can transparent reporting play a role in reducing burdens for organisations and authorities?

Another central added value of EMAS over other EMS certifications is the transparent data provided by the registered organisations’ mandatory, independently verified environmental statement. The statement contains information, such as organisations’ performance on certain indicators over time, some of which the organisations also report to authorities. The study examined whether or not public authorities actually value this transparency and third party verification and if EMAS organisations could potentially use their mandatory environmental statements to also fulfil other legal reporting or monitoring obligations. Such an arrangement could potentially generate benefits for authorities as well, as they could focus more of their resources on higher risk organisations.

Although most reporting obligations do not require third party verification, results from interviews indicate that authorities do gain some degree of assurance from the verification. However, many remain sceptical as to whether an audit by an environmental verifier could have the same high standards as a state inspection. Nonetheless, since most authorities operate on the basis of spot checks, data reported by companies is not always verified by the authorities themselves on a consistent basis. For that reason, third party verification through EMAS could provide an added value over the status quo. If authorities could gain a full understanding of how EMAS works and how the EMAS environmental verifier operates, they may see

the third party verification as an added value to substitute for certain reporting obligations that organisations already include to a large extent in their environmental statements.

As was the case for the creation of regulatory relief measures, exploiting the full potential of transparent reporting for both organisations and authorities requires closer cooperation between EMAS representatives, environmental verifiers, and regulatory and inspection authorities. Some authorities expressed interest in working to use certification schemes and the third party audits as a way to identify low-risk companies and/or good performers, allowing them to focus their limited resources on finding more cases of non-compliance. Regular workshops could provide a platform for generating ideas on how to improve the transmission of data between organisations and authorities.

Which reporting obligations exist in the Member States?

To more closely explore the potential of fulfilling additional existing reporting and monitoring information with information from the EMAS environmental statement, the project team created a compendium of reporting and monitoring obligations from the 11 MS investigated in the study (Annex V). The full list included 162 laws and regulations and is not exhaustive (see description of material scope in Section 2.1.2 of the report). The compendium of reporting obligations nonetheless gives a good overview of the different types and genres of reporting obligations and provides certain important insights for analysing and/or taking advantage of matches with EMAS. For example, the list shows that most obligations derive from EU regulations. An opportunity for EMAS could thus be to incorporate the scheme as a possibility to fulfil reporting obligations in the texts of EU Directives, multiplying the benefits of synergies at the European level.

The compiled reporting obligations cover every environmental aspect, from air emissions to waste, indicating a potential overlap with the indicators that EMAS-registered organisations must include in their environmental statements. EMAS could thus help MS assess progress in their priority policy areas. Both interviews and the obligations in the compendium also indicated a certain degree of overlap among the obligations themselves, with surveyed and interviewed organisations expressing a desire for measures aiming at simplifying reporting.

Gap analysis: do overlaps exist between legal reporting obligations and EMAS reporting requirements?

To examine the opportunities for increasing synergies and saving resources for both organisations and authorities by covering organisations' reporting and monitoring obligations in the EMAS environmental statement, the project team performed a gap analysis to compare a selection of identified reporting obligations with the required content of the EMAS environmental statement. After a first assessment of all obligations in the compendium (see Chapter 4.3), the project team focused on 16 obligations from nine MS, covering the areas of Corporate Social Responsibility (CSR) reporting, greenhouse gas (GHG) emissions, waste management, energy, industrial emissions, and water. The gap analysis then compared the content of the obligations to EMAS requirements, identifying areas of overlap, similarities, and gaps (complete lack of overlap). The analysis led to the following conclusions:

- EMAS as a one stop shop - in which organisations can report all environmental data in one place – is not a viable solution.
 - EMAS fulfils many of the requirements of the reporting obligations analysed, but does not provide the level of details required by most regulations. The different requirements of these regulations in terms of reporting channels, level of precision, units, specificity, etc., make a one-stop-shop unrealistic. This conclusion confirmed information gained in interviews with organisations and government authorities.

- With minor adaptations, the **EMAS environmental statement could effectively substitute for common requirements** in CSR reporting, energy efficiency, and GHG emissions.
- The gap analysis confirmed barriers and benefits from the survey and interviews.
 - Barriers include: differences in reporting channels and methods, target groups, level of detail, and the inclusion of potentially sensitive information not intended for the public.
 - The main potential benefit for organisations is time savings; the benefits for authorities include not only time savings but also opportunities for collecting more and higher quality data
- **Linking EMAS to reporting obligations should be investigated on a case-by-case basis**, since barriers to using EMAS as a substitute for some regulations can be offset by high potential benefits to organisations and/or authorities.
- **Potential changes to the environmental statement** (e.g. additional information for authorities, specific checklists for certain obligations) **should take into consideration stakeholders' concerns**: e.g. target audience, reliability of the report, etc. The possibility of strengthening the role of the verifier and increasing the collaboration between verifiers and authorities may present a good opportunity to address some of these concerns, such as centralising the environmental data reported authorities.

How do organisations report on their environmental data, both to the public and to authorities?

The study determined that organisations – whether or not they have EMAS - use a wide variety of customisable software to collect their environmental data and generate reports. Many are customisable and already have templates for fulfilling GRI and ISO 14001 requirements. Other certification schemes make use of web portals to transmit environmental data. Accounts on these portals can make information accessible not only to companies and administrators, but also to third party auditors. Printouts or Excel files can also be sent to authorities.

With a custom design, a portal or template for existing software could be developed to cover EMAS requirements and generate environmental statements. Interviews with EMAS-registered organisations revealed many would welcome the opportunity to streamline reporting obligations and to digitise EMAS reporting further via an online platform.

The cost of developing a portal or platform is estimated to be fairly low; however, barriers such as language coverage, maintenance and optimisation in all languages appear more significant. Additionally, the platform should include opportunities for companies to gain knowledge and/or access to trainings or other benefits for EMAS-registered organisations in order to make use of the portal attractive for them. These benefits are particularly important for the organisations who like the current environmental statement and use it as a marketing material. These organisations reported wanting to keep the flexibility of writing a customised report for their stakeholders, and would likely need additional incentives to use a platform.

Transmitting data to authorities is considerably more complicated. The MS in the study exhibit a wide range of reporting procedures and standards for their various regulatory bodies. Comprehensive centralised databases of environmental information are uncommon, although several countries are starting to move in that direction. Some MS are developing internal software and technical interfaces to facilitate environmental reporting standardisation, but many are still using a variety of methods for each of their different types of reports (e.g. (a mix of paper and digital reporting; different electronic registries for different types of obligations)

The diversity of reporting both within and between MS poses a significant barrier to a comprehensive environmental database and standardised reporting procedures, at both MS and EU level. At the present time, an electronic transfer of data from a centralised EMAS reporting platform to authorities in all regions of all MS does not appear to be a viable option. Combined with the unlikelihood of authorities accepting the statement to cover most reporting obligations without additional conditions, the potential time savings from regulatory relief would not balance out the extra commitment involved in including most of those obligations in the EMAS environmental statement.

EMAS reporting channels: can they be used to reduce the burden of reporting?

EMAS reporting occurs directly from companies to the CBs and usually ends there. Companies reported that they appreciate the direct contact with the CB. However, interviews and survey results led to the conclusion that, because of the previously mentioned barriers, **having CBs transmit environmental statements to the relevant regulatory authorities directly would not improve the efficiency of the EMAS reporting process.**

However, organisations, CBs and MS representatives show general support for a reporting platform to help EMAS-registered organisations create environmental statements more easily and transmit that data to authorities. **If EMAS reporting is to be made digital and data eventually shared with authorities, the process must take place on two tiers:**

- First, an EMAS reporting template or reporting portal must be created for companies to generate report;
- Second, authorities in each MS would need to establish a uniform system for reporting and collecting environmental data able to accept transmissions from all environmental authorities and from outside systems (e.g. an EMAS web portal).

The creation of MS regulatory intelligence hubs and/or the establishment of a uniform reporting language standard like XBRL would ease the future transmission of environmental data. While this option is unlikely in the near future, in the medium-term, digital transmission of information will become increasingly common and EMAS should take advantage of the opportunities it offers. Some MS like Austria have already created portals where companies can report multiple on different obligations. Creating pilot projects in which EMAS-registered organisations can transmit data to authorities on a small scale can deliver important information about the effectiveness and efficiency of the process, giving the EC and the MS a stock of knowledge to prepare for a more extensive digitalisation of the EMAS reporting process.

Business opportunities through the EMAS environmental statement

As a final aim, the study looked at how organisations currently use the EMAS environmental statement to further their business objectives and how they could potentially use the statement to exploit new business opportunities. To investigate these points, the project team made eight interview and research-based cases studies of EMAS-registered organisations, each of which experienced a significant increase in turnover over the past five years. The selected organisations were further chosen for their diversity in representing different business models (e.g. business-to-business (B2B); business-to-consumer (B2C) and non-profit), and a variety of different-sizes and different sectors.

How do EMAS-registered organisations use their environmental statement to generate business opportunities?

None of the organisations in the case studies achieved additional business opportunities through the environmental statement. All companies responded that the statement was too detailed and technical to reach a wider audience, and several made a simplified report to send to stakeholders.

Despite the lack of use of the environmental statement, EMAS is nonetheless very relevant for improving business in two areas: improving companies' operational performance and improving companies' reputations. The case studies demonstrate that companies are successfully reducing costs and risk through resource efficiency and waste management, using EMAS as a performance-monitoring tool. They also report quality improvements and innovation related to training employees. Furthermore, the case studies show that the public is increasingly interested in a company's sustainability, even if they do not look at the detail of the environmental statement, and that this interest affects the reputation and business opportunities of the company. Several case studies provide valuable examples of EMAS's role in enhancing the image of the company as a reliable, transparent and virtuous business partner.

How could EMAS reporting be modified to improve the use of the environmental statement?

EMAS reporting could not be easily modified to improve the use of the environmental statement in achieving business opportunities without endangering the key objectives of the scheme. Instead, a best practice that emerged from the case studies was using the information in the environmental statements to send more targeted, simpler information on environmental performance to stakeholders. This communication could occur in the form of a condensed statement, as many of the case study companies already do, or simply in targeted marketing to enhance customers' awareness of the companies' sustainability practices.

How could EMAS support companies in creating new business opportunities?

The case studies demonstrated that a major obstacle to creating business opportunities through EMAS – whether using the environmental statement or not – was a lack of awareness of EMAS among the target groups of consumers and business partners. Interviewees emphasised the need to strengthen promotion efforts for EMAS at the EU and MS levels. Additionally, the case studies show that companies are interested in cooperating with each other to develop synergies and exchange best practices, including potentially new business opportunities such as raw material – waste exchanges to facilitate circular economy. A more active EMAS community, including the establishment of regional or national EMAS Clubs, could help achieve this goal.

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List of abbreviations

ADEME	French Environment and Energy Management Agency
ACFCI	Assembly of French Chambers of Commerce and Industry (today: CCI France)
B2B	Business to business
B2C	Business to consumer
BAT	Best Available Techniques
BAT-AEL	Best Available Techniques Associated Emission Levels
BMUB	German Ministry for Environment, Nature Conservation, Building and Nuclear Safety
BRAVE	Better Regulation Aimed at Valorising EMAS
BRAVER	Boosting Regulatory Advantages vis á vis EMAS Registration
BUBE	Betriebliche Umweltdatenberichterstattung
CA	Competent Authority
CB	Competent Body
CDP	Carbon Disclosure Project
CDSB	Climate Disclosure Standards Board
CEO	Chief Executive Officer
CH₄	Methane
CO₂	Carbon Dioxide
CSR	Corporate Social Responsibility
DEFRA	Department for Environment, Food, and Rural Affairs
DIHK	German Chamber of Commerce and Crafts
DJSI	Dow Jones Sustainability Index
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank

EEA	European Environment Agency
EHS	Environmental Health and Safety
EIA	Environmental Impact Assessment
EIOPA	European Insurance and Occupational Pensions Authority
ELV	End-of-Life Vehicles
EMAS	EU Eco-Management and Audit Scheme
EMS	Environmental Management System
E-PRTR	European Pollutant and Transfer Register
ETS	Emissions Trading System
EU	European Union
FTSE	Financial Times Stock Exchange
GDEP	General Directorate for Environmental Protection
GHG	Greenhouse Gas
GIDAF	Gestion Informatisée des Données d'Autosurveillance Fréquente
GJ	Gigajoule
GPP	Green Public Procurement
GRI	Global Reporting Initiative
HFC	Hydrofluorocarbon
IAF	International Accreditation Forum
IED	Industrial Emissions Directive
IEMA	Institute for Environmental Management and Assessment
IHK	German Local Chambers of Commerce and Crafts
INTERREG V	European Territorial Cooperation
IPPC	Integrated Pollution and Prevention Control
IRAP	Regional Tax on Productive Activities
ISO	International Organisation for Standardization
KPI	Key Performance Indicators

MEE	Long-term Agreement on Energy Efficiency for ETS enterprises
MJA3	Third Round of Voluntary Long Term Agreements in Netherlands
MS	Member States
MWh	Megawatt Hour
N₂O	Nitrous Oxide
NFP	National Focal Point
NO_x	Nitrogen Oxides
NRC	National Reference Centre
OPRA	Operational Risk Appraisal
PFC	Perfluorocarbon
PM	Particulates
RAVE	Reinforcing Added Value for EMAS
RTI	Responsible Tourism Institute
SASB	Sustainability Accounting Standards Board
SCCM	Foundation for the Certification of Environmental and Labour Management Systems
SCP	Sustainable Consumption and Production
SDG	Sustainable Development Goals
SERR	Smarter Environmental Regulation Review
SO₂	Sulfur Dioxide
SF₆	Sulfur Hexafluoride
SMEs	Small and Medium Enterprises
SRDs	Sectoral Reference Documents
UK	United Kingdom
WEEE	Waste Electrical and Electronic Equipment

1 Introduction

1.1 Objectives of the RAVE study

EMAS (EU Eco-Management and Audit Scheme) is a management instrument developed by the European Commission (EC) for companies and other organisations to evaluate, report upon, and improve their environmental performance. The scheme is an integral part of the Commission's Sustainable Consumption and Production (SCP) Action Plan, contributing to the Commission's ambitious goals of improving resource use patterns and reducing emissions in the European Union (EU).

After 20 years of EMAS, around 4,000 organisations and 12,000 sites in Europe and globally have committed to the scheme, spanning all economic and service sectors and encompassing organisations of all sizes.

EMAS, however, could contribute more to achieving the EU's ambitious environmental goals if registration numbers were higher. On 2nd December 2015, the European Commission adopted a Circular Economy Package, which includes an EU Action Plan for the Circular Economy. In this plan, the Commission committed to taking action to increase the efficiency and uptake of EMAS as a tool fostering circular economy. In 2017, the EC issued a report presenting the conclusion of the EMAS Fitness Check, an extensive evaluation of the relevance, effectiveness, efficiency and added value of EMAS for the EU. The report highlighted that the objective of EMAS – contributing to reducing the environmental impact of production and consumption – has been limited because of the low uptake of the scheme and stakeholders' limited awareness of EMAS. The report concluded that the commitment and support of Member States for EMAS will be a decisive factor in continuing the scheme. Among other topics, this study will investigate the current perception of Member States regarding EMAS and identify options for increasing support of the scheme.

Numbers of EMAS-registered organisations have remained fairly steady over the past 10 years, with the number of sites increasing slightly. The instrument faces challenges in the "modern era". As a voluntary tool, schemes like EMAS rely on the willingness of organisations to meet and go beyond their environmental obligations. Since voluntary schemes gained popularity as a policy instrument in the 1990s, studies have recognised a number of challenges that voluntary instruments face in general. According to Coglianese and Nash, the "rates of business participation in voluntary programs depend on a variety of factors, including both how these programs are designed as well as, importantly, what kinds of relevant background regulatory threats may loom for business" (Coglianese and Nash 2016). The researchers argue that policymakers need to understand the motivations of firms to join schemes in order to set up voluntary instruments with significant impact. Firms would then be motivated to participate to stave off or reduce the costs associated with proving regulatory compliance.

(Daddi et al. 2016) studied a sample of 242 European EMAS-registered organisations investigating the reasons of EMAS adoption. The authors highlighted how mimetic and normative institutional pressures play a clear role in the EMAS adoption decision.

(Fiorino 2006) also identified four main reasons why firms would be willing to participate in voluntary programmes: to gain recognition from government, investors, employees, insurers and communities; to develop positive relationships with regulators; to access information and resources; and to increase leverage for internal agents within the firms. **Key to the uptake of voluntary instruments is a reward in the form not only of market recognition, but**

also in terms of relationships with regulators and government recognition (Fiorino 2006).

This argument is consistent with the figures for EMAS adoption, which vary considerably among Member States (MS). Some MS have indeed introduced regulatory relief measures to reward organisations for their above-average voluntary commitment to environmental improvement, their participation in voluntary legal compliance checks and their willingness to their environmental data public via the EMAS environmental statement. Regulatory relief measures aim at simplifying the administrative, bureaucratic and financial duties that organisations must fulfil to operate. The Compendium on EMAS Promotion and Policy Support shows that the countries with the highest EMAS registration numbers today also tend to have the greatest number of active financial and regulatory relief measures in place (Skinner et al. 2015). EMAS-registered organisations also cite a lack of regulatory relief as a barrier to registration (Vernon et al. 2009).

Two members of this project team (adelphi and S. Anna School of Advanced Studies 2015) conducted an evaluation of EMAS in 2015 in preparation for the EC's Fitness Check of EMAS. This evaluation highlighted that, while the EMAS regulation strongly encourages the adoption of specific measures aimed at boosting EMAS awareness and recognition by authorities and other stakeholders, including better interaction with other policies, the MS and the EC have not integrated EMAS well enough into other legislation and policies. The evaluation study identified this lack of recognition by public institutions as one of the key reasons preventing EMAS uptake. Additional top barriers identified in the study correspond to those found in the EVER study of 2005: lack of recognition from the market, lack of external incentives, and lack of recognition by stakeholders and customers, and cost of environmental verifiers (adelphi and S. Anna School of Advanced Studies 2015); (IEFE Bocconi et al. 2005). The external nature of the top barriers indicate that lack of recognition by many types of outside stakeholders – including lack of incentives and recognition from public bodies – is the main reason why more organisations are not joining EMAS.

The effectiveness of EMAS should, however, not be considered using figures alone. The evaluation study also showed that EMAS has important indirect effects, for example, when inspiring other schemes and setting the highest standard for transparency and reporting among environmental management schemes (Vernon et al. 2009); (Tanasescu 2005). The question remains, however, whether it is possible to add value to EMAS to increase incentives for organisations to join the scheme and multiply its benefits. For that, the engagement of MS with the scheme will also have to be reinforced, based on their perception of EMAS's added value (Chapter 3.2).

The overall objective of the RAVE study is therefore to identify how EMAS, but also other environmental management schemes, could be better integrated into existing legislation and policies to achieve the ambitious goals that Europe and the MS have set themselves. The study's first aim is to investigate how and why MS currently provide incentives for organisations to join EMAS in terms of regulatory relief. A second aim is to explore how to expand such initiatives. Regulatory relief can save time and money for both organisations and public authorities by allowing the latter to focus on the areas and organisations that need the most monitoring. EMAS can also help them achieve their objectives in key environmental areas by encouraging the organisations that perform well.

The RAVE study also examines the potential of EMAS to fulfil existing reporting obligations, thereby providing regulatory relief to EMAS-registered organisations while also contributing to the overall goal of better, more efficient regulation (4.4). EU legislation dealing with the reporting and monitoring of environmental impacts, which has been steadily increasing, represents an opportunity. On the other hand, EMAS requires organisations to publish a yearly environment statement, verified by a third-party organisation. EMAS thus provides credible and transparent reporting, the use of which by authorities would benefit all stakeholders. The

study will also examine existing reporting channels from organisations to authorities, assessing possibilities for EMAS through more efficient, digital reporting of environmental data.

Finally, RAVE will also analyse the possibility of using EMAS to generate new business opportunities. EMAS can be used to facilitate the exchange of verified environmental information between organisations, stakeholders and business partners. The recognition of new business opportunities may compel organisations to join the scheme.

1.2 Structure of the study

This section provides a brief overview of the report.

Chapter II provides details about the scope and methodology of the study. The scope of the study has been clearly delineated in order to be able to analyse the extensive amount of data available and give a representative overview of the situation in MS.

The study applies various research methods to integrate a diverse set of perspectives and arrive at balanced findings and conclusions. Their nature and limitations are highlighted.

Chapter III – Regulatory relief presents the current situation in selected MS: the administrative and political contexts, the priorities of public authorities, and their perception of the added value of EMAS, which drives their level of support to the scheme. This overview of the context highlights opportunities for EMAS and provides insights as to the conditions which favour the development of EMAS in some Member States.

The chapter then identifies the existing regulatory relief measures available for EMAS-registered organisations. These measures are assessed to identify best practices among MS supporting EMAS before looking at the specific reasons leading to the adoption of these measures and presenting a replication plan for other MS based on these findings. Additionally, the chapter analyses the key characteristics of EMAS that justify regulatory relief and the regulations that could integrate them. Several innovative proposals are then drawn to support EMAS at a wider scale at the national and EU levels.

At the end, the chapter provides recommendations to facilitate the development of further measures of regulatory relief.

Chapter IV – Reporting focuses on the environmental data reporting obligations faced by organisations in MS. The importance of these obligations and potential links with EMAS are assessed to identify those that would benefit the most from synergies. These synergy opportunities are further analysed along with the gaps in the EMAS Regulation that would prevent EMAS reporting being accepted as a substitute for these obligations.

In a second part, the chapter looks beyond the information reported to the different solutions available for reporting it. Through an analysis of the channels organisations currently use to report to authorities, both within the framework of EMAS and outside of it, with a specific focus on the available digital interfaces and their strengths and weaknesses. The potential to improve reporting formats and channels is assessed.

Finally, the chapter draws conclusions on possible changes to the EMAS regulation to facilitate reporting between organisations and authorities.

Chapter V - Business opportunities looks at the different stakeholders that could be interested in the data reported in the EMAS environmental statement from a business perspective. It provides recommendations on how to make the best use of the statement.

The following information is also available in the annexes:

- Annex I: Analysis of survey response rates

- Annex II: Compendium of regulatory relief (in a separate document)
- Annex III: Selection of best practices and justifications for the implementation of these regulatory relief measures (in a separate document)
- Annex IV: Innovative measures to promote EMAS and justifications for the implementation of these regulatory relief measures (in a separate document)
- Annex V: Compendium of reporting obligations (in a separate document)
- Annex VI: Examples of tenders mentioning EMAS

2 Scope and Methodology

The following sections present the scope of the study and the methodology used to achieve the objectives described above.

2.1 Scope

The scope of the study has been narrowed in order to analyse the large amount of data to be collected in an EU-wide survey of EMAS regulatory relief policies and environmental reporting obligations.

2.1.1 Selection of Member States

In the tender specifications, the Commission requested a study of the leading MS' EMAS registration numbers, namely **Austria, Germany, Italy** and **Spain**. It also required a detailed examination of **France, Poland** and **the United Kingdom**. The project team carried out an analysis of MS to extend the geographical scope by two additional MS and ensure representative MS coverage. The representativeness of MS included in the scope of the study was essential to obtaining a reliable analysis of the situation at the EU level and for making recommendations.

The project team took the following criteria into account to analyse the MS:

1. Potential for EMAS to develop within a given MS. This was assessed using the following indicators:

- Market presence of EMAS – the number of EMAS registrations and the trend towards increasing or decreasing registration numbers. A trend toward increasing numbers indicates clear potential for further development;
- Industry's share of EMAS-registered organisations in a country – industrial organisations form the most common category of EMAS-registered organisations and are also most likely to be the most common target of regulatory relief measures and reporting obligations;
- GDP divided by the number of EMAS-registered organisations – if this and the former indicator are increasing, it demonstrates a strong economic situation that would be more likely to support regulatory relief and other measures to increase EMAS registration;
- Ratio of International Organisation Standards (ISO) 14001 certifications to EMAS registrations – this number indicates whether EMAS is already a strong competitor in the country or whether it has historically remained on the margins, with most companies adopting only ISO 14001;

2. Potential for replicability in other selected MS, taking into account:

- Type of governance structure – The EU MS differ in their governance structures, with some possessing a federal system with a higher division of responsibility between federal states and the national government (e.g. Germany), while in others a central government holds most or nearly all legislative and policymaking responsibilities (e.g. France).

- Geographical region – areas with a range of structural or cultural characteristics and at different stages of EMAS implementation were considered.

These criteria were chosen to identify, at later stages, a representative range of policies, reporting obligations and business opportunities for organisations within the EU. These criteria can also help MS to identify options for easier policy replication.

MS with high registration numbers can provide information on the effectiveness of supporting measures, while MS that have shown low growth in registration numbers can provide insight into common barriers to EMAS development and the potential added value of regulatory relief or simplified reporting obligations. Replication of best policies is assumed to be easier in countries with similar governance structures or in countries that share certain political or geographic characteristics.

Based on the above criteria, the following additional MS were selected:

- Greece
- the Netherlands
- Sweden (as a hotspot analysis)
- Czech Republic (as a hotspot analysis)

A hotspot analysis refers to the selective and more limited examination of two additional MS beyond the nine required within the tender specifications. The project team decided to analyse these countries to increase the representativeness of the MS selected, and confirm or extend the information gathered in the nine main countries.

In addition, the Belgian region of **Wallonia** was later added to the analysis as a hotspot to further investigate a situation unique within the EU: making EMAS compulsory for certain high-risk sectors.

2.1.2 Definition of regulatory scope

To be able to undertake a sufficiently detailed analysis of the environmental policies and legislation that could be linked with EMAS, the project team designed the material scope of the study to be as broad as possible given the short time-frame of both the study and its data collection phase. The team therefore decided to limit the material scope by putting a cap on the amount of information collected. The team examined environmental legislation and programmes of all types within the selected MS, focussing particularly on legislation as the main source of both regulatory relief measures and reporting obligations.

The first step of the project was to identify the existing regulatory relief measures in MS before determining which could be replicated in other MS. The project team decided to inventory around 50 regulatory relief measures in each MS for further analysis. The team therefore prioritised its research of existing measures considering the following criteria:

- Level of application (first national, then regional or local);
- Origin of policy (first coming from EU law, then national or regional);
- Type of measure (to ensure a range of different types)
- Scope of measure (only applicable to EMAS, to ISO 14001 or other Environmental Management Systems (EMS))

These criteria ensured the measures selected were representative.

In most MS, this procedure led to a comprehensive collection of all regulatory relief measures. In others with a high number of measures, the project team stopped the inventory once it was considered representative enough (a total of 90 measures were inventoried in

Italy because a number had already been identified within the scope of another project). In Germany, the project team chose to detail 50 of the most relevant measures according to the criteria for the Compendium of Regulatory Relief in this project, but will also provide a link to a comprehensive list in German. The project team cross-checked this data with responses from interviews and surveys of organisations, expanding the list whenever a relevant new measure was mentioned.

The second step of the project aimed at identifying the reporting obligations in the EU to see if EMAS could be used to facilitate this reporting to authorities. The project team limited the inventory to around 20 reporting obligations in each MS. It collected first general reporting obligations (obligations of companies to provide Corporate Social Responsibility (CSR) or environmental reports, for example) and then looked at different environmental areas (waste, air, nature, etc.). Because a high number of reporting obligations was expected to come from EU legislation, the project team also looked at the reporting obligations of MS as inventoried on the [EIO-NET](#) database. The team was thus able to investigate for a second time how this data was collected at the MS level to identify more reporting obligations. Again, this data was cross-checked with responses from interviews and surveys of organisations, allowing for an expansion of the list whenever the project team became aware of an important measure after the initial desk research phase.

2.2 Methodology

RAVE employed a mixture of data collection methods to adequately capture the relevant insights and issues around integrating EMAS with existing policies and legislation.

2.2.1 Desk research

A literature review was performed at the beginning of the project to identify existing regulatory relief and reporting obligations in MS. It was then used to assess their potential in relation to the objectives of the project and short-list the most relevant for further analysis. The literature review was used to complete the analysis at all steps of the project.

The project team consulted the following types of sources:

- Scientific articles published in relevant international journals;
- Reports and deliverables drafted in the framework of international projects co-funded by EU funding programmes;
- Conference proceedings;
- Previous technical studies carried out on behalf of public/private institutions;
- Periodical overviews and updates on existing research published by industrial associations and chambers of commerce;
- EU policy documents and EU legislation;
- National and local legislation of the selected MS
- Minutes of the EMAS Committee meetings (Tour de Table reports)

2.2.2 Expert interviews with stakeholders

To add additional details and insights to the results obtained from the desk research, the project team also carried out semi-structured interviews with stakeholders in the selected

MS. The interviews focussed on gaining a deeper understanding of the political processes and perceptions of EMAS in the individual MS, regulatory relief best practices and barriers, and the feasibility of better integrating EMAS reporting with existing reporting obligations. Interviewees were also asked to contribute ideas for new business opportunities.

The project team aim to perform at least four to five interviews in each main MS with stakeholders from the following categories:

- Regulatory authorities, including inspection authorities
- Ministerial representatives
- EMAS Competent Bodies (CBs) and MS representatives
- EMAS-registered organisations
- Organisations with ISO 14001 but not EMAS
- Environmental management experts
- Environmental verifiers

Additionally, at least two interviews were carried out in the hotspot analysis areas of Sweden, the Czech Republic, and Belgian Wallonia. In Germany, Italy, and the Czech Republic, additional interviews took place as part of parallel projects (BRAVER and the EMAS study run by the German Environment Agency) using the same or similar guidelines. These interviews have also been added to the analysis, bringing the total to 68 interviews in 12 MS.

The categories of stakeholders aim to provide a broadly representative view of EMAS. They cover both members of the EMAS community familiar with the scheme (e.g. EMAS CBs, EMAS-registered organisations, environmental verifiers) and also those outside the community who may not know the scheme well or at all (e.g. ISO 14001 organisations, controlling authorities, and other regulators). The environmental management experts from academia and consultancies provided an additional outside perspective, as many have worked with or studied multiple EMS certifications.

Table 1: Types of stakeholders interviewed per Member State

Country	Regulator	CB	EMAS organisation	ISO 14001 organisation	Verifier	Expert	Total
Austria	1	x	1	1	1	1	5
Czech Republic	1	x	2	1	2	2	8
France	1	1	2	2	1	1	8
Germany	1	1	2	1	X	3	8
Greece	1	1	1	1	X	1	5
Italy	1	1	3	4	1	1	11
The Netherlands	1	1	2	x	1	x	5
Poland	2	1	2	1	1	x	7

Spain	x	1	1	1	1	x	4
Sweden	1	1	x	x	X	x	2
United Kingdom (UK)	1	1	1	x	X	x	3
Wallonia	x	1	1	x	x	x	2
Total	11	10	18	12	8	9	68

Interviews were conducted by telephone or in person between March and May 2017. To ensure comparability of data, the interviewers followed an EC-reviewed guideline for conducting the interviews. The interviews provide insight into the situation in each MS, but for the purposes of the study are most useful when viewed in aggregate.

To gain additional insight into the reasons why certain MS indicated a higher level of trust in EMAS than others, six short semi-structured follow-up interviews were conducted in September 2017 with MS representatives from Austria (1), Germany (1), Italy (1), and Spain (3). These MS have both the highest registration numbers and the highest numbers of regulatory relief measures.

2.2.3 Surveys

The study aimed at collecting more representative evidence on the key topics through a larger consultation of stakeholders. Specific surveys were developed for the different types of stakeholders:

- EMAS CBs and MS representatives
- EMAS-registered organisations
- Organisations with ISO 14001 but not EMAS
- Environmental verifiers
- Accreditation and Licencing Bodies (in charge of the accreditation of environmental verifiers)

They addressed the following points:

- Options for regulatory relief
- Satisfaction with regulatory relief
- Additional needs/opportunities for regulatory relief
- Potential of EMAS to facilitate reporting
- Needs/opportunities for integrated reporting
- Reporting channels to authorities
- Potential for innovative business opportunities

Although nearly all questions were multiple choice, many also contained comment boxes to allow organisations to add more information or detail. Most questions employed the 1-5 Likert scale, designed to reduce ambiguity in answers by providing respondents with a range of values to choose from (e.g. ranging from "1 = option is not effective at all" to "5 = option is

very effective", or ranging from "1= strongly disagree with the option" to "5= strongly agree with the option"). In order to reduce bias, respondents remained anonymous and could choose to skip any questions they could not or did not want to answer.

The questionnaire for EMAS and ISO 14001 organisations was translated from English into German, Italian, Spanish, and Polish.

Questionnaires were uploaded onto an online survey platform and remained online and available from 28 April - 26 May 2017. The questionnaires to Accreditation and Licensing Bodies and verifiers were available from 16 May to 26 May.



Results of the surveys are presented in the report as charts. To facilitate reading, a **color code** is used:

- **Charts with a white background indicate results from the EMAS organisations survey**
- **Charts with a blue background present results from the ISO 14 001 organisations survey**
- **Charts with a grey background present results from the MS representatives survey**
- **Charts with a yellow background indicate results from the verifiers survey**

2.2.3.1 EMAS Competent Bodies and Member State representatives

The survey of CBs and MS representatives was sent to 108 contacts of the EMAS Helpdesk, including EMAS CBs and MS representatives of all 28 MS plus Norway. 18 people representing 16 MS responded to the questionnaire (MS response rate of 57%). It should be noted that the mailing list included both CBs and MS representatives (the main target group of the questionnaire) and independent experts who received the information but probably did not want to provide input on the situation in a particular MS. The objective of the questionnaire was to identify environmental priorities and existing and potential measures supporting EMAS in each MS.

Representatives of the following MS participated in the survey: Austria, Belgium, Bulgaria, Croatia, Denmark, Finland, Germany, Hungary, Italy, Luxembourg, Malta, the Netherlands, Poland, Romania, Slovakia and Spain (3 responses, including one from the region of Catalonia). The number of EMAS-registered organisations varies significantly between the MS, from 1 (Malta) to around 1200 (Germany). The sample is also geographically diverse. Southern Europe (Spain, Italy, Malta, and Croatia), Western Europe (Belgium, Germany, Luxembourg and the Netherlands), Central/Eastern Europe (Bulgaria, Croatia, Hungary, Poland, Romania, and Slovakia), and Northern Europe (Denmark and Finland) are all represented.

While nearly half of the MS did not participate in the survey, those MS that did participate account for 92% of all EMAS-registered organisations and 79% of all EMAS-registered sites. The sample also showed diversity in terms of EMAS activity. Respondents came from countries with more than 200 registrations (Austria, Germany, Italy, and Spain), 20 – 199 registrations (Belgium, Denmark, Poland, and Hungary) and fewer than 20 registrations (Bulgaria, Croatia, Finland, Luxembourg, Malta, the Netherlands, and Slovakia).

Five responding MS also have a national environmental management certification in place. The questionnaire is therefore considered to be representative of the situation in Europe as a whole.

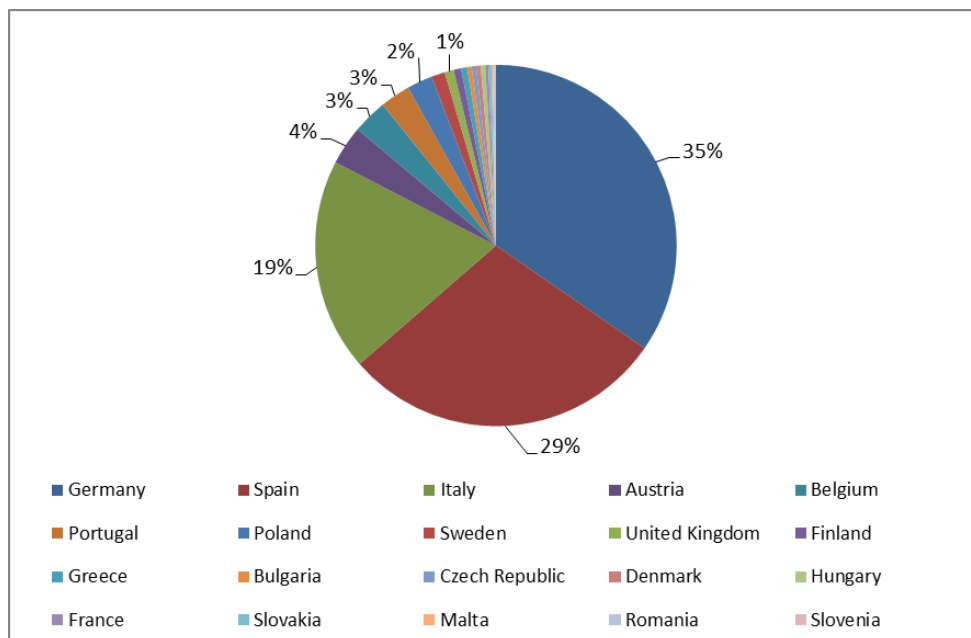
2.2.3.2 EMAS-registered organisations

The project team obtained e-mail contacts for all EMAS-registered organisations from the EU EMAS Register and asked for the support of EMAS CBs, many of whom also contacted organisations to inform them of the survey.

A total of 742 EMAS-registered organisations filled out the online questionnaire, giving an overall participation rate of 18.7%. A response rate of 18.7% for an external survey can be considered a statistically significant representation of the EMAS population (Wiley et. al 2007). The response rate for each individual question varied somewhat, as not all respondents answered all questions.

The three countries with the highest numbers of registrations - Germany, Spain and Italy - provided 82.6% of the total responses.

Figure 1: Distribution of the EMAS organisation survey sample by country



The proportional rate of response by countries based on their registration numbers was close to the overall response rate for the survey (see Table 2 below). Therefore, while the four countries with the highest registration numbers produced the vast majority of the responses, they are not overrepresented in the sample as a whole.

Table 2: Response rate by country, grouped by total number of EMAS registrations

	Sample	EMAS registrations	% responding
Countries with more than 200 EMAS registrations (high numbers)	639	3404	18.7%
Countries with 20-200 EMAS registrations (medium numbers)	81	473	17.1%

	Sample	EMAS registrations	% responding
Countries with fewer than 20 EMAS registrations (low numbers)	22	86	25.6%

The representativeness of the survey sample is further discussed in Annex I. The profiles of respondents, which have been analysed in terms of country of origin and organisation size, confirm that the survey can be considered as representative of the EMAS population as a whole and thus provides an accurate tool for the analysis of adoption and effectiveness of regulatory relief measures for EMAS.

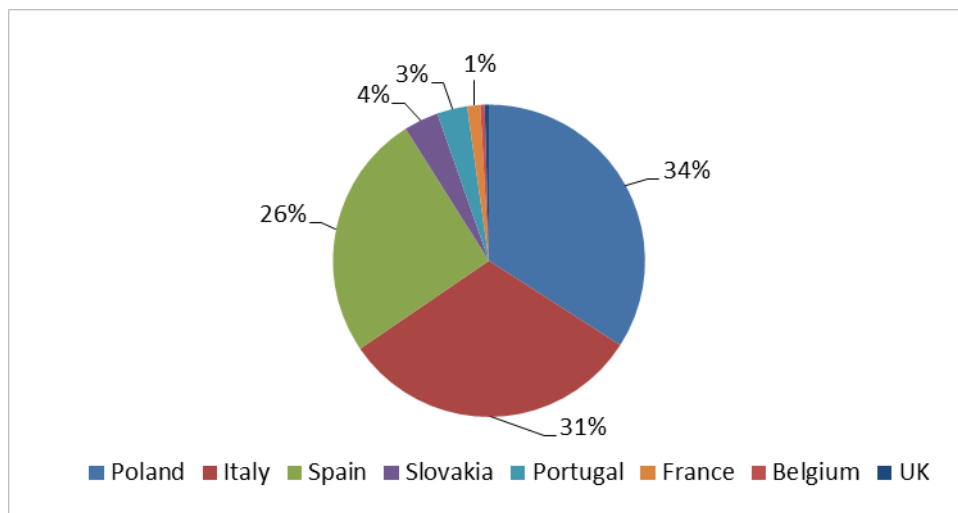
In the report, the charts present responses for two categories only: countries with a high number of registrations (>200) and countries with low to medium numbers of registrations (<200). This separation serves to facilitate the reading of the charts and avoid a potential overrepresentation of the results from the smallest category (<20).

2.2.3.3 ISO 14001 organisations

Due to the lack of a unique ISO 14001 certification database, the distribution of the questionnaire relied on contacts provided by environmental verifiers in different MS and on their active support in disseminating the questionnaire among certified organisations.

In total, 225 ISO 14001-certified organisations participated in the survey. Because of the methodology adopted to deliver the questionnaire, it is not possible to estimate a precise response rate. Spain, Italy and Poland provided 91.1% of the responses.

Figure 2: Distribution of the ISO 14001 survey sample by country



Unfortunately, updated data concerning the state of ISO 14001 certifications in the EU are lacking. Most recent data concerning the number of ISO 14001 registrations in European countries date back to 2015 (ISO Survey 2015). By relying on the 2015 data, it is possible to estimate the proportional rate of response by countries based on their certification numbers (see Table 3 below). Five countries with the highest number of certifications (i.e. France, Italy, Slovakia, Spain and UK) make up the majority of respondents in the sample. However, despite the high disparity in the number of respondents, high certification countries and medium certification countries are almost equally represented in the sample. On the other hand, low certification countries are underrepresented. Therefore, the interpretation of the data

presented in this report is expected to reflect the opinions of organisations operating in countries with a considerable concentration of ISO 14001 certifications.

Table 3: Response rate by country, grouped by total number of ISO 14001 certifications

	Sample	% of total sample	ISO 14001 certifications ¹	% responding
EU countries with more than 2000 ISO 14001 Certifications (high numbers)	139	62%	105,078*	0.13%
EU countries with 1000 - 2000 ISO 14001 Certifications (medium)	84	37%	72,596*	0.12%
EU countries with fewer than 1000 ISO 14001 Certifications (low numbers)	2	1%	92,229*	0.002%

The representativeness of the ISO 14001 survey is further discussed in Annex I. It was not possible to evaluate the representativeness of the sample because of the limited amount of data available concerning the population of ISO 14001-certified organisations in Europe. However, the ISO 14001 survey was designed to provide a means with which to compare and contrast the results of the survey of EMAS-registered organisations with the viewpoint of stakeholders outside the classic EMAS community. With that purpose in mind, the response rate was high enough that it should provide sufficient insight into the point of view of ISO 14001 organisations.

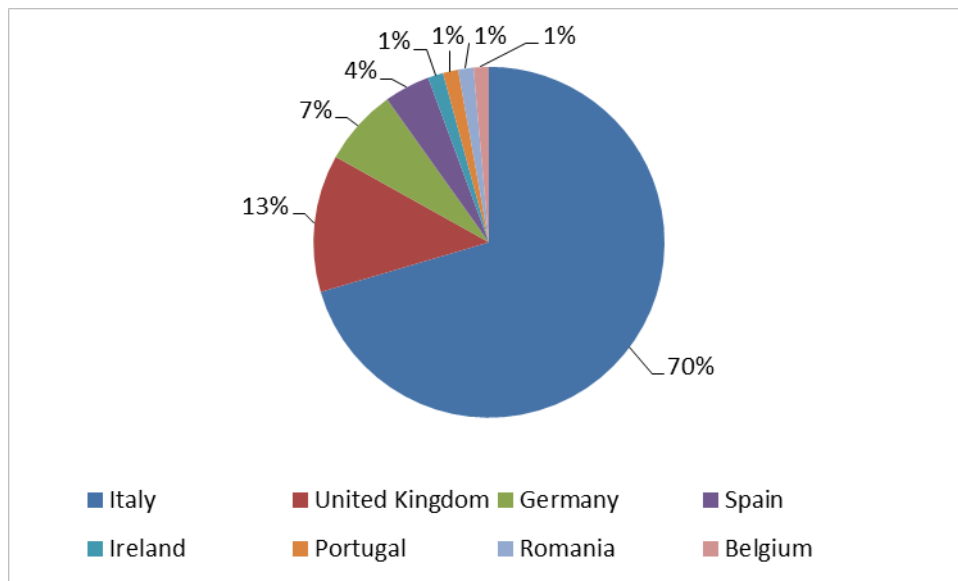
Again, in the report, the charts present responses for two categories only: countries with high registration numbers and countries with low to medium registration numbers.

2.2.3.4 EMAS verifiers

The project team obtained the e-mail contacts of all verifiers accredited to carry out audits for EMAS from the EMAS Helpdesk. The mailing list included 426 verifiers. A total of 71 EMAS verifiers filled out the online questionnaire, giving an overall response rate of 16.6%. The sample of respondents mainly came from Italy, where verifier organisations worked directly with the project team to spread the survey among their employees.

¹ Data taken from ISO Survey 2015

Figure 3: Distribution of the verifier survey sample by country



Verifiers from MS with a high number of registrations accounted for a majority of responses.

Table 4: Response rate of verifiers by country, grouped by total number of EMAS registrations

	Sample	% of total survey sample
Countries with more than 200 EMAS Registrations (high numbers)	58	82%
Countries with 20-200 EMAS Registrations (medium)	2	3%
Countries with fewer than 20 EMAS Registrations (low numbers)	11	15%

Among countries with medium (20-200) registrations (Belgium and Portugal), only verifiers from two countries responded (Belgium and Portugal). Among countries with a low number of registrations, the main contribution comes from the UK with 9 questionnaires. The 58 responses from countries with more than 200 EMAS Registrations come from Italy, Germany and Spain. The percentage per country relates to all 71 responses.

Annex I further discusses the representativeness of the survey. The analysis shows that the main concern with regard to representativeness is that 70.4% of respondents are based in Italy. However, the survey aimed at collecting feedback from verifiers experienced with EMAS and ISO 14001 audits and with sufficient professional experience to reflect on the added value provided by EMAS, and this objective has been achieved. The information collected in interviews with verifiers in other MS will further help to bring in the perspectives of verifiers throughout Europe. To control for the possibility that the perspective of Italian verifiers varies significantly from those in the other countries, results from this survey are presented with two charts: one showing all respondents and the other showing only respondents outside of Italy.

2.2.3.5 Accreditation and licensing bodies

The survey for Accreditation and Licensing Bodies was sent to the 41 contacts of the Helpdesk. There were seven responses to the survey (rate of response of 17%). They are from the following MS: Austria, Belgium, Ireland, Italy, Poland, Slovakia, and Spain. Five of the respondents have accredited fewer than 10 verifiers for EMAS, while others have between 10 and 30 EMAS verifiers in their portfolios. Only one Accreditation and Licensing Body has accredited more verifiers for ISO 14001 (between 30 and 50) than for EMAS (between 10 and 30). This may be because the accreditation bodies which responded are the most likely to be interested in EMAS.

Because of the low number of Accreditation and Licensing Bodies and the similarities of their activity with the ones of verifiers, their responses were analysed to confirm or give another perspective on the opinion of verifiers.

2.2.3.6 Follow-up survey of EMAS-registered organisations

In November 2017, the project team conducted a follow-up survey of EMAS-registered organisations. The survey aimed to confirm and further expand upon findings from the original survey conducted in May. Topics included collecting EMAS-registered organisations' opinions on selected regulatory relief measures from the lists of best practice and innovative measures collected during the project, find out whether or not regulatory relief was or could be an incentive to maintain or join EMAS; and gather input on whether or not EMAS supports legal compliance and how that support could be strengthened.

The survey was sent again to all EMAS-registered organisations and received 465 responses from 19 MS, amounting to a representative response rate of roughly 12% of the total EMAS population. The vast majority of responses (86%) came from Germany (33%), Spain (26.5%), and Italy (26.5%). These percentages are roughly in line with these countries' overall percentage of EMAS registrations (nearly 80%), with a slight overrepresentation of Italian and Spanish organisations. Austria made up nearly 6% of all answers, with the remaining 8% coming from Belgium, Bulgaria, the Czech Republic, Denmark, Estonia, France, Greece, Hungary, Ireland, Malta, Poland, Portugal, Romania, Slovenia, and Sweden. The response rate among organisations in the responding countries ranged from 100% (Malta) to 1.5% in Poland. 14 of the MS had country-wide response rates of over 9%.

Although responses came from throughout the EU, countries with more than 200 EMAS registrations were overall slightly overrepresented in the sample (91% of the sample vs. 85% of the total EMAS population). The reasons for this overrepresentation may be language accessibility, as the survey was available in English, German, Italian and Spanish, and also a greater interest in regulatory relief from organisations which are already familiar with the concept, i.e. those in MS that already offer some forms of relief to EMAS-registered organisations. Respondents sometimes commented that a certain type of relief was already available in their countries and that adding it did not make sense for them. This conflict was unavoidable because only one EU-wide version of the survey existed for purposes of consistency and the list of measures thus included best practices from throughout the MS. When applying the findings of the follow-up survey, MS should examine how well represented their individual countries are and pay specific attention to interest in measures not already available in their individual countries.

2.2.4 Consultation of national experts

In addition to the sources of information described above, in May 2017 preliminary results of the project were presented at the biannual EMAS Committee meeting, gathering MS repre-

sentatives in charge of the promotion of EMAS in the MS. The meeting was an opportunity to gather feedback on the methodology of the study and obtain suggestions on regulatory areas to investigate to further integrate EMAS in legislation.

3 Decreasing the administrative burden for organisations through regulatory relief

3.1 Regulatory relief and administrative benefits as incentives for EMAS adoption: a literature review

Since the launch of the 2000 Lisbon Strategy, the European Commission has pursued a strategy aimed at simplifying the EU environmental regulatory framework, while enhancing environmental compliance and environmental improvement within the EU (Commission of the European Communities 2005). The need for simpler and less burdensome environmental obligations originated from an excessively complex regulatory framework which hampered economic actors' (especially Small and Medium Enterprises (SME)) capacity to comply with environmental legislation and required considerable effort from public authorities. Coordinated actions have been taken to produce SME-friendly legislative proposals, eliminating unnecessary requirements in accounting directives and reducing administrative costs for businesses and public administrations (European Commission 2011).

Within this framework, the last revision of the Eco-Management and Audit Scheme (EMAS III 2009) was aimed at supporting the diffusion of the voluntary scheme. The last revision did so by improving its applicability to all sizes of organisations and by reducing bureaucratic requirements while increasing its market and institutional recognition. In parallel, MS increasingly adopted measures of regulatory and administrative relief for EMAS-registered organisations with the objective of reducing the barriers to wider uptake of EMAS across national industry sectors, as well as saving work for competent public authorities.

Besides removing bureaucratic barriers, government support for environmental voluntary instruments is driven by the need to offset market failures associated with negative environmental externalities arising from industrial production. Due to the lack of market recognition of the true costs of environmental pollution, market actors may perceive that improving environmental performance beyond legal compliance does not provide any relevant competitive advantage or monetary reward (Jenkins 1998). Similarly, the perceived lack of market reward is a deterrent to the adoption of voluntary schemes, especially in the case of SMEs operating at a local level (adelphi and S. Anna School of Advanced Studies 2015). Public incentives aim therefore at compensating for market failures and stimulating environmental improvement by correcting negative impacts of market dynamics.

Against this background, regulatory relief and administrative benefits for EMAS-registered organisations are based on the scheme's capacity to prove legal compliance and enhance transparency of environmental reporting by means of an independent third-party verification and validation process. Based on these motivations, MS resort to regulatory relief to acknowledge participating organisations' voluntary, "above average" commitment to continuous environmental improvement, while, at the same time, responding to criticism over a lack of institutional support and trust towards the scheme and registered organisations (adelphi and S. Anna School of Advanced Studies 2015); (IEFE Bocconi et al. 2005).

However, while the motivations underlying the introduction of regulatory and administrative relief are evident, the effectiveness of such measures in incentivising and supporting EMAS adoption is still unclear and debatable. Indeed, while European institutions are responsible for demonstrating support towards the scheme at the EU level, national and regional authorities hold the actual responsibility for implementing and enforcing regulations within their respective legal frameworks. As a result, measures of regulatory relief tend to reflect the speci-

ficities of the individual MS national or sub-national policies and industries, leading to high heterogeneity in the number and characteristics of the measures adopted among MS (Skinner et al. 2015). Throughout the mapping and monitoring of regulatory relief and administrative benefits for EMAS-registered organisations adopted within the EU, this heterogeneity hinders and impedes a univocal assessment of the effectiveness of the specific measures in incentivising EMAS adoption among European organisations.

Given such complexities, the issue of improving environmental regulations requires considerable effort from a wide array of stakeholders. In this context, the European Commission recently funded the Life B.R.A.V.E. and Life B.R.A.V.E.R. projects (still ongoing) as attempts to further the integration of EMAS into the environmental legislation of MS. By emphasising collaborative efforts among research institutes, trade associations and public authorities, these projects have led to very practical results. Indeed, the B.R.A.V.E. project contributed to the full integration of EMAS (and other voluntary schemes) into the Italian and Spanish regulatory frameworks and regulatory relief measures (SSSUP 2013). Similarly, the ENHANCE project, currently funded under the INTERREG V, aims at improving regional policies incentivising EMAS adoption as a tool for fostering resource efficiency among SMEs.

However, in the academic field, few empirical studies have provided significant contributions to the discussion. According to a recent study conducted by (Testa et al. 2016), public incentives, such as regulatory relief, are closely connected to the adoption of certified EMS within the EU, especially in countries with a high number of EMAS registrations like Germany and Italy. At the same time, EMAS-registered organisations are not satisfied with the current availability of regulatory relief and complain about a lack of sufficient “reward” for their investment in EMAS (Testa et al. 2016). Despite widespread evidence for the usefulness of regulatory relief as a driver for EMS adoption, further studies highlight the limited diffusion of regulatory and administrative relief in European countries (Wätzold et al. 2001; Daddi et al. 2014).

Even if existing studies are relevant, they nevertheless fail to provide a comprehensive assessment of public incentives for EMAS. First, they exclusively focus on registered organisations as the sole source of self-reported data while overlooking other relevant stakeholders’ perspectives (e.g. national CBs, regulatory authorities, non-registered organisations etc.) on the subject. Second, they fail to investigate the arguments underlining the limited diffusion of regulatory relief among MS and the barriers to the widespread adoption of such measures. Because of these limitations, existing studies fall short of providing sound and practical implications for policymakers on how to improve or expand current simplification initiatives and strengthen institutional support for EMAS.

The present chapter of the RAVE Interim Report aims at addressing these gaps. The second section provides an overview of the MS, with the aim of outlining the specificities of the different regulatory and political frameworks in which the EMAS regulation operates. The third section reports an assessment of existing measures of regulatory and administrative relief within the EU, based on data collected via extensive questionnaire surveys and interviews with a wide range of relevant institutional and corporate stakeholders. In particular, the analysis highlights the benefits of the measure for organisations and public authorities, its effectiveness in incentivising EMAS adoption, as well as its weaknesses and potential drawbacks. The fourth section illustrates relevant best practices, identified by means of an evaluation of the measures of regulatory relief currently adopted in eleven European countries. Similarly, the fifth section focuses on assessing the replicability potential of existing measures, by identifying opportunities for replicating best practices in different national or regional contexts within the EU. The sixth section shifts the focus to EMAS and legal compliance: based on an assessment of its strengths and weaknesses as a tool for supporting environmental compliance management, the analysis highlights opportunities for enhancing its capacity to facilitate environmental legislation compliance and reporting obligation fulfilment. The seventh section assesses potential innovations for regulatory and administrative relief measures

based on EMAS through European Directives and national regulations. Lastly, the concluding chapter advances innovative proposals for amending the EMAS regulation in order to enhance its effectiveness for participating organisations, and makes recommendations for innovative simplification measures to further support EMAS uptake within the EU.

3.2 Overview of the implementation and perception of EMAS in selected Member States

While the recommendations on regulatory relief and reporting in this study focus mainly on measures that are of potential use across Europe, examining the administrative set-ups in the individual MS delivers important details on the context surrounding the creation and implementation of regulatory relief at the national level. Knowing the way in which MS administer EMAS, how it fits into their political goals and institutions, and how stakeholders in particular MS view EMAS allows for a better understanding of EMAS's political challenges and opportunities. In addition, understanding MS's perception of the added value of EMAS provides a key part of the reasoning behind their decisions on whether or not to deliver benefits such as regulatory relief to EMAS organisations.

EMAS in the EU - Implementation of the EMAS Regulation

Regulation 1221/2009 EC (the EMAS Regulation) delegates responsibility for implementing EMAS to the various EU MS, each of which appoints an agency to serve as the CB for EMAS in that country. Among other things, the CB is responsible for managing the registrations of EMAS-registered organisations, including checking for incidents of non-compliance among organisations seeking to register. In many countries, the environment ministry or environmental regulatory agency serves as the CB; in others, the Chambers of Commerce, associations for environmental management or the national accreditation board fulfils this role. A number of countries also designate regional CBs to manage registration and promotion of EMAS in their areas.

Countries also have a MS representative from a public body, often the environment ministry, responsible for promoting the scheme. Articles 32-39 of the Regulation outline MS responsibilities for assisting organisations with legal compliance, producing informational materials and promoting EMAS. Promotion includes regulatory relief and better regulation, with Article 38 requiring MS to

“consider how registration under EMAS in accordance with this Regulation can be:

- (a) taken into account in the development of new legislation;
- (b) used as a tool in the application and enforcement of legislation;
- (c) taken into account in public procurement and purchasing.” (1221/2009 EU)

The degree to which MS have actively implemented Article 38 varies widely (Skinner et al. 2015). Chapter 3 examines this variety in depth with reference to the *Compendium of EMAS Regulatory Relief* prepared during this study.

First, however, the following chapter uses data gathered in interviews, desk research and a survey of MS representatives to describe the administration of EMAS in the EU as a whole and in the MS selected for this study. It addresses the research questions of whether and why the selected MS support EMAS as a means of achieving environmental targets, and uses interviews with government stakeholders and MS survey data to analyse under what conditions MS are likely to provide more regulatory relief and other incentives for organisations to join EMAS in the future. The information in this section provides the context for the recommendations presented in Sections 3.11 and 4.7 of the report.

3.2.1 EMAS in Austria

Legislative system	Federal system, with most legislation enacted at a federal level and regions responsible for implementing environmental laws passed at the federal level
Top current environmental policy priorities	Sustainable Development Strategy Agenda 2030 / sustainable development goals (SDGs), with the plan to reach SDG 12 mentioning EMAS; sustainable public procurement; climate protection is a goal in the federal constitution
Number of EMAS-registered organisations and sites (April 2017)	294 organisations, 1051 sites
Key institutions for EMAS administration	Environment Agency Austria: operative CB, responsible for registrations; Ministry of Agriculture, Forestry, Environment and Water Management: MS representative at EU level, licensing body
General perception of EMAS	Positive within environmental ministry; neutral to sceptical within other ministries
Perceived added value compared to other EMS	In-depth verification of legal compliance with environmental legislation on organisational level through an independent environmental verifier; focus on continuous improvement of environmental performance; compliance check by CB
Presence of EMAS regulatory relief	Yes (10-20 measures)

Sources: Stakeholder interviews; (Schmelz et al. 2017); (EMAS Helpdesk 2017)

Legislative and political context

Most environment-related legislation in Austria is enacted at the federal level and increasingly has its origin in EU legislation (Schmelz et al. 2017). Provinces administer federal laws on certain environmental topics (e.g. waste management) and provide regulatory enforcement (Ibid). Taxes and fees are mostly regulated on the federal level. Austrian ministries have the primary responsibility of suggesting the content of laws that fall under their particular area of authority. Most opportunities for integrating EMAS into legislation occur at the federal level, where all of Austria's existing EMAS regulatory relief is located.

Opportunities for EMAS

According to interviews with government stakeholders, EMAS enjoys a good reputation within the Austrian Environment Ministry and with some regulatory and inspection authorities at the provincial government level. They trust the value of the scheme and its data, believing that EMAS companies deserve regulatory relief. On the ground, however, companies report that not all inspectors display the same level of trust in EMAS.

An Austrian CB representative indicated that regulatory relief is sometimes difficult to introduce because the Environment Ministry has a limited ability to influence the content of legislation that lies outside of its competence. Many laws that define environmental requirements for organisations (e.g. the Industrial Act) fall under the competence of the Ministry of Science, Research and Economy, which also holds responsibility for ISO accreditations and dissemination. Because Austria separates the responsibilities for EMAS and ISO 14001 into different ministries, the CB indicated that the Science Ministry does not feel responsibility or

ownership for EMAS the way it does for ISO 14001, and thus does not give regulatory relief measures for EMAS much priority.

An interviewed environmental verifier confirmed this situation, stating that "it would have been a good idea to integrate the reporting obligations regarding the energy audits with EMAS, but the Ministry of Economics was against it". Another interviewee in provincial government also reported a trend since the mid-2000s in which companies appear less interested in environmental management and focus more on financial matters, a situation which may further the relative power of the Ministry of Science, Research and Economy in decisions regarding laws on environmental management.

Interviewees and experts expect the further integration of EMAS into laws administered by the Austrian Environment Ministry, but expanding the integration of EMAS into laws under the competence of other ministries will be significantly more challenging.

3.2.2 EMAS in France

Legislative system	Centralised system, with all main legislation enacted at the national level and implemented at the regional, departmental or local level.
Top current environmental policy priorities	Climate change policies, CSR reporting, food waste, resource efficiency
Number of EMAS-registered organisations and sites (April 2017)	34 organisations, 48 sites
Key institutions for EMAS administration	Environment Ministry, Commissioner-General for Sustainable Development: CB and MS representative
General perception of EMAS	Sceptical; interviewed policymakers see EMAS as a transversal tool not suited to achieving sector-specific goals, feel interest from companies is too low to justify more investment, and lack trust in voluntary EMS in general
Perceived added value compared to other EMS	Third party verification through independent environmental verifier;
Presence of EMAS regulatory relief	Yes (fewer than 10 measures)

Sources: Stakeholder interviews; (EMAS Helpdesk 2017)

Legislative and political context

New legislation in France is enacted at the national level, often based on information gathered from trade unions, competent authorities, studies, and public consultations. Since 2008, the president and cabinet have been required to assess the economic, social and environmental impacts of legislation and submit this information to Parliament. When transposing directives from the EU, whether stakeholders are consulted, and how, depends on the subject of the law, the means of the ministry in charge of transposition, and on the personality of the officer (Fédération des Maires des Villes Moyennes 2010). Regardless if the law comes from a national or European initiative, the fact that very few French stakeholders currently have contact with EMAS means that no specific stakeholders are currently likely to promote EMAS to regulators when regulations are drafted.

In addition, according to the French EMAS CB, French ministries are very diverse in their culture and organisation. This assertion supports the argument highlighted in Austria that ministries may not be aware of the policies for which another ministry is responsible (e.g. the

EMAS scheme) or how it might be used to achieve the objectives of their own ministry. This lack of communication between ministries hinders the integration of EMAS in the global legislative framework.

The national procurement law provides an interesting example of low support for EMAS in France. Despite initially mentioning that purchasers could ask for an EMAS certificate or another environmental certification for contracts requiring the implementation of environmental management measures, the new law transposing Directive 2014/24/EU no longer explicitly mentions EMAS and its possible use as a proof of environmental management. Despite the fact that the Directive itself mentions EMAS, the French government chose to eliminate the EMAS reference to simplify the law, facilitate access to public procurement to SME and give greater flexibility to purchasers.

Opportunities for EMAS

Based on evidence from stakeholder interviews, French policymakers fall into two categories with regard to EMAS: either they are not aware of the scheme or they do not see any added value compared to ISO 14001. According to the companies interviewed, French authorities appear more concerned with organisations' compliance with the minimum standards set by the regulations rather than with good performance. They report that inspectors do not show particular interest in ISO 14001 or EMAS during inspections. Results from the survey of EMAS-registered organisations indicate that organisations throughout Europe share this perception (see Section 3.3.2).

The CB also sees EMAS as a global, transversal tool that is unlikely to fulfil the objectives of specific regulations. For example, food waste concerns only a small number of EMAS-registered organisations, so the CB argues that no clear connection exists between EMAS and the regulation on food waste. The CB does, however, see a link between EMAS and CSR, since CSR is also transversal and falls under the responsibility of the same ministry.

Additionally, France invests little in the EMAS scheme in part because of the low registration numbers, thus contributing to a vicious circle. At the Environment Ministry, less than one full time employee currently manages registrations. In the past, a monitoring committee existed to provide advice on registrations and promotional activities and comment on verifiers' assessments if necessary. Created in 2002, it ceased to meet in 2008 and was officially revoked in 2015. In 2009 and 2010, two reports focused on developing EMAS in France and provided recommendations such as restructuring the CB, promoting EMAS, training stakeholders, and providing incentives. The Ministry, however, did not follow the reports' recommendations, probably because the economic context and the low number of registrations did not justify the necessary investments (Plet-Servant 2015). ADEME, the French environmental agency, and ACFCI, the association of French chambers of Commerce and Industry, also withdrew from the project because of the lack of financial and promotional support available for EMAS.

Despite the regulators' low awareness of EMAS, they do not question the quality of the scheme. Regulators appreciate the third-party audits. Interviewees indicate, however, that stakeholders prefer other schemes. Business and employer associations prefer ISO 14001 because the standard is international and does not require any public reporting. ADEME and CCI France (former AFCI) promote France's EnVol scheme to SMEs more strongly because of the high initial investments required by EMAS. Interviewed companies cited ISO 14001's international status and ability to easily combine with other management systems as an argument for adopting that standard, a decision which interviews with large companies indicate is made at the top management level.

France's strong focus on material efficiency and its current plan for developing "exemplary administration" (i.e. better regulation) can create future opportunities to use EMAS to achieve larger policy goals. However, French officials first need to be convinced that EMAS, as a transversal instrument with relatively low uptake in France, can actually contribute to achieving those goals (see also Section 3.3.3 on barriers).

3.2.3 EMAS in Germany

Legislative system	Federal system, with legislative authority divided between the federal and state governments. Most environmental laws are enacted at federal level and implemented at state/municipal level.
Top current environmental policy priorities	Circular economy, CSR, energy efficiency, climate change and the implementation of the SDG.
Number of EMAS-registered organisations and sites (April 2017)	1251 organisations, 2188 sites
Key institutions for EMAS administration	Ministry for Environment, Nature Conservation, Building and Nuclear Safety (BMUB): MS representative German Chamber of Commerce and Crafts (DIHK) & local Chambers of Commerce and Crafts (IHK): CB, responsible for registrations (local IHKs) and promotion along with the Ministry
General perception of EMAS	Positive
Perceived added value compared to other EMS	Provision of information through the environmental statement (including 3 rd party verification of the information only possible through an accredited or licensed verifier); quality and frequency of the verification process by the accredited / licensed auditors and the associated consequences; collaboration with enforcement authorities in verification of legal compliance
Presence of EMAS regulatory relief	Yes (more than 50 measures) ²

Sources: Stakeholder interviews; (EMAS Helpdesk 2017); (German EMAS Advisory Board (UGA) 2016)

Legislative and political context

Although the federal government enacts the majority of legislation, the 16 German states and their municipalities hold the primary responsibility for implementing laws (Elshorst and Fuder 2015). As a result, companies fulfilling their obligations under environmental legislation mainly interact with the local authorities in their area (e.g. to demonstrate compliance with certain regulations).

Additionally, environmental protection is one of six areas in which German states are allowed to deviate from federal legislation (European Committee of the Regions 2012). In practice, the state governments usually follow the federal law; however, the varying implementation of the EMAS Privileges Regulation in the various states illustrates differences in interpretation. In that example, the law allows the states to further specify a number of privileges for EMAS-registered organisations (e.g. in certain permitting processes). Some states grant many of these incentives, passing legislation that is nearly identical to the federal law, while others have not done so and offer hardly any incentives to EMAS-registered organisations. Stakeholder interviews revealed that this lack of coherence reduced the effectiveness of some

² A full list can be found in the German EMAS Advisory Board's publication [EMAS in Rechts- und Verwaltungsvorschriften](#)

regulatory relief measures, as they applied only in certain German states while the companies did business throughout the country.

Opportunities for EMAS

The level of trust in and awareness of EMAS is high in Germany, as evidenced by the high registration numbers, high numbers of regulatory relief measures (see Figure 10 below) and responses in stakeholder interviews. The Environment Ministry actively promotes EMAS as the most ambitious environmental management scheme currently available to organisations (BMUB 2016). Interviewees indicate that policymakers trust EMAS mainly as a result of the scheme's commitment to continuous improvement, legal compliance checks and transparent reporting requirements. However, the interviews also revealed that some policymakers do not trust EMAS because it is a voluntary instrument and does not have standards for measuring performance, a position stated officially by the German Green Party in response to the last EMAS revision (Steiner 2011). Interviewees also report that, when EU directives do not contain a direct reference to EMAS, policymakers and regulators are reluctant to consider the scheme in their transposition and implementation processes because they fear that it may not be compatible with EU legislation.

German policymakers have nonetheless integrated EMAS into a number of laws based on EU legislation that does not directly reference EMAS. One such example is the German Energy Efficiency Act of 2015, which transposes Directive 2012/27/EU. The German law recognises both EMAS and ISO 50001 as fulfilling the obligation of large companies to conduct an energy audit, although Directive 2012/27/EU only names ISO 14001 and ISO 50001. The German Ministry of the Environment convinced policymakers to include EMAS in the law because of the scheme's more convincing management of legal compliance (Skinner et al. 2015).

Yet, especially at lower administrative levels, interviewees indicate that many regulators are not familiar with EMAS. Some regulators are sceptical as to whether EMAS as a voluntary scheme would be able to substitute for the compliance checks they currently carry out. Interviews reveal that some are reluctant to experiment with a type of self-regulation that they fear may cost them their jobs. In some cases, state policymakers support EMAS for larger organisations but actively encourage alternatives for smaller organisations (German Sustainability Index 2011), most likely because of the costs associated with EMAS.

The Environment Ministry continues to integrate EMAS into a number of goals at the federal level, including the German Sustainable Development Strategy for Agenda 2030 (BMUB 2016). It has set itself the goal of 5000 EMAS-registered sites by 2030, a target which stakeholders are optimistic about achieving. EMAS's goal of improving resource efficiency and integrating responsible energy use into companies' management plans provides a potential connection to Germany's carbon dioxide reduction and energy efficiency goals. These goals form a central pillar of the German government's transition to clean energy (*Energiewende*). According to interviewees, regulations on public procurement and CSR reporting and an increased demand for transparency from companies may also provide opportunities for encouraging EMAS uptake in Germany.

To improve the effectiveness, encourage uniform application of the incentives, and ease the uptake of regulatory relief in Germany, German interviewees strongly suggest integrating references to EMAS in a stronger or binding manner at both the EU and national level. They also emphasise that improving awareness both of the regulatory relief measures among companies and of the scheme among regulators and policymakers will play a key role in the effectiveness of existing and potential regulatory relief measures.

3.2.4 EMAS in Greece

Legislative system	Decentralised system, with main legislation enacted at national level and implementation and environmental protection taking place in decentralised administrations
Top current environmental policy priorities	Air emissions, climate change, streamlining permitting procedures, water, waste
Number of EMAS-registered organisations and sites (April 2017)	42 organisations, 1443 sites
Key institutions for EMAS administration	Ministry of Environment and Energy (CB and MS representative);
General perception of EMAS	Positive, though tempered by low priority for environmental measures because of financial crisis
Perceived added value compared to other EMS	Provision of information through the environmental statement (including 3 rd party verification of the information only possible through an accredited or licensed verifier); collaboration with enforcement authorities in verification of legal compliance; commitment to continuous environmental improvement
Presence of EMAS regulatory relief	Yes (fewer than 10 measures)

Sources: Stakeholder interviews; (EMAS Helpdesk 2017); European Environment Agency (EEA) 2016; (Moreno 2012)

Legislative and political context

In 2011, Greece underwent administrative reforms that left responsibility for environmental protection in the hands of seven decentralised administrations (Moreno 2012), although the Ministry of Environment and Energy still sets environmental priorities and directs legislation in this area. EMAS remains the responsibility of the Ministry as well, with registrations maintained on a national level. As a result of the economic crisis, Greece has also worked to simplify bureaucracy. During this process, the Ministry took the opportunity to introduce simplifications for EMAS-registered organisations in environmental licensing procedures (Skinner et al. 2015). However, recent studies indicate that austerity measures have resulted in a lower priority for environmental protection in Greece overall (Lekakis and Kousis 2013; WWF Greece 2014) which may somewhat limit opportunities for EMAS.

Opportunities for EMAS

Interviewees report a high level of trust and appreciation of EMAS among both the Environment Ministry and regulators, although there is little awareness of the scheme among the general public. Interviewees indicated instead that cost is the main barrier to EMAS adoption in Greece, and governmental representatives see regulatory relief as a potential solution. All twelve regulatory relief measures for EMAS-registered organisations have been introduced since 2010, including tax breaks, extended permit durations, and advantages in public procurement. A representative of the Environment Ministry reported that implementing the regulatory relief measures helped to raise awareness of EMAS among regulators and encouraged companies to keep EMAS despite the economic crisis (Skinner et al. 2015).

Representatives of the ministry, a regulatory body and an environmental management expert all expressed the view that Greece is likely to implement more regulatory relief for EMAS-

registered organisations. A representative of the Environment Ministry indicated that the Ministry is waiting to see which of the implemented regulatory relief measures are most effective for companies before proposing new measures, but that the Ministry intends to do so in the future.

3.2.5 EMAS in Italy

Legislative system	Mostly centralised system, with regions exercising autonomy in some matters. Regional governments administer the related regulations and may introduce more stringent measures. Following a recent reform, the local level now plays a significant role in implementing and enforcing environmental protection measures.
Top current environmental policy priorities	Smart and sustainable growth, including Agenda 2030; resource efficiency; climate protection
Number of EMAS-registered organisations and sites (April 2017)	990 organisations, 1669 sites
Key institutions for EMAS administration	Institute for Environmental Protection and Research (ISPRA): CB and MS representative
General perception of EMAS	Positive
Perceived added value compared to other EMS	Provision of information through the environmental statement (including 3 rd party verification of the information only possible through an accredited or licensed verifier); Quality and frequency of the verification process by the accredited / licensed auditors and the associated consequences; collaboration with enforcement authorities in verification of legal compliance; transparency; Registration status easily checked through an open register
Presence of EMAS regulatory relief	Yes (more than 50 measures)

Sources: Stakeholder interviews (EMAS Helpdesk 2017); (Chilosi et al. 2017)

Legislative and political context

Italy's central government passes most environmental legislation, including the transposition of EU Directives. Environmental regulation is mostly set out in the national Environmental Protection Code (Chilosi et al. 2017). The Environment Ministry is responsible for implementing legislation on a number of environmental issues, including the management of the Emissions Trading System (ETS), environmental impact assessments (EIAs) for certain large plants, and issuing integrated permits for large plants under the Industrial Emissions Directive (IED). As part of a recent reform, Italy moved the administration and implementation of environmental regulations from the provinces to the regional governments (Ibid). In the past, a number of Italian provincial governments had been active in introducing EMAS regulatory relief, leading to a high number of measures on the regional and provincial levels (see Figure 10).

Opportunities for EMAS

In Italy, policymakers and the public generally have a positive perception of EMAS, as indicated by the relatively high number of EMAS-registered organisations. However, interviewees indicate that the perception varies from one Competent Authority (CA) (regional administrative body) to the next. One government stakeholder interviewed reported “a lack of legislative coordination and integration among different legislative levels involved in making laws that make it difficult to use voluntary environmental management instruments –as EMAS- to promote environmental policy goals.” Some regions like Emilia Romagna have implemented a policy mix of EMAS incentives, while others have done little.

Italy also has specific networks of regions that aim to promote EMAS in their jurisdictions. One example is the Cartesio network (<http://www.retecartesio.it/>) that includes six different regions (Lombardy, Tuscany, Emilia Romagna, Liguria, Sardegna, Lazio). Policymakers in these regions and some others have shown a high level of trust in EMAS, implementing a number of regulatory relief measures. Italian public authorities have developed measures to support the adoption and maintenance of EMAS and ISO 14001 within the industrial sector, with national institutions having adopted around 35 measures and regional levels having adopted many more. For example, the Tuscany region alone has adopted approximately 13 measures aiming to reduce regional and local fees and simplify permitting procedures, among other goals (SSSUP 2013).

Stakeholder interviews indicate that Italian policymakers are very open to including EMAS in future regulation. Through the EU-funded BRAVER project, Italian regional governments have already committed to implementing such regulatory relief and will continue to do so. Government stakeholders suggest a stronger presence of EMAS relief measures in EU legislation, which would allow for more widespread implementation in laws at lower levels, lead to a greater acknowledgement of EMAS among public authorities, and emphasise the concept of regulatory simplification within public bureaucracies.

3.2.6 EMAS in the Netherlands

Legislative system	Mostly centralised system, with legislation enacted at the national level. Provinces and local authorities implement national environmental laws and can make some specific rules in certain issue areas and in pursuit of national targets
Top current environmental policy priorities	Water management; spatial planning; climate protection (including Dutch Climate coalition); circular economy; energy
Number of EMAS-registered organisations and sites (April 2017)	2 organisations, 2 sites
Key institutions for EMAS administration	SCCM, the foundation for the certification of environmental and labour management systems: CB and acting MS representative Ministry for Infrastructure and the Environment
Perceived added value compared to other EMS	None compared to ISO 14001
General perception of EMAS	Sceptical
Presence of EMAS regulatory relief	No

Sources: Stakeholder interviews; (EMAS Helpdesk 2017); (Koster et al. 2013)

Legislative and political context

Environmental legislation in the Netherlands is primarily the task of the national government, particularly the formulation of targets and setting priorities for specific environmental issues such as air quality or circular economy. Provinces and local authorities can make some specific rules on water management, soil remediation and the organisation of waste management. They also have a degree of freedom in how to achieve the targets set by the national government.

Additionally, regional and local authorities are responsible for the enforcement activities (e.g. surveillance, inspections) that ensure compliance with national environmental laws. Within their remit, these authorities develop their own rules and protocols. In this context, an interviewee commented that the implementation of regulatory relief was difficult because "the responsibilities for the environmental licences and enforcement are delegated to provinces and local authorities...it's not possible for the Ministry to force other authorities to support EMAS (or other instruments)." Nevertheless, some authorities in the Netherlands have decided on their own to do so. The province of Noord-Brabant is currently developing a system of directed surveillance in which authorities can adjust the level of regulatory compliance surveillance based on the presence of an EMS in companies. The province also aims to exchange information between the surveillance divisions of the authorities and the companies performing certification/verification to explore whether they have a similar perception of the performance of certified companies. Noord-Brabant is also exploring possibilities for planning combined inspections.

Opportunities for EMAS

There are currently few opportunities for the integration of EMAS in its current form into legislation in the Netherlands, aside from mandatory inclusion based on EU legislation or regional or local initiatives. Representatives from the Environment Ministry and SCCM both

stated that no priority is being given to EMAS. They also asserted that Dutch companies prefer ISO 14001 and their higher numbers mean ISO 14001 is more successful at reducing environmental impacts in the Netherlands. According to the Dutch response in the survey of MS representatives, EMAS registration should not be seen as a goal in and of itself; rather "the question is whether it has added value in comparison with ISO 14001. In our opinion it's better to use ISO 14001."

Interviews also show that policymakers in the provinces and municipalities are hardly aware of the existence of EMAS. This appears to be a result of the low number of EMAS registrations in the Netherlands and the fact that the national government does not promote the use of EMAS nor communicate its existence to regional and local authorities.

A ministry official in the Netherlands also reiterated that EMAS does not fit the government's goals for environmental protection. According to the official, there has been a strong focus on the implementation of environmental management since the 1990s, but now the ministry's focus is moving to the transition of a circular economy. Policymakers feel that environmental management alone is not enough to help transition to a circular economy, as the transition requires more than environmental reporting and compliance with environmental rules.

EMAS also has to compete in an environment where other national, independent schemes have significant traction with firms, such as the CO₂ performance ladder, a system in which companies can gain advantages in procurement, including but not limited to public procurement – through certification at different levels relating to their GHG emission management and reduction goals.

3.2.7 EMAS in Poland

Legislative system	Centralised, with legislation enacted on a national level. Most implementation is also carried out on a national level, although national legislation also empowers local bodies to carry out enforcement.
Top current environmental policy priorities	Energy efficiency; rational waste management; air pollution; creation of green jobs
Number of EMAS-registered organisations and sites (April 2017)	69 organisations, 360 sites
Key institutions for EMAS administration	General Directorate for Environmental Protection (GDEP; Polish abbreviation GDOS): CB and acting MS representative, responsible for registration and promotion Ministry of the Environment: official MS representative, supervises the GDEP
General perception of EMAS	Positive within government generally; neutral to sceptical among regulatory authorities

Perceived added value compared to other EMS	Provision of information through the environmental statement (including 3 rd party verification of the information only possible through an accredited or licensed verifier); Quality and frequency of the verification process by the accredited / licensed auditors and the associated consequences; Collaboration with enforcement authorities in verification of legal compliance; Transparency; Registration status easily checked through an open register
Presence of EMAS regulatory relief	Yes (fewer than 10 measures)

Sources: Stakeholder interviews; (EMAS Helpdesk 2017);(Jankielewicz et al. 2015); (Ministerstwo Gospodarki and Ministerstwo Srodowiska 2014)

Legislative and political context

The general rules for creating law in Poland apply to environmental laws and regulations. Only members of the Sejm (lower house of Parliament), the Senate (the upper house of Parliament), the President, or the Council of Ministers (i.e. the government) can introduce a bill to the Sejm to create legislation. After the Sejm adopts a bill, the bill passes to the Senate. The Senate can amend the bill, adopt it unaltered or reject it. If the Senate amends the bill or rejects it, the bill is referred back to the Sejm. The Sejm must consider but is not obligated to accept the Senate’s amendments. The Marshal of the Sejm then refers the bill to the President of the Republic for signature. The legal acts published by the Sejm are supported by governmental regulations issued by ministers or the government as a whole. The government may only issue these regulations when the parliamentary acts indicate that they are needed; the content of the regulations is therefore strongly based on the text of the law.

This process would allow for Ministry representatives to add references to EMAS, but interviewees indicate that adding regulatory relief in Poland has been difficult in practice. EU legislation provides the basis for the majority of Polish environmental law (Jankielewicz et al. 2015). A Polish government representative interviewed for this study indicated that, in cases where EU law does not specify regulatory relief for EMAS-registered organisations, regulatory bodies have been reluctant to add references to EMAS in regulations. The interviewee reported that companies without EMAS have claimed that other EMS certifications such as ISO 14001 provide environmental performance improvements equal to that of EMAS and that, as a result, such regulatory relief measures without a foundation in higher level legislation represent an unfair competitive advantage.

Opportunities for EMAS

Government bodies in Poland are generally supportive of EMAS and trust in the scheme to deliver results. Interviewees report that policymakers perceive EMAS-registered organisations as especially transparent and environmentally aware. However, the experience of interviewed and surveyed companies shows that licensing (regulatory) authorities and inspection authorities do not treat them differently than non-registered companies. In their opinion, the authorities are not sufficiently familiar with EMAS to recognise its value, and the authorities also have no protocol for recognising EMAS if the scheme is not present in relevant regulations. Interviews with public authorities confirmed the low level of recognition of EMAS in Poland, attributing this lack of awareness to the low registration numbers.

GDEP has been very active in encouraging regulatory relief and strongly supports the introduction of more regulatory relief measures. However, interviewees indicate that success is likely to be tempered by the pressure from non-EMAS-registered companies against such legislation. Unless Polish policymakers can be convinced that EMAS benefits outweigh those

of ISO 14001, Poland appears unlikely to enact additional regulatory relief aimed only at EMAS-registered organisations.

3.2.8 EMAS in Spain

Legislative system	Decentralised system, with legislative and administrative authority divided between the federal and regional governments. The enactment and enforcement of environmental legislation lies primarily with the regional governments.
Top current environmental policy priorities	Circular economy, waste management, energy efficiency, climate change; regional and local emphasis on air emissions, water management, etc., depending on local priorities
Number of EMAS-registered organisations and sites (April 2017)	869 organisations, 1101 sites
Key institutions for EMAS administration	Ministry of Agriculture, Food and Environment: MS representative, shares promotion with CBs 19 regional CBs, usually regional Environment Departments or Ministries
General perception of EMAS	Positive; some regions neutral or sceptical
Perceived added value compared to other EMS	Provision of information through the environmental statement (including 3 rd party verification of the information only possible through an accredited or licensed verifier); Quality and frequency of the verification process by the accredited / licensed auditors and the associated consequences; Collaboration with enforcement authorities in verification of legal compliance; Transparency; Registration status easily checked through an open register; Involvement of public authorities in setting the standards of the scheme
Presence of EMAS regulatory relief	Yes (more than 25 measures)

Sources: Stakeholder interviews; (EMAS Helpdesk 2017); Lavilla et al. 2016

Legislative and political context

Spain's political administration is comprised of 17 regions and 2 autonomous cities. The Spanish central government has decentralized responsibility for environmental protection. As a result, each Spanish region has administrative and legislative power over the development of environmental policies and laws.

Environmental legislation from the EU Directives is transposed into the Spanish legal framework through the Spanish government, which develops basic laws at national level. Then each region develops the basic law into a more concrete/detailed legal act. The regional laws must be consistent with the national policies and regulations, but may also be stricter. Approximately three quarters of existing regulatory relief measures for EMAS-registered organisations in Spain exist at regional level.

When transposing EU Directives, stakeholder interviews indicate that the Spanish Government usually adopts a text identical or very similar to the original text of the EU Directive. The government rarely adds any reference to EMAS not already present in the EU Directive. As a result, regional governments do not systematically consider EMAS when developing legislation at state level.

One example is the 1:1 transposition of point n.9 of the introduction of the EU Directive on Non-Financial Reporting into the draft of the law that transposes the directive in Spain. Article 2 of the draft includes the modification of the Consolidated Text of the Capital Companies Act, approved by Royal Legislative Decree 1/2010. It states that “In providing this information, undertakings which are subject to this Directive may rely on national frameworks, Union-based frameworks such as the Eco-Management and Audit Scheme (EMAS), or international frameworks such as the United Nations (UN) Global Compact...” and lists several further frameworks. Although the introduction of the draft law mentions EMAS, the applicable article within the law does not. Because the introduction does not have legal force, authorities may only consider the text in the article when implementing the law. As of July 2017, the law has not yet been approved.

Opportunities for EMAS

Spanish policymakers’ and regulators’ perception of EMAS varies from region to region, depending in part on their familiarity with the scheme. Interviews with two regional CBs indicate that the success of awareness-raising activities that familiarise both environment ministry employees and inspection authorities with EMAS increased the willingness of regional authorities to adopt regulatory relief measures and made inspectors more likely to actually accept those measures as part of their work. A waste inspector interviewed in a region in which EMAS enjoys a high level of support among authorities reported being impressed by EMAS-registered organisations’ higher awareness of legal obligations and better management.

The varying level of support among the regions also affects the legal opportunities for EMAS regulatory relief in Spain. As outlined above, when Spanish national laws do not contain a reference to EMAS, the regional authority plays a deciding role in the adoption of such measures. While some regional governments have environment ministries which actively support EMAS and have integrated regulatory relief measures into a number of laws, others have no such measures. The situation in Spain thus closely resembles that of Germany and Italy, where the autonomy of regions and states leads to regulatory relief measures available in some areas of the country and not in others.

Environmental priorities including circular economy, waste management, energy efficiency and climate change all present areas in which EMAS could help to achieve important political goals. A number of regions are committed to continuing support for EMAS, but the overall effectiveness of the measures depends on a more uniform uptake and level of awareness and support throughout the country.

3.2.9 EMAS in the United Kingdom

Legislative system	Decentralised system, with legislation enacted in Westminster but significant legislative and enforcement powers devolved to the Scottish, Welsh and Northern Irish governments
Top current environmental policy priorities	Greenhouse gas (GHG) emissions, circular economy, net gain (biodiversity); open data, better regulation

Number of EMAS-registered organisations and sites (April 2017)	28 organisations, 38 sites
Key institutions for EMAS administration	IEMA (Institute for Environmental Management and Assessment): CB and acting MS representative, also responsible for promotion DEFRA (Department for Environment, Food and Rural Affairs): official MS representative
General perception of EMAS	Sceptical; EMAS is not seen as an effective means to achieve goals
Perceived added value compared to other EMS	provision of information through the environmental statement (including 3 rd party verification of the information only possible through an accredited or licensed verifier)
Presence of EMAS regulatory relief	Yes (fewer than 10 measures)

Sources: Stakeholder interviews; (EMAS Helpdesk 2017); (Coxall and Hardacre 2016)

Legislative and political context

While EMAS is implemented at the national level, environmental policymaking powers in the UK are largely devolved to the individual country governments. EU Directives may thus be implemented slightly differently in Scotland than in Wales or by the UK Parliament at Westminster. Each country also regulates environmental issues specific to their area. However, much environmental legislation stems from EU legislation and is thus similar in the four countries. Nonetheless, a 2013 study identified an added burden on businesses because of different specifications for environmental reporting obligations in the different countries (DEFRA 2013). On a regulatory level, each country has its own environmental regulatory and licensing authority: the Environment Agency in England, the Scottish Environmental Protection Agency, Natural Resources Wales and the Northern Ireland Environment Agency. While these agencies have wide regulatory remits, local authorities enforce certain regulations with localised impacts, including waste collection, and monitoring of noise, air, water and contaminated land (Coxall and Hardacre 2016).

Opportunities for EMAS

Interviews with EMAS-registered companies and government authorities revealed that EMAS is not very well-known outside of the sustainability community in the UK and does not have a high priority in the UK government, ministries or public authorities. Brexit provides a clear disincentive for the government to actively support EMAS; however, the lack of visibility and EMAS uptake predates the UK's decision to leave the EU. In an interview, a representative of IEMA explained that organisations find EMAS too prescriptive, burdensome and costly in comparison to ISO 14001. In the representative's view, the scheme has some strong elements like reporting but does not include enough flexibility or forward-thinking elements.

Employees at a regulatory and inspection authority expressed a positive view of EMAS in an interview. In contrast to companies with ISO 14001, they did not know of any EMAS-registered companies with compliance violations, although the low registration numbers strongly limit the significance of that conclusion. The regulatory authorities were strongly in favour of granting regulatory relief to companies as part of a general movement towards more streamlined and efficient regulation, espoused in the government's recent Regulatory Future Review (Cabinet Office 2017). EMAS could play a role in several areas, including in "regulated self-assurance" and "intelligence and data sharing". DEFRA introduced the

Smarter Environmental Regulation Review (SERR) in 2013 with a dual focus: making regulation and bureaucracy less burdensome and efficient, and improving and reducing the burdens of European regulation (DEFRA 2013).

The regulatory authorities stated clearly, however, that they did not intend to favour organisations with a specific management system certification, but rather would award relief to the best performers. They expressed a need to work more closely with auditors so that they could have confidence in third party audits and know that auditors understood what a good management system looked like. EMAS could thus have a role as an instrument with which companies could achieve good performance, but organisations in the UK are highly unlikely to receive incentives simply for adopting the scheme.

3.2.10 Interviews in other Member States

Hotspot analyses

The hotspot analyses in the Czech Republic, Sweden and the Belgian region of Wallonia demonstrate the varying levels of support for EMAS regulatory relief measures shown in the MS profiles above.

While **Sweden** demonstrates a high level of support for environmental policy in general (OECD 2014) and has the highest numbers of ISO 14001 registrations per capita (SKL 2012), the Environment Ministry dedicates few resources to EMAS. Interviews reveal that voluntary EMS, while common among firms, generally play only a small role in public policy. The Swedish EMAS CB described a cycle in which low registration numbers fail to justify continued support for EMAS, leading to a further fall in registration numbers. Additionally, Swedish government representatives interviewed felt that the EC needed to more clearly communicate why limited resources for environmental protection should be dedicated to EMAS.

In the **Czech Republic**, on the other hand, interviews and desk research reveal national level policy support for EMAS and other EMS and a general willingness to implement regulatory relief measures when compatible with EU legislation. Currently, regulatory relief measures are granted equally to companies with EMAS and those with ISO 14001 (see separate document: Compendium of regulatory relief). According to stakeholder interviews, regulators became more sceptical of voluntary environmental management certifications after poor performance by some ISO 14001 companies, making the introduction of regulatory relief more difficult. A representative of the Czech environmental regulatory authority expressed significantly more confidence in EMAS, however, and saw no reason why EMAS-registered organisations shouldn't receive more regulatory relief. One barrier appeared to be a similar vicious cycle as in Sweden: the low level of registrations and low awareness of EMAS make it difficult to justify investing more resources in pushing EMAS regulatory relief. An additional barrier - also observed in Austria - is the relatively weak position of the Environment Ministry in relation to other ministries involved in amending legislation. Nonetheless, the inspection authority and other Czech stakeholders felt additional EMAS regulatory relief was a possibility in the Czech Republic.

As the only EU area to make EMAS mandatory for organisations in certain sectors (used water purification, landfill centre, plate for compost, incineration facilities), **Wallonia** demonstrated a strongly positive view of EMAS as a regulatory instrument. The Wallonian CB explained in an interview that previous contamination scandals led the Environment Ministry to seek a method of lowering environmental risk in the region, and they selected EMAS. So far, legislators have not adopted this model in other high-risk sectors. The CB attributes this lack of spread mainly to the low awareness of EMAS among legislators.

An interviewed EMAS registered organisation in the waste sector felt that because authorities lacked the internal means to ensure compliance with the regulations, requiring EMAS

was a way to ensure that the facilities are audited and comply. The company, however, would appreciate regulatory relief to even out the costs of EMAS. Both the CB and the company felt that more regulatory relief for EMAS-registered organisations was a realistic and potentially effective option in Wallonia.

3.2.11 Survey of Member State representatives

MS representatives were asked about 1) the environmental priority areas in their MS and 2) the potential of EMAS to help achieve those goals (see answers to questions in Table 5). Respondents ranked the areas from 1 to 5, with 1 showing little connection with EMAS and 5 showing a strong possibility for using EMAS to achieve these goals.

In line with the interview respondents, common priority areas (question 1) overall were greenhouse gas emission reduction and climate change, air pollution, waste and water pollution. Survey respondents gave less significance to circular economy as an area of overall importance than did interviewees. However, survey respondents confirmed in the responses to question 2 that they see the most potential for EMAS in achieving goals in circular economy, along with waste and GHG emissions. Overall, MS representatives saw potential for EMAS to achieve goals in nearly all issue areas.

Table 5: Potential to better integrate EMAS into existing policies to help public authorities achieve their environmental objectives in priority areas

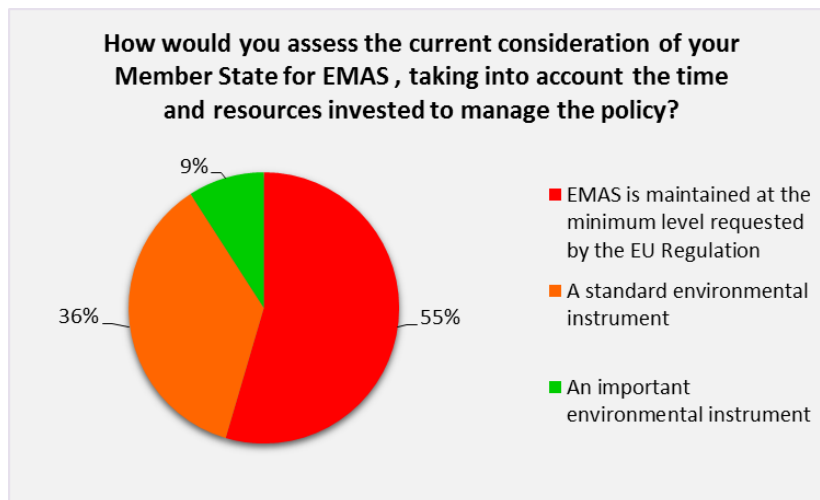
Policy area	Value
Circular Economy	4.4
Waste	4.4
GHG emissions and climate change	4.4
Consumer information (on environmental performances of products and organisations)	4.3
Air pollution	4.2
Noise	4.1
Water pollution	4.0
Environmental impact assessment	4.0
Non-financial reporting	3.8
Chemicals, human health and the environment	3.7
Nature and Biodiversity	3.7
Land, Marine and Coast preservation	3.5

No. of respondents: 15

When asked about their MS views of EMAS as an instrument, the clear majority of respondents stated that EMAS was a standard environmental instrument or one promoted at the

minimum level required in EU legislation (see Figure 4 below). Only one MS regarded EMAS as a particularly important environmental instrument. Interviews supported this perspective. Considering the wide range of environmental priority instruments and areas, including some such as climate change, which have high political urgency and visibility, the position of EMAS as one instrument among many is not surprising. The responses indicate that, in practice, MS that support EMAS do not see the scheme as different from other types of environmental policy instruments.

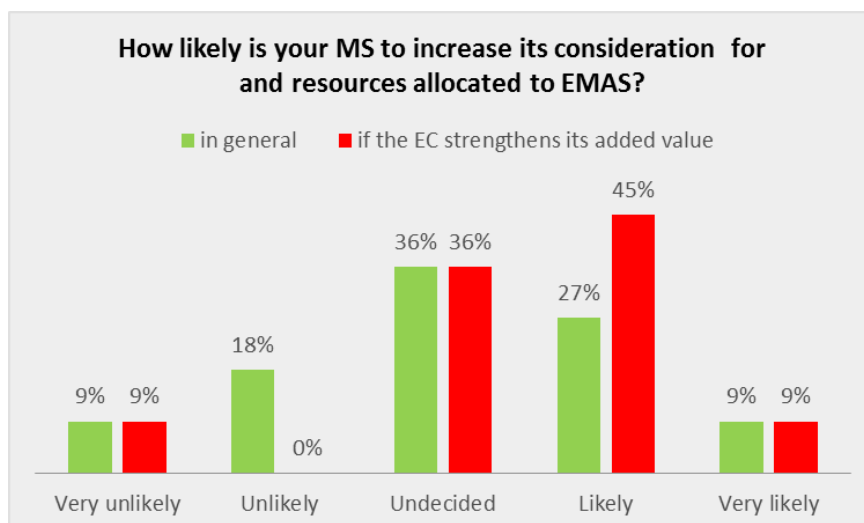
Figure 4: Consideration for EMAS according to MS representatives



No. of respondents: 11

When asked about the likelihood that their MS would expand regulatory relief measures for EMAS-registered organisations in the next few years, the majority of survey respondents indicated that they would do so if the EC strengthens the added value of the tool (Figure 5). The reasons cited for low investment in EMAS were a lack of political will, low awareness linked to poor promotion of the scheme, and low registration numbers.

Figure 5: Resources allocated to EMAS according to MS representatives

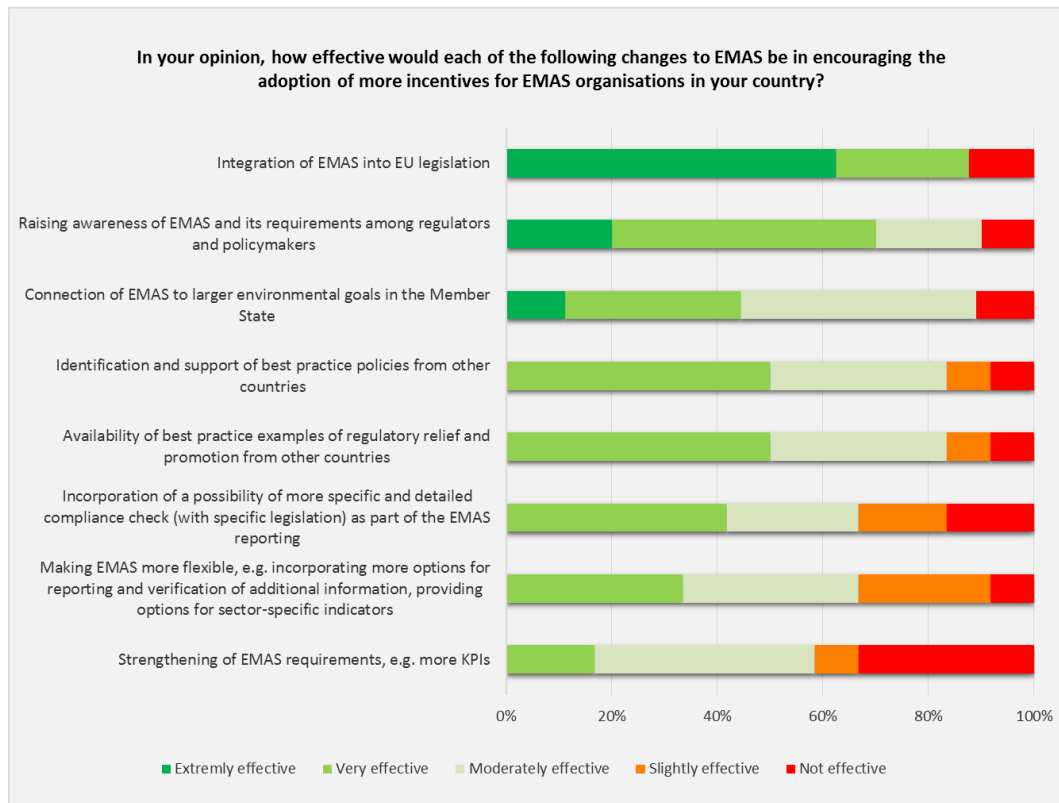


No. of respondents: 11

Both the survey and the interviews in MS cited EC support - particularly in legislation - as crucial to political support of EMAS in their MS. The vast majority of representatives felt “raising awareness of EMAS and its requirements among regulators and policymakers” and the

“integration of EMAS into EU legislation” would be “very effective” or “extremely effective.” These two suggestions also arose consistently in interviews throughout the EU.

Figure 6: Effectiveness of options for encouraging the adoption of more incentives for EMAS according to MS representatives

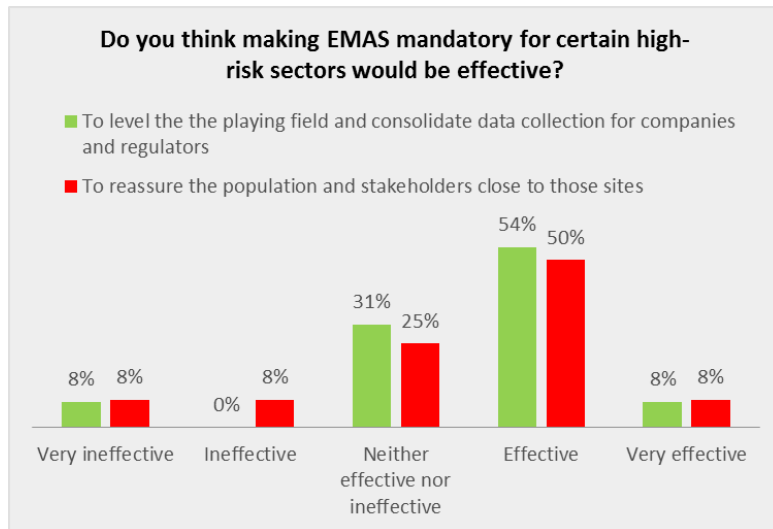


No. of respondents: 13

One explanation for the discrepancy between the responses to the two questions lies in their formulation: with a few exceptions, the interviewees in the profiled MS did not feel that the EC needed to strengthen the added value of the tool itself. Instead, they expressed a desire for the EU level to provide clear arguments for supporting EMAS and to demonstrate higher levels of support, promotion and integration of EMAS into EU legislation and strategies. Survey respondents echoed this response in Figure 6, indicating that changes to the tool (including strengthening EMAS requirements, incorporating additional elements into EMAS or making it more flexible) would be less effective than focusing on improving policies at MS and EU level and on raising awareness among regulators.

MS representatives were also asked about the potential effectiveness of making EMAS mandatory for high-risk sectors. Indeed, companies in high-risk sectors often have more regulations to follow, creating a larger burden both for companies themselves and for regulators. Companies that voluntarily take steps to go beyond environmental regulation requirements may feel that they face a competitive disadvantage. A majority of MS representatives indicated that it would be effective to make EMAS mandatory to level the playing field between companies and consolidate data collection with stakeholders. This would also reassure stakeholders close to the site. Only one MS indicated that making EMAS mandatory would be very effective, however, thereby raising the question of the MS's desire to implement this measure in practice. The issue of making EMAS mandatory for certain sectors is particularly interesting because Wallonia has already made EMAS mandatory for the waste treatment sector, thus providing an example for replication. This option will be further discussed in the replication plan (see Chapter 3.8.2).

Figure 7: Effectiveness of making EMAS mandatory, MS representatives



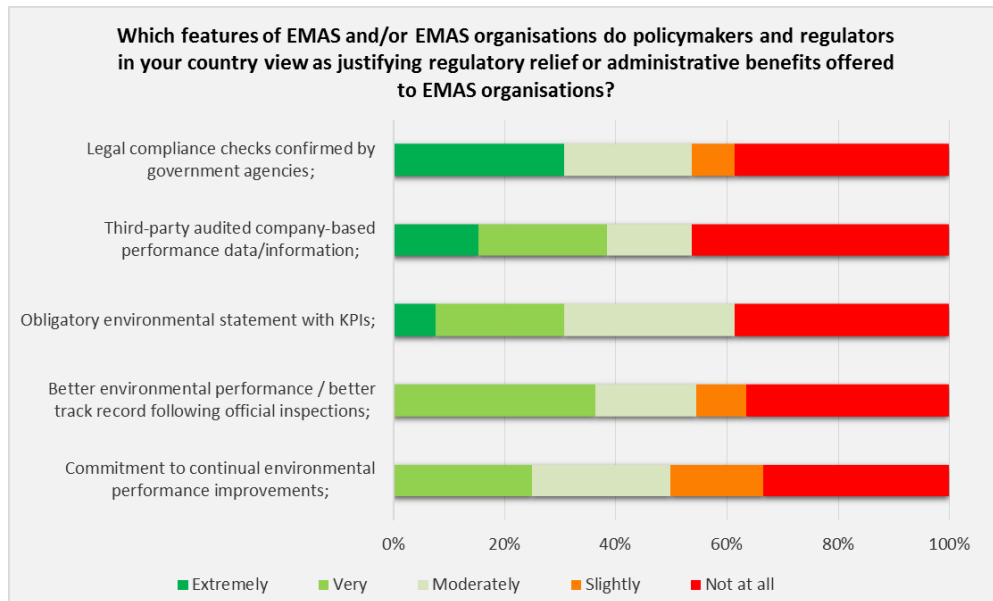
No. of respondents: 12

Another focus of the survey was to investigate the perceived added value of EMAS in the Member States, and notably compared to ISO 14001.

The results show that currently about half (7 out of 15) of the MS do not offer more regulatory relief for EMAS organisations than for organisations with ISO 14001. The four MS with high registration numbers, which expressed a clear preference for EMAS in the follow-up interviews, have measures in place rewarding EMAS over ISO14001. Germany indicated that EMAS companies benefited from significantly more regulatory relief, while the others reported slightly more regulatory relief. Spain provides an interesting example, as the country's decentralised administration of EMAS led to two respondents from different regions replying to the survey. One of the two indicated that EMAS organisations encounter no additional benefits while the other indicated slightly more regulatory relief.

The current level of RR in MS reflects the countries' perception of the added value of EMAS over ISO14001. In the survey, the features of EMAS that justify the most regulatory relief according to the respondents are the legal compliance insurance, third party verification and transparency through the environment statement.

Figure 8 : Features of EMAS justifying regulatory relief, MS representatives

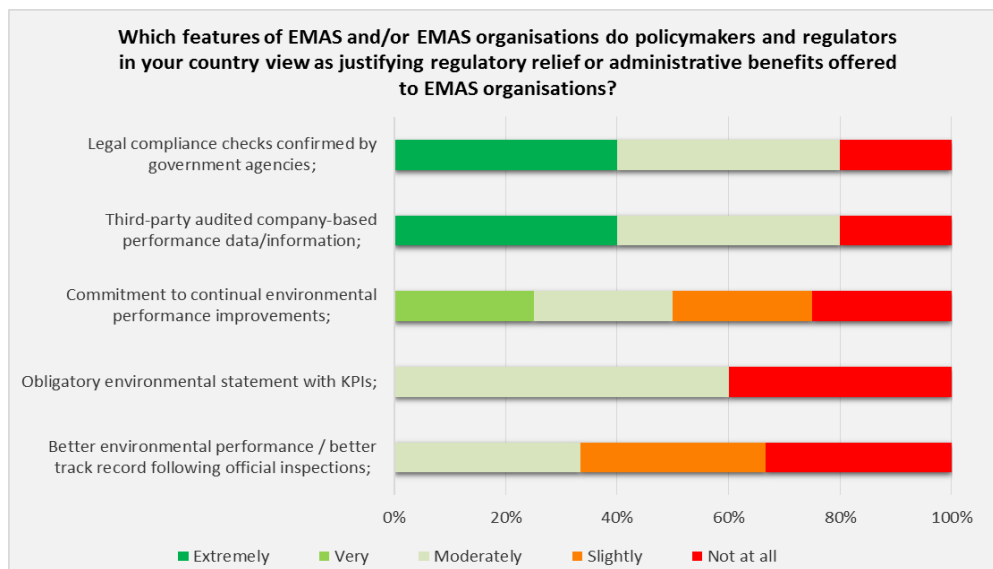


No. of respondents: 13

40% of the respondents indicated that these features do not justify regulatory relief in the eyes of their country's policymakers. However, this result should be interpreted with caution because the question applied only to the reasons behind already existing regulatory relief; MS with no existing regulatory relief were asked to check the response "not at all". Additionally, since the question applies only to existing regulatory relief, MS representatives may have only selected those features that provided the justification for their own country's particular measures. The question does not provide information about whether or not that feature could theoretically be used to justify future regulatory relief.

When looking **only at MS with high registration numbers** (chart below), policy makers seem to value the legal compliance check and the third party verification even more. Only one MS indicated that this is not appreciated today by policy makers.

Figure 9: Features of EMAS justifying regulatory relief, MS with high registration numbers



No. of respondents: 5

The question therefore emerges as to why these MS see these features as more convincing arguments for regulatory relief. This topic is addressed in the next section.

3.2.12 Contributing factors to the appreciation of EMAS added value

Interviews and the survey of MS revealed that some MS trust the legal compliance provided by EMAS and its accompanying third party verification more than other countries. This section investigates potential reasons for this trust that emerged out of both primary and follow-up interviews.

Distinction between a licensing body and an accreditation body

In Germany and Austria, the distinction between the licensing and accreditation body contributes to an increased trust in EMAS. While some MS choose to have EMAS environmental verifiers qualified by an accreditation body which operates independently from state control, a few have chosen to adopt a licensing procedure in which environmental verifiers are licensed independently by a public body which implements the licensing exams and standards for verifiers. Currently, Austria, Germany, and Italy have licensing bodies.

An interview with a representative of the German Environment Ministry confirmed that EMAS-registered organisations received regulatory relief based primarily on better legal compliance. In Germany, this higher standard of legal compliance is tied directly to the fact that environmental verifiers have to undergo individual licensing exams developed and administered by a public body. Under Germany's Environmental Audit Law, which lays out the standards and qualification process for EMAS environmental verifiers, the verifiers are held to and operate under higher standards than ISO 14001 auditors. Another German law, the EMAS Privileges Regulation, specifically empowers regulatory authorities to offer monitoring and reporting relief to EMAS organisations. The justification of the Bavarian version of the EMAS Privileges Regulation includes an extensive explanation of how EMAS environmental verifiers, with their publicly supervised licensing procedure, can perform audits that are in some cases "functionally equivalent" to public inspections (Bayerisches Staatsministerium für Umwelt und Verbraucherschutz 2002) .

Representatives of Austria's Environment Ministry also reported in an interview that the licensing system provides the ministry with stricter and more direct control of the EMAS verification process. Their ability to structure the professional licensing system based on individual qualifications and standards set by the ministry provides added trust in EMAS. In Austria, verifiers must also pass a general qualifying exam, which includes questions on environmental legal knowledge. As in Germany, Austria's verifiers also may take tests to qualify for licenses in certain industrial sectors (NACE codes). The licensing procedure gives Austrian authorities not only the ability to set their own licensing criteria, but also to witness the verifiers' audits both during licensing and regular monitoring. Authorities can therefore check that the practical skills of the environmental verifiers meet high standards, ensuring that EMAS guarantees a high quality verification procedure.

Collaboration between environmental verifiers and enforcement authorities or Competent Bodies

- 1) In Italy, EMAS-registered companies are visited by public inspection authorities during the initial EMAS registration procedure. This additional process allows the authorities to become more familiar with not only the companies but also the environmental verifier and their procedures, increasing authorities' trust in EMAS. According to Italian MS representatives, this feature represents a significant added value of EMAS over ISO 14001 and is a main reason to justify certain regulatory relief measures.

In Spain, several representatives of regional EMAS CBs - in some cases also the environmental enforcement authorities for their respective regions - cooperate extensively with environmental verifiers to ensure a higher quality audit process with EMAS. In Catalonia, the CB organises regular meetings with verifiers to discuss EMAS requirements, barriers during audits and how to achieve a high quality audit.

In summary, factors that contribute to EMAS appreciation in MS with the highest numbers of regulatory relief measures and EMAS registrations are:

- use of a separate, publicly designed and supervised licensing procedure for environmental verifiers
- close cooperation between EMAS environmental verifiers and CBs and/or inspection authorities
- (in Italy) presence of inspection authorities at EMAS registration

3.2.13 Summary: Perceptions of EMAS added value in the Member States

The perception of EMAS as a useful instrument with added value over other EMS certifications varies among the studied MS, with policymakers in countries such as Austria, Belgium, Germany, Italy and Spain expressing clear support for EMAS. Germany, Italy and Spain in particular have also implemented high numbers of regulatory relief measures for organisations. MS representatives from most countries also clearly indicated during the interviews that EMAS deserves more regulatory relief than ISO 14001, and that this treatment is justified because of the added value of EMAS. They mentioned the following arguments:

- In-depth verification of legal compliance with environmental legislation on an organisational level carried out by an independent environmental verifier. Verification includes checking legal compliance with environmental legislation, including documentation on permits and threshold values, the submission of relevant evidence by EMAS organisation, and potential spot checks performed by the environmental verifier.
- Legal compliance checks by the EMAS CB: CBs enquire about known environmental legal compliance violations at the responsible enforcement authorities before an organisation's initial registration
- Transparency because information is included in a publicly available, validated environmental statement and because EMAS-registered organisations are listed in a public register which anyone can check. Organisations thus feel more accountable to the public and the public has the opportunity to check their accountability.
- Focus on continuous improvement of environmental performance and ecological effectiveness
- Mandatory core performance indicators in the environmental statement, which ensure that authorities can examine an organisation's performance over time
- In the cases of Germany, Austria, Italy and some Spanish regions, the ability of public bodies to have closer contact with and more control over the procedures of the environmental verifier and of the EMAS scheme itself, including in some cases over the licensing procedure for verifiers

Within these countries themselves, however, the perception of EMAS added value and the presence of measures supporting the scheme vary from region to region. This variation allows regions to adapt to their own political priorities, but also reduces the potential effectiveness of some incentives. Austria also struggles with the difficulty of including EMAS in laws

that lie outside the competence of the Environment Ministry, revealing different priorities among the country's ministries.

Policymakers in other countries such as the Czech Republic and Poland perceive EMAS positively, but aside from those who know EMAS well, appear reluctant to implement regulatory relief that recognises the added value of EMAS over ISO 14001. As in Austria, interviewees report that the relatively weak position of the environment ministry, which promotes EMAS, has proved a hindrance to the introduction of regulatory relief. In all these countries, despite a largely positive view of EMAS, interviewees mention the need to increase awareness of EMAS among policymakers and regulatory and inspection bodies in order to realise the benefits of regulatory relief.

Other MS such as France, the Netherlands, and the UK are largely sceptical, viewing EMAS as a tool that does not fit their policy goals and which does not interest companies. They see a greater movement towards integrated management systems and reporting, which they feel is harder to achieve with EMAS than with ISO 14001 alone. These countries tend to have few regulatory relief measures. A number of other countries with low registration numbers that participated in the MS survey also reported that low registration numbers made justifying more support difficult, leading to a "vicious cycle" for EMAS.

One trend common to interviewees in nearly all MS was the desire for EMAS to be integrated more strongly into EU legislation, which now forms the basis for nearly all new environmental legislation in most MS. Government stakeholders and experts in the majority of MS examined in this study reported similar political and legislative challenges related to implementing regulatory relief at the MS level. One main challenge was the reluctance among legislators, regulators, and policymakers in competing ministries to provide references to EMAS if it was not included in the EU legislation being transposed. Stakeholders felt that MS could eliminate this challenge if EU legislation routinely integrated potential regulatory relief measures for EMAS-registered organisations within the specific legislation.

Interviewees also expressed the desire to see EU legislation and strategies contain more frequent information about the use of EMAS to achieve specific policy goals and greater coherence at the national level. For instance, interviewees would like a clear strategy of how EMAS, with its 3rd party audit and compliance check through a government body, can be used as a regulatory instrument to substitute for command-and-control regulatory obligations introduced in other legislation. One German regulator stated: "EMAS is a very different type of instrument than the ones developed in most EU Directives, which are prescriptive and detail-oriented, and right now it's very unclear which relationship these two types of instruments are supposed to have to each other. They could support each other, with EMAS providing a way for regulators to focus on achieving compliance, but when we try to implement that at national or state level, we hear arguments that there is no clear legal basis".

An Italian government employee working on EMAS echoed this view, noting that "regulators see laws promoting regulatory relief/incentives as a 'control' law instead of as a 'simplification' law. In this sense, the voluntary environmental management certifications are not taken into consideration in a proper way in policies." Government stakeholders in a number of MS, including Austria, France, Germany, Spain, and the UK also reported "tunnel vision" among some policymakers, who concentrate on their specific issue area (e.g. energy, waste) and have difficulty relating a transversal instrument like EMAS to specific policy goals. Several interviewees confirmed that they would welcome an official strategy showing how EMAS and certified EMS in general work as complements to instruments that cover all types of environmental mediums.

Another common observation among interviewees in nearly all selected MS was the need to increase regulators' awareness and recognition of EMAS, which a number of interviewees again related in part to the lack of EMAS references in national and EU legislation. In a related observation, interviews also showed the need for better coordination between higher and

lower levels of government and within ministries. This cooperation is crucial for the promotion of the EMAS scheme and for implementing regulatory relief. As one German regulator put it, "The regulators at the top level don't see all the connections. They just make the laws, they don't apply them. On the lower levels, we can make some policy, but we also enforce it, so it's easier to bridge the gap between expectations and results."

Interviews provide evidence that the lack of coordination ties into the tunnel vision referred to above – policymakers with a country or a region often focus on their own area of expertise. Interviewees in different MS mentioned that one obstacle to promoting EMAS in regulations was that the EMAS representatives did not know where which colleagues were working on what topic. For instance, one ministry or ministry department might work on laws related to energy while another works on laws related to water and another works on areas relating to CSR and business, including EMAS. Often the ministries or departments work in relative isolation from each other. Because of EMAS's transversal nature, this topic-focused work presents a real barrier to integrating EMAS effectively with other policies.

Despite these obstacles, interviewed government stakeholders and experts in Austria, Belgium, the Czech Republic, Germany, Poland, Spain and to a lesser degree France expressed confidence **in the value of EMAS as a tool to achieve environmental improvement and, importantly, to improve companies' legal compliance and transparency**. The Netherlands, Sweden, and the UK expressed more scepticism as to the added value of EMAS in its current form and its role in national policy. Figure 5 shows that most MS representatives who participated in the survey were undecided about whether their country would dedicate more resources to EMAS, leaving the possibility open for them to invest more in EMAS if provided with clear arguments, a clear action plan and a clear signal from the EU level.

The following chapters of this report provide some suggestions on how such support could be achieved, starting with the integration of best practice regulatory relief measures from other countries.

Conclusion

- The perception of EMAS as a useful instrument varies among the studied MS, ranging from sceptical of the scheme's purpose to highly supportive.
- The MS view the added value of EMAS over ISO 14001 and other EMS as:
 - Better legal compliance (including in some MS higher standards for verifiers; value of compliance check)
 - Greater transparency through the published environmental statement
 - Greater transparency/accountability through organisations' presence in a public register
 - Authorities' greater ability to influence the standards of EMAS environmental verifiers and/or the EMAS scheme itself to ensure a reliable legal compliance and sufficiently high standards
- Within countries with federal or strong provincial systems, states and provinces also exhibit a high degree of variation in their support of the scheme. This variation allows regions to adapt to their own political priorities, but also reduces the potential effectiveness of some incentives.
- Countries with low registration numbers have little incentive to implement regulatory relief or other incentives
- Most MS expressed willingness to provide incentives for EMAS uptake in the future, but a number of barriers emerged in practice:

- the relatively weak position of environment ministries within government;
 - lack of awareness of EMAS benefits among policymakers and regulators;
 - the topic-focused and narrow work in the environmental field, which makes integrating a cross-disciplinary instrument like EMAS into sector-specific goals difficult;
 - the lack of a clear vision of how a voluntary and process-oriented instrument like EMAS can contribute to environmental policy goals set generally in a command-and-control fashion.
- Common observations and suggestions to enable a better diffusion of EMAS include: the desire for EMAS to be integrated more strongly into EU legislation to increase awareness and enable a better integration into MS legislation; the desire to see a clear strategy for the use of voluntary instruments to achieve specific policy goals; and a better coordination between higher and lower levels of government and within ministries.

3.3 The “state of the art” of regulatory relief and administrative benefits in the European Union: assessing adoption, effectiveness and satisfaction with the measures

3.3.1 Regulatory relief and administrative benefits in the EU: a general overview

Methodology

The redaction of the Compendium of regulatory relief measures relied on the project team’s desk research. The research aimed at identifying existing measures of regulatory relief and administrative benefits based on voluntary environmental schemes within the selected Member States. To this aim, the team consulted EU policy documents, national and local legislations, and minutes of EMAS Committee meetings in order to identify and map regulatory relief measures.

For the purpose of this study, the scope of the desk research excluded regulatory relief measures exclusively based on the ISO 14001 certification. The focus lay only on measures based on EMAS or on measures based both on EMAS and on ISO 14001 certification.

Identified measures were then classified according to the Member State, the level of application (i.e. national or regional), the voluntary scheme addressed (i.e. EMAS or EMAS and ISO 14001) and the typology of benefit or simplification provided to the beneficiary organisation. The Compendium also includes a reference to the legislative decree, and a brief description of the regulatory relief measure.

Results

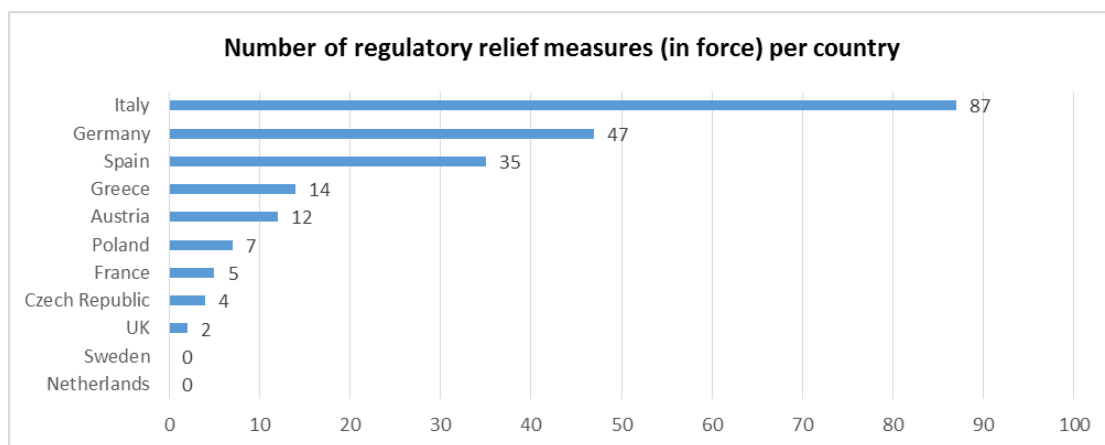
The analysis of the Compendium led to the following observations:

The number of measures varies greatly from one Member State to the other

The Compendium (in Annex II) mapped 219 different measures of regulatory relief or administrative benefits based on voluntary EMS schemes implemented in the 11 selected MS, i.e. Austria, Czech Republic, France, Germany, Greece, Italy, Netherlands, Poland, Spain, Swe-

den and the UK. Of the total 219, 213 measures were currently in force, while 6 measures were expired at the time of the mapping. Some expired measures were not excluded from the analysis because of their relevant contributions while in force. Among the selected countries, Italy implemented the highest number of regulatory relief measures (87), followed by Germany (47) and Spain (35) (see Figure 10 below). However, the German measures include only those from the national level and a selection of different measures from the regional (*Bundesland*) level. The total number of national and regional measures in Germany is therefore somewhat higher. Interestingly, Italy, Germany, and Spain are also the top three MS in terms of EMAS registrations (EMAS Helpdesk 2017) suggesting a potential causality between the two phenomena. On the other hand, the Netherlands and Sweden are not currently implementing any regulatory relief measures based on voluntary EMS schemes and therefore are not included in the following analysis.

Figure 10: Number of regulatory relief measures per country



Regulatory relief measures are diverse

Regulatory relief measures provide diverse advantages to organisations that have implemented a certified EMS (usually under EMAS and/or ISO 14001 standard). These relief measures aim to acknowledge efforts to enhance environmental performance or reduce environmental risks. In particular, the mapping process identified 12 different categories of regulatory relief or administrative benefit based on EMAS and ISO 14001. The Compendium therefore provides a classification of the mapped measures according to the following categories:

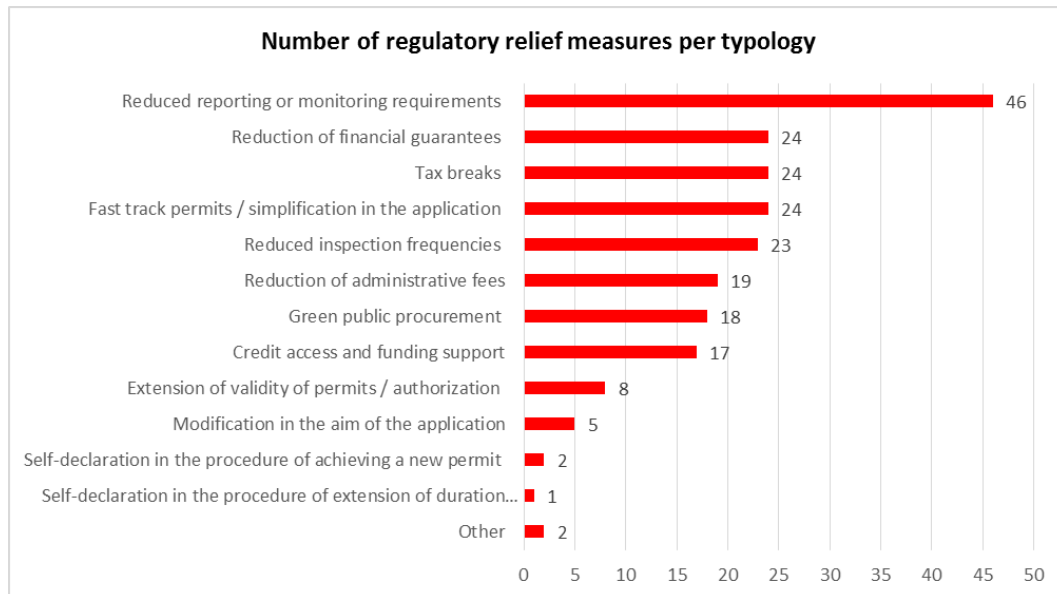
1. **“Fast track” permits** – this category includes all forms of administrative simplifications or facilitations in the application procedures for environmental permits or authorisations. Examples of this typology of relief include the use of EMAS documents (e.g. certification of registration, environmental statement etc.) as a substitute or ancillary documentation in the application for an environmental permit, or a reduction in the time needed to obtain the authorisation;
2. **Extension in the validity of a permit or authorisation** – this category includes all the measures that extend the validity period of an environmental permit or authorisation, postponing the expiration date and implicating less frequent renewals of permits, based on the EMAS registration or ISO 14001 certification;
3. **Reduced reporting or monitoring requirements** – includes all forms of simplifications or exemptions of mandatory environmental monitoring and environmental reporting requirements. Examples include the use of the EMAS Environmental Statement in substitution of mandatory reporting obligations;

4. **Reduced inspection frequency** – refers to reductions in the frequency of mandatory environmental inspections of sites, based on the compliance with self-monitoring and self-reporting requirements entailed by EMAS registration;
5. **Self-declaration in the application for the temporal extension of a permit** – this category refers to the opportunity to resort to self-declaration or self-reported documentation while applying for the renewal, or temporal extension, of an environmental permit;
6. **Self-declaration in the application for a new permit** – refers to the opportunity to resort to self-declaration or to self-reported documentation while applying for a new environmental permit or authorisation;
7. **Modification in the aim of the application** – this category includes all the measures that allows the modification of the thresholds that determine specific scopes of legislation for EMAS-registered or ISO 14001-certified organisations;
8. **Green Public Procurement** – this category includes all facilitations or preferential treatment in the application for public tenders or contracts based on environmental criteria fulfilled by the EMAS registration or ISO 14001 certification;
9. **Credit access or funding support** – refers to facilitations in the application for financing or in the access to credit based on EMAS registration or ISO 14001 certification;
10. **Tax breaks** – includes forms of fiscal relief such as exemptions from taxes or reductions in taxation;
11. **Reduction of administrative fees** – refers to forms of administrative benefits that envision the exemption from administrative fees or reduction in the amount of fees;
12. **Reduction of financial guarantees** – refers to the reduction in the amount to be paid as a bank guarantee or equivalent insurance in order to operate. Financial guarantees are especially common in sectors like waste treatment and shipment, mining etc.;

Regulatory relief or administrative benefits not pertaining to the categories described above were generically classified as “Other”.

The reduction in reporting or monitoring requirements is by far the most widespread among the measures currently enforced, accounting for more than the 20% of total implemented measures within the selected countries (see Figure 11 below). Following, we find economic incentives, such as reductions in financial guarantees and tax breaks, and simplifications in the application procedures for environmental permits, each accounting for the 11% of the total. On the other hand, self-declarations in the procedures for achieving or extending a permit, as well as modifications in the aim and scope of permits are the least widespread.

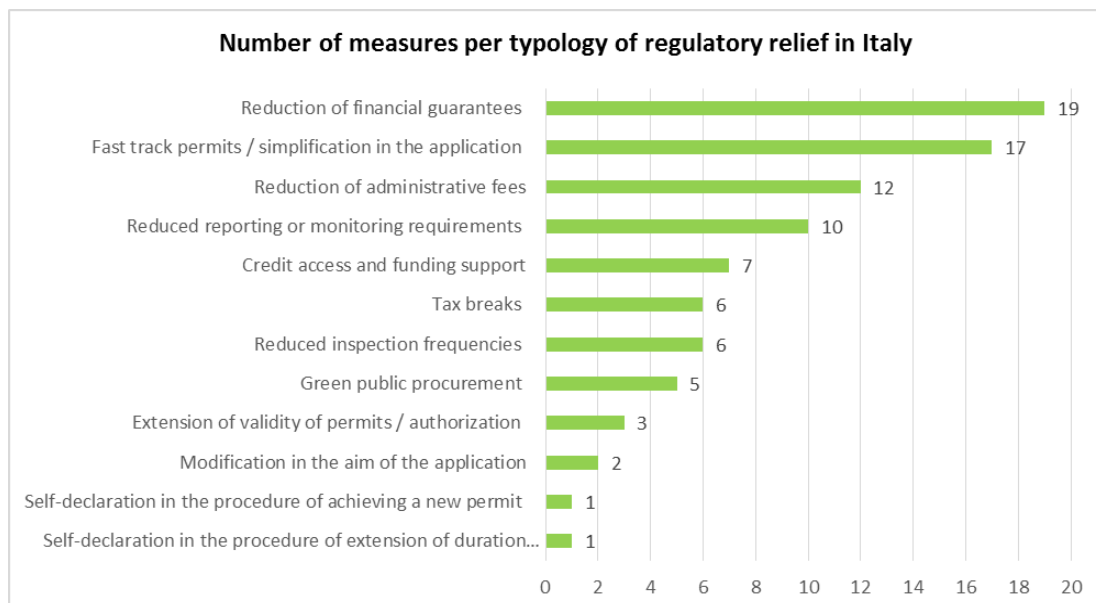
Figure 11: Number of regulatory relief measures per typology



The popularity of certain types of measures depends on the Member State

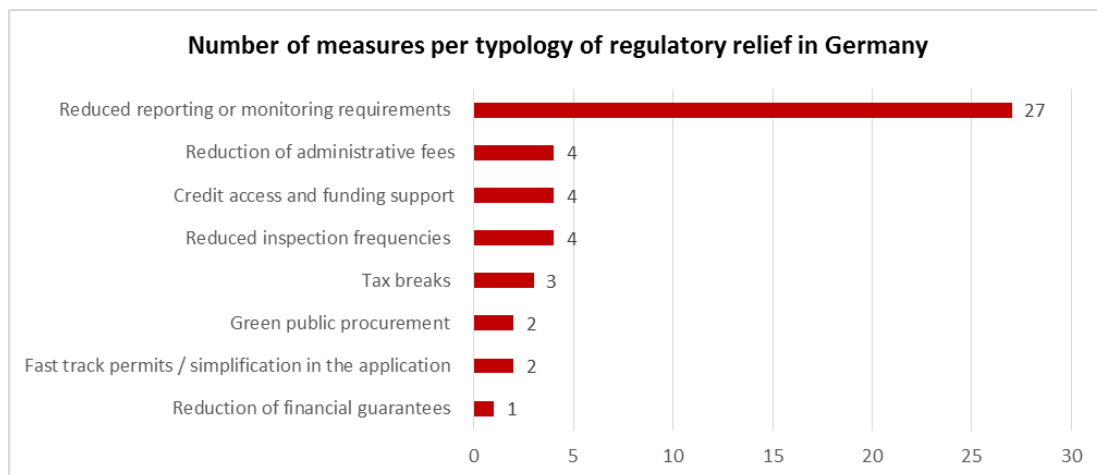
By breaking down the typologies of measures per MS, different approaches to the adoption of regulatory relief emerge. In particular, by looking at the cases of Germany, Italy and Spain (i.e. the countries where regulatory relief based on EMAS are the most common) it is evident that, while Germany and Spain are very specialised in specific types of measures, Italy adopts a more generalist approach. As indicated in Figure 12, the Italian legislative framework is indeed characterised by a wide array of typologies of regulatory relief: 12 out of 12 typologies identified in the Compendium. Despite the reduction in financial guarantees being the most common typology, it accounts only for 20% of the total measures implemented in the country. Similarly, “fast track” permits account for 19%, and the reduction of administrative fees for 13% of the total measures implemented.

Figure 12: Number of measures per typology of regulatory relief in Italy



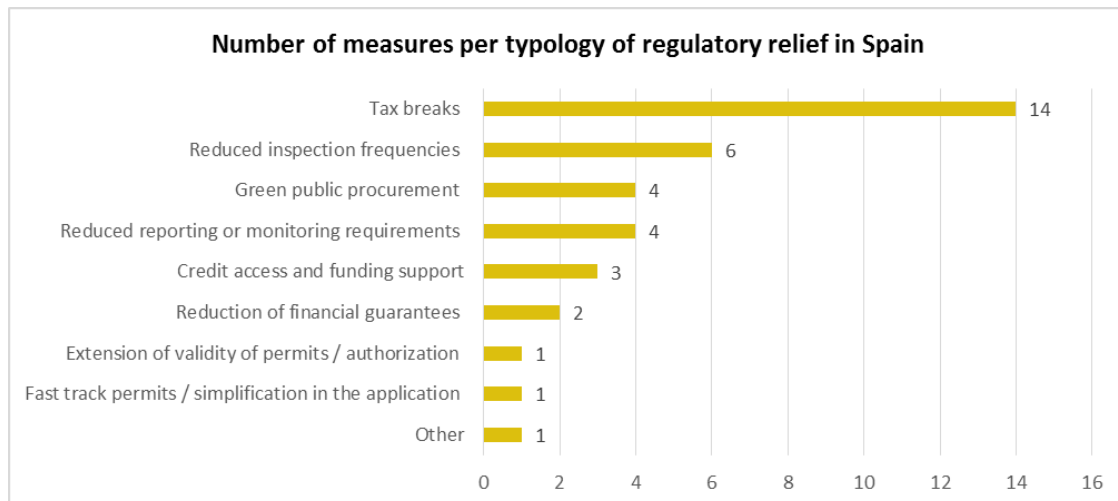
On the other hand, in the case of Germany, only 8 typologies of regulatory relief out of 12 were identified. Different from Italy, Germany emerges as being specialised in the reduction of reporting and monitoring requirements for EMAS-registered organisations. Indeed, 57% of regulatory relief measures implemented in Germany fall into this category (see Figure 13 below).

Figure 13: Number of measures per typology of regulatory relief in Germany



Similarly, in Spain, 8 typologies of regulatory relief are identifiable, with tax breaks being the most common. This type of incentive accounts for 33% of the total relief measures implemented in the country (see Figure 14 below).

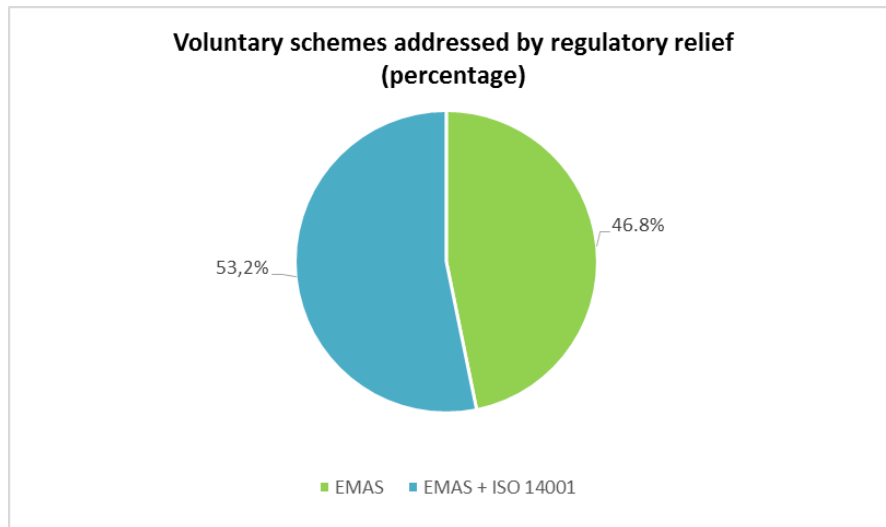
Figure 14: Number of measures per typology of regulatory relief in Spain



Some measures favour EMAS

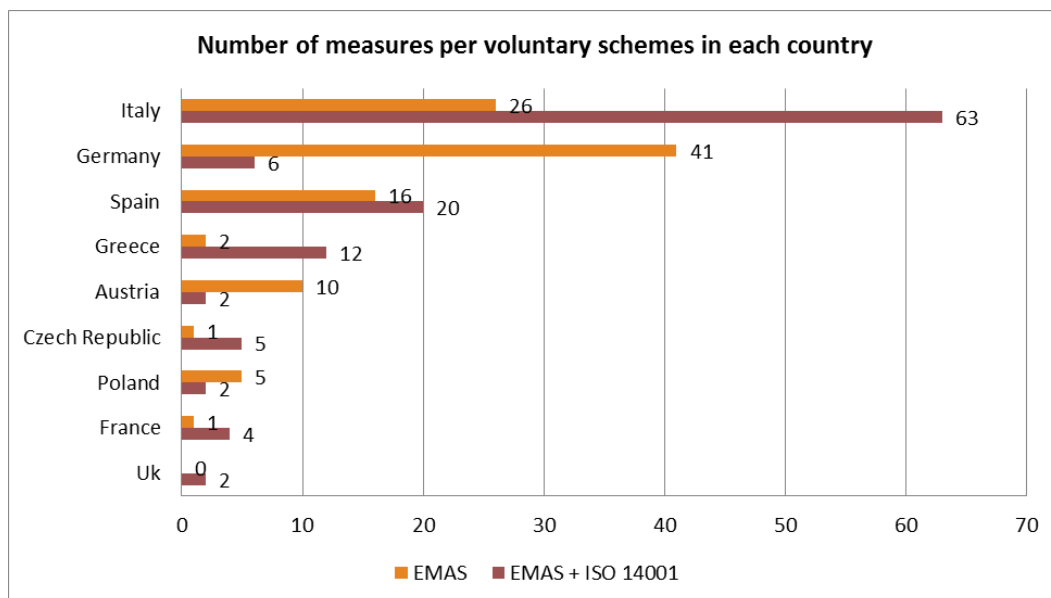
The majority of the mapped regulatory relief measures address both EMAS-registered organisations and ISO-certified organisations rather than addressing a single voluntary scheme. However, the gap is very thin, as 53% of the measures are based on EMAS and ISO 14001, while 46.6% are based on EMAS exclusively (see Figure 15 below).

Figure 15: Voluntary schemes addressed by regulatory relief



When breaking down the typologies of regulatory relief on the basis of the voluntary scheme targeted, the results strongly indicate that EMAS-registered organisations within the EU are generally favoured in terms of reductions in reporting or monitoring requirements and reductions in inspections. In particular, 87% of the reductions in reporting and monitoring requirements and 78% of the reductions in inspection frequencies are exclusively addressed to EMAS-registered organisations (see Figure 16 below). Such a discrepancy in these specific categories of regulatory relief is indeed meant to reward the “above average” efforts in self-monitoring, self-auditing and reporting prescribed by EMAS registration.

Figure 16: Voluntary schemes addressed by typologies of regulatory relief (all countries)

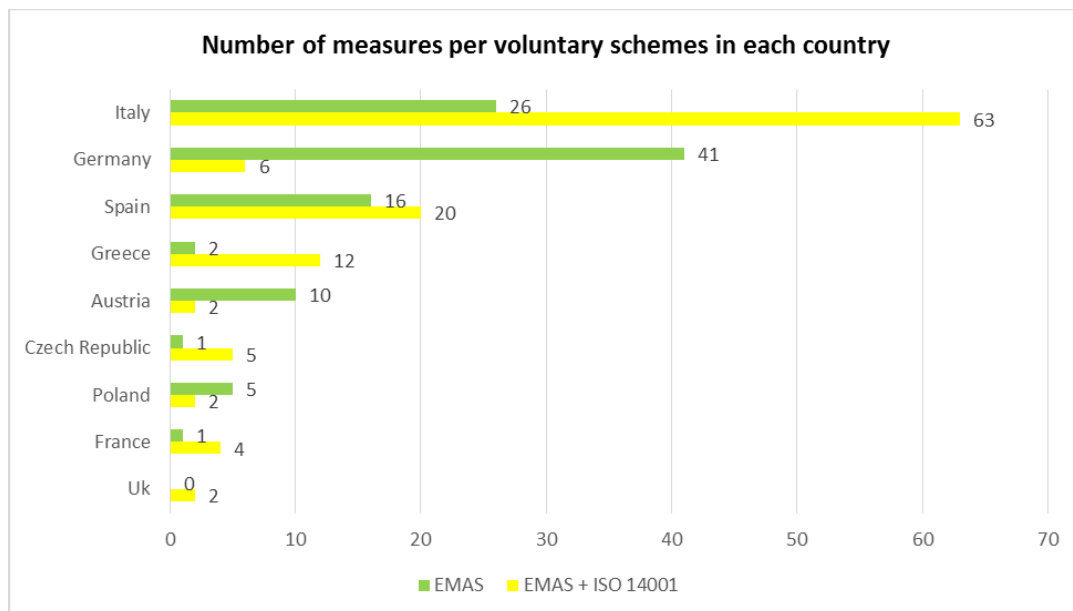


In most selected countries, the majority of regulatory relief measures are based on both EMAS and ISO 14001 standards (Figure 16). However, there are some relevant exceptions. In Germany, only six of the 47 measures currently in force also apply to ISO 14001-certified organisations, while 87% of the total regulatory relief adopted is exclusively designed for EMAS-registered organisations. This reference towards EMAS-registered organisations appears to be consistent with the country’s focus on reduction of reporting and monitoring requirements as the most implemented typology of regulatory relief (Figure 16). German poli-

cymakers display trust in the reporting requirements entailed by EMAS, as well as in the third-party verification process, by granting simplifications or exemptions in reporting obligations to EMAS-registered organisations and by valorising the EMAS environmental statement. In Austria, 10 measures out of 12 are exclusively based on EMAS.

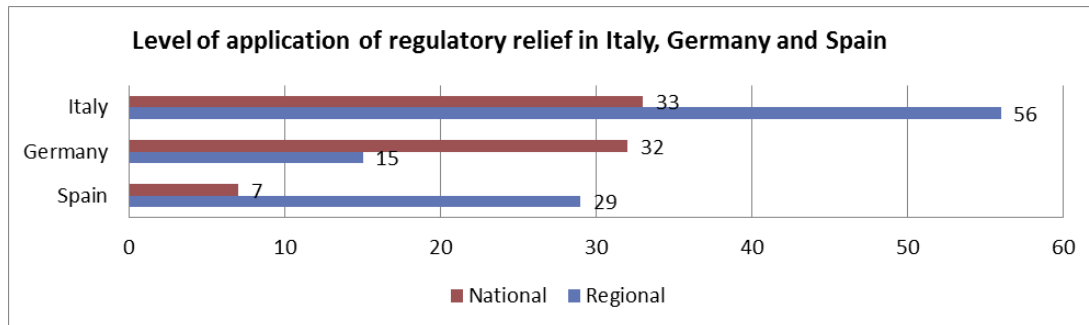
Although the distinction between measures based on EMAS and those based on ISO 14001 provides an indication of MS preferences towards one of the two voluntary schemes, it should be noted that several measures of regulatory relief based on both schemes entail larger benefits for EMAS-registered organisations than for ISO 14001-certified organisations. For instance, the Italian legislation grants to EMAS-registered organisations operating in the waste sector, and subjected to the IED Directive, a 50% reduction of the financial guarantee. According to the same measure, ISO-certified organisations can benefit from a 40% reduction in the amount of the financial guarantee. In France, authorities exempt some organisations operating under a permit for low risk activities from periodical inspections if they have EMAS. Normally, these inspections take place every ten years for organisations with ISO 14001 and every five years for all other organisations.

Figure 17: Number of measures per voluntary schemes in each country



Regional differences exist

In most of the selected countries, regulatory relief measures are applied at the national level. Even in this case, some relevant exceptions exist. In particular, in Germany, Italy, and Spain some measures of regulatory relief may only apply at a regional level (state level in the case of Germany) or, in the Italian case, even at a local level (i.e. specific to a particular province or municipality) (Figure 17).

Figure 18: Level of application of regulatory relief in Germany, Italy and Spain

This aspect depends upon regional authorities' specific legislative competences in the different MS, as seen in the previous section.

Conclusion

- The desk research mapped 219 different measures of regulatory relief based on EMAS within the selected Member States. The Member States with the highest number of regulatory relief measures are Italy (87 measures), Germany (47 measures) and Spain (35 measures);
- The Compendium identified 12 different categories of regulatory relief based on the type of benefit or simplification they provide to the beneficiary organisation. The most diffused typologies of regulatory relief are reduced reporting or monitoring requirements, which account for more than the 20% of the identified measures. Next are reductions in the financial guarantees, tax breaks and simplifications in the application for environmental permits;
- 53% of the identified measures target both EMAS and ISO 14001 adopters. The remaining 47% exclusively targets EMAS registered organisations;
- Most of the identified measures of regulatory relief are promoted and applied at national level within the Member States.
- Only in Italy and Spain, the majority of regulatory relief measures are promoted by regional authorities at the regional level;

3.3.2 Stakeholders' inputs on the adoption, satisfaction and effectiveness of regulatory relief measures

Methodology

The primary objective of this section of the report is to analyse and assess the extent of European organisations' adoption of regulatory relief measures based on certified EMS. Besides assessing the adoption of different typologies of regulatory relief, the analysis provides insights into the perceived effectiveness of regulatory relief in incentivizing EMAS registration among European organisations, as well as the benefits associated with each typology of regulatory relief in terms of cost savings.

The following analysis relies on the self-reported data collected in the RAVE surveys involving EMAS-registered organisations, ISO 14001-certified organisations, environmental verifiers and representatives of EMAS CBs. While the main focus is on the data provided by EMAS-registered respondents, the data provided by ISO 14001-certified organisations, environmental verifiers and EMAS CBs provide a benchmark for comparison and a means of

triangulation to improve the reliability and validity of data. Furthermore, excerpts from interviews with institutions and companies and summaries of interview data are integrated to further support and provide details of the surveys' results.

Results

Assessment of the adoption of regulatory relief and administrative benefits

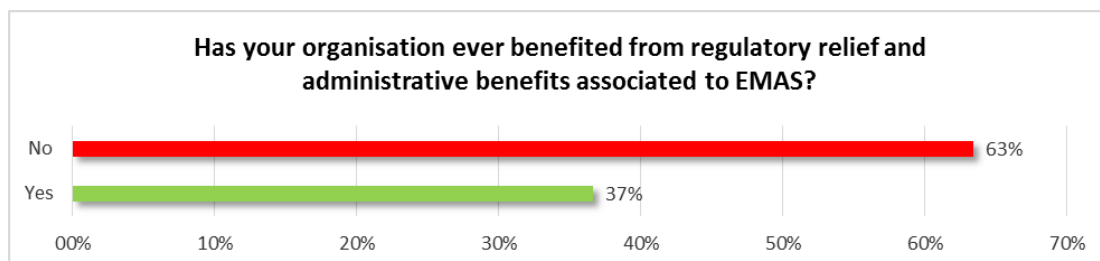
Survey of EMAS-registered and ISO-certified organisations, verifiers and MS representatives

According to the results of the EMAS-registered organisations survey (see Figure 19 below), measures of regulatory relief have only a limited diffusion. Despite the high level of regulatory relief adopted in the selected MS, the majority of surveyed EMAS-registered organisations (63.4%) declare that they have never benefited from any form of regulatory relief or administrative benefit based on EMAS. However, once such a measure is adopted, organisations tend to benefit from the regulatory relief measure in the long term. Indeed, among the percentage of respondents who benefited from regulatory relief or administrative benefits, the vast majority continue to benefit (74.6%), while only 25.4% no longer benefit from the measure or do not use it anymore (see Figure 21 below).

These results are consistent in MS characterised by a high number of EMAS registrations, namely Austria, Germany, Italy and Spain (see Figure 20). Not surprisingly, a limited diffusion of regulatory relief among EMAS organisations is exacerbated in MS characterized by a low number of EMAS registrations (such as Belgium, Bulgaria, Czech Republic, Denmark, Finland, France, Greece, Hungary, Malta, Poland, Portugal, Romania, Slovakia, Sweden and UK), where companies that have benefited from regulatory relief account only for 17.4% of respondents. Similarly, only 57.1% of the respondents in MS with few EMAS registrations are currently benefiting from regulatory relief based on EMAS, compared to 77% in MS with high numbers of EMAS registrations.

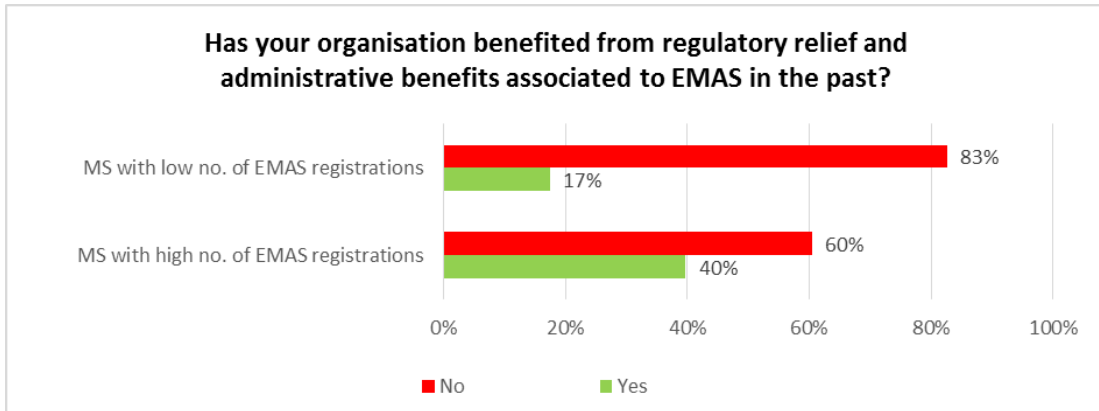
The implementation of regulatory relief based on EMAS is a recent phenomenon: the novelty of most regulatory relief may therefore partially explain such a low “abandonment rate”. On the other hand, among the potential reasons for giving up on the regulatory relief, 65% of the organisations no longer benefiting indicated that the measure was temporary, while only 5% cited the ineffectiveness of the measure itself. Another reason was given by 30% of respondents: the regulatory relief measures are not compatible with other forms of relief the organisations are benefiting from (see Figure 23 below).

Figure 19: Adoption of regulatory relief in the past, all MS



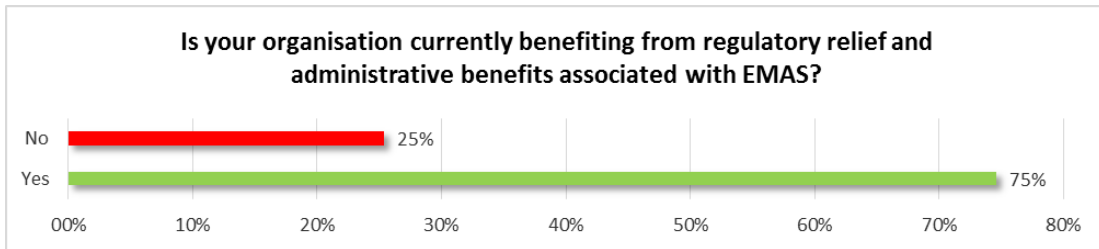
No. of respondents: 508

Figure 20: Adoption of regulatory relief in the past, MS with low and high number of registrations



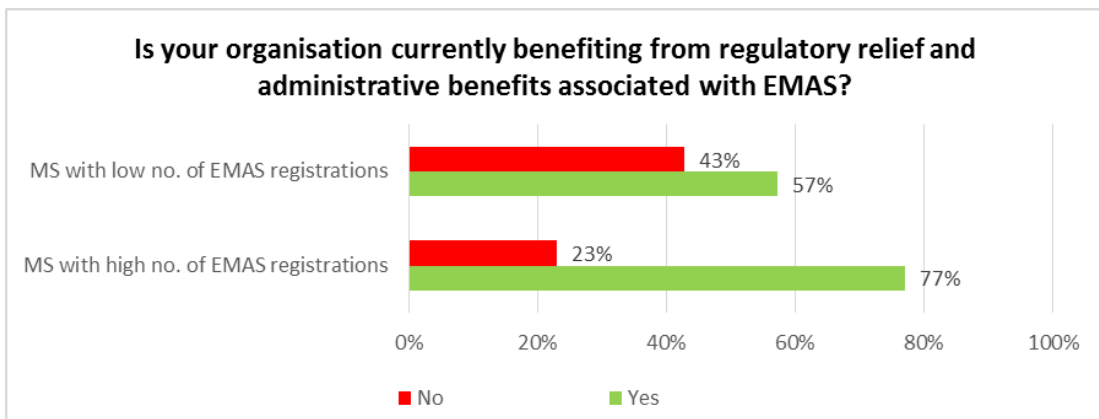
No. of respondents: 508

Figure 21: Adoption of regulatory relief in the present, all MS



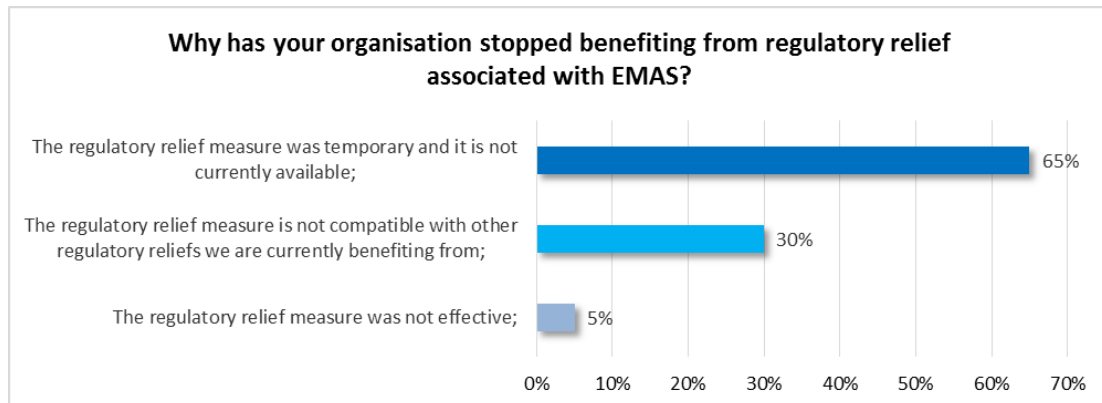
No. of respondents: 248

Figure 22: Adoption of regulatory relief in the present, MS with low and high number of registrations



No. of respondents: 248

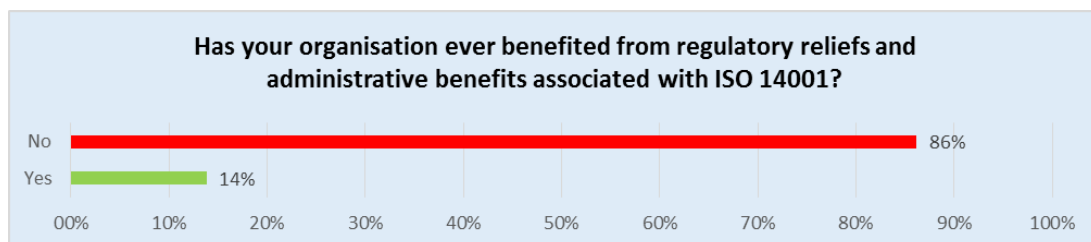
Figure 23: Reasons for dismissal of regulatory relief



No. of respondents: 20

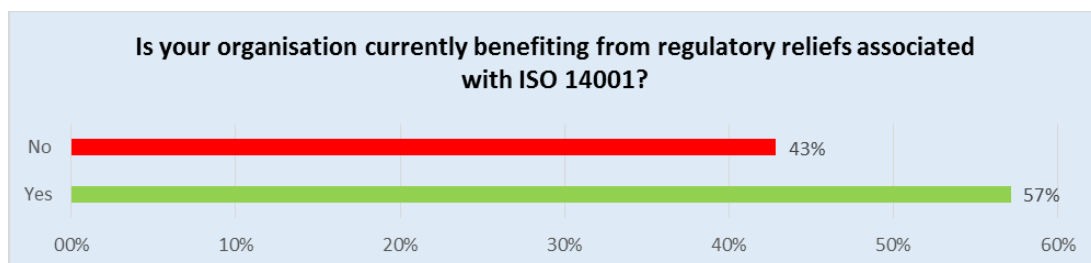
Compared to measures of regulatory relief based on the ISO 14001 standard, regulatory relief based on EMAS is considerably more widespread among European organisations. Only 14% of the surveyed ISO 14001-certified organisations have benefited from regulatory relief in the past (see Figure 24 below), amounting to less than half the diffusion of regulatory relief based on EMAS. At a first glance, this result may be attributable to a “substitution” effect dependent on the double certification of several respondents (i.e. ISO 14001 and EMAS). However, only 19.7% of the surveyed ISO 14001-certified respondents come from organisations that have been registered with EMAS in the past, thereby reducing the probability of a “substitution” effect between regulatory relief based on EMAS and that based on ISO 14001.

Figure 24: Adoption of regulatory relief in the past, ISO 14001 questionnaire, all MS



No. of respondents: 123

Figure 25: Adoption of regulatory relief in the present, ISO 14001 questionnaire, all MS



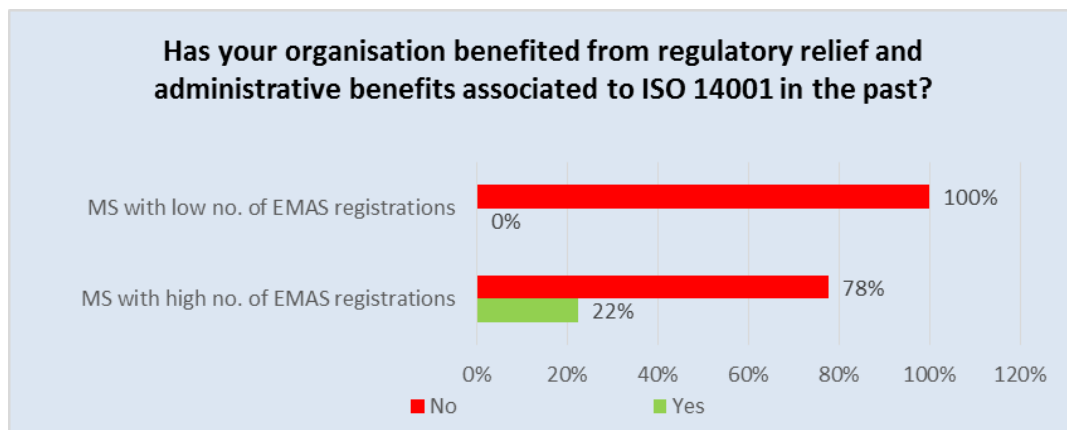
No. of respondents: 35

At first glance, measures of regulatory relief based on ISO 14001 appear to display less continuity compared with relief based on EMAS. Among ISO 14001 organisations, around half (57.1%) of the respondents who had benefited from some form of regulatory relief in the past are currently beneficiaries, while among EMAS registered organisations this figure is 74.6%. However, this conclusion no longer holds true if respondents from MS with a high number of

EMAS registrations are separated from those from MS with a low number of EMAS registrations.

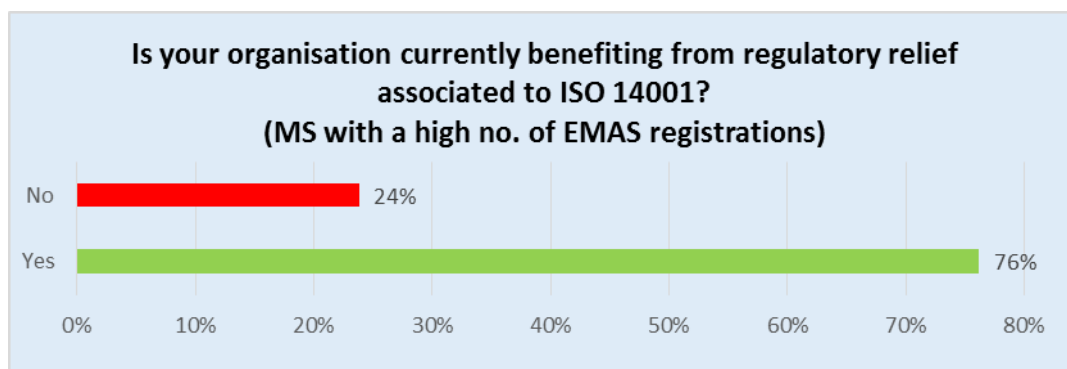
Indeed, as in the case of regulatory relief based on EMAS, regulatory relief based on ISO 14001 has a much lower rate of diffusion among certified companies operating in MS with low EMAS registration numbers. No respondents from Belgium, France, Poland, Portugal or Slovakia reported ever having benefited from regulatory relief or administrative benefits, signalling a limited diffusion of regulatory relief measures based on voluntary environmental schemes in these MS. On the other hand, only 22.4% of respondents from Italy and Spain (i.e the MS with the highest number of EMAS registrations among the respondents to this question) have benefited from regulatory relief based on ISO 14001 (see Figure 26), of which 76.2% are still receiving some regulatory relief (see Figure 27). By comparing this latter result with those of EMAS-registered organisations (in particular, Figure 21 and Figure 22), it is evident that both EMAS-registered organisations and ISO 14001-certified organisations tend to benefit from regulatory relief measures in the long term.

Figure 26: Adoption of regulatory relief in the past, ISO 14001 questionnaire, MS with low and high number of registrations



No. of respondents: 123

Figure 27: Adoption of regulatory relief in the present, ISO 14001 questionnaire, MS with high number of registrations



No. of respondents: 21

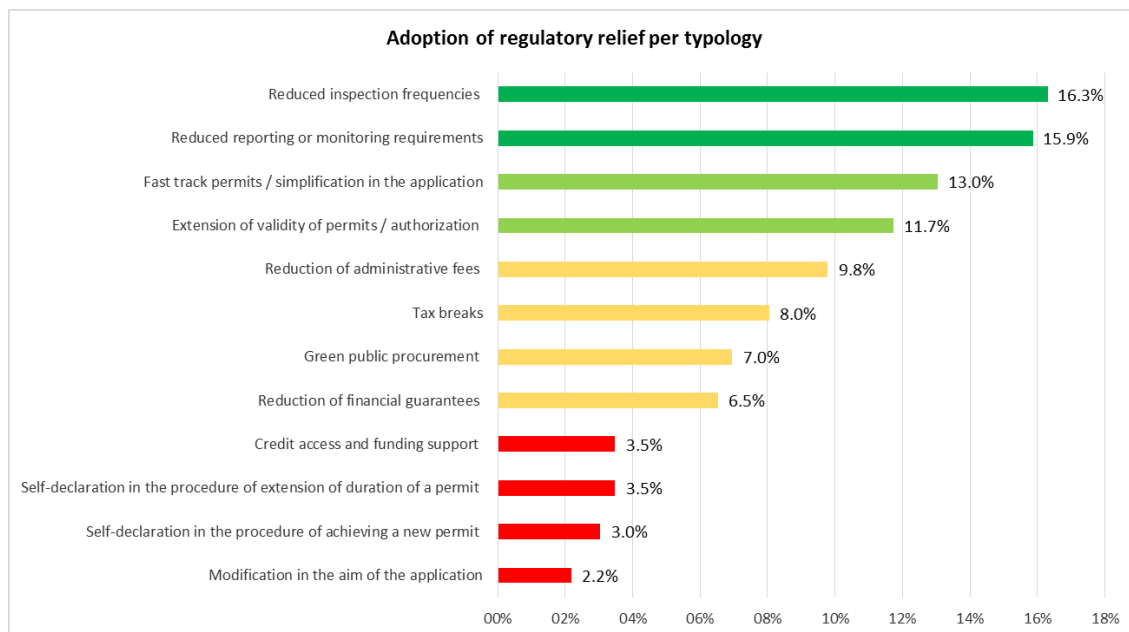
Reductions in inspection, monitoring and reporting requirements comprise the most widespread typologies of regulatory relief or administrative benefits that EMAS-registered organisations receive (see Figure 28 below). In particular, 16.3% of the surveyed respondents benefited from reduced inspection frequencies and 15.9% from reduced reporting and monitoring requirements. These measures may concern, for instance, the use of the EMAS environmental statement as a substitute for mandatory environmental documentation. These

types of measures are expected to increase in number in the coming years. In particular, the call for reducing inspections to EMAS-registered sites envisioned by the Industrial Emission Directive (IED) 2010/75/EU, which is not yet operative in several MS, is expected to increase the number of measures within this specific relief category.

The second most widespread typologies concern simplifications in the procedures for attaining environmental permits and extensions of their validity, which have been used by 13% and 11.7% of the respondents respectively. Results on the diffusion of extensions of the temporal validity of permits must take into consideration that, in several MS, authorities do not require the periodic renewal of several relevant authorisations (as, for instance, those envisioned by the IED Directive 2010/75/EU), except in cases of major modifications or renovations of the plant or site.

Following these widespread measures, we find typologies concerning reductions in direct financial expenses (such as administrative fees, taxes and financial guarantees) and preferential treatment in public procurement procedures (i.e. Green public procurement). Among the least common are facilitated access to funding opportunities (such as bank credits, loans etc.), opportunities for self-declaring environmental data during a permitting procedure and modifications in the scope of the environmental permit.

Figure 28: Adoption of regulatory relief by typology, EMAS questionnaire



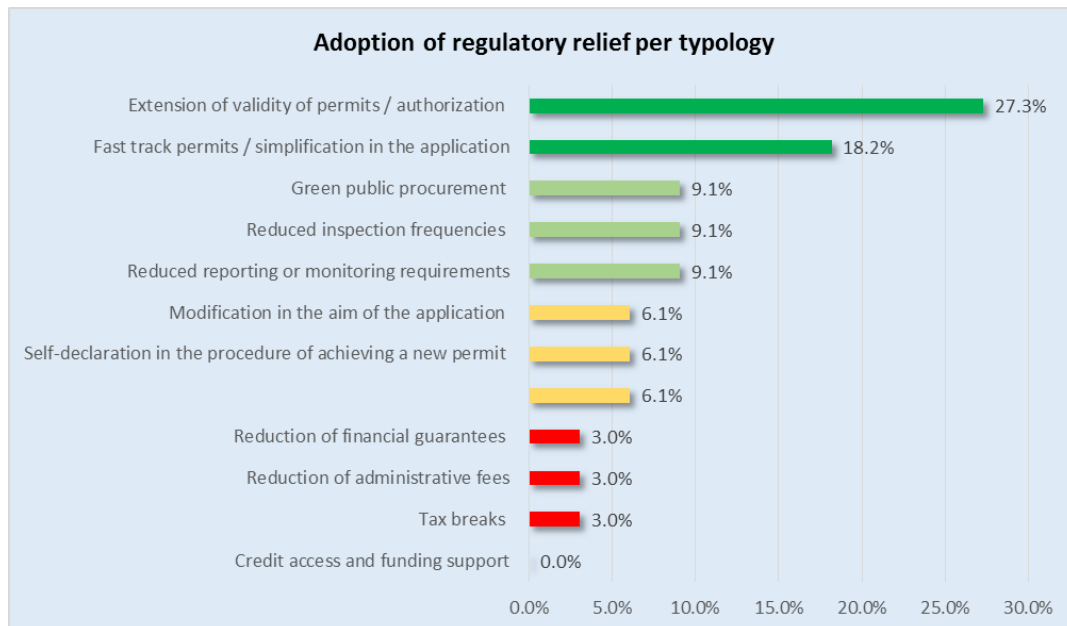
No. of respondents: 462

Relevant differences emerge from the comparison with the diffusion of regulatory relief among ISO 14001-certified organisations. First, the extended validity of environmental permits (27.3%) and simplified procedures for attaining authorisations (18.2%) appear to be the only widespread measures (see Figure 29 below). Reductions in inspection, monitoring and reporting requirements, which represent the most widespread measures among EMAS-registered organisations, have instead been adopted by only 9% of the surveyed ISO 14001-certified respondents. Financial incentives (such as tax breaks, reduced financial guarantees and administrative fees) are the least widespread.

Various reasons may account for such divergences in the level of implementation and application of regulatory relief between EMAS-registered and ISO-certified organisations. For instance, public authorities and above all European institutions might be more likely to recognize EMAS, a public instrument, as a means to easing regulations than the private stand-

ard ISO 14001. Accordingly, several EC proceedings which refer to deregulations based on voluntary EMS schemes, such as the Recommendation of the European Parliament and of the Council of 4 April 2001 on providing for minimum criteria for environmental inspections in the MS or the IED Directive 2010/75/EU, address EMAS exclusively. However, a number of regulatory relief measures compiled in this project - and the European Directives on which they are based – refer to both schemes.

Figure 29: Adoption of regulatory relief by typology, ISO 14001 questionnaire



No. of respondents: 33

Such disparities appear to suggest that, while EMAS-registered organisations can benefit from a wide array of different regulatory relief measures ranging from reduced inspections to financial incentives, the ISO 14001 certification is almost exclusively valorised in environmental permitting procedures. However, 61% of ISO 14001-certified respondents in the RAVE survey reported that they did not think EMAS registration provides an advantage in terms of receiving regulatory relief compared to ISO 14001 certification. 39% of respondents reported that they think that policymakers in their respective countries largely or slightly favour EMAS-registered organisations (see Figure 30 below). Environmental verifiers held different views: almost half of the surveyed environmental verifiers think that policymakers slightly favour EMAS-registered organisations in terms of regulatory relief, while 44.3% think there is no preferential treatment for EMAS organisations (see Figure 30). However, this result largely reflects the opinion of verifiers in Italy, as 59% of the verifiers from other MS indicate that EMAS is not favoured over ISO 14001.

Despite this prevailing perception among ISO-certified respondents and some verifiers that EMAS-registered companies do not receive greater incentives for their participation in the scheme, the mapping of existing regulatory relief has highlighted that policymakers do indeed favour EMAS compared to ISO 14001. This trend holds true both when counting the number of existing incentive measures, and also for the number of different typologies of relief. When comparing ISO 14001-certified respondents in the two different categories of MS, (i.e. MS with high number of EMAS registrations and MS with low number of EMAS registrations) it appears that perceptions vary based on the uptake of EMAS within the specific MS, and the consequent diffusion of regulatory relief based on EMAS within the country. Among the MS with a low diffusion of EMAS, 34.5% of the respondents think that EMAS is slightly or largely favoured within their respective countries; this percentage increases up to

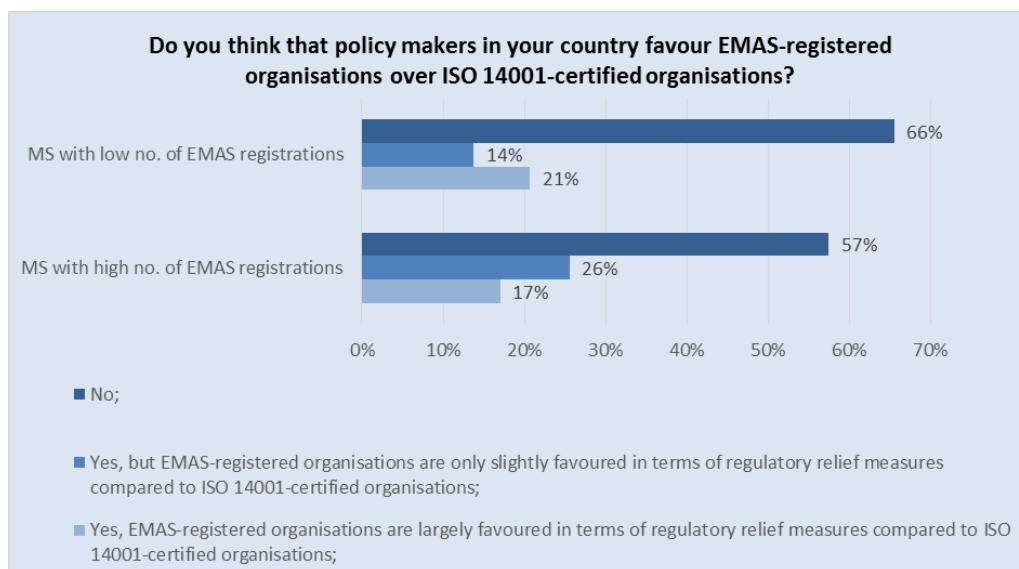
the 42% in MS with a higher diffusion of EMAS, namely Italy and Spain. Nevertheless, 57.4% of the respondents from MS characterized by a high diffusion of EMAS still do not consider EMAS as favoured compared to ISO 14001 (Figure 31). This result indicates that verifiers may be unaware of regulatory relief measures for EMAS-registered organisations or that the measures themselves are not evenly diffused and/or available throughout the respective countries. Both explanations are supported by the high numbers of regional measures in Italy and Spain (Figure 18).

Figure 30: Policymakers' preference for EMAS, ISO 14001 questionnaire, all MS



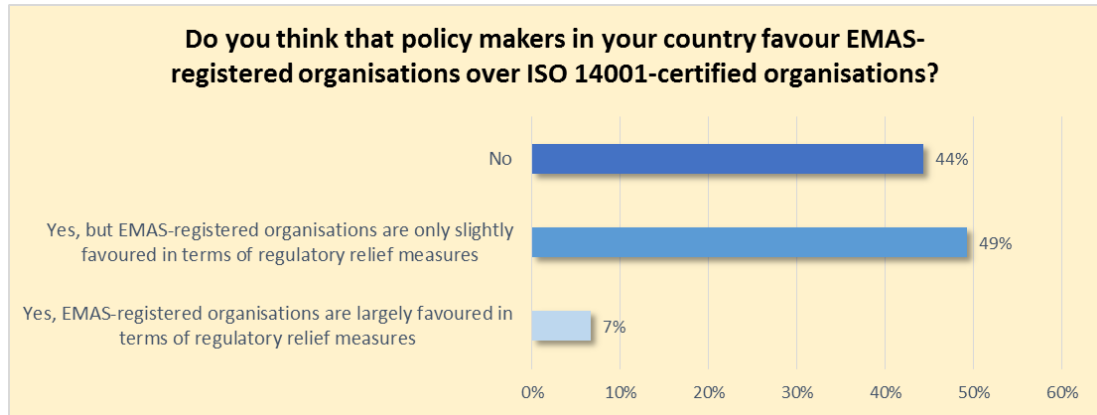
No. of respondents: 76

Figure 31: Policymakers' preference for EMAS, ISO 14001 questionnaire, MS with low and high registration numbers



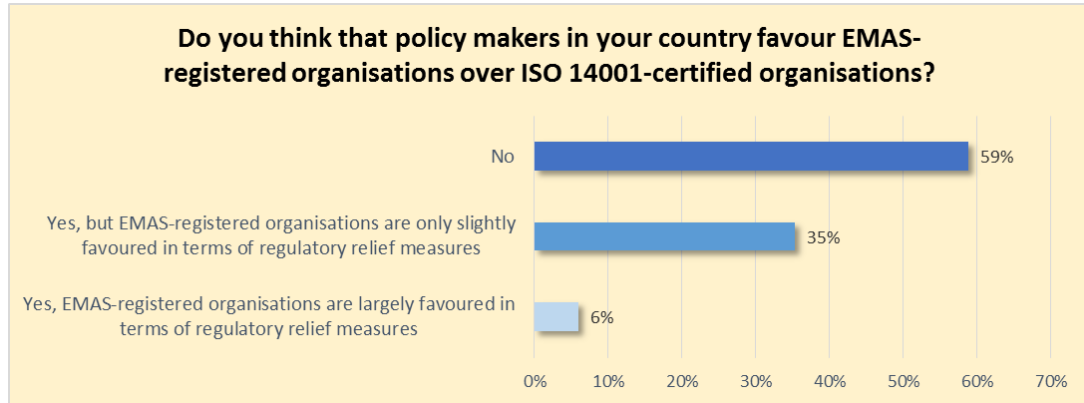
No. of respondents: 76

Figure 32: Policymakers' preference for EMAS, Environmental Verifiers



No. of respondents: 61

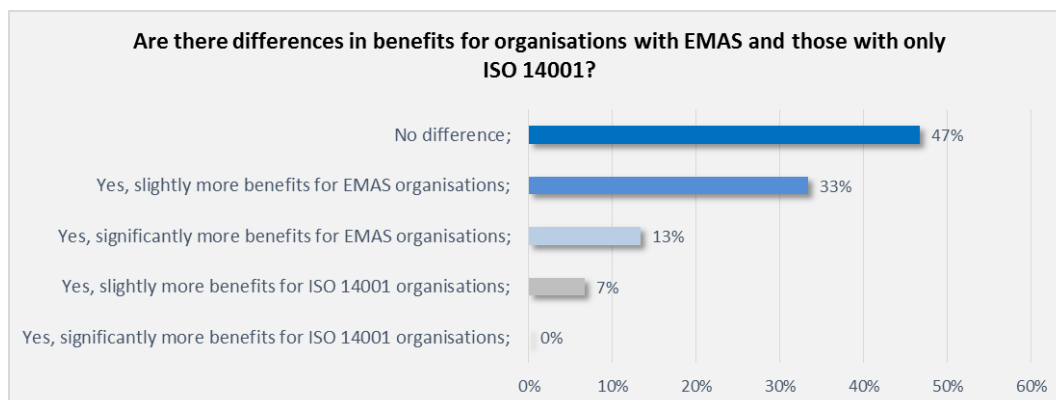
Figure 33: Policymakers' preference for EMAS, Environmental Verifiers, without responses from Italy



No. of respondents: 17

The impression that EMAS-registered organisations do not receive more regulatory relief than ISO 14001 organisations is consistent with the responses provided by MS representatives when asked if there were differences of treatment for EMAS organisations in their MS. As discussed in section 3.2.11 Survey of Member State representatives, about half of the MS indicated that they do not offer more regulatory relief to EMAS organisations.

Figure 34: Differences in benefits for organisations with EMAS, MS representatives



No. of respondents: 15

The countries with high registration numbers (Austria, Germany, Italy, and Spain) indicated that they offer more benefits to EMAS registered organisations, providing an explanation as to why the Italy-dominated responses to the verifiers’ survey more strongly reflected the opinion that policymakers favour EMAS. Again this result shows the different level of appreciation of EMAS in MS and may explain in part why these MS have higher registration numbers.

Interviews with companies, public authorities and other stakeholders

Interview data complement the results of the surveys by providing interesting insights on the reasons underlying the lack of awareness of regulatory relief based on EMAS and the non-application of such measures.

A first analysis of the interviews with companies highlights that the awareness of existing simplifications varies widely according to the role of the interviewee. In particular, while environmental managers are generally very aware of a few specific regulatory relief measures, they refer to administrative personnel for more details concerning the full array of benefits the organisation is currently receiving or has previously received. On the other hand, members of top management, such as the Chief Executive Officer (CEO), Directors or General Managers have a more limited knowledge of regulatory relief. As highlighted by some interviewed experts on the topic, this finding may suggest that a lack of coordination or communication among different organisational departments constitutes a barrier to the application of regulatory relief. For instance, the accounting department may be unaware of tax breaks for EMAS-registered companies because of a lack of awareness of the registration and lack of communication with the environmental department.

The limited diffusion of regulatory relief among EMAS-registered organisations appears to be dependent upon the structure and functioning of the regulatory framework in the individual MS. For instance, obstacles to the adoption of existing regulatory relief may arise due to a lack of vertical coordination among different administrative levels. In particular, coordination difficulties exist between the public authorities promoting a specific relief measure (usually at the national level) and the authorities that should implement and enforce it (usually at regional or local level). The cases of Italy and Germany are particularly instructive on this issue, as regional and local authorities in both countries enjoy considerable autonomy on matters of legislation and implementation. For instance, in Germany, participating organisations complain that while most of the simplification measures are based on national laws, their applicability and enforcement depends upon the individual states. Such discrepancies hinder organisations operating on the national market because, according to some interviewees, recognition of EMAS in regulatory relief measures varies widely from state to state.

Conclusion

- Measures of regulatory relief have a limited diffusion among EMAS-registered and ISO 14001-certified organisations. In particular, more than 60% of surveyed EMAS-registered organisations have never benefited from regulatory relief based on EMAS registration. However, adoption of regulatory relief measures among ISO 14001-certified organisations is considerably lower than among EMAS-registered organisations. This result suggests that regulatory relief measures are an important leverage for organisations to move from ISO 14001 to EMAS.
- Despite the discrepancy in adoption levels, ISO 14001-certified respondents do not think that more regulatory relief is available for EMAS-registered organisations. This perception varies according to the diffusion of EMAS and regulatory relief in the MS, but persists even in MS characterized by a high number of EMAS registrations;
- The most diffused regulatory relief measures among surveyed EMAS-registered organisations are reductions in inspection frequencies and reductions in reporting and monitoring requirements. Respectively, 16.3% and 15.9% have adopted these types of relief. The next most common measures are simplifications in the application for environmental permits and extensions in the validity of environmental permits.
- Interview data highlights that awareness of existing regulatory relief varies according to the role of the interviewee within the organisation. This result suggests that a lack of coordination or communication among different organisational departments is a barrier to the adoption of regulatory relief measures;
- Obstacles to the adoption of regulatory relief may also arise due to a lack of vertical coordination among different administrative levels within a Member State. Coordination difficulties exist between the public authorities promoting a specific relief and the authorities that should implement it.

Assessment of the satisfaction with regulatory relief and administrative benefits

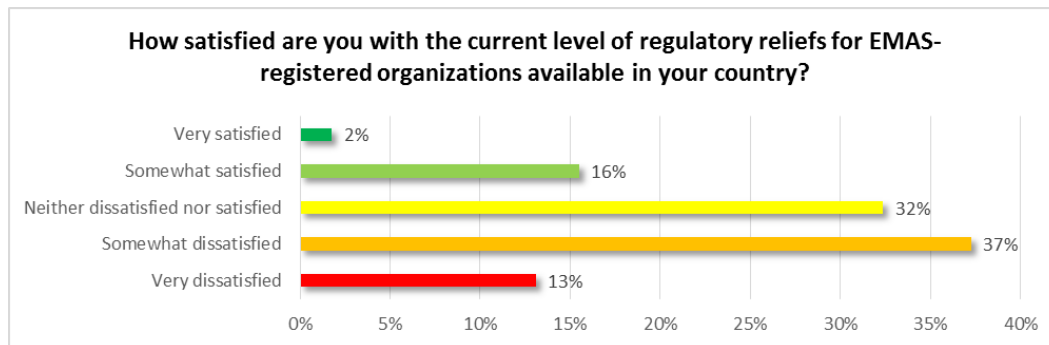
Survey of EMAS-registered and ISO-certified organisations

Further interesting insights on the potential disparities between the level of available benefits based on EMAS registration and those based on the ISO 14001 standard emerge from the assessment of organisations' satisfaction with such measures. ISO 14001-certified and EMAS-registered organisations appear to have similar perceptions of the current availability of regulatory relief measures based on EMAS within the EU. According to 47% of the ISO 14001-certified respondents, the current level of regulatory relief for EMAS-registered organisations in their respective countries is poor or very poor, while according to 51% it is average (see Figure 37). The percentage of ISO 14001-certified respondents dissatisfied with available regulatory relief is higher in MS with a low diffusion of EMAS (57.1%) compared to MS with a higher diffusion of EMAS (41.3%), signalling an association between the availability of regulatory relief within the MS and the uptake of EMAS (see Figure 36).

Similarly, 50% of the surveyed EMAS-registered respondents are somewhat or very dissatisfied with the current availability of regulatory relief in their countries, while 16% consider themselves satisfied and only 2% very satisfied (see Figure 35 below). Dissatisfaction persists even after splitting respondents according to category of MS: 50% of the respondents in both country categories are somewhat or very dissatisfied. However, the percentage of very dissatisfied respondents is considerably higher among respondents from MS with few EMAS registrations (Figure 36), confirming the previous conclusions.

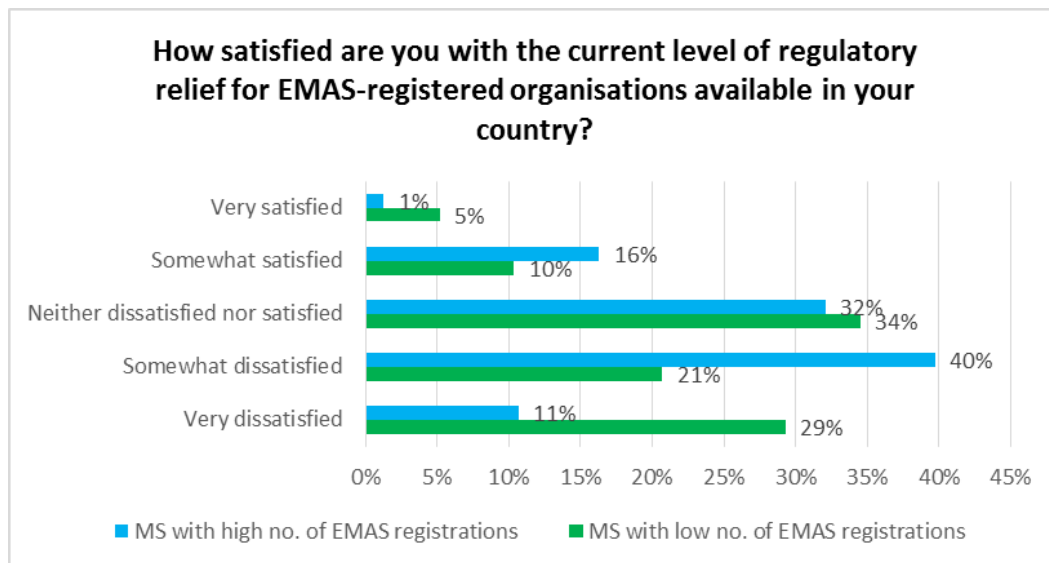
Environmental verifiers agree with the perceptions highlighted in the survey of organisations. 45.9% of the surveyed verifiers (52.9% of non-Italian respondents) consider the current level of regulatory relief based on EMAS in their respective countries to be poor or very poor (see Figure 39 below). As seen previously, Italy has more regulatory relief measures than other countries, explaining why the sample of verifiers overall expresses a higher level of satisfaction.

Figure 35: Availability of regulatory relief for EMAS, EMAS questionnaire, all MS



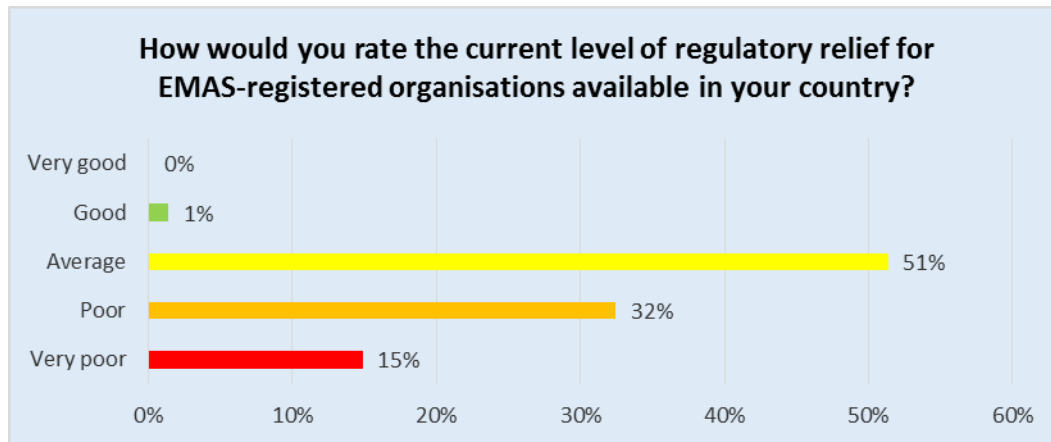
No. of respondents: 451

Figure 36: Availability of regulatory relief for EMAS, EMAS questionnaire, MS with low and high registration numbers



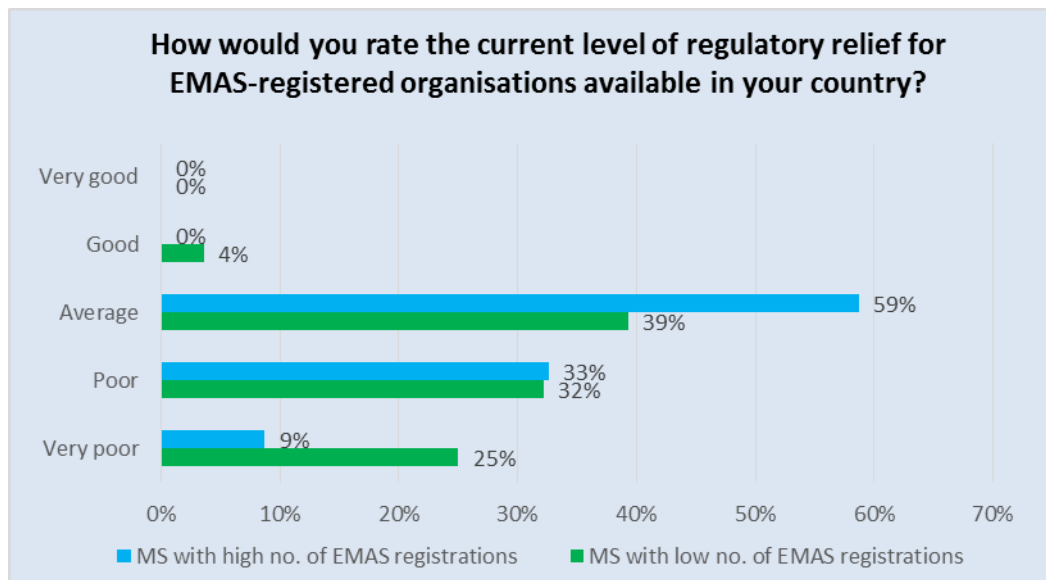
No. of respondents: 451

Figure 37: Availability of regulatory relief for EMAS, ISO 14001 questionnaire, all MS



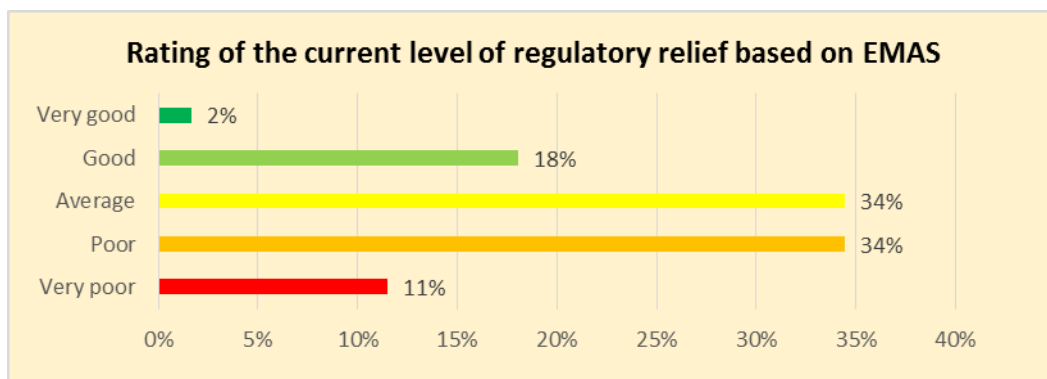
No. of respondents: 74

Figure 38: Availability of regulatory relief for EMAS, ISO 14001 questionnaire, MS with low and high registration numbers



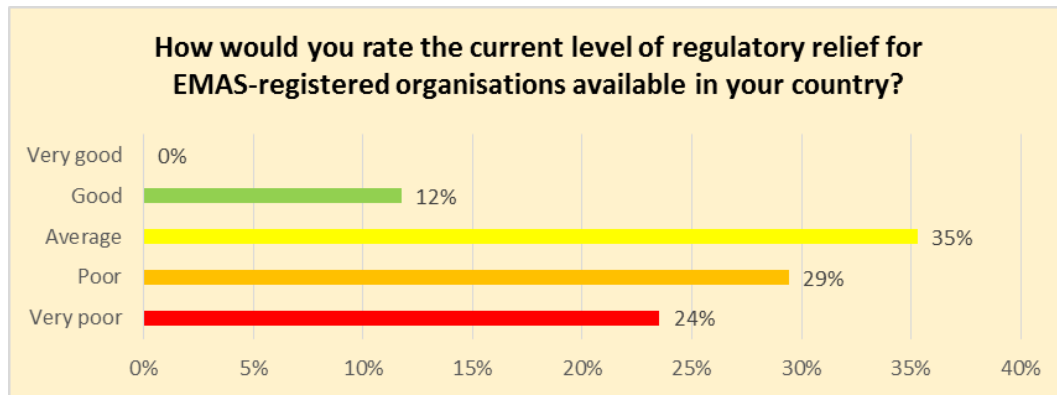
No. of respondents: 74

Figure 39: Availability of regulatory relief for EMAS, Environmental Verifiers questionnaire



No. of respondents: 61

Figure 40: Availability of regulatory relief for EMAS, Environmental Verifiers questionnaire, without responses from Italy



No. of respondents: 17

The assessment of the motives behind the decisions of ISO 14001-certified organisations not to adopt EMAS provides further interesting insights on the role of MS’s recognition of EMAS. In particular, 57.5% of the ISO 14001-certified respondents strongly agree or agree that the lack of institutional support towards EMAS registration is one reason why they decided not to adopt EMAS. Furthermore, 52.2% agree or strongly agree that the lack of external incentives, such as regulatory relief and administrative benefits, is a further relevant disincentive to EMAS adoption (Table 6). Therefore the lack of institutional support and the lack of public incentives both emerge as relevant barriers to ISO 14001-certified organisations’ adoption of EMAS, signalling a strong and unfulfilled demand for regulatory relief measures.

Table 6: Why has your organisation decided not to adopt EMAS, ISO questionnaire

Why has your organisation decided not to adopt EMAS as a further step after ISO 14001 certification? (ordered from highest agreement to lowest agreement)	Totally disagree	Disagree	Neither disagree nor agree	Agree	Totally agree
Because ISO 14001 is more compatible with my previous management system already certified such as ISO 9001;	2.7%	4.4%	15.0%	50.4%	27.4%
Because the additional efforts requested (such as the Environmental Statement) are not rewarded by extra benefits;	5.3%	3.5%	23.9%	53.1%	14.2%
Because ISO 14001 is the real global standard of reference for adopting EMS;	3.5%	8.8%	23.0%	44.2%	20.4%
Because EMAS has little support and recognition from our key institutional stakeholders (such as public authorities) if compared to ISO 14001;	3.5%	8.0%	31.0%	41.6%	15.9%

Why has your organisation decided not to adopt EMAS as a further step after ISO 14001 certification? (ordered from highest agreement to lowest agreement)					
	Totally disagree	Disagree	Neither disagree nor agree	Agree	Totally agree
Because it is not requested or appreciated by my clients;	11.5%	10.6%	22.1%	37.2%	18.6%
Due to the high additional costs and staff efforts involved in obtaining and maintaining the EMAS registration;	5.3%	10.6%	30.1%	45.1%	8.8%
Due to a lack of external incentives, such as regulatory relief or administrative benefits for EMAS if compared to the ones for ISO 14001;	3.5%	11.5%	32.7%	36.3%	15.9%
Because EMAS does not provide significant added value if compared to ISO 14001;	10.6%	9.7%	37.2%	31.9%	10.6%
Due to reasons of data confidentiality. Disclosure requirements of sensitive environmental data are too demanding;	8.0%	18.6%	43.4%	22.1%	8.0%
Because EMAS registration is managed by public authorities;	7.1%	17.7%	46.0%	23.0%	6.2%
Because I don't know EMAS very well due to a lack of communication about this tool;	8.8%	19.5%	44.2%	23.0%	4.4%
Because EMAS has little or no recognition outside Europe and my organisation operates outside the European Union;	10.6%	15.0%	52.2%	15.0%	7.1%
Because my environmental verifier suggested me not to adopt EMAS;	25.7%	32.7%	32.7%	7.1%	1.8%
Because my industrial association or external consultants suggested me not to adopt EMAS;	27.4%	35.4%	33.6%	3.5%	0.0%

No. of respondents: 113

These results, besides confirming a general dissatisfaction with the availability of public incentives and “rewards” for EMAS adoption, suggest that the lack of institutional support and regulatory relief constitutes a potential barrier to the uptake of EMAS among European ISO-certified organisations. At the same time, the results indicate that ISO-certified respondents’

lack of awareness of the existing regulatory relief measures presents a further potential barrier to EMAS adoption.

Competition with ISO 14001 emerges as a crucial issue. Indeed, 77.9% of the ISO-certified respondents agreed or strongly agreed that the compatibility of the ISO 14001 standard with previously adopted management systems, such as ISO 9001, provides a reason to remain with ISO 14001 rather than adopt EMAS. This response indicates that many ISO 14001 organisations do not perceive EMAS as being the ISO 14001 standard plus additional requirements which has essentially been the case since the incorporation of ISO 14001 into EMAS in 2001. One potential obstacle to the compatibility of EMAS with other ISO management systems may be the environmental verifier requirement, which could potentially lead to multiple audits with different auditors if the environmental verifier was not also able to certify additional ISO management systems. Furthermore, 64.6% of respondents agree or strongly agree that ISO 14001 is the real global standard of reference for EMS, suggesting that the higher awareness of the ISO standard at the international level is indeed a relevant barrier to the adoption of EMAS (see Table 6 above).

The assessment of the barriers to the uptake of EMAS among ISO 14001-certified organisations highlights the issue of the additional efforts and costs entailed in EMAS adoption. 67.3% of the respondents agree or strongly agree that the additional efforts required by EMAS adoption (such as the redaction of the Environmental Statement) are not rewarded with extra benefits. This perception further indicates that the perceived lack of “rewards” is a strong barrier. Similarly, 54% agree or strongly agree that the additional costs and efforts constitute a barrier to EMAS adoption (see Table 6 above). These results are particularly relevant as they provide indications concerning the specific costs and financial burdens that could be targeted by means of regulatory relief measures in order to provide cost-savings to already registered organisations while incentivizing EMAS adoption.

When asked about their experience or perception of the most significant additional costs associated with EMAS adoption, ISO-certified respondents indicated the costs associated with the involvement of internal staff and employees, the costs of external verifiers and the costs associated with reporting requirement entailed by EMAS (such as the environmental statement) as the three most significant cost categories. Among the least important are the registration fee, costs of internal audits and costs of communication with external stakeholders (see below). These results suggest that reducing the frequency of mandatory environmental inspections or simplifying reporting obligations by means of targeted regulatory relief measures would provide significant cost-savings to EMAS-registered organisations, while at the same time incentivizing EMAS adoption.

Table 7: Additional costs of EMAS adoption, ISO 14001 questionnaire

According to your experience or perception, what are the most significant additional costs associated with the implementation of EMAS?	
Rank	Cost items
1	Costs associated with the involvement of the internal staff and employees;
2	Costs of external verifiers;
3	Costs associated with reporting and to the publication of the Environmental Statement;
4	Costs of additional external consultancies;
5	Registration fees;
6	Costs of internal audits;
7	Costs associated with the engagement and communication with external stakeholders (e.g. authorities, local community etc.);

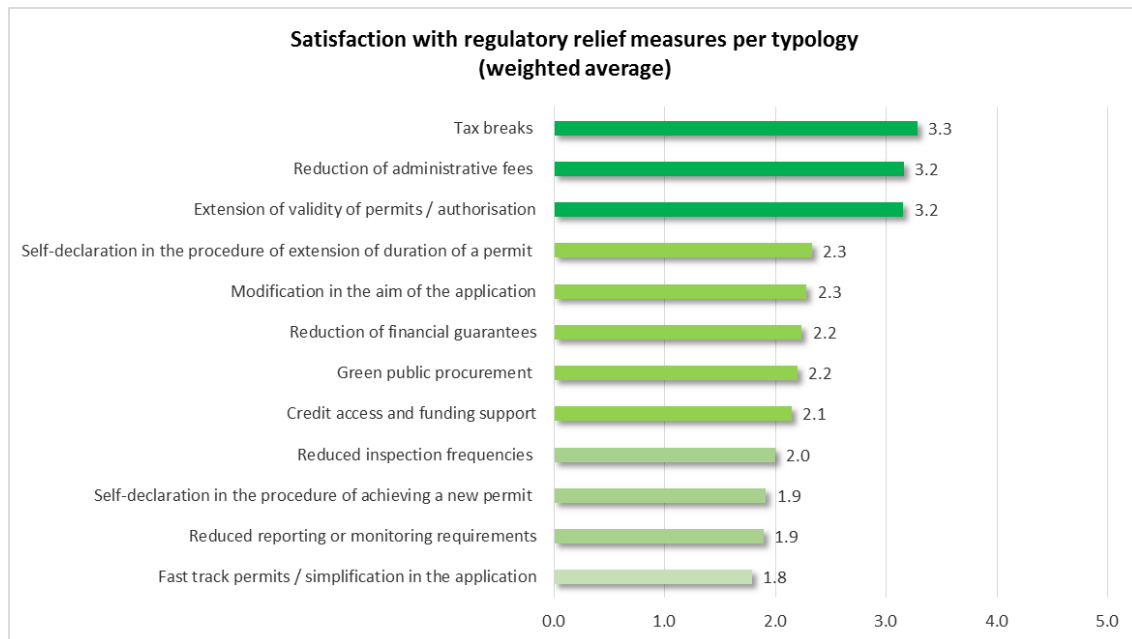
No. of respondents: 124

To estimate the satisfaction associated with each typology of regulatory relief, respondents were asked to rate their level of satisfaction on a scale from 1 to 5 for each form of regulatory relief or simplifications from which they have benefited. In the following Figure 41, a weighted average of the scores assigned to each measure is presented and the typologies of measures are displayed from the most satisfying to the least satisfying. Interestingly, the assessment suggests that the most widespread measures (such as fast-track permits, reduced monitoring and reporting requirements, and reduced inspection frequencies) are among the least satisfying. On the other hand, some forms of financial incentives (i.e. tax breaks and reduced administration fees) bring the most satisfaction, along with the extension of the validity of environmental permits (Figure 41). However, the low number of respondents who assessed their satisfaction with these measures indicate that these types of measures themselves are relatively uncommon. When looking at the most appreciated type of measure, tax breaks, respondents come mostly from Italy and Germany. Italian respondents tend to be most satisfied. German respondents also assess fast-track or simplified permits, the measure with which the fewest number are satisfied with existing provisions, more severely. 15% of German respondents indicated being dissatisfied with the current measures in this typology, with 27% neither dissatisfied nor satisfied. Because the question addressed EMAS organisations that had benefited from regulatory relief, the levels of satisfaction express mostly the opinions of organisations in MS with a higher number of regulatory relief measures, namely Austria, Germany, Italy and Spain. Organisations from other MS do not have as much – or any - opportunity to evaluate these types of measures.

These results may also suggest that some widespread measures are not considered satisfying in terms of cost effectiveness. For instance, reductions in reporting obligations may be considered insignificant compared to the additional costs and efforts of reporting and monitoring activities entailed by EMAS registration. Similar considerations may apply to reductions in the frequency of inspections when compared to the efforts entailed by the self-monitoring requirements prescribed by EMAS. Simplifications in the application for environmental authorisations or green public procurement procedures may be perceived as unsatis-

factory in that they do not imply a full valorisation of the EMAS registration in the application procedure. Instead, they entail further bureaucratic efforts.

Figure 41: Satisfaction with typologies of regulatory relief for EMAS, EMAS questionnaire



No. of respondents: 416

Conclusion

- The results highlight a general dissatisfaction with the current level of regulatory relief and administrative benefits among EMAS-registered organisations in their respective Member States. The inadequacy of the current level of regulatory relief addressed to EMAS organisations is confirmed by ISO 14001-certified respondents and by the environmental verifiers. The level of availability of regulatory relief is perceived as less satisfying in MS characterized by a lower diffusion of EMAS registrations, signalling an association between the adoption of regulatory relief at the national level and the uptake of EMAS;
- Among ISO 14001-certified respondents, the most common motives behind the decision not to adopt EMAS are: the lack of appropriate institutional support towards EMAS, the lack of extra benefits and the lack of regulatory relief. The fierce competition with ISO 14001, especially in terms of recognition and compatibility with other standards, emerges as a further relevant issue behind the limited uptake of EMAS among European organisations;
- Among the most relevant additional costs associated with the adoption of EMAS are the cost of involving the internal staff and employees, cost of environmental inspections by external verifiers and costs associated with additional reporting;
- Despite this finding, organisations report a high level of satisfaction with the following types of regulatory relief measures: tax breaks, reductions of administrative fees and the extension of the validity of permits and authorisations.

Assessing the effectiveness and benefits of regulatory and administrative relief based on EMAS

Survey of EMAS-registered, ISO-certified organisations and Member State representatives

According to the results of the survey, existing regulatory relief measures are only partially effective at driving EMAS adoption. Indeed, 43% of EMAS-registered respondents consider regulatory relief as not important or only a slightly important factor in the decision to adopt EMAS (see Figure 45 below). This finding is consistent with the pattern of registration numbers in the MS: the Compendium shows that, although some MS have regulatory relief measures in place, they still have a low number of registrations (e.g. France). While other factors drive EMAS adoption (such as, for instance, visibility and reputation), regulatory relief currently plays a more important role in the decisions to maintain and renew the EMAS registration. The degree to which organisations are aware of existing regulatory relief measures may also influence its role as a potential driver.

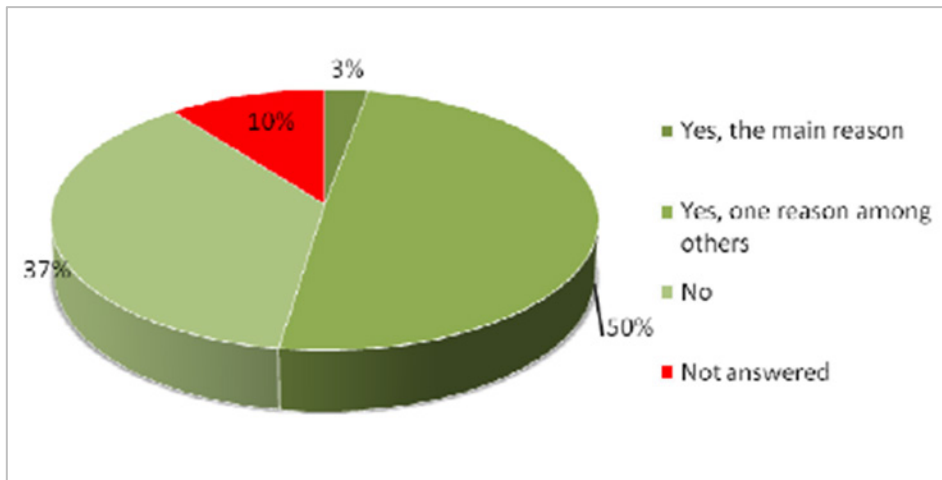
These results are supported by the EMAS Evaluation Study that, by means of a survey questionnaire, identified improved environmental performance, public reputation, enhanced legal compliance, as well as organisational and managerial capabilities, as primary drivers of EMAS adoption, while regulatory reliefs and policy measures are considered less important (see Table 8 below).

Table 8: Drivers of EMAS registration – EMAS Evaluation Study (2014)

EMAS and drivers	Value
<i>To improve my organisation's environmental performance</i>	4.24
<i>To improve my organisation's public reputation</i>	4.23
<i>To contribute to a more sustainable world by reducing our environmental impact</i>	4.20
<i>Better management and guarantee of legal compliance</i>	4.10
<i>To improve organisational and managerial capabilities in the environmental area</i>	3.93
<i>To demonstrate legal compliance status to the public</i>	3.89
<i>To have a uniform environmental management standard that is recognized across the EU (i.e. more visible than national or local standards)</i>	3.78
<i>To achieve better risk management and environmental liability prevention</i>	3.73
<i>To improve relations with the local community</i>	3.50
<i>To improve the quality of products/services offered to the market</i>	3.05
<i>To gain benefits from regulatory relief or other policy measures (e.g. tax breaks, less frequent inspections by authorities)</i>	2.99

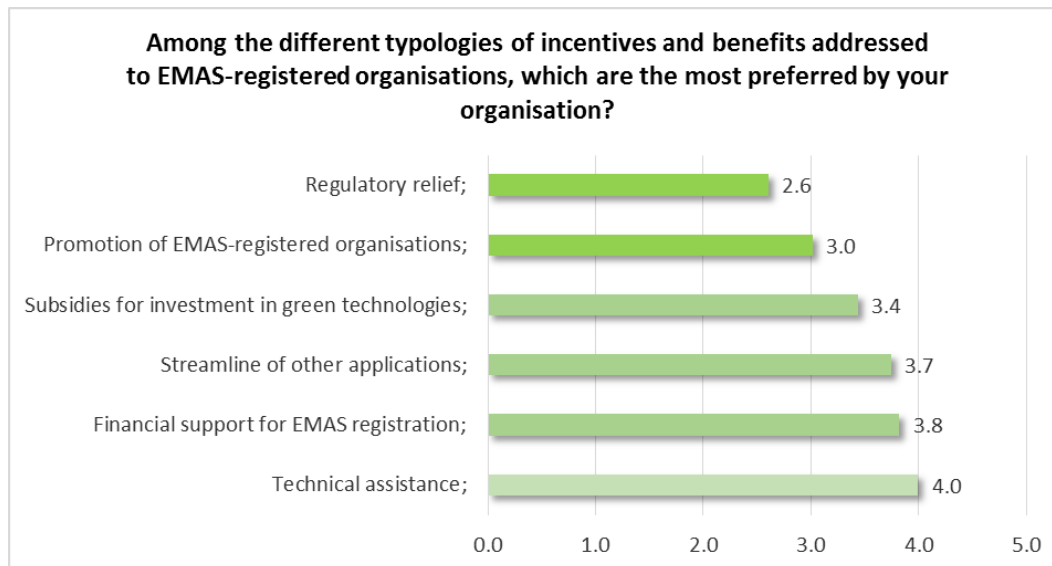
These results correspond to evidence collected in a survey during the LIFE BRAVE project in 2013. According to the results of that survey, only 3% of the respondents indicated measures of regulatory relief as a main reason underlining EMAS adoption; 50% of the sample stated that regulatory relief measures were one of several reasons, while 37% stated that regulatory relief measures did not rank among their motives for registering with EMAS. However, this lack of driving influence reflects regulatory relief measures in their current form. Such measures can potentially play a crucial role in supporting EMAS registrations.

Figure 42: Are regulatory relief measures a reason for obtaining EMAS? – LIFE BRAVE (2013)



Regulatory relief is not the only typology of public incentive aimed at supporting the adoption of voluntary environmental schemes. EMAS-registered respondents were asked to rank six different types, from the most appreciated to the least appreciated. According to the survey, regulatory relief measures are indeed the most appreciated form of public incentive addressed to EMAS-registered organisations (see Figure 43 below). The pro-active promotion of participating organisations emerged as the second most appreciated form of public incentive. This result is indeed confirmed by several interviews with companies, which complained about a lack of institutional support in terms of promotion and recognition, as well as a lack of promotion of the scheme itself. Subsidies for investments in green technologies are assigned to the third position in the rank.

Figure 43: Most favoured incentives based on EMAS, EMAS questionnaire

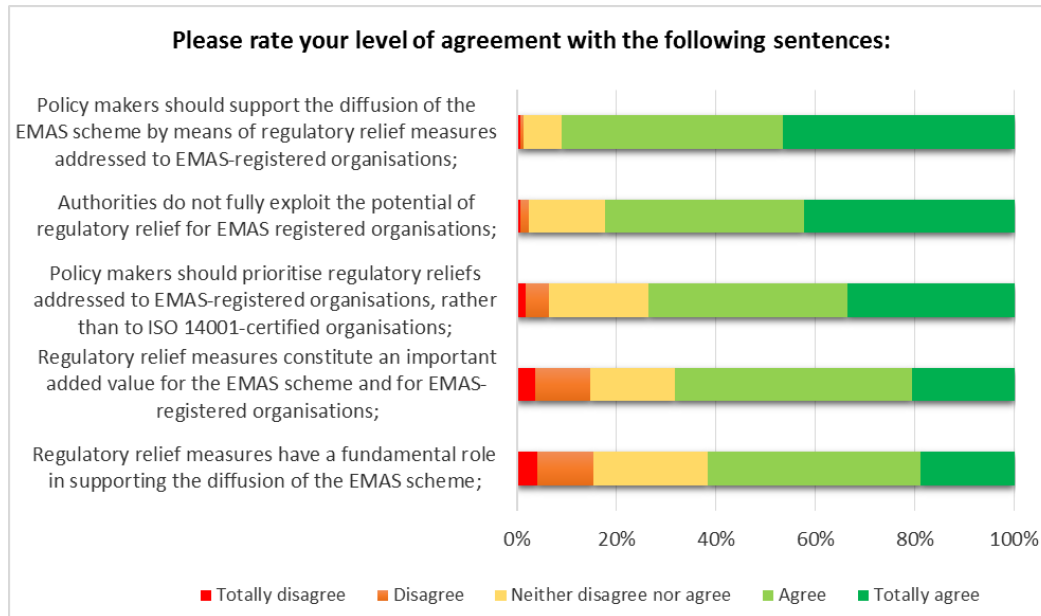


No. of respondents: 411

EMAS-registered organisations also express strong agreement with the need to incentivise the diffusion of EMAS through regulatory relief measures, and with the importance of these measures in supporting the scheme. According to 91.2% of surveyed respondents, policy-makers should indeed adopt relief measures based on EMAS as an incentive for EMAS registrations. Similarly, the vast majority (over 80%) of EMAS-registered respondents either

strongly agree or agree that the EU and Member States are not fully exploiting the potential of regulatory relief measures in driving EMAS adoption.

Figure 44: Relevance of regulatory relief measures for EMAS diffusion, EMAS questionnaire

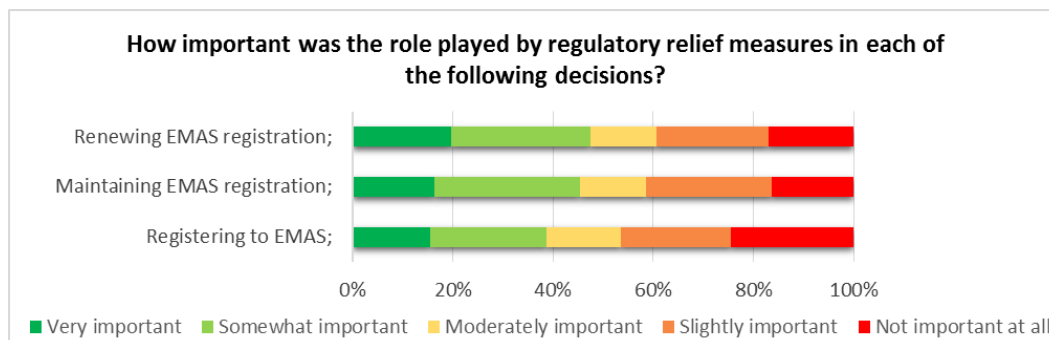


No. of respondents: 170

Looking at the results from the survey of ISO-certified organisations, regulatory relief also does not currently appear to be the main driver for the adoption of an EMS (see Figure 46 below). However, in the case of ISO 14001 certification, regulatory relief plays a considerably more important role both in the adoption of the standard and in subsequent decisions to maintain and renew the certified EMS. In particular, 61% of the surveyed ISO 14001-certified organisations ascribe a somewhat or very important role to regulatory relief in the decision to adopt the certification. This percentage reaches 72.2% in the decision to renew the certification.

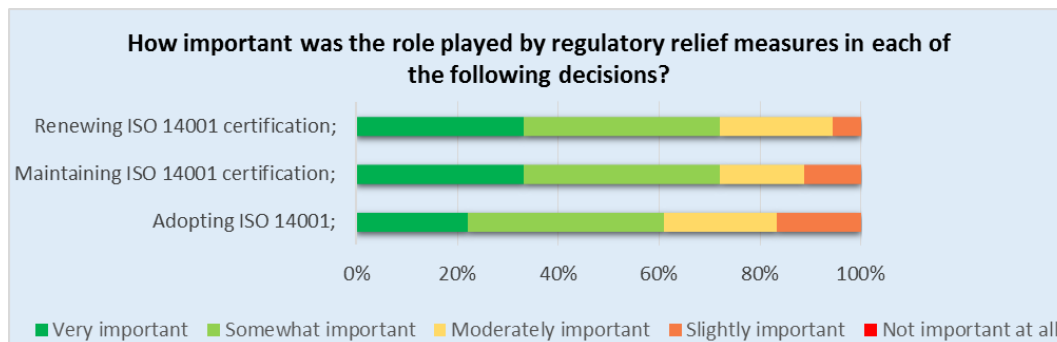
These results are not surprising, given that EMAS constitutes a subsequent step to the compliance with ISO 14001 standard’s requirements. Consequently, the adoption of a certified EMS based on the ISO 14001 standard requires more organisational efforts, in marginal terms, compared to the EMAS registration, and is therefore more prone to be driven by public incentives.

Figure 45: Effectiveness of regulatory relief, EMAS questionnaire



No. of respondents: 167

Figure 46: Effectiveness of regulatory relief, ISO 14001 questionnaire

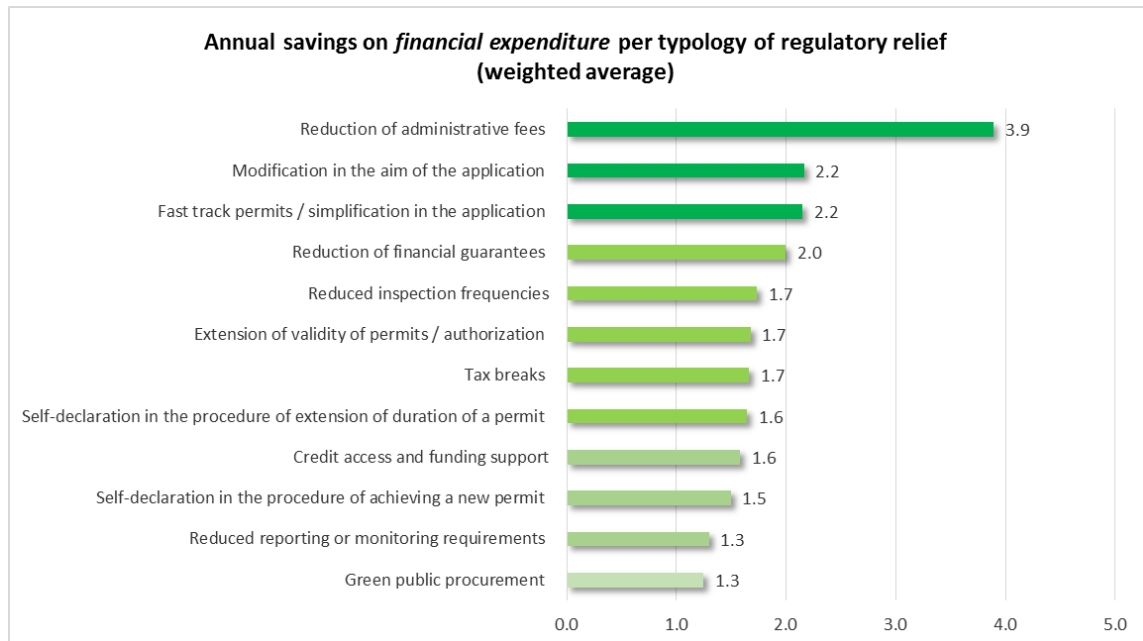


No. of respondents: 18

In order to detail further the effectiveness of the different typologies of regulatory relief, the survey asked EMAS-registered respondents to provide estimates of the benefits, in terms of cost savings achieved annually thanks to each typology of regulatory relief they had benefited from. Cost savings were divided into the following categories: reduced direct financial expenditures, reduced administrative staff cost, reduced technical staff costs and reduced external consultancies. While reduction of financial expenditures were expressed in absolute monetary terms, savings on the other cost items were expressed as percentages of the total annual expenditure on the same cost item before the application of the regulatory relief measure. The following graphs display the weighted average of the cost savings estimates in order to facilitate the comparison between the different typologies of regulatory relief.

When considering savings on financial expenditure, reduction of administrative fees emerges as the most effective measure. Indeed, 30% of the respondents who benefit from reduced administrative fees based on EMAS report annual savings in the range of €40,000 to €50,000. This result complements and supports the satisfaction assessment (Figure 41), according to which reduced administrative fees rank second. Interestingly, the modification of the scope of environmental permits and simplification in permitting procedures are also among the most effective measures in terms of savings on financial expenditures, suggesting that these measures entail discounted fees compared to regular procedures. On the other hand, reduced financial guarantees do not appear particularly effective, as only 28% of respondents report annual savings higher than €5,000. Similarly, despite the satisfaction assessment confirming tax breaks as the most satisfying measure according to EMAS-registered respondents, tax breaks appear to be mediocre in terms of savings on direct financial expenditure (see Figure 47 below).

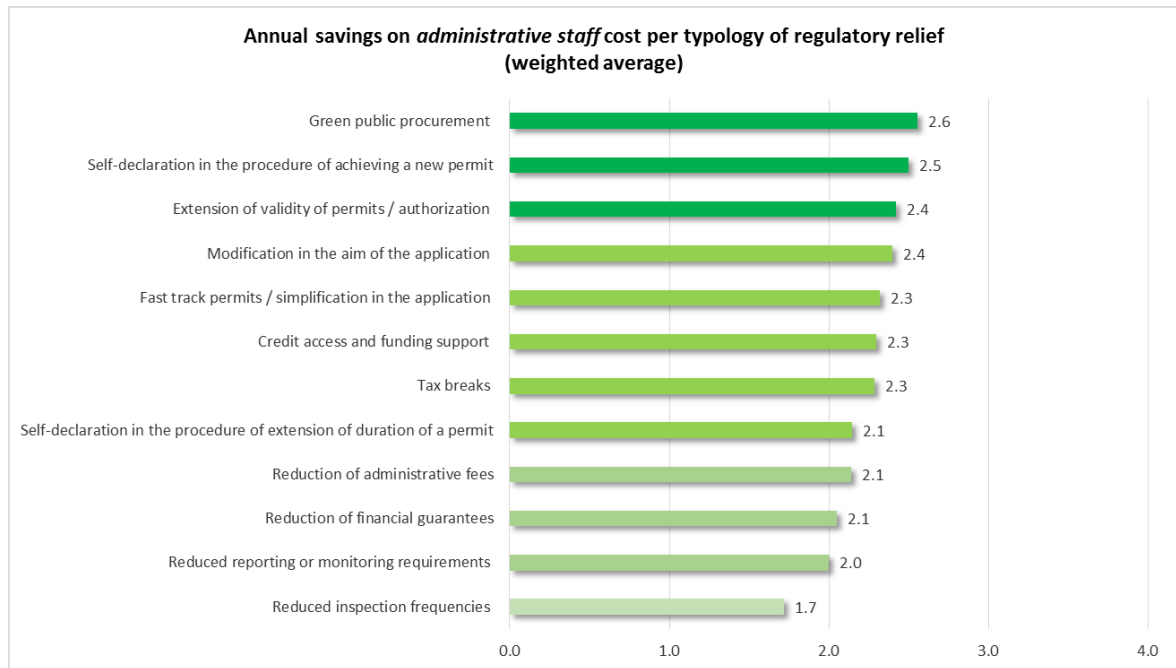
Figure 47: Savings on financial expenditure, EMAS questionnaire



No. of respondents: 91

Not surprisingly, the estimates of the cost savings associated with administrative staff highlight simplifications of bureaucratic duties as the most effective measure. In line with the results of the satisfaction assessment, extensions of the validity of environmental permits and modifications in the scope of permits are among the most effective regulatory relief measures in terms of savings on administrative costs. Interestingly, green public procurement procedures emerge as the most effective measure in terms of administrative cost savings, as 18.2% of the respondents report substantial annual cost savings on this particular cost item (i.e. more than 50% of the total annual expenditure before the introduction of the regulatory relief).

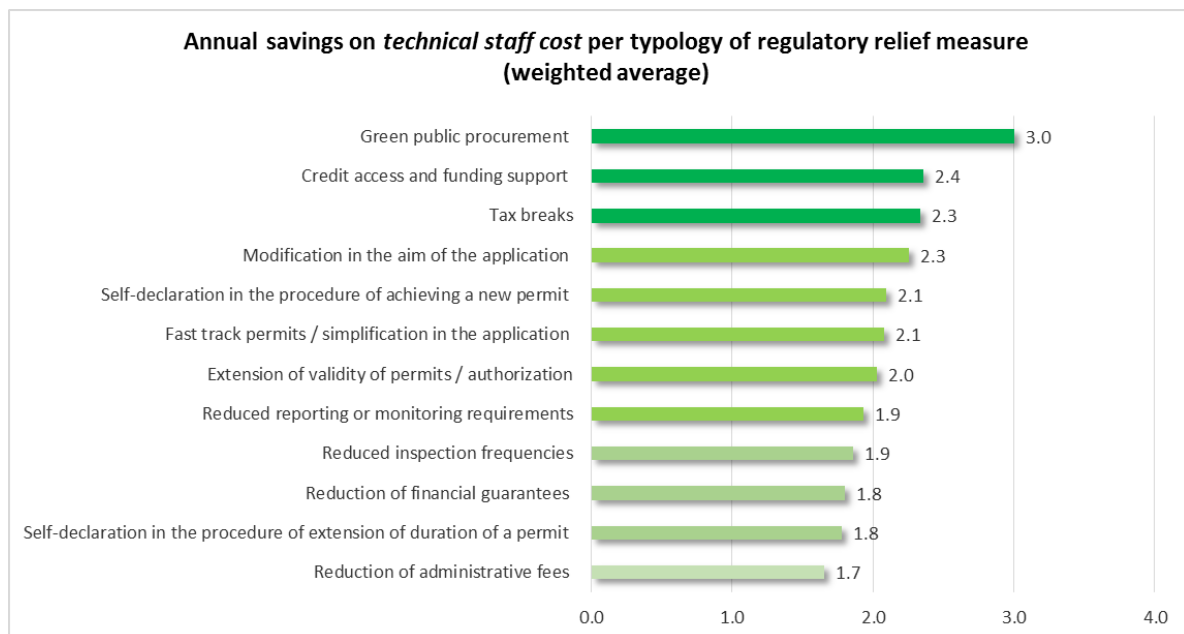
Figure 48: Savings on administrative staff costs, EMAS questionnaire



No. of respondents: 168

Green public procurement procedures are also the most effective measures in terms of savings on costs associated with technical staff, as 20% of the EMAS-registered respondents report saving more than 50% of the total expenditure on this cost item, before the application of environmental criteria in public tenders. As in the case of administrative staff costs, simplifications of bureaucratic duties emerge as particularly effective.

Figure 49: Savings on technical staff costs, EMAS questionnaire

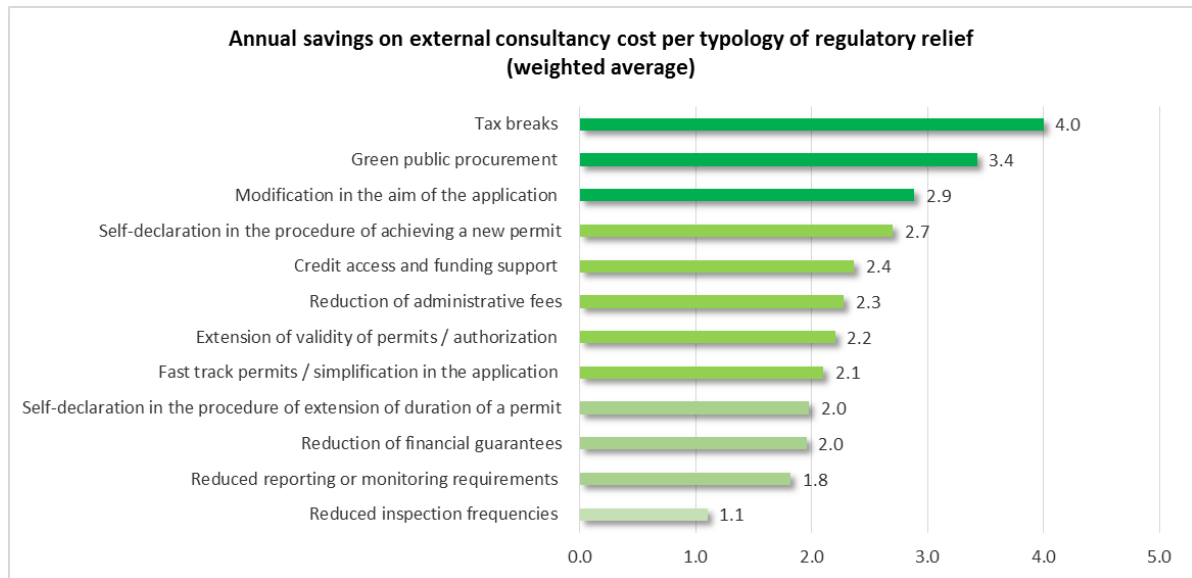


No. of respondents: 162

Turning to reducing expenses on external consultancies, tax breaks are very effective, as 15.4% of the respondents report annual cost savings in the range of 70% to 90% of the total

expenditure prior to the measure’s introduction. Again, even in the case of this costly item, green public procurement procedures and simplifications of bureaucratic / administrative duties (i.e. modifications in the aim of the application, self-declarations in authorisations etc.) are among the most effective measures.

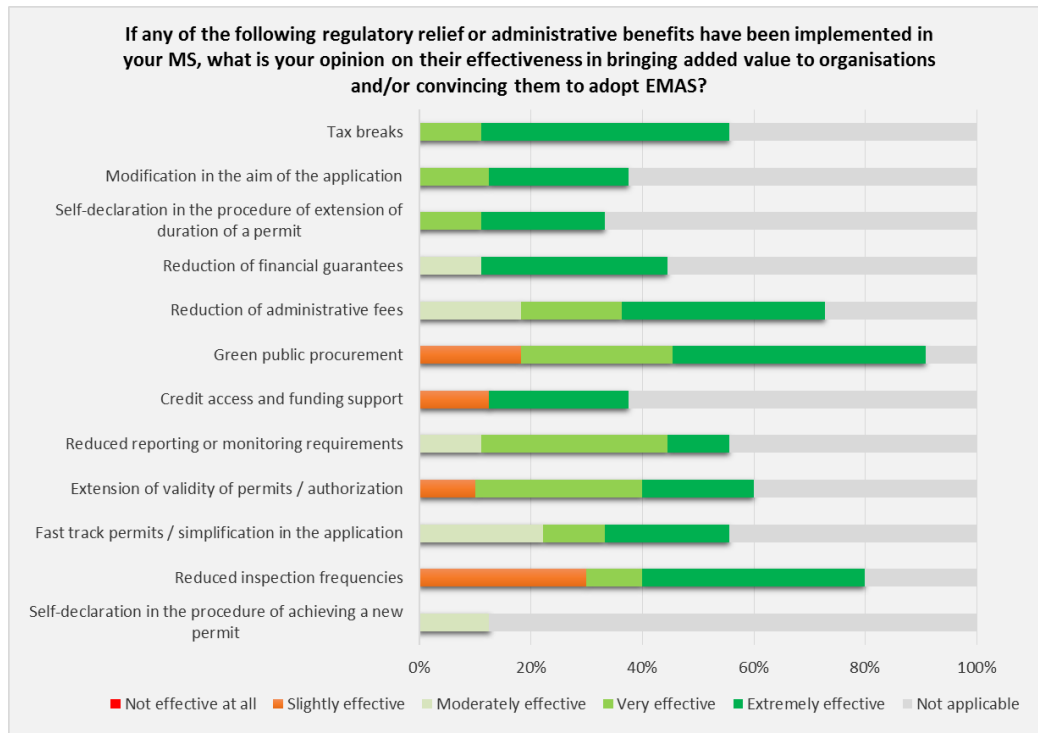
Figure 50: Savings on external consultancies costs, EMAS questionnaire



No. of respondents: 164

According to MS representatives, tax breaks, modifications in the aim of the application (i.e. increasing thresholds that determine specific legislative scopes), and self-declarations in the procedure of applying for new permits, comprise the regulatory relief measures that are most effective in bringing added value to organisations. This opinion is largely consistent with the cost savings indicated by EMAS organisations. The main exception is self-declaration, which ranks high in savings from external consultancies but lower in terms of savings on financial and staff expenditures.

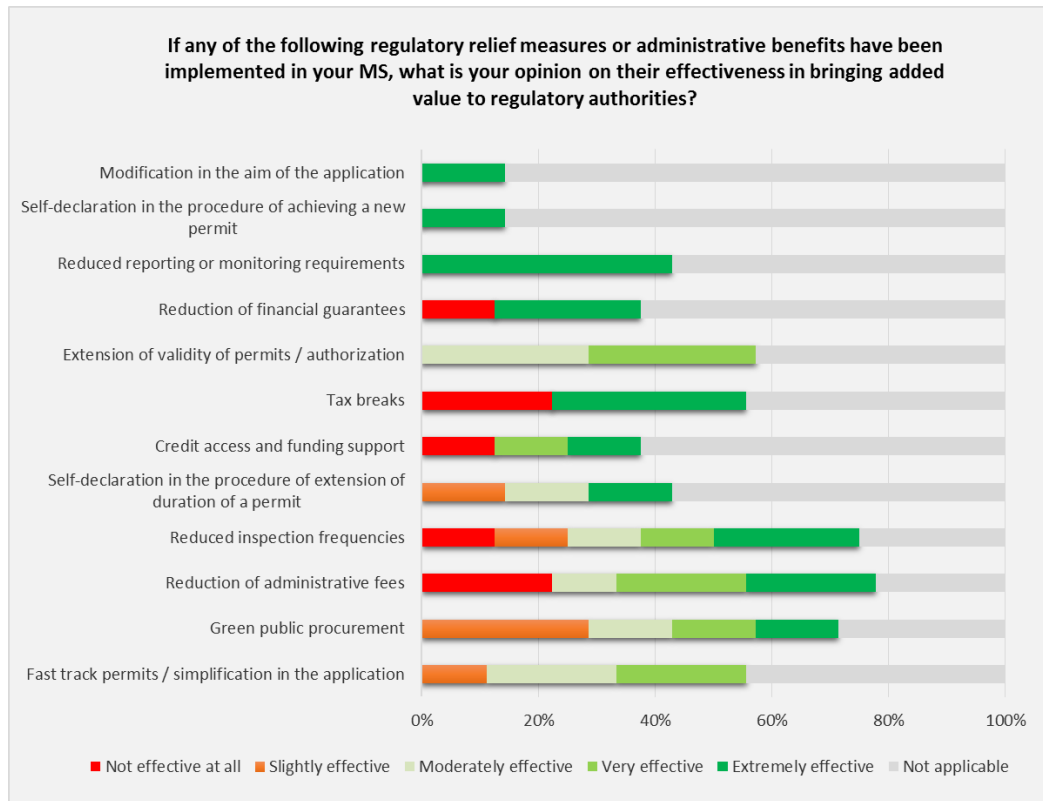
Figure 51: Effectiveness of regulatory relief in bringing added value to organisations, MS questionnaire



No. of respondents: 10

Additionally, public authorities can also benefit from regulatory relief if, for example, they save time or resources on inspections. MS representatives also were asked to assess the effectiveness of regulatory relief from the point of view of regulatory authorities. The question received few responses and the answers vary considerably, but the responses received indicate broadly that some regulatory relief measures have high potential for bringing added value to regulatory authorities. For example, reduced monitoring requirements could save resources for regulatory authorities. This opportunity will be discussed further in Chapter 4, *Facilitating reporting to authorities through EMAS*.

Figure 52: Effectiveness of regulatory relief in bringing added value to regulatory authorities, MS questionnaire



No. of respondents: 10

Interviews with corporate and institutional stakeholders

Interviews with corporate stakeholders support the results of the surveys regarding the effectiveness of measures of regulatory relief. In particular, environmental managers indicate that regulatory relief is currently a secondary driver of EMAS adoption. **Transparent communication, visibility, reputation (especially for large organisations), credibility and legitimacy** emerge as the top priorities underlining EMAS registration (see Table 9 below). Enhancing internal managerial capabilities appear as a minor driver of EMAS adoption too. Indeed, according to several interviewees, EMAS added value is limited in terms of environmental management capabilities, if compared to the ISO 14001-based EMS. However, some interviewees, especially SMEs, do not agree with this opinion and report some internal organisational benefits associated with EMAS, especially in terms of compliance with environmental regulations.

Table 9: Main drivers of EMAS adoption

Main drivers of EMAS adoption			
ID	Description	Subject interviewed	Answer
EMAS Company 1	Large multi-utility company in Italy	Environmental Manager	<i>“Without any doubt, the first reason is communication. We chose EMAS registration because of the possibility to actively and transparently communicate to the public and to all stakeholders on the environmental performance of our plants. [...] This</i>

Main drivers of EMAS adoption			
ID	Description	Subject interviewed	Answer
			<i>is without any doubt the principal reason. Then, of course there are several economic drivers, such as the regulatory relief we benefited from, but communication is the most important reason."</i>
EMAS Company 2	Small company located in UK	Environmental Manager	<i>"We see it as the GOLD standard in best environmental practice, our goal was to demonstrate a leadership position in our industry – EMAS supports this objective. It's transparent and requires specific measurable objectives that actually make a real difference."</i>
EMAS Company 3	Small company operating in the waste sector in Italy	Environmental Manager	<i>"Certifications drive the organisation towards a more structured management with pre-determined prerequisites, which benefit the internal organisation of the company. This is the first reason. Second is the external visibility for commercial purposes, as clients request such prerequisites. Third is the visibility to institutions with the aim of creating awareness of registered companies in order to benefit from relief and simplifications."</i>
EMAS Company 4	Large manufacturing company in Germany	Environmental Manager	<i>"We decided to adopt EMAS because we were already ISO 14001-certified and we realised that, with EMAS, we could achieve further advantages in terms of compliance with energy management regulations and with the auditing process"</i>
CB			<i>"Regulatory relief is not really the biggest driver behind EMS and EMAS. The real benefit is how you are managing performance and generating reliable data and information. That allows businesses to benefit over the long term, not just through short term regulatory relief."</i>

Source: Various stakeholders

However, when asked about the role of regulatory relief in providing a motivation for the maintenance and renewal of the registration, **a number of interviewees agree that measures of regulatory relief are an important argument for registration**. This latter perception is widespread among most categories of stakeholders, including companies, CBs and trade associations. This result indeed further supports the survey results. In this sense, regulatory relief does not currently always push EMAS registrations, but it consistently helps to keep organisations in the system (see Table 10 below).

Table 10: Do you think the regulatory relief is able to affect the decision to maintain EMAS?

Do you think that regulatory relief is able to affect the decision to maintain EMAS?				
ID	Description	Subject inter-viewed	inter-viewed	Answer
EMAS Company 4	Large manufacturing company in Germany	Environmental Manager		<i>“Yes, the tax rebate is the main reason we can justify EMAS financially. Without it, we would still have an EMS but not be EMAS-registered and not go through the burden of making the environmental statement.”</i>

Source: EMAS-registered-organisations

Besides supporting the uptake of the scheme, public incentives, especially regulatory relief, represent a form of institutional support from public authorities aimed at rewarding participating organisations for their efforts, as well as increasing the visibility and consideration of the scheme itself. **The widespread perception of a lack of institutional support among interviewed EMAS-registered organisations therefore further indicates the low diffusion and effectiveness of existing regulatory relief based on EMAS.** According to most interviewees, institutional support for EMAS is scarce because institutions and authorities and civil society actors have only a very low level of awareness of the scheme (see Table 11 below).

Table 11: Does EMAS adoption increase institutional support?

Does EMAS adoption increase institutional support (i.e. from EC, national and local authorities)?				
ID	Description	Subject inter-viewed	inter-viewed	Answer
EMAS Company 1	Large multi-utility company in Italy	CEO		<i>“We expected a higher level of attention and sensitivity from public administrations and from citizens (committees). Very few people are aware of what an EMAS certification is. EMAS is not well-known and that is one of the main barriers to uptake of the scheme”</i>
EMAS Company 3	Small company operating in the waste sector in Italy	Environmental Manager		<i>“Regarding the institutional response to EMAS registration in the national and local context, we didn’t experience a very positive response because institutions and stakeholders do not support and facilitate registered organisations in the way European policymakers probably expected when they created EMAS. This situation is evident if you look at the ancillary documents that are required by institutions for different authorisations (e.g. transportation, impact on the soil). We didn’t find any simplification concerning these authorisations associated with EMAS registration.”</i>

Does EMAS adoption increase institutional support (i.e. from EC, national and local authorities)?			
ID	Description	Subject inter-viewed	Answer
CB			<i>“EMAS is usually perceived by companies as an advantage relating to public administrations (advantages in terms of participation to call for bids, public tender). In this framework, the fact that public administrations appreciate EMAS suppliers is usually taken for granted. But actually, there are not real and concrete advantages linked to EMAS [...] The approach towards EMAS is conservative in term of rules and controls. However, EMAS is not a mandatory tool and for this reason it does not guarantee anything at 100%”</i>

Source: Various stakeholders

In some MS characterised by a low number of registrations, stakeholders perceive the lack of institutional support to be connected with the overall attitude of public authorities towards corporate environmental management and with a general mistrust towards the industrial sector. According to some interviewees, public authorities mostly care about companies' regulatory compliance with minimum requirements, rather than rewarding good environmental performance. As a result, authorities lack interest in EMAS and other voluntary schemes and do not require EMAS as an ancillary piece of documentation in mandatory annual reports. Stakeholders perceive this lack of interest to be connected with the low level of communication and endorsement by European institutions and the subsequent lack of information and knowledge at regional and local level concerning the role, purpose and features of the scheme.

On the other hand, in MS with a higher rate of registrations, participating organisations seem to perceive higher trust in the scheme and better consideration of EMAS as a reliable guarantee of virtuous environmental management. This variation results from both institutional and market stakeholders' having a higher level of awareness of the third-party verification requirements. The higher recognition is reflected in a high number of regulatory relief measures (as in the case of Italy and Germany). Nevertheless, as suggested by quotations in Table 11, even in those MS, respondents do not consider institutional support satisfactory because of the limited effectiveness of many regulatory relief measures.

Furthermore, on the market side, stakeholders still perceive that awareness of the scheme is mostly limited to big international players, even in MS with high numbers of EMAS registrations. Consequently, EMAS is sometimes perceived as a “certification for insiders”, i.e. more suitable to big international companies than to SMEs tied to the national market. According to this reasoning, big companies can easily benefit from the boost in competitiveness associated with EMAS and therefore capture the connected market benefits by operating at a larger European scale. As a result, the lack of institutional support works against EMAS-registered SMEs that are not able to fully exploit the competitive dynamics associated with registration.

Regulatory relief could also bring benefits to regulatory authorities. Some MS that have implemented regulatory relief report a lower administrative burden connected to certain measures. For example, the Catalonian CB indicated that “EMAS organisations tend to have better prepared documentation and evidence of compliance, so the renewal procedures of licenses/authorisation require less time and therefore less work on the part of the administration.” According to a MS representative in Andalusia, EMAS is a way of saving resources

and therefore justifies regulatory relief such as fewer inspections: “We have limited resources and we need to optimize them, so considering that EMAS companies have a follow up by the EMAS verifiers and that they present a lower risk, it is reasonable that when defining the inspection programme one of the criteria that we take into account is EMAS”. EMAS also decreases costs related to pollution for public authorities. One stakeholder reported “EMAS companies allow us to reduce the “social costs” of pollution. Because they reduce these costs for the local community they can be entitled to tax breaks”. The reasons for implementing specific regulatory relief measures will be discussed in Chapter 3.5. **From the interviews, however, it appears that regulatory relief could be a win-win situation for organisations and public authorities.**

Conclusion

The assessment of the effectiveness of regulatory relief suggests that these measures are currently not particularly effective at driving EMAS adoption, but instead are important factors in determining continuity of the registration and adherence to the scheme. The current state (number and effectiveness) of regulatory relief measures based on EMAS is not satisfactory. 63% of surveyed EMAS-registered organisations have never benefited from any regulatory relief measures. For this reason, EMAS registered organisations do not consider these measures as drivers.

Regulatory relief measures nonetheless have a high potential to drive EMAS registrations. EMAS-registered organisations indicated that regulatory relief is the most desired form of public incentives aimed at supporting or rewarding EMAS adopters. A vast majority (over 80%) of EMAS-registered organisations think policy makers do not fully exploit this potential. ISO 14001 organisations also confirm that the lack of institutional support is a barrier to the adoption of EMAS.

The results of the effectiveness assessment corroborate and integrate the findings of the satisfaction assessment. In particular, tax breaks are ranked first in terms of satisfaction. Although they are not very effective at reducing direct financial expenditure, tax breaks emerge among the most effective at reducing technical staff costs and expenditure on external consultancies. Reductions in administrative fees, ranked second in terms of satisfaction, are indeed very effective at cutting direct financial expenditure. Similarly, extensions of the validity of permits, ranked third in the satisfaction assessment, score relatively high on administrative cost savings.

On the other hand, other simplifications of bureaucratic / administrative duties (such as modifications in the scope of permits, self-declarations in the application for permits, fast-track permits) appear to be quite effective in terms of cost savings, but score low in terms of satisfaction. This discrepancy may indeed confirm a low cost-effectiveness ratio between the outcomes of these measures and the costs associated with EMAS adoption, maintenance and renewal. Similar considerations may apply to green public procurement procedures. Despite these measures ranking among the most effective measures in terms of technical, administrative and consultancy cost savings, organisations do not appear particularly satisfied with them.

In line with the results of the satisfaction assessment, reduced inspection frequencies and monitoring requirements - the two most widespread regulatory relief measures among the surveyed EMAS-registered organisations - emerge to be among the least effective measures in terms of cost savings.

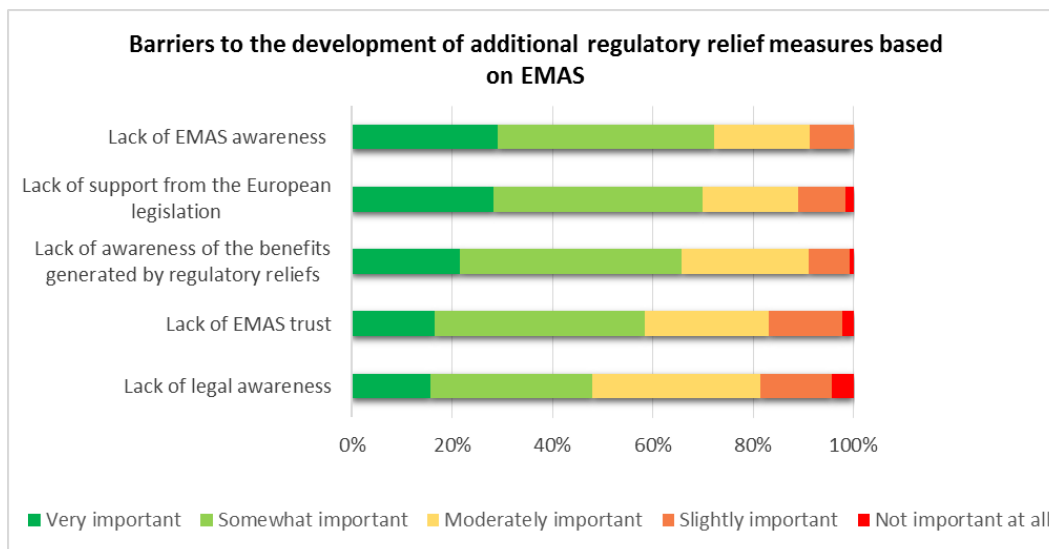
When looking at the effectiveness of regulatory relief in bringing added value to authorities, it appears that reduced monitoring requirements, simplified permit procedures and reduced inspections could also save resources for authorities.

3.3.3 Assessing barriers to and pitfalls of the adoption and development of regulatory relief and administrative benefits

Survey of EMAS-registered organisations, ISO-certified organisations, environmental verifiers and Member State representatives

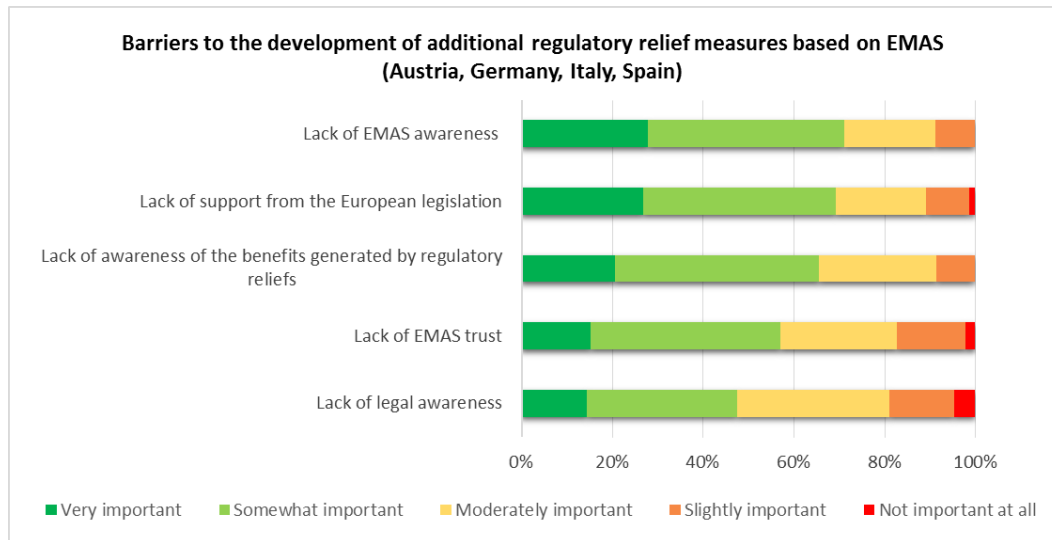
The results of the surveys highlight somewhat divergent opinions concerning the barriers that hinder the development of regulatory and administrative relief based on EMAS by European policymakers. According to a vast majority of EMAS-registered respondents, the lack of awareness of EMAS constitutes a somewhat or very important barrier (see Figure 53 below). This result suggests a perceived lack of communication concerning the role and significance of the scheme at EU level, which is also reflected in the perceived lack of proactive policy support from European institutions and lack of a coherent integration of EMAS into European legislation. This result is indeed confirmed by considering the different diffusion of EMAS in the MS of the respondents. Both in MS characterized by a widespread diffusion of EMAS and in MS with a lower number of EMAS registrations, the vast majority of EMAS-registered respondents agree or strongly agree on the lack of EMAS awareness as a barrier to the development of additional measures of regulatory relief. In particular, in MS with a high diffusion of EMAS (i.e. Austria, Germany, Italy and Spain), 71.2% of the respondents agree or strongly agree on the lack of EMAS awareness, while in MS with a lower diffusion of EMAS, this percentage increases to 80.8%.

Figure 53: Barriers to the development of regulatory relief, EMAS questionnaire, all MS



No. of respondents: 416

Figure 54: Barriers to the development of regulatory relief, EMAS questionnaire, MS with high registration numbers



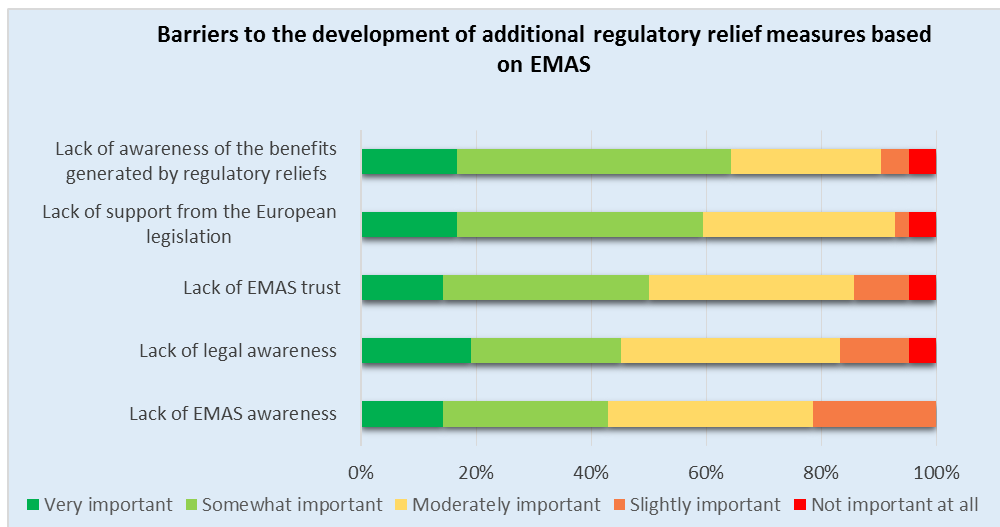
No. of respondents: 364

MS representatives share the same perspective on potential barriers. In particular, results of the survey highlight that national policymakers are frequently unaware of the legal compliance requirements and third-party audited reporting obligations that EMAS registration entails (Figure 58). The lack of awareness of benefits for authorities is ranked third. Finally, turning to the state of European legislation, MS representatives agree that the lack of examples of regulatory relief in European legislation constitutes a barrier to the implementation of regulatory relief measures among MS. MS representatives and other stakeholders mentioned all of these barriers frequently in interviews as well.

On the other hand, both ISO 14001-certified organisations and environmental verifiers disagree that a lack of EMAS awareness at the European level constitutes a significant barrier (see Figure 55 and Figure 56 below). They do, however, agree on the lack of support from European legislation.

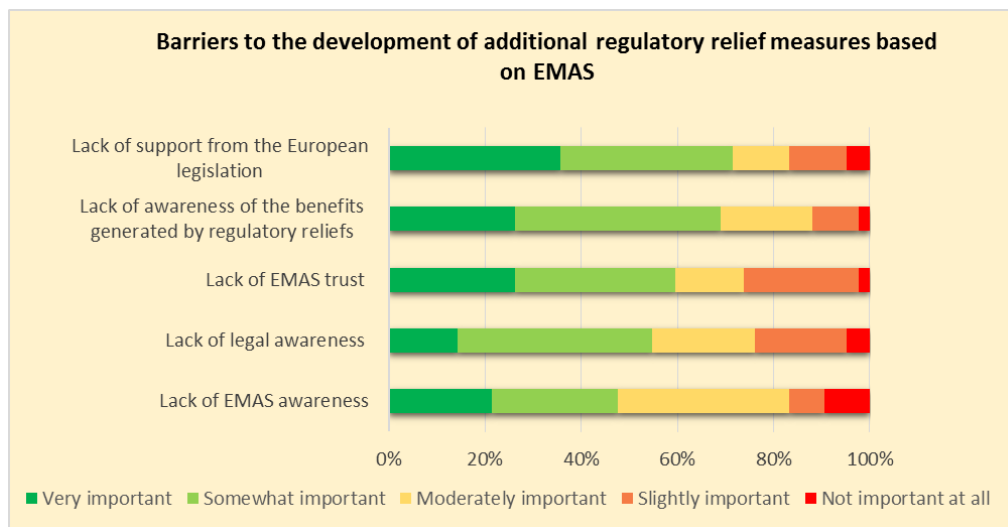
All the surveyed categories share widespread agreement on the lack of awareness of the benefits of regulatory relief for EMAS-registered organisations and for public authorities. This result suggests that European and MS policymakers appear mistrustful or sceptical of public incentives for EMAS adoption, or even of the necessity of incentivising EMAS by means of regulatory relief. Indeed, according to 50% of ISO-certified respondents and to 59.5% of surveyed verifiers (results are similar with or without the Italian responses), a lack of trust in the commitment of EMAS-registered organisations to improving environmental performance is a somewhat or very important barrier to the development of regulatory relief.

Figure 55: Barriers to the development of regulatory relief, ISO 14001 questionnaire



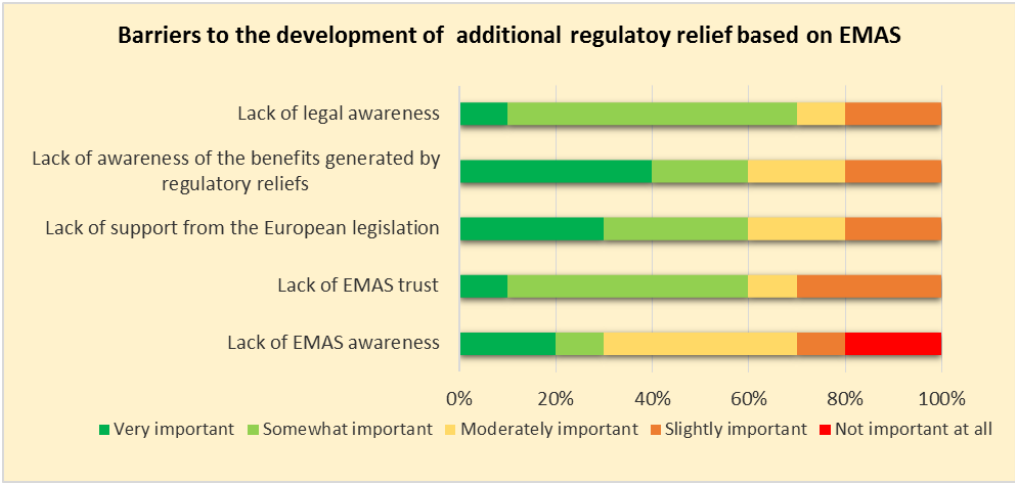
No. of respondents: 42

Figure 56: Barriers to the development of regulatory relief, Environmental Verifiers questionnaire



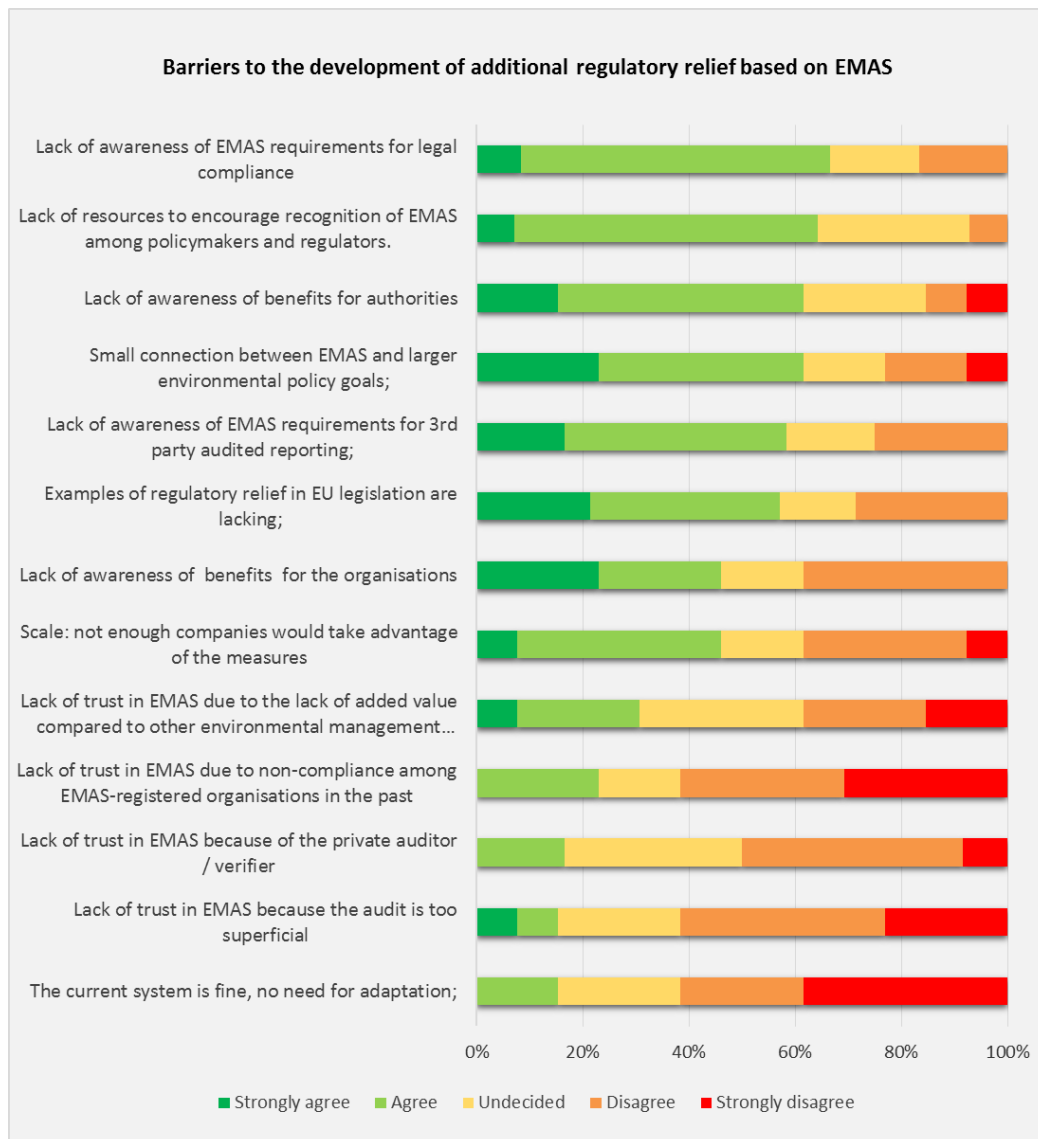
No. of respondents: 42

Figure 57: Barriers to the development of regulatory relief, Environmental Verifiers questionnaire, without responses from Italy



No. of respondents: 10

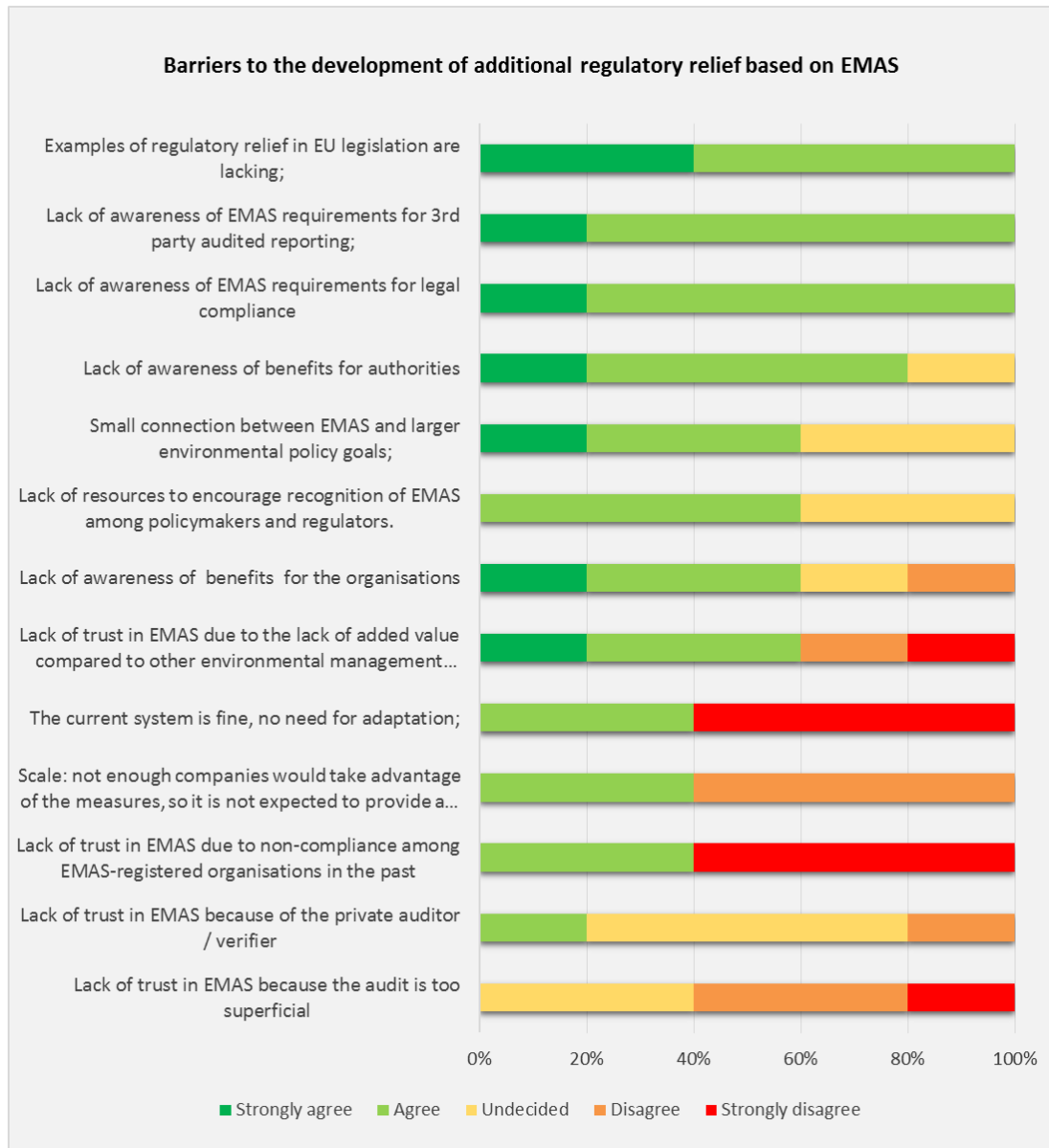
Figure 58: Barriers to the development of regulatory relief, Member State representatives



No. of respondents: 14

Interestingly, when results for MS representatives from MS with high registration numbers are separated from the rest (Figure 59), the lack of examples in EU legislation emerges as the most significant barrier to the adoption of regulatory relief. Interviews revealed this obstacle can lead to legal barriers or political resistance at the MS level. The countries with high registration numbers consider a lack of resources to encourage recognition among policymakers – which ranked second place in the survey of all MS – less important. This difference shows a higher stage of maturity in the implementation of regulatory relief.

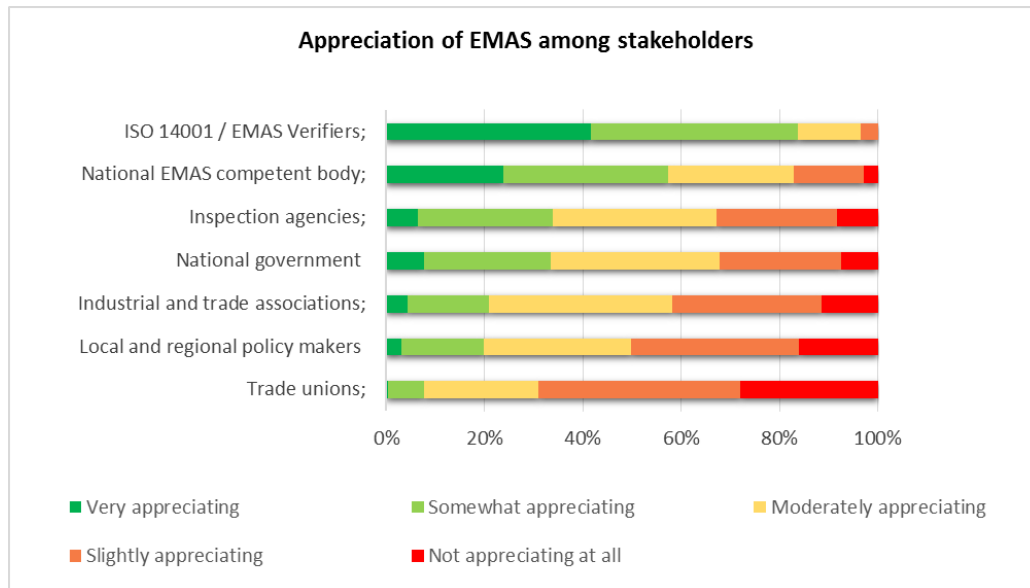
Figure 59: Barriers to the development of regulatory relief, Member States with high registration numbers



No. of respondents: 5

Lack of support at the EU level is reflected in low commitment and mistrust at the national, regional and local levels. The results of the EMAS survey highlighted low levels of appreciation of EMAS among regional and local policymakers (see Figure 60 below).

Figure 60: Appreciation of EMAS, EMAS questionnaire



No. of respondents: 415

As discussed in the chapter on the perception of EMAS in selected MS (see 3.2.11), the lack of support of policy makers appears to stem more from a lack of awareness of EMAS benefits or perceived low added value compared to ISO14001 than from a direct mistrust of EMAS.

Interviews with institutional and other stakeholders

Interview data are very much in line with the results of the different survey questionnaires. In particular, the analysis of the interviews highlights four distinct sets of barriers to the adoption and implementation of regulatory relief:

- the lack of integration of EMAS into European and national legislations,
- the lack of awareness of EMAS features that could justify regulatory relief
- the belief in some MS that EMAS features do not present added value and thus justify regulatory relief (related in many cases to the previous barrier)
- the lack of coordination and integration among different legislative levels and,
- the perceived misalignment between EMAS and countries' environmental priorities.

Concerning the first barrier, interviewees underline that national legislators often overlook EMAS in the process of transposing EU directives into their respective national legislations. First, given the complexity and rigidity of legislative procedures, legislators are indeed afraid of incurring legal complications by developing regulatory relief based on EMAS at the end of the legislative procedure. Second, legislators are afraid that they would not be able to justify regulatory relief based on EMAS, particularly if the EU legislation which they are transposing does not mention EMAS in the first place. Third, as the scheme is a voluntary tool, national legislators often consider it a minor secondary aspect in the transposition of EU regulations and therefore discard EMAS from the legislative procedure. This last reason stems from time constraints and, most importantly, a lack of knowledge of the tool. **According to the interviewees, a potential solution to this problem would be to include EMAS at an earlier stage of the legislative process, therefore officially including it in EU regulations.** Furthermore, the valorisation of EMAS in the legislative framework of the individual MS should be a compulsory condition of the transposition process of EU directives. However, according to some CBs, while MS with a high rate of registrations would agree, some MS with low rates of participation are actively opposed to the introduction of this condition.

Table 12: Lack of integration of EMAS in European and national legislation,

ID	Description	Answer
CB 1		<i>“The problem is that EMAS should be internalised within public administrations and law, mainly to achieve simplifications and speed-up procedures and in terms of control reduction. This will also enable the integration of EMAS with the work of regional agencies for environmental protection”</i>
CB 2		<i>“Trying to get regulatory relief for EMAS organisations is often part of the last step in the chain [of policy-making, editor’s note], after the main part of the administrative regulation has already been written. It would be easier if EMAS were included earlier in the process, but that can be quite difficult. The best solution would be to include EMAS in more EU regulations because then no one can say later in the process that it isn’t what was foreseen in the regulation.”</i>
Expert 1	Ministry advisor	<i>“When EU legislation doesn’t mention EMAS, that makes the whole fight much harder. Legislators and regulators don’t have an incentive to integrate EMAS in those cases; in fact, they may be instead afraid that they are opening themselves up to legal difficulties because the exception is not justified and could be seen as an unfair competitive advantage”</i>
Regulatory authority 1		<i>“EMAS should be always taken into account in the adoption of EU directives and EU directives should always foresee the valorisation of EMAS in the adoption of the directive by single MS. This condition is currently lacking because not all countries agree with that”</i>

Source: Various stakeholders

Interviews with institutional and other stakeholders again underline a lack of awareness of the features (such as the legal requirements) of the scheme that could justify regulatory relief measures (see Table 12 above). According to the interviewees, this barrier is connected with public administrations and policymakers’ limited knowledge of the scheme. Public authorities lack a comprehensive understanding of the reporting, monitoring and third-party verification requirements entailed by EMAS registration and therefore do not recognise the value added of the registration in terms of legal compliance. Consequently, they do not perceive benefit for themselves in using EMAS as a criterion for simplifications of control activities, but rather see it as a further burden for the inspection process, entailing additional documentation. Paradoxically, according to some interviewees, regional authorities conduct comparatively more inspections of EMAS-registered sites as opposed to non-registered sites because of these misunderstandings.

Table 13: Lack of awareness of EMAS features that could justify regulatory relief

ID	Answer
CB 1	<p><i>“Some regional agencies for environmental protection usually do not reply to clarification requests by the CB and do not take into account EMAS as a simplification criterion [...] Some of the regional agencies for environmental protection consider EMAS as an reason to carry out additional controls and inspections [...] The behaviour of regional agencies for environmental protection is very bureaucratic, a behaviour that is typical of the control body”</i></p>
Expert 1	<p><i>“[Ministries] are afraid they could lose their control and their authority. Sometimes they simply do not know EMAS or EMS at all, and don’t realise the added value. Many still have an outdated impression of EMAS and aren’t aware that ISO 14001 is actually integrated into EMAS now, that EMAS includes key performance indicators (KPIs) and mandatory, verified environmental information, etc.”</i></p>
Regulatory authority 1	<p><i>“Public administrations struggle to understand that EMAS focuses on processes rather than performance, because the scheme is still not very well-known. As process improvements are difficult to quantify and measure, public administrations are often reluctant to adopt regulatory relief.”</i></p>

Source: Various stakeholders

The lack of vertical coordination and integration among the different legislative levels involved in policy-making procedures emerges as a further relevant barrier to the adoption of regulatory relief based on EMAS. In particular, EMAS CBs complain about a lack of coordination between national and regional legislators. According to the interviewees, despite national policymakers recognising and trusting EMAS, if the scheme is not integrated into legislation at the upper levels of the process, local administrators will not introduce the scheme into regulations at later stages of the legislative procedure. Lower level policymakers and regulators often have limited knowledge of the scheme. Furthermore, given the complexities and rigidities of the procedure, administrators are afraid of incurring legal difficulties and complaints by including reference to EMAS when it is not included in the original legislation. In this sense, a lack of knowledge exists concerning the legal possibilities of granting regulatory simplifications to a voluntary scheme.

Table 14: Lack of coordination among different legislative levels

ID	Answer
CB 1	<p><i>“There is a problem, a constraint about this aspect due to the double level of policy production, in the involvement of national and regional authorities. From one side there is the national level represented by the Environmental Ministry, from the other side there are regions. Moreover, the approach of our legislation towards environmental topics and environmental risk does not include, provide, or recognise an ‘advantage’ to EMAS”.</i></p>

ID	Answer
CB 2	<p><i>“EMAS is often brought in at the end of a process. The people who actually write the regulations have their own processes and checklists to follow and they aren’t thinking about EMAS [...] Policymakers really do trust EMAS, the problem is more at the level of the administrators who actually write the regulations. They don’t know EMAS, and they have strict procedures for how they are supposed to implement the laws, and so it’s very difficult to change things there. You can raise a lot of legal questions if you do things differently and add environmental criteria or other aspects that don’t follow the standard procedure”.</i></p>

Source: Various stakeholders

According to several interviewees, a perceived misalignment between EMAS and MS environmental priorities and goals exists among institutional stakeholders. While some stakeholders see great potential in EMAS as a compliance instrument and as a way to effectively improve companies’ environmental performance, other policymakers are less supportive of the scheme because of its indirect contribution to many environmental goals. This diffuse focus precludes a narrower focus on specific environmental aspects, which is common in environmental legislation. CBs criticise widespread confusion and misunderstanding about the scope of EMAS among public authorities.

Lack of clarity on the scope of EMAS results from two main sources: a lack of appropriate resources for EMAS promotion and excessive communication on a wide array of environmental initiatives in the MS. Indeed, according to an interviewed EMAS CB, “the environmental communication on so many different topics creates a general confusion among the public and organisations. There is an abundance of information on the environment. The environmental topic is well appreciated and accepted, but at the end there is a lack of understanding of what environment really means and what it is”. Excessive communication leads policymakers to support initiatives focusing on more narrow and specific environmental priorities that are easy to explain, while overlooking initiatives that require a deeper understanding or work in many areas.

Lastly, policymakers’ opinion that voluntary schemes should not be supported by means of deregulation and public incentives constitutes a substantial barrier to the adoption of regulatory relief based on EMAS. According to this reasoning, organisations are intrinsically motivated to adopt certified EMS, as they already entail benefits for the organisation in terms of enhanced performance and competitiveness. In this sense, regulatory relief and administrative benefits would not be able to provide an incentive for the adoption of standard-based EMS. To the contrary, they create disparities in market mechanisms. However, this viewpoint appears to be widespread only among MS with a very low uptake of EMAS and low numbers of ISO 14001 certifications. Indeed, CBs from those MS complain about a lack of trust towards all forms of voluntary environmental certifications, which explains the reluctance to adopt simplifications.

Table 15: Summary of barriers to the implementation of regulatory relief based on EMAS

Summary of barriers to the implementation of regulatory relief based on EMAS	
<p>Lack of integration of EMAS in European and national legislation</p>	<p>Legislators do not valorise EMAS in the transposition of EU directives, as EMAS is barely mentioned in EU directives in the first place;</p> <p>Legislators are afraid of incurring legal difficulties by introducing regulatory relief at the end of the legislative procedure;</p>

Summary of barriers to the implementation of regulatory relief based on EMAS	
	<p>Legislators are afraid of not being able to justify regulatory relief based on EMAS;</p> <p>As a voluntary tool, EMAS is perceived as a minor secondary aspect, therefore left out of the transposition process;</p>
Lack of awareness of EMAS features that could justify regulatory relief	<p>Limited knowledge of the scheme among public administration and policymakers;</p> <p>Limited understanding of the reporting, monitoring and third-party verification requirements entailed by EMAS;</p> <p>Limited recognition and/or scepticism of EMAS added value for legal compliance, including its ability to justify regulatory relief;</p> <p>EMAS is not considered a simplification criteria due to a bureaucratic and mistrustful attitude;</p>
Lack of coordination and integration among different legislative levels	<p>Lack of integration of EMAS at an early stage of the legislative procedure;</p> <p>Limited knowledge of EMAS at lower levels of public administration;</p> <p>Limited awareness of the benefits of regulatory relief for authorities</p> <p>Limited knowledge concerning the legal possibility of introducing regulatory relief based on EMAS;</p>
Perceived misalignment between EMAS and countries' environmental priorities	<p>Limited understanding of the scope and objectives of EMAS among public authorities;</p> <p>EMAS is perceived as indirectly contributing to many different environment goals, but not addressing a specific objective;</p> <p>Excessive communication on environmental initiatives and a strong separation of environmental subjects by topic leads public authorities to focus on a few specific environmental priorities that are easy to understand and explain;</p>

Conclusion

Of the barriers identified in the study, two emerged as holding key significance: first, the lack of integration of EMAS into the European legislative framework and a lack of awareness and/or trust in the EMAS scheme and its properties. The lack of indications or examples of regulatory relief in European legislation combine with a lack of awareness concerning the benefits deriving from regulatory and administrative relief, both for registered organisations and for public administrations, at the European and at national / local level, and with a general scepticism towards the necessity or convenience of implementing regulatory relief based on EMAS.

Although registered organisations perceive a lack of general awareness of EMAS at the EU level, the real barrier is probably a lack of specific information on the features that could justify the development of public incentives. This supposition is supported by the low appreciation levels of the scheme among national, regional and local authorities. Additionally, without additional information and/or guarantees, authorities may be reluctant to trust the audits and guarantees of a voluntary scheme to replace some of their duties, although some regulatory authorities who are familiar with EMAS are indeed willing to do so.

Interviewed stakeholders complain about a lack of vertical integration and coordination between different legislative levels. This lack of integration appears to stem from both a limited integration of EMAS at the early stage of the legislative process and a limited awareness of EMAS at the lower level of public administration. This barrier is reinforced by the lack of knowledge concerning the legal possibilities of introducing regulatory reliefs based on voluntary environmental schemes and a fear of legal complications.

Lastly, a perceived misalignment between EMAS's objectives and Member States' specific environmental priorities emerges as a relevant barrier to the implementation of regulatory relief measures within European countries. EMAS is indeed perceived as indirectly contributing to several environmental goals, but rather difficult to classify within specific environmental objectives and therefore attract policy makers' attention.

3.4 Business cases for regulatory relief and administrative benefits: identifying best practices

This section of the report focuses on identifying specific measures of regulatory and administrative reliefs that constitute valuable experiences or “best practices” based on their effectiveness in providing benefits to organisations and public administrations, while also supporting the uptake of EMAS among organisations. The assessment of existing best practices within the EU aims to provide information on strategies for replicating the most valuable measures across MS. The assessment supports the transfer of knowledge of the specific legislative acts involving EMAS (and other voluntary environmental management schemes) in the different selected MS. The identification of the best practices therefore relied first on mapping the existing regulatory relief measures in the eleven selected MS, i.e. Austria, Czech Republic, France, Germany, Greece, Italy, Netherlands, Poland, Spain, Sweden and UK. The full list of measures is provided in the Compendium on Regulatory Relief (Annex II).

The first part of this section explains the methodology adopted in assessing the measures contained in the Compendium of Regulatory Relief (Annex II) and in the identification of the best practices. The following subsections then present and discuss the best practices identified in each selected MS.

Methodology

The scope of the assessment and identification processes covers all the measures classified in the Compendium (Annex II) and therefore covers the legislative frameworks (national and regional) of the eleven selected MS.

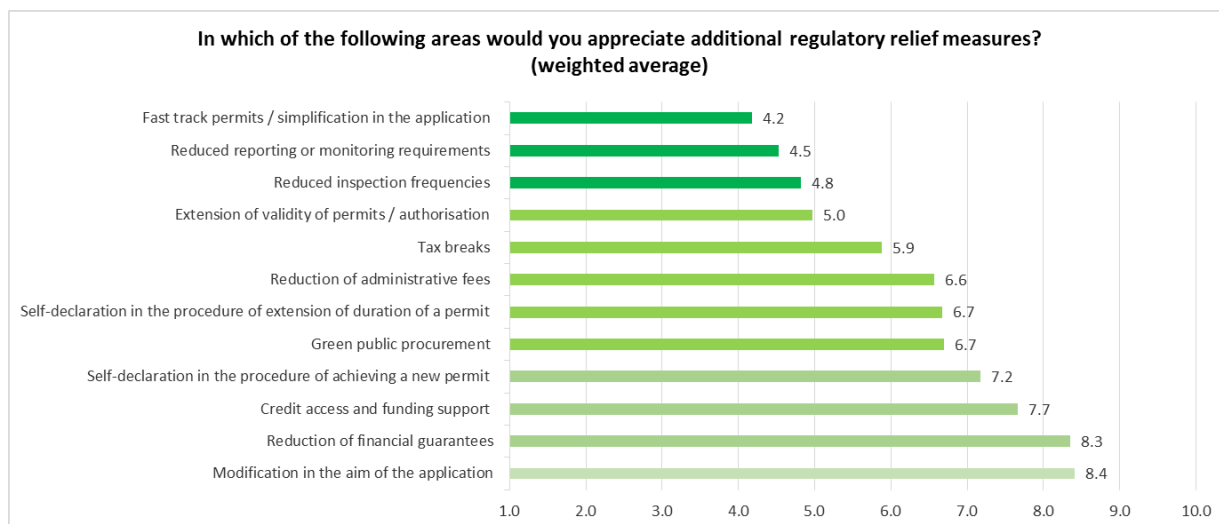
The assessment of existing measures is based on four main criteria:

- Replicability potential of the measure;
- Achieved results of the measures;
- Satisfaction with the measures;
- Environmental benefit.

The first criterion (“Replicability potential of the measure”) assesses the feasibility of replicating the regulatory relief measures in a different MS, or different geographical context (such as local or regional), based on three sub-criteria: legal feasibility, economic feasibility and technical feasibility. The legal feasibility refers to the legislative effort required to replicate a specific measure. Measures associated with a high legislative effort were assigned one point in the assessment phase, measures associated with a medium legislative effort received two points, while measures requiring low levels of legislative effort were assigned three points. Similarly, the team used three-point scales for the criteria of economic feasibility, technical feasibility and “achieved results by the measure”, which aimed to assess the effectiveness of the specific measure in increasing the number of EMAS registrations in the past and its potential to further increase the uptake of EMAS in the MS in the future. Table 16 below depicts the exact assessment criteria used by the project team.

Unlike the previous assessment criteria, the “Satisfaction with the measure” criterion was assessed using the questionnaire survey addressed to EMAS-registered organisations. Respondents were asked to rank different typologies of regulatory relief according to their desirability, from #1 (“most appreciated”) to #12 (“least appreciated”). Figure 61 displays the resulting ranking.

Figure 61: In which of the following areas would you appreciate additional regulatory relief measures, EMAS questionnaire



No. of respondents: 396

Points were assigned to specific measures based on the ranking of their associated typology. Accordingly, one point was assigned if the typology of the specific measure was ranked between the ninth and the last positions; two points were assigned to typologies in the range

between the fifth and the eighth position, and three points to typologies ranked in the first four positions.

The last assessment criterion (“Environmental impact”) refers to the environmental complexity of the organisations or industrial sectors targeted by the specific regulatory relief or administrative benefit. The scores were therefore determined according to the classification of industrial sectors developed by the International Accreditation Forum (IAF) (Owen 2013).

Specifically, one point was assigned to measures involving sectors listed in the “limited complexity” or “low complexity” categories of IAF classification; two points were assigned to measures targeting “medium complexity” sectors and three points were assigned to measures involving “high complexity” or “special complexity” sectors.

Table 16: Assessment criteria

Assessment criteria		
Main criteria	Sub-criteria	Description and scores
Replicability potential of the measure	1a. Legal feasibility	<ul style="list-style-type: none"> • 3 points – high legislative effort; • 2 points – medium legislative effort; • 1 point – low legislative effort;
	1b. Economic feasibility	<ul style="list-style-type: none"> • 3 points – low costs, potentially high time savings; • 2 points – unclear costs; unclear time savings; • 1 point – high costs, low time savings;
	1c. Technical feasibility	<ul style="list-style-type: none"> • 3 points – low technical effort; • 2 points – unclear technical effort; • 1 point – high technical effort;
Results achieved by the measure		<ul style="list-style-type: none"> • 3 points – high contribution to EMAS registrations; • 2 points – unclear contribution to EMAS registrations; • 1 point – low contribution to EMAS registrations;
Satisfaction with the measure		<ul style="list-style-type: none"> • 3 points – ranked among the first four typologies; • 2 points - ranked between the fifth and the eight typology; • 1 point - ranked between the ninth and the last typology;
Environmental benefit		<ul style="list-style-type: none"> • 3 points – concern sectors listed in the «high complexity» or «special complexity» category of IAF document; • 2 points – concern sectors listed in the «medium

Assessment criteria		
Main criteria	Sub-criteria	Description and scores
		complexity» category of IAF document; • 1 point – concern sectors listed in the «limited complexity» or «low complexity» category of IAF document;

Once the RAVE team assessed the regulatory relief measures according to the four assessment criteria, a total unique score was calculated for each measure based on a simple average formula:

$$\frac{(Criteria\ 1a + Criteria\ 1b + Criteria\ 1c)}{3} + \frac{Criteria\ 2 + Criteria\ 3 + Criteria\ 4}{4}$$

Finally, the team identified best practices according to the total assessment score each measure received. In particular, regulatory relief measures with a total score higher than 2.5 out of 3 were considered best practices, and were therefore included in the analysis. In the case of a large number of regional measures adopted as local transpositions of a parent measure at the national level, only the parent measure was selected in order to avoid the selection of almost identical measures from the same MS. Netherlands and Sweden were excluded from the assessment process, as neither country was found to have regulatory relief measures based on voluntary environmental management schemes. As the evaluation of each measure’s effectiveness depended in part on the context in its country of origin, some selected measures may constitute best practices in that particular country but would not be considered a best practice in a country with a high number or diversity of regulatory relief measures.

Results

The assessment process identified 58 best practices among the regulatory relief measures mapped in the selected MS (see Table 17 below). As the MS with the highest number of regulatory relief measures, Italy, Spain and Germany contribute significantly to the total number of best practices, with 17, 11 and 10 measures, respectively.

Table 17: Number of best practices in each country

Country	No. of Best Practices
Austria	7
Czech Republic	1
France	4
Germany	10
Greece	4
Italy	17
Netherlands	/

Country	No. of Best Practices
Poland	3
Spain	11
Sweden	/
UK	1
Total	58

The most common types of regulatory relief measures included in the best practice examples are reduced reporting or monitoring requirements (13 measures), tax breaks (10 measures) and reductions in inspection frequencies (8 measures) (see Table 18 below). Simplifications in environmental permit procedures and reduction of administrative fees are the next most common typologies. In contrast, no good practice measures were identified in the categories “facilitating credit access and funding support” and “self-declarations in permit application procedures”.

Table 18: Number of best practices per typology of regulatory relief

Typology of regulatory relief	No. of Best Practices
Reduced reporting or monitoring requirements	13
Tax breaks	10
Reduced inspection frequencies	8
Fast track permits / simplification in the application	8
Reduction of administrative fees	6
Extension of validity of permits / authorisation	5
Green public procurement	4
Reduction of financial guarantees	2
Modification in the aim of the application	2
Self-declaration in the procedure of extension of duration of a permit	1
Self-declaration in the procedure of achieving a new permit	0
Credit access and funding support	0

Best practices in Austria

Despite the limited number of regulatory and administrative relief measures adopted in the country (i.e. 12 measures), seven measures were identified as best practices in Austria (see Table 19 below). Not surprisingly, several best practices are contained in the Environmental

Management Act that, by implementing the Council Regulation (EEC) No. 1836/93, introduces EMAS within the Austrian legislative framework. At a general level, the Environmental Management Act sets forth reduced reporting obligations based on the fulfilment of EMAS requirements and on the content of third-party audits and simplifications in the permitting procedures.

Further best practices include the transposition at national level of the Directive 2010/75/EU (the update of the IPPC Directive). One such practice concerns the reduction of environmental inspections to EMAS-registered and ISO 14001+-certified sites as well as other environmental management systems/approaches according to § 15 Abs. 5 UMG (Austrian Environmental Management Act.). The measure incorporates EMAS registration and registration of other environmental management systems/approaches according to UMG registry regulation as criteria in the risk evaluation procedures that determine the frequency of environmental inspections. Although the EU Directive mentions only EMAS-registered organisations, the Austrian transposition enlarged the scope of the measure to include organisations with other environmental management systems/approaches according to § 15 Abs. 5 UMG. According to the Austrian experts' assessment, the replicability potential, the satisfaction and the contribution to EMAS registrations associated with this measure are all high and relevant.

Furthermore, Austria's Waste Management Law exempts EMAS registered organisations from the mandatory waste management report because that information is covered in their EMAS environmental statement.

Table 19: Best practices, Austria

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description
1	Reduced inspection frequencies	Implementation of EU DIRECTIVE 2010/75/EU on industrial emissions (integrated pollution prevention and control)	National level	EMAS and ISO 14001	The frequency of environmental inspections is determined by a risk evaluation. One criterion for the risk evaluation is the participation in EMAS or ISO 14001. (EU directive only includes EMAS, Austrian approach also includes ISO 14001+ and other environmental management systems/approaches according to § 15 Abs. 5 UMG)
2	Reduced reporting and monitoring requirements	Waste Management Law	National level	EMAS	EMAS registered companies are not obliged to deliver a waste management concept if they are publishing an environmental statement
3	Reduced reporting and monitoring requirements	Environmental Management Act	National level	EMAS	§26: reduction of reporting obligations of environmental data to authorities, if all requirements are fulfilled within the EMS
4	Reduced reporting and monitoring	Environmental Management Act	National level	EMAS	§27: EMAS organisations can skip the WRG (water law) §134 (4) reporting obligations if they

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description
	requirements				have checked all requirements within the internal audit
5	Green Public Procurement	Public Procurement Act	National level	EMAS	When contracting authority is required to submit evidence of environmental management standards, it has to refer to EMAS or equivalent systems.
6	Fast-track permits/simplification in the application	Environmental Management Act	National level	EMAS	EMAS organisations get site's permits consolidated and approved in a single notice;
7	Extension of validity of permits/authorisations	Environmental Management Act	National level	EMAS	§24: Exemption from obligation to appoint a waste officer

Best practices in the Czech Republic

Similar to the Austrian case, the best practice identified among the seven regulatory relief measures adopted in the Czech Republic refers to the IPPC Directive 96/61/EC on integrated pollution prevention and control, and in particular the Act No 76/2002. The measure is addressed to both EMAS-registered and ISO 14001-certified organisations and allows the submission of EMAS and ISO 14001 documentations as ancillary documents in the application procedure to the Integrated Environmental Permit (see Table 20 below). The measure was selected as a best practice because of its high potential for replicability and the satisfaction associated with this typology of regulatory reliefs (fast-track permits). However, the effectiveness of the measure in supporting the uptake of the scheme in Czech Republic and in increasing the number of EMAS registrations is unclear.

Table 20: Best practices, Czech Republic

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description
1	Fast-track permits/simplification in the application	Act No 76/2002 Integrated Prevention – Implementation of the Directive 96/61/CE on the integrated prevention and reduction of pollution (IPPC)	National level	EMAS and ISO 14001	Reports and documents provided for ISO 14001 and EMAS certification can be attached to the application for the Integrated Environmental Permit. However, they are considered as additional documents only.

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description
		Directive).			§ 4 - Content of the application

Best practices in France

Despite the low number of simplification measures based on EMAS in France (i.e. 5 measures), the assessment methodology identified four best practices (see Table 21 below). These best practices have not succeeded in increasing registration numbers in France but can be considered as good examples because they recognise the value of EMAS registration and present certain key advantages (e.g. they are easy to replicate or have a high potential environmental benefit).

The best practice with the highest score is contained in the Decree n° 2006-975, which expired in 2014 and was replaced by a new decree not mentioning EMAS. However, the original decree could nonetheless still serve as a model. Although the decree did not introduce specific advantages for EMAS or ISO 14001 in public tenders, it mentioned that EMAS registration and ISO 14001-certification were accepted as valid in the case that authorities require proof of environmental quality. This measure explains why EMAS is sometimes mentioned in calls for tenders in France, especially in the construction sector, where purchasers need contractors able to implement environmental protection measures. An example of a French call for tender mentioning EMAS is provided in Annex VI.

The measure is characterized by high potential for replicability. On the other hand, its perceived satisfaction and its potential for increasing EMAS registrations in the country is low because the measure no longer exists and, in practice, authorities do not favour EMAS over ISO 14001 in calls for tender. Because of this initiative, however, EMAS is sometimes mentioned in call for tenders, which has the advantage of raising awareness of EMAS. Now that the public procurement law no longer explicitly mentions this possibility, purchasers will be less aware of EMAS and less likely to refer to the scheme. This measure could potentially be re-introduced and/or transferred to other Member States. To increase its effectiveness, MS could extend the measure by giving extra points to EMAS organisations, as is the case in Austria.

Law 2010-788 Section 225 introduces EMAS in the framework of the Art. R225-105-2 of the Commercial Code concerning environmental reporting obligations. According to this simplification measure, the information reported by the environmental verifier in the context of EMAS registration can replace the reporting obligations mandated by Art. R225-105-2 of the Commercial Code. This measure therefore allows EMAS-registered organisations a certain degree of freedom in the content of mandatory non-financial reporting. The measure is addressed to EMAS organisations listed on the stock exchange or to large organisations with a turnover greater than €100 million and more than 500 employees. The legal feasibility of replicating this measure is unclear, as it depends on the state of regulations concerning non-financial reporting in the recipient MS. The effectiveness of this measure in driving EMAS adoption is also estimated as low. Since organisations still have to report on social and human rights aspects (among others), an exemption from the environmental aspects may be helpful for organisations that already have EMAS, but not provide a strong incentive for others to join the scheme. Whether they have EMAS or not they will have to report on environmental data. However, this measure can still be considered a best practice to some extent because an EMAS organisation which benefitted from it expressed satisfaction at not having

to be audited twice on their environmental performance. The measure may thus contribute to the decision to maintain EMAS registration, even if it is not a driver to register.

Article 266 of the Customs Code concerns reductions on the taxation of polluting activities (i.e. non-hazardous waste storage) for EMAS-registered and ISO 14001-certified organisations. While it provides recognition for the EMAS registration and is easy to replicate, the financial benefit is estimated as too low to drive EMAS adoption. Finally, the Decree n° 2011-1460 exempts EMAS organisations from periodical control, a measure widely appreciated, but its limited scope (only for permits related to low risk activity) prevents its widespread application and, consequently, its contribution to the increase of EMAS registrations.

Table 21: Best practices, France

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Green Public Procurement	Decree n° 2006-975 relative to public procurement (updated by Decree 2016-360 transposing Directive 2014 on GPP)	National level	EMAS and ISO 14001	Public purchasers can integrate environmental criteria in call for tenders. The decree mentioned that if the authority issuing the call for tender needed a proof of environmental quality, EMAS or ISO 14001 could be used (but did not lead to extra points). This possibility disappeared from the new decree, even if purchasers can still use in practice.	All sectors but especially implemented in construction.
2	Reduced inspection frequencies	Decreets n° 2011-1460 regarding the control of classified installations, modifying the environment code	National level	EMAS and ISO 14001	EMAS registered organisations are exempted from the periodical control, set every 5 years or every 10 years for ISO certified organisations	Installations classified for dangerous activities
3	Reduced reporting and monitoring requirements	Grenelle II Act (or Law 2010-788), Section 225, transposed by Decree 2012-557 and modifying	National level	EMAS	Details CSR reporting obligations, including which organisations must submit a report and the information the report should con-	All organisations listed on stock exchange + all organisations not listed on stock ex-

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
		the commercial code (Art. R.225-105-2).			tain. It specifies that the declaration of the environmental verifier in the framework of an EMAS registration replaces the opinion of the independent third party body regarding the environmental information that must be reported according to Article R225-105-1 of the Commercial code. An EMAS registration has therefore the same value as the reporting of environmental information in the frame of non-financial reporting	change but with a revenue more than €100 million and with more than 500 employees
4	Tax breaks	Article 266 of the Customs Code	National level	EMAS and ISO 14001	EMAS registered organisations benefit from a reduced tax related to polluting activities (storage installations of non-hazardous waste)	Installations classified for dangerous activities

Best practices in Germany

Despite belonging to different typologies, most of the best practices identified among the existing measures of regulatory relief in Germany focus on simplifying energy auditing and reporting and monitoring requirements imposed on large and energy-intensive organisations (see Table 22 below). Selected measures therefore include exemptions from mandatory energy audits addressed to large EMAS-registered companies (i.e. more than 250 employees and annual turnover exceeding €50 million), electricity tax refunds (up to 90% of the total amount) for energy-intensive manufacturing firms, and lower administrative fees for monitoring or permitting procedures connected to waste, emissions control and water legislation.

According to the assessment of the many existing measures and interviews with German stakeholders, existing regulatory relief measures are widely diffused among German organisations and have been effective at incentivizing EMAS adoption. However, the replicability potential of these measures may be limited, particularly in terms of legal and economic fea-

sibility. Possible constraints on replicability apply particularly to the considerable tax refunds under the Electricity Tax Act, which may not have strong equivalents in other MS.

On a more general level, German legislation includes a wide array of simplifications in the monitoring requirements set forth in the Emission Control and Waste Management Acts. Many of these exemptions and simplifications are based on the EMAS Privileges Regulation, which lays the groundwork for German state governments and regional authorities to take EMAS registration into account when creating the regulations and ordinances used to enforce the a number of national laws, including the Federal Emissions Control Act and the Waste Management Act. Examples of simplifications entailed by this regulation include longer intervals between inspections, the adoption of EMAS environmental statement as a substitute for mandatory reporting obligations, exemptions from measurement reports and from the appointment of a water protection officer. Similarly, according to the Ninth Ordinance on the Implementation of the Federal Emissions Control Act and to the Chemical Climate Protection Ordinance, EMAS-registered sites are exempt from submitting regular evidence of site inspections based on the documentation already provided in the framework of EMAS registration.

The EMAS Privileges Regulation laying the foundation for EMAS regulatory relief is unique among MS and could be used as an example by other MS. Such regulations at the MS level would facilitate the work of regulators at the regional or local level by highlighting possibilities and legal justifications. The effectiveness of the EMAS Priveleges Regulation could, however, be improved by adding specifics and requirements for the implementation of the regulatory relief rather than simply stating that EMAS is a factor that authorities may consider when granting relief in certain situations.

Table 22: Best practices, Germany

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Reduced reporting and monitoring requirements	Law on energy services and other energy Efficiency Measures § 8c (6) point 2 "Gesetz über Energiedienstleistungen und andere Energieeffizienzmaßnahmen (EDL-G)"	National level	EMAS	EMAS companies (or companies with an energy management system according to ISO 50001) are considered to have already fulfilled the requirements of the mandatory energy audit that must be carried out every 4 years	All large companies: companies with more than 250 employees and which have an annual turnover exceeding EUR 50 million, and/or an annual balance sheet total exceeding EUR 43 million.
2	Reduced reporting and monitoring requirements	Act on the environmentally sound design of energy-related products § 4 (5) (energy-related-	National level	EMAS	EMAS organisations fulfil the requirements of Annex V of the directive 2009/125 / EC	Companies that produce energy-related products or components of energy-related

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
		products act) "Gesetz über die umweltgerechte Gestaltung energieverbrauchsrelevanter Produkte § 4 Abs. 5 (Energieverbrauchsrelevante-Produkte-Gesetz - EVPG)"			(proof of having installed a management system for assessing conformity)	products
3	Reduced reporting and monitoring requirements;	Ordinance on simplifications of monitoring requirements regarding emission control and waste management for organisations and sites registered according to (EC) No 761/2001 (EMAS privilege Ordinance); all articles relevant Verordnung über Immissionsschutz- und abfallrechtliche Überwachungs-erleichterungen für nach der Verordnung (EG) Nr. 761/2001 registrierte Standorte und Organisationen (EMAS-Privilegierungs-Verordnung)	National level	EMAS	Simplifications of reporting and monitoring obligations, including longer intervals between reporting emissions to the relevant authority and the ability to submit certain reports only upon request (rather than at regular intervals)	EMAS registered organisations and sites that are subject to reporting obligations laid out in the Emission Control Act and/or the Waste Management Act
4	Reduced reporting and monitor-	Act for protection against harmful envi-	National level	EMAS	Empowerment (of the relevant authorities) for	Organisations that require permits under

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
	ing requirements	<p>ronmental impacts due to air pollution, noise, vibrations and similar phenomena (Federal Emission Control Act) § 52a, § 58e</p> <p>"Gesetz zum Schutz vor schädlichen Umwelteinwirkungen durch Luftverunreinigungen, Geräusche, Erschütterungen und ähnliche Vorgänge</p> <p>(Bundes-Immissionschutzgesetz - BImSchG) § 52a, § 58e"</p>			<p>granting exemptions regarding the monitoring and reporting of requirements of this law, given that the requirements are already covered by EMAS.</p>	<p>this law. These are sites involved in manufacturing specifically production sites those that operate machinery and other fixed technical equipment.</p>
5	Tax breaks	<p>Electricity Tax Act § 10</p> <p>"Stromsteuergesetz § 10"</p> <p>implemented through</p> <p>Regulation on Systems for the Improvement of energy efficiency in connection with the discharge from energy and electricity taxes in special cases</p> <p>(tax cap regulation)</p> <p>"Verordnung über Systeme zur Verbesse-</p>	National level	EMAS	<p>EMAS (or an energy management system according to ISO 50001) is a precondition for energy-intensive companies in the manufacturing sector to receive a refund of their paid electricity tax (of up to 90%)</p>	<p>Energy-intensive companies in the manufacturing sector: Electricity tax needs to exceed € 1,000 per calendar year</p>

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
		<p>zung der Energieeffizienz im Zusammenhang mit der Entlastung von der Energie- und der Stromsteuer in Sonderfällen (Spitzenausgleich-Effizienzsystemverordnung)"</p>				
6	Tax breaks	<p>Energy Tax Act § 55 (4) point 1 + (5) point 2</p> <p>"Energiesteuer-gesetz § 55 Abs. 4 Nr. 1 und Abs. 5 Nr. 2" implemented through</p> <p>"Verordnung über Systeme zur Verbesserung der Energieeffizienz im Zusammenhang mit der Entlastung von der Energie- und der Stromsteuer in Sonderfällen (Spitzenausgleich-Effizienzsystemverordnung)"</p>	National level	EMAS	EMAS (or an energy management system according to ISO 50001) is a precondition for energy-intensive companies in the manufacturing sector to receive a refund of their paid energy tax (of up to 90%)	Energy-intensive companies in the manufacturing sector: Energy tax must exceed € 1000 per calendar year
7	Tax breaks	<p>Law for the expansion of renewable energies § 47 (3) point 1+2; § 64 (3) point 2; Annex 3 I. point 1 d (Renewable</p>	National level	EMAS	EMAS or ISO 50001 is a precondition for paying a limited cost apportionment (only a certain percentage of the fee to finance the	energy intensive companies in the manufacturing sector and operators of railways

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
		Energy Act 2014) "Gesetz für den Ausbau erneuerbarer Energien § 47 Abs. 3 Nr. 1+2; § 64 Abs. 3 Nr. 2; Anlage 3 I. Nr. 1 d) (Erneuerbare-Energien-Gesetz - EEG 2014)"			expansion of renewable energies)	
8	Simplification in the application	Ordinance on the approval procedure (Ninth Ordinance on the Implementation of the Federal Emission Control Act) section 4 (1) ; section 13 (1a) "Verordnung über das Genehmigungsverfahren (Neunte Verordnung zur Durchführung des Bundes-Immissionschutzgesetzes) § 4 Abs. 1 2.; § 13 Abs. 1a"	National level	EMAS	When organisations are applying for a permit, authorities must take into consideration documents that have already been handed in by the organisation in the course of their EMAS registration.	Organisations that require permits under the Act for protection against harmful environmental impacts due to air pollution, noise, vibrations and similar phenomena (Federal Emission Control Act)
9	Green Public Procurement	General administrative procedure for the procurement of energy-efficient products and services "Allgemeine Verwaltungsvorschrift zur Beschaffung	National level	EMAS	The authority that is tendering and awarding the service can make it a condition that organisations bidding for a contract present evidence of having installed an environment or energy management	Organisations bidding for public tenders in the field of transport, drinking water supply and energy supply (1) energy-efficient products and services (2), con-

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
		<p>energieeffizienter Produkte und Dienstleistungen Anlage I. 3."</p> <p>Section 2 Procurement Regulations in the</p> <p>Scope of Directive 2014/24 / EU Award and tender</p> <p>Contractual Regulations for construction works Part A</p> <p>"Abschnitt 2 Vergabebestimmungen im</p> <p>Anwendungsbereich der Richtlinie 2014/24/EU Vergabe und Vertragsordnung für Bauleistungen Teil A (VOB/A)"</p>			<p>system such as EMAS or ISO 50001. For an example, see Annex VI.</p>	<p>struction works (3)</p> <p>For an see</p>
10	Reduction of administrative fees	<p>Ninth Ordinance of the Saxon State Ministry of Finance on the Determination of Administrative Fees and Expenses (9th SächsKVZ) Annex I No. 3/18, No. 55/19. And 100 / 1.2.5</p> <p>"Neunte Verordnung des Sächsischen Staatsministeriums der Finanzen über die Bestimmung der Verwaltungsgebühren</p>	<p>Regional</p> <p>NOTE: several other German states have similar measures</p>	EMAS	<p>30% cost reduction in fees for permitting procedures or monitoring for EMAS companies connected to waste, emission control and water legislation</p>	<p>Saxony: Operators of plants that fall under waste, Emission control or water legislation.</p>

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
		und Auslagen (Neuntes Sächsisches Kostenverzeichnis – 9. SächsKVZ) Anlage I Nr. 3/18., Nr. 55/19. und 100/1.2.5"				

Best practices in Greece

The most effective best practices in Greece concern the extension of validity of environmental permits based on EMAS registration and ISO 14001 certification (see Table 23 below). In particular, Law 3982/2011 grants a four-year extension of the environmental permit to EMAS-registered manufacturing sites (from 10 years to 14 years in total). In the case of ISO 14001 certification, the same legislative act grants manufacturing organisations are granted a two-year extension. Law 3982/2011 has a high potential for replicability and is associated with high satisfaction; however, some concerns may arise concerning the practical application of the measure. For instance, within a 14-year timeframe organisations may need to modify or renovate their site and/or modify the scope of their environmental permits. In such cases, the extension would no longer confer such a sizable advantage, since site modifications or changes to the scope of a permit would necessitate a new permit application.

The second law involving a best practice, Law 4014/2011, introduces EMAS in the context of mandatory environmental inspections by mentioning EMAS as a potential criterion for reducing the frequency of inspections of registered sites. This incentive exists only for EMAS-registered organisations and not those with other EMS certifications.

Table 23: Best practices, Greece

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description
1	Extension of validity of permits/authorisations	Law 3982/2011 regarding the simplification of the licensing procedure for technical professional and manufacturing activities	National level	EMAS and ISO 14001	The duration of the Environmental Permit is extended by four years (14 years in total) in the case of manufacturing units that are EMAS registered and by two years (12 years in total) in the case of units that apply ISO 14001 or an equivalent EMS and whilst the EMS system is in force.
2	Extension of validity of permits/authorisations	Law 4001/2011, Electricity and natural gas markets	National level	EMAS and ISO 14001	Extension of validity of permits

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description
3	Reduced inspections	in- Law 4014/2011 regarding the simplification of the environmental permitting process of projects and activities	National level	EMAS	Stipulates that the Environmental Inspectorate must take into account the implementation of EMAS when scheduling its environmental inspections Programme, with the possibility of less frequent inspections to EMAS registered organisations.
4	Tax breaks	Law 4342/2015	National level	EMAS and ISO 14001	Energy Efficiency measures.

Best practices in Italy

Due to the high number of regulatory relief measures implemented in Italy (i.e. 90 measures) and to the high diversity exhibited between the national and regional legislative frameworks, the assessment of existing measures identified a significant number of best practices in most of the examined typologies of regulatory relief for voluntary environmental management schemes. Given that individual regional authorities have a high level of autonomy in the transposition and application of national regulations in Italy, this study only considers regional measures when they are unique or exhibit considerable differences from the national measure on which they are based. Interviews show that the activism of particular public authorities in particular regions plays a role in these differences, as some national legislation is not evenly implemented throughout the regions. Other potential reasons include the regions' relative available financial and personnel resources and the relative strength of environmental concerns in the region compared to other parts of the nation.

In Italy, one national measure emerges as best practice, involving the extended validity of environmental permits (see Table 24 below). Legislative Decree 3 April 2006, n. 152, addresses all organisations subject to IED legislation (Annex I, Directive 2010/75/UE), granting a six-year extension of the integrated environmental authorisation based on EMAS registration. For organisations with ISO 14001 certification, the legislative degree extends the validity of the integrated environmental authorisation for two years. Despite the high replicability potential, high satisfaction level and high effectiveness in incentivizing EMAS registrations, interviewed institutional stakeholders voiced some concerns regarding the actual applicability of this specific measure. Similar to the situation explained above in Greece, several stakeholders consider a 16-year timeframe to be too long. They point out that, over the course of 16 years, most organisations would carry out some sort of modification to their sites or want to change the scope of their environmental permit, reducing the effectiveness of the measure.

Table 24: Best practices – Extension of validity of permits, Italy

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Legislative Decree 3 April 2006, n.152 Regulation on environmental topics art.29-octies comma 8 and 9	National level	EMAS and ISO 14001	The CB examines the integrated authorisation every 16 years in case of EMAS companies (instead of 10) and every 12 for ISO 14001.	Companies subjected to IED legislation as scheduled by Annex I of Dir. 2010/75/UE

Because of the high level of regional autonomy in the management of environmental permit procedures in Italy, a significant number of regional best practices and one national best practice include measures categorized as "Fast track" permit procedures (see Table 25 below) In particular, the region of Emilia Romagna emerges as a front-runner in terms of the number and quality of simplifications in administrative procedures based on EMAS registration and ISO 14001 certification.

Examples of regional measures include reductions in the time needed for administrative proceedings lasting more than 30 days in the Tuscany region. This fast-track procedure is available for all EMAS-registered and ISO 14001-certified organisations. Similarly, Emilia Romagna's Regional Law 11/10/2004, n. 21 introduced shortened application procedures for EMAS-registered organisations obtaining the Environmental Integrated Authorisation. This shortened procedure is also available to a lesser extent for ISO 14001-certified organisations.

Also in Emilia Romagna, Regional Law 17/12/2003 (n. 26) allows environmental documentation created within the context of a certified EMS (EMAS and ISO 14001) to be considered as sufficient and valid in mandatory safety reports required by Directive 96/82/EC (the major-accident hazards Directive).

At the national level, the Legislative Decree 3 April 2006 (n.152) titled "Regulation on environmental topics", allows the use of EMAS documentation in application procedures for IED. This decree applies to all EMAS-registered organisations subject to IED legislation.

Table 25: Best practices – Fast track permits / simplification in the application, Italy

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Legislative Decree 3 April 2006, n.152 Regulation on environmental topics art. 29 -ter comma 3	National level	EMAS	The company can valorise data and documents drafted for EMAS registration to obtain the integrated environmental authorisation.	Companies subjected to IED legislation as scheduled by Annex I of Dir. 2010/75/UE
2	Regional Law July, 2009, n. 40 B.U. n. 27, first section,	Regional level (Tuscany)	EMAS and ISO 14001	The timing of administrative proceedings over 30 days is reduced by 25% for EMAS registered, ISO	All companies

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
	July 29th, 2009 Simplification Act and regulatory reorganisation.			14001- certified organisations, and for those that have at least one EU Eco-label certified product.	
3	Regional 17/12/2003, n. 26	Law Regional level (Emilia Romagna)	EMAS and ISO 14001	EMAS-registered companies and ISO 14001 certified companies under major-accident hazards directive, can use EMS information for notifications and safety reports	Companies under major-accident hazards Directive
4	Regional 11/10/2004, n. 21	Law Regional level (Emilia Romagna)	EMAS and ISO 14001	The administrative procedure for the Environmental Integrated Authorisation permit is shortened to 100 days for EMAS registered companies and to 130 days for ISO 14001 certified companies	Companies subjected to IPPC (now IED)

Modifications in the scope of environmental permits include two regional best practices, in the Emilia Romagna and Marche regions respectively (see Table 26 below). Each measure leverages advantages for EMAS-registered and ISO 14001-certified organisations in case of modifications to the Environmental Integrated Authorisation. In particular, each measure raises the authorisation’s threshold by 30% for EMAS-registered or ISO 14001-certified sites.

Table 26: Best practices – Modification in the aim of application, Italy

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Regional Law 20/04/ 2012, n. 3	Law Regional level (Emilia Romagna)	EMAS and ISO 14001	In case of extension or transformation of plants under EIA, for EMAS registered companies and ISO 14001 certified companies a further enlargement of 30% is foreseen.	Companies that are subjected to EIA procedure
2	Regional Law. N. 3 of 26/3/2012, art. 4	Law. Regional level (Marche)	EMAS and ISO 14001	Environmental Impact Assessment thresholds are increased by 30% for EMAS registered companies and ISO 14001 certified companies in the case of modification and improvement projects	Companies that are subjected to EIA procedure

At the national level, Law Decree 9/2/2012 (n. 5) introduces reduced inspection frequencies based on certified EMS (both EMAS and ISO 14001). In general, these measures contain bureaucratic simplifications addressed to the industrial sectors (see Table 27 below).

Table 27: Best practices – Reduced inspection frequencies, Italy

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Law Decree 9/2/2012, n. 5 «Disposizioni urgenti in materia di semplificazione e di sviluppo» (c.d. Decreto semplificazioni) adopted through the Law 35/2012, n. 35, art. 14, comma 4	National level	EMAS and ISO 14001	Inspection reduction for companies with management system by competent authorities	All companies

As in the case of “fast track” permits, several best practices at regional level include reductions of reporting and monitoring requirements. In particular, the Liguria region provides some examples of very effective measures (see Table 28 below). For instance, the Regional Law 30/12/1998 (n. 38) exempts EMAS-registered companies in most sectors from presenting an EIA during environmental permitting procedures. Similarly, Regional Resolution G.R. 16/11/2007 (n. 1361) provides the same benefit to waste treatment plants based on EMAS registration and ISO 14001-certification.

Table 28: Best practices – Reduced reporting and monitoring, Italy

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Regional Resolution G.R. 16-11-2007 n. 1361 (guidelines for treatment waste activities D.Lgs. 36/2003)	Regional level (Liguria)	EMAS and ISO 14001	EIA is not required for the certified firms in order to obtain a permit application to waste treatment	Waste treatment companies
2	Regional Law 24-3-1999 n. 9 (on administrative tasks of region according to Legislative Decree n. 112/1998, art. 17)	Regional level (Liguria)	EMAS	The procedure to obtain an authorisation or permit is simplified for a certified firm that can simply auto certify its declaration on the status of the infrastructures and/or activities	Production companies (including industrial, commercial, touristic activities)
3	Regional Law 30-12-1998 n. 38 on Impact Environmental Assessment - art.2 c. 6	Regional level (Liguria)	EMAS	Certified firms are admitted to the procedure aimed to administrative permit that needs an Environmental Impact Assessment without the duty to pass through it	All companies with projects subjected to Environmental Impact Assessment

Within the field of reductions in administrative fees, the Ministerial Decree 24 April 2008, titled "Fee application for checks and administrative procedures", grants certified companies subjected to the IED Directive reductions of the administrative fees for the modification and/or renewal of integrated environmental permits (see Table 29 below). The Decree benefits both EMAS-registered and ISO 14001-organisations; however, EMAS organisations benefit from considerably higher savings than ISO 14001 companies. For instance, the Decree envisions reductions ranging from €1,000 to €8,000 in the administrative fees associated with modifications in the integrated environmental authorisation for EMAS-registered organisations. In contrast, ISO 14001 certified-organisations receive reductions ranging from €500 to €5,000 for the same type of administrative fee.

Similar to the previous mechanism, Emilia Romagna grants EMAS-registered organisations and sites a 40% reduction in the fees for an integrated environmental authorisation. ISO 14001-certified organisations are granted a 20% reduction.

Table 29: Best practices – Reduction of administrative fees, Italy

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Ministerial Decree 24 April 2008 "Fee application for checks and administrative procedures"	National level	EMAS and ISO 14001	Reduction of administrative fee to apply by competent authorities: -From € 1,000 to € 8,000 euro for EMAS registered organisations and from € 500 to € 5,000 for ISO 14001 in case of issue and update for substantial changes of integrated environmental permit, (Annex I) - From € 500 to € 4,000 for EMAS registered organisations and from € 250 to € 2,500 for those certified ISO 14001, in case of renewal of integrated environmental authorisation (Annex II)	IED companies
2	Regional Resolution D.G.R. 11/04/2005, n. 667	Regional level (Emilia Romagna)	EMAS and ISO 14001	The fees for Environmental Integrated Authorization permits are reduced of 40% for EMAS registered companies and of 20% for ISO 14001 certified companies	IED companies

Among the most well-known regulatory relief measures in Italy is the reduction of financial guarantees provided within the Legislative Decree of 3 April 2006 (n.152) (see Table 30 below). This measure constitutes a best practice in the category of financial guarantees. According to the Decree, EMAS-registered organisations (within sectors subjected to IED Directive) can benefit from a 50% reduction in financial guarantees, while organisations with

ISO 14001 can benefit from 40% reduction. However, although this particular measure has provided an effective incentive for EMAS adoption, the survey respondents generally rated measures for the reduction of financial guarantees as providing low satisfaction. As a result, when looking at replication, MS should carefully examine the needs and wishes of organisations in their particular country.

Several regions replicate such reductions in financial guarantees in slightly different forms and scopes. For instance, in Emilia Romagna, Regional Resolution D.G.R. 13/10/2003 (n. 1991) grants EMAS-registered and ISO 14001-certified organisations operating in the waste sector 30% and 15% reductions in financial guarantees, respectively.

Table 30: Best practices – Reduction of financial guarantees, Italy

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Legislative Decree 3 April 2006, n.152 Regulation on environmental topics art. 29 -t-sexies, comma 9-septies. Adpted by Decree 26 May 2016 art.4 comma 1 a,b	National level	EMAS and ISO 14001	Reduction of financial guarantee for EMAS registered companies (50% less) or ISO 14001 certified (40% less).	Companies subjected to IED legislation as scheduled by Annex I of Dir. 2010/75/UE (Italian Legislative decree 4 March 2014, n. 46)

Concerning the ability to use self-reported documentation in the extension of environmental permits, Legislative Decree 3 April 2006 (n. 152) allows waste treatment plants with EMAS, EU Ecolabel and ISO 14001 to send in self-reported documentation as a substitute for permit renewal (see Table 31 below).

Table 31: Best practices – Self declaration in the procedure of extension of a permission, Italy

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Legislative Decree 3 April 2006, n.152 Regulation on environmental topics art.209 comma 1.	National level	EMAS and ISO 14001	Firms operating waste plants can provide auto certification for authorisation renewal or sectoral list for waste manager. The auto certification must be provided to competent authorities and is considered de facto a substitute for the authorisation.	EMAS, Ecolabel and ISO 14001 companies that manage waste plants

Concerning tax breaks, best practices exist at the regional level in Italy (see Table 32 below). In particular, the 3.5% reduction on the Italian national tax (IRAP) taxation in case of EMAS registration was a widespread best practice in Tuscany until 2013. The same measure,

based on the Regional Law 29/12/2010, n. 65 art.119, also granted a 3.85% reduction on IRAP (tax on net value of production) to ISO 14001-certified organisations in all sectors.

Table 32: Best practices – Tax breaks, Italy

#	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Regional Law December 29 th, 2010, n. 65 art.119 Renewal of the incentives provided with the Financial Law of 2005	Regional level (Tuscany)	EMAS and ISO 14001	Reduction of IRAP rate (regional fee) for the EMAS-registered (3.5%) and ISO 14001-certified organisation (3.85%). From 2005 to 2008 and extended until 2013	All companies

Best practices in Poland

Despite the low number of regulatory relief measures (i.e. seven measures), three best practices emerge from the assessment of the measures mapped in the Compendium (see Table 33 below). All the identified best practices are characterized by a high potential for replication, but at the same time, by unclear effectiveness at increasing the number of EMAS registrations in the country.

Among the identified best practices, both The Act on Excise Duty (6 Dec. 2008) and The Act on Waste (14 Dec. 2012) envisage a reduction of administrative fees and/or taxes. Specifically, the Act on Excise Duty exempts EMAS-registered and ISO 14001-certified organisations from the excise duty on gas and coal. The Act on Waste exempts EMAS-registered organisations from the payment of the registration fee necessary to enter Poland's obligatory waste management register and has led to significant uptake of EMAS in the waste sector.

Poland also foresees an exemption from mandatory energy audits (stemming from the requirements Energy Efficiency Directive) for EMAS-registered and ISO 14001-certified organisations. This exemption has a different scope than the similar best practice in Germany – in particular, extending the exemption to organisations with ISO 14001 but not those with ISO 50001 – but like its German counterpart is associated with a high level of satisfaction among surveyed organisations.

Table 33: Best practices, Poland

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description
1	Reduction of administrative fees	The Act on Excise Duty (6 Dec. 2008)	National level	EMAS and ISO 14001	Exemption from excise duty on gas and coal for organisation registered in EMAS or ISO 14001 certified
2	Reduction of administrative fees	The Act on waste (14 Dec. 2012)	National level	EMAS	Exemption from the registration fee for the new register for waste management sector for EMAS registered organisations. New register will be created in 2018.

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description
4	Reduced inspections frequencies	The Act on Energy Efficiency (20 May 2016)	National level	EMAS	Exemption from energy audits for organisation registered in EMAS or ISO 50001 certified if energy audit is provided as part of EMAS or ISO 50001 management system.

Best practices in Spain

As in the case of Italy, the Spanish legislative framework presents a high number of regulatory relief measures based on voluntary environmental management schemes. Accordingly, the assessment of the identified measures identified a comparatively high number of best practices. Because of the high number of overall measures, only those with the highest scores (three points) are included in the following analysis.

Not surprisingly, the vast majority of identified best practices (9 out of 11) are promoted by regional authorities, and therefore implemented at the regional level. In particular, five of the 11 identified best practices stem from the País Vasco regional authorities, while the Catalanian regional authorities have implemented two and the Regional Ministry of Madrid, the Regional Government of Andalusia have implemented one best practice each. Eight out of 11 Spanish best practices exclusively address organisations with EMAS instead of targeting several schemes.

Among reductions of reporting and monitoring obligations, Law 5/2003 of 20th March (article 53.2.c), promoted by the Regional Ministry of Madrid, grants EMAS-registered hazardous waste management companies operating in the region an exemption from biannual environmental audits. Similarly, País Vasco’s Decree 112/2012 of 26th June on Construction and Demolition Waste introduces EMAS as a criterion for the reduction of the monitoring obligations for construction companies operating in the region.

Table 34: Best practices – Reduced reporting and monitoring requirements, Spain

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Reduced reporting and monitoring requirements	Law 5/2003 of 20th March, on Waste in Madrid, BOE No. 128 of 29th May (article 53.2.c)	Regional level	EMAS	Exemption from Environmental Audits (biannual) for hazardous waste management companies (and also those organisations generating hazardous waste)	Organisations generating hazardous waste and waste contractors located in the Region of Madrid
2	Reduced reporting and monitoring	Decree 112/2012 of 26th June, on Construction	Regional level	EMAS	The competent environmental authority will be able to modify the	Construction sector in País Vasco (Basque

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
	requirements	and Demolition Waste in País Vasco, BOPV No. 171 of 3rd September (article 6)			frequency of monitoring by exempting organisations or spreading out inspections. A certified EMS according to EMAS is one criterion for their decision	Country)

The same Decree 112/2012 of 26th June, targeting the construction sector in the País Vasco region, includes EMAS as a prerequisite for an organisation's exemption from mandatory financial guarantees. Despite the limited application of this regulatory relief measure in the region, interviewed stakeholders expect the exemption from financial guarantees to have a great impact on EMAS adoption in the País Vasco construction sector in the next future.

Table 35: Best practices – Reduction of financial guarantees, Spain

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Reduction of financial guarantees	Decree 112/2012 of 26th June, on Construction and Demolition Waste in País Vasco, BOPV No.171 of 3rd September (art. 5)	Regional level	EMAS	EMAS-registered organisations will be exempt from providing a financial guarantee	Construction companies located in País Vasco (Basque Country)

The Spanish best practices in terms of reduced inspections focus exclusively on EMAS. Among these measures, Catalonia's Law 20/2009 of 4th December on Environmental Inspection and Control Activities entails the exemption from periodic environmental inspections for EMAS-registered sites in several industrial sectors. Despite the high potential effectiveness of this measure, its diffusion is currently limited because many companies are still unaware that this exemption exists. In the País Vasco region, competent authorities envision EMAS registration as a criterion for the reduction of environmental inspections according to Decree 278/2011, targeting most sectors involved in industrial activities.

Table 36: Best practices – Reduced inspections, Spain

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Reduced	Decree 278/2011 on	Regional	EMAS	The CA on environment will be	Industrial sector

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
	inspections	Activities which can potentially pollute the atmosphere in País Vasco, BOPV No. 15 of 23th January (article 22)	level		able to modify the frequency of these controls by exempting or spreading them taking into account, among other issues, that the facility has a certified EMS according to EMAS Regulation.	
2	Reduced inspections	Environmental risk assessment methodology defined by the Regional Government of Andalusia	Regional level	EMAS	EMAS-registered organisations not having any repeated violations will obtain a reduction in the frequency of inspections from annual to biannual or from biannual to triennial	IED Activities
3	Reduced inspections	Law 20/2009 of 4th December, on Environmental Inspection and Control Activities, DOGCNo. 5524 of 11st December (article 71.3) in Catalonia	Regional level	EMAS	Exemption of periodic control activities for EMAS-registered organisations.	Different sectors (but mainly industrial)

Among fiscal relief measures or tax breaks, the national-level Ministerial Order FOM/818/2004 of 24th March concerning taxation for the occupation of the Public Port Domain emerges as particularly relevant. The tax breaks have led to EMAS adoption among a considerable number of organisations operating in the major Spanish ports, suggesting a high effectiveness of the measure for motivating organisations to adopt EMAS. Similarly effective is Catalonia’s Legislative Decree 3/2008 of 25th June on Public Fees and Prices, which grants a 50% reduction in the tax on soil pollution (Law 20/2009) based on EMAS registration.

Table 37: Best practices – Fiscal relief, Spain

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Tax breaks	Ministerial Order FOM/818/2004 of 24th March, approving ports taxes, incentives and exemptions, BOE No. 78 of 31st March (article 5)	National level	EMAS and ISO 14001	Discount on tax for occupation of the Public Port Domain for EMAS-registered or ISO 14001 certified organisations (higher % for EMAS).	Organisations located within the maritime public domain (ports)
2	Tax breaks	Law 4/2015 of 25th June, for the prevention and remediation of soil contamination in País Vasco, BOPV No. 123 of 25th June	Regional level	EMAS	A discount of 50% on fees associated with soil pollution for EMAS-registered organisations	Activities and installations potentially polluting the soil (see Annex I)
3	Tax breaks	Legislative Decree 3/2008 of 25th June, on Public Fees and Prices in Catalonia, DOGC No. 5161 of 27th June (Title XII-Chapter XIII-Article 12.13-3)	Regional level	EMAS	A discount of 50% in the tax rates established by Law 20/2009 for EMAS-registered companies	Organisations following under Environmental Authorisation/licence of Regional Gov.

Among a total of four Green Public Procurement (GPP) measures in Spain, the Regional Decision 6/2008 of 2nd June of 2008 emerges as the one with the most potential to drive EMAS registrations in the future in the País Vasco region. It is also the GPP measure with the greatest potential for replicability. The measure replicates similarly effective GPP measures such as the Royal Legislative Decree 3/2011 of 14th November that contributed to EMAS adoption throughout Spain. The Regional Decision 6/2008 introduces voluntary environmental management schemes, such as EMAS and ISO 14001, as environmental criteria in public tenders.

Table 38: Best practices – Green public procurement, Spain

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Green public procurement	Regional Decision 6/2008 of 2nd June of 2008 on Public Procurement in País Vasco	Regional level	EMAS and ISO 14001	Inclusion of environmental criteria (EMAS/ISO 14001/EKOSCAN) in the process of public procurement as technical solvency criterion	Contracts/public tenders whose performance can damage the environment

Royal Decree 876/2014 of the 10th October emerges as the only good practice measure that extends the validity of permits based on voluntary environmental management schemes. The decree operates within the General Regulation on Coasts and extends the validity of permits for activities occupying the state maritime and terrestrial public domain. Within the Catalonia region, the measure has been effective at increasing interest in EMAS among companies operating in the major ports of the region.

Table 39: Best practices – Extension of validity of permits, Spain

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Extension of validity of permits	Royal Decree 876/2014 of 10th October, approving the General Regulation on Coasts, BOE No. 247 of 14th October (article 175.1d)	National level	EMAS and ISO 14001	Extraordinary extension of the administrative concession validity period for occupation activities of state maritime and terrestrial public domain	Public tenders whose performance can damage the environment

Best practices in United Kingdom

Among the two regulatory relief measures mapped in the UK, only one emerges as a best practice. The measure, which concerns a reduction in administrative fees associated with inspection and authorisation procedures, is introduced within the Environmental Permitting Regulations of 2013 in England and Wales (see Table 40 below). According to the measure, EMAS-registered organisations are assigned better scores in the context of the Operational Risk Appraisal (OPRA). As a result of their lower risk rating, EMAS-registered organisations pay lower administrative fees for permits. However, reports from stakeholders and surveyed companies indicate that this measure has had a limited impact. The approach could be improved by also reducing the number of inspections for low-risk companies.

Table 40: Best practices, UK

#	Typology	Legislative Reference	Level of application	Voluntary scheme addressed	Description	Scope
1	Reduction of administrative fees	Environmental Permitting (England and Wales) (Amendment) Regulations 2013	National level	EMAS and ISO 14001	EMAS registered organisations are assigned higher OPRA scores (higher also compared to ISO 14001) and pay therefore lower fees and charges to the regulators.	Installations classified for dangerous activities

Conclusion

- The assessment of the identified measures of regulatory relief based on EMAS identified a total of 58 best practices. Among the selected Member States, Italy, Germany and Spain have a high number of best practices addressed to EMAS-registered organisations, given the relevant number of regulatory reliefs within their legislative framework;
- Among the different typologies of regulatory relief measures, reductions in reporting or monitoring requirements, tax breaks, reduced inspection frequencies and “fast track” permits are the typologies most populated with best practices.

3.5 Reasons for implementing regulatory relief

An analysis of the reasons behind the 44 best practice EMAS regulatory relief measures from Austria, Germany, Italy and Spain revealed that the regulatory relief measures fell into four categories:

- a) Justified because of a characteristic unique to EMAS
- b) Justified for companies with a certified EMS, but would also apply to organisations with an ISO 14001 certification
- c) Not justified on the basis of existing information (e.g. regulator/policymaker says EMAS organisations are more trustworthy, have better compliance or better performance without providing a reason why)
- d) Not applicable (the measure was already applied to organisations with different types of certified EMS and so no justification specific to EMAS is necessary)

Justifications of regulatory relief measures that are based on a characteristic unique to EMAS fall largely into the following categories:

- 1) **Transparency of third party validated information (environmental statement)** - this characteristic usually justifies less frequent inspections or other advantages

based on the large amount of transparent, public information available in the statement or, alternatively, it allows organisations to substitute a reporting requirement for the environmental statement.

- 2) **Better legal compliance** because of audits though **environmental verifiers licensed by a public body** who decides on their training/qualification requirements and demands individual exams to high standards. This reason was mentioned specifically in Germany and Austria, where environmental verifiers undergo a licensing procedure designed by the state.
- 3) **Better legal compliance** because of **special communication between public enforcement authorities and environmental verifiers**, for example: inspection authorities accompanying the verifier on occasional audits; verifiers using checklists from public bodies
- 4) **Better transparency and legal compliance** because **environmental verifier checks additional documents** related to permits, legal compliance, and to the environmental review during the audit. Interviewees also mentioned that EMAS organisations are better prepared for inspections and permit renewals because of their better documentation, thereby saving time for authorities. They also have a greater commitment in relation to legal compliance and therefore a better capacity to respond and to collaborate with the administration in case of problems. Finally, several interviewees reported that when organisations are aware that they are listed in a public register, they tend to be more meticulous in their controls, in some cases performing more controls than those required by the legislation itself.

In Italy, Member State representatives made an added point about the important role of transparency in rewarding EMAS-registered organisations: they felt that having a **public, 3rd party validated environmental statement increased legal compliance**. In Italy, NGOs and local organisations have on several occasions contacted the CB to ask questions about the EMAS-registered organisations' emissions as found in the environmental statement. Italian authorities feel the transparency of EMAS-registered organisations allows the public to provide an extra "check" on legal compliance, and that EMAS-registered organisations recognize and respond to this pressure with better compliance than other companies.

Furthermore, representatives of all four countries pointed out that the **existing legal compliance check** of the authorities to see if organisations have had complaints lodged against them already represents an **added value compared to ISO 14001 organisations**, where the auditor has to rely on the company's own information.

Additionally, in Spain, interviewed government representatives from three different regions mentioned that EMAS as a public instrument provides policymakers and public authorities with **additional opportunities both to influence the content of the scheme and to interact with companies**, increasing trust on both sides.

Justifications given in interviews but considered not unique to EMAS applied to, for example, regulatory relief based on assumed better environmental performance (without benchmarks), lower risk because of audits and other parts of a certified environmental management system without any additional assurance specific to EMAS. These aspects demonstrate a justifiable advantage for organisations with certified environmental management systems over organisations without a certified EMS, but do not justify a significant difference in the treatment of EMAS-registered and ISO 14001-certified organisations. In most cases, these regulatory relief measures already apply to both types of organisations.

3.6 EMAS and legal compliance: assessing the role of EMAS in facilitating compliance with environmental regulation

3.6.1 Analysis of EMAS Regulation and governance system and their capacity to support legal compliance

Many studies have investigated the benefits of EMAS at the organisational level. Most technical and scientific literature agrees that the internal benefits (e.g. better internal management of environmental aspects) of EMAS at the organisational level are often higher than the external ones (e.g. market competitiveness). The discrepancy between the benefits has been observed and confirmed in the 2006 EVER study (IEFE Bocconi et al. 2005) and the more recent evaluation study carried out in 2015 (adelphi and S. Anna School of Advanced Studies 2015). Both studies have argued that out of the internal benefits, a specific benefit plays an important role: the improved capacity of registered organisations to manage legal compliance. In particular, the research techniques applied in those studies highlighted how internal audits, external audits, and legal compliance management procedures contributed to improving the management of environmental legal compliance, especially in SMEs.

Although EMAS and ISO 14001 share common requirements, it has been debated which standard is more effective at managing legal compliance. Based on the analysis of EMAS regulation, survey results and interview data, the present section aims at integrating and advancing the current understanding of EMAS as a tool for supporting organisations' compliance with environmental regulations.

Therefore, particular attention has been paid to comparing the requirements of the EMAS Regulation vis-à-vis its complementary environmental management standard, ISO 14001, in order to highlight differences in their approach to legal compliance. Second, the analysis assesses environmental verifiers' perception of EMAS's effectiveness in ensuring legal compliance compared to ISO 14001. Third, based on desk research and interview data, the analysis aims to outline the specific features of the EMAS Regulation and its governance structure that strengthen or undermine the scheme's capacity to demonstrate legal compliance. It also highlights opportunities for (or threats to) further developing EMAS as a supporting tool for legal compliance. Fourth, the chapter identifies potential modifications to the EMAS Regulation to improve EMAS-registered organisations' eligibility for regulatory relief measures based on EMAS's capacity to reduce and monitor both environmental risks and risks of non-conformity with environmental regulations.

3.6.2 EMAS Regulation vis-à-vis ISO 14001 requirements concerning legal compliance

Taking into consideration that ISO 14001 is the standard of reference for EMAS and that both standards share a basic common set of requirements, organisations may assume the same level of specificity on legal compliance issues exists for the two standards. However, the in-depth analysis of the specific requirements of both standards highlights that the EMAS Regulation aims at going beyond ISO 14001 on specific issues related to legal compliance and auditing. In particular, according to paragraph "B.4. Legal compliance" of "Part B - additional requirements for organisations implementing EMAS", contained in Annex II of Regulation (EC) No 1221/2009, "*organisations registered with EMAS or wishing to register shall demonstrate that they have fulfilled all the following conditions:*

- (1) they have identified, and know the implications to the organisation of all applicable legal requirements relating to the environment;*

(2) they ensure legal compliance with environmental legislation, including permits and permit limits and provide the appropriate evidence;

(3) they have procedures in place that enable the organisation to ensure ongoing legal compliance with environmental legislation.”

These requirements aim to supplement the legal compliance requirement of paragraph “A.6.1.3 Compliance obligations” of “Part A - environmental management system requirements under EN ISO 14001:2015”. This section includes the obligations to identify compliance obligations related to the environmental aspects of the organisation, determine how they apply to the organisation’s activities, and take them into account while implementing and maintaining the EMS.

Also in the more recent Regulation 2017/1505, which amends the Annex II of the EMAS Regulation by adopting the content of ISO 14001:2015, paragraph B.4 of Part B –“ additional requirements for organisations implementing EMAS” – confirms these additional legal compliance requirements.

These legislative references indicate that EMAS aims to go beyond ISO 14001 by integrating full compliance as a specific requirement for auditors to validate. In contrast, ISO 14001 reference documents include a weaker legal compliance obligation, clearly establishing a net distinction between the EMS certification audit and a legal compliance audit. For instance, according to paragraph 9.1.2.2.2 of the norm EN ISO/IEC 17021 on “Requirements for bodies providing audit and certification of management systems”, *“the audit objectives shall describe what is to be accomplished by the audit and shall include the following:*

- a) Determination of the conformity of the client’s management system, or parts of it, with the audit criteria;*
- b) Evaluation of the ability of the management system to ensure the client organisation meets applicable statutory, regulatory and contractual requirements;”*

By exclusively referring to the ability of the management system to ensure the compliance of the organisation to environmental legislation, the norm relieves auditors from a duty to actually assess and validate legal compliance. As further evidence, an explicit note to paragraph 9.1.2.2.2 of the document indicates that *“a management system certification audit is not a legal compliance audit”*.

This aspect is also confirmed by the ISO/IEC 17021-1:2015 that in the paragraph 9.2.1.2 establishes:

9.2.1.2 The audit objectives shall describe what is to be accomplished by the audit and shall include the following:

- a) determination of the conformity of the client’s management system, or parts of it, with audit criteria;*
- b) determination of the ability of the management system to ensure the client meets applicable statutory, regulatory and contractual requirements;*

Again this updated version of the ISO17021 standard reports: *“A management system certification audit is not a legal compliance audit”*.

EMAS, in contrast, requires a stronger commitment from environmental verifiers. Based on Annex VII of Regulation (EC) No 1221/2009, verifiers are required to fill and sign the “Environmental Verifiers’ declaration on verification and validation activities” in order to officially confirm that the verification and validation processes did not provide any evidence of non-compliance with environmental legislations. By signing the declaration envisioned by Annex VII, environmental verifiers declare that:

- “the verification and validation has been carried out in full compliance with the requirements of Regulation (EC) No 1221/2009,

- the outcome of the verification and validation confirms that there is no evidence of non-compliance with applicable legal requirements relating to the environment,
- the data and information of the environmental statement/the updated environmental statement of the organisation/site reflect a reliable, credible and correct image of all the organisations/sites activities, within the scope mentioned in the environmental statement”

This comparison demonstrates that the EMAS Regulation combines, by means of very specific and explicit clauses, the verification of compliance with the Regulation itself with verification of compliance with the existing environmental legislation. It thus goes beyond the requirements of the ISO 14001 standard.

3.6.3 Perceived effectiveness of EMAS compared to ISO 14001 in ensuring legal compliance: the results of the survey

Given their expertise in the auditing process, environmental verifiers were asked to assess the effectiveness of EMAS compared to ISO 14001 in ensuring organisations’ legal compliance. According to 42% of surveyed environmental verifiers, EMAS is strongly or somewhat more effective than ISO 14001 in ensuring compliance with environmental regulations. Taking into consideration that both environmental management standards envision a certain degree of compliance and periodic audits as explicit requirements, this result is significant. While 30% of the respondents consider EMAS moderately or only slightly more effective than ISO 14001, only 28% of surveyed environmental verifiers stated that EMAS is not more effective than ISO 14001 with regard to ensuring legal compliance.

Table 41: Effectiveness of EMAS compared to ISO 14001 – Environmental Verifiers questionnaire (all respondents)

Please rate the relative effectiveness of EMAS compared to ISO 14001, in relation to the following factors:					
	EMAS is strongly more effective than ISO 14001	EMAS is somewhat more effective than ISO 14001	EMAS is moderately more effective than ISO 14001	EMAS is slightly more effective than ISO 14001	EMAS is not more effective than ISO 14001
Ensure compliance with environmental regulations	25.0%	16.7%	16.7%	13.9%	27.8%

No. of respondents: 36

Because EMAS is a public standard, some MS involve public inspection agencies in the certification process. The involvement of public inspection agencies may positively influence the perceived trustworthiness and reliability of the standard. Italy in particular mandates this involvement, likely influencing the results because Italian environmental verifiers represent the vast majority (70%) of the surveyed sample in the present study. To control for this possibility, Italian respondents were then excluded from the analysis. Afterwards, the percentage of verifiers who stated that EMAS is strongly or somewhat more effective than ISO 14001 in ensuring legal compliance decreased to 33%. According to 55.6%, EMAS is moderately or slightly more effective than ISO 14001. However, trust in EMAS overall is even stronger -

the percentage of respondents who do not think that EMAS is more effective than ISO 14001 decreases to only 11%. These results indeed indicate that a large portion of Italian verifiers appreciate EMAS effectiveness in ensuring legal compliance, but most importantly they highlight a positive perception of EMAS as a supporting tool for legal compliance among verifiers throughout Europe.

Table 42: Effectiveness of EMAS compared to ISO 14001 – Environmental Verifiers questionnaire, without responses from Italy

Please rate the relative effectiveness of EMAS compared to ISO 14001, in relation to the following factors:					
	EMAS is strongly more effective than ISO 14001	EMAS is somewhat more effective than ISO 14001	EMAS is moderately more effective than ISO 14001	EMAS is slightly more effective than ISO 14001	EMAS is not more effective than ISO 14001
Ensure compliance with environmental regulations	33.3%	0.0%	33.3%	22.2%	11.1%

No. of respondents: 9

3.6.4 Strengths, weaknesses, opportunities and threats to EMAS capacity to demonstrate legal compliance

Although the survey results provide a positive outlook on the topic of EMAS and legal compliance, the analysis of the weaknesses and threats associated with the scheme’s capacity to manage legal compliance may highlight a number of pitfalls or unexplored opportunities. Taking into account the opinions of interviewed stakeholders, the project team prepared a SWOT analysis focusing on EMAS capacity to manage legal compliance. The results are presented in the next table. This analysis was conducted in reference to both the EMAS Regulation 1221/2009 and the governance structure of the respective Member States.

At the regulation level (see Table 43 and Table 44), the analysis pointed out that inaccuracies or shortcomings may lead to public authorities’ mistrust in the verification process and to differences in the effectiveness of the compliance verification process from one MS to another. The EMAS Regulation’s limited detail on the verification process may indeed contribute to public authorities’ low awareness of the role of environmental verifiers and limited understanding of the EMAS auditing process. These factors appear in turn to lead to authorities’ reluctance to adopt measures of regulatory relief for EMAS-registered organisations, such as reductions in the frequency of inspections. Second, the regulation’s limited detail (especially in terms of dedicated man-days) on the verification process leads to a lack of harmonization of the process among MS. Consequently, the degree of legal compliance verification, as well as overall perceptions of the auditing process, may vary from country to country. Furthermore, a lack of clarity concerning which specific legislative areas must be included in the scope of EMAS legal compliance may further undermine the credibility and reliability of the verification process in the eyes of public authorities.

Table 43: EMAS Regulation and Governance structure – Strengths & Weaknesses

Strengths	Weaknesses
EMAS Regulation	EMAS Regulation
<ul style="list-style-type: none"> • Legal compliance is a minimum requirement to obtain registration and verifiers dedicate lots of time during audits to verifying legal compliance; • Desk research demonstrates that better management of legal compliance is the most important benefit of EMAS; • Several stakeholders (verifiers included) maintain that EMAS is the most important environmental management tool to demonstrate legal compliance; • Higher levels of relief/simplification for EMAS than for ISO 14001 in the same regulatory measure often demonstrate higher levels of trust from policy makers for EMAS • The Regulation increases pressure on organisations to keep emission limits below the legal threshold; 	<ul style="list-style-type: none"> • The public inspection agencies often do not know the role of verifiers and the auditing process can create mistrust; • Often the EMS is managed only by the EHS department. Other organisational departments, while important for legal compliance, are not fully integrated in the EMS; • For some legislative areas that are “borderline” (e.g. urban building permits), the Regulation is not fully clear as to whether they fall under the scope of EMAS legal compliance or not; • The rules related to the required number of man hours to dedicate to EMAS audits are not harmonized in the different MS. These discrepancies can lead to a different degree of environmental compliance verification in the different MS;
Governance system	Governance system
<ul style="list-style-type: none"> • All verifiers must be accredited. In other environmental certification schemes such as ISO 14001 the certification bodies can operate without accreditation; • As a public tool managed by a public Committee, EMAS assures more “legal trust” in different stakeholders; • In some MS (like Italy) the public inspection agency is involved in the EMAS verification process, increasing the trust of policy makers and the capacity of EMAS to benefit from regulatory relief; 	<ul style="list-style-type: none"> • Need in some MS to have the CB inspect the behavior of organisations in case they exceed emission limits; • Customer-supplier relation between verifier and registered organisations; • EMAS registered organisations could be subjected to environmental sanctions or environmental accidents and the current system in some MS does not clarify if in these cases EMAS must be suspended or not;

At the governance structure level, the duty of accreditation for EMAS environmental verifiers is a strength of the scheme which should be valorised. However, the issue of the auditor’s independence (which stipulates a supplier-client relationship with the registered organisations) may potentially threaten the credibility of the governance structure from the perspective of public authorities. In this regard, involving public authorities in the certification and verification processes (as in the case of Italy) may overcome this potential issue and increase policymakers’ trust. Further discrepancies at the governance level include a lack of indication of whether or not EMAS-registered organisations should be suspended in the case of environmental accidents or sanctions.

Opportunities for strengthening EMAS’s capacity to demonstrate legal compliance rely on enhancing cooperation and communication between public authorities, inspection agencies and environmental verifiers. To complete and integrate the SWOT analysis, the next section of this study proposes specific modifications the EMAS Regulation in order to increase the scheme’s capacity to justify regulatory relief and provide benefits for authorities.

Table 44: EMAS Regulation and Governance structure – Opportunities & Threats

Opportunities	Threats
EMAS Regulation	EMAS Regulation
<ul style="list-style-type: none"> • Strengthen the section of the Environmental Statement related to the description and details of legal compliance; • Include a better link in the Environmental Statement between performance and BAT (and BAT-AEL) in order to improve the legal compliance evidence of the registered organisations in the scope of the IED; • Include a requirement in the EMAS Regulation to draft an external emergency plan to manage environmental emergencies in cooperative neighbor organisations (similar to the approach of SEVESO Directive); • Increase the relevance of EMAS audits as a legally compliant official verification in order to increase the scheme’s ability to obtain regulatory relief, especially for reductions in inspection frequencies; 	<ul style="list-style-type: none"> • Desk research suggests that sometimes organisations with a certified EMS adopt a “ceremonial” behavior i.e. apply the standard in a non-substantial way; • If the role of EMAS as an official legal inspection were increased, the public inspection agencies might experience a reduction in their inspection fees;
Governance system	Governance system
<ul style="list-style-type: none"> • Involve the public inspection agencies in the first audit to achieve EMAS registration, as is already the case in Italy; • Involve the public inspectors in the process of accreditation of EMAS verifiers. For example they could act as observers for EMAS to check the verifiers’ behavior, increasing their trust in EMAS capacity to assure legal compliance. • Encourage the creation of separate public licensing bodies for EMAS environmental verifiers, as is the case in Austria, Germany and Italy. 	<ul style="list-style-type: none"> • In some MS the accreditation system has been passed to private accreditation bodies that are also responsible for ISO standards, so the added value of public accreditation is reduced; • MS changing from an accreditation to a public licensing body could be costly, time-consuming and politically difficult; • Lack of awareness of EMAS policymakers’ efforts to improve legal compliance can cause mistrust;

3.6.5 EMAS modifications to improve its capacity to demonstrate legal compliance and to benefit from regulatory relief

During the interviews carried out with relevant stakeholders, the study team asked interviewees to express their opinions about possible modifications to adopt in the EMAS governance system or in EMAS regulation to increase EMAS capacity to receive regulatory relief or to attract more organisations. The data collected illustrate various opinions on this topic. A common issue discussed by two different EMAS subjects (a Czech verifier and the Basque CB) was the flexibility given to the Member States in regards to the decision to approve regulatory relief. Firstly, they state that the wording used in the EMAS Regulation or other policy acts related to adopting regulatory relief is too weak. Secondly, they feel this approach should be applied not only to the EMAS regulation but also to EU legislation. EU Directives and regulations should be more precise about the relief MS are allowed to or encouraged to adopt for EMAS. In other words, the Czech verifier and Basque CB suggest reducing the

application of the subsidiarity principle for EMAS and instead suggest providing more details in the Directives instead of including flexibility in the implementation by MS.

An Italian and an Austrian verifier agreed on a specific “structural” problem that affects EMAS and not ISO 14001. The problem is related to the mechanism of accreditation of EMAS verifiers. In the case of EMAS, the verifiers must be accredited per NACE code. If an EMAS verifier is not an expert with regard to the specific NACE code, the verifier cannot carry out the certification audit. In the case of ISO 14001, the accreditation is not based on each single NACE code but on specific “Economic Activity” code (EA code). Each EA code includes difference NACE codes and for this reason ISO is a more flexible approach. The interviewees stated that this situation invites the verifier to suggest ISO 14001 instead of EMAS because many times they receive requests from companies for a specific NACE code not covered by their staff, while the EA code – under which that NACE code is included – is covered. For this reason, in order not to lose the client, the verifiers propose or promote ISO 14001 instead of EMAS. According to the authors’ experiences, this problem is more significant than the added value of EMAS compared to ISO14001. The benefit of working with an auditor experienced with a specific NACE code is lower than the burden of identifying an auditor who has this experience. The accreditation of EMAS verifiers according to EA codes such as ISO14001 could therefore be a better solution, although care would have to be taken that it does not reduce the effectiveness of the audit.

A Spanish verifier highlighted the need to clear up the rules to calculate the man hours necessary for auditing. In addition, the verifier states that the contents of the environmental statement should focus more on specific information that could increase the possibility of regulatory relief approval. Finally, a UK stakeholder suggested modifying EMAS regulation in two ways: eliminating KPIs and introducing certain specific topics linked with specific indicators, and including a forward-looking perspective in the regulation by including requests to analyse and assess future environmental risks.

In the next table, we highlight the current characteristics of the EMAS Regulation that justify the possibility of obtaining that relief when compared to companies with no certified EMS.

Table 45: Link between regulatory relief category and EMAS features

Regulatory relief category	EMAS characteristics to support the regulatory relief category
Reduction of financial guarantee	Usually the financial guarantees in the permitting procedures are required to be used in the case of environmental accidents. If EMAS were to allow for better environmental risk management, it could benefit from this kind of relief.
Extension in the validity of a permit	Considering EMAS’s capacity to guarantee higher legal environmental compliance and quick communication and transparency, it is less necessary for the competent authorities to examine the environmental situation of each site in the short term compared to non-certified companies. Therefore, the duration of the permit could be extended.
Reduced reporting or monitoring requirements	EMAS requires and an externally validated environmental statement. By using this document for reporting obligations, the reduction of reporting requirements is highly feasible.
Reduced inspection frequency	This category of regulatory relief can be justified by several EMAS features:

Regulatory relief category	EMAS characteristics to support the regulatory relief category
	<ul style="list-style-type: none"> • EMAS capacity to better manage environmental aspects, reducing environmental risks • EMAS capacity to guarantee higher legal compliance • Frequent inspections activities carried out at EMAS sites through internal and external audits
Self-declaration in the application for the temporal extension of a permit; Self-declaration in the application for a new permit	EMAS means transparency, trust, and cooperation with public authorities. This approach can be rewarded by adopting a permitting procedure that competent authorities can accept self-declaration from EMAS companies in the renewal or issuance of a permit.
Modification in the aim of the application	The EMAS capacity to better manage environmental aspects and risks can be rewarded by increasing the thresholds of certain legislation that correspond to certain level of environmental risks (e.g. IED, EIA, SEVESO)
Green Public Procurement	EMAS assures lower impacts when providing services or in the production process.
Credit access or funding support	EMAS requires performance improvement through the adoption of specific environmental objectives. Funding support could be tied to the improvement of organisations performance.
Tax breaks; Reduction of administrative fees	EMAS improves performance, thereby reducing negative externalities (e.g. costs for local communities, etc.). This economic aspect of environmental performance can justify tax reductions.

The following table summarizes the analysis, the EMAS features highlighted in the preceding tables, and recommended modifications. The table is structured as follows: the columns list the different steps of EMAS, while the rows indicate the two key aspects of EMAS related to the assurance of legal compliance as revealed through interviews. The table further contains the authors' proposals to modify the EMAS Regulation.

Table 46: Proposals for the modification of EMAS Regulation

	1) <i>EMAS allows for better management of activities by reducing environmental risks</i>	2) <i>EMAS capacity to guarantee higher legal compliance</i>
Environmental Initial Review	/ The EMAS regulation has been recently updated and now requires a risk assessment	/ The EMAS Regulation has been updated to require that in addition to identifying the legal requirements, the organisation should indicate how evidence that it is complying with the different legal requirements can be provided

	1) <i>EMAS allows for better management of activities by reducing environmental risks</i>	2) <i>EMAS capacity to guarantee higher legal compliance</i>
Environmental Programme	<p>Include specific actions to reduce future risks (e.g. adaptation measures for climate change risks)</p> <p>Since the introduction of Sectoral Reference Documents (SRDs), the organisation has to compare its internal processes with the recommended best environmental practices and benchmarks of excellence of its sector. Relevant improvement points should be included in the organisation's environmental programme for the following year. The organisation also has to consider the sector-specific indicators in the SRDs when choosing the indicators for its environmental reporting.</p> <p>Reaching the indicators could be a condition for being granted regulatory relief.</p>	/
Legal and other requirements	/	Specify more clearly how the registered organisations should carry out the periodic evaluation of compliance (e.g. which tools are expected to be used in that activity, qualifications of the people in charge for that activity)
Resources, roles, responsibilities	/	Require the addition of legal compliance that could be different from the responsibilities of the EMS
Communication	Share the emergency response procedure with authorities for EMAS organisations that exceed certain thresholds but that are still not included in SEVESO	Include mandatory communication to authorities when emission thresholds are exceeded.
Training	Include mandatory training on the management of environmental risks and emergency situations (beyond and stricter than the traditional activities on fire prevention and evacuation)	Require mandatory training for employees responsible for the EMS for at least 8 hours every 3 years

	1) <i>EMAS allows for better management of activities by reducing environmental risks</i>	2) <i>EMAS capacity to guarantee higher legal compliance</i>
Monitoring and measurement	Include records on emergencies avoided or tested	Require the use of quantitative benchmarks that deal with environmental legislation. For example, an EMAS organisation should compare its performance with BAT-AEL even if it is not in the scope of IED.
Non-conformity	Require communication with the verifier on emergencies and environmental risks dealt with in a non-conform manner	Require communication with the verifier on any legal non-conformity identified during the audit
Internal Audit	Dedicate a specific section of the audit report to the assessment of risk management.	Send communication to the inspection authorities to invite them to participate as observers in the internal audit.
External audit	/	Send communication to the inspection authorities to invite them to participate as observers in the external audit. Include the need to send the verifiers' audit report to the inspection authorities
Management review	Dedicate specific management review for the legal compliance and environmental risks (and not consider legal compliance as just one part of the discussion during the review, as it is currently)	Dedicate specific management review for the legal compliance and environmental risks (and not consider legal compliance as just one part of the discussion during the review, as it is currently)
Environmental Statement	Give a clear description of added value of EMAS to avoid environmental risks in activities requiring financial guarantees (e.g. waste management)	Transfer the administrative ITER of Italy to the other countries, i.e. involve inspection bodies in the first validation of the environmental statement Indicate in the environmental statement how the legal compliance check has been performed (see new requirements of the environmental review)

Conclusion

- The EMAS Regulation's requirements are more specific than ISO 14001 on legal compliance issues. In particular, this specificity includes the EMAS verifier's obligation to check for evidence of legal compliance, including documentation, and to sign a statement that they have seen no evidence of not fulfilling audit criteria. Supporting documents of the ISO 14001 standard, on the other hand, establish a

clear distinction between the EMS certification audit and a legal compliance audit.

- Environmental verifiers perceive EMAS as more effective than ISO 14001 at ensuring legal compliance. Over 70% of surveyed environmental verifiers find EMAS more effective than ISO 14001 at ensuring compliance with environmental regulations. This view is shared by approximately the same percentage of EMAS-registered organisation responding to the follow-up survey. Verifiers thus confirm EMAS's role as a reliable tool for demonstrating legal compliance.
- Additionally, the vast majority (72%) of the surveyed verifiers consider EMAS strongly or somewhat more effective than ISO 14001 in ensuring the transparency, trustworthiness and completeness of environmental reports and documentation. These aspects are essential prerequisites for a positive relationship with authorities and indicators of a responsible behaviour.
- A lack of clarity in the EMAS Regulation may undermine the scheme's capacity to manage legal compliance. Because the verification process is not detailed in the Regulation, inaccuracies or shortcomings may lead to public authorities' mistrust in the verification process and to differences in the effectiveness of the compliance verification process from one MS to another.
- Regarding the EMAS governance structure, stronger involvement of authorities in the verification process could assuage doubts if authorities have concerns about conflicts of interest in the verifier-client relationship or about cases of non-suspension when EMAS-registered organisations have a compliance violation.
- The EMAS Regulation is currently not specific enough to always guarantee the adoption of regulatory relief at Member State level. In order to enhance EMAS capacity to support organisations' compliance with environmental legislations and demonstrate compliance with authorities, the EMAS Regulation should integrate specific references to legal compliance issues within its most crucial steps. Additional specific requirements (Table 46) could aim to facilitate the assessment, monitoring and management of environmental risks and thus the demonstration and guarantee of legal compliance.

3.7 Needs of stakeholders

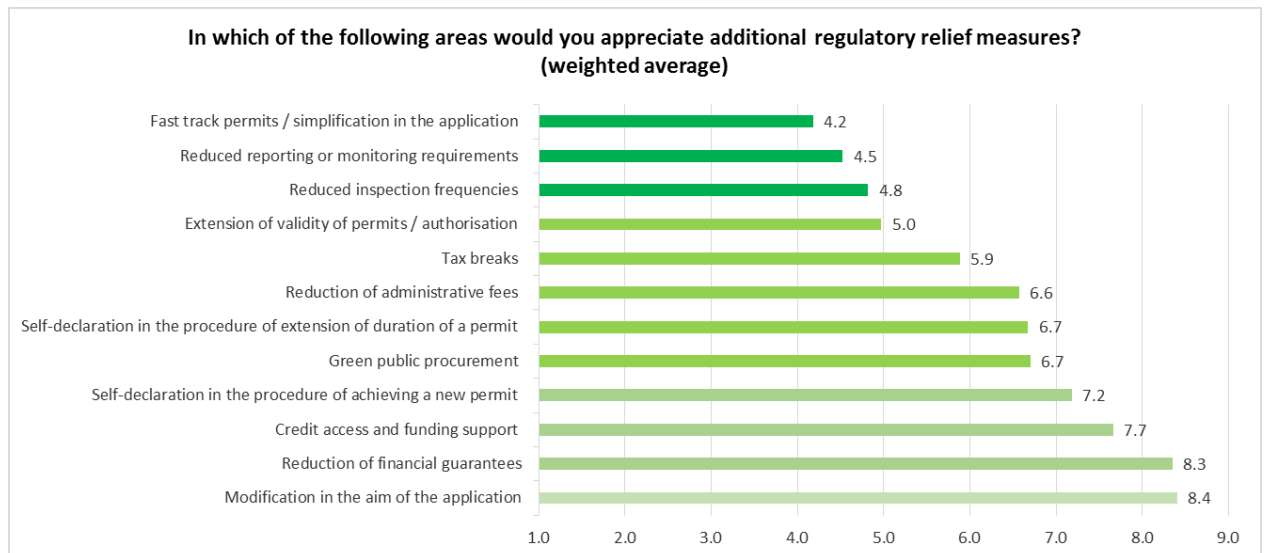
The analysis of survey and interview data is aimed at assessing expectations concerning new regulatory relief measures among EMAS-registered and ISO 14001-certified organisations.

Survey of EMAS-registered and ISO 14001-certified organisations and other stakeholders

EMAS-registered respondents were asked to rank the twelve different categories of regulatory relief in which they would prefer to have additional measures. The respondents ranked simplifications in permitting procedures and reporting requirements, reductions in inspections, and extensions in the validity of permits as their top four choices (see Figure 62 below). In contrast, fiscal relief measures such as tax breaks and reduction of administrative fees ranked fifth and sixth. This result indicates that, despite being among the most common typologies of regulatory relief measures among EMAS-registered organisations, existing administrative and reporting simplifications do not provide enough benefits, or, in other terms, are not considered satisfactory from a cost-benefit perspective. This conclusion is supported by the previously assessed low satisfaction associated with existing measures

and with their limited effectiveness. This result therefore provides clear indications of participating organisation's preferences for regulatory relief measures.

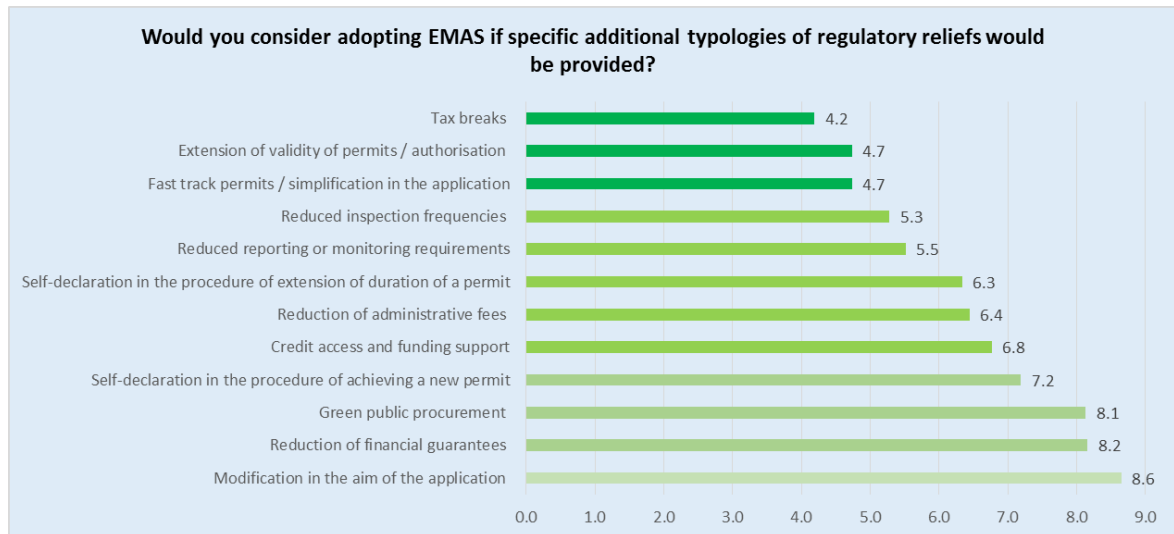
Figure 62: Preferences for new regulatory relief measures based on EMAS, EMAS questionnaire



No. of respondents: 382

In order to assess ISO 14001-certified organisations' expectations of EMAS-related regulatory relief measures, respondents to the ISO 14001 questionnaire were asked a different question than their EMAS-registered counterparts: *"Would you consider adopting EMAS if specific additional typologies of regulatory reliefs would be provided?"*. Consequently, respondents were asked to rank the twelve different typologies of regulatory relief based on their preferences, from the most preferred typology to the least preferred. ISO 14001-certified companies exhibited the highest preference for tax breaks, indicating that fiscal relief measures should be classified as a highly influential type of regulatory relief in the decision to adopt EMAS (see Figure 63 below). **This result may suggest that different typologies of regulatory reliefs may serve different purposes. For example, while tax breaks appear to provide a strong incentive for EMAS adoption, and the case of simplification of permits and reporting obligations may serve more to keep already registered organisations in the system.**

Similarly to the results of EMAS survey, ISO 14001-certified organisations ranked simplifications in the achievement and renewal of environmental permits and reductions in reporting obligations and inspection frequencies between second and fifth place. This result likely signals a widespread perception among EMAS non-adopters that the extra costs associated with EMAS adoption (especially in terms of additional reporting, monitoring and verification requirements) are not balanced or rewarded by extra benefits. This perception may therefore spur the expectation for regulatory relief measures specifically targeted to these cost categories in order to consider adoption of EMAS. Furthermore, this result suggests that additional "fast track" permits and reductions in reporting, monitoring and inspection requirements may be suitable both for incentivizing the uptake of EMAS among ISO 14001-certified organisations and for supporting already registered organisations.

Figure 63: Preferences for new regulatory reliefs based on EMAS, ISO 14001 questionnaire

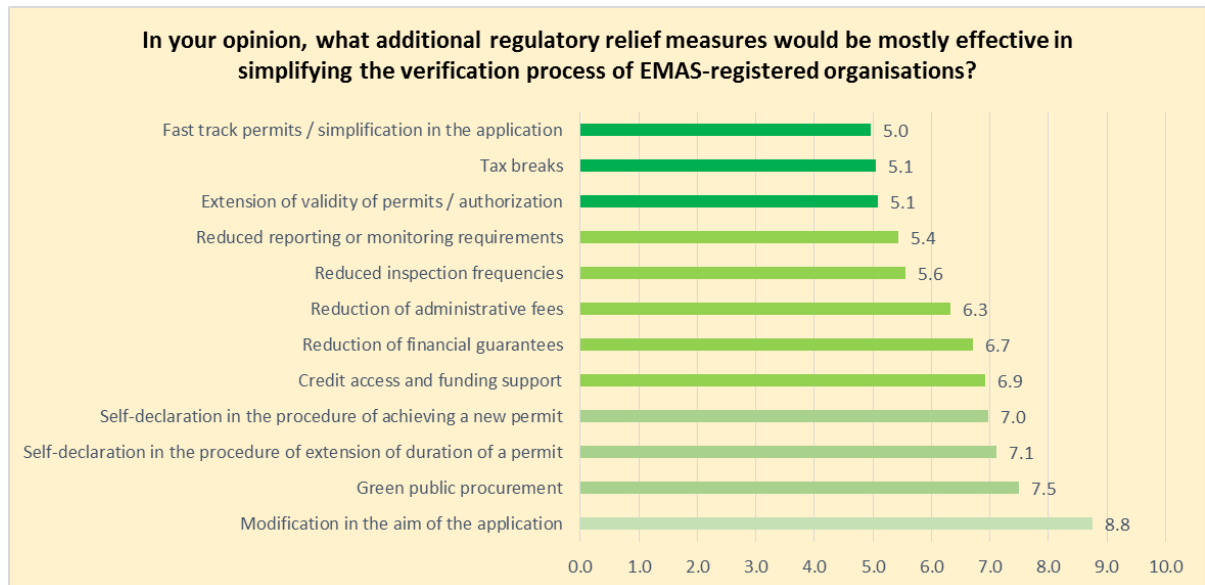
No. of respondents: 59

In the third survey, environmental verifiers were asked another variation of the question. They ranked which typologies of regulatory relief would be most preferred because of their effectiveness in simplifying the verification process. The results of the ranking vary depending on the MS. While most verifiers view less frequent inspections as desirable, the importance of fewer inspections depends on the verifier's country of origin. Here a strong difference emerged between Italian and non-Italian verifiers: while non-Italian verifiers ranked reduced inspection frequencies as their first priority (Figure 65), the measure ranks only fifth among Italian verifiers (Figure 64). "Fast track" permits and extensions in the validity of permits have more priority for Italian respondents, while all verifiers together give high rankings to "tax breaks" and "the reduction of administrative fees".

The demand for "fast track" or extended permits may be associated with the frequent legal compliance issues that arise within the EMAS verification process organisations experience a delay in receiving permit approvals. The EMAS verification process, which is indeed focused on assessing the legal compliance of registered organisations, could be slowed down or obstructed if the organisation has filed an application for an environmental permit but has not received any response from the competent authority due to excessively slow procedures. Simplifications in permitting procedures could therefore help to avoid circumstances in which excessive bureaucratic requirements lead companies to face legal compliance issues during the verification process. Similarly, extensions in the validity of permits reduce the opportunities for incurring additional costs and difficulties in the future.

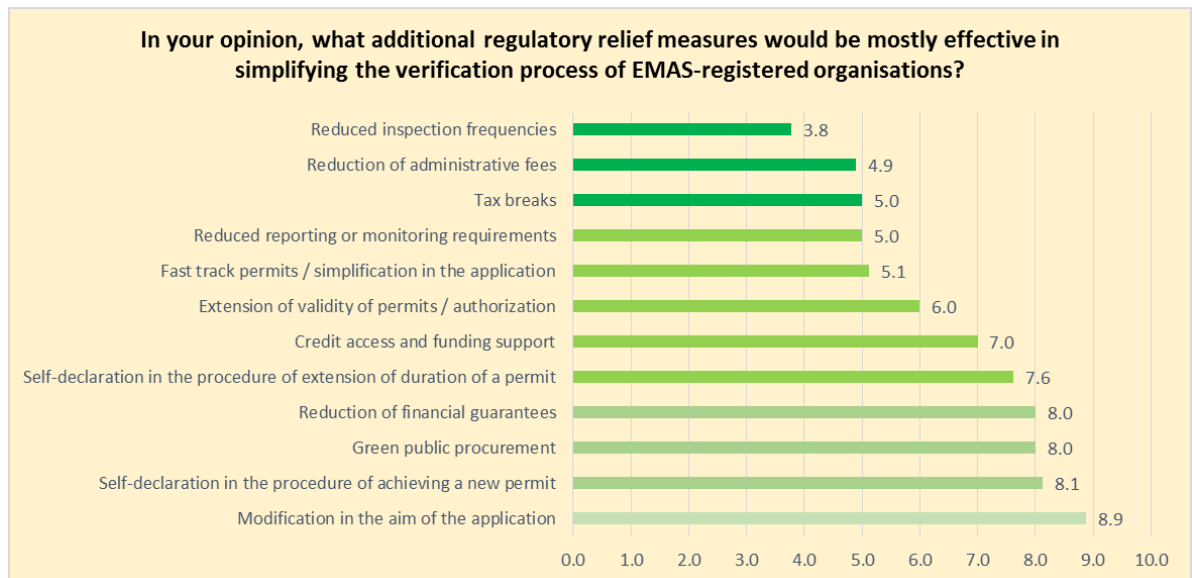
Commercial considerations, rather than technical or legal, apply to the role of tax breaks in facilitating environmental verifiers. During economic downturns, organisations often abandon environmental certifications because of financial constraints or, alternatively, attempt to negotiate lower fees with environmental verifiers. Therefore, client organisations' financial difficulties may harm environmental verifiers. As a consequence, verifiers may perceive tax breaks based on EMAS registration as a means to safeguard their client portfolio or to avoid reducing fees. Respondents operating in Italy may feel this most strongly because the country is currently experiencing overall higher fiscal pressure than many other MS.

Figure 64: Preferences for new regulatory reliefs based on EMAS, Environmental Verifiers



No. of respondents: 36

Figure 65: Preferences for new regulatory reliefs based on EMAS, Environmental Verifiers without responses from Italy

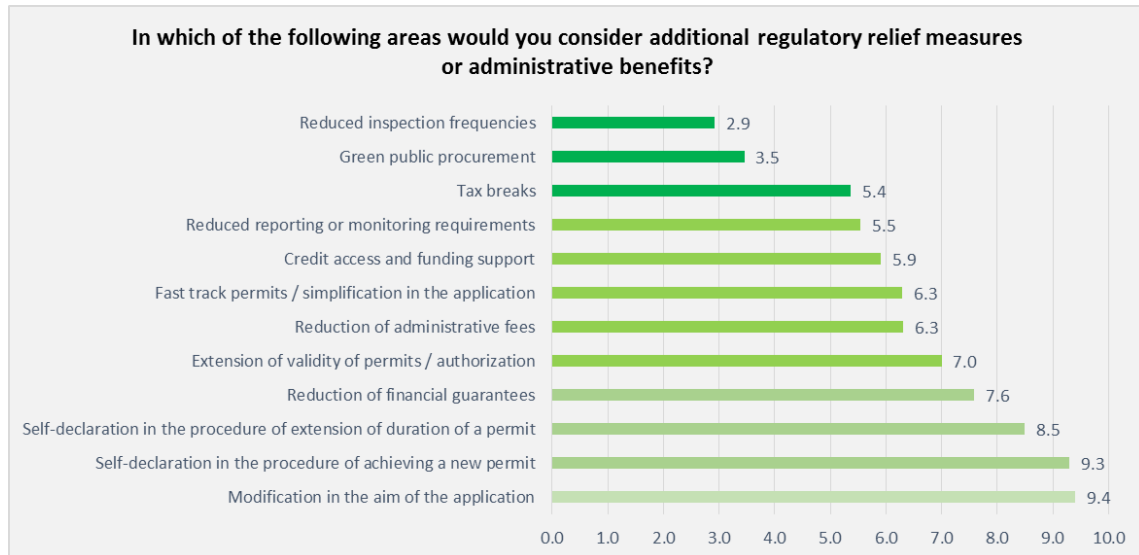


No. of respondents: 9

Finally, in a fourth survey, MS representatives were asked to rank the categories of regulatory relief in which they would be most willing to consider additional measures addressed to EMAS-registered organisations. Most of the respondents indicated reductions in inspection frequencies as the typology where they would prefer to introduce additional measures of regulatory relief (see Figure 66 below). This result is likely associated with a widespread trust of EMAS-registered organisations among representatives familiar with the scheme, as well as a trust in the capacity of the scheme itself to prove lower environmental risk. MS representatives are likely also aware of the opportunity to avoid doubling verification costs, given the self-monitoring and verification requirements of the registration. MS representatives gave

green public procurement the second position in the ranking, signalling the perceived necessity to strengthen EMAS added value in terms of competitive advantage. Tax breaks and reporting or monitoring requirements were ranked third and fourth respectively.

Figure 66: Preferences for new regulatory relief measures based on EMAS, Member State representatives



No. of respondents: 13

Interviews with EMAS-registered and ISO 14001-certified organisations and other stakeholders

Interview data supports the survey results. Moreover, interviews were also able to collect proposals and expectations concerning potential amendments or modifications of the EMAS Regulation aimed at improving its capacity to match the goals of existing environmental legislation. A closer match could then lead to higher acceptance of regulatory relief measures.

First, interviews data highlight the need for simplifications in environmental permits to have a higher impact for organisations. Innovative measures could explicitly integrate EMAS in application procedures in order to streamline the process and reduce the time needed for permit approvals. For instance, as advanced by some interviewees, the Environmental Impact Assessment (EIA) Directive 2011/92/EU, which the European Commission is currently reviewing (2017), could have integrated exemptions from preliminary testing and verification phases based on EMAS registration. According to interviewees, the potential environmental effects would be minimal since most organisations do not proceed to a full EIA after preliminary testing. The benefits could be substantial, however, as the preliminary testing and verification phases include significant work on the parts of both the organisation and the competent authority.

Second, several interviewees call for reductions in inspection frequencies in order to eliminate double costs associated with state audits and verification duties based on EMAS requirements. Regulatory authorities demonstrate awareness of the need to introduce this form of regulatory relief, but at the same time complain about a lack of communication with auditors and certification bodies that undermines the trust in the auditing and self-monitoring systems. Consequently, interviewed regulators hope for greater coordination and information exchange between competent authorities, auditors and accreditation bodies, with the aim of fulfilling regulators’ expectations in terms of qualification of verifiers, as well as quality and scope of the auditing process.

3.8 Transferring best practices across the European Union

3.8.1 Assessing the replicability potential

The replication of regulatory relief

European MS such as Italy, Germany, and Spain adopted many regulatory relief measures to foster EMAS adoption and reduce the administrative burdens to companies committed to environmental management. The *Compendium of EMAS Policy Support in the MS* shows that the most successful countries in terms of EMAS registration numbers also tend to have the greatest number of active financial and regulatory relief measures in place (Skinner et al. 2015). Many best practices among the existing regulatory relief measures have brought cost savings, time savings and other advantages to the EMAS companies. Replicating the most effective forms of regulatory relief is an important part of the strategy for encouraging EMAS spreading across European countries.

This section of the study aims to draft a replication plan based on the best practices described in the previous sections. The replicability strategy considers whether an existing measure has the potential to be replicated in another MS. The replication potential depends to a great extent on the specifics of the measure and, to a lesser extent, on the government structure and overall policy context of the MS in question. The project illustrates the replication of some selected regulatory relief for each MS considered.

Beginning with the phase of identification and assessment of existing regulatory relief, this study has considered replicability a key issue. The assessment of best practices followed four criteria: “satisfaction with the measure”, “environmental benefits”, “results achieved by the measure” and the “replicability potential of the measure”. As described in the previous sections, the replicability criterion aimed to assess the “legal, economic and technical feasibility” of regulatory relief in order to give the measures a higher replicability potential.

Using the survey submitted to the MS, the project team investigated their opinions about the replicability of the regulatory relief measures. In particular, the following question was included in the survey questionnaire: “For each implemented measure, how would you assess the potential application in other MS (transferability)?”. The interviewee was invited to assign a score, where 1 was the lowest level of replicability potential and 5 the highest replicability potential.

The table below shows the average judgment obtained for each regulatory relief category.

Table 47: Regulatory relief categories with the highest replicability potential according to the MS survey

Regulatory relief category	Score (mean)
Green public procurement	3,9
Reduced inspection frequencies	3,7
Reduced reporting or monitoring requirements	3,4
Extension of validity of permits / authorisation	3,1
Reduction of administrative fees	3,1

Regulatory relief category	Score (mean)
Credit access and funding support	2,9
Fast track permits / simplification in the application	2,6
Tax breaks	2,6
Reduction of financial guarantees	2,4
Modification in the aim of the application	2,1
Self-declaration in the procedure of extension of duration of a permit	2,0
Self-declaration in the procedure of achieving a new permit	1,9

No. of respondents: 11

The highest score is 3.9, with “Green public procurement” representing the measure that MS have the most interest in replicating. This score could reflect the strong interests of several MS in the field of GPP, taking into account that several representatives view GPP as a possible leverage to spread EMAS among organisations. Annex VI includes examples of tenders mentioning EMAS.

The “reduction of inspection frequencies” also achieved a high score and can be considered easily replicable because inspections are common in all MS. On the other hand “reduced reporting or monitoring requirements” and “extension of validity of permits”, which are ranked just after, may not be easily replicable in all cases. For example, in some MS relevant permits based on EU Directives, for example the integrated permit issued in the framework of IED, do not have an expiration date. In this case, the replicability potential is non-existent. Reporting requirements, as Chapter 4 will highlight, can be different from one MS to the other in terms of content and the reporting channel used (paper, electronic, online database, etc.), meaning the replicability of best practices should be assessed on a case-by-case basis for each potential country of transfer.

In addition to looking at best practices and considering their transfer in other MS, the replication plan also includes a measure in Wallonia making EMAS mandatory for certain sectors. Because of the uniqueness of the Wallonian approach, the project team considered it to be interesting for other MS to assess.

Possible approaches for replicating regulatory relief

When drafting of the replication plan and taking into account the results of the interviews carried out in this study, the project team formulated three different approaches for replicating the identified regulatory relief measures. The three replicability approaches seek to involve public institutions operating at different levels. These institutions include local authorities, regional authorities, national governments, and the European institutions. Each of these approaches has different features, with some approaches better suited to replicating certain forms of regulatory relief than others.

The possible approaches to replicate regulatory relief are:

- “Top-down”;
- “Peer to peer”;
- “Bottom-up”.

“Top – Down” approach

The top-down approach foresees an exchange on regulatory relief between an upper legislative level/institution and others operating at a lower level. For instance, the regional level adopts incentives and regulatory relief measures already adopted at national level. The approach provides different strengths, especially for the adopting institutions. One of these advantages is the legal feasibility of the replication. As a higher legislative level has already enacted the measure, the lower level institution can make reference to the higher level legislation and does not have to act as first mover in a specific field of regulatory relief. For example, in the case of MS national initiatives to reduce inspection frequencies for EMAS-registered organisations, the national institutions act in the frame of the upper level regulatory relief, such as those mentioned in the Recommendation 2001/331/EC on “minimum criteria for environmental inspections” and in the Directive 75/2010 “Industrial Emissions Directive”. Another example has been identified in the analysis of Italian regulatory relief. As seen in Annex II, the Italian national government adopted a regulatory relief measure reducing financial guarantees for EMAS-registered organisations operating in the waste industry. The Tuscany region then replicated that approach, but in a different legislative field. Specifically, the Regional Government of Tuscany adopted a measure to reduce the financial guarantees of EMAS-registered companies operating in the mining sector, a sector under regional jurisdiction.

Table 48: Top down approach features

“Top – Down” approach	
<p>Strengths</p> <ul style="list-style-type: none"> • The lower-level institution can implement an already tested measure, replicating the same approach of the upper level; • Lower-level institutions are inspired by the regulatory relief in the higher-level legislative context and are sure of the legal feasibility of the measure; • Relatively little time required to replicate the regulatory relief measure; 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Sometimes, the different areas of legislative competencies (e.g. from national to regional level or from regional to local level) can impede replication; • The geographic scope of application of the transferred relief is reduced, as the lower legislative level covers a smaller territory;

“Top – Down” approach

Opportunities	Threats
<ul style="list-style-type: none"> • A sensitisation of the lower level institutions is achieved; in the future, they could decide to include additional relief measures in their legislative acts even without measure to replicate; 	<ul style="list-style-type: none"> • The application to a lower level usually implies a more concrete approach, providing operational indications for the application of the relief. This could reduce the relevance of the initial version of the relief and potentially constrain it if the lower level application is less ambitious; • The number of EMAS-registered companies affected could be low (e.g. transferring the measure from regional to local level) and does not justify the effort of replicating the measure;

“Peer to Peer” approach

This approach foresees a horizontal replication of the regulatory relief between institutions operating at the same legislative level; for example, transferring a regulatory relief measure from one MS to another MS or from a regional or local institution to another regional or local institution.

The peer-to-peer approach has already been adopted in other fields. For instance, in topics such as circular economy or technological innovations, there are several EU funds that incentivise the “exchange of experiences” process (e.g. INTERREG programme), and this process often takes place at the same legislative level.

Our study highlights some similarities in the measures adopted among the different regions of both Italy and Germany. For this reason, we can suppose that this approach has been already adopted in the replication of regulatory relief within the same MS.

For instance, in Italy, tax breaks on the same relevant national tax (IRAP) have been adopted by Tuscany and Veneto, while a very specific regulatory relief measure on Environmental Impact Assessment thresholds has been adopted by Emilia Romagna and the Marche regions.

Table 49: Peer to peer approach features

“Peer to peer” approach	
<p>Strengths</p> <ul style="list-style-type: none"> • Institutions at the same level are already used to developing their legal contexts, emulating advanced experiences of other institutions at the same level; • Usually strong communication channels are present among institutions at the same level; • In many cases (e.g. regions of the same MS; local authorities of the same region) the areas of legislative competency are the same 	<p>Weaknesses</p> <ul style="list-style-type: none"> • This approach can reduce the innovative aspect of regulatory relief dissemination, reducing the number of lower level authorities actively working to craft measures designed specifically for their regions;
<p>Opportunities</p> <ul style="list-style-type: none"> • Possibility to select the most effective regulatory relief already tested by other institutions; • No need to modify the application procedures 	<p>Threats</p> <ul style="list-style-type: none"> • Regions/states may have widely different economic contexts. One region could have an agricultural and tourist economic system, the other a strong industrial system;

“Bottom-up” approach

The bottom-up approach foresees the transfer of the regulatory relief measure from a lower legislative level to the acts adopted by upper legislative institutions. An example is the transfer of a best practice already adopted by a MS into a European Directive.

The bottom-up approach provides a sequential route for strengthening validity in the reverse order of the top-down approach. The bottom-up approach means that local actors promote their own best practices on regulatory relief to upper institutions. Experience in other topics has shown that the bottom-up approach should not be considered as alternative or in opposition to top-down approaches from national and/or regional authorities, but rather as a means to combine and interact with them to achieve better results overall. According to this approach, a regulatory relief measure from a lower legislative level is applied (exchanged) within legislation passed by a public authority at an upper level.

The three approaches together guarantee best practice exchange among different institutions. Each approach has strengths and weaknesses for replicating regulatory relief, but integrating the three approaches can lead to a highly effective replication strategy.

Table 50: Bottom up approach features

“Bottom-up” approach	
<p>Strengths</p> <ul style="list-style-type: none"> Replication of the regulatory relief to a wider geographical scope. For example, the transfer from a regional level to a national level will allow the best practice to spread to the whole national context; the transfer from national legislative level to EU legislative level could allow the regulatory relief to spread much more widely among different MS; 	<p>Weaknesses</p> <ul style="list-style-type: none"> Longer time needed to transfer the relief measure to an upper level; The legislative context can be different and the measure should be adapted to the upper legislative context;
<p>Opportunities</p> <ul style="list-style-type: none"> The transposition of the regulatory relief to an upper level raises awareness among policymakers at the upper level. In the future they could decide to include additional relief without a replication action 	<p>Threats</p> <ul style="list-style-type: none"> Legal feasibility must be verified to transfer regulatory relief from a lower legislative level to an upper one; Awareness of and trust in EMAS at the upper level and too little “policy power” at the lower level to convince the upper level to replicate the regulatory relief;

3.8.2 Transferring best practices among Member States: methods, opportunities and barriers

One of the aims of this study was to propose a replication plan for approaches that can be adopted to transfer the identified regulatory relief to other legislative contexts.

Specifically, the project team has drafted the replication plan starting from the results of the “overview of the existing experiences dealing with regulatory relief” described in the previous sections.

The replication plan identifies the measures that other national, regional and local institutions can adopt to encourage EMAS implementation. The plan, indeed, includes some measures to include in European legislation to allow all MS to give input on the reduction of administrative burdens for EMAS organisations.

In general, for each measure, the provisions should be strong enough to encourage or mandate widespread adoption of the measure on lower levels. For example, a national law directly granting less frequent inspections to EMAS-registered organisations would be more effective than a law recommending that regulatory agencies consider EMAS as a criterion when determining the frequency of inspections.

The replication strategy can be adapted to many measures identified in this study. For the sake of brevity, however, the plan mainly includes the best practices identified in MS as described in the previous section, plus a specific measure from Wallonia making EMAS mandatory for certain high risk sectors.

The replication plan consists of:

- The indication of the country where the regulatory relief is in force;
- The description of the regulatory relief measure;
- The suggested approach to replicating the measure;
- The steps to carry out to replicate the measure;
- The institutions to involve in the replication path;
- The achieved benefits.

Country	Description of the measure	Approach to replicate it	Steps to replicate it	Policy makers to involve	Benefits						
Italy	Legislative Decree 3 April 2006, n.152 Regulation on environmental topics art.208. Financial guarantees for companies operating in the waste sector are reduced by 50% for EMAS organisations and 40% for ISO 14001 organisations.	<table border="1"> <tr><td></td><td>Top-Down</td></tr> <tr><td>x</td><td>Peer to peer</td></tr> <tr><td>x</td><td>Bottom-up</td></tr> </table>		Top-Down	x	Peer to peer	x	Bottom-up	<p>To include in the Waste Directive (2008/98/EC) amending articles 23-25 (permits and registrations) (bottom up) (this step could facilitate the replication of the measure)</p> <p>Replicate as is in other MS since many (all) MS require financial guarantees for companies operating in waste sector (peer to peer) (this step is necessary to replicate the measure)</p>	<p>European Commission</p> <p>MS</p>	<p>Easy to apply, effectiveness proven by the success of the measure in Italy, replicable in many MS.</p>
	Top-Down										
x	Peer to peer										
x	Bottom-up										
Italy	Legislative Decree 3 April 2006, n.152 Regulation on environmental topics art.29-octies comma 8 and 9. The integrated authorisation is examined by the competent authority every 16 years for EMAS organisations (instead of 10) and every 12 for ISO 14001.	<table border="1"> <tr><td></td><td>Top-Down</td></tr> <tr><td>x</td><td>Peer to peer</td></tr> <tr><td>x</td><td>Bottom-up</td></tr> </table>		Top-Down	x	Peer to peer	x	Bottom-up	<p>Introduce an invitation for MS in the article 5 of 2010/75/UE Directive to implement the Directive with the possibility of foreseeing a longer duration for permits (bottom up) (this step could facilitate the replication of the measure)</p> <p>Adopting this measure in the national legislation of other MS that implement the 2010/75/UE Directive (peer to peer) (this step is necessary to replicate the measure)</p>	<p>European Commission</p> <p>MS</p>	<p>Increase of presence of EMAS regulatory relief in IED, increased duration of a very relevant permit.</p>
	Top-Down										
x	Peer to peer										
x	Bottom-up										
Italy, Emilia Romagna region	Regional Law 20/04/ 2012, n. 3. Modification in the EIA thresholds. In case of extension or transformation of plants under the EIA, for EMAS registered	<table border="1"> <tr><td>x</td><td>Top-Down</td></tr> <tr><td>x</td><td>Peer to peer</td></tr> </table>	x	Top-Down	x	Peer to peer	<p>Modify the national thresholds of EIA, increasing them for EMAS companies.</p> <p>Replicate the measure in other Italian regional contexts.</p>	<p>MS Regions</p>	<p>High potential to spread EMAS because of high relevance of legislation</p>		
x	Top-Down										
x	Peer to peer										

Country	Description of the measure	Approach to replicate it	Steps to replicate it	Policy makers to involve	Benefits
	companies and ISO 14001 certified companies a further enlargement of 30% is foreseen	<input type="checkbox"/> Bottom-up			(EIA)
Germany	<p>Regulation on simplifications of monitoring requirements regarding emission control and waste management for organisations and sites registered according to (EC) No 761/2001 (EMAS Privileges Regulation)</p> <p>Simplifications of reporting and monitoring obligations for EMAS registered organisations, including longer intervals between reporting emissions to the relevant authority and the ability to submit certain reports only upon request (rather than at regular intervals)</p>	<input checked="" type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	Introduce such a “foundation act” at the EU or MS level. To be most effective, the act should directly grant the privileges to the organisations	MS Regional and local authorities	Facilitate the implementation of regulatory relief measures at the regional and local level
Germany	<p>Law on energy services and other energy efficiency measures § 8c (6) point 2. (EDL-G)</p> <p>EMAS companies (or companies with an energy management system according to ISO 50001) are exempted from performing an energy audit.</p>	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	Amend the national legislation of other MS aimed to implement the EU Energy Efficiency Directive (peer to peer)	MS	Very replicable since several MS have included the duty to perform energy audits as requested by the Energy Efficiency Directive
Germany	Section 2 Procurement Regulations in the Scope of Directive 2014/24/EU Award and tender	<input type="checkbox"/> Top-Down	Replicate the same regulatory relief in implementing acts of Directive 2014/24/EU of other MS	MS	Legal feasibility already demonstrated in the German experience

Country	Description of the measure	Approach to replicate it	Steps to replicate it	Policy makers to involve	Benefits						
	<p>Contractual Regulations for construction works Part A</p> <p>General administrative procedure for the procurement of energy-efficient products and services. Possibility of tendering and awarding services to organisations under the requirement of participating in an EMAS-registered EMS.</p>	<table border="1"> <tr> <td><input checked="" type="checkbox"/></td> <td>Peer to peer</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Bottom-up</td> </tr> </table>	<input checked="" type="checkbox"/>	Peer to peer	<input type="checkbox"/>	Bottom-up					
<input checked="" type="checkbox"/>	Peer to peer										
<input type="checkbox"/>	Bottom-up										
Germany	<p>Ordinance on the protection of the climate from changes by the entry of certain fluorinated greenhouse gases § 6 (2) (Chemical Climate Protection Ordinance). Operators of stationary applications which contain fluorinated greenhouse gases have certain duties, for example fulfilling certain requirements in order to obtain a certificate of operation. EMAS sites applying for such a certificate do not need to demonstrate anything other than their EMAS registration to receive it.</p>	<table border="1"> <tr> <td><input type="checkbox"/></td> <td>Top-Down</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Peer to peer</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Bottom-up</td> </tr> </table>	<input type="checkbox"/>	Top-Down	<input checked="" type="checkbox"/>	Peer to peer	<input checked="" type="checkbox"/>	Bottom-up	<p>Include a reference to this kind of simplification in the EU Regulation No 517/2014 on fluorinated greenhouse gases (bottom up)</p> <p>The same regulatory relief can be replicated in all MS since all of them have to apply the legislation on fluorinated greenhouse gases (peer to peer).</p>	MS	<p>High replicability. Requirements on fluorinated greenhouse gases are applicable to a wide audience of companies (due to the presence of these gases in the refrigerators)</p>
<input type="checkbox"/>	Top-Down										
<input checked="" type="checkbox"/>	Peer to peer										
<input checked="" type="checkbox"/>	Bottom-up										
Germany	<p>Ninth Ordinance of the Saxon State Ministry of Finance on the Determination of Administrative Fees and Expenses (9th SächsKVZ) Annex I No. 3/18, No. 55/19. And 100 / 1.25 EMAS organisations receive a 30% cost reduction in fees for permitting procedures or monitoring related to waste, emission</p>	<table border="1"> <tr> <td><input type="checkbox"/></td> <td>Top-Down</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Peer to peer</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Bottom-up</td> </tr> </table>	<input type="checkbox"/>	Top-Down	<input checked="" type="checkbox"/>	Peer to peer	<input checked="" type="checkbox"/>	Bottom-up	<p>Introduce such fee reductions in all MS and regions in which they are applicable</p>	MS	<p>High replicability, as most MS and/or regions charge administrative fees for permits. Provides much-desired financial incentive for organisations.</p>
<input type="checkbox"/>	Top-Down										
<input checked="" type="checkbox"/>	Peer to peer										
<input checked="" type="checkbox"/>	Bottom-up										

Country	Description of the measure	Approach to replicate it	Steps to replicate it	Policy makers to involve	Benefits
	control and water legislation				
Austria	The frequency of environmental inspections is determined by a risk evaluation. One criteria for the risk evaluation is the participation in EMAS or ISO 14001. (EU directive only includes EMAS, Austrian approach also includes ISO 14001 and other environmental management systems/approaches according to § 15 Abs. 5 UMG.). Implementation of EU DIRECTIVE 2010/75/EU on industrial emissions.	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	Also the other national legislation applying the 2010/75/UE Directive (IED) can introduce more specific criteria for risk assessment that reduce the inspections for EMAS companies according to the invitation of IED. The measure can be replicated with a peer to peer approach also considering other inspections, not only the ones carried out in the frame of IED.	MS	Easy to replicate since a reference already exists in the IED
Austria	Waste Management Law EMAS registered companies are not obliged to deliver a waste management concept if they are publishing an environmental statement.	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	Transfer the regulatory relief in other national legislations	MS	Human resource savings for EMAS companies
Austria	Public Procurement Act When a contracting authority is required to submit evidence of environmental management standards, it has to refer to EMAS or equivalent systems.	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	Mention EMAS in other public procurement legislation. EMAS can be used as a means to demonstrate the capacity of the contractor to implement environmental protection measures in contracts where EMAS has added value. Examples of tenders mentioning EMAS are provided in Annex VI and can be used as models by purchasers.	MS Regional and local authorities	Awareness raising for EMAS

Country	Description of the measure	Approach to replicate it	Steps to replicate it	Policy makers to involve	Benefits						
Czech Republic	<p>Reports and documents provided for ISO 14001 and EMAS certification can be attached to the application for the Integrated Environmental Permit. Act No 76/2002 on Integrated Prevention – Implementation of the Directive 96/61/CE on the integrated prevention and reduction of pollution (IPPC Directive).</p> <p>§ 4 - Content of the application</p>	<table border="1"> <tr> <td><input type="checkbox"/></td> <td>Top-Down</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Peer to peer</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Bottom-up</td> </tr> </table>	<input type="checkbox"/>	Top-Down	<input checked="" type="checkbox"/>	Peer to peer	<input type="checkbox"/>	Bottom-up	All MS can adopt this measure in their own legislation implementing the 2010/75/UE Directive. This regulatory relief can valorize the environmental statement drafted in EMAS.	MS	Environmental statement valorisation. However, potentially low effectiveness for EMAS because measure also applies equally to ISO 14001
<input type="checkbox"/>	Top-Down										
<input checked="" type="checkbox"/>	Peer to peer										
<input type="checkbox"/>	Bottom-up										
France	<p>Decrees n° 2011-1460 regarding the control of certain types of classified installations, modifying the environment code. EMAS-registered organisations are exempted from the periodical control set every 5 years for most organisations or every 10 years for ISO certified organisations</p>	<table border="1"> <tr> <td><input checked="" type="checkbox"/></td> <td>Top-Down</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Peer to peer</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Bottom-up</td> </tr> </table>	<input checked="" type="checkbox"/>	Top-Down	<input type="checkbox"/>	Peer to peer	<input type="checkbox"/>	Bottom-up	Introduction of checks reduction for EMAS companies in national laws.	MS	<p>Cost and time saving for EMAS companies.</p> <p>Cost and time saving for regional and local institutions</p>
<input checked="" type="checkbox"/>	Top-Down										
<input type="checkbox"/>	Peer to peer										
<input type="checkbox"/>	Bottom-up										
France	<p>EMAS registered organisations benefit from a reduced tax related to polluting activities (storage installations of non-hazardous waste). Article 266 of the Customs Code.</p>	<table border="1"> <tr> <td><input type="checkbox"/></td> <td>Top-Down</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Peer to peer</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Bottom-up</td> </tr> </table>	<input type="checkbox"/>	Top-Down	<input checked="" type="checkbox"/>	Peer to peer	<input checked="" type="checkbox"/>	Bottom-up	Tax reduction implementation can concern many other regional or local acts since taxation in some countries is managed at the local level.	MS Regional authorities	Cost saving for EMAS companies
<input type="checkbox"/>	Top-Down										
<input checked="" type="checkbox"/>	Peer to peer										
<input checked="" type="checkbox"/>	Bottom-up										

Country	Description of the measure	Approach to replicate it	Steps to replicate it	Policy makers to involve	Benefits
France	<p>Grenelle II Act (or Law 2010-788), Section 225, transposed by Decree 2012-557 and modifying the commercial code (Art. R.225-105-2).</p> <p>The measure specifies that the declaration of the environmental verifier in the framework of an EMAS registration replaces the opinion of the independent third party body regarding the environmental information that must be reported in the framework of the non-financial reporting (CSR Report)</p>	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	<p>Mention EMAS in non-financial reporting legislation at the MS level. The Non-Financial Reporting (CSR) Directive gives this possibility so MS should be encouraged to formally include it when transposing it.</p>	<p>MS</p>	<p>Time and cost savings for EMAS organisations</p> <p>Raises awareness of options for substituting the environmental statement</p>
Greece	<p>Tax reduction in the energy field for EMAS companies, Law 4342/2015.</p>	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input checked="" type="checkbox"/> Bottom-up	<p>The tax reduction on the energy consumption gives companies economic advantages. All MS can introduce this regulatory relief in their national legislation on energy. Since taxation in some countries is managed at the local level it can also be replicated</p>	<p>MS Regional authorities</p>	<p>Cost saving for EMAS companies.</p>
Poland	<p>Exemption from excise duty on gas and coal for organisation registered in EMAS or ISO 14001 certified. The Act on Excise Duty 6 Dec. 2008.</p>	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	<p>All MS can introduce this regulatory relief in their national legislation on energy.</p>	<p>MS</p>	<p>Cost saving for EMAS companies.</p>

Country	Description of the measure	Approach to replicate it	Steps to replicate it	Policy makers to involve	Benefits
Poland	Exemption from energy audits for EMAS organisations if energy audit is provided as part of EMAS or ISO 51001 management system (The Act on Energy Efficiency 20 May 2016)	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	Introduction of the energy audit reduction in the national legislation on energy field.	MS	Checks reduction for EMAS companies.
Spain	A discount of 50% on fees associated with soil pollution for EMAS-registered organisations. Law 5/201 of 22nd December, approving the Public Taxes and Prices in País Vasco, BOPV No. 245 of 28th December.	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input checked="" type="checkbox"/> Bottom-up	All MS can introduce this regulatory relief in their national legislation on energy. Since taxation in some countries is managed at the local level it can be replicated	MS Regional authorities	Costs saving for EMAS companies.
Spain	Extraordinary extension of the administrative concession validity period for occupation activities of state maritime and terrestrial public domain (maximum periods could be extended within that seventy-five years limit by a fifth). Royal Decree 876/2014 of 10th October, approving the General Regulation on Coasts, BOE No. 247 of 14th October (article 175.1d).	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	Introduction of permit extension in the national legislation on occupation activities of state maritime and terrestrial public domain. Each MS manages the domain and can introduce an article to extend the duration of permits to EMAS organisations.	MS	Very effective especially if the duration of the concession is not particularly long.
Spain	Decree 278/2011 on Activities which can potentially pollute the atmosphere in País Vasco, BOPV No. 15 of 23th January (article 22). The CA on environment will be able to modify the frequency of these	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer	Replicate in other Regional legislations the reduction of requirements regarding the monitoring frequencies.	Regional institutions	The monitoring frequencies are often decided by the competent authorities that issue the

Country	Description of the measure	Approach to replicate it	Steps to replicate it	Policy makers to involve	Benefits
	controls by exempting or spreading them, taking into account, among other issues, that the facility has a certified EMS according to EMAS Regulation.	<input type="checkbox"/> Bottom-up			permit so it has a high replication feasibility
UK	Environmental Permitting (England and Wales) (Amendment) Regulations 2013. Industrial sites are inspected by the environmental agency based on their OPRA score. EMAS registered organisation achieve a better OPRA score (more than ISO) and therefore pay lower fees and charges to the regulators.	<input type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	Replicate the measure in other MS legislations that foresee a permitting process.	MS	Large replicability potential.
Belgium, region of Wallonia	Sectoral documents defining the implementation of the legislation make EMAS mandatory for the following sectors: used water purification, landfill centres, platforms for composting, and incineration facilities because they present a high risk of environmental pollution.	<input checked="" type="checkbox"/> Top-Down <input checked="" type="checkbox"/> Peer to peer <input type="checkbox"/> Bottom-up	Replicate the measure in other sectoral legislation of MS for high-risk sectors	MS Regional authorities	Lower environmental risks: cost savings for authorities and added value for the local community

An additional measure from Wallonia was included (making EMAS mandatory for certain high-risk sectors), even though Wallonia and Belgium were not considered focus MS for the purposes of this study. However, the measure merited inclusion here because it is a unique practice that could potentially be replicated throughout the EU. The barriers of implementing such a measure would have to be investigated specifically, since they likely differ somewhat from more common barriers to regulatory relief. The potential for this measure to achieve an effect appears fairly high: 62% of MS indicated through the survey (see chapter 3.2.11) that making EMAS compulsory for certain high risk sectors would be effective in levelling the playing field between companies and consolidating data collection with stakeholders, and 58% that it would be effective in reassuring the population and stakeholders close to the sites. However, the fact that around 40% of MS representatives disagree with its effectiveness however puts into question the feasibility of introducing such a measure in all MS. Another issue is that it would change the voluntary nature of the scheme and could encounter resistance from economic actors. Nonetheless, the measure merits consideration as the added reassurance and transparency for authorities could potentially have significant environmental benefits.

Conclusion

- Among the different typologies of existing regulatory reliefs, surveyed MS representatives selected reduced inspection frequencies and measures of Green Public Procurement as the types they would most likely consider for their countries. They are also ranked among the measures MS think are the most transferable from one MS to the other. Other desired measures, such as fast-track permits could be more difficult to replicate. Permitting procedures are more specific to a country's legislative framework and may vary substantially from country to country, jeopardizing the replicability potential of such measures;
- The study identifies three approaches to replicating measures: top-down, peer-to-peer and bottom-up. While the top-down approach foresees the exchange of best practices from an upper legislative level to a lower legislative level, the bottom-up approach adopts the opposite logic. On the other hand, peer-to-peer approach foresees a horizontal replication of the regulatory relief between institutions operating at the same legislative level. Each approach exhibits strengths and weaknesses in the replication of regulatory reliefs, therefore, where possible, the integration of diverse approaches may guarantee a more effective replication strategy;
- Among the best practices previously identified, 22 measures were selected and included in the replication plan. Besides identifying the most suitable approach to the replication of the measure, the replication plan provides an outline of the steps to implement for replicating the measure, the stakeholders to be involved and the benefits to be achieved;
- An option for making EMAS mandatory in certain high risk sectors was included based on an example from the Belgian region of Wallonia. Such a measure could potentially have a high effectiveness and act as a reassurance to authorities; however, it would have to be more specifically investigated since the barriers likely differ from those of other measures. They may also vary considerably from country to country and region to region, making a replication along the lines of the other types of measures more challenging.

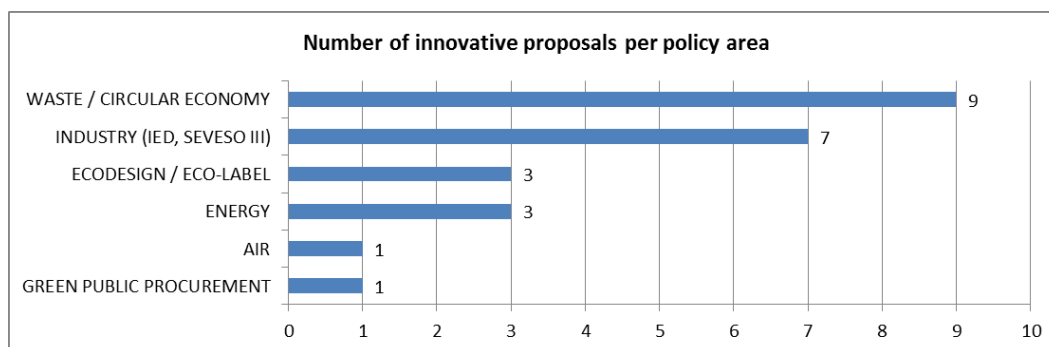
3.9 Innovative proposals for measures of regulatory relief

Based on the consultations with stakeholders (interviews and surveys) and on the direct study of legislative acts in six specific policy areas, the project team drafted 24 innovative proposals for integrating EMAS in European environmental legislations. These proposals can be distributed among policymakers at the European and Member State level to inform their decisions when they re-examine or revise these pieces of legislation. These proposals are included in the following section of the report and in a separate Annex III. The targeted policy areas are:

- waste and circular economy;
- industry;
- energy;
- eco-design and eco-label;
- Green Public Procurement, and
- air.

The vast majority of proposals focus on areas of waste and circular economy policy and of industrial policy (Figure 67). These policy areas indeed provide greater opportunities for EMAS integration, given the alignment between the objectives of the scheme and the scope of European policies in these fields. Regarding the waste and circular economy area, the project team identified several integration opportunities within the Directive 2008/98/EC on waste and the Directive 200/53/EC on the management of end-of-life vehicles. Within the industry policy area, seven amendments are presented, mostly referencing to the IED Directive 2010/75/EU and Seveso III Directive 2012/18/EU. In the energy policy area, potential amendments target the Directive 2012/27/EU on energy efficiency, while within the eco-design and ecolabel policy area, the report proposes three potential amendments to the Regulation (EC) No 66/2010 concerning EU Ecolabel and the Directive 2009/125/EC on eco-design requirements for energy related products. Lastly, the green public procurement and air policy areas include one innovative proposal each.

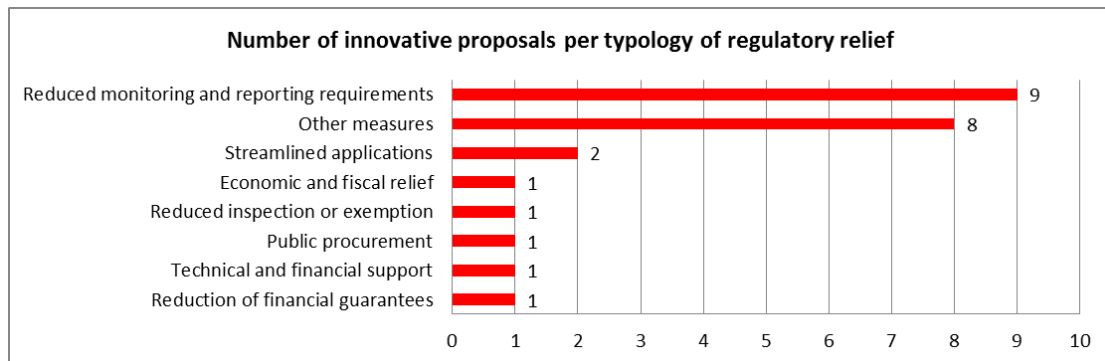
Figure 67: Number of innovative proposals per policy area



In terms of typologies of regulatory relief, the 24 innovative proposals fall within eight different typologies (see Figure 68 below). In particular, nine out of 25 innovative proposals introduce reductions or exemptions in reporting and monitoring requirements. Eight measures are not classifiable in previously analysed typologies and have been classified as “Other measures”; however, they mostly concern the introduction of EMAS as a mandatory requirement for economic operators of certain specific sectors. In terms of “fast track” permits and simplifications in application procedures, two innovative measures have been proposed. The remaining five typologies are reduction of financial guarantees, technical and infor-

mation support, public procurement, reduction in inspection frequencies and fiscal relief, and include one proposal each.

Figure 68: Number of innovative proposals per typology of regulatory relief



Waste and circular economy

Within the waste and circular economy policy area, four out of nine proposals suggest amendments to Directive 2008/98/EC, which sets the framework and basic principles for waste management within the EU. Potential amendments to this Directive envision the introduction of compulsory EMAS registration for companies performing waste management and treatment as their core business activities, as a guarantee of superior environmental risk management capabilities (see ID 3 in Table 51). Within the same directive, amendments may be integrated to provide exemptions from, or simplifications in, specific permitting procedures based either on EMAS registration (see ID 1). In order to enhance EMAS’s capacity to support the development of circular economy dynamics, one proposal aims at facilitating the recognition of the status of “by-products” as materials, based on the submission of specific information contained in the externally validated Environmental Statement (see ID 9).

Directive 2000/53/EC, which sets forth indications and parameters concerning the environmental-friendly management of end-of-life vehicles (ELVs), requires MS to encourage the uptake, or to require the adoption, of EMS among facilities appointed to collecting, dismantling and recycling ELVs. However, the Directive does not mention EMAS specifically. Therefore, the integration of EMAS into the Directive (as proposed in amendments ID 5 and 6) could serve to reinforce the role of EMAS as a standard of reference for resource efficiency and to strengthen the alignment between EMAS and the EU objective of achieving a circular economy. In terms of regulatory relief, EMAS may provide opportunities for simplifying the extensive periodic reporting requirements foreseen in Article 9 of Directive 2000/53/EC (see ID 2) by means of the EMAS environmental statement. Similarly, the integration of EMAS within Article 6 of the Directive might exempt EMAS-registered facilities from mandatory inspections, based on the scheme’s capacity to strengthen legal compliance (see ID 7 in Table 51).

Industry

Within the industry policy area, Directive 2010/75/EU on industrial emissions (IED) and Directive 2012/18/EU (also known as Seveso III) on the prevention and management of major industrial accidents are among the most significant EU environmental policies specifically addressed to the industrial sector. Not surprisingly, given their breadth and their transposition through the EU, such Directives provide several opportunities for EMAS integration.

Within the framework of the IED, EMAS registration could exempt companies from submitting baseline reports concerning the initial state of soil and groundwater, as foreseen by chapter 2 of the IED (see ID 10 in Table 51). Similarly, EMAS could be integrated as a requisite condition for extending the deadline for the adoption of state-of-art Best Available Technologies (BATs) (see ID 11). Concerning facilitating permit applications, regulators could

introduce EMAS within Art. 12 of the IED (*“Application for permits”*), by mentioning the possibility of fulfilling the permits’ requirements through an Environmental Statement composed in accordance with Regulation 1221/2009/EC (see ID 12).

Under the Seveso Directive’s Article 5 on *“General obligations of the operator”*, MS may require operators handling hazardous substances to implement safety management systems in order to prove their capabilities and readiness to manage potential emergencies. According to the same logic, potential amendments to the article may enable MS to require the implementation of standard-based EMS as a guarantee of superior environmental management capabilities and low environmental risk (see ID 13). Similarly, EMAS may be integrated as a potential prerequisite for sub-contractors in order to strengthen their contribution to the reduction of environmental risks (see ID 14). In terms of reporting obligations, the Seveso Directive’s Article 8, on *“Major-accident prevention policy”*, requires operators to submit the Major Accident Prevention Policy (MAPP) to competent authorities. Within this framework, potential amendments to the article may introduce the EMAS Environmental Statement as a substitute for the MAPP (see ID 15).

Energy

Within the energy policy area, the project team focused on developing amendments to Directive 2012/27/EU, also known as the Energy Efficiency Directive, which aims at establishing binding measures for enhancing energy efficiency across the EU. Proposed amendments aim at establishing equivalence between the EMAS auditing process (if provided with documented energy audits) and the mandatory energy audits by means of specific references to EMAS within the text of the Directive. The amendments therefore introduce simplifications in monitoring requirements based on EMAS registration and the use of the energy core indicator (see ID 18 and ID 29 of Table 51) as well as economic relief in CO₂ compensation payments associated with audit results (see ID 17).

Ecolabel and eco-design

Within the ecolabel and eco-design policy area, the project team focused on identifying potential synergies between EMAS and the EU Ecolabel certification that could better align the two policy instruments, while also providing significant competitive advantage to EMAS-registered organisations that aim to apply for EU Ecolabel. Accordingly, a potential innovative proposal focuses on Art. 9 of the Regulation (EC) No 66/2010, which specifies that, in the application for EU Ecolabel, operators must provide specific information detailing the superior environmental performance of the product. According to the same logic, potential amendments to EU Ecolabel Criteria may require applicants to submit documentation concerning the environmental policy of the organisation and outline internal measures for monitoring and improving environmental performance. In case a standard-based EMS is in place, an environmental statement written according to the EMAS Regulation may be substituted for documentation concerning the applicants’ environmental policy (see ID 20 in Table 51). Similarly, within Directive 2009/125/EC concerning eco-design requirements for energy related products, regulators may require an assessment of the overall environmental performance of the organisation in addition to the assessment of single products’ environmental aspects, or at least some assessment of its environmental impacts non-related to products. This change would ensure greater consistency in environmental policy (no organisation should put eco-designed products on the market while continuing to run environmentally inefficient or high-impact operations). Within this context, EMAS registration could be recognised as a tool adept at assessing, monitoring and improving the environmental performance of the registered organisation (see ID 22). One potential restriction, however, may be the currently product-oriented scope of Directive 2009/125/EC.

Green Public Procurement

Innovative proposals within the Green Public Procurement policy area target Directive 2014/24/EU and Directive 2014/25/EU, which together regulate the award of public contracts

by or on behalf of Member States' authorities. The amendments proposed here aim at introducing a mechanism of "virtual" price discounts based on the tenderers' adoption of standard-based EMS (see ID 23 in Table 51). According to the proposed amendments, "virtual" price discounts are applied in the evaluation of the price-quality ratio of the bid during the selection process. EMAS-certified tenderers could benefit from higher price discounts in the evaluation of the bid compared to other standard-based EMS. The "virtual" price discount is exclusively applied during the evaluation phase, but once the contract is awarded, the full amount of the bid is paid to the tenderer.

Air

The Directive 2003/87/EC sets forth the framework and guidelines of the EC scheme for greenhouse gas (GHG) emissions allowance trading, also known as the EU Emission Trading Scheme (ETS), with the aim to promote GHG emissions reduction among the EU in a cost-effective way. Besides laying down the EU ETS mechanism, the Directive provides guidelines concerning the mandatory monitoring and reporting of industrial sites' emissions. In particular, Article 14 of the Directive mandates Member States to request industrial sites' detailed documentation concerning the level of emissions of industrial installations in each calendar year. According to the amendment proposed here, organisations can use their environmental statement to fulfil the reporting requirement envisioned by Article 14 of the Directive, provided the environmental statement contained the information required. Within this framework, this amendment would aim at incentivizing EMAS-registered organisations' participation in the EU ETS, while fostering the integration between EU GHG emission reduction objectives and the scope of the EMAS regulation (see ID 24 in Table 51 below).

The following table depicts the innovative proposals described in this section of the report. The first column contains an ID number and the project team's opinion with regard to the importance of the measures to be included in the EU legislation. In particular, two asterisks (**) indicate when the authors of this report consider the measure to be included at the EU level very important (almost mandatory) to allow an application of the regulatory relief at the Member State level. One asterisk (*) indicates if the measure could facilitate the application of the regulatory relief by the single MS, while nonetheless not considered a necessary condition because the MSs could also implement the measure autonomously.

Table 51: Innovative proposals

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
Waste and circular economy						
1 *	DIRECTIVE 2008/98/EC on waste	Stream-lined applications	EMAS companies receive a notification of hazardous waste without extra permission. Proposal: EU wide register for waste collectors and treaters	Article 24 Exemptions from permit requirements	The capacity of EMAS to better manage legal compliance and environmental aspects	“Member States may exempt from the requirement laid down in Article 23(1) establishments or undertakings for the following operations: (a) disposal of their own non-hazardous waste at the place of production; or (b) recovery of waste (c) EMAS registered companies may receive a notification of hazardous waste without extra permission.”
2 *	DIRECTIVE 2000/53/EC of 18 September 2000 on end-of life vehicles	Reduced reporting and monitoring requirements	Art. 9 of the Directive requires that at three-year intervals Member States shall send a report to the Commission on the implementation of this Directive. Member States shall require relevant economic operators to provide and publish a large amount of information. This information may be provided via the EMAS Environmental Statement. For example (see the EMAS Sectoral Reference Documents for the Car Manufacturing Sector)	Art. 9 " <i>Reporting and Information</i> "	EMAS Environmental Statement validated by third party verifier	Art. 9 paragraph 2 - "Member States shall require in each case the relevant economic operators to publish information on: — the design of vehicles and their components with a view to their recoverability and recyclability, — the environmentally sound treatment of end-of life vehicles, in particular the removal of all fluids and dismantling, — the development and optimisation of ways to reuse, recycle and recover end-of life vehicles and their components, — the progress achieved with regard to recovery and recycling to reduce the waste to be disposed of and to increase the recovery and recycling rates. In the case of EMAS registered operators, this

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
						<i>requirement may be accomplished via the EMAS Environmental Statement."</i>
3 *	DIRECTIVE 2008/98/EC on waste	Other measure	Art.23 of the Directive deals with the conditions under which Member States issue permits. EMAS should be made mandatory for organisations that treat waste as their main purpose	Art. 23 " <i>Issue of permits</i> "	EMAS capacity to better manage environmental aspects and environmental emergencies	Art. 23 - "[...] 5. Member States may declare that it shall be a condition of any permit that the site in question shall implement an environmental management system certified in accordance with relevant European or International Standards such as EMAS (Eco-Management and Audit Scheme) or EN ISO 14001".
4 *	REGULATION (EC) No 166/2006 concerning the establishment of a European Pollutant Release and Transfer Register	Reduced reporting and monitoring requirements	Art 5. of the Directive details the reporting obligations of companies falling under the scope of the Directive	Art. 5 " <i>Reporting by operators</i> "	EMAS Environmental Statement validated by third party verifier	Art. 5 - "[...] 6. An environmental statement produced in accordance with the EMAS (Eco-Management and Audit Scheme) Regulation and submitted to the competent authority shall be accepted as a fulfilling the requirements laid out in paragraph 1 provided that the environmental statement contains all information specified in paragraph 1. "
5 *	DIRECTIVE 2000/53/EC of 18 September 2000 on end-of life vehicles	Other measure	Car manufacturers and distributors have to implement a network of facilities to collect end-of-life vehicles. In France, some of them require collectors to have an EMS. This prescription could also be encouraged in the Directive.	Art. 5 " <i>Collection</i> "	EMAS capacity to better manage environmental aspects and environmental emergencies	"1. Member States shall take the necessary measures to ensure: — that economic operators set up systems for the collection of all end-of life vehicles and, as far as technically feasible, of waste used parts removed when passenger cars are repaired. The setting of these systems shall be done so as to ensure the treatment of end-of-life vehicles in the best environmental conditions. Economic operators

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
						<i>may require collection facilities to have implemented an Environmental Management System certified in accordance with relevant European or International Standards such as EMAS (Eco-Management and Audit Scheme) or EN ISO 14001."</i>
6 **	DIRECTIVE 2000/53/EC of 18 September 2000 on end-of life vehicles	Other measure	To ensure end-of-life vehicles are treated in environmentally sound conditions, collection and treatment facilities have to comply with the minimum requirements set in Annex I of the Directive. In Article 6, Members are required to encourage these facilities to implement an EMS, but EMAS is not directly mentioned. The directive could either encourage the implementation of EMAS or make it a prerequisite for collection and treatment facilities to obtain an authorisation.	Art. 6 "Treatment"	EMAS capacity to better manage environmental aspects and environmental emergencies; added transparency	"5. Member States shall encourage or may require establishments or undertakings, which carry out treatment operations to introduce, certified environmental management systems in accordance with relevant European or International Standards such as EMAS (Eco-Management and Audit Scheme) or EN ISO 14001."
7 **	DIRECTIVE 2000/53/EC of 18 September 2000 on end-of life vehicles	Reduced inspections or exemption	Facilities treating end-of-life vehicles are regularly inspected by public authorities and could benefit from fewer inspections.	Art. 6 "Treatment"	EMAS capacity to better manage environmental aspects, reducing environmen-	"2. Member States shall take the necessary measures to ensure that any establishment or undertaking carrying out treatment operations obtains a permit from or be registered with the competent authorities, in compliance with Articles 9, 10 and 11

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
					<p>tal risks</p> <p>EMAS capacity to guarantee higher legal compliance</p> <p>Frequent inspections activities carried out in EMAS sites through internal and external audits</p>	<p>of Directive 75/442/EEC.”</p> <p>Include the following new comma: “Organisations having implemented an Environmental Management in accordance with EMAS may be exempted from this inspection.</p>
8 **	DIRECTIVE 2008/98/EC waste	Other on measure	Increase of the time available for EMAS registered companies before to dispose the produced waste	Chapter 3 Waste Management, Art. 15 Responsibility for waste management	Since EMAS guarantees a better management of waste, the enlargement of temporal limit represents a reduction of administrative burdens without an increase of environmental risks	Include the following new comma in the art. 15: “Member State shall decide to increase the temporal limit of the produced waste storage before the mandatory collection and transport to appropriate treatment for certain kind of organisations such as the EMAS registered organisations”
9	DIRECTIVE 2008/98/EC	Technical and in-	Facilitate the recognition of the status of "by-product" to materi-	Article 5 "By-products"	EMAS Environmental State-	Include the following comma to the article 5: “The conditions of by-products laid down in

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
**	waste	formation support	als and substances		ment validated by third party verifier	<i>paragraph 1 of article 5 can be included in the Environmental Statement of EMAS organisations and validated by the external verifier. The Member States shall take into account the validation of those information in the process to recognise a material as by-products"</i>
Industry						
10 **	Industrial Emissions Directive (IED) 2010/75/EU	Reduced reporting and monitoring requirements	EMAS companies should not need to provide a baseline report according to IED chapter 2 (Report on the initial state of the soil and groundwater) and in regards to the possibility of soil and groundwater contamination at the installation	IED II.1	EMAS Environmental Statement validated by third party verifier	Include the following comma: "4. EMAS registered companies do not need to provide a baseline report. "
11 **	Industrial Emissions Directive (IED) 2010/75/EU	Reduced reporting and monitoring requirements	EMAS companies receive longer deadlines for the adaption of state of the art according to BAT Docs.	IED II.2	EMAS organisations have better environmental performance than other organisations so the adoption of BAT can be postponed because they will not improve the	Include the following comma: "3. EMAS registered companies can prolong the adaptation of BAT conclusion for another X months."

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
					performance in a relevant way as in the case of non-registered organisations	
12 *	Industrial Emissions Directive (IED) 2010/75/EU	Stream-lined applications	Art.12 of the Directive deals with the content of applications for a permit	Art. 12 " <i>Applications for permits</i> "	EMAS Environmental Statement validated by third party verifier	"2. Where information supplied in accordance with the requirements provided for in Directive 85/337/EEC or a safety report prepared in accordance with Directive 96/82/EC or <i>an environmental statement in accordance with Regulation 1221/2009/EC</i> or other information produced in response to other legislation fulfils any of the requirements of paragraph 1, that information may be included in, or attached to, the application."
13 *	DIRECTIVE 2012/18/EU of 4 July 2012 on the control of major-accident hazards involving dangerous substances	Other measure	Art.5 of the Directive deals with the obligations of operators handling dangerous substances. Member States may require operators to have an environmental management system in addition to the safety management system. Authorities would increase transparency and ensure an overall lower environmental risk and impact.	Art.5 "General obligations of the operator"		Article 5 General obligations of the operator 1. Member States shall ensure that the operator is obliged to take all necessary measures to prevent major accidents and to limit their consequences for human health and the environment. <i>This shall be done through the implementation of a Safety Management System as described in Annex III.</i> <i>In addition, Member States may require the operator to implement an Environmental Management System certified in accordance with rele-</i>

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
						<i>vant European or International Standards such as EMAS (Eco-Management and Audit Scheme) or EN ISO 14001, to further decrease the risks of the activity on the environment.”</i>
14 **	DIRECTIVE 2012/18/EU of 4 July 2012 on the control of major-accident hazards involving dangerous substances	Other measure	The role of subcontractors in preventing risks is highlighted in the introduction part and at several other occasions in the directive. Operators could require their subcontractors to have EMAS to limit risks and reduce their responsibility in terms of awareness-raising and training.	Introduction + other mentions of the role of subcontractors.	EMAS capacity to better manage environmental aspects, reducing environmental risks EMAS capacity to guarantee higher legal compliance	(16) Sub-contracting may have an impact on the safety of an establishment. Member States should require operators to take this into account when drafting a MAPP, a safety report or an internal emergency plan. <i>Operators may require their sub-contractors to have an environmental management system certified in accordance with relevant European or International Standards such as EMAS (Eco-Management and Audit Scheme) or EN ISO 14001, to ensure they are aware of environmental risks.”</i>
15 *	DIRECTIVE 2012/18/EU of 4 July 2012 on the control of major-accident hazards involving dangerous substances	Reduced reporting and monitoring requirements	Under the Seveso Directive, operators are required to provide major-accident prevention policy (MAPP) to public authorities and to update it every 5 years. This reporting could be integrated in the environmental statement or EMAS organisations may be exempted, notably if they are classified as "lower-tier establishment" (lower risks).	Art. 8 "Major-accident prevention policy"	EMAS Environmental Statement validated by third party verifier	“1. Member States shall require the operator to draw up a document in writing setting out the major-accident prevention policy (MAPP) and to ensure that it is properly implemented. [...] <i>Member States may accept the environmental statement of organisations registered with EMAS, the EU Eco-Management and Audit Scheme as a substitute, provided that it contains all the information as required by the Competent Authority.</i> 5. [...] For lower-tier establishments, the obligation to implement the MAPP may be fulfilled by other

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
						appropriate means, structures and management systems, proportionate to major-accident hazards, taking into account the principles set out in Annex III. Other appropriate management systems may be environmental management systems certified in accordance with relevant European or International Standards such as EMAS (Eco-Management and Audit Scheme) or EN ISO 14001. "
16 *	DIRECTIVE 2004/35/CE, Environmental Liability Directive (ELD)	Reduction of financial guarantees	Amend the article 14 on financial security requiring to the MS to reduce the amount of financial guarantees for EMAS organisations	Article 14 "financial security"	EMAS capacity to identify, manage and reduce environmental risks	Include the following new comma in the art. 14: "Member States shall reduced for EMAS registered organisations the amount of financial mechanisms required according to the comma 1 and 2 taking into account the higher capacity of these organisations to manage environmental emergencies"
Energy						
17 **	DIRECTIVE 2012/27/EU ON ENERGY EFFICIENCY	Economic and fiscal relief	EMAS Audit is recognised as equivalent to energy audit. Advantages concerning payments for CO2 compensations (on national level) with the energy audit.	(24)	Frequent inspections activities carried out in EMAS sites through internal and external audits where the energy issues are covered.	"(24) To tap the energy savings potential in certain market segments where energy audits are generally not offered commercially (such as small and medium-sized enterprises (SMEs)), Member States should develop programmes to encourage SMEs to undergo energy audits. Energy audits should be mandatory and regular for large enterprises, as energy savings can be significant. Energy audits should take into account relevant

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
						European, or International Standards, such as EN ISO 50001 (Energy Management Systems), or EN 16247-1 (Energy Audits), or, if including an energy audit, EN ISO 14000 and EMAS (Environmental Management Systems) and thus be also in line with the provisions of Annex VI to this Directive as such provisions do not go beyond the requirements of these relevant standards. A specific European standard on energy audits is currently under development."
18 **	DIRECTIVE 2012/27/EU ON ENERGY EFFICIENCY	Reduced reporting and monitoring requirements	Art. 8 states that "Enterprises that are not SMEs and that are implementing an energy or environmental management system - certified by an independent body according to the relevant European or International Standards - shall be exempted from the requirements of paragraph 4, provided that Member States ensure that the management system concerned includes an energy audit on the basis of the minimum criteria based on Annex VI." EMAS can provide an equivalent as well, since energy related-data is included in the environmental statement and is audited by a	Art.8 " <i>Energy Audits and Energy Management Systems</i> "	Frequent inspections activities carried out in EMAS sites through internal and external audits where the energy issues are covered.	Art. 8: "Enterprises that are not SMEs and that are implementing an energy or environmental management system - certified by an independent body according to the relevant European or International Standards such as EN 16247-1 , EN ISO 50001 or EMAS - shall be exempted from the requirements of paragraph 4, provided that Member States ensure that the management system concerned includes an energy audit on the basis of the minimum criteria based on Annex VI."

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
3rd party verifier.						
19 **	DIRECTIVE 2012/27/EU ON ENERGY EFFICIENCY	Reduced reporting and monitoring requirements	Pt. 24 of the introduction to the Directive explains that "Energy audits should take into account relevant European or International Standards, such as EN ISO 50001 (Energy Management Systems), or EN 16247-1 (Energy Audits), or, if including an energy audit, EN ISO 14000 (Environmental Management Systems) and thus be also in line with the provisions of Annex VI to this Directive as such provisions do not go beyond the requirements of these relevant standards. A specific European standard on energy audits is currently under development." EMAS can provide an equivalent as well, since energy related data is included in the environmental statement and is audited by a 3rd party verifier.	(24) of introduction	Frequent inspections activities carried out in EMAS sites through internal and external audits where the energy issues are covered.	(24) - "Energy audits should take into account relevant European or International Standards, such as EMAS (Eco-Management and Audit Scheme) , EN ISO 50001 (Energy Management Systems), or EN 16247-1 (Energy Audits), or, if including an energy audit, EN ISO 14000 (Environmental Management Systems) and thus be also in line with the provisions of Annex VI to this Directive as such provisions do not go beyond the requirements of these relevant standards"
Ecolabel and eco-design						
20	REGULATION	Other	Art.9 of the Regulation specifies	Art. 9 "Award of		"1. Any operator who wishes to use the EU Eco-

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
**	(EC) No 66/2010 of 25 November 2009 on the EU Ecolabel and Commission Decisions establishing EU Ecolabel Criteria for different product groups	measure	that any operator who wishes to use the EU Ecolabel shall apply to the competent bodies and provides specific information about its products. The application could be made stricter by requiring the operator to have an environmental management system in place or to provide information not only about the product but on the company and its environmental policy (such as in the EU Ecolabel criteria for tourist accommodations, which require organisations to have implemented the basis of an environmental management system). The environmental statement could be provided as a proof of compliance.	the EU Ecolabel and terms and conditions of its use"		<p>label shall demonstrate it has an environmental management system in place, certified in accordance with relevant European or International Standards such as EMAS (Eco-Management and Audit Scheme) or EN ISO 14001. OR"3. Applications shall specify the full contact details of the operator, as well as the product group in question and shall contain a full description of the product as well as all other information requested by the CB regarding the product.</p> <p>For consistency purpose, applications shall also contain a description of the environmental policy of the organisation and actions taken to reduce the environmental impacts of its whole activity, as laid out in Annex II. An environmental statement produced in accordance with EMAS (Eco-Management and Audit Scheme) shall fulfil this requirement."</p> <p>In addition Commission decisions laying out Ecolabel criteria could all include a first criterion similar as the one for tourist accommodations:</p> <p>"The organisation shall set the basis of an Environmental Management System by implementing the following processes:</p> <ul style="list-style-type: none"> — an environmental policy identifying the most relevant environmental aspects regarding energy, water and waste relevant to the organisation, — a precise action programme establishing targets

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
						<p>on environmental performance regarding identified environmental aspects, which shall be set at least every 2 years, taking into consideration requirements set by this EU Ecolabel Decision.</p> <p>If environmental aspects identified are not addressed by this EU Ecolabel, targets should preferably be based on environmental performance indicators and benchmarks of excellence set by the reference document on best environmental management practice if available for the sector,</p> <p>— an internal evaluation process allowing verifying at least yearly organisation performances with regard to the targets defined in the action program and setting correction actions if needed.</p> <p>An EMAS registration may be carried out to fulfil this requirement.”</p>
21 *	REGULATION (EC) No 66/2010 of 25 November 2009 on the EU Ecolabel	Reduced reporting and monitoring requirements)	The Regulation requires applicants to the EU Ecolabel to provide Competent Bodies with specific documentation to prove compliance with EU Ecolabel criteria. For services, such as the tourist accommodations EU Ecolabel, the documentation to be provided could be significantly lightened if an organisation has EMAS, as criteria overlaps	EU Ecolabel criteria		Each commission decision laying out EU Ecolabel criteria should consider which requirement overlaps with EMAS, and exempt EMAS organisations to report on them. Commission Decision 2017/175 establishing criteria for tourist accommodation could be amended, replacing the current mentions that documentation under the EMAS scheme may be used a proof of compliance for certain criteria, by a stronger statement: “a signed declaration by the EMAS verifier that the organisation complies with the EU Ecolabel criteria exempt the organisation to

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
			(e.g. involvement of employees) and is documented in the environmental statement. In addition, the CB may decide not to do an on-site visit of the organisation on the basis that requirements have been verified by an EMAS verifier.			provide proof of compliance documents”. A template of the additional checks to be performed by the verifier to verify compliance with the EU Eco-label criteria compared to EMAS could be provided.
22 **	DIRECTIVE 2009/125/EC of 21 October 2009 establishing a framework for the setting of ecodesign requirements for energy-related products	Other measure	The obligation to eco-design product could be associated with an obligation to consider the environmental performance of the organisation as well.	ANNEX I Method for setting generic ecodesign requirements		Include the following comma: “3. Manufacturers shall perform a similar assessment of the environmental performance of their organisation.”
Green Public Procurement						
23 *	- DIRECTIVE 2014/24/EU on public procurement, and - DIRECTIVE 2014/25/EU on procurement by	Public procurement	Companies that have an environmental management system receive a virtual discount on their bid, where EMAS certified companies receive the highest discount on the basis that they have better environmental per-	DIRECTIVE 2014/24/EU Art. 67 & DIRECTIVE 2014/25/EU art. 82 'Contract award criteria'		- Tenderers that have implemented an environmental management system can receive a virtual discount on their bid. - (proposed levels - can be varied) Tenderers with an ISO 14001 registration receive a 5% virtual discount on their bid, whereas EMAS registered com-

ID	EU Policy Instrument	Typology of regulatory relief	Content	Section to be amended	EMAS features to justify the regulatory relief	Proposal of amendment
	entities operating in the water, energy, transport and postal services sector		formance reported in a publicly available and 3 rd party verified environmental statement and thus an overall lower environmental impact.			panies receive a 10% virtual discount. - The virtual discount means that a discount is applied to the tenderer's bid while evaluating the price-quality ratio during the selection process. However, once the contract gets awarded to a company that received the virtual discount, the undiscounted 'real' sum of money is paid to the tenderer.
Air						
24 *	DIRECTIVE 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC	Reduced reporting and monitoring requirements	Emission Trade Scheme: EMAS companies are not obliged to have a monitoring plan. CO2 data are verified within the EMAS audit and reported in the environmental statement	Article 14 Guidelines monitoring reporting emissions	for and of EMAS Environmental Statement validated by third party verifier	“3. Member States shall ensure that each operator of an installation reports the emissions from that installation during each calendar year to the competent authority after the end of that year in accordance with the guidelines. In the case of EMAS registered operators, the requirement may be accomplished via the EMAS Environmental Statement.”

Conclusion

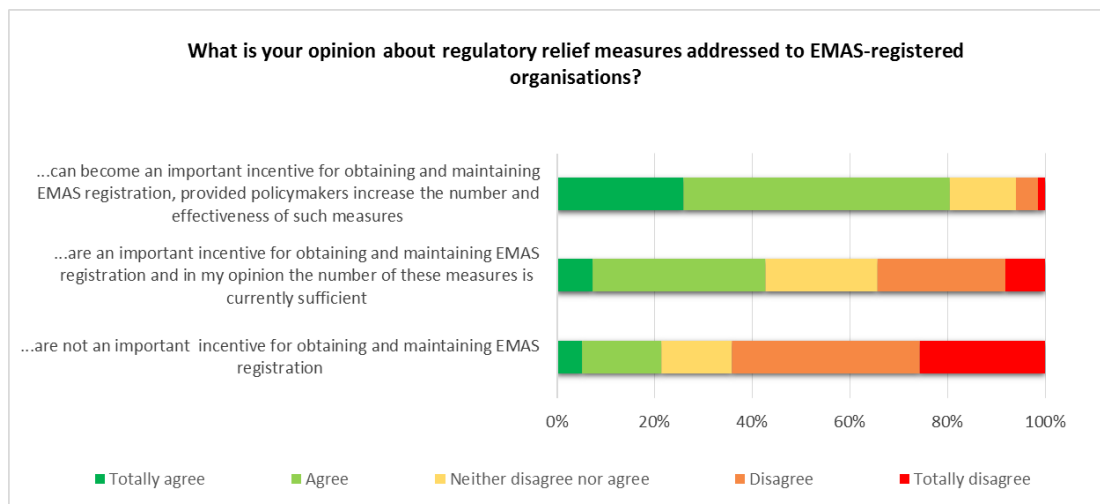
- 24 proposals for integrating EMAS in current environmental legislation at EU level were developed in six policy areas: waste and circular economy, industry, energy, eco-design and eco-label, Green Public Procurement and air;
- Within the waste and circular economy policy area, half of the proposals focus on Directive 2008/98/EC and envision, among other suggestions, the introduction of compulsory EMAS registration for companies performing waste management and treatment as their core business activities. Compulsory EMAS registration would reduce environmental impacts and reduce the environmental risk of the highest-risk organisations. The other half of the proposals focus on Directive 2000/53/EC and aim at reinforcing the role of the scheme as a standard of reference for resource efficiency within the EU objective of achieving the circular economy;
- Within the industry policy area, the Directive 2010/75/EU on industrial emissions (IED) and the Directive 2012/18/EU (Seveso) were targeted. Within the IED, EMAS registration may exempt companies from submitting baseline reports concerning the initial state of soil and groundwater, and could be integrated as a requisite condition for extending the deadline for the adoption of state-of-art Best Available Technologies (BATs). Within the Seveso Directive, EMAS could be integrated as a potential prerequisite condition for sub-contractors to strengthen their contribution to reducing environmental risks;
- Innovative proposals focused on the Energy Efficiency Directive, i.e. Directive 2012/27/EU, aimed at establishing equivalency between the EMAS auditing process and the mandatory energy audits, in order to grant cost reductions to registered organisations and save resources for the competent enforcement authorities.
- Within the ecolabel and eco-design policy area, innovative proposals aim at creating synergies between EMAS and the EU Ecolabel certification in order to enhance the alignment between these tools.
- Lastly, within the air policy areas, innovative proposals aim at amending the EU Emission Trading Scheme (ETS) by proposing the substitution of reporting requirements envisioned by Directive 2003/87/EC with the Environmental Statement. Reducing these reporting requirements would provide registered organisations with an incentive to participate in the ETS.

3.10 Follow-up survey of EMAS organisations

After identifying best practices and potential modifications to EU legislation for including more regulatory relief at the EU and MS levels, a follow-up survey was sent to EMAS organisations. The survey investigated the organisations' opinions on a selection of relief measures. It also asked about their views on EMAS's ability to effectively support legal compliance and whether or not they would be willing to provide additional safeguards on legal compliance to authorities in return for more regulatory relief (see 2.2.3.6).

The first question asked EMAS-registered organisations to clarify whether regulatory relief played a role in their decision to apply to or maintain EMAS. Indeed, the original assessment of the effectiveness of regulatory relief (see 3.3.2) suggested that the existing measures are not particularly effective at driving EMAS adoption. This lack of effectiveness could be because other adoption drivers are significantly more important or because the existing measures are not satisfactory.

Figure 69: Relevance of regulatory relief to drive EMAS adoption, EMAS organisations follow-up survey



No of respondents: 377

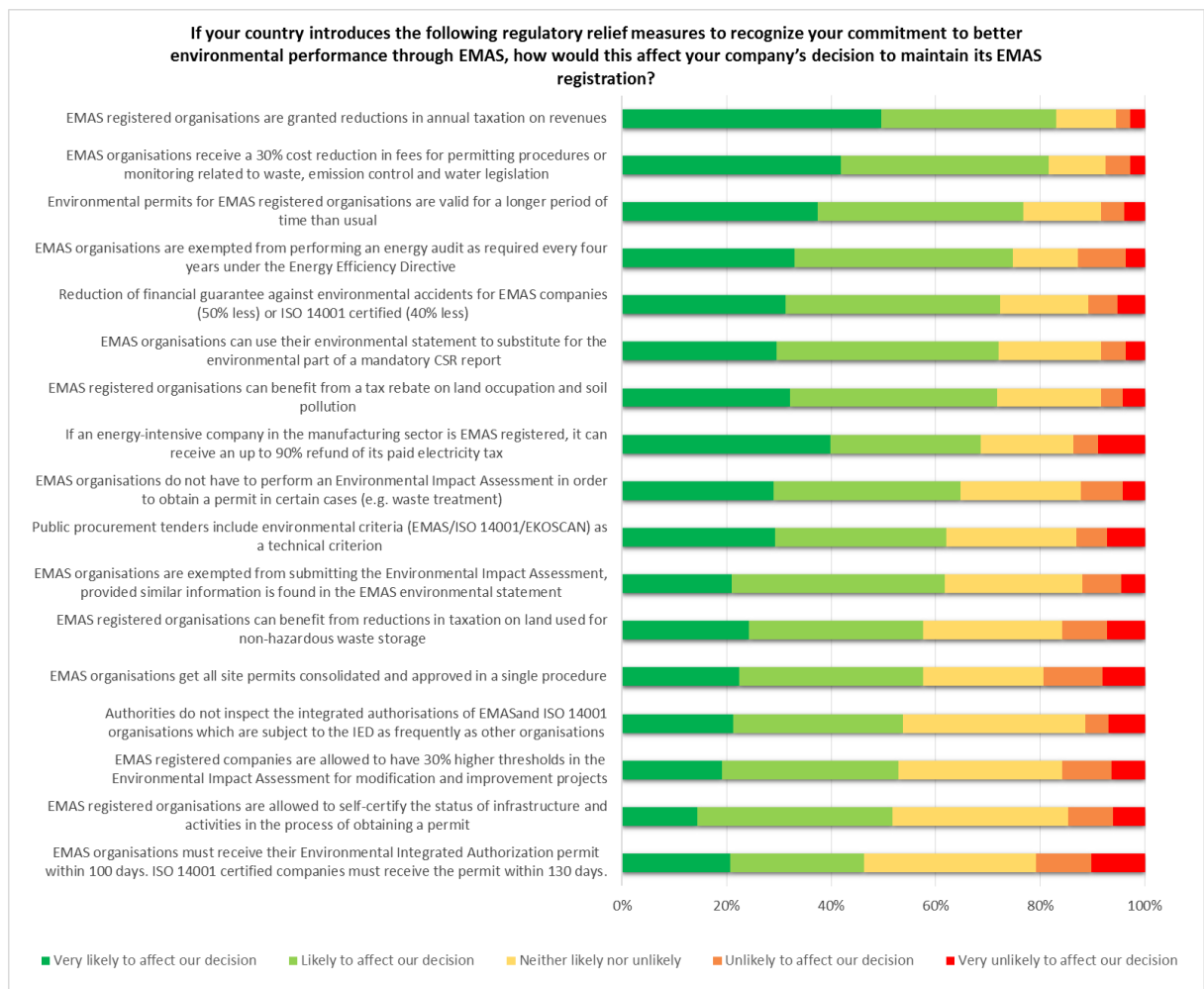
The survey confirmed the latter explanation. **80% of the respondents agree or totally agree that regulatory relief could become a strong incentive to obtain or maintain the EMAS registration if policy makers increased their numbers and relevance.** Only about 20% agreed or totally agreed that regulatory relief is not an important incentive. The survey respondents also included public sector organisations such as public administrations, churches, and schools, all of which are unlikely to benefit from regulatory relief and thus unlikely to see it as an incentive. This result thus strongly indicates that a greater number of more effective measures could increase EMAS's impact for most types of organisations.

The survey then asked EMAS-registered organisations to rate the influence of specific regulatory relief measures in their decisions to adopt or maintain EMAS. The measures listed were examples either of existing best practices or of innovative measures developed in the context of this study. Because some measures were best practices, organisations from countries with this measure sometimes indicated that they already benefited from the incentive. In that case, most ranked its current influence on their registration decision.

EMAS-registered organisations selected the following measures as most likely to affect their decision to maintain EMAS registration:

- Reductions in the annual taxation on revenue (innovative measure)
- 30% cost reduction in fees for permitting procedures or monitoring related to waste, emission control and water legislation (best practice from Germany)
- Environmental permits valid for a longer period of time than usual (best practice from Greece, Italy and Spain)
- Exemption from performing an energy audit as required every four years under the Energy Efficiency Directive (best practice from Germany and Poland)

Figure 70: Influence of specific regulatory relief on EMAS adoption, EMAS organisations follow-up survey



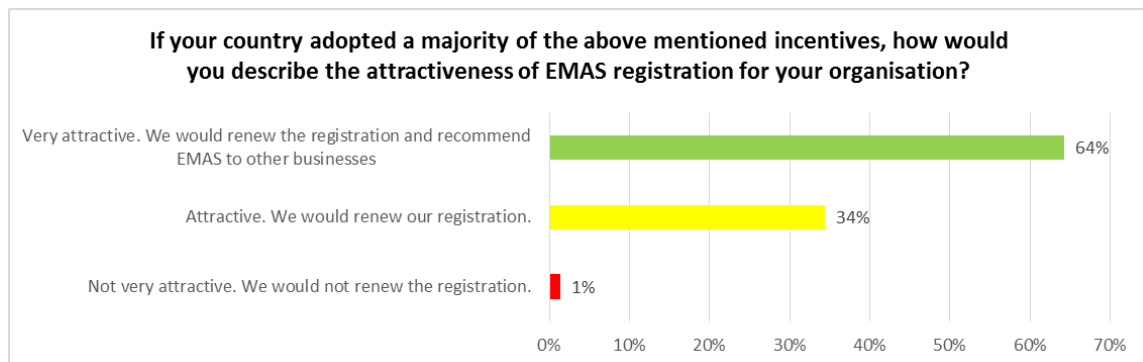
No. of respondents: 361

In addition, a best practice measure from Germany based on a 90% rebate on energy taxes received the third highest number of respondents who felt such a measure would be very likely to affect their registration decisions. The measure did not make the top ranking, however, because approximately 10%- a relatively high percentage - stated that such a measure would be very unlikely to affect their decision. This strong division indicates that while organisations desire tax rebates, the effectiveness of specific rebates or tax breaks varies strongly among countries, likely depending on how big the financial impact of specific taxes are. However, this particular measure has the advantage of a clear connection to EMAS (through the scheme's commitment to reduce energy consumption), environmental impacts and specific energy policy goals. In contrast, the more popular revenue tax break would be more

difficult to justify except as a general measure to reward the reduction of environmental impacts and externalities.

Figure 70 indicates that these and other regulatory relief measures could have high potential to drive EMAS adoption. Answers to the next question show that a combination of many of these measures could be even more effective. Indeed, only 1% of EMAS organisations would not renew their registration if a majority of the measures were implemented (Figure 71).

Figure 71: attractiveness of EMAS if regulatory relief are implemented, EMAS organisations follow-up survey

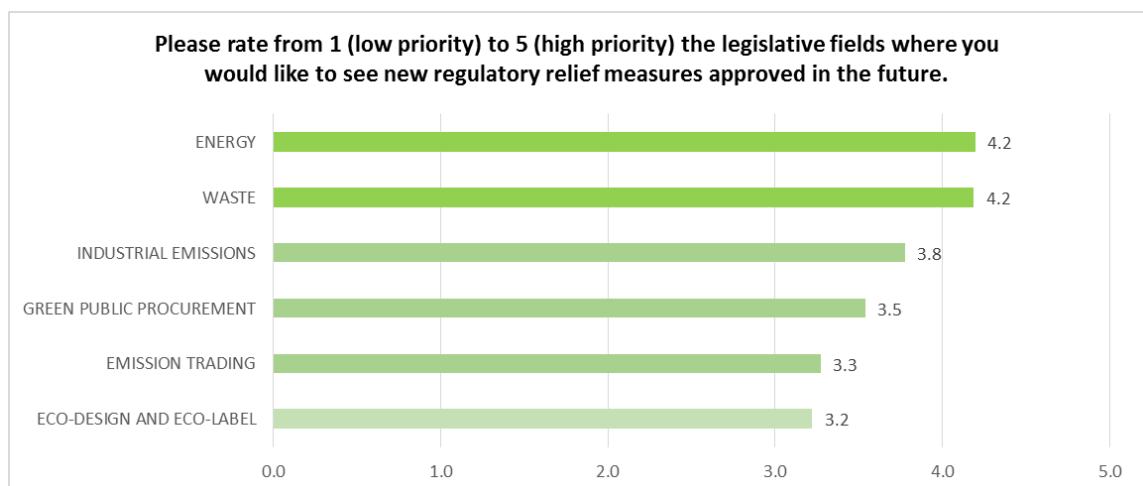


No. of respondents: 372

These findings confirm the EMAS Fitness Check’s conclusion that MS and the EU should implement regulatory relief to boost EMAS uptake (European Commission 2017) .

The follow-up survey also sought to confirm more general areas which policymakers could first target if looking to implement regulatory relief measures for EMAS-registered organisations. When organisations were asked in which environmental legislative areas they would most like to receive relief, they gave the **highest priority to energy and waste legislation.**

Figure 72: Legislative fields where regulatory relief are most expected, EMAS organisations follow-up survey

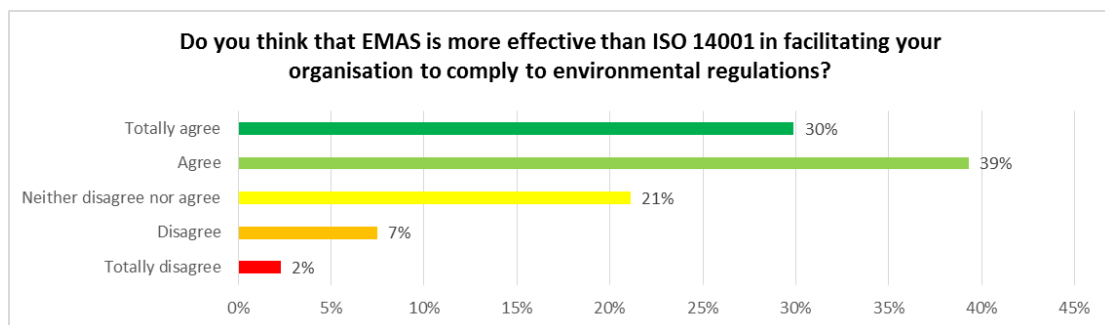


No. of respondents: 379

Additionally, to identify whether the stronger legal compliance of EMAS-registered organisations could justify the regulatory relief measures identified and/or proposed in the study, the survey asked EMAS-registered organisations to estimate whether EMAS allow them to comply better with environmental legislation than ISO 14001. 78.9% of responding organisations

also had an ISO 14001 certification, allowing for comparison between the two systems. **69% of those respondents agreed or totally agreed that EMAS is more effective than ISO14001 in this field, thus strongly indicating that the EMAS-registered organisations see significant legal compliance benefits from EMAS.** 21% of organisations had no opinion on the matter, while only 9% disagreed or strongly disagreed. EMAS-registered organisations thus support the study’s conclusion that EMAS’s additional requirements better guarantee legal compliance, while still leaving room to strengthen the scheme’s compliance support in the future.

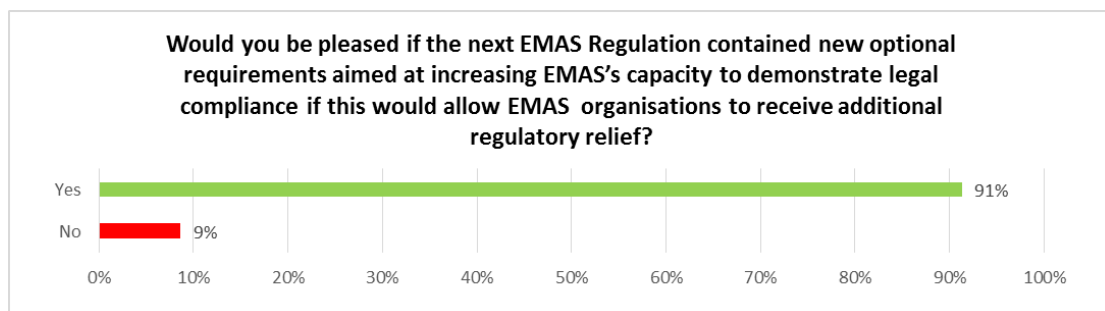
Figure 73: Capacity of EMAS to ensure legal compliance compared to ISO14001, EMAS organisations follow-up survey



No. of respondents: 308

Finally, the survey asked EMAS-registered organisations about potential changes to EMAS. The proposed changes aimed to strengthen EMAS’s support of legal compliance, which may assist in making regulatory and inspection authorities less sceptical of regulatory relief for the participants in the scheme. Interestingly, **91% of organisations indicated they would be ready to comply with new requirements if this step would allow them to benefit from more regulatory relief.**

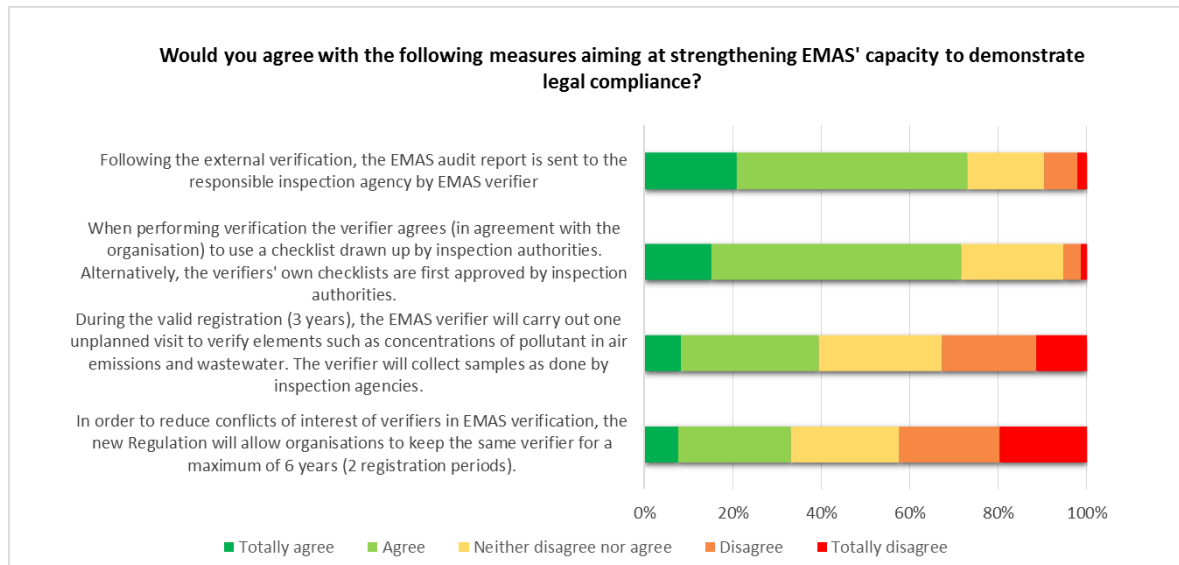
Figure 74: Potential to accept new requirements if this results in more regulatory relief, EMAS organisations follow-up survey



No. of respondents: 308

When asked in detail about four measures, a large majority of responding organisations indicated support for two of the measures while expressing scepticism about the other two options. Organisations would accept additional safeguards aimed at ensuring a closer collaboration between verifiers and authorities, such as **the transmission of the audit report to inspectors or the auditor’s use of a checklist drawn up by inspection authorities during audits.** However, fewer than 40% of respondents agreed or totally agreed with unplanned visits by EMAS verifiers or a mandatory change of verifiers every six years to maintain impartiality.

Figure 75: Level of agreement with potential modifications to EMAS to strengthen legal compliance, EMAS organisations follow-up survey



No. of respondents: 345

The results show that EMAS organisations are ready to provide more guarantees to authorities seeking more evidence to trust the scheme. However, receiving regulatory relief in exchange for this increased trust and increased effort is also important to organisations, and certain types of regulatory relief measures are significantly more attractive for organisations than other types. MS authorities should therefore use the examples in this report to consider how they could benefit from EMAS – for example, by saving resources and by giving organisations incentives to adopt a tool to achieve environmental compliance and priority environmental goals such as GHG reduction - and which additional guarantees they would need to provide regulatory relief to organisations.

3.11 Conclusion and recommendations to facilitate the adoption of regulatory relief

Challenges and opportunities for EMAS

EMAS can deliver added value to authorities because of the availability of information provided in the environmental statement (reliable through third party verification) and stronger legal compliance, reinforced in some MS through specific measures and cooperation between authorities and verifiers. These specific features of EMAS justify the implementation of regulatory relief measures, which can save authorities time and resources. EMAS has other benefits, such helping to improve environmental performance. Such a benefit would justify a stronger promotion of the tool by MS, but fail to justify the implementation of regulatory relief only for EMAS-registered organisations and not organisations with other environmental management certifications.

The study demonstrated the potential of regulatory relief in driving EMAS adoption and/or maintenance of the scheme. Regulatory relief has been demonstrated to have high potential of bringing added value for EMAS-registered organisations, while also to a lesser degree benefiting authorities through time savings and overall lower environmental impacts. A virtuous cycle could therefore be introduced in which more regulatory relief leads to more EMAS

registrations, and these measures bring more added value to authorities, allowing the authorities to focus their resources on organisations requiring stronger legal compliance checks.

The report has, however, also highlighted the limits of the current EMAS regulation in convincing policy makers to adopt regulatory relief. Changes to the EMAS regulation and to the EMAS governance system could significantly increase the scheme's capacity to justify regulatory relief for its participants (see Chapters 3.6.1 and 3.6.5).

Based on the analysis of survey and interview data provided in the previous sections, the present section aims at providing additional general but practical recommendations for strengthening the added value of regulatory relief and indeed the EMAS system. The recommendations focus on enhancing the effectiveness of existing public incentives to promote EMAS uptake and on facilitating the development of further measures of regulatory relief. In particular, the recommendations presented here have been inspired by the assessment of the barriers to the adoption of regulatory relief measures, and by MS best practices.

The recommendations emphasise the need to increase EMAS awareness among relevant stakeholders and enhance the visibility of existing regulatory relief experiences within and among Member States by facilitating the exchange of best practices. In order to address the identified barriers, the suggestions aim to support the integration of EMAS in environmental legislations, first at EU level but also at MS level, by broadening stakeholders' engagement with public incentives and by providing support and legal assistance to policymakers.

1. Promote EMAS integration at an early stage of the legislative process

In section 3.3.3, the assessment of the barriers to the development and adoption of regulatory relief measures highlighted as most relevant the lack of support from European institutions and the lack of integration of EMAS within European environmental legislation. According to the interviewed stakeholders, the lack of explicit references to EMAS in European legislation drastically reduces the probability of introducing regulatory relief measures during the transposition of the European legislation into the national legislative framework. This reluctance stems not only from limited awareness and recognition of EMAS at the lower stages of the legislative process, but also from legal complexities in justifying the introduction of simplifications based on EMAS at that stage of the process. For instance, policymakers may be afraid of incurring complaints for affecting market dynamics and distorting free competition by unfairly favouring EMAS-registered organisations. They may also worry that the addition of a reference to EMAS is not legally compatible with the original European legislation.

These barriers stress the need to improve, in a systematic way, the coordination between the different stages of the legislative process by enhancing communication and collaboration between the different actors involved at EU and MS levels. Coordination may be enhanced by establishing permanent working groups in each MS, comprised of MS policymakers, members of EMAS Competent Bodies and EU policymakers, aimed at mapping existing European environmental legislation to identify and evaluate opportunities for EMAS integration. By monitoring legislative developments at the European level, such working groups may elaborate proposals for EMAS integration in advance and therefore support their adoption both within the context of revisions of existing directives and within the adoption of new directives.

By bringing together the EU and MS perspectives, working groups would also contribute to coordinating the transposition of EU directives within national legislative frameworks, particularly for the valorisation of EMAS.

2. Enhance the visibility of measures of regulatory relief, within and across Member States

According to the analysis provided in the previous sections, EMAS-registered organisations and other relevant stakeholders are generally aware of existing measures of regulatory relief in their respective MS. Nonetheless, the spread of regulatory relief measures among EMAS-registered organisations is limited. Furthermore, the use of public incentives like regulatory relief or administrative benefits for driving the uptake of voluntary environmental instruments, does not receive widespread approval from MS regulatory authorities. In a sense, simplification measures based on voluntary environmental schemes are facing resistance from potential beneficiaries: both regulators and organisations. As highlighted in the previous sections, such resistance is driven by regulators' preferences towards a "command and control" approach to environmental regulations, by regulators' fear of losing sight of organisations' behaviour and, partially, by lack of trust in registered organisations and a lack of awareness of the specifics of EMAS. Consequently, distrust on the regulators' side may lead to regulatory relief becoming ineffective or inapplicable in practice, therefore hampering adoption of further measures.

Within this framework, enhancing the visibility of existing measures of regulatory relief within and across MS would contribute to the "institutionalization" of public incentives for EMAS uptake and to the systematization of regulatory benefits based on EMAS registration as common and accepted practices within the EU. The visibility of specific regulatory relief measures could be enhanced by establishing national and regional registers of regulatory relief measures, which could be consulted by regulatory authorities, organisations and other stakeholders. The systematic tracking of existing measures would contribute to enhancing the awareness of the opportunities presented by regulatory relief, including EMAS's ability to fulfil certain reporting and monitoring obligations as presented in Chapter 4. The tracking would therefore increase the adoption rate of measures among registered organisations and reduce the risk of irrelevance or ineffectiveness associated with authorities' distrust.

Furthermore, national regulatory relief registers would contribute to increasing the visibility of best practices among different MS, therefore facilitating the replication of valuable and effective regulatory relief measures in other contexts. Indeed, the tracking of regulatory relief measures would contribute to the harmonization of legislative frameworks among regions and MS, to the advantage of companies operating at larger scale across different regions and countries.

3. Improve communication of available regulatory relief measures

While not specifically investigated in this study, information from interviews indicated that communicating new and existing measures effectively is key to the effectiveness of regulatory relief, and that current levels of communication on the measures may not be sufficient. Interview data shows that environmental managers may not always be aware of regulatory relief measures that are available. At the same time, central managers or administrators within organisations may not always receive notification of potential relief when MS or CBs communicate the regulatory relief options directly to environmental managers during registration. With a better overview of existing measures, CBs might send specific information to organisations, environmental verifiers, industry associations and other stakeholders to publicize the incentives for EMAS registration.

4. Strengthen legal support and assistance to policymakers and public administrations

Given the complexity and rigidity of legislative procedures, the introduction of regulatory relief based on EMAS could be a hard task for national and regional policy makers, especially

in case EU directives do not explicitly devise simplification opportunities based on the scheme or are too vague on the practical adoption of EMS as a simplification criterion. Policymakers and regulators on lower legislative levels are afraid of incurring legal difficulties by adding regulatory relief based on EMAS when it is not mentioned at higher legislative levels. Furthermore, interviews show that policymakers often do not consider EMAS as a criterion for simplification because of a limited understanding of EMAS registration requirements. They are reluctant to award EMAS in part because they are not aware of EMAS features that could justify benefits for participating organisations. These barriers contribute to a blanket of legal uncertainty that hampers the development of new simplification measures and also harms the applicability and effectiveness of existing regulatory relief measures.

Within this framework, MS-level and EU-level legal helpdesks could provide targeted support and fulfil the need of technical legal assistance. The legal helpdesks could inform and advise policy makers on procedural issues, opportunities, and best practices associated with regulatory relief based on EMAS. Beyond the scope of the EMAS Helpdesk, a smaller-scale legal helpdesk targeted to policymakers at EU and MS level would facilitate the effective adoption of regulatory relief measures by mitigating legal uncertainties among policy makers and public administrations.

Furthermore, a legal help desk would provide clear and official support to registered organisations, overcoming inefficiencies associated with the distrust, unawareness or misinterpretation of local regulatory authorities.

5. Specify conditions for certain regulatory relief measures (if applicable)

The study found that, to gain widespread support, regulatory relief must be clearly justified and can indeed be based on unique features of EMAS, as seen in Chapter 3.5. However, scepticism emerged from stakeholders regarding the point that some regulatory relief measures may be given to EMAS organisations based solely on the fact that they are EMAS registered rather than on actual performance, achievement or lower risk. To avoid such concerns, regulatory authorities could attach conditions to certain regulatory relief measures, for example specifying that information substituted for a reporting requirement must be contained in the environmental statement or specifying a minimum level of achievement or improvement in a specific relevant indicator. The amount of regulatory relief offered might also vary according to performance. The EMAS environmental statement could be used as the basis for proving and evaluating such achievements.

6. Enhance communication and trust between regulatory authorities and environmental verifiers

The analysis of interview data highlighted regulatory authorities' scepticism about the reliability of the EMAS auditing and verification process. Accordingly, regulatory authorities voiced doubts regarding the capacity of the current EMAS auditing process to substitute for official environmental inspections or reporting obligations. Such perceived inadequacy of the auditing process is probably associated with a more generic lack of of EMAS requirements and to a bureaucratic approach towards environmental protection, which prevent the understanding of EMAS added value in terms of legal compliance. Consequently, interviewed regulatory authorities called for more interaction, communication and coordination with environmental verifiers, aimed at clarifying quality standards and expectations regarding the auditing and verification processes. This could be done through the implementation of workshops and the creation of specific communication channels between verifiers and authorities. For example, a public licensing body that communicates regularly with both the environment ministry and regulatory and inspection authorities could act as a bridge between inspectors and verifiers.

As this topic ties into the willingness of authorities to accept EMAS information to fulfil reporting and monitoring obligations as well, ideas for enhancing communication and trust between regulatory authorities and environmental verifiers will be explored further in the next chapter (details in Chapter 4.6).

4 Facilitating reporting to authorities through EMAS

4.1 Better reporting and the added value of EMAS: a literature review

Environmental reporting is essential to assess progress of policies aiming to protect the environment and increase the sustainability of Europe. Authorities thus need data from companies, which, from their side, can use this reporting to better manage their activity and anticipate risks. However, this reporting is perceived by many companies as a burden (Jones 2012; JIGSAW Research 2014). One reason is that companies lack awareness of international commitments and public policies necessary to understand the real objectives of reporting, while public authorities lack entrepreneurial experience to ask for the right amount of data (ORÉE 2017).

Similar to the works done on decreasing the burden of regulations for companies presented in the previous chapter, governmental organisations and non-profits have lately called increasing attention to the need for better reporting:

- In 2017, the EC finalised a fitness check of EU environmental monitoring and reporting arising from EU environmental legislation. The purpose of the fitness check is to “ensure that environmental reporting is fit for purpose and to help to identify concrete actions towards a low burden, high effects monitoring and reporting in the context of environmental legislation”. It identified 58 pieces of EU environmental legislation which give rise to 181 reporting obligations at EU level (Rayment et al. 2017)
- DEFRA issued a report on Smarter Environmental Regulation in 2013. The report mapped all information business are required to supply to regulators to comply with environmental legislation. A total of 243 different obligations were identified. It assessed that around 270k businesses are required to provide some form of information to regulators (7% of the number of businesses registered in England in 2011). This would result in 600,000 individual information returns annually (DEFRA 2013).
- ORÉE, a French non-profit organisation which brings companies and local authorities together to work on environmental impacts, published a white paper in 2017 on recommendations for increasing the consistency of environmental regulatory obligations. While the report did not carry out an exhaustive collection of obligations related to reporting, it highlighted 26 significant obligations in France in the fields of (1) air, energy, GHG emissions and climate, (2) water, soil and biodiversity, (3) circular economy and waste (ORÉE 2017).

Reporting obligations are increasing at the EU level, thus leading stakeholders to consider optimisation (Rayment et al. 2016).

In addition to their legal obligations, some organisations choose to report environmental impacts on a voluntary basis. Up until recently, reporting on social and environmental matters was not compulsory for most companies, despite such reporting having been an important point on the EU’s political agenda since the mid-2000s (IEFE Bocconi et al. 2005).

Globally, the EU hosts the greatest proportion of organisations that develop some form of sustainability reports (Habek 2013); GRI 2012). On the side of social reporting, a deciding factor that has certainly supported this development is the Global Reporting Initiative (GRI)

and its accompanying reporting guidelines, which have provided a major impetus to the number of reports delivered (Kolk 2004).

While this trend undoubtedly constitutes a positive development from a sustainability and awareness-raising perspective, ensuring adequate quality standards is a significant issue that has arisen with the increase of voluntary non-financial reporting (Johansen and Christoffersen 2017).

The high level of flexibility that organisations experience in voluntary reporting often results in a lack of transparency and a lack of comparability between the individual reports. In addition, the phenomenon of selective reporting is a significant topic of debate, raising doubts about the true sustainability of the actions undertaken by organisations (European Commission 2011) (Palenberg et al. 2006) Entities that decide to report are also by no means obliged to sign up to any commitments, such as a pledge to continuous improvement. Additionally, most organisations are not under any obligation to have their reports audited by an independent, qualified third party auditor, thus permitting a wide range of data quality and accuracy in reports. Ensuring adequate levels of quality within voluntary reporting mechanisms thus remains a significant challenge (European Commission 2011); (Hąbek and Wolniak 2016); (Johansen and Christoffersen 2017).

Despite its voluntary nature, EMAS is frequently referred to as the premium standard in environmental reporting (Neugebauer 2012). The scheme addresses issues such as transparency and legal compliance via a host of mechanisms, such as a publicly available environmental statement or third party verification and certification through CBs; the scheme also addresses questions of comparability through a set of core indicators. As such, EMAS may provide the relevant criteria to fulfil a number of existing reporting obligations. EMAS organisations are already using their environmental statement to communicate with stakeholders other than their clients (e.g.: public authorities, industrial associations, local community). Additionally, Member States representatives value the transparency offered by the communication of environmental statements (adelphi and SSSUP 2017).

Looking at this context, a clear possibility emerges: on the one hand, there is a need to simplify reporting for companies, which have to comply with an increasing number of environmental regulations. On the other hand, authorities could benefit from third party verified data reported through EMAS. The potential of using EMAS environmental reporting to report to authorities and fulfil several reporting obligations at the same time has not been studied in the past. This report is thus the first of its kind to systematically investigate whether additional environmental reporting and monitoring obligations could fit into the EMAS environmental statements, and therefore analyses a new option for simplifying reporting for organisations while allowing authorities to focus their limited resources on fewer companies.

Identifying opportunities for increasing the efficiency of environmental reporting through EMAS, by understanding overlaps with existing reporting obligations and potential synergies, is the objective of this chapter.

The first section of the chapter presents the opinion of stakeholders as to the potential of using EMAS to facilitate reporting to authorities. Through interviews and surveys, a wide range of organisations reported opportunities and barriers to use EMAS more extensively in reporting and their input throughout the chapter. The second section provides a more concrete overview of the existing reporting obligations in the EU, specifically their key characteristics and trends at the EU level. In a second step, these reporting obligations are assessed to identify the level of burden for organisations and potential synergy with EMAS. Based on this assessment, the 17 most promising reporting obligations are selected to be further analysed. The third section of the chapter looks at the overlaps and gaps of EMAS with these selected reporting obligations to see if EMAS could be used as a substitute. The added value of EMAS, as well as the requirements that it does not fulfil, are analysed in particular. The next section summarises the opportunities and challenges to use EMAS to cover more re-

porting obligations. Finally, the chapter looks at options for strengthening the role of EMAS in reporting.

4.2 Stakeholder input and perceptions of the potential of EMAS for facilitating reporting

In the framework of the project, the team interviewed and surveyed a wide variety of stakeholders: regulatory authorities, EMAS-registered organisations, verifiers, etc. They expressed their opinions on the following questions:

- Level of burden of reporting obligations for organisations
- Potential of covering them with EMAS
- Most promising reporting fields to be linked with EMAS
- Barriers of using EMAS for other reporting obligations
- Feasibility of a one stop shop reporting, where all environmental data could be reported in one place and transmitted to authorities
- Potential changes to EMAS to facilitate reporting

The consolidated input from interviews and surveys is presented below.

Level of burden of reporting obligations

Through the survey, EMAS-registered and ISO 14001 organisations reported their most burdensome reporting obligations. The most frequently referred to reporting obligations were:

- Waste, particularly on hazardous waste, electrical and electronic waste and packaging waste.
- Water quality
- Energy consumption (ex: Energy Savings Opportunity Scheme, ESOS, in the UK)
- Release of pollutants. Many organisations reported “annual environmental reports” as the most burdensome obligations. These reports refer to reporting of industrial emissions, waste water discharges and waste, for authorised facilities.
- GHG emissions, in the framework of the EU ETS
- Fluorinated Greenhouse Gases

MS, verifiers and accreditation and licensing bodies reported similar reporting obligations as having a high level of burden for companies. A number relate directly to the permits needed by organisations, so measures aiming at simplifying reporting could target organisations with high numbers of permits (see Section 3.3).

Through the interviews, organisations reported that they not only have to send a great deal of information to authorities but also to additional stakeholders such as clients, partners, or statistical institutes. A number of organisations expressed frustration with this situation, stating that they needed to report similar data multiple times and that they were not sure that the stakeholders actually use the data. For instance, a Belgian organisation stated that “reports and charts have to be transmitted every year to the mayors, as specified under law, but they never give any feedback on it.” A large German industrial organisation concurred, stating in an interview that the most burdensome part of reporting was that “we have to report things to many different agencies and there are a lot of redundancies.”

Interviews with companies certified under ISO 14001 but without EMAS revealed similar burdens with redundant reporting obligations, but those organisations did not see how that burden might be streamlined through EMAS. In nearly all MS, ISO 14001 organisations cited the desire to have more integrated management systems and/or reporting as a reason to stay with ISO 14001 instead of EMAS (see Chapter 3.3.2).

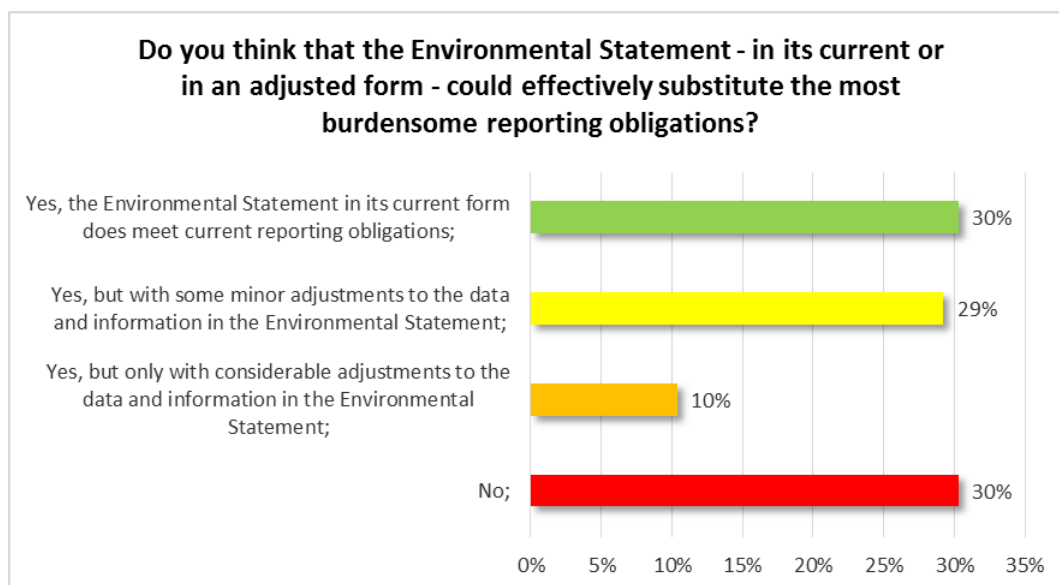
On the other hand, interviewed EMAS-registered organisations see the obligation of reporting as a strength of EMAS and want to continue providing this report to internal and external stakeholders. A French organisation maintains EMAS for this specific reason: “we already have ISO 14001 and wondered 2-3 years ago if we should continue EMAS. However, we knew that without EMAS, we wouldn’t do public reporting, so we decided to keep it”.

However, some organisations responding to the survey listed the EMAS environmental statement as a burdensome reporting obligation. To relieve that burden, one Italian company suggested making environmental indicators more flexible, especially for small and medium sized companies, because “it is difficult for a small company to set precise environmental objectives, as market conditions and the scale of activities of the company are very changeable in the short term.” The wish for more flexibility in the indicators and in reporting was also echoed by EMAS-registered companies in Germany, the Netherlands and Poland. The high burden of reporting for organisations highlights the need to explore possibilities for using the environmental statement to fulfil existing reporting obligations.

Potential for covering reporting obligations with EMAS

The survey of EMAS-registered organisations asked whether the reporting done for EMAS could fulfil the most burdensome reporting obligations. 30% of respondents do not think EMAS can do so. However, 40% think that it would be possible if some adjustments were made to the environmental statement, while 30% feel that regulators could already accept the statement in its current form. Overall, nearly 60% of organisations surveyed saw potential for using the environmental statement in its current or in an adjusted form to fulfil burdensome obligations.

Figure 76: Potential of EMAS to fulfil reporting obligations, EMAS organisations



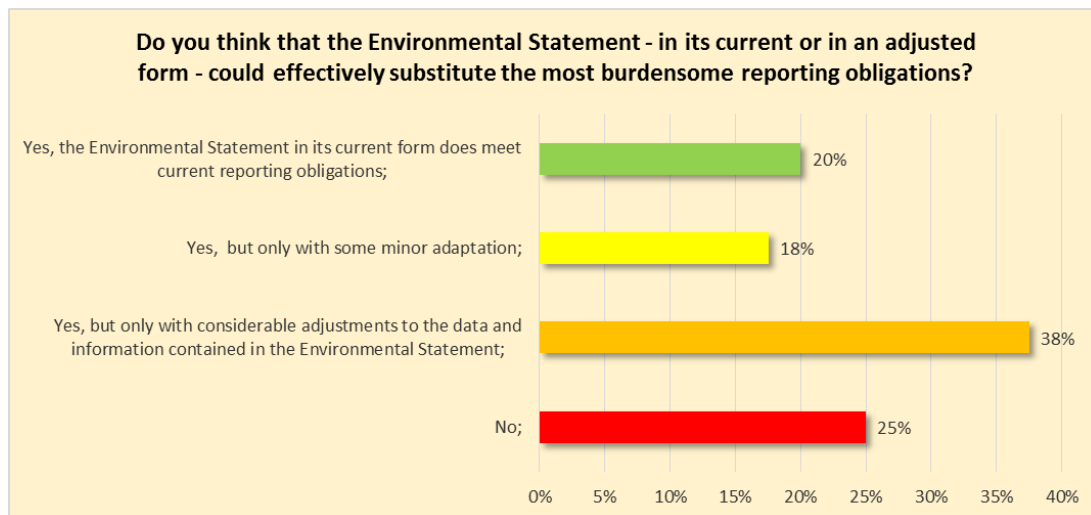
No. of respondents: 377

When asked about their most burdensome reporting obligations, the organisations that saw potential for adapting reporting obligations to the environmental statement indicated mostly obligations that required indicators: GHG emissions, waste production, water, and energy

consumption. For each particular obligation, it was not possible to identify in which framework (e.g. online interface, written report) companies report specific data. In contrast, organisations which thought reporting via EMAS environmental statement was not possible more frequently mentioned burdensome reporting obligations related to annual activity reports such as on hazardous waste, air emissions, and water quality.

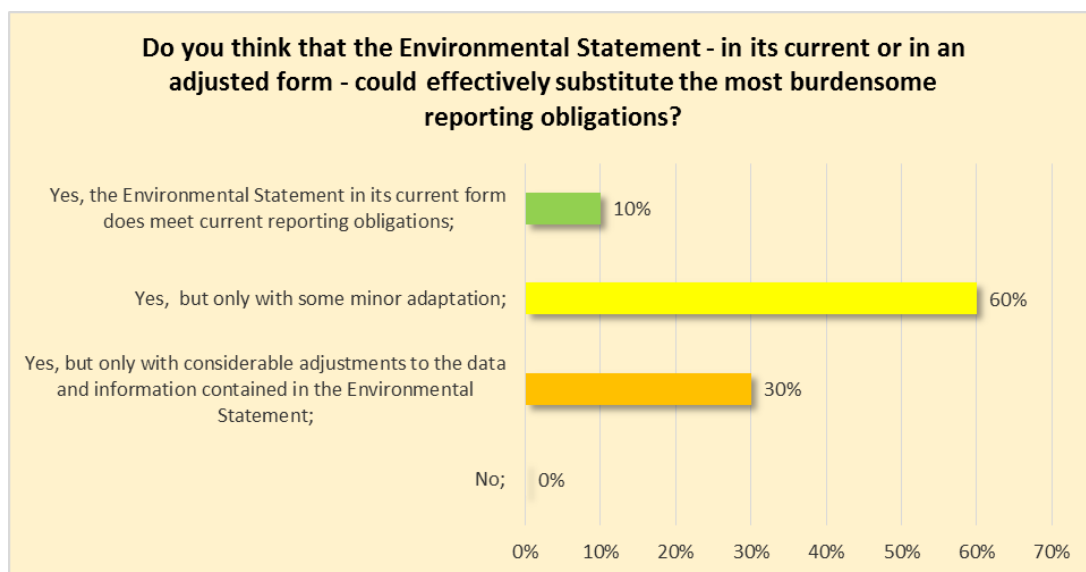
In contrast to EMAS-registered organisations, only 10 to 20% of verifiers think that the environment statement could be used in its current form to meet reporting obligations. More than 30% think it would need significant changes to fill these reporting obligations. The Italian respondents are particularly negative, while verifiers from other MS tend to think a substitution would be possible with minor adaptations. One interviewed verifier pointed out a key barrier: in theory everything could be integrated into EMAS and EMAS would be suitable for it, but the authorities would have to accept the information, which is currently not the case.

Figure 77 : Potential of EMAS to fulfil reporting obligations, verifiers’ survey



No. of respondents: 40

Figure 78: Potential of EMAS to fulfil reporting obligations, verifiers’ survey without responses from Italy



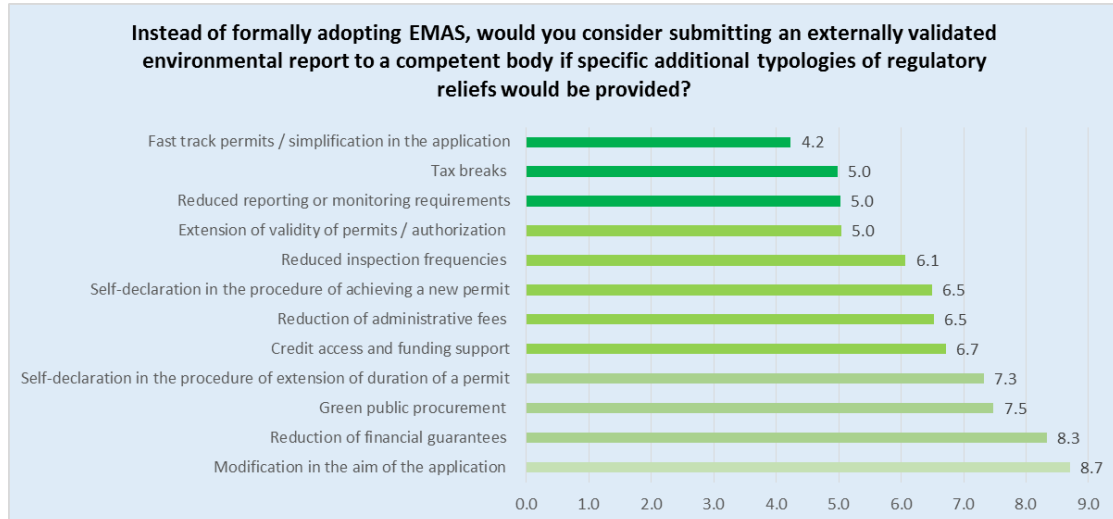
No. of respondents: 10

The opinion of EMAS Committee members on the potential of EMAS to fulfil existing reporting obligations also varies. Through the survey, 65% of responding MS representatives indicated that they thought EMAS could not cover more reporting obligations. Some stakeholders in MS were, however, more positive. For example, a German regulatory authority stated the organisations could fulfil multiple reporting obligations by including any additional relevant information in their environmental statement. For this regulator, the question was more about where in the statement the information would be integrated.

This divergence of opinion may stem from the wide variety of reporting obligations and potential barriers that interviewees and survey respondents are considering. Some interviewees were thinking of the feasibility of integrating more information in the environmental statement in general, while others went further and considered the potential acceptance of that information by authorities and the potential additional work for companies and verifiers. This latter group therefore also takes into account the potential impacts and effectiveness of changing current practices. Because of the wide variety of reporting obligations and the different potential barriers related to each type of obligation, these two groups of respondents may actually be analysing very different information.

Interestingly, while ISO 14001 organisations cannot currently use an environmental statement to fulfil reporting obligations, a number of them would consider submitting an externally validated environmental report to a CB if the result were simplified permit procedures, reduced reporting or monitoring requirements tax breaks, or extended permit validity. This feedback shows that ISO 14001 organisations agree that a report could be used to fulfil some reporting obligations.

Figure 79: Interest of ISO 14001 organisations in submitting a report to authorities in exchange for regulatory relief



No. of respondents: 49

Most promising fields

MS representatives expressed through the survey see potential synergy in the areas of waste, air emissions, and water pollution (see Table 52 below).

Table 52: Reporting fields with the most potential to be linked with EMAS according to MS

Reporting obligations cover a wide range of areas. Based on your knowledge of reporting obligations in your country, which reporting fields have the most potential to be linked with EMAS?	Value ³
Waste	4.1
Air pollution, including industrial emissions	3.9
GHG emissions and climate change	3.9
Water pollution	3.8
Chemicals, human health and the environment	3.3
Nature and Biodiversity	3.2
Noise	2.9
Land, Marine and Coast preservation	2.9

No. of respondents: 11

Through the interviews, a number of ideas emerged as to how to link EMAS with reporting obligations in these areas. In the area of waste, EMAS-registered organisations are already exempted from supplying a waste management plan (waste management concept) in Austria and the same relief could be applied in other MS like Spain which require such a plan.

Regarding GHG emissions, an interviewee suggested that EMAS-registered organisations should not have to provide authorities with a plan for reducing GHG since that obligation is already included in the environmental statement. An Austrian organisation felt that data relevant to the European Trading Scheme could be easily integrated in their report. In the field of water, an EMAS-registered organisation suggested that organisations reporting on soil and groundwater contamination be exempted from providing a baseline report.

In addition, many interviewees saw a clear link between EMAS and CSR reporting. Organisations could use the EMAS environmental statement to report the environmental indicators requested in the CSR report, as they are identical. France, for instance, already specifically permits EMAS-registered organisations to do so.

The overlaps between EMAS and other reporting obligations are analysed in the next section to assess how and if EMAS could actually fulfil the requirements of these obligations.

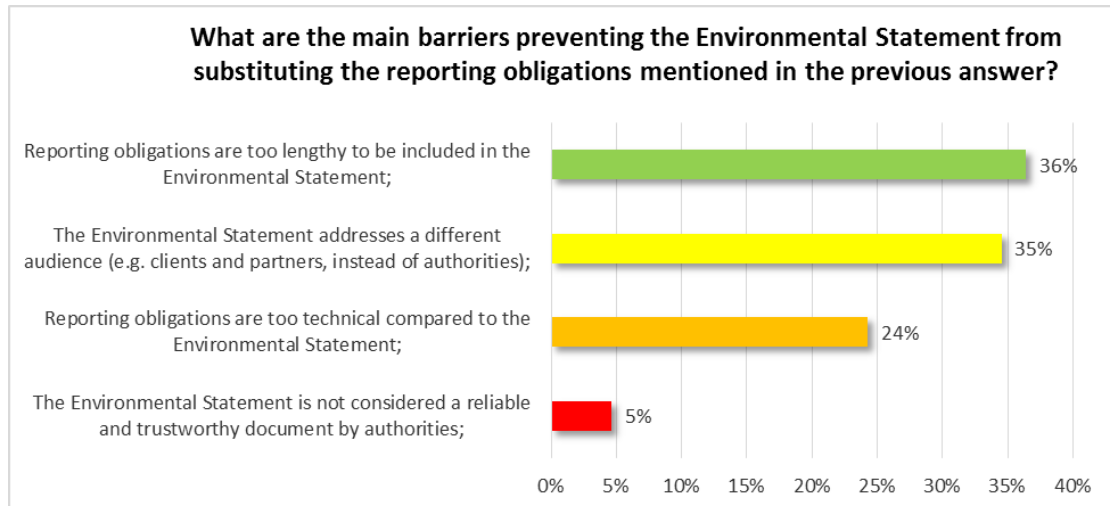
Barriers of using EMAS for other reporting obligations

EMAS-registered organisations were asked in the survey to specify what factors would prevent the environmental statement from being used to fulfil existing reporting obligations. Two main barriers emerged as the most significant: 36.4% of organisations stated that reporting obligations were too lengthy to be included in the environmental statement, while 34.6% felt that the main barrier was that the environmental statement addressed a different audience

³ The potential of each regulation was assessed on a scale from 1 (low potential) to 5 (high potential). The information presented in the table is the average assessment of the 7 respondents.

than regulatory authorities. In third place, 24.3% of organisations saw the technical nature of reporting obligations as the main barrier.

Figure 80 : Barriers for the use of the environmental statement to substitute reporting obligations according to EMAS-registered organisations



No. of respondents: 107

Interviews with EMAS-registered organisations confirmed the two main barriers and also delivered insights into organisations' specific concerns. While some small organisations reported having very few or no reporting obligations to authorities, most organisations interviewed listed a significant number. Furthermore, the organisations mentioned delivering these reports to a number of different authorities, confirming the reporting redundancies discussed above. An environmental manager of a large organisation in Poland thought the idea of covering reporting obligations in one environmental statement would be an excellent idea, but "because of the scope and detail of the mandatory environmental reports and the fact that the reports are delivered to other authorities than EMAS CB...such a solution would not be possible in Poland." Organisations in other countries echoed this sentiment, describing a similarly diffuse reporting landscape and, depending on sector and size of the organisation, a high number of reporting obligations.

Over one third of organisations identify a barrier in the fact that authorities are not currently the target audience of the environmental statement. This barrier is closely related to the first barrier, with interviewed organisations frequently stating that they do not want to make the environmental statement more complex for their clients by adding large amounts of technical data. Right now organisations see the environmental statement as a very useful tool to communicate with external stakeholders. They would thus like to be able to maintain flexibility and customise the statements according to their needs; if they had to include the highly detailed and specific information requested by authorities, they would lose some of this flexibility. According to the environmental manager of an EMAS-registered organisation in Poland, "Mandatory environmental reports are very detailed. Presenting all this data in an environmental statement would make it unreadable for most of the recipients. We also have very detailed monitoring. Monitoring data could be incomprehensible to the addressees of the environmental statement and would not add any value."

The technical nature of reporting obligations was cited as a main barrier by nearly a quarter of respondents. The level of detail of the data that companies must report to authorities decreases the possibilities for EMAS to be used to fulfil other reporting obligations. Organisations reported that the requested data varies widely not only in terms of the topics covered, but also for the format and units. For example, EMAS indicators are provided with ratios, while the annual reporting on pollutants and waste - cited by organisations as being particu-

larly burdensome - asks for specific methods of calculation or standard deviation of indicators.

Interviews revealed that the technical barrier, too, is related to issue of the intended audience: organisations did not want the general nature of the environmental statement to be complicated by large amounts of technical information covering multiple reporting obligations. According to the environmental manager of an EMAS-registered organisation in Italy, "the environmental statement is also a way to create an environmental culture and spread knowledge concerning our sector to people interested in understanding our sector and the way our plants operate. An environmental statement that is too complex, lengthy or technical would be therefore counterproductive."

Only 4.7% of organisations cite the view that authorities do not consider the environmental statement reliable as a barrier to reporting. However, as most interviewed organisation said they do not currently send the statements to authorities at all, many organisations may not have direct experience with public authorities' opinions of their environmental statements.

Interviews with regulatory authorities did reveal concerns regarding the reliability of voluntary schemes because of negative experience in the past. Some regulators pointed out that since the environmental statement is used to communicate with external stakeholders, companies may choose to disclose only the information they want. This argument reveals a misunderstanding of EMAS requirements, since the EMAS Regulation obligates organisations to report at the very least on core indicators or to explain why they did not do so. Both companies and regulators expressed scepticism about authorities accepting EMAS to fulfil specific obligations, as many regulators feel reluctant to accept self-reporting as a substitute for inspections.

Another related barrier that emerged during the interviews is that public authorities prefer to keep control of data reported. Many expressed reluctance to adopt other specifications of the data than the ones they set themselves for fear of lowering standards, although this concern could be addressed by encouraging organisations to adapt their statements to the requirements of the public authority. More significantly, several interviewees mentioned that regulators are also concerned about a greater degree of self-reporting, fearing a loss of relevance, jobs, autonomy or legal liability in case of errors.

This lack of trust, which previous studies on EMAS have noted (e.g. adelphi and SSSUP 2015) and appears to be more specific to voluntary instruments than to EMAS itself, will have to be addressed before the EMAS environmental statement can be suggested as a substitute for some reporting obligations. One regulator who expressed high interest in the idea of streamlined regulation and self-reporting mentioned the importance of needing to communicate intensively with environmental verifiers and auditors so that authorities can be satisfied that the auditors themselves know what a good management system looks like.

This communication could be achieved through more collaboration between authorities and verifiers, as suggested by UK regulators. A good example in this regard was reported by the Netherlands, where a system of directed surveillance is currently being developed by the province of Noord-Brabant. The province also aims to exchange information between the surveillance divisions of the authorities and certifying/verifying companies to see whether they have a similar perception of the performance of the certified companies.

Interviewees also raised the point of differences in timing between reporting obligations as a potential barrier to using the EMAS environmental statement. Because regulations follow a certain timescale, the publication and validation of the EMAS regulation doesn't always coincide with the time frame foreseen for various reporting obligations. Organisations cannot always adjust the timing of the environmental statement to compensate because different obligations require different measurements periods. For example, under the German Federal Emissions Control Act, organisations have to report on certain emissions by 31 May each year, while many of those same organisations have to report their greenhouse gas emis-

sions under the Emissions Trading Act by 31 March. As a result, the EMAS environmental statement may in some cases be outdated or not be suitable as a substitute for all obligations. One potential solution to this barrier would be for organisations to time their EMAS audits for early in the year so that verifiers can check the information from the previous calendar year in time to fulfil various reporting obligations.

Another discrepancy between EMAS and other reporting obligations could be their scope. A Czech Republic expert pointed out that a reporting obligation may need to be filled by one company (as registered in the trade register) while the scope of the environmental statement may be different (e.g. covers a specific site).

Finally, a number of government stakeholders and organisations also raised an additional barrier: that of the confidentiality of the information reported to authorities. One large organisation in Germany reported reluctance to publish all of its energy data for competition reasons, while another organisation in France did not want to publish plans of its facilities because of the risk of crime.

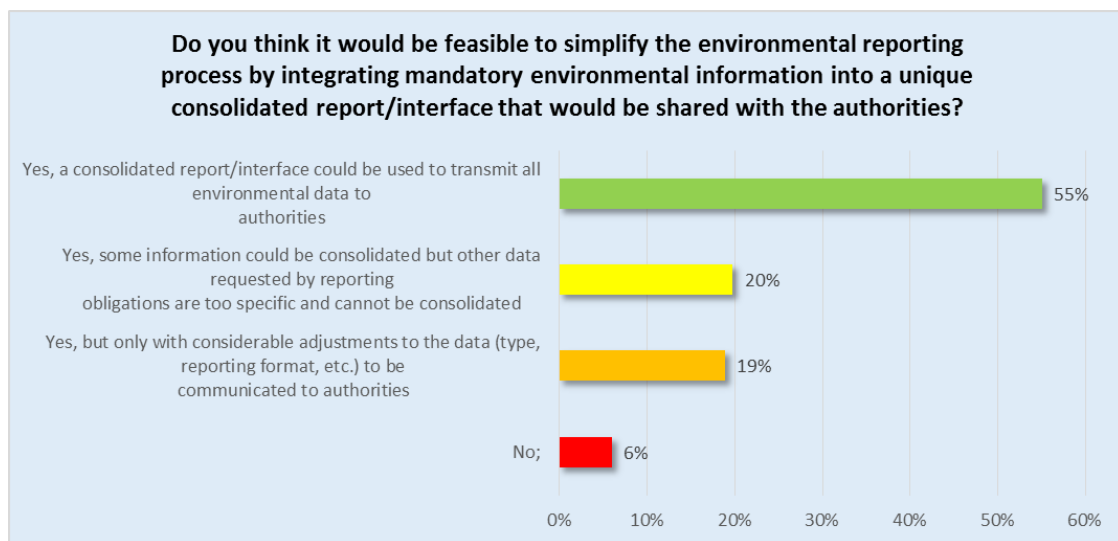
Feasibility of a one-stop-shop for reporting

Interviewees largely liked the idea of having a one-stop-shop in which organisations could report environmental data to authorities.

As mentioned above, both EMAS-registered and ISO 14001-certified organisations pointed out that the same information was sometimes requested on several different platforms. In many countries, the multiplicity of reporting channels is a burden for companies (e.g. France, Germany, Poland, Italy) and they would like to see the reporting channels streamlined.

55% of ISO 14001-certified organisations think that a one-stop-shop reporting platform could be feasible (see figure below). A similar percentage - 60% - of EMAS organisations thought their environmental statement, in its current state or with minor adaptations, could be accepted by authorities as a substitute for their most burdensome reporting obligations (see Figure 76). However, like EMAS organisations, a significant percentage of ISO 14001-certified organisations (at least 40%) think that the information they need to report is sometimes too specific to be combined in a common report. Although many organisations interviewed welcome the idea of a one-stop-shop reporting platform as more efficient, most remain sceptical of it becoming a reality.

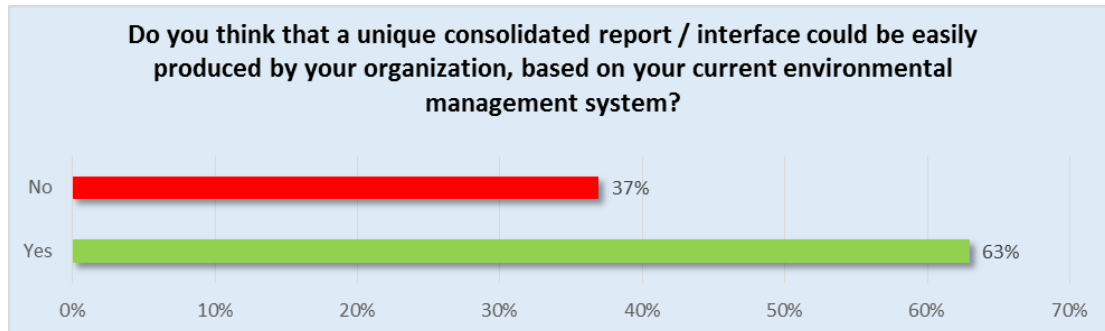
Figure 81: Perception of ISO 14001 organisations as to the feasibility of a one-stop-shop solution



No. of respondents: 116

Because ISO 14001-certified organisations do not have to report any information from their EMS to authorities, the survey asked if they felt reporting to authorities via a consolidated report or an interface was possible. 63% felt that such reporting was possible.

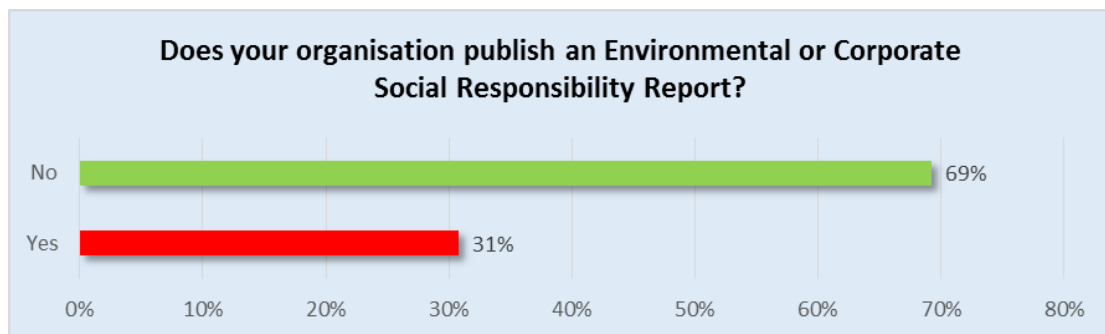
Figure 82: Perception of ISO 14001 organisations as to the feasibility of producing a consolidated report or using an interface to report information to authorities



No. of respondents: 119

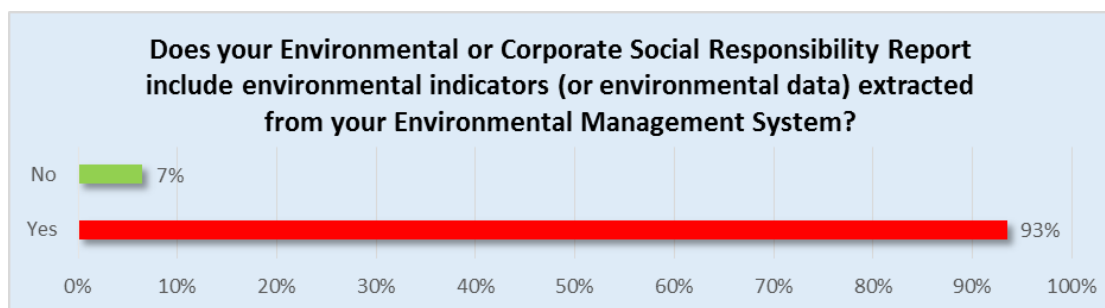
One reason for their optimism with regard to reporting may be because 69% of the companies surveyed publish a CSR report that already includes information from their EMS.

Figure 83: Percentage of ISO 14001 organisations publishing an environmental or CSR report



No. of respondents: 146

Figure 84: Percentage of ISO 14001 organisations including environmental data from their EMS in their reporting



No. of respondents: 46

However, as is the case for EMAS-registered organisations, it is possible that the reporting information referred to by ISO 14001-certified organisations refer does not match the exact needs of authorities. The surveys thus show that, while the potential exists to simplify the burden of reporting both for EMAS-registered and ISO 14001-certified organisations through consolidated reporting, a one-stop-shop would be difficult to achieve because the information required by authorities is often too specific.

In addition, interviewees involved with EMAS expressed scepticism that the EMAS environmental statement was the right platform for reporting to authorities. **Both government stakeholders and companies suggested a separate, digital platform and the unification of environmental data into a system which could be accessed by public authorities throughout the country.** One interviewed verifier suggested that if such a database were available to the public, the environmental statement could simply refer to the database and focus instead on the organisations' plans to improve.

EMAS-registered organisations stated in interviews that they would like to use such a platform to report data from the environmental statement only if authorities actually accept and use the data. Partial acceptance would just mean more work for them.

Chapter 4.5 looks at the options for digitalising the environmental statement to address the fact that its current format is not conducive to consultation by public authorities. The chapter will review existing reporting platforms, their advantages and disadvantages, and the potential of using them to avoid overlaps in reporting.

However, if the environmental statement in its current form or under a database format cannot be used as a one-stop-shop solution, **the question of consolidating environmental reporting remains and goes beyond the scope of EMAS.** The demand for a consolidated means of reporting expressed through the interviews and surveys with both ISO 14001-certified and EMAS-registered organisations shows the importance of authorities' further investigation of the subject.

Suggested potential changes to EMAS

Interviewees and survey respondents made a number of suggestions to increase the relevance of the environmental statement.

Two different stakeholders interviewed in the UK and the Netherlands suggested a focus on topic-based reporting rather than core indicators. Under this idea, organisations would have to report on certain topics, and each of those topics would be connected with a group of indicators. Organisations can decide how they report within the topic and display the information in a way that fits their sector and needs. This flexibility would also make it easier to transmit needed information to authorities within the environmental statement. To overcome the fact that EMAS indicators are too general compared to the ones to be reported authorities, one environmental verifier suggested that verifiers could validate the reports prepared in accordance with single reporting obligations; the data as such would not become part of the environmental statement (not to make it a too big document), but could be published separately.

Other verifiers made suggestions for smaller changes:

- Some indicators could be added, for example on non-hazardous wastes and on discharges: "an indicator to encourage the recovery of water".
- It could be helpful to consider if EMAS more deeply considers energy as the obligations of companies regarding energy, with the obligation to carry energy audits, are increasing. Currently EMAS focuses on total energy use and intensity, but it doesn't use any comparison to benchmark or on efficiency measures or trends.

Conclusion

Organisations face many reporting obligations that overlap with each other to some extent. They also express a desire for measures aiming at simplifying reporting. While many are sceptical about the idea of a one-stop-shop in an EMAS environmental statement – as are government authorities – organisations would welcome the opportunity to streamline reporting obligations and to digitise EMAS reporting further via an online platform.

The surveys and interviews show that some limited room exists for extending the role of the EMAS environmental statement in companies' reporting to authorities, as the environmental statement meets some current reporting obligations to a certain extent. However, changes may need to occur in the current environmental statement or the reporting process to include the necessary information in a manner acceptable to authorities.

Survey results indicate potential for synergies in the areas of waste, GHG emissions and CSR reporting. Overlaps between these types of reporting obligations and the EMAS environmental statement should be further investigated.

Potential changes should take into consideration stakeholders' concerns: e.g. target audience, reliability of the report, etc. The possibility of strengthening the role of the verifier and increasing the collaboration between verifiers and authorities may present a good opportunity to address some of these concerns, such as centralising the environmental data reported authorities.

The following section aims to further study the links between EMAS and existing reporting obligations to identify more potential changes to EMAS to facilitate reporting.

4.3 “State of the art” of reporting obligations in the EU: assessing the level of burden and potential of synergies with EMAS

4.3.1 Reporting obligations in the EU: a general overview

Methodology

As a first step, the project team identified existing environmental reporting obligations in the selected MS with the objective of identifying both the obligations that are already totally or partially covered by EMAS and those with significant potential to be included in the EMAS environmental statement.

The reporting obligations were identified through desk research, interviews and the surveys of EMAS-registered organisations, ISO 14001 organisations and EMAS verifiers. Around 150 regulations including reporting obligations were inventoried in the 11 MS, from 6 in the Netherlands to 25 in the Czech Republic. For each selected MS, either a project partner or an external expert fluent in the language of that country and with knowledge of its EMAS context collected the reporting obligations. This list is, however, not exhaustive (see description of material scope in Section 2.1.2 of the report). Additionally, one piece of legislation may include multiple reporting obligations, not all of which were separated in the compendium. Additionally, obligations related to obtaining specific permits were not classified as reporting obligations; the connection between EMAS and permitting is explored in the regulatory relief measures in Chapter 3.

The team gathered the identified reporting obligations into an Excel-based compendium, which is available in Annex IV.

For each regulation, the team identified:

- The subject of the reporting obligation: whether it is related to energy, waste, GHG emissions, etc.
- The nature of the data reported: quantitative, qualitative, or both.
- The governance level at which the reporting obligation applies: local, national or European.
- The sector targeted: whether public or private, from the primary, secondary or tertiary sectors.
- The target group: for instance if the reporting obligation applies to companies with a certain number of employees or turnover.
- The reporting channel of the information to public authorities.
- Whether EMAS, ISO 14001 or another certification is already mentioned in the reporting obligation.
- Whether or not third party verification is required.

Results

A transversal analysis of the existing reporting obligations in the MS led to a number of observations:

High degree of overlap across Europe

A significant percentage of reporting obligations have their original basis in EU legislation and thus are found in the same or very similar form in all MS covered in this study. For instance, in the Czech Republic nearly all reporting obligations in the Compendium come from EU regulations. Other MS also had national or regional reporting obligations. Nonetheless, a high percentage were derived from EU legislation.

Interestingly, despite the link to EU Directives, MS do differ on some aspects in their transposition of reporting obligations. For example, the non-financial reporting directive (Directive 2014/95/EU) has been transposed in most MS and is applicable to publically listed organisations of more than 500 employees. In France, however, the obligation to report on social and environmental indicators is applicable to non-listed companies as well, depending on their legal status, size (above 500 employees) and turnover (above 100M€). This obligation predated the EU Directive.

The degree of similarity between obligations in most MS indicates a high probability that if a reporting obligation could be included in or fulfilled by the EMAS environmental statement in one MS, other MS would legally be able to implement a similar relief measure.

Key environmental policy areas

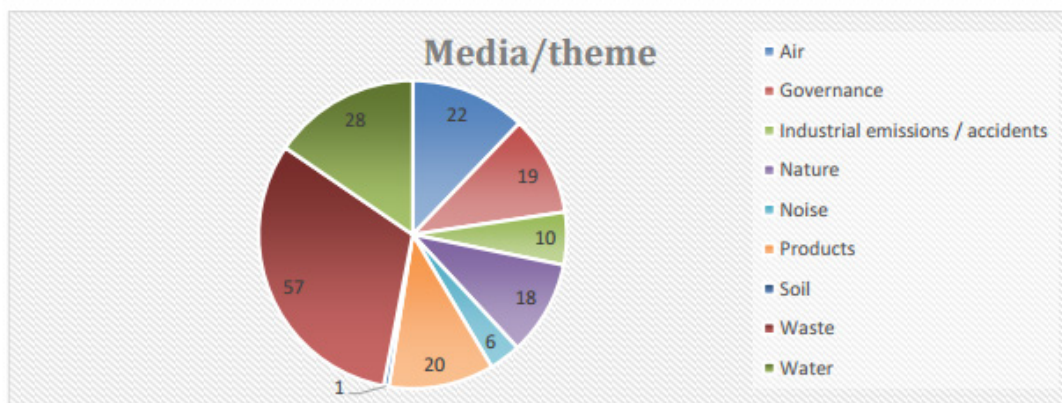
The similarity between reporting obligations in the MS also makes it possible to roughly identify environmental policy areas which appear most frequently, depicted in Table 53 below. These may represent priority areas for the MS, and indeed are in line with the priorities identified through the interviews and the survey of MS representatives (see Chapter 3).

Table 53: Frequent reporting obligations and priorities of MS

Frequency	Reporting field
High	GHG emissions Industrial emissions/pollutants release into air, water Energy efficiency Waste (from hazardous waste to specific sectors: Packaging, Electrical and Electronic Equipment, End-of-life vehicles, etc.)
Medium	CSR Use of chemicals Use of raw materials Environmental impact assessment
Low	Water Nature & biodiversity

Interestingly, a study on monitoring and reporting obligations arising from EU environmental legislation (Rayment et al. 2017) identified the most reporting obligations in the field of waste, followed by water. However, this study focused on the reporting obligations of Member States to the EU, indicating that some obligations target data at a national rather than a company level and may be obtained by means other than data collection directly from companies. For example, Directive 2008/56/EC establishing a framework for community action in the field of marine environmental policy and Directive 2007/60/EC on the assessment and management of flood risks focus on policies rather than company emissions.

Figure 85: Media/theme of reporting obligations



Source: (Rayment et al. 2017)

In a UK study on Smarter Environmental Regulation (DEFRA 2013), the authors identified the most reporting obligations in the fields of environmental permitting (54), waste (34) and hazardous materials and chemicals (29).

Clear connection to EMAS

20 of the reporting obligations identified in the Annex IV compendium already include some regulatory relief for EMAS-registered organisations. In those cases, the companies either do not have to report if they prove EMAS registration or their environmental statement is partial-

ly or totally accepted as a substitute of the report. The following box highlights examples of how EMAS could be used to fulfil existing reporting obligations.

Focus box: Examples of using the EMAS environmental statement to fulfil other reporting obligations

- In the **Czech Republic**, in the framework of the annual declaration of pollutant release and waste transfer, companies have to describe the system in place to ensure that environmental risks are properly addressed and managed. If the company has achieved EMAS registration or ISO 14001 certification, it only needs to provide either the environmental statement or the EMS certificate
- In **Austria**, organisations with more than 20 employees have to implement a “waste management concept”. EMAS-registered companies are not obliged to deliver this report if they publish an environmental statement.
- In **France**, all organisations listed on the stock exchange and all organisations not listed but with revenue of more than €100 million and with more than 500 employees have to provide an annual CSR report. This report must be verified by an accredited third party organisation. EMAS-registered organisations do not have to be audited regarding their environmental indicators because the audit of the EMAS environmental statement by an environmental verifier fulfils this obligation.
- In **Germany**, in the national ordinance on installations for handling substances hazardous to water, operators of such installations have to keep documentation containing the essential information on the installation. EMAS-registered sites are exempted from this requirement given that the EMAS environmental statement already contains this information.

Strong focus on quantitative aspects

Few reporting obligations identified are purely qualitative, although many are purely quantitative. The qualitative obligations relate mainly to the planning of waste management and prevention of incidents. This trend confirms that quantitative performance indicators appear to be the key location in which companies could communicate environmental data covering reporting requirements in their EMAS environmental statements. A closer analysis will therefore focus more closely on the indicators and their specific formats and units.

Highest burden on large companies and industrial sectors

All sectors have to report environmental data to some extent. The type of data reported by industry and facilities which require permits for their activity is, however, more technical, and reporting obligations more frequently target large companies in sectors considered to have a high environmental risk. These companies are likely to benefit most strongly from regulatory relief and the opportunity to reduce duplicate reporting.

Reporting channels vary widely

A wide variety of reporting means exist, ranging from the publication of an annual report to the transmission of information to authorities on request. Digital interfaces for reporting exist in every MS to report on industrial emissions and to provide information for the European Pollutant Release and Transfer register. In Spain and Germany, some of the industrial emissions reporting may or must also be done in written form.

Few requirements for third party verification

Most reporting obligations do not require third party verification. The EMAS audit would thus not fulfil a pre-existing obligation in most cases, but could nonetheless present an added value for the authority in that they could assume a lower risk and higher accuracy of the information from the verified facilities. However, the lack of obligatory third party audits in legal

reporting obligations indicates that many legislators and regulators are likely not yet familiar or comfortable with “outsourcing” the checking of data. Interviews conducted with regulators and companies confirm this assumption and are discussed in Section 2.2.3.

Conclusion

Reporting obligations cover every environmental aspect, from air emissions to waste. EMAS could thus help MS assess progress in their priority areas, as EMAS-registered organisations report on indicators related to energy, GHG emissions, waste and more.

The compendium of reporting obligations shows that most such obligations derive from EU regulations. An opportunity for EMAS could thus be to incorporate the scheme as a possibility to fulfil reporting obligations in the texts of EU Directives, multiplying the benefits of synergies at the European level.

In addition, at least 20 reporting obligations already mention EMAS and accept the environmental statement as equivalent. This finding indicates that EMAS could be used successfully to simplify reporting.

Although most reporting obligations do not require third party verification, authorities may gain assurance from the verification. Additionally, since most authorities operate on the basis of spot checks, data reported by companies is not always verified by the authorities themselves on a consistent basis. For that reason, third party verification through EMAS could provide an added value over the status quo. If authorities understand how EMAS works and how the EMAS environmental verifier operates, they may see the third party verification as an added value to substitute for certain reporting obligations that organisations already include to a large extent in their environmental statements. The next chapters will investigate these opportunities.

4.3.2 Assessing the potential of linking reporting obligations with EMAS

Following the inventory and first appraisal of reporting obligations, the project team developed a methodology to assess the potential of each reporting obligation to be covered in the EMAS environmental statement. After this assessment, the 16 most promising obligations were selected for further investigation.

Methodology

The project team assessed each reporting obligation using the criteria indicated in the table below, and gave them a score from 1 to 3 (1 illustrating low potential or relevance and 3 high potential).

Table 54: Assessment criteria of the reporting obligations

Assessment criteria		
Main Criterion	Criterion	Description
1) Added value of third party verification		<ul style="list-style-type: none"> • 3 points - the obligation already requires 3rd party verification • 2 points - the obligation does not require 3rd party verification but could benefit from it • 1 point - 3rd party verification is not required and does not appear to have great added value

Assessment criteria	
2) Degree of burden (to be assessed in the survey)	
<ul style="list-style-type: none"> • 3 points - the reporting obligation presents a relatively high burden for companies - it requires keeping track of large amounts of data, writing a complex report, etc. • 2 points - the reporting obligation is a reasonable/average burden for companies • 1 point - the reporting obligation is very easily met and part of long-standing, well-established processes 	
3) Potential for meeting Member State goals (e.g. climate, energy, waste, etc.)	
<ul style="list-style-type: none"> • 3 points - the reporting obligation falls in an issue area ranked as high priority by the MS • 2 points - the reporting obligation falls in an issue area not ranked as high priority by the MS but in which the MS or the EU has concrete, recent targets • 1 point - the reporting obligation falls in an issue area not ranked as high priority by the MS and in which there are no or few concrete recent targets OR an area mentioned as being relatively low priority in the MS. 	
4) Scope	(A) Geographic coverage
	(B) Target group
<ul style="list-style-type: none"> • 3 points - the reporting obligation is based on EU legislation (even if actual law is the transposition of a directive) • 2 points - the reporting obligation is based on national legislation • 1 point - the reporting obligation is based on regional or local legislation 	
<ul style="list-style-type: none"> • 3 points - covers multiple sectors • 2 points - covers both SMEs and large companies in one particular sector • 1 points - covers companies of one specific size (either SMEs or large companies) in one specific sector 	
5) Feasibility of integration with EMAS	
<ul style="list-style-type: none"> • 3 points - the reporting obligation appears to request information already covered under an EMAS core indicator and/or another specific EMAS requirement • 2 points - the reporting obligation refers to an area related to a key indicator covered under EMAS or a requirement but appears to require much more extensive or more detailed information than is currently available in an EMAS environmental statement • 1 point - the reporting obligation appears to request information not already covered under EMAS 	
Final assessment of each measure	
<p><i>Simple average based on the following formula:</i> <u>(Criterion 1 + Criterion 2 + Criterion 3 + Criterion 4 + Criterion 4a + Criterion 4b/2) + Criterion 5)/5</u></p>	

The average obtained for each obligation could thus be used to compare the obligations.

To perform the assessment and answer each question, the project team used information available in the literature (ORÉE 2017; Rayment et al. 2017) and information gathered in the interviews and the surveys.

Results

Looking at the results of the assessments, the project team sorted the reporting obligations for each MS according to score. The team observed that reporting obligations stemming from certain specific EU Directives received high scores in most or all MS. The decision was thus made to group obligations according to environmental topic area (e.g. energy, waste, CSR, etc.) for further analysis, reasoning that many obligations in the areas covered by specific EU directives are very similar among MS and the results would thus be broadly applicable.

Table 55: Links between high score reporting obligations and EU directives

Reporting field	Related directives	Requirements
CSR Reporting	DIRECTIVE 2014/95/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups	<ul style="list-style-type: none"> • Directly requires public-interest entities with more than 500 employees to publish a non-financial statement annually. MS shall transpose this requirement.
GHG emissions	DIRECTIVE 2003/87/EC establishing a scheme for greenhouse gas emission allowance trading within the Community	<ul style="list-style-type: none"> • MS shall ensure that the operators of certain specified activities hold a greenhouse gas emissions permit and that they monitor and report their emissions of greenhouse gases
Waste management	DIRECTIVE 2008/98/EC on waste and repealing certain Directives	<ul style="list-style-type: none"> • Introduces the extended producer responsibility principle. MS may require product manufacturers to manage products at their end-of-life and thus to report on waste collection and treatment. • Sets reuse and recovery targets for MS. MS may require municipalities and organisations in the waste sector to report on quantities treated. • Requires the control of hazardous waste • Requires any waste treatment operator to have a permit • Requires MS to implement waste prevention and management plans
Energy	DIRECTIVE 2012/27/EU on Energy efficiency	<ul style="list-style-type: none"> • Requires enterprises to perform energy audits every 4 years • Requires MS to set national energy efficiency targets and to implement actions to achieve them. MS may require organisations to report on measures aiming at increasing energy efficiency.
Industrial emissions	DIRECTIVE 2010/75/EU on industrial emissions	<ul style="list-style-type: none"> • Requires certain categories of installations, combustion plants, waste incineration plants or waste co-incineration

Reporting field	Related directives	Requirements
		<p>plants to have a permit. MS set limit values of emissions to obtain the permit based on BAT</p> <ul style="list-style-type: none"> Requires MS to set up an inspection system and organise a site visit at least every 1 to 3 years, using risk-based criteria. <p>Because of these requirements, facilities with a permit report their emissions of air pollutants (including GHG emissions), discharges of waste water and the generation of waste to MS, and data reported feed the European Pollutant and Transfer Register (E-PRTR).</p>

While the exact assessment of reporting obligations differs, overall the reporting obligations related to the same reporting field achieved high scores on the same criteria. The reporting related to these fields can thus be assessed as particularly relevant for further analysis. The table below presents the most “promising” fields and on which criteria they received high scores:

Table 56: Overall assessment of reporting obligations by reporting field

	Added value of third party verification	Degree of burden	Potential for meeting MS goals	Scope		Feasibility of integration with EMAS
				Geo-graphic coverage	Target group	
CSR Reporting	High	High	High	High	High	High
GHG emissions	Medium	High	High	High	High	High
Waste management	Low	High	High	High	Medium	Medium
Energy	Medium	Medium	High	High	High	High
Industrial emissions	Medium	Medium	High	High	High	Medium
Water	Low	Medium	High	Medium	High	Medium

Interestingly, the reporting obligations related to water and specific waste streams (coming notably from directive 94/62/EC on packaging and packaging waste, directive 2012/19/EU on waste electrical and electronic equipment (WEEE) or directive 2000/53/EC on end-of-life vehicles (ELV)) achieved a lower score than could be expected from the surveys and interviews. Despite their high administrative burden, reporting obligations related to specific waste streams appear to contain few opportunities for synergies with the EMAS reporting because they have a different scope. These obligations focus on the end-of-life management of products put on the market by the company (according to the extended producer responsibility principle) rather than the waste from its operations. Additionally, reporting is sometimes carried out by collective schemes rather than by the producers themselves. Water-specific regulations also appear to have fewer synergies because organisations' reporting on water impacts is to a great extent covered by reporting on industrial emissions. For example, some reporting related to water only refers to the amount of water extracted in order to cal-

culate taxes. In such cases, the added value of EMAS is estimated as low. However some reporting obligations related to water, for example one requiring a first party audit to be performed on the hazardous content of water discharges, achieved a higher score and could potentially be linked to EMAS.

Based on the assessment, the project team short-listed high scoring reporting obligations for further investigation. In selecting obligations for the shortlist, the project team took the following factors into account:

- 1) Assessment score: the project team focussed on obligations that had received high scores, but also took into account that scoring held some degree of subjectivity because a number of different experts were involved. The team therefore first considered the highest-scoring obligations in each MS rather than the highest-scoring obligations in all MS combined.
- 2) Distribution across MS: the team aimed to include obligations from as many MS as possible to ensure representativeness
- 3) Diversity of obligations: the project team grouped the high-scoring reporting obligations according to topic, as described above, to ensure that a further analysis looked at variety of different obligations even if they had in some cases received lower scores. For instance, if the CSR report under Directive 2014/95/EU received the highest score in all MS, it would not be analysed nine times. Instead, the next highest scoring obligations were considered for the shortlist.
- 4) Comparability between MS: A reporting obligation stemming from an EU Directive that received high scores in multiple MS was analysed for at least two countries to investigate whether differences in transposition might present a barrier to covering the obligation under EMAS

In total, 16 reporting obligations were selected to cover the nine MS and maximise the representativeness of the analysis.

A few specific notes on the selection and analysis process highlight the strengths and limits of the process:

- One reporting obligation related to packaging waste was included in the short-list to verify the assumption that reporting under the extended producer responsibility principle is not the best match for EMAS.
- The reporting done through the multi-annual agreements on energy efficiency in the Netherlands is not technically an obligation, since participation in the agreement is voluntary. However such reporting could become compulsory in the future as MS make energy efficiency a priority.
- The shortlist included four regulations related to industrial emissions because the project team distinguished between the laws which regulate reporting to be done by facilities with a permit (e.g. under the IED) and laws which lay down rules to report to the E-PRTR. The two obligations are, however, very similar.
- Reporting obligations related to industrial emissions and water stem almost entirely from applications for permits. The regulations mentioned below thus include reporting obligations related to the permit process (application and renewal) but also non-permit reporting obligations. This mix of obligation types made the analysis more difficult. In addition, obligations related to permits cannot be considered as “traditional reporting” because reporting occurs at several levels, both through regular transmission of information to authorities but also during the inspection process.
- Two pieces of legislation that do not fall in any specific reporting field were included. A German law requires organisations to provide environmental statistics on a number of a different topics. A law in Spain requires organisations with a permit to com-

municate any change in their activity to authorities. These regulations were included in the analysis to compare EMAS with less topic-specific reporting obligations.

Table 57: Short-list of reporting obligations

Topic	Country	Regulation	Short description
CSR	Austria	Non Financial Indicators Law (NaDiVeg); Business Enterprise Code (Unternehmensgesetzbuch)	Since 2006 big cooperate enterprises are obliged to report on environment related aspects and employee issues in their annual report. The non-financial statement shall contain information necessary for an understanding of the business process, the results of the business, the position of the undertaking and the effects of its activities, at least in regard to environmental, social and workers' interests, respect for human rights and the fight against corruption and bribery.
	France	Grenelle II Act (or Law 2010-788), Section 225, transposed by Decree 2012-557 and modifying the commercial code	The regulation details CSR reporting obligations, including which organisations must submit a non-financial report, the information the report should contain and the conditions of verification by a third party auditor.
	Germany	Law to strengthen non-financial reporting of companies in their management and group management reports (CSR-Richtlinie-Umsetzungsgesetz)	The regulation details the reporting requirements for large companies to write and publish a CSR report.
GHG emissions	Poland	Act of 17 July 2009 on the greenhouse gas emission allowance management system and other substances	The user of the environment (as defined in the PL Environmental Protection Law - generally great majority of entities) shall draw up and submit to the National Database a report containing information on greenhouse gas emissions and other emissions into the air, production volume, consumption and fuel characteristics, technical measures to prevent or reduce emissions for the previous calendar year. This obligation applies to substances set out in the Annex to the Act.
	UK	Companies Act 2006 (Strategic Report and Directors' Reports) Regulations 2013	Quoted companies have to provide a directors' report including some mandatory emissions disclosures for 'activities for which that company is responsible', including fuel usage and those resulting from the purchase of 'electricity, heat, steam or cooling' by the company; and appropriate 'intensity ratios' which compare the company's emissions data with an appropriate metric such as sales revenues, to allow comparisons of performance over time and with other

Topic	Country	Regulation	Short description
			similar organisations.
Waste	Spain	Decree 93/1999 of 6th April on waste management procedures. Art 6	All producers of hazardous waste must prepare and send to the corresponding autonomous community a study on the minimization of hazardous waste and then update it every four years
	UK	Packaging Waste regulation	Every year a packaging producer must register as such and submit a certificate of compliance (CoC). To register, a company needs to describe its packaging activity and how much packaging it handled in the previous year. It must also enter the amount (in whole tonnes) of packaging it supplies to the next stage in the packaging chain or sells to the end user, any packaging it imports and any packaging around goods it imports, materials the company or another company exports for which it has auditable records.
Energy	Netherlands	Multi-annual agreements on energy efficiency (MJA3 and MEE)	Companies participating in the multi-annual agreements on energy efficiency (MJA) are obliged to improve their energy efficiency by 2% each year. Furthermore, they are obliged to set up an energy management system and formulate an energy efficiency plan. Companies report on their energy efficiency (Energy/unit of output) to the Dutch Enterprise Agency (the competent body for the MJA3) on an annual basis. The Dutch Enterprise Agency bundles the figures of all participants in an annual report on the overall progress of the MJA3 and MEE covenants.
Industrial emissions	Austria	E-PRTR accompanying ordinance	<p>The Austrian PRTR is an electronic database with information from major Austrian industrial plants and sewage treatment plants about:</p> <ul style="list-style-type: none"> • Release of pollutants in air, water and soil • Disposal of pollutants contained in wastewater outside the site • Dispatch of hazardous and non-hazardous waste outside the site <p>The organisations have to report these data to the register.</p>
	France	Decree/Decision of the 31st January 2008, relative to the register and annual reporting of pollu-	Authorised facilities as indicated in the annex of the regulation must report annually on the release and transfer of pollutants and waste to an electronic register.

Topic	Country	Regulation	Short description
		tants and waste	
	Germany	Ninth Ordinance on the Implementation of the Federal Immission Control Act; "Verordnung über das Genehmigungsverfahren (Neunte Verordnung zur Durchführung des Bundes-Immissionsschutzgesetzes)"	The regulation details reporting obligations for operators applying for a permit for their plants to the responsible authorities (documentation regarding the air emissions and energy efficiency of the plant, the plant's use of chemicals, raw materials and land, also details measures taken to prevent damage to the environment).
	Italy	Legislative Decree n. 152/2006, art. 29 decies- (Environmental law - section on IED)	Every year by the end of March the companies in the scope of the IED Directive have to send to the CA the results of the monitoring and some performance indicators established by the CA.
Water	Italy	Decree of the President of the Republic n. 59/2013, art. 3 co.5 - (Law on Environmental Unique Authorisation)	In the case of water discharges containing hazardous substances, companies subjected to the Environmental Unique Authorisation should present to the CA at least every 4 years a communication of the results of the self-controls
	Spain	Regional regulations specific to water permits – e.g: Water Regulation of the Metropolitan Area of Barcelona	Regulations on water permits require authorised facilities to analyse the waste waters to ensure compliance with parameters and to report the results every six months to the administration.
Others	Germany	Environmental Statistics Act (UStatG) "Umweltstatistikgesetz (UStatG)"	This law details surveys that are carried out as federal statistics for the purposes of environmental policy and the fulfilment of European and international reporting requirements. The statistics include surveys of waste, water supply, certain climate-relevant substances, goods and services for environmental protection. The owners or managers of the respective establishments, businesses or installations; municipalities or third parties; and public authorities responsible are liable to disclose information that is necessary to compile the statistics.
	Spain	Law 20/2009 of 4th December, on Environmental Inspection	The regulation requires organisations with a permit to be periodically audited by a third party and to communicate to authorities any substan-

Topic	Country	Regulation	Short description
		and Control Activities, DOGCNo. 5524 of 11st December (article 71.3)	tial or non-substantial change regarding its activity (specific procedures are in place depending on the change in order to establish if it is substantial). These controls are carried out to check the level of compliance in relation to the legal requirements established by law and those specifically established in the license.

The next section examines in detail these regulations' potential synergies with EMAS.

4.4 EMAS's capacity to fulfil existing reporting obligations: identifying gaps and opportunities

Following the primary assessment of reporting obligations, the project team analysed the regulations short-listed in more details, to identify:

- The most common requirements of these reporting obligations
- The requirements that EMAS already fulfils
- The requirements that EMAS does not fulfil

The objective of the gap analysis was twofold:

- 1) to identify how and if the reporting obligations rated with the highest potential to be covered in the EMAS environmental statement could actually be covered through that statement
- 2) to develop recommendations for expanding EMAS's contribution to fulfilling reporting obligations in Chapter 3.10

Methodology

To carry out this analysis, the project team first identified the main requirements of EMAS, to be compared to those of the selected reporting obligations. They were classified in three categories:

Table 58: Main requirements of EMAS

Category	Requirements of EMAS
Key characteristics	<ul style="list-style-type: none"> - Regular audit by an accredited third party - Use of KPIs - Commitment to continuous improvement - Commitment to legal compliance and legal compliance check by public authority - Employee involvement - Implementation of internal and external communication procedures - Assessment of risks - Registration with a public authority - Annual reporting
Report	<ul style="list-style-type: none"> - Electronic or printed form - Available to the public - Including a description of the organisation and relationship with

Category	Requirements of EMAS
	<p>other organisations</p> <ul style="list-style-type: none"> - Including the environmental policy and description of the EMS, notably scope - Including the description of all significant direct and indirect environmental aspects of the organisation. The organisation must select and report on the impacts that are the most significant. - Including environmental objectives and targets, and performance against objectives - Use of key indicators, allowing comparison from one year to the other and benchmarking with the sector - Use of ratio: total annual input or impact of the organisation/annual output of the organisation (turnover or number of employees) - Including reference to all legal requirements
Indicators	<ul style="list-style-type: none"> - GHG emissions: total annual emission of greenhouse gases, including at least emissions of CO₂, CH₄, N₂O, HFCs, PFCs and SF₆, expressed in tonnes of CO₂ equivalent - Air emissions: total annual air emission', including at least emissions of SO₂, NO_x and PM, expressed in kilograms or tonnes - Water emissions - Waste: waste produced broken down by type, expressed in tonnes and quantities of hazardous waste expressed in kilograms or tonnes - Land use: expressed in m² of built-up area - Use of natural resources and raw materials (timber, cotton etc.): annual mass-flow of different materials used expressed in tonnes - Energy consumption (expressed in MWh or GJ) and percentage of total annual consumption of energy (electricity and heat) produced from renewable energy sources - Water consumption: expressed in m³ - Local issues: noise, vibration, odours etc. - Risks of environmental accidents and emergency situations - Effects on biodiversity

The project team compared these requirements with the specific requirements of the 16 selected reporting obligations in an excel Matrix and highlighted overlaps, gaps and similarities. The team translated the main obligations themselves. This approach of comparing the requirements of EMAS with the reporting obligations ensured that all reporting obligations were analysed using the same criteria and to allow comparison between different obligations to determine the best matches for EMAS.

CSR reporting in France was used as an example since this regulation already accepts the EMAS environmental statement as fulfilling the environmental section of the report.

Table 59: Example of the evaluation of CSR Reporting in France – Comparison of the key characteristics of the regulation with EMAS

EMAS	France - Grenelle II	
Requirements	Assessment	More details on requirements
Regular audit by an accredited third party	Overlap	

EMAS	France - Grenelle II	
Use of KPIs	Overlap	Overlap on environmental indicators, but not on social or human rights KPIs
Commitment to continuous improvement	Gap	Not required but could be an added value.
Commitment to legal compliance and legal compliance check by public authority	Gap	
Employee involvement	Similarities	Actions taken to train and raise awareness of employees to environmental issues have to be reported.
Implementation of internal and external communication procedures	Similarities	To be reported: relationships with persons or organisations interested by the activities of the company, conditions of dialogue with these persons or organisations.
Assessment of risks, notably in case of non-conformity of the EMS	Similarities	The amount of guarantees put aside to manage environmental risks has to be reported.
Registration with a public authority	Gap	
Annual reporting required	Overlap	
Other requirements not covered by EMAS	Gap	The verifier is chosen among organisations accredited by the French Accreditation Licencing Body, for no more than 6 accounting periods

In this example, the comparison highlights that some key characteristics of EMAS are missing in the regulation and could present an added value (e.g. the continuous improvement and legal compliance requirements). On the other hand, the similarities between the two regulations show that CSR reporting is indeed a good match for coverage through the EMAS environmental statement. Particularly with regard to indicators and third party verification, the EMAS environmental statement overlaps significantly with the requirements of the French CSR reporting obligation.

The gap analysis thus served to identify at the individual level how well a regulation fit with EMAS and to identify common overlaps and gaps between regulations to assess the overall feasibility of further integrating EMAS into reporting at the EU level. The table below examines each of the shortlisted reporting obligations in detail, highlighting how well they could be integrated into the EMAS environmental statement, which requirements are already covered by EMAS and which are not, and also where EMAS might present a particular added value.

Results

Table 60: Analysis of gaps and overlaps between EMAS and short-listed reporting obligations

Regulation	Overlaps	Gaps (requirements not present in EMAS)	Synergies with EMAS
Grenelle II Act (or Law 2010-788) regulating CSR reporting, France	<ul style="list-style-type: none"> • The regulation requires third party verification • Organisations must report on the same environmental indicators • The report is available annually to the public • It includes a presentation of the organisation and of its sustainable policy • The organisation can assess if some environmental indicators are not relevant 	<ul style="list-style-type: none"> • The verifier cannot audit the organisation for more than 6 accounting periods • The organisation must report on social indicators 	High
Non-Financial Indicators Law (NaDiVeg) regulating CSR reporting, Austria	<ul style="list-style-type: none"> • The organisation must report on environmental data which has an influence on the company's results • The declaration according to NaDiVeg shall be submitted to the company register annually 	<ul style="list-style-type: none"> • The organisation must report on financial and social indicators 	High
CSR-Richtlinie-Umsetzungsgesetz regulating CSR Reporting, Germany	<ul style="list-style-type: none"> • Organisations must report on all direct and indirect environmental aspects relevant to the company, including those related to their goods and services produced • The use of indicators is suggested (but not required contrary to EMAS) 	<ul style="list-style-type: none"> • The report must be published on the company's internet page within four months of the publication of the financial report and remain there for 10 years. EMAS-registered organisations would have to make sure their audit coincide with this timeframe. 	High

Regulation	Overlaps	Gaps (requirements not present in EMAS)	Synergies with EMAS
<p>Multi-annual agreement on energy efficiency (MJA3/MEE), the Netherlands</p>	<ul style="list-style-type: none"> • Organisations report on energy consumption and CO2 emissions • They commit to improve their energy efficiency (2% per year) • Organisations report annually to the National Enterprise Agency (which produces an annual report of the performance of all the companies participating in the MJA3/MEE agreements) 		<p>High</p>
<p>Act of 17 July 2009 on the GHG emission allowance management system, Poland</p>	<ul style="list-style-type: none"> • Organisations must report on air emissions (greenhouse gases and other substances), production volume, consumption, fuel characteristics, and technical measures to prevent or reduce emissions 	<ul style="list-style-type: none"> • The report is sent annually to the authority on a digital interface • Emissions of CO2, CH4, N2O, HFCs, PFCs and SP6 are expressed in kilograms (as opposed to tonnes of CO2 equivalent in EMAS, but this is not considered as a significant gap) 	<p>Medium</p>
<p>Companies Act 2006 (including GHG emissions reporting obligations), UK</p>	<ul style="list-style-type: none"> • Organisations must report on the same GHG • The report is published under a printed or electronic form • It includes a presentation of the company, its strategy, impact on the environment and future prospects as well as past performance • Companies must report at least one ratio which expresses the GHG emissions in relation to a quantifiable factor associated with 	<ul style="list-style-type: none"> • Organisations must clearly separate emissions from the combustion of fuel and the operation of any facility from emissions stemming from the purchase of electricity, heat, steam or cooling by the company for its own use • Organisations must report on the methodologies used to collect the data • The report should include a description 	<p>High</p>

Regulation	Overlaps	Gaps (requirements not present in EMAS)	Synergies with EMAS
	the company's activities	of the principal risks and uncertainties facing the company and main trends and factors likely to affect its future development	
Decree 93/1999 of 6th April on waste management procedures, Spain	<ul style="list-style-type: none"> Organisations report on quantities of hazardous waste produced per type and indicate targets to reduce hazardous waste They provide an electronic or paper report to authorities (but only to authorities and once every 4 year) Indicators are reported using a ratio (waste produced compared to production output) 		High
Packaging Waste regulation, UK	<ul style="list-style-type: none"> Legal compliance with the regulation has to be documented Organisations register and report once a year (but before April) 	<ul style="list-style-type: none"> Producers of packaging must reach reuse and recovery targets and demonstrate compliance through "Packaging Recovery notes" Producers do not necessarily have to report: "Where a producer is a member of a registered scheme throughout a relevant year he is exempt from complying with his producer responsibility obligations for the relevant year." Registration to the authority requires a fee 	Low
E-PRTR accompany-	<ul style="list-style-type: none"> Reporting of data on air and water emissions 	<ul style="list-style-type: none"> Organisations are required to report rel- 	Medium

Regulation	Overlaps	Gaps (requirements not present in EMAS)	Synergies with EMAS
ing ordinance, Austria	and on waste quantities	evant economic and social data <ul style="list-style-type: none"> Organisations have to report on an electronic platform Emissions are only reported if they exceed certain thresholds 	
Decision of the 31st January 2008, relative to the register and annual reporting of pollutants and waste, France	<ul style="list-style-type: none"> Reporting of data on air and water emissions and on waste quantities Organisations have to justify to some extent evolution with previous years 	<ul style="list-style-type: none"> Reporting must be done before the 31/03 for the previous year or the 28/02 for facilities entitled to the exchange of GHG Reporting is done on an online platform Organisations must report on the methods used to collect data They have to detail data, including codes of the corresponding operations, references of substances, destinations, etc. Waste management facilities or stone quarry operators have specific obligations 	Low to medium
Thirteenth Ordinance on the Implementation of the Federal Emissions Control Act, (Ordinance on large combustion engines, gas turbine engines	<ul style="list-style-type: none"> Reporting of data on air emissions and on energy use 	<ul style="list-style-type: none"> Report must be submitted by 31 May each year covering information for the previous year, but some facilities must do a monthly reporting on certain indicators (e.g. sulfur dioxide content of fuel) 	Low

Regulation	Overlaps	Gaps (requirements not present in EMAS)	Synergies with EMAS
<p>and internal combustion engines) Par. 25, Germany</p>		<ul style="list-style-type: none"> • The organisation must thoroughly describe the types of facilities it operates and energy sources involved • Emissions of SO₂, Nox, PM have to be reported in Megagramm per year (as opposed to kilograms in EMAS but this is not considered a significant gap) • Energy generated is expressed in Tera-joule per year (as opposed to GJ in EMAS) and divided very specifically per category/type of fuel 	
<p>Legislative Decree n. 152/2006, art. 29 decies (Environmental law - section on IED), Italy</p>	<ul style="list-style-type: none"> • Reporting of data on air and water emissions and on waste quantities 	<ul style="list-style-type: none"> • Energy consumptions indicators should differentiate the performance indicators for electricity and methane gas • Data have to be reported before end of March 	High
<p>Decree of the President of the Republic n. 59/2013, art. 3 co.5, Italy</p>	<ul style="list-style-type: none"> • Organisations report data on the quality of water discharges including hazardous substances. 	<ul style="list-style-type: none"> • In some regions, the organisations must have the water quality tested by a laboratory and include in the report the results including the testing method used and the accreditation of the laboratory 	High
<p>Specific water permits, e.g: Water Regulation of the Metropolitan Area of Barcelona,</p>	<ul style="list-style-type: none"> • Organisations report data on the quality of water discharges including hazardous substances. 	<ul style="list-style-type: none"> • Organisations must test samples of waste water by using the services of independent laboratories 	High

Regulation	Overlaps	Gaps (requirements not present in EMAS)	Synergies with EMAS
Spain	<ul style="list-style-type: none"> Organisations have to optimise water consumption and reduce pollution 	<ul style="list-style-type: none"> Report must be sent under paper form to authorities The frequency for the tests and for sending the results to the authority is established in the organisations' licence/permit 	
Law 20/2009 of 4th December, on Environmental Inspection and Control Activities, DOGC No. 5524 of 11 December (article 71.3), Spain	<ul style="list-style-type: none"> Organisations are required to contact an accredited organisation to carry out the controls The report is communicated to the authorities 	<ul style="list-style-type: none"> The organisation must communicate to the administration any substantial and non-substantial change in its activity and criteria to define the significance of the change are determined by the administration. An increase in production could lead to a change in the type of licence/authorisation granted for example. Indicators to be reported are very detailed depending on the activity. 	Medium
Environmental Statistics Act (UStatG) "Umweltstatistikgesetz (UStatG)", Germany	<ul style="list-style-type: none"> The law requires organisations to report on indicators Data is transmitted to the authorities which make a report public, but data are only presented as part of statistics and not individually 	<ul style="list-style-type: none"> Organisations are required to report data according to sector which could conceivably be contained in an EMAS environmental statement but does not have to be. For example, for public organisations involved in the supply of water: <ol style="list-style-type: none"> Production by water type, quantity and location of the extraction plant, Purchase and supply of water by quan- 	Low

Regulation	Overlaps	Gaps (requirements not present in EMAS)	Synergies with EMAS
		<p>tity, supply and customer groups,</p> <p>3. Delivery of water to final consumer according to the quantity and number of inhabitants (as of 30 June of the year), according to municipalities and assigned to water catchment and river areas.</p> <p>For waste disposal organisations, it could be the type of landfill sealing system, type of leachate treatment, type of degassing and flue gas treatment and treatment of incineration residues, etc.</p>	

EMAS would thus be a good match in the areas of:

- CSR Reporting (environmental aspects)
- Energy efficiency
- Water (at least when related to the content of water discharges in hazardous substances, as demonstrated by the two regulations analysed)
- Waste management (at least when related to waste produced in the management of the organisation)
- GHG reporting (although further investigation is required to see if reporting channels would allow for a substitution)

The results of the gap analysis thus confirm input provided by stakeholders in the interviews. MS representatives and EMAS organisations indeed highlighted potential to link EMAS with water pollution, waste, CSR, and GHG emissions reporting obligations (see 4.2 Stakeholder input and perceptions of the potential of EMAS for facilitating reporting).

EMAS represents also potential synergies in the areas of:

- Industrial emissions
- Periodical inspections/controls (could be emissions, waste, etc.)

The level of detail of data to be reported is higher and it may not be feasible to include them in the environmental statement, but it could be done in a separate document (this is accepted in Catalonia for the reporting related to periodical inspections). The content of this “technical template” could be defined involving all the interested parties in order to have a high level of acceptance.”

On the other hand, the integration of EMAS would be more challenging in the areas of:

- Waste, when related to waste streams covered by the Extended Producer Responsibility Principle
- Energy, when related to specific permits
- Specific statistical laws

In general, **EMAS appears to fit well with nine of the 16 selected reporting obligations**. For instance, **all analysed obligations require the reporting of indicators**, indicating a high potential for EMAS overlap in this area. Whether or not the KPIs match the EMAS core indicators exactly varies, however, depending on the regulation and on the specific level of detail required by local authorities.

In most cases, indicators would have to be adjusted slightly, for example changing the units (e.g: emissions in megagrams instead of kilograms or energy expressed in terajoule instead of gigajoule, as requested in some regulations above) or breaking down the EMAS indicators into more specific levels of detail (e.g. emissions by type of fuel). The CSR reporting obligations, in contrast, often match the indicators and the technical requirements exactly, but also include topic areas such as social responsibility or human rights which EMAS does not cover. For that reason, EMAS is an excellent match for the environmental part of the report (as is currently the case in France), but cannot cover the entire requirement. Table 61 below outlines the expected benefits and barriers for adjusting the reporting in cases where the information is similar but not an exact match.

Although EMAS's requirement for organisations to demonstrate **continuous improvement** is not present in most reporting obligations, in the cases where it is required, EMAS registered organisations may already fulfil all or part of the requirement:

- Multi-annual agreement on energy efficiency in the Netherlands: Companies participating in the MJA3 (non-ETS companies) commit themselves to a continuous energy efficiency improvement of around 2% per year until 2020. Participants of the MEE (ETS companies) do not need to make the same commitment, but are instead obliged to make an energy efficiency plan which identifies cost effective improvements. They must then give sound reasons if actual efficiency improvements fall short of planned levels. Participants in the MJA3 and MEE can benefit from energy tax rebates. MEE-participants can also receive subsidies for indirect costs that they incur because of the ETS, e.g. higher electricity prices. The industry sector as a whole benefits from the existence of the MJA3/MEE covenants because these are voluntary agreements under which companies can negotiate their level of ambition in a dialogue with the government. Many Dutch industries prefer this approach over the implementation of obligatory energy efficiency norms/regulations.
- Hazardous waste minimization in Spain: organisations have to report on how they will minimise waste in a four year plan. This plan could easily be included in the EMAS environmental statement. An organisation could provide information about the quantities of hazardous waste it generates (which should already be included as an indicator) and its objectives and actions related to hazardous waste. This information would thus match the requirements of the authorities and have the added value of third-party validation.
- Waste water in Spain: organisations which have a waste water permit report information on the composition of waste water to the water competent administration. They are requested to optimize water consumption and to reduce pollution. Although the timing would have to be adjusted (usually every six months vs. annual environmental statement), the content could easily be included in the environmental statement; for example, by adding the data of the worst performance obtained along the year for each water quality parameter to be considered.

Similarly, only the reporting obligations on energy efficiency in the Netherlands and waste management in Spain and the UK require companies to report on **progress towards objectives** in the same manner as EMAS. In the others, the reporting serves to identify performance against legal obligations. **Authorities could thus use EMAS to obtain a better overview of the evolution of the indicators they collect.**

Despite the prospect of good matches in some areas and the potential for added value through requirements like progress towards an objective, the **gap analysis also confirms a number of challenges** that emerged in interviews and the surveys of EMAS-registered organisations and verifiers. For several reporting obligations, most specifically those regulated under the E-PRTR and GHG emissions according to the Emissions Trading Directive, most countries have implemented **separate registries with digital interfaces**. Unless the data in the EMAS environmental statement could also be transmitted in digital form that matches the requirements of these registries, neither companies nor regulators will save resources from covering these obligations in the EMAS environmental statement. Otherwise these regulations appear to be a good match for EMAS because they focus on indicators that EMAS either already covers or could cover with only minimal extra effort on the part of the organisation (e.g. conversion of units).

Another significant barrier raised in interviews and confirmed by the gap analysis is the **level of detail requested by authorities**. The UK's waste packaging regulation and regulations covering industrial emissions in France and Germany show some overlaps with EMAS indicators, but also require specific methodology and measurements that go significantly beyond the information normally contained in an EMAS environmental statement. In these areas, regulatory relief through inspections and permitting may provide better incentives than reporting via the environmental statement. However, the situation may be different in some

MS; in Italy, for example, the EMAS environmental statement has already been accepted in the past by authorities as a substitute for reporting on industrial emissions.

Additionally, five regulations in the gap analysis require the **data reported to be made available to the public**, but most require reporting only to authorities. As discussed in section 4.2, if the indicators become too complex or the data contained too sensitive for a wider audience, including them in the EMAS environmental statement is not practical. Different scenarios therefore exist for using EMAS as a substitute for reporting obligations.

Table 61: Analysis of the advantages and disadvantages of accepting EMAS as a substitute of some reporting obligations

Situation	Potential scenario	Advantages	Drawbacks
The content to be reported according to the regulation and in the EMAS environment statement match and the reporting conditions are the same: annual report, printed form, etc.	MS authorities accept the statement in its current form as a substitute	No double reporting for organisations (significant time savings) Authorities can potentially collect more data Data has been verified (higher reliability for authorities)	Different format of reports may increase the time necessary to analyse them. Authorities can however give guidance to organisations.
The EMAS environment statement does not include all the data required by authorities, but reporting conditions are the same	EMAS organisations can include additional data in annexes or EMAS statement is attached to another report (ex: CSR report) and MS authorities accept it as a substitute for the relevant part	Some but potentially less time savings for organisations	Potential higher complexity of the report for the general public (if technical data included in annexes) Some information may be confidential and may still be sent to authorities in another way, reducing benefits
The EMAS environmental statement includes the data required by the regulation but the reporting format is not the same (ex: electronic database)	The reported data is public and the organisation may decide not to include it in the environment statement but instead to refer to the publically available database; OR EMAS reporting in its current form is replaced by a digital interface which can provide the necessary data to authorities either directly or through generated printouts and also be	No double reporting if databases are synchronised (it can however be difficult from a technical point of view); Authorities have easier access to data; Comparison of data between EMAS organisations and with	Loss of relevance of the environmental statement, for example attractiveness to the general public; Significant change and high investment required to put in place the digital interface; Potential resistance from organisations who would like to keep their own customised reports and fear this

used to generate an environmental statement	others is facilitated as the reporting format is harmonised. This could represent a significant added value as it can currently be difficult today to measure the progress of EMAS organisations, especially in comparison with other organisations.	will not be possible with the interface; The feasibility of the interface solution will be discussed in the next chapter.
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The added value for authorities and organisations of accepting the EMAS environmental statement as a substitute depends on the level of overlap in terms of content and reporting format between the regulation and EMAS and on the solution retained by the authority to accept EMAS as a substitute. In its decision, it will have to weigh the barriers and potential to overcome them, against the potential benefits: saving time for organisations, recognising their commitment to environmental performance, collecting high quality data verified and detailed over time, etc.

Conclusion

EMAS fulfils most of the requirements of the reporting obligations analysed, but does not provide the level of details required by most regulations. Because of the different requirements of these regulations in terms of reporting channels, level of precision, units, specificity, etc., using EMAS as a one stop shop - in which organisations can report all environmental data in one place – is not a viable solution. Additionally, because the gap analysis was performed with a selection of regulations that had already been pre-selected as good matches for EMAS, integrating EMAS with other reporting obligations would likely present additional barriers.

Nonetheless, the detailed analysis of the overlaps and gaps between EMAS and short-listed reporting obligations shows that EMAS would need few adaptations, if any, to be accepted as a substitute for common requirements in the areas of CSR reporting, energy efficiency and GHG emissions. In addition, specific types of waste and water obligations may be a good match. Industrial emissions, in contrast, have a number of overlaps with EMAS but tend to be far more specific and often involve different reporting channels. They nonetheless could be a good potential match, but would need to be investigated particularly closely on a case-by-case basis.

This approach on a case-by-case basis is particularly relevant because the barriers to use EMAS as a substitute for some regulations can be offset by the high potential benefits.

The gap analysis highlighted many of the same barriers identified in the survey of EMAS-registered organisations and in stakeholder interviews: differences in reporting channels and methods, target, levels of detail, timing of the report and the inclusion of potentially sensitive information not intended for the public. The benefits in terms of time savings, higher consistency of regulations, opportunities for collecting more and higher quality data, may however encourage authorities to put in place solutions to overcome these barriers.

4.5 EMAS reporting channels: opportunities for increasing efficiency

Having already compiled existing reporting obligations and determined those most relevant to EMAS earlier in the chapter, this section will explore options for adapting EMAS to increase the scheme's capacity to facilitate integrated and transversal reporting towards authorities. To develop the knowledge base necessary to make recommendations for adapting EMAS, the project team sought to answer the following key questions: How do organisations collect data internally? How do companies currently transmit environmental data to public authorities and generate reports? How do organisations currently send their environmental statements to CBs? After investigating those topics, this chapter will then lay out recommendations for adaptations to EMAS to facilitate more straightforward and efficient environmental reporting for authorities and organisations.

4.5.1 Reporting channels: a general overview

Current reporting interfaces on organisation level

Increasing the capacity of EMAS to facilitate reporting in a more integrated and transversal way requires a review of existing technical interfaces that companies use for environmental reporting. Using information gathered from desk research and interviews with EMAS-registered and ISO 14001 organisations, this section gives an overview of selected environmental management data collection and reporting interfaces. It illustrates the most common existing technical interfaces that companies currently use, including their strengths and weaknesses. The section aims to determine if any of these interfaces might be useful for generating an EMAS environmental statement in such a way that companies may also be able to transmit the data involved to public authorities, easing the burden of having to report the same or similar data more than once.

Over the past decade, a variety of digital interfaces have emerged to assist companies with environmental data management and reporting. Many serve to report only certain elements of environmental data, often necessitating multiple platforms or modules to collect all criteria required for EMAS or for the company's legal compliance. Common programs include:

- **CloudApps** offers integrated technology that has been adopted by Toyota Material Handling Europe, among other companies, for the purpose of managing and reporting sustainability and EHS performance. Their reporting software boasts to produce “easy to use and fully customisable reports”, integrating data from multiple sources including mobile devices. In addition to EHS, CloudApps reporting platforms cover Supply Chain Management, CSR, and Energy & Carbon Management (Cloud Apps Limited 2017).
- **Topolytic's**, ranked the UK's best environmental management software of 2016, assists companies with their waste data management. Emphasis is placed on analysis and benchmarking of waste data through a design driven platform based on mapping and communication with operational systems. Topolytic's emphasises spatial and narrative contexts for waste data using interactive mapping features, making reports more engaging for stakeholders. Their vision aligns with the World Economic Forum statement of 2015, “[the] circular economy will be a digital revolution or it will not be a revolution at all” (Topolytics 2017).
- **Dotsimply** is a modular solution software company providing services which cover a breadth of management needs, including but not limited to: environmental and CSR reporting, ISO environmental management, and green zoning environmental management. Dotsimply services are rendered via full web technology developed in a LAMP (Linux, Apache, MySQL and PHP) environment, so clients' workstations do

not require any software installation and can instead access Dotsimply through any Internet browser (ALEAUR 2017b). To facilitate the successful use of Dotsimply services, any new project begun with them involves the assignment of a project manager who works with the client on the project's methodology (ALEAUR 2017a).

- **Greenstone+** is a registered Global Reporting Initiative (GRI) Organisational Stakeholder, working directly with GRI to support their mission of developing global sustainability reporting guidelines through multi-stakeholder involvement (Greenstone Plus 2015). Greenstone's environmental reporting software is built on a Microsoft.Net platform and offers fully customizable reporting functionality. An example would be Greenstone's bespoke reporting template for ESOS, a UK regulation established to implement Directive 2012/27/EU (Energy Efficiency Directive) (Environment Agency and Department for Business, Energy & Industrial Strategy 2014). The software incorporates GRI and CDP certified content to facilitate streamlined reporting for users reporting according to GRI and CDP (Greenstone Plus 2017).
- **Ecometrica**, rated environmental leader's Top Product of the Year (2016), has a suite of environmental management services including mapping, sustainability modules, and a dynamic reporting system (Ecometrica 2017a). Built in to Ecometrica's reporting software are templates for ten established environmental frameworks like the Carbon Disclosure Project (CDP), Dow Jones Sustainability Index (DJSI), etc. Ecometrica also provides access to a library of enhanced reports that have been gathered over the years to support users' corporate communication (Ecometrica 2017b).
- **Thinkstep's** reporting software incorporates automated data collection to capture information from existing spreadsheets and IT systems to rapidly create reports. The software includes most common sustainability standards (CDP, GRI, DJSI, Financial Times Stock Exchange (FTSE), and Sustainability Accounting Standards Board (SASB)) to enable efficient reporting of sustainability KPIs. Thinkstep has also created EMS applications for tracking KPIs of ISO and EMAS. Additionally, the software has highly configurable modules to allow users to swap in and out the relevant applications and extensions for their reports, preventing the user interface from becoming overwhelming (Thinkstep 2017).
- **EcoStep** is environmental management software designed specifically for SMEs. EcoStep bases its integrated management system on ISO 9001, ISO 14001, and OSHAS 18001. The software company itself offers accreditation of compliance with the ISO requirements, including the on-site audit. The certificate is valid for two years and has a pricing structure based on company size. Templates for reporting are also available through EcoStep's consulting services (RKW Bremen GmbH 2017).
- Other reporting interfaces exist, such as Eon+'s legally compliant Serbian EIA report producing software, **Envigo**. Eon+ has built its software a SaaS cloud system, incorporating all of its functions in an easy to use web portal. Envigo walks users through every step of the EIA phases: screening, scoping, and the study itself. Templates of the headings defined in EIA legal documents are provided, and reports generated for all EIA phases to be submitted to CBs. The program offers flexibility in how users insert tables and formulas and in how they position and format the text (Eon+ 2017).

These companies and their software present examples of prominent environmental management programs used by a variety of industries throughout the EU. The diversity of programs highlights the existence of multiple mediums through which companies can generate reports. The diversity also exemplifies the current lack of standardisation in environmental reporting: many high quality options exist, but they are often targeted to specific types of reporting and do not always provide a general overview of all a company's environmental

data. However, the existence of software designed specifically to fulfil ISO, GRI and CDP requirements indicates that developing such software to cover EMAS requirements is possible and may in fact be preferable to using existing software that does not perfectly fit requirements.

While a wide variety of reporting programs are available on the market, most - including those programs highlighted above - are generally used by large companies. Large organisations have both more data to manage and more resources, making a stronger business case for investing in premium software. SMEs - in particular small and micro enterprises - may not yet have the resources to invest in some of the more advanced platforms that are defining the future of environmental reporting. The following table assesses the strengths and weaknesses of the common company-level reporting environmental software presented above, including when available information on their cost:

Table 62: Strengths and weaknesses of selected technologies

Software	Strengths	Weaknesses
CloudApps	<ul style="list-style-type: none"> Fully customisable reports and templates 	<ul style="list-style-type: none"> Emphasis is on corporate responsibility and materiality analysis
Topolytics	<ul style="list-style-type: none"> Strong spatial element of real time data reporting through use of mapping and integrated data reporting 	<ul style="list-style-type: none"> Not holistic – only collects data for waste management
Dotsimply	<ul style="list-style-type: none"> Web based tech (ALEAUR Cloud), no installation, usable by any browser. Data integration 	<ul style="list-style-type: none"> No open mention of report generation adherence to international standards, but options with regard to EMAS should be investigated
Greenstone	<ul style="list-style-type: none"> Reports against global standards like CDP, GRI, DSJI, and UNGC – potential for reporting against EMAS standards Bespoke reporting functionality – potential for EMAS template 	<ul style="list-style-type: none"> Annual cost of €22,000- €34,000
Ecometrica	<ul style="list-style-type: none"> Straightforward interface and easy to upload data Audit ready reporting options for multiple international standards and frameworks 	<ul style="list-style-type: none"> Annual cost of €22,000- €34,000 Fixed cost of €13,500 for smaller organisations Based on financial reporting and may not appeal to all sustainability professionals No EMAS template
Thinkstep	<ul style="list-style-type: none"> Has EMS for tracking KPIs of EMAS User friendly data display that is highly customisable and easily shared 	<ul style="list-style-type: none"> One time implementation fee of around €14,000 coupled with annual fee of €9,500
EcoStep	<ul style="list-style-type: none"> Affordable for SMEs Compliant with ISO environmental 	<ul style="list-style-type: none"> Have to pay additional for template interfaces, such as one customisable

Software	Strengths	Weaknesses
	<ul style="list-style-type: none"> management standards • Certification scheme 	for EMAS
Envigo	<ul style="list-style-type: none"> Streamlined EIA report generation, compliant with legal requirements to a high professional standard 	<ul style="list-style-type: none"> • Configured specifically to Serbian legal context
Sources:	<ul style="list-style-type: none"> • https://www.environmentalisonline.com/article/software-review • https://www.environmentalisonline.com/article/software-special-critical-analysis 	

These software exhibit several common key characteristics for environmental data management:

- Reporting templates for specific reporting obligations
- Web based tech or applications in place of installable software
- Customisable and user friendly data displays
- Multiple modules - no comprehensive environmental management platform

Many of the described software programs include a multiple modules component which assists companies in fulfilling their many reporting obligations through various channels. The commonality of multiple modules in reporting software exemplifies the diverse landscape of reporting obligations that organisations operate in – comprehensive environmental management software or “one stop shop” solutions are uncommon because of how varied reporting obligations for organisations can be. More tailored, specialised modules help organisations fulfil specific obligations in a targeted manner, simplifying their data management and reporting procedures through compartmentalisation. Modules could be useful for EMAS reporting because a module encompassing EMAS reporting requirements could allow for more integration of specific reporting obligations.

General disadvantages of the selected software include the price, which for most software lies outside the budget of SMEs. Additionally, none of the interfaces currently have built-in templates for EMAS reports. Report generation also emphasises data display and management, with less attention paid to written components. Organisations may also be discouraged by the initial time investment required to enter in all existing data. Finally, language barriers must also be addressed – software would have to be available in all EU languages so that organisations can produce their reports and use the portal in their working languages.

Web Portals

An emerging characteristic in technical interfaces, demonstrated by some of the selected technologies like Dotsimply, is platforms utilising web portals to create standardisation for users. Web based tech allows companies to log into the platform using any devices capable of accessing an Internet browser. Devices can then transmit selected information directly to the platform itself, which is then accessible by any other device logged into the platform via an Internet browser. Web based tech creates ease of access for users by removing complications that can arise from incompatibility between software and operating systems or difficulty installing software. The implications for EMAS are that given the wide range of companies and their internal information systems, web based tech creates a level playing field for company reporting interfaces as anyone who can access the Internet can access a well-

developed reporting interface – there is no need to buy expensive software or have state of the art computer systems.

Organisations and certification schemes have already begun to integrate and use web portals in place of proprietary software. Examples of certification schemes successfully using web portals include Norway's Eco-Lighthouse Foundation and RTI's Biosphere. Eco-Lighthouse has developed a certification scheme that they view as complementary to ISO-14001 and EMAS systems. Eco-Lighthouse utilises an internally developed bespoke web portal that guides the enterprise seeking certification through the process step-by-step. Consultants and certifiers have their own access accounts, gaining access to information relevant to the implementation of the environmental management system and certification of the enterprise during the audit period.

The registration of interconnected enterprises in the Eco-Lighthouse web portal mirrors the organisational structure of the respective enterprises, allowing for aggregation of data. The annual climate and environmental report is part of the Eco-Lighthouse web portal. The report is largely indicator-based but also includes text fields. The indicators depend upon and the report itself is generated based on the criteria under which the enterprise is certified. Publication of the Eco-Lighthouse climate and environmental report can occur in several ways. Users have the option to print a physical report, create a PDF, export to Excel, or generate a web link. An informal interview with an Eco-Lighthouse administrator revealed that Excel is viewed as a temporary solution to the issue of double-reporting, allowing companies to transmit environmental information to authorities whose systems are not compatible with the web portal. Companies are also able to send certain sensitive information to authorities which they do not include in their reports for the general public (Eco-Lighthouse 2017).

The Biosphere certification also utilises web based tech for its sustainable tourism certification scheme. The data management element of Biosphere's certification process is orchestrated through Biosphere's internally developed software. Companies have access to a web portal through which they can upload their files with tables of their data – water consumption data, energy consumption data, etc. Competent bodies then check if companies have uploaded the data necessary for their certification. However, Biosphere's platform is not suitable for producing a report (Biosphere Responsible Tourism Inc. 2017).

Biosphere has also streamlined their audit process, as their web interface includes a built in online audit system. Third party verifiers can be sent evidence of companies' compliance through a few mouse clicks, and if compliance with standards is proven companies can easily download the Biosphere certification and receive logos for implementation on their web-sites (Biosphere Responsible Tourism Inc. 2017).

The diversity of technical reporting interfaces and software for organisations demonstrates the lack of standardisation in reporting procedures on the organisations end. Web portals are emerging as an alternative to proprietary software for reporting to facilitate reporting standardisation. The lack of congruity in reporting interfaces raises the question of how the MS receive and process these reports, and how the data is stored and transmitted for future use. Thus, the next section of this chapter examines how companies report their data to MS and how MS manage their environmental data.

Conclusion

- Companies use a wide variety of software to collect their environmental data and generate reports. Many are customisable and already have templates for fulfilling GRI and ISO 14001 requirements.
- Most reporting software includes multiple modules components, allowing companies to customise which type of data they want to focus on and to fulfil multiple requirements. Such software tends to be relatively expensive and used primarily by larger

firms.

- Other certification schemes make use of web portals to transmit environmental data. Accounts on these portals can make the information accessible not only to companies and administrators, but also to third party auditors.
- With a custom design, a portal or template for existing software could be developed easily to cover EMAS requirements.

Environmental Databases and Reporting Channels in Member-States

Interviews with companies, EMAS CBs and regulatory authorities revealed that companies report to public authorities in a variety of ways, sometimes consistently across the country and other times in an ad hoc fashion. Since nearly all MS investigated in this study delegate environmental regulatory responsibilities to local and regional level authorities (see Chapter 0), companies in different areas report to different regulatory authorities according to different procedures. Depending on the MS and the size and sector of the organisation, some organisations report to many authorities, others only to one central authority. Some small and public organisations reported not having any contact with authorities, while larger organisations more frequently reported contact with multiple authorities in different forms. For instance, a large manufacturing company may report information on waste, biodiversity protection and air emissions to two or three different local authorities while also reporting data on GHG emissions and certain pollutants to national databases.

Interviews with EMAS-registered organisations reveal the complexity in a number of MS. One example is France's reporting obligations to the EU ETS and the French GIDAF. The EU ETS requires industrial companies across the EU to submit an emissions report containing their CO₂ data. According to a French environmental manager, French companies must then also report emissions in water and air to the GIDAF. A similar division of reporting obligations exists in Austria. Likewise, an Austrian environmental manager mentioned that Austrian companies are required to report their packaging waste to a specific regulatory board and have a separate reporting obligation to the ETS for their CO₂ data.

Data from the survey of EMAS-registered organisations also illustrates the variety of reporting channels for each company. When asked in the survey, companies stated that they reported their information to authorities in the following ways: by e-mail, written reports by post, during audits, and through electronic reporting interfaces. These responses were consistent throughout the MS. Of the 462 companies who wrote in a response, approximately one third reported sending environmental data via multiple methods. One large Portuguese company wrote that it sent its environmental data to authorities "by e-mail or letter and in some cases (PRTR, ETS and Waste Report) by us[ing an] electronic reporting interface". The majority of respondents reported transferring information electronically, but the answers also reveal that electronic reporting interfaces frequently exist only for specific issue areas. Companies throughout the EU frequently mentioned PRTR, ETS, and waste registry data as having specific electronic reporting platforms.

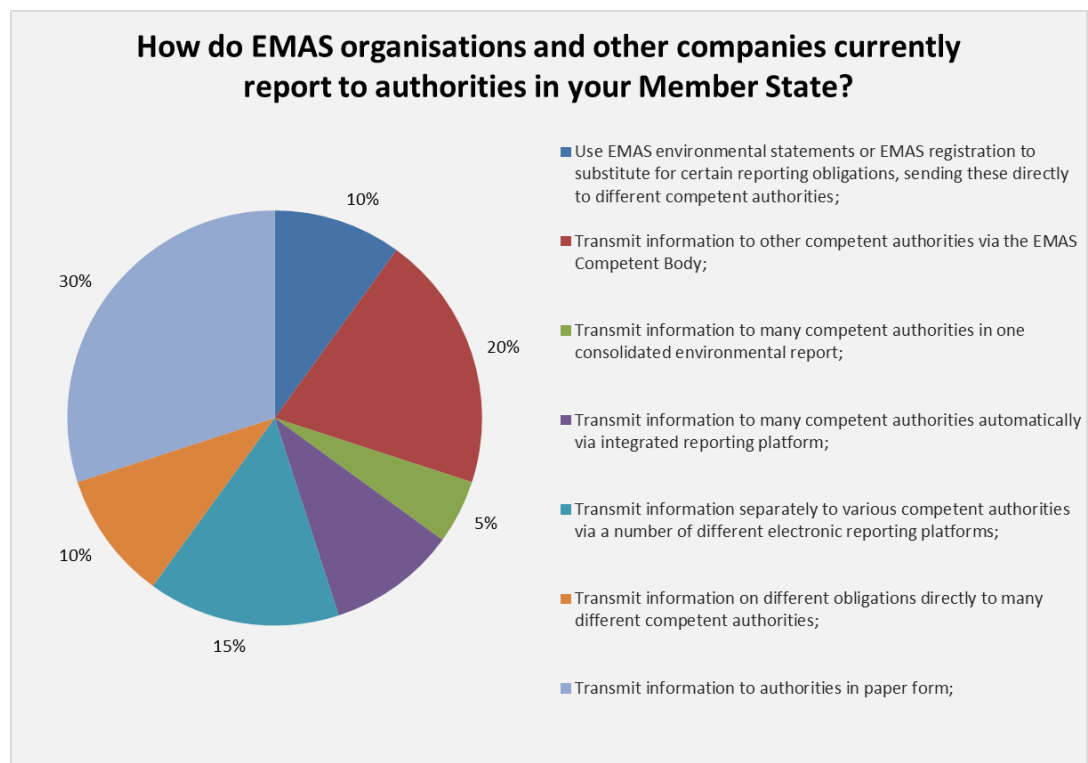
The data from interviews with EMAS CBs and the survey of MS representatives further illustrates the experience of EMAS organisations and the heterogeneity in the reporting of environmental data that exists among the MS. As seen from selected examples in the table below, the surveyed EMAS organisations were fairly evenly divided on how companies currently report to authorities in their countries.

Table 63: Selected examples of EMAS company reporting

How does your company currently report its obligations to the designated authority (e.g. do you use an electronic reporting interface? Are they communicated during an audit/ verification / control?)

- “until now paper but next year we will use the electronic control of Brussel's region”
- “monthly - annually reports“
- “Mostly during audit / verification“
- “Electronic reporting interface”
- “Required forms from state authorities in printed version”
- “Post, E-Mail“
- “Onlineportal“

Figure 86 : Reporting channels to authorities according to MS representatives



No. of respondents: 13

The heterogeneity of reporting channels was corroborated by MS representative survey results. Responses from MS representatives yielded that EMAS organisations transmit information to authorities in a variety of ways: in paper form, separately to authorities via different electronic platforms, via the EMAS CB, through the EMAS environmental statement, through a separate, consolidated environmental report, and finally different obligations directly to many different authorities.

The complexity in reporting and monitoring extends beyond reporting to multiple different authorities via different platforms and mediums. A statement from a German inspection authority who declined to be formally interviewed for the study revealed that even within the same authority, different departments may handle different environmental mediums and

have little interaction with each other. This person mentioned that they had little awareness of EMAS because they worked in the waste sector, while their colleague who handled emissions dealt more closely with more regulatory relief and reporting requirements for EMAS companies.

Looking at the MS as a whole, desk research, interviews and survey data reveal that there are three main categories of reporting channels: a national standard, a mix of informal and formal software in use by certain companies and administrations, or no established technical interfaces in use.

Countries like the Czech Republic and Austria have widely standardized reporting procedures. In the Czech Republic, companies and governmental interviewees mentioned that environmental reporting channels utilise the national web application software known as “ISPOP”, an integrated system of reporting that processes and receives environmental reporting obligations in electronic form and oversees their distribution to the relevant public administrative bodies: a comprehensive environmental database. The system was established by Law No. 25/2008 Coll., and has been lauded for its cross-checking capabilities and integrated network. However, a Czech environmental consultant noted that the system is costly to operate.

In Austria, the EDM (Electronic Data Management Environment – an internetbased e-government application) system currently allows more than 40,000 companies and over 1,300 employees of federal, state and local environmental authorities access to a comprehensive information system for reporting environmental data. (Austrian Ministry for Environment 2014) Led by the Austrian Environment Ministry, EDM allows organisations that need to register under a waste registry or submit reports on waste disposal and air emissions to enter their data in one place electronically. All relevant authorities have access to the information. Companies can use EDM to report under 14 laws mostly covering waste and emissions, including the E-PRTR; Austria intends to expand the options in the future (Austrian Ministry for Environment 2014).

France, Germany, and Spain each have adopted individual solutions to reporting interface challenges. In Spain, each region has different ways of reporting and different formats, an example being the Catalan Waste Agency’s online platform. Both a German CB member and a German environmental manager for an EMAS organisation mentioned that they use the web-based application BUBE for the environmental reporting, but that BUBE does not yet include all environmental data. A German regulator reported that the German Environment Ministry had at one point considered switching to another database to have a central location for environmental data storage that would be accessible to all authorities. However, the idea was rejected due to security and quality management concerns.

As a result, even if EMAS-registered organisations generated their environmental statements via reporting software so that they could send the information electronically to the relevant authorities, they would still face a number of challenges:

- the interface would have to be adaptable to the needs and platforms in each MS
- a high number of different authorities within each MS would have to be connected to the platform or be able to receive data from that platform
- the information would have to be compatible with the specific registers that already exist (e.g. PRTR, ETS)
- the lack of consistent means of data transmission (electronic vs. written, etc.) indicates that some reports would still have to be filled out separately, reducing potential reporting synergies

Given the general challenges present with how environmental authorities in the MS share data amongst themselves and how companies report data to the authorities, the next section

of this chapter looks more in more detail at how reporting channels function specifically for EMAS.

Conclusion

- Countries exhibit a wide range of reporting procedures and standards for their various regulatory bodies. Comprehensive centralised databases of environmental information are uncommon, although several countries are starting to move in that direction.
- Some MS are developing internal software and technical interfaces to facilitate environmental reporting standardisation, but many are still using a variety of methods for each of their different types of reports (e.g. (a mix of paper and digital reporting; different electronic registries for different types of obligations)
- The diversity of reporting both within and between MS poses a barrier to a comprehensive environmental database and standardised reporting procedures, at both MS and EU level

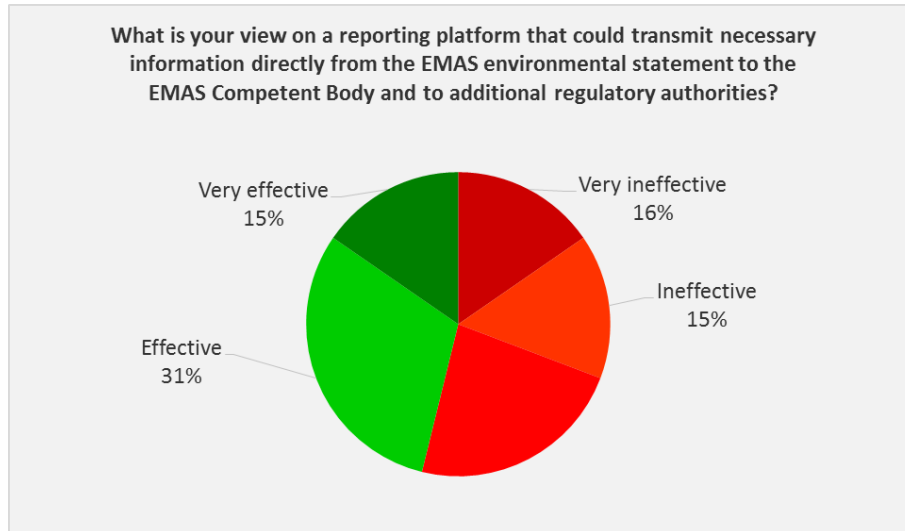
EMAS Reporting Channels

Interviews with CBs in the nine selected MS plus the Czech Republic and Sweden revealed that most companies prepare their environmental statements, have them verified by an environmental verifier, and then send their environmental statements to their CB by e-mail (electronic copy) or post (paper copy). The CB then inquires with the competent authorities whether an environmental offense or an administrative penalty procedure occurred or not and to see if the company is ready to be registered.

CBs generally do not pass information on reporting obligations from the environmental statement to specific regulatory authorities; that obligation lies with the companies themselves. Most MS have assigned a central, national CB to manage registrations, perform the compliance check, and collect the environmental statements. If the CBs were to pass information onto the relevant authorities, the CB would need to know which local enforcement authority needs which information for each company. Additionally, they would need to have the resources to run such a complex system of information transmission, raising significant questions of efficiency.

Advantages of the current EMAS reporting channel include the personal contact with the CB, which can facilitate a strong working relationship and provide support for the organisation in its implementation of EMAS. If the CB also happens to be a regulatory authority, organisations may also enjoy a higher level of trust. Disadvantages include that the information stops at the CB, as the CB has no obligation to share the environmental statement with authorities or to send it to the EC for publication in the European EMAS register. Many CBs share the statement in a national or European register voluntarily, but not all environmental statements are readily available or easily accessible. As a result, statements may be available only on an organisation's website or in their offices and not in an official register. Additionally, many organisations have to report similar information to authorities.

Although they are not the primary means for transmitting environmental information to authorities, responses in the survey of MS representatives (many of whom are also CBs) indicate that they would welcome an electronic interface that would allow information from the environmental statement to be transmitted both directly to them and to authorities (see Figure 87 below). Other CBs also expressed interest in such a system in interviews, although several pointed out a number of related challenges, including the question of how environmental verifiers will be involved in the electronic process.

Figure 87: Member State views on reporting platforms

No. of respondents: 13

Despite widespread support in the interviews and surveys for such a system, the diversity of reporting channels for environmental information presented in Section 3.3.2 demonstrates that countries would have to overcome significant barriers before a unified system for transmitting environmental information is possible. The next section of this chapter thus gives a brief overview of options for integrating the transmission of environmental data.

Conclusion

- EMAS reporting occurs directly from companies to the CBs and usually ends there. Companies appreciate the direct contact with the CB.
- Having CBs transmit environmental statements to the relevant regulatory authorities directly would not improve the efficiency of the EMAS reporting process.
- CBs and MS representatives show general support for a reporting platform to help EMAS-registered organisations create environmental statements more easily and transmit that data to authorities.

4.5.2 Options for unifying environmental data transmission

Having reviewed the existing interfaces for environmental reporting, reporting channels within MS, and EMAS-specific reporting channels, the evidence indicates that separate solutions exist for EMAS at the company level and EMAS at the MS level. This section will first explore options for interface implementation into EMAS and then discuss options for MS reporting channel modifications. However, these solutions should not be seen as competing options but instead as complements that are part of a two-tier solution. Finally, a detailed review of the barriers to implementing these changes will be discussed, followed by recommendations.

Options for EMAS reporting in companies

1. Customised software development

Developing customised software specifically for EMAS reporting is a technically feasible option. The reviewed software from Section 3.3.1 exemplifies that software is capable of meeting the requirements of reporting obligations and that many companies use reporting software to meet their obligations. Envigo developed their EIA report generating software to be capable of producing a legally compliant EIA report, a document more complex than the EMAS environmental statement. Following the Envigo example, the EC could contract an IT firm to develop software to assist with and generate reports of EMAS environmental statements. EMAS CBs could then make this software available to companies interested in joining EMAS, thereby easing the reporting burdens of small to medium sized businesses which may not be able to afford the software reviewed at the beginning of this section.

Alternatively, the EC could develop an EMAS template that would be compatible with the software that companies currently use. However, companies that do not use the software would not benefit from such a template.

2. Web portal or interface

Web portals or web based interfaces have many advantages over traditional software systems. Some of the reporting interfaces reviewed in 3.3.1 utilised web based technology to facilitate easy access for their clients by removing the need to install operating system specific software on their computer systems. Any computer or device with access to an Internet browser can utilise web interfaces. Web portals can achieve high levels of interoperability much easier than standard software, which operate as isolated, proprietary systems (Magic Web Solutions 2017). Web portals are also easier to maintain and are more adaptable than software systems. Web interfaces bypass the need of software to update every individual computer that the software is used on. Instead, web portals require only an up-to-date browser. Finally, more complex web portals that require more processing power are easier to manage as only server hardware needs to be upgraded instead of individual computers (Magic Web Solutions 2017).

The development of EMAS web interfaces has potential for more immediate implementation, and should be viewed as the first step in a two-tier solution. Certification schemes like Eco-Lighthouse and Biosphere have demonstrated the utility of web portals for environmental verification, indicating the potential for EMAS to adopt a similar digital interface. More efficient and user friendly interfaces could address the needs of companies in the EMAS reporting process, but to achieve full benefits, companies should also be able to transmit that data to regulatory authorities, whether within or in addition to the environmental statement. Here a system like EDM in Austria can provide important insights into how to structure a portal to which high numbers of actors have access and which can potentially communicate between multiple authorities. Additionally, the web interface would have to be available in all community languages in order to eliminate the language barrier and allow companies to target environmental statements to stakeholders in their own countries.

Options for unifying the transmission of environmental data within and between MS

1. Standardisation of reporting in XBRL

Standardisation among digital reporting has already emerged in the financial sector. XBRL is an XML based language that has been widely adopted for financial reporting since 2009 (Seele 2016). XBRL seeks to reduce the information asymmetry resulting from incompatible global reporting formats by creating taxonomies which organise rules and data definitions for reporting frameworks (Enachi and Andone 2015). XML is the language format for programs

like Microsoft Excel, the program that companies using the Eco-Lighthouse web portal can export their data to in order to send it to authorities unable to receive information from the portal itself.

Because XML is a machine-readable language, XBRL enables real time acquisition of data. This real-time acquisition enables companies to increase transparency, as interested parties may instantly view data that is validated electronically by software (Deloitte 2011). XBRL taxonomies have already been developed by GRI and Deloitte for the purposes of generating standardisation and comparability in sustainability reporting (Seele 2016). The United States Security and Exchange Commission adopted XBRL because of the software's ability to reduce information asymmetry and reporting costs through automated data management, helping to level the playing field for both large and small enterprise (Hodinka et al. 2014).

Transparency facilitated by XBRL would help alleviate greenwash and brownwash concerns in environmental reporting. Both greenwash and brownwash tend to result from poor data quality or measurement problems, accentuated by overly complex or unfinished reports (Faria and Mora 2016). Because XBRL is taxonomy based, the system has built in data quality checks that validate basic rules such as numbers and more complex rules specifying how the data is to be reported (i.e. specific units or equations). Essentially, for reported metrics like CO₂ intensity (tCO₂/revenue), the reported data would be cross checked with the reported emissions and revenue data before any of the data was validated (Faria and Mora 2016).

Studies have recommended XBRL as the standard for environmental data reporting because of its data sharing efficiency and because it has already been adopted as the standard for financial reporting (Enachi and Andone 2015; Seele 2016). In Europe, XBRL is required for external financial reporting by the European Central Bank (ECB), the European Banking Authority (EBA), and the European Insurance and Occupational Pensions Authority (EIOPA) (Faria and Mora 2016). Additionally, the European Commission has identified XBRL as one of the standards to address the Digital Single Market Strategy (Ibid.). Groups like the Climate Disclosure Standards Board (CDSB) have also reacted to regulators mandating XBRL by creating taxonomies to allow systems to communicate climate change data (Climate Disclosure Standards Board 2017). Essentially, applying XBRL to environmental reporting would promote data utilisation by linking environmental data with other financial and non-financial data, reducing costs of data reuse and circulation (Ikadai and Daisuke (AZSA) 2013).

In the context of these studies, XBRL recommends itself as a good match for the transmission of EMAS environmental data for three main reasons:

- XBRL has already been adopted widely in financial reporting and demonstrated its efficacy there.
- Much of the existing environmental management software is web-based. Potential exists for the integration of XBRL as an XML based reporting practice given that regulatory bodies like the French GIDAF system and Eionet's ReportNet already use XML as their standard file format. Such integration would make it easy for regulatory bodies to view and analyse company data. (Enachi and Andone 2015) argue that the burden of implementation on industry could be low if companies follow best practices.
- Easily accessible data through XBRL could help reduce the number of regulatory bodies that companies would have to report to by allowing the regulatory bodies to access the company data themselves (if they wish).

At least one barrier would, however, have to be addressed before using an XBRL system in the EMAS context. While XBRL will automatically update data with accuracy, the third party audit will need to be provided information demarcating data of the present moment from annual performance data. Therefore, a report or overview of the data will still be required. Extensive desk research did not discover any XBRL environmental report generating soft-

ware currently in existence, indicating the need for additional software to generate XBRL's data in a reader friendly format for the environmental verifier.

2. Regulatory Intelligence Hub

The diversity of many reporting databases in the different MS presents a complex landscape for consolidation of data and the establishment of comprehensive databases. The obstacles to comprehensive databases in the MS vary widely based on context, making standardisation at an EU-level even more challenging (Levi-Faur 2011). One option would be to encourage better data sharing practices within individual MS in the form of a central intelligence or data hub for regulatory bodies.

A Polish environmental verifier noted that the data required by EMAS has already been sent to other MS regulatory bodies. According to a report issued by the UK government in early 2017 that focuses on improving regulatory practices, the "tell us once" principle is the ideal for communication between regulators and the regulated, but is complicated by myriad existing data or information sharing practices (Cabinet Office 2017). In an interview, a UK regulator mentioned that her agency was giving serious consideration to how they could set up a central intelligence-sharing hub.

In addition to the Regulatory Futures Review, a report into better regulation from the OECD (OECD 2012) also lays out a number of arguments for such an intelligence-sharing hub. Having a central point for sharing environmental information has a number of benefits for regulators. By comparing information across sectors, they can better identify emerging trends and risks. Regulators will receive a more complete picture of companies' activities, easing the identification of sectors and enterprises that otherwise may be slow to emerge as high risk. This quick identification could lead to more effective and targeted intervention. Heightened risk detection also benefits the business sector by reducing the possibility of companies to cut corners in order to gain a competitive advantage, levelling the playing field for competitors (Cabinet Office 2017).

According to those studies, at least two possible approaches exist to creating a central intelligence database: creating an actual single data repository or using a more decentralised model where data is held by individual regulators and their software is capable of accessing the datasets of other regulatory bodies. A decentralised model would have more technical and legal complications than a single dataset, but would enhance security and ease storage concerns (Cabinet Office 2017).

An additional synergistic benefit to MS creating a central intelligence database is a reduction in reporting obligations for MS to Reportnet. Eionet, a partnership network of the European Environment Agency (EEA), developed Reportnet in 2000 for improving environmental data information and flow. Current practice is for National Focal Points (NFPs) or National Reference Centres (NRCs) to report data to Reportnet (Coen and Thatcher 2008). NRCs are generally established in specific environmental areas, of which there are 24 defined by Eionet (Peifer et al. 2008)

Data can come in many different formats. The EEA has chosen XML as the format for which all data is to be stored in Reportnet's Central Data Repository (CDR). Currently, Reportnet uses a Data Exchange Module to convert data into XML (Peifer et al. 2008). Adopting XBRL (or another XML based reporting platform) as the standard for companies to report sustainability and environmental data to EMAS or MS in general would allow for more rapid data transfer to Reportnet and would ease reporting burdens of MS. XBRL reporting, coupled with a central intelligence hub within the MS itself, has the potential to create a much more efficient data and information sharing process which would ease company reporting obligations and could facilitate more buy-in to EMAS.

Conclusion

- If EMAS reporting is to be made digital and data shared with authorities, the process must take place on two tiers:
- First, an EMAS reporting template or reporting portal must be created for companies to generate report;
- Second, authorities in each MS would need to establish a uniform system for reporting and collecting environmental data able to accept transmissions from all environmental authorities and outside systems (e.g. an EMAS web portal).
- The creation of MS regulatory intelligence hubs and/or the establishment of a uniform reporting language standard like XBRL would ease the future transmission of environmental data.

4.5.3 Barriers to digital reporting

Interviews with MS regulators show that general barriers to MS adoption of digital interfaces for environmental data include focusing too strongly on the technology itself rather than its compatibility with other systems, fear of loss of control by management, difficulties advancing from theory to practice, and slow decision making caused by internal politics. These general barriers raise two key points on the challenges of establishing a unified system of transmitting environmental data: international standardisation of environmental databases, and the ability to include all reporting obligations in the EMAS statement due to the technical content.

Barriers to EMAS company level reporting

Inclusion of all reporting obligations in the EMAS statement would be difficult because of the technical content required. Currently, the EMAS statement's core indicators do not include all environmental data that is required across MS' reporting channels. Because the size and scale of company operations can vary drastically, creating mandatory standards of reporting could result in lower corporate efficiency as a "one size fits all" approach would likely lead to regulatory gaps. Additionally, different legal environments across the EU create challenges for establishing mandatory reporting and imply that additional burdens would be imposed on company management (Seele 2016).

These challenges and the current EU principle-based regulatory structure suggests that environmental reporting will continue to operate in two spheres – a reporting environment that is heavily regulated and in which data is sent to regulatory bodies or CBs, and another space for consumers and society to have access to trustworthy, transparent data. Further complications include technical details like the frequency of reporting deadlines for certain channels. An EMAS statement cannot be made and sent to multiple regulatory bodies when some bodies have annual reporting obligations and others monthly. However, a portal that would allow companies both to generate an environmental statement from selected data and to transmit that and other data to authorities could still potentially save resources, while still separating a public report from reporting to authorities.

Interviews with large companies in Germany and France also revealed that they currently report in a decentralized manner within the company itself, with different colleagues responsible for reporting different information to authorities. Many reporting processes are already well-established within companies and some see no need for streamlining them. Organisations would have to alter their existing processes and accept that a new EMAS portal or software could cover many of the previously separated reporting functions. This concern

makes it essential that as many regulators as possible accept information from an EMAS portal or software; otherwise the potential gain for companies may be small.

Improvements in data quality and collection also do not solve all of the problems that EMAS faces with reporting. Non-data inputs like visuals and the actual language of the report require human input through software or a technical interface. In the survey of EMAS-registered organisations, a number listed the EMAS environmental statement as a burdensome obligation, and further investigation would be required to find out if a portal or a software template would effectively ease that burden. Questions to investigate include:

- How much would development cost?
- Who would be responsible for answering questions on, maintaining and updating the software?
- Would companies actually use the portal or software template? What advantages could the portal/platform offer EMAS registered organisations?
- Would reporting software actually incentivize participation in EMAS?
- What if companies want to make customised reports - would they still save resources through a portal?
- How could the portal and all its functions be made available in all EU languages?

Barriers to Member State internal data sharing

The political feasibility of creating standardisation among comprehensive databases and regulatory body reporting procedures differs from state to state. A probable concern with restructuring bureaucracy is the job displacement caused by merging or shutting down bureaucratic institutions (Levi-Faur 2011), a concern echoed in interviews with regulators and academic experts in this study. The variety of initiatives currently in place shows that many MS are moving in the direction of unifying information, but are very different stages of the process. No EU-wide standard has been attempted; even if one were accepted and introduced, a very long adjustment and implementation process would follow.

The digital transmission and storing of data also raises necessary security and privacy concerns. Regulators may not always be aware of which exemptions currently exist under the Data Protection Directive and in statutes specific to their MS, and they may be afraid of violating those rules. Establishing standards of data sharing practices would therefore be resource intensive and time consuming, as regulatory bodies across MS would need to investigate what types of data they can share and with whom they can share it (Cabinet Office 2017).

Security concerns would also need further in-depth investigation, on both the technological and interpersonal levels. Between regulatory bodies with little prior collaboration, basic human trust plays an important role in consolidating databases or encouraging sharing practices (Levi-Faur 2011). The higher and more diverse the number of participants in the system, the more difficult it may be to establish trust.

Conclusion

- Barriers to an EMAS reporting template or portal include the need to meet the needs of all types of organisations in different sectors; the need to make sure the portal is fully available and regularly updated in all community languages; costs of maintenance and development.
- Barriers to Member State internal data sharing include job displacement, security and privacy concerns.

- Further investigation is warranted to determine if EMAS-registered organisations would truly make use of a portal and to explore Member States' concerns about creating regulatory intelligence hubs and/or accepting direct transmissions of data from an EMAS reporting portal.

4.6 Conclusions on the potential of EMAS to facilitate reporting

The results of the gap analysis, surveys, interviews and desk research identified a number of opportunities but also challenges for using EMAS to reduce organisations' reporting burdens.

In its current form, the environmental statement could potentially be used by authorities who need the specific core indicators reported through EMAS. If EMAS-registered organisations are willing to insert additional information into the statement to match reporting requirements, authorities could in some cases also recognise the statement as equivalent. To reduce the reporting burden of organisations, however, information included in the environmental statement would have to be consistently accepted as equivalent by authorities. This is not currently the case, likely for the following reasons:

- The authorities are not aware that the information they need is already publicly available, and organisations do not necessarily send them the environmental statement;
- They are not the primary audience of the environmental statement, so the type of data authorities need often does not match that foreseen in the environmental statement (level of details, unit, etc.);
- Even if the equivalent information is contained in the statement exactly, the information needed by authorities may be spread throughout the whole report, resulting in a loss of efficiency;
- Authorities collect the information through another type of reporting channel (ex: electronic database) and are not willing to handle data from EMAS organisations in another manner for reasons of efficiency. Additionally, different authorities may use different types of reporting channels, leading to difficulties for EMAS-registered organisations should they want to make adjustments to how the information in the statement is presented in order to accommodate the needs of a specific authority.

The potential of using the current reporting system of EMAS to fulfil reporting obligations will therefore have to be **determined on a case by case basis**. As seen previously, the key challenges are whether or not organisations feel it will save them time to include extra information needed by authorities in the statement, and the related challenge of whether authorities in MS will accept EMAS data as fulfilling reporting obligations. **Different scenarios are possible depending on the amount of overlap between EMAS and the regulations**. This challenge is particularly complex given the very high number of parties involved (i.e. authorities at state, regional or local level depending on how environmental competencies are distributed within the different MS) and the diversity of reporting obligations per MS.

The high number, diverse requirements, and varying reporting channels of existing reporting obligations therefore **make a one-stop-shop reporting system through EMAS unrealistic**. The capacity nonetheless exists for both companies and public authorities to make better use of EMAS reporting. The third party verification of data and demonstration of progress over time could potentially present significant added value to authorities but at present are underutilised. These EMAS features could be used to justify regulatory relief that reduces

reporting obligations, saving time and resources for both organisations and authorities. This opportunity is discussed in detail in Chapter 3.

If the EMAS reporting format were not the environmental statement but rather a digital interface in which companies could communicate some information directly to regulators while selecting other pieces of information to include in their official environmental statements addressed to the public, EMAS-registered organisations could in theory reduce the resources required to communicate with both types of stakeholders. However, this possibility would constitute a substantial change to the current system and would require careful exploration and testing beforehand.

The review of company and MS reporting software and channels demonstrated that the EMAS environmental statement is a small part of a complex system in which companies generate environmental data and report on it both to the general public and to a number of different regulatory authorities. The channels through which this information flows and the form that the information itself takes varies depending on the audience (non-technical report for the public or highly technical and specific reports for regulators) and the reporting channel specified by the authorities (specific registers, written reports, technical interfaces). These channels and technical options vary according to the size and sector of the company, but also among the public authorities within any given MS. On an EU-level, this variety multiplies even further.

In a modified form, EMAS reporting could therefore better match the needs of some stakeholders but its ability to meet the ones of others could be decreased. There is therefore no perfect solution and some further research and experimentation with organisations are necessary.

The report shows that environmental statement and the EMAS indicators are a valuable source of environmental information that is today underused by authorities, despite overlaps with their needs. The topic of reporting is therefore still an opportunity for EMAS and the next section will discuss how this requirement of EMAS could be strengthened in both the short and long term to bring further added value to authorities and organisations.

4.7 Recommendations to strengthen EMAS in reporting

As a result of the high level of heterogeneity in the reporting landscape, a number of significant barriers exist to EMAS organisations reporting directly to authorities via either the environmental statement or an EMAS software platform. However, certain practical steps can be taken to alleviate EMAS-registered organisations' reporting burden and improve data sharing in the MS.

The following suggestions aim to address some of the challenges outlined above and to take advantage of potential opportunities for strengthening EMAS. Short-term suggestions aim at increasing authorities' recognition of the environmental statement with little change to the overall system, while medium and long-term suggestions suggest a stronger, more systemic change to reporting at the EU level.

4.7.1 Short-term suggestions

1) Implement regulatory relief for reporting obligations that overlap

The gap analysis in Section 4.4 identified a number of reporting obligations based on EU Directives which can be fulfilled by the EMAS environmental statement with minimal adjustment. Additionally, the *Compendium of Regulatory Relief in the MS* (Annex II) demonstrates that a number of MS already accept the EMAS environmental statement as a substitute for

certain obligations or parts of certain obligations (see separate Excel file). It is therefore recommended that all MS review their regulations covering these or similar requirements to include the EMAS environmental statement as a potential substitute for these regulations. This presents an opportunity for MS to save resources and for organisations to make greater use of the information already available. At the EU level, a review of some Directives to add a specific mention of EMAS as an equivalent for overlapping reporting requirements is also highly relevant.

As seen previously, the recognition of EMAS in the following areas should be particularly considered:

- **CSR reporting:** as required by the EU Non-financial Reporting Directive (Directive 2014/95/EU). The example of France (Grenelle II Act, section 225), already recognising the EMAS environmental statement as partly fulfilling the obligation, can be used.
- **GHG reporting:** for organisations concerned by the EU ETS (Directive 2003/87/EC), or required to report on GHG emissions by a national regulation. In the countries where this reporting is done through a report, the EMAS environmental statement could be easily used as a substitute. The UK Companies Act 2006 could act as an example.
- **Energy efficiency:** under the framework of the Energy Efficiency Directive (Directive 2012/27/EU), MS require organisations to report on energy consumption every 4 years and should consider the environmental statement as a substitute. Members States that wish to further encourage efficiency can implement voluntary agreements such as the Netherlands and request or suggest companies to report on progress through EMAS.
- **Water Discharges:** MS with similar reporting obligations on water discharges as in Italy and Spain (see Section 4.4 above) could easily accept EMAS as a substitute.
- **Industrial emissions:** under the framework of the Industrial Emissions Directive (Directive 2010/75/EU), if some of them are reported under a written format to authorities. The example of Italy can be used: the Legislative Decree n. 152/2006, art. 29 decies sets reporting obligations and the EMAS environmental statement in some cases has already been accepted as a substitute by Competent Authorities, even if not officially written in the legislation.
- **Waste management:** under the Waste Framework Directive (Directive 2008/98/EC), MS have to implement waste prevention programmes and the example of Austria, which enables companies to report on waste prevention through EMAS (Waste management law), can be used.

In areas where reporting obligations would be difficult to include in the environmental statement because of the level of detail or another barrier, other regulatory relief options such as reduced inspection frequency or fast-track permitting should be considered (see Chapter 3).

2) Open the EMAS regulation to fulfil other reporting obligations

Because of the diversity of reporting obligations and the sectors they affect, the EMAS Regulation could be modified in the short term specifically to give organisations the option of including additional information in the environmental statement to fulfil other reporting obligations. To maintain flexibility, no specific additional requirements should be added to EMAS. However, Annex IV of the regulation could specify that organisations may fulfil additional requirements by, for example:

- Including in annexes data for authorities (tables, more detailed data, data collection methods, etc.)
- Adding additional detailed indicators, using the same units as required by relevant authorities
- Including ex-ante assessments and additional types of relevant assessments.

However, organisations would have to assess if this approach decreases their burden and if it is accepted by public authorities. At the time of the writing of this report, the European Commission and the MS were reviewing Annex IV, allowing for the possibility that this recommendation may already be incorporated at the time this report is published.

3) Encourage communication of good, “benchmarked” performance in EMAS environmental statements

In their environmental statements, EMAS registered organisations should be encouraged to draw direct references to their above-average performance (e.g. how they have gone beyond mandated legal compliance thresholds). In cases where compliance thresholds do not exist, organisations should be encouraged to demonstrate their contribution to achieving national goals (e.g. benchmarking their current CO₂ emissions to their emissions at the time they began to implement EMAS, thus showing how much they save per year, or to the industry’s average or best performances, using for example the benchmark of excellence included in the sectoral reference documents developed by the EC).

The EC and MS could assist organisations by providing guidance, including examples or templates, of how to illustrate this comparison in their environmental statements. This could be a template to illustrate the organisation’s contribution to circular economy including indicators such as:

- Amount of raw materials used per output produced and progress over the years
- Amount of waste produced per output produced
- Percentage of by-products and waste re-used, recycled and recovered (following the hierarchy of waste)
- Rate of recyclability of products put on the market (if applicable)

MS promotional efforts should include highlighting this proof of good performance. For example, the EC and MS could take the data from the environmental statements and extrapolate it for entire sectors, thereby quantifying how much energy, CO₂, waste, etc. could be saved if all organisations performed as well as those with EMAS.

4) Provide guidance on how to use EMAS in integrated reporting

Although separate from including reporting obligations in the environmental statement, one topic that came up frequently in interviews with regard to the environmental statement was the desire of both EMAS-registered and ISO 14001 organisations to produce integrated CSR or sustainability reports. Many organisations already produce comprehensive CSR reports as part of their broader company philosophy, public relations and reporting, with information similar to the EMAS environmental statement included. Separate EMAS reporting would be a burden for these firms that also have EMAS. It is also seen as an added burden because not all EMAS environmental verifiers were willing or able to audit the non-EMAS parts of the report (separately).

Providing clear, visible guidance on how EMAS registered organisations can integrate their environmental statements into sustainability or CSR reports and on how verifiers should

approach the question of auditing the entire report (according to EMAS for the environmental part and, for example, ISO 26000 for the rest) might alleviate some of this uncertainty.

5) Investigate options for digital reporting through EMAS

Parallel to targeted steps towards increasing awareness of EMAS among regulators, further steps are needed to address the challenges related to having two different potential audiences for the EMAS environmental statement. Organisations value having an environmental statement in electronic or paper form that they can distribute to external stakeholders such as clients or researchers. Including information intended for authorities would make the statements too long and too technical, even if authorities are willing to accept the statements as equivalent.

One solution for addressing both types of audiences with minimum effort would be to digitise reporting for EMAS, enabling registered organisations to upload many different types of data to a platform. Ideally, the platform would allow them to create a customisable environmental statement for the public that covers current EMAS reporting requirement, while converting or transmitting additional data to regulatory authorities. Organisations can choose which of this additional data they include in the public report, but all data may be verified by the environmental verifier prior to the on-site visit. The platform could also offer additional advantages for organisations, including easier validation, webinars, tools for implementing EMAS, options for futuristic environmental reporting (e.g. embedding videos to address their stakeholders), and interactive exchanges with other organisations to share tips and best practices.

Given the number of considerations involving both technical capabilities and EMAS information that need to be taken into account in the development of such a reporting platform, further in-depth and focused research on the technical options and political and administrative barriers to an EMAS online portal is strongly recommended.

As a first step, the EC could consider developing a project or working group aimed specifically at investigating the feasibility of a web portal available on an EC website that includes access for organisations, CBs, and environmental verifiers. This project should include MS as active participants and investigate whether regulators are willing and able to accept information from the portal and the costs involved in which communication. Environmental verifiers should also be consulted and encouraged to help investigate options for verification that are compatible with digital reporting.

Rather than examining specific existing software, the EC project could investigate options for developing a platform tailored to the specific needs of EMAS. A bespoke portal would also ensure that continued development will not have limitations imposed through the adaptation of another service. Additionally, a customisable interface will allow for a process through which environmental verifiers can be granted access to reports and verify them before they are transmitted to the CB.

Because the establishment of regulatory intelligence hubs in MS would of necessity be a longer-term goal, an EMAS web interface should have the potential to export Excel reports that could potentially be sent to relevant authorities. The development of the EMAS portal should also consider that, with the standardisation of XBRL in financial reporting and its potential for environmental reporting, creating an interface that produces XML based reports would allow for more seamless integration with future systems.

An EMAS portal could be designed so that companies can pick from a variety of different environmental statement templates that correspond to their own needs and requirements. Additionally, significant consideration should be given to the question of how to integrate existing reporting obligations that contain highly detailed information intended for regulators but not for the general public. One option might be to adapt the web portal so that information can, for instance, be easily changed to appear as a ratio in the official EMAS envi-

ronmental statement but be transmitted in different units or in greater detail to regulatory authorities.

4.7.2 Medium to long- term suggestions

1) Develop EU guidelines on reporting

To decrease the burden of reporting for organisations, reports such as the OREE white paper and stakeholders interviewed during the RAVE study recommended the following actions to ease the environmental reporting burden at EU level:

- Publish a guide on the common definition between the regulations and calculation methods, including in different MS
- Publish guides on the definition, collection and publication of data for specific sectors. GRI has several guidelines on sectoral reporting that could serve as inspiration, and the EMAS Sectoral Reference Documents could provide a basis for benchmarks, best practices and indicators

In addition, the guidelines for the non-financial reporting directive could be adjusted to recommend third-party audits and streamlined quality standards for auditors/verifiers, using EMAS as an example.

2) Increase authorities' awareness of EMAS and its added value

Given that interviews and surveys demonstrate that regulatory authorities are often unfamiliar with EMAS itself (see Sections 3.2.13 and 3.3.3), it can be assumed that most regulatory authorities are unaware of how information in the environmental statement overlaps with certain reporting obligations. Additionally, the overlaps on continuous improvement and the benchmarking of progress demonstrate that authorities could potentially make better use of EMAS to assess organisations' progress over time and identify good performers. However, both authorities and policymakers must first understand what EMAS is, how it works, and how EMAS can contribute to their goals before they can decide if they want to make use of the scheme in this manner.

One option to achieve a higher level of awareness would be for MS representatives and/or EMAS CBs to hold regular workshops and/or issue-specific working groups at which EMAS environmental verifiers and representatives of regulatory authorities from the national, regional and local levels come together to discuss what EMAS is, how environmental verifiers audit information, and the needs and expectations of regulatory authorities. Such workshops would also be opportunities to further investigate how benchmarking progress and legal compliance checks through EMAS could be of use to authorities in determining organisations' risk and identifying best performers, opening the door to better regulation. Inspiration could also be drawn from initiatives in the UK and the Netherlands province of Noord Brabant, as related in Section 4.2. Workshops would not only contribute to a more widespread and balanced understanding of the benefits of EMAS, including an emphasis on third-party verification, but also of its current limits in terms of legal compliance. The workshops could therefore facilitate the identification of shared and fair simplifications criteria

During these meetings, not only EMAS itself but also its added value in terms of third party verification should be emphasised. While most reporting obligations do not require third party verification, it nonetheless could present an added value in ensuring better data quality. Interviews show that some - though not all - regulators in MS such as Germany, Spain, and Greece already hold a high opinion of EMAS-registered organisations' data. Additionally, countries such as France and Denmark already require third party verification for CSR reporting (Danish Business Authority 2013). Such third party audits have been required for years in financial reporting; under the EU Non-financial Reporting Directive, the expansion of

reporting to social and environmental aspects is gaining in significance throughout Europe. If this trend continues, other countries may follow the path of France, with third party verification becoming the standard for non-financial reporting as well.

Reporting related to industrial emissions, done in the framework of permits, lead to regular inspections by public authorities and could thus benefit from an “outsourced” inspection. Finally in the reporting on water issues, laboratories conduct some tests and the EMAS verifier could check their conformity.

In each case, the added value presented by EMAS can only be realised if regulatory authorities recognise the added value of third-party verification. In interviews, regulators who were open to a form of self-reporting in turn expressed that they need guarantees of the standards under which environmental verifiers operate and see a pattern of continual compliance before they felt comfortable accepting a third party verification as equivalent to their own checks. Regular meetings between regulators, verifiers, and authorities representing EMAS can provide a first step towards recognising these synergies, the potential efficiency gains, and potential incentives for organisations with EMS certifications requiring vigorous third party audits.

3) Promote EMAS as a tool to achieve wider environmental goals

As seen in the previous point, many authorities lack awareness of EMAS and how it can be used to achieve their own objectives. As seen in Chapter 3, EMAS could be promoted by tying its objectives and collected data to other regulations and wider policy goals, e.g. circular economy or GHG reduction. Circular economy is a priority area in many MS and the study showed that stakeholders see high synergies between this environmental field and EMAS. For example, to encourage circular economy, MS may adopt a “circular economy agreement” modelled after the multi-annual agreement on energy efficiency in the Netherlands (see Chapter 4.4). Organisations would need to commit to decreasing their use of resources; EMAS-registered organisations could use the EMAS environmental statement to report on their progress.

4) Encourage the harmonisation of environmental data collection and transmission within MS

As a first step to a long-term solution to reducing the reporting burden for companies and use authorities’ resources more efficiently, MS should work to encourage centralised environmental databases and establish a regulatory intelligence hub. The exact form in which such a database should take and how this step should be achieved merits further investigation. Individual MS laws on data protection and options for guaranteeing the security of data would have to be investigated closely, but the RAVE research indicates that using a format such as XBRL would leave the door open for increased data sharing among countries and potentially with the EU in the future (for example on Eionet or in registries like the PRTR). If the MS databases were paired with new national central intelligence hubs for regulatory bodies, better data management could lead not to an elimination of jobs but rather to a more efficient and targeted use of resources.

Encouraging data sharing amongst regulatory bodies within individual MS would also have EU-wide benefits. Improved data sharing through the establishment of a regulatory intelligence hub, coupled with XML-based data sharing, could also increase the efficiency of MS reporting to Eionet’s Reportnet. Encouraging internal MS data sharing practices and moving towards international standards for data collection and management would ease the reporting obligations of companies and could reduce barriers to participation in an EMAS web portal in which companies can store their data, generate environmental statements and also send information to regulators.

5 Business opportunities

The present section of the report aims to contribute to an understanding of the role of EMAS in supporting registered organisations' business development through transparent environmental reporting, enhancement of the company's reputation and improved environmental performance. Previous studies have focused their attention on the connection between EMAS, market competitiveness and business opportunities; they have, however, provided conflicting evidences on the actual existence of a causal relationship between EMAS adoption and improved business performance.

Several studies (Renning et al., 2006; Iraldo et al., 2009) have confirmed linkages between superior environmental management, innovation, productivity and business performance (i.e. turnover increase, exports etc.). However, it is still debatable whether such relations can be ascribed to the specific features of EMAS (e.g. environmental statement, external validation, KPIs) or are, rather, connected to the development of internal managerial and organisational capabilities associated with the implementation of a standard-based EMS.

In particular, previous studies have systematically overlooked the potential role of the externally validated environmental statement as a platform for business partners' engagement. Similarly, the disclosure of specific environmental indicators has not been investigated as a potential trigger of business opportunities and partnerships.

In order to contribute to this debate, the present section presents eight qualitative case studies focused on investigating the role of EMAS, environmental reporting and stakeholder engagement in the achievement of the business objectives of a small sample of successful EMAS-registered companies. To this end, the EMAS companies selected for the case studies represent "best in class" organisations in their respective industries (pharmaceutical, energy, automotive, furniture, hospitality, dairy, homecare and waste recycling) in five different EU Member States: Austria, Belgium, Germany, Italy and Spain.

Methodology

For the sake of investigating the role of EMAS in supporting companies' competitiveness and new business development, the selection of the eight "best in class" companies relied on several criteria. Besides being registered with EMAS, companies were selected on the basis of their business performance in recent years. To this end, a preliminary list of EMAS-registered companies that have attracted media attention for their business success was created. The consolidated balance sheets of the pre-selected companies were then checked (by means of the AMADEUS database) in order to exclude those companies that did not actually experience a positive growth trend, in terms of turnover, in recent years (i.e. from 2012 to 2017). In this sense, the increase in turnover was adopted as a proxy for companies' improved competitiveness or new business development. Then, a further round of selection was used to create a highly diverse sample of organisations in terms of industries, business models (i.e. business-to-business (B2B), business-to-consumer (B2C), non-profit), location and size. Finally, the team contacted and invited selected companies to participate in the study. The overall process led to the selection of eight companies. One of the eight companies, a large German B2C company, was interviewed but asked not to have its specific data included in the report.

Table 64: Selected companies

Name	Size	Country	Industry / Sector	Business model
Company A	Large	Italy	Pharmaceutical	B2B
Company B	Small	Italy	Energy	B2B
Company C	Medium	Austria	Waste management	Non-profit
Company D	Large	Spain	Automotive	B2B
Company E	Medium	Austria	Homecare	B2C
Company F	Large	Belgium	Hotel	B2C
Company G	Small	Belgium	Furniture	B2B

The construction of the case studies relied on a mixed methodology based on the analysis of companies' reports and communication channels (such as environmental statements, consolidated balance sheets, websites and other communication channels) and on interviews with members of the organisations. A common interview protocol was therefore adopted for carrying out the interviews. For the sake of the case study, the interview protocol comprised four different sections:

- 1) **Business opportunities or improvements in existing business segments** – Interviewees were asked to explain the reasons behind the recent growth of the company and the steady increase in turnover, and to indicate the most recent and relevant business opportunities developed by the organisation. In particular, the interviewee was asked to explain whether the growth of the company was linked to an expansion of already existing business segments or to the introduction of new products or services in the market. For instance, potential business opportunities could include: increased export opportunities, access to new markets, opportunities for industrial symbiosis, etc. The interviewees were then asked to provide quantitative information regarding the growth of the business (e.g. percentage increase in turnover, percentage decrease in costs, increase in number of clients, increase in number of geographical markets).
- 2) **EMAS reporting and stakeholders** – Interviewees were asked to identify and list the stakeholders that played a crucial role in triggering and supporting business growth. Such stakeholders could include institutional stakeholders (such as regional, local or national authorities), market stakeholders (such as clients, distributors and suppliers) or civil society (e.g. media, local communities). Interviewees were then asked to indicate whether such crucial stakeholders were engaged by the environmental statement and what kind of environmental indicators were included in the environmental statement in order to target such stakeholders.
- 3) **EMAS reporting and business opportunities** – This section aimed at understanding the specific role of EMAS transparent reporting requirements in triggering and supporting business growth. The interviewees were asked to evaluate the contribution of EMAS registration to improving the company's image and brand reputation.

Furthermore, the potential modifications of EMAS and its reporting requirements aimed at improving its communication and engagement potential were investigated.

- 4) **EMAS features as potential drivers of business opportunities** – Finally, the interview protocol investigated EMAS features other than the environmental statement that could have triggered or supported the company's business growth. Such features could include continuous environmental improvement, improved legal compliance management, employee involvement and training, etc. Similarly, interviewees were asked to identify potential business opportunities that EMAS could help trigger and support.

Once collected, interview data were analysed and condensed in short case studies, according to the following table of contents:

- **Introduction** – presenting general information about the company concerning its history, its positioning in its own sector, its business model, and the scope and scale of its activities;
- **Business opportunities or improvements in existing business segments** – explaining the company's business strategy and the reasons behind the company's business growth in recent years;
- **Role of EMAS reporting and stakeholder engagement** – focused on identifying the most relevant stakeholders for the company and the role of the environmental statement and environmental reporting in engaging such stakeholders;
- **EMAS as a driver of business opportunities** – finally, providing conclusions on the role of EMAS in supporting the company's business strategy and triggering the growth of the business.

5.1 Case Studies

Company A

1. Introduction

Company A is a large pharmaceutical company specialised in biomedical research and the production of biopharmaceutical products encompassing several biomedical sectors, including immunology, oncology, neurology and virology. Company A was created in 2013, following the breakup of an American multinational pharmaceutical company. Company A is currently a subsidiary of a US-based multinational company, which markets its products in more than 170 countries and employs more than 30,000 people worldwide. In Italy, Company A has been present since 1947. Since 1963, it has been operating one production site in central Italy, which currently employs around 1,300 people and exports to 110 countries.

Both at the corporate level and at the subsidiary level, Company A's environmental management is oriented towards supporting the business's long-term strategic objectives. To this end, Company A's approach to environmental management envisions close collaboration among the departments more closely related to the core activity of the company, namely pharmaceutical production, such as maintenance and procurement. The main environmental commitments of Company A focus on reducing water and energy consumption, as well as pollutant and waste production throughout the production process. In this regard, the company can boast a 46 per cent reduction in water usage, in the decade from 2005 to 2015, and currently up to 95 per cent of its production waste is sent to recovery, despite the ever-increasing scale of production.

As proof of its leading-edge commitment to environmental improvement, Company A became the first organisation in the pharmaceutical industry to achieve EMAS registration in 2006 as a complement to its ISO 14001 certification. The interviewee currently works as the Environment, Health & Safety (EHS) Manager for the Manufacturing & Commercial unit of Company A.

2. Business opportunities or improvements in existing segments of business.

The continuous growth of Company A is driven by its constant commitment to research and innovation in very specific fields of medical research. In recent years, Company A has relied on the introduction of several new pharmaceutical products in expanding market segments at home and abroad. Indeed, exports current account for around 80 per cent of the company's annual turnover. A growing share of Company A's activity focuses on developing specific pharmaceutical products for rare diseases and chronic critical illness (such as hepatitis, psoriasis and autoimmune diseases).

3. Role of EMAS reporting and stakeholder engagement.

Company A's success is driven by its continuous collaboration with associations of patients, medical associations, specialised doctors and hospital doctors. Attention to the needs of these stakeholders drives Company A's research efforts towards developing innovative solutions for the biopharmaceutical sector. Company A's external communication targets these categories of stakeholders via diverse channels, always conveying information concerning its environmental performance and its improvement objectives.

However, Company A does not consider the environmental statement to be the most suitable channel for engaging such stakeholders. Despite the serious efforts put into editing the document, the environmental statement is considered too lengthy and technical for addressing a wider non-technical audience. Nevertheless, the indicators collected in the environmental statement serve as the basis for all of the company's other environmental communications. In order to convey its environmental commitment to a wider public, Company A annually publishes a short version of its sustainability report online, containing the highlights of the environmental statements. In particular, this document contains the company's annual environmental improvement objectives (shown in quantitative terms), the state of its current operations compared to their objectives, data on the improvements already achieved, and information on the state of their different certifications. Such highlights are often presented at conferences and events in which the company participates.

4. EMAS as a driver of business opportunities

Company A's product portfolio offers biomedical solutions for rare diseases, autoimmune diseases and chronic illnesses. Consequently, Company A's products are not directly commercialised to final users through pharmacies, but are marketed to hospital-based and specialist doctors, who then prescribe the medicines to patients. This particular positioning dictates the marketing strategies Company A is able to pursue, including in terms of its environmental commitment. Indeed, given the characteristics of the overall pharmaceutical market, the company's environmental improvement efforts are not internalised in its products' price in the form of a surplus, as in traditional consumer products, nor are its marketing efforts directly addressed to final users.

In this sense, EMAS registration is not directly related to Company A's business success in recent years. Nevertheless, Company A's environmental commitment, as well as EMAS, plays a valuable role in the growth of its business from two perspectives. From an organisational perspective, Company A's continuous environmental improvement has contributed significantly to enhancing its operational performance. In particular, the waste reduction objectives set forth in the EMAS framework are pointed out as a major relevant leverage of cost reduction within Company A. The achievement of such objectives has therefore considerably affected the overall competitiveness of the business, enhancing growth opportunities for the Italian production site.

From a marketing perspective, both Company A's environmental improvement objectives and its achievements constitute a fundamental part of the company's external communication. According to Company A, the company's success is driven by its innovativeness and reputation for quality and excellence. Its commitment to environmental improvement and resource efficiency is therefore an integral part of the company's competitive stance, of its orientation towards excellence and long-term value creation. These are the defining features of the company's overall solidity in the eyes of Company A's most relevant stakeholders, which include associations of patients, medical associations, specialist doctors and hospital-based doctors.

Company B

1. Introduction

Company B is a small Italian small company operating in the renewable energy and waste treatment sectors, and specialised in the production of biogas and energy products from recovered organic waste. Company B is part of a larger Italian Group that, by means of its daughter companies, is committed to developing innovative solutions for the environmental, agricultural, waste and energy sectors. The Group annual turnover is currently around €10,000,000, of which €4,000,000 is made by Company B, and is characterised by a constant growth trend. Currently, at the holding company level, the Group employs around 40 people, while Company B employs around 20 people. The interviewee is currently employed as the Health, Safety and Environment (HSE) manager of Company B.

Given the specificities of the sectors in which the company operates, the environmental management of Company B plays a crucial role in the achievement of its business objectives, as well as in the preservation of important institutional relations. To this end, the company obtained its first EMAS registration in September 2008 as a further step beyond ISO 14001 certification. Due to its commitment to the promotion of the circular economy in Europe, the European Commission honoured Company B with the European EMAS Award in 2017.

2. Business opportunities or improvements in existing segments of business

The recent growth of Company B is connected both with the expansion of its main business activity (i.e. production of renewable energy) and with the launch of new business segments related to organic waste recovery services and the production of energy products from recycling organic waste derived from the agricultural sector.

In line with the circular economy paradigm, Company B commercialises innovative energy products that are made from agricultural waste but have the same performance and functional characteristics as traditional products. In order to sustain the growth of this newfound business segment, the company has acquired and activated several new plants in the Lombardy region since late 2015.

3. Role of EMAS reporting and stakeholder engagement.

In the experience of Company B, environmental management plays a twofold role in supporting the company's growth in its newfound business segment. First, it attends to technical and normative issues related to the company's activities (e.g. environmental permit procedures for new plants). Second, it facilitates interaction with stakeholders that are crucial for achieving business growth, namely municipalities, local communities and business clients, especially in sensitive sectors such as the waste and renewables sectors.

In this latter regard, EMAS registration per se serves to signal an "above compliance" level of environmental performance and ensure transparency in environmental reporting with local authorities and communities. Most importantly, however, it provides support in overcoming distrust from new potential clients. More specifically, innovative renewable energy products may struggle to compete with more traditional products (i.e. products made from "virgin" raw materials), given a prejudicial distrust towards the performance of renewable energies and recycled materials derived from waste. Therefore, in the case of Company B, EMAS registration contributes to signalling the quality, reliability and virtue of the company, its activities and its processes in the eyes of potential new clients.

On the other hand, the environmental statement is not considered to be an effective tool for engaging institutional stakeholders or civil society, as municipalities and local communities may lack knowledge of the technical aspects of environmental management. Therefore, Company B adopts other forms of communication and engagement that are considered more effective, such as conferences (for instance, on the topic of biodiversity) and events, including open house days at the company's facilities, which are addressed to local authorities and communities. Similarly, the EMAS Award has been very effective in attracting interest and recognition from local authorities, even in small municipalities, which have thus appreciated Company B's commitment to the application of the circular economy within the agricultural sector.

4. EMAS as a driver of business opportunities

The case of Company B highlights two useful conclusions on the role and limits of EMAS in supporting business opportunities. First, EMAS does not only serve a technical role as an internal tool for environmental monitoring and management, but also a relational role in signalling environmental commitment and reliability to external potential business partners and other registered organisations. Organisations should therefore take advantage of EMAS registration as an opportunity to realise and nurture synergies with companies within the EMAS community, and to demonstrate the reliability of their business activities and operations. In this regard, EMAS registration could spur opportunities for industrial symbiosis through the transparent exchange of verified environmental information among business partners.

On the other hand, one limitation of EMAS concerns the understanding of the environmental statement as either a marketing tool or a stakeholder engagement tool addressed to local institutions and local communities. Indeed, given a lack of knowledge of EMAS, of its functioning and its technical specificities among such categories of stakeholders, the environmental statement may not be an attractive communication platform due to its technical outline. This conclusion may be especially relevant for small organisations like Company B, which more often interact with small rural municipalities. Organisations have to come up with more direct and inclusive modalities for territorial engagement, taking advantage of EMAS as a valuable and influential source of verified data and indicators that are to be conveyed through different, more attractive, channels.

Company C

1. Introduction

Company C organises the collecting and recycling of used glass packaging throughout Austria. Company C is part of a network that also includes municipalities, private and municipal waste-collection companies, research institutions and the glass industry. Company C is a non-profit company and generated a turnover of € 24.7 million in 2016. On behalf of Company C, private and municipal companies collect waste glass from private households and companies and deliver it, according to demand, to glass factories mainly based in Austria. After sorting out inappropriate material, the glass bottles are used as secondary raw material to produce new ones. Glass can be recycled repeatedly without a decrease in quality. Since 2001, Company C has been part of EMAS. It has won several awards for its environmental and sustainability reporting. Besides EMAS, Company C is also certified according to ISO 14001 and ONR 192500.

2. Business opportunities

Company C organises the collection and recycling of used glass packaging in Austria. Thus, its market is clearly defined and has boundaries. It is not looking for new business areas or new markets to enter. However, it is constantly working on the improvement of its daily business. These efforts include innovations through stakeholder dialogue, regular stakeholder events and surveys on key issues, quality assurance and environmental protection for the entirety of disposal and delivery logistics, adequate public relations and information activities for the target group, transparency and credible reporting beyond the statutory scope through an annual audited sustainability report, and many more activities. Recently, there has been a change in the Austrian packaging ordinance, which has allowed more companies to enter the market. Facing more competitors in the market, Company C is focusing on its long-standing environmental and sustainable expertise to ensure high-quality services.

3. EMAS Reporting

Company C believes that there is no single all-round solution regarding the environmental statement. Thus, the environmental statement is mainly targeted at waste consultants, as they are the main multipliers in their field of industry. Waste consultants work with municipalities, the local community, schools, etc. If it tried to reach all stakeholders with one tool, the environmental statement would become too big and incomprehensible. Nevertheless, the environmental statement is the main information source for all of COMPANY C's communication activities. When Company C addresses other stakeholders, it uses the information from the environmental statement and edits it according to the needs of the targeted stakeholder. Before Company C had EMAS, there was only one marketing flyer, which never changed. Now there is an annually updated communication tool with validated information, which is a huge benefit for Company C.

Main stakeholders:

Waste consultants: The environmental statement is the main source of information for waste consultants, who use it on a regularly base, especially the general glass recycling explanations, the collection and recycling figures, and KPIs.

CEOs of partner organisations: Company C has made the design of the environmental statement clearer and more structured to make it interesting to CEOs; COMPANY C has also added some figures from the annual accounts.

Employees of the partner organisations: They are another important multiplier for Company C. They use the environmental statement to explain the collection and recycling systems in the training of their employees, for example truck drivers.

Municipalities: The waste consultants work for the municipalities. The slots for the glass bins are allocated by the municipalities. Thus, there is an ongoing dialogue about the waste systems and slot allocation. The environmental statement is used for this dialogue.

Producers of glass packaging: They are very grateful for the environmental statement, as they use the general information for marketing and communication activities.

Company C positions itself as the most sustainable and environmentally friendly solution among its competitors. Thus, validation and credibility are very important to Company C. The environmental statement encourages quality assurance due to transparency and public

communication. In the future, producers will look for KPIs showing investments (monetary and non-monetary) in ecological and sustainable development. The performance reviews of executives should also be linked to sustainable and ecological achievements.

4. EMAS as a driver of business opportunities

Company C points out that organisations are forced to look for improvements due to the continuous improvement process. This pressure leads to quality improvements, innovations and, thus, business opportunities. Open communication also assures quality improvements. The main benefit for Company C is the environmental statement. It quickly became the main communication tool from which information for all kinds of marketing or communication activities are sourced. Company C's relationship with its stakeholders has been fostered through the high quality of its environmental statement and through regular stakeholder dialogues. Stakeholders even address Company C with suggestions for the next environmental statement and regularly give feedback on the current statement.

Company D

1. Presentation of the organisation

Company D Corporation is one of the world's largest automotive components suppliers, with headquarters in Kariya, Japan. It has facilities all over the world, including North and South America, China, India and Southeast Asia. Company D Barcelona was established as a subsidiary in June 1989 in Sant Fruitós de Bages, which is located around 60 km from Barcelona. The Spanish site of the Japanese firm has undergone eight expansions (first in 1991 and most recently in 2014) that have enabled it to adapt to meet new challenges. Originally, Company D produced only a single product – the ignition coil for Ford. Today, with more than 700 employees, the company manufactures a number of different products in both the electronic and the powertrain categories, including electronic control units (ECU), meter clusters, stick coils, oxygen sensors and air flow meters for a diverse set of customers. The company's current annual turnover is 334 million euros (fiscal year 2016).

Company D Barcelona achieved EMAS registration in 2000, and the company has also been ISO 14001 certified since 1998 and ISO 50001 certified since 2016.

2. Business opportunities or improvements in existing business segments

The economic crisis affected the company's activity, but it was able to recover, and current economic and sales results exceed those before the crisis. The reasons for the business growth have been both internal and external. From the internal point of view, three aspects have been crucial, the products diversification strategy, the in-house production of certain parts and components instead of outsourcing them, and the constant reduction of costs with efficiency improvements, particularly those related to energy. From the market perspective, other aspects have contributed to these positive results: vehicles increasingly incorporate electronics into their operation, comfort and safety systems and, in addition, innovation in hybrid and electric vehicles has led to an evolution in this type of equipment. Brand reputation is essential, and Company D Corporation is one of the top five suppliers of the automotive sector. Also, the site's reputation within the corporation is key when it comes to the decision of allocating production to the different sites. Having a robust environmental management system definitely contributes to the site's efficiency and to a lower risk level. It is important to note that since fiscal year 2014, Company D Barcelona has been promoting addi-

tional added value for the plant through the creation of the research & development department. This new function is creating a capable and multi-skilled team to develop and maintain engineering capability in the plant, under the organisation of European Electronics Engineering. The main focal points are the development of hardware design capability and prototyping functions for European customers. In the future, this will make it possible to have more control in the design phase, and thereby enable potential environmental improvements in the final product.

3. Role of EMAS reporting and stakeholder engagement

The reference standard for environmental management systems in the automotive sector is ISO 14001, so neither customers nor the Company D headquarters have ever asked for the EMAS registration of the site; this decision has been made at the local level.

Customers and providers are at the centre of business growth and the development of business opportunities, and Company D Barcelona provides them with the specific relevant information that can affect them from an environmental point of view. Customers periodically request the EMS certification (ISO 14001), and some ask for more detailed information, mainly in relation to substances of concern (REACH) and the end-of-life vehicles rules. In this case, the measurement and monitoring procedures make it possible to provide reliable data and information quickly. Unfortunately, customers never directly ask for the environmental statement.

Providers usually receive specific information related to the products and services requirements and the operational procedures of the site. This ensures the environmental quality of activities, and thereby ensures the site's results.

All Company D's sites are requested to report environmental data to the company headquarters for analysis and assessment. A corporate report is then prepared, and new objectives and plans are defined. In this sense, Company D Barcelona is at an advantage by having a reliable data collection and analysis system, which is also verified by an independent third party, so that even if the environmental statement is not the communication tool used for this purpose, the work behind it ensures the quality of the information. In the case of SCR reports, a lot of information is obtained from the environmental statement directly. Besides the data sent to headquarters, the ongoing tasks related to environmental monitoring provide valuable information about the organisation's monthly control.

4. EMAS as a driver of business opportunities

Company D operates in a B2B environment; from this perspective, efficiency and accurate control of the organisation's activities positively influence the business results because they increase the organisation's competitiveness and reduce its risks. These can be obtained with different environmental systems, but Company D Barcelona has benefited from another added value provided by EMAS: being part of an EMAS community. Being able to interact with other EMAS organisations, with the administration and other interested parties, has enabled the site to share experiences and knowledge, face different areas of work and improvement, and optimise resources.

Both EMAS-registered organisations and public administrations should work together to increase the visibility of EMAS in certain sectors and to demonstrate its added value. Moreover, recognition through administrative simplification and avoidance of requiring information in different formats should be a priority since this represents a waste of time and resources for companies.

Company E

1. Introduction

Company E, based in Hallein near Salzburg, is the Austrian subsidiary of an international Group. Founded in 1953 as the second production site of the larger Group, the Austrian subsidiary has grown to around 160 employees and now has sales responsibility for a total of 15 countries. In addition to Austria and Switzerland, the Czech Republic, Slovakia and Hungary, the countries of the former Yugoslavia, Albania and Bulgaria are also looked after from Hallein. The consumer division focuses on private end consumers. Care and cleaning products are offered through several well-known brands. The professional division offers professional wholesale customers in the commercial cleaning and commercial kitchen sector special products, application training and other useful services. In 2005, Company E introduced EMAS; it has won several EMAS awards since then.

2. Business opportunities

Company E and its business are constantly growing. The main focus lies on ecological cleaning products. Company E strives to be the leader in the sector of ecological cleaning and care products. Thus, they have a number of certifications: Ecoflower, Cradle to Cradle, Austrian Ecolabel, ISO 14001, ISO 9001 and EMAS. They seek a comprehensive approach to sustainability. As there is not one comprehensive sustainability label for cleaning and care products, they use several labels and certifications to cover all areas of business. They have chosen EMAS as it is more demanding and an advanced system. With EMAS they can especially monitor the supply chain and the production. Other systems or labels do not put a focus on the life cycle, but only on the ingredients of the product. EMAS also covers logistics and transports, a very crucial topic for Company E and one of their future challenges. Company E prefers EMAS over the use of the Ecolabel (which is, in their words, a “beginner label”). The requirements for the Ecolabel are much lower, so many non-sustainable competitors qualify for the Ecolabel. EMAS is more demanding and shows an in-depth ecological commitment. However, the Ecolabel can be used on the packaging, while the EMAS logo cannot be used there. Thus, the Ecolabel is important for reaching consumers in stores.

3. EMAS Reporting

Company E is very satisfied with the environmental statement. It is very extensive and includes a lot of different information. Thus, they mainly use a shorter version for their communication activities as the original version is too complex. Information about the company and its products, values and beliefs is used from the environmental statement to reach all of the stakeholders. The environmental statement has triggered a transparency effect. Because the organisation knows that the environmental information will be published, they want to improve their performance. This leads to constant improvements in quality.

Main Stakeholders:

Retail industry: The retail industry decides which products will be sold in the stores and negotiates with Company E for shelf space. The retail industry is very interested in certificates, labels and management systems. They appreciate validated information they can trust. Therefore, the environmental statement is a good communication tool for negotiations with retailers. Some retailers do not know EMAS, but the negotiation process gives Company E time to present EMAS and show its benefits.

Consumers: The best way to communicate with consumers would be through the packaging design. Company E would like to use the EMAS logo on their products so that consumers could see it. Many consumers do not know EMAS as they are more familiar with the Eco-label. Putting the logo on the products would lead to multiplication effects. The environmental statement cannot reach as many consumers. Still, they use information from the environmental statement for their marketing information directed at consumers.

Suppliers: Company E's suppliers receive the environmental statement. Depending on the type of supply, some of the suppliers are obligated to be EMAS-registered. Others are motivated to introduce EMAS or at least have high ecological standards. Company E works very close with their suppliers, for example by cooperating on recycling.

NGOs, Media, Neighbours: Company E sends them the environmental statement.

Authorities: EMAS reporting and information are used for communication with local authorities and for permits. Permit processes are easier and more structured because of EMAS, especially regarding the topics of water, waste and energy.

Employees: Because of regular EMAS audits, all employees are prepared and informed about EMAS. When implementing products or processes, employees already prepare for the next EMAS audit. These preparations often trigger innovations.

Company E is satisfied with the current structure of EMAS reporting. They think more KPIs or information would make it too complicated, too confusing and more complex. However, they would like more EMAS marketing. EMAS should be better known among consumers. As they cannot print the logo on their products, they hope that those responsible for marketing EMAS will undertake more marketing activities.

4. Role of EMAS in generating business

When Company E first implemented EMAS, they mainly focused on the KPIs. As EMAS kept developing within the organisation, Company E learned how to handle it and how to work with it. Through the environmental programme and goals, they were able to constantly improve their performance. Moreover, they learned how to communicate EMAS and how to demonstrate its added value. The transparency requirements also triggered quality improvements and innovations.

Company F

1. Introduction

Company F is a family-owned hotel group with 350 staff members that operates 10 hotels in Belgium. It offers luxury accommodation and services, such as restaurants, spas, golf courses and meeting and event facilities. Its turnover has increased by 19 per cent in recent years. This development can be explained by investments in marketing and communication. The company has hired new sales agents to target business and leisure clients, and has increased its communication efforts, for example through a new website. The group Company Fs has been EMAS-registered since 2012, and has integrated EMAS into its sustainable development strategy, "Tomorrow needs today".

2. Business opportunities

According to the interviewee, Sustainability Project Coordinator of Company Fs, EMAS is very useful to the company in managing its operations and planning investments to comply with legislation, but is not yet useful for its commercial activity because of very low awareness on the part of its clients and other partners to EMAS. The company has had to develop other, more easily understood tools to raise its clients' awareness of sustainable development. For example, it has developed an "Eco-bon programme" where guests are encouraged to reduce their environmental impact through simple gestures that are then rewarded with gift vouchers.

EMAS, however, contributes to the company's reputation. After staying at a Company F and learning about its sustainability strategy, guests express very positive feedback. The company experiences the same reaction from investors and owners of the hotels that the group operates. While the efforts to make them aware of EMAS are significant, once they know that the company has a better structure and better legal compliance thanks to EMAS, they value the security provided by the tool. Other stakeholders (suppliers, public authorities, tour operators) have also a low level of awareness about EMAS, and the company has therefore not been able to trigger many business opportunities through EMAS.

One missed opportunity it reported is the potential partnership with EU institutions. Company Fs has been able to contract with one unit of the European Commission, but the demand for sustainable accommodation from role model institutions could be much higher.

3. EMAS reporting and stakeholder engagement

The environmental statement is currently used to communicate the performance of the organisation to employees. A lighter report is published for clients on the website. It includes less data and information on legislation, but more "stories" about how the company improves its environmental performance. Unfortunately, Company Fs has received a low level of feedback on this report, and this creates additional work. The environmental verifier wants to see both reports, the full one and the simplified one, so the company needs to work on the content and design of both documents at the same time.

According to the company, the information that most interests its clients is the information related to employees, the indicators on resources and waste, and the projects carried out to improve sustainability and raise guests' awareness, for example the sourcing of local products for the restaurant.

4. EMAS as a driver of business opportunities

As in the case study on Company G, it can be questioned whether EMAS can be used as a communication tool to the wider public. The organisation can, however, use the information collected in the framework of EMAS in other forms of communication adapted to their target audience.

Company G

1. Introduction

Company G is a subsidiary of a Belgian holding company, which consists of four companies specialised in moving, logistics and providing office solutions to other companies. The holding company employs 152 people, of whom more than thirty work at Company G. Over the last three years, Company G's turnover has tripled to 2.6 million euros. The holding company has been EMAS-registered since 2010, and since its foundation in 2012 Company G has also been EMAS-registered. Our interviewee is currently working as the sales and marketing director of Company G.

Company G remanufactures new office furniture items from old office furniture that has been discarded. Sometimes the materials are only 'upgraded' so that, for example, a new desk can be made out of an old desk, but in other cases materials are thoroughly overhauled. Desks can, for example, be used to create sitting areas (see figure below), with the desktop plating used to make the partitioning surrounding the benches in the sitting area.



Example of Company G remanufactured furniture - The materials in the desk (left) have been used to produce the sitting area (right).

2. Business opportunities

Company G as a whole was a business opportunity for the holding company, which originated from the wish to solve the company's waste problem. When the holding company expanded its activities in office furniture, more and more clients also wanted to dispose of their outdated furniture, which amounted to two large shipping containers full of furniture items to be sent to waste treatment each month. In 2012, Company G was founded to utilise these large volumes of old, but still valuable, waste furniture in a more circular way. Currently, the majority of the unwanted furniture can be reused, which has reduced the amount of waste by a factor of eight.

Before the founding of Company G, environmental awareness within the holding company was already growing, partially because of EMAS as an environmental management system, but also because the company started calculating its carbon footprint to get a better picture of its own environmental impact, and because a management team committed to reducing this impact. Together, these changes helped direct the company along an environmentally friendly path.

Initially, the founding of Company G was driven by the internal ambition of the holding company to reduce its environmental impact. The innovative business model of Company G has now made it a frontrunner in the field of sustainable business, which provides it with new

clients who are specifically looking for companies operating sustainably, as reflected in the large growth that Company G has seen in the last few years. In the meantime, governments have become more and more interested in procuring their inventory from Company G. The Belgian political party GROEN, for example, is committed to purchasing all of its equipment from COMPANY G because of the company's superior environmental characteristics.

3. EMAS reporting and stakeholder engagement

The environmental statement is seen by the company as an important tool to monitor its environmental performance and to pinpoint which areas offer the most room for improvement. The fact that Company G takes the environmental statement seriously is also reflected in the fact that it is written by the company's CEO, who sees it as his personal mission to reduce the company's environmental impacts.

Due to its high level of detail and its length, the EMAS statement is 'not sexy enough' to attract the attention of the wider public. Therefore, Company G uses other types of communication such as newsletters to inform clients and other interested stakeholders on a regular basis about Company G's latest activities and make them more aware of circular economy opportunities and possibilities in general. Nevertheless, the holding company does use the EMAS statement for drawing attention to its achievements in the environmental field by mentioning the media coverage Company G has received and the prizes it has won for its innovative business model.

In the opinion of the project team, a strength of the holding company's environmental statement is that it clearly reflects the company's ambition to improve. On every point, it clearly explains what still needs to be improved and how the company is planning to do this. Company G also has the ambitious plan to incorporate a life-cycle assessment into its offers to clients in order to demonstrate the reduction in environmental impact they achieve by buying a Company G furniture product instead of a product made from virgin materials.

Although it was hard for Company G to point out the most important parameters in the environmental statement, figures related to resource efficiency and waste management are clearly the most relevant parameters for Company G. For other daughter companies of the group, for example, the moving companies, vehicle emissions were among the most significant impacts. This shows why it is good that the EMAS statement covers a wide range of environmental impacts, some of which might be more relevant for particular companies than others.

4. EMAS as a driver of business opportunities

In terms of the added value that EMAS has, there are a few important conclusions we can draw from this case study. First of all, Company G is a clear example of the fact that EMAS can act as a driver of change towards better environmental outcomes. Still, EMAS remains merely a tool and the impact that its use will have in a company depends strongly on the company's ambition level and vision concerning its environmental performance and goals.

Another useful conclusion is that EMAS is designed as an environmental monitoring and management tool, not directly as a marketing or communication tool. The high level of detail in the EMAS system provides companies with a comprehensive tool to monitor their environmental performance and manage their impacts, and the EMAS statement provides them with independently verified proof of the assessment of these impacts. However, it is questionable whether the EMAS environmental statement is also suitable for use as a tool to communicate and market a company's environmental impacts to the broader public. Instead,

companies can indirectly use the information and trustworthiness of the EMAS statement in other forms of communication such as promotional movies, newsletters or web pages, which can then explain the company's environmental achievements in an attractive and accessible way.

5.2 Analysis and conclusion

This chapter of the report aims at contributing to understanding EMAS reporting as a potential driver of business opportunities. Although the data did not enable conclusive remarks on the effectiveness of the environmental statement as a trigger for business opportunities, the evidence indicates that registered organisations are not currently achieving new opportunities or improving their business through the environmental statement. Nonetheless, the case studies provide several insights on the role of EMAS in supporting companies' business development, growth and stakeholder engagement.

The case studies found no evidence of a direct relationship between EMAS registration and commercial opportunities. Regardless of the reasons behind business growth, none of the companies involved identified EMAS as an effective driver of business development. This result is mainly associated with a lack of awareness of EMAS among stakeholders, particularly clients, both in a B2C and B2B setting. On the other hand, EMAS has an emerging relevance from a business perspective for two distinct reasons:

- First, EMAS implementation is associated with improvements in the company's operational performance, especially in terms of resource efficiency and waste management, which are directly related to cost and risk reductions (e.g. environmental risks, risks of non-compliance, etc.) and, eventually, to the economic performance of the company. In this sense, EMAS is identified as a performance monitoring tool that contributes to the business performance of the company from an internal perspective. Similarly, the commitment of the company to training and involving employees on environmental matters, as a requirement of EMAS, appears to be somehow connected to quality improvements, innovation and risk reduction. This finding supports similar conclusions in previous studies (Renning et al., 2006; Iraldo et al., 2009; adelphi and S. Anna School of Advanced Studies 2015).
- Second, EMAS registration is highly valued for improving companies' reputation, brand image and trust in the eyes of stakeholders. According to the interviewees, public attention to sustainability is increasing in parallel with interest in environmental certifications and with requests for the disclosure of environmental information. The case studies highlight that, both in the B2C and B2B contexts, the registered companies' efforts in spreading awareness of EMAS are indeed successful in attracting clients' interest to the scheme, despite the initial lack of awareness. In this sense, several case studies provide valuable examples of the role of EMAS in supporting companies' commercial activities by enhancing the image of the company as a reliable, transparent and virtuous business partner.

Concerning the role of EMAS reporting, the case studies reveal that the environmental statement is not considered an effective tool from a marketing perspective, due to its length and technical content. Therefore, most of the organisations prefer to produce a more reader-friendly and condensed version of the environmental statement addressed to the public for marketing purposes. This procedure is emerging as a common best practice among most of the companies that participated in the present study. Despite the fact that organisations are not adopting the environmental statement as a marketing tool, they do use the statement as

the main source of environmental indicators, data and information. Consequently, the companies extract data from the environmental statement and convey it through other communication channels. Furthermore, organisations value the external validation of the data included in the environmental statement highly as a guarantee of quality and transparency.

In terms of potential future opportunities, the case studies demonstrate that EMAS could have a more active role in the commercial activities of registered companies. In particular, the case studies confirm the importance of enhancing institutional efforts for promoting EMAS at the EU level in order to increase awareness and appreciation of the scheme. In this sense, institutional support for EMAS is emerging as a crucial measure for enhancing EMAS capacity to support business development. Second, the case studies suggest that a more active and synergetic EMAS community (i.e. the community of all EMAS-registered organisations) could be an important driver of EMAS adoption. According to interviewees, EMAS-registered organisations could leverage their participation in the scheme in order to develop synergies, exchanging best practices and networking for common purposes. EMAS Clubs, which already exist in several MS, could be ideal for this purpose. Both the EC and MS should therefore reach out to EMAS-registered organisations and encourage, promote and potentially incentivise the establishment of such clubs, while existing Clubs could network more frequently among themselves and in communication with the EC to spread best practices and encourage replication.

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Annex I Analysis of survey response rates

I.1 Survey of EMAS organisations

In order to determine the reliability of the survey to EMAS organisations, the profile of the respondents have been analysed in terms of country of origin and organisation size.

Response rate by country

In a country-by-country comparison, the response rates span the complete range of 0-100% (see Table 65 below). Most cases with extremely low (0%) or very high (100%) response rates occur in countries with low registrations numbers (fewer than 20 organisations). Among countries with medium (20-200) or high (more than 200) registrations, response rates in ranged from 6% in France to 37% in Portugal, with roughly even numbers of countries clustered between 8 and 15% and between 25 and 35%. In each of those countries, the response rate is high enough to be considered representative of the population. Cyprus was the only country with medium registration numbers in which no organisations participated and thus is not represented in the survey at all.

Table 65: Response rate by country and number of EMAS-registered organisations

Country	EMAS Registrations ⁴	Sample	% responding
Austria	294	26	9%
Belgium	73	23	32%
Bulgaria	8	3	38%
Croatia	0	0	0%
Cyprus	85	0	0%
Czech Republic	25	3	12%
Denmark	35	3	9%
Estonia	6	0	0%
Finland	4	5	125% ⁵
France	34	2	6%

⁴ The numbers indicates the total number of EMAS registered organisations, not the total number of EMAS-registered sites. Sources: <http://ec.europa.eu/environment/emas/register>; <http://www.emas-register.de> (Both as of April 2017)

⁵ According to the EU EMAS Register, as of April 2017, Finland only has 4 registered EMAS registered organisations. The survey yielded 5 responses for Finland, indicating either an error or a misunderstanding (e.g. location of corporate headquarters vs. the location of an individual site).

Country	EMAS Registra- tions ⁴	Sample	% responding
Germany	1251	257	20%
Greece	42	4	10%
Hungary	28	3	11%
Ireland	3	0	0%
Italy	990	141	14%
Latvia	0	0	0%
Lithuania	4	0	0%
Luxembourg	3	0	0%
Malta	1	1	100%
Netherlands	2	0	0%
Norway	15	0	0%
Poland	69	17	25%
Portugal	54	20	37%
Romania	10	1	10%
Slovakia	3	2	67%
Slovenia	10	1	10%
Spain	869	215	25%
Sweden	17	9	53%
United Kingdom	28	6	21%
Unknown		4	
Total	3963	742	18.7%

Given the length and complexity of the questionnaire, language may account for part of the difference in participation rates. While organisations in Austria, Germany, Italy, Poland, Spain and the UK could participate in surveys in their national languages, all other countries received the link to the English version of the questionnaire. However, despite the benefit of having the survey in German, the participation rate in Austria was still lower than the overall response rate. Additionally, countries with high numbers of registered public administrations or service organisations might have lower response rates, as manufacturing and industrial sectors can be expected to benefit more strongly from regulatory relief measures.

Response rate by organisation size

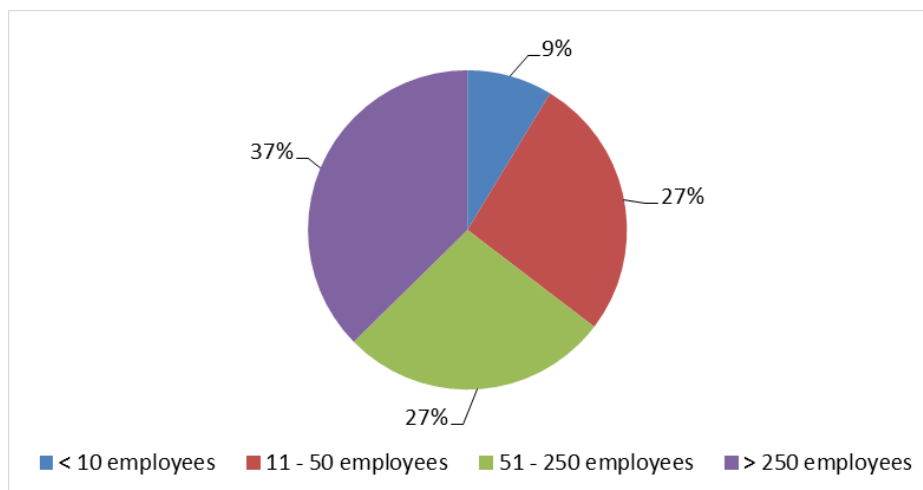
Nearly 29% of large EMAS-registered organisations participated versus 15% of small, 16% of medium, and only 10% of micro organisations (see Table 66 below). 46 organisations did not report the number of employees. The higher participation rate of large organisations can be explained by their greater available resources and the higher likelihood that they have at least one employee whose job is dedicated solely to environmental management. Additionally, they tend to have more regulatory obligations and might have been more aware of potential benefits from regulatory relief. SMEs, which may not have had the resources available to answer all of the questions, had a lower response rate in their respective categories. Nonetheless, the response rate for small and medium-sized organisations approached that of the sample as a whole; only micro organisations are somewhat underrepresented in the survey.

Table 66: Response rate by organisation size

Organisation size	Sample	EMAS registrations ⁶	% responding
Micro (<10 employees)	61	594	10.2
Small (11 – 50 employees)	188	1268	14.8
Medium (51-250 employees)	192	1189	16.1
Large (employees >250)	263	911	28.8

Despite the higher participation rate of large organisations, the majority of responses to the survey as a whole came from SMEs (62.7%), with over a third coming from small and micro enterprises.

Figure 88: Approximate number of employees currently employed by respondent organisations



⁶ EMAS population calculated through statistics found at http://ec.europa.eu/environment/emas/emas_registrations/statistics_graphs_en.htm and <http://ec.europa.eu/environment/emas/register>.

Summary

The overall response rate of 18.7% reflects a detailed representative sample of EMAS-registered organisations (Wiley et. Al 2007). Discrepancies in response rates across organisation size are not significant, as the sample achieved a balanced distribution of response rates for organisation sizes that were close to the overall response rate. Registered organisations from all regions of the EU participated, and countries that did not participate at all were also scattered across the North, South, East, and West of Europe. With the exception of Cyprus, the countries with no respondents all had very low total registration numbers.

Besides Austria, countries with high levels of EMAS participation responded more frequently than the overall sample response rate of 18.7%. The combined participation of Germany, Italy, and Spain accounted for 82.6% of all responses, proportional to their representation in the EMAS registry. Similarly, countries with low EMAS registration numbers had proportionally low numbers of responses.

Large organisations participated at a proportionally higher rate than the other organisation size groups, whereas micro organisations were slightly underrepresented by this survey. Small to medium enterprises, which constitute the majority of businesses in the EU, participated at a level comparable to the overall survey response rate.

The survey is representative of the EMAS population as a whole and thus provides an accurate tool for the analysis of adoption and effectiveness of regulatory relief measures for EMAS.

1.2 Survey of ISO 14001 organisations

As for EMAS organisations, the representativeness of the survey has been analysed considering the diversity of respondents in terms of country of origin, organisation size but also depending on their knowledge of EMAS.

Response rate by country

By looking at the sample breakdown by single countries, eight different nationalities are represented in the sample. Poland, Italy and Spain produce 91% of the responses, accounting for 34.1%, 31.4% and 25.6% of the respondents, respectively. According to official ISO Survey 2015, these three countries account for the 35% of total ISO 14001-certified organisations in the EU, with Italy being the most populated MS in terms of ISO 14001-certified organisations and Spain the third-most populated MS. Slovakia, Portugal, France, UK and Belgium contributed the remaining 9% of respondents.

As in the case of the EMAS questionnaire, language may partially account for the great disparity in participation rates. Indeed, Polish, Italian and Spanish respondents could fill out the questionnaire in their own language. Other nationalities were invited to fill out the questionnaire in English.

Response rate by organisation size

In terms of number of employees, the 32% and 36% of participants in the survey are classifiable as large and medium-sized enterprises, respectively. 26% of participants are medium-sized enterprises, while only 6% are micro-sized organisations. The sample breakdown in terms of annual turnover tends to confirm this. Indeed, 24% of the respondents report an approximate annual turnover higher than €50,000,000, typical of large enterprises, while 33% of the sample reports an annual turnover in the range of €10,000,000 to €50,000,000, suggesting a medium-sized organisation. Similarly, 33% of the respondents report annual turnover in the range €2,000,000 – €10,000,000. Lastly, 10% of the sample report less than

€2,000,000 in annual turnover, suggesting they belong to the micro-sized enterprise category.

Unfortunately, as the number of ISO 14001 certifications per size of enterprise is not available for European organisations, it is not possible to estimate the response rate for each category of organisations.

Figure 89: Approximate number of employees currently employed by respondent organisations

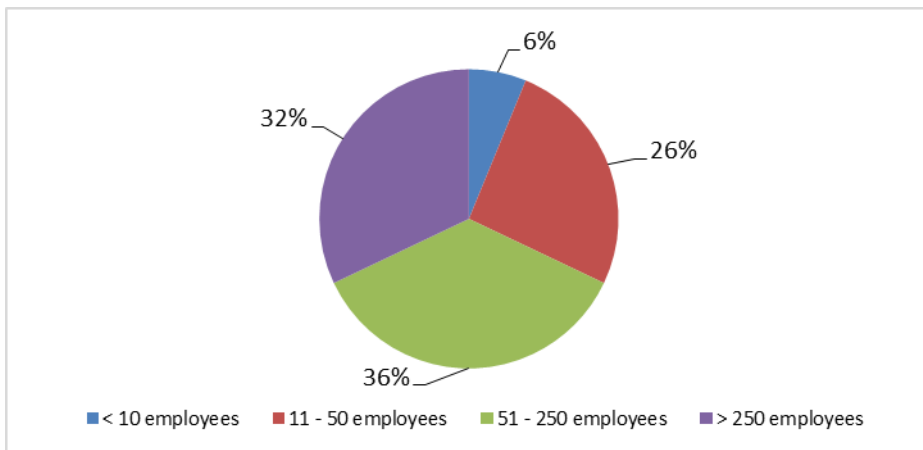
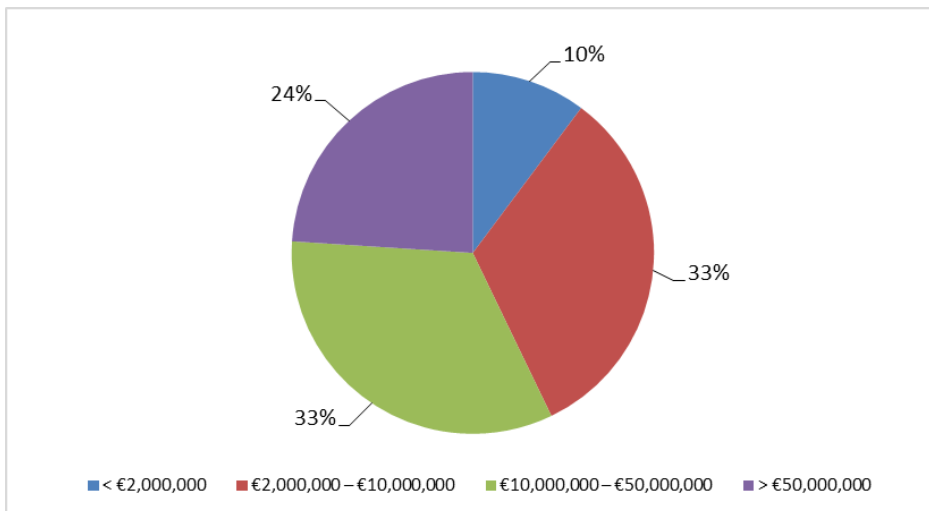


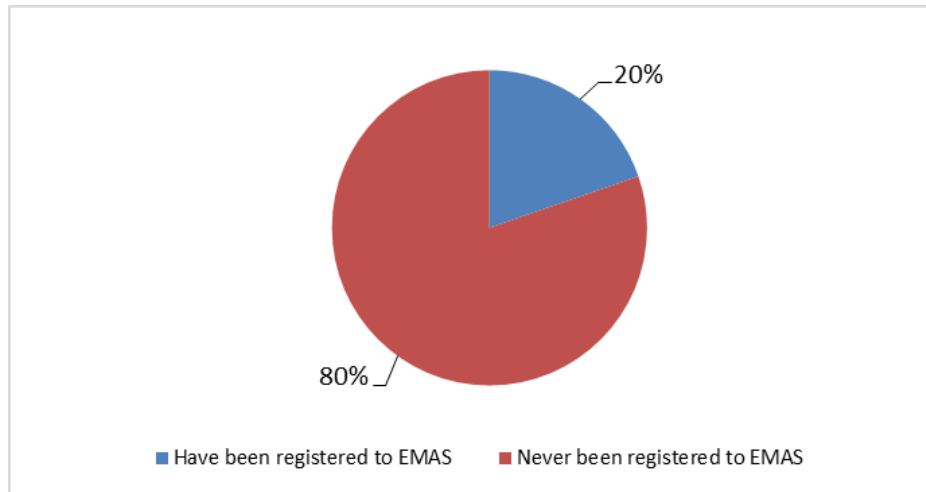
Figure 90: Approximate annual turnover by respondent organisations



Response rate by experience with EMAS

A fundamental aspect of the sample is that 80% of the respondents are not registered with EMAS and have never been registered in the past. The interpretation of the survey data must take into consideration that data mostly reflect the opinions of organisations with no experience with EMAS and with a potentially very low level of knowledge of the scheme.

Figure 91: Percentage of ISO 14001-certified organisations which have been registered with EMAS



Summary

In summary, 225 ISO 14001-certified organisations participated in the survey. Unfortunately, as the survey methodology used a “snowball sampling” approach, it is impossible to know the total number of organisations that received the survey via email, and therefore it is not possible to estimate a total response rate.

The geographical composition of the sample mainly reflects the countries with the highest number of ISO 14001 certifications in Europe. Indeed, 62% of the respondents operate in MS characterised by a high number of registrations, and 37% operate in countries with a medium number of certifications. In particular, Italy and Spain, which are among the countries with the highest number of ISO 14001 certifications in Europe, account for 57% of the sample. Poland, which is among the countries with a medium concentration of certifications, accounts for 34% of respondents.

Around 28% of the organisations in the sample can be classified as large enterprises, both in terms of number of employees and in terms of annual turnover. Similarly, around 34% of the sample is composed of medium-sized enterprises. 29% and 8% can be classified as small and micro organisations.

Lastly, 80% of the organisations in the sample have never been registered with EMAS. Therefore, it is safe to assume that the sample mostly represents the opinions of organisations with a limited knowledge of the scheme.

In conclusion, it is not possible to evaluate the representativeness of the sample, due to the limited amount of data available concerning the population of ISO 14001-certified organisations in Europe. However, the ISO 14001 survey was designed to support, integrate and triangulate the results of the EMAS questionnaire, rather than infer results on the population of ISO 14001-certified organisations in Europe.

1.3 Survey of environmental verifiers

The representativeness of the survey to verifiers was analysed considering the country of origin of verifiers, experience with auditing, number of certifications carried out annually and experience at the international level.

Response rate by country

70.4% of respondents operate in Italy. Unfortunately, many MS with EMAS registered organisations in their country did not participate in the survey.

Table 67: Response by country

Country	Verifiers	% of survey sample
Austria	0	
Belgium	1	1,4%
Bulgaria	0	
Croatia	0	
Cyprus	0	
Czech Republic	0	
Denmark	0	
Estonia	0	
Finland	0	
France	0	
Germany	5	7%
Greece	0	
Hungary	0	
Ireland	1	1,4%
Italy	50	70,4%
Latvia	0	
Lithuania	0	
Luxembourg	0	
Malta	0	
Netherlands	0	
Norway	0	
Poland	0	
Portugal	1	1,4%

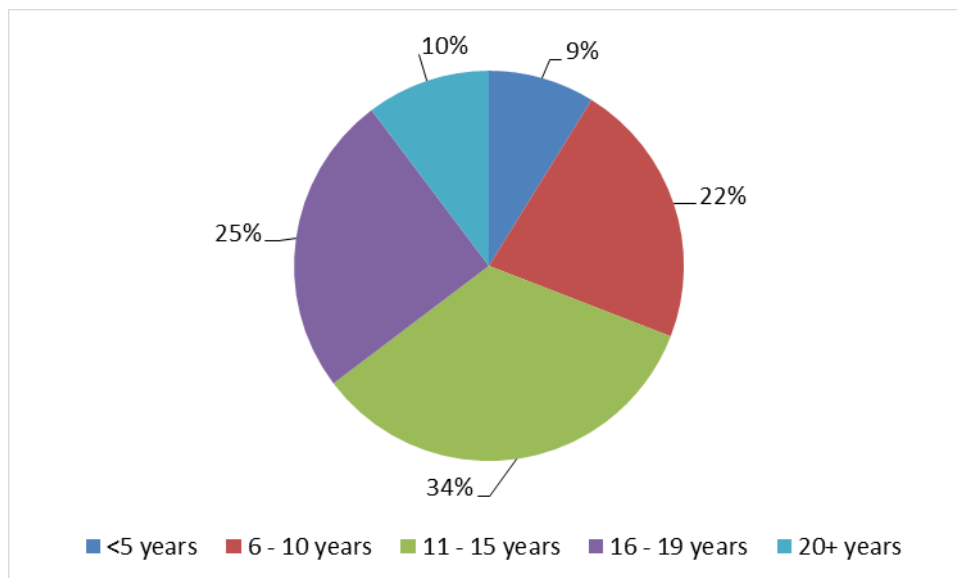
Country	Verifiers	% of survey sample
Romania	1	1,4%
Slovenia	0	
Spain	3	4,2%
Sweden	0	
United Kingdom	9	12,7%
Total	71	100%

The high rate of responses from Italy can be explained by the fact that the verifiers in that country were reminded personally to respond to the questionnaire. The study compensates for this potential bias by providing two charts for the responses from verifiers: one showing all respondents and one showing just non-Italian respondents. In most cases, the results were not significantly different.

Response rate by experience in auditing

The sample interviewed is mainly composed of verifiers with more than 10 years of experience in environmental topics. 34% have been working as environmental verifiers for 11-15 years and 25% of the sample has an expertise of 16 to 19 years. Only 9% have less than 5 years of experience. The project team therefore collected suggestions and feedback from verifiers who had met with different EMAS organisations. Figure 92 shows the sample distribution according to the experience of verifiers.

Figure 92: Number of Years Working as an Environmental Verifier



Response rate by number of certifications carried out annually

Another criterion to assess the skills and competence of the sample is the number of verifications carried out. The questionnaire investigated the EMAS and ISO 14001 verifications carried out by each verifier. The percentages in Table 68 below confirm the high experience of the sample. 36% of the sample had carried out more than 50 EMAS verifications in their career and 16% between 30 and 50.

Concerning ISO 14001 inspections, 82% of verifiers surveyed had carried out more than 50 verifications.

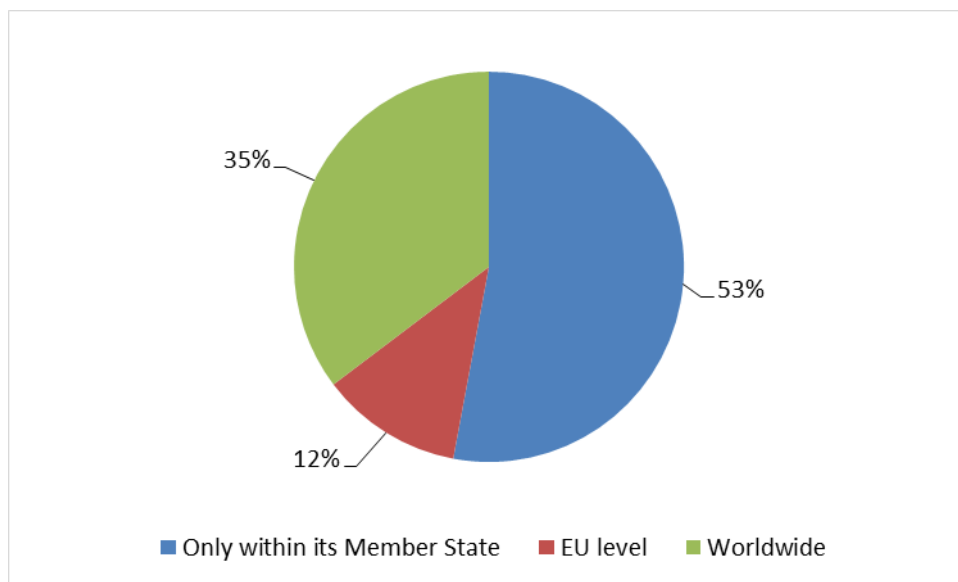
Table 68: Verifications carried out by surveyed verifiers

Verification range	EMAS verifications	ISO 14001 verifications
< 10 verifications	27%	3%
10 – 30 verifications	21%	10%
30 – 50 verifications	16%	4%
> 50 verifications	36%	82%

Response rate by experience at the international level

A majority of environmental verifiers stated that they had carried out verifications in their own country only (53%). 35% work at the international level and 12% in other European MS.

Figure 93: Countries where the verifiers work



Summary

The survey aimed at collecting feedback from verifiers experienced with EMAS and ISO 14001 verifications. The sample of respondents was composed of 71 verifiers mainly from Italy, Germany, UK and Spain. The main sample discrepancy concerns the distribution of responses by country. Indeed, 70.4% of the sample operates in Italy, with little feedback received from other European countries.

The sample was composed of verifiers with high experience in environmental management systems, whether EMAS or ISO 14001. Around 50% of the sample declared more than 10 years of experience as environmental verifiers. The respondents carried out many audits for both EMAS and ISO 14001. The respondents mainly work in their own country or at the international level.

Annex II Compendium of regulatory relief

Annex III Selection of best practices

Annex IV Innovative measures to promote EMAS

Annex V Compendium of reporting measures

Annexes II to V are Excel files that can be downloaded from the EMAS website:

http://ec.europa.eu/environment/emas/emas_publications/publications_studies_en.htm.

Annex VI Examples of tenders mentioning EMAS

MS	Link to tender	Extract
Belgium	http://ted.europa.eu/udl?uri=TED:NOTICE:396850-2017:TEXT:DE:HTML	<p>Section III: Legal, economic, financial and technical information</p> <p>III.1.3) Technical and professional capacity</p> <p>The technical and professional selection criteria are as follows:</p> <p>[...]</p> <ul style="list-style-type: none"> - The candidate must have implemented an environmental, social and quality management policy equivalent, at least, to an ISO 14000 or EMAS certificate; a SA 8000 label and an ISO 9000 certificate. • For environmental management, the ISO 14000 certificate (audits), the EMAS European Regulation (EC) No 761/2001 (audit) or any other certification or description of a similar approach may be attached to the application file.
France	http://ted.europa.eu/udl?uri=TED:NOTICE:408194-2017:TEXT:DE:HTML	<p>Section III: Legal, economic, financial and technical information</p> <p>III.1.3) Technical and professional capacity</p> <p>In order to assess their technical and professional capacity, the candidates provide the following information or documents:</p> <p>[...]</p> <p>5) certificates issued by independent bodies, certifying compliance with certain environmental management systems or standards, referring to either:</p> <ul style="list-style-type: none"> - the European Union's Environmental Management and Audit Scheme (EMAS);

	<p>- other environmental management systems recognized in accordance with Article 45 of Regulation (EC) No 1221/2009;</p> <p>- Other environmental management standards based on relevant European or international standards developed by accredited bodies.</p> <p>Equivalent certificates from bodies established in other Member States are accepted.</p> <p>When a candidate does not have the possibility to obtain these certificates within the fixed deadlines for reasons that are not attributable to him, he proposes measures equivalent to those required.</p>
<p>Germany http://ted.europa.eu/udl?uri=TED:NOTICE:334956-2017:TEXT:DE:HTML</p>	<p>Section VI</p> <p>VI. 3) Additional information:</p> <p>Information on the limitation of the number of candidates invited to submit tenders or to participate:</p> <p>Planned number of applicants: 3</p> <p>Objective criteria for the selection of the limited number of applicants:</p> <p>Applicant selection is a three-step process. First, it is checked (1) whether the tenders comply with the specifications. Tenders which remain incomplete despite any subsequent request for additional documents cannot be considered; (2) whether, according to the information and evidence provided, the candidate is able to provide the services in question; (3) on the basis of the following selection criteria, who appears to be particularly suitable among the candidates and should therefore be involved in the further procedure:</p> <p>[...]</p> <p>3) External quality management / EMAS certificate or a comparable certificate (EC). Evidence of a quality monitoring process for a crematorium according to the EMAS Regulation (EC 1221/2009) on the voluntary participation in a Community eco-management and environmental management system or a similar proof of quality management: 4 points.</p>
<p>Italy http://ted.europa.eu/udl?uri=TED:NOTICE:366668-2017:TEXT:DE:HTML</p>	<p>Section II: Subject</p> <p>II.2.9 Information on the limitation of the number of candidates invited to submit tenders or to participate</p> <p>Planned minimum number: 2</p> <p>Objective criteria for the selection of the limited number of applicants:</p> <p>[...]</p> <p>5) Possession of the certification of the environmental management system UNI EN ISO 14001 or EMAS registration.</p> <p>Candidates will be excluded if the Administration identify that none</p>

		of the above-mentioned requirements has been met.
UK	http://ted.europa.eu/udl?uri=TED:NOTICE:392973-2017:TEXT:DE:HTML	<p>Section III: Legal, economic, financial and technical information</p> <p>III.1.3) Technical and professional capacity</p> <p>List and short description of the eligibility criteria:</p> <p>[...]</p> <p>The bidder must have the following:</p> <p>The Bidder must hold a UKAS (or equivalent) accredited independent third party certificate of compliance with BS EN ISO 14001 (or equivalent) or a valid EMAS (or equivalent) certificate.</p> <p>Or</p> <p>A regularly reviewed documented policy regarding environmental management authorised by the Chief Executive, or equivalent. This policy must include and describe the bidder's environmental emergency response procedures including the preparedness and response procedures for potential accidents and emergency response situations that give rise to significant environmental impacts (for example hazardous substances spill control).</p>

Photos: Flag of the European Union - Terra Nova Foundation / flickr.com

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