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EMAS II and regulatory relief in Europe: Lessons from national experience

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Abstract:

Apart from in Germany and Austria, corporate participation in the European Eco-Management and Audit Scheme (EMAS) has remained sluggish and far behind involvement in ISO 14001. Given the lack of response in most EU Member States, the key issue of the current EMAS revision is to increase the incentives for companies to join the Scheme. One of the proposals in this respect is to encourage Member States to consider a lighter regulatory touch for EMAS participants. The aim of this article is to assess the extent to which encouraging regulatory relief may contribute to an increase in the number of EMAS registered companies. For this purpose the regulatory relief already offered to EMAS registered (and ISO 14001 certified) companies in France, Germany, the Netherlands and the United Kingdom are described and analysed. Based on this experience, the central conclusion of the article is that regulatory relief can increase participation in the EMAS and is particularly successful if it is significant and at best integrated into a comprehensive voluntary policy approach aimed at altering the traditional relationship between Government and industry. However, against the background that some countries treat EMAS registration and ISO 14001 certification as equivalent with respect to regulatory relief, even those deregulation measures that fulfil the above conditions may lead to an increase in ISO 14001 certifications rather than EMAS registrations.

1. Introduction

Article 20 of the European Union's Eco-Management and Audit Scheme (Council Regulation 1836/93 of 29 June 1993, in short EMAS) states that the Scheme must be reviewed five years after coming into force, and, if necessary, appropriately amended. The EU Commission published an initial draft proposal for a revised Scheme (EMAS II) on 30 October 1998, which has since been revised several times. The most recent proposal (April 2000) is a common position adopted by the Council which still has to be approved by the European Parliament.

Apart from companies in Germany and Austria, corporate participation in the voluntary Scheme has remained low throughout the EU, lagging well behind participation in the international environmental management systems standard DIN ISO 14001. Given the poor response in most EU Member States, the key issue of the EMAS revision is to raise the incentives for companies to join the Scheme (Hillary 1998). One of the measures aimed at this purpose is to encourage Member States to consider a lighter regulatory touch for EMAS participants. "Member States should consider how registration under EMAS in accordance with this Regulation may be taken into account in the implementation and enforcement of environmental legislation in order to avoid unnecessary duplication of effort by both organisations and competent enforcement authorities." (Art. 10 (2) of the current draft proposal).

This proposal begs several questions. Does national experience already exist concerning the introduction of regulatory relief for EMAS registered companies? If so, what policies have been adopted? Is it possible to derive conditions under which deregulatory measures are successful in increasing EMAS participation? To what extent may the encouragement of regulatory relief under EMAS II contribute to an increase in the number of EMAS registered companies? The aim of this article is to help answer these questions by analysing national experience with a lighter regulatory touch for EMAS registered companies in France, Germany, the Netherlands (NL) and the United Kingdom (UK). The description and analysis of the national experience is based on reports for the European Commission DG XII Framework IV Environment and Climate Programme: "The implementation of EU environmental policies: Efficiency Issues" (IMPOL) on the implementation of EMAS in the Member States by Bültmann and Wätzold (2000), Eames (2000), Lulofs (2000) and Schucht (2000)¹.

¹ The description and analysis of the national experience is based on Bültmann and Wätzold (2000), Eames (2000), Lulofs (2000) and Schucht (2000).

The structure of the article is as follows. Section two provides some background information, including a short description of EMAS and the reasoning why participation in EMAS may justify regulatory relief. The following section provides information on the number of EMAS verified and ISO 14001 certified companies in the four countries under review. Sections four to seven give an overview of the different national discussions about deregulation for EMAS participants, the various policies adopted, and an assessment of whether regulatory relief was an important factor in influencing companies' decisions to get registered with EMAS in the four countries under review. This provides the basis for assessing whether the lighter regulatory touch proposed in EMAS II will increase the number of EMAS registered companies (section eight).

2. Background information about EMAS and regulatory relief

In simple terms, the EMAS Regulation is a site based environmental management system standard which additionally provides for a certification system with independent environmental verifiers and registration bodies. All companies operating one or more industrial sites are invited to sign up with the standard.² Participation in EMAS is voluntary, but once a company has decided to become registered with EMAS, it must meet the following provisions.

At first, the company must adopt an environmental policy in which its overall environmental aims and principles of action are specified. In the policy, the company commits itself to comply with all relevant environmental regulations and to continuously improve its environmental performance. An environmental review is then conducted. This is an initial comprehensive analysis of the environmental issues, impacts and performance related to the activities of the company to be registered.

On the basis of the general goals of the environmental policy and the results of the environmental review, an environmental programme is introduced which contains concrete goals and measures to attain them. Furthermore, an environmental management system (EMS) has to be established which encompasses the organisational structure, responsibilities, procedures and resources of the site's environmental activities. Once the EMS is implemented, an environmental audit is performed which evaluates whether the system is suited to securing compliance with all relevant regulations and the company's own environmental goals.

² The current draft proposal for EMAS suggests to open EMAS to non industrial sectors. Furthermore, all kinds of organisations that have their own functions and administration shall be allowed to participate in EMAS. This means that not only sites, but also entire companies as well as parts or combinations thereof can be registered. In anticipation of this development in the following we often speak of companies instead of sites.

In order to inform the public about the company's environmental activities, an environmental statement is prepared. The statement has to include a description of its environmental policy, programme and management system, as well as an assessment of all significant environmental issues related to the activities of the site. If appropriate, the environmental issues have to be presented in the form of quantitative figures on pollutant emissions, waste generation, energy consumption, etc. Finally the company has to commission an independent environmental verifier to examine its environmental policy, programme, management system, review and audit procedure, and to validate the environmental statement. Afterwards the company can apply for EMAS registration.

The supporters of deregulation argue that regulatory relief for EMAS participants is justified because EMAS compels companies to fulfil requirements, which can substitute equivalent regulatory demands. The environmental data given in the validated environmental statement can partially or completely replace documentation and reporting duties. Additionally, the commitment to comply with all relevant environmental legislation along with the controls of the independent environmental verifier allow for less intense supervision by public authorities. This is the general line of reasoning why participation in EMAS should be taken into account in the implementation of environmental policy. Any additional arguments specific to individual Member States are given in the sections on national experience.

3. Participation in EMAS and ISO 14001

Participation in EMAS varies significantly among European countries. The figures for EMAS registration and for certification with EMAS's competitor ISO 14001 are given in Table 1. In order to be able to compare the number of EMAS verified and ISO 14001 certified companies in the four countries under review, the figures have to be normalised as the countries vary in size, industrial structure, and the number of companies, i.e. the number of potential participants differs. As an indicator for the number of potential participants, we use the number of companies from the manufacturing sector with more than 20 employees. In practise, the number of companies which could obtain EMAS registration or ISO 14001 certification is actually much higher. It includes smaller companies as well as companies and organisations from outside the manufacturing sector. However, there is no comparable data available that includes all potential participants in the four countries. In addition, participation has been largely restricted to manufacturing companies with more than 20 employees.

	No. of potential participants	EMAS		ISO 14001	
		No. of registered companies	In % of potential participants	No. of certified organisations	In % of potential participants
France	24.671	35	0.14	443	1.80
Germany	37.413	2,331	6.23	1,800	4.81
NL	6.404	26	0.41	530	8.28
UK	29.608	74	0.25	1,014	3.42
All 15 EU Member States	-	3,152	-	6,330	-

Table 1: EMAS and ISO 14001 registered companies in December 1999

Source: Eurostat – New Cronos Datenbank 12/98 and
www.iwoe.unisg.ch/forschung/14001/weltweit.htm (18 April 2000)

Table 1 shows that of the four case study countries Germany has by far the most EMAS registrations, in both absolute and relative terms. Taking absolute figures, ISO 14001 is also most widespread in Germany. However, when participation in ISO 14001 is considered in relation to the number of companies, it is highest in the NL followed by Germany, the UK and France. Germany is the only country where more companies are EMAS verified than ISO 14001 certified. In all the other countries ISO 14001 is by far the dominant EMS standard.

4. France

French industry made it clear ever since the start of EMAS that it would only get involved in EMAS on a large scale if its efforts were taken into consideration by the enforcement authorities. In 1996 "entreprises pour l'Environnement" (EPE), the French lobby of large firms with a pro-environmental approach, started the debate about regulatory relief for EMAS registered sites. EPE argued that industry would be willing to take voluntary action (i.e. EMAS) if the regulatory burden was lightened in return. However, EPE did not make any specific suggestions concerning how this should be done.

In France, the Ministry of the Environment (MATE) heads the environmental enforcement authorities, and is thus the organisation empowered to officially decide whether to grant regulatory relief. The MATE did not intend to set up formal deregulation opportunities for EMAS registered sites. It argued that it would be potentially unfair to set up a formal framework for regulatory relief as all firms should be treated equally before the law. Furthermore,

the MATE pointed out that not all registered sites achieved a comparable level of environmental protection and that regulatory controls covered not only the environmental performance of a plant but also other aspects such as measures directed towards the prevention of risks. In addition, the MATE has always regarded the EMAS as an instrument allowing firms to advertise their environmental performance (i.e. a promotional instrument) and not as a regulatory instrument, and has avoided mixing these two approaches.

However, discussions on this topic within the government led to a circular, the "circulaire Lepage" in 1997 (circulaire du 28 février 1997). Some of the suggestions made by Corinne Lepage, the Environmental Minister at that time, initially seemed quite far-reaching although rather vague. Firstly, she hinted at the possibility of an evolution of the nomenclature of the classified installations with respect to the plants subject to declaration³ (abolishing the declaration requirement for firms where the risks would be controlled by their EMS) if companies adopted environmental management systems in accordance with EMAS or ISO 14001 on a large scale. This suggestion was eventually never pursued.

Secondly, she suggested that EMAS or ISO 14001 registration could be an element to be taken into account with respect to control requirements. However, the circulaire failed to define rules for the local licensing and enforcement authorities, the DRIRE (Direction Régionale de l'Industrie, de la Recherche et de l'Environnement), and the inspectors of the "installations classées" (plants subject to either authorisation or declaration). Therefore, the actual effect of the circulaire was simply to signal to the local regulatory authorities the possibility of using their discretionary powers to take into account the fact that a site is EMAS registered (or ISO 14001 certified) when deciding the frequency of controls and reporting requirements to be imposed on that site.

The current policy is that in a few regions, the DRIRE actually takes into account EMAS registration or ISO 14001 certification by reducing the frequency of the reporting requirements for those sites. As the inspectors of the "Installations Classées" have insufficient personnel and have to set priorities concerning controls, they partly take EMAS registrations or ISO 14001 certification into account as well and inspect EMAS registered and ISO 14001 certified companies less often. It should be added that firms with a standardised EMS have frequently

³ According to their potential harmfulness, various plants have to either officially receive an operation license (plants subject to authorisation) or declare their production (plants subject to declaration). Plants subject to declaration have little environmental impact.

been firms with low inspection requirements. Consideration of a standardised EMS for these firms is thus reflected in a general improvement in the relationship between the company and the regulatory authority which can influence various decisions to be taken and procedures (such as licensing, settlement of conflicts with neighbours etc.).

For a short time, the "circulaire Lepage" raised hopes among industry that EMAS registrations would be taken into careful consideration with respect to control requirements. Schucht (2000) points out that the firms' disappointment about the final decision not to officially formalise measures of regulatory relief was one of the reasons contributing to the low number of EMAS registered companies in France. However, as the MATE has treated EMAS and ISO 14001 equally with respect to deregulation, any move towards more regulatory relief would probably have included both standardised EMSs. Given the fact that French firms have demonstrated a preference for ISO 14001 over EMAS, ISO 14001 certification is more likely to have risen than registration with EMAS⁴.

5. Germany

Business organisations quickly called for deregulation in return for companies' participation in EMAS. As the Federal German states are responsible for licensing, monitoring and enforcement, they were the ones who primarily responded to this call. Today, all the German States have introduced options for regulatory relief at the state (regional) level. Bavaria has been the pioneer with the "Umweltpakt Bayern" (Environmental Pact Bavaria), which was adopted on 23 October 1995. This article concentrates on the "Umweltpakt Bayern" as it is the first and most comprehensive attempt to include EMAS in the implementation of environmental policy. In order to illustrate the diversity of the approaches adopted by the German States, we also briefly describe the situation in North Rhine-Westphalia (NRW). In NRW, EMAS participants were granted much lesser regulatory relief than in Bavaria. Furthermore, the measures were not integrated into a comprehensive voluntary agreement.

The "Umweltpakt Bayern" is a comprehensive voluntary agreement between state government and Bavarian industry. The covenant establishes obligations for both parties. The companies involved guarantee, for example, to reduce emissions, to increase the share of products they transport by rail, and to intensify participation in EMAS. The agreement states that 500 sites

⁴ See table 1 for participation figures in both standards and Schucht 2000 for the reasons why French firms prefer ISO 14001.

must be EMAS validated in Bavaria by October 2000. In return, the state authorities promised to financially support the application of environment-friendly technology as well as the installation of EMSs, and to provide a lighter regulatory touch for EMAS registered sites.

The principal motivation of the Bavarian Government in granting regulatory relief was to reduce costs for EMAS participants. Another, albeit not so important aspect was to reduce the existing implementation gap. By relying on the control activities of the verifiers, enforcement authorities can concentrate their thinly spread monitoring resources on companies that are problematic with respect to compliance. The deregulation measures are based on the principle of "funktionale Äquivalenz" (functional equivalence), i.e. the measures to substitute traditional reporting and monitoring measures need not be exactly identical to the traditional ones, but must be comparable with respect to scope and quality.

The basis for regulatory relief is the "Substitutionskatalog" (substitution catalogue) which has been developed in close co-operation between the "Verband der Chemischen Industrie Bayern" (Association of the Bavarian Chemical Industry) and the Bavarian government. The substitution catalogue provides detailed proposals for deregulatory measures, most of which have been integrated into the existing administrative guidelines (Verwaltungsvorschriften) which are binding on authorities. Regulatory relief for EMAS registered companies currently applies to reporting, documentation and control duties, and covers the fields of waste, water and pollution control law. For example, companies are exempted from the requirement to supply the supervisory authority with a yearly emission report if they collect and provide comparable data in the context of their EMAS participation. With respect to the control duties, it should be explained that monitoring is partly privatised in Germany, i.e. companies are obliged to commission and pay independent institutions to measure emission values, inspect measuring equipment, etc. Therefore lightening the regulatory burden also means that the controls by these independent institutions are partly replaced by the companies' internal monitoring and the environmental verifiers' inspections for the EMAS Scheme.

The "Umweltpakt Bayern" is considered a success by Government as well as industry, not least because the threshold of 500 registered companies which was supposed to be reached by October 2000 was achieved one year ahead of schedule. Currently, the terms of an "Umweltpakt Bayern II" are being negotiated.

NRW did not grant regulatory relief to the same extent as in Bavaria; nor did it integrate it into a comprehensive voluntary agreement. The so-called "Substitutionserlaß" (substitution

directive) which NRW enacted in May 1998 deals exclusively with pollution control law. It instructs the competent authorities to use their discretionary power to substitute companies' internal control mechanisms for control duties and to substitute documentation and information provided for in the EMAS Regulation for those required by the pollution control law.

Both states offer regulatory relief solely to companies registered with EMAS, and not for those certified to ISO 14001. The reasons are that, unlike EMAS, ISO 14001 does not make compliance with all relevant environmental legislation a necessary condition for certification, nor does it provide for government involvement in the certification system.⁵ Both aspects were regarded as prerequisites for regulatory relief in all German states for legal reasons. In recent months, a few German states have questioned this position and considered offering regulatory relief to ISO 14001 certified companies as well.

Comparison of the number of EMAS registered companies in Bavaria and NRW suggests that the Bavarian approach was more successful in terms of participation rates. Table 2 shows that in relation to the number of potential participants, participation is much higher in Bavaria than in NRW.

	No. of potential participants (companies from the manufacturing sector with more than 20 employees in 1999)	No. of registered sites	In % of potential participants
Bavaria	6,710	548	8.17
NRW	9,336	467	5.00

Table 2: EMAS registered sites in March 2000

Source: Statistisches Bundesamt, Deutscher Industrie- und Handelstag (DIHT) (personal communication, 25 April 2000)

It can be assumed that the extent of regulatory relief and the integration of the EMAS in a comprehensive voluntary agreement did indeed have an influence on participation rates. The integration of deregulation measures into the "Umweltpakt Bayern" was important because the agreement included a commitment by industry to achieve a certain number of EMAS par-

⁵ Please refer to Bültmann and Wätzold (2000) for a detailed description and analysis of the accreditation, supervision and registration system Germany installed in the context of EMAS.

ticipant, and because it brought the EMAS and Bavarian deregulation activities enormous publicity.⁶

6. Netherlands

Environmental management system standards became popular in the Netherlands back in the early 1990s. The quick adoption of EMSs in the Netherlands can be attributed to two trends in Dutch (environmental) policy:

The first is the quest for deregulation in the early 1980s, which also included environmental regulation. Industry perceived environmental regulation as fast changing and too detailed, and argued for stability to facilitate investment without large risks stemming from ever-changing government regulations. Industry considered self-regulation and EMSs to be suitable strategies for deregulation. Although the Government was interested in EMSs, it considered it inadequate for deregulation as such. It demanded uniformly dependable EMSs. One way of judging the quality of EMS was believed to be standardisation and certification. Industry accepted that a trustworthy system required EMSs of high quality and some governmental involvement in standardisation and certification.

The second trend is the rising level of political and public environmental awareness in the late 1980s. The first Dutch National Environmental Policy Plan (NEPP) published in 1989 called for radical changes in order to respond to these concerns. Environmental objectives in terms of emission reductions were set for the next 25 years and relevant "target groups" were identified that were supposed to contribute to the planned emissions reductions. Two specific new strategies within the NEPP need to be highlighted in order to understand the characteristics of regulatory relief in the Netherlands.

The first was a policy to raise the ability of industry to internalise environmental values and to introduce EMSs within the industry target groups. In this context, the Government issued a memorandum on environmental management which was written in close co-operation between government and industry. This memorandum was accompanied by a "learning" programme of about 60 million Dutch guilders financed by the Government. It aimed to stimulate the uptake of environmental management in organisations, and included the development of checklists, handbooks and courses on how to implement EMSs in companies. There were also

⁶ See Bültmann and Wätzold (2000) for reasons why the number of EMAS registered German companies is relatively high in general.

some projects concerned with standardisation and certification of EMSs and the changing relationship between public authorities and pro-active companies. These projects focused on the Dutch models of the EMSs, BS7750, and, when drafted, ISO 14001. This explains why Dutch discussions about regulatory relief are primarily related to ISO 14001, and EMAS is only implicitly included.

The second strategy was the negotiation of agreements with the target groups, in which the target groups' contribution to the achievement of environmental policy goals was specified. The adoption of EMSs was, where possible, integrated into such comprehensive sectoral negotiated agreements between industry and Government. In this context, EMSs were considered as both a tool for change and a tool for monitoring change.

These developments formed the basis for a regulatory approach that distinguishes between "pro-active" companies and "laggards". The negotiated agreements set the agenda with respect to the minimum requirements for self-regulation by pro-active companies. The general idea is that pro-active companies that internalise environmental values into their organisations and perform well should be treated differently from laggards as far as monitoring, enforcement and licensing are concerned. Pro-active companies are trusted to properly perform measuring duties, self-reporting and self-control. With respect to authorisation procedures, licensing and updating regulations in the licenses of pro-active companies, goals are used instead of detailed rules in order to decrease the level of detail in the permit. As a result the degree of flexibility afforded to the company is increased. If self-regulation fails in companies or sectors of industry, public authorities can regulate the laggards.

An EMSs is considered to be the tool to implement self-regulation and to produce the documents and data needed to necessary convince the authorities of one's environmental credibility. Having its EMS certified or verified helps a company become a trustworthy partner. However, there is no regulatory relief for a company with a standardised EMS per se. If the company cannot convince the authorities that it performs better than demanded by the minimum regulatory requirements as well as the requirements of the negotiated agreements, the firm will be treated as a laggard by public authorities. Hence for regulatory relief the firm must not only be certified and/or verified, but has also be pro-active. This means that, in the Netherlands, standardised EMSs are just one element of a wider policy framework to build a different relationship between the authorities and pro-active companies.

While standardised EMS are popular in the NL, the overwhelming number of companies prefer ISO 14001 (see table 1). The fact that ISO 14001 and EMAS are treated equally with respect to regulatory relief is one important reason why companies see little advantage in EMAS over ISO 14001⁷.

7. United Kingdom

The possibility of linking EMAS registration (or BS7750/ISO 14001 certification) to some form of deregulation has generated considerable debate within policy circles in the UK, but almost no concrete action. Instead, EMAS (and ISO 14001) is just one of many factors taken into consideration when establishing inspection frequencies for large industrial processes. In common with the Netherlands and France, public discussion in the UK has largely regarded EMAS and ISO14001 as equivalent. Furthermore, the ongoing UK debate over the possibility of providing some form of lighter regulatory touch for companies with an externally verified EMS has focused almost entirely on large industrial processes, i.e. those regulated by the Environment Agency under the UK system of Integrated Pollution Control (IPC) introduced by Part A of the Environmental Protection Act 1990. There has been little or no discussion of how regulatory relief might be applied to small and medium-sized companies with an externally verified EMS, many of which do not fall within the remit of the IPC regime, but are instead regulated by local authorities under Part B of the 1990 Act.

As early as 1992, British industry was expressing mixed views over the possibility of linking EMAS registration to regulatory relief. For example, National Power, an early proponent of EMSs, argued that EMAS provided an opportunity for a site to publicly demonstrate its ability to manage its environmental impact, and that such self-regulation should be reflected in a corresponding reduction in on-site inspection by the regulators. By contrast, the United Kingdom Petroleum Association (UKPIA) at the time took the view that EMAS should have no role in the implementation of UK legislation or regulations associated with the inspection activities of authorities. It argued that if some member states used EMAS to ease legitimate controls and inspections, and thereby subsidise certain industrial sectors, this would create market distortions. These differences reflected broader divisions within UK industry at that time with respect to the proposed EMAS regulation. These divisions may be attributed in part to competition with the emergent British national EMS standard BS7750, and to resistance within some

⁷ For other reasons see Lulofs (2000).

sections of UK industry to the notion of public environmental reporting (which was implicit in the Commission's proposals for EMAS but which did not form part of BS7750).

At the time EMAS was implemented, the principal environmental regulator Her Majesties Inspectorate of Pollution (HMIP), with the agreement of the Department of the Environment, sought to portray voluntary EMSs (including EMAS) as complementary to formal regulation under IPC. However, HMIP recognised that there might also be some benefit for firms operating EMSs in their interaction with the regulator. Senior HMIP staff explicitly accepted that it has always been the case that its Inspectors had focussed scarce resources where they would have maximum effect. The corollary of this process being a lightening of the regulatory burden on companies with a sound record of environmental performance. HMIP therefore sought to formalise such judgements in a system for rating the risks posed by processes under IPC (Duncan 1995).

The proposed scheme, the Operator and Pollution Risk Appraisal (OPRA) system, was brought into operational use in 1997 by HMIP's successor, the Environment Agency. The OPRA system is intended to provide an assessment of the operators' performance and the intrinsic risk of processes regulated under the UK's IPC regime, in order to guide the frequency of inspection and monitoring visits. A recognised EMS is just one of 14 factors considered under the OPRA system.

In February 1997, in the closing days of the last Conservative administration, following lobbying from the Chemical Industries Association (CIA), the UK Department of Trade and Industry and Department of the Environment were reported to have instructed the Environmental Agency (EA) to prepare guidelines for the 'lighter' regulation of IPC registered sites to ISO 14001 or EMAS. Thereby allowing certified firms to provide data less frequently and receive fewer visits. At the time, the Agency was reported to be resisting what it considered to be "simplistic" moves to reduce regulation of certified sites. However, the Agency's senior management and at least some of its field inspectors were said to be divided over this issue. Although the senior management was fairly receptive, some inspectors were said to fear that such an initiative might lead to firms becoming less concerned with their environmental performance.

Since the current Labour Government took power in May 1997, policy-makers in both central government and the EA have continued to discuss means of rewarding participation in

EMAS/ISO14001. In October 1999 the Board of the EA began discussing a major shift in the Agency's regulatory approach towards self-monitoring by industry and Agency audits of companies' EMSs, together with a reduced emphasis on technology based regulation. At the time of writing, the implications of these discussions remain unclear.

More recently, in December 1999, the Department of Trade and Industry's Oil and Gas Directorate, which is responsible for the regulation of off-shore oil and gas facilities, published draft regulations and guidance on applying the Integrated Pollution Prevention and Control (IPPC) Directive to offshore installations. This provided for annual reporting requirements under IPPC to be integrated within the overall reporting from an environmental management system.

The fact that to date there has been relatively little regulatory relief for EMAS certified companies appears to be one of the reasons that has contributed to the comparatively low number of EMAS participants in the UK. However, given the central government and regulatory agency's policy of treating certification to EMAS and ISO 14001 as equivalent and the preference of most UK companies for ISO 14001⁸, additional regulatory relief may serve to stimulate certification to ISO 14001 rather than registration with EMAS.

8. Conclusions from case studies

This survey of regulatory relief for EMAS registered (or ISO 14001 certified) companies in France, Germany, the NL and the UK shows that EMAS II does not propose anything new for these countries. As, it is something all of them have already discussed and partly implemented. The proposal to consider a lighter regulatory touch for EMAS participants follows rather than stimulates policy developments in these Member States. Its effect will therefore be restricted to giving an additional impetus to existing activities.

However, comparison of the different deregulation approaches adopted in the four countries reveals that they are not all equally effective in increasing the number of EMAS (and ISO 14001) participants. The case studies suggest the following three conditions as being most important for regulatory relief to be successful.

1. Obviously, the rise in participation numbers is higher the more substantial the lightening of regulatory burden. This is indicated by the fact that in France, the UK and NRW (Ger-

⁸ See Eames (2000) for the reasons.

many), where relatively little regulatory relief is provided, participation is comparably low. In these countries, the lightening of the regulatory burden is not sufficient to create an incentive for companies to register with EMAS (or become certified to ISO 14001). In contrast, Bavaria (Germany) and the Netherlands, where regulatory relief goes further, have relatively high numbers of EMAS registrations respectively ISO 14001 certifications.

2. Moreover, Bavaria (Germany) and the Netherlands, have integrated the lighter regulatory touch for EMAS (and ISO 14001) participants into comprehensive voluntary agreements⁹. Both countries generally pursue a policy designed to support companies' self-responsibility and reduce the level of regulation and control. By participating in EMAS (or ISO 14001), companies can demonstrate that they are able to take care of their environmental impact themselves and thus deserve deregulation. By contrast, in France, the UK and NRW (Germany), where participation rates are low, regulatory relief was not part of a comprehensive policy approaches. This indicates that regulatory relief is particularly successful if it is part of a broader policy to stress self-regulation by industry.
3. The final condition for regulatory relief to be effective in increasing participation in EMAS is that it must be exclusively granted to EMAS registered companies. The example of the Netherlands shows that it is not sufficient to only fulfil the two conditions mentioned above. In the NL, regulatory relief is given to both EMAS and ISO 14001 participants, and EMAS registrations significantly lag behind ISO 14001 certifications. As ISO 14001 has been the dominant EMS standard in the NL, it does not help EMAS to challenge ISO's pre-eminence if regulatory relief is linked to both standards.

Summarising our findings, we can say that regulatory relief is able to increase the number of EMAS participants. But that to do so it must be: 1.) substantial; 2.) integrated into a policy approach based on voluntary agreements and self-control of industry; and, 3.) exclusively granted to EMAS participants. However, given the existing policies in France, the NL and the UK of considering EMAS and ISO 14001 as equivalent with respect to regulatory relief and the very recent trend in Germany to follow this approach, it is doubtful whether the third condition will often be met in the future.

⁹ A general discussion of voluntary agreements can be found in e.g. Bizer (1999), Carraro and Lévêque (1999) and Börkey and Lévêque (2000).

Finally, we would like to stress that regulatory relief can not only create benefits, but also harbours risks. Besides its potential to increase participation in EMAS (and ISO 14001), the main advantage of regulatory relief is that it makes the implementation process more efficient. It allows enforcement authorities to focus their scarce resources on problematic companies and avoids the duplication of efforts by both authorities and companies. The central disadvantage is that a (significant) lightening of the regulatory burden may lead to less compliance with environmental legislation and thus to negative impacts on the environment. The advantages and disadvantages of regulatory relief need to be carefully weighed up.

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