Environmental Management Approaches

Preliminary Summary of the Results of two Projects for the German Federal Environment Ministry and the German Federal Environmental Agency

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1 These results are based on different projects conducted by Future e.V., München, Adelphi Consult, Berlin, and IFOK
1. Background

The paper collects preliminary findings of two projects financed by the German Federal Environment Ministry and the German Federal Environmental Agency respectively. The paper does not contain final project results and reflects only part of the research.

The first of the two projects (Environmental Management Approaches in Germany) started in November 2003 and will terminate in September 2005. The project evaluates almost all environmental management approaches (EM approaches) below EMAS and ISO 14001 currently in use in Germany and additionally the financial support schemes for these EM approaches. The project included a comparison of the various schemes according to a large number of criteria regarding the requirements of the EM approaches and their institutional framework. To this purpose, the project team undertook a literature review and contacted the developers of the EM approaches. In-depth telephone interviews were conducted with a total of 20 participants of five selected EM approaches. Also, the team conducted a survey sending questionnaires to the users of two rather widespread EM approaches (Ecoprofit and QuH – environmental certification for the skilled trades). The survey resulted in a total of over one hundred completed questionnaires. Finally, the project team interviewed more than 20 experts in the field and organized a workshop with more than 50 participants. Some of the project results are available at www.ems-for-sme.org.

The second project (international EM approaches) started in November 2004 and will terminate in September 2005 as well. The project focuses exclusively on those EM approaches worldwide which are very successful in attracting companies. The project compares these schemes (14 all together). A list of the schemes combined with a short description is enclosed in the Annex.

For the second project Adelphi Consult has revised the data acquisition grid which has been used in the first project. The data for the second project derive from own research (mainly through the internet, partly also from an analysis of written material) and from information provided for this purpose by the developers of the various EM approaches. A synopsis with the data can be found at www.ems-database.org. The website provides an easy tool for a comparison of different schemes. Some improvements of the website will still take place over the next months.
2. Preliminary findings

2.1 General uptake of EM approaches:

- There is a broad range of EM approaches on the market right now. Depending on the definition the total number ranges between several dozens up to probably one hundred.

- Most of the systems have been developed in Europe, especially Northern Europe, a second stronghold is Japan which now counts for quite a number of local EM approaches. There are indications that more and more countries are getting involved in the development of new EM approaches.

- Most of those schemes which already attract several hundred participants were established in the second half of the 90s. However, the majority of the approaches currently on the market were developed later and have only been operating a few years. Furthermore, constantly new systems are launched. In Germany e.g., several new EM approaches will be launched shortly though 14 are already on the market.

- The total number of companies operating with an EM approach is difficult to estimate since many EM approaches have no register of participants or participants are not certified. Also, in a number of cases the distinction between an EM approach (with systematic management elements) and a mere environmental check or something similar is not easy to be made. However, certainly the total number of companies participating at one of the various EM approaches runs well above 10.000.

- Most of the EM approaches have seen a rapid increase in participating companies within recent years. Sometimes growth is even exponential. In many regions already more companies participate already in an EMAS than in ISO 14001 or EM approaches.

2.2 Reasons for Success

- One major advantage of EM approaches is their ability to adapt to local/regional circumstances and/or to branch specific requirements (and thus also to use very efficiently regional and/or branch networks). As a consequence, there is not one recipe for a successful EM approach. Rather all EM approaches rely on an individual bundle of features which guarantee their success. However, some general considerations are possible.
Almost all EM approaches reduce the required work for documentation compared to EM AS/ISO 14001. Also, internal audits and the consideration of indirect environmental aspects are not usually required. That corresponds with the requests of the companies as indicated in the interviews and questionnaires. Many EM approaches focus on win-win solutions which can easily be implemented.

Core elements of most EM approaches are the requirement that the board level of the company commits itself to the EM approach, the evaluation of direct environmental effects, the implementation of environmental measures with a clear allocation of competencies and a clear timing, and the requirement of legal compliance.

Often the diffusion of EM approaches is enhanced through services packages provided by consultants: Specific material, guidelines, checklists, individual counselling, workshops, etc. constitute a tight bundle of support. Some EM approaches were developed in close cooperation with companies.

Where external certification exists the costs are usually low and/or subsidized. The same holds true for costs of registration. Willingness to pay for external certification is closely linked to the use of the EM approach in supply chain relations.

Pressure within supply chains, public procurement requirements, and administrative deregulation so far only play a very limited role in the uptake of EM approaches. The use of supply chains has proved to be difficult and some attempts in that direction have failed so far, even though there are instances where this approach has been successful.

Image and reputation gains obviously can be important factors for adhering to an EM approach. EM approaches however, find it difficult to generate enough public awareness. EM approach companies partly complain about insufficient media coverage. However, at a local/regional level EM approach sometimes can gain enough media support.

In a direct comparison between Ecoprofit, one of the most successful EM approaches worldwide, and EMAS/ISO 14001, companies indicated project organisation (i.e. the good project infrastructure), less time expenditure, the local context, and less costs as major benefits. Major disadvantages are less public recognition and less acceptance by relevant stakeholders.

2.3 Financial support

Financial support proves to be in many cases the condition sine qua non. External financial support of the EM approaches does not warrant success. However, without financial support most EM approach would not be successful on the market. There is no scheme in Germany which would be able to attract significant numbers of companies without state/local financial
support, and at the international level also there seem to be only very few examples of EM approach which grow without any kind of subsidies.

- German experiences demonstrate that successful financial support schemes focus rather on project support than on financial subsidies for individual companies. Financing the infrastructure of the project and one organisation/person which promotes the EM approach seems to be an effective way for raising the numbers of participants.

2.4 Staged approach

- Though several systems claim to follow a staged approach, i.e. to lead towards EMAS/ISO 14001, only very few really push companies through those steps. The difference between an alternative approach (existing independently from EMAS/ISO 14001) and a staged approach (no scheme on its own but only a slower way to reach EMAS/ISO 14001) is more theoretical. In practice, almost all EM approaches in some way or the other constitute an alternative to ISO 14001 and EMAS.

- Staged approaches offer several advantages for the implementation of EMAS/ISO 14001: a clear guidance on how to achieve EMAS/ISO 14001, flexibility concerning the speed in implementing the necessary steps to EMAS/ISO 14001, promotion of EMAS/ISO 14001, and ideally - a competitive climate between the participants regarding achievement of the ultimate goal, i.e. EMAS/ISO 14001.

- In practice, however, most companies tend to stop at a lower level. Thus, current experiences suggest that a staged approach does not constitute a major marketing tool for promoting EMAS/ISO 14001. While in a few instances a noteworthy number of companies finally reached EMAS/ISO 14001 (e.g. the Acorn pilot project with about 13% of the participating companies), in most cases the results are rather meagre (e.g. the subsequent BS8555 projects, E+5, and Green Dragon).

- Accordingly, most of the companies which were interviewed did not regard a staged approach as an important feature of an EM approach.

- The arguments mentioned before, however, do not necessarily lead to the conclusion that a staged approach as currently discussed at CEN/ISO would not be an important opportunity to follow up. For a number of reasons (fresh impetus, worldwide opportunity, broad spectrum of solutions, supply chain implications, etc.) such an approach might nevertheless be worth an in-depth consideration.

2.5 Additional Comments

Only a minority of EM approaches does include additional management aspects into the scheme. However, there seems to be a clear tendency for EM approaches to increasingly incorporate quality management and/or health and safety management. An additional benefit for SME can derive from organisational development as an added focus of an EM approach.
## Appendix: Short overview on some EM approach

<table>
<thead>
<tr>
<th>Environmental Management Approach</th>
<th>Diffusion</th>
<th>No. of organisations</th>
<th>Remarks</th>
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</table>
| Acorn Scheme/BS 8555              | Mainly UK       | Different projects, no exact number of companies | Staged approach.  
Acorn method and Acorn scheme as the results of the Acorn project in UK.  
BS 8555:2003 Environmental management systems. Guide to the phased implementation of an environmental management system including the use of environmental performance evaluation.  
Certification bodies can be accredited with UKAS for inspecting the Acorn Scheme rather than BS 8555. |
Focus on SMEs in the industry.  
Supply chain approach in projects. |
Focus on SMEs and public institutions. |
| Ecolighthouse                     | Norway          | 780 (2005)            | EMS including H&S.  
Focus on SMEs and public institutions. |
| Eco-mapping                       | world-wide      | No exact numbers available | A toolbox of different eco-maps, checklists, working methods and forms especially for small companies.  
Focus on visualisation and participation.  
Further developed as EMAS easy. |
| Ecoprofit                         | world-wide      | > 1000 participating companies in Germany (2005) | Main idea: using systematic environmental protection to create a "win-win" model especially for SMEs.  
Implemented as regional or local initiatives / projects with groups of companies.  
Licenses necessary to implement Ecoprofit projects. |
<table>
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<tr>
<th>Program</th>
<th>Country/Region</th>
<th>Total (Year)</th>
<th>Notes</th>
</tr>
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<tbody>
<tr>
<td>Ekoscan</td>
<td>Spain / Basque country</td>
<td>29 certified organisations (2005); more than 500 organisations in projects</td>
<td>Cleaner-production oriented. Certifiable standard since 2004. Focus of SMEs in the industry.</td>
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<tr>
<td>Environmental Diploma Göteborg</td>
<td>Sweden</td>
<td>493 (2004)</td>
<td>Focus on all SMEs. Similar approaches in other Swedish regions.</td>
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<td>PIUS</td>
<td>Germany</td>
<td>Only North Rhine Westphalia / Germany: out of 326 measures (projects) agreed under various PIUS checks, 102 measures (projects) were implemented by the companies (2005).</td>
<td>Cleaner-production oriented check. PIUS (German Acronym for production-integrated environmental protection) is a guideline of VDI - The Association of German Engineers. Focus on SMEs in the industry.</td>
</tr>
<tr>
<td>PRUMA (Profitable Environmental Management)</td>
<td>world-wide</td>
<td>No exact numbers available</td>
<td>Focus on organisational development and environmental accounting. Developed for German international technical co-operation.</td>
</tr>
<tr>
<td>QuH (Environmental Certification for the Skilled Trades)</td>
<td>Germany / Bavaria</td>
<td>About 220 (2004)</td>
<td>Environmental management approach for SMEs/skilled trades. Origin in Bavaria, used as a blueprint for similar regional approaches in Germany.</td>
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