An Assessment of the Implementation Status of Council Regulation (No 1836/93) Eco-management and Audit Scheme in the Member States (AIMS-EMAS)

(Project No. 97/630/3040/DEB/E1)

Final Report

(June 1998)

Submitted to

Mr Klaus Krisor
European Commission Directorate General XI
Directorate E

by

Ruth Hillary
Centre for Environmental Technology

in association with

Matthias Gelber
14000 & One Solutions

&

Vittorio Biondi
Marialuisa Tamborra
IEFE Universita Bocconi

For further information contact Ruth Hillary at:
Centre for Environmental Technology, Imperial College of Science, Technology and Medicine, 48 Prince's Gardens, London SW7 2PE, UK.
Tel: +44 171 589 5111 ext. 59283, Fax: +44 171 581 0245
E-mail: r.hillary@ic.ac.uk

CONTENTS

1. INTRODUCTION

This is the final report of the project 'An Assessment of the Implementation Status of Council Regulation (No 1836/93) Eco-management and Audit Scheme (EMAS) in the Member States'; hereafter abbreviated as AIMS-EMAS. This report gives a brief introduction to the aims, methods, management and funding of the project. The main body of the report presents the results of the AIMS-EMAS telephone survey of Competent Bodies, Accreditation Bodies, Accredited Environmental Verifiers (AEV) and EMAS registered sites in the 15 Member States.

As requested, conclusions and recommendations for the revision of the Regulation will be made and presented at a meeting of the Article 19 Committee on 8 and 9 June 1998 in Brussels.

1.1 Project Objectives

The AIMS-EMAS overall project aim is to investigate objectively EMAS current practice and implementation experiences across the European Union (EU). The purpose of the investigation is to:

1. Inform the Commission of the European Communities (the Commission) of the current implementation practice in the Member States highlighting differences as a means of assisting its efforts on the revision of the Regulation.

2. Provide suggestions for the revision to the Regulation to the Commission.

1.2 Project Methodology

The approach of AIMS-EMAS is to employ a telephone survey to gather in-depth objective information from four populations of respondents in the Regulation No 1863/93.

Respondents fall into four groups:

1. Competent Bodies or administrative individuals,
2. Accreditation Bodies,
3. accredited environmental verifiers (AEVs), and
4. registered EMAS sites.

The EMAS Help Desk provided the contact details for each group. The AEV list was dated 14 November 1997 and the EMAS site lists was dated 31 December 1997.

The large numbers of AEVs and EMAS sites meant that interviewees were randomly selected. Random selection criteria were developed to select a representative 10% sample for those Member States were large number of AEVs, i.e. in Austria, France, Germany, Sweden and the UK, and EMAS

registered sites, i.e in Austria, Denmark, Finland, France, Germany, the Netherlands, Sweden and the UK, exist.

A five part 'Questionnaire on the Implementation Status of EMAS' was developed as the investigative tool to achieve the objectives of AIMS-EMAS. The five separate sections of the questionnaire are as follows:

- **Accredited Environmental Verifiers (AEV) (Questions V1 to V33)**
- **Accreditation Body (AB) (Questions A1 to A35)**
- **Competent Bodies (CB) (Questions C1 to C20)**
- **General (G) (Questions G1 to G9)**
- **Registered EMAS Sites (S) (Questions S1 to S34)**

The majority of questions are unprompted receiving spontaneous responses from interviewees. The questionnaire is in English and is orally translated into German, French, Italian and Spanish were necessary. The questionnaire was pilot tested. All questionnaires in AIMS-EMAS are confidentiality and not identifiable to individuals or organisations. Individual questionnaires or results are not revealed to a third party.

An interview schedule was developed for the four groups of respondents and is shown in Table 1.

Table 1 - Interview Schedule for AIMS-EMAS

Respondent Group	Interviewing Time Period	Status
Accredited Environmental Verifiers	16/12/97 to 28/1/98	Completed
Accreditation Bodies	18/11/97 to 19/12/97	Completed
Competent Bodies	23/10/97 to 5/11/97	Completed
EMAS Registered Sites	2/2/98 to 23/2/98	Completed

A Standardised Analysis Database (SAD) in Excel 5.0 software has been developed for the rapid collation and analysis of survey data. The SAD provides the analysed data used in this final report.

1.3 Project Management

The project was managed and co-ordinated by Ruth Hillary based at Imperial College of Science, Technology and Medicine's Centre for Environmental Technology (ICCET) in London and executed in association with 14000 & One Solutions and the Institute for Energy Sources, Environment and Technology Economics (IEFE), Universita' Bocconi.

1.4 Project Funders

AIMS-EMAS was funded by following organisations whose support was greatly appreciated:

1. The Commission of the European Communities (the Commission)
2. The Austrian Federal Ministry of the Environment, Youth and Family

3. The Danish Ministry of Environment and Energy, Environmental Protection Agency
4. The Dutch Ministry of Housing, Planning and Environment
5. The Swedish Ministry of the Environment
6. The UK Department of the Environment, Transport and the Regions

2. RESULTS OF AIMS-EMAS

2.1 Introduction

This section presents the results of AIMS-EMAS. The results are presented on standardised Analysis Sheets. These Analysis Sheets are self-contained and concise. This approach has been adopted so that Analysis Sheets may be duplicated individually.

2.2 Analysis Sheet Structure

Analysis Sheets have the following structure:

- *Regulation No 1836/93: Article:* This provides the Article reference in the Regulation.

- *Questions related to Article/Annex*: Questions asked in the telephone survey which related to the articles/annexes in Regulation No 1836/93.

- *Respondents*: The number and group interviewed in the telephone survey

- *Date of interviews*: The period of time over which interviews were conducted.

- *Results*: Shows the quantitative results related to the questions asked, presented as bullet points and/or in tables and graphs

- *Footnotes:* Placed at the bottom of each paged and used to explain or amplify information on the Analysis Sheet.

The results are presented in the following five sections:

1. Competent Bodies
2. Member States
3. Accreditation Bodies
4. Accredited Environmental Verifiers
5. Registered EMAS sites

2.3 Results of Competent Body Interviews

Regulation No 1836/93: *Article 18.1 - Competent Bodies' Establishment*

Questions related to Article/Annex:

C.1. Is the Competent Body fully operational?

Respondents: 19[1] representatives of Member State Competent Bodies or Administrative Bodies[2].
Date of interviews: 23/10/97 to 5/11/97

Results[3]:

- Three Member States have not established Competent Bodies (Greece, Italy and Portugal); however, Italy was approving procedures for its Competent Body at the completion of interviews i.e. 5/11/97.
- Three Member States have more than one Competent Body (Belgium, Germany and Spain).
- Three regions in Belgium each have a Competent Body and one national Competent Body exists with exclusive responsibility for the nuclear industry sector.
- In Germany, 65 Competent Bodies are divided between 44 Industrie-und Handelskammern (IHK) or Chambers of Industry and Commerce and 21 Handwerkskammern (HK) or Chambers of Skilled Craftsman. There is also a national Competent Body co-ordinator Deutscher Industrie- und Handelstag (DIHT).
- There are 17 regions in Spain, 7 have Competent Bodies. There is one national Competent Body which co-ordinates regional Competent Bodies and registers sites for those 10 regions which do not have Competent Bodies.

[1] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[2] Greece and Portugal had not established their Competent Bodies and Italy established its Competent Body on the 5/11/97 after the time period for interviewing.

[3] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: Article 8.1 - Registration of Sites

Questions related to Article/Annex:

C.2. Has the Competent Body **a)** registered a site to EMAS, **b)** refused to register a site to EMAS, **c)** suspend or delete a site?

Respondents: 19[4] representatives of Member State Competent Bodies or Administrative Bodies[5].
Date of interviews: 23/10/97 to 5/11/97

Results[6]:

- Three Member States have not registered sites to EMAS.
- Three Member States have refused to register a site to EMAS.
- No Member State has suspended or deleted a site from the EMAS register.
- 17 (1.7%) sites have been refused registration to EMAS when the total of registered sites stood at 1023[7].
- In the three Member States that had refused to registered sites to EMAS, these Member States refusal rates as a percentage of their total number of registered sites were: 1.8%, 2.5% and 33%.

[4] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[5] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[6] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[7] Figure taken from the EMAS Help Desk list of the end of October 1997.

Regulation No 1836/93: Article 8.4 - Breach of Legislation

Questions related to Article/Annex:

C.6. Has the Competent Body a) refused to register a site because of non-compliance with relevant environmental legislation, b**)** suspend a site because of non-compliance with relevant environmental legislation?

Respondents: 19[8] representatives of Member State Competent Bodies or Administrative Bodies[9].
Date of interviews: 23/10/97 to 5/11/97

Results[10]:

- Competent Bodies from three Member States have refused to register sites because of non-compliance with relevant environmental legislation[11]. 17 (1.7%) sites have been refused for this reason when the total sites registered is 1023[12].
- Non-compliance with legislation appears to be the only reasons used so far by Competent Bodies to refuse a site registration to EMAS.
- No Competent Body has suspended a site from the EMAS register because of non-compliance with environmental legislation.

[8] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[9] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[10] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[11] The Competent Body of one Member State has delayed registration of a site to EMAS for 12 months because of non-compliance with environmental legislation. Other Competent Bodies mentioned that questions about sites' legislative compliance had caused delays in sites' registration.

[12] Figure taken from end of October EMAS Help Desk list.

Regulation No 1836/93: Article 8.1,3,4 - Refusal of Registration of Sites

Questions related to Article/Annex:

C.3. Under what circumstances would the Competent Body refuse to register a site?

Respondents: 19[13] representatives of Member State Competent Bodies or Administrative Bodies[14].
Date of interviews: 23/10/97 to 5/11/97

Results[15]:

- Breach of legislation and the non-fulfilment of the Regulation were the most frequently cited circumstances which could lead to the non-registration of a site to EMAS.

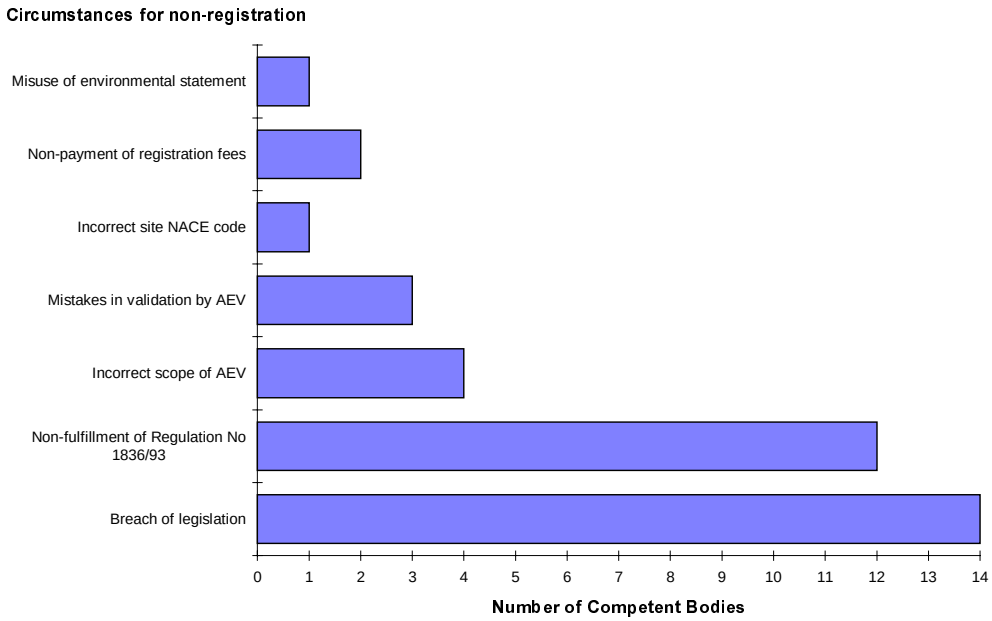

Figure 1 - Circumstances Leading to Non-registration of a Site by the Competent Body

[13] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[14] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[15] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 8.1 - Registration of Sites (Site Visit)*

Questions related to Article/Annex:

C.4. Does the Competent Body **a)** visit the site **b)** assess the environmental statement?

Respondents: 19[16] representatives of Member State Competent Bodies or Administrative Bodies[17].
Date of interviews: 23/10/97 to 5/11/97

Results[18]:

- Three Competent Bodies visit sites.
- One Competent Body does not assess sites' environmental statements.

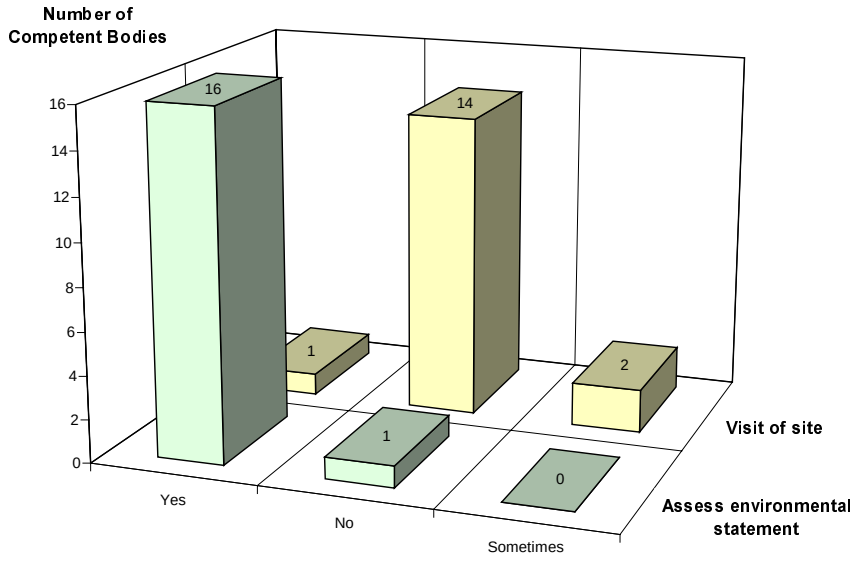

Figure 2 - Environmental Statements Assessment and Visits to Sites by Competent Bodies

[16] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[17] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[18] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 8.1 - Meet Conditions of the Regulation*

Questions related to Article/Annex:

C.5 What is the Competent Body's procedure for ensuring an EMAS site conforms with the Regulation?

Respondents: 19[19] representatives of Member State Competent Bodies or Administrative Bodies[20].
Date of interviews: 23/10/97 to 5/11/97

Results[21]:

- Procedures are varied, but 14 out of 17 Competent Bodies check sites' environmental statements before registration.

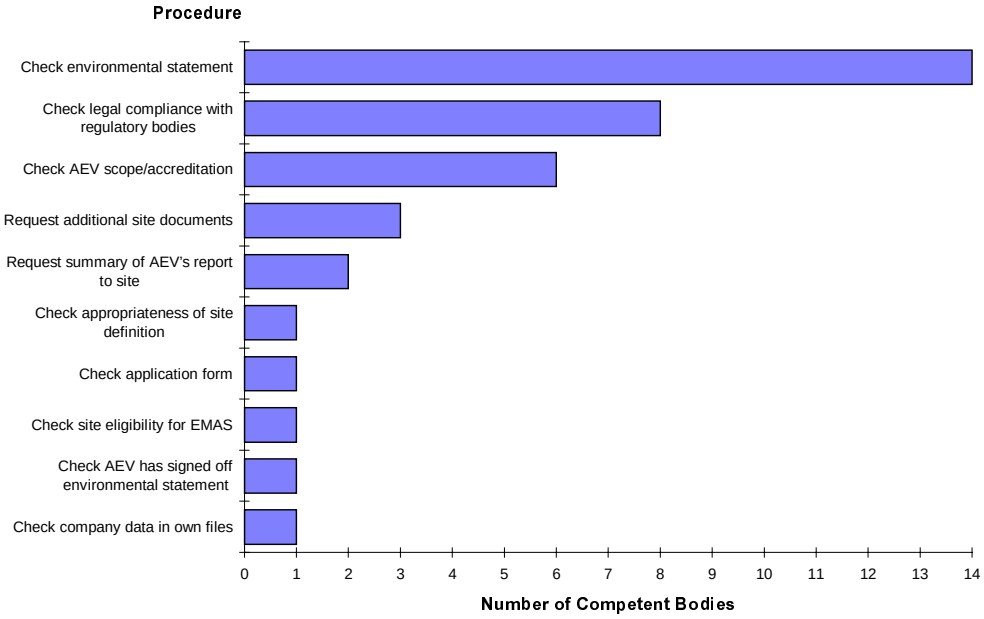

Figure 3 - Competent Bodies' Procedures for Ensuring Site Meet Regulation's Requirements[22]

[19] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[20] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[21] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[22] 'Checking the application form' was mention by one Competent Body but many have application forms. Similarly, legal compliance is checked by 15 Competent Bodies (response to question C.11) but only 8 mentioned it as a response to question C.5. Responses from Greece, Italy and Portugal are included.

Regulation No 1836/93: *Article 8.1 - Check Conformance with the Regulation (Legislation)*

Questions related to Article/Annex:

C.7 Does the Competent Body check that a site is in compliance with relevant environmental legislation before it registers the site?
C.10 Does the Competent Body contact regulatory bodies?

Respondents: 19[23] representatives of Member State Competent Bodies or Administrative Bodies[24].
Date of interviews: 23/10/97 to 5/11/97

Results[25]:

- All operational Competent Bodies contact regulatory bodies.

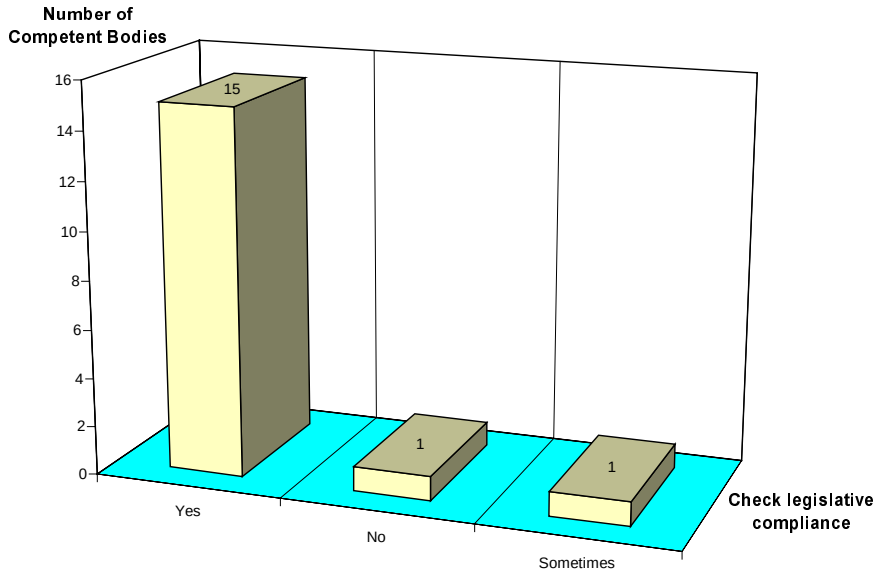

Figure 4 - Competent Bodies' Activity to Check Site Compliance with Legislation

[23] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.
[24] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.
[25] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: Article 8.4 - Breach of Legislation (Procedure)

Questions related to Article/Annex:

C.8 What is the Competent Body's procedure for checking a site is in compliance with relevant environmental legislation before it registers the site?

Respondents: 19[26] representatives of Member State Competent Bodies or Administrative Bodies[27].
Date of interviews: 23/10/97 to 5/11/97

Results[28]:

- The most often used procedure to check a site's compliance with legislation is to contact enforcement authorities by letter.

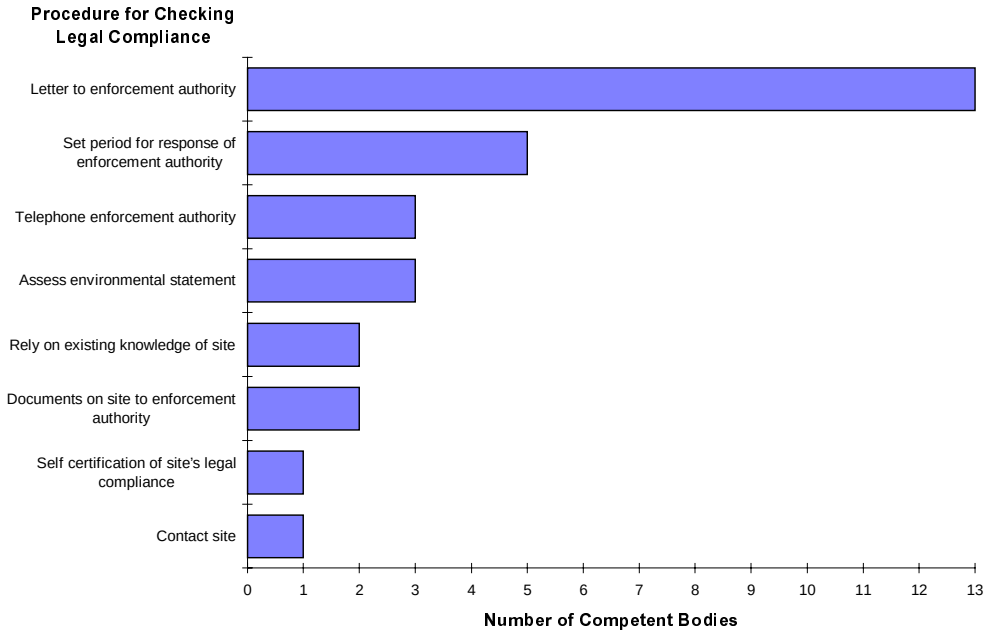

Figure 5 - Competent Bodies' Procedures for Checking Site Compliance with Environmental Legislation[29]

[26] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[27] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[28] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[29] More than one response possible by each Competent Body.

Regulation No 1836/93: Article 8.4 - Informed of a Breach of Legislation by the Enforcement Authority (Procedure)

Questions related to Article/Annex:

C.9 What is the procedure when the Competent Body is notified of a EMAS registered site's non-compliance with environmental legislation?

Respondents: 19[30] representatives of Member State Competent Bodies or Administrative Bodies[31].
Date of interviews: 23/10/97 to 5/11/97

Results[32]:

- Competent Bodies most frequently contact or visit a site when notified of non-compliance with relevant environmental legislation.

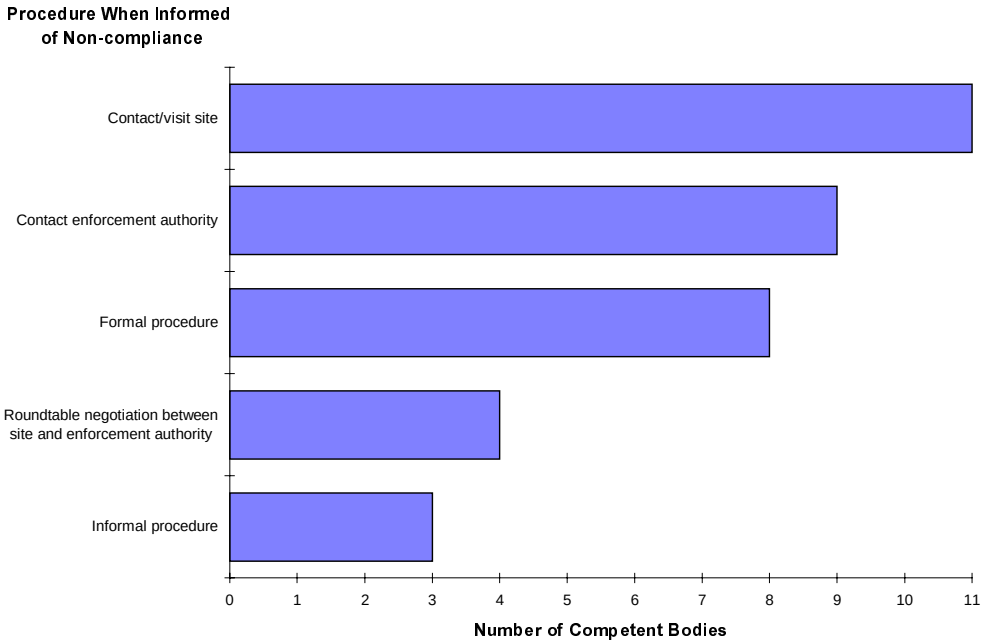

Figure 6 - Competent Bodies' Procedures When Informed of Non-compliance by an Enforcement Authority[33]

[30] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[31] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[32] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[33] More than one response possible by each Competent Body. A number of respondents commented that they had no experience but suggested likely approach to the issue of non-compliance by a registered EMAS site.

Regulation No 1836/93: Article 11 - Cost and Fees (Registration)

Questions related to Article/Annex:

C.12.a) What is the total cost of site registration to EMAS (charged by Competent Body) **b)** how are these costs broken down?

Respondents: 19[34] representatives of Member State Competent Bodies or Administrative Bodies[35].
Date of interviews: 23/10/97 to 5/11/97

Results[36]:

- No fees are charged for registration in Belgium[37], Spain[38], France, Luxembourg, The Netherlands and the UK.

Table 2 - Costs of Site Registration to EMAS Charged by Competent Bodies[39]

Member States	Total cost (ECU[40])	Breakdown of costs	Variation in costs	Average cost (ECU)
Austria	506	None	None	
Germany	229 to 877	See details below	Yes	413
Denmark	267	134 registration 134 annually	None	Not applicable
Finland	1015 to 1691	1015 to 1691 registration 169 annually	Yes,<50 employees pay 1015, all others pay higher rate. All pay same annual fee	Not available
Sweden	1165 to 24240	1165 to 24240 registration 25% of registration fee annually = 291 to 6060	Yes	2913 registration fee, 728 annual fee

Germany - Breakdown of costs	Little administrative effort (ECU)	Average administrative effort (ECU)	Significant administrative effort (ECU)
small enterprise <50 employees	229	392	554
Medium enterprise 50 to 250 employees	392	554	712
Large enterprise >250 employees	554	712	877

[34] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.
[35] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.
[36] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[37] Data from only one Competent Body.
[38] Data from one regional Competent Body and the national co-ordinating Competent Body for 10 regions.
[39] Italy intends to charge fees according to the size of the company.
[40] ECU rates supplied by the European Commission for period 1 to 30 November 1997.

Regulation No 1836/93: Article 11 - Cost and Fees (Variation in Fees)

Questions related to Article/Annex:

C.13 Does the cost of registration vary, e.g. due to size of site?

Respondents: 19[41] representatives of Member State Competent Bodies or Administrative Bodies[42].
Date of interviews: 23/10/97 to 5/11/97

Results[43]:

- Of Competent Bodies that did charge for registration, those in Germany, Finland, Italy[44] and Sweden did vary the cost.

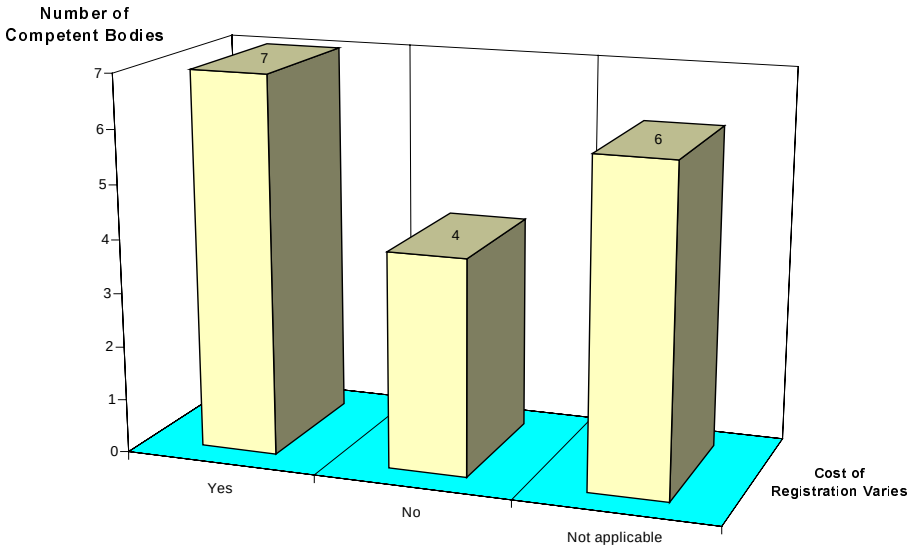

Figure 7 - Variation in the Cost of Site Registration

[41] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[42] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[43] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[44] Italy stated that it intended to vary costs.

Regulation No 1836/93: Article 11 - Cost and Fees (Cost Factors)

Questions related to Article/Annex:

C.14 What are the factors that effect the cost of registration?

Respondents: 19[45] representatives of Member State Competent Bodies or Administrative Bodies[46].
Date of interviews: 23/10/97 to 5/11/97

Results[47]:

- Size of site causes site registration fee variation in Germany, Finland and Italy[48].
- Site registration fee in Sweden is directly related to the fees charged by the enforcement authority.
- Degree of administrative effort is a second factor that causes site registration fee to vary in Germany.

[45] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[46] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[47] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[48] Although not fully operational at the time of interviewing, the Italian Competent Body indicated its approach.

Regulation No 1836/93: Article 18.2 - Observations from Interested Parties

Questions related to Article/Annex:

C.15 Has the Competent Body received any comments from interested parties about a registered site/s?
C.16 Who were these interested parties?
C.17 What was the nature of the representations made by the interested parties?

Respondents: 19[49] representatives of Member State Competent Bodies or Administrative Bodies[50].
Date of interviews: 23/10/97 to 5/11/97

Results[51]:

- Only Competent Bodies from two Member States stated they had received comments on registered site/s from interested parties.
- The interested parties were companies, accredited environmental verifiers (AEVs), regulatory bodies, non-governmental organisations (NGOs) and the general public.
- The nature of the representations made fell into four categories[52]:
  1. Questions at seminars
  2. Requests for information
  3. Exceptions that sites should be more open with information[53]
  4. Reactions on environmental statements[54]

[49] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.

[50] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.

[51] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[52] It is likely that most Competent Bodies have responded to questions at seminars and requests for information as many respondents cited these measures to inform companies and the public of EMAS.

[53] This relates specifically to regulators.

[54] This relates specifically to NGOs.

Regulation No 1836/93: Article 18.2 - Observations from Interested Parties (Procedure)

Questions related to Article/Annex:

C.18 What are the procedures for responding to comments from an interested party about a registered EMAS site?

Respondents: 19 representatives of Member State Competent Bodies[55] or Administrative Bodies[56].
Date of interviews: 23/10/97 to 5/11/97

Results[57]:

- 7 out of 17 Competent Bodies do not have procedures for dealing with observations about registered sites from interested parties.

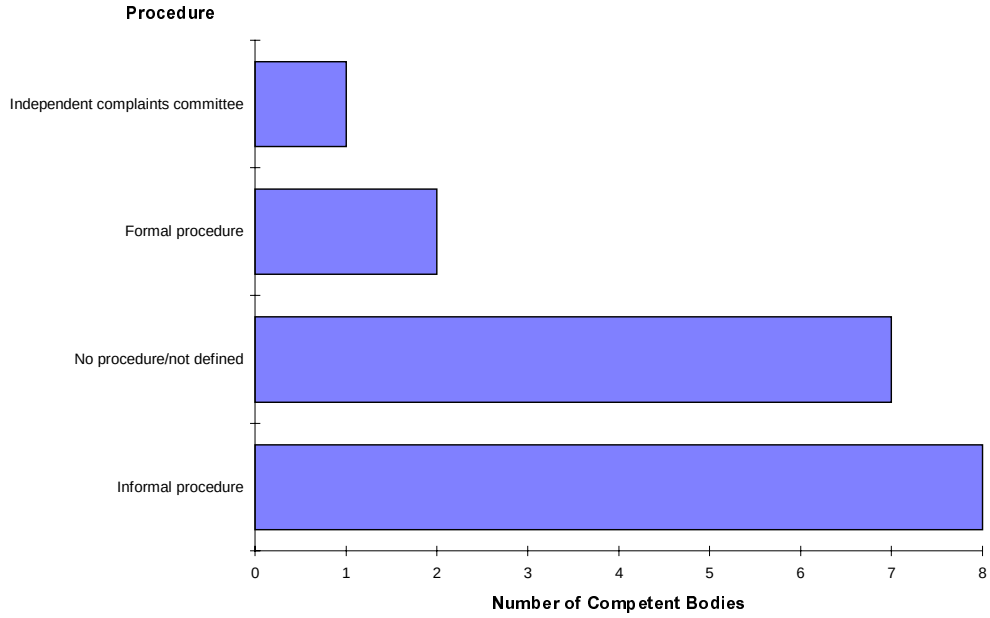

Figure 8 - Competent Bodies' Procedures for Responding to Interested Parties

[55] One of the four Competent Bodies in Belgium was interviewed. Three of the 65 Competent Bodies and the national co-ordinating body DIHT in Germany were interviewed. One of the 7 regional Competent Bodies and the national co-ordinating Competent Body for 10 regions were interviewed in Spain.
[56] Greece and Portugal had not established their Competent Bodies, their responses are not included. Italy established its Competent Body on the 5/11/97, many procedures were established at the time of interviewing so its responses have been included.
[57] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

2.4 Results on Issues Related to Member States

Regulation No 1836/93: *Article 14 - Inclusion of other sectors*

Questions related to Article/Annex:

G.1 Has EMAS been extended to any non-industrial sectors on an experimental basis?
G.2 What are these sectors and how many organisations are registered under the experimental extension?

Respondents: 14 representatives of Member State Competent Bodies[58] or Ministries[59].
Date of interviews: 23/10/97 to 5/11/97

Results[60]:

- 4 out of 14 Member States have, on an experimental basis, extended the provisions of EMAS to other sectors.

Table 3 - Experimental Sectors in EMAS[61]

Member State	No. of Sectors	Sectors	No. Registered
Austria	2	Transport[62] Banking[63]	0 2
Denmark	7	Public bodies[64] Horticulture, mixed farming and forestry Car repair shops Hotel and restaurants Transport Cleaning Laundries and dry cleaning	0 0 0 0 0 0 0
Spain[65]	2	Public administration Tourism	0 0
UK	1	Local authorities	22[66]

[58] Competent Bodies in DK, FR, IR, LUX, NL, SW, the UK and one of the four Competent Bodies in Belgium and the national co-ordinating Competent Body for 10 regions in Spain were interviewed. Italy established its Competent Body on the 5/11/97, thus an administrative representative for this body was interviewed.

[59] Ministries for the Evironment in AU, FIN, GR, P were interviewed. Germany did not provided answers to questions G1 to G8.

[60] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[61] Data incomplete, four additional Member States are known to have extended EMAS to other sectors on an experimental basis.

[62] Transport includes: transport via railways, by cable car, chair lift and T-bar lift, scheduled and non scheduled air transport, cargo handling and storage in rail, air transport and aviation, other supporting activities for rail transport including the conveyance of cargo by truck, the conveyance of persons by bus and ship/boat, other supporting activities in aviation.

[63] Banking includes central banking, credit institutions and special credit institutions.

[64] Sectors specified in a Statutory Order of 1/8/1997.

[65] Catalunya Competent Body is piloting EMAS in camp sites and gas pipe distribution.

[66] Three local authorities (LAs) and 19 LA units of operation.

Regulation No 1836/93: *Article 14 - Inclusion of other sectors (Differences)*

Questions related to Article/Annex:

G.3 What are the main differences about the characteristics of EMAS in the experimental extension sector and EMAS in industrial enterprises?

Respondents: 14 representatives of Member State Competent Bodies[67] or Ministries[68].
Date of interviews: 23/10/97 to 5/11/97

Results[69]:

- Two main implementation differences were highlighted for experimental extension sectors:
  1. The definition of site was changed for local authorities
  2. Significant off-site impacts must be considered

Table 4 - Experimental Sector Implementation Differences[70]

Member State	Sectors	Differences
Austria	Transport Banking	No information supplied, respondent stated further evaluation required
Denmark[71]	Public services Horticulture, mixed farming and forestry Car repair shops Hotel and restaurants Transport Cleaning Laundries and dry cleaning	No differences in implementation, however, if significant impacts are off-site they must be included. The approach for public service is not defined UK local authority scheme is being investigated for experience.
Spain[72]	Public administration Tourism	No specific details given
UK	Local authorities (LA)	Site has been replaced by unit of operation. LA has to commit to register all of its units of operation by a self-defined date

[67] Competent Bodies in DK, FR, IR, LUX, NL, SW, the UK and one of the four Competent Bodies in Belgium and the national co-ordinating Competent Body for 10 regions in Spain were interviewed. Italy established its Competent Body on the 5/11/97, thus an administrative representative for this body was interviewed.
[68] Ministries for the Evironment in AU, FIN, GR, P were interviewed. Germany did not provided answers to questions G1 to G8.
[69] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[70] Data incomplete, four additional Member States are known to have extended EMAS to other sectors on an experimental basis.
[71] Statutory Order of 1/8/1997 details the extension of EMAS to other sectors.
[72] Catalunya Competent Body is piloting EMAS in camp sites and gas pipe distribution to gain implementation experience in these sectors.

Regulation No 1836/93: *Article 15 - Information (Companies)*

Questions related to Article/Annex:

G.4.a What measures have been taken to inform companies of the requirements of EMAS?

Respondents: 14 representatives of Member State Competent Bodies[73] or Ministries[74].
Date of interviews: 23/10/97 to 5/11/97

Results[75]:

- Conferences/seminar and brochures are the methods most frequently used by Member States to inform companies of the contents of Regulation No 1836/93.

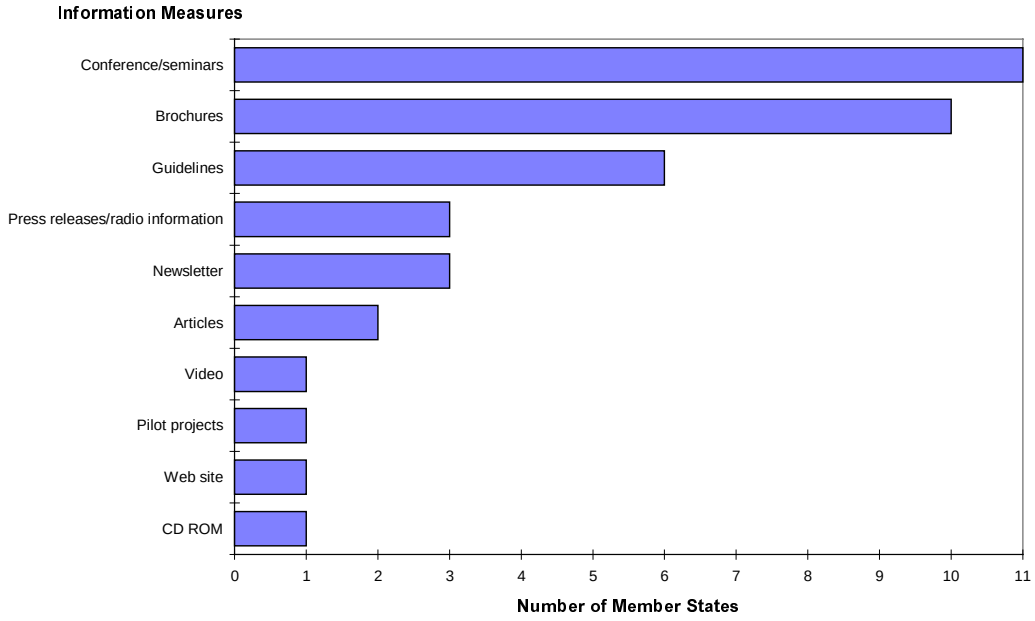

Figure 9 - Methods Used by Member States to Inform Companies of Regulation No 1836/93

[73] Competent Bodies in DK, FR, IR, LUX, NL, SW, the UK and one of the four Competent Bodies in Belgium and the national co-ordinating Competent Body for 10 regions in Spain were interviewed. Italy established its Competent Body on the 5/11/97, thus an administrative representative for this body was interviewed.

[74] Ministries for the Evironment in AU, FIN, GR, P were interviewed. Germany did not provided answers to questions G1 to G8.

[75] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 15 - Information Dissemination (Companies)*

Questions related to Article/Annex:

G.4.b Which organisation undertakes these measures (to inform companies of the Regulation)?

Respondents: 14 representatives of Member State Competent Bodies[76] or Ministries[77].
Date of interviews: 23/10/97 to 5/11/97

Results[78]:

- Competent Bodies and environment ministries/departments are the organisations most frequently charged with informing companies of the contents of Regulation No 1836/93.

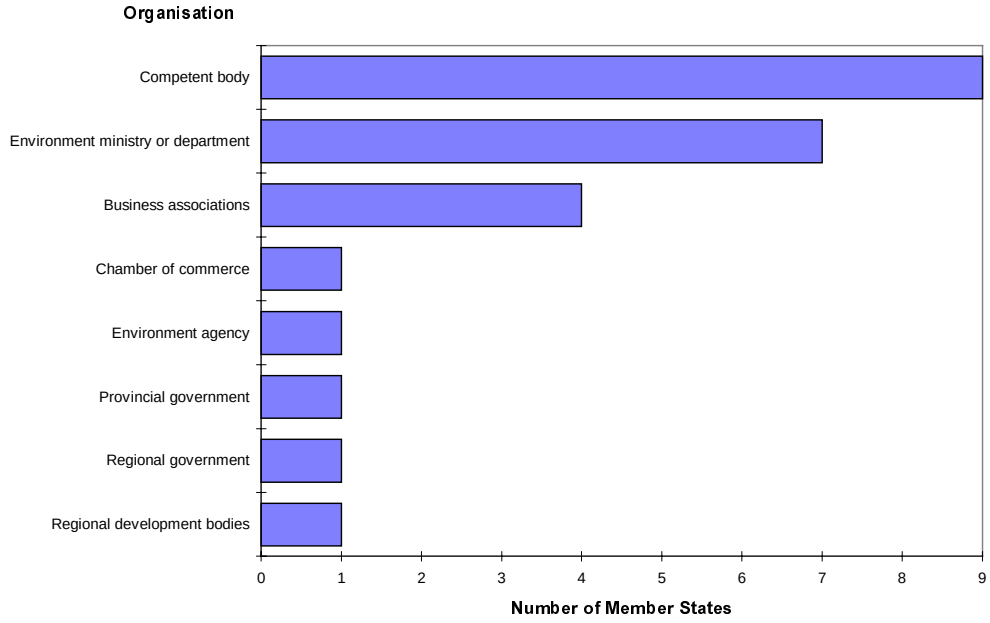

Figure 10 - Organisations Charged with Informing Companies of Regulation No 1836/93

[76] Competent Bodies in DK, FR, IR, LUX, NL, SW, the UK and one of the four Competent Bodies in Belgium and the national co-ordinating Competent Body for 10 regions in Spain were interviewed. Italy established its Competent Body on the 5/11/97, thus an administrative representative for this body was interviewed.

[77] Ministries for the Evironment in AU, FIN, GR, P were interviewed. Germany did not provided answers to questions G1 to G8.

[78] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 15 - Information (Public)*

Questions related to Article/Annex:

G.5.a What measures have been taken to inform the public of the objectives of the Regulation?
G.5.b Which organisation undertakes these measures?

Respondents: 14 representatives of Member State Competent Bodies[79] or Ministries[80].
Date of interviews: 23/10/97 to 5/11/97

Results[81]:

- 4 Member States do not have specific measures to inform the public of the objectives and principals of EMAS
- Competent Bodies or government departments/ministers are the organisations most frequently cited as undertaking measures to inform the public of EMAS.

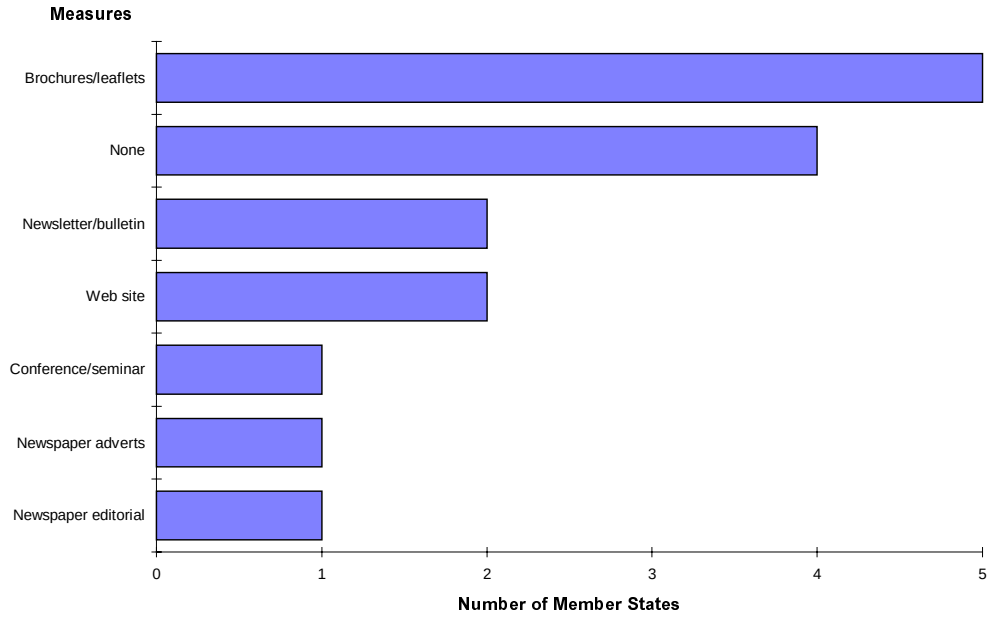

Figure 11 - Measure Undertaken to Inform the Public of EMAS

[79] Competent Bodies in DK, FR, IR, LUX, NL, SW, the UK and one of the four Competent Bodies in Belgium and the national co-ordinating Competent Body for 10 regions in Spain were interviewed. Italy established its Competent Body on the 5/11/97, thus an administrative representative for this body was interviewed.
[80] Ministries for the Evironment in AU, FIN, GR, P were interviewed. Germany did not provided answers to questions G1 to G8.
[81] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 15 - Information (Budgets)*

Questions related to Article/Annex:

G.6 What financial budget (and over what time period) has been allocated to informing companies and the public?

Respondents: 14 representatives of Member State Competent Bodies[82] or Ministries[83].
Date of interviews: 23/10/97 to 5/11/97

Results[84]:

- 8 out of 14 Member States have no specific budget to inform either companies or the public of Regulation No 1836/93[85].
- 6 Member States could quantify the amount of money spent on specific information strategies and/or dedicated budgets which in total amounted to ECU 593,385 expended since 1995.
- Estimating yearly expenditure was only possible for 4 Member States, their expenditure ranged from ECU 22,917 to ECU 132,183 per year.

[82] Competent Bodies in DK, FR, IR, LUX, NL, SW, the UK and one of the four Competent Bodies in Belgium and the national co-ordinating Competent Body for 10 regions in Spain were interviewed. Italy established its Competent Body on the 5/11/97, thus an administrative representative for this body was interviewed.

[83] Ministries for the Evironment in AU, FIN, GR, P were interviewed. Germany did not provided answers to questions G1 to G8.

[84] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[85] General budgets have been used to resource information activities.

Regulation No 1836/93: *Article 13.1 - Promotion of companies' participation in particular of small and medium-sized enterprises (SMEs)*

Questions related to Article/Annex:

G.7a What measures have been taken to promote small and medium-sized enterprises (SMEs) participation in EMAS*?*

Respondents: 14 representatives of Member State Competent Bodies[86] or Ministries[87].
Date of interviews: 23/10/97 to 5/11/97

Results[88]:

- 3 Member States have no measures to promote SME participation.
- 6 Member States have established grant payments to aid SME participation in EMAS
- 5 Member States have supported pilot projects to assist SME participation in EMAS, however 3 of these Member States cited European Commission funded projects (either DG XI, DGXXIII or both).

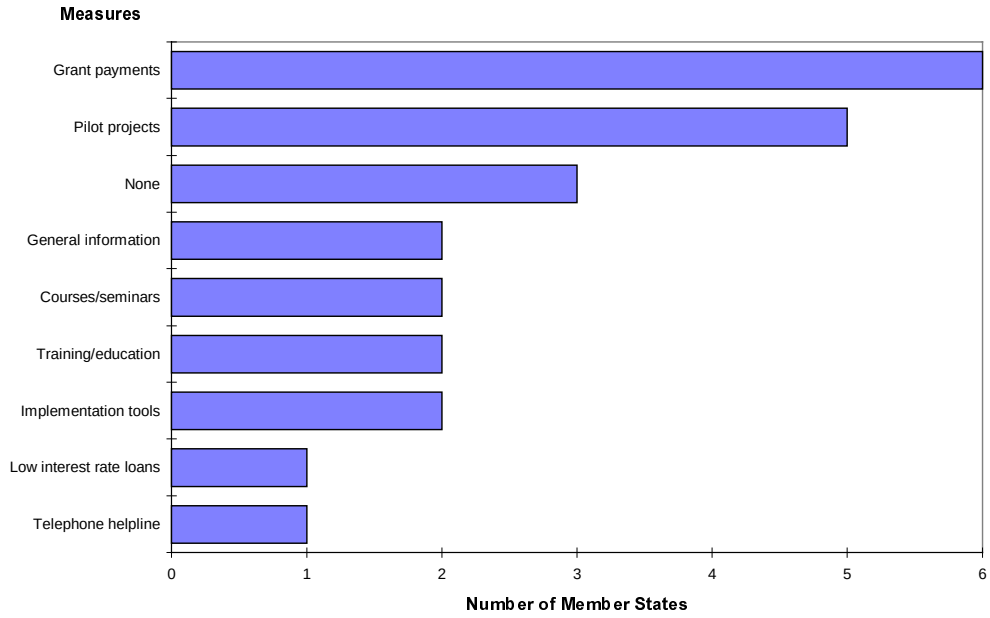

Figure 12 - Measures Undertaken by Member States to Promote SME Participation in EMAS

[86] Competent Bodies in DK, FR, IR, LUX, NL, SW, the UK and one of the four Competent Bodies in Belgium and the national co-ordinating Competent Body for 10 regions in Spain were interviewed. Italy established its Competent Body on the 5/11/97, thus an administrative representative for this body was interviewed.

[87] Ministries for the Evironment in AU, FIN, GR, P were interviewed. Germany did not provided answers to questions G1 to G8.

[88] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 13.1 - Promotion of companies' participation in particular of small and medium-sized enterprises (SMEs) (Organisation)*

Questions related to Article/Annex:

G.7b Which organisation undertakes these measures (to promote small and medium-sized enterprises (SMEs) participation in EMAS)?

Respondents: 14 representatives of Member State Competent Bodies[89] or Ministries[90].
Date of interviews: 23/10/97 to 5/11/97

Results[91]:

- Non-governmental intermediary organisations such as sectoral associations and Chambers of Commerce are being used to promote SME participation in EMAS as well as government ministries/departments.

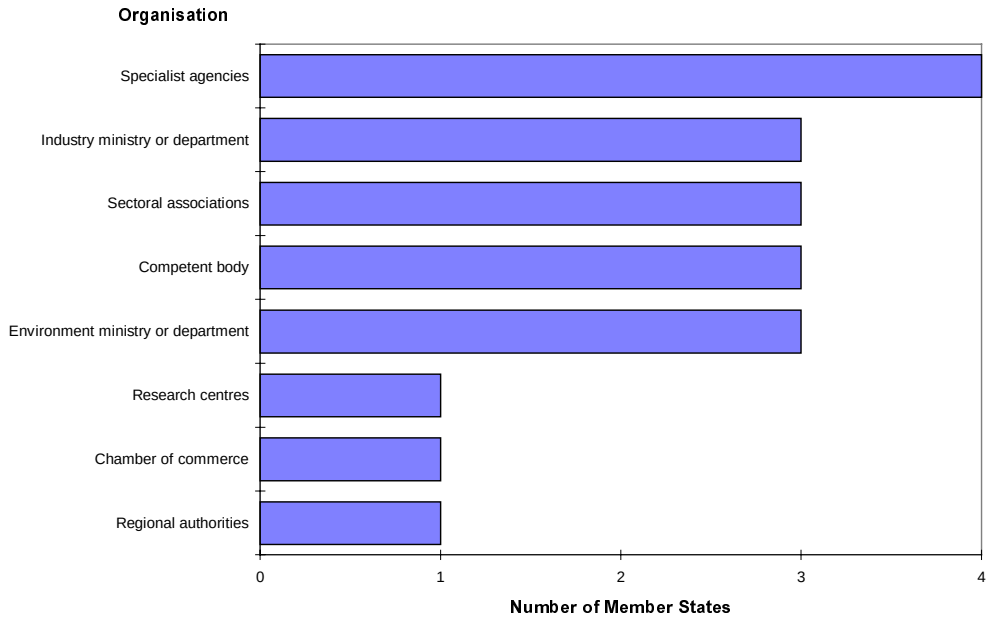

Figure 13 - Organisations Charged with Promoting SMEs Participation in EMAS

[89] Competent Bodies in DK, FR, IR, LUX, NL, SW, the UK and one of the four Competent Bodies in Belgium and the national co-ordinating Competent Body for 10 regions in Spain were interviewed. Italy established its Competent Body on the 5/11/97, thus an administrative representative for this body was interviewed.

[90] Ministries for the Evironment in AU, FIN, GR, P were interviewed. Germany did not provided answers to questions G1 to G8.

[91] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 13.1 - Promotion of companies' participation in particular of small and medium-sized enterprises (SMEs) (Budget)*

Questions related to Article/Annex:

G.8 What financial budget has been allocated to increasing the participation of SMEs in EMAS?

Respondents: 14 representatives of Member State Competent Bodies[92] or Ministries[93].
Date of interviews: 23/10/97 to 5/11/97

Results[94]:

- 8 out of 14 Member States have no specific budget to promote the participation of SMEs in EMAS.
- 6 Member States could quantify the amount of money spent on specific projects to promote the participation of SMEs in EMAS which in total amounted to an estimated ECU 35.1 million since 1995; however this figure also includes moneys promised for forthcoming years[95].
- Estimated yearly expenditure was only possible for 3 Member States, their expenditure ranged from ECU 260,098 to ECU 1.3 million per year.

[92] Competent Bodies in DK, FR, IR, LUX, NL, SW, the UK and one of the four Competent Bodies in Belgium and the national co-ordinating Competent Body for 10 regions in Spain were interviewed. Italy established its Competent Body on the 5/11/97, thus an administrative representative for this body was interviewed.

[93] Ministries for the Evironment in AU, FIN, GR, P were interviewed. Germany did not provided answers to questions G1 to G8.

[94] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[95] A number of interviewees gave very broad estimates of their Member States budgets thus the figure persented is only a broad estimate.

2.5 Results of Accreditation Body Interviews

Regulation No 1836/93: *Article 6.1 - Establishment of Accreditation System*

Questions related to Article/Annex:

A.1. Is the accreditation body established and fully functional?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[96].
Date of interviews: 18/11/97 to 19/12/97

Results[97]:

- 13 out of 15 Member States have established their Accreditation Body and systems for the accreditation and supervision of environmental verifiers.

[96] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[97] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 6 - Accreditation of Environmental Verifiers and Annex III A.2 Accreditation of Individuals*

Questions related to Article/Annex:

A.2.a To date, approximately how many verifiers has your organisation accredited?
A.2.b How many of these verifiers are organisations?
A.2.c How many of these accredited verifier organisations are also certifiers for ISO 14001?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[98].
Date of interviews: 18/11/97 to 19/12/97

Results[99]:

- 254 verifiers have been accredited in 10 Member States, of which 72 (23%) are organisations.
- Out of the 72 organisation verifiers 57 (79%) are also certifiers to ISO 14001.
- 7 Member States have no individual environmental verifiers.
- 2 Member States have more than 86% of their accredited verifiers as individuals.

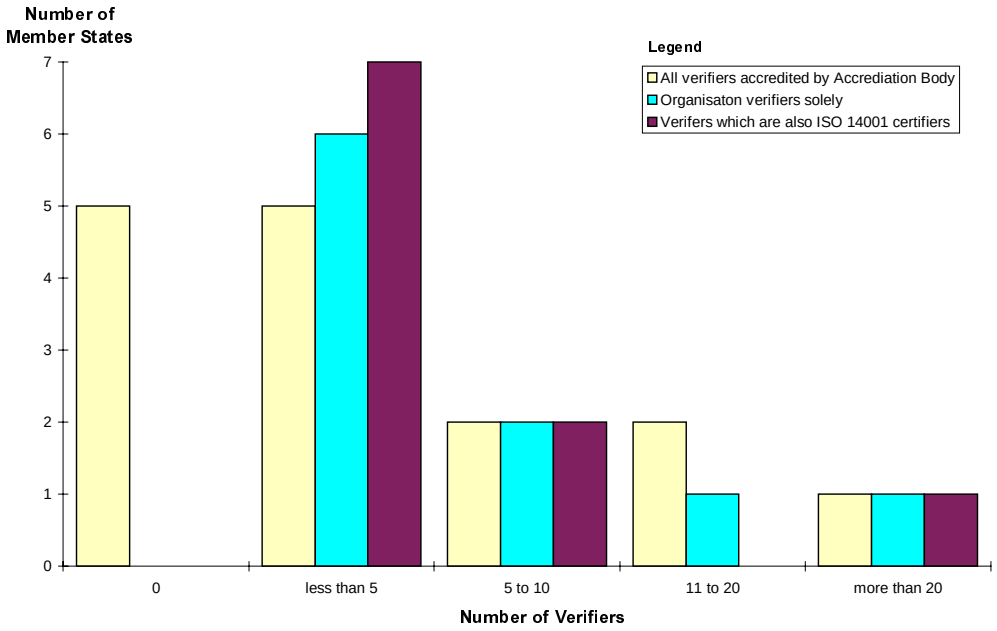

Figure 14 - Accreditation Pattern in Member States[100]

[98] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[99] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[100] Includes responses from Greece and Portugal on number of verifiers accredited.

Regulation No 1836/93: *Annex III A.3d - Decision to Grant or Withhold Accreditation*

Questions related to Article/Annex:

A.3 Has the accreditation body refused to accredit an applicant verifier?
A.4 How many applicant verifiers have been refused accreditation?
A.5 Have any applicant verifiers appealed against its refused accreditation?
A.6 How many applicant verifiers have appealed?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[101].
Date of interviews: 18/11/97 to 19/12/97

Results[102]:

- 4 out of 10 Member States have directly refused to accredit an applicant verifier.
- Estimated refusal rates of applicant verfiers as a percentage of successfully accredited verifiers for the 4 Member States are: 20%, 120%, 200%, 118%.
- Applicant verifiers have appealed against their refused accreditation in 2 out of 4 Member States.

Table 5 - Verifiers that are Refused Accreditation and Appeal Against Refusal[103]

Number of Verifiers	less than 5	5-20	more than 20
Number of Member States which have refused accreditation to an applicant verifier	2	1	1
Number of Member States where verifiers have appealed	1		1

[101] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.
[102] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[103] Data not included for either those applicant verifiers whose scope have been reduced or those have successfully reapplied to be accredited after initial suggestion to improve application.

Regulation No 1836/93: *Article 11 - Costs and Fee (Individual Verifier)*

Questions related to Article/Annex:

A.8a&b What are the current total initial accreditation costs (excluding supervision costs) for an individual verifier?
A.9 How are these total initial accreditation costs broken down?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[104].
Date of interviews: 18/11/97 to 19/12/97

Results[105]:

Table 6 - Initial Accreditation Costs and Breakdown of Costs for Individuals

Member State	Individual verifier Total cost (ECU[106])	Breakdown of costs (ECU)
Austria	4002 (min.)	360 lead verifier 29 each sector 3610 assessment (includes audit)
Belgium	7643 (approx.)	247 application fee 7396 assessment audit
Germany	4170+VAT (average)	355+VAT application fee 610+VAT examination fee
Denmark	107 (hourly rate, no fixed fees)	107 (hourly rate, no fixed fees)
Spain	In theory the same as organisations except for the cost of the witnessed assessment, because shorter. No final decision.	1456 application fee 1083 man/day rate
Finland	3383-5074	846-1691 document review (2-4 man/days) 2537 witnessed audit
France	1631	721 application fee 911 examination fee
Italy	No decision	No decision
Ireland	In theory same as organisation	In theory same as organisation
Luxembourg	0	0
The Netherlands	Variable	1127 registration fee plus number of days worked 879 man/day rate
Sweden	No costs defined	No costs defined
UK	3632 (approx.)	727 application fee plus 1119 man/day rate

[104] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.
[105] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[106] ECU rates supplied by the European Commission for period 1 to 30 November 1997.

Regulation No 1836/93: *Article 11 - Costs and Fee (Organisation Verifier)*

Questions related to Article/Annex:

A.8a&b What are the current total initial accreditation costs (excluding supervision costs) for an organisation verifier?
A.9 How are these total initial accreditation costs broken down?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[107].
Date of interviews: 18/11/97 to 19/12/97

Results[108]:

Table 7 - Initial Accreditation Costs and Breakdown of Costs for Organisations

Member State	Organisation verifier Total cost (ECU[109])	Breakdown of costs (ECU)
Austria	5447 (min.)	360 lead verifier 29 each sector 5060 assessment (includes audit)
Belgium	7643 (approx.)	247 application fee 7396 assessment audit
Denmark	107 (hourly rate, no fixed fees)	107 (hourly rate, no fixed fees)
Finland	10148-15222	2537 document review (4-5 man/days) 846 office assessment 3382-5074 witnessed audits (normally 2 of them in 2 different sectors)
France	7588	683/person for each lead auditor 910/person for examination fee 3187 fixed cost for the organisation 3035-4553 witnessed assessment
Germany	3559+VAT (+individual fees)	3559+VAT fee for legal entity 610+VAT examination fee
Ireland	9166-13095 average costs	2357 application for EMAS or ISO 14001 3274 application for both EMAS and ISO 14001 668 man/day and 890 man/day expert for assessment work
Italy	2587 for each macro-sector (7 macro-sectors) + 673 man/day rate (max. 12 days)	2587 for each macro-sector (7 macro sectors) 673 man/day rate (max. 12 days)
Luxembourg	0	0
Spain	9039 (approx.)	1456 application fee 1083 man/day rate, 1 day preliminary office visit, 3 days office 3 days complete office visit and 2 to 4 technical visit during verification.
Sweden	15149 average costs	1864 application fee 4661 office assessment 9322 witnessed assessment on 2 sites
The Netherlands	16070 average costs for ISO 14001 and EMAS	1127 registration fee plus number of days worked 879 man/day rate
UK	21198 average for both ISO 14001 and EMAS	2180 application fee plus 1119 man/day rate

[107] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.
[108] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[109] ECU rates supplied by the European Commission for period 1 to 30 November 1997.

Regulation No 1836/93: *Article 11 - Costs and Fee (Notification)*

Questions related to Article/Annex:

A.10 What are the current costs (excluding supervision) for a foreign verifier when it notifies the accreditation body?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[110].
Date of interviews: 18/11/97 to 19/12/97

Results[111]:

- 4 Member States have charges for the notification of foreign verifiers.

Table 8 - Cost of Notification of Verifiers

Member State	Cost of notification (ECU[112])
Austria	0
Belgium	0
Denmark	No experience maybe hourly rate
Finland	76/hour (normally not more than 16 hours) evaluation of documents provided for notification
France	0
Germany	1017+VAT
Ireland	0
Italy	2% on turnover on verifications, not less than 1552
Luxembourg	0
Spain	1456
Sweden	0
The Netherlands	0
UK	0

[110] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[111] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[112] ECU rates supplied by the European Commission for period 1 to 30 November 1997.

Regulation No 1836/93: *Article 11 - Costs and Fee (Supervision of Verifiers)*

Questions related to Article/Annex:

A.13 What are the total costs of supervision for an individual verifier, an organisation verifier and a foreign verifier?
A.14 How are these total supervision costs broken?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[113].
Date of interviews: 18/11/97 to 19/12/97

Results[114]:

Table 9 - Supervision Costs for Individual, Organisation and Foreign Verifiers

Member State	Individual verifier Total cost (ECU[115])	Organisation verifier Total cost (ECU)	Foreign verifier Total cost (ECU)
Austria	0	0	0
Belgium	2465-3698 (assessment audit)	2465-3698 (assessment audit)	3698 (assessment audit)
Denmark	None	107 hourly rate, for audit assessment and administration	107 hourly rate, for audit assessment and administration
Finland	864-1691 (witnessed and office assessment)	3383-5074 (witnessed assessment and office assessment)	5074-6765 (witnessed assessment and office assessment)
France	835 day rate (total cost dependent on witnesses audit)	835 day rate (total cost dependent on witnesses audit)	835 day rate (total cost dependent on witnesses audit)
Germany	Under consideration, fee structure: a) 1525 basic fee for 36 months, b) fee based on document and witnessed assessments plus c) fee based on number of verifications.	Under consideration, see individual verifier	Under consideration, see individual verifier
Ireland	In theory same as organisation verifier	668 day rate, 890 expert day rate, e.g. first surveillance 3562	668 day rate, 890 expert day rate,
Italy	No decision	673 man/day rate (max. 8 days) plus 2% of turnover made on validations every year (at least 1552)	673 man/day rate (max. 8 days) plus 2% of turnover made on validations every year (at least 1552)
Luxembourg	0	0	0
Portugal	No decision, will depend on number of days for supervision	No decision, will depend on number of days for supervision	1110 average cost
Spain	1083 man/day rate	1083 man/day rate (office visit and technical visit)	1083 man/day rate (office visit and technical visit)
Sweden	Not defined	annual fee of 1.5% of turnover up to 1165306 then .75% of turnover with a min. of 3846 to max. 11653, plus any extra costs of experts employed to do assessments	Pay for surveillance e.g. 9322
The Netherlands		2706 annual fee plus 1.5% of the income of accredited certification and EMAS verifications to a max. of 18039 average costs for ISO 14001 and EMAS	879 day rate, fee based on number of days for witness assessment
UK	1119 day rate	1119 day rate	1119 day rate

[113] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[114] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[115] ECU rates supplied by the European Commission for period 1 to 30 November 1997.

Regulation No 1836/93: *Annex III A.5 - Requirements of Applicant Verifiers*

Questions related to Article/Annex:

A.15 What are the requirements for an applicant verifier to be accredited?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[116].
Date of interviews: 18/11/97 to 19/12/97

Results[117]:

- Witnesses assessments and compliance with EAC[118] Guide No. 5 are the most frequently cited requirements for applicant verifiers to meet.

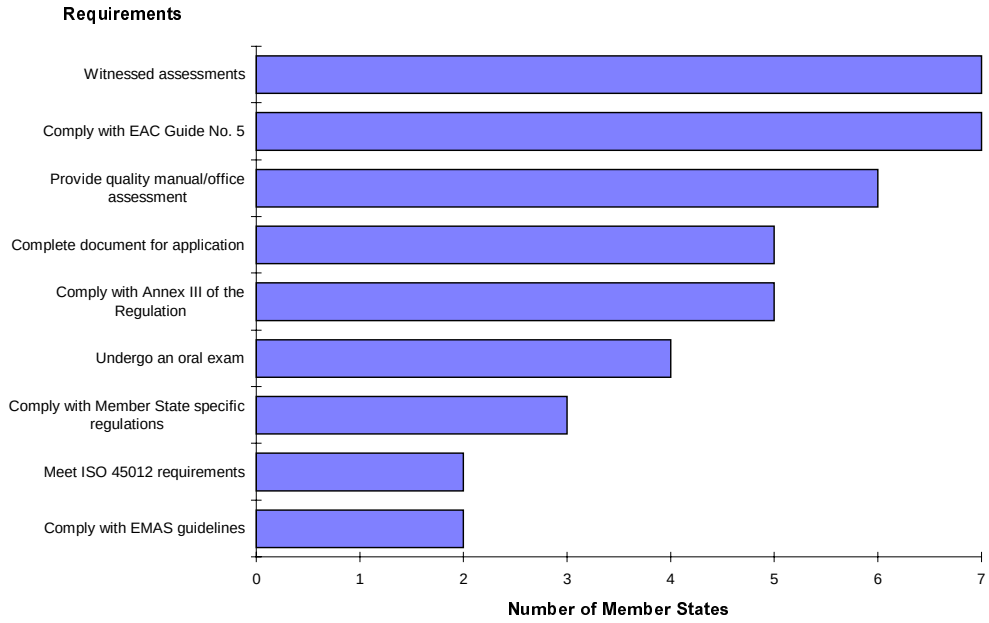

Figure 15 - Requirements Specified for an Applicant Verifier in the Member States

[116] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.
[117] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[118] European Accreditation of Certification.

Regulation No 1836/93: *Annex III A.4b and c - Procedures for Checking Applicant Verifiers*

Questions related to Article/Annex:

A.16 How are the requirements for an applicant verifier checked by the accreditation body?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[119].
Date of interviews: 18/11/97 to 19/12/97

Results[120]:

- 9 out of 13 Accreditation Bodies utilise witnesses assessments as a mechanism to check the requirements of an applicant verifier to be accredited.

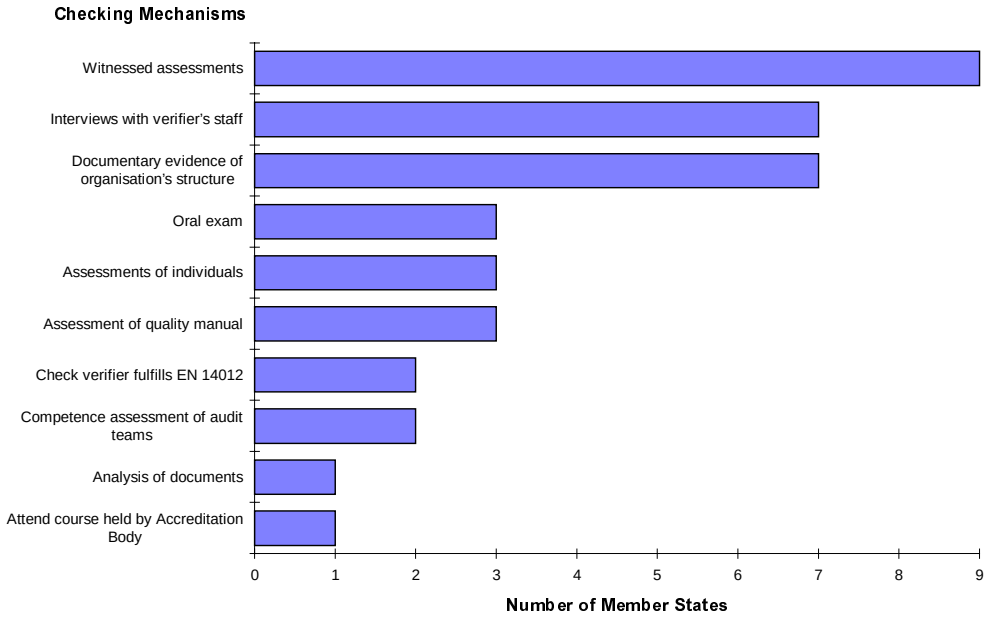

Figure 16 - Mechanisms Used to Check Applicant Verifier's Information

[119] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[120] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Annex III A.1 - Definition of Verifier's Scope*

Questions related to Article/Annex:

A.17 What information does the verifier have to supply the accreditation body so that it can define the verifier's scope?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[121].
Date of interviews: 18/11/97 to 19/12/97

Results[122]:

- 9 out of 13 Accreditation Bodies utilise interviews and CVs of audit team members as means to define an applicant verifier's scope.

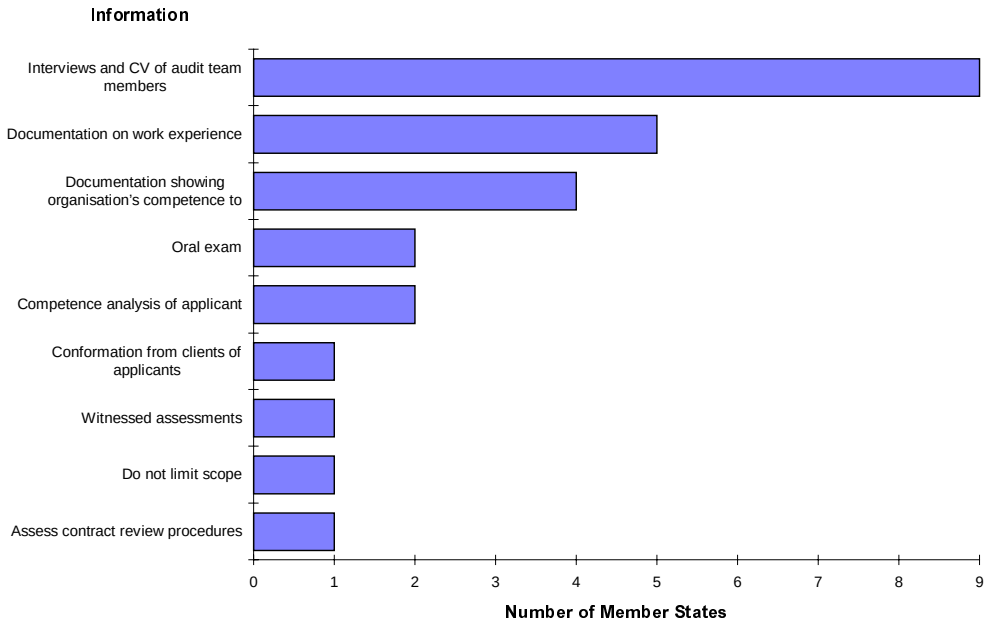

Figure 17 - Information Supplied by the Applicant Verifier to Define its Scope

[121] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[122] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Annex III A.4b and c - Procedures for Checking Verifier's Scope*

Questions related to Article/Annex:

A.19 How is the information gathered by the accreditation body to define a verifier's scope?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[123].
Date of interviews: 18/11/97 to 19/12/97

Results[124]:

- 9 out of 13 Accreditation Bodies utilise the information source of documentation on training and experience of the verifier to define its scope.

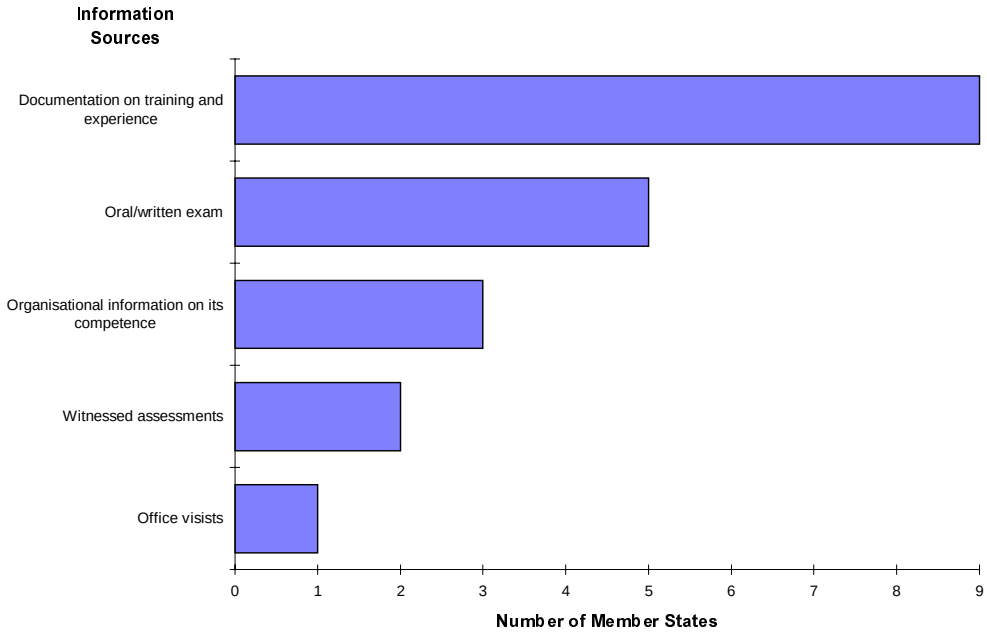

Figure 18 - Information Used by the Accreditation Body to Define Verifier's Scope

[123] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[124] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Annex III A.4(g) - Limit of Verifier's Scope*

Questions related to Article/Annex:

A.18 Would you say the accreditation body has had to restricted the requested scope of verifiers?[125]

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[126].
Date of interviews: 18/11/97 to 19/12/97

Results[127]:

- 3 out of 13 Accreditation Bodies have 'never' restricted a verifier's scope.
- 7 out of 13 Accreditation Bodies restrict the scope of verifiers 'in the majority of cases'.

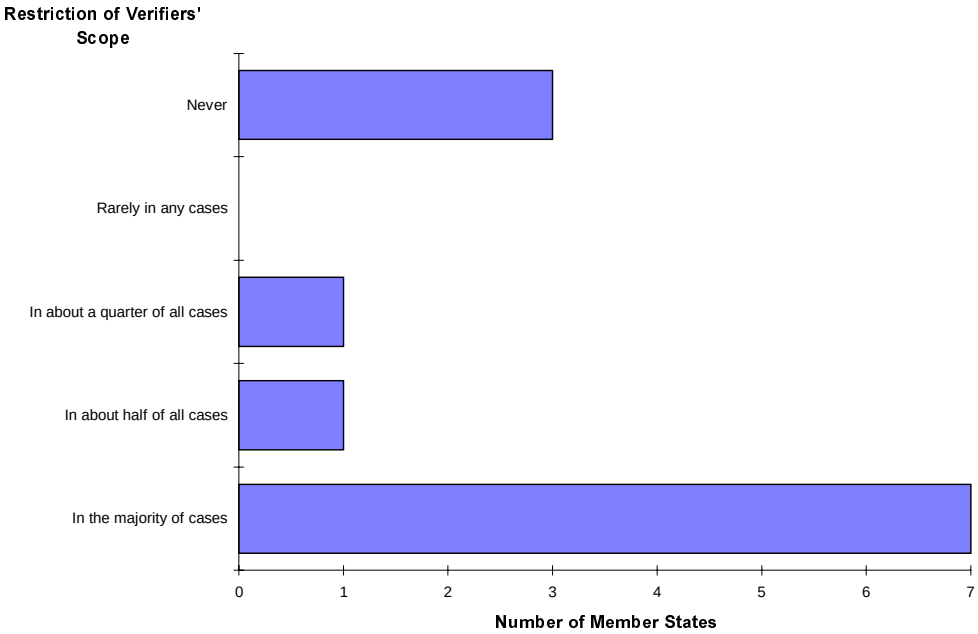

Figure 19 - Restriction of Verifiers' Scope in Member States

[125] The requested scope is the NACE codes and sectors which verifiers have applied to become accredited so that they can undertake verifications in those sectors.
[126] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.
[127] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Annex III A.1 - Independence of the Verifier*

Questions related to Article/Annex:

A.20 How does the accreditation body determine the independence of the AEV from the site?
A.21 Does the accreditation body check for this independence?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[128].
Date of interviews: 18/11/97 to 19/12/97

Results[129]:

- 12 out of 13 Accreditation Bodies checks the independence of verifiers.

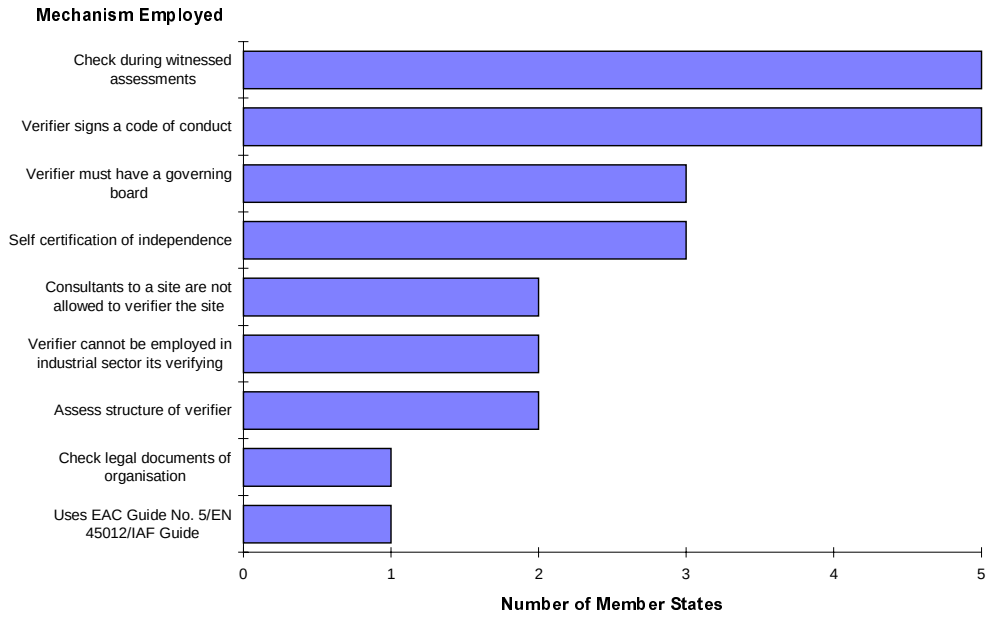

Figure 20 - Mechanism Employed to Check the Independence of Verifiers

[128] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[129] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 6.4 and Annex III A.5 - Supervision of Verifiers*

Questions related to Article/Annex:

A.11 Are domestic accredited environmental verifiers supervised?
A.12a What is the frequency of the supervision of each accredited environmental verifier?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[130].
Date of interviews: 18/11/97 to 19/12/97

Results[131]:

- All 15 Member States stated accredited environmental verifiers are/would be supervised[132].
- 9 of the 13 operational Accreditation Bodies stated verifiers were supervised every 12 months.

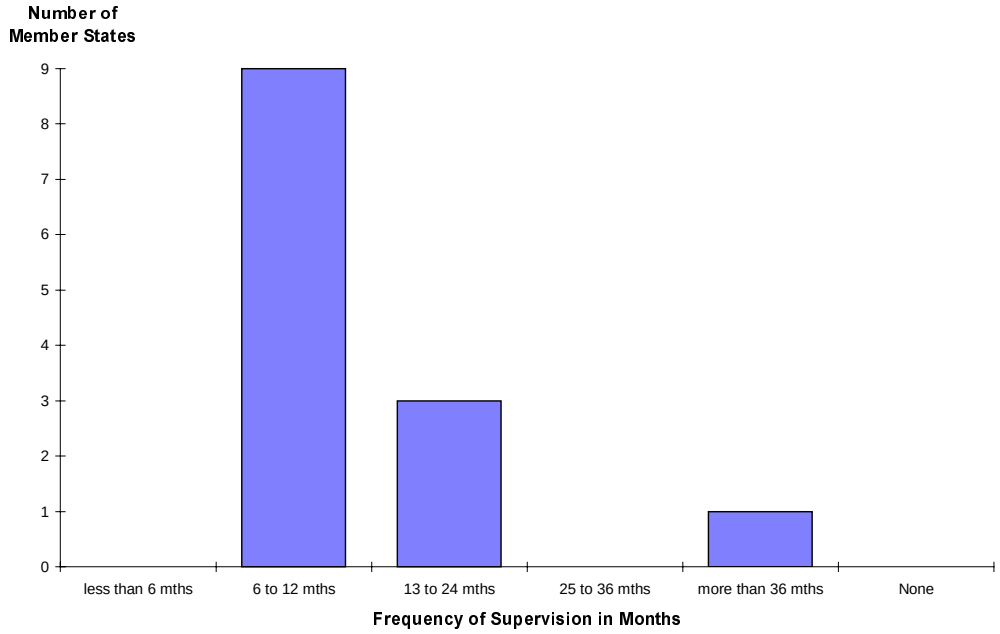

Figure 21 - Frequency of the Supervision of Accredited Environmental Verifiers

[130] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.
[131] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[132] Greece and Portugal indicated their approaches although their Accreditation Bodies were not established at the time of interviewing.

Regulation No 1836/93: *Article 6.4 and Annex III A.5 - Supervision of Verifiers*

Questions related to Article/Annex:

A.12b What does this supervision involve?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[133].
Date of interviews: 18/11/97 to 19/12/97

Results[134]:

- All 13 Member States with operational Accreditation Bodies undertake or intend to undertake witnessed assessments during verifiers' supervision.

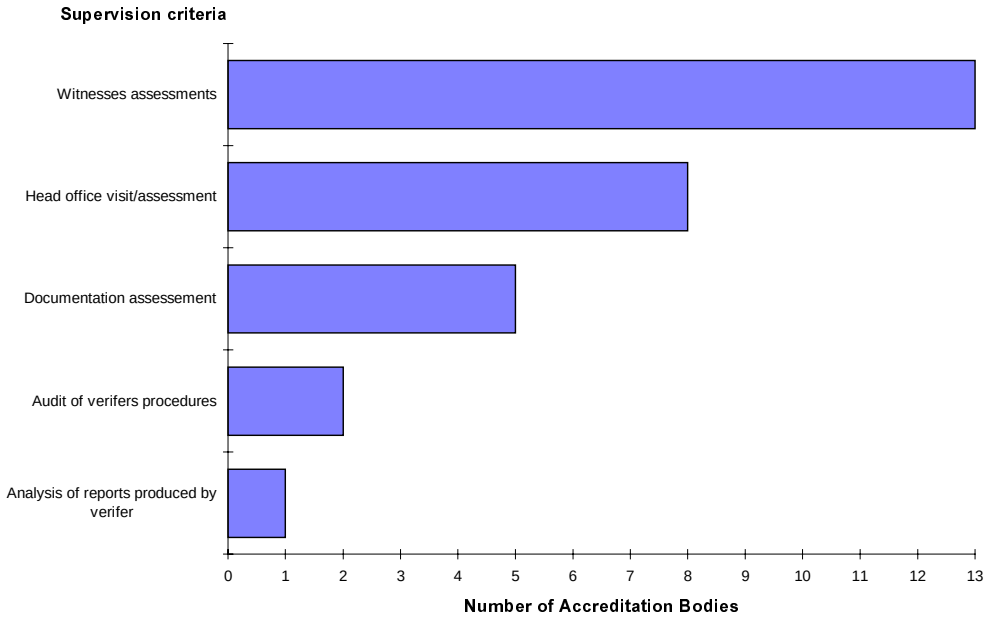

Figure 22 - Accreditation Bodies' Supervision Criteria for Verifiers[135]

[133] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[134] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[135] Supervision criteria are either used or intended to be used by Accreditation Bodies.

Regulation No 1836/93: *Article 6.4 and Annex III A.5 - Supervision of Verifiers (Problems)*

Questions related to Article/Annex:

A.12c Has this supervision given rise to any problems?
A.12d What were these problems and how were they resolved?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[136].
Date of interviews: 18/11/97 to 19/12/97

Results[137]:

- 5 out of 13 Member States with operational Accreditation Bodies stated that the supervision of verifiers had given rise to problems.

Table 10 - Problems and Solutions in the Supervision of Verifiers[138]

Problems in supervision of verifier	Solutions to problems
1. Mistakes found in the verifier's contract	1. Stop verifier's work on site and new contract required to be produced
2. Environmental statement not signed by the correct verifier	2. Delete verifier from the environmental statement, go back to site with competent team
3. Procedures not implemented by verifier	3. Non-conformances raised and corrective action taken
4. Verifier failed to properly check the environmental statement	4. Non-conformances raised and corrective action taken
5. Competence of verifier questioned	5. Non-conformances raised and corrective action taken

[136] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.
[137] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[138] Problems and associated solutions are not presented in a priority order in the table.

Regulation No 1836/93: *Annex III A.3 - Rights and Duties*

Questions related to Article/Annex:

A.22 Are there any guidelines on how many days verifiers should spend on site?
A.23 Broadly what do these guidelines suggest?
A.24 Are there any guidelines on how much verifiers should charge?
A.25 Broadly what do these guidelines suggest?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[139].
Date of interviews: 18/11/97 to 19/12/97

Results[140]:

- 12 out of 13 Accreditation Bodies state they have no guidelines on how many days a verifier should spend on site.
- One Accreditation Body applies the EAC[141] group recommendations for quality systems to EMAS and ISO 14001.
- All Accreditation Bodies state that they have no guidelines on how much verifiers should charge sites for EMAS verifications

[139] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.
[140] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[141] European Accreditation of Certification.

Regulation No 1836/93: *Article 6.7 and Annex III A.5 - Notification*

Questions related to Article/Annex:

A.26 Has the accreditation body been notified by any verifiers from other Member States?
A.27 From which Member States has the accreditation body been notified by foreign verifiers?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[142].
Date of interviews: 18/11/97 to 19/12/97

Results[143]:

- 12 out of 13 Accreditation Bodies have been notified by a verifier from another Member State.

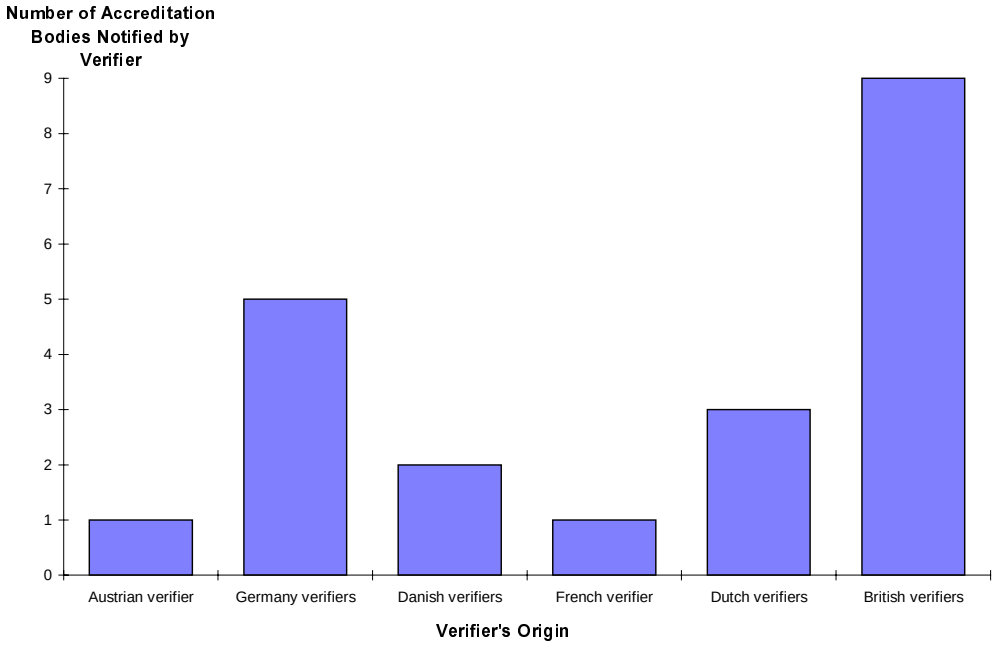

Figure 23 - Number of Accreditation Bodies Notified by Foreign Verifiers and the Country of Origin of Foreign Verifiers

[142] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[143] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 6.7 and Annex III A.5 - Supervision*

Questions related to Article/Annex:

A.28 Are foreign verifiers supervised?
A.29 How is this supervision conducted?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[144].
Date of interviews: 18/11/97 to 19/12/97

Results[145]:

- 12 out of 13 Accreditation Bodies supervise foreign verifiers.
- 10 out of 13 Accreditation Bodies undertake witnessed assessments of foreign verifiers.

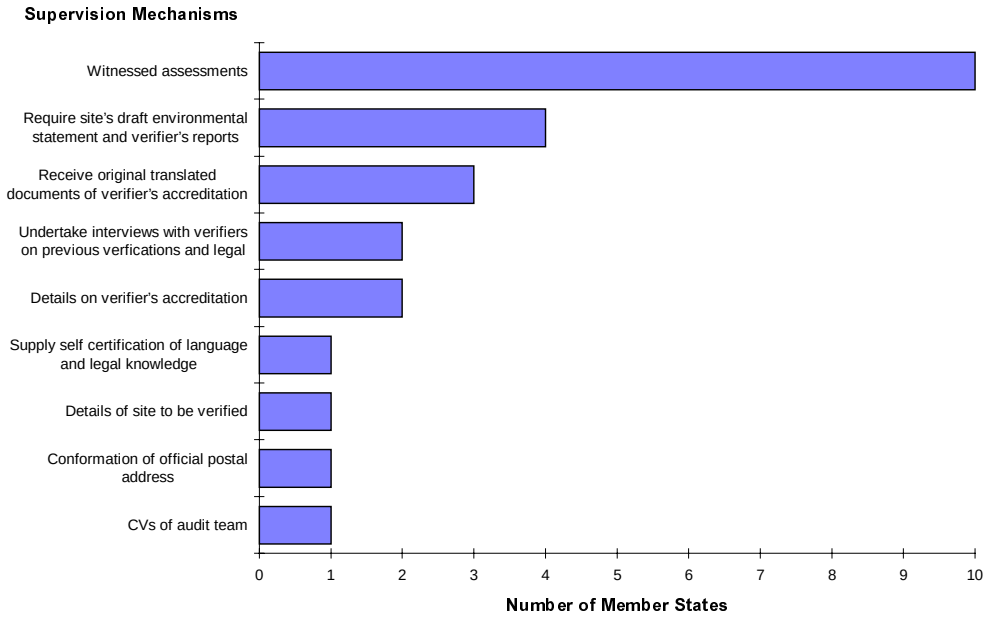

Figure 24 - Supervision Mechanisms for Foreign Verifiers

[144] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[145] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 6.7 and Annex III A.5 - Supervision (Foreign Verifiers)*

Questions related to Article/Annex:

A.30 Did the supervision of foreign verifiers give rise to any problems?
A.31 What were these problems and how were they resolved?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[146].
Date of interviews: 18/11/97 to 19/12/97

Results[147]:

- 7 out of 13 Accreditation Bodies stated that the supervision of foreign verifiers had given rise to problems.
- Solutions to problems cited were to follow Commission guidelines; raise concern with verifier and/or Accreditation Body of verifier's Member State; and reduce site audit cycle length.

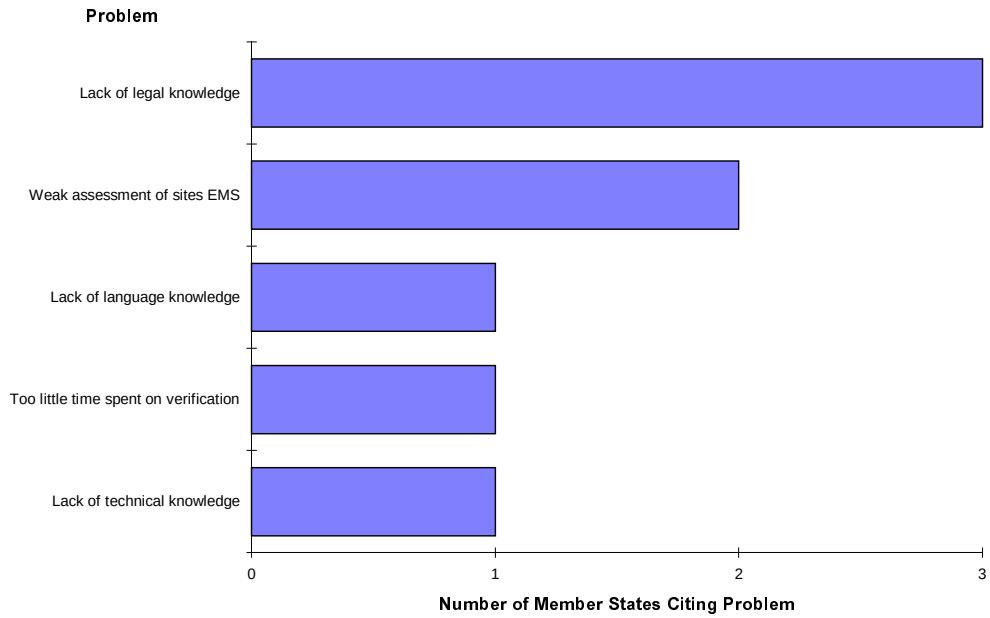

Figure 25 - Problems Associated with the Supervision of Foreign Verifiers

[146] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[147] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *- Complaints about Verifiers*

Questions related to Article/Annex:

A.32a&b How many complaints (*i.e. those that the AB has taken action on*) has the accreditation body received about domestic accredited environmental verifiers and foreign accredited environmental verifiers?
A.33 Who were the complaints received from?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[148].
Date of interviews: 18/11/97 to 19/12/97

Results[149]:

- Client companies and other verifiers are the source of all complaints about verifiers.

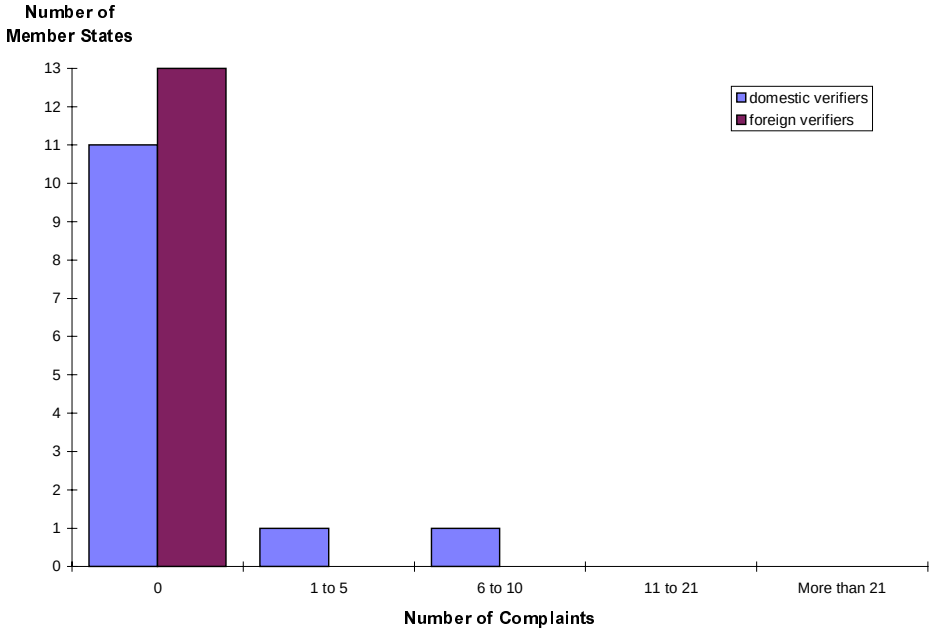

Figure 26 - Number of Complaints Received by Accreditation Bodies

[148] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[149] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *- Complaints about Verifiers*

Questions related to Article/Annex:

A.34 What was the nature of these complaints?
A.35 What is the procedure for dealing with complaints?

Respondents: 15 Representatives of Member State Accreditation Bodies or Ministries[150].
Date of interviews: 18/11/97 to 19/12/97

Results[151]:

- Five types of complaint about verifiers were cited:
  1. the verifier was not impartial,
  2. mistake in the verifier's contract,
  3. the verifier fixed the date of next environmental statement,
  4. too little time spent on site by individual verifier,
  5. uncertain about quality of individual verifier.
- 9 out of 13 Accreditation Bodies have formal complaints procedures.

[150] Greece and Portugal had not established their Accreditation Bodies thus Ministries of the Environment were interviewed.

[151] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

2.6 Results of Accredited Environmental Verifiers Interviews

Regulation No 1836/93: *Article 6.4 - Accreditation of Verifiers*

Questions related to Article/Annex:

V.1. Are you/your organisation accredited as an individual or organisation?
V.2. Have you performed any EMAS verifications as part of a team?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[152].
Date of interviews: 16/12/97 to 3/2/98

Results[153]:

- The majority (71%) of verifiers accredited as individuals had performed EMAS verifications as part of a team[154].

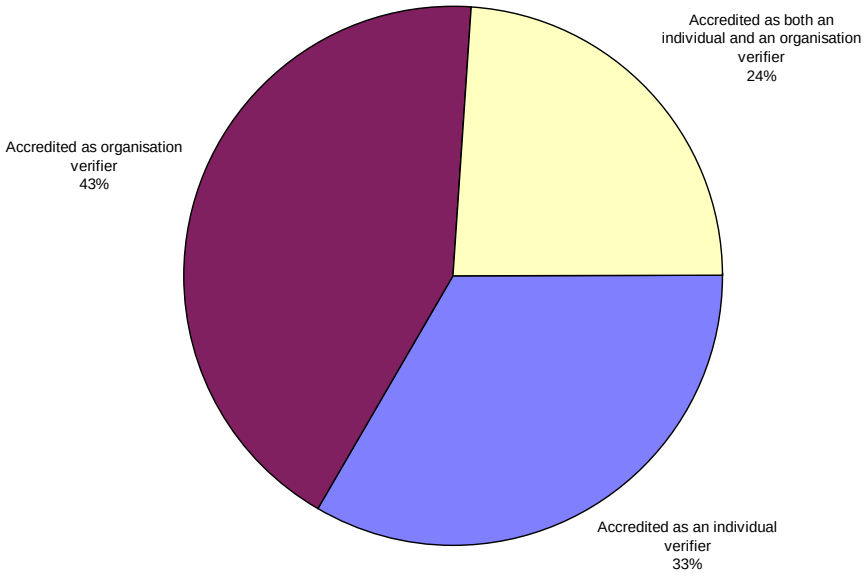

Figure 27 - Breakdown of Respondents Accreditation Type[155]

[152] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.
[153] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[154] Question V.2.
[155] Question V.1. Of the 10 verifiers stating they had both individual and organisation accreditation, 3 were interviewed as organisations and 7 as individuals.

Regulation No 1836/93: *Annex III A.1 and 2 - Accreditation Scope and its Limitation*

Questions related to Article/Annex:

V.3 How many sectors (NACE and others in the Regulation) are you/your organisation accredited to perform verifications in?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[156].
Date of interviews: 16/12/97 to 3/2/98

Results[157]:

- Verifiers were accredited in all NACE sectors[158] covered by the Regulation ranging from 1 to 29 sectors.

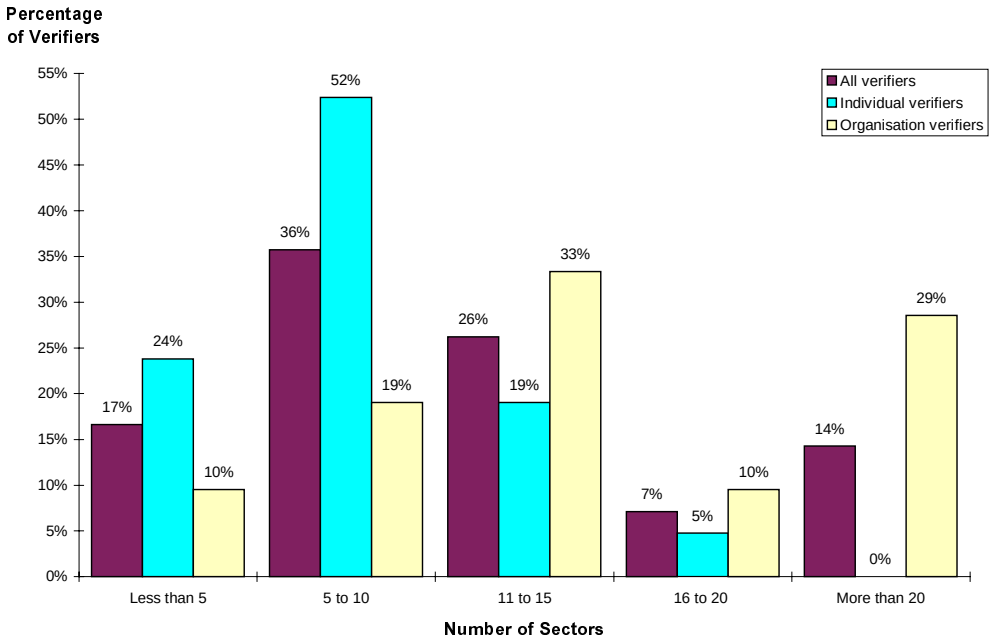

Figure 28 - Number of Sectors Verifiers are Accredited to Perform Verifications

[156] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.
[157] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[158] A NACE sector was taken at the division level, e.g. 21.

Regulation No 1836/93: *Article 14 and Annex III A.1 - Experimental Sectors Accredited Scope*

Questions related to Article/Annex:

V.4 Have you/your organisation been accredited to work in any experimental extension sectors?
V.5a What are these experimental sectors?
V.5b Have you/your organisation undertaken any accredited verifications in those sectors you have mentioned?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[159].
Date of interviews: 16/12/97 to 3/2/98

Results[160]:

- Only 6 (17%) verifiers (all organisations) were accredited for experimental sectors under Article 14.
- Seven experimental sectors were cited:
  6. Restaurants
  7. Farming
  8. Public service
  9. Waste collection systems
  10. Local authorities
  11. Railway operations
  12. Commerce
- Three verifiers had undertaken verifications in the experimental sectors they were accredited for and 3 had not.

[159] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.

[160] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 3(g) and 4 - (Number of) Validations*

Questions related to Article/Annex:

V.9a How many accredited verifications, approximately, have you/your organisation completed to date in the EU?
V.9b How many verifications, approximately, have you/your organisation completed to date in non-EU countries?
V.6 Have you/your organisation undertaken any unaccredited verifications?
V.7 In what sectors, and how many, were the unaccredited verifications undertaken?
V.8a Are you/your organisation accredited to undertake ISO 14001 certifications?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[161].
Date of interviews: 16/12/97 to 3/2/98

Results[162]:

- Only 2 (5%) verifiers (all organisations) have undertaken 'verifications' to EMAS in non-EU countries.
- 4 (10%) verifiers (2 individual and 2 organisations) have undertaken approximately 14 unaccredited verifications to EMAS in the sectors of transport, public administration, hospitals, schools and universities[163].
- 88% of verifiers are also accredited to undertake ISO 14001 certifications.

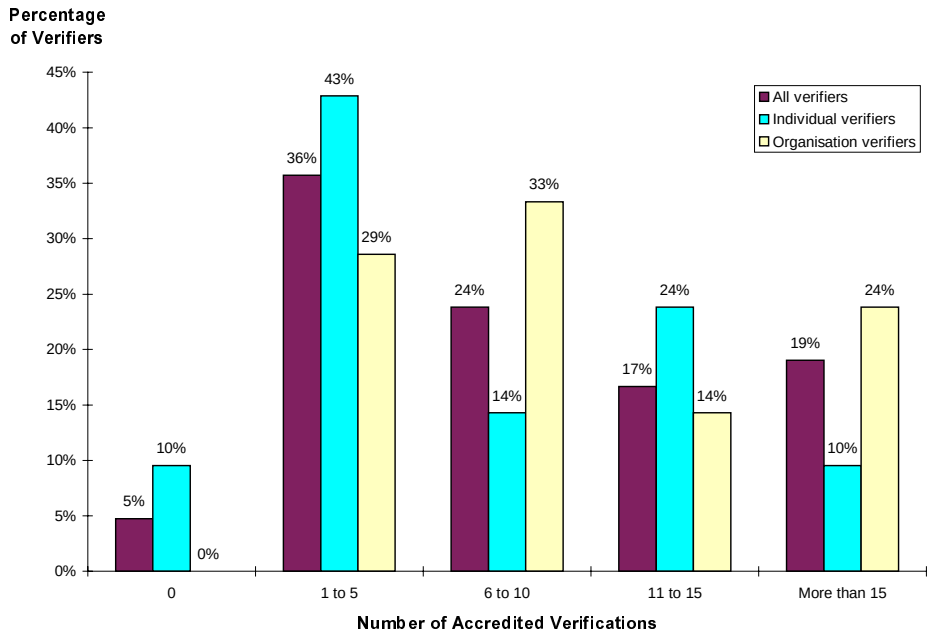

Figure 29 - Percentage of Accredited Verifications by Verifiers

[161] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.
[162] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[163] Unaccredited verfications are those undertaken outside the sectoral scope of accreditation of the verifiers.

Regulation No 1836/93: *Article 4 - Validations (Major Non-conformance)*

Questions related to Article/Annex:

V.10h Where there any major non-conformance (i.e. a finding which prevented completion of verification) to the requirements of the Regulation raised?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[164].
Date of interviews: 16/12/97 to 3/2/98

Results[165]:

- Individual verifiers are slightly more likely (42%) to raise a major non-conformance than organisation verifiers (33%).

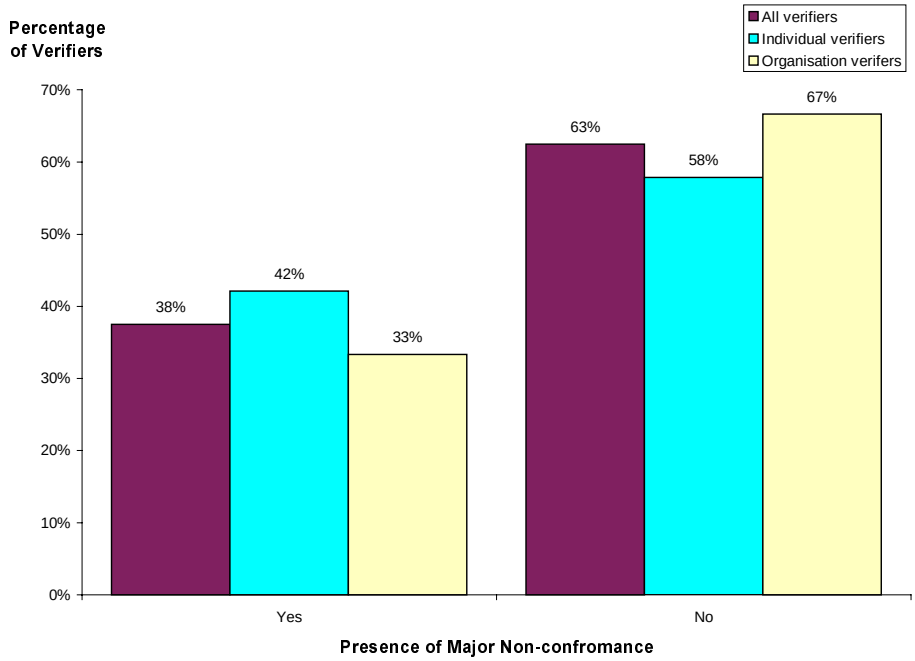

Figure 30 - Non-conformance Identified by Verifiers

[164] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.

[165] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 4 - Validations (Total Days for Verification)*

Questions related to Article/Annex:

V.10d Could you tell me the total time of the site's verification (after the contract to undertake the site's verification has been signed)?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[166].
Date of interviews: 16/12/97 to 3/2/98

Results[167]:

- Organisation verifiers spend more days on a site's verification than individual verifiers both in general and by site employee size.

Table 11 - Total Days Spent on Verification by Verifiers

Total Days Spent on Verification:	Minimum Days	Maximum Days	Average Days
All verifiers	2	30	8.7
Individual verifiers	2	12	5.7
Organisation verifiers	4.4	30	11

Table 12 - Individual and Organisation Verifiers' Days Spent on Verification by Site Size

Total Days Spent on Verification:	Minimum Days		Maximum Days		Average Days	
Site Size	Individual verifier	Organisation verifier	Individual verifier	Organisation verifier	Individual verifier	Organisation verifier
Less than 50 employees	2.5	4.5	7.5	6	5.2	5.1
50 to 249 employees	2	4.4	10	11	5.6	7.4
More than 249 employees	4.5	7	12	30	7.3	16

[166] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.

[167] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 4 - Validations (Days Spent On-site)*

Questions related to Article/Annex:

V.10g Could you tell me the verification time spent on site?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[168].
Date of interviews: 16/12/97 to 3/2/98

Results[169]:

- Individual verifiers spend less time on-site during sites' verifications than organisation verifiers in general and by site employee size.

Table 13 - Verification Days Spent On-site by Verifiers

Verification Days On-site	Minimum	Maximum	Average
All verifiers	1	24	5.6
Individual verifiers	1	6	2.6
Organisation verifiers	2	24	8.3

Table 14 - Individual and Organisation Verification Days Spent On-site by Site Size

Verification Days On-site	Minimum		Maximum		Average	
Site Size	Individual verifier	Organisation verifier	Individual verifier	Organisation verifier	Individual verifier	Organisation verifier
Less than 50 employees	1	2	3	4	2.1	3.4
50 to 249 employees	1.5	2.5	4	7	2.5	5.3
More than 249 employees	3	4	6	24	4.3	11.8

[168] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.

[169] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 4 - Validations (Number of Visits to Site)*

Questions related to Article/Annex:

V.10f Could you tell me the number of site visits during verification?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[170].
Date of interviews: 16/12/97 to 3/2/98

Results[171]:

- 68% of individuals make one site visit during a site's verification whereas 48% of organisation verifiers make two visits.

Table 15 - Number of Site Visits by Verifiers During Verification[172]

Number of Site Visits	1 visit %	2 visits %	3 visits %	4 visits %	9 visits %
All verifiers	38	40	13	8	1
Individual verifiers	68	32	0	0	0
Organisation verifiers	10	48	24	14	5

Table 16 - Site Visits by Verifiers During Verification by Site Employee Size[173]

Number of Site Visits[174]	1 visit %		2 visits %		3 visits %		4 visits %	
Site Size	Individual verifier	Organisation verifier	Individual verifier	Organisation verifier	Individual verifier	Organisation verifier	Individual verifier	Organisation verifier
Less than 50 employees	21	0	16	14	0	5	0	0
50 to 249 employees	47	5	0	19	0	5	0	0
More than 249 employees	0	5	16	14	0	14	0	14

[170] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.

[171] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[172] Rounding of figures may mean total percentage values do not equal 100.

[173] Rounding of figures may mean total percentage values do not equal 100.

[174] The 5% of organisation verifiers that visited a site 9 times have not been included.

Regulation No 1836/93: *Article 4 - Validations (Number of Visits to Site)*

Questions related to Article/Annex:

V.10j Could you tell me the number of individuals 1) involved in the verification and 2) number sent to site during verification?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[175].
Date of interviews: 16/12/97 to 3/2/98

Results[176]:

- In general, organisation verifiers have more individuals involved in EMAS verifications and more individuals sent to a site during verification.

Table 17 - Maximum and Minimum Numbers of Individual Involved in Verification

Individuals Involved in Verification	Minimum Number of Individuals		Maximum Number of Individuals	
	Total No.	No. sent to site	Total No.	No. sent to site
All verifiers	1	1	4	4
Individual verifiers	1	1	2	2
Organisation verifiers	2	1	4	4

Table 18 - Individuals Involved in Verification by Employee Size of Site

Individuals Involved in Verification	Minimum Number of Individuals				Maximum Number of Individuals			
	Individual verifier		Organisa-tion verifier		Individual verifier		Organisa-tion verifier	
Site Size	Total No.	No. sent to site	Total No.	No. sent to site	Total No.	No. sent to site	Total No.	No. sent to site
Less than 50 employees	1	1	2	1	2	2	3	2
50 to 249 employees	1	1	2	2	2	2	3	3
More than 249 employees	1	1	2	2	2	2	4	4

[175] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.

[176] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 4 - Validations (Cost)*

Questions related to Article/Annex:

V.10k Could you tell me the cost per day of the verification *(ex. expenses)*?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[177].
Date of interviews: 16/12/97 to 3/2/98

Results[178]:

- Average daily fees for individual verifiers (842 ECU) are approximately (10%) cheaper than average daily rates for organisation verifiers.
- The average daily fees increase slightly (4%) with the increase in size of site (based on number of employees).
- Sites with less than 50 employees are paying the highest minimum and the highest maximum daily fees for their verifications.

Table 19 - Daily Fees Charge by Verifiers[179]

Daily Fees (ex. Expenses) (ECU[180])	Minimum	Maximum	Average
All verifiers	194	1781	934
Individual verifiers	194	1627	842
Organisation verifiers	196	1781	933

Table 20 - Daily Fees Charged to Different Sizes of Sites

Daily Fees (ex. Expenses) (ECU[181])	Minimum		Maximum		Average	
Site Size	Individual verifier	Organisa-tion verifier	Individual verifier	Organisa-tion verifier	Individual verifier	Organisa-tion verifier
Less than 50 employees	712	610	1017	1781	771	1085
50 to 249 employees	470	196	1627	1343	960	932
More than 249 employees	194	334	763	1661	649	878

[177] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.
[178] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[179] Individual verifiers quoted their fee rates for one person even if they worked in a group of individual verifiers as can be the case in Germany.
[180] ECU rates supplied by the European Commission for period 1 to 30 November 1997.
[181] ECU rates supplied by the European Commission for period 1 to 30 November 1997.

Regulation No 1836/93: *Article 4.3,4 and 5 - Validation of EMAS (Time Required for Each Element)*

Questions related to Article/Annex:

V.11.b) Could you indicate what is the percentage of total verification time spend on verification of the environmental policy, environmental review, environmental programme, environmental management system and environmental audit and the validation of the environmental statement?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[182].
Date of interviews: 16/12/97 to 3/2/98

Results[183]:

- The greatest percentage of all verifiers' verification time (30%) is spent on verifying sites' environmental management system (EMS); however, individual verifiers spend more time (35%) on the site's EMS than organisation verifiers (27%).

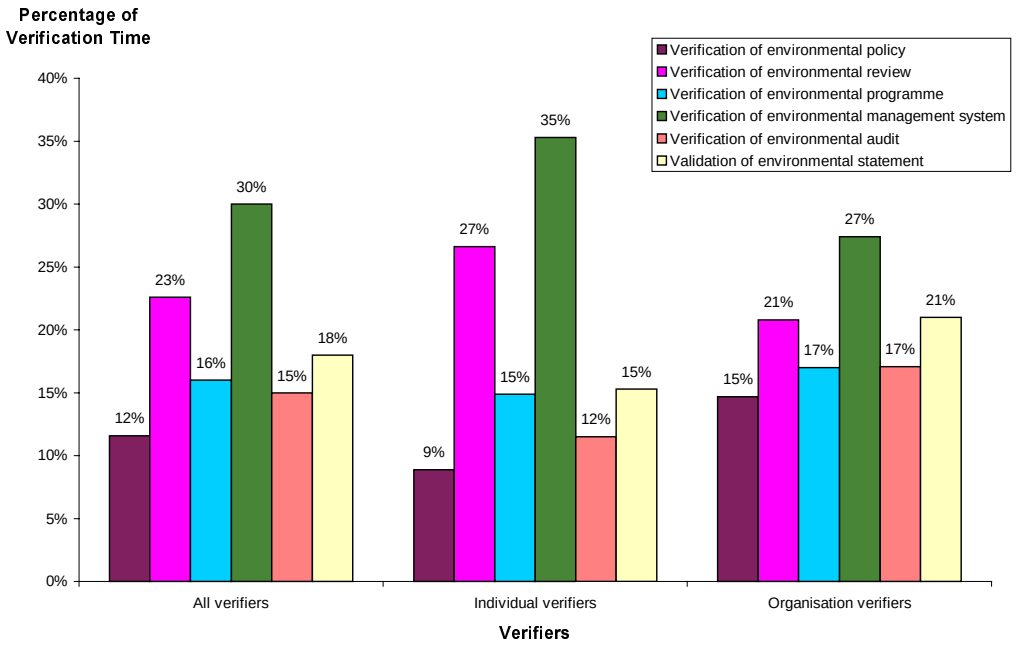

Figure 31 - Percentage of Verification Time Spent of the Elements of EMAS

[182] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.

[183] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Annex III.A - Requirements Concerning the Accreditation of Verifiers (Difficulties)*

Questions related to Article/Annex:

V.13 Did you encounter any difficulties gaining you/your organisation's accreditation in your own country?
V.14 What were these difficulties?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[184].
Date of interviews: 16/12/97 to 3/2/98

Results[185]:

- The three main difficulties faced by verifiers were:
  1. The accreditation process was slow due to limited resources of the Accreditation Body
  2. Problems were encountered with the type of exam/questions particularly those on legislation
  3. Exam difficult and not fully passed.

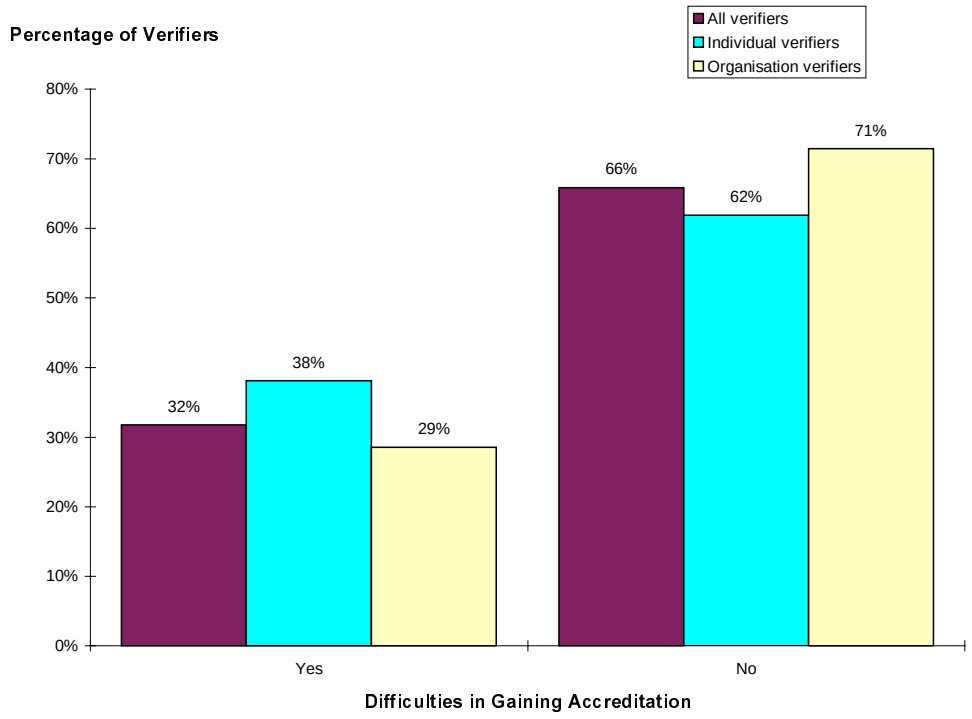

Figure 32 - Difficulties Faced by Verifiers Gaining Accreditation[186]

[184] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.
[185] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[186] Rounded figures may lead to percentage figure not adding to 100.

Regulation No 1836/93: Annex III.A - Requirements Concerning the Accreditation of Verifiers

Questions related to Article/Annex:

V.16 What were the requirements/information you/your organisation requested to meet or supply to the accreditation body in your country?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[187].
Date of interviews: 16/12/97 to 3/2/98

Results[188]:

- The majority of individual verifiers (76%) cite the DAU[189] checklist as an Accreditation Body requirement, whereas the majority of organisation verifiers (71%) cite both CVs and competence of verifiers and quality management system/procedures.

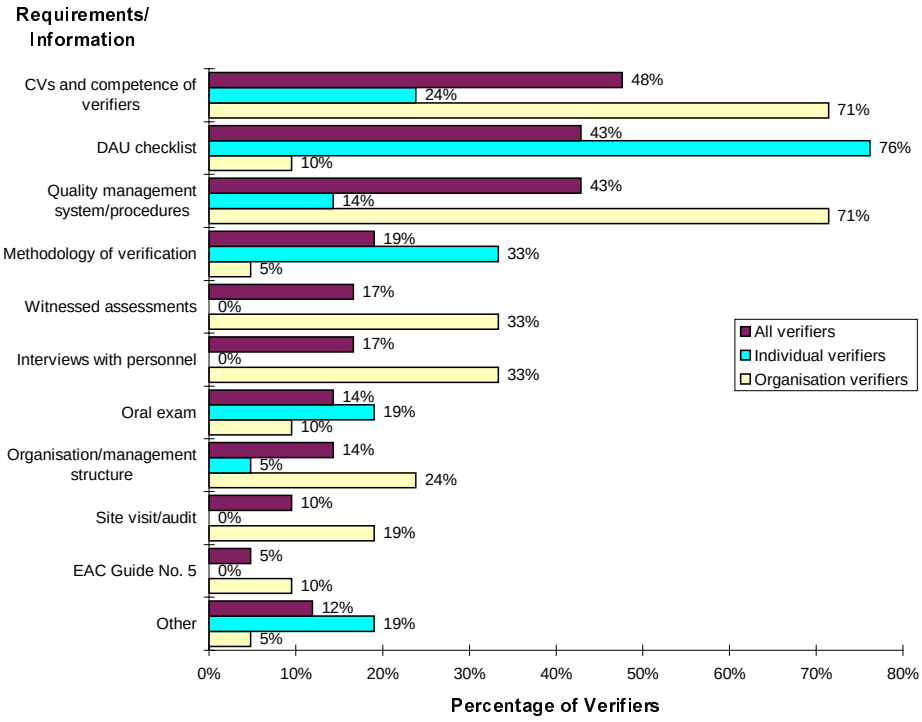

Figure 33 - Accreditation Body Requirements/information Cited by Verifiers

[187] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.
[188] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[189] DAU is Deutsche Akkreditierungs- und Zulassungsgesellschaft fuer Umweltgutachter mgH.

Regulation No 1836/93: *Annex III.A - Requirements Concerning the Accreditation of Verifiers (Failures)*

Questions related to Article/Annex:

V.17 Did you fail to meet any of the accreditation body's requirements in your own country?
V.18 What were these failed requirements?
V.19 In general, did you/your organisation believe the failure was fairly administered?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[190].
Date of interviews: 16/12/97 to 3/2/98

Results[191]:

- The failed requirements cited by verifiers were:
  1. Minor non-conformance in procedures
  2. Lack of technical expertise demonstrated for certain sectors
  3. Some documents were missing or incomplete
  4. Failed part or all of the oral exam
- The majority of all verifiers (80%) believed their failed accreditation requirement was administered fairly; however organisation verifiers (67%) were less satisfied than individual verifiers (89%) with the administration.

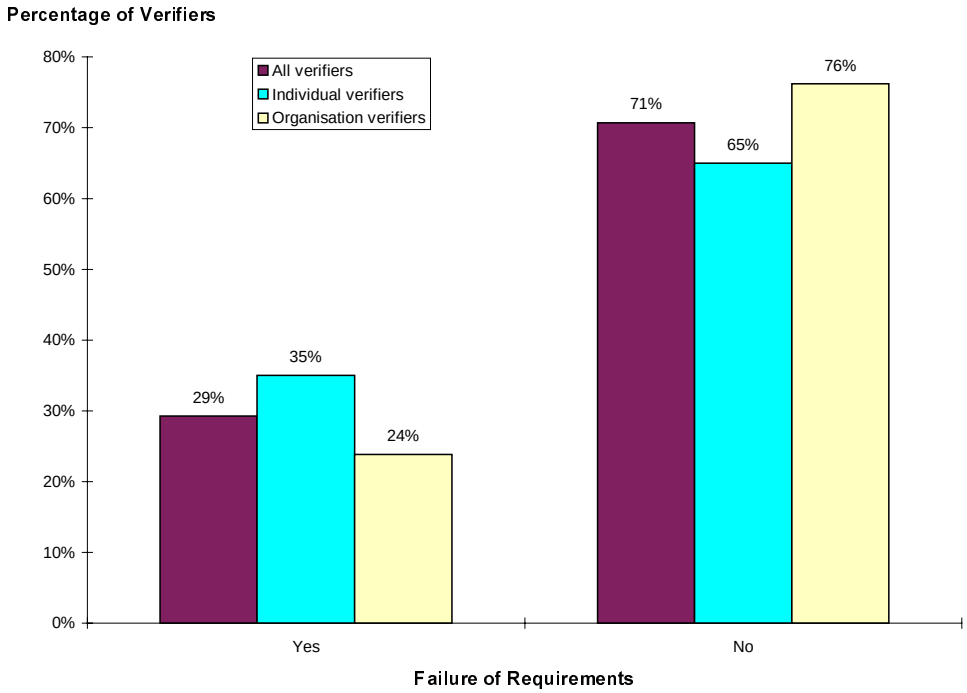

Figure 34 - Percentage of Verifiers Failing Accreditation Body Requirements

[190] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.
[191] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: Annex III.A - Requirements Concerning the Accreditation of Verifiers (Timescales)

Questions related to Article/Annex:

V.20.a) Could you tell me the time period to gain accreditation from you initial request to the accreditation body?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[192].
Date of interviews: 16/12/97 to 3/2/98

Results[193]:

- Half of all verifiers (50%) gained their accreditation in a time period of between 2 to 6 months.

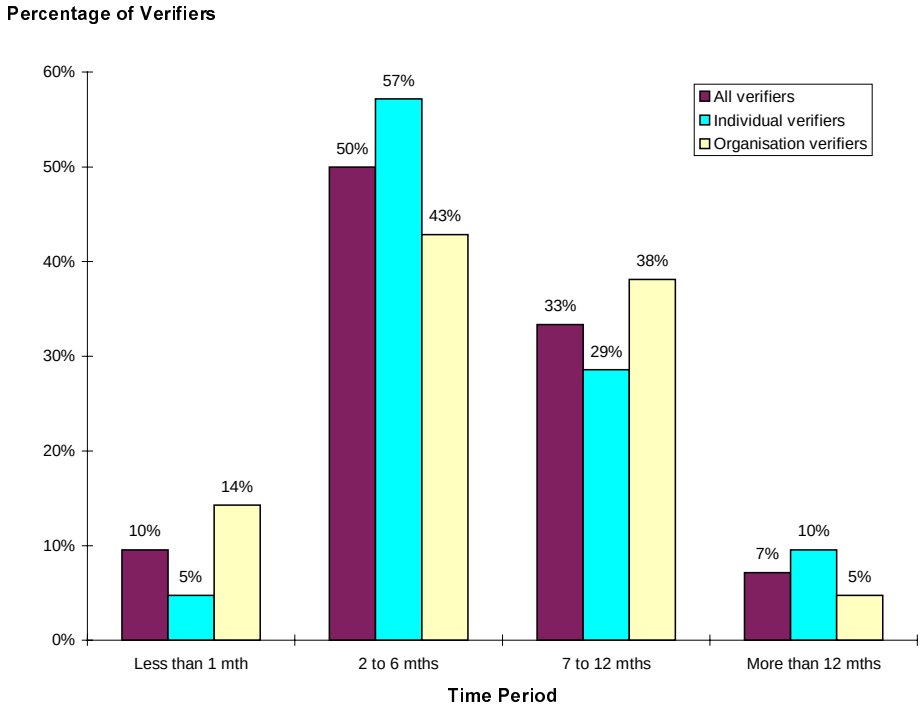

Figure 35 - Time Period to Gain Accreditation by Verifiers

[192] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.

[193] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Annex III.A - Requirements Concerning the Accreditation of Verifiers (Supervision)*

Questions related to Article/Annex:

V.20.b) Could you tell me if your verification was supervised on site by the accreditation body?

Respondents: A representative sample of 42 (17.4%) Accredited Environmental Verifiers (AEV) in 10 Member States[194].
Date of interviews: 16/12/97 to 3/2/98

Results[195]:

- The majority of organisation verifiers (81%) experience on-site supervision of their verifications by their Member State Accreditation Body.
- All individual verifiers (100%) did not experience on-site supervision by their Accreditation Body of its verifications.

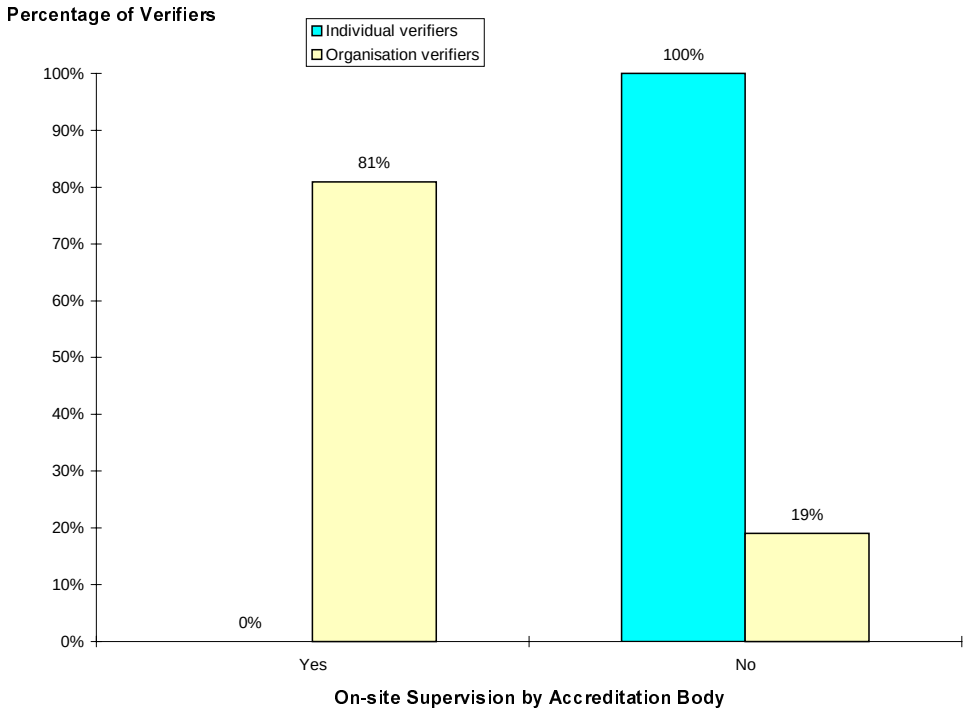

Figure 36 - Percentage of Verifiers Experiencing On-site Supervision

[194] Population data from EMAS Help Desk (14/11/97): 241 verifiers in 10 Member States. BE, GR, IT, LUX and P had no AEVs. Population size in AU, FR, DE, SE and UK meant verifiers were randomly selected for a minimum representative sample of 10%.

[195] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

2.7 Results of EMAS Site Interviews

Regulation No 1836/93: *Article 8 - Registration of Sites (Years)*

Questions related to Article/Annex:

S.1 What year was your site registered to EMAS?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[196].
Date of interviews: 2/2/98 to 24/2/98

Results[197]:

- The registered sites interviewed were distributed across three years: 1995, 1996 and 1997.

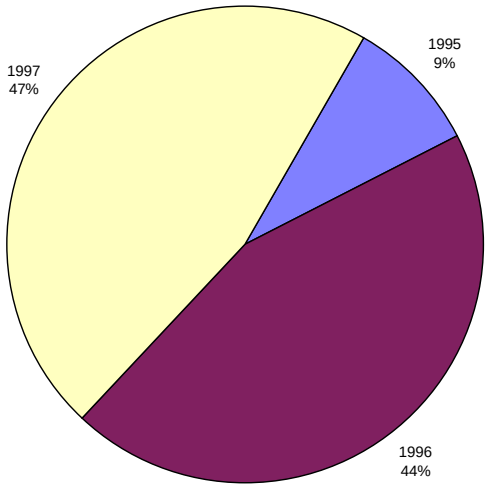

Figure 37 - Site Registration to EMAS by Year of Registration

[196] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[197] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 8 - Registration of Sites (By Size)*

Questions related to Article/Annex:

S.31 How many employees does your **a)** company and **b)** site have?
S.32 What is your company's turnover?
S.33 Is more than 25% of your company's capital owned by another organisation/company?[198]

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[199].
Date of interviews: 2/2/98 to 24/2/98

Results[200]:

- The majority of registered sites interviewed were from large sized enterprises.
- 18% of interviewed sites were from small and medium sized enterprises (SMEs) [201].

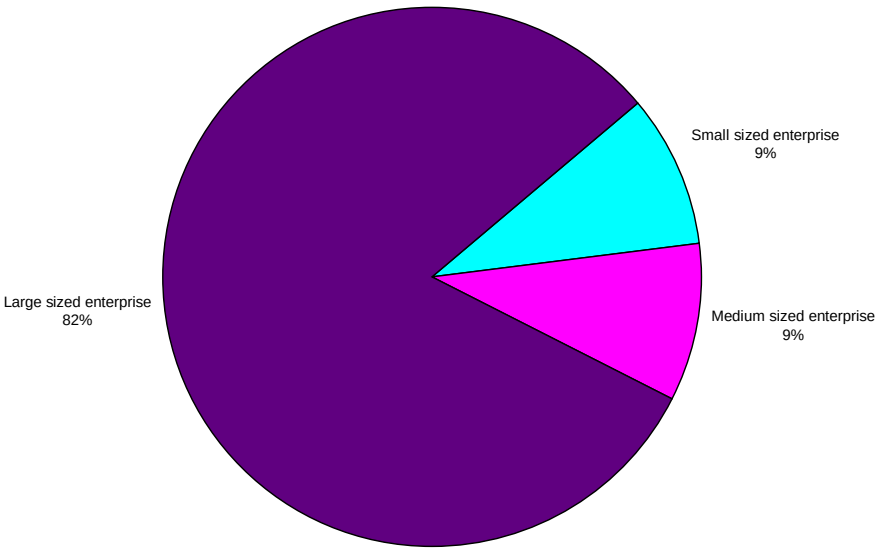

Figure 38 - Interviewed Sites by Size of Enterprise

[198] Answers to the three questions were used together to classify the interviewees' companies into large, medium and small enterprises.
[199] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[200] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[201] The definition of SME is based on the requirements of employee numbers, turnover and independence in the Council Recommendation of 3 April 1993 concerning the definition of small and medium-sized enterprises, OJ, L107, Vol. 39, 30 May 1996.

Regulation No 1836/93: *Article 12.1 International Environmental Management System Standards (Use of)*

Questions related to Article/Annex:

S.2a Is your site certified to ISO 14001?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[202].
Date of interviews: 2/2/98 to 24/2/98

Results[203]:

- Just under half (47%) of all registered sites were certified to ISO 14001.
- The majority (85%) of registered sites of small sized enterprises were not certified to ISO 14001.

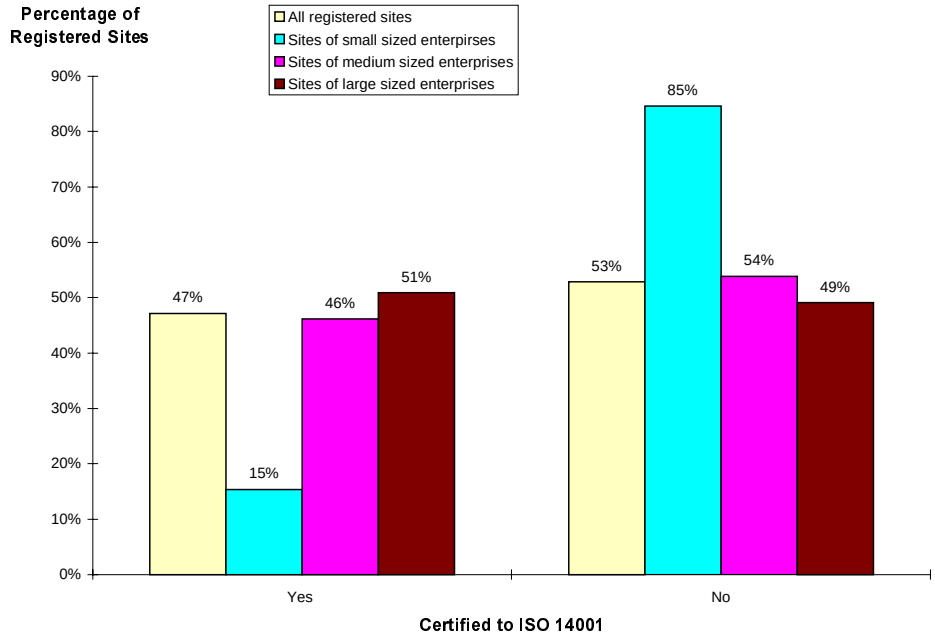

Figure 39 - Percentage of Registered Sites Certified to ISO 14001

[202] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[203] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 12.1 International Environmental Management System Standards (Use of)*

Questions related to Article/Annex:

S.3 Was the certification to ISO 14001 undertaken before, at the same time, or after EMAS validation?
S.4 Was the certification undertaken by the same organisation that undertook your site's verification?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[204].
Date of interviews: 2/2/98 to 24/2/98

Results[205]:

- Of the 66 registered sites certified to ISO 14001, over a third (38%) had achieved ISO 14001 after EMAS verification.
- The majority (92%) of the 66 registered sites certified to ISO 14001 had their ISO 14001 certification undertaken by the same organisation that undertook their site's verification.
- The 8% of sites which used different organisations for their sites verification and their ISO 14001 certification were all of large sized enterprises.

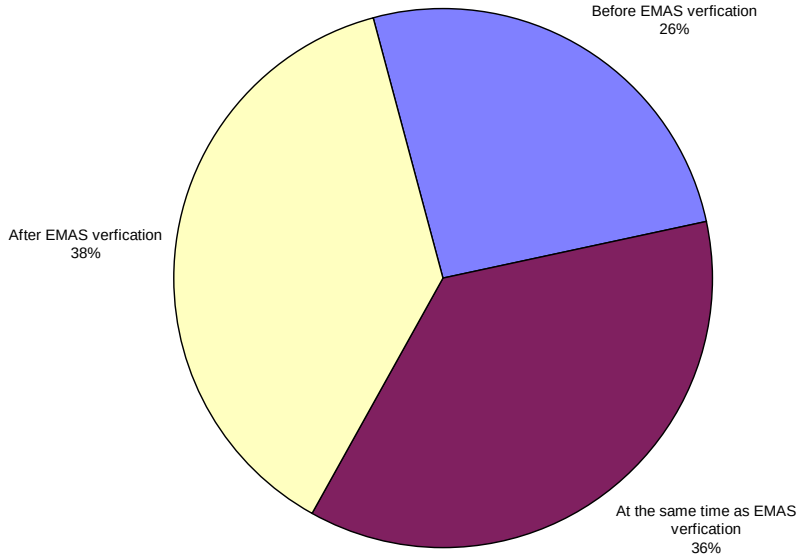

Figure 40 - Timing of Certification to ISO 14001 of EMAS Registered Sites

[204] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[205] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 12.1 International Environmental Management System Standards (Use of)*

Questions related to Article/Annex:

S.2b Does your site/company intend to obtain certification to ISO 14001?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[206].
Date of interviews: 2/2/98 to 24/2/98

Results[207]:

- Of the 74 sites not certified to ISO 14001, the majority (55%) do not intend to obtain certification to the standard.
- All (100%) small sized enterprises not certified to ISO 14001 do not intend to obtain certification to the standard.

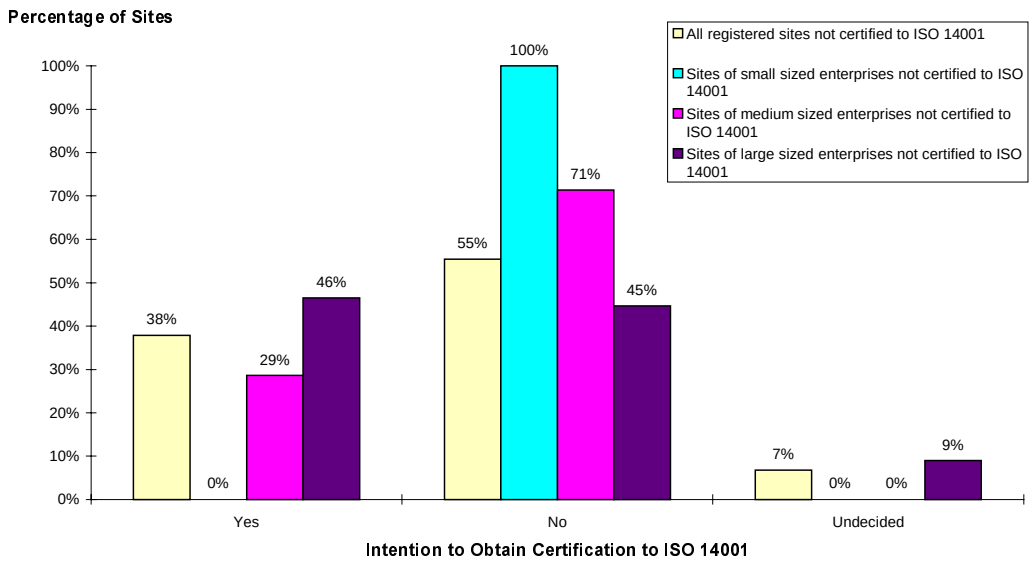

Figure 41 - Intention of Sites to Obtain Certification to ISO 14001

[206] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[207] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 3 Participation in Scheme (Timescales for Implementation)*

Questions related to Article/Annex:

S.5a (For sites with EMAS only) Could you estimate how long achievement of EMAS took from the start of EMAS implementation to the verification of the site?
S.5b (For sites with EMAS and ISO 14001) Could you estimate how long achievement of EMAS took from the start of EMAS implementation to the verification of the site and **5c** how long for the achievement of certification to ISO 14001?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[208].
Date of interviews: 2/2/98 to 24/2/98

Results[209]:

- Two thirds (66%) of registered sites with EMAS only take between 6 and 12 months to implement EMAS.[210]

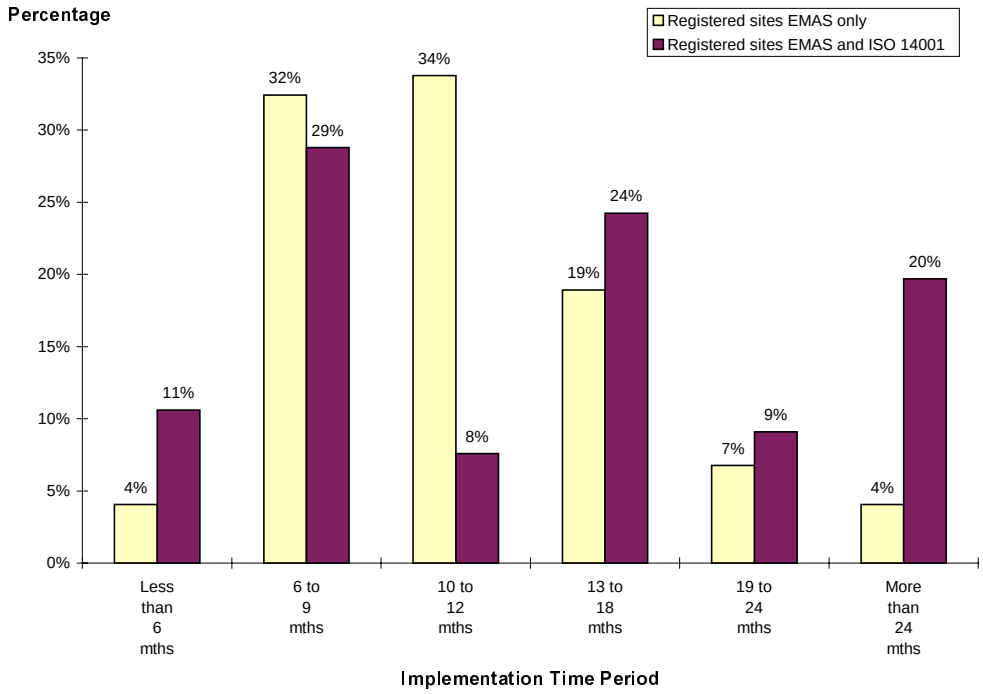

Figure 42 - Implementation Time Period for EMAS and EMAS plus ISO 14001[211]

[208] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[209] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[210] Implementation time periods for EMAS and ISO 14001 combined.
[211] 74 sites with EMAS only and 66 sites with EMAS and ISO 14001.

Regulation No 1836/93: *Article 3 Participation in Scheme (Timescales for EMAS Implementation by Registration Year)*

Questions related to Article/Annex:

S.5a (For sites with EMAS only) Could you estimate how long achievement of EMAS took from the start of EMAS implementation to the verification of the site?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[212].
Date of interviews: 2/2/98 to 24/2/98

Results[213]:

- Over a tenth of 1996 (11%) and 1997 (14%) registered sites with EMAS only take over 18 months to implement EMAS where no 1996 registered site took this long.
- 43% of sites, with EMAS only, registered in 1995 and 1997 took between 6 to 9 months to implement EMAS whereas only 23% of such sites in 1996 took this time period.

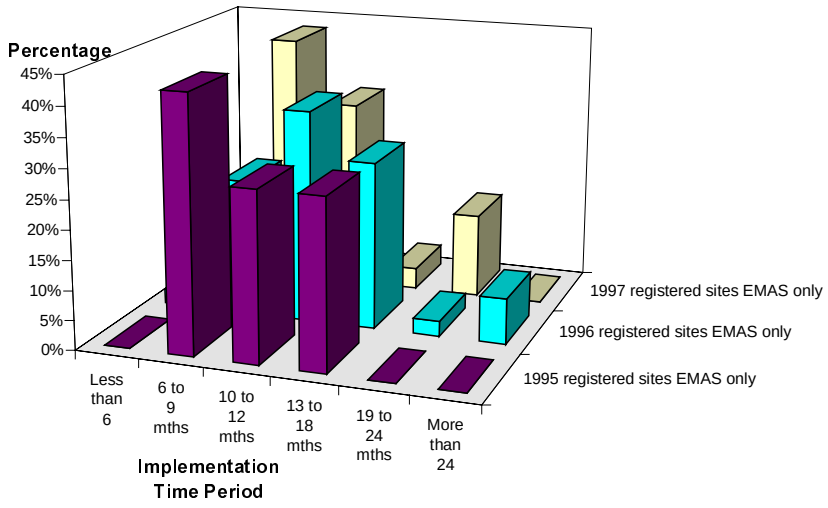

Figure 43 - Implementation Time Period for EMAS Registered Sites by Registration Date[214]

[212] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[213] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[214] 74 sites with EMAS only and 66 sites with EMAS and ISO 14001.

Regulation No 1836/93: *Article 3 Participation in Scheme (Timescales for EMAS and ISO 14001 Implementation by Registration Year)*

Questions related to Article/Annex:

S.5b (For sites with EMAS and ISO 14001) Could you estimate how long achievement of EMAS took from the start of EMAS implementation to the verification of the site and **5c** how long for the achievement of certification to ISO 14001?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[215].
Date of interviews: 2/2/98 to 24/2/98

Results[216]:

- A third of sites registered to EMAS in 1995 and certified to ISO 14001 and 27% of those registered in 1997 took a time period of more than 24 months; whereas only 2% of such sites registered in 1996 took the same time period[217].

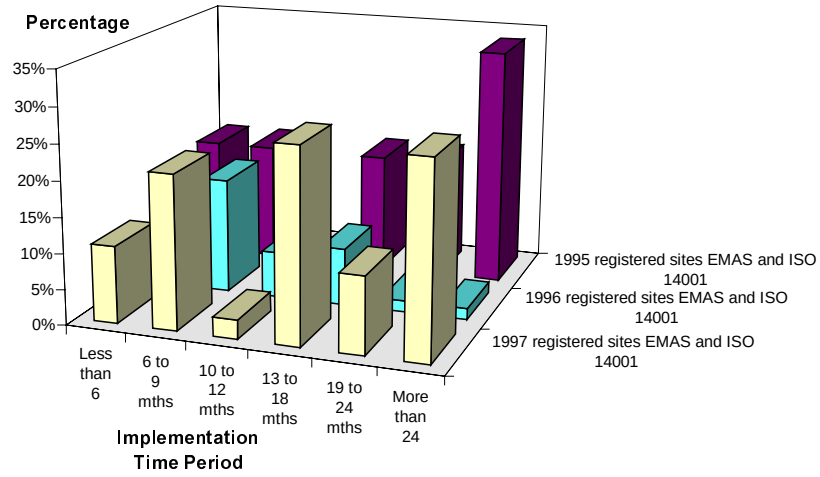

Figure 44 - Implementation Time Period for EMAS and ISO 14001 Registered Sites by Registration Date[218]

[215] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[216] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[217] Implementation time periods for EMAS and ISO 14001 combined.
[218] 74 sites with EMAS only and 66 sites with EMAS and ISO 14001.

Regulation No 1836/93: *Article 3 Participation in Scheme (Elements of EMAS Implemented at Site)*

Questions related to Article/Annex:

S.6.a) Thinking about EMAS implementation at your site could you go through the elements of EMAS implemented at your site (include ISO 14001 elements if certified before or at the same time as EMAS) at your site?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[219].
Date of interviews: 2/2/98 to 24/2/98

Results[220]:

- All registered sites stated they had implemented the EMAS elements of environmental policy, environmental review, environmental programme, environmental management system and environmental statement.
- 15% of all registered sites had not implemented environmental auditing[221].
- Absence of environmental auditing is relatively equally distributed across enterprise size categories: 21.5% of small and medium sized enterprises and 21% of large sized enterprises did not implement auditing.
- 8% of sites registered in 1995 did not implement environmental auditing, whereas 25% of sites registered in 1996 and 20% of sites registered in 1997 did not implement auditing.

[219] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[220] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[221] Respondents were asked about the implementation of environmental auditing at their sites not whether they had established an environmental auditing programme.

Regulation No 1836/93: *Article 3 Participation in Scheme (Most Time-consuming EMAS Elements)*

Questions related to Article/Annex:

S.6.b) What element of EMAS took the most time to implement?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[222].
Date of interviews: 2/2/98 to 24/2/98

Results[223]:

- All registered sites found the environmental management system (39%) and the environmental review (29%) the most time-consuming to implement.
- Just under half (46%) of all sites of medium sized enterprises found the environmental review the most time-consuming to implement.

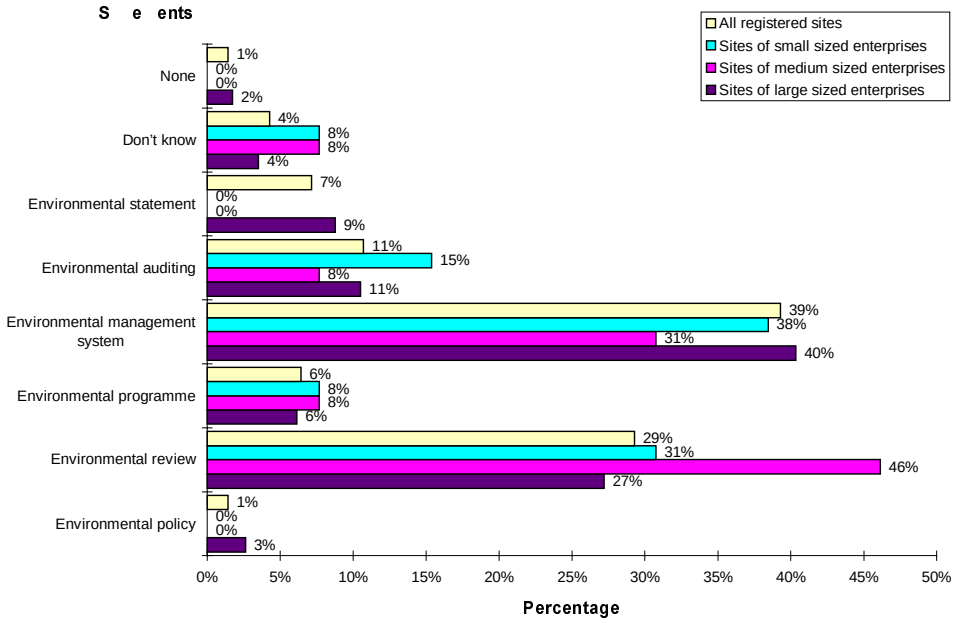

Figure 45 - Element of EMAS Requiring the Most Time to Implement[224]

[222] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[223] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[224] Respondents were asked to selected only one element/option.

Regulation No 1836/93: *Article 3 Participation in Scheme (EMAS Elements Which was Most Difficult to Understand)*

Questions related to Article/Annex:

S.6.c) Which element of EMAS was the most difficult to understand?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[225].
Date of interviews: 2/2/98 to 24/2/98

Results[226]:

- Over a third (35%) of all registered sites considered no element of EMAS difficult to understand.
- The environmental management system (14%) and the environmental review (14%) were the two EMAS elements most difficult to understand by all registered sites.

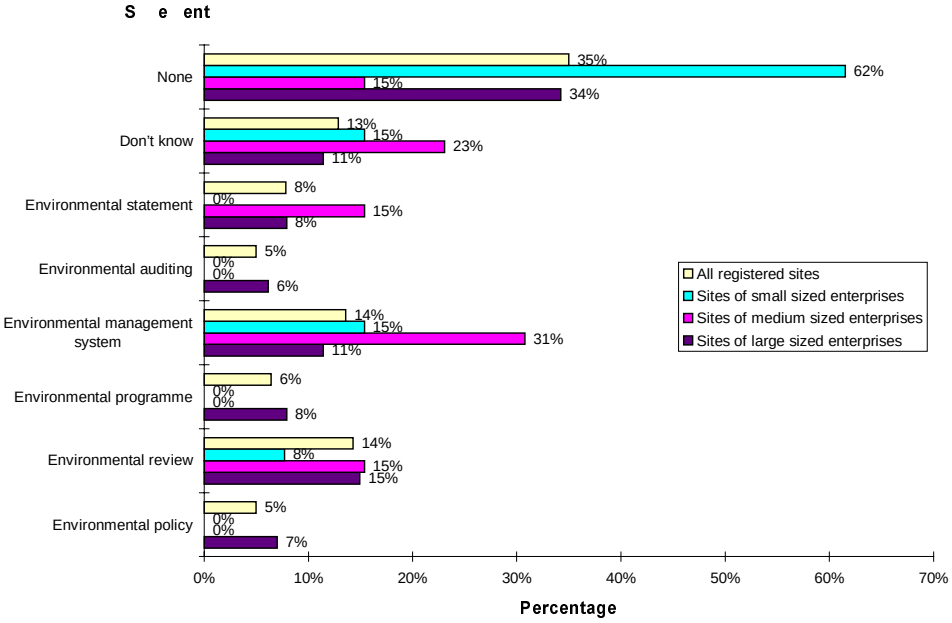

Figure 46 - EMAS Element Considered the Most Difficult to Understand[227]

[225] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[226] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[227] Respondents were asked to selected only one element/option.

Regulation No 1836/93: *Article 13 - Promotion of Companies' Participation (External Assistance)*

Questions related to Article/Annex:

S.6.d) Which elements of EMAS do you think need additional guidelines[228]?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[229].
Date of interviews: 2/2/98 to 24/2/98

Results[230]:

- Over a third (35%) of all registered sites considered no additional guidelines were necessary for EMAS.
- The environmental review (21%) and the environmental management system (20%) were the two main elements of EMAS that all registered sites considered needed additional guidelines.

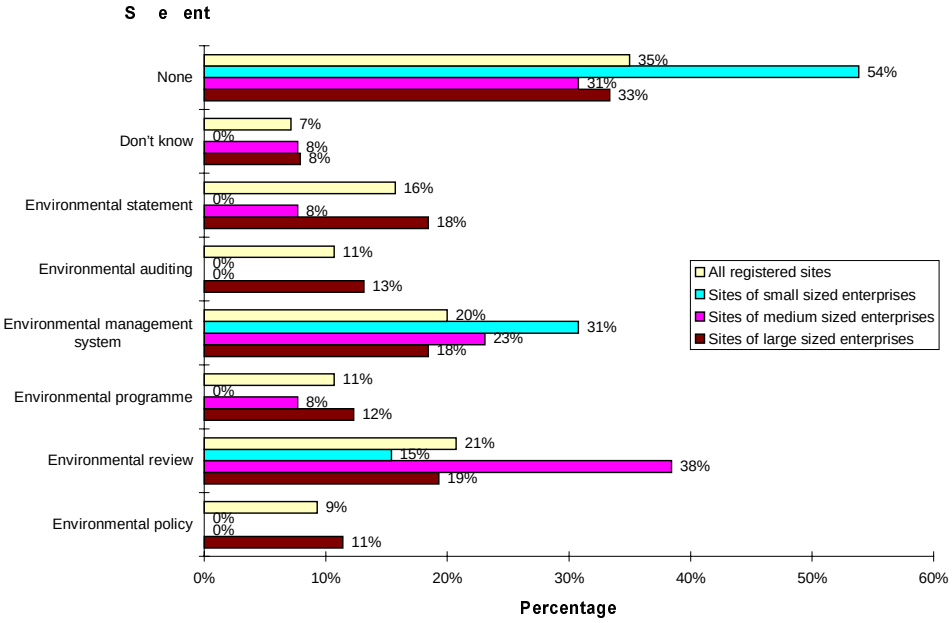

Figure 47 - EMAS Elements Requiring Guidelines[231]

[228] Guidelines meant written documents.

[229] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.

[230] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[231] Respondents could selection more than one choice/option.

Regulation No 1836/93: *Article 13 - Promotion of Companies' Participation (External Assistance)*

Questions related to Article/Annex:

S.6.e) Which parts of EMAS need external assistance to be implemented?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[232].
Date of interviews: 2/2/98 to 24/2/98

Results[233]:

- Over a quarter (26%) of all registered sites considered no external assistance was necessary for EMAS.
- The environmental review (46%) and the environmental management system (41%) were the two main elements of EMAS that all registered sites considered needed external assistance; however over two thirds of sites of small sized enterprises considered external assistance was necessary for these two elements.

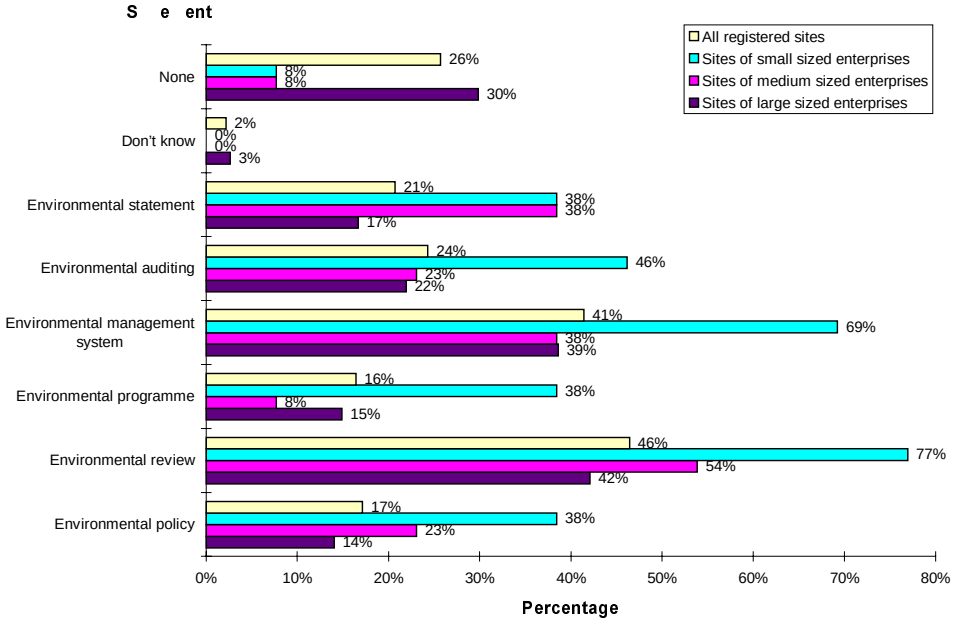

Figure 48 - EMAS Elements Where External Assistance is Considered Necessary[234]

[232] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[233] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.
[234] Respondents could selection more than one choice/option.

Regulation No 1836/93: *Article 3(e) - Environmental Objectives (Site)*

Questions related to Article/Annex:

S.7 What are the sites main environmental objectives?[235]

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[236].
Date of interviews: 2/2/98 to 24/2/98

Results[237]:

- Over half of all registered sites cited 'reduce waste/hazardous waste' and 'reduce energy consumption' as environmental objectives.
- 6% of sites cited 'implement and improve an environmental management system (EMS)' as a site environmental objective.
- 1% of all registered sites had no environmental objectives.

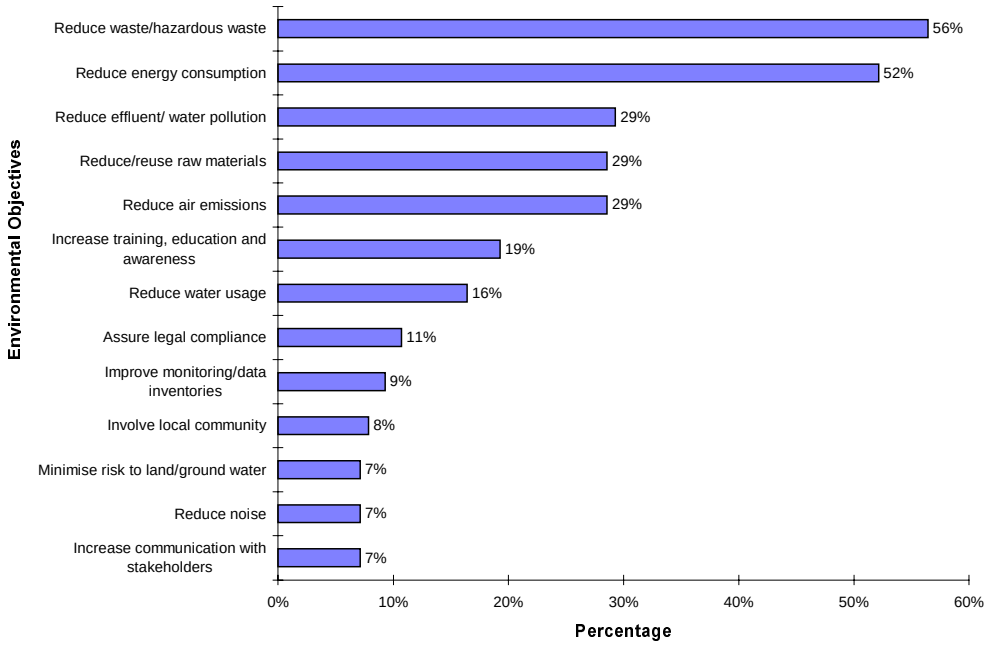

Figure 49 - Percentage of All Registered Sites' Main Environmental Objectives[238]

[235] As with most questions in the questionnaire this question was unprompted.

[236] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.

[237] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[238] Environmental objectives cited by less than 6% of all registered sites not listed.

Regulation No 1836/93: *Article 4.2 and Annex II.H - Environmental Auditing (Frequency)*

Questions related to Article/Annex:

S.8 What is your site's environmental audit cycle length, i.e. when all activities at the site have been audited and a new environmental statement is produced and verified?
S.9 What is the frequency of the audit cycle for the most environmental significant area at your site?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[239].
Date of interviews: 2/2/98 to 24/2/98

Results[240]:

- Two thirds of all registered sites (66%) have full environmental audit cycle lengths of 36 months.
- 71% of all registered sites audit their sites' most environmental significant area between 6 to 12 months.

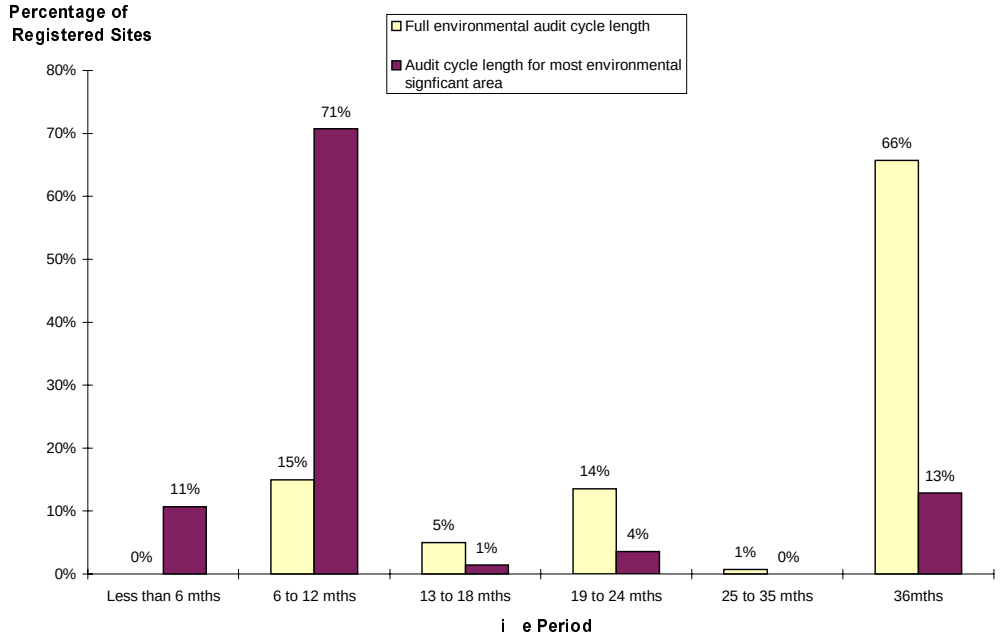

Figure 50 - Audit Cycle Lengths

[239] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[240] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 5 - Environmental Statement (Distribution)*

Questions related to Article/Annex:

S.13a How many of your site's environmental statements have you distributed in total so far?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[241].
Date of interviews: 2/2/98 to 24/2/98

Results[242]:

- Just over a third of all registered sites (34%) distribute between 100 and 499 copies of their environmental statements.
- 22% of sites of large sized enterprises distribute between 2000 and 4999 copies of their environmental statements.

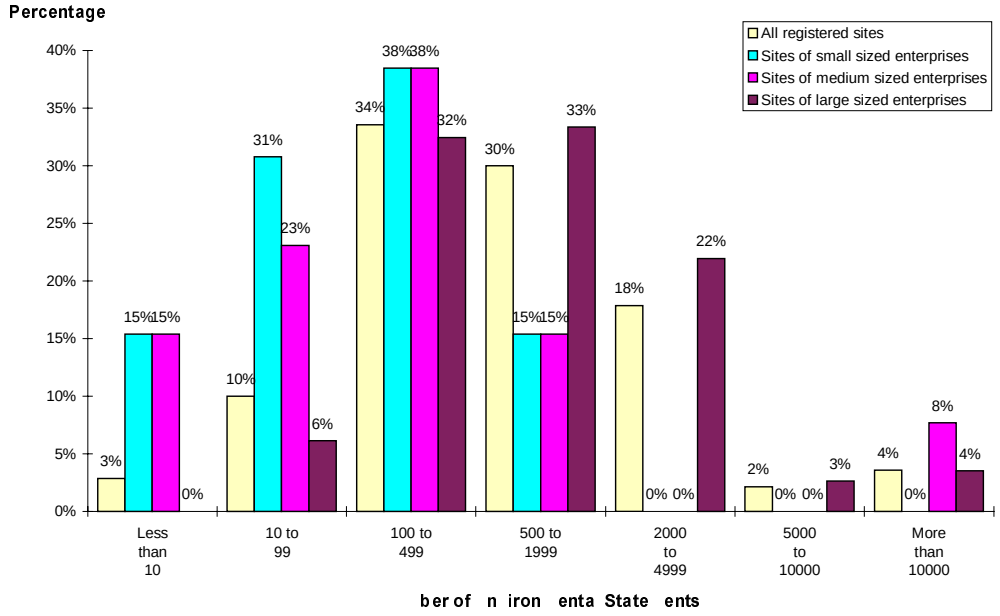

Figure 51 - Number of Environmental Statements Distributed by Sites

[241] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[242] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 5 - Environmental Statement (Specific Requests)*

Questions related to Article/Annex:

S.13b How many specific requests have you had for your site's environmental statement (i.e. those directly contacting the site/company and asking for copies)?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[243].
Date of interviews: 2/2/98 to 24/2/98

Results[244]:

- Just over a half of all registered sites (52%) have had less than 100 of their environmental statements specifically requested, for sites of small sized enterprises this figure is 92%.

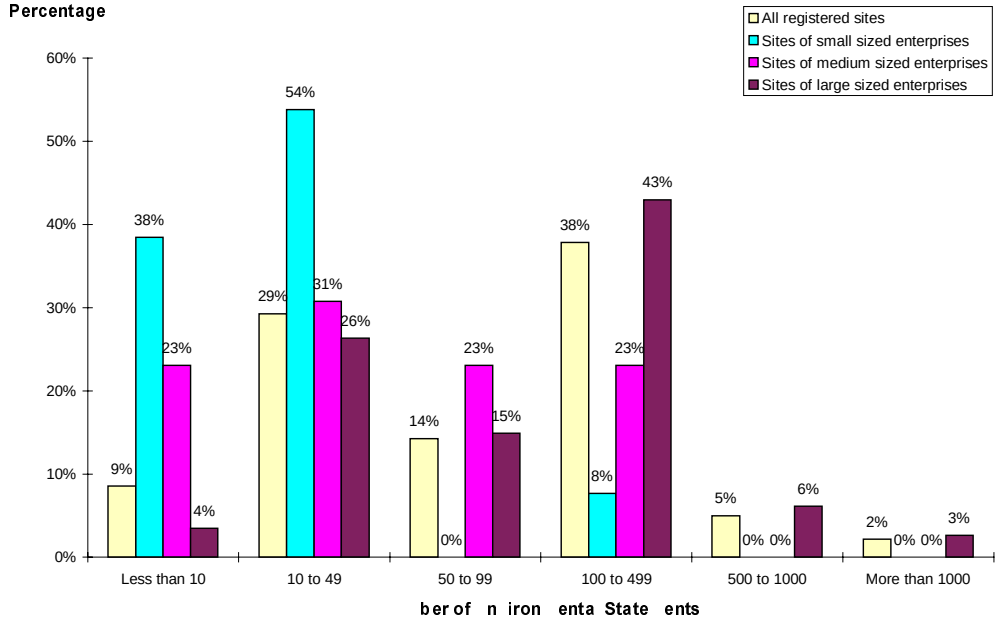

Figure 52 - Number of Environmental Statements Specifically Requested

[243] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[244] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 5 - Environmental Statement (Stakeholders)*

Questions related to Article/Annex:

S.14a What, in your opinion, are the 3 main audiences (or stakeholders) for your site's environmental statement?
S.14b Which are the 3 main groups that have actually requested copies of your site's environmental statements?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[245].
Date of interviews: 2/2/98 to 24/2/98

Results[246]:

- All registered sites viewed customers (60%) and the local community to the site (44%) as the main audiences for their sites environmental statement.
- The overwhelming majority (79%) of requests for environmental statements came from researchers and people in education/schools.
- Consultants (34%) are the second highest group requesting site environmental statements.

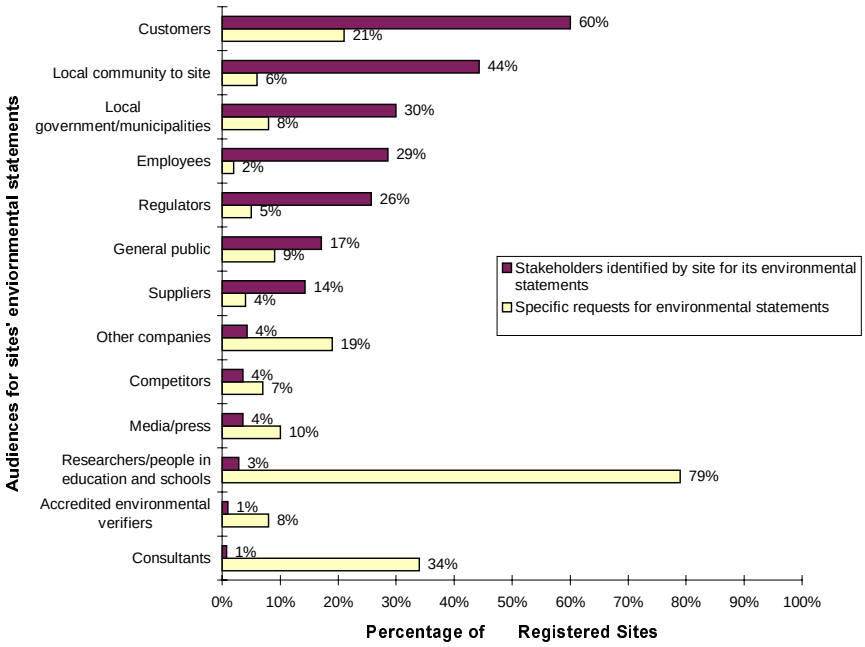

Figure 53 - Distribution and Requests for Sites Environmental Statements

[245] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[246] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 5 - Environmental Statement (Communication Tool)*

Questions related to Article/Annex:

S.15 In your opinion, has the site's environmental statement been a useful communication tool with the site/company's stakeholders that you've mentioned?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[247].
Date of interviews: 2/2/98 to 24/2/98

Results[248]:

- 60% of all registered sites viewed the environmental statement as a useful communication tool with their stakeholders.

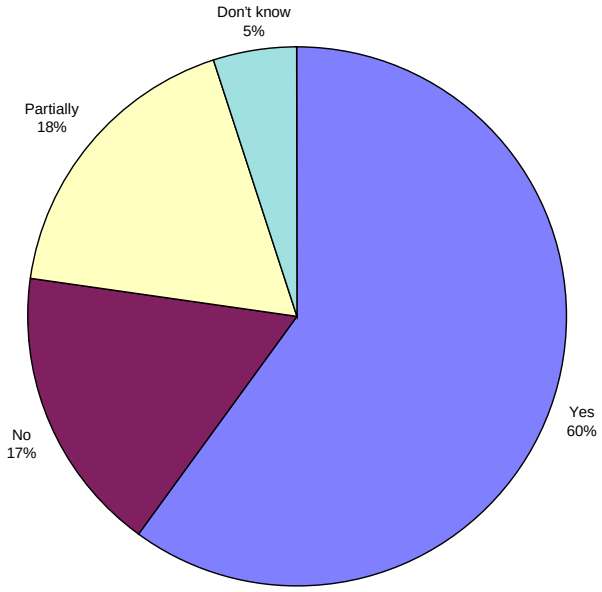

Figure 54 - All Registered Sites Opinions on the Usefulness of the Environmental Statement as a Communication Tool

[247] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[248] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 3 - Participation in EMAS (Benefits)*

Questions related to Article/Annex:

S.16a What are the 3 main benefits of EMAS implementation?[249]

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[250].
Date of interviews: 2/2/98 to 24/2/98

Results[251]:

- The top three benefits cited by all registered sites were cost savings (31%), better image (29%) and improved employee moral (26%).

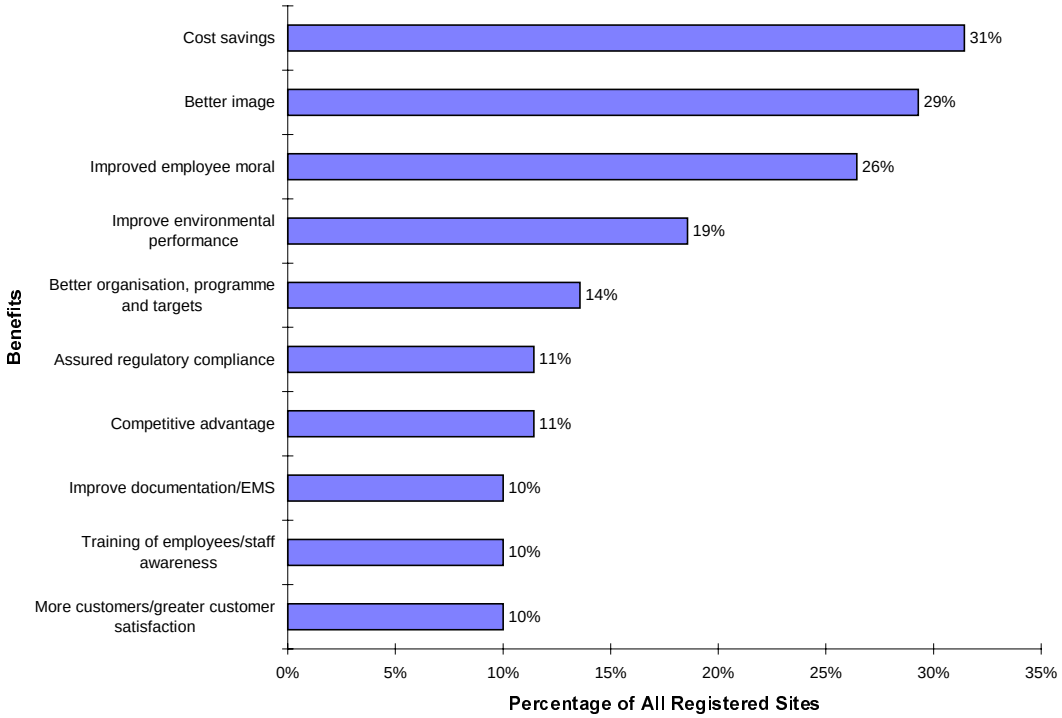

Figure 55 - Benefits of Participation in EMAS[252]

[249] As with most questions in the questionnaire this question was unprompted

[250] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.

[251] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

[252] Respondents could selected 3 main benefits, those benefits receiving less than 10% of all registered sites are not included

Regulation No 1836/93: *Article 10 - Statement of Participation (Products)*

Questions related to Article/Annex:

S.16b Would it be a benefit to be able to use your site's registration to EMAS in conjunction with your products?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[253].
Date of interviews: 2/2/98 to 24/2/98

Results[254]:

- 58% of all registered sites consider it would be a benefit to be able to use their sites' registration to EMAS in conjunction with their products.

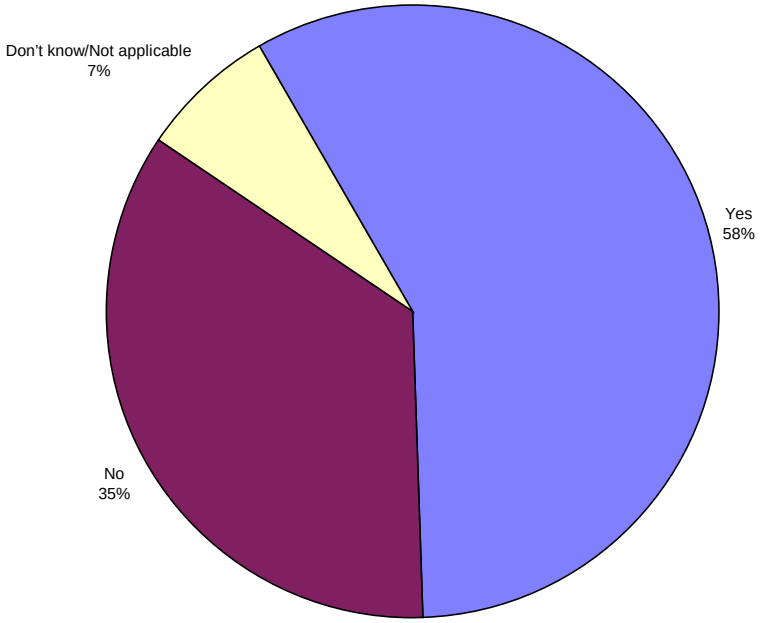

Figure 56 - All Registered Sites on the Benefit of Associating EMAS with Products

[253] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[254] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 3 - Participation in EMAS (Registration)*

Questions related to Article/Annex:

S.28 Does your site intend to maintain its registration to EMAS?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[255].
Date of interviews: 2/2/98 to 24/2/98

Results[256]:

- Only 2% of all registered sites were not going to maintain their registration to EMAS, the majority of these few sites were from small enterprises.
- 4% of all registered sites unsure whether they would going to maintain their registration to EMAS.

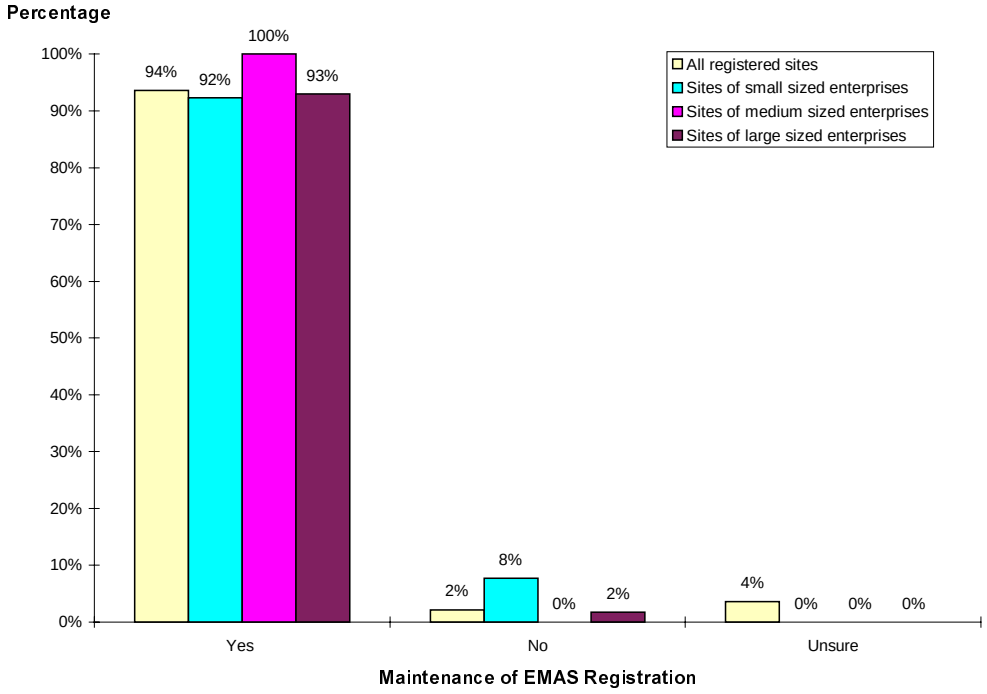

Figure 57 - Maintenance of EMAS Registration

[255] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[256] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.

Regulation No 1836/93: *Article 3 - Participation in EMAS (Market Rewards)*

Questions related to Article/Annex:

S.29 In your opinion, do your feel that the market has rewarded your site for achieving registration to EMAS?

Respondents: A representative sample of 140 (11.6%) registered EMAS sites in 12 Member States[257].
Date of interviews: 2/2/98 to 24/2/98

Results[258]:

- Just under half (49%) of all registered sites do not believe the market has rewarded them for achieving EMAS registration.
- Over half (54%) of sites of small sized enterprises do not believe the market has rewarded them for achieving EMAS registration.

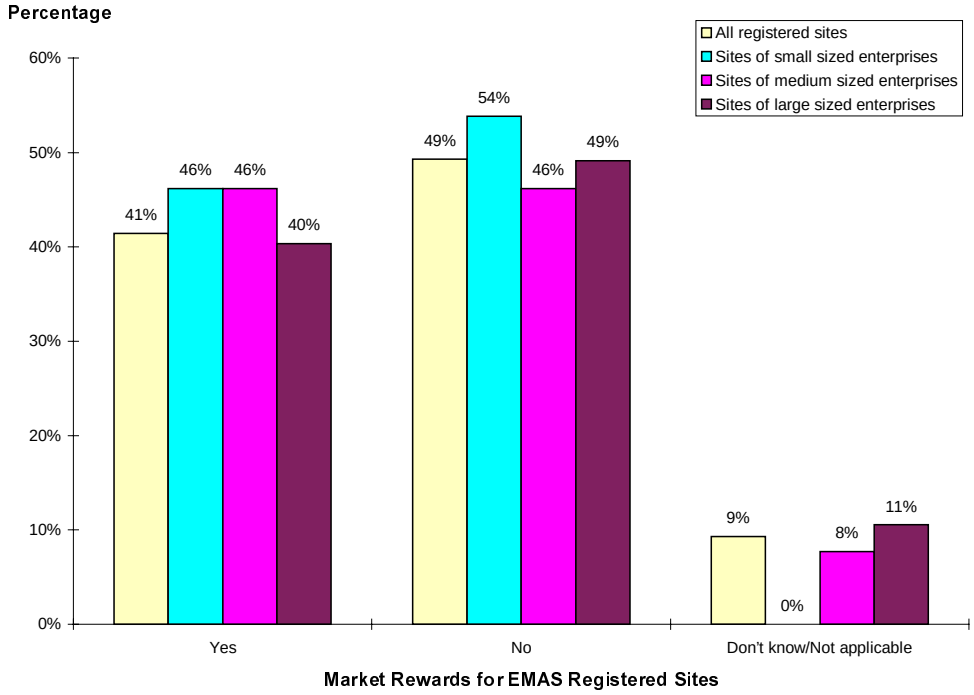

Figure 58 - Views on Whether the Market has Rewarded EMAS Registered Sites

[257] Population data from EMAS Help Desk (31/12/97): 1211 EMAS sites in 12 Member States. GR, LUX and P had no registered sites. Population size in AU, DK, FR, FI, DE, NL, SE and UK meant EMAS sites were randomly selected for a minimum representative sample of 10%.
[258] Results are derived solely from the AIMS-EMAS questionnaire via a telephone survey and whilst every effort was made to ensure the accuracy of the information, the survey was dependent on the respondents' knowledge and alternative information may exist.