EVER: Evaluation of EMAS and Eco-label for their Revision

Annex I

INTERVIEWS: METHODOLOGY AND SUMMARY OF THE RESULTS

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Foreward

This annex presents the methodological approach adopted by the EVER consultant for carrying out the interviews and summarises the main findings.

A detailed presentation of the results of the EVER interviews can be found in Annex IV. This Annex has four sections. In the introductory section we briefly describe the approach that was adopted for the interview phase (including a description of the sample). The other sections report the main findings: part A is focused on EMAS, part B on the EU Eco-label and part C on the possibilities to integrate the two schemes, among them and with other systems and legislation.

It should be noted that the present Annex only reports the results of the interview phase. Many other research activities have been carried out during the EVER study, both for the "in-field" research (see Annex II on workshops and Annex III on the case studies) and for the "desk" research (literature review, direct collection and elaboration of relevant information and data). A complete overview of the research findings of the EVER study is available in Report 2. On those findings we based the Recommendations and Suggestions proposed in Report 1.

Introduction: methodology and sample

The interviews were based upon a standard version of a questionnaire, developed at the beginning of the project. The standard questionnaire has been adapted, in a modular way, to 8 different typologies of interviewees, according to their specificities. Some of the questions were reformulated, to investigate specific aspects relating to each typology of interviewee, and others were kept identical, in order to guarantee a certain comparability between different typologies. The eight typologies of interviewees were classified as follows:

- *"EMAS participants":* registered organisations (with the exception of public institutions)
- *"EMAS non-participants":* private or public organisations of different size that could be registered in EMAS but opted not to join the scheme, chosen among organisations that are sensitive towards environmental issues (including ISO 14001 or other EMS certified companies)
- *"EMAS stakeholders":* any stakeholders interested in the scheme (including environmental and consumer NGOs, trade associations, verifiers, competent bodies, etc.)
- *"EMAS participants public institutions" :* including a sub-group of participants with particular characteristics, especially with regard to the application of the scheme requirements and the role they can play in its implementation
- "EMAS drop outs": organisations that were registered in EMAS and abandoned the scheme
- *"Eco-label participants":* companies that have a licence for the use of the EU Eco-label on one or more of their products or services
- *"Eco-label non participants":* private of different sizes that could apply for the EU Eco-label but opted not to join the scheme, chosen among organisations that are sensitive towards environmental issues (including companies having another Eco-label, e.g. a national label)
- *"Eco-label stakeholders":* any stakeholders interested in the scheme (including environmental and consumer NGOs, trade associations, governments, competent bodies, etc.)

The questionnaires contained different "segments" on the various research issues mentioned in the call for tender and representing the structure of Report 2. The number of questions included in each questionnaire varies from a minimum of 48 to a maximum of 65.

The questionnaires were the basis for the interviews. The number of interviews carried out was 280, of which 199 on EMAS and 81 on the EU Eco-label.

Of these interviews, 124 were carried out "face to face" and 157 were carried out by phone. The interviews were carried out by members of the EVER research team.



The number of interviews per type of interviewee was the following:

While for the "stakeholders" and the "non participants" is not possible to establish a statistical significance of the sample (as the original population is too wide), we can say that the samples relating to the "EMAS participants" and to the "Eco-label participants" are able to provide robust calculations. Considering that the original population of EMAS registered organisations amounted, at the beginning of the project, to 3072 units and that the Eco-label population amounted to 295 units, we can say that:

- The EMAS sample (77 organisations) more than satisfies the criterion of the "square root" established by the applicable EA standards (55) and implies a minimal error ($\varepsilon = 11\%$)
- The Eco-label sample (39 companies) is overwhelming with respect to the "square root" criterion (17), even if caution should be used due to the small original population, and implies a very small statistical error ($\varepsilon = 14\%$)

The reader can consult the statistical appendix to this document for further details.

The interviewees were selected according to the following criteria:

- representative regional distribution
- representative distribution of organisation sizes
- representative distribution according to the type of organisation

With respect to the regional distribution, the project team proposed a set-up which reflects the "numbers" of participants in the two schemes in the various countries. Some adjustments were made in order to take into account the weight of some countries (e.g. Germany for EMAS) and to

guarantee a proper representativeness also to newly accessed countries, where the two schemes are not very diffused yet.



As to size distribution, the graph below shows how the sample included a relevant number of small companies, which represent more than one third of the sample.



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Finally, for the breakdown by sector, it should be noted that the significant presence of public administrations is mostly concentrated in the "stakeholder" type: competent bodies, governments, etc.

"Others" include NGOs, trade associations and those organisations that operate in more than one of the other sectors (e.g. manufacturing and retailing).



Summary of the interview results:

PART A: EMAS

A1. CONTRIBUTION OF EMAS TO THE IMPROVEMENT OF ENVIRONMENTAL PERFORMANCE

- *EMAS is an important factor for environmental improvement:* 68% of EMAS registered organisations believe that the environmental management system is a (fairly or very) important factor for stimulating and achieving environmental improvement. Participation in EMAS as a whole, considering not only the management system but also the other requirements, is considered a (fairly or very) important factor by only 51% of the participants. Both the EMS and EMAS are overcome by other more effective factors, such as environmental regulation and technical progress.
- *EMAS tends to produce improvements in environmental performance:* for 94% of the participants, the environmental performance is (somewhat or much) improved in recent years. This indication relies on the fact that 78% regularly measures the environmental performance in all or most areas, 19% only in some areas. In addition to this, 59% of the EMAS participants believe that their environmental management system is contributing to a "considerable or great extent" to producing continuous improvements; 30% believes that it is contributing "to some extent".
- *EMAS participants perceive their performance as better than the others*': 67% of the respondents assess their environmental performance as (somewhat or much) better than the performance of competitors or similar organisations, operating in the same sector. It is interesting to note that a relatively high percentage of respondents (24%) "does not know", because of the lack of comparability (but would be interested in benchmarking with competitors and/or other EMAS registered organisations).
- *EMAS provides considerable benefits in the area of legal compliance:* quite interestingly, the three most important benefits perceived by the interviewed EMAS-registered organisations are connected with the monitoring and management of legal compliance. Greater awareness of regulatory requirements was identified as a fairly important or important benefit by 70% of the EMAS participant, better compliance by 69% and better planning of actions for legal and regulatory compliance by 67%. These benefits are perceived as far more important than economic (e.g. resource) savings and competitive advantages on the market, and slightly more important than organisational and managerial benefits.

A2. FURTHER – INDIRCET – EFFECTS LINKED TO THE EXISTENCE OF EMAS

- Promotion projects are perceived as moderately effective in terms of EMAS registrations, but they seem to have considerable indirect effects: external and "impartial" observers (the EMAS stakeholders) estimate that only 50% of the companies participating in promotion projects achieve EMAS registration (this percentage varies according to the Member State), but 90% of the stakeholders are convinced that the other 50% of the companies benefited from participating in a promotion project and, thanks to this, improved their environmental management.
- *EMAS is not widely seen as a benchmark, this indirect effect can be improved:* only 62% of the whole sample (including participants, non participants and stakeholders) think that

EMAS is regarded and used as "best practice" for environmental management among industrial sectors or other types of organisations. Most interviewees believe that this can be enhanced by making EMAS a real "standard of excellence", e.g. by strengthening the requirements regarding the use of performance indicators, by making it a more "performance-driven" scheme or by enabling benchmarking on performance between participant and non-participant organisations.

- *EMAS is positively affecting environmental management within the supply chains:* 77% of the EMAS participants support their suppliers in the adoption of measures and initiatives for environmental improvement and 72% declare that the environmental management system influences the product performance in other phases of its life-cycle and/or in the supply chain. It has to be noted, though, that the "entity" of these effects has not been measured in our survey, but according to many interviewees it appears to be rather small.
- *EMAS is perceived as a useful support for policy makers, regulators and other institutional and economic actors:* 93% of the stakeholders hold that EMAS makes the implementation of environmental regulation more effective. 75% of the whole sample, for example, believe that EMAS can be effectively used as a support for green public procurement initiatives and 71% that it can be used to ease the regulatory burden on both the institutional and the economic system.

A3. DRIVERS AND BARRIERS FOR EMAS DEVELOPMENT

A3.1 Motivations

- In the past, organisations have mainly achieved EMAS registration for reasons that were not related to competitive advantages: the three most important reasons that motivated current participants to register, in fact, were the willingness to better manage and guarantee legal compliance, the aim of improving environmental performance and the desire to better manage risk and prevent environmental liability. The improvement of competitive capabilities has not been as important as suggested by literature (it ranks only 6th).
- *Today, competitive advantages and stakeholder-relations are instead the main drivers for potential new applicants:* rather interestingly, the two main reasons for eventually registering in EMAS for non-participants would be the aim of obtaining a competitive advantage on the market and the willingness to improve the relations with the stakeholders and the local communities. The third most important reasons for non-participants to achieve EMAS registration would be to keep up with the main competitors (another competitive reason) and to benefit from eventual regulatory relief.

A3.2 Barriers

- The barriers to achieving EMAS registration are those "traditionally" identified by *literature* The most significant difficulties met by EMAS participants in obtaining the first registration were: the cost of implementation (including the consultant), the lack of human resources and competence and the difficulties in involving and motivating the internal personnel. We have to say, though, that these barriers did not affect the implementation process very much: in fact, none of these barriers was averagely assessed as "important" or "very important" by the respondents, but just as "somewhat important".
- The barriers in maintaining EMAS are instead linked to a lack of external feedback or *incentives* The three highest barriers perceived by the participants relate to: a lack of recognition by public institutions (including regulatory relief), a lack of competitive rewards

and advantages from the customers and a lack of external incentives (including support funding). These barriers are averagely assessed as "important" and can be identified as the main reasons why some organisations left the scheme.

• *Similarly, the perceived lack of feedback and incentives is today discouraging potential new applicants:* the same three barriers (but in a different order of importance: lack of market payback, external incentives and institutional recognition) are today preventing non-participants from applying for registration. These barriers are judged as averagely "important". Other two kinds of barriers that non-participants judge "important" are: the lack of recognition by the stakeholders and the lack of recognition at the international level. Very interestingly, neither the costs of implementation and registration, nor the lack of human or financial resources are perceived as disincentives.

A3.3 Benefits

- *EMAS improves the capability to face up to legal and regulatory requirements:* as anticipated, the three most significant benefits perceived by (close to 70% of) the participants are connected to a better monitoring, management and guarantee of the legal compliance.
- In addition, organisational benefits are strongly associated with EMAS implementation: a second typology of benefits, in order of importance, are those relating to organisational aspects. Approximately 61% of the participants experienced an increase in the motivation and involvement of personnel, while 63% achieved a better definition of responsibilities.
- *EMAS is able to generate cost savings, but to a lesser extent if compared with the other benefits described above (legal compliance, organisational benefits):* a third kind of benefits perceived by the participants is, in fact, connected with economic savings related to a more eco-efficient operational management (e.g. 56% experienced a fairly or very significant cost saving through a decrease in resource use, reuse or recycling).

A3.4 Incentives

- *Permanent institutional measures are the "most wanted" incentives:* the two "most wanted" support measures, or external incentives, by all the interviewees are: fiscal incentives (e.g. tax abatement) and regulatory flexibility (with a special mention for the use of the environmental statement in the relevant procedures).
- *The respondents (all groups) also agree on the importance of "indirect" incentives, aimed at increasing the demand for EMAS:* the third and the fifth most important incentives are, respectively: the setting up of information and promotion campaigns for EMAS by public institutions and the inclusion of EMAS in Green Public Procurement.
- Upgrading EMAS to an internationally recognised scheme would be a powerful incentive: all the interviewees mention this opportunity as important; for the "non-participants" this is the third most effective incentive (74% believes it would be fairly or very important).
- *Direct funding and technical support are less requested*: only 24% of the organisations that today are not participating in EMAS, for example, think that technical training and information support (including guidelines and manuals) would be a fairly or very useful incentive
- *The desired incentives for SMEs are controversial:* simplifying the access to the scheme for SMEs is seen as a possible measure, whereas there is fewer consensus on the so-called "staged approach" (e.g. 53% of the EMAS stakeholders believes it would be useful and effective, 47% think it would not be).

A4. EMAS CONTRIBUTION TO COMPETITIVENESS

- *The most important competitive advantage is an "improved image":* 84% of the EMAS participants perceived this immaterial and non-quantifiable advantage as fairly important or very important.
- Competitiveness is positively affected by EMAS in some respects, none of which are directly related with the customer or consumer response: improved innovation capabilities, cost optimisation and recognition as leader by competitors and trade associations (not by the market) are other important competitive advantages for the participants.
- *Market payback is significantly less perceived:* competitive advantages directly linked to any sort of "market reward" are perceived only by a minority of the sample: 45% acquired new customers or market shares thanks to EMAS registration and 39% obtained a higher customer satisfaction.
- *The question of whether EMAS is an effective tool for competition or not, remains controversial:* 54% of all the respondents considers EMAS as useful and effective for competitiveness. This datum hides a considerable difference between participants (62%) and non-participants (only 32%). This seems to be one the most significant problem for EMAS uptake: few organisations outside the scheme believe it can produce competitive advantage on the market.
- All in all, EMAS seems to pay back its cost and it is worth maintaining: taking into consideration all the above mentioned benefits and competitive advantages, 60% of the EMAS participants believes that registration has paid back its entire cost and 95% will continue to be registered in the scheme.

A5. EMAS RELATIONSHIP WITH SUSTAINABLE DEVELOPMENT

- Sustainability-targeted initiatives are rather diffuse among organisations: 65% of the respondents (summing up all groups) carried out in the past initiatives for employee involvement in social issues, 47% performed stakeholder engagement on social issues, 67% developed (or are developing) an occupational health and safety management system (OHSAS 18001 or others) and 43% drafted (or are drafting) a sustainability report. No significant difference in these percentages between EMAS participants and non participants is reported.
- *Promoting and favouring integration between EMAS and health and safety is an interesting option:* 62% of all the interviewees are in favour of integrating health and safety into EMAS (68% among participants).
- An upgrading of EMAS to a wider scheme on CSR and/or sustainable development is *controversial:* 50% agree on this opportunity, 50% do not (48% agrees and 52% do not among participants). Largely preferred is the possibility of including CSR-related issues in EMAS, as an add-on of the current scheme (with a "modular" approach).

PART B: ECO-LABEL

B1 & B2. Contribution of the EU Eco-label to changing the consumption and **PRODUCTION PATTERNS: DIRECT AND INDIRECT EFFECTS**

In order to assess the contribution of the EU Eco-label to changing the consumption and production patterns, an evaluation of the effects in terms of performance has been carried out, focusing on both direct and indirect effects.

B1 DIRECT EFFECTS

- *The EU Eco-label is used to improve environmental performance:* for 59% of the participants in the scheme, the aim of improving the environment was fairly or very important in the decision to use the label and 73% think that the EU Eco-label has contributed to setting targets for the improvement of product environmental performance, at least in some areas of the life-cycle.
- At the micro level: the EU Eco-label is frequently able to produce an improvement in environmental performance: approximately half of the respondents experienced an improvement of the environmental performance of the product life-cycle thanks to the adoption of the EU Eco-label (50% in air emissions, 47% in water emissions, 47% in water and resource use, 45% in waste and recycling). It has to be noted, though, that many interviewees did not measure environmental performance or did not have direct information.
- At the meso level, the EU Eco-label can induce an improvement in the performance of other companies in the supply chain: 74% of the participants in the scheme agree (or strongly agree) on the fact that the adoption of the EU Eco-label influenced their demands on their suppliers concerning the environmental performance
- At the macro-level, there is no clear opinion on what should be the level of performance requested to the companies that adopt the EU Eco-label: 38% of the stakeholders agree (or strongly agree) that the label should be awarded only to front-runners, while 50% agree (or strongly agree) that it could be awarded also to slightly environmentally "better" products (i.e. the label can be used mostly as a marketing tool, focusing on a high market penetration).

B2 INDIRECT EFFECTS

- *Policy-related indirect effects are known to and appreciated by the stakeholders:* 54% state that the Eco-label supported national processes for defining Eco-labelling requirements (only 26% believe that the Eco-label supported the process of developing sector oriented Eco-labelling approaches). 74% of the EU Eco-label stakeholders believe that the EU Eco-label should be more closely linked with other measure or activities of the national policy areas and 84% think that the Eco-label should be used as a basis for compliance with requirements of the new approach and other directives (like EuP)
- *There is a strong market-related indirect effect on competitors:* 80% of the companies that do not participate in the EU scheme declare they use the Eco-label criteria as informal benchmarks to measure the environmental performance of their products
- *The other market-related indirect effects should be empowered:* close to 90% of the stakeholders believe that the EU Eco-label should be used as a guideline for private

consumers, public purchasers and professional purchaser and 81% that its criteria should be used for product tests by third parties.

B3. ECO-LABEL AND NATIONAL LABELS

- *The national labels are not necessarily preferred by producers:* although a large majority of all the respondents is aware of the existence of national labels, they do not prefer them over the EU Eco-label (the most interesting case being that of the non-participants in the EU scheme: 83% know at least one national label, but 75% *do not prefer it* over the Eco-label).
- The national labels are not necessarily perceived as more successful than the EU Eco-label: actually, even if the larger diffusion in terms of number of licences and products is undisputable, the fact that national labels are perceived as more successful than the EU Ecolabel is controversial: only 47% of all the interviewees agree (or strongly agree) with this point of view.
- *The presence of national labels is not considered totally positive or negative:* 44% of the whole sample state that there are advantages in having both the EU Eco-label and the national labels, while 45% think that there is no advantage. Even more controversial is the issue of direct competition between national labels and the EU Eco-label: 39% of the sample believe they compete with each other, 43% do not.
- *In any case, harmonisation is the solution:* in order to avoid competition, a stronger harmonisation is asked as the largely preferred option. Very low consensus is instead obtained by the options of abolishing either the EU Eco-label or the national labels.

B4. DRIVERS AND BARRIERS

B.4.1 Drivers to implement the EU Eco-label

- *Competition and marketing potential are the most powerful drives:* the five most relevant reasons for adopting the EU Eco-label (on a list of 18) are all strictly connected with the willingness to improve competitive capabilities on the market (e.g. to respond to an increased demand or interest by the consumer/customer, to take the leadership in the market, to increase customer satisfaction, etc.).
- *The public sector is a key target for many companies, and therefore public purchase can be an effective driver:* a potential better access to the public procurement procedures is indicated as a fairly or very important motivation to obtain the EU Eco-label by 53% of the participants (the sixth most relevant driver).
- *Environmental performance is a far less important motivation to adopt the label:* improving the impact of products on the environment is mentioned as the seventh most important driver, well behind the "competition-oriented" ones.

B.4.2 Experienced benefits from the EU Eco-label

- Even if it is not a strong driver, the improvement of environmental performance turns out to be a relevant benefit: it is worth noting that the improvement of the environmental performance (i.e.: not a competition- or market- related variable) is one of the two most relevant benefits perceived by the participant in the EU scheme
- *Corporate image and other immaterial benefits play a key role:* the other most perceived benefit of the EU Eco-label is the "recognition as leader" by the competitors and by the

trade associations (not quantifiable in monetary terms and not directly connected to a reward given by the consumer/customer). Other "immaterial benefits" emerge as important from the interviews, generally relating to supply-chain management: an improvement in the selection of the raw materials and a better knowledge of the product's environmental impacts in its life-cycle.

• *Market-related results are less perceived:* only the fourth most relevant benefit refers directly to the market reward: an increase in the market share (or in the number customers/consumers).

B.4.3 Barriers in implementing the EU Eco-label

- *Procedural and organisational barriers were difficult to overcome for those who applied and obtained the EU Eco-label:* the three most significant barriers in implementing the EU Eco-label identified by the participants in the scheme are the degree of formality and the documentation required, the difficulties in getting the relevant documentation from the suppliers and the costs of implementation
- *Cost is the highest barrier for potential applicants:* if we focus on the opinion of the nonparticipants (i.e.: the producers that did not choose or were not able to apply for the EU Ecolabel), the most relevant barrier in implementing the EU Eco-label is the cost of license and of implementation (including the consultants)
- *Technical aspects are less perceived as barriers*: the lack of internal human resources and competence to implement the necessary requirements and the lack of external technical support and information are not mentioned by a significant number of interviewees (they are even less perceived among the non-participants). This is considerably different from the results of previous studies, that identified the "technicalities" of the scheme as a barrier, especially for SMEs.

B.4.4 Barriers in using the label for product marketing

- *The low awareness largely prevails as the most significant barrier:* the lack of recognition and knowledge by different actors is perceived as a very significant barrier both by participants and non-participants, in the following order of importance: lack of recognition 1. by the consumers and the public at large, 2. by the public institutions (also through green public procurement), 3. by the intermediate customers and 4. by the retailers. On these barriers we saw the highest level of consensus in the whole of the in-field research.
- It is not just a problem of knowing the EU Eco-label, but also of choosing it on the market: the lack of competitive rewards by all the above-mentioned actors is perceived as a considerable barrier. Interviewees confirmed that, even if customers are aware of the EU Eco-label, they are not eager to buy labelled product and thus provide a real reward to companies that applied. A frequently reported example refers to green public purchasers.
- *This barrier is particularly high for new potential applicants:* it is worth noting that the lack of recognition and reward by the final consumers is a relevant barrier for nearly all (88%) the companies not participating in the scheme (these failings were also indicated as reasons to possibly abandon the scheme).

B.4.5 Incentives

- *Promotion and marketing.* The four most important support measures and incentives for the EU Eco-label refer to the need for diffusing knowledge about the scheme and its logo and increasing demand for Eco-labelled products. A very high percentage of all the interviewees (close to 90% for all the following options) believe that information and promotion campaigns and other actions aimed at increasing knowledge of and demand for the EU Eco-label are the most effective measures to support the scheme and endorse its success as a marketing opportunity (and, therefore, as a policy tool).
- *External incentives*. A second group of desired measures is related to two kinds of external incentives that can favour Eco-labelled products over the competitors. The first concerns fiscal incentives, such as tax abatement, that can enable producers to lower the prices of Eco-labelled products (76% of all the interviewees considers it fairly or very important, regardless of the recent negative outcome of the debate on VAT reduction). The second kind of incentive is the inclusion of the EU Eco-label as a facilitating condition for public procurement (67% of the whole sample).
- *"Internal" improvements.* Other desired measures directly relate to some modifications that can be introduced in the Regulation or in its institutional and applicative framework (e.g. streamlining the application and verification procedure, defining more product groups, etc.)
- *Rejected options.* Making the EU Eco-label an entirely privately managed scheme obtained the lowest degree of consensus of all the proposed measures, but also the idea of making it entirely public-managed was rejected. The interviewees opposed the idea of making the EU Eco-label a pure front-runner scheme, but also the opposite solution (opening the scheme to 60% of the products in the market) was not appreciated. The proposal of centralising the management of the scheme more, with a higher level of intervention by the European Commission, was rejected, while the idea of decentralising more with respect to the current sharing of tasks obtained some consensus (37% agreed or strongly agreed). Lowering the number and/or the level of the criteria to "ease-up" the application of the scheme were did not score highly as possible options. Finally, it has to be emphasised that the proposal of having a graded label, strongly debated in recent years, seems to be definitely rejected by the interviewees (only 18% believe that this could have fairly or very important effects, while 41% think that the proposal is not important at all).

B5. CONTRIBUTION OF THE EU ECO-LABEL TO COMPETITIVENESS

- *The EU Eco-label is actively used to increase sales:* 95% of the companies participating in the EU scheme use the Eco-label in their marketing campaigns (TV and press advertising, promotion initiatives on the point-of-sale, etc.). It is rather surprising that 5% of the respondents that adopted the EU Eco-label believe that the market context is not sensible and "mature" enough to use it in an effective way.
- *The EU Eco-label is often able to produce positive effects on the market:* 53% of the interviewed companies experienced an increase in the market share or in the number of new customers thanks to the adoption of the EU Eco-label
- *The market reward in terms of turnover is not easily measurable:* only 29% experienced a quantifiable increase in the turnover after the adoption of the Eco-label; the average increase in turnover, based on very few (3) observations, is 11.7%.
- *The reason for the limited reward is well known:* as emphasised above, according to the interviewees the low competitive reward is explained by the lack of recognition and knowledge of the label by different actors on the market: consumers, public purchasers, intermediate customers and retailers

B6. ECO-LABEL RELATIONSHIP WITH OTHER DIMENSIONS OF SUSTAINABLE DEVELOPMENT

- Consumer health and safety is already dealt with by many companies, ethical issues are not: different actions concerning other pillars of sustainability have been carried out by the companies that are using the EU Eco-label, of which the most diffuse are: product innovation on consumer health and safety (78%), adoption of a certified label concerning consumer health (32%), adoption of a EC safety mark within the application of a "new approach" directive (19%) and adoption of a "fair trade" label (16%)
- *There is only a moderate consensus on a possible EU sustainability label:* 55% of all the interviewees are in favour of integrating the EU Eco-label into a more general label on sustainability. Participants and stakeholders are a lot more favourable than non-participants (only 20% of positive answers in this category of interviewees)
- *In any case, a "soft" solution should be adopted:* according to 66% of the interviewees, if the EU Eco-label is eventually modified in order to address sustainability issues, this should be done just by including additional information on these issues for the consumers (neither by including mandatory criteria, nor by creating a separate –eventually modular scheme with a similar logo)

PART C: INTEGRATION

- *To some extent, the product dimension is already part of EMAS*: 72% of the EMAS participants stated that environmental management systems influence product performance in other phases of the life-cycle and/or in the supply chain. Only 6% state that this influence is "great" (for the others it is "considerable"). The environmental improvement produced by EMAS on product-related indirect aspects (such as the transport phase), though, is still low if compared with the one on direct aspects. The overall impression derived from the interviews is that the potential for integrating the "product dimension" in EMAS is interesting for companies, but far from being fully expressed.
- There is a certain awareness of the potential benefits emerging from a stronger link and synergy between EMAS and the EU Eco-label: 46% of the respondents on both sides (i.e.: companies participating in one of the two schemes) see potential synergies between EMAS and the EU Eco-label. The synergies that could be implemented with the new revision of the schemes are found at the operational, marketing and institutional level, at the same (high) level of interest.
- "Synergy" does not necessarily mean merging the two schemes: slightly more than half of the participants to one of the two schemes (52%) believes that EMAS should become a mandatory requirement to obtain the EU Eco-label; only 14% think that the EU Eco-label should be fully integrated with EMAS, so to become a mandatory requirement to obtain registration; while a higher number of respondents on both sides (46%) thinks that the Eco-label could become an additional requirement in a more product-oriented EMAS. As a general note, we have to underline that for all the above mentioned answers there is a lack of knowledge, implying a high number of "non respondents" or "don't know".
- *ISO type III labels can be a synergetic tool for both schemes:* the majority of respondents (among the participants to one of the two schemes) considers the EPD (or other environmental profile) systems as complementary to EMAS and to the EU Eco-label. As for the previous evidence, it should be noted that a high number of participants on both sides were not able to answer, due to a lack of knowledge on type III labelling.
- *Many opportunities were identified (and appreciated) for pursuing integration with ISO type III labels:* when it came to operational, marketing and institutional synergies, the respondents showed a general positive attitude towards many of the proposed opportunities to rely on the complementarities and to exploit the synergies (e.g. common data collection, possibility to support both EMAS and the EU Eco-label with data on the product life cycle, possibility of connecting the development of an EPD or environmental profile to the opportunity of using the EMAS logo on products and/or of communicating product performance in the EMAS statement, etc.).
- A major issue is integrating and linking the two schemes with existing legislation and environmental policies (to a wider extent): a considerable consensus has been registered during the in-field research on the strong need for integrating and embedding EMAS and the EU Eco-label in other policies and tools. This outcome fully confirms the results of the literature review: a general request is being made by stakeholders and organisations taking part in the two schemes for a truly effective and consistent embedding of EMAS and the EU Eco-label in existing and forthcoming legislation. Some of the most frequently suggested policy areas for promoting synergy were, for EMAS: the IPPC directive, the Emission trading directive, the Seveso Bis Directive; for the EU Eco-label: EuP, RoHS and, to a minor extent, REACH.

Statistical appendix:

In order to determinate the statistic relevance of the two samples, EMAS participants and Eco-label participants, we proceeded through the calculation of the confidence interval of the samples extracted by the population. We assumed, for the population, a distribution of binomial probability. In such case, the sample to be interviewed is given by fixing a value for the standard error, whose expression is the following:

$$\varepsilon = z_{\alpha/2} \sqrt{\frac{p(1-p)}{N}}$$

Where:

- N is the greatness of the sample;
- $z_{\alpha/2}$ is the value of the standardized variable z that defines to its right an area under the curve equal to $\alpha/2$ of the total area;
- *p* is the value of probability
 - ε is the standard error.

In our case, at the moment of the composition of the sample¹, the population of EMAS participants was 3072, and the chosen sample was composed by 77 subjects; that of Eco-Label participants was 295; and the chosen sample was composed by 39 subjects.

As the variance is not known, we considered the most disadvantageous case, (that is that which maximizes the function (p), and that therefore corresponds to p=0,5) we settled a level of confidence equal to 95% (for which α = 5%) that corresponds to $z_{\alpha/2}$ = 1,96.

The sample M selected for the EMAS participants conducted therefore to an error $\varepsilon = 11\%$, while that chosen for Eco-Label participants conducted to $\varepsilon = 14,6\%$,

The confidence interval will be therefore the double of the error (%) and the extremes are individuated through the following:

$$\left(p\pm z_{\alpha/2}\sqrt{\frac{p(1-p)}{N}}\right)$$

In conclusion, in the case of the sample chosen for EMAS participants we had as extremes of the confidence interval: CI=[0,39;0,61]; in the case of the sample chosen for Eco-label participants we had: CI=[0,35;0,65].

$$M = \frac{N}{1 + \frac{N-1}{n}}$$

 $^{^{1}}$ as we are in the case of ended population n, a corrective coefficient is adopted, for which the interviewed sample M is given through the following: