

# **EUROPEAN COMMISSION**

Directorate General Environment – Unit 'Research, Science and Innovation'

## **ENVIRONMENTAL TECHNOLOGY VERIFICATION**

### **Consultations Analysis Report July 2008**

- General public consultation
- European Business Test Panel (EBTP) consultation
- Forum on eco-innovation
- Stakeholder workshops / Consultations

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## 1. Introduction

### 1.1 Background

Innovative environment-friendly technologies are needed to address the environmental challenges faced by Europe and the world, such as climate change, scarcity of natural resources or the loss of biodiversity. At the same time, developing and using these technologies opens up new technology fields and creates new business opportunities.

But many new technologies lack proven information on their performance under real or field conditions. This makes it difficult for their manufacturers to convince first customers due to the perceived risks, to secure the sources of finance necessary to fund related industrial developments and sometimes it delays the necessary authorisations to place the technologies on the market.

The European Commission is considering proposing the establishment of an EU-wide voluntary system, offering credible verification of the performance and potential impacts on the environment of new technologies: Environmental Technology Verification (ETV). Two consultations and different workshops aimed at gathering the views of various businesses and other interested parties on the main options identified in order to prepare a Commission initiative in 2008.

A first public consultation (hereafter referred to as general public consultation), open to all public through the Internet Policy-Making tool, ran from 15 November 2007 to 6 February 2008. There were 139 responses received via the website and 13 responses were received by email, fax or letter from 4 national administrations and 9 enterprises and federations.

A second consultation, addressed at the European Business Test Panel<sup>1</sup> (EBTP) on ETV ran from 20 February till 28 March 2008. 371 participated in the consultation. Of them, 331 filled out the questionnaire completely.

The results of both consultations are here compared and merged in this report.

This report also contains the main conclusions from different consultation events and workshops completing the internet consultations: Forum on Eco-Innovation, stakeholder meetings in Katowice and Copenhagen, consultation in the Slovak Republic, stakeholder workshops in the framework of the research projects PROMOTE and AIRTV.

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<sup>1</sup> The European Business Test Panel (EBTP) is a tool allowing the European Commission to obtain direct feedback from businesses on Commission legislative proposals or initiatives likely to have an impact on businesses. The EBTP is composed of around 3.600 companies of different sizes and sectors located in all EU Member States.

## **1.2 Methodology**

In this analysis the three formats of consultation responses are considered separately.

- Firstly the responses received via the web site are analysed. By far the most responses were received by this method. Answers to each question were limited to 300 characters.

- All of the written submissions received by fax or email have been considered separately to the web submissions. These documents often do not follow the question structure and therefore are difficult to analyse quantitatively. For this reason a qualitative summary of written submissions is given.

- The elements resulting from different consultation events have been summarised and merged where appropriate.

## **1.3. Respondents**

The sections will analyse the quality of the respondents to the two consultations through the contributions sent via the web consultations and those sent in written form.

### **1.3.1 Web consultations**

#### **1.3.1.1 Type of respondents - Size of companies**

Out of the 139 responses to the general public consultation, a good third (36, 7% or 51 respondents) were submitted by individual persons, 19% (28 respondents) by Small and Medium-sized Enterprises, 8% (12 respondents) by large enterprises, 5% (8 respondents) by business associations, 13% by public administrations, 21% by other categories.

Almost 70% of the 371 participating companies to the EBTP consultation are Small and Medium-sized Enterprises: 6% have no employee, 45% have between 1 and 50 employees and 18% between 50 and 250. A third (31.3%) of the companies has more than 250 employees.

#### **1.3.1.2 Geographical repartition**

Responses to the web consultations were received from 23 European countries and 4 non-European countries.

The geographical repartition of the 510 responses given in total to both consultations is uneven. Two countries together account for a quarter of the respondents: Germany 14.71% and The Netherlands 10.78%. Five countries account for a third of the respondents: United Kingdom 9.41%, Poland 7.84%, Czech Republic 6.27%, Belgium 5.10% and Italy 4.90%. All other countries account for less than 5% of respondents each.

#### **1.3.1.3 Geographical extend of activities**

For a third of the respondents (30.9%) of the general public consultation, the geographic extend of their activities is national, for 26.6% it is international, for 19.4% European, 12.9% regional and 10.1% local.

Respondents to the EBTP consultation share in three parts: 31% indicated that their activities are not directed towards other EU countries, 34% do have commercial exchanges with 1 to 5 countries, 27 % with more 5 other countries (27.2%).

#### **1.3.1.4 Main sector of activities**

For **the type of activities**, where multiple responses were possible, 485 responses were indicated in the general public consultation out of which 74 responses (15%) for 'Other environment activities', 48 responses (10%) for 'Research and development', 43 responses (9%) for 'Consulting', 29 responses (6%) for 'Monitoring and Control', 28 responses (6%) for 'Business services' and 27 responses (6%) for 'Technology developers'.

In the EBTP consultation, 98 of the 371 respondents (26.4%) indicated that their main sector of activity is 'Manufacturing'; 55 of them (14.8%) work in 'Wholesale and retail trade, repair of motor vehicles, motorcycles and personal and household goods'; 52 (14%) work in 'Real estate, renting and business activities'; and 41 (11.1%) in 'Transport, storage and communication'. Other categories were chosen by less than 10% of the 128 remaining respondents.

#### **1.3.2 Written contributions**

For the general public consultation, 13 responses have been received by email, fax or letter from 5 national administrations, 7 enterprises and federations and one group of stakeholders. Some web answers were complemented by a more complete written response<sup>2</sup>.

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<sup>2</sup> The web consultation limited responses to a set number of words. Some respondents felt that they wanted to put forward a more complete response than could be achieved within the word limit and submitted a written response by email in addition to the web response.

## 2. Analysis of Responses

This section includes a more detailed analysis of the actual responses received. The analysis has been broken down according to the type of media used by the stakeholders to reply.

- For the web based responses, the analysis follows the order of the questionnaire.
- From the written responses, only the elements considered most important are presented and regrouped.
- The information obtained as a result of the European Forum on Eco-Innovation in Paris, of two stakeholders workshops organised in Denmark and Poland, and of 4 pilot projects have been summarised and merged where appropriate.

### 2.1 Web based consultation responses

The 331 respondents to the EBTP consultation who decided to complete the whole questionnaire were first asked to answer three introductory questions.

1. Among them, **88% indicated that they would be interested in purchasing environmentally friendly goods and/or services**. This high percentage is an interesting indication on the potential market for environmental technologies, even if we cannot exclude that the consultation attracted mainly companies already interested in these technologies.

2. The group responding positively to the previous question was asked if – when purchasing environmentally friendly goods or services – they are sure that the claims on their performance are correct: **only 11% indicated that they trust vendor's claims** without further check, 57% considered that one can ask for evidence backing the claims and 26% thought there are no means to check that the claims are correct. This result is a clear indication of the lack of credibility of unverified performance claims, and to some extent of the possibility for asking for evidence.

3. The group responding positively to the first question was also asked what they would trust the most to provide reliable information on the performance of environmentally friendly products, services or processes. Two options were equally preferred: 'Verification by a qualified third party' (45%) and 'Official certification or label' (46%), probably reflecting both some confidence in established certification and labelling schemes and openness to possible other solutions.

#### 2.1.1 Environmental Technology Verification (ETV)

**Question: Do you think there is a need to promote and organise the third party verification of technology performance?**

Of the total of 470 questioned participants, 69% considered there is a clear or important need, while 14% considered there is only a slight need for the organisation of third party verification, and 15% see no need.

The results to these questions are important as they give clear indications that the approach proposed through ETV addresses a real need for the businesses that responded to the consultation.

Respondents to the general public consultation had the possibility to elaborate their answers when they replied 'no need'. Three respondents used this possibility. For them, there would be no added-value because existing laws and instruments are sufficient. One respondent added that ETV would go against the Energy using Product directive, another one considered that ETV was not successful the US and in Canada.

**Question: What should be the first objective of a technology verification system?**

Companies were asked to rank three main objectives of a technology verification system out of five propositions. The expressed answers to this multiple-choice question can be represented in the following table, indicating the number of respondents choosing one option as first (column 1), second (column 2) or third preferred option (column 3).

**EBTP results**

	1	2	3	total
a- Accelerate the market penetration of environmental technologies	<b>56</b>	44	50	150
b- Help small and medium-sized enterprises to prove the performance of their technologies	32	<b>52</b>	37	121
c- Help start-ups in environmental technologies to convince their financial partners (bank, investors)	30	<b>40</b>	37	107
d- Help technology vendors to obtain the necessary authorisation to place their technologies on the market	15	<b>60</b>	36	111
e- Help technology purchasers (public private) to base their purchase decision on reliable information	<b>120</b>	45	41	206

These preferences are confirmed by the responses to the general public consultation: for 48% of them, the first objective is to 'Help technology purchasers (public or private) to base their purchase decision on reliable information', for 41% the second most important objective is to 'Accelerate the market penetration of environmental technologies'.

The importance given to the support to purchasers of technology is an interesting result of the consultation, considering that this aspect was not the main one elaborated in the consultation documents.

Six respondents elaborated on the other objectives they would prefer: 4 of them stressed the need to help market penetration by using publicly available credible data, referring to global warming and climate change in particular; 1 stressed the environment and animal friendliness of new technologies; and one stressed the need to prevent polluting factories to operate.

**Question: For what type of technologies should ETV be developed in priority?**

For both consultations together, a total of 498 responses were received to this question. Two responses emerged from the question about the type of technologies to be addressed by ETV in priority:

- 'New technologies just entering into the market' has been chosen by a third of the respondents (36% or 180)
- 'All technologies should be accepted irrespectively of their stage of development' by another third (34% or 168)

These responses mainly confirm the approach advocated in the consultation paper, focussed on new but commercially available technologies, and suggest the need to keep some flexibility to possibly address other types of technologies.

## 2.1.2 Outline of an EU ETV Scheme

### Question: What should be the main rationale of ETV?

This question was testing several possibilities of references against which technologies should be verified: vendors' claims, legal requirements, and standard protocols for verification or users' requirements.

The two first possibilities were chosen by respectively 31% and 29%; the third by 22% and the last one by 17%.

This low dispersion of results reflects either the complexity of the question (more information was maybe necessary to enable an informed choice) or an uncertainty on the most adequate approach. It does not seem possible to draw conclusions from the responses to this question.

	IPM		EBTP		TOTAL	
verification of performance claims (as in the Canadian system)	48	36,92%	71	27%	119	31%
verification of performance based on pre-determined protocols (as in the US system)	24	18,46%	65	25%	89	23%
verification of performance based on user requirements	19	14,62%	47	18%	66	17%
verification based on agreed standards or legal requirements (certification)	32	25%	76	29%	108	28%
other (please elaborate)	7	5,38%			7	2%
	130	100,00%	259		389	100%

Eleven respondents from the general public consultation elaborated on the main rationale. One opted for 'validation of demonstrations'. Three insisted on the role of stakeholders in pre-determined protocols, one referred to validation of demonstration.

### Question: Who should lead the organisation of ETV?

Half of the responding companies to both consultations (194 or 51%) think that an EU ETV system should be organised by EU Institutions.

Other preferred options were (in decreasing order) an 'organisation by the private sector itself in a coordinated way' (19%), 'organisation by one (a group or) business service(s) having the necessary capacity' (16%) and 'organisation by governments at national level' (15%).

The responses to this question point at a clear preference for the ETV system to be organised by public authorities (66% when adding EU institutions and governments at national level) rather than the private sector alone (35% when adding the two options based on private actors), and among public authorities, a clear preference for the system to be organised at EU level.

### Question: The possible EU scheme under consideration (see the consultation paper) is based on the verification of performance claims, on a voluntary basis using test data

**provided by the technology developer and additional tests if needed. Do you think this approach is: appropriate, very appropriate, not appropriate.**

Through both consultations, a 'voluntary scheme based on the verification of performance claims, using test data provided by the technology developer and additional tests if needed' is deemed as 'appropriate' or 'very appropriate' by 71% of respondents (respectively 49% and 22%) for their area of activity, 'not appropriate' for 15%.

There is an overall support of respondents to the scheme outlined in the consultation, despite the relatively high percentage of 'it does not apply' or 'don't know' (20% in total) suggests that not all respondents were belonging to sectors of activities where the verification scheme would apply.

Respondents to the general public consultation had the opportunity to express themselves in free text.

From the 27 respondents who estimated the approach to be not appropriate, 24 elaborated their answer:

Criticism was expressed on the voluntary approach by 5 respondents, on the claims related verification by 5 respondents, on the data provided by technology developers by 8 respondents.

More specifically, these respondents were asked if, in their area of activities, such an EU scheme would be very appropriate, appropriate, or not appropriate.

From the 42 who thought the scheme would be very appropriate in their area of activity, 27 elaborated specifically about "What would be needed to make it work efficiently?": an adequate structure was mentioned by 6 respondents, where from 3 insisted on the accreditation; 6 respondents suggested to pay attention to reduce the costs, and 6 to provide an easy accessible system particularly for SMEs; recognition and visibility were mentioned as an asset by 8 respondents.

From the 67 who thought the scheme would be appropriate in their area of activity, 27 elaborated specifically about "What would be needed to make it work efficiently?": The elements mentioned under this section are very near to those of the preceding section: 7 respondents suggested accessible costs, 10 see the need for a suitable organisation/structure and 4 rather a good visibility and recognition.

**Question: The following technology areas are considered for the beginning of the scheme: monitoring techniques, waste water treatment, renewables and energy efficiency, air pollution abatement, clean technologies including recycling. Is this list appropriate, too large, too small?**

While the general public consultation questioned respondents on the adequacy of a list of technology areas (Monitoring techniques, waste water treatment, renewables and energy efficiency, air pollution abatement, clean technologies including recycling), the EBTP respondents could express themselves on each technology area mentioned.

Among the respondents to the general public consultation, the indicated list was judged *appropriate* by the very large majority (83 respondents or 67.48%) of the 123 respondents to this question; 26 (21.14%) thought it is too *small* and 14 (11.38%) thought it is *too large*.

Of the 26 respondents who thought the list to be too small, 18 elaborated their opinion: some respondents considered that the list is not useful, other that it should be more specific, or include production processes like water supply, soil and water depollution, remediation technologies, waste management, radiofrequency pollution.

Of the 14 who thought the list to be too large, 8 elaborated their opinion: some ideas should be better defined (Energy Efficiency and Clean Technologies); the breadth of technologies encompassed seems to them is too wide to standardise and measure performance. Some respondents would prefer to restrict the field of technology to waste management, water technologies, energy efficiency and/or renewables.

In the EBTP consultation, the 266 companies which see a need in the promotion and organisation of third party verification of technology performances were asked for their opinion about the relevance of a list of technology areas.

All proposed areas were considered either 'very relevant' or 'a little relevant', and only few respondents considered that other areas should also be considered for relevance.

The technology area ranked highest was 'renewable and energy efficiency' (very relevant for 74% of respondents) followed by 'air pollution abatement' (very relevant: 68%) and 'waste water treatment' (very relevant: 64%). The larger area of clean technologies (like recycling) was considered very relevant for 57% and a little relevant for 41%. Monitoring techniques was the lower ranked area, with 38% of respondents considering it was 'very relevant' and 44% 'a little relevant'.

**Question: In an additional question in the *general public consultation*, 64 respondents indicated for which specific technologies ETV would be valuable in their views.**

The respondents gave examples of technologies in the following areas: Water and soil (14), waste (6), Energy (15), Bio-/Nanotechnologies (8), Air (4), Monitoring (8), Clean Production Processes (7).

**Question: Do you think the ETV scheme should provide other services than verification itself, such as pre-verification for pilot technologies, benchmarking of different technologies for users, support to the marketing of new technologies?**

A good half of all the responding companies (55%) would like the ETV system to provide other services than verification itself.

In a multiple choice question, the respondents to the EBTP consultation wishing other services to be provided were asked to indicate - out of 4 propositions - which other services they would consider useful. 302 responses were given in total, out of which 100 for 'Benchmarking of different technologies for users', 73 for 'Pre-verification for pilot techniques', 63 for 'Support to the marketing of new technologies, information on possible sources of funding', and 58 for 'Networking (like with capital investors, researchers, companies)'.

From the 123 respondents to the general public consultation who replied to this questions, 44 (35.77%) thought that the scheme is sufficient; 79 (64.23%) thought that other services should be provided. Among those, 39 indicated which other services should complete the scheme:

12 proposed the pre-verification; 12 proposed benchmarking; in addition, other possible services were indicated by one or a small number of respondents and include marketing, international cooperation, Life Cycle Analyse, insurance of innovation pilots..

### 2.1.3 Consideration of costs

**Question: The funding provided by the applicants to the system (technology developers or vendors) would cover the cost of verifying their application (estimated €5000 to €20000) and the cost of additional tests if needed (estimated €10000 to €70000).**

When questioned about the adequacy of this cost, the majority of responding companies to both consultations (51%) thought it is 'Impossible to meet for small technology developers without external support'; for 27% of respondents, it is 'possible to meet if justified by the added-value of the scheme; for 9% it is 'coherent with cost currently met for testing, verification or certification activities'; 12% of the respondents don't know.

This result clearly points at the need to provide support to SMEs to enable them to participate in an EU ETV scheme, if the first cost estimates are confirmed in the further development of the scheme.

Respondents to the general public consultation, having replied that the estimated costs are **'impossible to meet'**, had the possibility to elaborate 'what in their views is the maximum cost that small technology developers can bear'.

Out of these 48 respondents, 28 elaborated their answer: 8 did not give precise figures, 16 gave figures below 20.000 euros (for the whole cost of verification and testing), and 3 gave figures or ranges between 20.000 and 50.000 euros.

The EBTP members where asked what range of cost for both tests and verification seems reasonable in their area of activity:

46% of responding companies indicate 'below €20000',

10% 'between €20000 and €50000',

4% 'between €50000 and €100000' and

1% 'more than €100000'.

For 25% of respondents, the question doesn't apply, and 15% don't know.

The responses to this question confirm the previous one on the importance of cost, most respondents choosing the lower range proposed as reasonable cost. The high percentage of 'doesn't apply' or 'don't know' (40% in total) suggests, as indicated above, that some respondents may not belong to the areas of activities where ETV would apply, and/or that it was not possible to give a clear indication of acceptable cost on the basis of the proposed outline.

**Question: What other sources of funding they would consider appropriate in order to reduce the cost for technology vendors to a minimum?**

To this multiple-choice question, the responding companies gave 1048 answers, ranking the propositions as follows:

'Public administrations' are the preferred funding source for 29%,  
Public technology centres, laboratories or universities for 14%,

Industry federations for 13%,  
Private sponsors (big companies, banks, etc) for 12%,  
Technology users for 11%,  
Investors for 11%,  
Chamber of commerce for 8%.

In the general public consultation only, the category 'Public administration' split into three sections:

- 'EU budget' (83 or 20.15% out of 412 responses),
- 'Member States' (68 or 16.5% out of 412) and
- 'Local authorities' (33 or 8.01 out of 412).

The responses point in majority at public bodies (administrations, technology or research centres) without excluding the possibility for private actors to be also involved in the scheme funding, in addition to the technology vendors being the main 'clients' of the system.

### **Preferred options for coverage of fixed cost**

EBTP Members were additionally asked in a multiple-choice which, out of 6 propositions, would be their preferred options for the coverage of the fixed costs of the system (costs related to the system administration and communication, possibly including generic test protocols).

The EU budget is the preferred option for 43% of the 397 responses indicated, followed by 'The applicants to the system (technology developer or vendor)' for 22% of the responses, 'The budget of national governments' for 19% of the responses, 'Other public budgets' for 8% of the responses, and 'Other private sources of funding' for 6% of the responses. The public sources of funding totalise 278 responses (70%), private sources 108 (28%). In addition to the general preference for public budgets (and EU budget in first place) to fund the fixed costs of the system, it should be noted that funding by applicants is the second preferred option: many respondents consider that applicants should also cover (part of) the fixed costs, for example through a standard fee per application.

### **Question: Ranking of the importance of the different aspects of an EU ETV system:**

In a ranking table, the respondents to both consultations were requested to indicate the importance of 12 listed aspects for an EU ETV system. In the responses, all proposed aspects were considered either 'very important' or 'important' in majority, confirming the approach presented in the consultation. A further step in the analysis can be taken by grouping the proposed 'aspects' in four groups, based on the relative weight given to 'very important' and 'important' and on the number of responses indicating 'not important' (always in minority, but allowing nevertheless to differentiate between the groups):

**'Credibility and scientific soundness'** is clearly considered as a 'must': it is 'very important' for 306 answers, 'important' for 81 others – only 3 answers suggest it is 'not important'.

**'Recognition of verification results in Europe'** is almost as highly ranked and should also be considered a top priority: 'very important' for 251, 'important' for 128, 'not important' for 10.

**'Accessibility for SMEs'** and **'Focus on technologies addressing the main environmental issues'** constitute a second group of clear priorities, with high scores both as 'very important' and 'important', and low scores for 'not important'.

Another group can be considered as consensual among respondents: the aspects are ranked high either as 'very important' or 'important' or both, and the number of 'not important' is below 10%: **'International recognition of verification results', 'Rapidly of verification process', 'Low cost for applicants'**.

The last group can be constituted with less consensual aspects, ranked high as 'very important' or 'important' but at the same time ranked as 'not important' by a significant number of respondents (between 14 and 24%): **'Confidentiality of technology details or test data', 'Public availability of verification report', 'Attractiveness for investors and other financial partners', 'Focus on technology areas where many innovations occur' and 'Support to technology users / public and private purchasers'**.

### **Question only to the general public consultation: Do you have other comments or suggestions on the EU ETV scheme under consideration.**

40 respondents used this opportunity: many relating to the user-friendliness and accessibility of the system to the way to keep, to its applicability to certain technologies or in relation with some regulatory issues.

## **2.2 Written contributions**

In addition to or in complement of the responses to the internet consultations, 13 written contributions were received with more elaborated responses. Five were received from public administrations: the Environment departments of Germany, the Netherlands and the United Kingdom (on a private or informal basis, hereafter referred to as DE, NL and UK) and the Danish and Irish Environmental Protection Agencies (hereafter Dk EPA and Ir EPA). Three contributions come from business associations: the UK Environmental Industries Commission (EIC), the Verband Deutscher Maschinen- und Anlagenbau (VDMA) and a combined contribution of the Technical Association of the European Natural Gas Industry and the European Gas Research Group (Marcogaz GERG). Four contributions come from individual enterprises: Carbon Trust (CT), CBO Management and Technology Systems Center, Volkswagen (VW) and Weishaupt (WH). One contribution came from the UK-Defra Technical Advisory Committee (TAC), an independent cross-sectoral stakeholder group representing the private, public, academic and NGO sectors.

In general, the written contributions express some support to the initiative and point out some points for further reflection. Four contributions explicitly state a strong support (Dk and Ir EPA, Marcogaz GREG and CT). Two contributions (from DE and UK) points to the need to clearly show the business case and added value of the scheme before proposing establishing it. Two contributions (VDMA and WH) consider that the initiative is not useful.

The written contributions can be summarized and regrouped as follows:

- VDMA and WH note that a **definition of environmental technologies** is missing in the consultation document.
- The **relations with existing instruments** (regulations, certification, labelling) were discussed in many contributions: DE questions the compatibility of an EU system with

existing instruments; WH sees a contradiction between an ETV scheme and the EuP Directive; Ir EPA calls for the system to confirm if technologies meet legislative requirements or accepted environmental standards; Dk EPA would like the system to complement existing and new regulation; NL sees a clear added value of the system in sectors where few standards exist, and limited added value in other sectors unless applied to performance going beyond accepted standards; UK considers that ETV could be a pre-qualifying step before permitting procedures.

- NL calls for the system to remain **voluntary**: if the system became de facto mandatory in some sectors, this would be detrimental to innovative companies and to the system itself. For NL and UK, the system should also remain **independent** and aimed primarily at **SMEs**. On the contrary Marcogaz-GERG considers ETV should be made mandatory. WH and VDMA fear that ETV might anyway become de facto mandatory and constitute another barrier to innovation.
- Dk EPA calls for the system to have a wider focus than technology developers claims, including all **relevant environmental aspects**. Ir EPA, Marcogaz GREG and VW advocate for **life-cycle analysis** to be integrated or referred to in the verification programme. DE sees **users' requirements** as the basis for verification procedures.
- UK, Dk and Ir EPAs advocate for **specific standards and protocols** to be agreed for testing and verification, Dk EPA adding that technology developers and testing laboratories should be given a bigger role for developing these protocols than in the US ETV programme. UK wonders whether ETV should take account of country-specific interpretation of regulations and standards.
- For NL and UK, the **priority areas** to be retained for the initial period of the scheme should be consulted with business associations, and for NL it could be based on the ETAP functional classification; Ir EPA proposes the addition of drinking water technologies to the list, and EIC that of fuel additives. UK also insists on the system to be established in only a few thematic areas at first. VW considers that ETV should focus on goods market.
- Ir EPA considers that the **pre-verification of pilot technologies** would be a useful additional service to be provided by an EU system, while DE considers the system services should be as wide as justified by business needs as compatible with cost efficiency. UK urges to consider also how to address existing and proven technologies, possibly with adapted commercial fee structure.
- Several contributions comment on the **proposed structure** of the scheme based on a network of verification centres, one per technology area, coordinated by a Secretariat. NL agrees with the role envisaged for the Secretariat of the scheme; NL and Ir EPA insisted on the need for a competitive process to select verification centres, after discussion on assessment criteria for Marcogaz GREG; NL, VDMA and VW stressed the danger of creating monopolies by selecting only one verification centre per technology area; Dk and Ir EPAs considered that there should be at least one verification centre in each member State. For Dk EPA, testing laboratories should be in the same country as technology developers. UK suggests that the stakeholder advisory board proposed by the commission is established already in the preparation phase of the system.
- As for the institutions leading the **establishment of an ETV system**, NL is pleased with the Commission doing it and hosting the Secretariat of the scheme, while DE considers that the private sector should establish it in a coordinated way.
- Ir EPA calls for an **auditing system** to ensure the harmonious implementation of ETV in member States, and for the **monitoring** of the use of verification certificates by technology vendors to avoid abuses.

- As for the targeted period of 6 months for the **duration** of verification processes, NL considered that it could be shortened in some areas, while Ir EPA and EIC has concerned that this may be too short in many cases.
- As for **funding** issues, NL considers that the system should ultimately become self-supporting, EIC that government funding should be provided for priority areas contributing to key policy aims, DE that industry federations and chambers of commerce could be additional sources of funding.
- For EIC, any ETV system should reflect three **guiding principles**: it should clearly focus on defined public policy goals in environment field; be genuinely technology-neutral and be economically-informed, so the costs and competitiveness implications of technologies are addressed as part of the ETV process.  
EIC proposes a list of parameters or aspects to be considered in the verification procedures.

## 2.3 Stakeholders Workshops / Consultations

### 2.3.1 European Forum on Eco-Innovation "Boosting Eco-Technologies through Verification", organised by the European Commission, Paris, 26-27 November 2007

The discussions in the ETAP Forum on eco-innovation were largely converging with the results of the public consultation stated above. The objective of establishing an EU scheme on a voluntary basis, supporting new technologies and SMEs in particular, was largely shared by the 200 participants to the Forum. The creation of links with the certification processes, with support or labelling mechanisms was advocated by a number of participants. There was a general consensus that international recognition would be a marked advantage for the system. Costing issues were also extensively debated, with the general understanding that public funding would be needed at least at the beginning of the scheme and to support SMEs undertaking verifications.

More information on the forum at [http://ec.europa.eu/environment/ecoinnovation2007/2nd\\_forum/index\\_en.htm](http://ec.europa.eu/environment/ecoinnovation2007/2nd_forum/index_en.htm)

### 2.3.2 Consultations organized by Member states

Two workshops were organised in Poland on 15 January 2008 and in Denmark on 7 April 2008 to allow for a better consultation of stakeholders on environmental technologies verification, in complement and in relation with the public consultations organised by the Commission. The Polish consultation meeting attracted 60 participants representing SMEs, investors, technology developers and vendors, technology users and administrations. The Danish workshop gathered 40 participants from government, companies and research institutions. In addition, the Slovak government organised the consultation of governmental and non-governmental bodies potentially interested in ETV.

The two workshops discussed the relations between an EU ETV scheme and certification or type-approval schemes. Participants in the Danish workshop considered there is a big need for clarification between the different schemes, while participants in the Polish meeting asked to what extent verification could replace certification or type-approval.

On the scope of the scheme, participants in the Polish meeting stressed the importance for technology vendors that the scheme does not address only the environmental impacts of technologies but also its operational performance, on which the economic viability is often dependent. For the Slovak stakeholders, the range of verified technologies should include environmental technologies which are already on the market. They would also prefer the system to have a legal basis allowing active participation at national level

Participants in the three consultations were concerned with the implications of the scheme for SMEs: because of the high verification costs, which SMEs may not be able to afford, and time consuming procedures, the system could become another barrier for innovators instead of supporting them as intended. The question of funding is closely related, with participants in all three consultations stressing the need for public funding for both the scheme structure and the support to SMEs using the system.

The necessity to achieve a high recognition of the system and a fast uptake by technology vendors was also highlighted in both cases, requiring a comprehensive framework including legal, economic and marketing aspects. Participants in the Polish meeting added that an international recognition of the scheme would contribute to its attractiveness.

On the choice of verification bodies and testing laboratories, the participants in the Danish workshop considered that technology vendors should have access to verification bodies in their own countries, while participants in the Polish meeting were concerned with the requirements on the qualifications of testing laboratories, considering that the use of accreditation would increase the cost of the system. For the Slovak stakeholders, the criteria for selection of the testing laboratories should be clearly fixed to ensure flexibility and quality of the testing but also to avoid any corruption.

Full minutes of the Polish meeting at  
[http://ec.europa.eu/environment/etap/pdfs/jan08\\_etv\\_consultation\\_meeting.pdf](http://ec.europa.eu/environment/etap/pdfs/jan08_etv_consultation_meeting.pdf).

### **2.3.3 ETAP Networks of testing centre: the projects PROMOTE, TESTNET, AIRTV**

In the framework of the research projects PROMOTE, TESTNET and AIRTV, consultation events or workshops were organised to gather the opinion of stakeholders in the technology areas covered by the projects.

The PROMOTE project gathered 150 experts from research, industry and administration, mainly in the field of site characterisation and monitoring and remediation technologies for soil and groundwater, on 6 and 7 November 2007. The main points of discussion were the following:

- The definition or review of performance claims should take care that the specifications of the claim should correspond to available test methods, and should include possible requirements of users and regulators; for remediation technologies, the claim should cover

both the technology itself (hardware) and the engineering necessary for the technology operation; in any case, the boundary conditions for the validity of the claim should be clearly stated.

- The verification system should be as cost-efficient as possible, providing multiple entry points for applicants, ensuring the appropriate recognition and expertise for testing laboratories, using accreditation and certification structures where appropriate.
- Verifications in this technology area should make use of both reference site testing, to validate the technology principle in good conditions of comparability, and field testing for operational conditions and engineering. Verification of remediation technologies should be particularly challenging.

The TESTNET project organised a workshop for ETV end-users on 8 and 9 May 2006 in Stockholm, and an international seminar on ETV gathering 70 participants on 3 October 2006 in Espoo. The main conclusions of the two events are the following:

- ETV should focus on areas of interest for citizens like eco-construction and renewable energies. Attracting people who are not familiar with the ETV concept is very important. It can be achieved only with a well designed and "professional" awareness and explanation campaign.
- ETV should not replace standards or type-approval systems, since ETV verified technologies are expected to perform beyond any minimum performance requirements. The link between ETV and green public procurement should not be imposed by legislation but developed by an awareness raising process.
- Vendors seem ready to participate to ETV with the condition that EU wide recognition for the scheme is strived for. The importance of international recognition was mentioned and the formation of international working groups to co-verify or co-develop protocols was highlighted as a meant to achieve it.
- ETV can provide guidance on venture capital investors that finance innovative projects developed by SMEs or start-ups, and socially responsible investors, concerned with sustainability issues without prejudice to return on investment. There is a need for reliable data to guide their choice of projects to be financed. ETV can provide means to the innovative companies to prove to the capital owners that they are on the right track.

The AIRTV project organised a workshop with 29 participants on 5 June 2007. The main results of discussions were the following:

- The identity and organisation of verification bodies appears essential to guarantee both the credibility of the system and its cost-efficiency, which could be improved by a level of competition between verification bodies, possibly through an accreditation system.
- The performance claims should be reviewed to ensure that important environmental impacts are not missed; it should include both the technology itself and the engineering; in the area of air pollution abatement, the verification of simple applications seems more appropriate than the verification of complex systems.

- The testing period should be limited to two months, and the detailed test report should remain confidential to preserve intellectual property rights, while a public part of the report should be published and registered by the ETV system.
- Links could be arranged with demonstration programmes, in particular to ensure that quality data is generated during demonstration projects, thus reducing the need to organise specific tests for the performance verification after demonstration.