

Promoting new environmental technologies

A recent seminar heard the results of an important pilot scheme to verify environmental technologies and the plans of the **European Commission** to drive it forward. **Ian Grant** reports.

Small and medium enterprises need Environmental Technology Verification (ETV) Schemes, was the message coming out of this event. Plenty of evidence was provided of SMEs struggling to get market acceptance of their product claims, particularly among large company buyers.

Pierre Henry of the European Commission's DG Environment came to stress that new greener technologies are needed but that there are many obstacles on the road to market them, including perceived risks, the need for costly demonstrations, the conservative attitude of investors or purchasers and complex permitting procedures.

He said that ETV schemes will provide independent and credible information on the performance of environmental technologies, using qualified third parties and robust procedures.

Research

EC surveys revealed a clear need for third-party verification of environmental technologies (69% of business respondents said so), as only 11% of respondents said they rely on vendor's claims without them being checked. This paved the way for furthering of the ETV scheme, which carried the objectives of helping technology purchasers base their decisions on reliable information and accelerating the market penetration of environmental technologies.

Some 31% wanted the main rationale to be the verification of performance claims, while 28% wanted verification based on standards or legal requirements. Survey responses suggested that other ETV services such as pre-verification and benchmarking should be organised by public institutions, including EU institutions.

Areas of technology coverage for the ETV scheme will include monitoring systems, water and soil treatment, renewable energy and energy efficiency, air pollution abatement including greenhouse gases and clean technologies for cleaner processes, building materials, waste and resource recycling, which 67% of respondents said would be appropriate areas.

Currently the overall cost for verification is high, at €50-90,000 per technology. Testing is the highest element, although

highly variable. Mr Henry said there was a need for public support, as the objective of an EU scheme is to keep it below or around €20,000. A key policy is to use existing funding schemes in member states to support SMEs for verification and testing. Some 51% said it would be impossible for SMEs without external support.

Mr Henry said verification bodies should be accredited by member states for specific technology areas and co-ordinated through technical groups per technology area. He added that it would be important to ensure credibility and some comparability of results, to support customers' decisions.

Mr Henry said technology verification should take into account legal requirements, agreed standards, how state-of-the-art a technology is, users' needs, recommendations of stakeholders groups, elements of a life-cycle approach and key environmental aspects from a screening of environmental impacts.

The ETV scheme will produce a summary of the technology tested, a verified claim with all details needed to understand it and additional information on the product. This will be used in business-to-business relations. It will be recognised in all EU states, so there will be no need to re-verify technologies and products through national procedures, and it may facilitate public procurement procedures and permitting procedures, in certain conditions.

In terms of timetables, at the end of 2009 there will be a legislative Commission proposal to establish the EU ETV scheme. In 2010, the legislative procedure (Council to Parliament) should start with preparation of ETV operational procedures. In 2011 there will be accreditation of verification bodies, and the setting up of technical groups, and at the end of 2011, the European scheme should be fully operational.

Soils projects

Caroline Wadsworth of **Beta Technology** has been undertaking a pilot ETV project in the sectors of soil, water and energy with respective partners the **Swedish Environmental Research Institute**, **VTT** and **OneNorth East** with **Mouchel**.

As a result of the project, a verification mechanism has been developed following a

review of best practice. Operations manuals and models have been developed, and a competence profile for test centres has also been defined. Seventeen technologies have gone through the verification process and there has been extensive 'testing' of the energy verification model.

Ms Wadsworth noted significant interest from technology developers and purchasers, but has found a lack of trust in technologies and wrestled with issues such as the alteration of claims after process completions, and 8/10 scores.

She said that the soil pilot was far more complex than waste water treatment and energy verification. She said that demonstration of the product technology in the real world was important, although expensive, and suggested that companies offered one example at demonstration scale and another at full scale.

Ms Wadsworth stressed that there is a clear need for an ETV scheme in Europe, which is robust and well policed, with financial assistance for SMEs. She said there has to be independent support for vendors wishing to access an ETV scheme, along with independent verifiers and test centres. She also recognised that some technology areas are more complicated than others.

On soil, she said that verification should take place ex-situ only, as in-situ was too dependent on individuals.

In terms of brownfield applications, **Ed Bell** of **Crown Bio** was presented with a pilot ETV certificate for the Safe Soil Tester – a kit-based, real-time analysis tool.

It was tested under the EU's ETV Tritect scheme from November 2008 to June 2009 at the Swedish Environmental Research Institute. The protocol provides objective quality assured performance data on rapid soil toxicity technology.

Among the benefits Mr Bell sees of the process are getting protocols written into future regulations and guidelines, help with buying decisions, the way it attracts investment into the company and opens up international markets, most notably the US and Canada. There is a lot of work on linking up the various schemes internationally.

► http://ec.europa.eu/environment/etap/index_en.html

► <http://www.lifeetv.com>