

Environmental Technology Verification *Newsletter*

EU ETV Pilot Programme: three years of supporting innovation

The EU Environmental Technology Verification (ETV) Pilot Programme became operational in 2013 under the Eco-Innovation Action Plan as a new tool to help innovative environmental technologies reach the market. The testing-phase ended in December 2016 and will be evaluated in 2017 with the aim of drawing conclusions on the best way forward.

ETV: a tool to address needs on both sides of the market

Breaking into the market can be a significant challenge for innovators of environmental technologies: In order to gain market access, technology developers need to convince investors and customers of the advantages of their technologies. At the same time, purchasers and users need reliable information on the performance to reduce risk and select technologies that best meet their needs.

The EU ETV scheme was initiated to address exactly these needs as well as to facilitate the diffusion of innovative environmental technologies and to advance technology transfer and trade through use of a single instrument at the EU level.

Over the past three years, ETV has provided European technology manufacturers access to third-party validation of the performance of their new technologies. At the end of a successful verification process, a **Statement of Verification** is issued by independent Verification Bodies, summarising the actual performance of the verified technology and the results of the tests performed.

ETV thus provides transparent and credible information on the new technology, allowing developers to prove the reliability of their claims while giving purchasers a wider range of credible options.

Environmental Technology Verification (ETV)

ETV provides a credible verification of the performance of an innovative environmental technology. This helps niche technology developers, in particular SMEs, differentiate their technologies from their competitors, through an independent assessment to verify environmental claims. ETV enables market access and can also prove compliance with legislation, underpin a bid in public tendering, or serve to facilitate relationships with investors and customers.

The ETV pilot programme has been active since 2013 in three technology areas: water treatment and monitoring; energy; and materials, waste and resources.

Interested in applying for ETV?

<https://ec.europa.eu/environment/ecoap/etv/technology-proposers>



Verification Bodies

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Lastly, the relevant evaluation parameters and methods of ETV are defined on a tailor-made basis, making each Statement specific to one technology. This opportunity has been particularly supportive for SMEs with innovations going beyond available standards and labels.

Increasing SME competitiveness

After three years of operation, a total of 17 verifications have been completed, 62 technologies have initiated the verification process and 175 applications have been submitted. The verifications have been issued in the three technology areas of the Pilot Programme: 'Materials, Waste and Resources', 'Water Treatment and Monitoring', and 'Energy Technologies'. All ETV Verification Statements are registered and published on the European Commission [website](#), which allows stakeholders to check references relating to ETV verifications in full transparency.

| No. of accredited Verification Bodies | Participating countries |
|---------------------------------------|--|
| 14 | Belgium, Czech Republic, Denmark, Finland, France, Italy, Poland, UK |

Thanks to the third party high-quality test data and information, ETV has enabled these companies to better market their technologies and differentiate from competitors. With confidence towards the technology assured, such innovations can secure an easier market access and a larger market share. On a global level, the publication of the new [ISO-ETV Standard](#) and the resulting harmonisation of the different ETV programmes internationally,



can be expected to further facilitate the commercialisation of innovative technologies also outside of the EU.

The market support offered by ETV is viewed as particularly useful for Small and Medium-Sized enterprises (SMEs): Of companies submitting a technology for verification, 90% are SMEs and over 50% are micro-enterprises.

Looking to the future

The ETV Pilot Programme has enabled a large-scale experiment of ETV in near-real conditions. On the basis of the upcoming evaluation, conclusions will be drawn on the potential of ETV in Europe and on the best way to mobilise it in an economically sustainable way. Different options for a possible ETV scheme will be considered together with improvements to the functioning of the ETV as operated under the Pilot Programme.

By enhancing the quality and reliability of information on the performance of new

environmental technologies arriving on the market, ETV has an important role to play in contributing to a more resource efficient and competitive economy. Being above all a proof-of-performance tool, ETV could be utilised to support performance-based legislation, to encourage better integration of eco-innovation in public procurement processes, or to complement or replace existing certification schemes. An Innovative Technology Verification scheme could even be established, opening the scope of validating the performance of new technologies to all innovations.

To support the evaluation, an open public consultation will take place over a duration of minimum 12 weeks. The roadmap of ETV evaluation together with a consultation strategy will be published in the coming weeks on the website of DG Environment.

The formal EU ETV evaluation will be completed in the Autumn 2017, with results available to the public.

[View all verifications on the ETV website.](#)



ISO 14034: verified once, recognised everywhere

New environmental technologies and products will play a key role in boosting European competitiveness and in enabling the EU to take on a leading role as the world transitions to clean energy. However, such technologies can face considerable market barriers as they are innovations which, by definition, do not yet possess a successful track record.

Impartial, quality-assured data on the performance of new technologies is a decisive factor for market acceptance of green technology innovations. In a global economy, business leaders, public organisations, industries and utilities need effective, more environmentally friendly, innovative solutions but they must balance these needs against the risks of adopting novel technologies.

ISO-ETV standard: harmonising ETV globally

The EU Environmental Technology Verification (ETV) Pilot Programme aims to help technology developers and vendors, in particular SMEs, by providing a credible verification of the performance claims of a new environmental technology. This independent verification by qualified third-party organisations known as Verification Bodies, validates the technology's innovative features and thus improves its market prospects.

Similar ETV technology verification schemes exist in other countries, such as Canada, Japan, the Philippines and South-Korea. In total, nine ETV programmes have been implemented worldwide, including the EU ETV Pilot Programme. Currently, the EU ETV Programme ensures a mutual recognition of performance verification at the EU level, however, there has been no single

international standard to enable global acceptance of ETV-verified technologies.



To address this need, the International Organisation for Standardisation (ISO) has just published a new standard, *ISO 14034 Environmental management – Environmental technology verification (ETV)*, which outlines a process for verifying environmental technologies. This process is very similar to the one followed by the EU programme and this should facilitate the wider recognition of EU Statements of Verification.

Wider recognition of verified technologies

Primarily, the new ISO/ETV standard will inform independent verifiers on how to conduct quality-assured verification of an environmental technology with specific sections on verification principles, accepted testing practices and reporting requirements.

The ISO 14034 aims to deliver multiple benefits that will increase confidence towards technologies demonstrating an environmental added value and help to level the playing field for technological innovators. In particular, by harmonising the ETV verification process across international boundaries, the new standard will establish a wider recognition and global credibility of technologies verified under ETV programmes, thereby providing greater access to markets.

The ISO/ETV standard was published on 15 November 2016. For more information, please visit [the ISO website](#).





European
Commission

ETV news

ETV Statements of Verification delivered at the 20th European Forum on Eco-innovation

On 26 October, during the [20th European Forum on Eco-innovation](#) in Tallinn, Estonia, an official ceremony was organised for the delivery of new ETV Statements of Verification. Verification Statements are the end product of an ETV process and ascertain the performance of the innovative technology. Six technology developers were handed their Statements of Verification during this ceremony, out of the twelve companies who achieved a technology verification under ETV since the last ceremony in 2015: [Adept Water Technologies](#), [AGRO-EKO Ltd.](#), [Base sarl](#), [FuturaMat](#), [Greengage Lighting Ltd](#), [G3 Enterprises](#), [Ingegnerie Toscane srl](#), [Komtec Miljo af 2012 A/S](#), [NOVAMONT Spa](#), [Pozzoli Depurazione srl](#), [PurFil Aps](#), and [SELMA sp. z o.o. sp.k.](#)



Official delivery of Statements of Verification Ceremony, Tallinn, 26 October 2016

POWERSTEP project to verify two of its key technologies

[POWERSTEP](#), an EU flagship project on energy-positive wastewater treatment in the H2020 programme, will begin to verify the performance of two of its key technologies under the EU ETV Pilot Programme.

Industrial partners Veolia Water Technologies and Electrochaea are convinced that the ETV verification will help them to improve market access of their innovative processes. After successfully checking their technologies' eligibility for ETV in the quick scan, partners are setting up the verification protocols together with the ETV Verification Bodies in France (RESCOLL) and Denmark (ETA Denmark).



'Our Hydrotech microscreens are a compact, efficient, and sustainable primary treatment technology for municipal wastewaters. We will certify this with the ETV programme and prove it to our customers', says Carles Pellicer-Nàcher of Veolia Water Technologies. Similarly, Laurent Lardon from Electrochaea underlines that *'ETV will play a valuable role in promoting our innovative biological methanation technology in the market for Power-To-Gas solutions, demonstrating its performance, robustness and flexibility in operation and illustrating the benefits of implementing the solution within a wastewater treatment plant or beside a biogas plant'*.

Both technologies will be tested in full-scale in the POWERSTEP project sites in Denmark and Sweden in 2017.

For more information on the two technologies, visit www.powerstep.eu or contact Christian Remy from Kompetenzzentrum Wasser Berlin: Christian.Remy@kompetenz-wasser.de.

ETV attended Pollutec 2016

From 29 November to 2 December, a

European Commission representative and the French Verification Body RESCOLL attended the 27th edition of the leading general trade show on the environment, [Pollutec](#), in Lyon, France. The ETV pilot scheme was introduced to a large number of business representatives, in particular during the Green Days matchmaking event as well as via presentations at the Infoday H2020 event and at the Sustainable Industry Forum.



RESCOLL stand at Pollutec

RINA Services hosted a successful technical training for Spanish SMEs

For small and medium-sized Spanish enterprises interested in the Environmental Technology Verification, RINA Services and Vertech Group organised a technical training course on 18 November in Madrid, Spain. With seven SMEs and a couple of larger enterprises attending the training, the event was a success. Attendees were given in-depth knowledge on ETV and its competences through case study presentations on recent RINA verifications. In consequence, RINA received very positive feedback and they look forward to having many new Spanish innovative technologies verified under the ETV Programme.

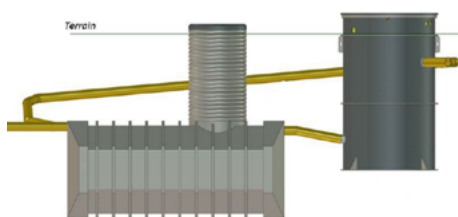


ETV Technical Training, Madrid, 18 November 2016

ETA-Danmark: completing re-accreditation and finalising a Verification Statement

The Danish Verification Body ETA-Danmark is pleased to inform that it has successfully completed the re-accreditation process with the Danish accreditation board (DANAK) based on ISO 17020 for the EU ETV General Verification Protocol (GVP). The next step is to convert the accreditation scope to the new version of the EU GVP.

In addition, ETA-Danmark has just issued a Verification Statement for the Water Treatment and Monitoring proposer [Biokube A/S](#). BioKube Summerhouses Wastewater System is a technology that continuously nourishes the bacteria in wastewater systems during periods of no supply of wastewater to these systems, e.g. during the off-season (October –April) in summer cottages.



Biokube A/S

Report on valorisation of ETV verified technologies

A report produced for the French Environment and Energy Management Agency (ADEME) by Oualid LAYACHI (3rd year engineer student at ENSIACET Ecole Nationale Supérieure des Ingénieurs en Arts Chimiques et Technologiques de Toulouse, France), gives insight into the adoption of ETV verified technologies and the impact of ETV on technology developers so as to identify and promote technologies verified by ETV.

ADEME



Agence de l'Environnement
et de la Maîtrise de l'Energie

Information on all ETV programmes and all issued verifications from across the world were gathered and have been made available in a [summary table](#) on the ETV website of ADEME. As well as this, the verification statements of technologies in the French ETV programme were summarised and feedback from French companies who developed verified technologies as well as other actors of the ETV process, provided further insight into the value of verification to technology developers.

In its conclusions, the report highlights the positive solution that ETV, as an internationally accepted, unique technology verification process, offers to eco-technology developers, buyers and business support organisations.

However, the report also points out the timid market penetration of the programme in France, in particular, and therefore the need for progress

on communication of the ETV scheme.

The full [report](#) is available in French on the ETV website of ADEME. For more information, please contact: Pierre KERDONCUFF, ADEME, pierre.kerdoncuff@ademe.fr

[Summary table of global ETV verified technologies](#)

ETV: accelerating clean energy innovation

The European Commission has adopted [a new package of measures](#) to accelerate Europe's transition to a competitive low-carbon economy. A key component of the bigger '[Clean Energy for All Europeans](#)' package, the [Communication on accelerating Clean Energy Innovation](#) sets out considerations for how policy frameworks, voluntary and legislative measures, financial instruments and European research co-operation, among others, can support innovation. Included within the range of actions needed to create the right market conditions for innovation, the Communication highlights the importance of standards as well as marketing of innovative technologies, making a reference to ETV as a marketing tool that provides third-party verification to technologies.

For more information on the Package, see [website of the European Commission DG Energy](#).





Recently verified technologies

AGRO-EKO Ltd.: verification is bearing fruit

Interview by Kristina Veinbender, [CEMC](#).

[AGRO-EKO Ltd.](#) consider their decision to undergo ETV verification to have been very fruitful and share their experiences in an interview with the Czech ecological magazine [Waste Management Forum](#).

EWA Fermenter developed by the company was the first technology in the Czech Republic to receive an EU ETV Statement of Verification. Technologist Miroslav Hurka from AGRO-EKO expects that the verification will simplify the process of putting the device into operation both on EU and non-EU markets.

How long did it take to develop the fermenter and what was your funding based on?

We started developing our fermenter in 2003. The prototype was manufactured in 2006 and the first device was put into commercial operation on 1 July 2007, at the compost facility TS Zlin. The development was self-financed from the funds of AGRO-EKO with input subsidies from the Ministry of Industry and Trade and later from the Ministry of the Environment.

You've won a number of awards and you now have an ETV Verification. What are your expectations from having your technology verified?

The verified model of the aerobic fermenter is protected by several patents and industrial design protection. However, it's never enough. Different types of evidence (often very specific) relating to the fermenter's efficiency

are required by supervising authorities in different countries. The analysis of product processing and evaluation of the hygienisation efficiency in accordance with the current legislation was not always sufficient. We had the same problem in EU member states, even though the device already had the European CE certification and the laboratory analyses were performed by entirely independent laboratories accredited for soil chemistry and waste processing.

We expect that the ETV verification will simplify the process of putting the device into operation in both EU and non-EU countries.

How challenging was the ETV verification process? What are the possible pitfalls of the process?

The verification process was challenging due to several substantive and administrative conditions under which the verification was carried out. It is necessary to admit that we have learned a lot in the process because the verification and the interpretation of obtained results were done by experts from several professional fields, which has limited the potential impact of our 'operational blindness'.

You are the first Czech company who received the EU ETV Statement of Verification. Could you describe what makes the EWA Fermenter 2014 so unique? What types of waste is the fermenter designed to process?

The EWA Aerobic Fermenter is a discontinuously working device intended for the processing of a wide range of biodegradable waste. Its delivery includes a formula developed for specific user conditions. To deal with non-standard events and servicing activities, a permanent Internet connection of the

device is utilised, which enables a remote preview of the fermenter control system.

The uniqueness of EWA consists in its ability to perform the shovelling of the fill inside the fermenter. Together with a special system of fill aeration throughout the container and thermal insulation of the workspace by means of mineral wool, it enables the required oxygenation for hygienisation of the fill. The fermenter workspace and all its parts are made of stainless steel. No auxiliary agents or preparations are used for fermentation initiation.

Info corner

For questions related to the ETV pilot programme, Verification Bodies or the Stakeholder Forum
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For technical questions on the work of the Verification Bodies and the process of verification of technologies
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For detailed information on the EU-ETV pilot programme, phrases, protocol, upcoming events and news access the ETV website:
<http://ec.europa.eu/environment/ecoap/etv>

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