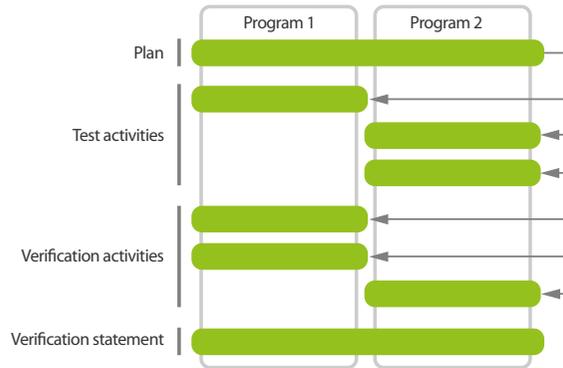


Definitions

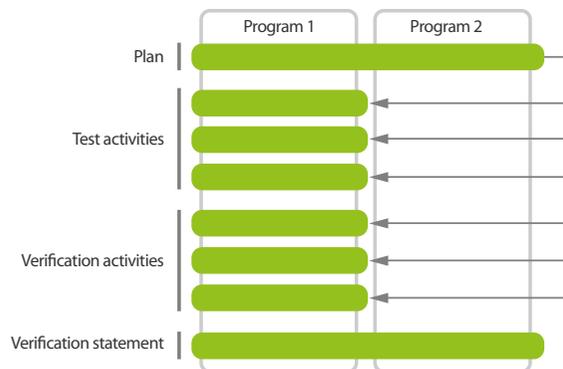
Joint verification

A technology, product, or process undergoes a single verification process carried out collaboratively by two or more verification organisations using mutually recognized verification procedures, processes, and quality management systems. The outcome is a verification that satisfies the requirements of the respective programmes. One joint statement of verification is issued.



Co-verification

In co-verification, two or more verification organisations cooperate to determine at the outset of the verification process the acceptability of the parameters to be verified and the plan for verification. After the verification, the co-verification programmes evaluate the acceptability of the verification process and the results against what was agreed upon, and decide whether or not to issue a verification statement. A statement of verification is issued from each ETV-programme.



General information on AdvanceETV

AdvanceETV was funded by the 7th European Framework Programme for Research and Innovation to support the preparation of an Environmental Technology Verification (ETV) system for Europe and worldwide mutual recognition.



General information on DANETV

Danish Centre for Verification of Climate and Environmental Technologies, DANETV, does verification of technologies and products for the reduction and monitoring of climate impact and climate effects. DANETV especially focuses on technology areas of importance to environmental and climatic development:

- Environmental technologies for agriculture
- Environmental technologies for water treatment and monitoring
- Energy efficiency and production
- Environmental technologies for air cleaning and monitoring



DANETV relies on a partnership between five companies: AgroTech, DHI, DELTA, FORCE Technology and Danish Technological Institute.

Worldwide ETV programmes

ETV Canada
 US (EPA ETV and regional programmes)
 EU ETV (pilot programme)
 The Technology Verification of Japan
 Korean ETV
 ETV Philippines
 ETV China (pilot programme)
 DANETV (Denmark)

For more information on joint & co-verification roadmaps visit:

WWW.EU-ETV-STRATEGY.EU



ENVIRONMENTAL TECHNOLOGY VERIFICATION (ETV)

JOINT AND CO-VERIFICATION

AN IMPORTANT STEP TOWARDS GLOBAL ACCEPTANCE OF TECHNOLOGY TEST DATA



WWW.EU-ETV-STRATEGY.EU

What is ETV?

In simple terms, Environmental Technology Verification (ETV) is testing, verifying and documenting how an environmental technology can perform. ETV considers three main aspects: the performance parameters derived from the manufacturer's claims, the requirements of environmental regulations, and the needs of the customers. Regardless of the origin of the performance parameters the technology performance is always evaluated from a fitness-for-purpose perspective.

The aim of ETV is to validate that the technology suits its purpose and performs as claimed.

Why ETV?

The current growth in environmental technologies creates a need for independent assessments of their performance, as users and investors need to be assured of it. ETV is processed by independent verification and test organisations, thus ensuring well-founded performance data on the tested technologies.

Worldwide ETV?

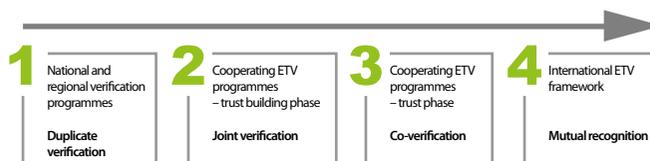
Several ETV programmes are already operating all around the world, each of them being independently operated, with its own testing and verifying processes. This lack of uniformity implies worldwide acceptance issues: a national or regional ETV does not automatically translate into a global ETV.

A more global acceptance of ETV data

Obviously, ensuring the widest possible acceptance of verifications will increase their impact on global markets. Initiating cooperation between two or more ETV programmes on the verification processes is the best way to achieve a more global acceptance and mutual recognition. For this, the drivers are: reducing the verification costs globally, increasing the number of credible verifications available to buyers, enhancing the global use of more environmental technologies, and creating a programme per programme based access to global markets.

Joint and co-verification

Joint and co-verification are two models for delivering ETV in cooperation between two or more ETV programmes. The two models were developed and described in the AdvanceETV project, with several of the current ETV programmes participating in the development. The two models have been tested through actual collaborations. As shown in the figure below, joint and co-verification are interim steps between completely separated testing by two or more programmes (duplicate verification) and a single verification based on an internationally accepted framework (mutual recognition), an approach which is not yet available.



Performed joint and co-verifications

Currently, several verifications have been performed in cooperation between existing ETV-programmes. Of these, two were performed as joint verifications in full cooperation and one were performed as co-verification with less involvement from the ETV-programmes not responsible for the verification and testing.

| Vendor | Application | Involved ETV programmes |
|------------|--|--------------------------------|
| Sorbisense | Measurement of volatile organic contaminants in groundwater | DANETV, US EPA ETV |
| HACH-LANGE | Toxicity testing of effluent wastewater | DANETV, US EPA ETV, ETV Canada |
| Colifast | Automatic detection of total coliform bacteria or Escherichia coli in drinking water | US EPA ETV, ETV Canada, DANETV |

ETV in Europe

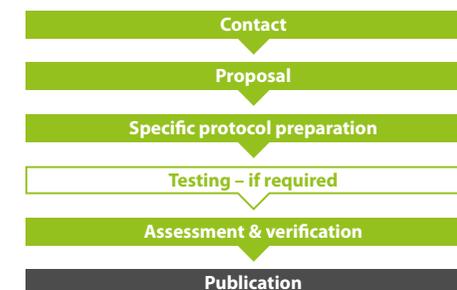
A European ETV pilot programme is currently being established by the European Union (EU) in order to open markets within Europe following the principle:

"Verified once, accepted everywhere in EU"



The ETV process

ETV is in general terms performed the same way worldwide. The main steps of the process are as follows:



The average verification has a duration of half a year. The testing is the most time consuming part of the verification.

In the EU ETV pilot programme there is an option of verifying using existing data, if the data quality and test quality control are satisfying.

Interested in joint or co-verification?

With you, we will then explore if joint or co-verification can support your technology in the markets and identify potential cooperating ETV programmes as the first steps in preparing for a verification agreement.

If you want to know more about the benefits of joint or co-verification, please contact:

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