

# ENVIRONMENTAL TECHNOLOGY VERIFICATION (ETV) BS EN ISO 14034

FOR FURTHER INFORMATION ABOUT ETV AND WATER TEST NETWORK PLEASE CONTACT  
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**James  
Hutton  
Limited**

**Impact through Science**

**Environmental Technology Verification is an International standard (BS EN ISO 14034) with the objective of providing credible, reliable and independent verification of environmental technologies which have an impact or added value for the environment. James Hutton Limited is one of very few UK based organisations to be able to offer ETV reports on environmental technologies in the United Kingdom.**

**For technology producers:** ETV provides credibility and assurance on products and claims

**For technology purchasers:** ETV helps determine the performance of the eco-technology for implementing policies and regulations

## CONTEXT OF ISO 14034

Climate change and environmental issues are now more than ever a global problem. Standards, regulations, guidelines and tools such as this are part of potential solutions. ISO 14034 works in parallel with other 14000 series standards and will ensure environmental issues are handled proactively by stakeholders and is a technical standard with a conformity assessment. validated for meeting the customer's needs.

James Hutton Limited is the commercial subsidiary of the James Hutton Institute, Scotland, and is one of ten European partners of the Water Test Network; an ERDF funded project which provides SMEs in North-West Europe (NWE) with both funding and the correct resources to test, develop and validate new products for the water sector, supporting innovation, accelerating time to market and increasing the proportion of new innovations that reach the market.

## WHY WOULD AN SME WANT TO VERIFY TO AN INTERNATIONAL STANDARD?

Verifying to an international standard will enable increased trade in the international market, reduce the duplication of testing data, enhance the usage of innovations to respond to climate change and global environmental challenges and ensure the continued collaboration on the development of future international technologies. New environmental technologies often meet with the mistrust of regulators, clients and investors and technology developers spend a lot of time and money on test, demonstrations and certifications. Proving the performance of new technologies is challenging for small and medium sized enterprises and ETV can provide a solution to these problems.

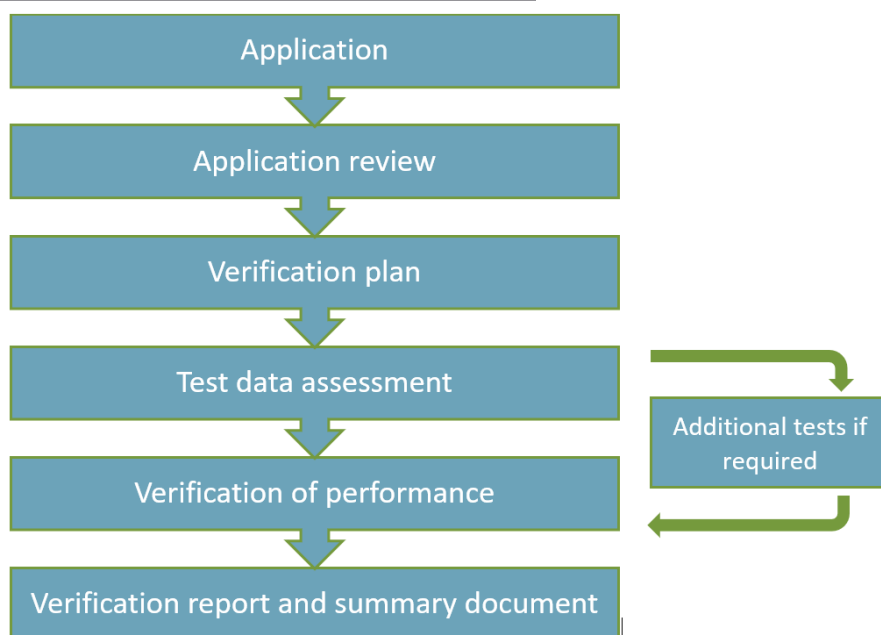
## KEY PRINCIPLES OF ISO 14034

- It is a factual approach with verification based on factual and relevant evidence confirming objectively the performance of environmental technologies
- It is a tool that supports sustainability by providing credible information on the performance of environmental technologies
- It is achieved through a dialogue between the applicant, verifier and interested parties
- It is transparent and credible as it is based on reliable test results and robust procedures accredited to ISO 17025 (the standard for laboratory testing).



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## THE ETV PROCESS



The application must contain the description of the technology, details of the environmental impacts and the performance claim that is measurable. A pre-verification must specify the performance to be verified and include the quality and quantity of the testing conditions.

The verification process accepts existing data which must be ISO 17025 accredited or requests addition data if the verifier cannot justify the claim sufficiently with existing data.

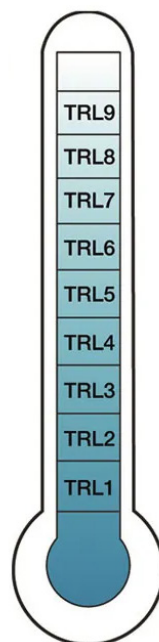
The report will contain all information on the company, the technology, the claim, including the environment benefit, and statistically valid test data. The verification statement (summary) is then made publicly available.

### LIMITATIONS:

- ETV is not a certification system – it is based on a pre-defined set of criteria
- It does not give a pass/fail judgement on the performance of technologies
- ETV does not aim to be a substitute for existing regulatory type approval
- ETV will not substitute the actual testing of a new technology but will review the test results against the performance claim
- ETV reviews the technical design and not with the production series of industrial products

### ETV HELPS WHEN:

- The manufacturer is new to the market
- The technology is a niche solution
- There are similar technologies available to distinguish among competitors
- The technology performs better than standard but the certification does not demonstrate it
- There is no standard to confirm performance – or there are different standards



Before ETV can be applied, the technology must be at a Technology Readiness Level (TRL) of at least 4. ETV can take it along the process to TRL 5 or 6 or higher.

Based on the UK government guidance on technology readiness levels:

TRL9 Operations  
 TRL8 Active Commissioning  
 TRL7 Inactive Commissioning  
 TRL6 Large Scale  
 TRL5 Pilot Scale  
 TRL4 Bench Scale Research  
 TRL3 Proof of Concept  
 TRL2 Invention and Research  
 TRL1 Basic Principles

**Environmental technologies are now “front and centre” in dealing with climate change and environmental priorities. ETV provides objective and reliable evidence on the performance of technologies and ISO 14034 will ensure standardization of the process worldwide. ISO 14034 is a tool that could be used by stakeholders in combination with other standards, regulation, codes of practice etc.**