

Verification in lab scale

“TESTNET” a suitable start for a European system for Environmental Technology Verification

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Word of Thanks



Stakeholders Expectations from a European ETV system

- Useful if no bureaucracy and high technical level is guaranteed.
- Look to other non-European ETV Systems
- SMEs (innovation oriented) are the type of companies expected to benefit the most from an ETV system
- The ETV system has to be totally independent
- The cost is an issue of the utmost importance for the vendors
 - As many stakeholders as possible should financially contribute to the system. Financial help is a strong incentive to go through the verification process.
- The ETV system should remain voluntary but strategies have to be developed to motivate and to participate to it, without the system becoming mandatory.

_Evaluation of non-European existing ETV systems

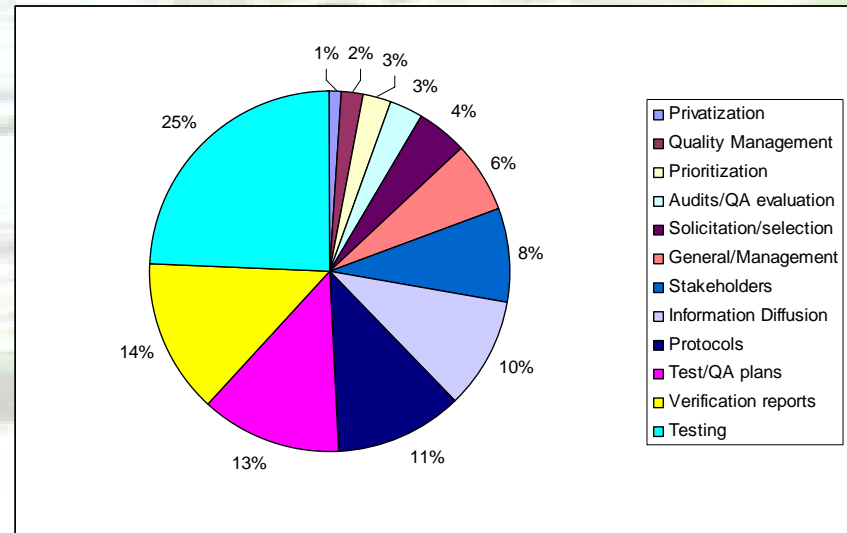
– USA

– CAN

Comparison of the “most” important aspects

- **Approximate verification duration and applicant fees**
 - **CAN ETV: 6 months CDN \$ 15,000-20,000 (€ 11,000-14,200)**
 - **US ETV: 12-18 months US \$ 30,000 (€ 24,000)**

- **Average cost distribution**
US ETV
1999 – 2004



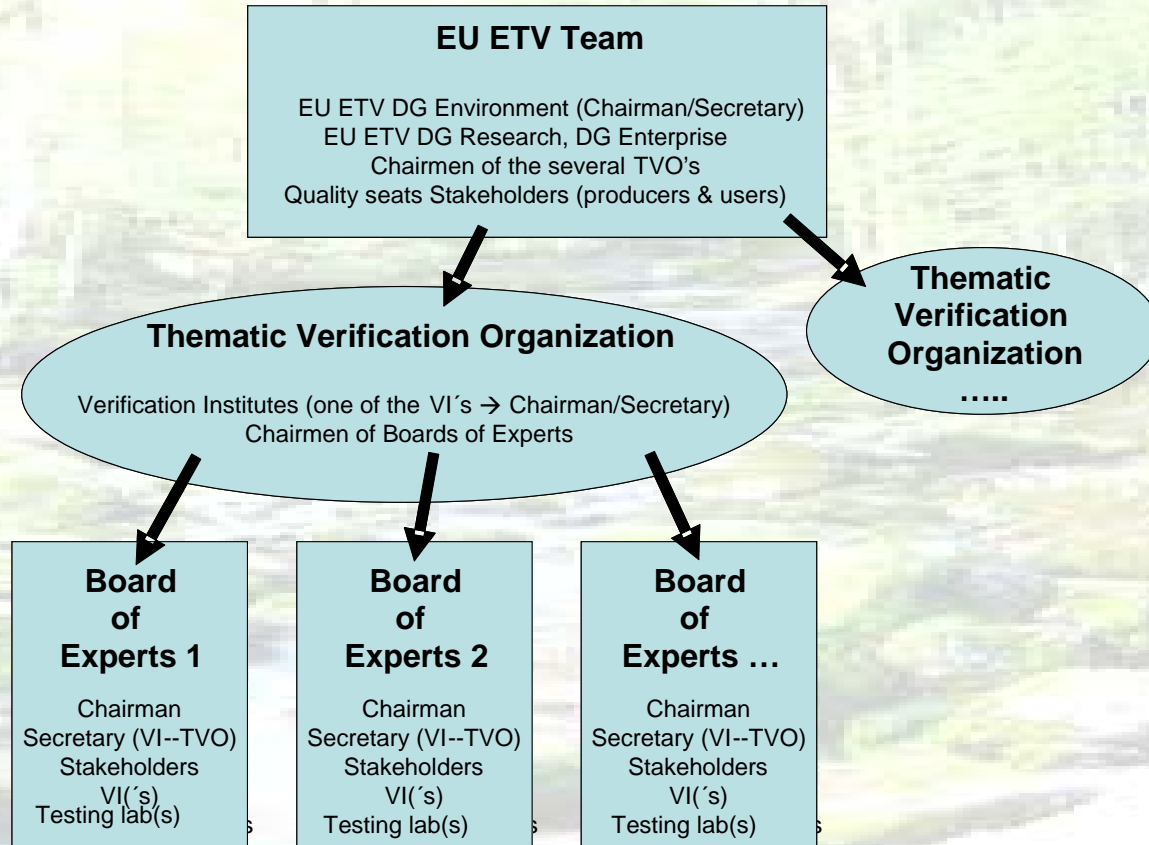
General Conclusions

- Stakeholders involvement
 - US: Yes
 - Is time consuming but undoubtedly enhances the credibility of the system
 - Can: No
 - Less time consuming
- Testing
 - US: “inside” the system
 - Verification tests to verify that the applicants claims are valid
 - Can: “outside” the system
 - Accept previously established data to verify the applicant's claims are valid
- CAN system is faster and less costly

Basic starting points ETV SYSTEM

- ❑ Quality assurance
 - Institutes responsible to collect data, data interpretation and writing (verification) reports had to be accredited/qualified, e.g. according EN 45011
- ❑ Independence
 - (Public or private) organization supervised by a public body

Organisation scheme



Recognized Entities

- ❑ **EU ETV team (DG Environment is leading)**
 - responsible for evaluation and improvement EU ETV)

- ❑ **TVO (Thematic Verification Organization - formed by a limited number of Verification Institutes and representatives of the stakeholders)**
 - controlling, monitoring and improving the operational functioning of the verification scheme

- ❑ **Verification Institute or Verification Laboratory (VL)**
 - Accredited and qualified by TVO as Supervisor for the test procedure, to approve (write) the test report, and to write the verification report



WP3 testcases as basis for the development Verification Scheme

- ❑ **With Verification Institute**
 - TOXControl Biomonitor
 - Several water disinfection technology for food industry
 - Clean Pipe production

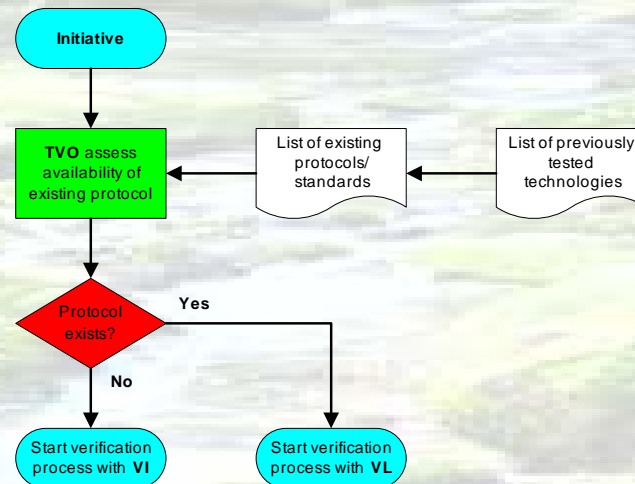
- ❑ **Without Verification Institute**
 - WQ-monitoring
 - Membrane technology to treat flue gas condensate
 - Plasma technology for waste treatment
 - Membrane technology for cleaner production
 - Fuzzy Filter for removal solids in waste water

Evaluation first results of the WP3 TESTCASES

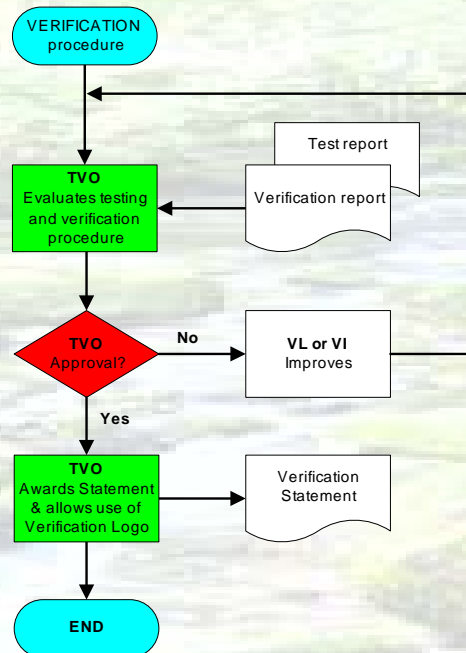
- **Two separate systems approach:**
 - One system realistic and avoid a heavy structure
 - The system could have two paths. One, longer path, to boot a (new) scheme. The other, faster path, for technologies where there is already a protocol or where a existing protocol should be slightly amended.

- **“Costs” and “Time”** (indications comparable with US system)
 - The verification procedure could be more mean and lean
 - Who will pays for what?

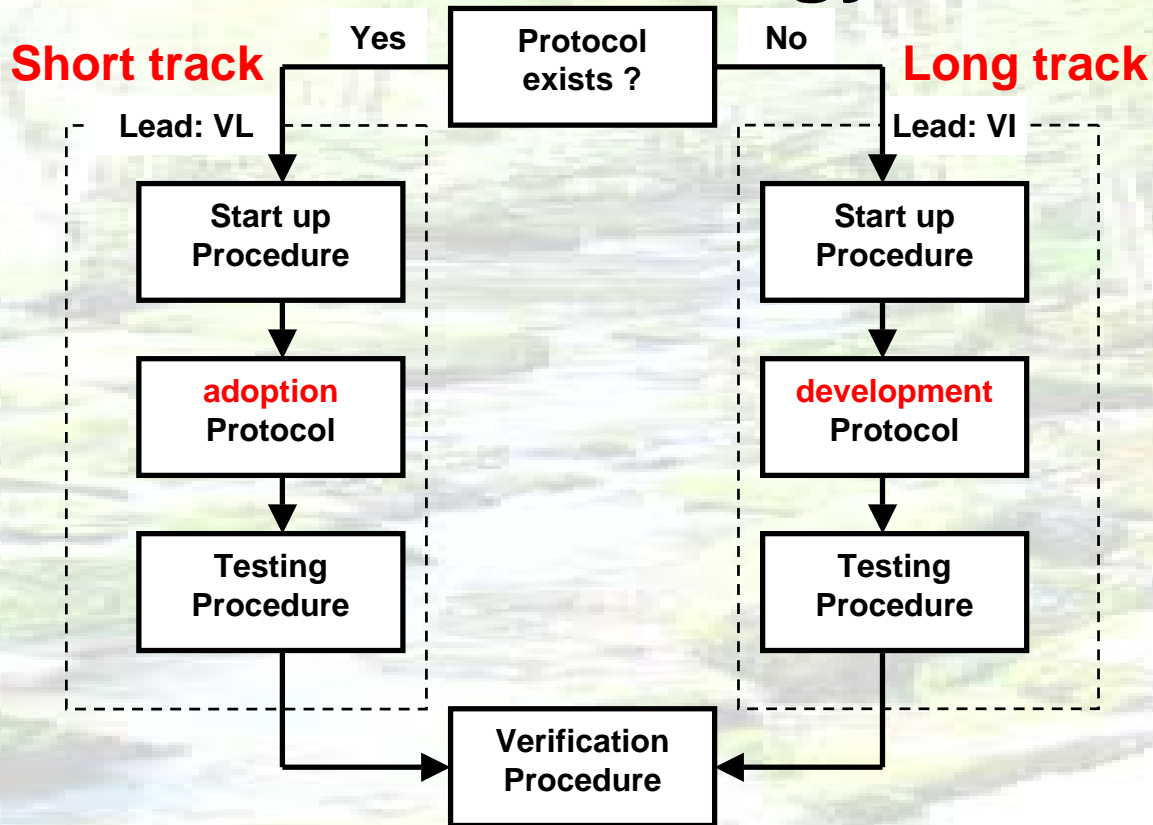
INITIATIVE procedure by TVO to decide Verification with Verification Institute (VI) or Verification Laboratory (VL)



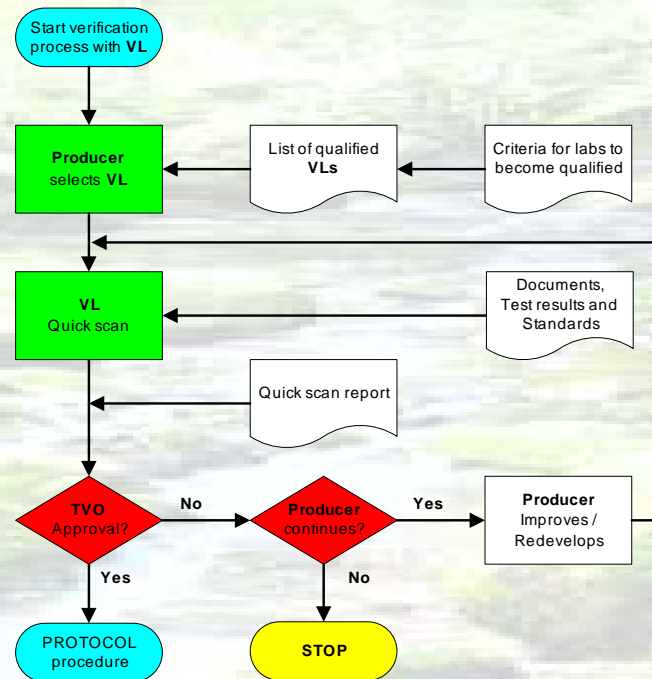
AWARDING Verification Logo by TVO



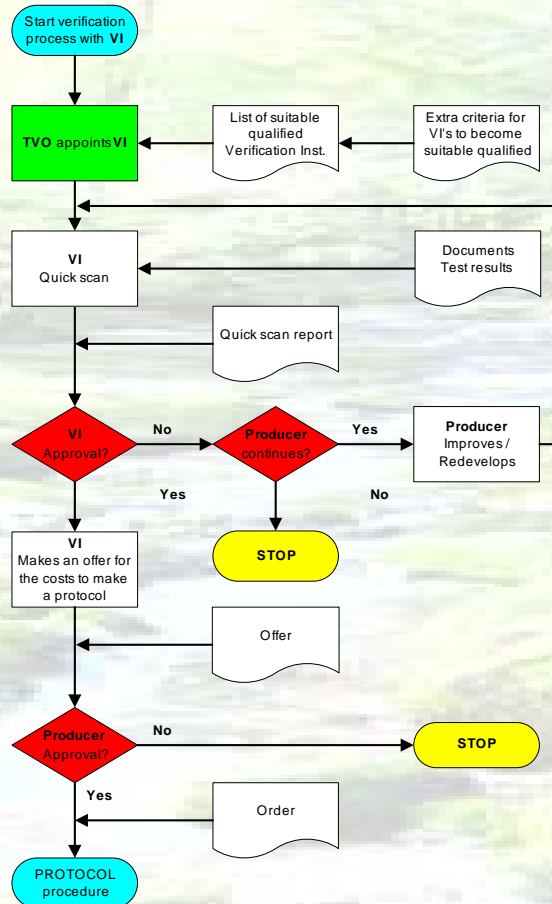
General approach European Environmental Technology Verification



Short track Verification VL – START UP

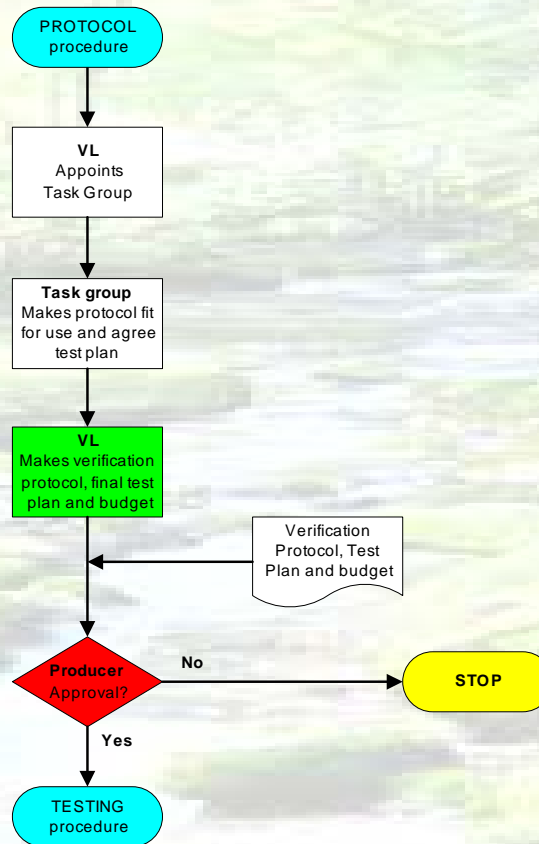


Long Track Verification VI - START UP

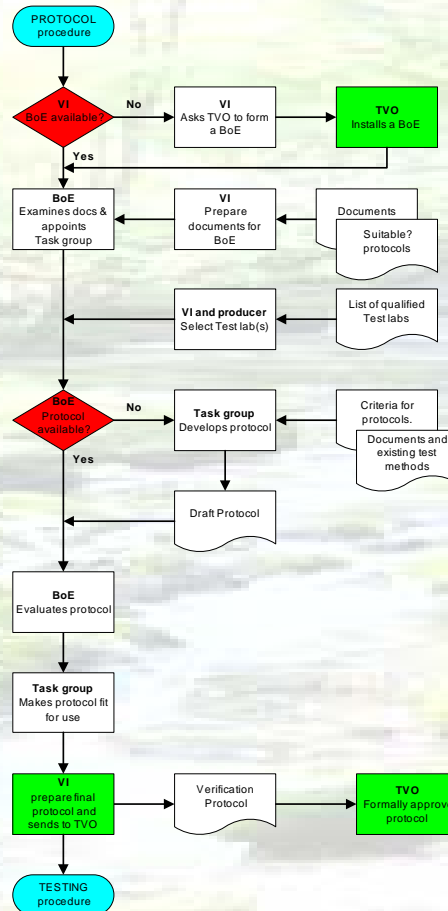




Short track Verification VL - PROTOCOL



Long track Verification VI - PROTOCOL





Spinal Cord of a workable ETV

- Communication
 - Full transparency of the Claim
 - Quick scan of the “product” claim
 - Evaluation Existing Data
 - Presence of an undisputable accepted Protocol and Testplan
- Acceptance Responsibilities

Lessons learned (I)

- “short” track is realistic when a similar protocol already exists (horizontal with other Verification Systems)
- Develop protocol and test plan in parallel to save time and costs
- Content of the verification includes parameters for benefit of technology as well as resource use (environmental and operational costs).
- Costs of the verification:
 - The costs should be roughly known in beforehand
 - Some support will be needed especially for SME.

Lessons learned (II)

- Organisations in the system:
 - Need to appoint national contact points (VIs/VLs/Certification Bodies)
- The quality of the involved organisations and experts:
 - There should be a database maintained by TVO
- The quality of the information:
 - A clear system to handle confidential information (from the vendor) has to be established.
- The Quick scan in the beginning is important checking suitability of the claim, for checking available information and quality of it.

Recommendations

- The system with Verification Laboratory (VL) to be used for technologies where there is already a protocol or already existing 'product' standards (EN/ISO standards) only slightly to be amended. A strong lead by 'TVO' is recommended
- The system with Verification Institute (VI) to be used for technologies where there is NO protocol or existing 'product' standards. To reach the needed expert level of the documents/results, e.g. protocol, the installation of a Board of Experts (BoE) is needed and a strong lead by 'TVO' is recommended

YES

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Thanks for your attention