

US EPA ARCHIVE DOCUMENT

The Growing Market for Verification

The U.S. Environmental Technology Verification Program (ETV) was started in 1995 “. . . to accelerate the development of environmental technology through objective verification and reporting of technology performance” (EPA, 1997).

Since then, ETV has verified over 400 technologies and produced over 90 protocols. These have been used by EPA program offices, states, financiers, consultants, local government, vendors, consumers and others in the U.S. and abroad to develop new regulation and purchase, permit, sell, and improve technologies. These and other outcomes are documented in two case study booklets found at www.epa.gov/etv/outcomes.html.



ETV has helped foster the development of international verification programs by holding workshops and sharing information about the U.S. program—its structure, operating values, outcomes, and lessons learned. To date:

- Canada, the European Union, Japan, Korea, Denmark, and the Philippines have or are piloting verification programs (Table 1).
- China, India, and Bangladesh have also expressed interest in developing ETV programs.

In response to this growth, the U.S. EPA is building effective working relationships with these and other ETV programs. These relationships encourage international programs to expand technology verification similar to the U.S. EPA ETV. Furthermore, these relationships may also promote collaborations that stimulate broader technology acceptance, both internationally and in the U.S.

ETV's International Efforts

The U.S. ETV Program has been active internationally for more than 10 years (Fig. 1). Initially these efforts focused on sharing information about the U.S. program. Over the last four years, ETV has formalized working relationships with other countries with the objective of developing a common approach to verification, ultimately leading to mutual recognition.

Benefits of International Participation

International collaborations and mutual recognition will help:

- Leverage resources to meet shared environmental goals
- Reduce duplicative testing and efforts
- Broaden application of improved technologies
- Provide vendors with international recognition
- Assist with marketing

Table 1. Countries That Have or are Piloting Verification Programs

Countries with Programs	Web site	Focus
United States	www.epa.gov/etv	air, water, soil, energy, remediation
Canada (called ETV Canada)	www.etvcanada.com	air, water, soil, energy
European Union		
AIRTV	www.airtv.eu	air
EURODEM	www.eurodemo.info	soil and groundwater remediation
PROMOTE	www.promote-etv.org	soil and groundwater protection and remediation
TestNet	www.est-testnet.net	water, clean production, monitoring
Japan	www.env.go.jp/policy/etv	water, VOCs, energy
Korea (called New Excellent Technology and Verification)	www.koetv.or.kr/eng/	air, water, solid waste, ecosystem restoration
Denmark (called DANETV)	http://www.etv-denmark.com/	air, water, energy, water monitoring
Philippines	http://cptech.dost.gov.ph/ETV.php	solid waste, remediation, energy

International Working Group on Environmental Technology Verification

The U.S. ETV Program is a founding member of the International Working Group on Environmental Technology Verification (IWG-ETV), which includes members from Canada, the European Commission, and the Philippines and observers from Japan, Korea, the European AdvanceETV Project, and the Organisation for Economic Cooperation and Development (OECD)¹. The long-term goal of the IWG-ETV is to foster the development of a common approach to verification so that, in time, participating countries mutually recognize each others' programs. IWG-ETV members are currently participating in joint projects discussed below to increase understanding among programs. Experts in the conformity assessment and standards arena have also been recruited to assist the IWG-ETV in developing a quality assurance system consistent with existing international agreements.

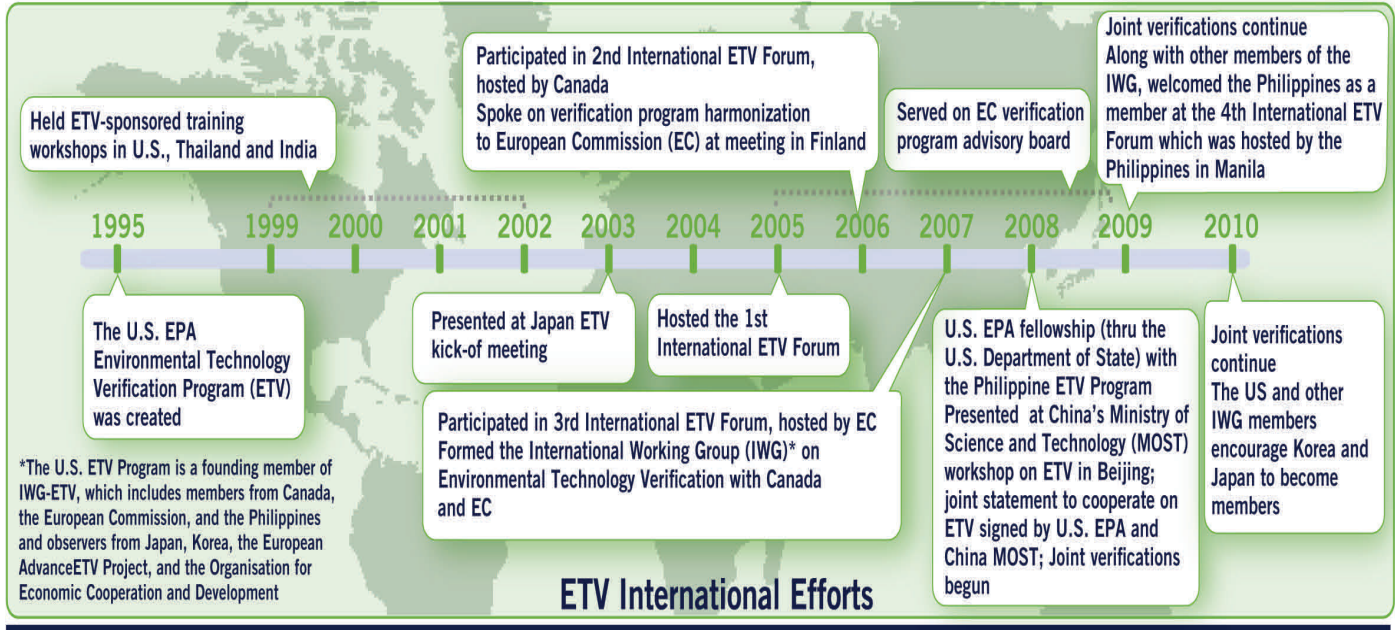


Figure 1

Joint Verification Projects

The U.S. ETV Program collaborations include the following projects: (1) in 2008, developed a joint verification protocol with Canada for soil rapid toxicity kits; (2) an ongoing tri-lateral verification of a wastewater toxicity testing system with Canada and Denmark; (3) in 2009 a joint verification with DaneETV (formerly NOWATECH) for a passive groundwater sampler; and (4) an upcoming joint verification with Canada under a Nordic pilot project for airborne leak detection technologies for ethane/methane. This verification is for a remote sensing technology for methane/ethane with support from Sustainable Development Technology Canada. U.S. ETV has also participated in discussions with Canada concerning joint verifications in the diesel retrofit area and was included in an AdvanceETV solicitation (see below) for trilateral verification.

AdvanceETV Project

U.S. ETV is participating in a \$1.5 million European Commission project to develop tools and cooperative approaches to facilitate recognition and acceptance of ETV data among different ETV schemes. The U.S. ETV Director is a member of the expert advisory board for this project. Battelle, which manages the ETV Advanced Monitoring Systems Center, is supporting the joint verification task, and recently started a trilateral verification, with the U.S., Canada, and DaneETV, of wastewater toxicity monitoring systems.



Reference

USEPA, 1997. ETV Verification Strategy. EPA/600/K-96/003. February.

USEPA, ETV International Web Page, <<http://www.epa.gov/nrmrl/std/etv/inter-partic.html>>

¹OECD is a forum of democratic governments that addresses economic, social, and environmental challenges of globalization. The IWG has also responded to two OECD proposals regarding the formation of an OECD/IWG project.