



A Polish-Norwegian Initiative: Facilitating the use of ETV to increase energy efficiency in water sector

The ETV4Water Project Introduction

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Training for water technologies test and certification bodies, research centres and laboratories
Building capacity for high quality test data generation on innovative energy efficient technologies for water sector for the needs of ETV
Aquateam COWI, 24.10.2017, Oslo, Norway

- **Title:**

Facilitating the use of ETV to increase energy efficiency
in water sector

- **Goal:**

Promotion of environmental technology verification (ETV) as a tool facilitating market uptake of innovative technologies improving energy efficiency of municipal wastewater treatment plants.

- **Implementation:**

August-October 2017

- Partners:



(Coordinator)

aquateam | COWI



Gdańska Fundacja Wody

- Funding source



ETV4Water has received funding from Norway Grants 2009-2014 in the frame of the Bilateral Cooperation Fund on the level of the Operational Programme PL04.

Why energy efficiency in water sector?

- **Water facilities among the largest consumers of energy** in a community and thus **the largest contributors to the total GHG emissions**
- **Energy costs** may account for about **25-30% of the operational costs of a wastewater treatment plant** and even up to **80% of a water treatment plant**
- **Global trends:** wastewater treatment plants as energy producers
- **Challenges:**
 - Climate change: water deficits, extreme events, water (re)use
 - Circular economy : **NUTRIENTS-ENERGY-WATER:** water facilities as managers of resources including energy , water and wastewater a valuable resource



INNOVATIONS CAN MAKE THE DIFFERENCE

Verified once accepted everywhere

- Globally recognised quality standard framework: **ISO 17020** and **ISO 17025**
- Robust procedures:
 - General Verification Protocol (GVP) in EU
 - technical standard **ISO 14034** „Environmental Management – Environmental technology verification”

INTERNATIONAL
STANDARD

**ISO/IEC
17020**

Second edition
2012-03-01

**Conformity assessment — Requirements
for the operation of various types of
bodies performing inspection**

*Évaluation de la conformité — Exigences pour le fonctionnement de
différents types d'organismes procédant à l'inspection*

INTERNATIONAL
STANDARD

**ISO
14034**

First edition
2016-11-15

**Environmental management —
Environmental technology
verification (ETV)**



*Management environnemental — Vérification des technologies
environnementales (ETV)*



**Environment Technology
Verification pilot programme**

Version 1.2 – July 27th, 2016
Corrigendum 1 – October 15th, 2016



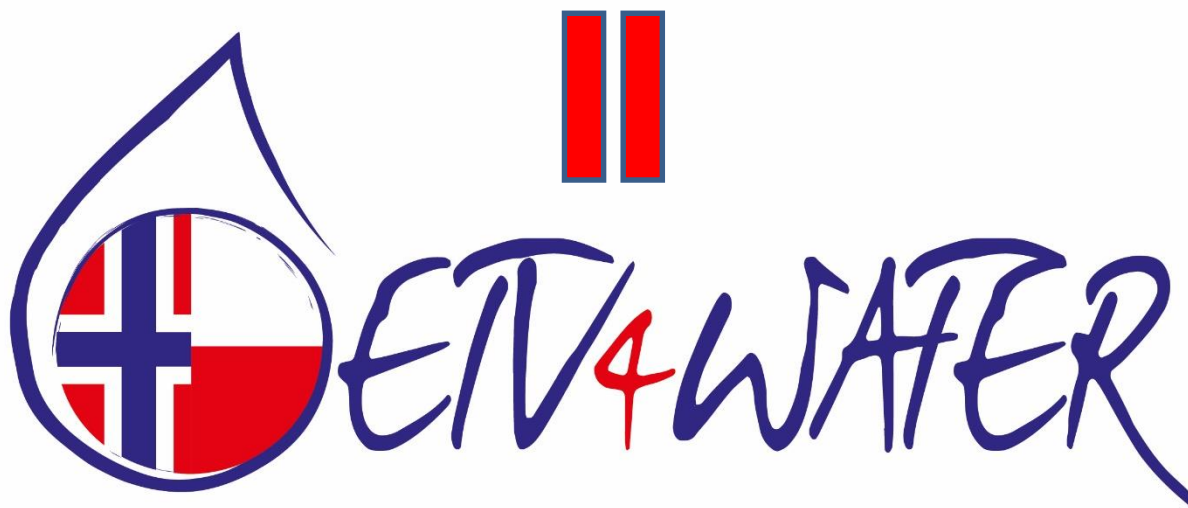
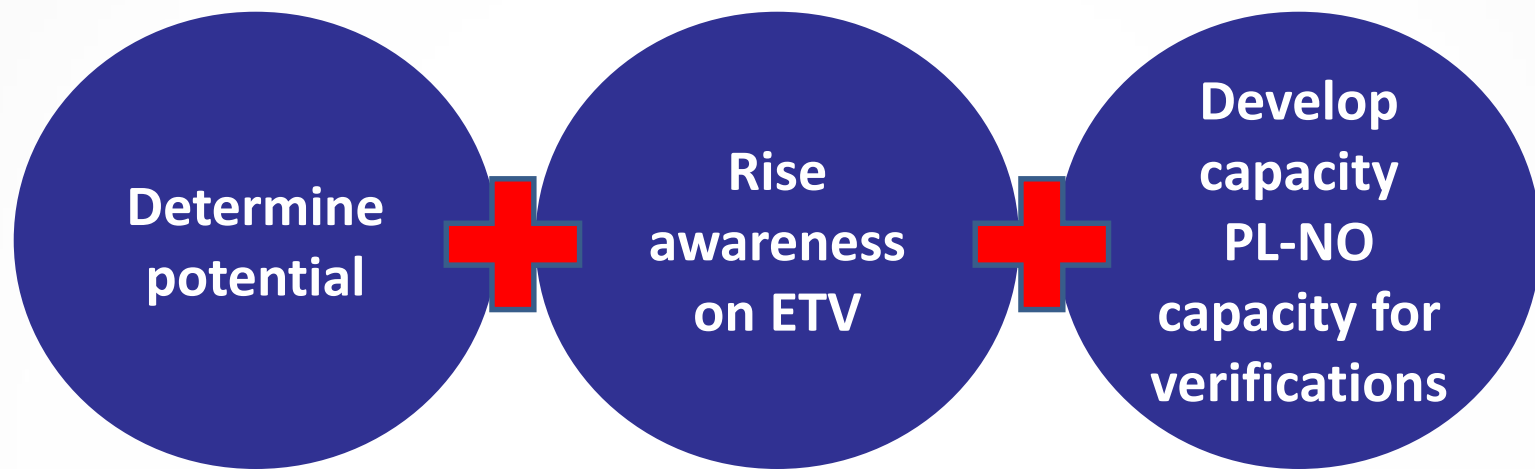
Poland

- Member of the EU EV Pilot Programme
- Verification Body for water technologies
- Water sector seeks innovations in energy efficiency
- Catching up country in terms of innovation
- ISO 14034 proposed for adoption as national standard



Norway

- Precursor of EU ETV Programme (NOVATECH Programme)
- Testing bodies for innovative water technologies
- Experience in implementing innovations incl. public sector
- ISO 14034 adopted as a national standard



Polish-Norwegian cooperation platform on ETV for water sector

Determine Potential

Report „Pathways for improving energy efficiency at municipal WWTP
Workshop with Polish WWTPs to determine innovation needs
List of parameters relevant for improving energy efficiency of WWTPs

Rise awareness on ETV

Workshops on ETV for technology providers and users at POLEKO SYSTEM Fair in Poznań, Poland
Workshops in Norway
Brochure about ETV for technology providers and purchasers
Analysis on the use of ETV statements in public procurement in Poland

Develop capacity

Identified candidate testing bodies
Dedicated trainings for testing bodies in Poland and Norway
Protocol for testing technologies for the needs of ETV
ETV Body IETU and Aquateam COWI as contact points for PL-NO ETV cooperation platform

Polish-Norwegian Cooperation Platform on ETV for water sector

Anticipated results/benefits

in a short time perspective

- a Polish-Norwegian platform (capacity, competences) established for business use of ETV in the implementation of innovations for water sector that will:
 - **increase the trust** of Polish and Norwegian investors in innovative energy efficient water technologies
 - **give credibility** to developers of innovative energy efficient technologies for water sector
 - **help** technology users **to benefit from innovation and select technologies** meeting their needs
 - **reduce financial and technological risk** for investors and purchasers from water sector (especially public) investing in new technologies
 - **facilitate and accelerate the diffusion** of Polish and Norwegian innovative water technologies **on** national, EU and international **markets**
- **facilitated involvement of SMEs in building a low-carbon economy**
- **increased awareness of WWTP on energy efficiency improvement options**
- **recognised user needs in the area of energy efficiency at WWTP**
- **direct contact to and ability to win leads**
- **gaining new ideas and partners for future R&D&I projects**

Anticipated results/benefits in a long time perspective

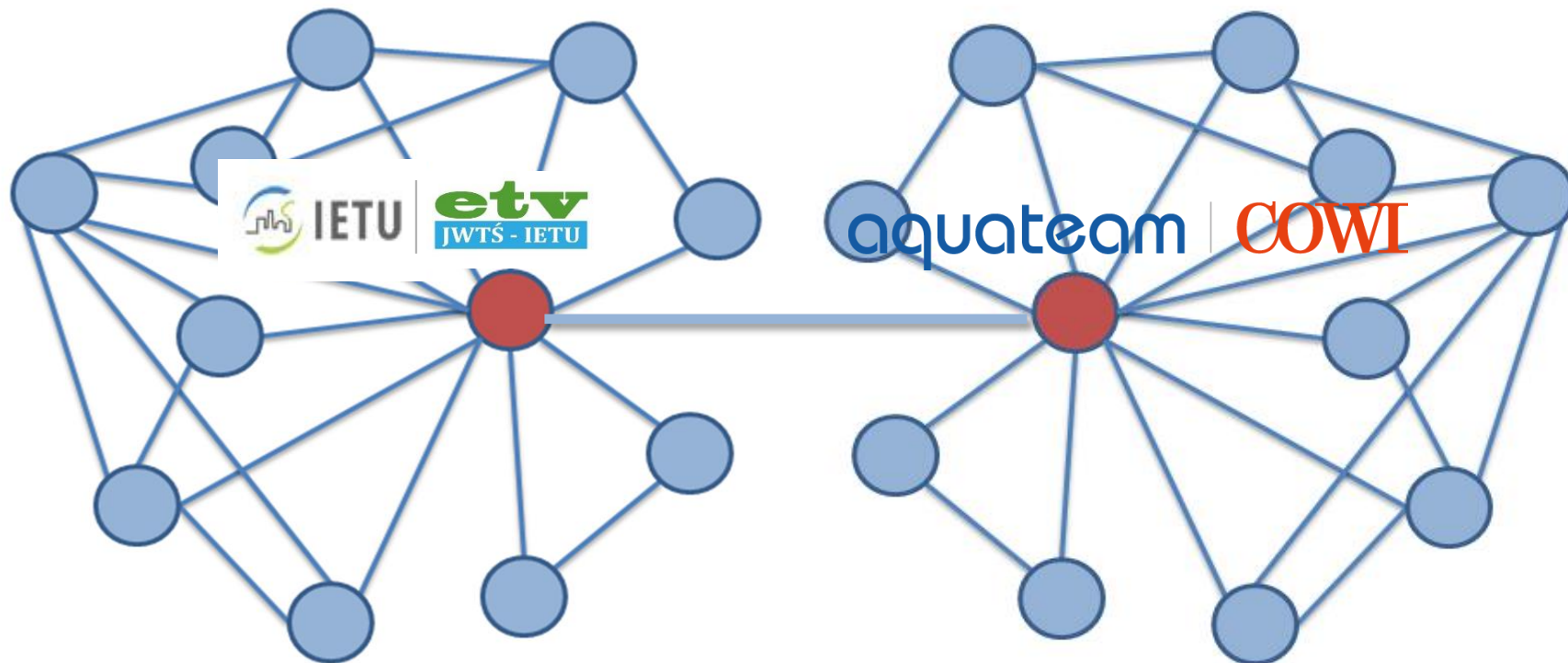
- Facilitated bilateral cooperation on the development, implementation and transfer of innovative water technologies of high potential to compete on global markets
- Cooperation foundations for the new perspective of the Norwegian Funds
- Social and environmental benefits due to improved energy management and in consequence reduced environmental degradation



Poland



Norway



Network of competent test bodies for test data generation on the performance of water technologies for the needs of ETV



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