10th Meeting of the Community of Users on Secure, Safe and Resilient Societies

Water Safety and Water Security
Policy to Innovation – Setting the Scene

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Who we are

EurEau - the voice of Europe’s water sector since 1975

Our members – 32 national water services associations from 29 European countries

We represent public and private drinking and waste water service providers

Employing 540,000 people, the sector makes a significant contribution to the European economy
How do we define innovation?

While research is exploring and reaching new insights, innovation is by many defined as “exploiting new ideas leading to the creation of a new product, process or service”. Thus it includes its “bringing it to market”, or putting it into practice and exploiting it in a manner that adds value or improves quality for customers, operators and the environment.*

**Areas:** Technology, business models, governance, communication, finance, HR management.

EurEau vision on innovation

EurEau will work towards an innovation-friendly landscape for the water sector. It means favour a legislative framework that stimulates and enables innovation, provides flexible policy and financing instruments to cover all stages of the innovation cycle.

It should address all areas be they technological or non-technological, stimulate a close cooperation between all actors in research and innovation and water operators, and address the needs of all types of water operators.
Water supply sector and European legislation

Drinking Water Directive (98/83/EC) - DWD
Drinking water must be clean, safe and wholesome

- Chemical parameters
- Micro-biological parameters

Compliance

Regular testing and monitoring
Risk-based approach
Risk-based approach for water safety

**Current DWD:**
- Member States can opt for risk-based approach;
- Reference to EN 15 975 Part 2 “Risk management”;

**Revised DWD:**
- Member States must introduce risk-based approach covering the full supply chain:
  - hazard assessment of *bodies of water* used for the abstraction of water;
  - a *supply* risk assessment carried out by the water suppliers;
  - a *domestic distribution* risk assessment.
Water safety: CEN standard EN 15975

• **EN 15975 Part 1 Crisis management (2011)**
  - describes fundamentals of *crisis management*, including relevant recommendations for drinking water suppliers, and offers examples drawn from disaster and crisis management

• **EN 15975 Part 2 Risk management (2013)**
  - incorporates fundamental elements of the *WHO Water Safety Plan approach (2004)*
  - to support water suppliers to actively address safety issues in the context of *routine water supply management and operations*
Normal operations (risk management)

EN 15 975 -2

Crisis management

EN 15 975 -1

Normal operations (risk management)

EN 15 975 -2
EN 15975-2: scope

Whole supply chain
EN 15975-1: Cooperation structure

Public administration

Crisis organisation structure on national governmental level concerning societal security

➔ Overall political responsibility

Operations command team

➔ Implementing body

Crisis management group

Policy/strategy team

➔ Decision-making body

Operating forces:
- fire brigade
- police

Incident-dependent members of the water utility with the crisis management team of the competent authority

Link:

Crisis management team of the water utility

➔ compatible with the crisis organisation structure of the relevant authority

Operation in accordance with national regulations

Drinking water supplier

should be installed

may be installed

^TES = Technical Emergency Service
Water infrastructure security

- Safety and security closely linked;
- Water infrastructure not defined as European critical infrastructure (ECI);
- Water infrastructure = critical infrastructure at Member State level;

**EurEau survey among its members**
(limited representativeness for the sector):

**Organisation of contingency management functions**
- 85% have a documented policy on contingency management. 15% have not, but do have some (written) policy concerning specific related issues.
- 88% have defined/embedded tasks and responsibilities (e.g. 85% have a security officer).
Identifying and assessing risks

• 100% have identified risks at utility level (legal obligation), and 85% have assessed the risks that are relevant for the utilities’ operational environment

RISKS

• Fire
• Contamination (chemical / biological / radiologic)
• Technical failure
• Deliberate disturbance/terrorism
• Droughts
• Flooding
• Power failure
• Telecom failure
• Cyber-attack
Prevention

• 100% took measures to reduce identified risks in organisational, technical & personnel ways.
• 92% took mitigating measures to most identified risks.

Preparation

• 92 % have general emergency response plan, all are coordinated with the responsible authorities.
• 88 % have mutual aid agreements for emergency response:
  - Emergency water supply
  - Emergency power services
  - Logistical support
• 95% have access to an alternative drinking water supply in case of failure of the regular system
Response

- 85% have national or regional terrorism threat alert system is in place, 69% have specific arrangements for water sector.
- 92% have trained utility staff and have emergency exercises (drills) at regular intervals.

Emergency response

- 58% have no experience with emergency response in real situations.

After care

- 81% have a procedure for evaluating an emergency event.
Conclusions

• Safety and security of water infrastructure covered by detailed national requirements;
  - currently no need for additional legislation;

• Supply chain approach is needed;

• Innovation needed to address new threats;
  - Risk and crisis management within utilities;
  - Risk / crisis management in the whole supply chain;
  - Communication chain;
  - Risk mitigation measures for cyber security;
  - Risk identification along the supply chain;

• Innovation must address all areas in parallel;

• Costs of measures may slow down progress;

• Better involvement of utilities in research activities;

  Inspiration and learning from frontrunners
Conclusions

• Coordination of actions is key:

- Risk assessment under DWD
- ERNCIP
- EN 15975
- NATO Baseline Requirements
- Other national requirements