

WssTP

The European Water Platform

Why are we here?

- WssTP is the **recognized voice and promotor of water-related RTD and innovation in Europe.**
- Recognized by the EC **European Technology Platform for Water**
- **Mission:**
 - ✓ Improve **coordination and collaboration** in the water sector and water using sectors;
 - ✓ Enhance **performance** of the European water sector and water using sectors;
 - ✓ Contribute to solving **societal challenges** through RTD&I.
- **WssTP Strategy:**
 - ✓ WssTP Water Vision: The Value of Water
 - ✓ Services to members
- **Key characteristics:**
 - ✓ Multistakeholder platform that covers the full value chain of the water sector
 - ✓ Central position in the EU stakeholder field

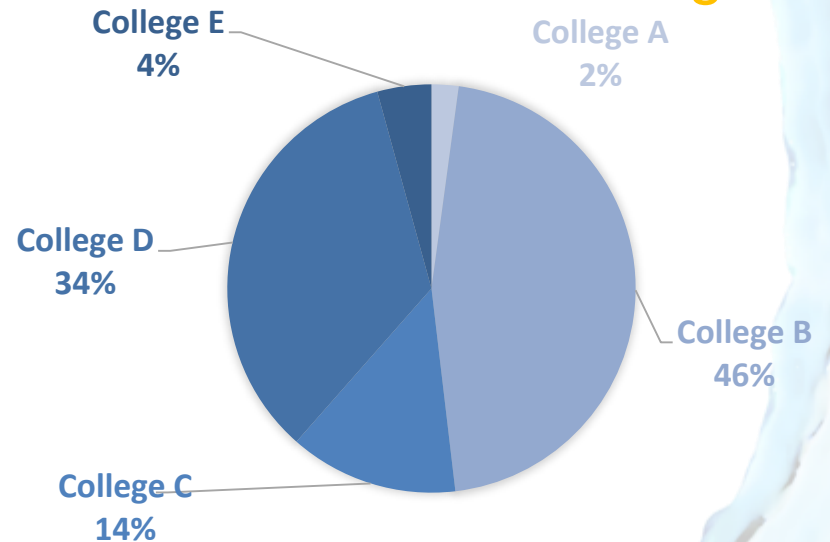


WssTP Colleges

College A: Multinational corporations
College B: Research & Technology developers
College C: Utilities
College D: Suppliers & SMEs
College E: Large water users

College F: Public Authorities
College G: Civil Society Organisations

Members Per College



205 members



26 countries



+5% in 2017



Whole Water cycle

WssTP Programmes



COLLABORATION PROGRAMME

The WssTP Collaboration programme allows our members to network and collaborate along the water value chain to address the water challenges and shape successful project consortia.

Water Knowledge Europe



ADVOCACY PROGRAMME

The WssTP Advocacy Programme is all about making sure that the value of water for our society is reflected in European policies and funding programmes.

Water Innovation Europe



MARKET PROGRAMME

The WssTP Innovation Programme enables our members to bring their research results and innovative solutions to the market in Europe and beyond.

Water Market Europe



WssTP Vision Clusters Matrix

INNOVATIONS TASKFORCE

RESEARCH & DEVELOPMENT & LIVINGLABS

CLUSTER 7. Water-Smart INDUSTRY
Integrate solutions for industrial end-user needs

CLUSTER 8. Water-Smart CITY
Integrate solutions for City end-user needs

CLUSTER 9. Water-Smart RURAL
Integrate solutions for Rural end-user needs

CLUSTER 1: the Value of Water

Socio- economic and governance models for water smart society

CLUSTER 2: Smart Water treatment

technologies to enable multiple waters and recycling of water

CLUSTER 3: Digital Water

smart ICT & Decision Support systems for water

CLUSTER 4: the Value in Water

solutions to capture and valorize energy & materials in water

CLUSTER 5: Hybrid Grey and Green infra

solutions for integrated human built and nature based water infrastructure

CLUSTER 6: Water Innovation System

water stewardship, standardization, knowledge Sharing and advocacy

Vertical Clusters:
Market & Livinglabs driven

Horizontal Clusters:
Research and Knowledge driven

3 overall functions (fine-tuned per cluster):

1. COLLABORATE (SIRA)

- S.o.a./ requirements reports
- Tech workshops
- Incubate R&D projects
- H2020 & FP9 topics
- Update SIRA

2. ADVOCATE

- Communication plan
- Advocacy Workshops

3. INNOVATE

- Incubate technology transfer projects
- Set-up VC events
- Initiate large investment plans (e.g. LLL, infra) with financiers (EIB etc.)

Working Group	Lead Member	Lead Person
Bathing Water	KWB	Pascale Rouault
Ecosystem Services	Luleå University	Lena Goldkuhl
Emerging Compounds	Deltares	Leonard Osté
Green Infrastructure	SINTEF	Mehdi Ahmadi
Climate Action	CEH	Alan Jenkins
Oil gas and mining	aquateam	Eilen Arctander Vik
Renewable Energy and Desalination	PSA-CIENAT	Guillermo Zaragoza
Resource recovery	Wetsus	Martijn Bijman
Urban Water Pollution	University of Bath	Jan Hofman
Water & Energy	DVGW	Tobias Martin
MENABIO (membrane, Biotech. and Nano.) - <i>NEW</i>	MEKOROT - TBC	
Water & ICT	CETaqua	Rafael Giménez
Water & Industry	Wetsus	Albert Jansen
Water and Agrifood	Bioazul	Antonia Lorenzo
Water and infrastructure - <i>NEW</i>	UPONOR	Ilari Aho
Water Beyond Europe	UNESCO-IHE	Gaetano Casale
Water-Energy Food Biodiversity Nexus	WUR	Floor Brouwer
Water Security - <i>NEW</i>	University of Bath	Jan Hofman
Water Reuse - <i>NEW</i>	TBC	TBC

**Evaluation of
the Urban Waste Water
Treatment Directive
UWWTD
91/271/EEC**

Wgp Urban Water Pollution

SCOPE OF THE WG

Our objectives:

- To monitor the current state of knowledge with regard to urban water pollution
- To identify knowledge gaps, opportunities and R&D needs
- Develop R&D recommendations to EC in the context of current and future policies and water related directives
- To connect to other WGs through interaction within the WssTP Clusters

Current UWWTD

- Protect the environment from the adverse effects of waste water discharges from urban areas and certain industrial sectors
- Focussing only on SS, C, N and P
- Implementation is *challenging*: 95% urban wastewater is collected, 85% treated
- 28 years old
- See: https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-4989291_en

Evaluation criteria

- **Effectiveness:** Has the Directive achieved what it set out to do? If not, why not?
- **Efficiency:** What are the costs and benefits of implementing the Directive? Are the costs justified? Are the particular requirements cost-effective compared to alternatives?
- **Coherence:** Are the requirements of the Directive consistent with those of other policies? Does any inconsistency cause practical problems?
- **Relevance:** Are the objectives and the way the Directive seeks to deliver these still correct today? Has technology moved on? Are there better solutions available?
- **EU Added Value:** What would have been the outcome without having an EU Directive? What is the justification for having EU law on this issue?

Already done

- Submitted response to public consultation (15 October 2018)
- Developed a Policy Paper on the UWWTD, submitted as annex to the public consultation
- Contributed to Stakeholder Conference 16 November 2018 by DG-ENV
- Organised a Thought Leadership Club University of Sheffield 30 January 2019

http://ec.europa.eu/environment/water/water-urbanwaste/legislation/index_en.htm

Key elements UWWTD (1)

- To collect and treat waste water: all agglomerations >2,000 population equivalents (p.e.).
- To apply secondary treatment (organics removal)
 - from agglomerations > 2,000 p.e.,
 - or > 10,000 p.e. if they discharge in coastal waters or estuaries.
- To apply more advanced treatment (nutrients removal, disinfection)
 - for agglomerations of more than 10,000 p.e. in designated sensitive areas
- Individual systems or otherwise appropriate
 - if centralised treatment is economically infeasible
 - or the establishment of a collecting system does not result in an environmental benefit

Key elements UWWTD (2)

- A requirement for authorisation of all discharges of urban wastewater (such as a permit or license), from the food-processing industry, and of industrial discharges.
- Storm water overflows: Member States can decide on measures to limit pollution from storm water overflows.
- Re-use of sewage sludge and treated waste water re-use is allowed whenever appropriate.

Water quality challenges

- Crop protection: pesticides, herbicides, fungicides, mulloscicides etc.
- Pharmaceuticals, Contrast media, Hormones
- Antibiotics: AMR
- Personal care products: perfumes, cosmetics, soaps, shampoos, ...
- Flame retardants
- Plasticisers
- Microplastics and engineerd nanoparticles
- Pathogens
- Illicit drugs

Not included in UWWTD

Trends

- Climate change – increased weather dynamics
- Water Scarcity: cascading and re-use
- Integration of ICT
- Integrated urban design – green and grey infrastructure
- Upgrading WWTPs (Switzerland, Germany, NL)
- Circular economy concepts
- Use of bio-assays and effect-based methods
- AMR – stereochemical analysis
- Microplastics

Policy paper - recommendations

The updated UWWTD should

- focus on environmental protection, including objectives for the **emerging issues**
- create incentives and enabling mechanisms for stimulating **circular economy concepts** for water, energy and materials. And incentivise re-use of wastewater effluent by industry.
- have built-in mechanisms for **periodic updating** and recalibration of the water quality objectives
- create **incentives for creating sustainability** in the water cycle, enable possibilities and create conditions for urban water re-use
- should open pathways for utilisation and **application of cyber-physical systems and smart technology** to optimise urban water management
- Include **human health** protection

Also on-going in Brussels

- Updated Drinking Water Directive
- Fitness check of the
 - Water Framework Directive,
 - Groundwater Directive
 - Environmental Quality Standards Directive,
 - Flood Directive
- Public consultation open until 12 March 2019
 - https://ec.europa.eu/info/law/better-regulation/initiatives/ares-2017-5128184_en
- Regulation on Minimum Requirements for Water Re-use



Download the
WssTP Water Vision

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