



Water Innovation Europe 2015
'The role of water in the circular economy'
Post-conference report- Key Messages



Introduction

The 4th edition of WssTP's annual stakeholder conference, 'Water Innovation Europe 2015: *The role of Water in the Circular Economy*' was a great success with over 250 participants, a wide diversity of speakers and participants, and great networking opportunities!

The participants' list covered the entire water value chain, representing the variety of WssTP members and those keen to join this multi-disciplinary water community: multinational corporations, research and technology organisations, universities, water service utilities, the water sectors' supply chain, large industrial and agricultural water users, and regional and local authorities.

There was a strong participation of SMEs, as well as the presence of key EU water stakeholder groups such as EIP Water, SPIRE, Water JPI, EurEau, EurAqua, NetwerkH2O, and others. Water Innovation Europe 2015 was also well attended by the European Commission with representatives from various Directorates-General, such as Research, Science, and Innovation (DG RTD), Environment (DG ENV), International Cooperation and Development (DG DEVCO), Joint Research Centre (DG JRC) and EASME.

During the three-day conference, a wide range of activities took place: WssTP working group meetings, presentations of ongoing FP7/ Horizon2020 projects, speeches and panel discussions on different aspects of the role of water in the circular economy, speed-dating sessions, an exploration of market opportunities outside Europe, WssTP SME awards, networking and professional discussions.



Post-conference Wrap Up

The WIE2015 pre-conference programme started on the 24th June with the WssTP working groups meetings and continued with a session on EU-wide water projects related to circular economy: DEMOWARE, DEMAU project, P-REX, SW4E, TRUST, WaterPiP, EFFINET, iWIDGET and Baltic Flows.



On the 25th of June 2015, the curtain of the conference was raised with an opening keynote speech by Kurt Vandenberghe, Director of Climate Action and Resource Efficiency DG RTD.



A series of knowledge-filled panel sessions followed by presentations and discussions on the role of water in a circular economy, on 'How can water contribute to Juncker's agenda', sessions on industry and water, water and agriculture, water and cities.





The first day of the conference concluded with the 2nd edition of WssTP Water Innovation SMEs Awards ceremony, in which last year's winners spoke about their progress and success within 2014. Durk Krol, WssTP Director, together with WssTP Board members handed out the awards to this year's winners: Resolute Marine from Ireland, Sansox Oy from Finland, BWA from the Netherlands and CARDPool from France. Details about the winning technologies of this Awards edition are available [here](#).



The second conference day was opened by the key note presentation of the professor – emeritus Willy Verstraede from Gent University (BE) and followed by **sessions on water in a circular economy and on market opportunities for water outside Europe.**

Special attention was given to presentations about the opportunities for water business and technology transfer via projects in China, India and the Middle East.



The **formal part of the conference ended with examples of FP7/H2020 projects that have a good impact on jobs and growth.** Representatives of each project shared with the audience their experiences and achievements on Marie-Curie Co-fund on water technology, Value from urine project, Arreau (AG) and many other successful projects.

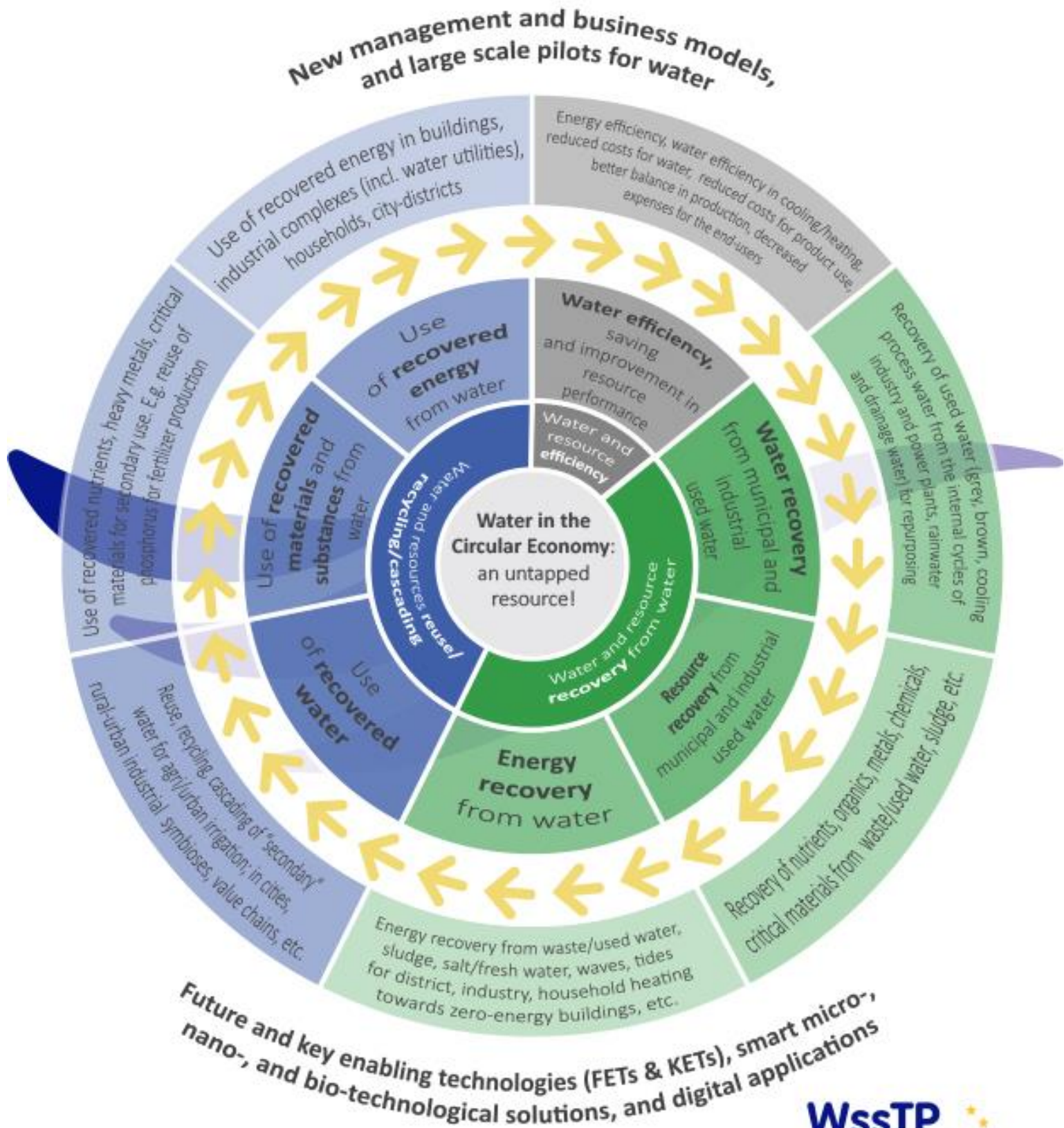


A WssTP Board meeting and a General Assembly also took place in the afternoon of the same day after the conclusion of the conference.

The post-conference material: all the presentations and a photo gallery can now be found on the [conference's website](#).

What is your take-home message from Water Innovation Europe 2015?

The role of WATER in the Circular Economy



Key messages emerged from Water Innovation Europe 2015

The panel discussions of Water Innovation Europe 2015, supported by new practical examples, revealed that the 20th century's economic model built on the principles of “take, make, waste”, is unsustainable. The world needs a systemic change of mindset, where water is a crucial component of circular economy. The outcomes of Water Innovation Europe 2015 can be summarised into the five below messages:

Message 1. Water is an unavoidable component for circular economy and a driver for economic growth pushing together **resource efficiency and recovery of materials**.

Water challenge is a systemic challenge, so adapting a systemic approach to water, energy, food and health needs a structural transformation that takes advantage of digitalisation and re-design of value chains linked to water, energy and resources. At the same time, we need to consider **water as a product** and as a **consumable** in a circular economy that needs to remain pure and protected from any contamination and pollution. Water as a product should follow the same design rules: to be kept in a closed loop and reused as much as possible, not only as a productive input but also as a waste stream. With that in mind, we should benefit from the valuable materials water contains, such as highly specific waterborne solvents, nutrients, acids, other chemicals and for this purpose we need **new types of water recycling plants**.

In Europe, there are currently evolving tendencies moving **from smart technological innovations towards those related to new governance, management and business models for water**, which apply the “pay as you throw” principle. It is a vital step for the EU to use **resources more efficiently** and to reduce resource dependence. Indicators for resource efficiency and measuring resource/water consumption in Europe will boost new research incentives and business-based solutions which, in their turn, will create more sustainable growth and jobs.

Message 2. The new focus of the circular economy is linked **to the water and energy nexus**: energy from water and water for energy.

The new focus area **water-energy nexus** reveals its importance by one simple fact: 44% water is used for energy. **Energy for water** and **water for energy** is becoming an issue that needs advanced solutions to support the EU energy package and decarbonize the European economy by recovering for example, energy/heat from wastewater. The transition from **water and energy articulation to a real integration of water and energy** via efficiency, recovery and reuse of this nexus components is to enable energy extraction from water and energy conservation via innovative solutions. **Water is a cyclic resource** in its origin, and thus it is a non-separable part of a circular economy.

Message 3. The concept of water as **a component of smart cities** has to be maintained.

As an indispensable part of the smart cities agenda, water should be used as a tool for better integration and connection of **water** with energy, transport, waste and a broader ICT dimension (including skills,

sectors and technologies). New innovative solutions that integrate sector linkages and the nexus perspective in cities will contribute to a more sustainable urban development.

Message 4. Water in a circular economy brings new market opportunities for Europe and valorisation of technological and non-technological innovations outside Europe.

At a European level, **water started as an environmental topic and it is now becoming more and more an economic topic and a challenge for growth.** To optimize framework conditions for innovations in water in the context of circular economy, **we need to unlock investments by using European, national and regional funds as well as public and private funding opportunities, including Juncker's initiative ESIF.** The success of this depends on actions taken to overcome the barriers between sectors and particularly in the water sector itself by managing economic-separate silos. The drivers for innovation are: water pollution, water scarcity and competition.

In a global context, water scarcity grows rapidly as it was demonstrated by the example of China, where new cities with populations of 4 million inhabitants are appearing on the map every year, with growing scarcity and water pollution. China gives priority to water and a water pollution action plan established in 2015 involved 13 cooperating ministries. International cooperation is also developing between EU and India with a very price-sensitive Indian market of acute needs to receive the transfer of European technologies for water supply, distribution or metering.

Regarding market opportunities, the European urban and industrial water markets are respectively holding the 20% and 13% of the world's market shares, bringing a big potential for internationalisation.

Message 5. Environmental aspect of water should not be forgotten.

Water is being the largest untapped waste category as a new material and a new resource. The message from the Commissioner Vella for environment, given by his cabinet member Lanfranco Fanti, strongly underlines environmental aspects such as the importance of water in a circular economy, product design for resource efficiency and recovery, as well as the creation of markets with secondary /recovered resources. It was also emphasized the importance of improving the water-energy nexus and the water quality issues, addressing the need for a strategic approach towards nutrients management and EU fertilisers' regulation.

Conclusion

A multi-disciplinary approach having water as a transversal component in research and innovation is unavoidable for the demand-driven innovative solutions and the economic growth. Water is an important component to transform the economic system from linear (non-sustainable) to circular (aiming towards zero waste) one. In this circular system, the priorities for the upcoming years to support the Industrial Renaissance are given to the large scale projects for water-dependent industries such as those in R&I, design, production and consumption of lines of products, processes and services across the value chain.

To create a critical movement and unlock the added value of water in circular economy, we need to overcome a number of financial, institutional, infrastructural, societal, technological and managerial barriers. The 'niche steps' for that are to encourage R&I via experimentation, innovation and redesign, and to develop and spread successful business examples.

Circular economy is not a blueprint but a process towards a sustainable economy. To this end, collaboration between various stakeholders, companies, researchers, industries, societal actors, decision makers and politicians is a key to success.

Once again, WIE2015 has proved to be the grounding step to move this process forward at the EU level and create a critical movement that can identify the R&I needs for water and fuel the process of transition to a circular economy model.



Annex: Programme

Day 1

Thursday 25th June 2015

09.00-09.45	Registration & Coffee
09:45-09:55	Welcome Tomas Michel, WssTP President
09.50-10.15	Session 1: Opening Key Note Kurt Vandenberghe, Director Climate Action & Resource Efficiency, DG RTD
10.15-11.15	Session 2 : What is the role of water in the circular economy Description: Until now, the economy has mainly operated on a ‘take-make-dispose’ model. A transition to a circular economy shifts the focus to reusing and recycling existing materials and products. Water is the most important shared resource across all supply chains, yet wastewater is the largest untapped waste category with huge opportunities for reuse and recycling, recovery of energy and variety of substances and critical materials from water, reducing both waste and costs. It’s time to take one step closer to the circular economy. Moderator: Tomas Michel, WssTP President <ul style="list-style-type: none"> – Dominique Gatel, Veolia – Panagiotis Balabanis, European Commission – Ludo Diels, SPIRE – Lanfranco Fanti, Cabinet EU Commissioner Vella
11.15- 12.00	Coffee Break
12.00- 13.00	Session 2 : How can water contribute to the Juncker agenda, particularly focusing on the priorities: Jobs growth & Investments; Digital Union; Resilient Energy Union and Forward looking Climate Policy Description: President Juncker has prioritised in his "Agenda for Jobs, Growth, Fairness and Democratic Change" ten policy fields he will want to achieve concrete results on. Water as a transversal issue is connected to at least 3 of these policy fields: 1) A New Boost for Jobs, Growth and Investment; 2) A Connected Digital Single Market; and 3) A Resilient Energy Union with a Forward-Looking Climate Change Policy. Water is also a transversal issue that can highly benefit from President Juncker’s ambition to overcome

silos mentalities and to promote 'cooperation across portfolios to produce integrated, well-grounded and well-explained initiatives'.

Moderator: Durk Krol, WssTP

- Dirk Van Der Stede, Vlakwa
- Stephane Marcovitch, M2oCity
- Jaime Melo Baptista, LNEC
- Marianne Wenning, EC

13.00-14.00

Lunch

14.00-14.45

Session 4: Industry

Description: This session will have a closer look to the role of water in the circular economy from the industrial perspective. In particular, the discussion will focus on the importance of integrated water solutions between green and grey infrastructures, residuals from water treatment processes, and reuse and recycling of water.

Moderator: Albert Jansen, TNO

- Duska Disselhof, Shell
- Nathalie Swinnen, Solvay
- Olaf Van Der Kolk, Reststoffen Unie

14.45- 15.30

Session 5: Agriculture

Description: How can water sustainable water management benefit from the application of the circular economy in the context of agriculture? What are the opportunities for new markets for agriculture in the context of the circular economy?

Moderator : Jochen Froebrich, Alterra Wageningen UR

- Stefan Urioc, BlueTech Research
- An Decombel, Inagro
- Michael Van Der Schoot, ZLTO

15.30-16.15

Coffee Break

16.15- 17.00

Session 6: Cities

Description: The growing importance of the generic concept of the circular economy where products and resources are recycled is one which has vital repercussions in the government of cities and the sustainable management of water. This session will look

at the circular economy concept from these two interrelated angles: The role of cities in the implementation of the circular economy philosophy and specifically, that role applied to water issues.

Moderator: Richard Elelman, Fundació CTM

- Kees Van Leeuwen, City Blueprint
- Peter Defranchesi, ICLEI
- Henk Deinum, Alderman Leeuwarden

17.00-18.30 **Session 7: Speed Dating**

19.30- 23.00 **WssTP Water Innovation SME Awards Dinner Ceremony**

08.30-09.00	Registration & Coffee
09:00-09:10	Welcome
09.00-09.45	Session 1 : Water in Circular Economy
	Willy Verstraete, Ghent University
09.45-10.45	Session 2: Market Opportunities
	Description: Approximately 80% of the CAPEX foreseen in the water sector for the next years is expected to be out of Europe. Taking that into account, this market opportunities session has been conceived with a “thinking out of the box” approach. This session goes beyond Europe by analysing three key geographies that can provide excellent business opportunities for the European water actors such as: Middle East, China and India.
	Moderator: Alfredo Rodríguez, Abengoa
	<ul style="list-style-type: none"> – Keith Hays, Bluefield Research – Henrik Dissing, CEWP – Priya Dagar, EBTC
10.45- 11.30	Coffee Break
11.30-12.30	Session 3: FP7/H2020 Projects impact for jobs and growth
	<ul style="list-style-type: none"> – Marie-Curie Co-fund on water technology by Cees Buisman – DemoWare by Miquel Rovira – ARREAU Action Group by Boris Lesjean – ICT&Water Project by Lydia Vamvakeridou-Lyroudia
12.30-13.00	Closure
13.00-14.00	Lunch Break
14.30-16.00	WssTP GM
16.00-16.30	WssTP BoM