

WATERSOLUTIONS

Water & Waste Water Technologies



REPORT

Stakeholder participation
in river basin management

RESEARCH

Numerical simulation of flow
structure in an aeration tank

INTERVIEW

Luca Nizzetto, Norwegian Institute for
Water Research

„Water Management 4.0: What does the next generation think about this development?“

Digitization is more and more influencing our life. We as society are surrounded by technology that supports us to master some of our daily challenges. But is the digitization ultimately good or bad for society? That's a loaded question. If we focus on digitally transformed work there are many aspects of that can be considered good: increased mobility, less need of a dedicated work space, increased productivity from new tools, the list goes on. One interesting development cited in the World Economic Forum's Digital Media and Society report is that digitization has enhanced the "flexibility for workers and employers, boosting productivity and enabling greater work-life integration". The industry sector is already very advanced on digitization and has therefore created its concept of "Industry 4.0". But what about other areas in which technology progress can boost the sector?

Big data is changing the water industry, and management of data-driven monitoring and control systems will increasingly infiltrate nearly every part of the water business. Stricter water quality regulations and the need of process efficiencies as well as system performance optimization, leads to an increased uptake of monitoring and control systems that are able to detect changes in real-time. In the future data-feeds and cognitive computing could govern water management and inform every decision in the municipal and industrial sectors. It is critical for every company working in the water sector to understand how this reality will impact future operations and opportunities.

Knowledge transfer platform in the water sector

The International Water Association (IWA) offers as a global network and knowledge transfer platform with the opportunity to point out actual water related problems and discuss within the organisation different solutions. The network as the world's largest international network of experts working in the field of water management consists of more than 10,000 members living in more than 130 countries around the world.

The activities of the IWA are multifarious: Aside from programs that contribute to the UN sustainability goals such as "Basins of the Future", "Cities of the Future" and "Water and Sanitation Services", members can specifically work on a specific topic in various so called "Specialist groups" or "Task force groups". But also organization of conferences and workshops is an essential part of IWA's daily work. IWA main message and goal is: The close connection between researchers and practitioner.

The IWA Young Water Professionals Initiative

More than ten years ago the IWA has set up an initiative for young water professionals in order to support the new generation in the water management sector.

The YWP are a group of people under the age of 35 who already want to shape the future of the sector. They offer a great network and great opportunities to engage and establish themselves in the sector of water management, to expand knowledge and to work on solutions for the challenges of tomorrow. The YWP are represented by the Emerging Water Leaders Steering committee. About 750 young engineers and scientists from 100 countries are part of the IWA network and participate in a wide range of events. Many former members now work in leading positions in water management. Beyond the network, IWA reaches over 30,000 YWP worldwide with the national YWP associations and the various social media platforms.

The IWA YWP Initiative was established to involve young professionals in the water sector and also in the IWA through:

- Organizing activities (e.g.: special YWP events or the mentoring programs ...);
- Taking over positions in the IWA committees (e.g.: Board of Directors, Strategic Council, Special groups)
- Providing offers for personal and professional development (e.g.: proper career planning, writing scientific articles, etc.).

The 2nd transnational IWA-YWP Workshop

Last year the YWP Chapters from Germany and Austria organized their 1st transnational workshop at the IFAT 2016 in Munich, with a great success. Therefore the two Chapters decided to continue this success story and discuss at the Wasser Berlin International 2017 with their participants during a one day workshop the topic "Water Management 4.0 – Challenges and Opportunities".



YWP Austria board 2017-18, from left to right: Bernhard Gahleitner, Anna Pomassl, Markus Günther (Vice-Chair), Katharina Steinbacher (Chair), Christian Loderer

The focus of this year's workshop is to find possible answers on questions like what do we exactly mean with "Water Management 4.0", how will digitization influence the water sector of the future as well as is the next generation well educated for this "water revolution" or do we have to think about alternative education programs? The YWP will discuss these topics with experts from industry, water utilities as well as academia. Participants will get the chance to get familiarized with the topic by two keynote speeches. Both speakers will reflect the pros and cons of Water Management 4.0. Afterwards the participants will get the chance to talk directly with representatives from different companies or organisations which are active in the area of digitization in two guided tours (waste water and drinking water). The second part of the workshop day will be separated in impulsive lectures by representatives from industry, utilities and academia and how digitization influence in

their professional environment followed by group discussions (World Café) and summarizing the discussion results at the end of the event day.

The workshop will take place on 29th of March 2017 in the "Cinema Hall (Marshall-Haus)" and is free of charge (due to a limited number of participants, registration is required!).

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The YWP Austria.....

- ▶ Since the IWA World Water Congress 2008 in Vienna the Austrian water and waste water industry focuses on the potential of the younger generation and started the IWA-YWP initiative. Numerous activities, such as the organization of a national IWA-YWP conference, nine national and one international workshops and regularly meetings are the result of a strong IWA-YWP Austria Chapter. But also social media offers information exchange concerning current national as well as global water related issues or up-coming. 2017 a new team, elected by their members, plans the activities for around 100 YWP Austria members.

The YWP Germany.....

- ▶ The YWP cooperate closely with the German Association for Water, Waste water and Waste (DWA) as well as the German Technical and Scientific Association for Gas and Water (DVGW). The German YWP Initiative is supported by the international office of the German Federal Ministry of Education and Research (BMBF), the German Federal Environmental Foundation (DBU) as well as the German Academic Exchange Service (DAAD).

Statements from Members of Organising Team

Lisa Broß (Universität der Bundeswehr München):

The workshop gives me an opportunity to exchange ideas and knowledge with other young water professionals and to learn about experiences and trends towards the digital future of the water sector. With the joint organization of the 2nd transnational workshop, the YWP chapters of Austria and Germany have grown together and I am pleased to be part of the organizational team.

Simon Faltermaier (Universität der Bundeswehr München):

For me, taking part in the organization of IWA YWP workshops is always great fun. I get to know new, motivated people from all branches of the water sector, share knowledge and create new experiences. This workshop's subject is especially interesting, because, in my book, digitalization and the integrated view on water systems will be the next major step in the water sector.

Katharina Steinbacher (Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management)

After the great success of last year's joint workshop between the two IWA YWP Chapters Germany and Austria at the IFAT Munich, I'm really happy to be again a part of this year's 2nd transnational Workshop in Berlin. For me the topic „Water Management 4.0 - Challenges and Opportunities“ is fascinating and I'm really excited to discuss with other YWP about digitalization in the water sector and learn more about the actual trend.