

## Groundwater Quality from a Global Perspective

**Tuesday: 13:00 – 14:15 (A500)**

This side-event is to inform the conference participants on various global groundwater quality activities, to provide a floor for discussion beyond cocoons and to encourage collaboration across the scales and borders. This event is organised by friends of groundwater with participation of Dave Kreamer (IAH), Hartwig Kremer (UNEP), Neno Kukuric (UNESCO/IGRAC), Joel Podgorski (EAWAG), Tom Schaul (EU-WFD) and Craig Simmons (NCGRT).

Groundwater provides almost half of all drinking water worldwide, about 40% of water for irrigated agriculture and about one third of water required for industry. Despite these impressive facts, invisible groundwater is out of sight and out of mind for most people. At the same time, human activities and climate variability are increasing the pressures on groundwater resources. Serious pollution and depletion problems are reported for many parts of the world. This requires increased engagement of groundwater and other water professionals across the scales and topics, looking beyond the individual “cocoons”.

What is a qualitative state of groundwater resources globally and what are the trends? Groundwater quality needs to be understood at the local scale, but has a global impact: how large is this impact and why is it important? How can the scientific community (in academia, industry and governmental and international agencies) contribute more effectively to global assessment of groundwater quality, and what would an increased global knowledge and awareness bring back to the scientific community?

The United Nation Agenda 2030 shows a strong dependence of Sustainable Development Goals (SDGs) on groundwater quality; this holds in particular for SDG6 (Water and Sanitation), but also for SDGs on food security, poverty eradication, sustainability of human settlement and even climate change. Yet, only a few parameters are being collected globally (per country) to provide a baseline for

the SDG Target 6.3: Water quality and wastewater. It is far from certain whether the collected data will be sufficient to provide a correct indication of groundwater quality worldwide. Is this process relevant for the scientific community and if so, how should scientists influence it more strongly?

In November 2018, a World Water Quality Assessment (WWQA) kicked off, led by UN Environment and supported by many UN agencies and international partners. This very challenging task is also a clear opportunity to increase knowledge sharing, improve sampling and processing of data, scrutinize differences in guidelines and standards, and raise general awareness on the importance of good groundwater quality for society. What is – should be – the role of scientific community in this assessment?

There are very few assessments and overviews of groundwater quality parameters on a global scale, and even fewer of those freely accessible through on-line information systems. The examples of groundwater assessment at global (EAWAG) and a regional scale (EU WFD) are very relevant in terms of lessons learned and replication.

The International Association of Hydrogeologists (IAH) is currently setting up a commission on Groundwater Quality. We will hear more about the aims of this commission and the advantages of active participation during this event.

We look forward to seeing you at GQ2019 in Liege, and discussing these groundwater quality challenges.

