

23 June 2021 (Wednesday)

4.00pm-5.30pm (SGT) (GMT +8)

Session 4.1 – Water Circular Economy in Cities of the Future I

Session Chair(s): Tony Wong, CRC for Water Sensitive Cities (Australia)

Circular Water Economy

S. Tahir. Arup London (United Kingdom)

Presenter is an invited speaker. No executive summary is available

Water Circular Economy In The Cities Of The Future

X. Litrico. SUEZ (France)

Presenter is an invited speaker. No executive summary is available

Circular Water 2050: Impact and Opportunities For The Fully Circular Urban Water Cycle

K. Roest, L. Snip, A. De Jong, H. Van Alphen, A. Segrave, B. Römngens KWR Water Research Institute (Netherlands)

The project's aim is to develop a vision and roadmap(s) for the water sector, with a view to the national 'A Circular Economy in the Netherlands by 2050' program. This involves the raw material efficiency in the urban water cycle, including the extraction and reuse of raw materials. The incoming and outgoing substance flows of the current water chain in the Netherlands have been mapped. The material flows are presented in the form of Sankey diagrams. An overview of possible conceptual and technological innovations that can be relevant for the water cycle in 2050 has been produced. Finally a circular system integration is needed. We investigated, described, discussed, defined and established what is meant in the water cycle with fully circular in 2050 and how this can look like in practice.

Energy And New Resources Out Of Water To Create A Circular Economy For A Metropolitan Area

A. Struiker. Waternet (Netherlands)

In 2050 70% of the people on this planet will live in metropolitan areas. City-planners, policymakers, city-administrators, together with all stakeholders involved will have to face the big challenges to realize a liveable city with the ambition to incorporate the Sustainable Development Goals (SDG's) of the United Nations. The approach has to focus on both the short term and the long term. Water is an important driver in the city transition to become an economic and sustainable region. Water can also play an important role from a circular economy perspective. A water utility can connect stakeholders like knowledge institutes, market parties and governments to realize new circular business models. The government owned water cycle company Waternet shows the importance of this role in the Amsterdam Metropolitan Area. Examples of the water related impact is heating and cooling buildings with water, resource recovery -- phosphate, cellulose, calcite, biomass -, smart asset management solutions. The Amsterdam approach can inspire other metropolitan areas.