

	Theme 3. Fresh water availability and access
SP 3.2	Moving towards tailored climate services in the Water Sector
Organised by	Laurens Bouwer, Deltares, the Netherlands
Partners	Royal Netherlands Meteorological Institute (KNMI), the Netherlands National Laboratory for Civil Engineering (LNEC), Portugal
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Rapporteur	Laurens Bouwer, Deltares, the Netherlands
Presenters	Marco Gemmer, European Commission Rafaela Matos, National Laboratory for Civil Engineering (LNEC), Portugal Bart van den Hurk, Royal Netherlands Meteorological Institute (KNMI), the Netherlands

Introduction

The session was opened by Laurens Bouwer (Deltares, the Netherlands), who stressed the importance of climate services for the use in water resources management. The maturity of the topic is emphasised by the establishment of a new journal called Climate Services that has just published its first issue. Two new European Research projects funded under the Horizon 2020 programme will develop new insights on forecasting and climate impact assessment for the water sector heavily involving end-users. The session will introduce the two projects, as well as wishes and expectations from end-users. Also, there will be time for discussions on the development and innovation of climate services. The audience was asked to think about burning questions that they would like to have answered during this session.

European research and innovation roadmap on climate services: demonstrating the added value of climate services

Marco Gemmer, European Commission

Marco Gemmer had the opening speech. He explained that the European Commission is investing substantially in weather and climate services research. And he invited everyone to become a partner in the H2020 programme, and be involved in the development of new climate services.

Bringing innovation to ongoing water management

Rafaela Matos, National Laboratory for Civil Engineering (LNEC), Portugal

Rafaela Matos explained that the BINGO project is focussing on the assessment of impacts on water resources at decadal timescales. Several interviews and sessions with stakeholders have been held, in order to better understand the needs of the end-users, as well as present what science can offer. A short video from the project was shown, in which stakeholders explained their problems, and needs for information.

Teun van der Spek, Province of Gelderland, the Netherlands, is a groundwater specialist, and is a stakeholder partner in the BINGO project. He stressed the need for better understanding of weather and climate influences on groundwater availability for farmers and nature in his area. The need for government and researchers, to work together and pooling knowledge from each field of expertise is very much needed. Also the role of private small companies in developing new tools, for instance online applications for farmers to more efficiently manage their farmland, is crucial.

Improving prediction and management of hydrological extremes

Bart van den Hurk, Royal Netherlands Meteorological Institute (KNMI), the Netherlands

Bart van den Hurk introduced the IMPREX project. It will set a next step in improving the hydrological predictability, for various applications, including navigation, agriculture, and flood risk management. Also, the project will further explore the concept of "future weather", where current extremes are projected out into the future, in order for water managers to assess the performance of their system.

Dolf Kern, Water Authority Rivierenland, the Netherlands, explained his role as end-user in the IMPREX project. He hopes to further develop a risk-based approach for drought management that better quantifies the probability and impacts of drought events. This is important, not only for the Water board, but also for end-users such as farmers and horticulture entrepreneurs. For instance, the exact impacts of droughts, also in

economic terms, are not yet well-known. The essential product coming out of the IMPREX boundary project is this risk-based approach, as well as the boundary conditions that cause drought events.

Discussion

In the final discussion round, it was discussed how the research teams can reach out to end-users that are not yet engaged in the projects. The projects should not only consider to involve the partners with whom they already have close ties, but also consider possible end-users that are not yet involved in the development of new services. Finally, the role of SMEs in translating new scientific information and data into ready-to use applications is essential. Both research projects involve several SMEs, and the expectation is that this will lead to ready-to-use applications for the end-users.