Overview

POWER is a Research and Innovation Action, supporting the EIP Water Action Group, NetwercH2O and City Blueprints. POWER addresses four of the eight priorities of the EIP WATER Action Group and will share best practice on urban water cycle services. It will also share the outcomes of the Blue Sustainable Cities project.

The project's Digital Social Platform (DSP) is its central tool to be made available to cities, aiming at an important contribution to the creation of digital communities around themes specifically related to water and impacting the quality of life of local populations.

Each instance of the POWER Digital Social Platform is made available through a dedicated DSP website and an accompanying mobile app. It is set up to be used by local community members, activists, volunteers, municipal officials and representatives, water professionals and experts, as well as regional, national or international-level policy-makers, politicians and other stakeholders.

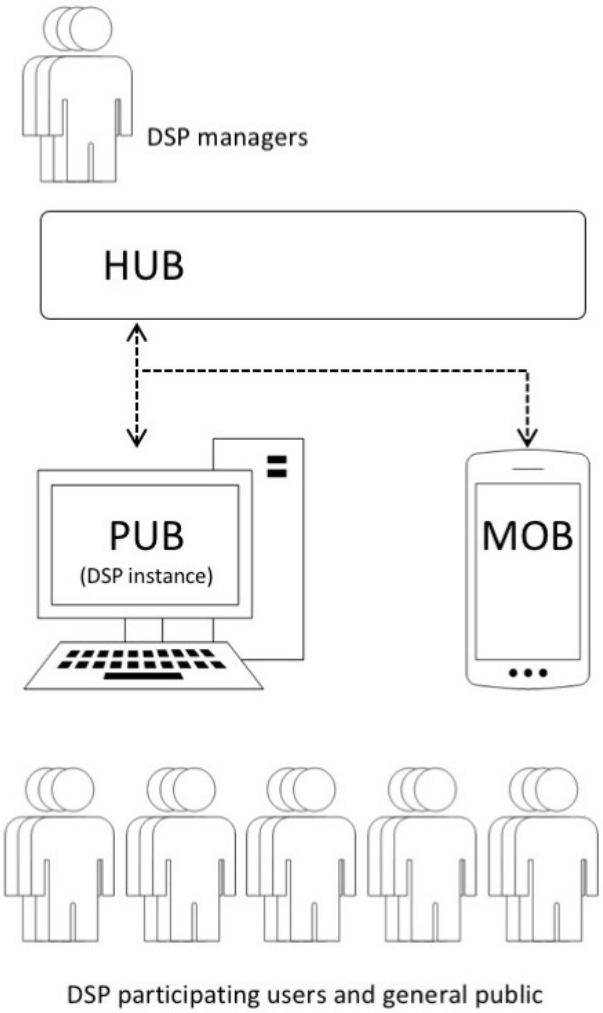

Figure 1 – Schematic representation of an individual DSP instance.

As introduced in the *D2.1 General architecture, functionalities and analysis* report, the POWER DSP connects a top-down and bottom-up interaction, to enable interaction and flows of information and knowledge between the different types of actors and stakeholders. On the one hand, it provides information on water issues and advice on known best-practice of relevance to the citizen's local communities that is otherwise unavailable or difficult to find, in an easily accessible, timely manner.

On the other hand, it provides channels of interaction and knowledge sharing of the citizens and local communities with the municipality and between each other. To support awareness and stimulate engagement, the information provision, user interaction and knowledge sharing channels and functionalities integrate information and knowledge

visualisation and gamification techniques.

The information on local needs, the experiences and knowledge created and communicated in bottom-up and P2P exchanges also enable the identification and sharing of community-driven best practices, stemming from local experience. In the best practice repository, both the knowledge and lessons learned from top-down analysis and expert exchanges about them, and the community-driven exchange and identification of best local practices are connected with each other.

To achieve this, the POWER DSP is designed in an open and modular way, organized in three main tiers that address the specific needs of the different actors and target groups, and of the different channels of information provision, interaction and knowledge sharing. These are internally referred to as as the HUB (the information and content management backend), PUB (the public web portal) and the MOB (the mobile app), as depicted in the schematic of Figure 1.

The PUB forms the front end of the DSP and is made available to the city pilots (from Beta release onwards), and to the general public (final release), for the purpose of publishing project data and interacting with the project's audience

The PUB software is entirely new and developed specifically for the POWER project. This software is open source and is being released under the GNU General Public License 3 (https://www.gnu.org/licenses/gpl-3.0.en.html). All the third-party libraries used are equally open source.