

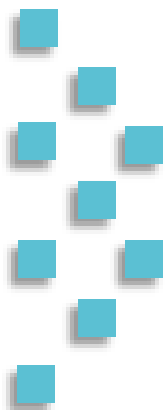


D4.6 FIWARE4Water Demonstrations: Performance, Insights and Lessons Learned – a technical brief and recommendations

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Executive Summary

This document contains the assessment of performance and suitability of services and solutions developed in the framework of Fiware4Water (F4W) project for the four demonstration cases (Greece, France, Netherlands, United Kingdom). The four demo cases cover a wide range of challenges from different water domains: raw water supply, water distribution networks, wastewater treatment, and citizen engagement and water use.

The document reports for each demo case the end-user experience, as gained during the development, implementation and use of FIWARE-enabled solutions, with respect to two key aspects:

- the services developed (i.e., scientific models, platforms, tools, algorithms), from the end-user perspective (i.e., staff of water utilities and customers)
- the FIWARE technology itself, from those (i.e., developers and IT personnel) who have been involved in the development and deployment of “Powered by FIWARE” services.

The assessment of the two aspects above was conducted on the basis of relevant metrics, known as Key Performance Indicators (KPIs), by asking direct feedback from the end-users. In order to collect feedback in a standardised way, two questionnaires were compiled and distributed to the relevant stakeholders. The first questionnaire intended to assess the services developed themselves and the second questionnaire was related to FIWARE technology. Each questionnaire contains qualitative questions to study specific traits of each aspect, i.e., indicators of excellence in a specific function or performance field, such as component integrity, configuration, ease of installation, usefulness and usability, potential of integration with third-party systems, and data model integration. Further to the predefined questions, the recipients were asked to provide open feedback, aiming to gather information about advantages and disadvantages of the technology assessed as well as suggestions for their further development and improvement.

This document reports the results of the above assessment procedure for the services and FIWARE technology deployed at each demo case, providing also overall scores and insights at project scale. Furthermore, it presents the general comments, insights and lessons learned from the deployment of FIWARE-enabled solutions, along with their potential impacts, as well as suggestions for progress beyond F4W project. Particularly for FIWARE technology, the open feedback, which was provided directly by the developers involved in the deployment procedures at each demo case, delivers a valuable list of recommendations and suggestions for further development and improvement.

The European Added Value (EAV) of this report comes from different perspectives. First, it provides the results of the assessment, insights and lessons, directly from the end-users, of a wide range of operational FIWARE-enabled services that were implemented to address different, though typical, challenges of the water cycle in different European countries. Undoubtedly, this information is a valuable source of prior knowledge for the deployment of similar developments in other countries and operational cases. The same also stands for FIWARE technology, since this report summarises the assessment of different components from FIWARE ecosystem, as implemented to integrate services and legacy systems of different characteristics and peculiarities. Furthermore, this report contributes to the further overall upgrade of FIWARE technology, via insights and suggestions directly from the developers. Finally, the questionnaires compiled to support the assessment of services and FIWARE can be extended, or deployed in their current form, to assess similar developments in other projects.

Related Deliverables

D3.1, D3.2, D3.3, D3.4, D3.5 – Describing the development of smart applications for the 4 demo cases.

D4.1, D4.2, D4.3, D4.4, D4.5 – Describing the deployment and implementation of FIWARE-enabled solutions at 4 demo cases.

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List of Acronyms/Glossary

CB	Context Broker
EAV	European Added Value
F4W	Fiware4Water project
F4W-AV	Added-value of F4W services as a whole
IG	Integrity
IT	Information technology
KPIs	Key Performance Indicators
NGI	Next Generation Internet <i>The Next Generation Internet (NGI) initiative, launched by the European Commission in the autumn of 2016, aims to shape the future internet as an interoperable platform ecosystem that embodies the values that Europe holds dear: openness, inclusivity, transparency, privacy, cooperation, and protection of data.</i>
TF	Technical Functionality
TRL	Technology Readiness Level
UB	Usability
UI	User Interface
UF	Usefulness
UL	User learning and support
WPL	Work Packages Leaders
WP	Work Package