Water Works 2015-2020 in Support of the Water JPI
ERA-NET Cofund Action

WATER-3-2015: Stepping up EU research and innovation cooperation in the water area

Creation of a Networking Platform with "A la carte" options for Infrastructure Actions dedicated to the WaterJPI

(WP7, Deliverable 7.4)

December 2020

OUTPUT SUMMARY	
Project Information	
Project Title:	Water Works 2016-2020 in Support of the Water JPI (WaterWorks2015) - Sustainable water use in agriculture, to increase water use efficiency and reduce soil and water pollution
Project Acronym:	WaterWorks2015
Call Identifier:	WATER-3-2015: Stepping up EU research and innovation cooperation in the water area
Starting Date:	01/01/2016
End Date:	31/12/2021
Web-Site Address:	http://www.waterjpi.eu/
Coordinator:	Maurice HERAL
Management Team:	Juliette ARABI, Véronique BRIQUET-LAUGIER, Simon COULET, Armelle MONTROSE, Larissa VARGAS, Elçin SARIKAYA
E-Mail:	WW2015secretariat@agencerecherche.fr
Deliverable Title:	Creation of a Networking Platform with ‘‘A la carte’’ options for Infrastructure Actions dedicated to the Water JPI
Deliverable Number	D7.4
Work Package:	WP7: Additional Activities on Implementation
WP leader:	National Institute for Environmental Protection and Research (ISPRA)
Nature:	Other
Dissemination:	Public
Editor(s):	Alessandro Lotti; Maria Chiara Sole
E-Mail(s):	alessandro.lotti@isprambiente.it; mariachiara.sole@isprambiente.it
Date of Delivery:	15 December 2020

Disclaimer

Acknowledgments

The Water JPI has received funding from the European Union's Horizon 2020 Programme for Research, Technological Development and Demonstration under Grant Agreement n°689271 (WaterWorks2015). We also wish to acknowledge the invaluable contribution from all of the invited workshop speakers and attendees, the WaterWorks2015 ERA-NET Cofund partners, the Water JPI Governing Board, as well as the European Commission funding.

Table of Contents

List of abbreviations

- CMS – Contents Management System
- ESFRI - European Strategic Forum for Research Infrastructures
- JPI - Joint Programming Initiative
- MERIL - Mapping of the European Research Infrastructure Landscape
- MSCA - Marie Sklodowska-Curie Actions
- RI – Research Infrastructure
- RDI - Research, Development and Innovation
- SRIA – Strategic Research and Innovation Agenda

Executive Summary

The following document is a Manual for the Platform with ‘‘A la carte’’ options for Research Infrastructures Actions dedicated to the Water JPI (Deliverable 7.4). In its Implementation Plan, the Water JPI identified Mobility schemes and Research Infrastructures (RI), as other relevant instruments, in order to support the activities of the Water JPI community. For this reason, the development of the platform was included in the additional activities of the ERA-NET Cofund programme **WaterWorks2015** ((Work Package 7, Task 7.2).

Infrastructure actions refer to facilities, resources and related services used by the RDI community in conditions of excellence. The Water JPI Infrastructures Platform is developed with the aim to support and facilitate the dissemination of information, to promote active collaboration among institutions and to provide access to world-leading research infrastructures that will enable excellent interdisciplinary research in water topic.

This Manual aims to provide information about the platform contents and how to use and access the tool.

The first section of this report is focused on the technical specifications of the RI Platform such as the Content Management System applied, the plugins implemented within the platform, how to login and start editing pages.

The second part is dedicated to the platform sections, their contents and the tools available with the aim to support the users in using the platform.

I. Introduction to the Water Joint Programming Initiative and the ERA-NET Cofund WaterWorks2015

The Competitiveness Council of the European Union agreed on the launch of Joint Programming Initiatives (JPIs) in 2008. JPIs were at the time conceived to support the new means of European cooperation in response to the perceived limitations of the policy instruments available at the time. Even though the Framework Programme had already achieved considerable success, as measured by the number of participations and collaborative projects, the lack of collaboration and coordination between national public Research, Development and Innovation (RDI) programmes had been reported within the RDI policy arena.

The Water JPI "Water Challenges for a Changing World" (http://www.waterjpi.eu/) was launched in December 2011 following a decision at the European Council of Competitiveness.

By June 2020, the Water JPI had brought together twenty-three partner countries and three observers, and its members account for 88 per cent of all European public RDI annual expenditure on water issues. One of the main key achievements of the Water JPI, since its approval by the European Member States in December 2011, is the high level of partner involvement in implementing joint transnational calls. The Water JPI acts as a facilitator of cooperation between countries on water research, supporting European and international water and environmental policy by coordinating and funding research on existing and emerging problems to come up with feasible solutions.

The Water Joint Programming Initiative (JPI), "Water Challenges for a Changing World" (www.waterjpi.eu), has published its new *Water JPI Vision 2030: Together for a Water-secure World* and Strategic Research and Innovation Agenda (SRIA) 2025. Four core themes will drive this agenda: (1) ecosystems, (2) health and wellbeing, (3) water value and usage and (4) sustainable water management.

The **WaterWorks2015** proposal responds to the Horizon 2020 (H2020) Societal Challenge 5 2015 Call topic Water-3 [2015]: Stepping up EU research and innovation cooperation in the water area. The ERA-NET Cofund **WaterWorks2015** aims at pooling resources from the 32 participating research programme owners/managers of 23 countries to implement a joint call for proposals, with EU co-funding in the area of sustainable water use in agriculture and forestry.

WaterWorks2015 will contribute specially to address the following challenges:

- Ensuring the provision of water resources for the agricultural, forestry and freshwater aquaculture sector in a context of global climate change and consumers' demands for more ecologically friendly products. The reuse of treated water from different sources (e.g. industries, cities) should be further exploited;
- Protecting humans against health risks if additional water sources, such as reuse, are made available;
- The more sustainable growth of the agriculture, forestry and freshwater aquaculture sectors whilst paving the way towards job creation in all these economic areas.

Furthermore, Additional Activities were also carried out to further support the implementation and strategy of the Water JPI. Within the ERA-Net Cofund programme **WaterWorks2015**, Work Package 7 focuses on Water JPI alignment activities aiming at improving the efficiency and effectiveness of the Water JPI community, such as Mobility and Infrastructure (T7.2).

Infrastructure actions refer to facilities, resources and related services used by the RDI community in conditions of excellence. The platform develops the joint creation, management, access and updating of infrastructures. The Water JPI Infrastructures Platform was developed with the aim to support and facilitate the dissemination of information, to promote active collaboration among institutions and to provide access to world-leading research infrastructures that will enable excellent interdisciplinary research in water topic.

II. Technical specifications of the Research Infrastructure Platform: the Content Management System (CMS)

Overview

The Content Management System (CMS) used for the Platform is WordPress. WordPress (WP, WordPress.org) is a free and open-source CMS written in PHP and paired with a MySQL or MariaDB database. Features include a plugin architecture and a template system, referred as Themes in WordPress. The platform, as interface and design, is aligned with other Water JPI tools and the Water JPI website.

Plugins

WordPress' plugin architecture allows admin users to extend the features and functionality of a website or blog. As of January 2020, WordPress.org has 55,487 plugins available, each of which offers custom functions and features enabling users to tailor their sites to their specific needs. These customizations range from search engine optimization (SEO), client portals used to display private information to logged-in users, content management systems, to content displaying features, such as the addition of widgets and navigation bars. Most plugins are available through WordPress itself, either via downloading them and installing the files manually via FTP or through the WordPress dashboard. However, many third parties offer plugins through their own websites, most of which are paid packages.

Page editor

About editing, WordPress editor is already implemented into the platform, otherwise it is possible to install a specific editor as tool for editing pages through the dashboard. It is possible to access all pages of the website for editing through the WordPress dashboard when logged as administrator, by clicking on “Pages” section (see Figure 1).

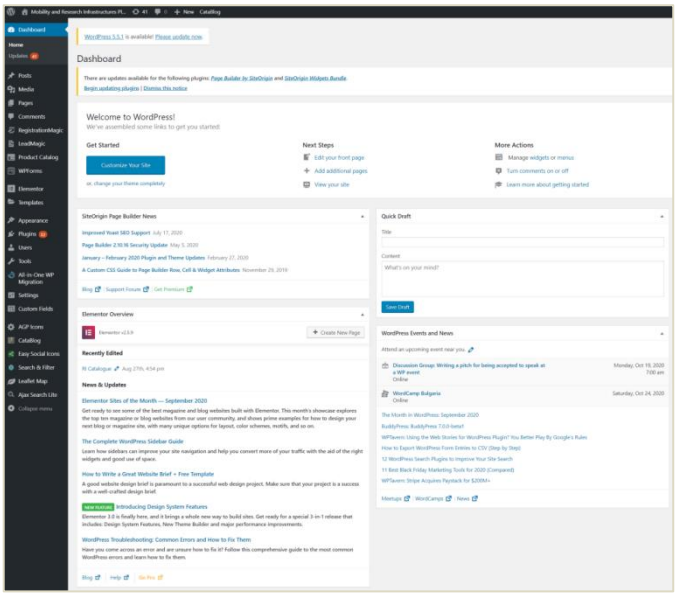

Figure 1 – WordPress dahsboard

III. Guidelines for the *public user*: contents and tools of the Research Infrastructures Platform

Home page

The Mobility and Research Infrastructures platform can be accessed at http://mriplatform.waterjpi.eu/

The platform style and design are user-friendly setting. On the top right hand corner, it is possible to link directly to Water JPI social pages. Moreover, the platform provides a search bar and clicking on "Home" section on main menu, it is possible to access different sections, including "About Water JPI" section (see Figure 2).

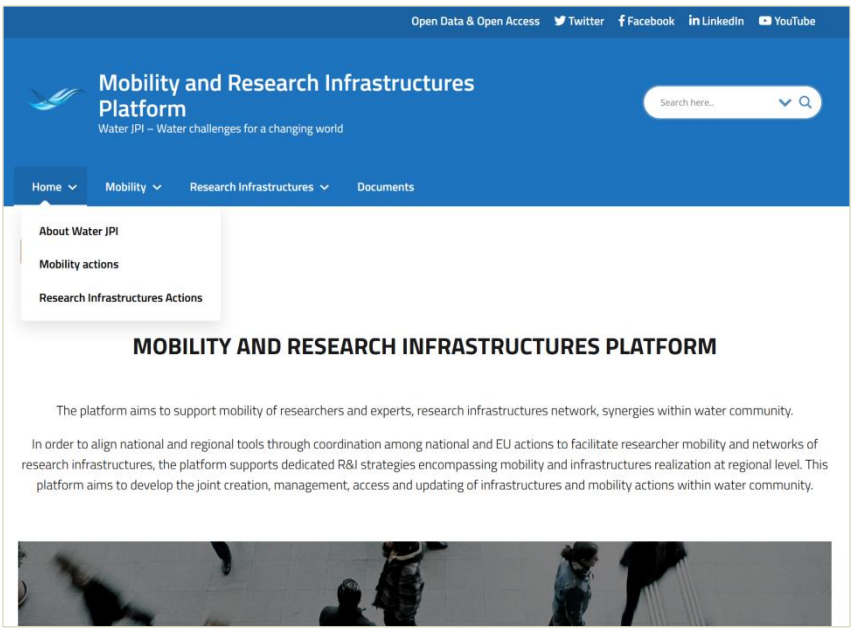

Figure 2 - Home page

Scrolling through the homepage it is possible to access Research Infrastructures section – focus of this document – by clicking on the related image (see Figure 3).

Figure 3 - Access to RI and Mobility sections

In the Home menu, two specific sections for existing Mobility and Research Infrastructures Actions present other existing mobility and research infrastructures platforms, such as Euraxess and Mapping of the European Research Infrastructure Landscape (MERIL), or funding programmes (e.g. ESFRI), which are important examples of best practices at European and international level (see Figure 4 for Research Infrastructures Actions).

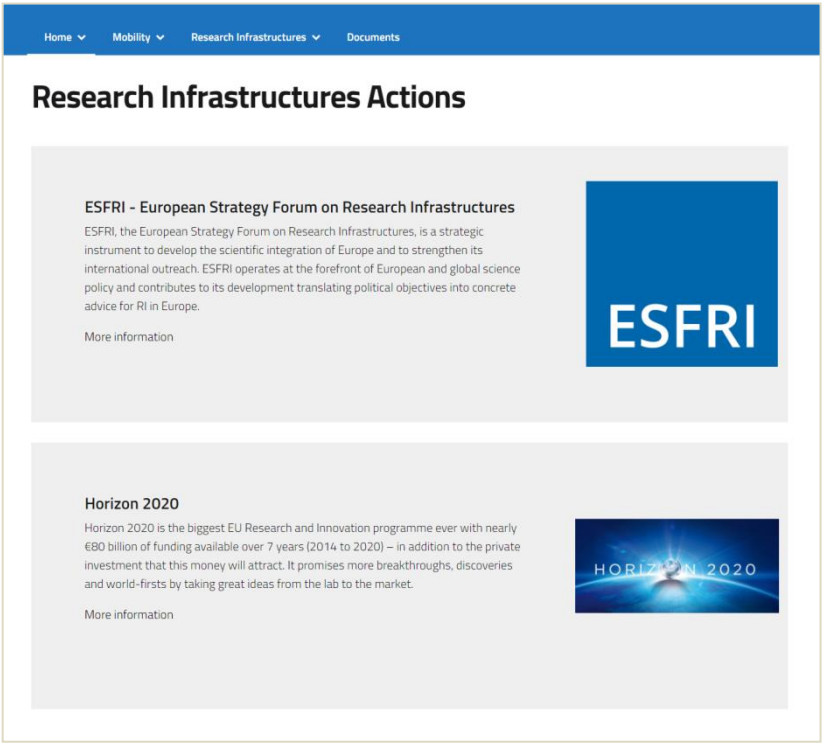

Figure 4 - Water JPI platform network for research infrastructures

About Water JPI

In order to maximize the potential impact of the information platforms, direct link with Water JPI SRIA themes has been set up as well as in the RIs description or searching filters in the RIs catalogue.

Furthermore, a specific section about Water JPI and 2025 SRIA Themes are also available (see Figure 5).

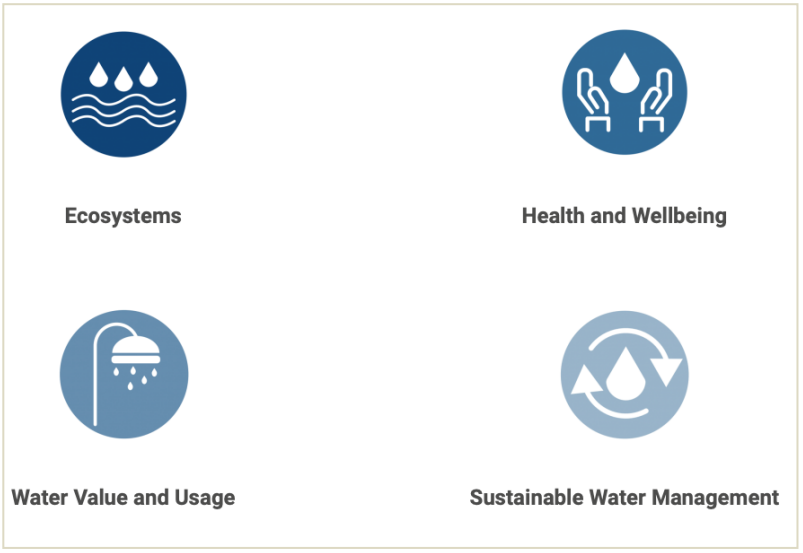

Figure 5 - Water JPI SRIA Themes

Research Infrastructures section

There are two subsections in the Research Infrastructures section (see Figure 6):

- RI Catalogue: An online catalogue where the user can browse all RIs registered on the platform through a series of filters.
- RI Map: This catalogue can be consulted through the map

This section aims to provide a catalogue of water research infrastructures at national, European and international level in order to foster collaboration and promote access to these infrastructures.

Figure 6 - Research Infrastructures section

It is possible for user to register a RI platform by filling out a form accessible using the link shown in Figure 7.

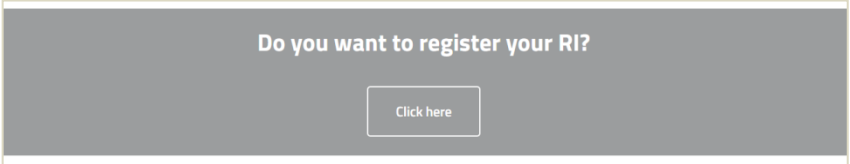

Figure 7 – Link to registration form for RIs

The information to provide on the form (see Figure 8) is:

- **RI Full Name**: Provide the name of the research infrastructure
- **RI Acronym**: Acronym of the research infrastructure
- **Description**: Provide a short description of the research infrastructure
- **Current Status of the research infrastructure**. Indicate the Legal status, operation, preparation, etc. (it's based on ESFRI status level) Additional information: status of ESFRI project: current time line (e.g. Preparation Phase 2016-2019)
- **References**: website and official references contact
- **Keywords related to the research infrastructure**.
- **Keywords related to Water JPI RDI themes**: choose keyword related to Water JPI priority themes.
    - Ecosystem services
    - Ecological engineering
    - Ecohydrology
    - Hydro-climatic extreme events adaptation
    - Emerging contaminants
    - Antimicrobial resistance
    - Water infrastructures

    - Climate changes
    - Sustainable water demands
    - Resource management
    - Water technologies
    - Water-smart circular economy
    - Water use
    - Resilience and sustainability
    - Other
- **Domains and thematic area**: Select specific domain and thematic are covered by the RI :
    - Ecosystems
    - Health and Wellbeing
    - Water Value and Usage
    - Sustainable Water Management
    - Other. If you select ‘‘Other’’ please specify the domain
- **Social Networks**: Facebook, LinkedIn, Twitter and YouTube
- **RI type**: Single-site, Distributed, e-Infrastructure
- **Services provided**: Select types of services provided:
    - Access to archive material
    - Access to monitoring sites
    - Numerical modeling
    - Access to data and metadata
    - Training services
    - Knowledge transfer
    - Multi-scale analysis
    - Upstream processing of satellite data
    - Data management
    - Remote-controlled computing capacity
    - Logistic and technical support
    - Grid computing services
    - Other. If you select ‘‘Other’’ please specify the service provided
- **Equipment:** Select the Equipment provided:
    - Hydraulic laboratory
    - Virtual collaboration arena
    - Observation networks and tools
    - Environmental analysis infrastructures
    - Cloud/Data Storage
    - Numerical modelling
    - Physical modelling
    - Images analysis system
    - Other. If you select ‘‘Other’’ please specify the equipment provided.
- **Location**: Location of RI. In case of distributed the research infrastructure indicate the headquarter address, City and Country.
- **Level of access**: Specify if national, Transnational or Virtual/Remote access
- **Modality of Access**: Who can access and how
- **Free/Paid access**: Specify if the access is free or a fee is required
- **RDI Projects**: List all RDI projects linked to the research infrastructure

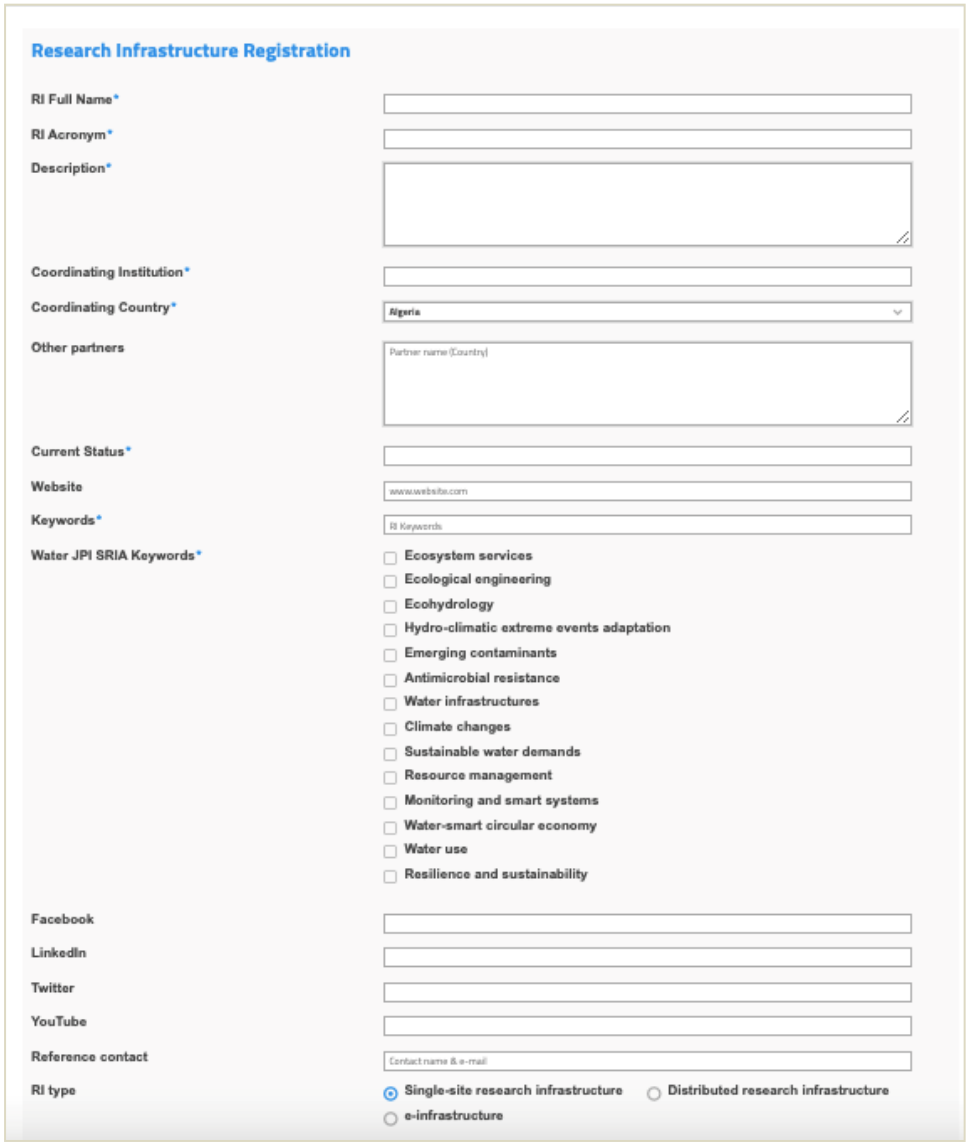

Figure 8 - RIs registration form

Research Infrastructures Catalogue

The catalogue presents all water related Research infrastructures and a research bar will allow filtering and searching for a specific RI based on the following categories (see Figure 9):

1. Keywords related to Water JPI RDI themes
    - Ecosystem services
    - Ecological engineering
    - Ecohydrology
    - Hydro-climatic extreme events adaptation
    - Emerging contaminants
    - Antimicrobial resistance
    - Water infrastructures
    - Climate changes
    - Sustainable water demands

- Resource management
- Water technologies
- Water-smart circular economy
- Water use
- Resilience and sustainability
- Other

2. Services provided:
    - Access to archive material
    - Access to monitoring sites
    - Numerical modeling
    - Access to data and metadata
    - Training services
    - Knowledge transfer
    - Multi-scale analysis
    - Upstream processing of satellite data
    - Data management
    - Remote-controlled computing capacity
    - Logistic and technical support
    - Grid computing services
    - Other

3. Equipments:
    - Hydraulic laboratory
    - Virtual collaboration arena
    - Observation networks and tools
    - Environmental analysis infrastructures
    - Cloud/Data Storage
    - Numerical modelling
    - Physical modelling
    - Images analysis system
    - Other

4. Domains and thematic area
    - Ecosystems
    - Health and Wellbeing
    - Water Value and Usage
    - Sustainable Water Management
    - Other

5. Country: (By the search bar)
6. Keywords: (By the search bar)

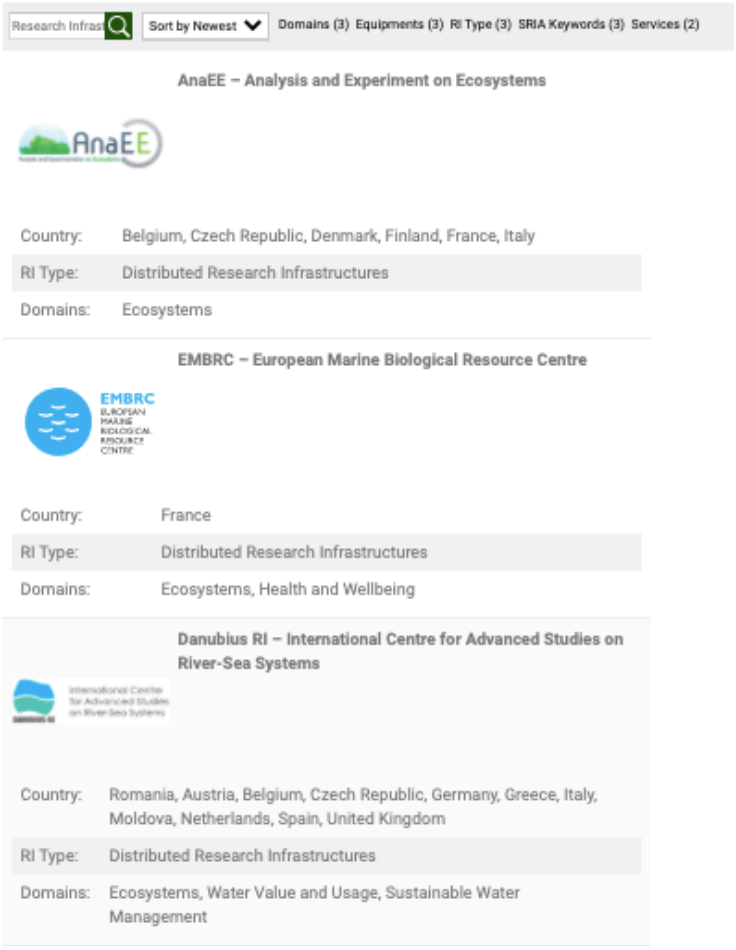

Figure 9 - RIs catalogue

Research Infrastructures Map

The RI Map section allows the user to browse all RIs registered on the platform through an interactive map. The map shows RI location for single-site RI or headquarters RI for distributed research infrastructures (see Figure 10). By clicking on the specific RI the user will be redirected to RI catalogue element.

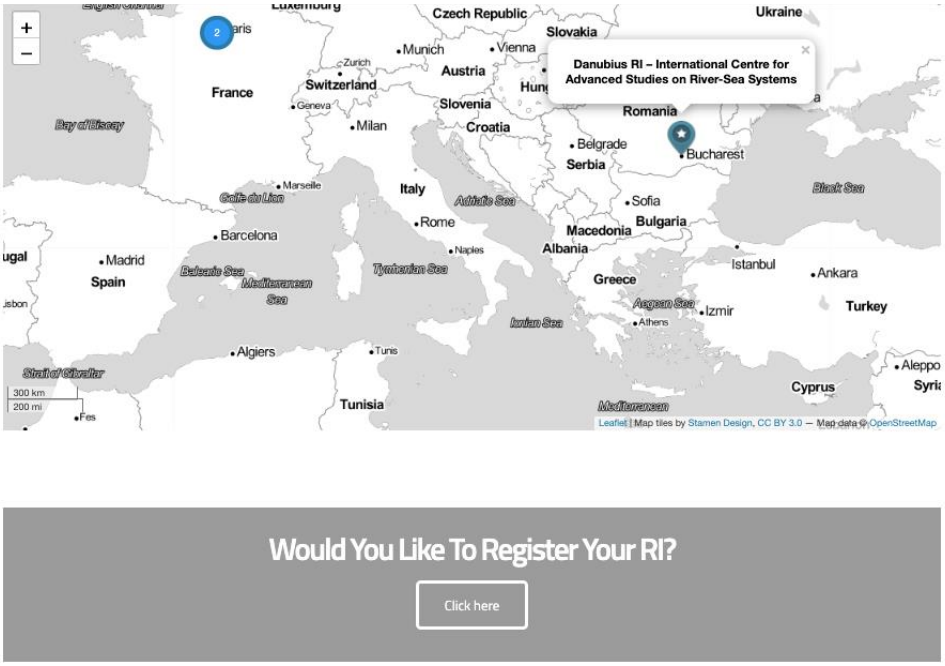

Figure 10 - Research Infrastructures Map

Documents section

The last section of the platform is the document section, which contains a list of documents and deliverables following the two workshops held in Rome in 2018 and 2019. These documents are proceedings of both workshops containing feedback and outputs collected to inform the development of the RI platform (see Figure 11). On this section, it is also possible to access the document library of the Water JPI website.

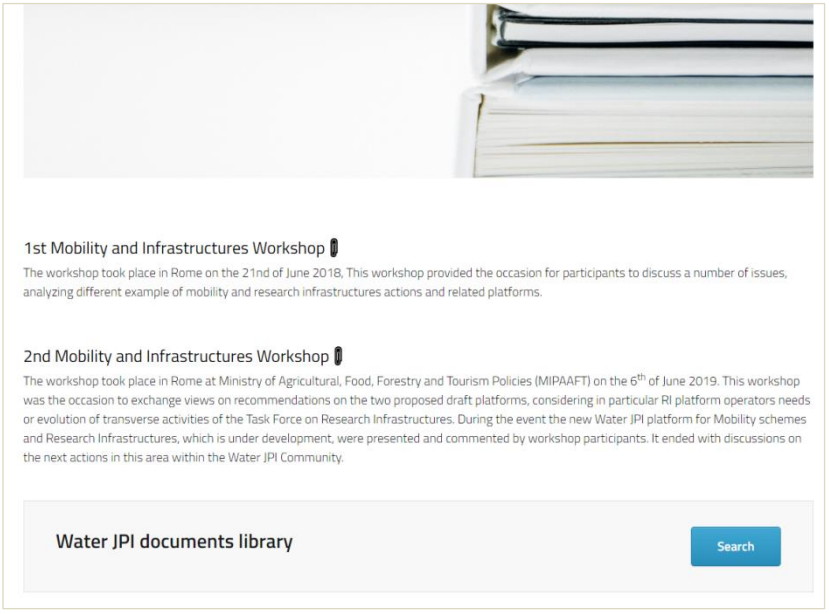

Figure 11 - Documents section

IV. Data policy

The Mobility and Research Infrastructures platform (http://mriplatform.waterjpi.eu/) is a Water JPI product and due to that, in accordance with Water JPI data policy, the protection of personal data and information complies with the EU General Data Protection Regulation 2016/679 (GDPR). Personal data and information will only be publicly available/visible after previously agreed, as specified in the Water JPI Data Policy.