Integration and dissemination of aquatic biodiversity and ecosystem service data for case studies focusing on ecosystem-based management

Aaike De Wever, **Astrid Schmidt-Kloiber**, Juan Arévalo Torres, Declan Dunne, Ana Luisa Barbosa, Koen Martens, Alejandro Iglesias Campos

The AQUACROSS project has received funding from the European Union's Horizon2020 for Research, Technological Development and Demonstration under Grant Agreement Number 642317.

What is this all about ?

The AQUACROSS project

- Knowledge, Assessment and Management for AQUAtic Biodiversity and Ecosystem Services aCROSS EU policies
- Horizon 2020 project
- 2015 to 2018
- 16 partners
- coordinated by

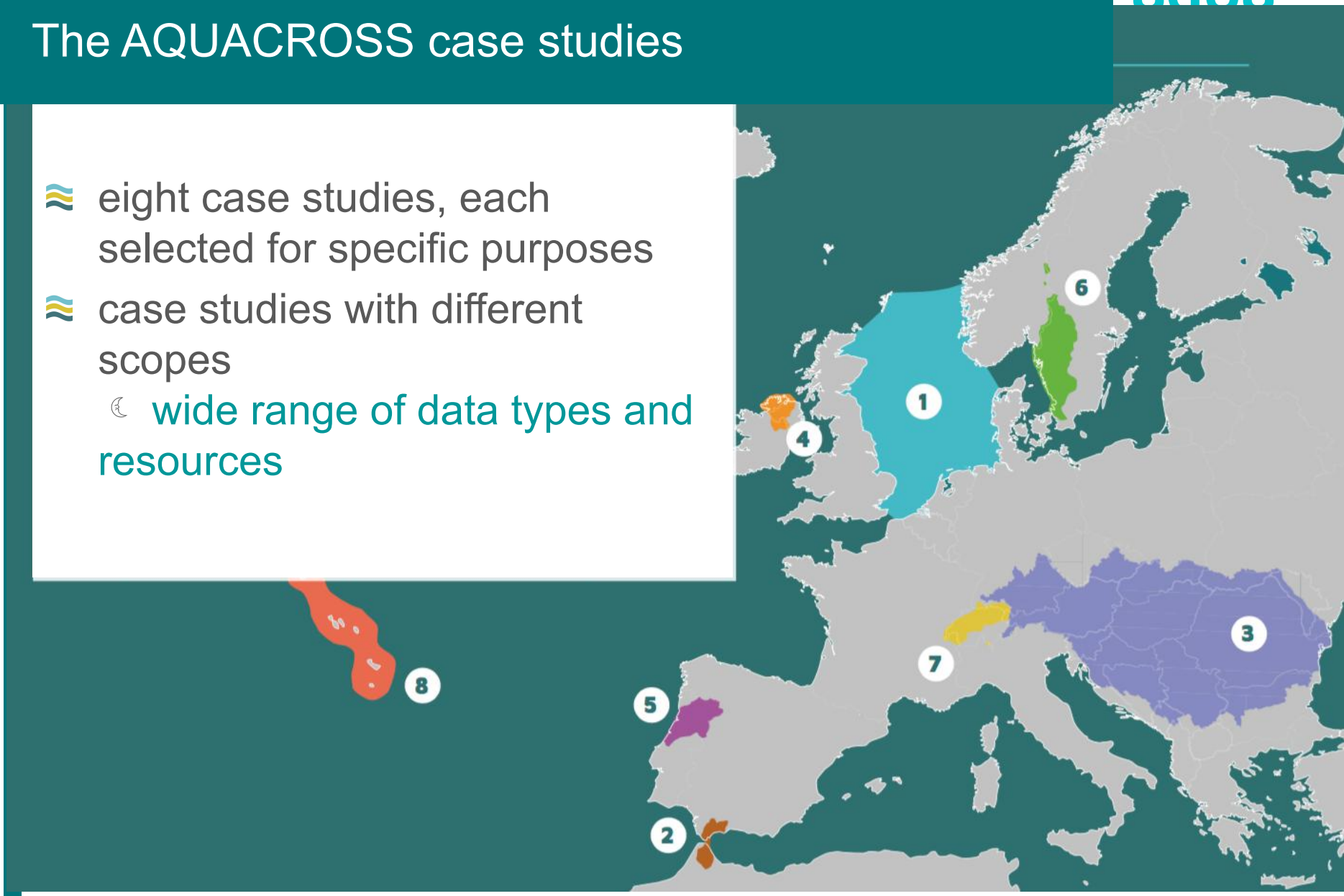
The AQUACROSS project – aims

- to support EU efforts to protect aquatic biodiversity and ensure the provision of aquatic ecosystem services
  - advance knowledge and application of ecosystem-based management (EBM)
  - support the timely achievement of the EU 2020 Biodiversity Strategy targets
- to develop and test an assessment framework which considers the full array of interactions within aquatic ecosystems

How did we approach it?

The AQUACROSS case studies

- eight case studies, each selected for specific purposes
- case studies with different scopes
  - wide range of data types and resources



How did we manage data?

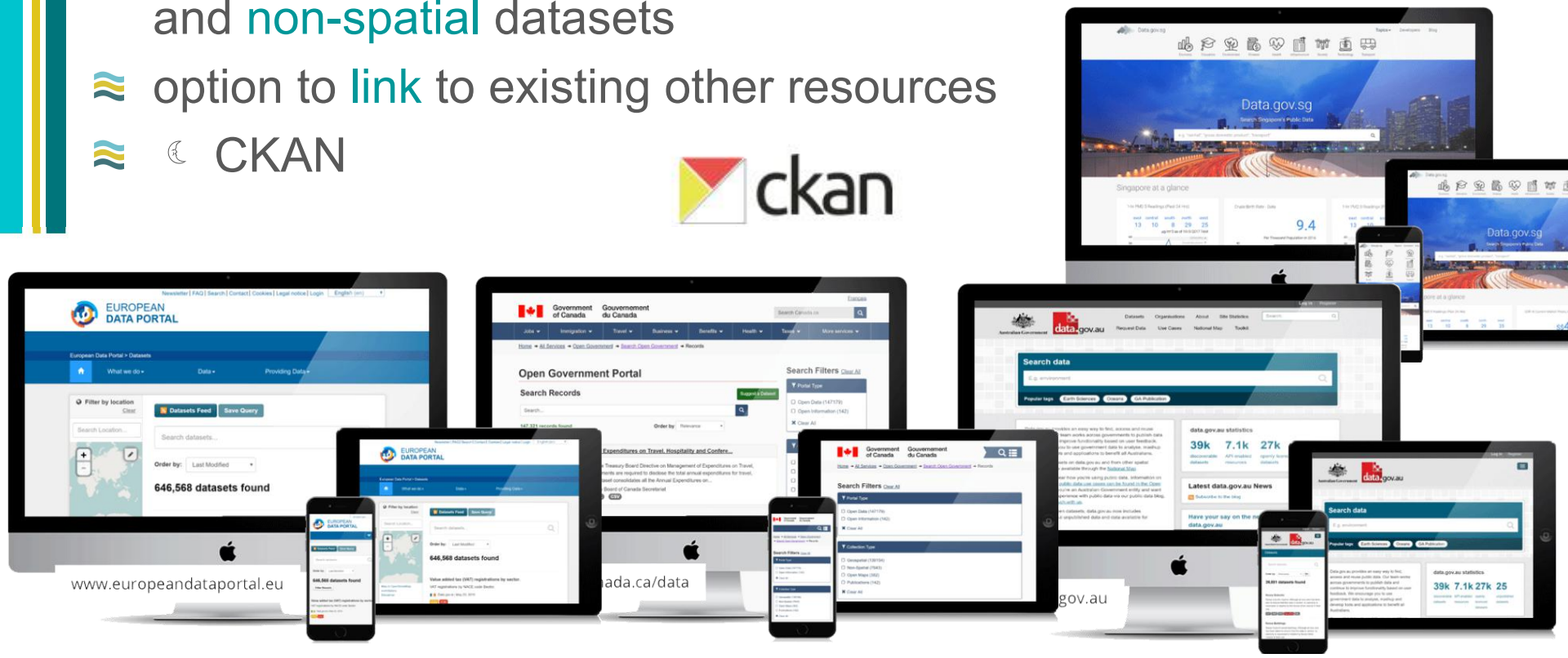
The AQUACROSS Information Platform (IP) – aims

- implement an online tool that allows the cataloguing, interrogation, manipulation, and visualisation of diverse datasets and documents on water and biodiversity
- provide project partners with a tool and data repository to support the case study work and the implementation of the project
- provide the end-user community with a knowledge platform to search for and visualise (geospatial) data, metadata and other relevant resources related to aquatic (freshwater, marine and coastal) ecosystem and biodiversity management at the European level

Which were the main challenges?

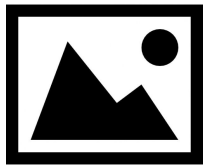
The AQUACROSS IP – challenges

- variety of requirements
- diversity of resources/data that need to be handled
- open access (H2020 Open Data pilot)
- option to upload existing and new spatial and non-spatial datasets
- option to link to existing other resources
  - CKAN



The AQUACROSS IP – CKAN functionalities

- powerful search engine
- manage and publish data
  - metadata system
  - file store
  - data store
- search and discover data
  - built-in visualisation tools
  - geospatial features
- easy extensions
- API function
- open source; project development work on GitHub



photos & videos

tabular data

technical reports & publications

geospatial datasets

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Popular tags
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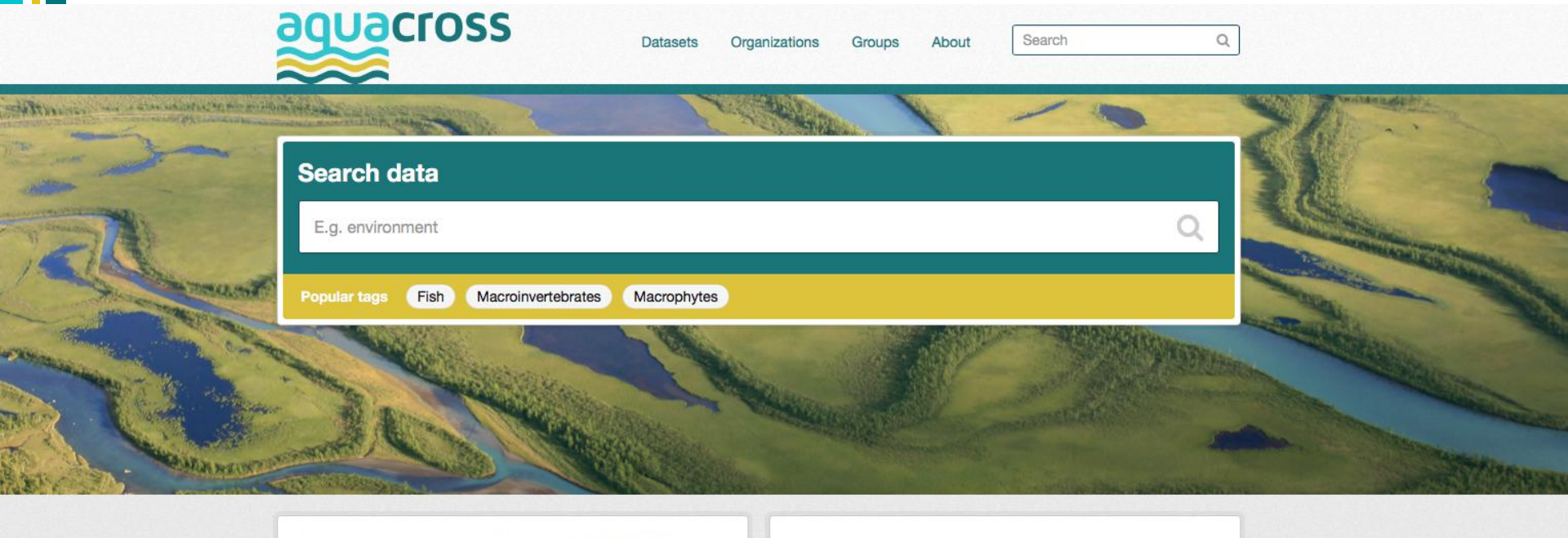
Macrophytes
Welcome to the Information Platform of the AQUACROSS project, which seeks to advance the application of ecosystem-based management for aquatic ecosystems in an effort to support the timely achievement of the EU 2020 Biodiversity Strategy and other international conservation targets.
This platform aims to provide open access to a wide range of resources related to aquatic (freshwater, marine and coastal) ecosystem and biodiversity management at the European level. The primary focus is on data used in the various project Case Studies and Work packages, and resulting maps, model outputs and tools.
As most of this work is on-going, new resources will gradually be uploaded to this Information Platform. We also welcome suggestions from external visitors on relevant datasets that could be linked to the platform at: aquacross.IP (at) unesco.org.
CKAN statistics
532
datasets
17
organizations
8
groups
AQUACROSS Information Platform Survey
AQUACROSS Information Platform Manual
AQUACROSS Project Website
dataportal.aquacross.eu

What can I do with this Information Platform?

Using the AQUACROSS IP

- browse contributing organisations and case studies of the AQUACROSS project
- search and find, explore and visualise data on aquatic biodiversity and ecosystem services
- upload and publish your own datasets



How can I search & find data?

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Datasets | Organizations | Groups | About | Search

/ Groups

What are AQUACROSS Groups?

You can use AQUACROSS Groups to create and manage collections of datasets. The dasasets have been organized by project case studies and work packages, as a very simple way to help people find and search your own published datasets.

Add Group

Search groups...

8 groups found

Order by: Name Ascending

Case Study 3: Danube River Management Area

The main focus in terms of the Danube CS3 at the whole basin scale will be on...

172 Datasets

Case Study 2: Intercontinental Biosphere Reserve of the Mediterranean

This case study is carried out at the Intercontinental Biosphere Reserve of...

22 Datasets

Case Study 4: Lough Erne Management Area

The overall goal of this study is to examine the implications of the...

3 Datasets

Case Study 1: North Sea

Case Study 6: Rönne River Management Area

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Datasets Organizations Groups About Search

/ Groups / **Case Study 3: Danube River ...**

Case Study 3: Danube River Management Area

The main focus in terms of the Danube CS3 at the whole basin scale will be on hydro-morphological pressures at catchment and regional scales, focusing on alterations in... read more

Followers **1**

Datasets **172**

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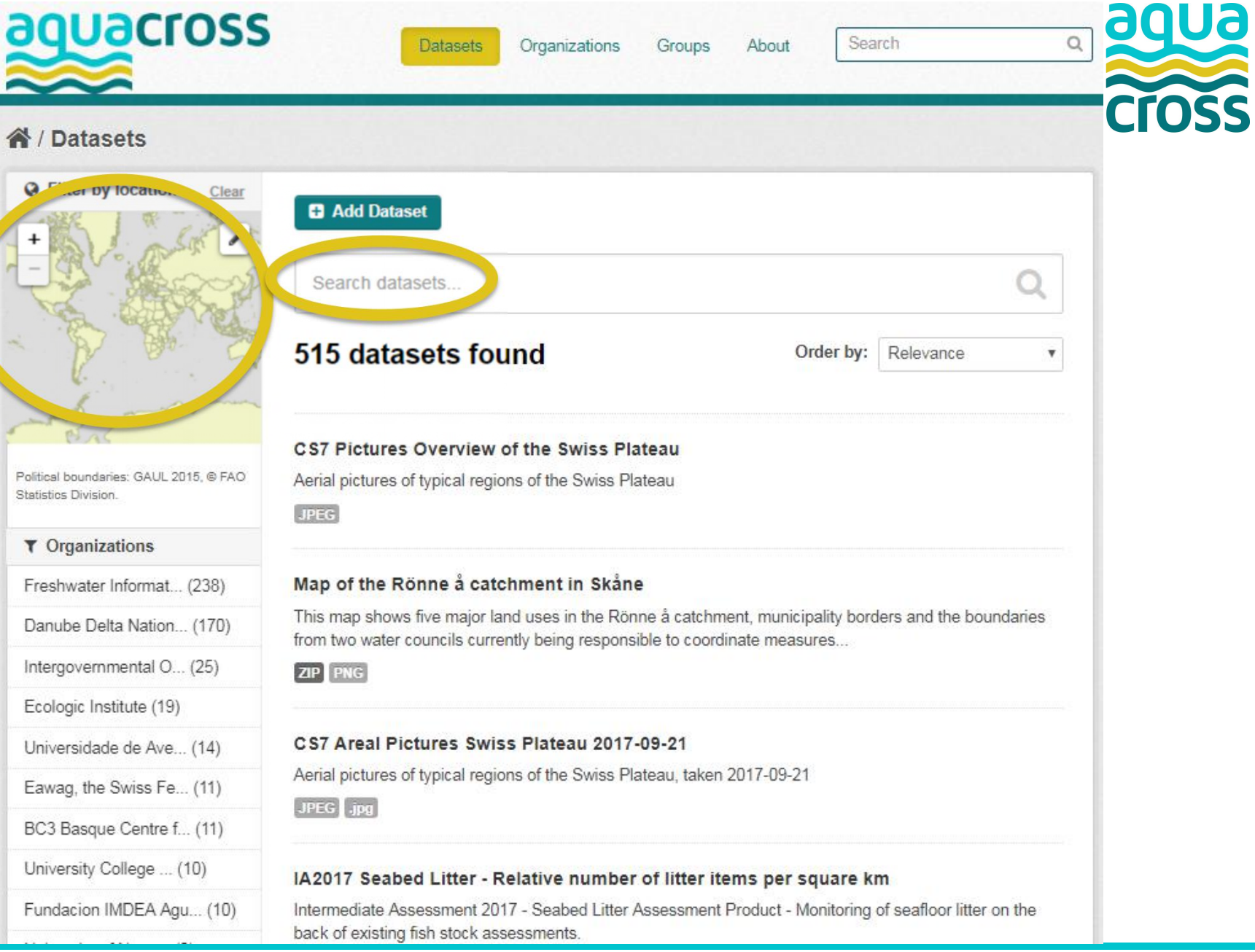
Datasets Activity Stream About Manage

Case Study 3: Danube River Management Area

The main focus in terms of the Danube CS3 at the whole basin scale will be on hydro-morphological pressures at catchment and regional scales, focusing on alterations in longitudinal and lateral connectivity, and on the consequences of these. CS3 also includes the Danube Delta, where the effects of eutrophication are studied at regional scale, focusing on the impact of hydro-morphological alteration (lakes and floodplains along the Danube Delta's channels). Thereby, we explore trade-offs and synergies of biodiversity and ecosystem services related to hydro-morphological alterations of the River Danube and its tributary rivers. For more information please check: https://aquacross.eu/content/case-study-3-danube-river-basin-harmonising-inland-coastal-and-marine-ecosystem-management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Groups
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Organizations
Freshwater Informat... (238)
Danube Delta Nation... (170)
Intergovernmental O... (25)
Ecologic Institute (19)
Universidade de Ave... (14)
Eawag, the Swiss Fe... (11)
BC3 Basque Centre f... (11)
University College ... (10)
Fundacion IMDEA Agu... (10)
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CS7 Pictures Overview of the Swiss Plateau
Aerial pictures of typical regions of the Swiss Plateau
JPEG
Map of the Rönne å catchment in Skåne
This map shows five major land uses in the Rönne å catchment, municipality borders and the boundaries from two water councils currently being responsible to coordinate measures...
ZIP PNG
CS7 Areal Pictures Swiss Plateau 2017-09-21
Aerial pictures of typical regions of the Swiss Plateau, taken 2017-09-21
JPEG jpg
IA2017 Seabed Litter - Relative number of litter items per square km
Intermediate Assessment 2017 - Seabed Litter Assessment Product - Monitoring of seafloor litter on the back of existing fish stock assessments.

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Organizations

Danube Delta Nation... (170)

University of Natur... (2)

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Case Study 3: Danub... (172)

Tags

There are no Tags that match this search

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Order by: Relevance

Groups: Case Study 3: Danube River Management Area

Sites of DDBR (June 2017)

Map showing the distribution of the sites located in the Danube Delta Biosphere Reserve, investigated (for aquatic vertebrates) in 27 VI. 2017.

HTML .jpg .pdf

How can I explore and visualise data?

Hagilar River

Followers
1

Follow

Organization

INCDDD TULCEA

Danube Delta National Institute for Research & Development (INCDDD)

It is an autonomous, legal research-entity and a non-profit organisation.Its main objectives include the development of fundamental and applied research to provide scientific... read more

Social

Dataset Groups Activity Stream Manage

Hagilar River

Data and Resources

HTML **Hagilaru river (23 V. 2017)** Explore

DATA **Collage of image and maps with the Hagilaru river ...** Explore

PDF **metadata INCDDD dataset 95 .pdf version** Explore

Additional Info

Field	Value
State	active
Last Updated	14. Juni 2018, 10:45 (UTC+02:00)
Created	16. November 2017, 15:00 (UTC+01:00)
E-mail	torok_zsolt2004@yahoo.co.uk
Language	Eng
Abstract	Picture of Hagilar river – section nearby Denistepe Hill (Tulcea county, Romania).
Resource type	
Spatial representation type	
License	CC-BY-4.0
Classification	Environment
Creation date	2017-05-23
Publication date	2017-11-16

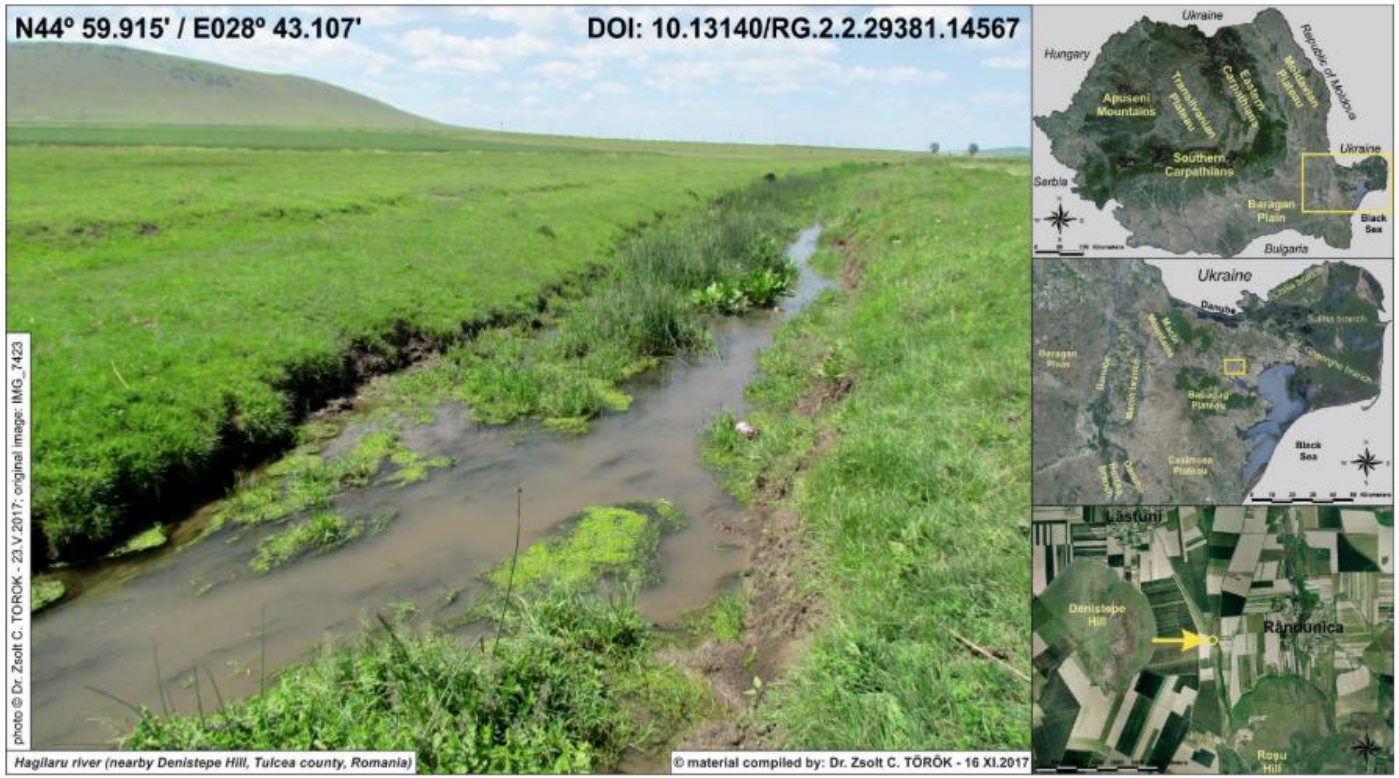
Manage Go to resource

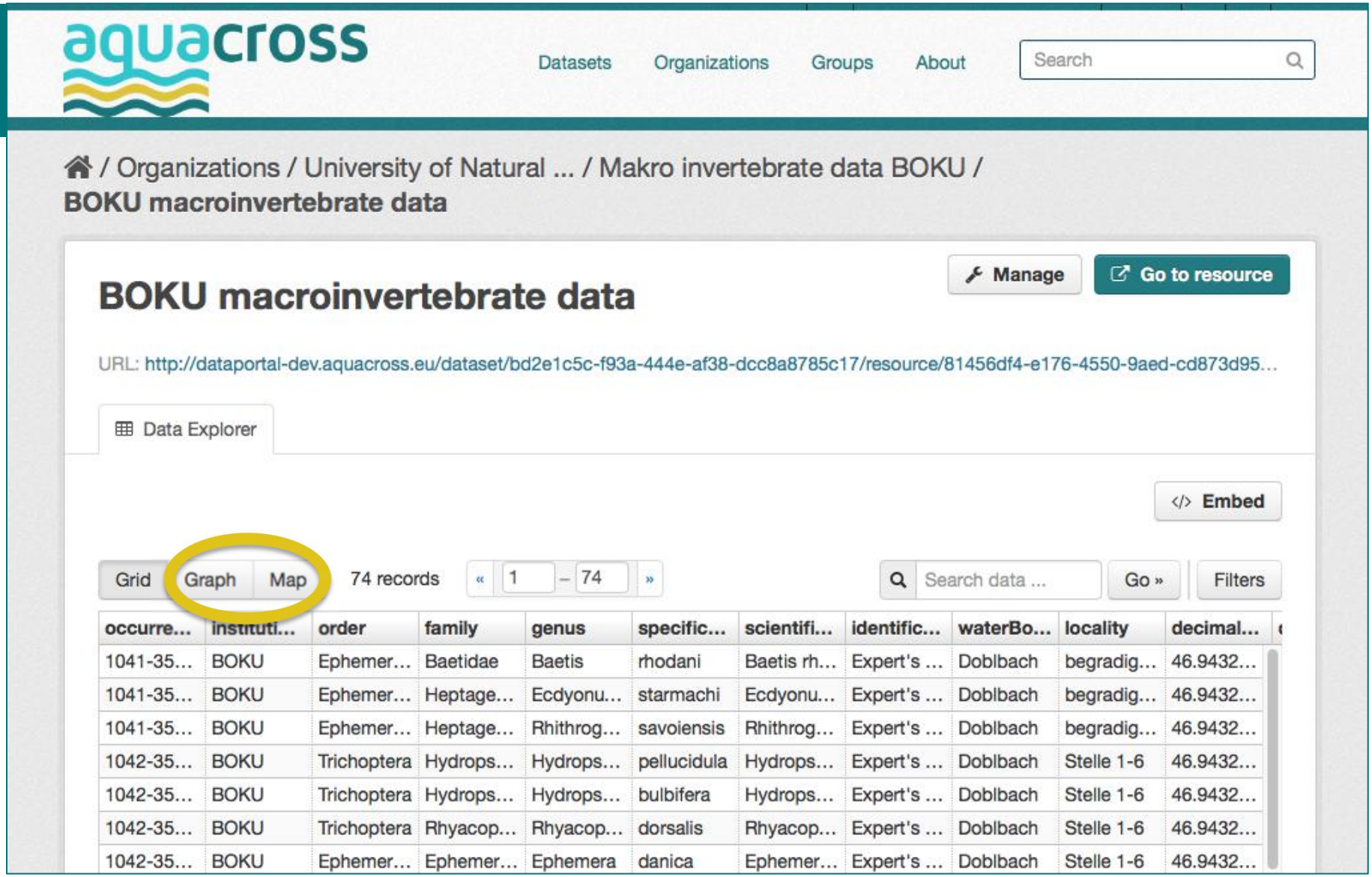
Collage of image and maps with the Hagilaru river ...

URL: http://dataportal.aquacross.eu/dataset/bbea47f3-3734-40cf-b310-7d3fef49e613/resource/a91dde42-c19e-460e-b836-ae16ed70d6b0...

Hagilar

Embed

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URL: http://dataportal-dev.aquacross.eu/dataset/bd2e1c5c-f93a-444e-af38-dcc8a8785c17/resource/81456df4-e176-4550-9aed-cd873d95...
Data Explorer
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Graph
Map
74 records
« 1 – 74 »
Search data ...
Go »
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1041-35... | BOKU | Ephemer... | Baetidae | Baetis | rhodani | Baetis rh... | Expert's ... | Doblbach | begradig... | 46.9432...
1041-35... | BOKU | Ephemer... | Heptage... | Ecdyonu... | starmachi | Ecdyonu... | Expert's ... | Doblbach | begradig... | 46.9432...
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1042-35... | BOKU | Trichoptera | Hydrops... | Hydrops... | pellucidula | Hydrops... | Expert's ... | Doblbach | Stelle 1-6 | 46.9432...
1042-35... | BOKU | Trichoptera | Hydrops... | Hydrops... | bulbifera | Hydrops... | Expert's ... | Doblbach | Stelle 1-6 | 46.9432...
1042-35... | BOKU | Trichoptera | Rhyacop... | Rhyacop... | dorsalis | Rhyacop... | Expert's ... | Doblbach | Stelle 1-6 | 46.9432...
1042-35... | BOKU | Ephemer... | Ephemer... | Ephemera | danica | Ephemer... | Expert's ... | Doblbach | Stelle 1-6 | 46.9432...

BOKU macroinvertebrate data

Go to resource

URL: http://dataportal-dev.aquacross.eu/dataset/bd2e1c5c-f93a-444e-af38-dcc8a8785c17/resource/81456df4-e176-4550-9aed-cd873d9564...

Data Explorer

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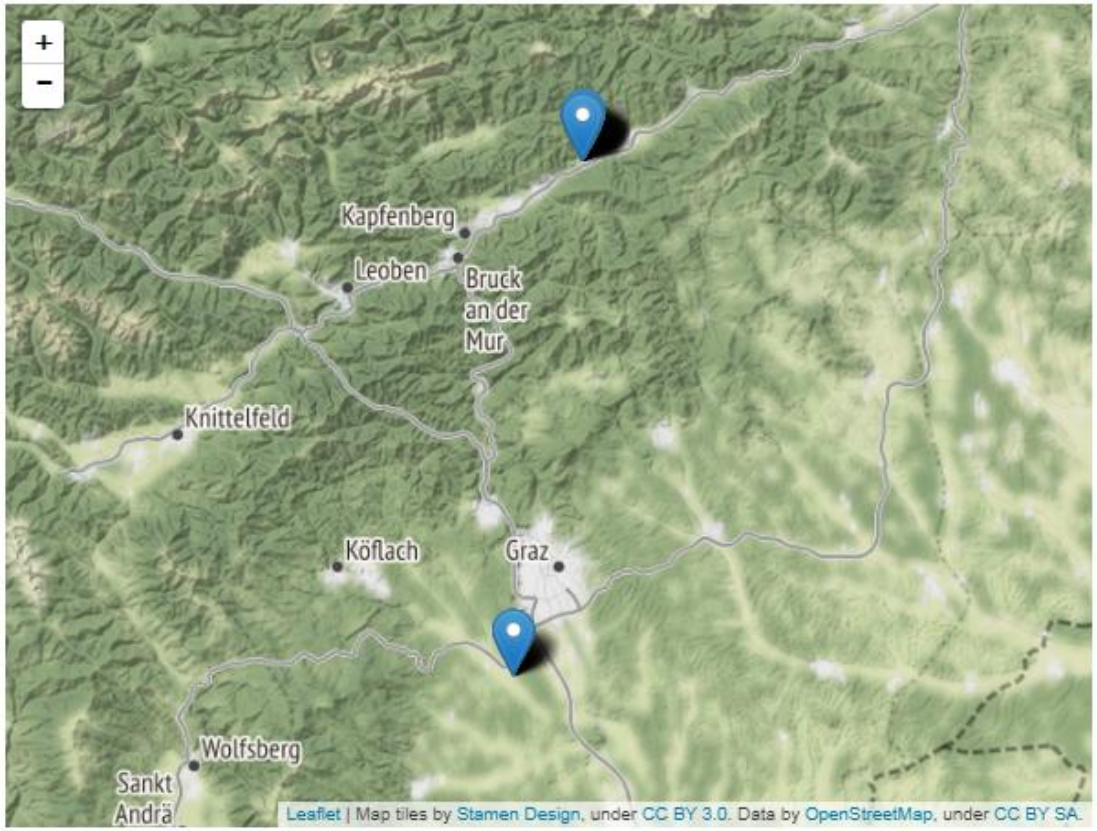
Grid | Graph | Map | 74 records | « 1 – 74 » | Search data ... | Go » | Filters



Latitude / Longitude fields

GeoJSON field

Latitude field

decimalLatitude

Longitude field

decimalLongitude

Update

Auto zoom to features

Cluster markers

How can I publish data?

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532
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17
organizations
8
groups
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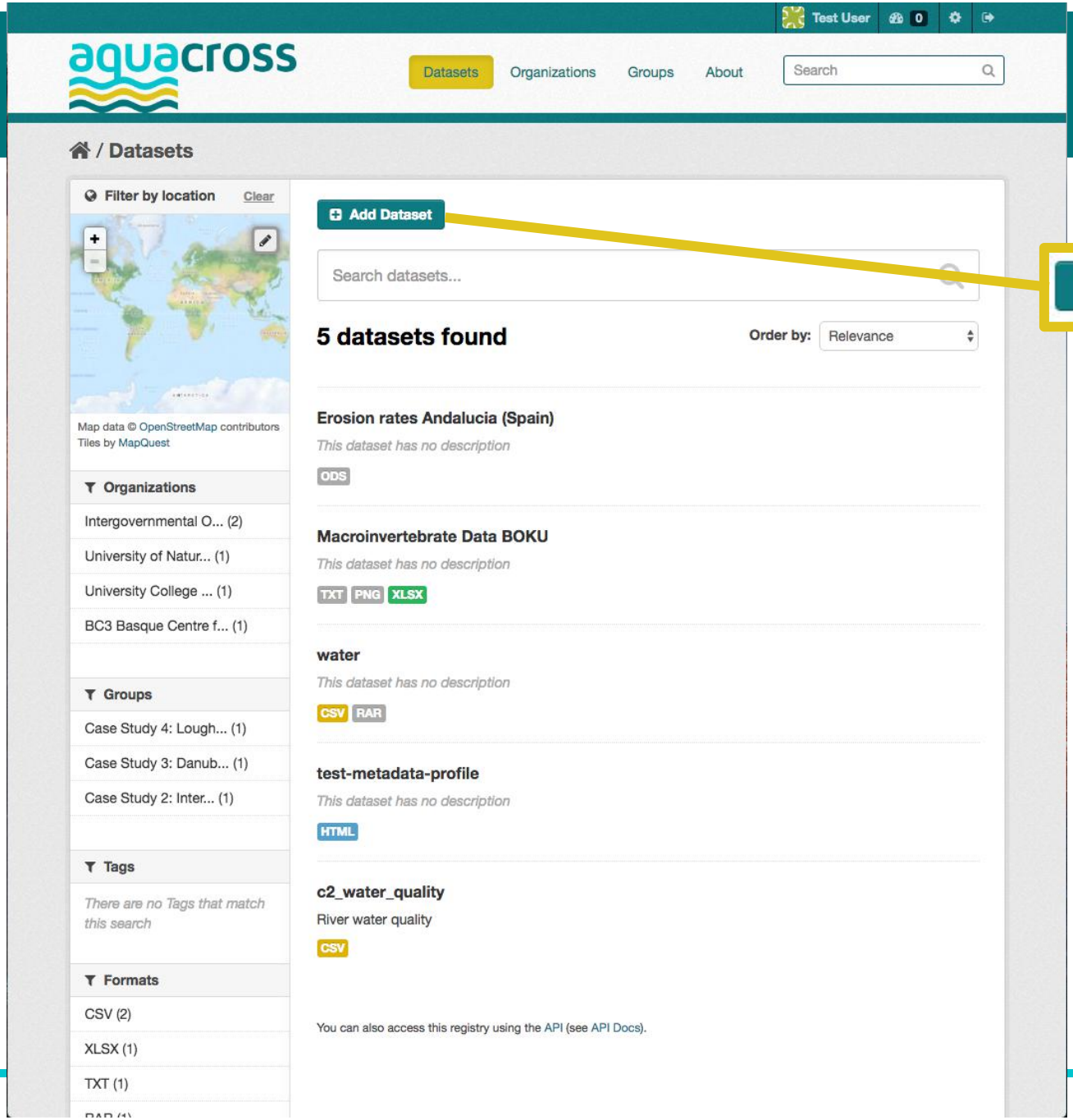
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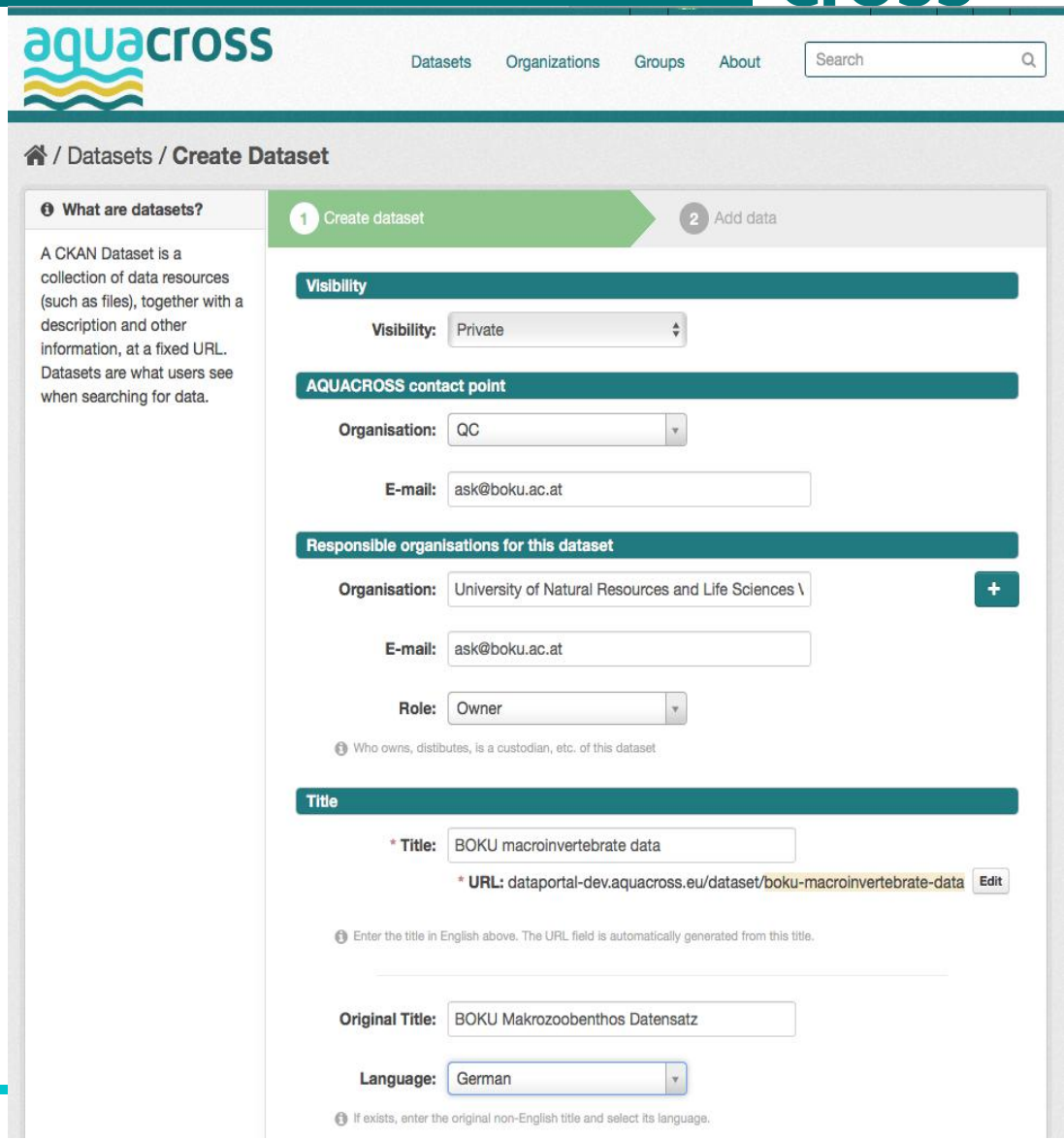
University College ... (1)
BC3 Basque Centre f... (1)
Groups
Case Study 4: Lough... (1)
Case Study 3: Danub... (1)
Case Study 2: Inter... (1)
Tags
There are no Tags that match this search
Formats
CSV (2)
XLSX (1)
TXT (1)
Add Dataset
Search datasets...
5 datasets found
Order by:
Relevance
Erosion rates Andalucia (Spain)
This dataset has no description
ODS
Macroinvertebrate Data BOKU
This dataset has no description
TXT PNG XLSX
water
This dataset has no description
CSV RAR
test-metadata-profile
This dataset has no description
HTML
c2_water_quality
River water quality
CSV
You can also access this registry using the API (see API Docs).

Add Dataset

The AQUACROSS IP – Metadata

- minimal requirements in terms of metadata
  - title
  - abstract
  - contact details
  - license
  - keywords
- one dataset: one or more resource(s)
- quality control through AQUACROSS team

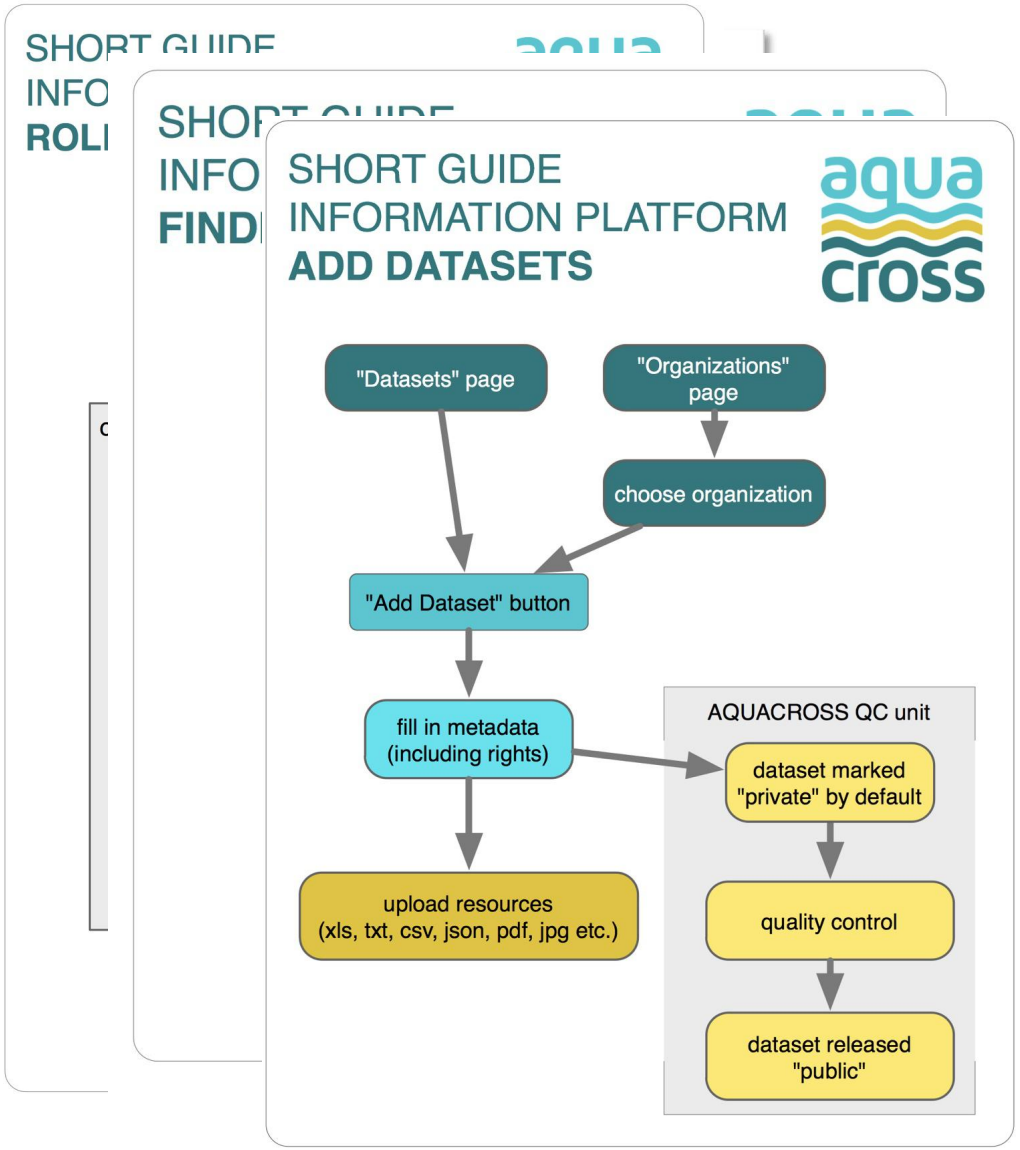


Where are we now?

The AQUACROSS IP – summary

- launch: July 2018
- datasets: 645
- organisations: 17
- groups (case studies): 8

- help and manual available



The AQUACROSS IP – and others

- interoperable with other existing European information platforms (for instance the European Data Portal)
- interoperable with third party GIS and statistical software (e.g. QGIS, R statistics)
- development of a custom harvester plugin to collect the data from the Freshwater Information Platform (based on CKAN harvester)

The AQUACROSS IP – summary

- developers and users satisfied with the IP and its functionalities
- user survey
  - more than 90% found the publishing process easier or as expected
  - around 80% were satisfied with finding and under-standing the instructions
- appreciation in the public and scientific community

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New open-access platform supports biodiversity

A new tool aids efforts to meet the EU's biodiversity targets. The recently lau allows scientists to share data about freshwater, coastal and marine ecosyst

With their rich biodiversity, aquatic ecosystems benefit our economy and society in many ways. However, human activities and pressures such as pollution, overfishing, invasive species and climate change are placing these aquatic ecosystems at risk and threatening their sustainability. To halt and reverse the loss of aquatic biodiversity, the EU has implemented a number of policies. But for them to be effective, there needs to be coordination and cooperation between different policy areas spanning freshwater, coastal and marine ecosystems, as well as innovative business solutions and public-private engagement.

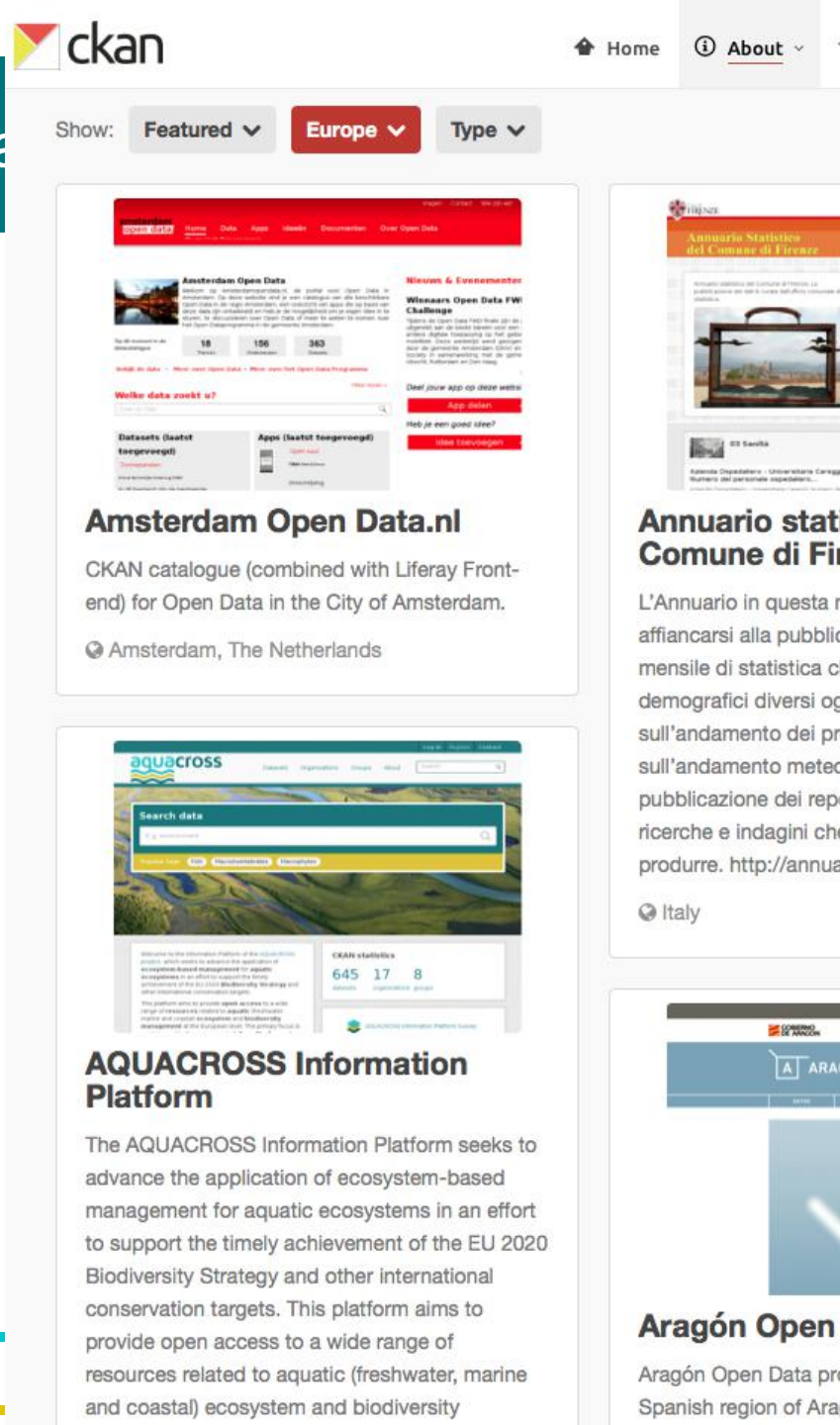
In 2015, the EU-funded AQUACROSS project was launched to support the EU's efforts knowledge and application of ecosystem-based management (EBM) for aquatic ecosy Biodiversity Strategy and other international conservation targets will be met in time.

Just recently, project partner UNESCO, and more specifically its Intergovernmental Oc launched the AQUACROSS Information Platform (IP) as part of these endeavours. Dev existing open-source software, the IP serves as a central access point for data on aqu and EBM practices.

What can we learn from it?

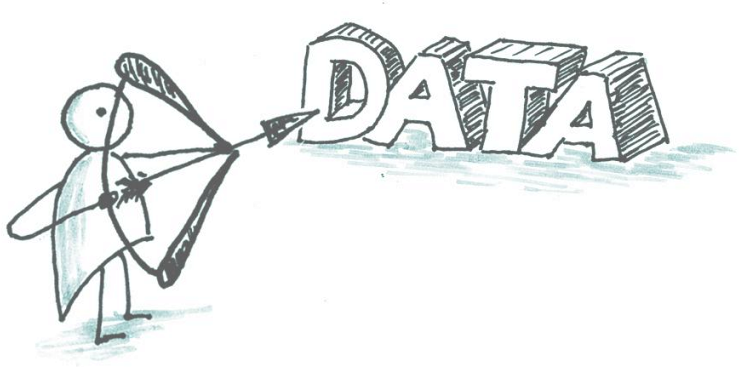
The AQUACROSS IP – lessons lea

- use of CKAN
  - excellent tool for making data and information visible and disseminating results
  - available for harvesting and integration in other CKAN installations
- included in the CKAN instances
- development process: communication is key if working with distributed teams



The AQUACROSS IP – lessons learnt

- developers and users satisfied with the IP and its functionalities, BUT…
- BUT: data needed
- successful data mobilisation needs extensive operational support for actively hunting for data
- sufficient resources for data mobilisation, data delivery and data processing



The AQUACROSS IP – lessons learnt

- process of publishing (uploading) data needs to be embedded in the entire project workflow
  - ensure timing of development work is well aligned with the project workflow
  - description of it in the proposal and Data Management Plan
- ensure close(r) link between project partners (case studies/workpackages) with the IP development team
- reduce reluctance to upload data
  - outline advantages (visibility, recognition, possibility of new research collaborations, etc.)
  - make it as easy and as clear as possible: avoiding any potential "ambiguity" about fields/terms by providing good default options and clear guidance

THANK YOU for your attention!

dataportal.aquacross.eu

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The AQUACROSS project has received funding from the European Union's Horizon2020 for Research, Technological Development and Demonstration under Grant Agreement Number 642317.