

PROJECT

FP 7
Climate
Digitalization
EU
Governance
Sustainability
Water

Sharing Water-related Information to Tackle CHanges in the Hydrosphere - for Operational Needs (SWITCH-ON)



[1]

Water touches virtually all societal and environmental domains. The knowledge domain is largely multidisciplinary. New water information and knowledge can thus lead to more efficient use of environmental services and better handling of environmental problems, including those posed by climate and environmental change.

The project SWITCH-ON explores and exploits the currently untapped potential of open environmental data to address water issues. Water information is of interest to many kinds of end-users, both within government and business as well as within civil society. SWITCH-ON will show the benefits achieved through the whole process chain. The project aims at re-purposing (re-using under different context) open data products into more water-dedicated and refined products. Those are considered to have high value and a broad impact on society.

Objectives

The main vision of the project is to ensure sustainable use of water resources and improve resilience to water related hazards. This should be reached through better governance, smart regulation, improved public services, efficient decision-making and business growth. This is based on new forms of collaborative research and innovative products and services.

SWITCH-ON aims to use open data for the implementation of:

1. an innovative spatial information platform with open data tailored for direct water assessments,
2. an entirely new form of collaborative research for water-related sciences,
3. fourteen new operational products and services dedicated to appointed end-users,
4. new businesses and knowledge to inform individual and collective decisions in line with Europe's smart growth and environmental objectives.

While focusing on water, the project is expected to inspire a much broader knowledge domain and many different end-users to better address environmental and societal challenges through openness and collaboration.

Ecologic Institute in SWITCH-ON

Ecologic Institute leads work package 5 (WP5). WP5 will ensure that SWITCH-ON products enter new markets and have strong societal impacts in the areas of governance and different business sectors. It aims to analyse information availability (open data) for the information needs of different users, i.e., policy-makers, environmental managers, businesses and citizens. WP5 will analyse legislative, technical and market-based barriers to a greater exploitation of the products and provide business plans for opportunities in new markets across Europe.

[View the full image \[2\]](#)

The SWITCH-ON web portal will offer a quick overview and easy access to European land, climate, and water data – bridging the gap between research, business and water management. The project will build an open data, provide infrastructure for sharing and collaboration, and assist scientists, companies and society by repurposing and refining data from many sources.

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The SWITCH-ON water information portal is a "one-stop-shop"

- About SWITCH-ON
- Spatial Information Platform
- Products and Services
- Waterwater
- Virtual Water Science Laboratory

Benefits for Water Managers
Task for decision support

- SWITCH-ON will provide continuously updating number of water information products and services, such as:
 - Contribute to planning for policy, sustainability, regulatory compliance and public awareness
 - Analyse one flow, flows, drought, water quality, change and multiple indicators
 - Regional implementation of the European water policy
 - Facilitate the finding, curating, evaluation and reuse of water related data for water management
 - Build from new knowledge and research
 - Reduce the time to market and bring using open data to time saving
 - Support community in a number of important development stages
 - Enable scientists to assess and test strategies, who receive feedback and user experience

Benefits for Researchers
An open Virtual Water Science Laboratory

- SWITCH-ON will provide research infrastructure to facilitate collaboration, management and expansion, incorporating open research, through:
 - Tutorial datasets for validation analysis on a pan-European level and for selected sites
 - Tools to access, ingest and transform data (including a catalogue, metadata, user guides)
 - Historical records, access codes and records
 - Common protocols and procedures for collaborative experiments and data quality assurance
 - Forum for open discussion on data, experiments, user guides and collaborative projects
 - Data repository and tools for publishing new research results
 - Clear before-procedure applications and feedback mechanisms

Benefits for tool developers
Tailored data, metadata quality and re-use

- SWITCH-ON will provide access to best examples of developing operational information products and services, such as:
 - A spatial information platform with graphical interface and set of services tools
 - Tutorial products for water assessment and risk management
 - Modelled time series of hydro water variables
 - Climate indicators for many year intervals
 - New methods for integration and aggregation in the real-time
 - New knowledge of related processes, benefits and ongoing environmental change
 - New open API services, with web application programming interface (API)
 - Support of smart tools and metadata provided for water information products
 - Direct links to scientific data archive (European level)

SWITCH-ON is a project funded by the European Union's Seventh Framework Programme (FP7) under the Technological Development and Demonstration action (contract number 258182).

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Main Link

[SWITCH-ON Project website](#)

Related Articles

- [Framework for Judging Market Potential of Information Products](#)
- [SWITCH-ON Opening Europe to the World to Achieve Sustainability](#)
- [SWITCH-ON - Making Open Innovation a Reality](#)
- [The SWITCH-ON Market Analysis Framework](#)
- [The SWITCH-ON Virtual Water Science Laboratory](#)

Funding

European Commission, Directorate-General Research & Innovation (DG Research & Innovation)

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Swedish Meteorological and Hydrological Institute (SMHI), Sweden

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Duration	November 2013 to October 2017
Project ID	2732
Keywords	Open data, water, global change, application (apps), research, GIS, Market analysis, Qualitative empirical research, Policy analysis, Europe, Global

Source URL (modified on 08/01/2019 - 10:34): <https://www.ecologic.eu/10646>

Links

- [1] https://www.ecologic.eu/sites/files/project/2014/fotoliac_drizzd_xs_0.jpg
- [2] <https://www.ecologic.eu/sites/files/project/2017/switch-on-poster-web.jpg>