



Open data for water-related operational services, the SWITCH-ON approach

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Recently, a collaborative project started called SWITCH-ON (EU FP7 project No 603587) coordinated by SMHI (<http://water-switch-on.eu/>) as part of the contemporary European movement imposed by the INSPIRE directive and the Open Data Strategy. Among It's R&D activities GECOSistema develops and expands inside SWITCH-ON a set of online services to tackle major water related issues, from reservoir and irrigation supply, to hydrological change adaptation and hydropower potential mapping. Here we present major releases of APRIL, HyCAW and High-resolution European HydroPower Atlas; all of which make intense use of open data. APRIL is a tool for seasonal run-off forecasts, that takes advantage of open datasets or low-cost data and performs forecasts through calibrated machine learning algorithms. HyCAW is a wizard that supports the assessment of adaptation options to cope with change in the temporal distribution of water availability as well as in the total water quantity. EU HPA provides all relevant information necessary to appraise the feasibility of a micro-hydropower plant at a specific site, taking into account hydrological as well as technical and economic factors. All the tools share a common vision of the project to address water concerns and currently untapped potential of open data for improved water management across the EU. Users are guided through a Web GIS interface, created using open source Web Mapping Applications, Open-Layers and Map Server, to explore available hydrological information in the area of interest, plot available data, perform analysis, and get reports and statistics.