## wateragri.eu





Title	Data type	Name of data processor/ controller	Email of data processor/ controller	Data link	Dataset Description	Public	Protected by user identification systems
Engaging and Mapping Farming Communities	Stakeholder Register	Tamara Avellan	<u>tamara.avellan@oulu.fi</u>		In WATERAGRI stakeholder information is organized and stored in a stakeholder register is drawn up as an Excel document that includes the following data items collected for each identified stakeholder:  - Last Name of Stakeholder - First Name of Stakeholder - Designation - Organization - Role in Project - E-mail - Type of Stakeholder (as drop-down menu from 22 categories – see below) - Expectations (or also potential driving factors) This document is placed in the consortium's shared data platform and is only intended for the use within the consortium. While not all stakeholders consent for the storage (and subsequent analysis) has been requested nor obtained, consent is requested when contact information is used for stakeholder engagement i.e. in the project's workshops. All information that is stored in the register is either publicly available information from the internet or information provided by consortium members. Stakeholder identification and collection is a continuous process that is carried out throughout the lifetime of the project.	NO	YES
Continuous Engagement and Feedback	Workshop #1	Adriano Battilani Stefano Anconelli	<u>cavazza@consorziocer.it</u> anconelli@consorziocer.it	link to deliverable	Data about topics and issues addressed by stakeholder is presented in the deliverable D1.4 - Workshop 1 Report. Register and participant is available but subjected to GDPR.	NO	NO
Serious Game	Serious game AgriLemma	Aashna Mittal	a.mittal@tudelft.nl	link	The data used in the game is primarily related to different WATERAGRI solutions, as shown on technology cards (section 7.1.3 of D1.3 report). The rest of data used in the game (crops, weather, events, workers) is motivated by data from Wateragri case studies and is shown on respective game cards (section 3.4 of D1.3).	YES	YES
Geo-database Creation	DB structure	Diego Guidotti	d.guidotti@agricolus.com	<u>link</u>	The repository contains the schema of the geodatabase developed to store the sites metadata. Along with the database structure there are the API to access and process the data.	YES	NO
Farm Management System	Farm Data	Diego Guidotti	d.guidotti@agricolus.com	link	The directory contains for each Wateragri sites the Farm data extracted by the Agricolus Farm Management information System.	YES	YES
Soil Organic Matter. Wetland mesocosm experiments.	Experimental data	Rolf Larsson	rolf.larsson@tvrl.lth.se		Data from mesocosm experiments within climate control chambers. Water level management of wetlands in response to current and future RCP climate change scenarios.	NO	YES
Remote Sensing	Remote sensing data	Perl Karlsson	per.karlsson@vultus.se	<u>link</u>	A set of crop descriptors based on multitemporal SAR and optical measurements; e.g., phenological phases of crops, land cover/land use maps and crop rotation, which can be used in mapping agronomic state of crops. Biophysical parameters of vegetation such as above-ground biomass, the Leaf Area Index and soil moisture.	YES	YES
Data and Model Harmonisations	Collected weather data	Diego Guidotti	d.guidotti@agricolus.com	link	The directory contains fo each Wateragri sites the Weather data from teh sensors of the sites.	YES	YES
Model-informed Management Options	Sensor and model data	Harrie-Jan Hendricks Franssen	h.hendricks-franssen@fz-juelich.de ; r.hoffmann@fz-juelich.de	link	Results of mdeol simulations for the Selhausen site, both without data assimilation (OL) and with data assimilation (DA).	YES	NO

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Irrigation Scheduling	Experimental and evaluated data	Attila Nagy	attilanagy@agr.unideb.hu	link	The dataset presented in the study "Wheat Yield Forecasting for the Tisza River Catchment Using Landsat 8 NDVI and SAVI Time Series and Reported Crop Statistics" comprises time series of Landsat 8-derived Normalized Difference Vegetation Index (NDVI) and Soil-Adjusted Vegetation Index (SAVI) data, alongside reported wheat yield statistics for the Tisza River catchment area. This dataset facilitates the analysis of vegetation dynamics and their correlation with wheat yields, enabling the development of predictive models for agricultural output. By integrating remote sensing data with ground-truth crop statistics, researchers can enhance the accuracy of yield forecasts and support informed decision-making in agricultural management. The dataset serves as a valuable resource for studies aiming to improve food security and optimize resource allocation in the region.	YES	NO
Retention Methods	Experimental data	Nora Hatvani	nora.hatvani@bayzoltan.hu		Result of laboratory experiments with Water Retainer Results of microbiological and macronutrient analysis of soil samples from field experiments with Water Retainer Input data for Modelling Methodology Modelling Result data Data related to the Water Retainer product testing in the Italian case study Data related to the Water Retainer product testing in the Polish case study Data related to water retention and infiltration on surface flow constructed wetland Analysis of substrate mixture for water retention in laboratory-scale Data from planting in field test of substrate mixture Monitoring data from drainage systems at the case study area in Poland Data from tracer study	NO	NO
Wetlands	Experimental data	Rolf Larsson	rolf.larsson@tvrl.lth.se	<u>link</u>	Water quality data from a constructed wetland in southern Sweden. Monthly samples from June 2021 - November 2022.	YES	YES
Drainage Systems	Experimental data	Eriona Canga	eriona.canga@alchemia-nova.net	link	This dataset describes experimental data from drainage systems investigated in Finland and Austria as part of the WATERAGRI project. The Finnish data focuses on hydrological monitoring (soil moisture, groundwater levels, drainage discharge) and nutrient leaching from agricultural fields with controlled drainage in Tyrnävä and Ruukki. The Austrian data presents results from bio-inspired multilayer filter systems in Mistelbach designed to treat agricultural runoff, with measurements including water outflow, soil moisture and temperature, pH, electrical conductivity, and nutrient concentrations (PO4-P, NO3-N, NH3-N). Additionally, the dataset includes data from horizontal flow filter prototypes in Gleisdorf inserted in subsurface drainage pipes, with measurements of outflow water volume, pH, and nutrient concentrations (PO4 3-, NO3-N, NH3-N). The data was collected during the 2021 and 2022 vegetative seasons, with some monitoring ongoing.	YES	NO
Membrane-based Solution	Experimental data	Mona Arnold	mona.arnold@vtt.fi	<u>link</u>	This dataset describes experimental work on developing and testing membrane-based solutions for nutrient recovery from agricultural runoff. It includes data related to the manufacturing and characterisation of nanocellulose membranes, employing both bulk and surface cationisation techniques. The dataset features results from laboratory tests assessing the nutrient uptake capacity (K+, NO3-, PO4 3-) of these membranes under controlled conditions. Furthermore, it contains data from pilot tests conducted in a real agricultural environment in Italy, evaluating the performance of membrane modules in terms of nutrient removal efficiencies (N-NO3N and PO4 3P) at different flow rates and concentrations. Finally, the dataset includes laboratory-scale cultivation experiments that investigated the potential of nutrient-saturated membranes (N, P, K) to act as a fertiliser by analysing seed germination, plant development, and nutrient content in soil and lettuce plants.	YES	NO
Activated Biochar as Adsorbent	Experimental data	Mona Arnold	mona.arnold@vtt.fi	<u>link</u>	This dataset presents the results of laboratory experiments evaluating the nutrient adsorption capacity of various commercially available and thermally activated biochars, as well as other materials like Mg(OH)2-coated biochars, zeolite, and Draingarden. The study assessed the retention of nitrogen (NH4-N and NO3-N) and phosphate from solutions. Additionally, the dataset includes laboratory-scale cultivation tests where the potential of nutrient-saturated biochars to act as fertilisers was investigated by analysing the macronutrient (N, P, K) content of soil and lettuce plants, as well as germination rates and leaf number. The biochars were derived from various organic materials like wood and agricultural sidestreams.	YES	NO

Microfluidics	Qualitative and Quantitative data	Cecile Perrault Abhilash Venkateshaiah	abhilash.venkateshaiah@eden- microfluidics.com	<u>link</u>	Sampling data for UNIBO, UNIDEB and UPWr sites, Water analysis data of atomic absorption spectroscopy (AAS), Inductively Coupled Plasma (ICP), Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Highperformance liquid chromatography (HPLC), Gas chromatography—mass spectrometry (GC-MS), Liquid Chromatography Mass Spectrometry (LC-MS)	YES	YES
Municipality of Tyrnävä, Finland	Experimental data	Björn Klöve	<u>bjorn.klove@oulu.fi</u>	link	This dataset contains hydrological and climatological data collected in the Municipality of Tyrnävä, Finland, specifically focusing on the "Isosuo" study area. It includes information relevant to potato cultivation, such as monthly water balance calculations, Standardized Precipitation Evapotranspiration Index (SPEI) and Normalized Difference Vegetation Index (NDVI) analyses. The dataset also features historical irrigation demand observations from 2000 to 2020 and assessments of surface water resources available for irrigation. The temporal resolution of the collected hydrological and climatological data is also documented.	YES	NO
Municipality of Ruukki, Finland	Experimental data	Hannu Marttila	hannu.marttila@oulu.fi	link to scientific article	Water quality sampling data, meteorological, water table and discharge data from Ruukki Research Stations fields (totally 6 fields) operated by Natural Resources Institute Finland (Luke).	NO	YES
Gårdstånga Nygård, Sweden	Sensor data	Gustaf Ramel	gustaf.ramel@gardstanga.se		Data from experimental fields regarding effects on harvest of irrigation and application of the Water Retainer product. Dataset includes data on soil properties like organic matter and metals.	NO	YES
Auxerre, France	Experimental data	Raymond Reau; Laurette Paravano	<u>raymond.reau@inrae.fr;</u> l.paravano@yonne.chambagri.fr		A data set with 500 to 300 fields of a water catchment area in Yonne (France), from 2013 to 2024. Main crop and intermediate crop, organic fertilizer supply (O/N), before winter soil mineral content (0-30, 30-60, 60-90 cm), soil organic matter content, intermediate crop and oilseed rape shoot biomass Nitrogen content.	NO	YES
Selhausen, Germany	Sensor data	Harrie-Jan Hendricks Franssen	h.hendricks-franssen@fz-juelich.de; r.hoffmann@fz-juelich.de	link	Measurements at the project site Selhausen, like for example soil moisture, soil temperature and evapotranspiration measurements.	YES	NO
Lower Silesia, Poland	Experimental data	Wieslaw Fialkiewicz	wieslaw.fialkiewicz@upwr.edu.pl	link1	"Data set contains results of measurements carried out at the Polisdh case study site since November 27, 2020. The database consists of the following parameters: - soil moisture and temperature in 4 locations at depts of 10, 20, 30, 40, 50, 60, 70 and 80 cm; - groundwater table depth and temperature in 4 locations, - water level and temperature at catchemnt outlet, - air temperature, humidity, wind speed and direction, precipitation, global irradiance and sunshine duration in 1 location."	NO	YES
Seeland, Switzerland	Experimental and simulated data	Philip Brunner; Qi Tang	philip.brunner@unine.ch; qi.tang@unine.ch	<u>link</u>	The dataset contains real-time time series of various sensor data from the Seeland test site, including atmospheric observations (e.g., pressure, temperature) and hydraulic data (e.g., water depth, height). Access to the data via Climaps requires an account and prior permission.	NO	YES
Bologna, Northern Italy	Experimental data	Attilio Toscano; Stevo Lavrnic; Domenico Solimando; Salvatore Gentile; Francesco Cavazza	attilio.toscano@unibo.it; stevo.lavrnic@unibo.it; solimando@consorziocer.it; gentile@consorziocer.it; cavazza@consorziocer.it	link to deliverable;	These datasets are the outputs of the tests performed on the farm wetland regarding its removal efficiency and biomass production, as well as the potential that the farm wetland has to extract nutrients present in agricultural drainage water and recycle them.	NO	YES
Hungary	Experimental data	Attila Nagy	attilanagy@agr.unideb.hu	<u>link</u>	The AQUA-DROUGHT website serves as the Hungarian case study site for drought monitoring, situated in Nyírbátor. It provides comprehensive data on soil moisture levels, precipitation patterns, and vegetation health, which are essential for assessing and managing drought conditions. The platform includes a catalogue of documents and datasets related to water management, climate adaptation, and agricultural resilience. This information supports decision-making in sustainable irrigation, water resource management, and environmental conservation efforts in the region.	NO	YES
Technical Principle Assessments	Factsheets	Björn Klöve	bjorn.klove@oulu.fi	link	Information and assessment of principles behind the different technologies and solutions tested in WATERAGRI.	YES	NO
Model-based Assessments	Model data	Harrie-Jan Hendricks Franssen	h.hendricks-franssen@fz-juelich.de; r.hoffmann@fz-juelich.de	link	Land surface-subsurface model code (TSMP model, coupled to data assimilation framework (TSMP-PDAF).	YES	NO

Sustainability Assessment	Field data, model results	Tamara Avellan, Wieslaw Fialkiewicz, Jonas Nordstrom, Nora Hatvani, Valentina Guerrieri	tamara.avellan@oulu.fi; wieslaw.fialkiewicz@upwr.edu.pl; jonas.nordstrom@agrifood.lu.se; nora.hatvani@bayzoltan.hu; yalentina.guerrieri2@unibo.lt;		Data set contains results of three sustainability assessment methods – Water Footprint Assessment, Cost- Benefit Analysis, and Life -Cycle Assessment – for the use of Water Retainer product which was tested at the Polish farm during the 2021 and 2022 growing seasons.	NO	YES
Development of Simplified Models for Innovations	Experimental and simulated data	Günter Langergraber; Alba Canet-Marti	guenter.langergraber@boku.ac.at; alba.canet@boku.ac.at	<u>link</u>	1) performance data of a free water surface (FWS) wetland in Budrio, Emilia-Romagna region, Italy.     2) models describing the hydraulic and pollution degradation of the FWS wetland	YES	NO
Data Assimilation Framework	Sensor and model data	Harrie-Jan Hendricks Franssen	h.hendricks-franssen@fz-juelich.de; r.hoffmann@fz-juelich.de	link	Land surface-subsurface model code (TSMP model, coupled to data assimilation framework (TSMP-PDAF).	YES	NO
Catchment-scale Efficiency of Soil Water Retention Solutions	Experimental and simulated data	Philip Brunner; Harrie-Jan Hendricks Franssen; Björn Klöve; Arkadiusz Głogowski; Wayne Wang	philip.brunner@unine.ch; h.hendricks- franssen@fz-juelich.de; bjorn.klove@oulu.fi; arkadiusz.glogowski@upwr.edu.pl; Y.Wang@salford.ac.uk	link	The data consists of lab based water retention functions. The soil samples analysed were treated different amount of water retainers.	YES	YES
Dissemination and Communication Plan	newsletter subscribers data; 2) data about publications and events; 3) data about website visitors and views;	Jovana Simic, Vladimir Mrkajic	simic@inosens.rs; mrkajic@inosens.rs		D8.5 deliverable: WATERAGRI Promotional Activities and Engagement Report and D8.9 deliverable: 2nd WATERAGRI Promotional Activities and Engagement Report. Deliverables report on the promotional and engagement activities carried out during the project lifetime.	NO	YES
Capacity Development and Promotional Activities	data about early adopters - consent forms	Jovana Simic; Vladimir Mrkajic	simic@inosens.rs; mrkajic@inosens.rs		These data include the names and affiliations of the early adopters of WATERAGRI solutions	NO	NO
Policy Impact Strategy	Consortium data	Tamara Avellan	tamara.avellan@oulu.fi	link to deliverable	Policy impact can be achieved through various means but is generally difficult to prove or track. WATERAGRI is a Research and Innovation Action funded by the European Commission. It is therefore strongly rooted in evidence and science, but intends to produce marketable products and services, thus also representing interests. As an advisory body or as part of an advisory body WATERAGRI will also contribute to policies by cooperation with the Commission or national governments, working directly on inside tracks drafting policy recommendations. WATERAGRI operates on several levels from local, through national towards the supra-national. Advances to influence policies in the field of water, nutrient, and agricultural aspects may be at different levels of maturity in the different cases and countries. At the same time consortium members may be more or less aware of the influencers and lobby groups as well as advances in policy impacts within their countries and cases. We are therefore conscious of the fact that the monitored impact is a subjective reflection of the change felt by and through the consortium and the project. It may not be an objective reflection of policy advances in general. Having highlighted the subjective bias, we suggest monitoring the impact of the project at three levels:  1) In consortium members own contributions;  2) At the local level;  3) At the overarching project level.  It is our hope and expectation that these varying viewpoints may diminish subjective biases without lessening the need to highlight individual successes.	in part (Deliverabl is public, mid- term reports are internal)	YES
Exploitation, Business Plan and IPR Management	data collected from consortium partners within catalog of exploitable results	Vladimir Mrkajic; Jovana Simic	mrkajic@inosens.rs; simic@inosens.rs		These data describe key exploitable results of the project and their IPR ownership	NO	NO