



MEET THE GSEU

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Supporting Quantity and Quality of European Groundwater Resources

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www.geologicalservice.eu



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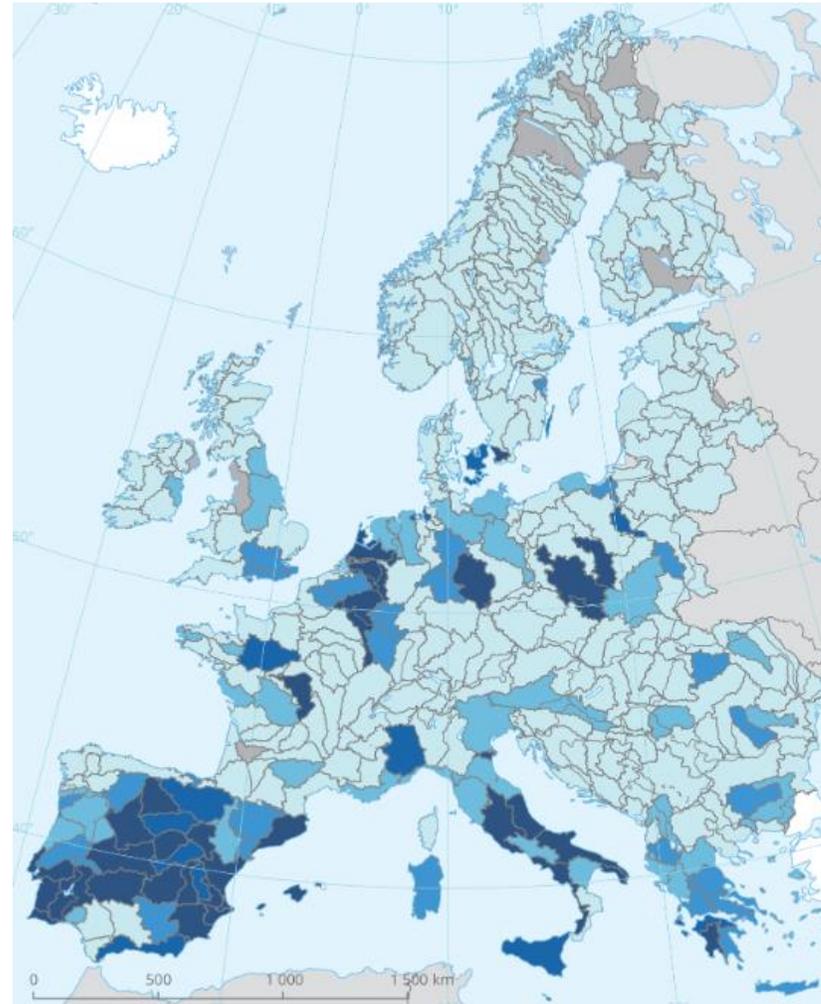




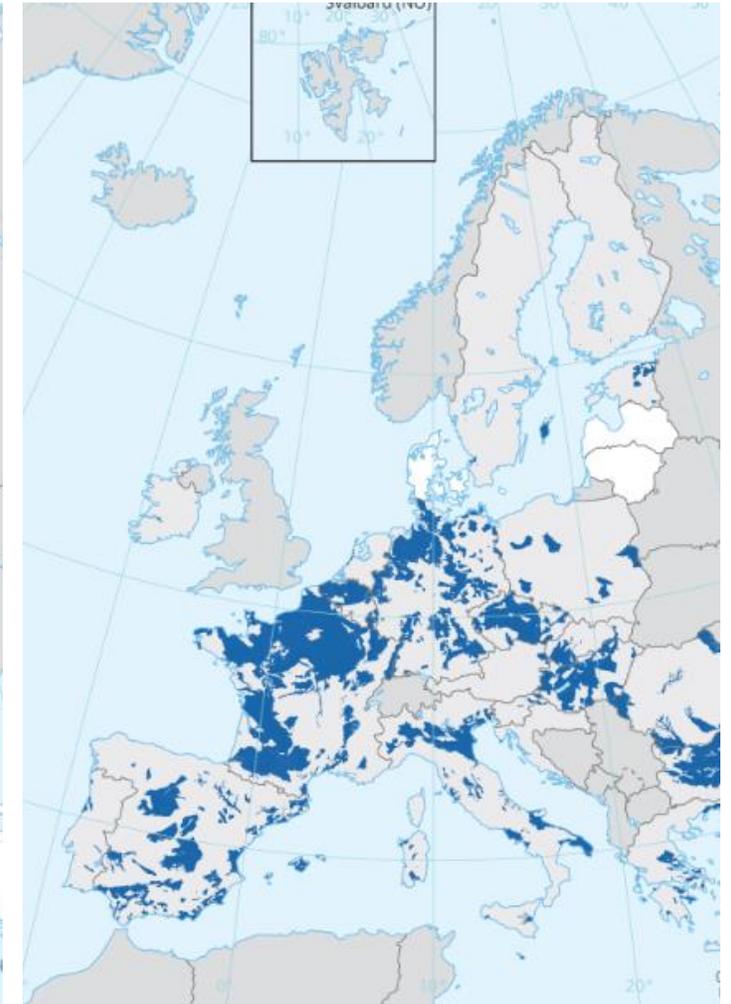
Groundwater Quantity and Quality:

Main challenges:

Groundwater quality and quantity in ~30 % of aquifers insufficient to meet need of ecosystems and population



Groundwater quantity



Groundwater quality

Groundwater supplies 65 % of drinking water and 25 % for irrigation in EU-27



Objectives

Harmonised information on groundwater dynamics and quality

An **operational, data-driven groundwater level forecasting system** for the short and longer term, combined with a drought event detection system, based on near real-time monitoring of selected locations

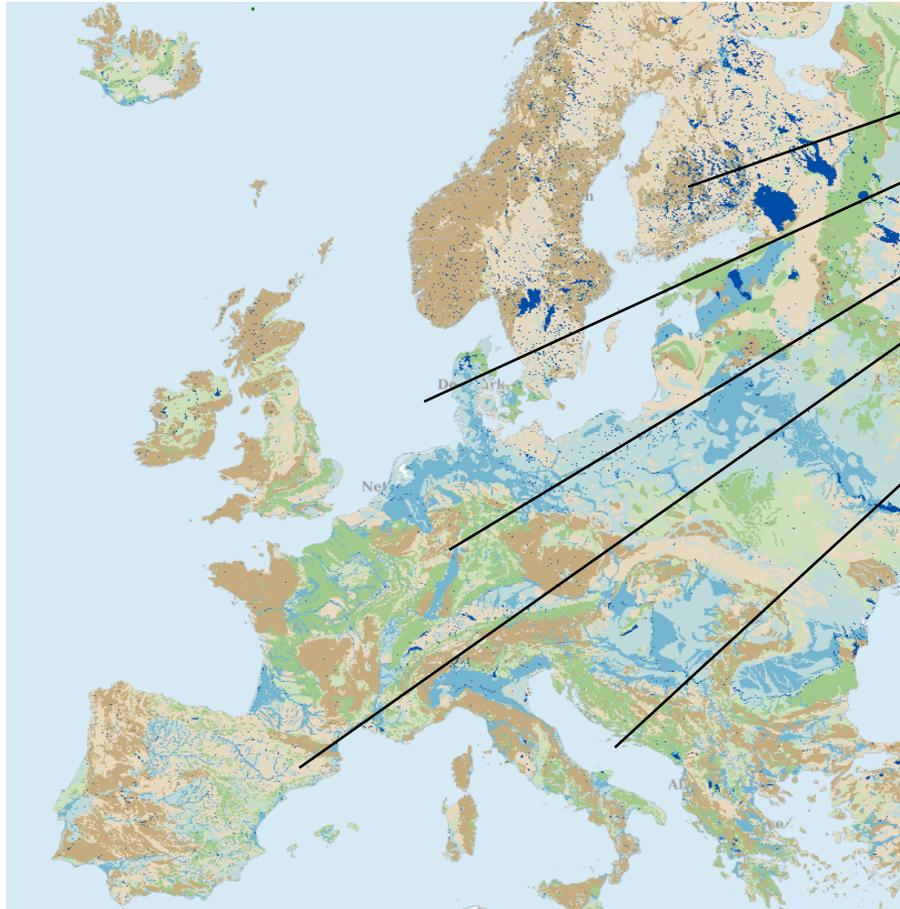
A **groundwater quality monitoring system**, focusing on **chemical properties** that are relevant for environmental protection, taking into account the **geological properties of the subsurface**

Impact

Safeguard groundwater resources from increasing **pressures** caused by **climate change** as well as **competing subsurface uses**, including for mineral and energy resources

Groundwater quantity under increasing pressure from competing uses of other subsurface resources

Groundwater quantity



EGDI



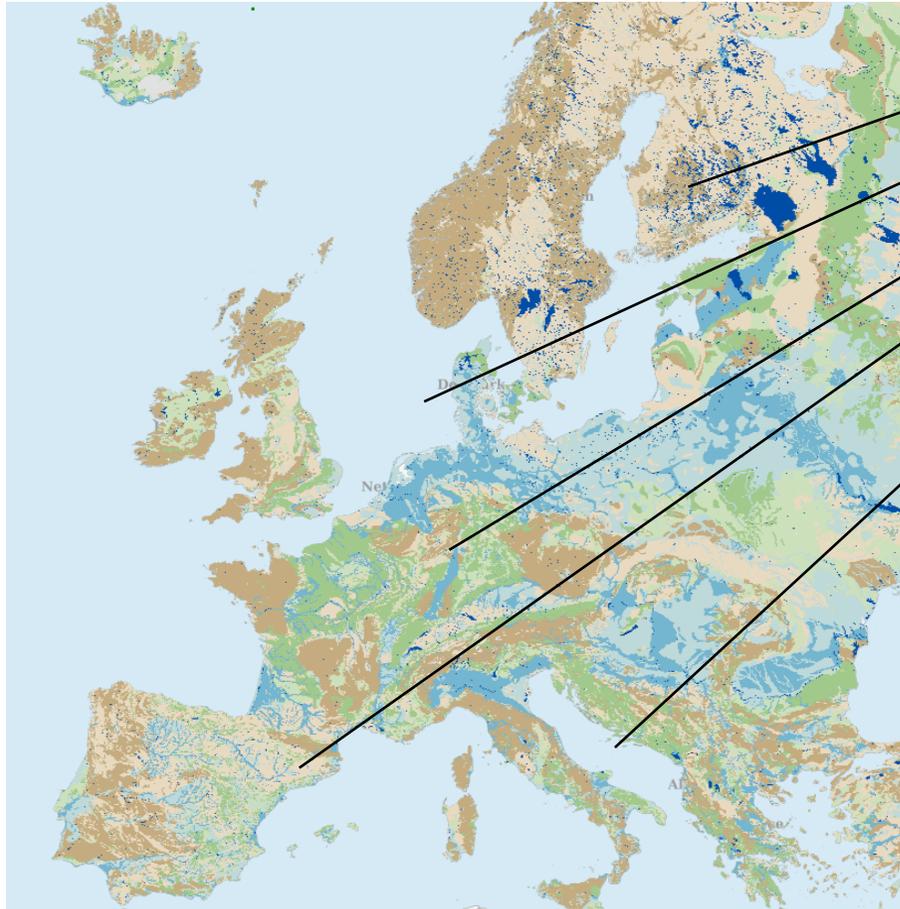
Data retrieval, sharing on groundwater levels From European Geological Surveys (FAIR)

Time series analyses

Short and long term **monitoring** and **forecasting** of groundwater levels to support **sustainable groundwater management** and increase **resilience for drought**

Groundwater quality under increasing pressure from anthropogenic contamination on natural background. Mapping patterns, drivers and pressures

Groundwater quality



EGDI



Data retrieval, sharing on groundwater contamination From European Geological Surveys (FAIR)

Analyses on patterns, mobility and persistence

Groundwater quality patterns and quality trends dependent On drivers, pressures and competing uses

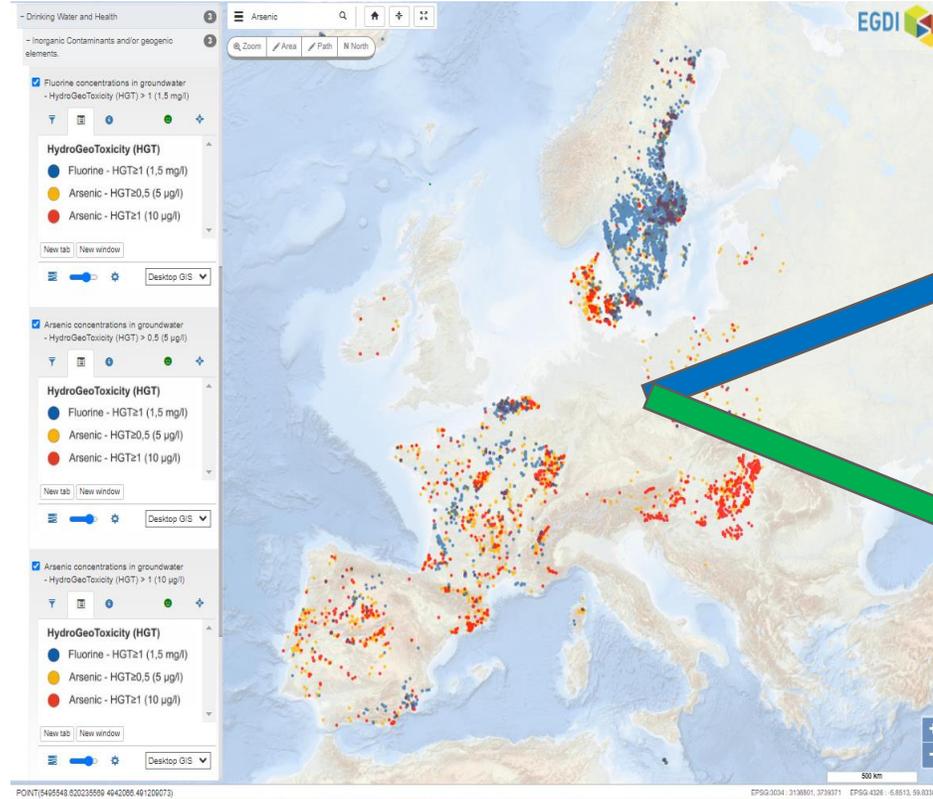
GSEU Groundwater Resources appraisal in a nutshell



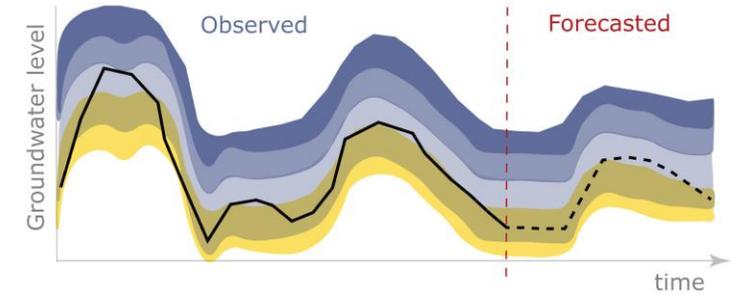
Groundwater
quantity



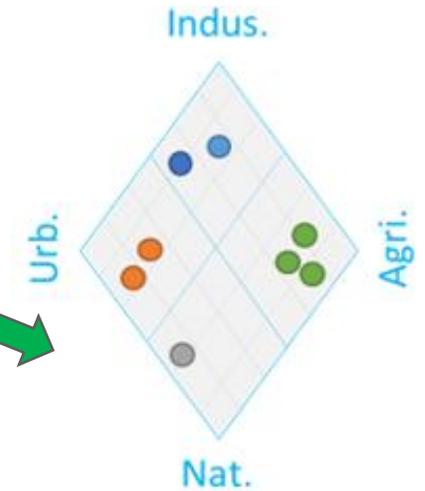
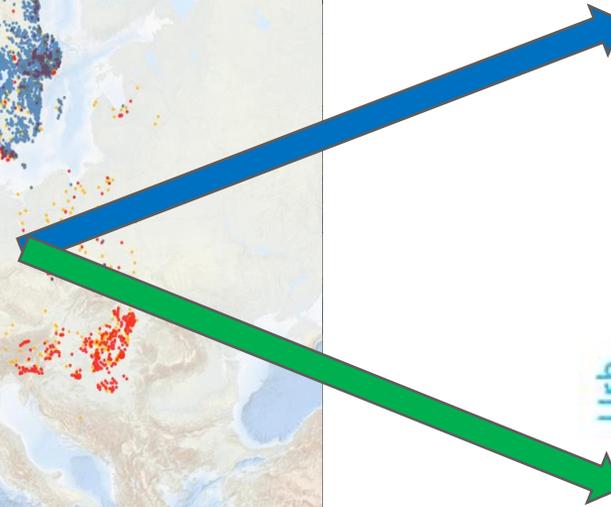
Groundwater
quality



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Groundwater quantity



Groundwater quality

Who will benefit from the work ?



EC DG's: DG ENV, CLIMA, AGRI,..

Environmental Agencies

Regions and municipalities,
water supply companies

Scientific community and associations

NGO's, environmental and
consumer associations

Others ..