



PROGRAMME OF
THE EUROPEAN UNION

CLEAN WATER & SANITATION

SUSTAINABLE DEVELOPMENT GOAL

6



SUSTAINABLE
DEVELOPMENT
GOALS

The European Union is committed to implement the 2030 Agenda for sustainable development, both in its internal and external policies. Discover how the European satellite navigation and Earth Observation systems can contribute and support each SDG.

Clean, accessible water for all is an essential basic right for every person in this planet. **Water scarcity affects more than 40 per cent of the global population** and is projected to rise. Every year millions of people, most of them children, die from diseases associated with inadequate water supply, sanitation and hygiene.

The EU space satellites can help making a difference and contribute to redressing and limiting the negative impacts on people's lives caused by water scarcity and water pollution.

The combination of high quality Earth observation images provided by Copernicus and the highly accurate positioning information provided by EGNOS and Galileo allows for significant improvements in monitoring and protection of water resources.



MONITORING OF WATER RESOURCES

Copernicus provides consistent observations of the water cycle that are key in the implementation of highly accurate water monitoring systems.

Observations on water cycle variables such as clouds, precipitation, soil moisture, river and lake surface and ocean parameters support integrated water management approaches.

Copernicus data is used by the Environmental Protection Agency (EPA) of Ireland use to estimate and predict the ecological status for 800 priority lakes in the country. The start-up ColomboSky uses Copernicus data to monitor water quality and helps aquaculture companies to protect their farming sites from harmful water threats.



Combining EU space services allows for the monitoring of critical infrastructures such as pipelines, dams and bridges, making it possible to detect and analyse movements and detect structural risks.

The information provided can support activities aimed at providing aid in locations with no water sources. For instance, trucks or drones equipped with Galileo and EGNOS to retrieve highly accurate positioning coordinates, to distribute water in sensitive areas.

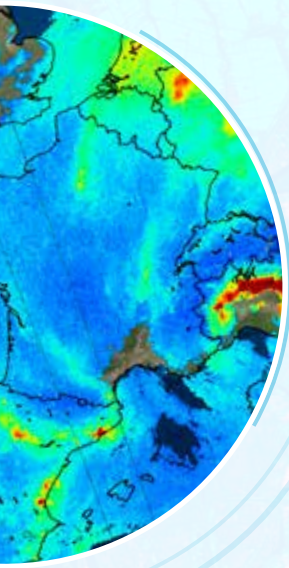
ACCESS TO CLEAN WATER

Space technologies play a crucial role in optimizing potable water processing operations in order to achieve higher quality.

Copernicus provides tools for water quality forecasting, including turbidity and algal blooms in reservoirs, supporting predictive management in the reservoirs to mitigate water quality problems at an early stage.

- Water utility services can benefit from early warning system that **indicate incidences of water quality deterioration**

Copernicus services help a broad range of water managers dealing with water allocation, flood management, ecological status and industrial water use. Better information and forecasts help them to adapt their strategies in order to mitigate the effects of climate change.



6



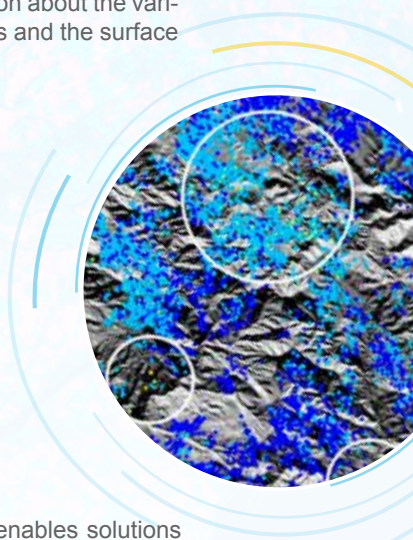
SUSTAINABLE
DEVELOPMENT
GOALS



METEOROLOGICAL FORECASTING

Meteorological forecasts are essential to understand the dynamics of the water cycle, and help authorities to better manage this valuable resource and avoid droughts. Copernicus provide information about the variables that together make up water availability, including the water level of lakes and rivers and the surface extent covered by water.

- The hydrological models built thanks to Copernicus allow authorities **to estimate water availability for cattle and human consumption.**



ABOUT EU SPACE PROGRAMME

Space applications play key roles in our daily life activities. The EU space programme enables solutions to tackle global challenges such as sustainability and climate change, safety and security, emergencies and mobility. The EU's flagship space programmes foster innovative services that meet the needs of users worldwide.

COPERNICUS is the EU's Earth Observation system: free, full and open access satellite data used to provide services in six areas: land monitoring, marine environment monitoring, atmosphere monitoring, climate change, emergency management and security.

GALILEO is the EU's global navigation satellite system, providing accurate positioning and reliable timing information. Galileo services are widely used by people and businesses, for example in transport, agriculture, health, finance and energy networks, search and rescue and emergency response.

EGNOS is the EU's regional navigation system. EGNOS services are used in safety-critical applications in aviation, maritime and land-based uses in most of Europe.



PROGRAMME OF
THE EUROPEAN UNION



#EUSpace #CopernicusEU #UseGalileo #EGNOS