



PROGRAMME OF  
THE EUROPEAN UNION

# CLIMATE ACTION

## SUSTAINABLE DEVELOPMENT GOAL

13



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 the Sustainable Development Goals (SDG). The Copernicus climate change service routinely monitors the Earth's climate and evolution and provides information about the past, present and future climate in Europe and the rest of the world. The service gives key indicators on a number of essential variables such as temperature, sea ice and CO<sub>2</sub>. This makes it a powerful tool for supporting national policies, strategies and planning and the European adaptation and mitigation actions for successfully implementing the Paris Agreement. Galileo provides high accuracy positioning and navigation signals that are essential for monitoring and mapping applications. These applications provide valuable information on natural phenomena, soil and crop conditions, and enable quick reactions in cases of emergencies.



### RELIABLE INFORMATION ON THE HEALTH OF OUR PLANET

- The annual European State of the Climate report includes a state of play of for the year, including a view of the Arctic. It presents a number of indicators such as variations in sunshine duration, vegetation and soil moisture, river discharge, wildfires, glaciers and sea ice.
- The monthly Climate Bulletin of Climate Data Store presents the current condition of the climate using key climate change indicators. It also provides an analysis of the maps included and information on how they are produced, as well as comparisons with the past.
- In line with the Paris Agreement, the EU is also planning to develop the capacity of Copernicus to consistently monitor man-made CO<sub>2</sub> emissions. This will make it possible to detect and monitor emitting hotspots, compile detailed data at regional level to assess emission changes against local reduction targets, and assess national emissions changes in 5-year intervals to estimate global impact.



## MITIGATING MEASURES FOR THE GLOBAL POPULATION

The small island developing states (SIDS) are particularly vulnerable to the effects of climate change. Rising sea levels and the increased number and severity of extreme weather events can easily cripple small economies. Copernicus can assist these countries in meeting their commitments under the Paris Agreement.

In case of extreme weather events and associated natural disasters, the use of satellite signals is critical. The Galileo Search and Rescue service provide more precise positioning, helping to reduce response times and save lives

Copernicus and Galileo applications are able to provide landslide monitoring apps with real-time updates, making them a valuable tool for the mining sector, highway operators and local authorities.

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## REDUCTIONS IN HUMAN-MADE POLLUTION THAT CONTRIBUTES TO CLIMATE CHANGE

- Copernicus and Galileo can monitor and map the level of soil moisture in specific areas, helping farmers make sounder decisions.
- Galileo enables robots to navigate in greenhouses and detect the existence of pests. The early detection of pests leads to productivity gains and helps reduce pesticide use.
- Data from Copernicus offer a clear view of inland waterways. Processed data identifies water quality parameters, which help ensure high quality ecosystem services that are vital for human consumption, irrigation, sanitation, transportation, recreation and industry.
- Navigating with Galileo reduces air pollution and CO2 emissions. This is possible thanks to optimised and more efficient routes that can be worked out to reduce the fuel consumed on roads, at sea, in the skies and in fields.



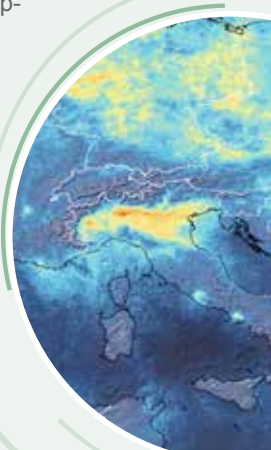
## ABOUT EU SPACE PROGRAMME

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.



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#EUSpace #CopernicusEU #UseGalileo #EGNOS