

ICOS in a nutshell

ICOS, the Integrated Carbon Observation System, produces standardised, high-quality, and long-term greenhouse gas data. Our network of around 200 stations spans 16 European countries and beyond.

ICOS scientists measure greenhouse gas concentrations in the atmosphere and gas exchanges between the atmosphere, land and ocean surfaces, which expands our knowledge of carbon sources, sinks and the carbon cycle.

ICOS data is produced following rigorous protocols and standards. It is open and free for everyone through the ICOS Carbon Portal. The standards created by the ICOS scientific community have been adopted by researchers around the world to increase data quality.

ICOS data is used by scientists and society alike: in scientific studies, climate models, validation of satellite data, and in support of policy making. The ICOS community of leading researchers creates insights that bring us closer to truly understanding our planet.



Standardised greenhouse gas measurements throughout Europe



CONTACT US

info@icos-ri.eu

ICOS ERIC Head Office
Erik Palménin aukio 1
00560 Helsinki, Finland

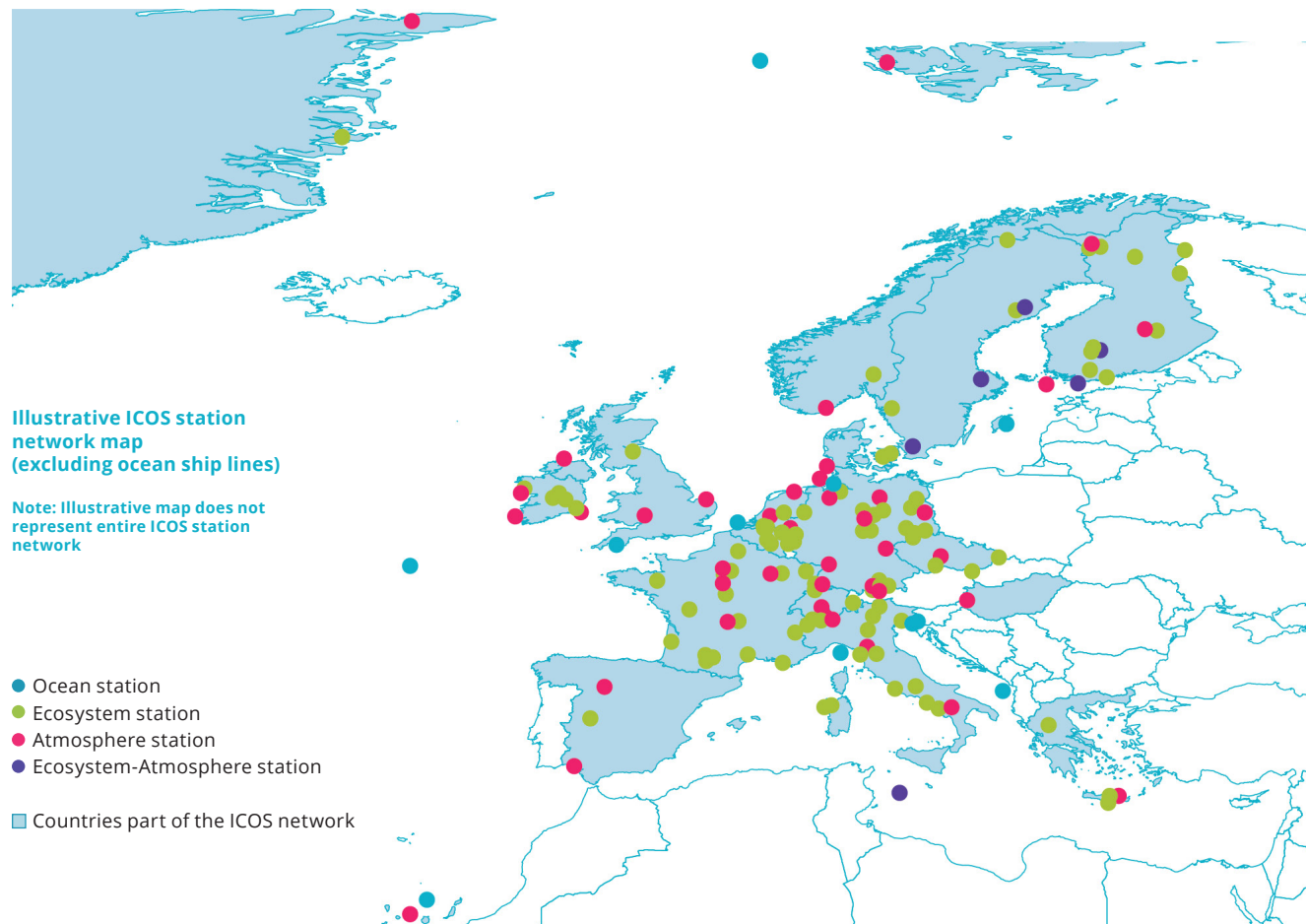
icos-ri.eu



Understanding carbon exchanges, sources and sinks

ICOS, the Integrated Carbon Observation System, produces high-quality greenhouse gas data based on long-term observations. The ICOS network has about 200 measurement stations across Europe and beyond.

ICOS stations produce long-term observations of the concentration of greenhouse gases in the atmosphere and gas exchanges between the atmosphere, land and ocean surfaces. This is vital for us to understand and slow down climate change.



Scientific greenhouse gas knowledge for decision-making

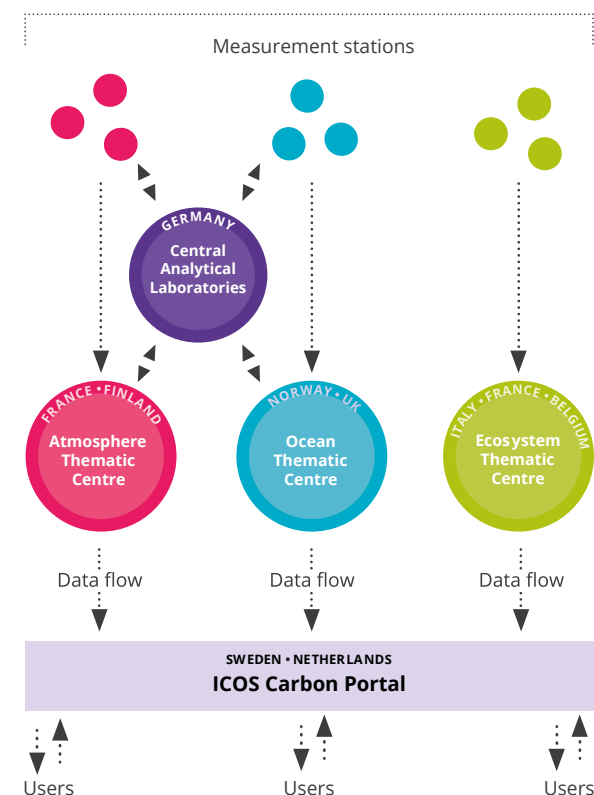
Human activities that rely on fossil fuels produce greenhouse gas emissions which accelerate climate change and disrupt natural processes. Scientific knowledge of carbon sources and sinks is essential to make informed and sustainable decisions for a better future.

ICOS was established by the European Union over a decade ago. As a European cornerstone of global greenhouse gas measurements, ICOS collaborates with and provides data for European and global organisations and initiatives, such as Copernicus and the World Meteorological Organization.

Stable, long-term data production and availability

The ICOS community of scientists creates and develops the rigorous protocols and methods that are used to achieve the high quality of ICOS data. Our data is reliable, standardised and near-real time. As a state-of-the-art research infrastructure, ICOS ensures secure and fast calibration, quality control, and other data processing, along with open and stable access to data through ICOS Carbon Portal.

Through data and scientific knowledge, ICOS supports climate change mitigation decisions.



THE ICOS DATA PRODUCTION PROCESS AT A GLANCE