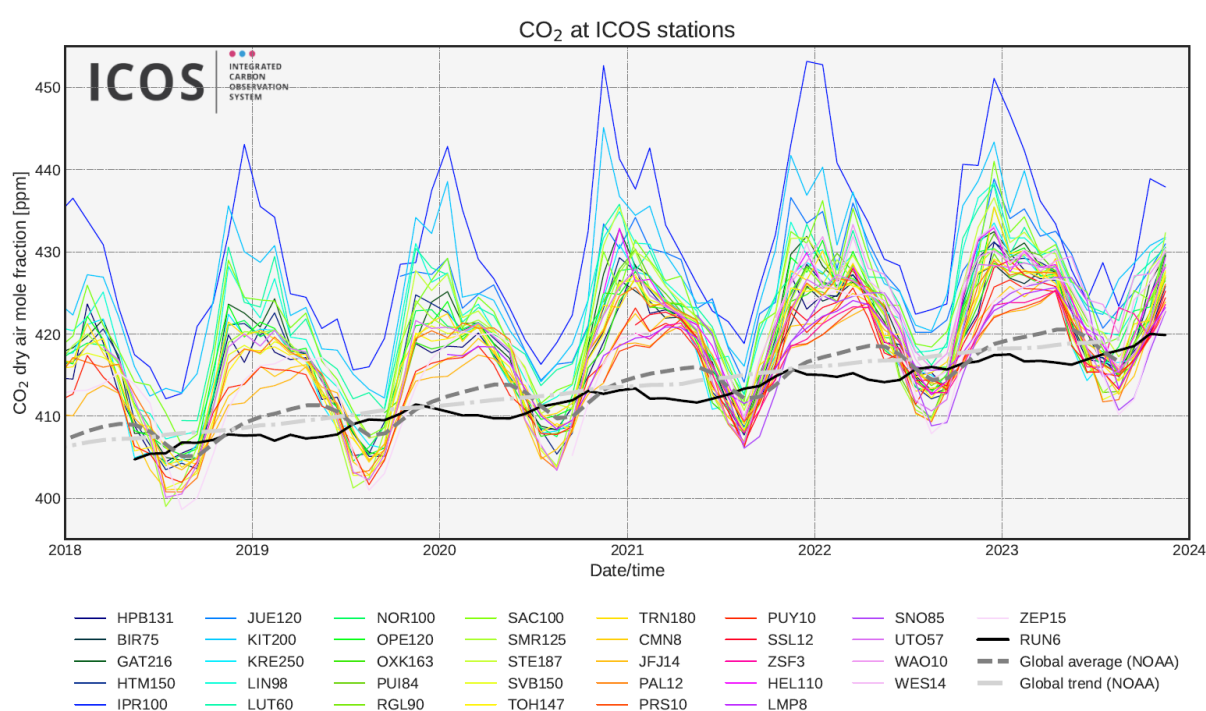


Atmospheric CO₂ concentration is unabatedly rising

Based on its latest data on atmospheric CO₂ concentrations, the Integrated Carbon Observation System (ICOS), an admitted Intergovernmental Organization to UNFCCC, wants to inform the Parties about the most recent atmospheric growth rate and to issue two urgent messages:

- Between November 2022 and November 2023, **the annual growth rate of CO₂ in the atmosphere was 2 ppm meaning that the fossil fuel emissions have not been reduced during 2023. It is another year lost in reaching the goals of the Paris Agreement.** We need to reduce fossil fuel emissions drastically, with no delay. There is no alternative to that reduction.
- Systematic observations as conducted by ICOS are crucial for climate action and informed policies by the Parties. The near-real-time monitoring of greenhouse gases in a dense network enables regional information on fossil fuel emissions and responses of the natural carbon cycle on weather extremes. **The Parties are encouraged to support the long-term operation and the further development of such systematic observations globally.**



The data show the typical annual cycles of atmospheric CO₂ concentrations in the northern hemisphere, with decreases in summer due to high photosynthetic uptake and steep increases towards the end of the year. Differences between the stations and the years contain valuable local or regional information that has been analysed in the past¹ and will be analysed by scientists in the future.

ICOS is a European-wide greenhouse gas research infrastructure: ICOS produces standardised data on greenhouse gas concentrations in the atmosphere, as well as on carbon fluxes between atmosphere, ecosystems, and oceans. This ICOS-based knowledge supports policy and decision-making to combat climate change and its impacts. The high-quality ICOS data is based on the measurements from 180 observation stations – run by top universities and research institutions across 16 European countries – and produced by the roughly 500 scientists in the community. The ICOS Carbon Portal offers unlimited access to thousands of datasets and other advanced digital products and services. Many of the ICOS products are available near-real time for scientists and to inform the Parties about the most recent atmospheric growth rate.

More about ICOS: <https://www.icos-cp.eu/>

¹ [FLUXES – the European Greenhouse Gas Bulletin, Vol 1](#)