

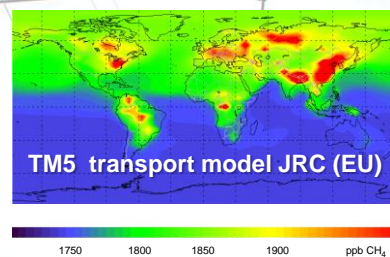
InGOS: Integrated non CO₂ Greenhouse gas Observing System

InGOS brings together EU research at tall towers, ground station, sea going vessels, airplanes, with ground based remote sensing observations.

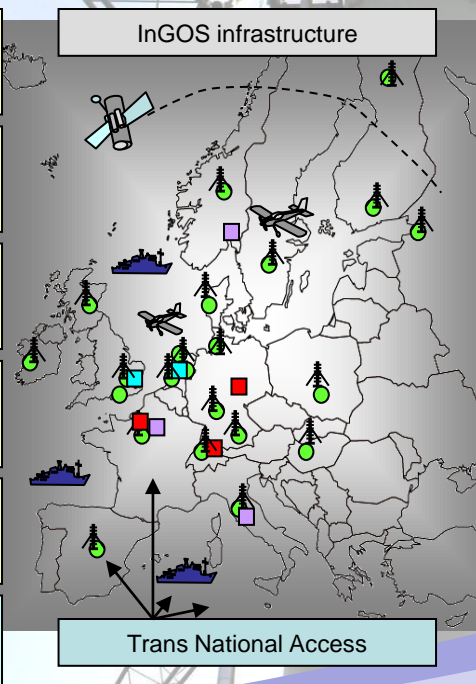
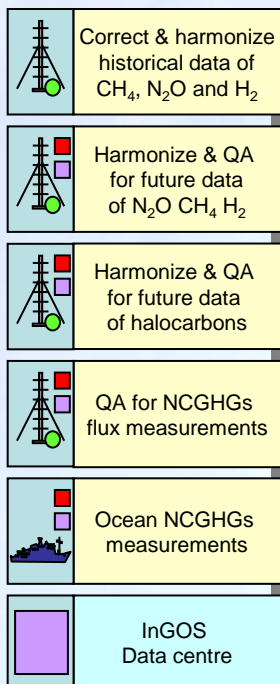
InGOS aims for harmonization, exchange and dissemination of measured data on the EU greenhouse gas budget

InGOS will establish a data centre and modeling framework to provide policy relevant information.

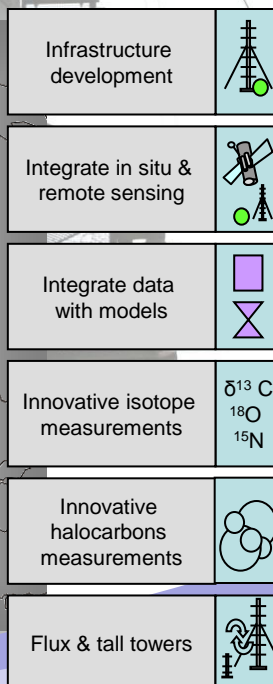
Runtime: October 2011 – September 2015
Budget 8 M€ EU contribution



Networking



Research



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Integrated non-CO₂ Greenhouse gas Observing System

InGOS supports and integrates the observing capacity of Europe for non-CO₂ greenhouse gases (NCGHGs: CH₄, N₂O, SF₆, H₂ and halocarbons). The emissions of these gases are very uncertain and it is unknown how future climate change may feedback into the land use coupled emissions of CH₄ and N₂O. The NCGHG atmospheric abundances will further increase in the future. The emissions of these gases are an attractive target for climate change mitigation policies.

InGOS aims at improving the existing European observation system in order to provide insight into the changing concentration levels and European and extra-European emissions of these NCGHGs. The data from the network will enable to better constrain the emissions of NCGHGs within the EU and show whether emission reduction policies are effective. They are designed to allow detecting the spatial and temporal distribution of the sources as well as changes in emissions due to mitigation and feedbacks with climate change.

To strengthen the European observation system, the project objectives are:

- Harmonize and standardize the measurements
- Provide capacity building in new member states and countries with inadequate existing infrastructure
- Support existing observation sites and transfer selected sites into supersites
- Integrate marine observations of the NCGHGs with land-based observations
- Improve measurement methods by testing new innovative techniques and strategies
- Test advanced isotope techniques for application in the network to enable attribution of the atmospheric fractions to source categories
- Integrate data for network evaluation by using inverse modeling and data-assimilation methods and developments in bottom up inventories
- Link remote sensing data of column abundances to in-situ and satellite observations
- Prepare for the integration of the NCGHG network with the Integrated Carbon Observation System ICOS

