







InGOS - Integrated non-CO, GHG Observing System



InGOS brings together research at tall towers, ground stations, sea going vessels, airplanes and ground based remote sensing observations

InGOS will harmonize, exchange and disseminate measured data on the EU greenhouse gas budget InGOS will establish a data centre and modeling framework to provide policy relevant information





InGOS consortium:

Coordinator:



Alex Vermeulen (a.vermeulen@ecn.nl) Partners:

ECN - NL MPI-BGC - DE FMPA - CH

MPI-BGC - DE EMPA - CH CEA - FR Univ. Bristol - UK

Univ. East Anglia – UK
Univ. Heidelberg – DE
Univ. Utrecht – NL
RHUL – UK

Univ. Bremen – DE Univ. Helsinki – Fl

RisøDTU – DK Univ. Edinburgh – UK JRC Ispra – EU

NERC – UK
Univ. Tuscia – IT

Univ. Frankfurt – DE NILU - NO

KIT – DE Iniv Tund – SF

Univ. Lund – SE INRA – FR

Met. Office - UK AGH Krakow - PL

Univ. Leicester – UK

VUA - NL HMS - HU

Univ. Groningen – NL Univ. Poznan – PL IFM-Geomar – DE

CSIC – ES
Univ.Bergen – NO
WUR – NL
CEAM - ES

InGOS objectives:

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



Period: 1 Oct 2011 - 30 Sept 2015

Budget: 8 M€ EU contribution

34 partners 24 stations



InGOS structure:

European Commission WP 1
Management &
Dissemination
Vermeulen (NL)

Scientific Advisory
Board
External Int. Experts

WP 2
Correction and
Harmonisation (NA2)
Levin (DE)

WP 3

Harmonisation and

Quality Control (NA3)

Schmidt (FR)

WP 4

Data Assurance

O'Doherty (UK)

WP 5

Quality Assurance &

Control (NA5)

Nemitz (UK)

WP 6

Harmonisation and

Quality Control (NA6)

Bange (DE)

WP 7
Access to InGOS
supersites (TNA1)
Hensen (NL)

WP 8
Access to Meas.
Stations (TNA2)
Bleeker (NL)

WP 9
Access to Aircraft

(TNA3)

Hutjes (NL)
WP 10

WP 11
Access to Iso
Service (TN

WP 10
Access to Cal. Service
(TNA4)
Jordan(DE)/
Manning(UK)

WP 11
Access to Isotope
Service (TNA5)
Nisbet (UK)

WP 16
Innovation in Isotope
Meas. Techn. (JRA4)
Röckmann (NL)

WP 13

Infrastructure

Development (JRA1)

Vermeulen (NL)

WP 14

Integration of Rem.

Sens. Data (JRA2)

Warneke (DE)

WP 15

Integration of Data with

Models (JRA3)

Bergamaschi (IT)

Innovation in halocarbon Meas.
Techn. (JRA5)
Reimann (CH)

WP 17

WP 18
Versatile Capab. Tall &
Flux Towers (JRA6)
Mammarella (FI)

Network Activities

Transnational Access
Activities

Joint Research Activities

Service Activities

WP 12

InGOS Data Centre

Hazan (FR)