SA Database update

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The InGOS Data Center

Due to the heterogeneity of the data collected and the different expertises, the InGOS Data Center comprises three data centers

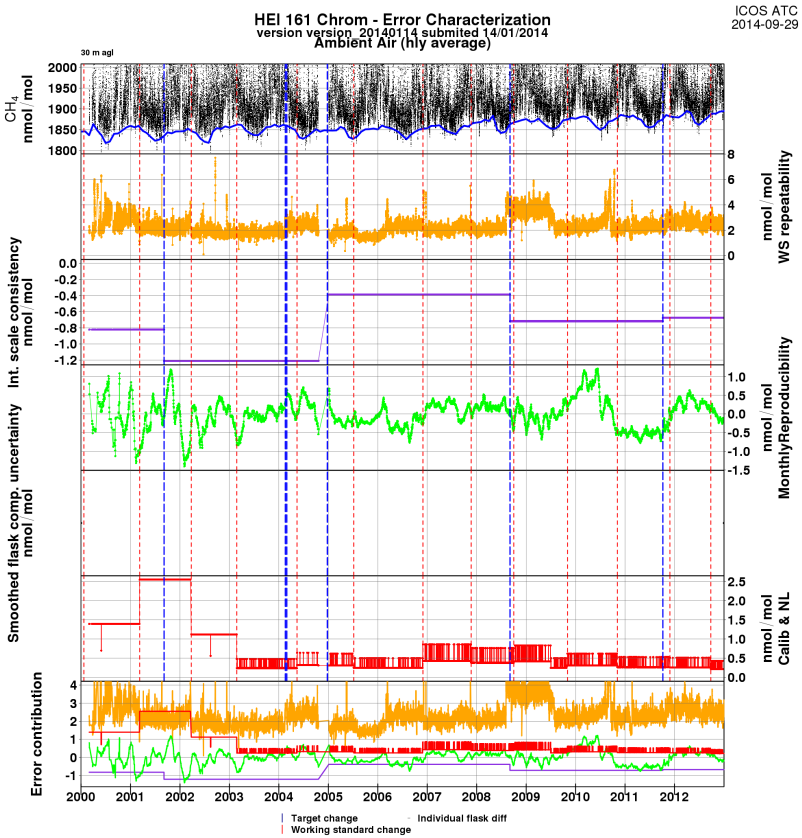
- Atmospheric Data Center, hosted by the Laboratoire des Sciences du Climat et de l'Environnement, France (LSCE)
- Ecosystem Data Center, hosted by the Università degli Studi della Tuscia, Italy (UNITUS)
- Halocarbon Data Center, hosted by the Norwegian Institute for Air Research, Norway (NILU)

Data submission file format and database structure have evolved to account for the ongoing work made in the NA2/NA3 WPs. Additional uncertainties and type of flag can now be sent and stored in the database.

An important amount of work has been done on metadata:

- a configuration file has been defined allowing to store in the database the information on the tanks used at the station (working standards and target)
- based on WMO model, a global metadata file describing the project available datasets has been defined and implemented
- based on WMO model, a metadata header in the output data files has been defined and implemented

Automatically daily generated data products on historical data have been developed. They integrate tank metadata provided in the configuration file. These plots are available on the InGOS Atmospheric Data Center website.



Historical datasets

The following historical datasets (csv files) are available:

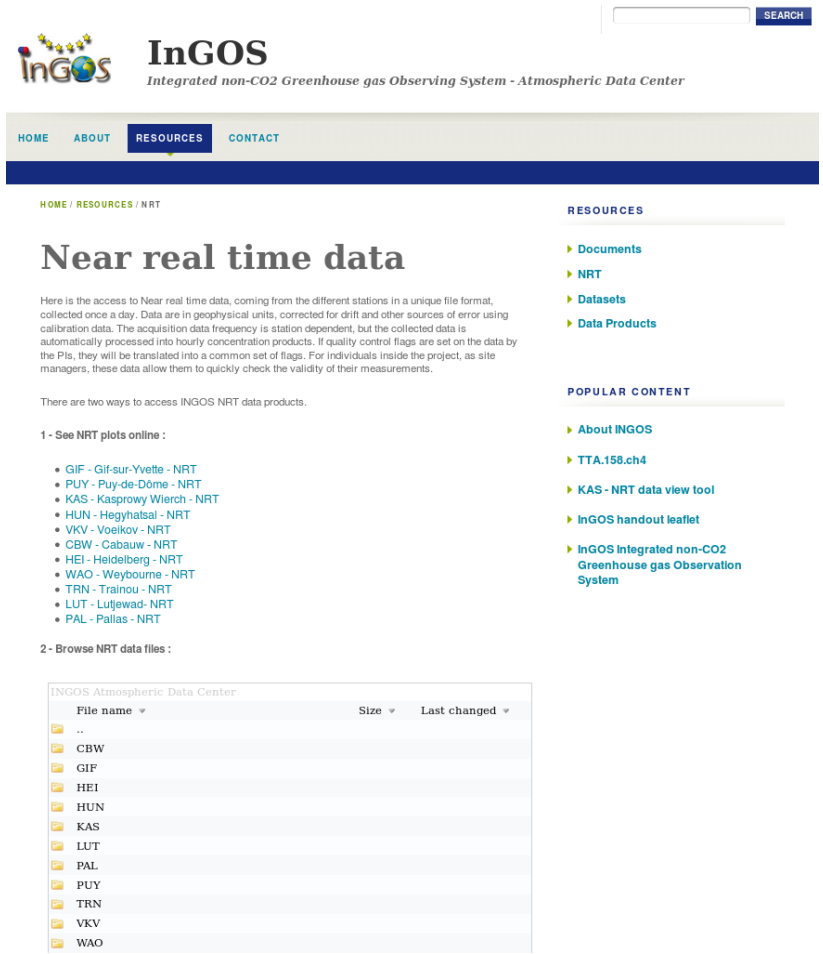
- corrected historical CH_4 data from 20 stations. 17 of the stations have preliminary error estimates
- corrected historical N_2O data from 15 stations with error estimates for a few of them
- historical H_2 data from 6 stations

CH_4 data from 18 stations and N_2O data from 15 stations were validated by the NA2 WP members. These data were included in the first InGOS atmospheric data release (INGOS_2014.1).

The historical datasets and the data of the first release are available for download from the InGOS Atmospheric Data Center website for authorized people.

Near Real time data (NRT) 1/2

Near Real Time data for 11 stations are submitted to the database. The last month of data is available for download and can be browsed from the website (ingos-atm.lsce.ipsl.fr).



Near Real time data (NRT) 2/2

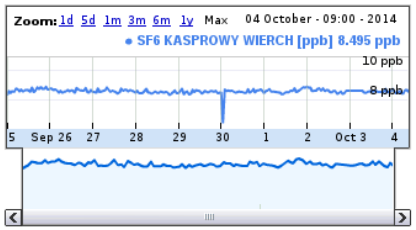
HOME / KAS - NRT DATA VIEW TOOL

KAS - NRT data view tool

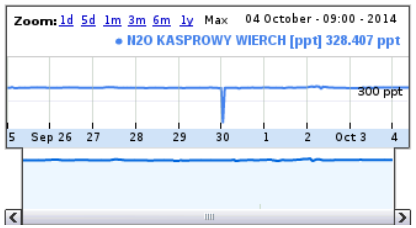
This is an interactive time series line chart with optional annotations from the last measurements of N2O and CH4 and SF6 from Kasprowy Wierch station. Measurement are hourly resolved. Use the zoom links ("1d 5d 1m" and so on) to navigate into the time serie. Use your mouse to move into the time serie. below the time serie is the zoom range selection area (the area at the bottom of the chart). The outline in the zoom selector is a log scale version of the time series in the chart, scaled to fit the height of the zoom selector. You can also use the selector to move into the time serie. Note that the chart is rendered within the browser using Flash.

CH4

SF6



N2O



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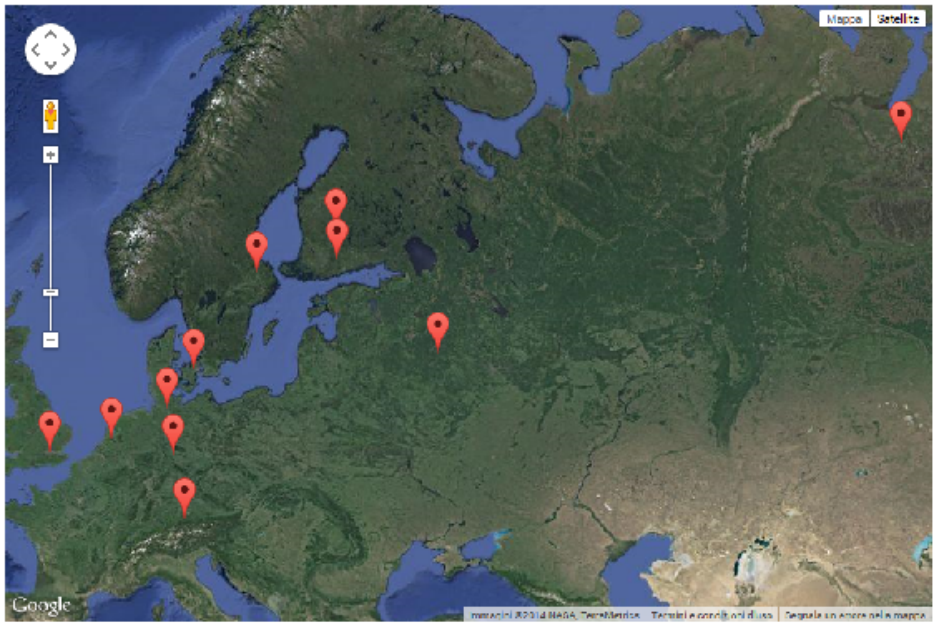
- Near real time data
- About INGOS
- HEI - NRT data view tool
- CBW - CBW data view tool
- InGOS Integrated non-CO2 Greenhouse gas Observation System

Ecosystem Data Center
Website

The database is operational and accessible from the website www.europe-fluxdata.eu/ingos.

Ecosystem Data Center
Site registration

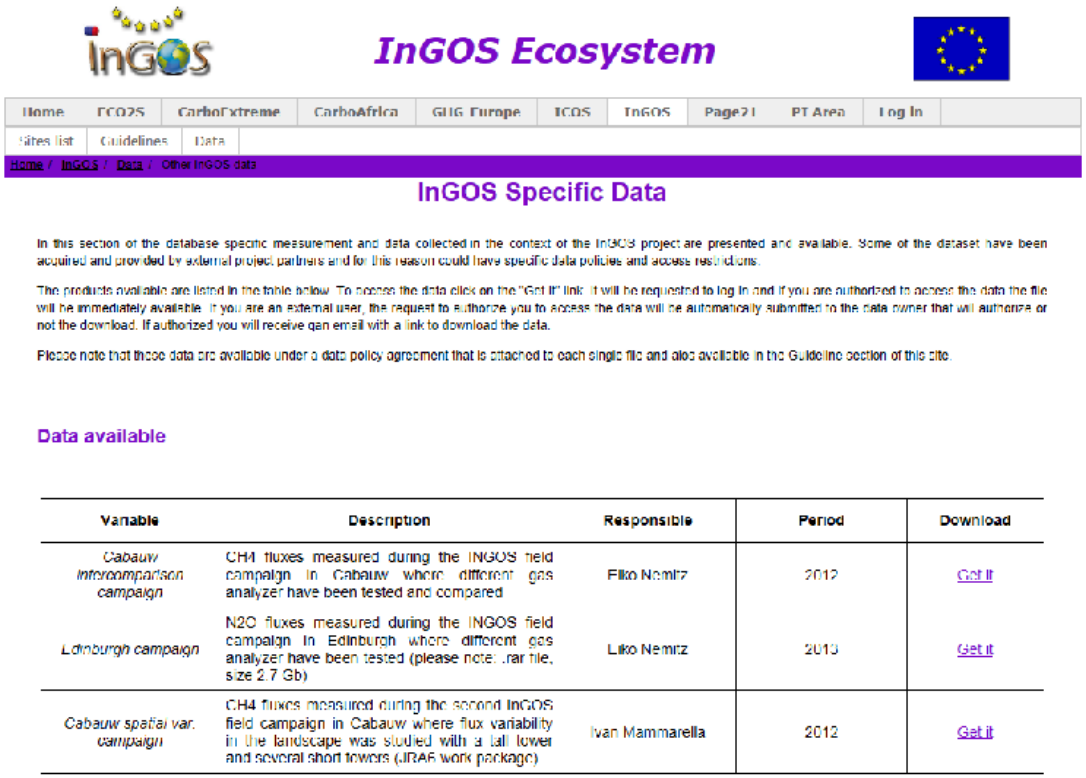
11 sites are registered even though it is not mandatory for ecosystem sites.



Site Code	Site Name	Site Responsible
DE-Hmm	Himmelmoor	Lars Kutzbach
DE Lnf	Leinefelde	Alexander Knohl
DE-SfN	Schechenfilz Nord	Rainer Steinbrecher
DK-RCW	Risø Campus Willow	Andreas Ibrom
FI-Hyy	Hyytiälä	Timo Vesala
FI-Kns	Kalevansuo	Tuomas Laurila
NL Hor	Horstermeer	Han Dolman
RU-Fyo	Fyodorovskoye	Andrej Varlagin
RU-Ndm	Nadym	Goncharova Olga
SL-Nor	Norunda	Anders Lindroth
UK-LBT	London_BT	Carole Helfter

Ecosystem Data Center
Specific campaign data

Data collected in different campaigns on instruments comparisons (Cabauw for CH_4, Edinburgh for N_2O) are standardized in format but available under a separate, InGOS specific session.



InGOS Ecosystem

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InGOS Specific Data

In this section of the database specific measurement and data collected in the context of the InGOS project are presented and available. Some of the dataset have been acquired and provided by external project partners and for this reason could have specific data policies and access restrictions.

The products available are listed in the table below. To access the data click on the "Get it" link. It will be requested to log in and if you are authorized to access the data the file will be immediately available. If you are an external user, the request to authorize you to access the data will be automatically submitted to the data owner that will authorize or not the download. If authorized you will receive an email with a link to download the data.

Please note that those data are available under a data policy agreement that is attached to each single file and also available in the Guideline section of this site.

Data available

Variable	Description	Responsible	Period	Download
Cabauw intercomparison campaign	CH4 fluxes measured during the INGOS field campaign in Cabauw where different gas analyzer have been tested and compared	Eiko Nemitz	2012	Get it
Edinburgh campaign	N2O fluxes measured during the INGOS field campaign in Edinburgh where different gas analyzer have been tested (please note: .rar file, size 2.7 Gb)	Eiko Nemitz	2013	Get it
Cabauw spatial var. campaign	CH4 fluxes measured during the second InGOS field campaign in Cabauw where flux variability in the landscape was studied with a tall tower and several short towers (JRA6 work package)	Ivan Mammarella	2012	Get it

Ecosystem Data Center

BADM template for not continuous data submission

The BADM (Biological, Ancillary, Disturbances, Management) is an international template for data submission developed and adopted by different EU and US initiatives.

In the last 12 months the BADM has been optimized and re-organized with AmeriFlux and it is now distributed to the sites.

It allows to submit chambers measurements of CO_2, CH_4, N_2O, NO, soil, ecosystem, heterotrophic and autotrophic respirations and all the meteorological characteristics inside the chamber.

Halocarbon Data Center

Overview 1/2

EBAS was populated with the first InGOS data in 2013 after a test and development period during 2012.

Currently, (September 2014) 132 datasets from the 4 halocarbon stations are available in the EBAS database.

EBAS also acts as node data for GAW-WDCGG, which means that certain pre-agreed datasets are made available to this data center.

Halocarbon Data Center

Overview 2/2

The primary database for the halocarbon data is the CDIAC database (cdiac.ornl.gov), holding halocarbon data from all SOGE and AGAGE stations.

The datasets are mirrored by NILU from CDIAC after each update from AGAGE.

A conversion program is defined to handle the reformatting from AGAGE data format to NASA Ames EBAS data format. This includes detailed flagging of identified pollution episodes.

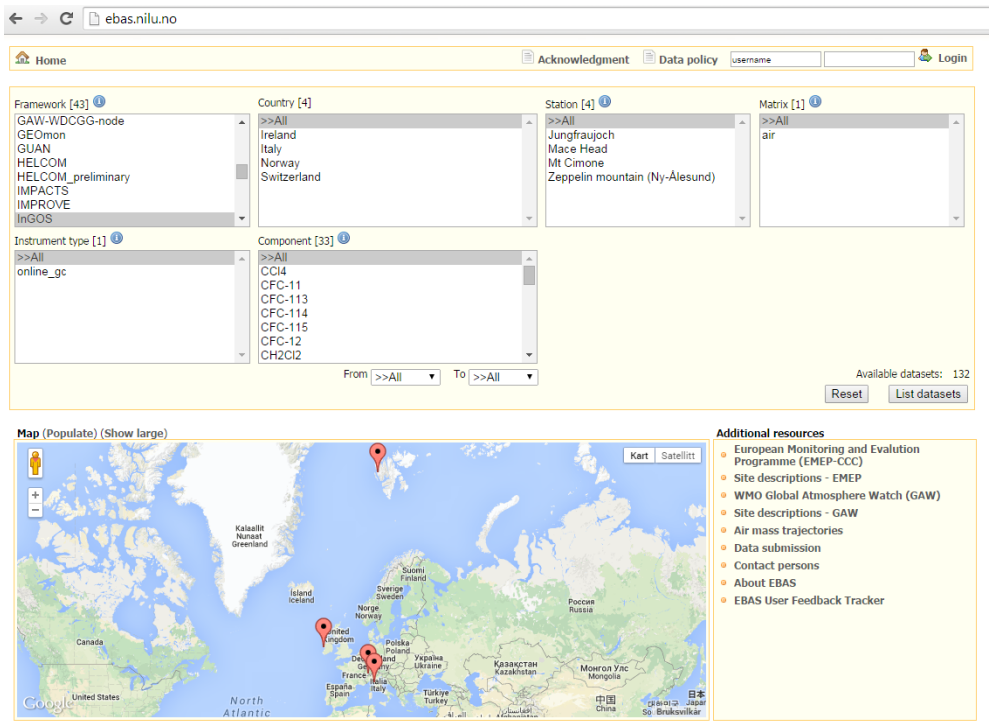
At NILU a dedicated data disk in the file tree holds the data archive, and ensures version control of files for every update.

Halocarbon Data Center

Website 1/2

The database web interface provides access for listing, plotting and download of InGOS data.

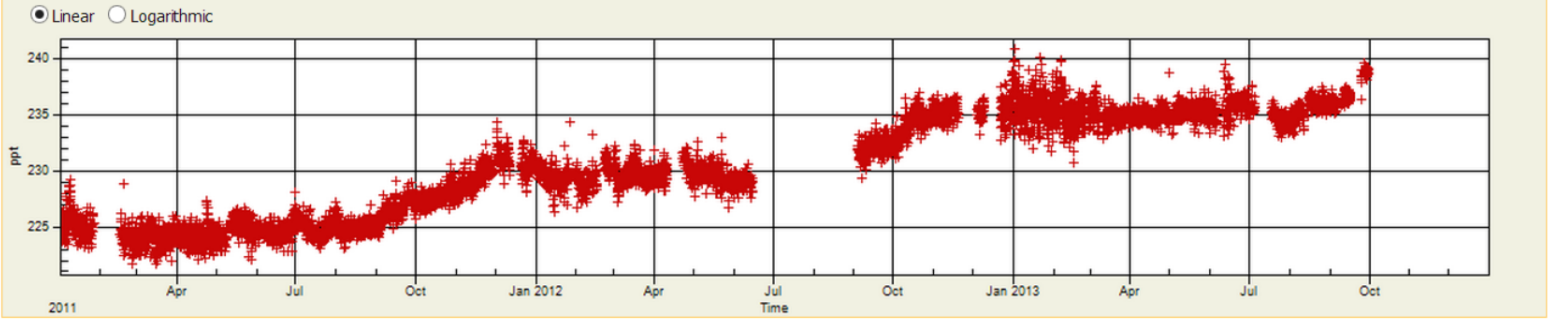
EBAS was populated with the first InGOS data in 2013 and since then, 149 datasets were downloaded, and 159 datasets were plotted in the database.



Halocarbon Data Center
Website 2/2

Norway - Zeppelin mountain (Ny-Ålesund) (NO0042G) - online_gc - HCFC-22 - air [2011.01.01-2013.09.30]

Plot | Values | Meta | Transport



Norway - Zeppelin mountain (Ny-Ålesund) (NO0042G) - online_gc - HCFC-22 - air [2011.01.01-2013.09.30]

Plot | Values | Meta | Transport

Regime:	IMG (Imission measurement at ground level or in the lower troposphere)	**Data Level:**		**Matrix:**	air
Component:	HCFC-22	**Resolution:**	2h	**Statistics:**	arithmetic mean
Unit:	ppt			**Dataset-ID:**	200120256
Station:	NO0042G	**Station name:**	Zeppelin mountain (Ny-Ålesund)	**Country:**	Norway
Instrument:	NO01L_MEDUSA_ZEP	**Type:**	online_gc	**Group:**	air_monitor
Method:	NO01L_ZEP_MEDUSA	**Std. Method:**			
Technical Details:					
Originator:	Chris Lunder	**Organisation:**	NO01L (NILU)	**Ext. lab.:**	
Frameworks:	GAW-WDCGG-node GAW-WDCGG-node InGOS InGOS NILU NILU NILU				