

# ICOS-France GHG monitoring Network 2012 reporting

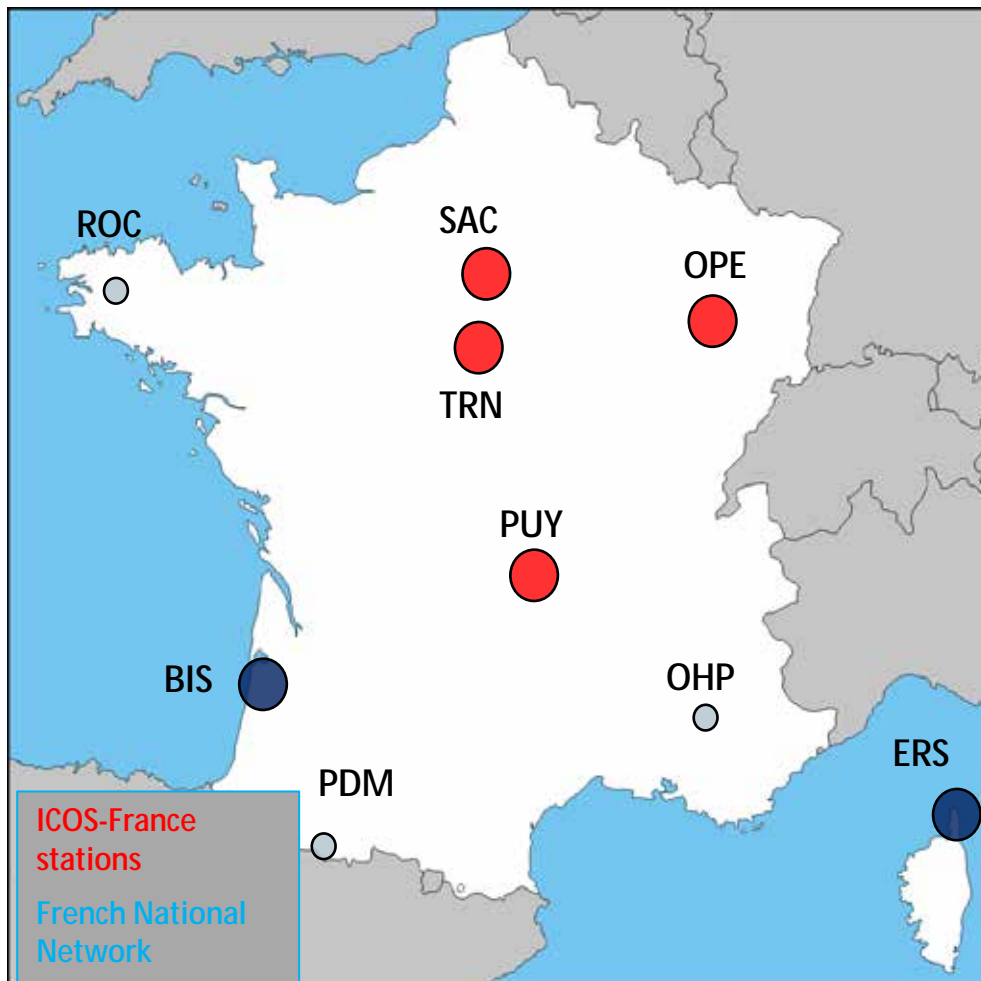
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Meeting MSA

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## The French national GHG monitoring network:



- 4 ICOS stations: 2 level 1 SAC / OPE  
2 level 2 PUY / TRN

- 7 complementary National stations distributed over Europe :  
In operation : MHD, ERS, BIS  
Under progress: ROC, PDM, OHP, FIK.



## ICOS-France station 2012 report:

### SACLAY (SAC):

- set up of the inlet line on the tower
- acquisition of the shelter and the Picarro instrument (G2401) and test/evaluation in progress
- provisory Los-Gatos  $\text{CO}_2$ - $\text{CH}_4$  analyser already running.

### Trainou (TRN):

- Installation of a new  $\text{CO}_2$ - $\text{CH}_4$ -CO analyser in June 2013
- some problems with CO measurements (Picarro laser adjustment).

- Puy de Dôme (PUY): - Picarro  $\text{CO}_2/\text{CH}_4$ : 74% of running time over 2012; 91% of valid data.
- Instrument under repair for cavity exchange between August 2011-March 2012

### Observatoire Pérenne de l'environnement (OPE):

- full level one station, integrated ICOS station prototype : 2 Picarro  $\text{CO}_2/\text{CH}_4$  analysers, 1 Los Gatos CO/ $\text{N}_2\text{O}$ , 1 Leosphere Lidar, meteo full set up at each levels of the tower (10, 50, 120m)
- several problems encountered mainly linked with thunderstorms (Picarro from prototype, meteo sensors).
- several problems encountered with the Lidar.



## Icos-France network Highlights:

- Inventory of instrumental troubleshooting within the global French network  
=> support to ICOS INWIRE project (see presentation by J.-D. Paris)
- Publication focused on COS/H<sub>2</sub> species based on measurements at Gif (Belviso et al. 2013)
- Two other publications by Lopez et al. (2013), one focused on N<sub>2</sub>O and one focusing on the Paris Megapoli project using TRN and GIF measurements.

## ICOS-France plan for 2014:

- SAC: installation of the shelter at the base of the tower, installation of Picarro G2401, start of the monitoring at three levels (10, 50, 100m). Evaluation of Lidar analyser.
- TRN : FTIR measurement campaign planned for 2014, set up of a  $\text{N}_2\text{O}$  analyser on site. Publication of the historical station set up and associated data (prior to ICOS).
- PUY : Publication of the historical station set up and associated data (prior to ICOS) in preparation
- ICOS station calibration scale upgrade in cooperation with CAL (TRN, PUY)
- Follow up of the upgrade of the French national network to the ICOS standard in order to prepare new stations joining the ICOS-network.
- Improve the quality of station measurements in terms of data gaps and data validity (spare instruments, near real time follow up by station PI -through data products use-)