

12-month fixed-term contract “soil analyst research engineer” @ETC, INRAE, France

ICOS (**I**ntegrated **C**arbon **O**bservation **S**ystem, <https://www.icos-cp.eu/>) is the European greenhouse gas observation network. This network includes an atmosphere, ocean and ecosystem component. The ecosystem component is made up of around sixty observation sites. The ETC (**E**cosystem **T**hematic **C**enter) is the centre for processing data from the ecosystem observation sites. It includes a component for processing flux data, plant and soil measurements. The proposed position is located within the soil component of the ETC in France. This soil component consists of the soil analysis laboratory (LAS INRAE Arras), the InfoSol unit (INRAE Orléans), and the ECOSYS laboratory (INRAE, Thiverval-Grignon). InfoSol has defined the sampling strategy, the protocols for soil sampling and sample preparation, and the data processing methods for calculating soil carbon stocks. InfoSol also ensures the storage of the soils in the soil library of the European Soil Samples Conservatory and the storage of the data in a database of the Soil Information System.

Missions

The missions will be to ensure the coordination of soil measurements within ETC in conjunction with the analysis laboratories in Arras, the InfoSol unit in Orleans, the ETC-France coordinator at ECOSYS in the Paris region and the other ETC components in Italy and Belgium.

The candidate will have missions **to support the network users:**

- Responding to requests from Ecosystem site managers to provide them with practical answers on how best to organise and carry out the soil sampling campaign, if necessary with the support of the InfoSol tea
- Helping site managers to understand the sampling instructions and help them to fill in the metadata bases on these samples (BADM)
- Verify the quality of metadata and data and ensure the correct transmission to the ETC components (laboratories, databases)

Project management

- Monitoring the sampling schedule on the ICOS-ecosystems sites
- Organising ETC France meetings and taking an active part in ETC Europe meetings
- Ensure scientific and budgetary reporting to ICOS-Europe

Research

- Development of methods for calculating carbon and nitrogen stocks
- Evaluation of the uncertainties on these stocks and capacity to determine their evolution
- Writing a scientific article based on ETC methodology together with the site PIs

Communication

- Preparation of presentations and posters for the ICOS conference
- Organisation of workshops to explain measurement methods, databases, etc.

Skills

We are looking for a PhD with:

- A background in soil science and knowledge of sampling methods and soil carbon
- Skills in one digital data processing tool (R, Python, ...) and database management
- Organisational skills and knowledge of project management tools
- Fluent in English
- Mobile (meetings in Orleans, Italy, Belgium, site visits ...)

Location and conditions

- 12-month fixed-term contract at the French Research Engineer level
- Location at INRAE ECOSYS (near Paris) in collaboration with InfoSol (Orléans)
- **Job position opens 1 May 2020 (to be discussed)**

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- **Please send detailed CV and motivation letter to us before the 10 March 2021**
- Interviews will be organised between 15 March and 1st April.