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EUROSOIL2020CONT-2096

DATA4C+ - A RESEARCH PROJECT FOCUSSED ON INTEROPERABILITY OF DATABASES ON SOIL CARBON

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Presentation Preference: Oral communication
Would you like to receive more information about applying for a grant once this becomes available?: No
Content: Because of its multiple co-benefits, soil organic carbon is at the crossroads of several Sustainable Development Goals, but also of the United Nations Conventions on Climate, Biodiversity and Desertification. Launched during COP 25 in Paris, the 4 for 1000 Initiative is one of the major initiatives of this international agenda that involves multi-stakeholders and research organizations in particular. In this context, there is a major challenge to reference soil carbon information and associated meta-data in databases and to make them interoperable. The FAIR (Easy to Find, Accessible, Interoperable, Reusable) principles should help to meet this challenge.

To tackle this challenge, the DATA4C+ research project, funded by the French Research National Agency (ANR), was launched at the end of 2019 by the French consortium Cirad-INRAE-IRD. DATA4C+ aims meeting the growing need to assess the impact of agricultural practices on soil carbon. Stakes are high to reference data and meta-data in databases to have a global view. We are convinced that interoperability between databases and open-science movement (FAIR) are part of the solution.

The objectives of DATA4C+ are : i) Define good practices to describe the content of the databases and fill them in homogeneously, ii) Identify the technical and legal bottlenecks to interoperability between databases and design solutions, iii) Experiment the solutions for data in a French overseas area, iv) Share on the project at international level.

The results of DATA4C+ are intended to be integrated into the practices and tools of Cirad, INRAE and IRD within the framework of their respective digital and open science strategies. Beyond the soil carbon research community, the semantics validated in the DATA4C+ project will be published/disseminated and used by other scientific communities. In addition, solutions/options from the DATA4C+ project may also be valid for other soil parameters and then support other teams. In addition, the provision of soil carbon data and meta-data will have a wide range of targets such as States and consultancies. Therefore, the first results of DATA4C+ will be shared during EUROSOIL 2020.

Disclosure of Interest: None Declared

Keywords: 4pmille initiative, Carbon, Databases, FAIR principles, Metadata