

# European Union at COP25

## CIRCASA Side-event

December 5<sup>th</sup>, 15:30-16:00

EU pavillon, Room Brussels

## SOIL CARBON AS A NBS TO ADDRESS CLIMATE CHANGE TOWARDS AN INTERNATIONAL RESEARCH CONSORTIUM

There is a need for the development and implementation of a new strategic research agenda on SOC assessing the potential for an international infrastructure on soil C monitoring.

Implementation of such research agenda will require a dedicated international research consortium federating all the major research institutions active on the various aspects of SOC management.

The side event should be a first step towards convening interested stakeholders wishing to join such an ambitious strategic research agenda towards forming a Community of Practice on soil organic carbon management.

The side event will include a key note presentation on SOC, presentation of the H2020 CIRCASA project and the prospects for international research consortium on SOC followed by an open interactive discussion among participants.

### SPEAKERS:

**Jean-François Soussana:**  
INRA's Vice Chair for  
International Affairs, IPCC  
SRCL author

**Cristina Arias-Navarro:**  
INRA, Scientific Officer, H2020  
CIRCASA

**Hayden Montgomery:** Special  
Representative, GRA



## Participating initiatives



## 22 Partners



French National Institute for  
Agricultural Research (INRA)



International Institute for Applied  
Systems Analysis (IIASA)



International Center for Tropical  
Agriculture (CIAT)



Ecologic Institute (EI)



Max Planck Society for the  
Advancement of Science (MPG)



Aarhus University (AU)



Centre de coopération  
Internationale en Recherche  
Agronomique pour le  
Développement (CIRAD)



European Commission, Joint  
Research Centre (JRC)



International Institute of Tropical  
Agriculture (IITA)



Institut de Recherche pour le  
Développement (IRD)



Laboratoire des Radiosotopes  
(LRI)



Wageningen University and  
Research (WR)



International Soil Reference and  
Information Centre (ISRIC)



University of Aberdeen (ABDN)



University of Leeds (UoL)



Agricultural Research Council  
(ARC)



Commonwealth Scientific and  
Industrial Research Organisation  
(CSIRO)



Brazilian Agricultural Research  
Corporation (EMBRAPA)



Chinese Academy of Agricultural  
Sciences (CAAS)



New Zealand Agricultural  
Greenhouse Gas Research Centre  
(NZAGRC)



Lomonosov Moscow State Uni-  
versity (MSU)



Colorado State University System  
(CSU)



Coordination of International  
Research Cooperation on soil  
Carbon Sequestration

Towards an International  
Research Consortium on  
soil carbon



[www.circasa-project.eu](http://www.circasa-project.eu)



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## ABOUT CIRCASA

The CIRCASA project aims to develop international synergies concerning research and knowledge exchange in the field of Soil Organic Carbon (SOC) sequestration in agriculture at European Union and global levels with active engagement of all relevant stakeholders.

### OBJECTIVES

1. Strengthen the international research community
2. Improve our understanding of agricultural soil carbon sequestration and its potential for climate change mitigation and adaptation
3. Co-design a Strategic Research Agenda with scientists and stakeholders
4. Create an International Research Consortium on agricultural soil carbon.

## TOWARDS A STRATEGIC RESEARCH AGENDA

A 2020-2025 Strategic Research Agenda (SRA), grounded on scientific evidence and stakeholders' views identified by CIRCASA studies (Network map and dialog, science base for the SRA, and stakeholders views from a global online survey translated to 7 languages with approximately 2000 answers) is being co-designed with projects partners, national and international research funding agencies, and the EC.

### Scientific Community



Research challenges identified from literature and through the online survey completed by more than 200 research scientists internationally.

This SRA will support the alignment of research into the International Research Consortium (IRC) on Agricultural soil carbon sequestration.

## DESIGNING AN INTERNATIONAL RESEARCH CONSORTIUM

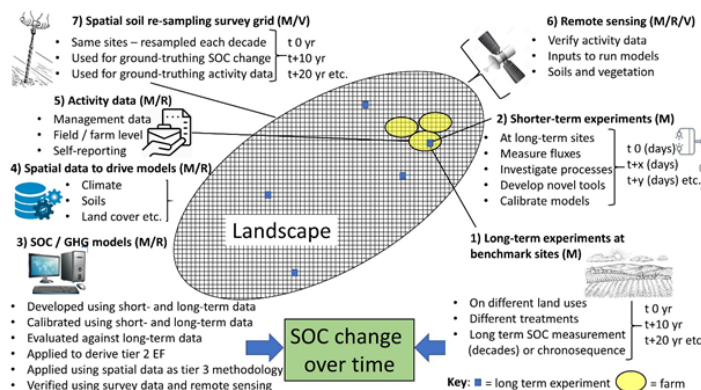
CIRCASA project plans for major breakthroughs on agricultural soil carbon sequestration through an IRC by combining:

### TOPIC 1 - FRONTIERS RESEARCH

Unlocking the potential of soil carbon by improving our understanding of the role of agricultural management on soil health.

### TOPIC 2 - INTERNATIONAL SOIL C MONITORING SYSTEM

Developing a carbon budgeting approach, also in use for IPCC Tier 3 national inventories, based on a combination of well-calibrated soil carbon models, activity data (agricultural practices) and high-resolution soil (SoilGrids250, ISRIC), and climate data.



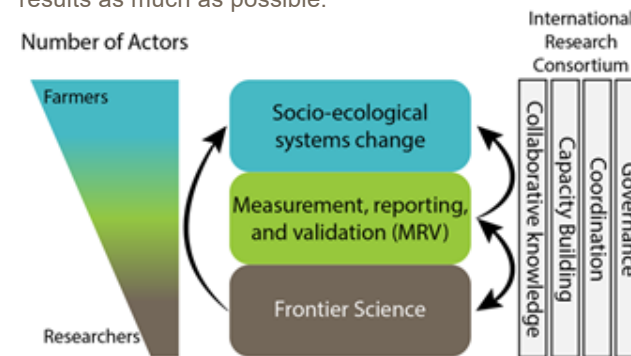
New vision for a global framework for Monitoring, Reporting and Verification of SOC change (Smith, Soussana et al. 2019, Global Change Biology)

### TOPIC 3 - INNOVATION FOR SCALING OUT SOIL C

Developing novel technologies and options for farmers and industries and studying financial and policy mechanisms to scale the solutions identified.

- Plant breeding
- Biochar and organic amendments
- Precision agriculture and machinery
- Knowledge sharing and capacity building

A 2020-2022 IRC implementation plan will cover issues such as funding of research priorities, delivery targets, alignment of funding procedures and guidelines, agreements to share results as much as possible.



Preliminary vision of the CIRCASA IRC.

## THE OPEN COLLABORATIVE PLATFORM

The OCP developed by CIRCASA is a key asset to share efficiently knowledge across scientists, farmers, and industries. It will host the Knowledge Information System (KIS). Working as a knowledge hub, this tool aims to reference and visualize geospatial data from different repositories, documents and corresponding metadata directly accessible via the OCP.

Register at



Stay tuned and be aware of all our activities, subscribe to our Newsletter at [www.circasa-project.eu](http://www.circasa-project.eu)  
Or follow us on twitter @CIRCASAproject

### Project Key Facts

**Project title:** Coordination of International Research Cooperation on soil Carbon Sequestration in Agriculture (CIRCASA)

**Funded under:** H2020-EU.3.2.1.1. - Increasing production efficiency and coping with climate change, while ensuring sustainability and resilience

**Topic(s):** SFS-50-2017 - Supporting international cooperation activities on agriculture soil contribution to climate change mitigation and adaptation

**Funding scheme:** CSA - Coordination and support action

**Coordinated in:** France

**Duration:** From 2017-11-01 to 2020-10-31

