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# **DEEPSURF 2021**

TOWARD SOLUTIONS FOR ENERGY AND ECOLOGICAL TRANSITION



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Picture by Freepi

# **DEEPSURF CONFERENCE**

First announcement - January 2021

In the context of transition to green and renewable energies, major scientific, political and societal challenges are raised by the need to manage energy resources more sustainably, with related reductions in greenhouse gas emissions and enhanced sequestration of greenhouse gases. Such objectives are central to the Green Deal promoted by the European Union. They raise many questions and challenges that will be the subjects of this Conference.



#### **DEEPSURF Conference**

DEEPSURF Conference aims to focus on improving knowledge on complex ecosystems and contribute to the debate on ecological and energy transition. The Conference will tackle the question of heat transfer and mass flow (water, hydrocarbons, pollutants and gases) between subsurface, soil, biosphere and atmosphere, as well as impacts on the environment and society's perceptions.

The Conference will focus on new projects on exploitation of soil, underlying rock and biomass (Carbon Capture, Utilization and Storage - CCUS), management of energy vectors (hydrogen, compressed air, water and gases), geothermal energy, mineral resources, nuclear waste storage, biomass energy production, wasteland reclamation, etc.

DEEPSURF Conference proposes to combine approaches to geosphere, biosphere and atmosphere monitoring, as well as modelling in order to minimize related uncertainties and risks, including compensation and remediation mechanisms.

DEEPSURF Conference will comprise plenary sessions on state of the art researches on:

- > Carbon storage in the biosphere, soil and underlying bedrock,
- > Matter and heat transfer through the critical zone and underlying geological compartments,
- > Use of land and subsurface for energy transition purposes.

Specific sessions will also address such topics as data sciences (mathematics applied to geosciences and/or environmental sciences), geological storage (gases, waste, etc.), the role of low-emission hydrocarbons in energy transition strategies, biomass production and soil ecosystem services, optimization in forest management, agricultural land and wasteland, and metal for energy transition.

Five field trips in the Grand Est region will cover the themes of fossil resources from past to present (coal, oil and gas), salt and its age-old history, geothermal energy, radioactive waste storage, forest monitoring, and pollution of soils and their remediation. Field trips are included in the Conference Pack.

The objective of the conference is to mix together scientists from diverse disciplines: Geosciences, Environment, Soil, Forest Sciences, Applied Mathematics, Geography, History, Economy, and Social and Legal Sciences. Such diversity is necessary in order to debate the major challenges posed by the Green Deal.

### **Key dates**

Call for abstracts: April 2021 - August 2021 Registration opening: April 2021 Program announcement and registration closure: September 2021

## **Contact information:**

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