



Geoscience, Policy and Society

Transatlantic Perspectives of Geological Surveys

Online event – 7 to 11 June 2021, 10.00 am (EST) / 4.00 pm (CEST)

MOTIVATION

The reorganization of our society with focus on renewable energy, sustainable use of resources, and low-climate impact, remains high on European and international agendas. One aspect that receives insufficient attention is the **crucial role of the subsurface and its resources in this transition.**

A better understanding of subsurface processes, linked potential, and the consequences of any actions, whether intended or not, can ensure the safe and sustainable development of these resources, as well as reveal new opportunities of subsurface use. This understanding is therefore the crucial baseline for sound policies, including subsurface resource management and spatial planning.

The online event Geoscience, Policy and Society (GPS) 2021 aims to discuss the crucial role of the subsurface and its resources in the transition to a sustainable future.

This event is being organized by Geological Survey Organizations in Europe - BRGM, GBA, GSB and EGS, and the U.S. Geological Survey, which have been engaged in providing the needed science for improved sustainable subsurface management and policy. It addresses policy makers, regulators, interest groups, geoscientists and representatives from industry and the research community dealing with the multiple uses and management of underground resources. We also welcome anyone with a broad interest in geoscience to join the discussions.

THE EVENT

From 7 to 11 June 2021, starting at 10 am (EST) / 4 pm (CEST), sessions will address a different aspect of geoscience-related subsurface use, management, planning, and policy comparing and learning from innovative science and experiences of both sides of the Atlantic Ocean. Side sessions between 7 and 14 June 2021 will complement these discussions by addressing more specific topics.

Main sessions

7
June

GeoStar Challenge finals: Which geosites best represent the potential of the subsurface?

The subsurface is build up by past and present geological processes, and it is a challenge to communicate its complexity to those involved in policy development and strategy. One way to access and understand these hidden processes is to look at their expressions reflected at the surface.

We invite you to think about the subsurface through sites of geological interest around the world. How can they improve our understanding of subsurface processes? Are they being used to raise awareness to bring the importance of geology to the attention of the society?

You are encouraged to pick your favorites through an interactive selection process starting on 1 May 2021 in our [Twitter](#), and in our opening session on 7 June the finalists will be presented and you in the audience will vote to pick the GeoStars of each category!

Organization:



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8
June

Bridging geothermal energy to the next level in the United States and the European Union

Geothermal energy used for electricity production, heating, cooling and seasonal heat storage still covers a niche inside the global energy market but has the potential to become a key player in the upcoming decades regarding the clean energy transition. To enter the “*geothermal decade*” as proposed by the European Geothermal Energy Council, still several technological as well as socio-economic barriers needs to be addressed by policy makers and research.

This session aims at providing transatlantic views on the future of geothermal energy, including: the expected opportunities, prevailing challenges, and the anticipated role of Geological Survey Organizations. In this context, attention is paid to the research and innovation roadmaps of the United States Department of Energy, the U.S. Geological Survey and EuroGeoSurveys as well as to showcasing latest research activities inside these organizations.



9
June

Towards Multi-Resource Assessments for Improved Sustainable Natural Resource Management

Activities that affect the subsurface naturally affect the surface resources as well. Thus, assessments of subsurface resources tell only part of the story that is of interest to policy makers, resource managers, and the public.

How do past, current, and future uses of the subsurface affect the multiple natural resources to which they are connected? For example, how do old mining sites affect current and future water and ecosystem quality? How does hydraulic fracturing for energy production affect water availability for other necessary uses? How does geologic sequestration of carbon affect future agricultural or recreational uses of the landscape?

Multi-resource assessments aim to provide decision-makers with more holistic assessments of natural resources to enable them to answer these important questions. Multi-resource assessments require working across disciplines and developing and using innovative tools for improved decision support, including scientific and technological advances such as improved sensor technologies, integrated modelling, artificial intelligence, machine learning, and high-performance computing.

10
June

Managing the multiple uses of the subsurface

Note: this topic will also be addressed in the side session on 14 June, referring specifically to urban groundwater.

Climate change, together with demographic, socioeconomic and geopolitical trends, are increasing the demand and utilization of subsurface resources for energy, water supply and infrastructure. The use of the subsurface will require planning and prioritizing among subsurface uses, in particular looking at conflicts and synergies between them. The management of subsurface resources and uses should be included in spatial planning and governance strategies at regional, national, and local scale.

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The main topic of this session is to present through practical and concrete examples “How the Subsurface Management and Subsurface Spatial Planning occurs in EU and USA - Their Advantages and Obstacles”. From the operator side and Geological Surveys’ experience, this session will share their views and research on how to prioritize and optimize competing subsurface uses taking into account economic, societal and environmental considerations.

11
June

Final debate: Geoscience, Policy and Societal Challenges

This final session aims to give a comprehensive review of the whole weeks’ sessions, with an added perspective on need for further developing the interactions between geo-science and policy as well as society. The complexity of this interaction poses many questions for each of the parties involved; geoscience can provide a sound base for policymaking, with society expecting improved outcomes. When the desired outcomes are not met, the gaps along the science and communication chain need to be identified and corrected where possible.

This session will begin with high-level keynote speakers’ reflections on the overarching needs and expectations in the science-policy-society triangle, including interventions by representatives of the US Government, the European Commission, and the Geological Surveys of Europe. This will be followed by a panel discussion with scientific experts, who will deliberate on the outcomes of the webinar series and discuss how the lessons learned could be reflected upon in view of current and future geoscience-related policy and research agendas in order to increase its impact for an improved society.

Side sessions

7
June

Virtual field trip: The potential hidden in the subsurface

This 360° field trip aims at showing the importance and potential of the subsurface with a focus on what is visible at (or near the) surface. It will be premiered in the opening interactive session of GPS 2021.

10
June

Geological information and knowledge for policy support 10 am CEST

This workshop organized by the GeoConnect³d project aims at demonstrating the results of the new methodological approach to provide the information and knowledge needed for policy support, with a special focus on subsurface management.

14
June

Urban Geothermal energy use with special reference to shallow subsurface application 10 am EST / 4 pm CEST

This workshop organized by the MUSE project aims at providing transatlantic views on the future of managing geothermal energy in urban areas. Special attention is paid on the inputs of Geological Survey Organizations on data assessment, governance and management.

For more information about each session, side events and access to the free registration, visit www.gps2021.org

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