

# Energy, Resources & the Environment (ERE)

Division Meeting – 29 April 2021

Viktor J. Bruckman and Sonja Martens

Contact: [ere@egu.eu](mailto:ere@egu.eu)

Website: <http://www.egu.eu/ere>



vEGU21: Gather Online | 19 - 30 April 2021

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Meetings | Publications | Outreach | [www.egu.eu](http://www.egu.eu)

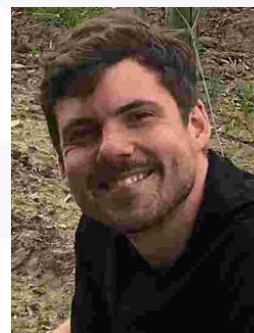
# The ERE Team welcomes you



Sonja Martens



Viktor J. Bruckman



Morgan Tranter



Maria Wetzel



Maria Ask



Chris Juhlin



Michael Kühn



Kristen Mitchell

## As of 13 April, the vEGU21 provides

- 13,743 abstracts in programme | -24% relative to 2020
- Total sessions: 843, of which 636 are vPICO
- Networking opportunities, e.g scheduled networking events, pop-up networking events, EGU committee meet & greets, Viennese settings (café, art exhibits, cooking)



vEGU21: Gather Online | 19–30 April 2021

[ABOUT](#) ▾ [PROGRAMME](#) ▾ [REGISTER](#) [EXHIBITION](#) ▾ [GUIDELINES](#) ▾ [↔](#) ▾

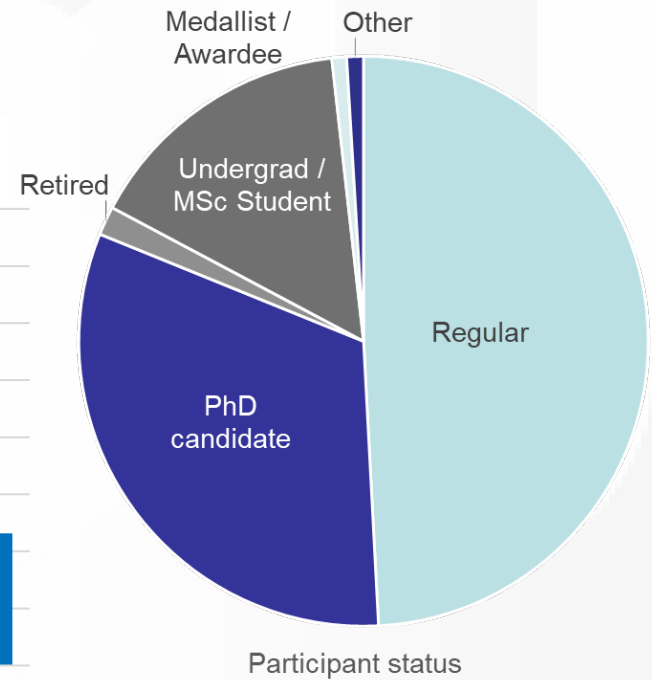
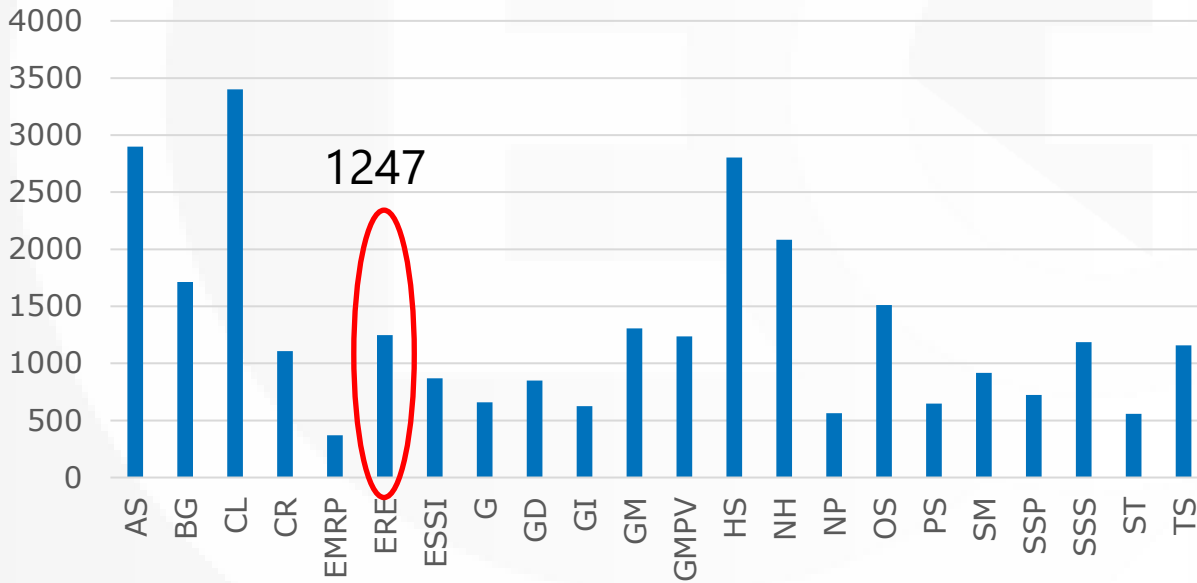


#vEGU21: Engage • Discover • Inspire

# vEGU21 Registration numbers

- 13,982 registrations (17 April 2021, 11:30)
- Participants from 126 countries

Participants division affiliation



## New EGU president: Helen Glaves

**Alberto Montanari** served as EGU President for the term 2019-2021. Thanks, Alberto!



**Helen Glaves** was elected to serve as EGU President for the term 2021-2023. Congratulations, Helen!

She was inaugurated during the EGU plenary meeting in 2018 serving first as the EGU Vice-President for one year. She will then now serve as EGU President for two years (2021–2023) and finally as Vice-President for the fourth year.





## Aim of our ERE division

- **EGU** brings together geoscientists covering all disciplines of the earth, planetary and space sciences (interdisciplinarity).
- We – **Energy, Resources and the Environment (ERE)** – bring together these scientists to ...
- ... tackle **challenges** of the future: Provide adequate and reliable supplies of affordable **energy** and other **resources**, obtained in **environmentally sustainable** ways, which will be essential to economic prosperity, environmental quality and political stability around the world.

Energy, Resources  
& the Environment

Division



- **Until April 2021:**

- President/PG Chair: Sonja Martens
- Deputy President: Chris Juhlin
- Officers:
  - Maria Ask
  - Viktor J. Bruckman
  - Michael Kühn
  - Kristen Mitchell
- ECS Representative: Morgan Tranter



S. Martens



C. Juhlin



M. Ask



V.J. Bruckman



M. Kühn



K. Mitchell



M. Tranter

## ERE Division Officers

- **This term:**

- President/PG Chair: Viktor J. Bruckman
- Deputy President: Sonja Martens (**approved**)
- Officers:
  - Chris Juhlin (**approved**)
  - Michael Kühn
- ECS Representative: Morgan Tranter



V.J. Bruckman



S. Martens



C. Juhlin



M. Kühn



M. Tranter



# On-going activities of the ERE Division

- Organization - Plan/run the ERE sessions for the General Assembly
- Publications - Offer annual ERE special issue(s)
- Information - Run the ERE website and the twitter account
- Networking - Bring together ERE early career scientists

**ERE – Energy, Resources and the Environment**

**Monday, 26 April**

**ERE6.1 EDI\***  
**Induced/triggered seismicity in geo-energy applications: monitoring, modeling, mitigation, and forecasting\***  
 Co-organized by EMRP1/SM6  
 Co-conveners: Rebecca M. Harrington Q, Marco Maria Scuderi<sup>ECS Q</sup>, Victor Villarrasa Q  
 Convener: Antonio Pío Rinaldi Q | Mon, 26 Apr, 09:00–12:30 (CEST)  
 ▶ vPICO presentations

**ERE6.2**  
**Faults and fractures in geoenergy applications 1: Numerical modelling and simulation\***  
 Co-organized by EMRP1  
 Co-conveners: Márk Somogyvári<sup>ECS Q</sup>, Peter Bayer Q, Florian Amann Q  
 Convener: Mohammadreza Jalali Q | Mon, 26 Apr, 13:30–15:00 (CEST)  
 ▶ vPICO presentations

**ERE6.3**  
**Faults and fractures in geoenergy applications 2: Monitoring, laboratory and field work results\***  
 Co-organized by EMRP1  
 Co-conveners: Nathaniel Forbes Inskip<sup>ECS Q</sup>, Roberto Emanuele Rizzo<sup>ECS Q</sup>, Catalina Sanchez-Roa<sup>ECS Q</sup>, Sarah Wehmann<sup>ECS Q</sup>  
 Convener: Nathaniel Forbes Inskip<sup>ECS Q</sup> | Mon, 26 Apr, 15:30–17:00 (CEST)  
 ▶ vPICO presentations



[https://twitter.com/ERE\\_EGU](https://twitter.com/ERE_EGU)

## Division on Energy, Resources and the Environment


Home / ERE Site search

**President:** Sonja Martens ([ere@egu.eu](mailto:ere@egu.eu))  
**Deputy President:** Viktor Bruckman ([viktor.bruckman@oeaw.ac.at](mailto:viktor.bruckman@oeaw.ac.at))


**Officer:** Christopher Juhlin ([christopher.juhlin@geo.uu.se](mailto:christopher.juhlin@geo.uu.se))  
**Officer:** Kristen Mitchell ([drkristenmitchell@gmail.com](mailto:drkristenmitchell@gmail.com))  
**Officer:** Maria Ask ([maria.ask@ltu.se](mailto:maria.ask@ltu.se))  
**Officer:** Michael Kühn ([mkuehn@gfz-potsdam.de](mailto:mkuehn@gfz-potsdam.de))  
**Officer:** Viktor Bruckman ([viktor.bruckman@oeaw.ac.at](mailto:viktor.bruckman@oeaw.ac.at))  
**ECS Representative:** Morgan Tranter ([ecs-ere@egu.eu](mailto:ecs-ere@egu.eu))

The European Geosciences Union (EGU) brings together geoscientists from all over Europe and the rest of the world, covering all disciplines of the earth, planetary and space sciences. This scientific interdisciplinarity is needed to tackle the challenges of the future. A major challenge for humankind is to provide adequate and reliable supplies of affordable energy and other resources. These should be obtained in environmentally sustainable ways, which is essential for economic prosperity, environmental quality and political stability around the world. One goal of the division Energy, Resources & the Environment (ERE) is to be a leading discussion forum for these issues. The core of the division consists of experts in various fields that will help meet the mutually coupled challenges of Energy, Resources and the Environment.

**Our team**



**Sonja Martens**  
 President [ere@egu.eu](mailto:ere@egu.eu) 

Sonja is a civil and environmental engineer by training with a background in both academia and industry. Her research focuses on hydrogeology, numerical flow and transport simulations and the sustainable use of georesources and the subsurface, for example investigating CO2 storage in geological media.

**Viktor Bruckman**  
 Deputy President **Officer** [viktor.bruckman@oeaw.ac.at](mailto:viktor.bruckman@oeaw.ac.at) 

Viktor's research interests include renewable energy from biomass, with a focus on forests. He is also involved in biochar research and the investigation of carbon and nutrient cycles which includes soil processes and climate change. His interdisciplinary and holistic approaches are directed towards a sustainable and eco-friendly utilization of biomass as a source for energy and industrial raw materials.


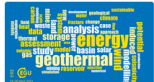
**Find ERE on**


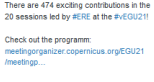
 

**Subscribe to**

- EGU newsletter
- ERE mailing list
- ERE-ECS mailing list

**Tweets by @ere\_egu**

 **ERE EGU** @ERE\_EGU  
 What are the ERE sessions at the #EGU21 about? Look at the words with the most frequent title words. The top five: #energy, #geothermal, #wind, #analysis, #storage 

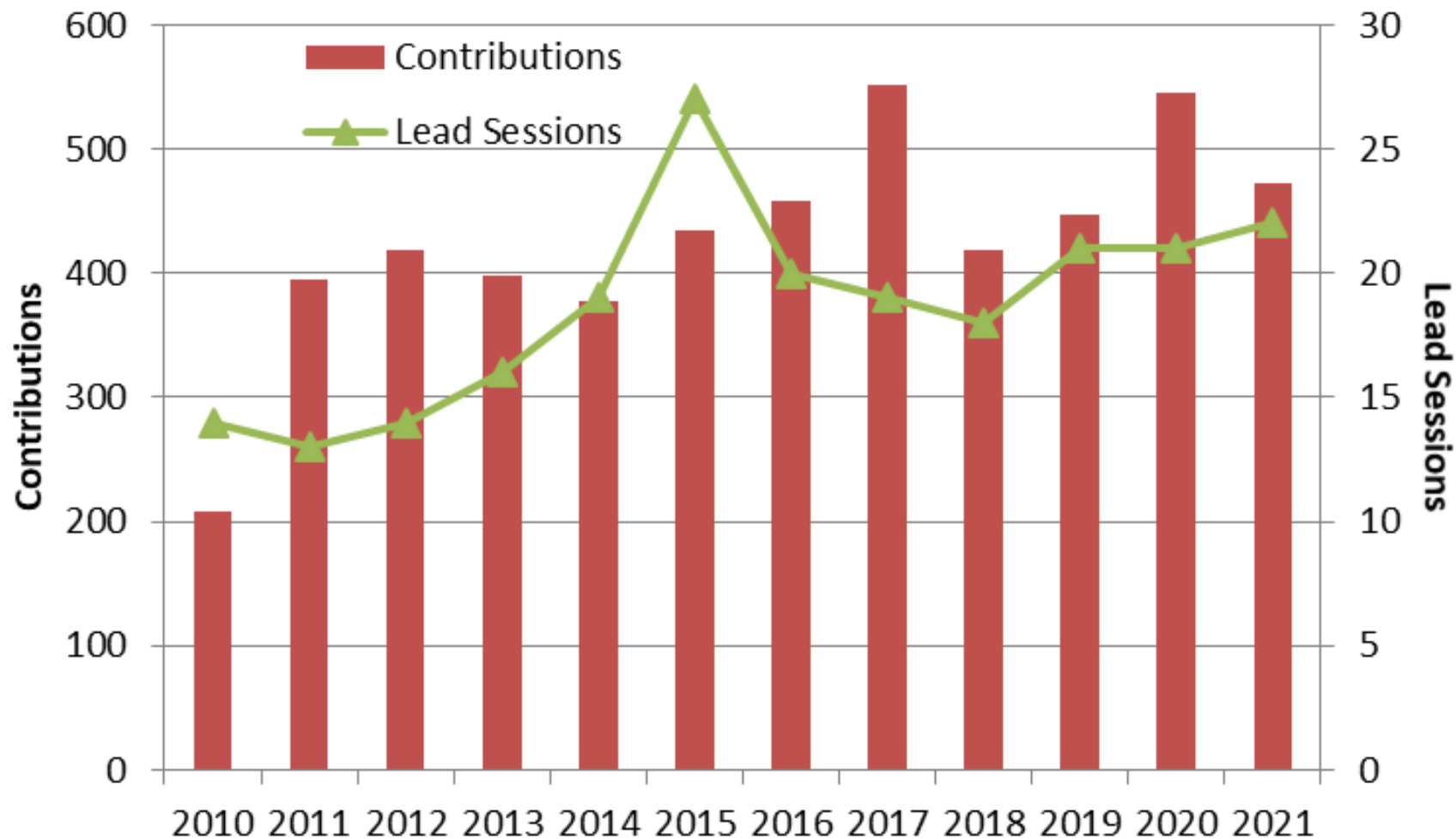
 **ERE EGU** @ERE\_EGU  
 There are 474 exciting contributions in the 20 sessions led by #ERE at the #EGU21! 

Check out the program [meetings.eguprimer.org/EGU21/#/sessions](https://meetings.eguprimer.org/EGU21/#/sessions)...

Mar 15, 2021

<http://www.egu.eu/ere>

# ERE – Scientific Programme



# ERE Scientific Programme in 2021

## ▪ **ERE1 – Integrated studies**

- ERE1.1 Energy, Resources & the Environment – Open session
- ERE1.2 GeoERA: Developing integrated geoscience services to address European resource supply and management challenges
- ERE1.3 Carbon emissions/removals estimates under Land use, land-use change and forestry (LULUCF) sector: field measurements, remote sensing and modelling
- ERE1.4 Impacts and co-benefits of the energy transition on terrestrial ecosystems – implications and prospects for Natural Capital and Ecosystem Services
- ERE1.5 Land use dynamics, land degradation and insights for land sustainability in agriculture and forest landscapes

## ▪ **ERE2 – Renewable energy**

- ERE2.1 Energy Meteorology
- ERE2.2 Spatial and temporal modelling of renewable energy systems
- ERE2.5 Exploration, utilization and monitoring of conventional and unconventional geothermal resources
- ERE2.6 Shallow geothermal systems for heating and cooling: geoscience and engineering approaches

## ▪ **ERE3 – Fossil energy**

- ERE3.1 Petroleum exploration and production and their impact on the environment

# ERE Scientific Programme in 2021

## ▪ ERE4 – Geo-storage

- ERE4.1 Secure subsurface storage for future energy systems
- ERE4.2 Towards a safe nuclear waste repository – assessment of barrier integrity, geoscientific, technological, societal and regulatory challenges and approaches

## ▪ ERE5 – Raw materials

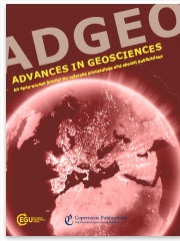
- ERE5.1 Global Heritage Stone Resource: The sustainable way forward
- ERE5.3 Sustainability as a challenge to face and a goal to reach: interdisciplinary approach to support raw materials and energy supply
- ERE5.4 Mineral exploration for the XXI Century
- ERE5.6 Antimony and associated elements: from mineralisation to the environment
- ERE5.7 Towards an environmentally sustainable transformation of tailings and mine waste: circular economy and future vision

## ▪ ERE6 – Process coupling and monitoring related to geoenergy applications

- ERE6.1 Induced/triggered seismicity in geo-energy applications: monitoring, modeling, mitigation, and forecasting
- ERE6.2 Faults and fractures in geoenergy applications 1: Numerical modelling and simulation
- ERE6.3 Faults and fractures in geoenergy applications 2: Monitoring, laboratory and field work results

## Please join the ERE networking event: NET5 today at 12:00

- Open ZOOM-Meeting for discussing issues around
  - vEGU21 in general (organization, challenges, improvement...)
  - ERE in specific (quality of sessions, topics covered, ideas...)
  - And for all other issues you would like to inform us
- ERE networking event starts right after the ongoing Division Meeting
  
- MIRO assisted, link: [https://miro.com/app/board/o9J\\_IJ6Zns0=/](https://miro.com/app/board/o9J_IJ6Zns0=/)



- **Join the ERE special issue 2021 in Advances in Geosciences (ADGEO).**
- If you submitted an abstract to an ERE session or a co-organized one for the GA 2021, you are welcome to contribute with a publication.
- Your manuscript needs to be directly linked to your EGU abstract (please add your abstract number when submitting).
- **Guidelines for preparations and templates** are available on the ADGEO website: <https://www.advances-in-geosciences.net/submission.html>
- Manuscripts need to be 4 pages long and should target around 10 pages.
- **Publication fee** depends on your home institution and is ca. 35 €/page.
- **Submissions** are possible from 1 May **until 30 June 2021**.
- Reviews are done by ERE officers, conveners and authors of the GA 2021.
- If you submit a manuscript we expect you to take part in the reviewing process. So we might ask you to do up to two reviews.
- **Questions?** Please contact: Michael Kühn, Sonja Martens, Viktor Bruckman ([adgeo.ere.egu@gfz-potsdam.de](mailto:adgeo.ere.egu@gfz-potsdam.de))

- **Join an ERE special issue** with a **full paper** in **Applied Sciences**.
- We are seeking for **contributions** of fundamental scientific advances and engineering developments in the understanding of **resources systems** and aspects of the **environmental impacts** of **socio-economic development**.
- Every manuscript is welcome not previously published elsewhere.
- Targeted **key topics** are studies on renewable energy, fossil energy, geo-storage, raw materials as well as process coupling and monitoring.
- Theoretical, empirical, or experimental approaches are welcome.
- **Guidelines for preparations and templates** are available on the MDPI website: <https://www.mdpi.com/journal/applsci/instructions>
- **Publication fee** is 2,000 CHF (Swiss Francs) per paper.
- **Submissions** are possible from now on **until 31 August 2021**.
- **Questions?** Please contact us:  
Michael Kühn, Sonja Martens and Viktor Bruckman  
([applsci.ere.egu@gfz-potsdam.de](mailto:applsci.ere.egu@gfz-potsdam.de))





## Communication

- ERE-ECS **Slack** channel introduced to have a platform for chat-based and transparent planning, discussion and communication of activities.
- Regular bi-monthly meetings.
- If you want to get involved, **contact us** via mail with a short introduction and your ideas.



## Expansion of core ECS team

- Currently over 5 active members.
- Introduction of the new team will follow soon.
- Get involved to become the new incoming ERE-ECS representative from 2022 on!



Morgan  
Tranter



Maria  
Wetzel



ecs-ere@egu.eu



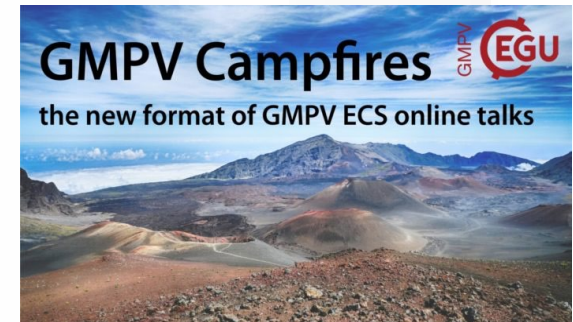
@ERE\_EGU

## Online talks and EGU campfires

- Planned from **summer 2021** on.
- For PhD-students/early career scientists, who are looking for opportunities to **promote their work** in the ERE community and network with peers.
- Test-run: **Collaboration with GMPV** planned for 16 Jun, 11:00-12:00 CET on the topic “Sustainability” (Mining, CCS, Geothermal).
- Invitation will follow via Twitter and [GMPV blog](#).
- [Call for presentations](#)

### Call for presentations

Use this form to propose a presentation for the EGU ERE ECS online talks (#EGUCampfires)



## Networking event during vEGU21, Tue, 27 Apr, 18:00–19:00 (CET)

- Chance to join and have a chat with us and other ECS from ERE!
- Casual meet up on gather.town and an exciting quiz.



ecs-ere@egu.eu



@ERE\_EGU

## 2020 Division Outstanding ECS Award

The European Geosciences Union presents the award to



# Estanislao Pujades

**for his outstanding research on Underground Pumped Storage Hydropower using abandoned mines and its interaction with groundwater.**

Estanislao gave his award lecture on 27 April 2021.

## 2021 Division Outstanding ECS Award

The European Geosciences Union presents the award to



**Giorgia  
Dalla Santa**

**for her outstanding research on shallow geothermal systems for building conditioning.**

Giorgia gave her award lecture on 27 April 2021.

# 1. vEGU21: Gather Online

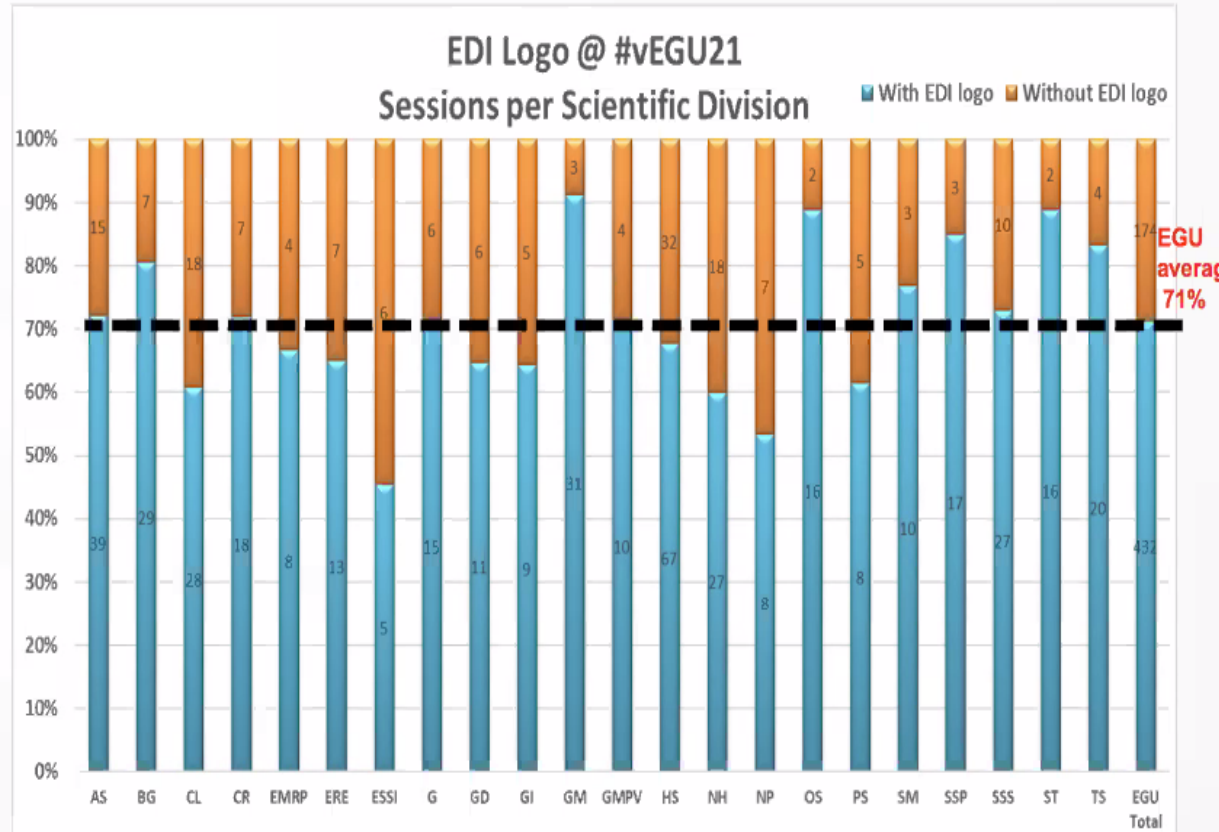
## EDI

## EDI Logo

Session conveners fulfill all three criteria:

1. Include conveners from **multiple countries and institutes**
2. Have conveners from **different career stages**, including at least one ECS
3. Include conveners that represent **more than one form of gender identity**

[edilogo@egu.eu](mailto:edilogo@egu.eu)



# vOSPP competition

## Abbreviation for: virtual Outstanding Student and PhD candidate Presentation (OSPP) Awards

- **Everyone can vote!**

13:37–13:39 | EGU21-13802 ★ | ECS | Highlight | vOSPP 

Visualizing the Energy Production, Imports and Exports for Countries ▶

Luisa Vargas Suarez and Jason Donev

vOSPP judging on display materials

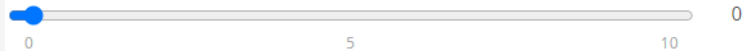
How to cite: Vargas Suarez, L. and Donev, J.: Vis  
19–30 Apr 2021, EGU21-13802, <https://doi.org/>

Post a comment

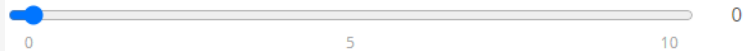
vOSPP judging

Please rate the display materials with regarding to the 3 given criteria. Hereby, 0 fulfils a criterion the least and 10 fulfils it the most. You can adjust your vote at any time before 30 April 2021.

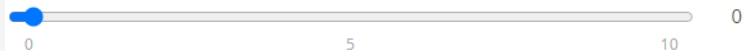
Relevance of the study



Scientific accuracy



Clarity of presentation



Submit vote

**ERE** ENERGY, RESOURCES AND THE ENVIRONMENT

## Division meeting reports

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Site search



The EGU Division on Energy, Resources and the Environment organises a division meeting each year at the EGU General Assembly. During this event, the division president reports on division activities (awards and medals, publications, current and next year General Assemblies), Union-wide news, presents the current division officers and runs the election of new ones. This page features the minutes and/or presentation slides of previous meetings.

- [Slides of the ERE Division meeting 2020](#) (PDF document, 1.1 MB)
- [Slides of the ERE Division meeting 2019](#) (PDF document, 1.9 MB)
- [Slides of the ERE Division meeting 2018](#) (PDF document, 1.5 MB)
- [Slides of the ERE Division meeting 2017](#) (PDF document, 5.5 MB)
- [Slides of the ERE Division meeting 2016](#) (PDF document, 2.6 MB)
- [Slides of the ERE Division meeting 2015](#) (PDF document, 3.0 MB)
- [Slides of the ERE Division meeting 2014](#) (PDF document, 11.9 MB)
- [Slides of the ERE Division meeting 2013](#) (PDF document, 2.4 MB)
- [Slides of the ERE Division business meeting 2012](#) (PDF document, 235.6 KB)
- [Slides of the ERE Division business meeting 2011](#) (PDF document, 771.7 KB)
- [Slides of the ERE Division business meeting 2010](#) (PDF document, 214.7 KB)
- [Minutes of the ERE Division business meeting 2009](#) (PDF document, 54.2 KB)

**Meet you next year  
3 - 8 April 2022**

<http://www.egu.eu/ere/reports/>

# EGU feedback survey

- Provide your feedback until May 31st
- EGU is a bottom-up institution, therefore we take your concerns, ideas and suggestions seriously
- Keep in mind that organizing vEGU21 was a new experience for all of us, organizers, conveners and participants

<https://survey.zohopublic.eu/zs/JahpPL>

**Thank you!**