

The background of the top half of the image is a complex digital visualization. It features a central rectangular area with a blue, glowing topographic map or contour plot. This central area is surrounded by a grid of orange and yellow data points and lines, resembling a digital landscape or a data processing interface. In the upper right corner, there is a network of interconnected nodes and lines, suggesting a data network or a complex system. The overall color palette is dominated by teal, orange, and black, creating a high-tech, futuristic atmosphere.

EAGE

EUROPEAN
ASSOCIATION OF
GEOSCIENTISTS &
ENGINEERS

Second EAGE Data Processing Workshop

INNOVATION AND ADVANCEMENTS IN MULTI-DOMAIN DATA PROCESSING

6-8 OCTOBER 2025 • BARCELONA, SPAIN

- **First Announcement**

WWW.EAGE.ORG

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OVERVIEW

Building upon the successful first EAGE Data Processing Workshop in Cairo we are excited to explore yet further into the depths of data processing in all its domains. In the first workshop we discussed how Seismic Processing has become a foundation stone for all the activity related to the energy industry of the future and the energy transition. Moving from the evergreen 2D and 3D time processing it has been relentlessly evolving into 4D then 4C, becoming

an even larger domain via Data Processing inversion techniques and calibration to geotechnical integration in a never slowing pace of innovation. The Energy transition with all the requirements from renewables, critical minerals, decarbonisation, transition fossil fuels is demanding of a huge amount of data processing. The demand for de-risking of multiple ventures requires high resolution data processing of a very thin layer portion of our earth's crust where the integration of geological and geotechnical data is paramount.

In this second workshop we will be seeking more emphasis on other forms of data processing. For instance, Satellite imageries and data will become more and more widespread as a backbone for accurate site characterisation in the domain of agriculture and forestry allowing the industry to respect the challenging targets of the decarbonisation pathway.

The significant leap forward in data processing in all its domains has been possible via two main enabling factors: Data acquisition technology advancements and the availability of an unprecedented amount of Computing Power. It is this latter aspect which gave us the idea to join forces with our co-conspirators in high performance computing in Barcelona, enabling us to jointly explore new options for data manipulation.

The healthy debate on data processing kicked off in Cairo with valuable input from many experts in their respective fields. Come to Barcelona and enjoy a stimulating discussion which promises to open new insights to data processing being the life blood of the energy industry and beyond!



TOPICS

06 & 08 October 2025

- Advancements in acquisition technologies and their implications for enhanced data processing
- Pushing the boundaries of Data Processing
- Innovations in Seismic Imaging and Evolving Data Processing Workflows
- Addressing regional data processing and imaging challenges - Europe, Africa & the Middle East
- Advancements and future direction of AI/ML in data processing and imaging
- Advances in Reservoir Characterisation and Reservoir oriented processing
- Challenges and Enhancements in Velocity Model Building
- Processing and imaging applications for the energy transition
- Data processing & imaging - quantifying improvements in quality
- Lessons to be learned from space/ Earth observation data processing
- Non-seismic Data processing technology
- Processing and imaging benchmarks: benchmarking approaches and results
- Computer science case histories on the industrial implementation of new processing and imaging technologies

07 October 2025: Joint Session: Leveraging the Computing Revolution in the AI era

The relentless pace of change of HPC technologies, to which the Geosciences have always been accustomed to, is now compounding with the extraordinary acceleration brought about by artificial intelligence. Every day new opportunities for innovation in data processing pipelines emerge, very often accompanied by new technological challenges. At the same time, data density and resolution are constantly increasing, and the latency between data acquisition and processing is constantly shrinking and even becoming non-existent when we process data on the edge.

This joint session will try to address the landscape of this new and unprecedented scenario. How are the HPC and data processing communities reacting? Is there a convergence path that can maximize benefits without disrupting established data processing ecosystems? Are there any lessons we can learn from past revolutions, such as when we borrowed GPUs from game consoles? Has generative AI already had a transformative impact on our data, just like it is having on text, sound, images, and video?

As the evolution of HPC hardware is inevitably increasingly driven by AI requirements, is there a viable way to leverage it to speed-up conventional and well established data processing approaches, or is it time for a radical paradigm change?

Join us for a groundbreaking joint session, featuring an exclusive guided tour of the Barcelona Supercomputing Centre—an experience like never before!



IMPORTANT DATES

Call for Abstracts Open	8 December 2024
Call for Abstracts Close	20 May 2025
Technical Programme Available	17 June 2025
Registration Open	2 June 2025
Early Registration Deadline	2 September 2025

SPONSORSHIP

To view the full range of sponsorship opportunities available at the event, please get in touch at ssu@eage.org.

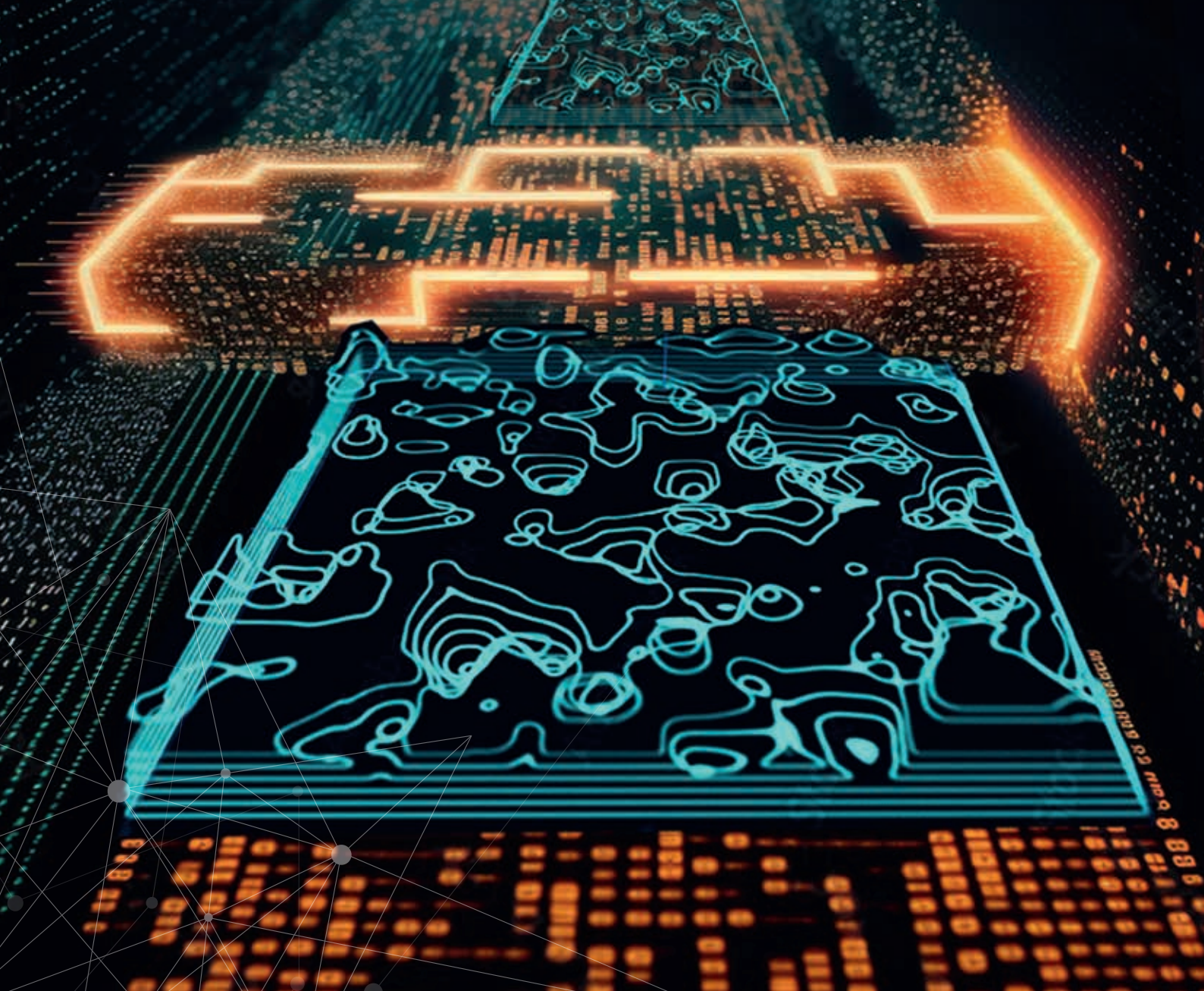


CONTACT

For more information on the workshop, please get in touch with the EAGE MEA team via middle_east@eage.org or +971 4 369 3897.

CALL FOR ABSTRACTS OPEN





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