



# SES

## Sustainable Earth Sciences

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### Technologies for Sustainable Use of the Deep Sub-surface



[www.eage.org](http://www.eage.org)

## First Announcement and Call for Papers

### Second Sustainable Earth Sciences Conference & Exhibition

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30 September – 4 October 2013  
Pau, France



Statoil

## SES 2013

EAGE would like to invite you to the Second Sustainable Earth Science Conference & Exhibition (SES 2013), which will take place from 30 September – 4 October 2013 in Pau, France. This unique event will be organized by EAGE in cooperation with CO2GeoNet, EGEC, Avenia, Global CCS Institute and House of Geoscience. Building on the success of the first SES conference in Valencia, Spain (2011), this conference aims to create a platform for geoscientists to meet, learn and discuss “Technologies for Sustainable Use of the Deep Sub-surface”.

## About the organizers

### EAGE

EAGE is a professional association for geoscientists and engineers. Founded in 1951, it is an organization with a worldwide membership (around 16,000 members), providing a global network of commercial and academic professionals. [www.eage.org](http://www.eage.org).

### CO2GeoNet

CO2GeoNet is the European scientific reference body dealing with all aspects of geological storage of CO<sub>2</sub> and promotes independent scientific research and expertise. It is also a network to promote research integration within the scientific community to help enable the implementation of CO<sub>2</sub> geological storage. [www.co2geonet.com](http://www.co2geonet.com).

### European Geothermal Energy Council

EGEC, the European Geothermal Energy Council, was founded in 1998. Their aim is to promote the use of geothermal energy. The organization has now more than 90 members from 22 European countries: private companies, national associations, consultants, research centers, geological surveys and other public authorities. [www.egec.org](http://www.egec.org).

### Avenia: Geosciences for Energy and Environment

Avenia aims to sustain the energy transition by developing geosciences and subsurface technologies for deep geothermal, carbon geological storage, subsurface energy storage and for the sustainable development of fossil energies. Avenia brings together industrial and public R&D and training resources specialized in geosciences, energy and materials. [www.pole-avenia.com](http://www.pole-avenia.com).

### Global CCS Institute

The Global CCS Institute accelerates the adoption of carbon capture and storage (CCS), a key solution in mitigating climate change and providing energy security. The Institute brings together projects, policy-makers and researchers to overcome challenges facing CCS. [www.globalccsinstitute.com](http://www.globalccsinstitute.com).

## House of Geoscience

The House of Geoscience is a service provider for geoscientists; individuals, groups and associations. The basis is sharing expertise and infrastructure on a non-profit basis. [www.houseofgeoscience.org](http://www.houseofgeoscience.org).

## Welcome

To meet the challenges of present and future energy demand, the geosciences play an increasingly important role in the sustainable use of the Earth and its resources and in the conservation of our environment. As an association representing a large group of geoscientists, EAGE wishes to promote the development of applied geoscience and technology with regard to sustainable use of the Earth and its limited resources.

This conference and exhibition will bring together multi-disciplinary scientists working on different aspects of Sustainable Earth Science. The main conference themes will be CO<sub>2</sub> Storage, Geothermal Energy and Deep-Earth Storage. Cross-disciplinary session themes will be encouraged, including monitoring technology, coupled Earth systems modelling, long-term storage integrity, combining renewables, geothermal and CCS and risk and environmental impact analysis.

Make this conference your priority and help us to bring different disciplines together to focus on sustainable use of the Earth's resources. The conference and exhibition is suitable for geoscientists and engineers working on any aspect of Sustainable Earth Science and we especially encourage students and young scientists to participate.

## Steering committee SES 2013

Philip Ringrose (Chairman)	Statoil
Sergio Persoglia	OGS
Claus Otto	Shell
Birgit Müller	Landesforschungszentrum Geothermie
Miklos Antics	GPC IP
Henk Pagnier	TNO
Andrea Tamburini	TRE
Isabelle Czernichowski-Lauriol	CO2GeoNet, BRGM
Sylvain Thibeau	Total
Jean-Claude Christophe	Avenia

## Venue

SES 2013 will be held in Le Palais Beaumont.

Le Palais Beaumont  
Allée Alfred de Musset  
64000 PAU  
France

The conference venue of Pau is located in the southwest of France between the mountains and the Atlantic Ocean. The city is easily accessible via Paris, Lyon, Marseille and London. Le Palais Beaumont is a member of the Historic Conference Centres of Europe. It used to be a winter palace of the English aristocracy in the 19<sup>th</sup> century. In 2000, it was converted into a conference center. The building is a large neo-classical building and water in the large pond, built by the architect Francois Lombard, reflects the front façade of the palace.



Palais Beaumont

## Technical programme

The technical programme will offer both oral and poster presentations. There will be four main themes during this conference:

- CO<sub>2</sub> Storage
- Deep-earth Storage
- Geothermal Energy
- Cross-disciplinary Topics

Integrated plenary sessions will be the main focus, with some parallel sessions on the second day and there will be plenty of time and space for poster sessions.

*The technical programme is sponsored by Shell.*



## Topics

We invite oral and poster presentations on the following themes:

### CO<sub>2</sub> Storage

- CO<sub>2</sub> Storage Capacity and Mapping
- CO<sub>2</sub> Storage Modelling, Monitoring and Verification (MMV)
- CO<sub>2</sub> Injection Technology
- Long-term Integrity of CO<sub>2</sub> Storage
- CO<sub>2</sub> Storage Pilot and Demonstration Projects
- CO<sub>2</sub> Utilization and Storage (CCUS)

### Geothermal Energy

- Geothermal Resource Mapping and Assessment
- Modelling and Monitoring Geothermal Energy
- Geothermal System Maintenance and Infrastructure
- Geothermal Project Case Studies
- Enhanced Geothermal Systems

### Deep-earth Storage

- Gas Storage
- Underground Waste Disposal
- Energy Storage in Aquifers and Caverns

### Cross-disciplinary Topics

- Long-term Storage Integrity
- Coupled Earth Systems Modelling
- Deep-earth Reservoir Management
- Combining Renewables, Geothermal and CCS
- Environmental Monitoring (On-shore and Off-shore)
- Risk and Environmental Impact Analysis
- Novel Low-carbon Energy Solutions
- Induced Seismicity

## Call for papers

In order to have a fully ranged technical programme available, the above mentioned list of topics has been set. Should you wish to contribute to the technical programme, please note that the deadline for submission of extended abstracts is **15 March 2013**. Abstracts received after this deadline will not be considered.

Please refer to our website ([www.eage.org](http://www.eage.org)) for more information on the guidelines, the submission process and other relevant information.

## Field Trip

### Geological Aspects of CO<sub>2</sub> Storage and Geothermal Energy in the Pau Region

Friday 4 October

#### Field trip description

Pau is a perfect area for a field trip related to both CO<sub>2</sub> geological storage and geothermal energy aspects. CO<sub>2</sub> is being injected from January 2010, 8 km south Pau; and a geothermal project is under review that would be drilled 5 km west of Pau. These two operations target the same geological formations, Jurassic Mano and Meillon Dolomites.

The optional field trip will start by a visit to the CO<sub>2</sub> storage site in Rouse, focusing on monitoring aspects of the storage. The tour will continue towards the outcrops of the Mano and Meillon Dolomites, at the Pyrénées foothills, south of Pau.



Rouse CO<sub>2</sub> injection Pilot site from the air

## Short Course

### Geophysical Monitoring of CO<sub>2</sub> Storage

Monday 30 September

Instructor: Martin Landrø

#### Course description

The optional course will discuss various methods for monitoring subsurface injection of CO<sub>2</sub>. Specifically, the following topics will be covered:

- Rock Physics related to Injection of CO<sub>2</sub> into a Porous Rock
- Time-lapse Seismic Methods
- Gravity and Electromagnetic Methods
- Saturation and Pressure Effects
- Early Detection of Leakage
- Mapping overburden Geology and Identification of Potential Weakness Zones
- Field Examples
- Well Integrity Issues
- Using Gas Leakage as a Proxy to Study Potential Leakage of CO<sub>2</sub>
- Laboratory Experiments of CO<sub>2</sub> Flooding including Acoustic Measurements

## Who should attend?

The course is designed for geoscientists working in oil companies, service companies and research organizations.

## Social Programme

To complement the conference and exhibition, an icebreaker reception will be organized in the exhibition area on Tuesday 1 October. On Wednesday 2 October a conference dinner will take place at a special location.

## Important Dates

Deadline for Call for Papers	15 March 2013
Confirmation to Authors	Beginning of May 2013
Registration open	15 May 2013
Deadline early registration	5 August 2013
SES Short Course	30 September 2013
SES Technical Programme and Exhibition	1 - 3 October 2013
SES Field Trip	4 October 2013

## Exhibition & Sponsoring

SES 2013 includes an exhibition where you can enhance your product knowledge and obtain the latest developments. Visit the exhibition to expand your network and change ideas. Meet the exhibitors and grow a network of invaluable contacts for your company and career. Companies who are interested in participating in the exhibition programme or the sponsor programme can refer to the EAGE website or contact us at [exhibition@eage.org](mailto:exhibition@eage.org) / [sponsoring@eage.org](mailto:sponsoring@eage.org). Please note that exhibition space is limited.

## Sponsors

*The Second Sustainable Earth Sciences Conference & Exhibition is sponsored by Pau Porte des Pyrénées, Statoil and Shell.*



## Contact

Please visit our website at [www.eage.org](http://www.eage.org) for all the latest updates and the downloadable version of the SES 2013 announcement. For any questions about SES 2013, please contact the conference department via [ses@eage.org](mailto:ses@eage.org) (EAGE Head Office).