

Seminario "ARDUINO LECTURE"

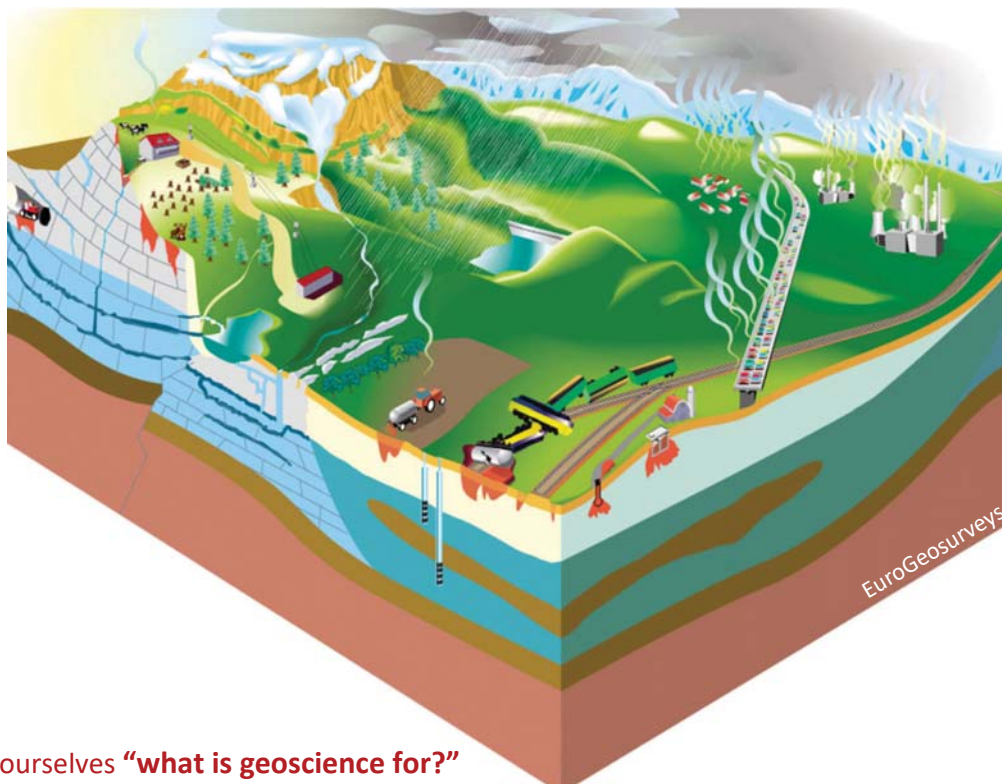
Giovedì, 23 gennaio 2020 - ore 12:00-13:00

Aula Arduino

Prof. John Ludden

Heriot-Watt University, Edinburgh (UK)

Geoscience and its role in resourcing future generations



We need to ask ourselves **"what is geoscience for?"**

There are new drivers for geoscience research enabled by a technological revolution: underground sensors; visualisation; big computing; data informatics. These will allow us to make major advances in solving key global problems.

- Decarbonising will require the engineering and socio-economic spheres to work together;
- Global hazard / risk effecting a shift from identification of hazard to modelling and prediction and communication;
- Provision of water, food, health services and energy where most needed.
- Space science, a new role in exploring and inhabit the moon and mars.
- Extreme geoscience (is our science too parochial?).

However, there are some questions that we need to think seriously about:

- Are geoscientists too focussed on Earth's history rather than its future?
- Should we be solving environmental problems rather than simply identifying them?
- Where are the Big Earth science problems?
- Are there new career paths (non-academic) for students?
- Are we good at dealing with tougher environmental regulations and greater public scrutiny?

Biography

Professor John Ludden CBE **The Lyell Centre, Heriot-Watt University, Edinburgh, UK**



Professor John Ludden CBE is Bicentennial Research Professor at Heriot Watt University, following 13 years as Executive Director of the British Geological Survey. Drawing on his extensive experience as an international leader in the earth and environment sector, this Professorship focusses on science governance and diplomacy, with a remit to develop links across disciplines and to strengthen communication with the public and policy makers.

Working within the Lyell Centre <http://www.lyellcentre.ac.uk/> and associated with the Institute for Geoenergy Engineering (IGE), John is also developing a world-class energy testbed in Krafla Iceland at the interface of molten rock within the earth's crust.

John builds on his numerous science leadership posts in the UK, France and Canada in the Earth and Environmental sector with a focus on resource development. He has worked as a professor and research scientist at the French National Research Centre (CNRS), where he was its associate director for Earth Sciences, at the University of Montreal, Columbia University and with Woods Hole Oceanographic Institution in the USA.

Experienced in the academic sector, he holds a doctorate from the University of Manchester, UK and numerous visiting and honorary professor posts in UK and European Universities. He is a member of Academia Europaea, Foreign member of the Russian Academy of Sciences, and past president of the European Geosciences Union and the EuroGeosurvey Organisation. In 2016, he was awarded a CBE for Service to Geoscience.

Serving on and chairing boards in government, academia and industry in the earth, environment and energy sector, he brings a unique expertise in governance. Using all of his experience, he seeks to engender a cultural shift towards a more solutions-based approach at the interface of environmental, engineering and social science that responds to urgent global problems.