(EPOS). We are leader of the M5 consortium (11 industrial partners and the University of Liverpool) on tectono-magmatic processes and the "CHADRILL" consortium dedicated to the study of climate change in Africa. The CNRS "PAUSE" program allows us to welcome a researcher in exile studying the lithospheric and crustal structure of the West Afar margin.

IPGS has a major role in the field of geothermal energy through the Labex (laboratory of excellence) grant "G-eau-thermie profonde", ANR grant "CANTARE", the "ADEME DEEP-EM" project, and the "GEOTREF" project as part of the ADEME Investments for the Future of Energy framework. We are leader of the ANR project "Exciting" on the exploration of geological resources and reservoirs, ANR project "Tremplin Pisco" on the seismic cycle, and we participate in the ANR project "AlpArray" on the imaging of the structure of the Alps. Finally, we are laureates of many "IdEx-attractivité" (initiative of excellence) projects, funded by the University of Strasbourg.

Researchers at IPGS are also heavily involved in Equipex projects (equipment of excellence) in seismology and geodesy (project "Resif-Core") and in hydrology and geochemistry (project "Critex").

Contact: Laurence Jouniaux, director

Tel. 03 68 85 03 34

Email: ipgs-contact@unistra.fr

Photo credits:

1. 3-D shear-wave velocity anomalies in the whole-mantle as imaged by multiple-frequency tomography © C. Zaroli

2. Mongolia, Gobi-Altay range, the 4 December 1957, earthquake of Mw=8.1: The distance between the two persons shows the 6.5 meters of horizontal slip © A. Schlupp

3. FG5 absolute gravimeter #206 designed by Micro-g LaCoste and installed at Wankama, Niger, during the operation phase of the Ghyraf project sponsored by the ANR © B. Luck

4. Trace of a recent seismic rupture (Italy, October 30th 2016 Mw6.6) © J. Van der Woerd

5. Err detachment (Alps), one of tLégende he detachment faults which allowed the transition from rifting to seafloor spreading in the Tethys ocean 160 Ma ago © G. Manatschal

6. Hydrostatic cell for water/gas permeability of rocks under confining pressures up to 50 MPa © T. Reuschlé

7. Slip model of the 2014 Iquique earthquake (Chile) (modified from Duputel et al., 2015 and Jolivet et al., in prep).

8. AlpArray network map ©ANR AlpArray.

ECOLE ET OBSERVATOIRE DES SCIENCES DE LA TERRE
5 rue René Descartes, 67084 Strasbourg
03 68 85 00 53 • eost.unistra.fr

IPGS
Strasbourg

École et observatoire des sciences de la Terre de l'Université de Strasbourg et du CNRS

eost.unistra.fr

THE STRASBOURG INSTITUTE OF EARTH PHYSICS

eost.unistra.fr

THE STRASBOURG INSTITUTE OF EARTH PHYSICS

The Strasbourg Institute of Earth Physics (IPGS) is a joint research unit (UMR 7516) of the University of Strasbourg and the National Scientific Research Centre (CNRS), and is associated with the School and Observatory of Earth Sciences (EOST).

The main objective of the IPGS is to study the Earth. Using geophysical and geological methods, the IPGS aims to advance our understanding of the structure, internal dynamics, and evolution of our planet.

The research at IPGS uses a combination of field, laboratory, numerical, and theoretical techniques.

The research focus of IPGS is not restricted to France: members of IPGS work on five continents and on the majority of the seas and oceans. IPGS have longstanding international scientific exchanges and collaborations.

+ RESEARCH

IPGS is organised into five teams.

Global Dynamics

The Global Dynamics team studies the structure and internal dynamics of the Earth, including the monitoring of crustal deformation by measuring the spatial and temporal variations of potential fields (magnetic and gravimetric).

Active Tectonics

The Active Tectonics team is interested in the deformation mechanisms affecting the lithosphere and the crust, as well as the superficial layers subjected to gravitational instabilities or movements of anthropic origin.

Geology, Oceans, Lithosphere, Sediments

The research of the GeOLS team concerns the understanding of geological systems and their functioning through a multidisciplinary and multi-scale approach. In addition to contributing to fundamental research

(characterization, mechanisms and models of Earth Science Systems), applications include the fields of natural and energy resources (oil, mineral, geothermal, H2,...), environmental issues (climate, CO_2 storage...) and archaeology.


Experimental Geophysics

The Experimental Geophysics team focuses on multi-scale imaging of geological structures, the monitoring of fluid movement, the formation and deformation of geological structures in reservoirs, volcanoes, and soils, and the mechanics of faults.
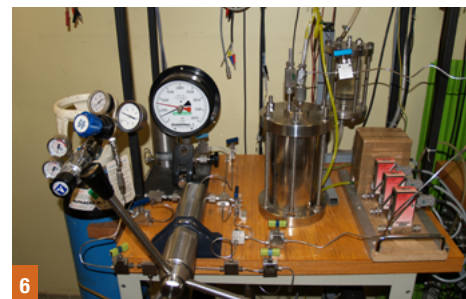
Seismology

The Seismology team uses natural seismic sources and the waves they produce to study the structure of the Earth and seismic hazards. Their approach is based on developing new methods (fundamental and applied) to provide a greater degree of precision and accuracy to areas of interest.
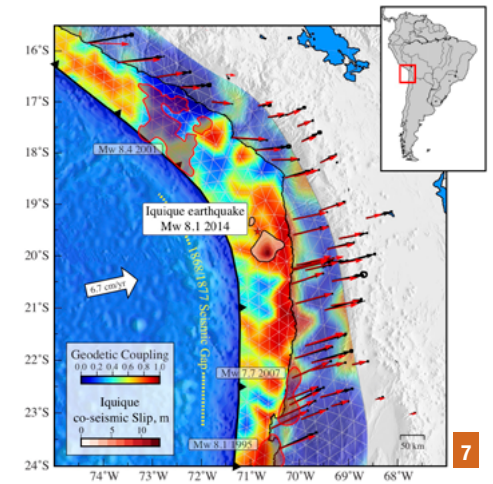
IPGS houses 150 teacher-researchers, researchers, doctoral students, post-docs, technical, and administrative staff.

+ TEACHING

The IPGS is a major player in the teaching of Earth Sciences in Strasbourg, both in License and Master, as well as in the EOST engineering school. IPGS welcomes students to conduct their research internships, as well as doctoral students from the Graduate School of Earth Sciences and the Environment (ED 413).

+ PROJECTS

The IPGS is involved in many regional, national, and international projects. For example, we are partners in the Associated International Laboratory (LIA) together with the Department of Physics of the University of Oslo and the Ministry of Science and Technology of Taiwan. We are also engaged in the "TRIGGER International Research Group" (IRG) on the Geology, Geodynamics, Earthquakes, and Resources of Iran. We participate in the "Interreg Upper Rhine Cluster for Sustainability Research" project with Germany and Switzerland. We also form the magnetism component in the European project "European Plate Observing System"