

## Services of the Cluster are related to the following activities

- Uranium, other mineral and unconventional hydrocarbon exploration,
- CO<sub>2</sub> sequestration,
- Safe disposal of wastes (incl. radioactive) on a long term,
- Prevention of various problems in the field of civil engineering that originate in geological processes, geotechnical tests and their evaluation,
- Geothermal research,
- Research of renewable and non-renewable energy sources,
- Environmental management, environmental remediation tasks,
- R&D equipment development, project management.



SZÉCHENYI 2020

## CLUSTER OF APPLIED EARTH SCIENCES

The Cluster of Applied Earth Sciences uniquely combines the knowledge, research and developments of the discipline. The cluster members have reputation, international references and a large number of long term cooperating partners in the global scientific community as well as in the business world. The union of companies as a cluster makes it possible to provide comprehensive services for corporate groups, for the main contractors of international large investments and for the management of joint international projects.

Many of the cluster members have significant experience in uranium industry, having contributed to all phases of the uranium ore exploration, mining and milling in Hungary, making CAPES an ideal choice for uranium resource prognoses, planning and managing uranium exploration projects, mine design, technical consultancy for ore production and processing and for post-mining site remediation. Additional activities related to geosciences like the final disposal of radioactive wastes (LLW/ILW, HLW), exploration of unconventional hydrocarbon resources, geothermal research, CO<sub>2</sub> sequestration and storage, underground coal gasification (UCG), the utilisation of spoil-dump material, geological environmental problems in civil engineering represent a serious challenge, require R&D work, instrumental and methodological development and strong cooperation between universities, industry and innovative SMEs - thus they are all within the competence of CAPES.

The members of CAPES are internationally known for their scientific and innovative achievements. The cluster members offer their products, services, innovation and research activities on a high level of quality and at competitive prices.

**GEOCHEM Ltd.**[www.geochem-ltd.eu](http://www.geochem-ltd.eu)

R&D and engineering consultancy, petrophysical measurements, developments and research in the field of geology - hydrocarbon and raw material exploration, geothermal energy, radioactive waste disposal. Laboratory automation, education.

**GEOMEGA Ltd.**[www.geomega.hu](http://www.geomega.hu)

High quality services in the fields of engineering and environmental geophysics, hydrocarbon and geothermal exploration and subsurface mapping. Dedicated team with a wide range of geological survey equipments and softwares for processing and interpretation of geophysical and geological data.

**KAROTÁZS Ltd.**[www.karotazs.hu](http://www.karotazs.hu)

Well logging for well construction, condition assessments, dynamic well testing. Borehole logging for mineralogical purposes, geological prospecting, environmental protection measurements, R&D of equipments and techniques.

**GEOCHEM Laboratories Nonprofit Ltd.**[www.geochem-ltd.hu](http://www.geochem-ltd.hu)

As the subsidiary company of GEOCHEM Ltd, its main profile is education, adult education and R&D in the field of geosciences.

**GeoEko Ltd.**

Provides geological research and professional consultancy in the field of geology.

**GEOPARD Geotechnical and Geophysical Ltd.**

Geological research, vibration protection and blasting technical investigation in the field of geophysics.

**GEO STAT Ltd.**

Engineering services, consultancy, civil engineering and geotechnical planning, soil mechanics, environmental protection.

**InnoTeq Ltd.**[www.innoteq.hu](http://www.innoteq.hu)

Extensive knowledge in software development of innovative multimedia and Augmented/Virtual Reality solutions, Geographic Information Systems, mobile and web2 applications. The company's own product is DiVit®, an Integrated Digital Presentation System designed especially for exhibitions, museums, archives and educational institutes.

**ECO-CORTEX Ltd.**[www.ecocortex.hu](http://www.ecocortex.hu)

Preparation and complete management of Hungarian projects: strategic and financial planning, proposal writing, elaboration of projects, conducting public procurement processes.

**INTERCOMP Ltd.**[www.intercomp.hu](http://www.intercomp.hu)

Main profile: design, development and implementation of enterprise level IT solutions. Achieved significant results in geomathematical solutions: geological database, knowledge base building, integrated reporting system.

**Mining and Geological Survey of Hungary**[www.mbfisz.gov.hu](http://www.mbfisz.gov.hu)

Geological and geophysical research, promotion of sustainable management of mineral and water resources of Hungary, research of the geological aspects of energy resources and study of the processes within the Earth.

**Research Centre for Astronomy and Earth Sciences  
of the Hungarian Academy of Sciences, Institute of  
Geological and Geochemical Research**[www.geochem.hu](http://www.geochem.hu)

R&D and engineering consultancy, petrophysical measurements, developments and research in the field of geology - hydrocarbon and raw material exploration, geothermal energy, radioactive waste disposal. Laboratory automation, education.

**University of Miskolc, Research Institute of  
Applied Earth Sciences**[www.afki.hu](http://www.afki.hu)

R&D and engineering consultancy, petrophysical measurements, developments and research in the field of geology - hydrocarbon and raw material exploration, geothermal energy, radioactive waste disposal. Laboratory automation, education.

**Aurora Energy Ltd.**[www.auroraenergy.eu](http://www.auroraenergy.eu)

Consultancy in the sectors of energy and petroleum upstream business project management, technological and financial planning, optimization of supply and investment processes.

**MECSEKÉRC Ltd.**[www.mecsekerc.hu](http://www.mecsekerc.hu)

One of the biggest companies in the field of environmental protection in Hungary. Uranium ore exploration, mining, milling and site remediation, research and building of facilities for the storage of radioactive wastes from nuclear power plants, application of geosciences, environmental monitoring protection activities.

**RockStudy Ltd.**[www.komero.hu](http://www.komero.hu)

Consulting and geotechnical engineering services from classical to numerical methods. Geotechnical assessment, in situ measurements and monitoring, GIS data processing. Rock mechanics laboratory for standard and special rock mechanics tests. R&D approach in order to perform activities on a high scientific level.

**GW Technological Consulting Ltd.**

Technological development, experting, planning and project development activities in the fields of geothermal energy production and underground gas storage.

**Ötvös and Co. Environmental Ltd.**

Water resource management, consultancy, hydrogeological planning and education.

**TOMOGEO Ltd.**

One of the initiators of Hungarian rock CT measurements. It works together with the Institute of Diagnostic Imaging and Radiation Oncology of the Kaposvár University, as the developer of rock CT measurements and interpretations.

**Valida Ltd.**

Uranium ore exploration, radiological survey, investigation, consultancy, nuclear environmental protection and monitoring, field measurements.

**KVA Consulting Ltd.**[www.kvaconsulting.eu](http://www.kvaconsulting.eu)

Preparation of Hungarian companies for their representation on the international market, with promotion, funding and strengthening their position.

**Logframe Ltd.**[www.logframe.hu](http://www.logframe.hu)

Project planning, writing of Hungarian and EU grand proposals, project and project crisis management, project publicity and communications, consulting, strategic planning.

**University of Miskolc, Faculty of Earth Science and  
Engineering, Institute of Mineralogy and Geology**[www.geology.uni-miskolc.hu](http://www.geology.uni-miskolc.hu)

Teaching, research and promotion of mineral resources, geological phenomena and processes. Its two chairs work in wide spectrum from petroleum geology through geochemistry to pedology, from remote sensing through mineralogical and petrological laboratory analysis to economic assessment of mineral resources.

**University of Pécs, Faculty of Engineering and  
Information Technology, Institute of Smart  
Technology and Engineering**[www.mik.pte.hu](http://www.mik.pte.hu)

One of the most colourful institutions of Hungary's tertiary education and one of the most prominent centres of the country's engineering life. Its 8 basic training programmes cover technical, artistic and information technology related fields of study in the following branches: architecture; civil, environmental, mechanical and electrical engineering; information technology and architectural design.

**University of Szeged, Department of Mineralogy,  
Geochemistry and Petrology**[www.fft-geo.hu](http://www.fft-geo.hu)

One of the centers of Hungarian university education in the field of geology. The University provides broad educational and research experiences and a professionally equipped laboratory background.