

The Polish Geological Institute leads Polish geological institutions to European Union

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There are several geological institutions in Poland: Earth Sciences faculties at some universities, geological institutes of the Polish Academy of Sciences, a number of geological, geophysical and hydrogeological enterprises, and the Polish Geological Institute. They are playing various roles in Polish geology: carrying out academic research, teaching students in geology, educating general public in geological aspects of nature and its phenomena, prospecting for and exploring of mineral deposits, as well as of ground water

resources. They are also deeply involved in testing geotechnical properties of building grounds as well as in monitoring pollution of soils and surface waters, and in remediation and revitalisation of postindustrial areas.

One of the leading geological institutions in Poland is the Polish Geological Institute. Established in 1919 to act as the geological survey of Poland, after several dramatic political and organisational changes during the World War II and the Communist periods, the Institute still functions as the national geological and hydrogeological surveys.

A special role in the Polish geology is played by the Department of Geology and Geological Concessions of the Ministry of Environment, which looks after development of the Polish geological and mining law, and governs granting and executing of prospecting and mining concessions (licenses).

The last several years posed new challenges to Polish geological institutions, first of all, the need for their prepa-

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ration to function after Poland's accession to the European Union. The legal requirements of this process, i.e., adaptation of the Polish geological, mining, water, environmental and other laws, have been successfully fulfilled by the government and the parliament. Much more complex was and still is the practical adjustment of academic, R&D and industrial geological institutions to the European Union rules and requirements.

It is necessary to emphasise that a great effort has been made by all the geological institutions to get acquainted with the binding EU directives and other regulations, and to get involved in various EU programmes available during the pre-accession period. As an example, the opening in May 2002 of a new permanent section *Towards the European Union* (renamed recently into *Within the European Union*) in the *Geological Review* (*Przegląd Geologiczny*), the only geological monthly addressed to all Polish geologists, may be quoted. Since that time, several information papers on the European Union institutions, and especially on the specific directives dealing with mining, water — with special emphasis on ground water, European energy security, requirements of environmental protection and other interesting topics, have been published in that section every month.

Some practical steps to bring Polish geologists closer to their EU colleagues were also made, for instance, a Polish branch of the Federation of European Geologists has been recently organised.

Special effort has been made by Polish geological research institutions to prepare and/or to participate in projects of the EU 5th Framework Programme on Research, Technological Development and Demonstration, and quite recently, in the EU 6th Framework Programme, as well as to maintain and develop numerous old and new contacts with universities and other research centres both from the European Union and the neighbouring eastern countries.

The Polish Geological Institute plays clearly the leading role in familiarising Polish geological institutions with peculiarities of the European Union working environment and its requirements. Functioning for most of its 85-year history as the national geological survey, and for over 40 years of the Communist rule also as the unique geological service for the large mining corporations (the whole Polish nationalised mining industry), it became the largest Polish geological research, development, and consulting institution. With headquarters in Warsaw, six regional branches and over 500 graduate and postgraduate researchers, it is also one of the leading geological scientific institution in Poland.

Since decades, the Polish Geological Institute organises and co-ordinates country-wide research on regional geology and mineral potential, geological, geophysical, and geochemical mapping, research and monitoring of ground water resources as well as of natural hazards (e.g., landslides and coastal processes), and for the last decade also on human induced hazards. It also maintains the national geological archives and runs modern chemical and geochemical laboratories, and the largest geological publishing office in Poland, supervising also the edition of the *Geological Review*, as well as of the *Geological Quarterly*.

Obviously, over the years, the Polish Geological Institute established numerous international contacts and parti-

cipated in various bilateral, regional and global geological projects. Those contacts, especially with neighbouring and European Union countries, have been significantly strengthened during the last decade.

The position of the Institute as the national geological survey of Poland has been acknowledged in 1993 by the national geological surveys of all the European countries when the Institute has been invited to join the Forum of the European Geological Surveys directors (FOREGS). In 1998, the Institute's Director became the FOREGS President, and the Institute organised an annual meeting of this organisation in Warsaw. Between 1998 and 2003, the official FOREGS website was maintained on the Polish Geological Institute's website. The Institute joined also, in 2002, as an associate member, the Association of the European Geological Surveys (EuroGeoSurveys), associated to the European Commission and acknowledged by the EC as an official spokesman for geological and other related matters.

Since 1992, the Polish Geological Institute participated in several EU co-financed projects: 1992–1995: TEMPUS programme — project on *Training in modern techniques for an assessment of the Polish mineral resources*; 1996–1998: PECO-NIS — *Atlas of content and isotopic relations of natural gases from gas fields of north-eastern Europe*; 1997–1999: INCO-COPERNICUS programme — a) MASS project, *Marine Environment Assessment and Geochemical Monitoring of Gdansk Gulf Bottom Sediments*, b) project on *Development of Analytical Procedures to Guarantee Quality Assurance in International Environmental Monitoring*; 1996–1999: PHARE programme — a) project on *Closing of the Różan Repository*, b) project on *Coastal Zone Management in the Baltic States and Poland*, c) project on *Quality Management in Environmental Laboratories*.

The real challenge for the Polish Geological Institute was, and still is, the opportunity to participate in the European Union projects of Framework Programmes on Research, Technological Development and Demonstration. Initially, in the 4th FP, there was only possible to participate as an external partner. In such a capacity, the Institute became a partner in the PACE project — *Palaeozoic Amalgamation of Central Europe* (1998–2001), and in the project GEIXS — *Geological Electronic Information Exchange System in Europe*, during its last stage (1998–2000).

The 5th FP was at last fully opened to research organisations from the Associate Countries. The Institute was active in almost 20 consortia preparing project proposals for various calls. Eventually, several proposals won grants from the European Commission: 2001–2004: ALARM project — *Assessment of Landslide Risk and Mitigation in Mountain Areas*; 2002–2003: INCORE-NAS project — *Integrated Concept for Groundwater Remediation*; 2002–2004: EUROSEISMIC-NAS project — *European Marine Seismic Metadata and Information Centre*, and REA project — *Support for the Integration of the Polish Geological Institute's Centre of Excellence: Research on Abiotic Environment in the European Research Area*.

The last project deserves special attention. One of the European Commission 5th FP calls, of September 2001, was designed specifically to support Centres of Excellence in the Associated Countries. Following the scientific policy

of both European Commission and the Polish government, the Polish Geological Institute organised within its structure a *Centre of Excellence: Research on Abiotic Environment*, which is still the only CoE amidst the Polish geological research institutions.

The Centre's main objectives were to initiate and co-ordinate the Institute's research on the aforementioned subject, to develop close ties with European research centres leading in environmental sciences, and to help similar research organisation from the Newly Independent States countries to more closely co-operate with the EU and AS partners.

Five working groups were organised within the PGI Centre of Excellence: 1) Groundwater: Sustainable Management, 2) Marine Abiotic Environment, 3) Natural Hazards, 4) Human Induced Hazards, and 5) Global Change: Climate and Environment. Almost 90 scientists were incorporated into the Centre in 2001, with annual budget exceeding 5 million euros. A representative Centre's Advisory Board has been established with a significant participation of eminent scientists from the West European research centres.

At the end of 2002, the Institute's Centre of Excellence has been granted by the European Commission co-financing of the REA project for 2002–2005. The project's programme covers organisation of several international seminars, courses, workshops, and invited lectures in Poland on various geoenvironmental topics, association of the Institute's Centre with European thematic networks, training of the Centre's staff in the EU research centres, and so on. One of the REA project's most important aspects is the integration of the Polish geological research centres and SME's activities, and the encouragement of the East European scientists participation in joint East-West projects.

The REA project's programme is very energetically carried out. Several international seminars and invited lectures have already been organised, other are in various stages of preparation. Proceedings of the first seminars will soon be published in the *Polish Geological Institute's Special Papers*, the Institute's monographic, English language series. Numerous research contacts with various European institutions and thematic networks have been established, substantially increasing the Institute's co-operation range.

The Institute has also put a lot of effort into preparation for the EU 6th FP activities. She participated in preparation of several proposals for the initial *Expression of Interest*, and later in preparation of some projects proposal in response to the 6th FP calls. So far, it succeeded in obtaining an EU grant for a Marie Curie Actions project: 2004–2008, MELA — *Morphotectonic Map of the European Lowland Area*.

The Institute participates also in other initiatives of the European Commission. For instance, it closely co-operates with the EU Joint Research Centre on the mining wastes management, and with the Finnish research institutions on Baltic Sea environmental problems within the INTERREG III B programme. Worth mentioning is the Institute's participation in the GMES programme (*Global Monitoring for*

Environment and Security), the joint initiative of the European Commission and the European Space Agency. An Institute's representative took active part in two GMES Forums (the First in Brussels and the Fourth in Baveno, Italy). Besides, the Institute participates with several other European research centres in a ESA GMES project: TERRAFIRMA — Pan-European Ground Motion Hazard Information Service.

One of the most interesting Institute's initiatives in Poland, during the pre-accession period, was initiation and co-organisation of regional geoenvironmental consortiums. The main idea behind that initiative was to establish in the Euro-regions equivalents in Poland (voivodships), groups of environmentally oriented academic centres, R&D institutions and SME's integrated in promoting their programmes on regional, nationwide and European scale.

Such first group, integrating over ten environmental organisations (e.g., the Lower Silesian Branch of the Polish Geological Institute, the Natural Sciences Department of Wrocław University, the Environmental Department of Wrocław Technical University, the Lower Silesian Branch of the Polish Academy of Sciences, several other R&D institutions and environmental enterprises) has been established in mid-2002 in Wrocław in the form of *Lower Silesian Geoenvironmental Consortium LOGEC*. Since then, LOGEC became an acknowledged partner of Lower Silesian Regional Authority (Marshal Office), responsible for management of the regional EU Structural and Cohesion Funds. LOGEC participates in defining the regional development programmes, in preparation of the regional innovation strategies, regional wastes management plan, and other important regional documents. It will also take part in running some regional development projects. Recently, LOGEC entered into an initial agreement with a similar German organisation: Saxonian Geokompetenzzentrum Freiberg e.v. in order to develop bilateral, cross-border projects as well as jointly prepare projects proposals for various EU sponsored programmes.

Similar group, *Lublin Region Geoenvironmental Consortium*, has been recently established in Lublin as a result of the Polish Geological Institute's initiative. Further consortia of those kind are in preparation in the Upper Silesia, Holy Cross Mountain and other regions of Poland. Organisation of such integrated units, representing the requirements and interests of, for instance, industrial minerals mining enterprises or other interested groups, is being encouraged and helped by the Institute. In promoting such pro-European initiatives, the Institute is taking advantage of direct contacts with the European Commission established by some of its specialists, EC experts.

Summing up, the Polish Geological Institute, performing its duties as the National Geological and Hydrogeological Surveys, runs also advisory activities, helping other Polish geological institutions in their integration with the European Union institutions, and in making full use of the EU international development programmes as well as of the EU co-financed structural and cohesion programmes in Poland.