Target Groups

In the Institute of BioGeoAnalytics, Environmental Specimen Banks and Biobanks (IBU) of Trier University, basic and applied research are promoted by interdisciplinary activities.

The IBU offers competent services in the fields of biogeoanalytics, environmental specimen banks and cryotechnology to companies, civil services and research facilities.

Thanks to the combination of methods and techniques of the disciplines involved, it is possible within the new research institute to efficiently handle highly complex research tasks, to jointly develop adequate strategies for problem solving and to offer a wide range of methods so as to meet specific requirements.

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Institute of BioGeoAnalytics, Environmental Specimen Banks and Biobanks

Universität Trier

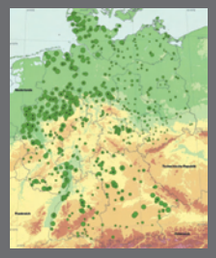
Interdisciplinary Research

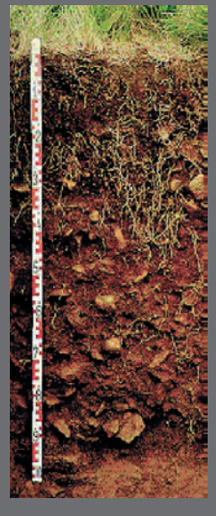
The institute is a combination of different scientific research institutions and scientists of Trier University, cooperating with the aim of increasing the international competitiveness. As a result, a cross-departmental and flexible research institute was created, directing itself to partners from civil service as well as companies from commerce and industry.

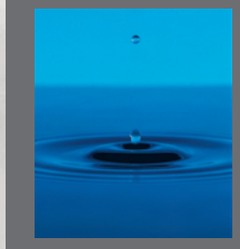
The institute is a partner in worldwide scientific nets and in national excellence initiatives.

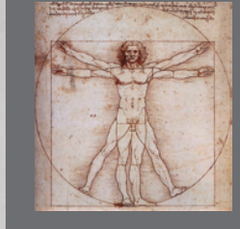
Tasks and Aims

- **Scientific exploration of new and better procedures for the conservation of materials, using cryotechnical, biochemical and physical principles (cryopreservation, biobanks).**
- **Advancement of environmental specimen and biobanks and biomonitoring systems for environmental assessment and forensics.**
- **Development of forecast methods and techniques for early detection of danger potentials and for the protection of environmental quality targets.**
- **Development of methods and techniques to understand the impact of processes on the level of molecular structures, organisms and ecological systems.**
- **Contract research and provision of services for administration, ministries, industry and companies.**









Performance profile

The activities of the institute centre around the following fields on which the scope of possible contract research is based:

The running and continuous technological improvement of **cryobanks** for long-term storage of bioresources, cell types and environmental specimens for environmental monitoring.

Environmental diagnostics as a precondition for assessments of risks and scenarios.

Biogeochemical analyses and development of analytical methods as a precondition for understanding natural and anthropological processes.

Bioanalytics with the objective to elucidate the genetic structure of populations.

Methods of bioindication and measurement network of effects as a basis for risk assessment analyses.

Environmental toxicology as a basis for the elucidation of the effects of environmental stress factors.

Molecular research on the mechanisms of environmental compounds and chemicals with close links to medicine and epidemology.

Environmental information systems (UIS) as a basis for linking up multivariate factors and elements (e.g. for Life Cycle Assessments).

Innovations and application of regenerative technologies in close cooperation with teams of scientists and technicians from industry, Economic Science and Law.