

BULGARIAN ACADEMY OF SCIENCES (BAS)

The research units of BAS are legal entities performing basic and applied research, postgraduate and postdoctoral training. Eligible for directors of the research units are senior scholars from any scientific organization in the country. The directors are elected by the EC for four years

Research units of the Bulgarian Academy of Sciences:

MATHEMATICAL SCIENCES

Institute of Mathematics and Informatics
Institute of Mechanics
Institute for Parallel Information Processing
National Laboratory of Computer Virology

PHYSICAL SCIENCES

Institute for Nuclear Research and Nuclear Energy
Institute of Solid State Physics
Institute of Electronics
Institute of Astronomy with National Astronomical Observatory - Rozhen
Central Laboratory of Solar Energy and New Energy Sources
Central Laboratory for Applied Physics - Plovdiv
Central Laboratory of Optical Storage and Processing of Information

CHEMICAL SCIENCES

Institute of General and Inorganic Chemistry
Institute of Organic Chemistry with a Center of Phyto-Chemistry
Institute of Physical Chemistry
Institute of Catalysis
Institute of Electrochemistry and Energy Systems
Institute of Chemical Engineering
Institute of Polymers
Central Laboratory of Photoprocesses

BIOLOGICAL SCIENCES

Institute of Molecular Biology
Institute of Physiology
Institute of Biophysics
Institute of Plant Physiology
Institute of Genetics
Institute of Microbiology
Institute of Experimental Morphology and Anthropology with Museum
Institute of Experimental Pathology and Parasitology
Institute of Biology and Immunology of Reproduction
Institute of Botany
Institute of Zoology
Forest Research Institute
Central Laboratory of General Ecology
Central Laboratory of Biomedical Engineering
National Museum of Natural History

EARTH SCIENCES

National Institute of Meteorology and Hydrology
Geological Institute
Geophysical Institute
Institute of Oceanology
Space Research Institute
Institute of Water Problems
Geographical Institute
Central Laboratory for Geodesy
Central Laboratory of Mineralogy and Crystallography
Central Laboratory of Solar - Terrestrial Influences
Central Laboratory for Seismic Mechanics and Earthquake Engineering

ENGINEERING SCIENCES

Institute of Metal Science
Bulgarian Ship Hydrodynamics Centre
Institute of Computer and Communication Systems
Institute of Information Technologies
Institute of Control and System Research
Central Laboratory of Mechatronics and Instrumentation
Central Laboratory of Physico-Chemical Mechanics

HUMANITIES

Institute of Bulgarian Language
Institute of Literature
Institute of History
Institute of Thracology
Institute of Archeology with Museum
Institute of Balkan Studies
Ethnographic Institute with Museum
Institute of Art Studies
Institute of Folklore Studies
Cyrillo Methodian Research Center
Centre for Architectural Studies

SOCIAL SCIENCES

Institute of Sociology
Institute of Economics
Institute of Philosophical Studies
Institute of Psychology
Institute of Legal Studies
Centre for Population Studies
Centre for Science Studies and History of Science

Specialized and Supporting Units of the BAS

Central Administration
Central Library
Scientific Archives
Academic Publishing House "Prof. Marin Drinov"
Botanical Gardens

Scientific Information Centre “Bulgarian Encyclopaedia”
Center for National Security Research
Laboratory of Telematics
PhD Training & Career Development Centre
Centre for Innovations

Mission and main strategic objectives

The mission of the Bulgarian Academy of Sciences is to contribute to the development of the world science in accordance with the human values, national traditions and interests and to assist the accumulation of the spiritual values of the nation and its welfare.

In conformity with this mission the main strategic objective of BAS is to ensure and maintain the highest possible level of science, interdisciplinarity, international competitiveness and high national self-confidence in agreement with the needs of the socio-economic and spiritual development of the Bulgarian society and with the European and world trends of the organization of scientific research.

In order to achieve this objective it is necessary to:

- Improve the funding of science in Bulgaria both in terms of GDP and national budget share and the efficiency of funding;
- To support the development of the Bulgarian society;
- To strengthen the national identity, historical, cultural and spiritual values originated by Bulgarian people on its land;
- To integrate intensively into the European programmes and structures;
- To increase the attractiveness of the scientific career;
- To develop opportunities for scientific communication;
- To improve and modernize the obsolete material basis and equipment;
- To maintain the high level of qualification of Bulgarian scientists;
- To decrease the brain-drain without affecting the mobility of scientists.

The strategic objective and the steps envisaged for its attainment, which can be regarded as functional priorities in the activity of the Academy, determine the main policies of BAS for the period until 2009 as well as the programmes, which are substantiating these policies. The policies and programmes are aimed at revealing the role of the Academy in the national, European and world process of building a society and economy based on knowledge. They are as follows:

Policy 1: Science – the essential driving force for the development of a knowledge based economy and society in Bulgaria as a member country of United Europe

This policy includes 4 programmes:

Programme 1.1: Economic development, social relations and structures in Bulgaria as an EU member country.

Programme 1.2: Sustainable development and effective utilisation of the national natural resources.

Programme 1.3 Competitiveness of the Bulgarian economy and of its scientific and innovative capacity.

Programme 1.4: Human potential for the research based economy and society.

Policy 2: Scientific potential and research infrastructure - part of the European Research Area.

Programme 2.1: Technological development, innovation and scientific expertise.

Programme 2.2: Modern methods and approaches for the study of the Earth, the climate and the near space.

Programme 2.3: Quality of life and Interdisciplinary studies of man, living nature.

Programme 2.4: Scientific and technological development of the information society.

Policy 3: National identity and the cultural diversity in United Europe

Programme 3.1: The study of language, literature, arts and traditional folk culture - a contribution of Bulgaria to the cultural diversity of Europe.

Programme 3.2: History of Bulgaria and the Bulgarian lands –a contribution to European civilizations.

Participation in the Construction of the European Research Area

Third and Fourth Framework Programmes of EC (1992 - 1998)

- 152 successful projects of BAS (out of 250 for Bulgaria)

- 6 million ECU European support for the research units of BAS

Fifth Framework Programme of EC (1998 - 2002)

- 140 successful projects of BAS (out of 270 for Bulgaria)

- 8 million EUR European support for the research units of BAS
Sixth Framework Programme of EC (for the period 2002- March 2006)

- 110 successful projects of BAS (out of 248 for Bulgaria)

- 9 million EUR European support for the research units of BAS

For the entire period 1992 - March 2006 the participation of BAS in the European Framework Programmes resulted in:

- 402 successful projects

- 23 million Euro European support for the research units of BAS

The share of BAS in the country's successful participation in the FPs exceeds 52%.

One of the most significant attainments accomplished by the Bulgarian Academy of Sciences during its participation in the Fifth and Sixth Framework Programmes of the European Union has been the establishment of eight Centres of Excellence out of the total number of eleven for Bulgaria. The Academy based centres of excellence are the following:

1. *Bulgarian IST Society*. - at the Institute for Parallel Information Processing
2. *Sustainable development and Management of the Black Sea Region*. - at the Institute of Oceanology
3. *Portable and Emergency Energy Sources*. - at the Institute of Electrochemistry and Energy Systems
4. *Bulgarian Centre of Solar Energy*. - at the Central Laboratory of Solar Energy and New Energy Sources
5. *Sustainable Environment and Advanced Integration into ERA*. - at the Institute of Nuclear Research and Nuclear Energetics
6. *Strengthening the Research and Technological Capacity in the Field of Nanostructured Thin Films, Hard and Superhard Coatings*. - at the Central Laboratory of Applied Physics
7. *Nanoscale Phenomena and Structures in Bulk and Surface Phases*. - at the Institute of Physical Chemistry
8. *Environmentally Oriented Multifunctional Materials and New Processes*. - at the Institute of General and Inorganic Chemistry