

Science & Technology in a Knowledge-based Society: the Case of Moldova

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Knowledge-based society

Broadly speaking, the term Knowledge-based Society refers to any society where knowledge is the primary production resource instead of capital and labour. It may also refer to the use a certain society gives to information. A Knowledge society "creates, shares and uses knowledge for the prosperity and well-being of its people".



Knowledge-based society is a society based on people, their knowledge, skills, creativity, initiative.

ACADEMA CONCEPTION OF CONCEPTI

Characteristics of a Knowledge Economy (OECD Source)

- High value-added goods and services mainly because of the "knowledge content" of their factor inputs
- Performance of R&D
- High educational standards, human resources in S&T, workforce skills
- Strong innovation performance, innovations successful in the market
- □ Intensive and broad use of generic technologies, esp. ICTs
- Strong "high-tech" sectors, intensive use of "knowledgeintensive services"
- □ Value chains highly globalised
- Investment in "knowledge" now about the same as that in fixed capital (~8% of GDP)



Investment in Knowledge (OECD Source)

R&D, Software and Higher Education as a percentage of GDP (2003)



• OECD economies taken together, invested 5% of GDP in knowledge in 2003.

 In US, close to half of this investment concerns software and higher education, whereas in EU countries the main component is R&D investment.



Situation in the Field of Science in Moldova (1990, 2004, 2008)

Indicator	1990	2004	2008
Property of ASM	1 376,4 mil. Rub	225,2 mil. lei	352 mil. lei (\$ 35 mil.)
Science financing	\$ 41 964 050 USA	62 mln. lei (\$ 5 040 650 USA)	390 mln. Lei (\$ 37 536 092 USA)
Science financing (% of PIB per capita)	\$ 10,5 USA	17,15 lei (\$ 1,4 USA)	85,7 lei (\$ 8,5 USA)
Research institutions financed from State budget	125	101	38
PhD in Science	3495	2230	3419

Reform of Science in Moldova The Code on Science and Innovation (ratified by the Parliament of the Republic of Moldova on July 15, 2004) **Academy of Sciences – manager** of science and innovation field in RM

New principle - financing of science exclusively on competitive basis

Academy of Sciences ≡ Minister of Sciences



Partnership Agreement between Government and Academy of Sciences

SCIENCE FINANCING (% of GDP)



STRATEGIC PRIORITIES FOR SCIENCE AND INNOVATION FIELD

- Consolidation of the State of Law and the use of cultural heritage in the perspective of integration into multicultural and multinational Europe.
- Economic basis of sustainable development and efficient use of humane and natural resources.
- Biomedicine and human health.
- Agriculture and industrial biotechnology.
- Nanotechnology, new materials and information technology.
- Energetic security and efficiency growth of the energetic complex.



LAW ON TECHNOLOGY PARKS AND INNOVATIOS INCUBATORS No. 138-XVI of 21.06.2007



RESEARCH AND EDUCATION MEDIUM FAVORABLE FOR KEEPING ON THE SUPPLY OF PERSONNEL FOR RESEARCH AND TECHNOLOGICAL TRANSFER STRUCTURES





INTERNATIONAL COLLABORATION

Agreements with CEI Academies of Sciences

- Academy of Sciences of Poland
- □ Academy of Sciences of Hungary
- Austrian Academy of Sciences Bulgarian Academy of Sciences
- National Academy of Sciences of Belarus
- Academy of Sciences of Russia Romanian Academy
- National Academy of Sciences of Ukraine
- Academy of Sciences and Arts of Montenegro
- Academy of Agricultural and Forestry Sciences of Romania
- Academy of Agricultural Sciences of Ukraine
- Academy of Sciences of the Czech Republic

INTERNATIONAL ORGANIZATIONS

- □ INTAS
- Science & Technology Center in Ukraine (STCU)
- □ Inter Academy Panel
- NATO Committee Science for Peace and Security
- International Atomic Energy Agency (IAEA)
- International Center for Black Sea Studies (ICBSS)
- Center for European
 Constitutional Law (CECL)



INTERNATIONAL COLLABORATION

Joint Calls for Proposals

Russian Foundation for Basic Research

Russian Humanitarian Sciences Foundation

Belarusian Foundation for Basic Research

German Federal Ministry of Education and Research (BMBF)

CRDF/MRDA

Other initiatives

Association of the Republic of Moldova to the FP7

Centre for International Projects of the Academy of Sciences of Moldova



Global Science and National Policies: the Role of Academies

participation of over 50 representatives from 23 states

4-5 May 2007, Chisinau

- Science for knowledge and sustainable development;
- Mitigation of natural and human-induced environmental disasters;
- □ Science education;
- □ Gender issues in science;
- Science and national development;
- Role of Academies in the ESEE countries.



At the conference, was acknowledged the uniqueness of the Moldovan science management model, being recommended its implementation in the states with similar particularities as of the Republic of Moldova.





SCIENCE & EDUCATION POLICIES

participation of over 70 representatives from 24 states from the Central and Eastern European countries, Balkans, Caucasus and Baltic States & 9 international organizations

September 18-21, 2008

- Strengthening International Impact of National Research and Education Programs;
- Strengthening Research in Higher Education;
- Developing a Knowledge-based Economy;
- Stemming and Reversing Brain Drain



The Declaration & Final Communiqué adopted during the event - contribution of the Central and Eastern European countries, Balkans, Caucasus and Baltic States to the World Conference on Higher Education (Paris, July 2009) and World Science Forum (Budapest, November 2009).



HOLDONE COLOR

Priorities in the S&T Field of the Moldovan Presidency of CEI



- Efficient implementation of the CEI Plan of Action in Science and Technology;
- Support the newly created network of focal points in order to achieve better networking in the region, and:
- Enhance the S&T cooperation in the region and the mobility of researchers and junior trainees;
- Usage of CEI funding possibilities for solving regional problems through joint researches;
- Promoting the principles of knowledge-based society in the CEI area;
- Unifying the scientific potential of CEI countries (both EU members and non-EU) in order to take part in the European research programmes.



THANK YOU FOR YOUR KIND ATTENTION!

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