

## OECD SCIENCE, TECHNOLOGY AND INDUSTRY OUTLOOK 2004 COUNTRY RESPONSE TO POLICY QUESTIONNAIRE

### HUNGARY

In the policy of the Hungarian Government S&T have been of growing importance. Presently, the Government intends to pay outstanding attention to the improvement of S&T. The fundamental principle of the science and technology policy is defined in the Government Programme 2002-2006 and in the Medium-Term Economic Policy Programme 2002 as an important government tool to promote the development of the society and economy. The objective of this medium-term economic policy program is modernisation, realignment with European standards, which is reflected in stronger competitiveness, striving for financial and price stability and effective cohesion between the economy and society. Production related innovation is a priority in these programmes. Investments should be based on advanced technology, highly skilled workforce and co-operation with local development initiatives. The government defines four priority areas:

- Innovation conducive legal framework,
- Making Hungary attractive as an R&D site,
- Enhancing the protection of intellectual property,
- Increasing the sources for innovation in SMEs

#### **1. General framework and trends in science and technology policy**

The last year before the EU accession, 2003, has been an important reform year in the field of science and technology in Hungary and the reforms will be completed in 2004. These changes are in line with the increasing recognition that a proactive competitiveness policy is necessary, and innovation belongs to the main factors of that. The EU growth initiative (EU, 2003) also gave an impetus for the recognition of the importance of innovation. The timing of the EU membership of Hungary and the reform of the Hungarian RTD system seem to be synchronised. The main elements of the reforms that will represent the Hungarian RTD system at least in the first years of the full EU membership are the following:

***The re-establishment of the Science and Technology Policy Council (TTPK) and the Science and Technology Advisory Board, TTTT) in April 2003***

The Science and Technology Policy Council, headed by the Hungarian Prime Minister, has a crucial role in shaping the governmental science and technology policy. Deputy chairman of the TTPK are: Minister of Education and President of Hungarian Academy of Sciences, members of the TTPK are: Minister of Finance, Minister of Economy and Transport, Minister of Agriculture and Rural Development, Minister of Informatics and Communication, Minister of Health, Social and Family Affairs, Minister of

Environment and Water and the Chairman of the Higher Education and Research Council. Head of the National Development Office (belong to the Office of the Prime Minister) and the Deputy Secretary of State of R&D Ministry of Education (from January 2004 President of the National Research and Technology Office) has regularly participated in the meetings of TTPK. At the same time an advisory, evaluative and co-ordinatory body, the Science and Technology Advisory Board (TTTT) supports the work of the Council. The Chairman of TTTT has also participated in the TTPK meetings. In order to strengthen their positions both body were reorganised on the base of the Governmental Resolution 1033/2003(IV.18). The Secretariat of the TTPK operates in the Ministry of Education (MoE).

### ***The establishment of the National Office of Research and Technology (NKTH)***

According to the Governmental Decree 216/2003 (XII. 11) and the Governmental Resolution 1123/2003 (XII.11). on 1st January, 2004, the R&D Division of the Ministry of Education detached from the Ministry and transformed to a government office, the National Office of Research and Technology (NKTH) The Office employs 116 civil servants.

The main tasks of the NKTH are:

- Elaborating the government strategy in the field of innovation,
- Forming the means and tools for the R&D and innovation policy at government level,
- Representing the Hungarian interests in international and EU S&T affairs,
- Co-ordinating the activity of the Research and Technology Innovation Fund and to supervise the Agency for Research Fund Management and Research Exploitation,
- Raising the public understanding and awareness of the society in research and innovation;
- Maintaining the contacts with other organisation of government and civil sphere related to innovation.

### ***The establishment of the Agency for Research Fund Management and Research Exploitation (KPI)***

On 1st August, 2003, the R&D related units of the former Fund Management Directorate (OMAI) of the Ministry of Education has been split from the OMAI and transformed to an implementing agency, the Agency for Research Fund Management and Research Exploitation (KPI). The Agency employs 81 civil servants.

The main tasks of the KPI are:

- Financing R&D and innovation projects through open calls using the sources of the Research and Technology Innovation Fund,
- Accredited implementing organisation (intermediary body) of the Research, Development and Innovation priority within the Economic Competitiveness Operational Programme, using the EU Structural Funds and national co-financing,
- Promoting public-private partnerships,
- Advisory services for innovative partners at national and regional level.

### **Act XC of the year 2003 on the Research and Technology Innovation Fund**

The aim of establishing a separated public fund in order to revise the Hungarian competitiveness based on innovation is to resolve the tension between R&D projects with commitment of several years and the annual budgetary period management. A calculable central fund is necessary to promote the R&D and the research utilization activities, the development of R&D infrastructure, and the innovative ability of entrepreneurs. The demand side of innovation will be in the focus. The Act XC of 2003 created the Research and Technology Innovation Fund (hereafter: Fund) considering the above mentioned requirements.

The two most important revenue sources of the Fund are the central budget and the contribution paid by a defined range of the companies. The feature of the payment commitment is the wide range of payers, *i.e.* every company with the exception of micro-businesses with less than ten employees, and the low normative key. The base of the innovation contribution is the adjusted net turnover (net revenue minus purchased goods, materials and services) of the previous year.

**Table. The size of the innovation contribution as percentage of the adjusted net turnover paid by the companies in Hungary from January 2004**

	<b>FY 2004</b>	<b>FY2005</b>	<b>FY2006</b>	<b>FY2007</b>
<b>Small enterprises (10-50 employees)</b>	<b>0.05 %</b>	<b>0.1 %</b>	<b>0.15 %</b>	<b>0.2 %</b>
<b>Other enterprises (more than 50 employees)</b>	<b>0.2 %</b>	<b>0.25 %</b>	<b>0.3%</b>	<b>0.3%</b>

In order to stimulate the research and development activity the commitment for payment of the contribution may be reduced with the amount of direct costs of research and development effected in-house or ordered from a public research institution or from a non-profit research institution.

The Act contains two important guarantees for the companies. The rate of the central budgetary subsidy should not be less than the amount of annual contributions of the economic corporations two years before the current year, *i.e.* the public subsidy will move together with the contribution of the business sphere in the future. It is emphasized that the liquid assets of the Fund should be used to finance research and technological innovation activities undertaken directly or indirectly by business companies. The strategic body having right of approval on the spending mechanisms and priorities is the Research and Technology Innovation Council (KTIT). The majority of its members will be delegated by non-governmental organisations, including companies and their stakeholders. 25% of the liquid assets of the Fund should be granted for regional innovative objectives, based on the proposals of the Regional Development Councils.

The sources of the Fund may be spent for the following purposes:

- financial assistance for industrial research and technological development activities,
- promoting the creation of R&D and knowledge-based jobs,
- supporting the R&D activities of the enterprises and their consortia,

- to support services, innovation bridging and networking activities which strengthen research and development and technological innovation including the costs of organising conferences and technical fairs and the preparation of publications, financing the investments and projects for implementation of new technology culture in the domestic economy, developing the R&D infrastructure in the publicly financed research units, facilitating the Hungarian participation in the international R&D projects,
- contributing to the increasing of the researchers' mobility, contributing to the expenditure of the exploitation and commercialisation of the R&D results.

### ***Planned law on research and technology innovation***

The elaboration of the law on research and technology innovation is going on. The Law on Research and Technology Innovation will be submitted to the Parliament in May 2004. The main goal of the law is the development of high value added, knowledge based production and services, the improving of the competitiveness of the Hungarian economy, the contribution to a sustainable development path and, indirectly, to the quality of life of the Hungarian population. The shift of the economy policy in this direction is an inevitable precondition of the catching-up within the European Union. The major policy tasks dealt with in this law are as follows:

a) Increasing the R&D expenditures in Hungary, gradually approaching the common European goals: gross expenditure for R&D should reach 3% of the GDP by 2010, two third of that coming from the private sector. This is not a compulsory requirement but a shared strategic vision, being in close connection with the reinforcement of the European Research Area. It is our own interest to enhance the national R&D and innovation efforts in line with the Growth Initiative, in order to increase the competitiveness of our economy.

b) Strengthening the knowledge base and R&D infrastructure in the business sector, in the public research institutions and in the non-profit research organisations.

c) Development of the human resources for research, development and innovation. Promoting the personal mobility paving the way for the effective knowledge and technology diffusion.

d) Creating a new quality of knowledge-based co-operation and networking between public, non-profit and private organisations. In order to achieve that, the systematic application of demand oriented models are necessary with regard to the institutional system, financing and technology transfer.

e) The utilisation of intellectual property, including mechanisms to enforce the commercial utilisation of knowledge and technology created by public contribution.

f) Application of organisational models, direct measures and indirect initiatives to compensate the lack of capital and the higher specific R&D costs at SMEs.

g) Simplification of the planning and spending rules of public R&D resources, customisation to the specifics of this area, in order to apply simple, rational and transparent procedures.

h) Rationalisation of the management, co-ordination and implementation functions of the R&D and innovation related government bodies, harmonising with the requirements of a knowledge driven society and the public responsibility.

i) Development of the national and regional organisations promoting technology transfer and SMEs. Merging and demand driven transformation of the existing organisations is necessary.

j) The representation of the domestic research and innovation on the relevant international organisations, especially in the EU Framework Programmes and in the European Research Area. Maintaining the science and technology co-operation with other important international partners at bilateral base.

k) Promoting the public understanding and awareness of science and technology, developing fora for societal feedback to form the future science and innovation policies.

The provisions of this law are focussed on utilisation oriented R&D, technology innovation, and the social and commercial utilisation of the results. The success of a wide scope innovation policy depends on several specific sector policies. It is a goal to create fora for policy makers representing areas like information society, education and training, small business development, investment promotion, regional development, rural development, infrastructure development, fiscal policy, competition policy, public procurement, effective public administration and enforceable legal framework, that are out of the direct scope of this law. Technology Foresight, launched in 1997 in Hungary, is one of the possible fora.

### ***National Development Plan (2004-2006)***

According to data from the Hungarian Central Statistical Office about 10% of total GERD in Hungary came from abroad in 2002. One part of this is coming from the EU Sixth Framework Programme in which Hungary is participating as a full member. Hungary will join the European Union on 1 May 2004 and subsequently will become eligible for support from the EU Structural Funds and Cohesion Fund. The primary objective of these funds is to help reducing the development disparities between Member States and regions in order to strengthen economic and social cohesion. The National Development Plan has been elaborated taking into account general provisions on the EU Structural Funds

The long-term objective of the Hungarian National Development Plan, i.e. improvement of the quality of life and its general objective for the given period, i.e. reduction of the significant lag in the per capita income compared to the EU average are defined on the basis of the analysis. There are three specific objectives supporting this main objective: improvement of economic competitiveness, better utilisation of human resources and promotion of a better quality environment and regional development. The National Development Plan intends to achieve the specific goals through four development priorities: more competitive manufacturing sector, increasing employment and human resources, better infrastructure and cleaner environment, stronger regional and local potential. These are supplemented with the Technical Assistance priority assisting the implementation of Community Support Framework. The measures defined in order to achieve the above goals are implemented in the framework of 5 Operational Programmes.

1. The objective of the Human Resource Development Operational Programme (HRDOP) is to increase the rate of employment and improve the competitiveness of the workforce by providing qualifications in line with the demand of the labour market and promoting social integration.
2. The Environmental Protection and Infrastructure Operational Programme (EPIOP) has set an objective to improve the environmental conditions of the country by establishing environmental infrastructure, increasing environmental safety, and investing into nature conservation.
3. The Agricultural and Rural Development Operational Programme (ARDOP) has identified the objectives of modernisation of, and more efficient, agricultural production by developing production technologies and processing of products (especially food processing). The other aspect of the programme includes realignment of rural areas and finding alternative sources of income for the rural population, development of rural infrastructure and services, protection of rural cultural heritage.

4. The Regional Development Operational Programme (RDOP) aims at the development of economically and socially underdeveloped areas and parts of settlements within regions by improving the economic environment, educational infrastructure that assist tourism and economic development, developing regional infrastructure, rehabilitating settlements and improving their environment management activities, increasing human resources and the knowledge base of regions and modernising public administration.
5. The Economic Competitiveness Development Operational Programme (ECOP) intends to improve the general competitiveness of the economy by supporting investments aimed at modernisation in the manufacturing sector, and will increase social cohesion and employment through technical modernisation of small and medium-sized enterprises and support to their innovation networking activities. It will promote economic innovation by supporting competitive research in the Hungarian R&D sector financed publicly and privately, as well as strengthening relations between the R&D sector and the economy.

Objectives of ECOP are :

- Development of a knowledge-based economy and developing innovation capacities
- Development of an economy based on technology-driven industries and services
- Developing small and medium-sized enterprises to reduce the dual nature of the economy
- On the basis of the objectives of the ECOP will be implemented through the following four priorities:
  - Investment promotion
  - SME development
  - Research and development and innovation
  - Development of Information society and economy

The ECOP underlines that further development of the R&D and innovation system is needed, focusing on efficiency, quality and competitiveness requirements, thus creating an internationally competitive R&D and innovation potential necessary for economic growth as well as EU membership. Specific objectives are formulated for R&D and innovation priorities of ECOP:

1. To stimulate cooperative research activities promoting competitiveness and sustainable growth potential,
2. Improvement of the conditions for research, technology transfer and co-operation at publicly financed and non-profit research facilities,
3. To strengthen corporate innovation capabilities and networking in knowledge and technology transfer.

***Measures and sub-measures serve for carrying into effect the above mentioned objectives of the R&D and innovation priorities :***

*Measure 1: support to application--oriented co-operative R&D activity.*

The technology deficit of Hungarian companies can be reduced, and their domestic and international competitiveness can be achieved through research and experimental development that take place in co-

operation between the corporate and science sectors. To achieve objectives of this measure, the following sub-measure will be carried out (through call for proposals): Co-operative industrial research near completion in seven scientific areas:

- Material science, production engineering and equipment
- Energetics
- Transport
- Electronics, measurement technology, control technology
- Biotechnology
- Environment protection
- Information-communication technologies and applications

*Measure 2: improvement of the conditions for research, technology transfer and co-operation at publicly financed and non-profit research facilities.*

The measure will improve the supply of tools and equipment to existing research sites with public financing, to develop scientific infrastructure, contributing significantly to the efficiency of their R&D activities. In addition, by creating Cooperative Research Centres, the measure will also strengthen the scientific and technology relations between the business and public sectors. To achieve objectives of this measure 2 sub-measures will be carried out (through call for proposals):

- Development of research infrastructure of publicly financed and non-profit research facilities,
- Support of partnerships and building of networks promoting technology transfer and co-operation between companies and publicly financed research facilities (Co-operative Research Centres)

*Measure 3: support to the development of corporate R&D and innovation capabilities.*

The measure will give assistance to innovative start-up enterprises and technology-based SMEs. In addition, support should be given to the establishment of new individual industrial research bases and units, the dissemination of activities with a high added value, leading to the establishment of R&D infrastructure, and to extend corporate R&D activities. To achieve objectives of this measure 3 submeasures will be carried out (through call for proposals):

- Support for the creation and initial innovation tasks of technology-and knowledge-based start-ups and micro enterprises (spin-off);
- Development of corporate research infrastructure linked to the creation of new research jobs;
- Incentives for SMEs to sub-contract R&D and acquire the right to use existing R&D results

## **2. Public sector research and public research organisations**

### ***Important research institutions in the public sector***

The present Hungarian national innovation system on public R&D institutional level consists of three main components such as the Hungarian Academy of Sciences, the universities and other public research and technology institutions.

In accordance with Act XL of 1994, the Hungarian Academy of Sciences (HAS) is an independent public body based on the principle of self-government. There are special rights and duties of the Academy to

- support the development of sciences, scientific research, and the publication of scientific books and journals;
- regularly evaluate scientific research results as well as encourage and assist publication, dissemination and utilisation thereof;
- represent, within its sphere of responsibilities, Hungarian science in Hungarian public life and at international scientific field.

The HAS has 18 institutes for natural sciences, some of which have sub-institutions comprising all fields of natural sciences, and it has 15 institutes for social sciences and humanities reaching from art to economics. It also has numerous research groups in all areas in the Hungarian universities. The HAS share in the Hungarian research capacity in terms of the total number of other Hungarian R&D organisations is about 10%, within this that of R&D institutions is slightly more than 60%. The Academy's share in the number of total R&D personnel is almost 20%. According to the different fields of sciences, this share is the highest in natural sciences (based on the share in R&D expenditures of all R&D units, it is almost 60%), and by phases of research its share is decisive in the field of basic research (also based on the share in R&D expenditures of all R&D units, it is more than 40%). Today only 60% of the Academy's income is guaranteed from public sources (block grants); the remaining 40% have to be generated from other competitive government programmes or other sources. This has also led to a shift as far as research type is concerned. Formerly being described as an institution doing nearly exclusively basic research, the HAS now claims to be involved in a number of applied programmes together with industry.

Universities are increasing in importance. During 1998-2000, a fundamental integration process took place in the Hungarian higher education sector. The aim was to better cope with the growing number of students, to introduce more flexibility and diversity in the system, and to comply with long-term policy objectives of the government. Therefore the universities which were formerly compartmentalised and strongly specialised with usually rather narrow profiles of specialisation, were transformed into integrated, multidisciplinary universities. This change was made in order to render it possible to increase the number of students, to broaden curricula, and to reach an intellectually critical mass for research. In the higher education sector the overwhelming proportion of the research units is part of the higher education (1421 units). The R&D budgets of universities are largely dependent on governmental subsidies. There are two main types of subsidies: the normative research support and the various governmental funds and programmes. Besides, the co-operation between universities and the private sectors and the participation in multilateral and bilateral scientific programmes are the main income sources of the universities.

In addition, a new Bill on Higher Education has been in progress. The main goals of this bill are integrating the Hungarian higher education into the Bologna process and restructuring the educational, financial and governance system of the universities. These planned elements would have advantageous impact on the public private partnership between the enterprises and the universities.

In this context, five Co-operative Research Centers (CRC) started their operation in 2001. The CRCs are intended to be research and engineering centres located at major universities. Their objective is to develop partnerships between institutions of higher education, other non-profit research institutions and the business sector, in particular SMEs. The MoE has set aside a special fund to support the establishment of such new centres from the sources of Research and Technological Innovation Fund and the Economic Competitiveness Operational Programme (ECOP) of the National Development Plan. A centre can be granted between HUF 50 million and HUF 250 million (max. 50% of planned budget of the centre) for an initial period of three years. Such centres will only be supported if they are established together with business partners. They should work on a basis of mutual interest, integrating education and technology development.

There are some other public research institutions which are not under the portfolio of the MoE or not the HAS, but belong to the portfolios of other ministries and are financed out of the budget of these ministries. The Ministry of Agriculture and Rural Development, the Ministry of Environment and Water Management, and the Ministry of Economics and Transport have to be mentioned in this connection.

### ***Non-budgetary research establishments***

The Bay Zoltán Foundation (BZF) and the Collegium Budapest are the most important among the research units of foundations and associations. The BZF is the largest research foundation in Hungary, founded in 1993, comprising three research units: Institute for Biotechnology, Institute for Material Science and Technology and Institute of Logistics and Production Engineering. Following the model of the pioneering Princeton Institute for Advanced Studies and Wissenschaftsholles Berlin, the Collegium Budapest (CB) is the first IAS-type institute in Central and Eastern Europe. As an adaptation of the Princeton model, the CB represents a new type of institute, different from both universities and specialised research institutes. Its main attraction is offering its research fellows temporary liberation from their administrative and teaching obligations, allowing them to concentrate fully on their chosen research agenda.

Research and development in the business sectors: The innovation activity of the business sector is growing also more and more in importance, which is reflected in the increasing number of R&D units at enterprises. A number of well-known trans-national companies have set up research laboratories in the country. The main R&D facilities in Hungary were established or overtaken by multinational companies. Some frequently quoted examples: *lighting technique* - GE-TUNGSRAM; *medical equipment* - GE-Medikor; *pharmaceuticals* – Sanofi/Chinoin, Astra, Teva/Biogal, Akzo Nobel/Organon; *information and telecommunication* - Ericsson, IBM, Compaq, Nokia, Siemens, Motorola, Tata Consultancy, T-Systems/Matáv; *machinery* - Audi, Volkswagen, TEMIC, Michelin, Knorr-Bremse, Mannesmann-Rexroth, Flextronics; *Agrifood* -Novartis/Sandoz Seeds; *household chemicals* –Unilever; *new materials* - ZOLTEK, Furukawa; *environment protection* - Zenon.

### ***Registration system of the Hungarian R&D***

In last few years, the growing demand of proper documentation of the budgetary financed research emerged in the governmental R&D policy. Therefore, new documentation system of the Hungarian R&D was established in 2002. In order to increase the transparency of the budgetary financed research, to disclose the double research support, and to help domestic and international partner search, the Government founded the Register of National Research Activities by the Government Regulation 160/2001 (IX. 12.). The new online database has been giving an in-depth view on the results of the Hungarian R&D, and help the Hungarian participation in international co-operation. All research units are obliged to give information on all R&D projects, being supported by the state budget. In addition, the Register is open to every research unit dealing with R&D. The related technical works and supply (e.g.

collecting and putting information on computer) are performed by the Budapest University of Technology and Economics - National Technical Information Centre and Library, the evaluation and analysis of information has been provided by the National Office of Research and Technology.

### **3. Government support for private sector R&D and innovation**

In Hungary, there exist mainly two types of governmental support for R&D and innovation: firstly, direct non-refundable state support (e.g. non-refundable grant, capital investment) through calls for proposals, and secondly indirect economic incentives (e.g. tax or investment incentives). The further continuous growth of the R&D expenditures will be provided by direct budget allocations and indirect economy and science policy incentives.

Problems to tackle:

- Weakness of R&D and innovation capacity of private sector – large majority of companies do not perform any R&D
- Relatively well developed science system, but with inadequate linkages to private sector – private sector fails to produce ample demand for R&D services.

So the task is how to stimulate demand-driven innovation? Redistribute resources towards innovative enterprises? Gear public research system towards economic growth and competitiveness? Build widespread organic R&D linkages between science and industry?

#### ***The National R&D Programmes***

The programme provides direct financial means for the realization of the main objectives: to initiate large scale, interdisciplinary and integrated research projects, which through focusing the material and intellectual resources can lead to real breakthroughs in the defined areas. In general, the programme should to foster the development of the knowledge-based economy, through research, development and innovation. The Government has taken a decision in its Resolution 1073/2000 (VIII. 31.) on launching the National R&D Programmes NRDPs. The rules of the implementation of the NRDPs are stipulated in the Government Decree 201/2000 (XI. 29.). The NRDPs were launched of in the following five fields: Improving the quality of life; Information and communication technologies; Environmental and materials science; Research on agribusiness and biotechnology; Research on the national heritage and contemporary social challenges. Any consortium made up of legal entities and organisations without legal status registered in Hungary is eligible for participation in Programmes 1 through 4 of the applications. The same organizations are eligible for participation in Programme 5, but the formation of consortium is not mandatory in this case. The form of this type of subsidies: non-refundable grants and capital investments. The gross amount of the assistance generally covers not more than 50 % of the costs of the research and development. The expenditure for basic research part of the project should not exceed 30% of the total budget. Demonstration projects (introducing new technologies at industrial scale) can get support in case only when they are based on concrete R&D projects. The typical duration of projects funded by NKFP is 2-4 years, the duration of subsidy is maximum 3 years. The subsidy is not specific to a sector or a product. Most projects aimed at interdisciplinary and integrating research activities carried out at research and development units in Hungary via consortia and horizontal incentives to enhance the business-research co-operation.

#### ***National Scientific Research Fund (NSRF)***

It was established in 1986, supervising by the HAS. Since 1991, it has been operating as an independent organisation. The mission of the NSRF is to support basic research, development of R&D

infrastructure and scientific work of young researchers. The Laws XXII of 1993 and CXXXVI of 1997 provide the legal base for its operation. NSRF may provide financial support for a thematic bid for three years in general - or under special circumstances - for a maximum of five years. The type of the support is non-refundable grant. NSRF appropriation may not be expended on construction, renovation or real estate procurement. Financial assistance granted to bids shall not provide coverage for profit. For the supported research projects that are suitable for utilisation as innovations should be given priority perspective in co-operation with the National Office of Research and Technology in the course of the regular appraisal of the reports.

#### *National Technology Development Fund (NTDF)*

Its goals are defined by the Government Regulations 98/1996 (VII. 10.), 158/2001. (IX. 12.) and 32/2003 (VIII.22.) as promoting technological innovation, development of R&D infrastructure, and dissemination and economic application of development results. The next table shows the growth of the sources of the three major R&D programme allocated by the budget law of the Parliament.

	2000	2001	2002 (billion HUF)*	2003 (billion HUF)
National Scientific Research Fund	3.1	4.2	5.4	6,8
National Technology Development Fund	6.3	8.75	10.94	8,9
National R&D Programmes	0	5.572	10	7,5

Note: figures are shows in billions of HUF

\*On the basis of two-year-state budget approved by the Parliament in 2000.

The subsidy is not specific to a sector or a product. Most projects aimed at university and research institute activities and horizontal incentives to enhance the business-research co-operation. There were also some programs for mobility, national and international network building. The typical duration of projects funded by NTDF has been three years. In most cases, the form of the subsidy is non-refundable and the gross amount of the assistance covers not more than 50 % of the costs of the research and development.

Financial assets, claims against and obligations borne by the NTDF and NRDP were carried over into the Research and Technological Innovation Fund from January 2004, when the Act XC of the year 2003 entered into force. The Fund can be regarded as a legal successor of the NTDF and NRDP.

In order to improve the competitiveness of the domestic enterprises and to create the conditions for the sustainable economic growth in Hungary, the Parliament decided on November 10<sup>th</sup>, 2003 that some taxation rules have to be changed. In this context, the following additional measures will play important role in the Hungarian technology innovation process:

- 300% RTD tax credit if the company lab is located at a university or public research institute – from 2004.
- Tax free employment of students up to 53 000 HUF/month (equals to the official minimum wage) – from 2004.
- Faster tax reimbursement (speeding up the procedure).
- Increasing tax relief for investments from 2004

- from 35 % to 50 % of expenditures (from 50% to 65% for SMEs, the more in lagging regions), up to €50 million,
- 50 % of that from €50 to €100 million,
- 34 % of that upper €100 million.

#### ***Measures to attract R&D investment by foreign-owned firms – from 2004***

- Technological modernisation: Provision of premises, buildings and infrastructure outside and inside the boundaries of sites in order to attract competitive technologies, that facilitate the production of modern products; the promotion of modern machinery, equipment, soft-wares, instruments, laboratory equipment purchases. Upper limit of grant size 50 % or €770.000.
- Establishment of regional corporate centres: Applicants should undertake at least one of following activities: information technology development and services, distribution, logistics, auxiliary financial services, repair and customer services, adult training provided outside the school-system, business counselling, technological research & development. Upper limit of grant size 50 % or € 560.000.
- Development of supplier activities, co-operation between enterprises, through the reinforcement of integrator companies: development of production methods and technology, establishment of new production methods and technology, development of new products, enhancement of product safety,
  - in relation to research & development: improvement of quality, development of IT facilities, in relation to management: the introduction of modern management systems, networking with external companies, expansion of supplier activities,
  - transmission of production knowledge. Upper limit of grant size 50 % or € 200.000.
- Proactive investment promotion consulting: active counselling for large and medium-sized enterprises about the possible Hungarian premises, establishment of partner relations between the local governments and investors, project generation, organisation of seminars, business meetings and investment conferences, technical assistance. Upper limit of grant size 50 % of eligible costs, applicant's contribution 25 %.

#### ***Modernisation of the corporate sector in terms of innovation – from 2004***

- Creation of technology incubation houses and technology transfer centres that create business opportunities for enterprises with high potential for survival and expansion. Upper limit of grant size: In the case of incubation houses: maximum 50 %; technology transfer centres: maximum 100%. Share of applicant's contribution in the case of incubation houses: at least 25%, in the case of technology transfer centres applicant's contribution is not required.

#### **Reinforcement of corporate R&D capacities and innovation skills**

- Development of corporate research infrastructure related to the creation of new researcher jobs by development of R&D infrastructure background related to the creation of new research jobs, purchasing instruments required in corporate R&D sites, information technology tools, support of the purchase and implementation of machines used exclusively for research purposes, technical

solutions providing sterile or dust-free environment. Upper limit of grant size maximum 50%, maximum fund size: € 38.000 per research facility.

- Promotion of corporate innovation. SMEs are encouraged to adapt and utilise R&D results and to pursue innovative, development activity, to introduce new or improved products, process, services and technologies by supporting acquisition and purchase of application rights of R&D results and adaptation, order for applied research and experimental development, independent development of technology, product and services. Upper limit of grant size 45%, maximum fund size € 190.000.

#### **4. Enhancing collaboration and networking among innovating organisations**

##### ***Promoting collaboration and networking private firms – major initiatives***

- Improvement of the companies' knowledge-base, deepening the integration and co-operation between enterprises through the creation of clusters. Upper limit of grant size: Maximum 50% of eligible costs, but maximum € 100.000. Eligible costs are related to creation of cluster-management organisation, of databases, establishment of network infrastructure and organisation of the co-operation between enterprises. Applicant's contribution: min 25%. Size of grant maximum 50%, maximum fund size: € 38.000 per research facility
- Promoting network-building. Support is provided for network infrastructure costs of establishment of new networks, development of existing networks, establishment of joint logistics system.(Hardware, software, establishment or development of database, costs of establishment and development of networks) Grant size 40%, applicant's contribution: 25% of total costs of project.
- Promoting supplier activities. Support is provided for costs of establishment and extension of supplier activity, in particular: productive investment, purchase of technical instruments and machines, building and enlargement of real estates, purchase of know-how or licence, information technology development (hardware, software). Upper limit of grant size 50%, in case of disadvantaged counties: 65%. Applicant's contribution: 25%.

##### ***Promoting stronger industry/science relations***

- Development of research infrastructure of publicly financed and non-profit research facilities to improve their capability to co-operate with technology-based firms. Supporting purchase of new instruments, renewal and modernisation of existing R&D instruments, rental of R&D instruments, use of measurement services, accreditation of measurement activity. Upper limit of grant size 80 % or maximum € 400.000.
- Support of partnerships and building of networks promoting technology transfer and co-operation between companies and publicly financed research facilities by developing and realisation of research and training co-operations as presented in the applicant's strategy. Upper limit of grant size 50 % or max. € 1.540.000.

##### ***Developing venture capital funds:***

SME Development Finance Co (KVFP) was established in 2002 with 13 million € equity. The mission of KVFP is to invest in profitable, small and medium size companies that have clear and realistic development plans, good management and significant growth potential. The enterprises should be limited or public company. KVFP invests in all sectors excluding agriculture and financial services but does not invest into ventures which can be financed by traditional banking products such as real estate

development, working capital financing, etc. Firms, which are enabled to by the investment to grow domestic value added by acquiring assets, technology, increasing exports, etc. have preferential treatment.

## 5. Human resources

According to the latest available data (2001-2002), the full enrolment to Hungarian higher education institutions were 349301 (around 3.5% of the population), an increase of 22 thousand comparing to the previous year. Of this, 117 947 were university students (5-6 years higher education schemes), 195 291 college “undergraduate” students (3-4 years schemes), and 7030 PhD students. There were 11783 international students, most of them at medical or science and engineering schools. The percentage of female students was 53%, a number more or less constant for the last few years. Among graduate students, the share of female students is lower, around 42%.

The number of graduates by field of training in 2002 was the following:

	College	University	PhD
Social sciences	681	3067	70
Natural sciences	-	665	151
IT & Computing	111	500	14
Engineering	3009	1750	84
Medicine	2844	1758	172
Other fields	25510	10610	492
<i>Total</i>	<i>32155</i>	<i>18350</i>	<i>983</i>

R&D personnel by type of organizations (2002):

	R&D institutes and other research units	R&D units of higher education	R&D units of enterprises	Total persons	As percentage of 2001
<i>Scientists and engineers</i>	5 735	18 569	5 374	29 678	104,7
Technicians	2 634	3 749	2 553	8 936	110,4
Others	3 398	5 103	1 491	9 992	108,3
<i>Total</i>	<i>11 767</i>	<i>27 421</i>	<i>9 418</i>	<i>48 606</i>	<i>106,4</i>
As percentage of 2001	112,5	103,3	108,6	106,4	x

The promotion of the attraction of science and engineering careers, the increase the number of science and engineering university graduates, as well as the reform of the higher education output to better serve social and economic needs are all priority areas of Hungarian science and technology policy. There are several schemes planned or in place to achieve these goals. The first competitive proposal scheme using the resources of the Research and Technological Innovation Fund (see above) is specifically for improving the societal conditions for technological development (“Mecenatúra”), including the following activities to be supported:

- Support to activities improving the public understanding, recognition and awareness of science and technology.
- Support to conferences promoting the distribution of scientific and technological achievements.

In addition to providing financial assistance to bottom-up initiatives improving the public understanding of science and technology and the promotion of related careers, there are several specific schemes and programs to this goal. The most novel and successful of these the so-called “Universtiy of All Knowledge” (Mindentudás Egyeteme) regular television programme with presentations of the most

recognised Hungarian scientists with considerable viewership; the impact of which is enormously enhanced by the Website of the programme ([www.mindentudas.hu](http://www.mindentudas.hu)), which receives several thousands of hits daily and has proven a high successful means of outreach to the whole population.

The legislation creating the Research and Technological Innovation Fund (see above) specifically stipulates that activities financed from the include “improve human resources for research and technological innovation, create research and development jobs, to promote the supply and training of young researchers, to encourage the exchange of experiences and domestic as well as international mobility of research and development professionals, and to support the reintegration of recognised researchers returning to Hungary into the Hungarian academic community”. In order to fulfil these goals, a new competitive call for proposals will be published in 2004 “to improve the human resources of research and development”. This will encompass all the above goals, and will also build upon previous schemes like the “SME job creation” call for proposals. In addition, several other support programmes under the Fund will have a strong human resources element: for example, the call for the creation of “Cooperative Research Centers” (a PPP scheme) includes a requirement for demonstrating a strong educational strategy on top of the research program, to provide for a future generation of researchers. For all schemes, declared evaluation criteria will favour proposals with strong measures of promoting gender equality and opportunities for women.

Besides domestic schemes, there is another significant funding stream available to improve human resources for S&T. Hungary will join the European Union on May 1, 2004 and subsequently will become eligible for support from the EU Structural Funds and Cohesion Fund. In order to utilize its resources, the Government is responsible to prepare a National Development Plan (NDP). Among its 5 programmes, the Economic Competitiveness Operational Programme (ECOP) is to support R&D and Innovation; while the Human Resources Development Operational Programme (HRDOP) is strongly linked to ECOP to provide for the human resources of the R&D and innovation schemes of the NDP. For example, the HRDOP measure “Developing the structure and content of higher education” aims at supporting and expanding human resources for R&D. These activities will be complementary to R&D programmes financed under the ECOP. Also, support granted under HRDOP’s measure “Promoting job-creation and the development of entrepreneurial skills by training” will be linked with assistance granted through the ECOP’s priorities. The development of ICT skills will be supported in the HRDOP at all levels and through various forms of education and training. Measures will include training, the development of new curricula and methods, the extension of the possibilities for distance education as well as the development of the ICT infrastructure for education and training.

In addition, a major reform of the Hungarian higher education system is under way. A new Higher Education Bill, to be adopted this year, will reform the Hungarian higher education system according to the Bologna principles. Equally importantly, the Bill will also move the current system to be responsive towards economic needs and capable of a more flexible cooperation with economic players. This involves the modification of curricula to better match the specific needs of companies and other knowledge users, including the promotion of inter- and multidisciplinary training, as well as giving increased priority to subjects important for the knowledge based society and economy (i.e. IT and computing), as well as new disciplines not traditionally taught by Hungarian higher education institutions. There are also several measures introduced to promote life-long learning, retraining, and continuous training. One specific problem of the Hungarian R&D innovation sector is the lack of necessary management skills. To remedy the situation, the Ministry of Economics is providing specific support for the promotion of innovation manager training, including the development of curricula and direct financial incentives.

There are also novel indirect measures in place to create ample supply for qualified R&D personnel, create linkages between university and industry personnel and increase the mobility of researchers between the public and private sectors. From 2004, companies have the option for tax free employment of students

up to 53 kHUF/month (equal to the official minimum wage); and a 300% RTD tax credit is applicable for a company if the company lab is located at a university or public research institute – from 2004. There are various opportunities and incentives available for researchers for international mobility, especially for attracting them to Hungary. The Szent-Györgyi fellowship enables internationally acknowledged leading Hungarian or foreign researchers living outside Hungary to work in Hungarian HE institutions. Various post-doc fellowships (see [www.fpi.hu](http://www.fpi.hu)) are open to researchers coming from abroad. The European Young Investigator (EURY) Award encourages outstanding young researchers from all over the world to come in Hungary and contribute to the building up of the next generation of leading European researchers. Hungary is a full participant in the various Marie Curie schemes of the 6<sup>th</sup> Framework Programme of the European Union, including reintegration grants, incoming and outgoing fellowships, fellowships for early-stage researchers etc. Also, the network of mobility centres (ERA-MORE) provides one-to-one assistance to national and foreign researchers before, during and after a training period abroad. In Hungary two organisations were appointed to become ERA-MORE bridgeheads: the Hungarian Science and Technology Foundation and Tempus Public Foundation.

## **6. Policies to boost innovation in the service sector**

The Hungarian innovation policy does not make a difference between the production sector and the service sector, the main goals, tasks and measures that were mentioned in section 1. have also been valid for the service sector.

## **7. Policy evaluation**

Scope and the goals of the ex-ante evaluation in 2003 to clarify the possible future impacts of the bill on research and technological innovation (social, economic dimensions) are as follows:

- Identifying the problems that mean obstacle from point of view of innovation processes
- Suggesting several feasible alternatives to eliminate them and at the same time analysing their future impacts
- Concrete solutions in legal-technical terms.

*Methodology of the ex-ante evaluation:*

1. *SWOT analysis* –carried out by external experts
2. *Questionnaire* - in written form via e-mail, compiling by the external experts(roughly 1000 actors from the RTD sphere were selected random manner, including individuals, enterprises, higher educational and research institutes, associations, chambers)
4. *In-depth interviews* - with standard interview guideline, compiling by an external social research institute (roughly 80 representative persons)
5. Independent external *expert panels* (top-managers of enterprises and research institutes, financial, legal and taxation experts) co-ordinated by the Internal Operating Committee

*SWOT analysis (Technology and innovation)*

- Major strength:
  - Internationally recognised, high level research tradition at university and academic level

- Good track record in natural sciences, engineering and medical sciences
- International companies with R&D activities are locating into Hungary
- Research integrates in international R&D networks (Sixth Framework Programme)
- Major weaknesses:
  - The amount of R&D expenditures are low
  - R&D is predominantly state funded
  - R&D infrastructure is obsolete and the research staff is an ageing population
  - The innovation activity of corporate sector is low
  - The link between the R&D sector and businesses is weak: the spin-off activity is low
- Major opportunities:
  - A closer economic integration with the EU-countries
  - Increasing demand on the faster spread of results in the field of R&D
  - Rapid development of high-technology sectors
  - Increasing weight of knowledge-driven sectors
  - An expanding service sector
- Major threats:
  - Unfavourable external macroeconomic conditions
  - Increasing regional disparities
  - Brain drain
  - Rural regions falling behind
  - An increasing gap in IT use between sections of society

*Questionnaire and in-depth interviews (timescale – the last 2-3 years)*

During the elaboration phase of the law, a questionnaire was sent to roughly 1000 companies, research institutes, professional organizations, etc. with the following questions:

According to your opinion, what are the main problems, tasks to be solved in the following fields – do you have any ideas for the solutions in the field of legal codification?

1. Exploitation of results of R&D, cooperation of public research institutes and enterprises
2. Growth possibilities of knowledge-based innovative SMEs
3. Public finance of R&D in the budgetary sector, related legislation
4. Public finance of R&D and innovation in the business sector, related legislation

5. Indirect incentives of R&D (tax credits, etc.)
6. Development of human resources of R&D, mobility of researchers
7. Government administration of R&D on strategic level, institutional system of R&D administration
8. Institutional system performing R&D
9. Protection and utilization of intellectual property in the field of R&D
10. Government responsibility in connection with international and EU cooperation in the field of R&D
11. Information for the general public on the goals, means and results of science and technology policy
12. Other suggestions, remarks

The response rate was as low as 10 %. However, processing the answers resulted in a very useful list of suggestions that helped the legislators in completing the text of the law.

*Conclusions (According to the SWOT analysis and the answers of questionnaire and complementary interviews)*

- Only the „market and end-user oriented” R&D results can be exploited
- Establishment either a ministry or a governmental office in the field of S&T should be given high priority by the decision-makers
- Promoting the establishment of the innovation clusters, innovation agencies, knowledge centers on regional level, increasing the number of the spin-off companies should be key elements for the future success of the domestic innovation. These can promote the researchers mobility.
- Independent Research and Technology Innovation Fund should be created to implement the long-term stability and calculability of the R&D financial sources

## APPENDIX

### S&T links

National Office of Research and Technology [www.nkth.gov.hu](http://www.nkth.gov.hu)  
Agency for Research Fund Management and Research Exploitation (KPI) [www.kutatas.hu](http://www.kutatas.hu)  
Ministry of Education [www.om.hu](http://www.om.hu)  
Ministry of Economic Affairs [www.gm.hu](http://www.gm.hu)  
Hungarian Academy of Sciences [www.mta.hu](http://www.mta.hu)  
Hungarian Scientific Research Fund [www.otka.hu](http://www.otka.hu)  
Bay Zoltán Foundation for Applied Research [www.bzaka.hu](http://www.bzaka.hu)  
Collegium Budapest [www.colbud.hu](http://www.colbud.hu)

Act XC of the year 2003 on Research and Technological Innovation Fund  
[www.om.hu/kutatasfejlesztesrovat.ivy?colid=7905cd69-4a7d-4fb6-b953-f1ff09a953bd](http://www.om.hu/kutatasfejlesztesrovat.ivy?colid=7905cd69-4a7d-4fb6-b953-f1ff09a953bd)

Tax related governmental measures for supporting R&D  
[www.om.hu/kutatasfejlesztesrovat.ivy?colid=7905cd69-4a7d-4fb6-b953-f1ff09a953bd](http://www.om.hu/kutatasfejlesztesrovat.ivy?colid=7905cd69-4a7d-4fb6-b953-f1ff09a953bd)

### National R&D Programmes

[www.om.hu/kutatasfejlesztesrovat.ivy?colid=7905cd69-4a7d-4fb6-b953-f1ff09a953bd](http://www.om.hu/kutatasfejlesztesrovat.ivy?colid=7905cd69-4a7d-4fb6-b953-f1ff09a953bd)

Bill on Research, Development and Technological Innovation  
[www.om.hu/kutatasfejlesztesrovat.ivy?colid=7905cd69-4a7d-4fb6-b953-f1ff09a953bd](http://www.om.hu/kutatasfejlesztesrovat.ivy?colid=7905cd69-4a7d-4fb6-b953-f1ff09a953bd)

National Development Plan Economic Competitiveness Development Operational Programme (ECOP)  
[http://www.gkm.hu/dokk/main/menu/palyazatok/aktualis\\_palyazatok](http://www.gkm.hu/dokk/main/menu/palyazatok/aktualis_palyazatok)

Hungarian Patent Office [www.hpo.hu](http://www.hpo.hu)  
Hungarian Competition Office [www.gvh.hu](http://www.gvh.hu)  
Hungarian Standards Institution [www.mszt.hu](http://www.mszt.hu)  
Hungarian Central Statistical Office [www.ksh.hu](http://www.ksh.hu)  
Association of Hungarian Innovation [www.innovacio.hu](http://www.innovacio.hu)  
Association of Hungarian Inventors [www.inventor.hu](http://www.inventor.hu)  
Association of Hungarian Industrial Parks [www.datanet.hu/ipe](http://www.datanet.hu/ipe)  
Federation of Technical and Scientific Societies [www.mtesz.hu](http://www.mtesz.hu)  
Hungarian Academy of Engineering [www.mernokakademia.hu](http://www.mernokakademia.hu)  
Hungarian Science and Technology Foundation [www.tetalap.hu](http://www.tetalap.hu)  
National Technical Information Centre and Library [www.omikk.bme.hu](http://www.omikk.bme.hu)  
GKI Economic Research Co. [www.gki.hu](http://www.gki.hu)  
INNOSTART National Business Innovation Centre [www.innostart.hu](http://www.innostart.hu)  
Institute for Economic Analysis and Informatics [www.ecostat.hu](http://www.ecostat.hu)  
KOPINT-DATORG Economic Research, Marketing and Computing Company Limited [www.kopdat.hu](http://www.kopdat.hu)

## Hungarian state universities

Budapest University of Economic Sciences and Public Administration ([www.bkae.hu](http://www.bkae.hu))

Budapest University of Technology and Economics ([www.bme.hu](http://www.bme.hu))

University of Debrecen ([www.klte.hu](http://www.klte.hu))

Eötvös Loránd University, Budapest ([www.elte.hu](http://www.elte.hu))

University of Kaposvár [www.kaposvar.pate.hu](http://www.kaposvar.pate.hu)

Ferenc Liszt Musicology University, Budapest ([www.liszt.hu](http://www.liszt.hu))

Hungarian University of Craft and Design, Budapest ([www.mie.hu](http://www.mie.hu))

University of Miskolc ([www.uni-miskolc.hu](http://www.uni-miskolc.hu))

University of Western Hungary, Sopron ([www.nyme.hu](http://www.nyme.hu))

**University of Pécs ([www.pte.hu](http://www.pte.hu))**

**Semmelweis University, Budapest ([www.sote.hu](http://www.sote.hu))**

University of Szeged ([www.u-szeged.hu](http://www.u-szeged.hu))

University of Veszprém ([www.vein.hu](http://www.vein.hu))

University of Saint Stephen, Gödöllő ([www.szie.hu](http://www.szie.hu))

Miklós Zrinyi University of Defense, Budapest ([www.zmne.hu](http://www.zmne.hu))

Academy of Drama and Film, Budapest ([www.filmacademy.hu](http://www.filmacademy.hu))

## Research and development institutes of the HAS by scientific fields

Natural Sciences And Mathematics	Life Sciences	Social Sciences Including Humanities
<ul style="list-style-type: none"> <li>Alfréd Rényi Mathematical Institute (<a href="http://www.renyi.hu">www.renyi.hu</a>)</li> <li>Astronomical Research Institute (<a href="http://www.konkoly.hu">www.konkoly.hu</a>)</li> <li>Chemical Research Centre (<a href="http://www.chemres.hu">www.chemres.hu</a>)</li> <li>Computer and Automation Research Institute (<a href="http://www.sztaki.hu">www.sztaki.hu</a>)</li> <li>Institute of Nuclear Research (<a href="http://www.atomki.hu">www.atomki.hu</a>)</li> <li>KFKI Atomic Energy Research Institute (<a href="http://www.kfki.hu/~aekihp">www.kfki.hu/~aekihp</a>)</li> <li>Solid State Physics and Optics (<a href="http://www.szfki.hu">www.szfki.hu</a>)</li> <li>KFKI Research Institute For Particle and Nuclear Physics (<a href="http://www.rmki.kfki.hu">www.rmki.kfki.hu</a>)</li> <li>Research Centre for the Earth Sciences</li> <li>Research Institute for Technical Physics and Materials Science</li> </ul>	<ul style="list-style-type: none"> <li>Agricultural Research Institute (<a href="http://www.mgki.hu">www.mgki.hu</a>)</li> <li>Balaton Limnological Research Institute (<a href="http://tres.blki.hu/">http://tres.blki.hu/</a>)</li> <li>Institute of Ecology and Botany (<a href="http://www.botanika.hu">www.botanika.hu</a>)</li> <li>Institute of Experimental Medicine (<a href="http://www.koki.hu">www.koki.hu</a>)</li> <li>Research Institute of Plant Protection (<a href="http://www.nki.hu">www.nki.hu</a>)</li> <li>Research Institute for Soil Science and Agricultural Chemistry (<a href="http://www.taki.iif.hu">www.taki.iif.hu</a>)</li> <li>The Szeged Biological Research Centre (<a href="http://www.szbk.u-szeged.hu">www.szbk.u-szeged.hu</a>)</li> <li>Veterinary Medical Research Institute (<a href="http://www.vmri.hu">www.vmri.hu</a>)</li> </ul>	<ul style="list-style-type: none"> <li>Archeological Institute</li> <li>Ethnographical Research Institute (<a href="http://www.neprajz.mta.hu">www.neprajz.mta.hu</a>)</li> <li>Institute of History (<a href="http://www.tti.hu">www.tti.hu</a>)</li> <li>Institute for Legal Studies</li> <li>Institute for Literary Studies (<a href="http://www.iti.iif.hu">www.iti.iif.hu</a>)</li> <li>Institute for Musicology (<a href="http://www.zti.hu">www.zti.hu</a>)</li> <li>Institute of Philosophy (<a href="http://www.phil-inst.hu">www.phil-inst.hu</a>)</li> <li>Institute for Psychology (<a href="http://www.cogpsyphy.hu">www.cogpsyphy.hu</a>)</li> <li>Institute of Sociology</li> <li>Research Institute for Art History (<a href="http://www.arthist.mta.hu">www.arthist.mta.hu</a>)</li> <li>Research Institute for Linguistics (<a href="http://www.nytud.hu">www.nytud.hu</a>)</li> <li>Centre for Regional Studies (<a href="http://www.rkk.hu">www.rkk.hu</a>)</li> <li>Institute of Economics</li> </ul>

<a href="http://www.mfa.kfki.hu">www.mfa.kfki.hu</a>		<a href="http://www.econ.core.hu">www.econ.core.hu</a> <ul style="list-style-type: none"><li>• Institute for Political Sciences (<a href="http://www.mtapti.hu">www.mtapti.hu</a>)</li><li>• Institute for World Economics (<a href="http://www.vki.hu">www.vki.hu</a>)</li><li>• Minority Studies Institute (<a href="http://www.mtaki.hu">www.mtaki.hu</a>)</li></ul>
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