

Ministry of Education
Republic of Hungary

Division of R&D
Department of R&D Strategy



The Hungarian „ex-ante” policy evaluation in the course of preparing the Innovation Act

A tudás
a hajtóerő

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The innovation policy of the Hungarian Government before the EU-Membership

Documents:

- 1) The Hungarian Government's Program, May 2002.
- 2) Middle –term Economic Policy Program, August 2002.
- 3) National Development Plan-”Creative Hungary scenario”

Priority areas:

- *Development of the institutional system supporting the innovation (making Hungary attractive as R&D site)*
- *Increasing the financial sources of the innovative SME-s*
- *Enhancing the protection of intellectual property*
- *Innovation-conducive legal and economic framework
(an Act on R&D and Innovation is necessary!)*

R&D and Innovation Act

Overall objective:

- To improve the quality of life of the Hungarian citizens (coincidence with the the National Development Plan)

Main objective:

- To promote and accelerate the Hungarian economic growth via knowledge based society development direction,

Specific objectives:

- To create the absent innovation institutional system, clarifying the innovation related responsibilities and tasks on governmental and local level,
- To create the legal environment for the stability of the R&D and innovation related financial sources.

Fundamental questions

Social impacts?

Economic impacts?

Financial impacts?

What kind of concerted actions should be taken to strengthen and accelerate the innovation processes in Hungary?

What kind of RTD institutional system can meet these necessary requirement?

Scope and the goals of the ex-ante evaluation

Scope:

To clarify the impacts of the Innovation Act
(social, economic dimensions)

Goals:

- 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)
3. Deep-interviews -with standard interview guideline, compiling by an external social research institute
(roughly 80 representative persons)
4. **Independent external expert panels** (top-managers of enterprises and research institutes, financial, legal and taxation experts) were co-ordinate **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 (Six 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**

SWOT analysis 2

(Technology and innovation)

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 intensive 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**

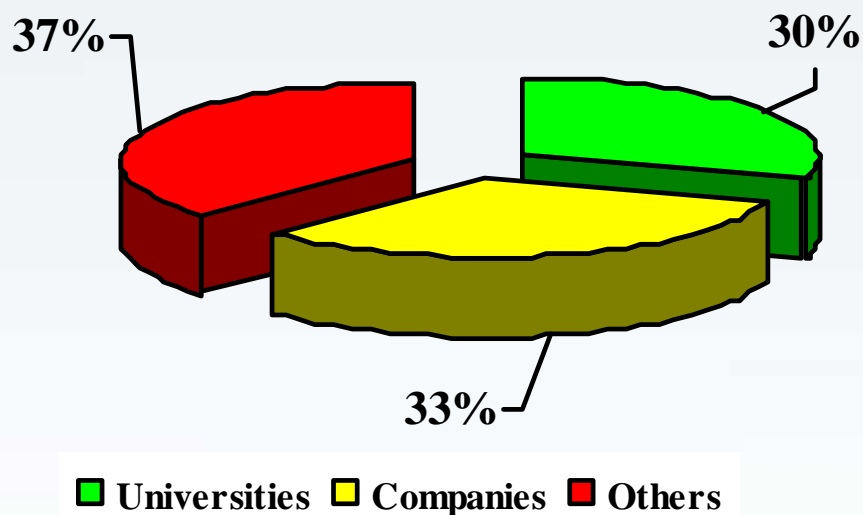
Questionnaire and deep-interviews (timescale – the last 2-3 years)

Main questions:

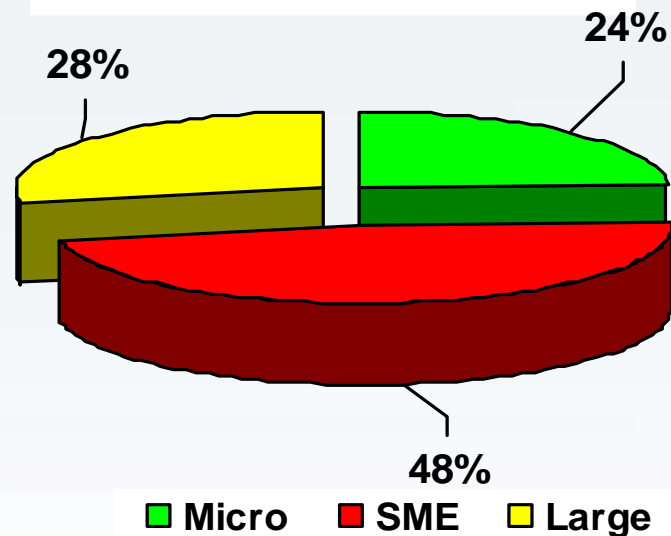
- Problems with the commercialisation and exploitation of R&D results
- Problems related to the governmental budget of R&D
- Public/Private Partnership
- Development opportunities of the domestic innovative SME-s
- Problems concerning of the Hungarian innovation system in the governmental and civil sphere and R&D unit level
- Development of the human resources
- Providing more success in the field of IPR
- Problems with the social attitudes of innovation
- International S&T co-operations

Distribution of the respondents

1. According to the R&D unit type



2. Distribution of the enterprises



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 promoting 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

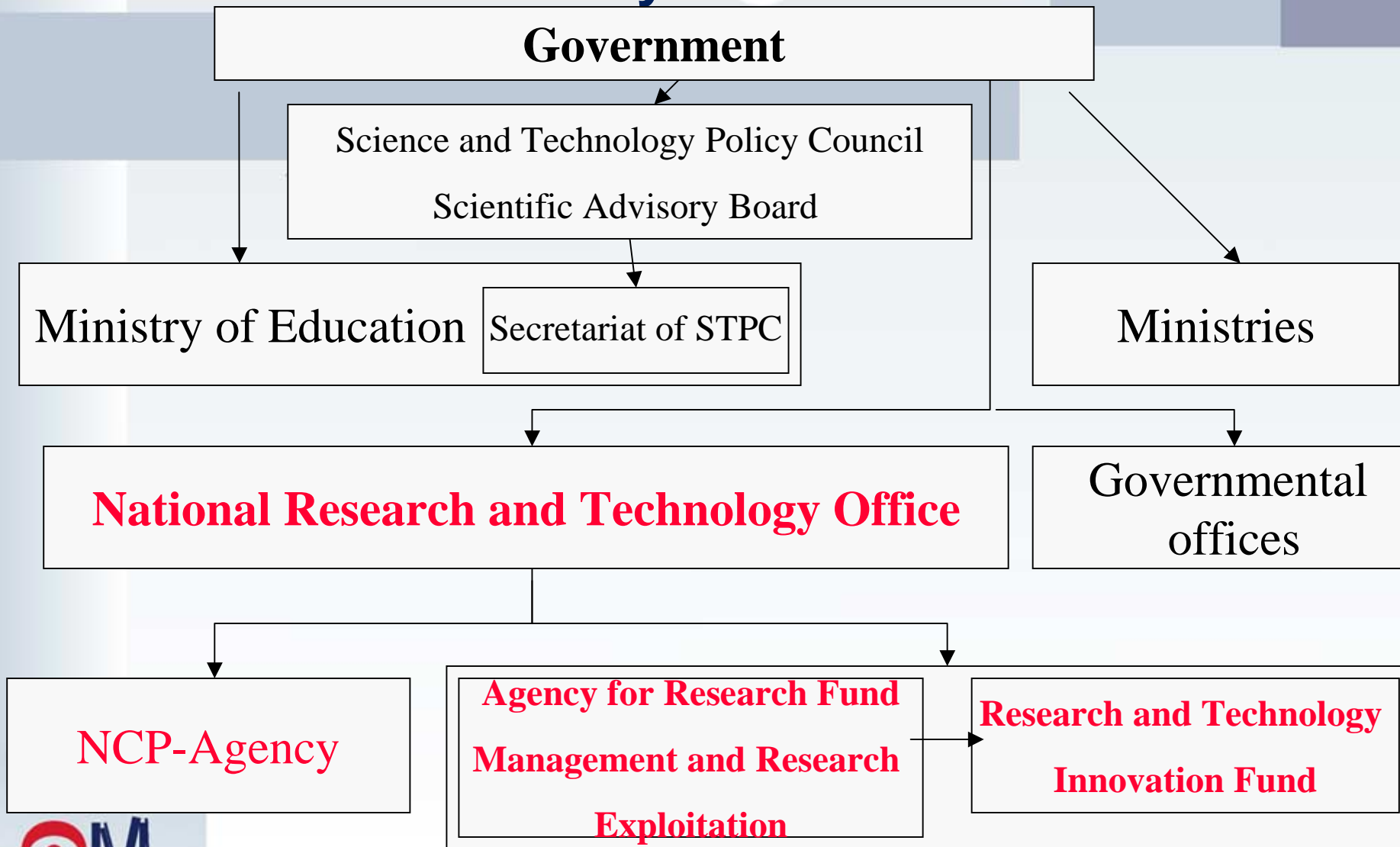
R&D and Innovation Act

Main planned elements

(considering the conclusions based on ex-ante evaluation):

- to clarify the governmental tasks and responsibilities,
- to promote the stability of financing (via Fund)
- **to accelerate the exploitation of the R&D results financed from public money;**
- to strengthen the innovation policy related information services,
- **to regulate the innovation related indirect economical assistance means (taxes, capital-market tools, etc.),**
- to encourage the FDI towards the „high value added products-driven” sectors,
- **to eliminate the obstacles in front of the researchers mobility,**
- to create more transparent and more consistent legal environment for the R&D and innovation.

Restructuring of the R&D governmental institutional system



Mission of the NRTO

- To elaborate the governmental strategy in the field of innovation
- To form the means and tools for the R&D and innovation policy on governmental level
- To represent the Hungarian interests in the international and EU-integration S& affairs
- To co-ordinate the activity of the Research and Technology Innovation Fund and to supervise the Agency for Research Fund Management and Research Exploitation
- To change the innovation attitudes of the society
- To keep the contact with other organisation of governmental and civil sphere involving innovation

Research and Technology Innovation Fund

- Separated state fund under guidance of the National Committee for Technological Development (OMFB) from January,2004
- Returns of the Fund:
 - **Payments of the enterprises based on legal regulation**
 - **Support from the governmental R&D budget (as legal successor of the current Technological Development Program and the National Research and Development Programs expenditures)**
 - **Voluntary public interest payments of enterprises, private individuals**
 - **International financial sources**
 - **Other incomes**

Expenditures of the Fund

- To give financial assistance for industrial research and technological development activities
- To promote the creation of R&D and knowledge intensive jobs, workplaces
- To support the R&D activities of the enterprises and their consortia
- To support supplementary R&D service sector (technology transfer, technology broker, PR, bridge-building organisations, etc)
- To finance the investments and projects for implementation of new technology culture in the domestic economy
- To develop the R&D infrastructure in the publicly financed research units
- To facilitate the Hungarian participation in the international R&D projects
- To contribute to the increasing of the researcher's mobility
- To contribute to the expenditure of the exploitation and commercialisation of the R&D results

Mission of the Agency for Research Fund Management and Research Exploitation

- It will operate as the background budget institute of the NRTO from the beginning of July, 2003
- It will co-ordinate the government responsibility related R&D duties
- R&D call for proposals and approved projects management, advisory and service tasks
- It will promote the public-private partnership

The expected impacts of the Innovation Act

- More effective and transparent structures in the field of R&D and innovation
- Much better co-ordination between the key elements of the Hungarian innovation system, improved efficiency
- The different types of innovation clusters will be strengthened and co-operate to each other in the regions (*economic dimension*)
- More effective protection of IPR (*economic dimension*)
- Establishment of the Fund will eliminate the contradictions between the annual budget point of views and Exchequer management versus financial features of the long-term R&D projects (*financial dimension*)
- It will be contribute to the creation of new jobs and researchers mobility (*social dimension*)