R&D Programme

Reasons for the intervention

Despite the fact that Hungary has well recognised scientific potential, strong intellectual resources and extensive international scientific relations in some dynamically developing areas, the knowledge base plays a smaller than expected role in contributing to the performance and competitiveness of the national economy. It This fact can only be partially explained with a relatively low number of researchers compared to Europe and the on low average low quality of the R&D infrastructure. The underdevelopment of the innovation infrastructure and institutional system, the inadequate and accidental nature of the networks supporting knowledge transfer between the knowledge base and business sector all play an important role. The whole situation is very much due to the underdevelopment of the innovation infrastructure and institutional system, the insufficiencies and occasionality of relations supporting knowledge transfer between the knowledge base and the business sector. Foreign-owned enterprises have hardly any linksvery few contacts with the Hungarian R&D sectoractivities. The innovation capabilities of Hungarian enterprises, primarily SME-s, are low. There are very few R&D investments. These processes are all reflected in the fact that the R&D expenses expenditures compared to GDP are lower than the desired level, and are also lower than or the EU average.

Research, development and innovation form one of the are key dynamic elements of the transition to a knowledge-based economy, long-term sustainable growth, increasing economic competitiveness and utilisation of competitive advantages. Long-term economic competitiveness is unimaginable without a stable and continuously developing knowledge base, utilisation of new scientific and technology results by the participants in the economy, or innovation capabilities based on strategic co-operation and continuous renewal.

In the near future we need to continue developing 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. as a result of which the national economy can grow, and the internationally competitive R&D and innovation potential, required also by the EU membership, will be achieved, too.

Specific objectives

- To stimulate cooperative research activities promoting competitiveness and sustainable growth potential., and to improve the efficiency and conditions of research- and development activities.
- Improvement of the conditions for research, technology transfer and co-operation at publicly financed and non-profit research facilitiesTo strengthen co-operation, efficiency and infrastructure links between the research sites both publicly financing and non-profit operations.
- To strengthen corporate and regional innovation capabilities and networking in co-operation in knowledge and technology transfer.

Quantified objectives

- The number of modern technologies based on Hungarian intellectual performance property, protected by patents (domestic patent filings) should increase by 20% between 2002-2006 by 2006 compared to 2002
- The number of Co-operation Cooperative Research Centres and as well as the number of the enterprises participating companies in them should increase by 25% between 2002-2006in 2006 compared to 2002
- In addition to the increase in national total R&D expenditures – as a consequence of programmes and incentives – the share of companies out of industrial R&D expenditures should reach 45% by 2006.

Measures

1. Support to application- mission-oriented co-operative R&DRTD activitySupport to research and development of new, competitive products, services and technologies conducted in co-operation

Reasons

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.

It is necessary to identify focus areas for Hungarian R&D because the scientific critical mass enabling the commercialisation of research results and entering specific niches of the world market can only be reached by the concentration of resources.

Objective

Extensive Large scale technology development based on basic and applied research relying on co-operation between R&D workshops units and economic entities. The objective of the instrument is to support the development and testing of new products, tools, procedures and services in areas that contribute the most to the competitiveness of the Hungarian economy.

Contents

- Technology development based on integrated research relying on co-operation between R&D workshops and economic entities.
- Cooperative applied R&D research close to implementation.

Impact

The supported Rresearch- and Ddevelopment activities will result in better competitiveness of the Hungarian economy. Within In the supported areas the knowledge base will increase, and the results can be better used to create new, modern, up-to-date, valuable, marketable biotechnology, info- communication, environmental protection products, procedures and services. Support to development of environmental technologies will lead to the prevention and reduction of environmental pollution Support to technical development in environmental protection will lead to prevention and reduction of environmental pollution. The Hungarian R&D capacities will develop, the number of research-development jobs will increase, the companies' R&D expenses will increase, and co-operation between companies and research sites operating with public financing will improve.

Beneficiaries

Enterprises based in Hungary, with and without a legal personality based in Hungary, budgetary agencies and their institutionssubsidiaries, non-profit organisations with legal personality.

Implementing agency

Fund Management Directorate of the Ministry of Education

Expected share of the measure out of the budget of the Operational Programme: 13-15%

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

Reasons

As a result of a decline in R&D investments, publicly financed research facilities suffered major losses in the transition process, the condition of their equipment park deteriorated, the supply of instruments equipments and technical infrastructure is poor, and replacement and modernisation could take a long time. Therefore, the extension of funds made available for R&D investments needs to be considered a priority.

Objective

The objective of the measure is to 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. as a result of which the efficiency of their R&D activities will increase significantly. In addition, by creating Cooperative Research CentresOn the other hand, by creating Co-operation Research Centres, the measure will also strengthen the scientific and technology relations between the business and public sectors, and thus the strategic integration of education, R&D with socio-economic targets, and knowledge and technology networks can be achieved. education, economic, social target-oriented research development and knowledge and technology networks can be integrated for strategic purposes. Another objective is to strengthen the establishment of professional contacts between researchers, the transfer, dissemination and raising awareness of research achievements.

Contents

- Development of the research infrastructure of publicly financed research sites with public financing.
- Support for the establishment of professional contacts between researchers, as well as to the transfer, dissemination and raising awareness of research achievements
- Support for establishing partnerships relationsand networks promoting co-operative research and technology transfer between higher education institutions and companies

Impact

As a result of the support, the quality and equipment supply of existing R&D workshops will improve, and therefore they can be more effective in their Rresearch- and Ddevelopment activities. Co-operation between the research facilities and companies will increase, and new scientific and technology results can be used effectively. The established institutional structures and networks can promote co-operation in R&D and innovation.

Beneficiaries

Research institutes that are financed from the central budget, higher education institutions, research and development foundations and public benefit companies.

Implementing agency

Fund Management Directorate of the Ministry of Education

Expected share of the measure out of the budget of the Operational Programme: 4-6%

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3. Support to the development of corporate R&D and innovation capabilities Support to the development of corporate R&D capacity and and regional innovation capabilities, and R&D and innovation networking

Reasons

Despite the favourable trends since the end of the last decade, the weak R&D and innovation performance of the majority of small and medium-sized enterprises due to the lack of necessary resources still causes tensions. Despite the changes in trends since the end of the last decade, it has been a general problem causing tensions that the activity of the majority of small and medium-sized enterprises in research- and development and innovation is very weak, as there is a general lack of resources. There are not many few spin-off companies originating from knowledge centres (for example, universities, research institutes), technologyical incubation is underdeveloped, there is no seed capital is unavailable, there are no governmental orientation mechanisms channelling driving venture capital to innovative enterprises, and there is no effective venture capital market.

The key to the region’s economic competitiveness is in the innovation potential of the enterprises registered in the region. The R&D and innovation potential is very much concentrated in the capital, and is at a low level in most the regions. The absence of innovation activities, results in the lagging behind of the region. One of the most efficient means of realignment is the promotion of regional innovation, and the creation of the organisational infrastructure and personnel conditions for this.

Objective

Assistance to innovative start-up enterprises and technology-intensive SMEs, and support for the establishment of the networks that promote the innovative activities of 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. The objective of the measure is to improve the innovative capabilities of regions, strengthen the role of higher education institutions and research and development institutes as regional R&D centres, as well as their relationship and co-operation with small and medium enterprises. It should strengthen the institutional system for regional innovation, co-operation between Government, municipality, regional and corporate players, and the enrichment of the existing business network with innovation components. It should cover innovation partnerships of cross-border regions.

Contents

- Support for the creation and initial innovation tasks of start-up technology-and knowledge-intensive start-ups and micro enterprises (spin-off)
- Development of corporate research infrastructure linked to the creation of new research jobs
- Encouraging Incentives for SMEs to order sub-contract R&D and acquire the right to utilised use existing R&D achievementsresults.

Impact

New R&D units will be created within companies, and the share of the corporate sector in R&D expenditures expenses will increase. The instrument will promote the orientation of foreign direct investments towards innovative areas with a high knowledge content and high technology standard. New R&D jobs will be created in small and medium-sized

enterprises, the innovation capabilities of SME-s will improve and the quality of their products, services and technology development activities will increase. An innovation infrastructure aligned to the particular features of the region will develop in a close co-operation of the players in regional innovation. The region’s competitiveness will improve. Scientific and technologic relationships between the business and the public sector will increase, and the conditions for the flow of knowledge and the utilisation of knowledge will improve.

Beneficiaries

All business companies registered in Hungary.

Implementing agency

Fund Management Directorate of the Ministry of Education

Expected share of the measure out of the budget of the Operational Programme: 7-9%