

REGIONAL INNOVATION STRATEGY

THE REGION OF PRAGUE

Technology Centre AS CR

August 2004

Photograph: Bém

Prague is one of the European Union's most economically developed regions, offering immense innovative potential stemming from its powerful, heterogeneous economy, a highly skilled population, and a large concentration of R&D institutions. The Czech Republic's accession to the EU in 2004 returned the country to the community of states it had always naturally belonged to. Prague has the potential to make a distinct and significant contribution to European strategic goals in the field of innovation-based competitiveness.

Given the specific status of the Capital Prague, which has a major impact on the competitiveness and the economic development of the Czech Republic in general, the development of Prague as a separate region and the effective use of its learning and scientific potential are also a priority for the country as a whole. In this respect, building a quality regional innovation system is not in the interests of Prague alone, but also in the interests of the Czech Republic.

Prague's regional innovation strategy is an important step on the way to realizing these ambitious goals. This document, together with the processing of specific implementation steps, is intended to become a much-needed effective instrument that will enhance the competitiveness of Prague's economic base. I therefore appreciate the value of the Regional Innovation Strategy, prepared in the scope of the BRIS project, as a significant contribution elevating the status of Prague as a political, economic, and cultural centre enhancing the prosperity of the whole of the Czech Republic.

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Pavel Bém
Mayor of the City of Prague

The Mission of the Regional Innovation Strategy

The key mission of the Regional Innovation Strategy is to foster an environment conducive to the exploitation of the high scientific, research, and knowledge potential of Prague, especially via small and medium-sized innovation enterprises, and as such to help enhance the capital's competitiveness by developing a knowledge-based economy.

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INTRODUCTION

In 2000, within the Lisbon Strategy, the European Council declared its ambitious goal for the European Union – to become one of the world's most competitive knowledge-based economies by 2010 while preserving the principles of sustainable development and social cohesion. If this strategy is to succeed, support must be channelled into the generation and application of knowledge in the form of innovations, innovative enterprises need to be able to draw on comprehensive assistance, and effective cooperation has to be established between the business sector and R&D.

The European Union cannot prosper unless its regions prosper. Therefore, a key factor in ensuring successful development is the creation of suitable conditions for generating and using innovations not only at the national level, but also at the regional level. In the context of the European structural and development policy, it is the regions that are closest to concrete sources of economic potential and that, in the scope of their competence, can directly influence the development of business in a region and shape the environment required for quality living standards of its inhabitants.

A prerequisite for the successful development of the knowledge-based economy in the regions is a coordinated strategic cooperation among all those involved in the innovation system. Aware of this, the European Commission has backed the development of *regional innovation strategies* in more than a hundred European regions since 1994. Between 2002 and 2004, the European Commission initiated and supported projects aimed at designing regional innovation strategies in countries that were to become EU Member States in 2004.

One of these projects was the Bohemian Regional Innovation Strategy Project (or BRIS project), the aim of which was to prepare an innovation strategy for Prague and the Plzen region. This publication is devoted to the preparation of the innovation strategy for Prague.

PRAGUE

The City of Prague is an attractive region for life steeped in history and tradition. It is one of the most economically developed regions of the EU, and it is economically the strongest region in Central and Eastern Europe, with a potential for further economic growth. In relation to the surrounding states, it is well positioned; it is 120 km away from the borders on Germany and Poland, 150 km away from the border on Austria, and approximately 250 km away from the border on Slovakia.

Prague is a natural economic, scientific, educational, cultural, and political centre of the Czech Republic. It is also a municipality, administrative region, and NUTS 2 cohesion region. Prague has 1.2 million inhabitants, .e. 12% of the Czech Republic's total population. It generates approximately 25% of the Czech Republic's GDP; the most significant item of the city's economic base is the service sector, which accounts for 80% of GDP and 75% of employment in Prague. The unemployment rate here is roughly half the national average. The region is also highly attractive for foreign investors. All central institutions, apart from several judicial bodies, are seated in Prague, as the capital of the Czech Republic.

Prague has a highly skilled workforce. The share of the total population holding a university degree is almost 20%. The share of the total population holding a university degree or full secondary education is almost 84%. In Prague there are eight universities; their 37 faculties cover almost the whole range of study fields. In Prague there are more than 80,000 university students, of whom almost 10,000 are studying for a PhD. An integral part of the intellectual potential of universities is the teaching staff; there are approximately 5,500 members of university teaching staff in Prague.

Roughly a half of the scientific and research potential of the Czech Republic is concentrated in Prague, inter alia there are 40 institutes of the Academy of Sciences of the Czech Republic and 50 other research institutes here. All this, combined with the high level of education enjoyed by the city's inhabitants, constitutes its enormous innovative potential.

Prague also offers inhabitants and visitors a wide range of cultural events and historical monuments, and from the aspect of tourism it is the most attractive region in the Czech Republic.

Selected statistics	Prague	Czech Republic
Area	496 km ²	78,868 km ²
Population (30 June 2004)	1 166 491	10 213 480
Population density per km ²	2352	130
Rate of registered unemployment (1 st half of 2004)	4.23 %	9.87 %
Industrial enterprises – 100 or more employees (1 st half of 2004)	226	2373
Average gross monthly wage (1 st half of 2004)	CZK 21,497	CZK 17,267
Regional GDP (CZK millions) (2002)	537,708	2,157,828
Regional GDP (%) (Czech Republic = 100) (2002)	24,9	100,0
Per-capita GDP (Czech Republic = 100) (2002)	218,8	100,0
Standard & Poor's rating	A-	A
Moody's rating	A2	A1

Source: Czech Statistical Office, rating agencies

Prague is a highly attractive place for business.

According to the European Cities Monitor, a survey of business attractiveness in Europe's top 30 cities organized by Cushman&Wakefield-Healey&Baker, since the 1990s Prague has risen from 20th place to 13th-14th place, and its main rivals are Budapest, Vienna, and Munich. Information from this survey suggests that Prague's improving status can be attributed to positive evaluations in the field of labour costs, the price of office space and the incentives offered at the national level. In case of other indicators (quality of transport connections, range of workforce skills, language proficiency) Prague does not achieve such high ratings.

Prague's ranking in the chart of Europe's top 30 cities				
	Prague	Vienna	Berlin	Munich
General attractiveness of the cities from the business aspect	13.-14.	21.-26.	9.	8.
Supply of skilled workforce	19.	25.	5.	4.
Cost of labour	2.	17.-19.	15.-16.	26.-27.
Quality transport connections	24.-25.	19.	10.	7.
Availability of office space	18.	27.	2.	12.
Price of the office space	2.	23.	9.	18.-20.
Language proficiency	18.	19.	9.	11.
Governmental incentives for business	2.	16.	17.	24.
Interest among companies in locating here in the next five years	3.	13.-15.	17.-18.	21.-26.

Source: European Cities Monitor, Cushman&Wakefield–Healey&Baker, 2004

BRIS PROJECT FOR THE PRAGUE REGION

A significant instrument boosting economic growth in European regions is a support to the development of regional innovative potential. In this context, the European Commission supports the elaboration of regional innovation strategies, which are the key development documents and platforms for cooperation among all those involved in the innovation system at the regional level. The preparation of regional innovation strategies is methodologically and financially backed by the European Union's framework programmes for research and development.

The City of Prague and the Technology Centre of the Academy of Sciences of the Czech Republic have taken the opportunity of drawing on the Commission's aid to prepare a proposal of a Regional Innovation Strategy for Prague as part of the Bohemian Regional Innovation Strategy (BRIS) project. The principal objective is to help create a setting conducive to the establishment and development of small and medium-sized innovative enterprises and their cooperation with R&D organizations.

The actual adoption and implementation of the Regional Innovation Strategy is beyond the powers of the its authors; this task is fully in the competence of the local government authorities in the City of Prague and other parties involved in the innovation system whose representatives contributed to the preparation of the Regional Innovation Strategy.

Analyses made in the scope of the project confirmed that a number of systematic changes were needed that exceeded the competence of the regional government. The Regional Innovation Strategy is a basic document defining key measures and systematic steps required to shape suitable conditions for innovative entrepreneurship and the development of innovation in the region. The innovation strategy will be developed and updated on an ongoing basis. An important aspect which cannot be ignored in forming the Regional Innovation Strategy is the fact that the process of transferring powers to regions and the emphasis on a regional approach to competitiveness is a relatively fresh issue in the Czech Republic. Formation of relevant entities and competencies at regional level is still inadequate, a situation which is reflected in the proposed measures of the Regional Innovation Strategy. Another factor dampening the motivation of regions and their bodies to support innovation and entrepreneurship is a low direct interest of regions in the results of their economic performance.

BRIS PROJECT PARTNERS

The BRIS project was realized in the Prague region by a group of three national partners and three foreign partners, who had contributed to the preparation and implementation of innovation strategies in their own regions in preceding years. The partners drew on their extensive experience in the implementation and management of projects focused on innovation, cooperation between R&D organizations and SMEs, and regional development. The foreign partners' experience was mainly used to formulate an optimal work programme for the project and to discuss its general strategic concept.

National BRIS project partners:

Technology Centre of the Academy of Sciences of the Czech Republic – the project coordination centre,

City of Prague Authority, Prague City Development Section

Regional Development Centre – Prague Euro Info Centre

Foreign BRIS project partners:

Aachener Gesellschaft für Innovation und Technologietransfer mbH - AGIT Aachen (Germany)

Wandsworth Borough Council - WBC London (United Kingdom)

Municipality of Rotterdam (Netherlands)

LINKS BETWEEN THE REGIONAL INNOVATION STRATEGY AND STRATEGIC DOCUMENTS OF THE CITY OF PRAGUE

The Regional Innovation Strategy was designed as a strategic document related to the City of Prague Strategic Plan, one of the priorities of which is the goal to make Prague a centre of innovation and qualified workforce.

Innovation is becoming the focal point of various strategic documents, and therefore the proposal of the Regional Innovation Strategy was not produced as a stand-alone document; it complies with other strategic documents at regional, national, and even European level.

The European Innovation Action Plan is a document comprehensively covering the issue at European level. It is based primarily on the conclusions drawn by the Lisbon and Barcelona Processes and it takes into account related European sectoral strategies and action plans.

The Regional Innovation Strategy is, of course, only a specific complement to national strategies, which form the basic framework for entrepreneurship and innovation. The key document is the National Innovation Strategy, from which support to innovation will be derived in the next few years; the Human Resources Development Strategy and the National Research and Development Policy are also linked to innovation, the development of entrepreneurship, research and development, and education.

In the process of preparing the Regional Innovation Strategy, the authors took into account the Single Programming Documents for Objective 2 and Objective 3, which make it possible to draw on financial aid from the Structural Funds in the Prague region.

PROJECT METHODOLOGY

The BRIS project was methodologically and financially supported by the European Union and ran from January 2002 to September 2004. For developing the proposal of the Regional Innovation Strategy, methodology was used which, in accordance with the experiences of the EU15 (i.e. EU Member States prior to the enlargement in 2004), concentrates on the development of small and medium-sized innovative enterprises, although that is not to say that the role of large corporations was neglected either. The project respected two basic principles:

- a focus on the needs of the region and respect for specific regional features;
- the consensus of important regional players in the field of innovation.

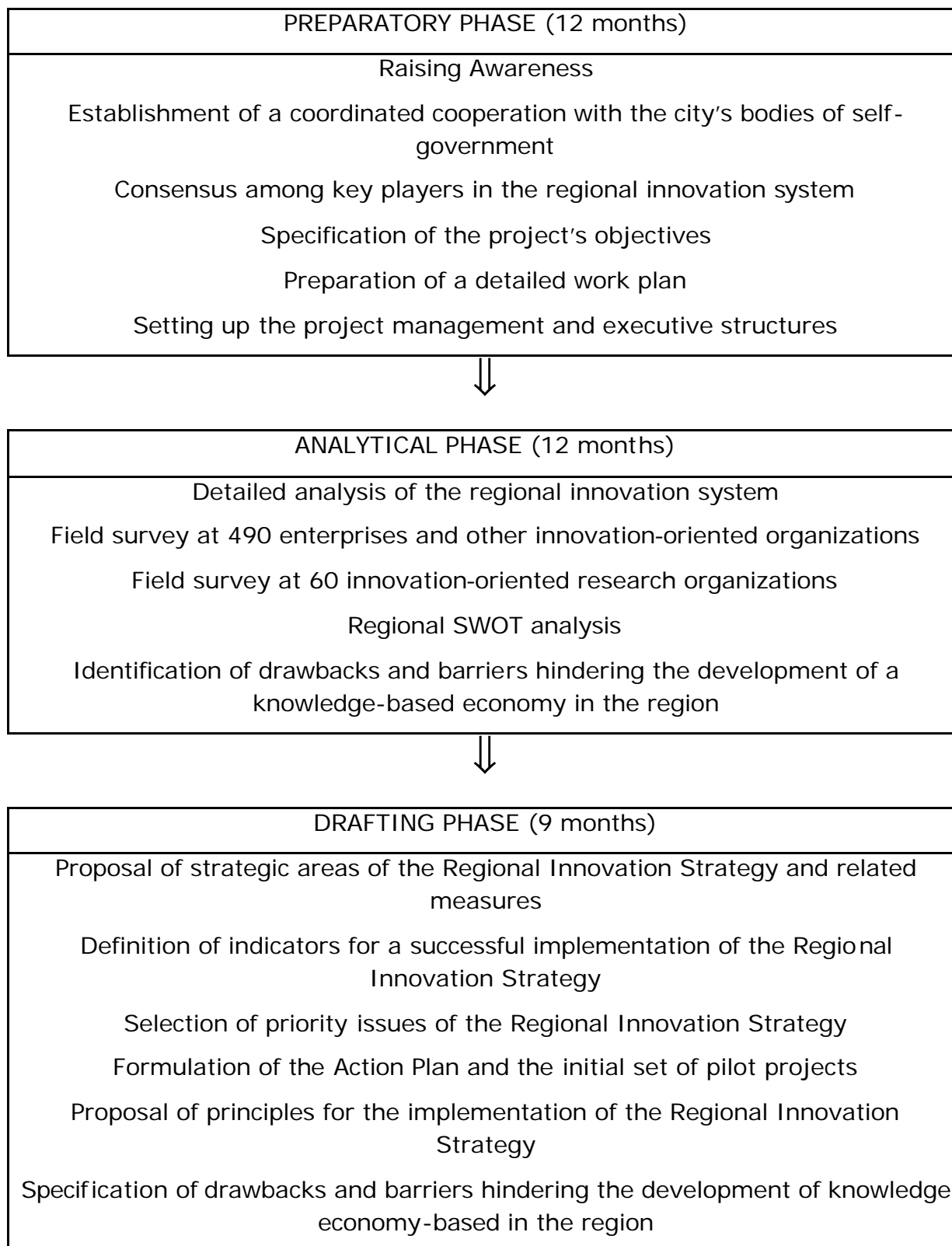
In order to identify the requirements and specific traits of the Prague region, several analytical studies were conducted. The resultant conclusions and recommendations were used to formulate measures of the Regional Innovation Strategy, to propose projects specified in the Action Plan, and to draw up pilot projects. The analyses confronted the supply and demand in the field of innovation in the Prague region.

These analyses were complemented by a regional field study at 490 enterprises and 60 research organizations, with the aim of identifying needs, barriers, and recommendations in the field of innovation generation and application.

The principle of consensus is essential for the design and subsequent implementation of the Regional Innovation Strategy. Innovation is a comprehensive and cross-sectional

issue which affects various fields and entities, and therefore it is necessary to ensure that all those involved in the regional innovation system apply a synergic approach. The involvement of representatives of relevant entities and institutions in the preparation of the Regional Innovation Strategy, including their participation in the project management structures, was a significant factor in reaching a consensus.

The methodological approach to the preparation of the Regional Innovation Strategy comprised three related phases



ORGANIZATIONAL STRUCTURE OF THE PROJECT

The key elements of the project management and executive structure were the steering committee, the project management, and the executive team.

Project Steering Committee

Steering committee members were representatives of regional and central organizations important for the creation and implementation of the Regional Innovation Strategy. The steering committee mainly helped formulate the project strategic goals and facilitated the process of reaching a regional consensus among key players in the regional innovation system.

BRIS Project Steering Committee		
Pavel Bém	Mayor of the City of Prague	City of Prague Authority
Jan Bürgermeister	Deputy Mayor of the City of Prague	City of Prague Authority
Svetlana Kubíková	Executive Director	City of Prague Authority, Prague City Development Section
Karel Klusáček	Director	Technology Centre of the Academy of Sciences of the Czech Republic
Arnošt Marks	Director of the Structural Funds Integration Department	Ministry for Regional Development
Petr Krenek	Department Director	Ministry of Education, Youth and Sports
Václav Polák	Executive Director	Ministry of Industry and Trade
Petr Kužel	President	Economic Chamber of the City of Prague
Karel Šperlink	Vice President	Union of Industry and Transport of the Czech Republic
Petr Zuna	Dean	Czech Technical University, Prague, Faculty of Mechanical Engineering
Karel Aim	Member of the Academic Council	Academy of Sciences of the Czech Republic
Pavel Kuchálik	Director of the Secretariat	Association of Small and Medium-Sized Enterprises of the Czech Republic
Pavel Švejda	Secretary General	Association of Innovative Entrepreneurship of the Czech Republic
Pavel Komárek	President	Society of Science and Technology Parks of the Czech Republic

Project Management

The project management was responsible for the hands-on control of the process of preparing the Regional Innovation Strategy; it monitored and evaluated the project's progress, coordinated the preparation of the Regional Innovation Strategy with the strategic plans for the development of Prague, and communicated (via the project coordinator) with the European Union, which granted a financial aid to the BRIS project.

BRIS Project Management	
Karel Klusáček	Project Coordinator - Technology Centre of the Academy of Sciences of the Czech Republic
Daniela Váchová	Regional Project Manager - Technology Centre of the Academy of Sciences of the Czech Republic
Milan Turba	City of Prague Authority, Prague City Development Section
Marie Pavlu	Regional Development Centre – Prague Euro Info Centre
Victoria Appelbe	AGIT Aachen (Germany)
James Dick	WBC London (United Kingdom)
Chris de Lange	Municipality of Rotterdam (Netherlands)

Executive Team

The executive team worked in cooperation with external experts on an analysis of the regional innovation system, organized conferences and workshops, communicated with regional research institutions, small and medium-sized enterprises, and other organizations, and prepared the output of the BRIS project.

BRIS Project Executive Team	
Daniela Váchová	Regional Project Manager - Technology Centre of the Academy of Sciences of the Czech Republic
Radoslav Fedorek	Technology Centre of the Academy of Sciences of the Czech Republic
Jirí Mejstřík	City of Prague Authority, Prague City Development Section
Kristina Kadlecíková	Technology Centre of the Academy of Sciences of the Czech Republic
Eva Svobodová	Technology Centre of the Academy of Sciences of the Czech Republic
Jana Antošová	Technology Centre of the Academy of Sciences of the Czech Republic

ANALYSES CONDUCTED

Strategies and objectives of all analyses were formulated by the Technology Centre of the Academy of Sciences of the Czech Republic; other experts and institutions were invited to cooperate in larger-scale analyses and field studies (see the overview at the end of this publication).

- ***Survey of the demand for innovation among small and medium-sized enterprises (SMEs) in the Prague region***

Main goal of the survey: The aim of this survey of 490 companies and other institutions in Prague was to identify their approach to innovations, the extent of and need for innovations and related problems, the main sources of innovation and their accessibility, the needs of companies in relation to the implementation of innovations, and their financing.

- ***Analysis of the economic potential and sectoral trends of the Prague region***

Main goal of the study: The goal was to identify principal economic characteristics of the Prague region and to analyse the sectoral composition of the economy, the efficiency of individual sectors, and their significance for the development of regional economy.

- ***Innovation indicators in the Prague region***

Main goals of the study: The aim was to identify the innovative potential of the region and individual elements of the innovation system on the basis of indirect indicators of the sources and consequences of innovation.

- ***Innovative infrastructure of the Prague region***

Main goals of the analysis: This analysis includes three studies, the aim of which was to concentrate information on institutions responsible for the development of the innovation infrastructure, mediating entities, and systems designed to support business while emphasizing innovation. Another goal was to identify the most important players in the innovation infrastructure at regional and national level, analyse their cooperation, and point out deficiencies in the innovation infrastructure.

- ***Analysis of the cooperation between research and development institutions and the user sphere, especially small and medium-sized enterprises***

Main goals of the analysis: The goal was to identify what research institutions offered to the application sphere, the level of commercialization, the use of research results, and the scope of cooperation between research institutions and

SMEs. Another aim was to highlight problems related to technology transfer and barriers preventing research results from being put into practice.

- ***Analysis of the availability of financial resources for small and medium-sized innovative enterprises***

Main goals of the analysis: The aim was to identify the availability of financial resources (public support, bank loans, venture capital, leases) for the financing of innovative projects and the establishment and development of small and medium-sized enterprises, and to bring attention to gaps in the field of financing innovations.

SUMMARY OF ANALYTICAL STUDIES

The results of the analytical studies and surveys are summed up in the following sections. Given the complex nature of the analyses and the interconnection of their components, the results obtained from several studies are often included in individual sections.

The economic potential of Prague

Prague is an administrative, economic, research, and educational centre of the Czech Republic, as underlined by the high concentration of innovation system entities and the relatively well developed innovation infrastructure. Prague is home to 11.3% of the population of the Czech Republic and generates almost a quarter of the country's GDP. In Prague, per-capita GDP stands at 133% of the EU average, placing Prague on the 29th position among European regions. The structure of employment and GDP generation is in line with Prague's specific status as a capital city with a high concentration of state administration authorities, educational and research institutions, central financial institutions, and large corporations. As a result, in certain sectors the Prague region records GDP generated in other regions; nonetheless, the above-average performance of Prague's economic entities is undeniable.

The structure of GDP generation corresponds to a post-industrial structure, where more than 80% of GDP comes from the service sector. A comparison of the dynamism of individual sectors in Prague reveals a relative decline in the processing industry output in favour of the service sector. The structure of the processing industry is now showing a slight positive shift towards hi-tech production, but the development of the hi-tech sector in Prague, and in the Czech Republic in general, is still lagging behind other countries, as evidenced by the low share of hi-tech output in exports, the lower value-added of exported goods, and the higher energy and human resources intensity of the exported goods.

The specific status of Prague and its immediate surroundings make this area an exceptionally attractive region for foreign investors. Twenty per cent of foreign investments in the Czech Republic are concentrated here.

Human resources

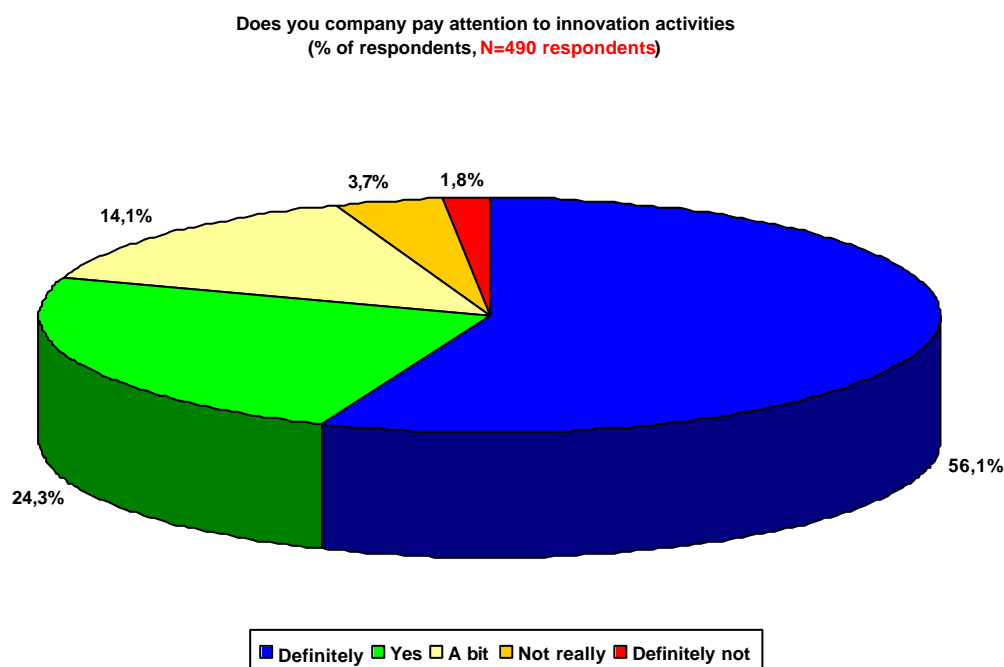
The region's distinguishing features include its low unemployment rate and the negative trend in the age structure of the population. However, the wages available here (by 44% higher than the national average) make Prague a destination for migrants from the whole of the Czech Republic and other countries in Central Europe. Compared with the EU, the average wage is just a third of the European average.

More than 20% of the Prague population holds a university degree; while this is the highest share among regions in the Czech Republic, it falls short of the EU average. In Prague, there are 70,000 students enrolled at 36 faculties of eight universities.

On completing their studies, many students remain in Prague to look for work. This, together with the above-average proportion of the population with secondary education and other occupational skills, creates a favourable background of human resources, including conditions for human resources reproduction and flexibility.

Innovation and SMEs

By virtue of their flexibility and developmental dynamism, SMEs are frequently pioneers of innovation, which was reflected in a survey conducted as part of the BRIS project, where 80% of SMEs responded positively to a question asking whether they are engaged in innovating.

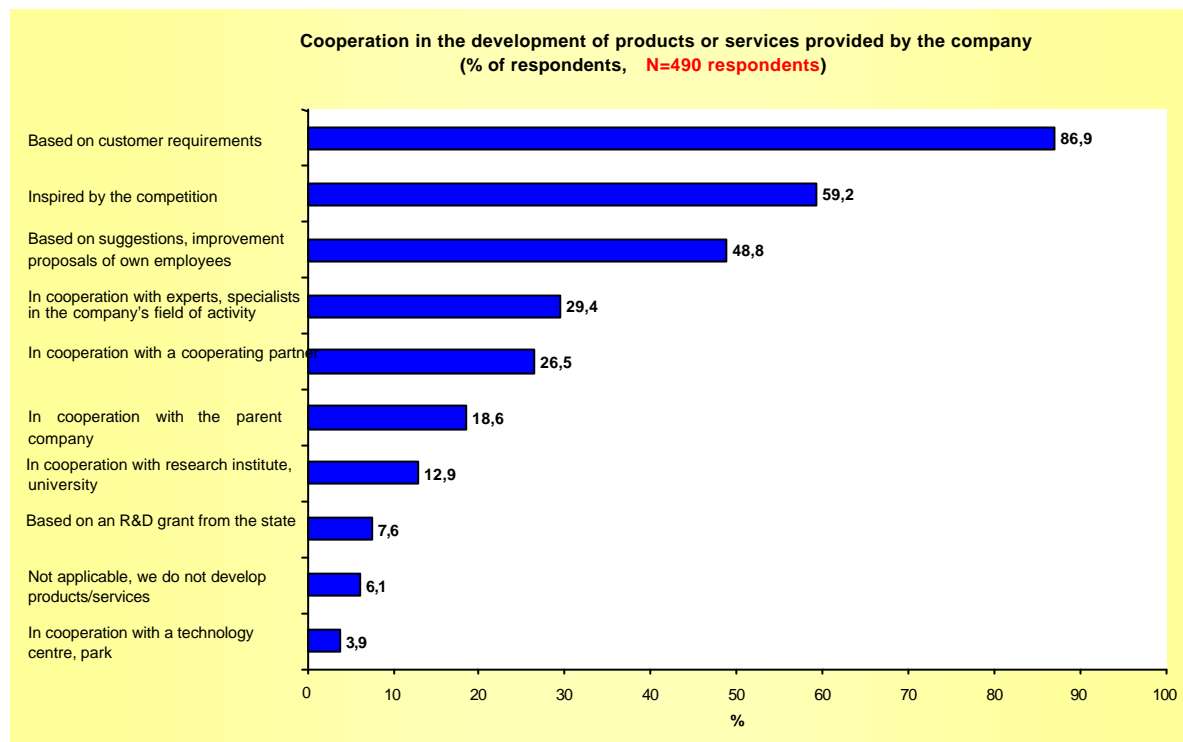


One of the barriers impeding the development of innovative SMEs is their limited access to innovation sources such as research and development and financial support for the

implementation of innovations. Most SMEs cannot afford staff – let alone a whole department – responsible for development and/or innovation.

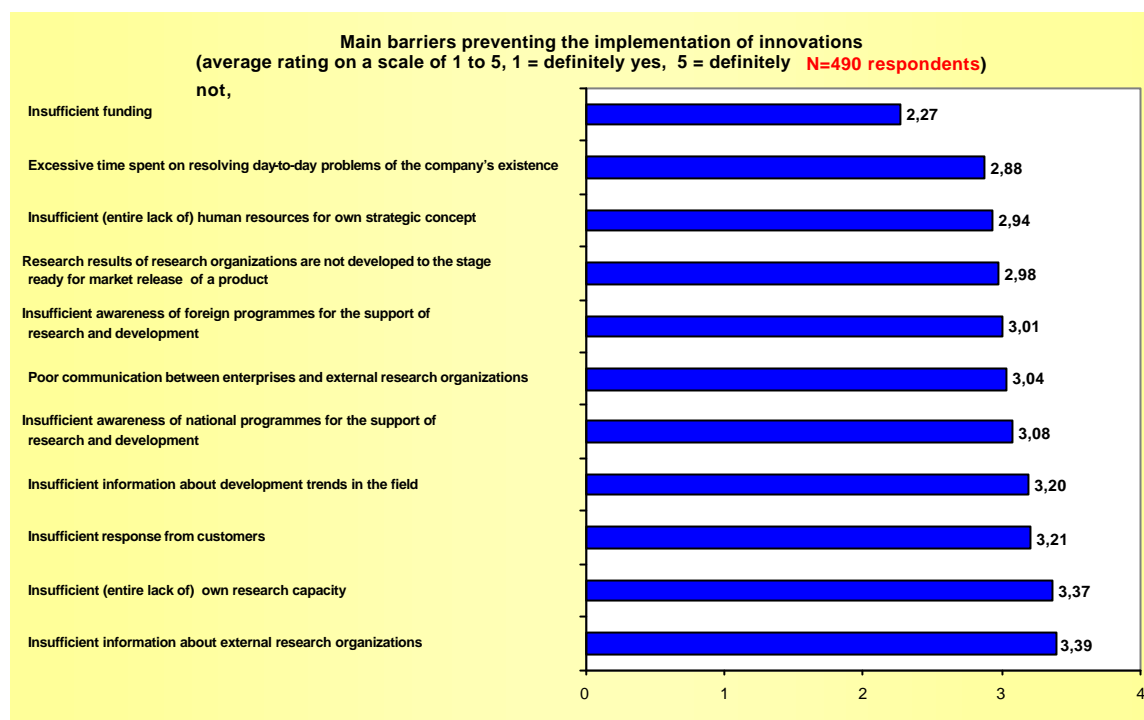
The survey also reveals that SMEs primarily create innovations by way of in-house development, and that the level of cooperation with research institutions is fairly low.

Besides their own employees, companies pinpointed customers and competition as a fundamental stimulating source of innovation.



Some SMEs introduce innovations by purchasing licences. SMEs do not often cooperate with each other in the introduction of innovations; the level of cooperation with large Czech enterprises and enterprises with foreign participation is also relatively low.

Barriers preventing the implementation of innovations are illustrated in the following graph:



Relationship between R&D and the application sphere

Prague is the scientific centre of the Czech Republic. Roughly two thirds of the capacities of public R&D institutions and one third of the capacities of private R&D institutions are located in the region.

Relative share of the Prague region in academic sources of research and development

Sector	R&D employees FTE		Researchers FTE		Internal expenditure (CZK'000)			
	Government sector		Tertiary education		Government sector		Tertiary education	
	Total	%	Total	%	Total	%	Total	%
Czech Republic	7 773	100	6 046	100	6 714 393	100	4 437 036	100
of which: Prague	5 360	69.0	3 605	59.6	5 111 237	76.1	2 465 603	55.5

FTE – 'full-time equivalent'

Source: database of the Czech Statistical Office; Research and Development Indicators for 2001, Czech Statistical Office, Prague, Code: 9601 - 02

The structure of private R&D copies the structure of economic performance in the region, where roughly two thirds of private R&D is channelled into services. In the field of processing industry, there has been a moderate decline in line with developments in the GDP generation. The decisive share of R&D activities in the processing industry focuses on the production of electrical and optical appliances (representing 36% of all R&D activities in the processing industry) and on chemicals and related fields (33%).

Support of research and development from the national budget is at the level of approximately 0.6% of GDP in the Czech Republic. The Prague region receives 76% of governmental internal expenditure on R&D and 55% of expenditure on tertiary education is allocated to the above-mentioned universities, 40 institutes of the Academy of Sciences, and several departmental institutes of applied research.

From the sectoral aspect, the structure of R&D institutions in Prague is very diverse and covers all main specializations. The quality of many workplaces is held in high esteem on the international stage. Technical research and development is carried out primarily at universities; research in natural sciences is mainly conducted at the institutes of the Academy of Sciences.

The statistics and conclusions of the analyses indicate a low rate of cooperation between R&D institutions and the application sphere, and a low level of commercial application of R&D results. This low cooperation can be attributed inter alia to the low demand among companies for the services of R&D institutions. Problems can also be found in the incomplete restructuring of certain companies, in the relatively unstable situation of many SMEs, in the disintegration of a large proportion of corporate and public applied research, in the failure to appreciate the effects of these relations, and in a low activity of the R&D base in offering its research results. Most research institutions participating in the studies in the scope of the BRIS project declared an interest in this sort of cooperation and were aware of its social and economic significance. The institutions made clear their readiness and sufficient capacity for a possible cooperation with SMEs. However, they also indicated certain related legislative problems.

Most research institutions do not have a special department for corporate cooperation, which tends to fall within the competence of the institution's management, which is organizationally already faced with an excessive workload. Most institutions consider the current system of technology transfer and the institutional organization of this system to be insufficient and unsatisfying. Considering the low number of patents, institutes evidently do not deal sufficiently with the issue of protecting their intellectual property rights. The low level of patenting activity is also caused by the poor motivation among researchers, whose work is assessed on the basis of publishing criteria; there are no criteria acknowledging the application of research results.

Conclusions of the studies reveal that services promoting transfer technology and business and patent consulting for start-up companies need to be improved.

It is also necessary to deal with the issue of how to finance commercially-oriented R&D projects of SMEs, how to motivate researchers to commercialize the results of their research, and how to support the establishment of new innovative companies and the development of business incubation activities.

In general, the region's research and development potential is not sufficiently exploited, although there are institutions in Prague which have achieved success in the field of cooperation with SMEs or the commercialization of R&D results.

Infrastructure and consulting for innovations

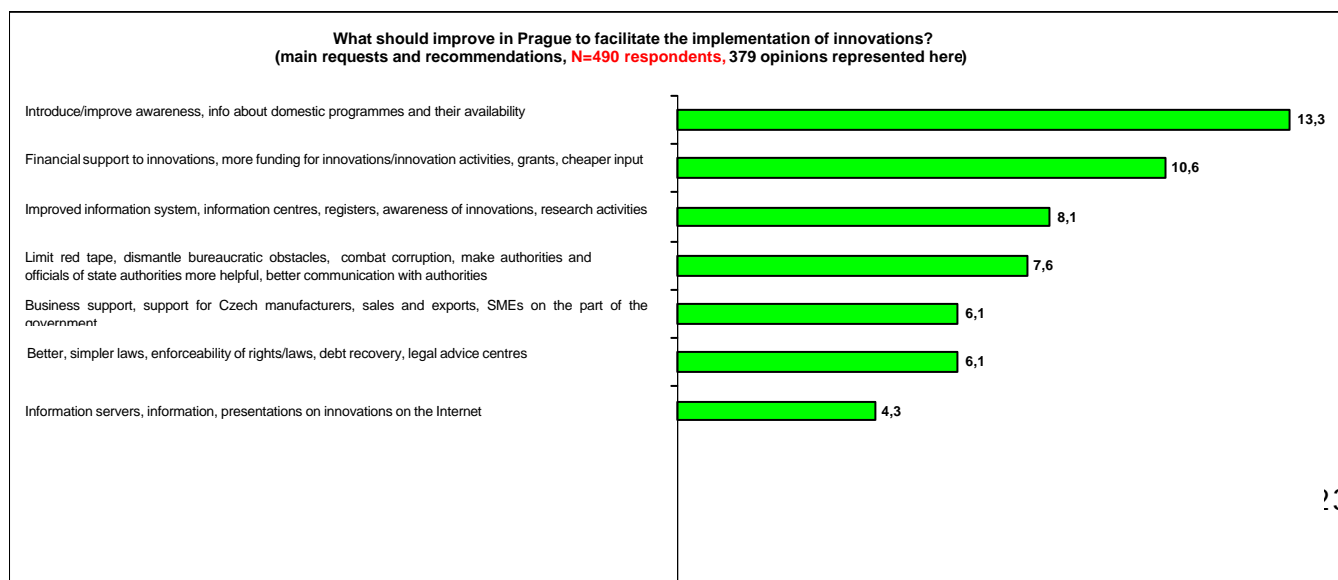
In Prague, a satisfactory structure of commercial consulting is in operation; however, it generally does not deal with problems related to innovation. The affordability of consulting services is also a significant issue. There are economic chambers (national and local), consultancy entities drawing on the national budget – CzechTrade, CzechInvest, and BIC and RPIC advice centres in the region.

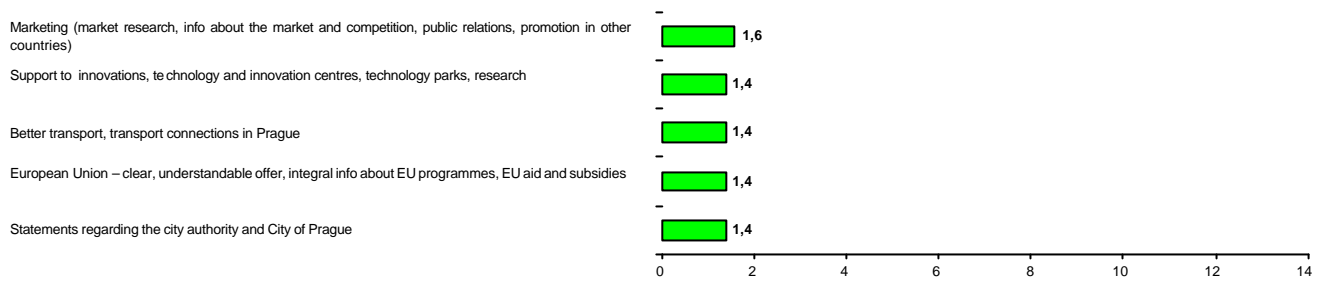
Entities active in the field of innovation and technology transfer remain a separate issue as there are still structural deficiencies here. There are several associations and unions in Prague which influence – to varying degrees – the development of innovations and which are involved in certain public activities in this field. The key entities are those which are directly involved in mediating roles. These are science and technology parks, business incubators, and technology transfer institutions.

It is worth noting that there is no full-scale science and technology park in Prague yet. Prague continues to suffer from a shortage of space for the incubation of new innovative companies. The foundations of the infrastructure required to support technology transfer and the establishment of new firms have been laid in Prague.

An important area is consulting for the protection of intellectual property rights, which is not paid enough attention to by SMEs and R&D institutions. Problems persist in the area of insufficient financial resources for funding components of the innovation infrastructure.

In other countries, the promotion of business clusters is a significant component of regional infrastructure for innovation support. The clustering of companies is not yet a common practice in Prague. Uncertainties of business environment are manifested in the low level of cooperation among SMEs, and their limited communication with large corporations and R&D institutions. However, management of these enterprises is aware that many problems may be tackled through coordination and cooperation among SMEs.





Financing innovation

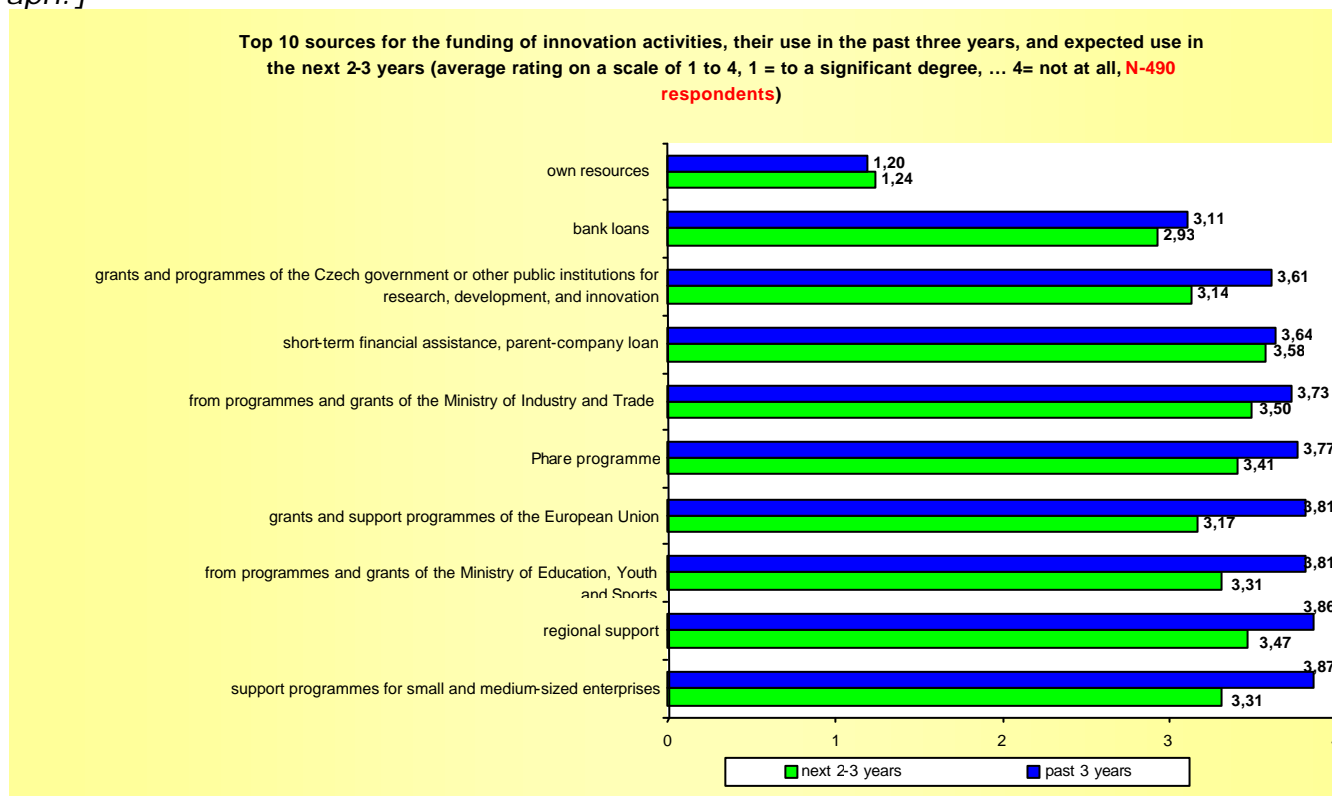
Financing is a problem for all components of the region's innovation scheme. SMEs claim that the greatest barrier to innovative development is a shortage of funding resources; they tend to use their own resources, while bank loans and public financial programmes are a long way down the list of possible sources.

Venture capital is used on a larger scale only in the ICT sector. Banks are starting to focus more attention on SMEs, but this new interest has not yet been reflected in the development of innovations. A typical source of innovation funding – venture capital – does not have a suitable structure in the Czech Republic yet, capable of providing broader support for the development of risky hi-tech companies, and has not yet become an instrument that can be used to start up companies specializing in progressive technologies. Another major drawback is the non-existence of 'business angels', who usually support firms in the initial phases of their development.

Some financial instruments designed to promote innovative companies (e.g. tax incentives, specific subsidies, etc.) have not been introduced here yet. The funding of industrial research and development is more advanced. An important contemporary European trend is 'corporate venturing' (i.e. strategic investments by non-financial corporations), which in Europe already accounts for 40% of seed and start-up venture capital investments.

Funding the setting-up and running of innovation support institutions (business incubators, science and technology parks, etc.) also plays an important role.

[graph:]



SWOT ANALYSIS OF THE INNOVATION SYSTEM IN THE PRAGUE REGION

STRENGTHS

- Prague as the centre of the Czech Republic – a high concentration of key entities involved in the innovation infrastructure (research and development, training sector, central institutions, state administration, advisory and financial sector)
- A rich and diverse structure of companies
- A high standard and rich structure of intellectual capital
- A high level and intensive concentration of research and development potential
- Basis of the innovation support infrastructure
- Strategic interest in innovations at regional level
- Existence of venture capital funds
- Growing interest in SMEs from the banking sector
- Existence of basic financial schemes for supporting SMEs
- Proclaimed interest from the academic sphere in cooperating with the application sphere
- Attractiveness of the region for investors
- Strengthening of the hi-tech sector and a strong mid-tech sector

WEAKNESSES

- Lack of interest among research and development institutions in the commercial application of results of their work, including unresolved framework conditions and motivation of researchers
- Mechanisms for establishing company spin-offs and technology transfer are not finalized
- Limited range of services for mediating innovation
- Low awareness of – and lack of interest in – the protection of intellectual property
- Shortage of funding for innovation projects, both in terms of state aid and credit facilities offered by the banking and commercial sector
- Limited opportunities of seed and start-up financing, especially in hi-tech branches – inadequate structure of venture capital funds and no financing by business angels
- Low number of innovative firms, especially in the hi-tech sector and other branches with a potential to cooperate with R&D institutions
- Poor cooperation and communication among SMEs per se or between SMEs and large corporations/research institutions
- Slow progress in setting up science and technology parks and insufficient capacity of business incubators
- Low impact of foreign investments on domestic innovations
- Unsatisfactory coordination in the field of SME support and innovations, and non-existence of a regional development agency
- Lack of strategic trends for the development of business sectors and related technologies

OPPORTUNITIES

- Exploitation of the synergy generated by the high concentration of scientific, educational, industrial, entrepreneurial, and financial potential in the region
- Regional strategic plan promoting innovations and qualified workforce
- Support to the development of innovations in the framework of Single Programming Documents for the Objectives 2 and 3
- Increased political backing for innovations
- Standardization of the business, legislative and investment environment in the wake of accession to the EU
- European support to innovations
- Adoption of a national innovation strategy and resulting changes in research and development and public support to SMEs
- Use of qualitatively higher forms of foreign direct investment tied to the hi-tech sector and cooperation with the research sector
- Promotion of Prague as a region with a wealth of intellectual capital

THREATS

- Perpetually low real political support to innovations
- Support to large investments with no ties to innovation
- Brain drain following accession to the EU
- Low level of targeted research and development
- No access to a considerable part of the support available from the EU's Structural Funds owing to the fact that Prague is excluded from the Objective 1
- Drop in the attractiveness of the region for foreign investors
- Deterioration in the region's macroeconomic situation
- Sharp fall in tourism in the region

PROPOSAL OF THE REGIONAL INNOVATION STRATEGY

The proposal of the Regional Innovation Strategy (RIS) is based on three key pillars:

- The objectives defined for the Regional Innovation Strategy
- The results of the analytical phase of the BRIS project
- Study and benchmarking of available experience and time-tested practices in European regions

The Regional Innovation Strategy has been drawn up for the needs of the city of Prague. Once the RIS is incorporated into strategic development documents, the city of Prague should become the principal political guarantor for the implementation of the strategy. Extensive use of the Structural Funds for the Objectives 2 and 3 is expected in relation to the implementation of the Regional Innovation Strategy.

STRATEGIC AREAS AND MEASURES OF THE REGIONAL INNOVATION STRATEGY

The measures of the Regional Innovation Strategy define a complex proposal of steps that need to be taken to foster better conditions for the development of innovative entrepreneurship and the innovation system in the region, and to increase competitiveness of the capital city.

The proposed innovation strategy aims to handle innovation issues comprehensively and to identify all essential circumstances in this respect. Therefore, this chapter also extends beyond the competence of the regional players by making recommendations to higher (national) players, who often tackle fundamental problems related to the regional innovation system and cannot be ignored. It is assumed that there will be a qualitative shift in the development of the regional innovation system during the implementation of the RIS, which will create space for a wider range of specific activities. The Regional Innovation Strategy may be modified to take account of the progressive development of the innovation system, and therefore it can be viewed as a flexible development scenario designed for a long-term implementation horizon.

The Regional Innovation Strategy is composed of seven strategic areas, i.e. six thematic areas (A to F) and one cross-sectional area (G); specific measures are defined in each area. The following table sums up the above-mentioned areas and specific measures, and gives examples of 'success indicators'. The individual measures are described in detail in the corresponding text.

Thematic area	Proposed measures	Examples of success indicators
A. Competitive sector of innovative enterprises	A.1 Support to the formation and development of regional sectoral clusters	Established clusters Increase in regional cooperation between innovation entities
	A.2 Support to progressive and hi-tech branches in the region	Development of hi-tech business sectors Creation of qualified job opportunities
B. Active involvement of the R&D base in the development of innovative entrepreneurship	B.1 Strengthening technology transfer, commercialization of R&D results and cooperation between R&D institutions and the business sphere	Increase in the commercialized output of research and development New partnerships between research and the business sphere
	B.2 Support to establishing spin-off companies	Established spin-off companies Increase in business incubator capacities
	B.3 Greater involvement of enterprises in R&D activities at both regional and European level	Rise in the number of R&D projects with SME participation
C. Human resources for innovation	C.1 Training system for a dynamic labour market	Specialized teaching modules at universities focusing on innovations and entrepreneurship New training courses and programmes
	C.2 Lifelong learning for a knowledge-based economy	Development of opportunities for lifelong learning Interest among entrepreneurs and researchers in learning and training
D. Consulting services and infrastructure for innovation	D.1 Development of a regional innovation infrastructure	Development of technology and innovation centres Increase in the capacity of business incubators and the number of companies placed in them

	D.2 Qualified consulting and services for innovation	Volume of consulting services provided
E. Financing innovation	E.1 Public financial support to innovation, entrepreneurship and building the innovation infrastructure	New financial instruments for supporting innovation Number of innovation projects Volume of funding provided
	E.2 Stimulation of the use of commercial resources for innovation	Creation of new resources for funding innovations Volume of funding provided
F. Innovation as a part of regional development	F.1 Innovation culture and framework conditions for innovations	Number of awareness and popularizing events
	F.2 Coordination of activities and strategic management of regional development in the field of innovation	Establishment of a Regional Council for Innovation Strategic studies carried out

Cross-sectional area	Proposed measures	Examples of success indicators
G. Interregional cooperation	G.1 Cooperation with EU regions and transfer of time-tested practices	Scope of application of time-tested methods for innovation support Number of joint projects
	G.2 Prague – national initiation and innovation centre	Joint activities in the field of innovation and business support Technology transfers executed

Thematic area A: Competitive sector of innovative enterprises

The business sector introduces innovations in new market products, technologies and services. With this in mind, a healthy, well-functioning business sector is essential for the region's innovative performance and competitiveness. Small and medium-sized enterprises (SMEs) are a source of new jobs and play a key role in the innovation

process. On the other hand, they are often faced with restricted access to innovation sources, and that is why they are the focal point of the system of public support to innovation.

A.1 Support to the formation and development of regional sectoral clusters

Regional clusters bring together cooperating companies and other entities (e.g. research institutes, universities, science and technology parks) in a certain region and a certain branch. Economic theories and the experience of regions indicate that regional clusters make a considerable contribution to a greater application of innovations and help improve the competitiveness of SMEs and the region. Clusters have not yet been formed in Prague or, indeed, anywhere in the Czech Republic. Therefore the main task of this measure is to trigger the financial, methodological, and information stimulation required to set up and develop clusters in the region, including the support to other forms of SME cooperation, with the aim of the maximum exploitation of the region's innovation potential.

<p><u>Objectives of the measure:</u></p> <ul style="list-style-type: none"> • To create an efficient network of SMEs with an emphasis on the innovation and development of business, with the aim of enhancing the region's competitiveness. • To stimulate cooperation among SMEs in the framework of sectoral clusters. 	
<p><u>Anticipated activities:</u></p> <ul style="list-style-type: none"> • Spreading general awareness of the benefits and opportunities of creating clusters • Identifying groups of enterprises and their requirements that can be resolved on the basis of sectoral clusters; identifying suitable carriers (coordinators) of clustering activities • Integrating large corporations and SMEs, including companies with foreign participation and R&D, training and consulting institutions, into clusters • Stimulating formation of sectoral clusters in the region • Methodological and financial support for feasibility studies, planning of the formation and operation of sectoral clusters • Stimulating creation and development of 	<p><u>Activity bearers:</u></p> <ul style="list-style-type: none"> • Economic chambers • Existing and newly formed associations • Associations and other groups of companies

other efficient networks and groupings of enterprises	
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A.2 Support to progressive and hi-tech branches in the region

Competitiveness in the knowledge-based economy is based on innovative companies engaged in business in hi-tech and other progressive sectors. This corporate sector is not yet fully developed in Prague. Therefore, Prague, like other EU regions, will stimulate the development of selected knowledge-based and progress-driven SME sectors. As part of the implementation of this measure, SME sectors are identified which can play an important role in increasing regional competitiveness and in the development of the knowledge-based economy. Specific development, financial, and infrastructure programmes must then be focused on these sectors. By following this path, Prague will become more attractive for companies and potential investors who seek opportunities to invest into branches with a high knowledge value-added.

<u>Objectives of the measure:</u>	
<ul style="list-style-type: none"> To develop hi-tech and other progressive branches in the Prague region. 	
<u>Anticipated activities:</u>	<u>Activity bearers:</u>
<ul style="list-style-type: none"> Creating optimal mechanisms to support progressive branches in the region Analysing the main regional development trends in the hi-tech sector Specific sectoral support for selected technical hi-tech sectors – grants, tax and other stimuli, infrastructure projects (especially incubators and qualified consulting), support for research and development and technology transfer in the given branch, development of specific consulting services Enhancing the attractiveness of the region for investors in hi-tech and other knowledge-based economy branches 	<ul style="list-style-type: none"> City of Prague Associations of enterprises, Economic chamber Consulting entities Science and technology parks Business incubators CzechInvest

Thematic area B: Active involvement of the R&D base in the development of innovative entrepreneurship

The higher-level innovation process will not get by without the participation of the research and development sector. Greater use of research and development and new research results in practice is a basic attribute of a knowledge-based economy. Prague, as the centre of the Czech Republic's research and development, can draw on extensive and quality R&D potential which has been used little so far to increase the competitiveness of the region.

B.1 Strengthening technology transfer, commercialization of R&D results, and cooperation between R&D institutions and the business sphere

The transfer of technology and research results is a mediating link between research institutions and the application sphere. Technology transfer services, including searches for and evaluations of the commercial potential of R&D results, processing of these results into a commercially exploitable form, and the implementation thereof in the scope of licensing activities or in the establishment of spin-off companies, are not yet fully developed among research institutions in the Prague region. The development of this process assumes an improvement in the marketing activities of R&D institutions and motivation of researchers to concentrate on practically focused research. This measure stimulates the establishment and operation of innovation centres, technology transfer centres, technology and research marketing, and the protection of intellectual property. The measure includes training of specialists for relevant services and creation of a database offering results of research and development.

<u>Objectives of the measure:</u>	
<ul style="list-style-type: none"> • To ensure institutional and procedural completion of technology transfer system in the region and to create conditions for greater commercial application of R&D results • To develop marketing activities, promote services, and define portfolios offered by R&D institutions 	
<u>Anticipated activities:</u>	<u>Activity bearers:</u>
<ul style="list-style-type: none"> • Setting up technology and innovation centres, creating technology transfer departments at relevant R&D institutions, and where appropriate pooling these services • Supporting motivation of R&D staff to seek commercial application of research and development output • Training specialists for technology transfer within R&D institutions • Developing services to assess the market potential of R&D output, transforming the 	<ul style="list-style-type: none"> • Research and development institutions, especially institutes of the Academy of Sciences and universities • Technology Centre of the Academy of Sciences • TIC, Czech Technical University • Science and technology parks, technology transfer centres, innovation centres, and business incubators

<p>output of research and development into products that can be marketed, developing services related to the protection of intellectual property, and supporting licensing activities</p> <ul style="list-style-type: none"> • Developing services focused on identifying suitable commercially exploitable R&D results • Developing marketing services, promoting portfolios offered by R&D institutions and new technologies • Establishing a database of capacities and supply of research and development in the region • Cooperating with the network of IRCs (Innovation Relay Centres) • Developing services and ensuring greater exploitation of the region's capacity for pilot trials 	<ul style="list-style-type: none"> • Ministry of Industry and Trade, Ministry of Education, Youth, and Sports
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B.2 Support to establishing spin-off companies

One of the most efficient and economically most profitable methods of exploiting results of research and development in order to improve the region's competitiveness is to establish spin-off companies, i.e. companies which are established by being separated (spun off) from research institutions. These companies also create qualified jobs directly in the region and stimulate development of progressive branches. In Prague there are currently only a handful of spin-offs, which means there is a considerable disproportion considering the size and potential of the Prague R&D base. The subject of this measure is the development of spin-off programmes and incubation services for start-up companies, including the issues of their financing.

<p><u>Objectives of the measure:</u></p> <p>To develop spin-off activities as a method for active exploitation of the R&D base in order to enhance the region's competitiveness.</p>	
<p><u>Anticipated activities:</u></p> <ul style="list-style-type: none"> • Supporting establishing innovative SMEs and spin-off companies in progressive branches • Training specialists 	<p><u>Activity bearers:</u></p> <ul style="list-style-type: none"> • Research and development institutions, especially institutes of the Academy of Sciences and universities

<ul style="list-style-type: none"> • Supporting establishing and operation of hi-tech incubators • Implementing spin-off programmes, including: training potential entrepreneurs, services for beginner entrepreneurs, support for the incubation of enterprises, financial aid for start-up and new companies 	<ul style="list-style-type: none"> • Technology Centre of the Academy of Sciences • TIC, Czech Technical University • Science and technology parks, technology transfer centres, innovation centres, and business incubators
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B.3 Greater involvement of enterprises in R&D activities at both regional and European level

Participation of enterprises in R&D projects is one of the signs of a knowledge-based economy and it is a source of future competitiveness of both companies and the region. So far only a small percentage of Prague companies are involved in research and development programmes. Therefore the subject of this measure is to stimulate the participation of Prague SMEs in national and international R&D programmes by fostering conditions conducive to their involvement. These stimulating measures include promotion of related technical and consulting assistance, including improved promotion of these programmes. The measure includes issues associated with the establishment of programmes for contractual research and development, and possible regional financial support to these programmes, including their integration into European cooperation by means of the ERA-NET scheme, which is part of the EU's Sixth Framework Programme for Research and Development.

<u>Objectives of the measure:</u>	
<ul style="list-style-type: none"> • To increase the involvement of SMEs in R&D activities at regional, national and European level • To increase use of R&D capacities in the region for SMEs 	
<u>Anticipated activities:</u>	<u>Activity bearers:</u>
<ul style="list-style-type: none"> • Providing more effective promotion and information support to R&D programmes for SMEs and their expansion (e.g. an information portal) • Implementing programmes to support supplier-based R&D for SMEs • Providing assistance in the preparation of R&D projects and applications for financing in the framework of R&D programmes • Creating mechanisms for a transparent use 	<ul style="list-style-type: none"> • Business support institutions • R&D programme administrators • Ministry of Industry and Trade • Ministry of Education, Youth, and Sports • Consulting entities • Research and development institutions

of laboratories at research institutions by small and medium-sized enterprises <ul style="list-style-type: none"> • Offering effectively a range of free or less exploited science and research capacities in the region for SMEs, including solutions to the related legislative impediments 	
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Thematic area C: Human resources for innovation

Human and intellectual capital is essential for the creation and implementation of innovation. Economic, managerial, technical, entrepreneurial, and scientific knowledge and skills permeate the whole innovation process. It is necessary to respond to the general phenomenon of knowledge obsolescence in systems of lifelong learning. Special skills and training are also required in the field of technology transfer. Preparation of specialists in consulting services is included in specific measures in other parts of this Regional Innovation Strategy.

C.1 Training system for a dynamic labour market

Current rapid changes in labour market requirements, connected with the development of knowledge-based economy, demand greater flexibility and ongoing training on the part of school-leavers and graduates. In the scope of this measure, it is therefore recommended that activities be supported for the development of lifelong learning, as well as activities to make PhD studies more attractive (few inhabitants of the Czech Republic and the Prague region have this level of education required in the knowledge-based economy). For future entrepreneurs, it is important to interconnect technical and entrepreneurial knowledge together with greater interlinking between the educational system and the practical sphere; this will be aided by an expansion in the teaching of economic and managerial skills in non-economic fields and by an increase in the share of practical experience in teaching. Innovation management training at universities will contribute to the preparation of future innovators. The structure and focus of study subjects must respond dynamically to labour market requirements.

<u>Objectives of the measure:</u>	
<ul style="list-style-type: none"> • To prepare graduates at all levels of study in accordance with labour market requirements • To develop innovation and business skills and knowledge among graduates at higher levels of education 	
<u>Anticipated activities:</u>	<u>Activity bearers:</u>

<ul style="list-style-type: none"> • Promoting cooperation between universities and enterprises and supporting the interlinking of education and practical experience • Involving university students in practical experience at business entities, and involving students in the work on projects for SMEs • Training PhD students and R&D staff in business and innovation, creating training modules as a part of the preparation of R&D staff for entrepreneurship in the scope of spin-off programmes • Developing information services • Introducing entrepreneurial and managerial courses, courses for the protection of intellectual property, innovation management and technology transfer for higher classes of universities and PhD students • Promoting the development of PhD studies • Preparing students in accordance with the requirements of the labour market, also at lower levels of education 	<ul style="list-style-type: none"> • Universities • Other educational institutions • Economic chambers • Business sphere • Ministry of Education, Youth, and Sports • Innovation centres
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C.2 Lifelong learning for a knowledge-based economy

Rise in the volume of knowledge and the rapid rate at which it becomes obsolete in the knowledge-based economy means that the learning process never ends and becomes a lifelong learning. Considering the large number of training courses available to entrepreneurs in Prague, it is necessary to draw up a lucid system on the organization of these courses, including quality assessments. Special support needs to be channelled into less represented areas of education in the fields of innovation management, technology transfer, intellectual property protection and mastering new technologies. Special attention will be paid to courses for beginner entrepreneurs and business courses for scientists who are interested in engaging in business activities (in the scope of spin-off programmes). A proposal of programmes to make training activities more affordable is also recommended.

Objectives of the measure:

- To optimize the exploitation of the region's workforce
- To increase the expert knowledge of corporate employees and managers
- To ensure methodological preparation and development of entrepreneurial knowledge for beginner entrepreneurs and potential entrepreneurs

Anticipated activities:

- Creating an information system on training activities for SMEs and making the rundown of courses on offer more lucid
- Training for company managers and employees – risk management, innovations, technology, the single EU market
- Identifying needs for changes in lifelong learning systems considering the transition to the knowledge-based economy and taking into consideration regional technological trends
- Increasing awareness of important issues connected with technological business – certification and quality management systems, standardization, implementing environmentally friendly technologies, and the ISO 14 000 certification
- Providing training courses for those interested in business activities and for beginner entrepreneurs
- Grant programmes supporting participation of small companies, beginner and potential entrepreneurs, in training activities
- Involving specialists, successful entrepreneurs, managers of large companies, and owners of spin-offs as lecturers

Activity bearers:

- Economic chambers
- Associations and unions of companies
- EICs
- BICs
- Training institutions
- National Training Fund
- Technology centres

Thematic area D: Consulting services and infrastructure for innovation

Few SMEs have sufficient know-how to implement all activities needed in the innovation process, and therefore it is necessary to draw on services of specialized consulting

institutions. For the development of innovations, it is also necessary to have the corresponding physical infrastructure, i.e. a sufficient number of equipped incubation areas, including essential facilities (e.g. workshop and laboratory facilities) in place. Specific infrastructure units, such as science, science and technology, and technology parks, also play a key role as they allow for close cooperation between the corporate sector and research and development. The physical innovation infrastructure cannot be separated from the services and consulting provided.

D.1 Development of a regional innovation infrastructure

Experience gained by European regions confirms the significant positive role of a well-functioning physical innovation infrastructure during the creation and use of innovations. Mainly business incubators, technology and innovation centres, and science and technology parks are meant here. Business incubators are an effective and time-tested instrument for supporting start-up innovation companies. There has been a shortage of incubation capacity in the region; therefore this capacity must be built up and expanded, and the development of technology and innovation centres must also be supported. It is also recommended that support be provided at some time in the future for the construction of a fully-fledged science and technology park, as this is currently missing in the region. Another necessary step will be to set up programmes for supporting the operations of these institutions and to seek out opportunities and create conditions for the involvement of private investors.

<u>Objectives of the measure:</u>	
<ul style="list-style-type: none"> To complete and expand the current infrastructure for innovation support so that it matches the standards of top EU regions 	
<u>Anticipated activities:</u>	<u>Activity bearers:</u>
<ul style="list-style-type: none"> Preparing, building, and operating technology and innovation centres, business incubators, establishing departments for technology transfer Supporting the establishment of a science and technology park in Prague Involving private entities in building the region's innovation infrastructure Supporting the development of laboratories and facilities for testing, trial operation and certification of new technologies and products, and cooperation in this field Promoting components of regional innovation infrastructure and stimulating 	<ul style="list-style-type: none"> City of Prague Science and research institutions Business incubators Science and technology parks

demand on the part of innovation companies	
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D.2 Qualified consulting and services for innovation

The Prague region, as the economic centre of the Czech Republic, is distinguished by a wide range of business and management consulting services. The availability of standard services for beginner entrepreneurs and small companies, as well as the development of innovation services, are weak areas of the consulting process. In the scope of this measure, we recommend supporting the development of services connected primarily to business incubators, technology transfer, and the operations of innovation and technology centres, such as protection of intellectual property, penetration to newly emerging markets, technological marketing, search for funding, including programmes to make them more affordable for selected groups of SMEs. We recommend improving the coordination of consulting entities and creating a single information point for entrepreneurs, i.e. a one-stop shop, in the form of a website. This measure also assumes transparent involvement of external entities and experts in the consulting network.

<u>Objectives of the measure:</u>	
<ul style="list-style-type: none"> • To complete, improve their quality, and expand services for innovation support in the region so that they match the standards of top EU countries • To create specialized consulting services for the support of innovations in the field of special consulting 	
<u>Anticipated activities:</u> <ul style="list-style-type: none"> • Developing consulting and incubation services for innovations, and developing innovation infrastructure services • Ensuring coordination and a larger-scale cooperation of business and innovation support entities • Encouraging more extensive Internet use to improve the awareness of entrepreneurs – development of business innovation web pages • Increasing the availability of all necessary information for the support of SMEs on a single spot • Increasing the awareness among SMEs of public support programmes, and improving the lucidity of the support system 	<u>Activity bearers:</u> <ul style="list-style-type: none"> • Economic chambers • BICs • Research and development institutions • Associations and other groups of companies • Consulting entities • Business incubators • Science and technology parks • Technology transfer centres

<ul style="list-style-type: none"> • Developing special services for the penetration to newly emerging markets and in hi-tech branches • Consulting on the protection of intellectual property and the use of licences • Developing services to promote the implementation of environmental technologies and quality certification • Ensuring the transparent involvement of external entities and experts in the consulting network • Creating a database of consultants, external experts and mentors, creating mechanisms for their cooperation • Stimulating demand for services to support innovation • Training specialists in innovation and business support 	
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Thematic area E: Financing innovation

Financing is one of the weak points of the innovation process, and not just in the Prague region. The capital and financial market in the Czech Republic has not reached a full level of development yet, which is reflected in the fact that, in terms of capital, SMEs are undersized, and in the fact that there is a shortage of start-up capital and capital for higher-risk innovation projects. The public support system for SMEs is not sufficiently developed yet and it is not capable of handling the funding of innovation processes to the necessary degree. Funding is also a limiting factor in building the innovation infrastructure and supportive services for innovation.

E.1 Public financial support to innovation, entrepreneurship and building the innovation infrastructure

Public financial investments are an effective means for equalizing any lack of market imbalance, and for overcoming any structural deficits and weaknesses identified in the innovation process and infrastructure. Investments should concentrate on building the innovation infrastructure, the operation of its individual components, the availability of related services and consulting for SMEs. The support to companies includes the provision of loans, including guarantees and contributions. It will focus primarily on the sphere of initial financing, the purchase of licences and the protection of intellectual

property. The programmes will concentrate on the weaknesses of the innovation process in the field of technology transfer. Another important element is the use of existing incentives for investments in research and development so that the region can become attractive for foreign investors in progressive branches.

<p><u>Objectives of the measure:</u></p> <ul style="list-style-type: none"> • To provide public financial support to investments in the innovation infrastructure and innovation process 	
<p><u>Anticipated activities:</u></p> <ul style="list-style-type: none"> • Grants for the protection of intellectual property for SMEs and research and development institutions • Financial subsidies for operations and investments for entities within the business innovation infrastructure: departments for technology transfer, technology and innovation centres, business incubators, science and technology parks • Development of financial instruments to provide capital support to start-up companies • Promoting the affordability of consulting services for selected groups of SMEs • Supporting the implementation of new technologies and purchase of licences • Supporting transformation of R&D output into commercial products: technology transfer, assessment of the commercial viability of products, feasibility studies, protection of intellectual property, offer of technology, trial operation • Resolving the participation and status of Prague in the nationwide system of business and innovation support as the only region in the Czech Republic which has limited access to the EU Structural Funds • Enhancing the attractiveness of the region for hi-tech investors via active investment incentives 	<p><u>Activity bearers:</u></p> <ul style="list-style-type: none"> • City of Prague • Ministry of Industry and Trade • Ministry of Education, Youth, and Sports • CzechInvest • Czech-Moravian Guarantee and Development Bank

E.2 Stimulation of the use of commercial resources for innovation

Commercial resources are a major component in the financing of innovation processes and the development of SMEs. The most important condition for their integration is a healthy financial and investment environment, which does not exist in the Czech Republic yet. The greatest barrier preventing the development of typical start-up credit facilities, such as venture capital and Business Angels,¹ is the insufficiently developed legislative and tax environment. Another problem is a poor awareness, which hinders the process of matching the demand with the supply. The interest of funds in start-up/initial investments is currently very low. It is necessary to support programmes that will make this type of investment more attractive in the region. An important stimulus for the development of financing innovation companies in the EU is corporate venturing and the possibilities of applying this type of financing in the region should be investigated.

<u>Objectives of the measure:</u>	
<ul style="list-style-type: none">• To stimulate commercial investments in innovation in the region	
<u>Anticipated activities:</u>	<u>Activity bearers:</u>
<ul style="list-style-type: none">• Eliminating the drawbacks of the business and financial environment, shortcomings in legislation, and increasing the region's attractiveness for investors: enforceability of the law, restricting bureaucracy and corruption, stable legislative development, a stimulating system of taxation, improved protection of creditor rights, development of the capital market (recommendation for central authorities)• Developing the region's attractiveness and its promotion to financial investors, Business Angels, and corporate venturing• Stimulating the development and initiating the establishment of funds of start-up and seed capital, focused on hi-tech• Supporting start-up/initial investments• Raising awareness of venture capital and Business Angels, creating a platform for the mediation of supply and demand related to this type of financing, actively searching for and preparing entrepreneurs	<ul style="list-style-type: none">• City of Prague• CzechInvest• Consulting entities• BICs• Economic chambers• Venture capital funds and CVCA

¹ Business Angel – an entity investing in the equity of start-ups, also bringing specific know-how; this entity plays a significant role in the financing of start-up innovation companies.

for this type of investment <ul style="list-style-type: none"> Monitoring activities and gathering information about Business Angels in the region 	
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Thematic area F: Innovation as a part of regional development

Innovation has become one of the basic sources of regional competitiveness in a knowledge-based economy. For innovations, it is necessary to create a stimulating environment and to ensure effective coordination of individual components of the innovative process and infrastructure. Another just as important attribute of the innovation environment is the innovation culture, encompassing opinions, motivation, attitudes, and approaches to innovation, as well as the conduct of those involved in the innovation process.

F.1 Innovation culture and framework conditions for innovation

The innovation process is carried out under certain framework and legislative conditions. Current legislation does not permit the full activation of the science and research base. In the culture of R&D institutes, the focus on applying research results in practice is rare, and the innovation process is a low priority. Innovations, considering their comprehensiveness and risk, require a sufficiently advanced business and legislative environment, plus a developed innovation culture in the region. Innovations are part of important regional documents, but the innovation culture is not enough developed yet.

<u>Objectives of the measure:</u>	
<ul style="list-style-type: none"> To enhance the innovation culture of all innovation components and the region as a whole To create framework conditions for the development of innovations and a quality business environment in the region 	
<u>Anticipated activities:</u>	<u>Activity bearers:</u>
<ul style="list-style-type: none"> Conferences and seminars on innovation Use of the Internet – creating web pages providing information on innovations Setting up discussion forums and improvements in dialogue between 	<ul style="list-style-type: none"> City of Prague Institutions for innovation and SME support Research and development institutions Ministry of Industry and Trade, Ministry of Education,

<p>partners in the field of innovations</p> <ul style="list-style-type: none"> • Information and promotional events to promote the innovation culture • Eliminating the drawbacks of the business and financial environment, shortcomings in legislation, and increasing the region's attractiveness for investors: enforceability of the law, restricting bureaucracy and corruption, stable legislative development, a stimulating system of taxation, improved protection of creditor rights, development of the capital market (recommendation for central authorities) • Promoting examples of good practice in the field of innovations, together with their specific benefits • Developing the innovation culture of R&D institutes, increasing the motivation of science and research staff to patenting, a transparent system of support to business activities of R&D staff, support to changes in legislation enabling greater involvement of R&D institutions in the innovation process 	<p>Youth and Sports</p> <ul style="list-style-type: none"> • Economic chambers, trade unions and associations
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F.2 Coordination of activities and strategic management of regional development in the field of innovation

In order to monitor progress and identify development in innovation in the region, we recommend defining and monitoring a system of innovation indicators. Information and statistical databases remain inadequate for the requirements of a strategic management of innovation and development of SMEs at the regional level; a prospective expert study needs to be drawn up in the field of innovation and competitiveness (i.e. regional foresight), and these studies need to be repeated so that the strategic regional documents on innovation can be updated. In order to support strategic cooperation and ensure dialogue between the business sphere and the science and research base, the measure recommends appointing a Regional Council for Innovation, in which all key players of the regional innovation system will be represented.

Objectives of the measure:

- To ensure the ongoing updating and implementation of the regional strategy

<p>for the development of competitiveness based on the use of innovations</p> <ul style="list-style-type: none"> • To monitor and analyse activities in the field of business and innovation support • To assess the implementation of the Regional Innovation Strategy 	
<p><u>Anticipated activities:</u></p> <ul style="list-style-type: none"> • Defining or establishing an entity coordinating business support in the region (e.g. setting up a Regional Development Agency) • Creating motivating conditions at the national level for greater involvement of regions in supporting SMEs and innovation (recommendation for central authorities) • Improving the coordination of regional players while fulfilling the strategic priority 'Prague – a centre of innovation and qualified workforce' and supporting SMEs • Establishing the Regional Council for Innovation, which will propose the strategic orientation of the region in the field of innovation and ensure the information support, monitoring, and possibly play a coordinating role in the field of innovation in cooperation with the city's executive body • Analysis of technological and sectoral trends considering the competitiveness of the region and taking account of this analysis in innovation support and strategic planning • Using methods of regional foresight for the preparation and updating of strategic development documents • Coordinating activities with partners on both national and international level • Resolving the participation and status of Prague in the national system of business and innovation support • Establishing an entity responsible for the implementation of the Regional Innovation Strategy at the level of the elected bodies 	<p><u>Activity bearers:</u></p> <ul style="list-style-type: none"> • City of Prague and entities authorized by the city

<p>of the city</p> <ul style="list-style-type: none"> • Defining and regularly updating the basic set of innovation indicators in accordance with European standards and investigations conducted by the Czech Statistical Office • Conducting regular comparisons of Prague's innovation performance with other metropolitan regions of the EU 	
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Thematic area G: Interregional cooperation

This group of measures is of a cross-sectional nature and it is linked to all measures in the strategic areas A to F. The aim of the cross-sectional measures is to exploit and improve international and national cooperation in the field of innovation and as such to achieve common goals and transfer of practical experience and time-tested methods to the regional innovation system.

G.1 Cooperation with EU regions and transfer of time-tested practices

In order to ensure that the region develops efficiently, it is necessary to keep comparing the situation in Prague with developed regions of the EU and to monitor trends in the field of innovation support. Developed regions of the EU have considerable experience in innovation support that can be applied in Prague, too. Therefore, in the scope of this measure, it is recommended that Prague take part in European projects and networks for supporting innovation and transfer of time-tested practices.

<p>Objectives of the measure:</p> <ul style="list-style-type: none"> • To transfer experience and methodological assistance in designing and implementing innovation support programmes and events • To increase the efficiency of resources spent on innovation support
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<p><u>Anticipated activities:</u></p> <ul style="list-style-type: none"> • Transfer of knowledge from European networks for supporting innovation • Comparing methods in use with the practices in EU regions, and monitoring European trends in the field of business and innovation support • Participation in international projects and programmes in the field of innovation 	<p><u>Activity bearers:</u></p> <ul style="list-style-type: none"> • Institutions for innovation and SME support • Research and development institutions • Economic chambers, trade unions and associations
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G.2 Prague – national initiation and innovation centre

Prague is the scientific, educational, administrative, and economic centre of the Czech Republic. It generates high knowledge and innovation potential, which is a precondition for the development of the Czech Republic as a whole. The above-mentioned fact is also taken into account in the City of Prague Strategic Plan, in the objective: ‘Prague – initiation and innovation centre of the Czech Republic’. Fulfilment of this objective requires cooperation between Prague and other regions of the Czech Republic in developing a knowledge-based economy. A significant instrument is a mutual exchange of experience in implementing regional innovation strategies and in implementing practical projects of technology transfer, consulting and financial services.

<p><u>Objective of the measure:</u></p> <ul style="list-style-type: none"> • To foster interregional cooperation within the Czech Republic at both the strategic and operative level in order to develop all regions of the Czech Republic

Anticipated activities:

- Supporting the exchange of experience and dialogue between Czech regions in the field of support to innovation, research and development, and business
- Supporting cooperation between Czech regions and Prague related to the development of a knowledge-based economy in the CR, including participation in related national and European projects
- Promoting the interests of innovative regions at the national level
- Coordinating the activities of regions in the field of innovation and business support
- Interregional technology transfer
- Creating expert services for innovation operating nationwide
- Expanding services of the innovation and consulting infrastructure beyond regional borders
- Supporting the establishment of supra-regional financial mechanisms supporting innovation and the development of SMEs

Activity bearers:

- City of Prague
- Institutions for innovation and SME support
- Economic chambers, trade unions and associations

SELECTION OF PRIORITY ISSUES OF THE REGIONAL INNOVATION STRATEGY

In the preceding section, the areas and related measures were defined which are essential for the creation of a quality innovation system leading to the region's increased competitiveness.

In the interest of securing the position of Prague as the national innovation centre, i.e. the centre that initiates the development of the knowledge-based economy in other regions too and thus helps increase the competitiveness of the whole country, it is necessary to ensure the political and organizational support from the city administration especially for the following priority issues:

1. Support to establishing technological and innovation centres, technology transfer centres and related services.
2. Support to establishing new hi-tech companies, including spin-offs, by promoting the development of business incubators, their services and creation of spin-off programmes.
3. Development of activities leading to the formation of clusters in the region.
4. Specifying powers in the coordination of innovation and business support, the integration of Prague into the national system of innovation and business support.
5. Follow-up to the BRIS project, strategic planning and preparation of strategic information related to innovation.
6. Financial schemes to support business.

ACTION PLAN

The action plan contains innovation support actions and pilot projects which are proposed for implementation immediately after the formal end of the project in September 2004. These actions represent only the first phase in the implementation of the Regional Innovation Strategy in the upcoming period. Other projects will follow, and will be proposed by the relevant entities as a follow-up to the proposed measures and priorities of the presented strategy. The implementation of actions specified in the Action Plan and the implementation of the whole Regional Innovation Strategy assumes the use of Structural Funds for the Objective 2 and Objective 3 which are available for Prague in 2004-2006.

Action 1: Regional Council for Innovation

Strategic area: F. Innovation as a part of regional development

Measure: F.2 Coordination of activities and strategic management of regional development in the field of innovation

Analyses of the BRIS project identified inadequate communication and interchanges of information between key players in the regional innovation system. Therefore, in the scope of this action, it is proposed that a Regional Council for Innovation be set up. The Council will act as the advisory body to the City Development Section at the City of Prague Authority, and will be composed of representatives of the administrative and political bodies of the City of Prague, representatives of institutions from the sectors of research and development, training, consulting, and financing, and representatives of the components of the Prague innovation infrastructure, business sphere, and state administration. The Regional Council for Innovation will take up the strategic dialogue commenced in the scope of the BRIS project, and will assume the professional guarantee for the implementation of the Regional Innovation Strategy. It will also contribute to the preparation of strategically important information on possibilities of exploiting research and innovation in order to enhance the competitiveness of the Prague economy.

Objective

To create a platform for dialogue among the innovation players as a follow-up to the BRIS project, and to prepare strategically important information on possibilities of exploiting research and innovation for increasing competitiveness and performance of the Prague economy.

Benefit

Improvement in the dialogue and coordination of the innovation players.

Preparation of strategic information, needed for supporting the development of innovation activities and business, for the decision-making authorities of the City of Prague.

Professional guarantee and coverage of the implementation of the Regional Innovation Strategy.

Action 2: Prague business incubator

Strategic area: D. Consulting services and infrastructure supporting innovation

Measures: D.1 Development of a regional innovation infrastructure

D.2 Qualified consulting and services for innovation

A.2 Support to progressive and hi-tech branches in the region.

Prague has a shortage of suitable incubation space for start-up hi-tech companies, and therefore a proposal has been drawn up to establish a Prague business incubator. In

cooperation with the Academy of Sciences of the Czech Republic, the Technology Centre of the Academy of Sciences of the Czech Republic, and the City of Prague, a Prague business incubator covering an area of 2,000 – 4,000 m² should be designed, constructed, and put into operation. The incubator should provide standard incubation services, ranging from letting the premises, providing pooled services to qualified consulting. Use of Structural Funds for the Objective 2 is expected in the implementation of the project.

Objective

Efficient economic exploitation of Prague's research potential, support to the development of hi-tech business in Prague.

Creation of new qualified jobs focused on using modern technologies.

Benefit

Establishment of innovative, hi-tech and spin-off companies that would otherwise find it hard to survive.

Creation of new qualified jobs.

Filling the gap in special services for start-up innovative companies.

Action 3: Development of a technology transfer centre at the Academy of Sciences of the Czech Republic

Strategic area: B. Active involvement of the R&D base in the development of innovative entrepreneurship

Measures: B.1 Strengthening technology transfer, commercialization of R&D results and cooperation between R&D institutions and the business sphere

D.2 Qualified consulting and services for innovation

The Academy of Sciences of the Czech Republic generates a considerable volume of output from its research projects, having potential for commercial application. The current situation, when technology transfers at the Academy of Sciences of the Czech Republic are carried out in a limited scope by the Technology Centre AS CR without any system support, does not allow a full development of technology transfer activities. The Technology Centre of the Academy of Sciences of the Czech Republic, in cooperation with the Academy management, will implement a technology transfer system. It is recommended that a group of experts be formed that, in cooperation with partners (especially the Industrial Property Office), will seek out potentially commercially viable results of work carried out by the Academy, assess their market potential, handle the

issue of the protection of intellectual property (especially patenting), and subsequently conduct technological marketing and commercialize the products of research.

Objective

Greater economic exploitation of the R&D potential of the Academy and an institutional establishment of a system for technology and knowledge transfer at the Academy.

Benefit

Improved cooperation between the Academy of Sciences of the Czech Republic and the business sphere, and enhanced use of research results in practice.

Better use of public funds for research and development.

Action 4: Centre for Knowledge and Technology Transfer, Charles University, Prague

Strategic area: B. Active involvement of the R&D base in the development of innovative entrepreneurship

Measures: B.1 Strengthening technology transfer, commercialization of R&D results and cooperation between R&D institutions and the business sphere

B.2 Support to creating spin-off companies

C.1 Training scheme for a dynamic labour market

D.1 Development of a regional innovation infrastructure

D.2 Qualified consulting and services for innovation

In the scope of the ongoing action, which began with a series of seminars on the issue of technology transfer, a proposal of the procedure for creating a system of cooperation between the R&D centres of the Charles University and the business sphere will follow at the next stage. It is expected that a Centre for Knowledge and Technology Transfer will be set up in order to ensure optimal exploitation and commercialization of knowledge and technology in various application areas and will allow for systematically fostering relations with business partners in the region. The project has been developed by the rectorate of the Charles University and the consulting company ILA, s.r.o. Resources from the Structural Funds will be used to set up the Centre.

Objective

Greater economic exploitation of the R&D potential of the Charles University in Prague, and its closer involvement in the innovation support and technology transfer structure in the Prague region and the whole of the Czech Republic.

Benefit

Establishment of a system ensuring and stimulating cooperation between the University's R&D centres and the business sphere, which will fill the existing gap in this area.

Increased competitiveness of the economy and establishment of new hi-tech companies and creation of jobs.

Action 5: Innovation website

Strategic area:	F. Innovation as a part of regional development
Measures: innovation	F.1 Innovation culture and framework conditions for F.2 Coordination of activities and strategic management of regional development in the field of innovation D.2 Qualified consulting and services for innovation

Dissemination of information on innovation and the innovation culture via Internet should ensure broad penetration at a relatively low cost. Visitors to the innovation website should be able to retrieve not only basic information about the significance of innovation from various aspects, published in a popularizing form, but also obtain the information they need to implement innovations, from an offer of research and development, to a technology transfer database, right through to innovation financing. A system of links to the relevant websites and partners' websites should make it possible to interconnect information to form a consulting system for innovations; therefore the website will be a one-stop shop for innovations. As a result, a widely accessible spot would be created to mediate supply and demand related to relevant innovation services. The Regional Council for Innovation, once established, should become the project guarantor.

Objective

To enhance the region's innovation culture.

To set up an information one-stop shop for innovation.

To provide information support to those involved in the innovation process.

Benefit

Greater innovation awareness.

Faster retrieval of required information.

Action 6: Establishment of sectoral clusters

Strategic area: A. Competitive sector of innovative enterprises

Measures: A.1 Support to the formation and development of regional sectoral clusters

Clusters are an important instrument for boosting the competitiveness of SMEs, which is missing in Prague. The first step in the scope of this action should be to identify potential sectors where sectoral clusters can be set up, including possible parties capable of initiating the clusters. The aim of analysing the situation in the Prague region will be to identify suitable branches carrying high significance for the economic performance of the region, with a significant share in the creation of qualified jobs, and of importance for regional development. The project anticipates cooperation of the Economic Chamber of the City of Prague, the SME Association and sectoral associations and unions.

Objective

To identify potential carriers of sectoral clusters in the region.

Benefit

Increased economic performance and creation of qualified jobs in the region.

Creation of a support system specifically responding to the needs of individual branches. Improved cooperation between enterprises and other participants in the innovation process.

Action 7: Prague Gastronomic Training Centre

Strategic area: A. Competitive sector of innovative enterprises

Measures: A.1 Support to the formation and development of regional sectoral clusters

C.1 Training scheme for a dynamic labour market

A low interconnection with practice and insufficient development of specialized skills are considered to be among the most serious problems in vocational and secondary school education. Therefore, a Gastronomic Training Centre should be established in order to provide affordable supplementary training and work experience in the field of gastronomy for school-leavers as well as persons already involved in the practice; this centre will also provide professional training for unqualified staff. One task of the training centre should also consist in supplying specialized professional training to educational staff. The centre should also help organize seminars, competitions in its field of specialization and working meetings. The project may be implemented in cooperation

with the Economic Chamber of the City of Prague and the Association of Chefs and Confectioners.

Objective

To improve the quality of the system of initial training at the level of the profession and to allow for the further professional training of graduates from vocational colleges and staff in practice.

Benefit

Improvement in the quality of training in the gastronomic sector.

Action 8: Prognosis of technological and sectoral trends in the region

Strategic area: F. Innovation as a part of regional development

Measures: F.2 Coordination of activities and strategic management of regional development in the field of innovation

The analyses identified a shortage of data on technological trends and on the dynamism of SME sectors needed for strategically planning the development of the Prague region. Standard statistical sources only provide this sort of data in a limited, inadequate form. Therefore an analytical foresight study needs to be conducted which will apply the approach of a regional foresight as a tool used for the preparation of strategic perspective documents in advanced regions of the EU. The study should focus on cooperation between R&D and SMEs and on identifying regional technological and sectoral trends. The results of the study will help in identifying possible clusters, defining the requirements towards the education systems, and selecting branches for public support. The Regional Council for Innovation, once established, could assume patronage of the implementation of the study.

Objective

To identify technological and sectoral trends in the region for the needs of strategic planning.

Benefit

Information support for strategic decision-making processes.

Identification of basic trends regarding competitiveness in the region.

Action 9: Updating strategic documents

Strategic area: F. Innovation as a part of regional development

Measures: F.2 Coordination of activities and strategic management of regional development in the field of innovation

With regard to the fact that Prague enjoys an extraordinary and crucial position in the national innovation process, it is essential to cover innovation in the necessary scope also in the conceptual documents regarding the city development. The development of the the innovation framework in the past few years and the conclusions of the BRIS project have given rise to the need to update Prague's conceptual documents and the viability of development trends in the field of innovations which are specified in these documents. In the scope of this action, conceptual documents (especially the City of Prague Strategic Plan) should be updated in areas related to innovation and competitiveness of SMEs. The City of Prague Development Section will be responsible for updating these documents.

Objective

To ensure that conceptual documents and the viability of the development trends in innovation specified in these documents remain up to date.

Benefit

Production of up-to-date concepts of the city development.

Action 10: Monitoring and benchmarking the innovation performance of the region

Strategic area: F. Innovation as a part of regional development

Measures: F.2 Coordination of activities and strategic management of regional development in the field of innovation

Quantitative monitoring of innovation performance and the dynamics of development is a precondition for the strategic planning of regional development. Data obtained in this manner can be used to compare the developments with EU regions (i.e. benchmarking), to identify deficiencies in the innovation system and to adopt adequate decisions. In the scope of the action, an optimal system of available innovation indicators should be proposed; these indicators will be regularly updated and assessed. Existing statistics could be used in cooperation with the regional body of the Czech Statistical Office. The Regional Council for Innovation, once established, should become the project guarantor; data will be generated for the City of Prague Development Section.

Objective

To define available innovation indicators and assess them on a regular basis.

To assess the innovation performance of the region.

Benefit

Collection of information needed for strategic planning, monitoring the innovation development and solutions to specific problems in the region.

Action 11: Prague's participation in the national system of SME and innovation support

Strategic area:	F. Innovation as a part of regional development
Measures:	F.2 Coordination of activities and strategic management of regional development in the field of innovation
	E.1 Public financial support to innovation, entrepreneurship and building the innovation infrastructure

On the Czech Republic's accession to the EU, Prague became the only region in the Czech Republic not falling under the Objective 1 of the European structural policy. As much of the support to small and medium-sized enterprises in the Czech Republic will be channelled under the Structural Funds of the Objective 1, some Prague entrepreneurs will no longer be entitled to draw on programmes which have been so far fully supported from the national budget. The fact that no entity has been defined as being responsible for the support to SMEs in Prague, which could represent Prague's interests in this area, means that there is a gap in business support. Therefore, it is necessary to define regional powers in the field of innovation and SME support and to adopt relevant measures aimed at ensuring an equal status of Prague enterprises in the national systems of business support.

Objective

To create equal conditions for business support in the Prague region. To cover SME support in the region.

Benefit

Improved coordination of SME support in the region.

SME support programmes becoming fully available to Prague entrepreneurs.

Action 12: Introduction of the Internet in public libraries established by the City of Prague and by individual municipal wards

Strategic area:	C. Human resources for innovation
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Measures: **C.1 Training system for a dynamic labour market**

Public libraries serve as generally accessible places where information and training can be obtained. In the scope of the project, all public libraries established by Prague and individual municipal wards will gradually be fitted with information technology and an Internet connection. This action will be carried out as a pilot project in libraries located in the area defined in the Single Programming Document for the Objective 2. The project will include training of the staff and the corresponding promotion of the Internet availability. The project bearer will be the Municipal Library in Prague.

Objective:

To provide extensive and quality information services to all citizens of Prague.

To increase capacity for transmitting available information via new communication technologies.

Benefit

Elimination of significant barriers preventing citizens from accessing information, faster relocation of information channels and information retrieval points to places as close as possible to users, and the offer of their use by all entities for social, economic, cultural, and other activities.

Action 13: Training information system for small and medium-sized enterprises

Strategic area: **C. Human resources for innovation**

Measures: **C.2. Lifelong learning for a knowledge-based economy**

In the framework of this action, an Internet information system on training activities for SMEs should be set up, with the aim of offering a clear overview of these activities for the needs of enterprises. The action should be implemented under the supervision of the National Training Fund, the association of enterprises, and other unions and chambers.

Objective

To create an information system on training opportunities for small and medium-sized enterprises.

Benefit

A more transparent training system for SMEs in Prague and improved access to the most suitable forms of training for SMEs.

Action 14: Interregional cooperation among BRIS project partners

Strategic area: **G. Interregional cooperation**

Measures: G.1 Cooperation with EU regions and transfer of time-tested practices

The BRIS project initiated cooperation among the regions of the project partners, i.e. Prague, Plzen, Aachen, and the South London. Cooperation among the partner regions will continue even after the end of the project, with the aim of identifying and creating opportunities for direct cooperation among entrepreneurs. Cooperation will take place in the form of web presentations, seminars, exchanges, and participation in other joint European projects in order to exploit the strengths and experience of the individual regions.

Objective

To create effective forms of cooperation among the partner regions of the BRIS project.

Benefit

Creation of conditions for transnational regional cooperation and the transfer of know-how from European regions.

IMPLEMENTATION OF THE REGIONAL INNOVATION STRATEGY

The proposed Regional Innovation Strategy will be used to update the City of Prague Strategic Plan, especially those parts concerning the role of Prague as the innovation centre and initiation centre for the development of a knowledge-based economy for the whole of the Czech Republic. The strategic plan will be updated in 2005 and, in terms of concept, will cover the city development in the period from 2006 to 2013.

The Regional Innovation Strategy will also be used as the key strategic document for the development and optimization of the regional innovation system, which will set up conditions for an effective use of the city's high innovation potential in favour of increasing the competitiveness of Prague. A broad regional consensus reached during the preparation of the Regional Innovation Strategy is a sound basis for the success of the its implementation. The implementation of the strategy and its pilot actions will be supported by the appointment of a Regional Council for Innovation, which will continue with the conceptual dialogue started in the BRIS project and will work as an advisory body for the strategic departments of the city administration, with a focus on the innovation and competitiveness of the city.

SUMMARY OVERVIEW OF STRATEGIC AREAS AND MEASURES OF THE REGIONAL INNOVATION STRATEGY

STRATEGIC AREA	PROPOSED MEASURES
A. Competitive sector of innovative enterprises	A.1 Support to the formation and development of regional sectoral clusters
	A.2 Support to progressive and hi-tech branches in the region
B. Active involvement of the R&D base in the development of innovative entrepreneurship	B.1 Strengthening technology transfer, commercialization of R&D results and cooperation between R&D institutions and the business sphere
	B.2 Support to establishing spin-off companies
	B.3 Greater involvement of enterprises in R&D activities at both regional and European level
C. Human resources for innovation	C.1 Training system for a dynamic labour market
	C.2 Lifelong learning for a knowledge-based economy
D. Consulting services and infrastructure for innovation	D.1 Development of a regional innovation infrastructure
	D.2 Qualified consulting and services for innovation
E. Financing innovation	E.1 Public financial support to innovation, entrepreneurship and building the innovation infrastructure
	E.2 Stimulation of the use of commercial resources for innovation
F. Innovation as a part of regional development	F.1 Innovation culture and framework conditions for innovation
	F.2 Coordination of activities and strategic management of regional development in the field of innovation
G. Interregional cooperation	G.1 Cooperation with EU regions and transfer of time-tested practices
	G.2 Prague – national initiation and innovation centre

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European Network of Innovating Regions

www.innovating-regions.org

TERMS AND ABBREVIATIONS

AIP CR	Association of Innovative Entrepreneurship of the Czech Republic
AMSP	Association of Small and Medium-Sized Enterprises
BA (Business Angel)	Business Angel – an informal investor; a private individual investing in the equity of small – mainly start-up – companies; a BA brings also his own know-how
Benchmarking	Comparison of the properties of one system (e.g. quality of products or services, various indicators, number of employees, etc.) with the properties of another, comparable, system, usually at a higher level (=benchmark)
BIC (Business Innovation Centre)	Business and Innovation Centre
BRIS	Bohemian Regional Innovation Strategy
Corporate venturing (CPV)	Venture capital type of investment, made by large non-financial corporations, usually in order to achieve strategic goals
CMZRB	Ceskomoravská záruční a rozvojová banka Czech-Moravian Guarantee Bank
CNK EBN	Czech National Committee of EBN – drawing together EBN members in the Czech Republic
EBN (European Business Innovation Centres Network)	European Business Innovation Centres Network
EIC	Euro Info Centre
GA CR	Grant Agency of the Czech Republic
GDP	Gross Domestic Product
Hi-tech	Branches producing sophisticated products having a high value-added, requiring a significant involvement of research and development
HKP	Economic Chamber of the City of Prague
ICT	Information and communication technology
Innovation	A renewal and expansion of a range of products and services and the related markets, development of new methods of production, supply and distribution, implementation of changes in management, labour organization, working conditions, and qualification of the workforce
IRC (Innovation Relay Centre)	European network of organizations to support international technology transfer
IT	Information technology
SPD	Single programming document
Commercialization of R&D output	Commercial application of the results of R&D activities
MMR	Ministry for Regional Development
MPO	Ministry of Industry and Trade
SME	Small and medium-sized enterprise – label for an enterprise of up to 250 employees (in the legislative context there are also other criteria that need to be fulfilled)
MŠMT	Ministry of Education, Youth and Sports
One –stop shop	A place where entrepreneurs obtain basic information about all available support programmes
Business incubator	A part of the infrastructure for business support,

	providing space and services for start-up companies, usually for a charge which is below commercial prices. The aim is to support innovative companies at the initial risky stages of business. Many incubators cooperate with universities and research institutions, or have been directly established by such institutions.
RIS	Regional Innovation Strategy
Risk (venture) capital	Venture capital – investments in the equity of SMEs not listed on the stock exchange, which are distinguished by a high growth potential and a related higher investment risk.
RPIC	Regional Advisory and Information Centre
Spin-off (out)	In the context of the Regional Innovation Strategy, this is a company which has been established by being separated from a research institution for the purpose of an active exploitation of certain R&D results, or drawing on other knowledge know-how of the institution.
Start-up investment	Investment in the start-up stage and in the initial development of an enterprise
SURM	City of Prague Development Section
SVTP	Science and Technology Parks Association CR
SWOT	Analysis of Strengths, Weaknesses, Opportunities, and Threats
TC AV CR	Technology Centre of the Academy of Sciences of the Czech Republic
Technology transfer (knowledge transfer)	In the context of the innovation strategy it is the transfer of knowledge and research and development results from the sphere of their creation to the sphere of their practical application; it also includes the transfer of new knowledge between companies
TIC CVUT	Technology and Innovation Centre, Czech Technical University
R&D	Research and development
VŠ	Universities
STP	Science and Technology Park – infrastructure supporting cooperation of entities involved in R&D and business; innovative companies, R&D companies, R&D institutions, etc., may be based here.
Seed investment	Investment into the embryonic stage of an enterprise, i.e. before it has been established (the investment is needed to establish the company)