SEJMIK OF THE ŚLĄSKIE VOIVODESHIP

REGIONAL INNOVATION STRATEGY OF THE ŚLĄSKIE VOIVODESHIP 2003-2013

Imagination Creates Reality

KATOWICE 2004

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Sejmiku Województwa Śląskiego
z dnia 25 sierpnia 2003 roku

w sprawie:

przyjęcia „Regionalnej Strategii Innowacji Województwa Śląskiego

na lata 2003-2013”

Na podstawie
art. 11, art. 18 pkt 2
ustawy z dnia 5 czerwca 1998 roku o samorządzie województwa
(t. j. Dz. U. Nr 142 z 2001 roku, poz. 1590 z późn. zm.)

Sejmik Województwa Śląskiego
uchwala:

§ 1

Przyjąć „Regionalną Strategię Innowacji Województwa Śląskiego
na lata 2003 – 2013”, stanowiącą załącznik do uchwały.

§ 2

Wykonanie uchwały powierzyć Zarządowi Województwa Śląskiego.

§ 3

Uchwała wchodzi w życie z dniem podjęcia.

Przewodniczący Sejmiku
Województwa Śląskiego

Zbigniew Wieczorek

Resolution No. II/11/2/2003

of the Sejmik of the Śląskie Voivodeship

dated 25th August 2003

concerning:

the acceptance of the "Regional Innovation Strategy of the Śląskie Voivodeship 2003-2013"

on the basis of Article 11, Article 18 point 2

of the Voivodeship Self-government Act dated 5th June 1998

(i.e. O. Journal No 142 of 2001, pos. 1590 with later changes)

The Sejmik of the Śląskie Voivodeship

resolves:

§1

To accept the "Regional Innovation Strategy of the Śląskie Voivodeship 2003-2013" which is enclosed to the Resolution.

§2

To assign the Board of the Śląskie Voivodeship for the implementation of this Resolution.

§3

The Resolution comes into force on the day of passing.

Chairman of the Sejmik
of the Śląskie Voivodeship

Zbigniew Wieczorek

Table of Contests

Imagination Creates Reality

Introduction

Being innovative, more than a slogan, it is a lifestyle. Globalisation and technological progress require different skills – among others effective exploitation of knowledge, industrial design and product development, financial resources, management and marketing skills, skilled human resources and appropriate machine park - from the Silesian economy from those, which guaranteed a competitive position during the past 20 years. The ability to exploit market and scientific potentials efficiently and effectively to create added value, to improve market position or inhabitants' standard of living, will influence the level of competitiveness of the Śląskie Voivodeship in comparison to other regions.

The Śląskie Voivodeship could compete with others as for the number of companies, institutes of higher education and R&D units. However, on the market not only numbers count, but also the ability to exploit existing economic, social, academic and scientific potential for sustainable development of the regional economy.

In order to create a favourable environment for innovation in the Śląskie Voivodship about 600 representatives of companies, the R&D sector, business support institutions and local governments participated between 6 March 2002 and 14 May 2003 in elaborating the Regional Innovation Strategy of the Śląskie Voivodeship 2003-2013 in the framework of the RIS-Silesia project by means of individual interviews, participation in workshops, conferences and workgroups meetings of the Regional Innovation Forum.

The Regional Innovation Strategy is in line with the priorities of the Development Strategy for the Śląskie Voivodeship 2000-2015 and convergent with national programmes concerning economic development, including innovation (The Ministry of Economy, Labour and Social Policy and public institutes: Polish Agency for Entrepreneurship Development and Industrial Development Agency) as well as with the European Union policy in this field.

The Regional Innovation Strategy of the Śląskie Voivodeship 2003-2013 presented below has been elaborated within the RIS-Silesia project – carried out under the 5th Framework Programme of the European Union – according to the methodology promoted by the European Commission.

We invite you to participate in implementing the strategy so that small and medium sized enterprises of the Śląskie Voivodeship could become more innovative and more competitive on the Common European Market.

CHAPTER 1

Śląskie Voivodeship in figures

The Śląskie Voivodeship is placed among the leading regions of Poland as for its social and economic potential. It is characterised by a high number of inhabitants (4,8m people) living on a relatively small area (3,9% of Poland), resulting in a high population density (3,2 times more than the country's average). In 2000, the Śląskie Voivodeship was placed second in Poland (behind the Mazowieckie Voivodeship) as concerns its economic potential measured in Gross Domestic Product.

Basic data on the Śląskie Voivodeship in 2001[1]:

No.	Basic characteristics	Figures
1.	Population	4,8m people (second place behind the Mazowieckie Voivodeship)
2.	Area	12,3 thousand km^2 (14th position before the Świętokrzyskie and Opolskie)
3.	Population density	393 persons/km^2 (3,2 times more than average in Poland)
4.	Administrative structure*	19 urban districts, 17 country districts, 167 municipalities
5.	Level of urban development	Urban development rate is 79,3 % (the highest in Poland)
6.	Housing resources inhabited	1599,6 thousand houses, with 18,1% belonging to communities (13,4% of domestic housing resources)
7.	Telecommunication	Telephone development rate is 286,8 subscribers per 1000 persons (more than the average - 283,0 subscribers)
8.	Higher education	192,6 thousand students which amounts to 38,5 students per 1000 persons (the average is 44 students)
9.	GDP per capita **	19,5 thousand PLN, 10,1% higher than the national average
10.	Number of economic units in total:	403,4 thousand economic entities (11,9 % of all entities registered in Poland)
	Where: foreign ownership	3,3 thousand companies (0,8 % of all companies registered in the Voivodeship)
	natural persons units	315,2 thousand units (78,1% of all units registered in the Voivodeship)
11.	Employed in agriculture, hunting and forestry	213 thousand persons (12,6 % of all employed in the Voivodeship)
12.	Employed in industry and construction	616,4 thousand persons (36,6 % of all employed in the Voivodeship)
13.	Employed in services	856,7 thousand persons (50,8 % of all employed in the Voivodeship)
14.	Unemployment rate***	15,7 % (less than the average, which is 17,5 %)

* From January 2002.
**Refers to 2000.
***In January 2002, unemployment rate was 16,2 %, whereas the national average was 18 %.

[1] *Statistical Yearbook 2002,* Office of Statistics in Katowice.

The economic structure of the Śląskie Voivodeship

The restructuring of the economy will stay high on the agenda in the Śląskie Voivodeship in the coming decade. This restructuring process involves restructuring of the traditional sectors, improving development potential of growth sectors, as well as of those sectors with promising growth perspectives in the near future.

Changes observed in the economic structure of the Śląskie Voivodeship confirm that the service sector is more and more important in generating gross added value. Between 1995 and 2000 share of units of the market and non-market services sector in generating gross added value increased by 9%. In 2000, more than half of gross added value (57,3%) was generated in the service sector. Despite its growing importance, the share of industry in generating gross added value is still important. Industry generated 33% of gross added value in 2000, half of which was generated in the industrial processing sector. The most significant industries are: mechanic vehicles, trailers and semi-trailers production (growing importance of automotive sector), metal production, food and beverages industry, metal goods production and machines and equipment production.

To evaluate perspectives for economic development in developed countries, one often applies the OECD classification of the Industrial processing section (PKD) according to technology level based on "R&D content". Taking into account the indicators "sold production", "level of employment", "share of the largest enterprises" and "share of the most important goods in the processing industry" (Industrial processing section according to PKD) in 2001, one could state that the medium-high-tech and high-tech sectors are poorly developed in the Śląskie Voivodeship.

	Sold production*		Number of employed*		Largest enterprises**	Most important goods*
	250 employed or more	10-249 employed	250 employed or more	10-249 employed		
High-tech sector	-	0,2%	-	0,3%	no enterprises	no goods
Medium-high-tech sector	21,0%	14,2%	10,1%	10,6%	27,8%	18 %
Medium-low-tech sector	7,5%	16,2%	6,5%	12,2%	27,8%	36%
Low-tech sector	22,8%	17,1%	11,4%	17,4%	44,4%	46%

* Data of the Office of Statistics in Katowice and Statistical Yearbook 2002, the Office of Statistics in Katowice.
** Based on the list of 500 largest companies in 2001, prepared by „Rzeczpospolita".

Potential of institutions that support innovation processes in the Śląskie Voivodeship

Research and development sector

An important part of the national potential of the R&D sector is situated in the Śląskie Voivodeship. This sector aims at increasing knowledge resources and at finding new applications for this knowledge. According to data of the Main Office of Statistics, this sector included at the end of 2001:

- 116 units (12,6% of units in Poland) including: 6 institutes and independent PAN (The Polish Academy of Science) units, 32 R&D units, 64 development units[2], 11 institutions of higher education,
- 11760 employed in the R&D sector (9,5% of employment in Poland) including: 654 professors, 809 assistant professors and 3760 PhD,
- 3,8 persons, in so called full-time equivalent, employed in R&D activities per 1000 employees (national average: 4,5 persons),
- internal expenditures of the R&D sector in the Śląskie Voivodeship represented 8,34% of total expenditures for R&D in Poland (the Mazowieckie Voivodeship 44,07%, the Małopolskie 9.49%, the Dolnośląskie 7,03%),
- internal expenditures for the R&D sector per 1 inhabitant of the Śląskie Voivodeship represent 83,89 PLN (7th position in Poland) whereas the average is 125,72 PLN. These expenditures represent in Mazowieckie 422 PLN, in Małopolskie 142 PLN, in Dolnośląskie 115 PLN, in Łódzkie 113 PLN,
- total internal expenditures of the R&D sector represent 0,41% of GDP whereas the national average is 0,70% (9th position in Poland). These expenditures represent in the Mazowieckie Voivodeship 1,59%, in Małopolskie 0,86% and in Dolnośląskie 0,57%.

All these indicators place the Śląskie Voivodeship in the top three of the regions with the highest R&D activity. However, taking into account the Voivodeship's contribution of 13,9% to the Gross Domestic Product (only the Mazowieckie contribution is higher – 19,6%), the region seems to be underestimated as for support of the R&D sector. It should be regarded as a threat in a time of fast structural changes within which traditional sectors make place for new competitive sectors on European and global scale.

Institutions of higher education

The regional system of permanent education in the Śląskie Voivodeship relies on a wide education base including 33 institutions of higher education, of which 23 are non-public schools. In 33 institutes and 11 branches, distant-learning departments and advisory points there are 186 400 students. The Śląskie Voivodeship is placed second, after the Mazowieckie Voivodeship as for number of students. In 2001, the number of students per 1000 inhabitants was equal to the domestic average and amounted to 40 persons per 1000 inhabitants. A positive trend may be observed however, that the number of students in higher education has levelled off on the level achieved in the late 90s and in some fields it has even grown. Numerous graduates represent nowadays the most entrepreneurial and flexible layer of society which is capable of absorbing and developing innovations. This factor may be decisive in terms of investment attractiveness of the region in the near future.

[2] According to the definition in a Statistical Yearbook of Voivodships 2001 GUS Warszawa, development units mean units which run research and development activities apart from other basic activity; that is: industrial enterprises which have their own research and development capability as well as agricultural and zoo-technical enterprises, farms and experimental units, etc.

Business support institutions

The business support institutions operate in favour of local development and economic development. They play an important role in the development process of small and medium enterprises. In the Śląskie Voivodeship there are 15 chambers of commerce registered in The National Chamber of Commerce and 27 agencies of local and regional development. There are 12 Centres of Entrepreneurship Support, advisory centres and economic information centres. They work mostly in the field of training, advise, information for people running their own businesses, for unemployed or people threatened by unemployment who want to set up their own business. Among the above-mentioned institutions, 18 business support institutions are registered in the national network: the National System of Services for Small and Medium Enterprises (KSU). There are 14 active financial institutions such as Local Guarantee and Loan Funds and Venture Capital Funds. There are 8 entrepreneurship incubators in the region which support activity of new companies through providing business services and attractive, arranged place to run activity for a determined period. In the recent years, 3 centres of technology transfer have been created and some activities aiming at creating technology parks have been undertaken.

Small and medium enterprises in the Śląskie Voivodeship

In the Śląskie Voivodeship in December 2001, 3 088 out of 403 400 registered companies were companies with foreign capital. Among national companies operating in the region 356 100 were entities of natural persons and non-trading companies which equals to 88,3%. It represents a growth of 31% in comparison with 1995 (271 200). This number may serve as an indicator of a level of entrepreneurship in the region. The number of companies acting by virtue of commercial law at the same time has increased from 11 900 in 1995 to 19 600 in 2001[3].

Data describing SME in the Śląskie Voivodeship:

	1998	1999	2000
Number of enterprises	352 079	373 669	389 772
Number of SME	351 193	372 749	386 020
Number of new registered companies	59 092	46 716	42 334
Number of liquidated companies	33 143	25 482	26 980
Number of active SME in thousand	226,6	232,4	222,0
Number of active SME per 1 km ^{2}	18	19	18
Number of active SME per 1000 inhabitants	46	47	46
Investments of enterprises in million PLN	12 161,6	13 782,6	12 714,0
Investments of SME in million PLN	4 490,4	5 441,5	5 813,6
Investments per 1 SME in PLN	19 816,4	23 414,4	26 183,3
Export in total in million USD	4 156,9	4 439,9	-
Share of Voivodeship in total domestic export (in %)	-	16,2	17,3
Export of SME in million USD	1 233,2	1 192,8	1 746,0
Total import in million USD	4 129,9	4 453,4	-
Share of Voivodeship in domestic total import (in %)	-	9,7	9,8
Import of SME in million USD	2 066,9	2 291,5	2 657,0

Source: Statistic data of the Polish Agency for Enterprise Development.

[3] *Statistical Yearbook 2002,* Office of Statistics in Katowice.

Why are innovation and innovativeness so important for SME?

Globalisation of the economy has resulted in abolition of barriers in the global flow of information, goods, technology, capital and persons. At the same time, flexible production systems within co-operation networks start to replace mass production. They represent a key element of industry restructuring often associated with such concepts as "flexible specialisation" and "new competitiveness". The ability to learn and to become more innovative than competitors is a key to development.

In this strategy, innovations are regarded as a successful exploitation of new ideas from the economic point of view, which result in:

a) new or improved products,
b) new or modernised methods of production,
c) organisational changes in production.

Innovations include a wide range of scientific, technological, organisational, financial and trade activities. Innovations are regarded as constant changes which comprise a simple modification of existing products, processes and practices (which can be new for the company but not for the industry) on the one hand and creating brand new products and processes (which are new both for the industry and the company) on the other hand[4]. This shows that innovativeness of companies is gradable. Therefore, instead of a simple division of companies into innovative and non-innovative ones, one should take into consideration a degree of innovativeness for companies of different size, activity, location etc.

The innovativeness of companies is generally defined as ability and motivation to search and to exploit any results of scientific research, new concepts, ideas and inventions aiming at growth of modernity level thus strengthening the competitive position of a company or at realising technological ambitions of an entrepreneur for commercial purpose[5].

Innovation processes rarely close within one single company, they require common internal and external activities. Companies are innovative due to their own organisational ability but also due to external relations with their suppliers or business partners. Communication, co-operation and co-ordination among specific subjects in networks are necessary to create and distribute new products and services. Innovative networks are created because innovation is not just a simple function of an entrepreneur abilities and an individual company or a research institute, nor a simple co-operation among them.

[4] *"Oslo Manual. Proposed Guidelines for Collecting and Interpreting Technological Innovation Data",* OECD, Paris, 1992, page 47.
[5] C.Prahalad, G.Hamel, *The Core Competence of Corporation, w: "Harvard Business Review",* May/June 1990.

Why is the Regional Innovation System an instrument for economic development?

The Regional Innovation System refers to the way of promoting innovation processes through companies, institutions and local governments on the regional level. A modern, innovative enterprise needs to co-operate with other institutions for its development. Public and private institutions as well as big enterprises, local authorities and local support systems of research, training and financing of new innovative activities have a key role to play in this field.

An efficient innovation system creates conditions for individual and group participation in creation of new ideas and projects; it influences dynamics of innovation creation and distribution, particularly in the case of companies which carry out production and processing processes using an advanced technology[6]. Companies look for scientific centres, industry or technology parks of good reputation, services in the field of finance, marketing, management, transport and communication infrastructure, as well as for access to venture capital and to highly skilled labour market and social climate open for innovation and entrepreneurship etc[7].

The innovation climate is of great importance for small companies. These companies are too small and do not have all necessary competencies and resources which are usually at disposal of large companies. They are not able to convert their ideas into specific production. They are unable to create interdisciplinary research teams, neither to run individually marketing nor organise distribution of goods. Such companies do not have access to "global resources" of knowledge, finance and distribution networks. To survive, they have to co-operate with other companies and institutions. A co-operation by means of a network allows overcoming barriers and helps smaller companies to get involved in common problems solving.

[6] D. Maillat, *Territorial Dynamic, Innovative Milieus and Regional Policy*, E&RD 1995, vol. 7.
[7] E. Garnsey, *Auto-organisation et emergence des milieu innovateurs, contribution au colloque GREMI „Le paradigme de milieu innovateur dans l'économie spatiale contemporaine. Hommage à Philippe Aydalot*, Paris, 29 juin 1998, page 3.

Why is innovation worth supporting among SME in the Śląskie Voivodeship?

The Silesia economy is experiencing accelerated processes of restructuring, in particular in the mining and steel sector. These processes may produce different effects for social and economic situation of the voivodeship including the situation of small companies and the R&D sector. The analysis of SME sector in the Śląskie Voivodeship[8] has indicated that the economic potential is close to the average in Poland. Nevertheless, it is not sufficient as for role and tasks to be fulfilled in the region which is in the middle of restructuring. It refers in particular to:

- relatively low share of SME sector in production and service activity,
- low investment expenditures of the SME sector,
- low share of the SME sector in international exchange,
- poor competitive position and general potential of the SME sector, which makes it difficult for the sector to fulfill their expected role that is creation of new workplaces.

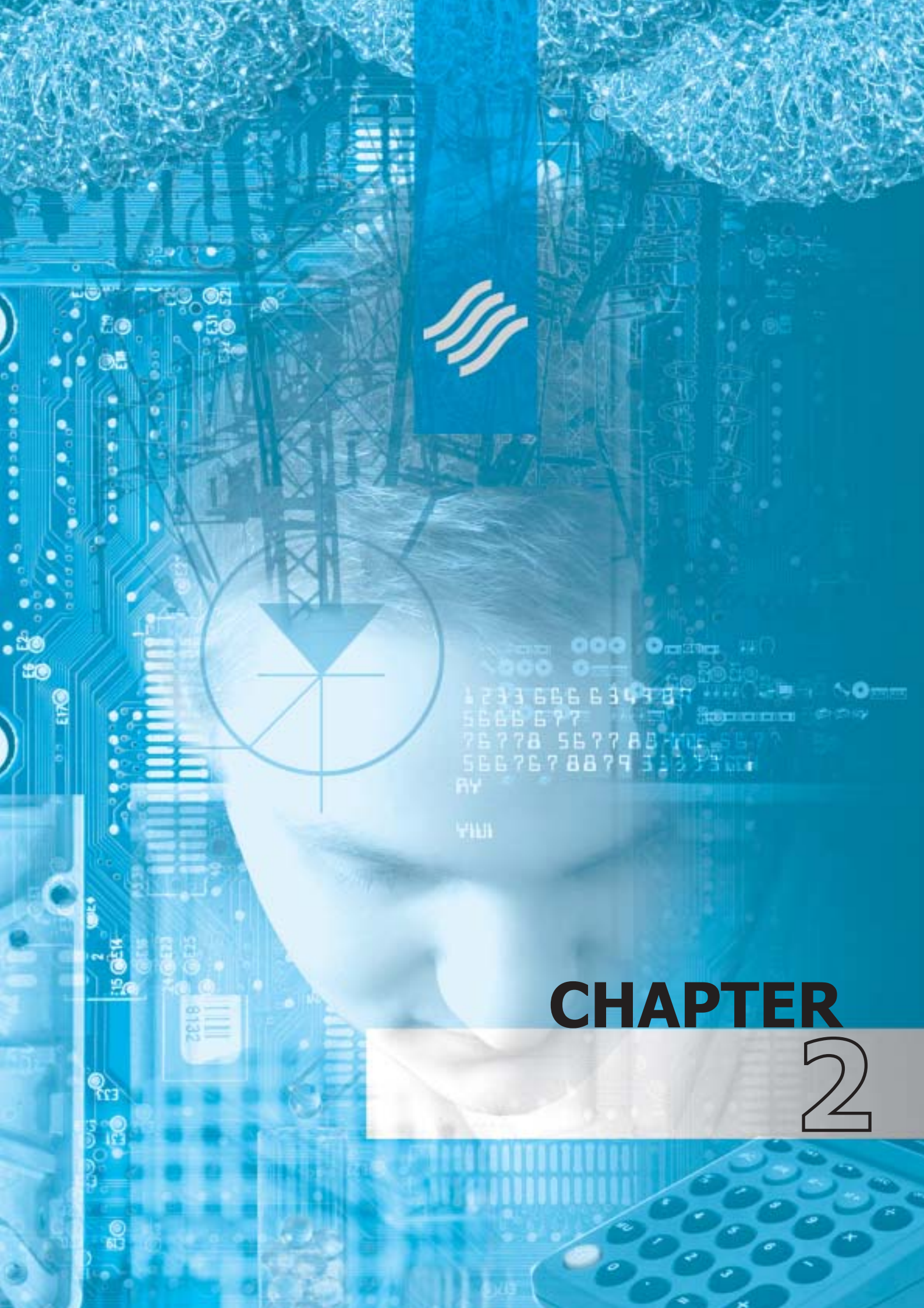
However, the companies from the SME sector of the Śląskie Voivodeship are regarded as a group where number of new products or technologies implemented by a single company is the highest. At the same time, they have the biggest share of process innovation (over 60%) in the total number of innovations in Poland. Exploiting the innovation potential of SME may be of great importance as for the region's restructuring process and raising its competitive position.

The Regional Innovation Strategy RIS-Silesia is directed mainly to SMEs. Industry is the driving force behind creating new technology solutions. It must be emphasised that a strong industry sector demands a wide range of more and more specialised services. A survey carried out among 300 SME in the Śląskie Voivodeship has indicated that they can be divided into 3 groups as for their innovativeness.

SME innovativeness in the Śląskie Voivodeship		
Very innovative companies	**Medium innovative companies**	**Low innovative companies**
Modern, open for innovation and active Innovative solutions are new on the domestic and international market Supralocal nature of sale structure (domestic and foreign market dominate) High dynamics of changes in employment (rise)	They have limited and less stable contacts with a small group of partners Lack of a determined development strategy Innovation is new only for the company itself, on the local and domestic market Medium dynamics of changes in employment (rise and fall)	Focus on surviving Low interest in innovation Innovative solutions are new only to the company itself Local nature of sale structure (local sale markets dominate) Stagnation in employment
Approx. 10% SME	Approx. 60% SME	Approx. 30% SME

[8] Edward Stawasz *„Innovation needs of the SME sector in the Śląskie Voivodeship"* carried out in the framework of the RIS-Silesia Project.

The SME sector in Silesia is diverse as concerns innovativeness, way of implementing of innovation related activities and relations with other institutions. Therefore, the policy of innovation support should include a wide range of different instruments which could lead to a higher competitiveness of SME which would, in turn, result in strengthening the economic position of Silesia among the other regions of the European Union.



CHAPTER 2

2.1 The SWOT analysis on innovation in the Śląskie Voivodeship

The SWOT analysis on innovation in the Śląskie Voivodeship has been prepared on the basis of the analyses "Innovation needs of the SME sector in the Śląskie Voivodeship", "Potential of supporting institutions in Śląskie Voivodeship" and "Innovative potential of research and development sector in Śląskie Voivodeship" and it has been discussed during workgroup meetings of the Regional Innovation Forum organised within the RIS-Silesia project.

Strengths	Weaknesses
• There is a group of innovative companies characterised by stable position in supra regional markets. • Large amount of companies which implement new solutions in the area of a product, production method or organisation to business practice. • Large amount of sale of new or modernised products/services in total amount of sale. • Employment rise in companies of higher innovation. • Ability to use production and trade relations as an information source for inspiration and development of product and technology activities. • A great number of companies using internet to get information. • Main SME partner in the field of innovation are other SME – possibility to implement innovative solutions already tested. • Rising potential of business support institutions and their influence on economic development. • Strong orientation of business support institutions on activities connected with advisory and training for SME. • Business support institutions activity is strongly oriented to SME. • High potential of the R&D sector. • Better and better co-operation between the regional R&D sector and foreign centres. • Access to technology and scientific research due to increased participation of the regional R&D sector in foreign projects. • High share in income of the R&D sector resulting from carrying out projects for SME and industry.	• Relatively low level of modern solutions implemented by companies (products, technology, materials) which allows only maintaining status quo but not its developing. • Lack of involvement of employees in creating innovative solutions. • Low interest in information which determine starting undertakings technology related processes. • Low export share in total sale. • Limited co-operation; lack of confidence is the main barrier for networking between companies. • Lack of measures to finance innovation results in implementing only low-cost changes; main source for innovation financing are own resources. • Lack of knowledge on possibilities to exploitation different financial instruments. • Lack of strategic thinking in management of the company. • Lack of involvement of employees in determining training needs and insufficient knowledge on training offer available. • Underestimating existing specialised sources of information. • Underestimating the role of the R&D sector as an important partner for SME in the innovation area. • Low estimation of quality and usefulness of relations with business support institutions. • Low work costs are still estimated as the most important competitive factor. • Poor orientation of business support institutions to activity in the field of specialised services related to innovations. • Lack of skilled personnel in the area of innovation and technology transfer in business support institutions. • Too many business support institutions double their activities. • Lack of regional leaders who could initiate regional innovative undertakings. • Lack of confidence and flow of information among business support institutions. • Structure of services rendered by business support institutions is not adapted to SME needs. • Lack of knowledge on R&D institutions, their offer and possibilities of technology transfer. • Lack of developed financial system for innovative undertakings.

Strengths	Weaknesses
	• Due to historical reasons, R&D offer is directed mainly to big industry in traditional sectors. • Employment structure in the R&D sector, ageing personnel. • Lack of ability to increase innovation resources (patents, publications, licences) in the R&D sector. • Low estimation of SME as potential clients by the R&D sector. • Lack of confidence and co-operation in the R&D sector. • Lack of ability to promote own achievements.

Opportunities	Threats
• European and global economy revival. • Attractiveness growth of the region as a place of capital allocation and investment in new sectors coming from outside the region. • Acceleration of modernisation and improvement of efficiency in all sectors resulting from better transfer of innovative techniques and technology. • Creating conditions which enable company specialisation, segmentation and taking advantage of market niches. • Supporting initiatives of network nature by appropriate number of companies. • Creating financial instruments within the Structural Funds which enable to support undertakings connected with innovation position and competitiveness improvement of companies in Silesia. • Creating financial instruments within the Structural Funds which enable to support undertakings connected with skills rising of the R&D sector employees and business support institutions. • Possibility to participate in European framework programmes for SME and the R&D sector. • Adjusting government financial instruments supporting innovation to companies requirements and the R&D sector possibilities. • Development of capital market which finances implementation of new technologies and better access of SME to the capital. • Achieving EU ecology standards through modernisation of companies, implementation of new technologies, improvement of goods quality, development of research and scientific and technical co-operation. • Promoting Internet as a tool which improves flow and collecting of information.	• High fiscal level and incoherent tax system. • Ever-changing legal system and related uncertainty. • Ineffective restructuring of the region economy – too much concentration on traditional industry sectors; lack of vision to support future sectors of the region development. • Old infrastructure (roads, media, industry areas) not adapted to modern economy requirements. • Too high state share in structure of company ownership. • Lack of solutions enabling easy access to external financing of innovation activities. • Fall of expenditures for innovation activity of companies. • Fall of production and employment in high-tech industry. • Sales market limited. • Lack of access to information on financing sources for innovation activity, on EU programmes, on new technologies, potential partners. • Legal status of business support institutions (joint-stock company, limited liability company) preventing from using funds available to associations, foundations which also support SME activity. • Lack of integrated support system adapted to SME needs, to small companies in particular. • Lack of favourable business climate in the region. • Bureaucracy, influence of politics on economy. • Lack of comprehensive regional policy of supporting new companies. • Lack of flexibility in R&D financing system. • Lack of incentives to develop co-operation between the R&D sector and SME. • Lack of efficient communication and information system. • Lack of system enabling flow of young personnel to the R&D sector. • Lack of conditions to increase innovation resources (patents, publications, licences).

2.2 Scenarios concerning economic development of the Śląskie Voivodeship for 2013

During workgroup meetings of the Regional Innovation Forum (within the RIS-Silesia Project), the participants of the Forum have drawn up two economic development scenarios for the Śląskie Voivodeship up to 2013. These scenarios show different situations which can determine the economic development of the region in the future. They have been used to draw up the Regional Innovation Strategy and they will also enable verification of the strategic directions.

Question	Positive scenario	Negative scenario
What will the region economy evelopment be by 2013?	• Strengthened competitive position of Silesia economy in comparision to other regions in the European Union. • High level of confidence between economic, scientific and political environment. • Effective restructuring of traditional sectors. • Limiting damaging influence of industry on environment. • Development of hi-tech industry. • Optimum exploitation of IT and telecommunication technology, biotechnology and material engineering in traditional industrial processes. • Developed sector of B2B (business to business) services – services for business. • Developed sector of services which fit new demands of local societies (related to health, leisure). • Higher export level of goods manufactured in the region for European and world markets. • Strong local government able to react quickly on possibilities for development of local economy. • High level of qualifications and mobility of human resources; optimum system of education and training adapted to labour market needs. • Expert groups appointed by economic, scientific and political environment which focus on foreseeing economic and technological trends and on preparing suitable instruments of SME support. • Optimum system of SME support including different packages of specialised services. • Improved flow of information between scientific environment, business support institutions and enterprises. • Increase the number of SME which generate workplaces. • Effective co-operation between SME and R&D units. • Creating joint-ventures with foreign enterprises. • Development of industry sectors due to SME networks.	• „Poor years". • Never-ending political disputes about economy influence centres. • Maintaining existing traditional industry structure with no idea of development of new sectors. • Economy stagnation and unemployment rise. • Stopping privatisation of state-owned companies. • Destructive competition, dumping prices, breaking rules of fair competition. • A „monoculture" model of economy becomes established (e.g. automotive industry). • Ineffective exploitation of the EU Structural Funds. • Lack of interest in innovation. • Lack of willingness to take a risk resulting from lack of developing perspectives of the economy. • Lack of ability to adapt companies to requirements resulting from the EU standards and directives. • Lack of possibility of regional companies to win in competition with European companies. • Education profile non adapted to new economic requirements limits access to labour market. • SME support services non adapted to companies needs. • Lack of strong R&D centres. • Untapped potential of young skilled people.
What will its main features be in 2013?	• Dynamics, flexibility, mobility, innovations, quality, ability to take a risk, productivity, competitive advantages, progress, excellence, specialisation. • Ability to create new technologies and products by scientists and entrepreneurs working in networks.	• Inaction, apathy, migrations, lack of confidence, isolation.

Question	Positive scenario	Negative scenario
What will the development of the regional SME be by 2013?	• Growing feeling of economic stability. • Tax regulations encouraging to invest in innovation activity. • Low interest rates of investment loans which allow better exploitation of market chances. • SME support system assuring access to the EU Structural Funds. • Growth of SME involvement in economic development of the region. • Consolidation of SME which enables strengthening market position and easier access to capital. • Despite difficulties, SME sector will survive and it will even compete on foreign markets. • Strong and stable co-operation among companies of the same sector on the basis of range completion. • Outsourcing enables developing of specialised SME which make use of modern technologies.	• Ineffective reform of law, frequent political changes resulting in economic uncertainty. • Lack of strategic thinking among SME. • Lack of co-operation among SME. • Bankruptcy of many SME due to weak position on the market. • SME will depend on monopolists. • Lack of SME ability to adapt to the EU open market requirements. • SME move to grey market. • Lack of access to information and high cost of research in the field of innovation weaken regional SME towards SME from other regions. • SME will be too weak to compete on the European and world market. • Lack of conception to determine a method of SME support. • Limited purchase power in the region. • Lack of measures to finance necessary investments.
What will its main features be in 2013?	• Innovation, flexibility, ability to take a risk, productivity, mobility, competitive advantages, progress, excellence, specialisation.	• Lack of specialisation, lack of confidence, isolation, dishonesty.

Question	Positive scenario	Negative scenario
What will development of the research and development sector of the region be by 2013?	• Determined vision of the R&D sector role in economy development including support for new sectors. • Restructuring of R&D institutions which are oriented to big economic entities from traditional sectors of the economy. • Development of the R&D sector based on highly specialised private research units. • Developed networks between the R&D sector and industry enable adapting offer to market needs. • Rise in expenditures on innovation in industry allows developing appropriate research. • Well-functioning financial system for R&D activities based on EU and domestic measures which lets the R&D sector strengthen flexible co-operation with SME. • Arising of innovative companies which implement new technologies; easy access to new technologies; personnel able to implement their innovations effectively. • Younger personnel will increase the R&D sector dynamics.	• Lack of vision of the R&D sector role in economy development decreases its significance. • Liquidation of many R&D institutions; no new units to replace them. • Decrease in demand for the R&D sector, strong competition of foreign centres. • Lack of external financing of R&D activities forces the R&D sector to focus on surviving and does not allow taking a technology risk. • Further functioning of the R&D sector in disappearing sectors and lack of orientation to new technologies. • Lack of ability to co-operate with SME. • Better R&D centres will be bought out by foreign capital.

Question	Positive scenario	Negative scenario
		• Taking-over of innovation transfer by research units in big international corporations will lead to implement only old technologies in the region. • Ageing tendency in the R&D sector will maintain; young researchers and designers will work as sub-contractors in European co-operation networks. • R&D centres in the hands of foreign institutions carry out only research ordered from abroad.
What will its main features be in 2013?	• Mobility, sensibility to market requirements, accessibility, flexibility, ability to foresee.	• Lack of specialisation, lack of confidence, isolation, inaction towards market changes.

Question	Positive scenario	Negative scenario
What will the relations between the R&D sector, industry and business support institutions be by 2013?	• Regional Innovation System will be created, which will assure appropriate R&D capability for industry, good flow of information, involvement of external measures which allow decreasing costs of R&D activities. • Functioning of strong clusters in the region. • Increase the number of professional sector training in different fields (finance, new technologies etc.). • High technical culture and adapting scientific solutions in industry. • Expert groups appointed by economic, scientific and political environment which focus on foreseeing economic and technological trends and preparing suitable instruments for SME support.	• Lack of system solutions or co-operation conception, lack of determination of common objectives. • Autonomy and dispersed attitude of the R&D sector and SME result in low efficiency of implemented innovations. • The R&D sector will look for partners outside the region (e.g. in the EU).

2.3 Vision on the role of innovation in the Śląskie Voivodeship

In the last century, the industry situated in the region was one of the most developed in Central and Eastern Europe. Tradition and diligence resulted in economic development of the region. The technology level and solutions applied in its industry were an example for other regions. Nowadays, restructuring of Silesia's economy is associated with dismissals, unemployment and social degradation. Its development potential and its characteristics that could be involved in strengthening competitiveness of its economy are not much emphasised.

Regional Innovation Strategy will support development of a constructive climate for innovation in the Śląskie Voivodeship in a way that creativity and synergy through co-operation in the process of elaborating, improving and implementing innovative solutions will contribute to a raise of the region's innovative level strengthening the competitiveness of the region's economy in comparison to other regions in the European Union.

2.4 Intentions and milestones

Some criteria have been adopted to verify the dynamics of the strategy performance. Selected intentions which should be observed in particular stages of implementation of activities resulting from the strategy are presented below:

1 Regional Innovation System based upon networks between business support institutions, the R&D sector, local self-governments and companies ready from 2005.

10% rise per year in the number of registered patents from 2008 on.

100 new innovative SMEs established, based upon technologies from R&D institutes and institutions of higher education by 2008.

1 000 SMEs engaged in about 15 local and regional clusters by 2008.

10 000 students per year involved in innovation and entrepreneurship promoting activities from 2005 onwards.

100 000 persons employed in medium-high an high technology sectors from 2013 onwards.

Carrying out these milestones depends on involvement of specific institutions of the R&D sector, institutions of higer education, business support institutions, finance sector institutions, local governments, large companies and – which is the most important – small and medium enterprises in the Śląskie Voivodeship in determined undertakings which promote, create and implement innovations.

2.5 The structure of the Regional Innovation Strategy of the Śląskie Voivodeship 2003-2013

MISSION	***IMAGINATION CREATES REALITY***					
VISION	**Regional Innovation Strategy will support development of a constructive climate for innovation in the Śląskie Voivodeship in a way that creativity and synergy through co-operation in the process of elaborating, improving and implementing innovative solutions will contribute to a raise of the region's innovative level strengthening the competitiveness of the region's economy in comparison to other regions in the European Union.**					
STRATE-GIC AREAS	1. Increasing the share of very innovative companies in the total number of small and medium enterprises		2. Increasing the exploitation of research and development potential		3. Assuring efficient Regional Innovation System based on mutual confidence, creativity and excellence	
STRA-TEGIC OBJEC-TIVES	1.1. To increase level of confidence among companies through improving business climate	1.2. To support excellence in SME	2.1. To strengthen excellence in the R&D sector	2.2. To introduce technologies in the R&D sector that are necessary for economic development	3.1. To develop partnership co-operation in favour of innovation	3.2. To support development of new innovative products and companies
AIMS (OPERATIONAL OBJECTIVES)	1.1.1. To increase accessibility of SME to useful information 1.1.2. To optimise financial system for innovative activities of SME 1.1.3. To tailor training and advisory offer in the field of innovation to SME needs 1.1.4. To increase influence on administrative, legal and economic environment 1.1.5. To exploit best practices as inspiration for SME to start innovative undertakings	1.2.1. To strengthen strategic thinking in SME 1.2.2. To promote innovative culture in SME 1.2.3. To support effective exploitation of market potential on the Common European Market by SME 1.2.4. To support exploitation of information technology (ICT) in SME	2.1.1. To support innovative culture in the R&D sector 2.1.2. To support market reorientation 2.1.3. To increase participation in international co-operation networks	2.2.1. To support specialisation of the R&D sector operating in traditional sectors 2.2.2. To support creation of new specialisations in R&D activity 2.2.3. To promote best practices as regional business-card	3.1.1. To develop sector co-operation with SME 3.1.2. To create flexible network structure in favour of innovation 3.1.3. To support foresight	3.2.1. To promote industrial design and product development 3.2.2. To increase the use of industrial property right 3.2.3. To support innovative culture in education system 3.2.4. To support setting up of innovative companies 3.2.5. To facilitate technology transfer

CHAPTER 3

Strategic fields, aims, objectives, development directions of the Regional Innovation Strategy of the Śląskie Voivodeship 2003-2013

3.1
Increasing the share of very innovative companies in the total number of small and medium enterprises

3.1.1.
To increase level of confidence among companies through improving business climate

Objective:
To increase accessibility of SME to useful information

Globalisation and greater significance of knowledge, including information, requires from SME effective management of internal and external knowledge while maintaining competitive advantage. At the same time, suppliers of information should see to it that information is: comprehensive, current, easy to use, adapted to SME needs, supplied as fast as possible.

The survey carried out within the RIS-Silesia project has indicated that customers, fairs and exhibitions as well as specialist press are the most important sources of information for SME which they use for inspiration and development of innovative undertakings. Collecting information in this area is based mainly on existing informal relationships. Specialised sources of information such as consulting companies, patent units, institutions within the R&D sector and technology transfer centres are of limited importance as sources of information. Nevertheless, they play an important role in supplying specialised information in the innovative economy. Information available in the innovation field is often incomplete, out-of-date and too general. Therefore, finding useful information is very expensive.

Apart from information on technological and innovative solutions, SME need to receive exact, current, full and on time information on: financial sources for innovative undertakings, training and advisory offer, market situation and legal regulations.

Therefore, it is necessary:

To increase SME accessibility to useful information on:

- financial sources for innovative undertakings including EU programmes,
- new technologies and innovative solutions available for SME,
- the ability to use legal regulations concerning the protection of industrial property,
- training and advisory offer,
- the offer of specialised services from business support institutions and R&D institutions (such as certification and expertise),
- legal regulations including requirements under EU directives,
- market trends,

through:

- convincing business support institutions and R&D institutions that creating a common regional system of information for SME is vital,
- creation and development of a regional information system within the Regional Innovation System.

Objective:
To optimise financial system for innovative activities of SME

The main way of financing innovation consists of own resources of companies (70% of all resources). As far as small enterprises are concerned, limited own resources restrict significantly scope and frequency of implemented innovative solutions.

A limited access of small enterprises to external financing is regarded as one of the main reasons for their poor competitive position on their main markets. SME indicate a hostile position of banks towards their needs (high collateral, high commissions, lack of confidence, time-consuming and laborious procedures). The problem is typical for any small enterprises, and it concerns in particular innovative enterprises, where a part of assets is intangible (e.g. patents, know-how).

SME have difficulties in financing their direct investments designed for purchase of new machines (production lines) and in gaining financial means for: certification, specialised services, use of specialised equipment and machines of R&D institutions.

In the Śląskie Voivodeship, besides banks that offer services for SME, there are also 14 other institutions such as guarantee and loan funds and 3 investment funds of venture capital type. However, they often refuse to finance investment and innovative undertakings of SME due to the high risk. The lack of vision concerning the regional system of financing innovative activity may result in weakening the competitive position of SME from the Śląskie Voivodeship in relation to their European competitors in the common market. The measures coming from the European Union within the Structural Funds (investment grants, co-financing of training and advisory activities, co-financing research and development activity etc.) may constitute one of the financial sources for innovative activity.

Therefore, it is necessary:

- To tailor existing financial instruments and to develop the new ones so that they would satisfy SME specific needs in the field of investments for innovation and development.
- To introduce methodology of intellectual property evaluation in financial institutions.
- To create a system of financial support within the Structural Funds which allows co-financing for: research in favour of SME including co-operation with the R&D sector; implementation of research results in SME; certification of goods; specialised services in the field of innovation.

Objective:
To tailor training and advisory offer in the field of innovation to SME needs

Technical information, techniques and methodologies of techniques introduction can be imported to the Śląskie Voivodeship. However, an effective use of innovative solutions requires an ability to learn and to adapt to the new reality. The grounds for development of SME consist of managers' ability to take advantage of others' knowledge. Employees' ability to work effectively in an innovative environment also leads to increase SME efficiency.

Small companies in particular have little information on training and advisory offer available, they estimate it as poor (the information is too general and the cost is too high in relation to profits) and they do not regard it as very important. Moreover, most of the companies receive information on available services only accidentally and not on a regular basis. This situation can threaten the effective exploitation of the resources potential in the company and can result in low productivity.

The survey carried out among a representative group of 300 SME has indicated that very innovative companies need very specialised advisory and training packages. On the other hand, according to the companies of low and medium innovativeness there is a lack of integrated quality training and advisory offer in the field of strategic management and introduction of innovation to a company. For the group of companies of low and medium innovativeness, it is necessary to create a training and advisory system which would include the offer in the field of: development and implementation of a development strategy based on new technologies and innovative solutions; design and implementation of certified systems of quality, environment, labour safety management; receiving certificates of conformity for goods, materials, machines, control and measurement apparatus and personnel as well as granting the CE mark etc.

Therefore, it is necessary:

- To tailor offers of institutions which deal with training, advisory and innovative services to SME needs.
- To monitor constantly SME needs in the field of training.
- To develop and promote training packages for companies of low and medium innovativeness.
- To facilitate, in case of medium companies in particular, employing specialists who could run the training at the site.
- To promote permanent training and to support the ability of efficient knowledge gaining.

Objective:
To increase influence on administrative, legal and economic environment

SME often believe that existing administrative and legal environment is unfavourable for their development. The inability of an individual company to react to external situation results in non-taking decisions of high risk. Moreover, administrative procedures are time-consuming and expensive. However, there are different bodies dealing with lobbying in favour of innovation development, but they are not regarded by SME as right institutions to act on their behalf.

The economic activity of the Śląskie Voivodeship is still associated with traditional sectors. It raises some difficulties for innovative companies which operate in other sectors to gain new markets outside the region. To change this situation, supra regional lobbying, which would promote achievements of innovative companies from the region is necessary. Unfortunately, lobbying is still of an informal nature, where personal relations are used usually to bring in individual profits. There is no idea how to organise lobbying for a bigger group of entities of the same interests.

Therefore, it is necessary:

- To support a debate how to run the regional lobbying.
- To develop lobbying instruments based on existing initiatives.

Objective:
To exploit best practices as inspiration for SME to start innovative undertakings

Successful SME are the best inspiration for other SME. In the Śląskie Voivodeship a lot of associations, chambers of commerce, magazines editorial offices etc. organise regular competitions for the best company, manager, product or technique. This is an opportunity for SME to present their achievements and to serve as an example for others. However, such initiatives are short-term. The experience of good companies as a source of information for other SME which have a development potential is rarely used. At the same time, due to the Polish mentality, companies are afraid of usefulness and effects of promoting their own achievements. Many companies believe that such activities are wrongly regarded by the environment. Also, competitive companies as well as bodies of public control become more interested in their activity.

Therefore, it is necessary:

- To develop existing initiatives of rewarding best practices and ensuring their continuity.
- To persuade SME that sharing experience and using best practices is necessary and profitable.

3.1.2 To support excellence in SME

Objective:
To strengthen strategic thinking in SME

Company efficiency is assessed through the level of productivity and ability to decrease costs. Difficult access to financial resources, less effective marketing and advertisement as well as higher costs of production and lower productivity resulting from lower production level lead up to a decrease in SME competitive level. Over 50% of questioned SME indicated that they would be able to improve their competitive position by means of: modernisation of used technologies and implementation of new products and designs, cost reducing and improvement of distribution channels. However, to master innovative solutions to a competitive level, it is necessary to acquire new skills, technical information, organisational techniques as well as marketing and supplying methods.

Investments in the field of innovation are often related to high risk. It is not always possible to determine the effects of implementation of innovative solutions. Therefore, entrepreneurs must convince financial institutions (banks, funds etc.) which offer the necessary capital for investment that the risk they bear is minimal, and the undertaking is profitable. It requires a good business plan

and a strategic thinking from the part of entrepreneur.

Due to limited access to resources and unstable environment, strategic thinking of SME managers is indispensable for taking key decisions. Yet, the survey has indicated that 1/3 of companies is unable to determine 3 key development priorities.

Therefore, it is necessary:

- To promote strategic thinking among SME top management and their acquiring skills necessary to be successful on the common European market.
- To develop the offer of business support institutions in the field of development strategies and business plans for SME.

Objective:
To promote innovative culture in SME

Innovative company management requires from managers attitudes that allow providing company management in an open and communicative way. It is vital to support thinking about the own company in an atmosphere of continuous change in order to improve the situation in that company.

To be innovative does not always mean to carry out expensive research, to implement the newest technique or to invest in expensive machines. Employees who use their practical experience may constitute a rich source of innovative ideas. Sometimes, simple organisational or technical solutions suggested by employees can result in decreasing costs or increasing productivity. Managers should enable employees to show their entrepreneurial skills including responsibility, loyalty, own initiative, confidence, work in groups and improving skills by means of common practices.

Main partners in the field of innovation for SME are other SME. Nearly 60% of questioned SME co-operated with other enterprises in the field of development and implementation of innovative solutions in the last three years. However, co-operation is often limited to a few partners which can lead, with time, to a wrong perception of the environment. Main barriers in co-operation include: lack of confidence to partners, scepticism as for profits and inability to find appropriate partners. Furthermore, the lack of possibilities and places to get in contact with other SME is underlined. SME co-operation with other economic entities turns out to be profitable as it can ensure access to new markets, and it can lead up to create new products and technologies and to build a better company image.

Therefore, it is necessary:

- To raise management awareness as for profits resulting from involving their own employees in development of innovative solutions.
- To create a sustainable platform for contacts among SME to streamline better relations, exchange of experience and co-operation – development of activities which enable increasing confidence among SME.

Objective:
To support effective exploitation of market potential on the Common European Market by SME

Poland's integration with the European Union creates new possibilities to extend the economic activity of SME through export or sub-contracting within international networks. The survey carried out among Silesia SMEs has indicated that most of them operate in the local market. It is wrong to believe that a strong position in the local market does not require any defence against foreign companies competition. The same refers to good products of Polish SME which are not properly certified or they do not meet standards resulting from the European Union directives including safety and environment protection. Therefore, the Common European Market will create new possibilities for those SME which are well prepared and it will threaten with bankruptcy those which are not prepared. Due to a developed competition among SME operating on the Common European Market, many Polish SME will be forced to search market niches and specialisation, which will let them find a stable position on the market.

Supporting SME in adjusting to the European Union legal requirements should be an important element in SME preparation to an effective share on the Common European Market. It would allow them to fight competition in the European markets. Furthermore, it will be necessary to introduce the best technologies and practices available in SME according to a principle of a "new attitude to technical harmonisation" which means that only products that meet determined requirements will be introduced on the market.

Therefore, it is necessary:

- To raise awareness of SME on advantages and threats resulting from a share on the common European market.
- To support development of skills in the area of export, implementation of quality systems and European Union standards as well as receiving certificates.
- To support SME skills in the area of specialisation and exploiting market niches.

Objective:
To support exploitation of information technologies (ICT) in SME

It is difficult to imagine our life without a computer, a machine without a computer control, or work in a company without standard and specialised software. The ICT leads to new models of work organisation as well as to faster spreading and using information. New ways of running marketing and business with customers and suppliers within the e-business are not widely used. At the same time, the e-learning creates for SME a possibility to gain knowledge in a flexible way tailored to conditions.

The survey carried out among SME has indicated that more than 70% of companies use Internet as an instrument for searching information. ICT solutions can be very useful in a management process and production optimisation. Implementation of the solutions often requires from company employees the ability to adapt to it and to have an additional training.

Therefore, it is necessary:

- To promote ICT culture.
- To promote possibilities of using ICT in SME.
- To raise SME awareness on advantages of running e-business and e-learning.
- To support implementation of ICT technologies in SME.

3.2 Increasing the exploitation of research and development potential

3.2.1 To strengthen excellence in the R&D sector

Objective:
To support innovation culture in the R&D sector

People are a real source of competitive advantage of the region economy. Therefore, it is important for the research and development environment to focus on adapting to new requirements in the economy and social life. Developing inventions and new techniques is rather risky. The way of rewarding employees who take risks influences their innovative behaviour. Therefore, to prepare scientists to new challenges, it is important to support those who take risks, who search new and more effective solutions and who do not approve of the existing situation.

In R&D institutions, an environment should be created where openness is promoted, information is available for employees and where they are able to communicate directly and to exchange their opinions. The R&D sector employees should be supported by their institutions. They should have a possibility to run activities according to their own interests, in institutions of higher education, in particular; they should have a free hand which would enable them to develop many valuable ideas. Employees who are offered freedom, who are encouraged to develop their own ideas are more creative. Besides ensuring favourable environment, a crucial condition for increasing innovation in the R&D sector consists of facing employees with ever higher requirements.

Therefore, it is necessary:

- To raise awareness of the management of R&D institutions on advantages resulting from increasing employees involvement in defining new problem areas, in developing innovation solutions and setting up new innovative companies.
- To increase entrepreneurship abilities among employees of the R&D sector.

Objective:
To support market reorientation

The R&D sector activity directed mainly to satisfy research needs of large companies from traditional sectors has been diversified in the last years. SME often become clients of these institutions. However, the lack of a marketing attitude in R&D institutions and complicated procedures make SME regard the co-operation with the lack of confidence.

To meet European market requirements, it is necessary to create possibilities for Polish SME to gain technologies that fulfil determined requirements. This situation will force the R&D sector to

a comprehensive reorientation as for their way of activity, which could be carried out by means of adjusting their range of research to the market needs and by means of a simplification of procedures concerning research and development co-operation.
It would be also helpful to create scientific and industrial centres of advanced technologies or centres of excellence where new quality standards for offers designed to SME would be prepared.

Furthermore, attempts that SME make to solve their problems can be a source of ideas for new technologies and products. The process of involving SME by the R&D sector in technology and innovation market should enclose the following stages:

1. Identification of important trends as for market or technology.
2. Identification of leading SME, through their experience, needs and modernity level.
3. Analysis of their needs.
4. Location of SME needs in the general situation on the market.

It requires from the R&D sector more flexibility as for procedures of entering into and maintaining the co-operation with SME.

Therefore, it is necessary:

- To develop and implement flexible procedures in the R&D sector for the co-operation with SME.
- To develop analysis methodology of SME needs and market trends.
- To make necessary information on market trends available to SME.

Objective:
To increase participation in international co-operation networks

The life of new technologies is ever shorter which result in increasing risk of technology success for a carried research. Therefore, access to and exchange of information on similar research carried out in other countries through international co-operation is vital. The Framework Programmes of the European Union create wide possibilities of participation in international co-operation networks and a possibility to be granted financial support for such activity.

The international co-operation is one of the most important ways of spreading opinions and access to information. At the same time, it enables benchmarking of own achievements in relation to the global level.

Therefore, it is necessary:

- To promote „benchmarking" as an important element for optimal development of the R&D sector on the common European market.
- To promote advantages resulting from participation in international co-operation networks.
- To create a system of information on possibility of participation in international co-operation networks.

3.2.2 To introduce technologies in the R&D sector that are necessary for economic development

Objective:
To support specialisation of the R&D sector operating in traditional sectors

In the Śląskie Voivodeship the research and development activity is still concentrated on traditional economic sectors in the region. Nearly 70% of analysed R&D centres are involved in sectors listed among low and medium-low-tech. This is regarded as a threat for the R&D sector in the Śląskie Voivodeship. However, it does not mean that the past should be forgotten and that one should focus only on development of the R&D activity in high and medium-high-tech sectors.

Strengths within the traditional activities of the R&D sector should be separated and supported through specialisation in market niches not only on the regional but also on the international level. Running R&D activities in integrated R&D centres which gather scientists with great achievements and who co-operate with economic environment in the area of common research subjects would be of much use. Such groups of scientists should have access to the equipment of state-of-the-art standard which would ensure carrying out research on the highest technical level.

Therefore, it is necessary:

- To support specialised expert groups appointed to solve particular research problems.
- To support creation of integrated research institutions.
- To ensure appropriate technical level of scientific and research infrastructure.

Objective:
To support creation of new specialisations in R&D activity

The presence of traditional industry does not necessarily have to slow down economic development, however the presence of outdated technologies forms a threat for its competitiveness. The success of new technologies depends on their use. Some techniques are used in different economic areas. Their effective exploitation in a production process is often decisive as for better product quality, higher productivity and decrease in production costs. It concerns in particular: IT, optical electronics, industrial automation, material engineering and bioengineering.

Technologies of industrial automation and material engineering developed by the regional R&D sector are successfully integrated in the traditional industry. In other technology areas, however, such as bioengineering and optical electronics, it is necessary to create specialised centres based on institutions - which are currently operating in a dispersed way - capable of working out innovative solutions.

In the Śląskie Voivodeship, there are many great scientists that have high-standard scientific equipment at their disposal, which can lead up to development of new specialisation in the field of:

- Biotechnology including bioengineering and health technologies.
- Technologies for energy sector including technologies of energy production from renewable sources, combustion and thermal recycling of waste as well as energy saving.
- Technology for environment protection including biogeochemical engineering and waste management.
- Information and telecommunication technology.
- Production and processing of materials including advanced materials.

Their development requires from R&D institutions – in particular from institutions of higher education – analyses of the current situation concerning innovation related resources including human resources and technical capability in the above-mentioned areas of the R&D sector. The results of such analyses should answer the question: "Shall we build further upon the existing research base, or shall we start to create directions from the very beginning?" Moreover, the participants of the Regional Innovation Forum – RIS Silesia suggested that great scientists from outside the region should be involved in order to create new expert groups and develop new future technology areas.

Globalisation of the world market has resulted in a concentration of production which has been growing along with the technical progress in the last years. The life cycle of new technologies is ever shorter resulting in increased risk of technology success for research. Therefore, the R&D sector must be aware that specialisation in all modern technology areas is purely impossible. However, these technologies are necessary for the industrial development. Consequently, the sector must choose whether to continue to support research in own laboratories and to implement their results or to gain new technological solutions from other countries by means of: licences import, purchase of technical devices which carry out new technologies and investment undertakings in which technology suppliers could participate.

Therefore, it is necessary:

- To run constant internal analyses with participation of experts from economic environment in order to evaluate the condition of the R&D base.
- To develop and to implement by a regional expert group (representatives of economic and scientific environments) a technology development programme focusing on new scientific specialisation.
- To determine selection procedures concerning own elaboration or import of technologies necessary for the economy, including adaptation of technologies to regional conditions.

Objective:
To promote best practices as regional business-card

Great innovative solutions without effective marketing often fail. Weaknesses in the R&D sector in the Śląskie Voivodeship include lack of information on useful innovative achievements and lack of promotion of specialisation and unique character of the R&D base. The technological risk requires from those who offer innovative solutions to be close to customers and to involve them from the very beginning in the development process of such solutions.

Therefore, it is important to concentrate more on the idea leading to an innovative solution than on the solution itself. It enables to support a long-term marketing process and to support favourable climate around the R&D sector activities, which in some cases (biotechnology, environment protection) will lead to a higher level of acceptance by society. Promoting the R&D sector achievements on a large scale in schools and institutions of higher education could become an effective instrument of increasing motivation among young people to encourage them to start their career in the R&D sector. Furthermore, regional marketing worked out commonly by R&D institutions in the field of technical area could be used to gain direct foreign investments of an innovative nature to the Śląskie Voivodeship.

Therefore, it is necessary:

- To raise awareness among R&D institutions on advantages of common marketing in technology areas.
- To create different marketing programmes directed to: SME, potential foreign investors and students.

3.3 Assuring efficient Regional Innovation System based on mutual confidence, creativity and excellence

3.3.1 To develop partnership co-operation in favour of innovation

Objective:
To develop sector co-operation with SME

SME development possibilities are often determined by the company size (limited resources). It can result in: difficult access to data and information, limited possibility to provide employees with conditions to raise qualifications or to acquire new skills, limited access to financial resources for market expansion or for purchasing technology and feeling of lack of influence on government policy. The analysed SME confirm that limited access to external sources of financing, less effective marketing and less efficient distribution channels have a negative impact on their competitive position. Moreover, higher production costs and lower productivity slow down their development. Lower labour costs are still the most important competitive factor for most SME (70% of analysed companies) but its role will decrease in future as salaries will rise in Poland.

Some traditional industry sectors will still play an important role in the regional economy. The energy sector and mining industry involve many SME. First networks have already been created around them. Similar initiatives are observed in the tourist sector thus improving quality and accessibility of services.

Furthermore, a great share of SME in 10 outstanding sectors of industrial processing (data from the end of 2001) was observed while taking into account: number of entities of the domestic economy, amount of sold production, number of employees, level of investment expenditures and expenditures for innovative activity:

- production of chemicals, chemical articles, and synthetics,
- production of machines and equipment,
- production of machines and electric apparatus,
- production of mechanic vehicles, trailers and semi-trailers,
- production of gum and plastic articles,
- production of non-metal goods,
- production of metal finished goods,
- production of food and beverages,
- textile industry,
- production of cast and steel and iron alloys.

In the Śląskie Voivodeship there is also a group – although still too small – of SME in sectors of production of office equipment and computers, production of pharmaceuticals, medical chemicals and plant products, production of planes (aircraft sector). The sectors are regarded as promising in future. The existing potential of SME can become a basis to exploit R&D results in new fields of technology.

The industry is the driving force behind creating new technological solutions. Strong industry sectors need a wide range of specialised services. Therefore, it is important to support development, quality and professionalism of the following business services: software, multimedia, marketing, audit and accounting, legal advisory, technical services and services related to human resources. They play a key role in sector networks and in thickening of value chains, which, in turn, influences positively a competitive position of particular sectors.

To achieve a determined objective, particular attention must be drawn on the rise of SME involvement in networks, which results in:

- common activity of SME in favour of innovation including: research work, industrial design and product development, market research and human resources development,
- creation of systems of experience and best practices exchange which serve as inspiration for others,
- creation of conditions for mutual relations between SME employees and scientists from the R&D sector in order to solve research problems together,
- creation of sub-contractors networks in order to attract direct foreign investors.

Therefore, it is necessary:

- To promote and develop sector co-operation with SME using experience from developed regions in the field of networking and cluster support.
- To implement methodology of value chain analysis for better understanding development and for identifying key challenges in the industry sectors.
- To support enterprises based on co-operation relations (consortiums) with the R&D sector and other enterprises.
- To promote and develop sub-contractors networks in order to attract direct foreign investors.

Objective:
To create flexible network structures in favour of innovation

To be successful, innovative companies must have in their environment an appropriate infra-structure which ensures access to services necessary to carry out innovative tasks. The Śląskie Voivodeship encompasses approximately 62 R&D institutions and 60 business support institutions, 10 institutions of higher education, 6 institutes and individual institutions of the Polish Academy of Science, 31 R&D units and 16 industry laboratories deliver technologies (data obtained from the analysis of potential of the Śląskie Voivodeship).

The implementation of innovation depends on: human resources, social capital (ability to co-operate), innovation support infrastructure, technical infrastructure (roads, lands, telecommunication etc.), financial capital, legal regulations. To develop innovative activity in the Śląskie Voivodeship, it is necessary to create conditions so that creative thinking, scientific skills, ability to manage finances and to run marketing could be joined and used properly within the Regional Innovation System.

The Regional Innovation System consists of: co-operation and ways of information and knowledge exchange (formal and informal) in existing structures and created ad hoc – between enterprises, the R&D sector and business support institutions. Effective regional systems of innovation try to create relations between those who gain and use knowledge and those who create and distribute it. The regional partnership - or co-operation networks – can play a constructive role in supporting innovation in SME.

The survey has indicated that the R&D sector in the Śląskie Voivodeship is not regarded as an important partner for SME in the field of innovation but as an additional source of information. SME co-operate with the R&D sector to obtain advisory, evaluations and studies which they are unable to do themselves. This co-operation is often difficult due to high costs, long and difficult procedures as well as government regulations. Moreover, lack of information on the R&D sector offer represents a barrier for establishing new contacts from the part of SME. Relations between SME and the R&D sector are often established directly by entrepreneurs during fairs, conferences and exhibitions. They do not involve business support institutions in this field.

Business support institutions are involved in providing small companies with access to external resources of knowledge, advice, finance and in establishing co-operation with different partners. In the field of innovation, they help SME to determine their needs, to transfer and to adapt solutions to particular conditions of a company. The business support institutions are: technology parks, scientific parks, innovation centres, centres of technology transfer, incubators, development agencies, funds etc. Companies are interested in expanding relations with business support institutions in the area of searching partners in business, assistance in gaining capital as well as in the area of sales and marketing. Relations between SME and business support institutions are often established by entrepreneurs due to the offer of services received from business support institutions. Fairs and conferences are not regarded as an efficient instrument of finding information on the offer of business support institutions.

Weaker SME indicate an urgent need for establishing specialised centres or a service package that could lead small companies "step by step". It should be a package of simple services in the field of information, advice and training and partner search. The survey carried out among 300 SME has indicated that weaker companies point at business support institutions as a principal partner in running innovative activity. Companies expect also assistance from business support institutions in access to information on new technologies used on the market. However, difficult procedures, poor knowledge on offers and functioning of business support institutions and too high cost of services represent a barrier in co-operation.

Companies of medium and high innovativeness need comprehensive support for carrying out innovative undertakings including: specialised information, external financing, co-operation with the R&D sector, business partners etc. Clear support structure, relations and flexible procedures of co-operation are necessary.

Therefore, it is necessary:

To create and develop the Regional Innovation System within which:

- Institutions from economic, scientific and local government environments will be concentrated in the Steering Committee, the Regional Innovation Forum and expert groups on the strategic and operational level.

- Different packages of services for companies of low, medium and high innovativeness tailored to SME needs will be prepared and implemented.
- The regional system of monitoring and information for SME will be prepared and developed.
- Streamlined procedures will be prepared to faciliate relations between SME, R&D institutions and business support institutions.

Objective:
To support foresight

An important element of optimal co-operation of the R&D sector with the economy is using expected trends of changes, which are observed in lifestyle of society. Lifestyle influences consumption and growth of demand for new products and services. Globalisation, ageing society, new ways of leisure, rising awareness of the society and possibilities to gain knowledge – those subjects need a common vision of economic and scientific environment.

The development of networks of institutions running monitoring and delivering information to economic and administrative units will increase access of entrepreneurs, scientists and local government to important data necessary to develop future regional development scenarios. Foresight is used in developed countries to create revitalisation policy and to implement reforms. All target groups involved, focus on determining those industries and technologies having greatest opportunities and development chances. Wide consensus on development priorities allows carrying out reforms without political influences.

During elaboration of the Regional Innovation Strategy RIS-Silesia, some foresight components were used to evaluate conditions and possibilities of development of six technology specialisation areas: information technology and telecommunication, biology and biomedicine, energy sector, environment protection, metallurgy, automotive industry. Those areas were selected during a workgroup meeting held on December 10, 2002. The exchange of opinions regarding shaping the regional economy between economic leaders and representatives of key sectors was supposed to create a new attitude towards chances and threats for the development of some industry sectors. The region's critical mass existing in R&D, economic, academic and local government environments and experiences gained within the RIS-Silesia project tend to state that there is a potential for foresight in the Śląskie Voivodeship.

Therefore, it is necessary:

- To raise awareness in economic, R&D, academic and local government environments on importance of foresight for the region development.
- To create a foresight system based upon co-operation with people involved in innovation, who have appropriate knowledge and experience.

3.3.2 To support development of new innovative products and companies

Objective:
To promote industrial design and product development

The survey carried out among 300 companies has indicated that during last 3 years the companies have introduced only small changes in their products, which are only new for the companies but they do not represent any innovative solutions leading to improve their competitive advantage. To improve their situation on the market, SME often try to specialise to take advantage of a market niche. Therefore, industrial design and product developments are indispensable components for developing innovative products and services. Good application of the design enables SME to distinguish their products in the competitive market and to adjust them to customers' demands.

SME in Silesia rarely take advantage of the offers of services in the field of industrial design and product development. It results from the lack of promotion of the achievements of companies offering such services and from difficulties in getting to them because of their dispersed activities. Launching a new product on the market is connected to high risk so SME often think that the cost of industrial design and product development exceeds their possibilities.

Therefore, it is necessary:

- To raise SME awareness on advantages related to industrial design and product development.
- To join a dispersed offers of services in the field of industrial design and product development in a regional network.

Objective:
To increase the use of industrial property right

The last stage of developing a new solution or a new product should consist of guaranteeing their legal protection. However, many entrepreneurs resign from applying for trademark protection, application patterns or inventions. It results from high costs connected to patent procedures as well as from the lack of awareness of companies on benefits that patented products may bring. The number of patents is an indicator of a company's condition and its innovative potential. It proves also that the company makes high quality products on high technology level. As a result, the number of patent applications and patents raises the company competitive position and creates its positive image. In the European Union, for many years companies have used industrial property rights on a larger scale than in Poland.

Therefore, it is necessary:

- To take up steps aiming at raising use of industrial property rights.
- To streamline promotion, information and advisory activities in the area of trademarks, industrial patterns and patent protection.

Objective:
To support innovative culture in education system

One of the objectives of the reform of the education system carried out in the last decade consisted of adjusting curricula to the new reality in economy and social life. However, courses are often run in a traditional way. The education system should shape new and change existing ways of thinking and affecting on young people who are future creators of innovation. All schools and universities should prepare young people to take risks and to develop entrepreneurship features in them.

Supporting co-operation in teams is important to raise confidence and to enable the exchange of ideas. Furthermore, some instruments should be created at universities to stimulate creativity and to select gifted students who could set up innovative companies in future. It requires from scientific and pedagogy staff changing their mentality and preparing a new approach towards courses. The process is long and must start immediately.

Therefore, it is necessary:

- To raise interest of the management and pedagogy staff in schools and universities in supporting entrepreneurship features and creativity as well as taking risk and work in teams among students.
- To develop and implement curricula in schools and at universities in the area of entrepreneurship and creativity, taking risks and work in teams.
- To develop and implement activities which promote entrepreneurship and innovation approach among students.

Objective:
To support setting up of innovative companies

The share of companies of advanced technology in the Ślaskie Voivodeship economy is not sufficient. Direct foreign investments play a key role in improving this situation. Setting up new innovative companies due to application of technologies or innovative solutions developed in R&D centres or by an individual inventor can be the beginning of a long-term process of increasing number of companies of advanced technology and creating fixed workplaces. It must be taken into consideration that all workplaces created in a company of advanced technology generates 3 new workplaces in their environment. Investing in such companies is therefore profitable. Scientific potential and number of students and scientists active in the R&D sector in the Śląskie Voivodeship tend to confirm that basic conditions for development of companies of advanced technology are fulfilled. However, the innovativeness culture in such centres is not always appropriate to support the development of such companies.

The survey results have indicated a reluctance of the management of scientific institutions to business attempts made by their employees. Setting up a new innovative company as a form of transfer and commercialisation of technology is not accepted in the research and scientific sector. The lack of concept and appropriate procedures to protect institution's interests and possible profits from successful undertakings is the reason for „academic grey market" against which directors of many institutions try to defend themselves by means of „loyalty declarations".

Companies set up on the basis of new technological knowledge gained by scientists or students allow flexible testing market possibilities at a relatively low risk. In the long term, networks of innovative companies around R&D centres may result in further financing of new research and in attracting branches of big international consortiums and concerns. The support infrastructure for technology-based entrepreneurship around R&D centres in co-operation with support institutions should include advisory, financial assistance, premises for new companies. Support programmes and promotion activities carried out simultaneously at universities should develop the innovation and entrepreneurship culture.

Therefore, it is necessary:

- To develop and implement a common approach to create new innovation companies by the R&D sector as well as procedures which aim at facilitating setting up of such companies and determining the intellectual property issue.
- To develop and implement curricula and promotion activities at universities which aim at encouraging students to set up innovative companies.
- To develop technology parks and technology incubators as a tool to facilitate access for new innovative SME to infrastructure and knowledge of the R&D sector.
- To develop and implement methodology of procedures concerning possibilities to carry out research projects prepared in R&D institutions in technology parks.

Objective:
To facilitate technology transfer

SME have limited possibilities as for time and financial capital. Innovative solutions are often required as an immediate reply for production problems and not as planned technology development. The knowledge of SME in the area of tested technologies may facilitate relations with appropriate institutions which offer new technologies and accelerate the process of implementing necessary changes. However, the survey carried out has indicated a lack of formal forms of relations between potential participants of technology transfer process in the Śląskie Voivodeship and a lack of knowledge of particular partners of technology markets on resources and possibilities of technology transfer. Informal and private relations dominate nowadays. Fairs, innovative exchanges, business meetings, seminars, conferences and competitions for best undertakings are not used sufficiently.

SME take advantage of private specialists, usually employees of R&D institutions due to lower costs, shorter term, possibility to avoid formal procedures created in the institutions. Such co-operation enables better personal relations, better understanding of a company needs, the choice of a „suitable person". Attempts made to prevent such practices (e.g. by a ban to render private services in favour of SME implemented in R&D institutions) may „limit" this channel of knowledge transfer to Silesia SMEs.

Within the process of technology transfer, the following elements should be distinguished:

- Technology transfer through co-operation among companies (consolidation, joint ventures, license purchase,...).
- Technology transfer through mediation between economic and scientific environment (technology push – innovative solutions developed by the R&D sector, delivered on the market through: databases, fairs, seminars etc. and technology pull – innovative solutions developed on the basis of technology audits carried out in companies).
- Technology transfer through the exchange of personnel between R&D institutions and companies (collaborative innovation).

The survey has indicated that a comprehensive nature of some innovative solutions transferred requires also a constant technology support from institution offering technology, both during implementation and during optimisation of the production process. At the same time, SME from the sector of medical instruments, precise and optical instruments, machines and equipment, production of finished metal goods and air companies declare a need to create branch centres of the technology transfer.

Therefore, it is necessary:

- To create and develop an institutional system of technology transfer including:
  - networks of centres of innovation support and technology transfer,
  - branch instruments of technology transfer with the priority for the sector of medical instruments, precise and optical instruments, machines and equipment, production of finished metal goods and air companies,
  - technology parks to facilitate specialised technology transfer to SME of high innovativeness.
- To raise SME awareness on available forms of technology transfer and way of carrying it out.
- To develop and implement procedures facilitating technology transfer through personnel allocation between R&D institutions and companies.
- To support consolidation among SME to exploit potential of transferred technologies in an optimal way.

CHAPTER 4

Implementation system of the Regional Innovation Strategy of the Śląskie Voivodeship 2003-2013

4.1 Management and monitoring structure

To implement the Regional Innovation Strategy, a co-ordination unit will be set up in the Marshal's Office of the Śląskie Voivodeship. The unit will be responsible for:

- Monitoring of task implementation within the strategy.
- Supervision on regularity of performed tasks.
- Presentation of information to the Board of the Śląskie Voivodeship and to the Regional Parliament of the Śląskie Voivodeship on tasks performed within the strategy.
- Co-operation with consortium of the RIS-Silesia project to implement tasks resulting from the project objectives.
- Development and implementation of the Executive Programme for the years 2009 - 2013 with the participation of expert groups and the Regional Innovation Forum.
- Running secretariat for the Steering Committee from July 2004.

At the same time, institutions involved in the innovation process in the Śląskie Voivodeship will set up a unit managing the Regional Innovation System which will be responsible for:

- Building and developing the Regional Innovation System in co-operation with the Regional Innovation Forum.
- Animation of expert groups.
- Supporting creation of networks and consortiums for the innovative environment to exploit the market potential in more efficient way.
- Animation of initiatives which raise innovative culture level in the region.
- Initiating new methodologies for innovation support.

The carrying out of the tasks within the strategy will be monitored by the Steering Committee, which will also play an advisory role for the Voivodeship Board in the area of adjusting the strategy to changing economic situations. The committee members will be elected every three years among members of the Regional Innovation Forum. The first election of the new Steering Committee will be held in January 2005. Until that time, the Steering Committee appointed within the RIS-Silesia project will fulfil its tasks.

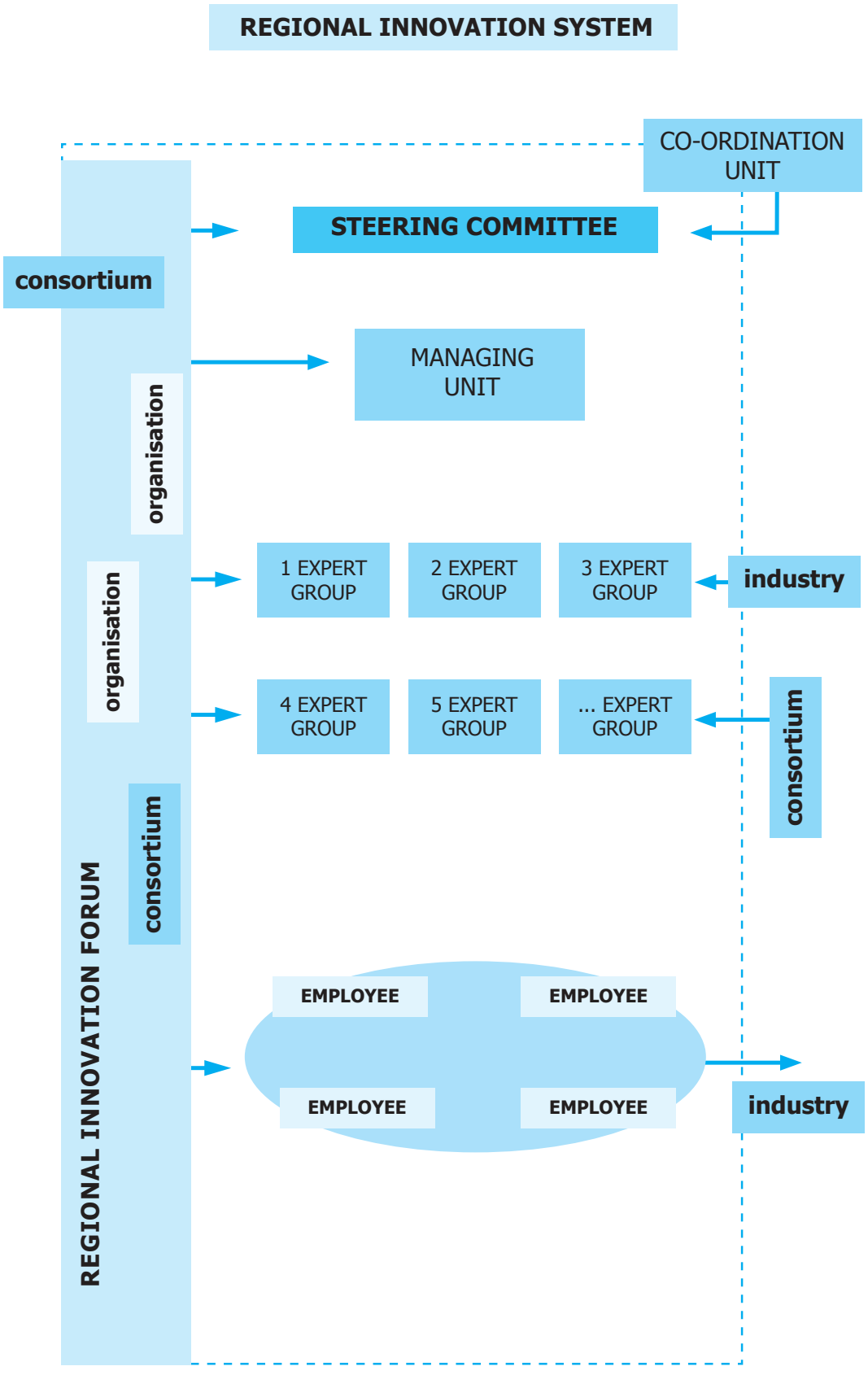
4.2 Regional expert groups

To ensure efficient implementation of the Regional Innovation Strategy, 9 expert groups will operate within the Regional Innovation System. The role of the groups consists of:

- Supporting the Regional Innovation Forum and the Steering Committee in determining the order of objectives and directions indicated in the Regional Innovation Strategy to be carried out.
- Developing and implementing new methodologies in order to support complementarity and uniformity of implemented activities within the Regional Innovation System.
- Preparing appropriate activities to carry out the strategy objectives and to present them in the form of executive programmes to the Steering Committee and then to the Board of the Śląskie Voivodeship.
- Participation in promotion and implementation of activities resulting from executive programmes.
- Supporting co-ordination unit and managing unit in monitoring and benchmarking process.

Name of expert group	Scope
Innovation culture in education	Curricula in schools and universities in the area of entrepreneurship and creativity, risk taking and work in teams.
Spin-offs and high-tech start-ups	Procedures facilitating creation on new companies using technology of R&D institutions. Technology parks and incubators. Curricula which encourage students to create new innovative enterprises.
Networks and sector clusters	Methodologies of creating co-operation networks. Geographical and sector co-operation. Co-operation relations between SME and R&D institutions. Technology parks. Sub-contractors networks.
Technology and innovation services	Market reorientation of the R&D sector. Industrial design and product development. Industrial property rights. Technology transfer. Foresight of market trends.
Technology development	Innovation culture in the R&D sector. Participation in international co-operation networks. Specialised expert teams appointed to solve research problems. Integrated research institutions. Regional programme of development of new scientific specialisation.
Regional marketing (best practices and lobbying)	Influence on administrative, legal and economic environment. Best practices of the R&D sector as show-case of the region.
Training and advisory services	System of evaluation of training quality. Tailoring offer of institutions dealing with training, advisory and innovation services for SME. Promoting innovative culture in SME. Promoting strategic thinking in SME. Promoting permanent education. Supporting SME skills in the area of specialisation and using market niches.
Financing SME growth	Subventions for R&D activities within the Structural Funds. Participation of SME in European programmes in favour of innovation. Financial instruments supporting investment on innovation and development in SME.
Useful information for SME	Regional system of information for SME: sources of financing for innovative undertakings; new technologies and innovative solutions; training and advisory offer; offers of special services of the R&D sector; market trends.

The Steering Committee can appoint additional expert groups or make changes in the existing groups if necessary.


REGIONAL INNOVATION SYSTEM
CO-ORDINATION UNIT
STEERING COMMITTEE
consortium
MANAGING UNIT
organisation
1 EXPERT GROUP
2 EXPERT GROUP
3 EXPERT GROUP
industry
organisation
4 EXPERT GROUP
5 EXPERT GROUP
... EXPERT GROUP
consortium
consortium
REGIONAL INNOVATION FORUM
EMPLOYEE
EMPLOYEE
EMPLOYEE
EMPLOYEE
industry

The Chart of the Regional Innovation System of the Śląskie Voivodeship

	Strategic level	Methodology level	Operational level
Structure	Regional Innovation Forum. The Steering Committee selected by the Regional Innovation Forum for the term of 3 years. Steering Committee: management members of institutions/organisations involved in development of partnership and analysis of potential of creation long-term vision of wide definition of future objectives; schemes.	Expert groups: representatives of participants of partnership according to specific subjects and problem areas. Focus on common problems. Building agreement on issues related to sector or geography. Developing programme so that it meets individual challenge and possibilities in own environment.	Exchange and co-operation ad hoc: personnel involved in daily work and in consortium of the project. Creating synergy through co-operation and exchange information on a daily basis. Supporting complementarity, variety, specialisation within integrated packages of services which support business and activities of research and development entities.
Instruments	Agreement on partnership emphasising co-operation philosophy; ethic code concerning supporting innovative activities in Silesian SME. Conferences and meetings of work groups concerning strategy monitoring and future activities. Regional Innovation Forum takes place twice a year. Meetings of the Steering Committee take place at least 3 times a year.	Meetings of experts groups. Opinion and consensus, preliminary identification of alternative solutions and approaches. Press publications. Related conferences and seminars. Forum of idea generating; brainstorming sessions resulting in development of concept or project and discussion on consortium appointment.	Intranet support system for personnel of institutions participating in regional co-operation. Portfolios of companies, review of services offered by network partners to particular companies which enables them specialisation. Promotion of performed undertakings – best examples (articles, internet).
Advantages	Indirect advantages – long-term perspectives. Creating frames and climate around Regional Innovation System. Clear regional marketing. Favourable conditions for new industrial investors. Fixed basis for strategic investments.	Group advantages (direct and indirect) – medium-term perspectives. Fixing awareness that environment presents no risk but possibilities. Common programmes. Shared costs, common methodologies.	Individual advantages (direct and indirect) – short-term perspectives. Complementarity of services and information. Time saving. Specialisation of services. System of common distribution.

4.3. Executive programmes and potential sources of their financing

The Regional Innovation Strategy will be carried out through the following executive programmes:

1. Executive Programme for the years 2004-2008.
2. Executive Programme for the years 2009-2013.

Each of the programmes will include priority activities to be carried out in the above-mentioned periods. Particular activities will be developed by expert groups in co-operation with representatives of economic, local government, academic environments as well as scientific and research area, which will ensure an integrated approach in exploiting the region potential and in common breaking barriers in development. Supporting creation of consortiums necessary to carry out projects within the Structural Funds of the EU will be a basic element in the process of preparation of concrete activities.

Taking into account that in the years to come the Structural Funds will be an important source of financing of the regional economy development including innovation, they must be exploited to the maximum extent in the Regional Innovation Strategy. The Operational Programmes including the Sector Operational Programme of Economy Competitiveness, the Sector Operational Programme of Human Resources Development and the Integrated Operational Programme of Regional Development are the instruments which create frames and procedures that enable exploiting the Structural Funds in particular periods. However, the way of implementing projects by particular consortiums according to methodologies jointly agreed will determine the efficient influence of performed tasks on innovation development in Silesia.

Besides the Structural Funds, resources from other European programmes as well as own resources and resources available in the capital market should be used to carry out tasks within executive programmes. Involvement of measures from particular sources will depend on the nature of tasks undertaken.

4.4. Indicators for the Regional Innovation Strategy of the Śląskie Voivodeship 2003- 2013

1. Increasing share of very innovative companies in the total number of small and medium enterprises		
1.1 Increase in confidence level among companies through improving business climate		
Objectives	**Product rates**	**Result rates**
Increasing SME accessibility to useful information	Regional Information System created for SME. Number/ kind of information packages available for users of the Regional System of Information for SME (according to different criteria - subjects, information receivers).	Number/ kind of units supplying information through the Regional System of Information for SME. Number/ kind of units using particular packages and services of the Regional System of Information for SME.
Optimising financial system for innovative activity of SME	Number/kind of financial instruments designed to support innovative activities in SME. Number/kind of financial instruments designed to support innovative activities in SME within the Structural Funds. Number/kind of information, training, advisory services concerning possibilities to finance innovative activities in SME from different sources. Number/kind of units offering financing of innovative activities of SME. Regional agreement signed in the area of financing innovative activities. Number/kind of units acting within common agreement in the area of financing innovative activities.	Number/kind of SME applying for financial resources for innovation. Number/kind of SME receiving financial resources for innovation. Amount of subsidies granted for innovative activity within the Structural Funds. Percentage of financial resources used by SME in particular offers of innovation support co-financed within the Structural Funds. Percentage of offers mostly used by SME. Number/kind of units participating in EU programmes (Percentage of participating companies). Percentage of SME satisfied with quality level, availability of financial instruments designed to support innovative activities. Number of new SME operating after 18 months from receiving financial support. Percentage of growth of expenditures for innovative activity of enterprises.
Tailoring training and advisory offer in the area of innovation to SME needs	Number/kind of accredited institutions which support innovative activities in SME. Number/kind/ level of diversity of training and advisory packages tailored to particular target groups in SME sector (SME of high, medium and low innovativeness).	Number/kind of SME using advisory and training services (kind). Percentage of SME satisfied with quality and availability of training and advisory services rendered (kind). Percentage of SME running innovative activities within 12 months after training or advice is delivered.
Increasing influence on administrative, legal and economic environment	Regional system of lobbying in favour of innovation created. Number/kind of units involved in lobbying. Number/kind of activities lobbying the region. Kind of subjects of lobbying.	Number/kind of positive results of lobbying activities. Percentage of SME satisfied with activities lobbying the region.

1.2 Supporting excellence in companies		
Objectives	**Product rates**	**Result rates**
Supporting strategic approach in companies	Number/kind of activities promoting strategic management in SME. Number/kind of advisory and training packages for SME managers in the area of strategic management of a company (development strategy and business planes of SME).	Number of representatives of SME management participating in activities which promote strategic management in SME (kind). Number/kind of SME making use of advisory and training services in the area of strategic management. Number of development strategies and business plans prepared for SME by business support institutions.
Promoting innovative culture in SME	Number/kind of activities promoting and supporting information exchange and co-operation between SME. Fixed regional platform of relations between SME. Number/kind of activities promoting methodology of involving employees in creation, development and implementation of innovative solutions in SME.	Number/kind of SME participating in activities promoting and supporting information exchange and co-operation between enterprises. Percentage of SME using fixed relation platform between SME. Percentage of SME in which innovative solutions have been prepared by their own employees.
Supporting effective exploitation of market potential on the common European market by SME	Number/kind of activities indicating advantages and risks for SME resulting from their share on the common European market. Number/kind of advisory and training packages improving skills in the area of export, implementation by SME of quality systems and EU standards and obtaining certificates. Number/kind of advisory and training packages improving skills of SME in the area of using market niches.	Number/kind of SME participating in activities concerning advantages and risks resulting from their share on the common European market. Number/kind of SME using advisory and training packages improving skills in the area of export, implementation by SME of quality standards of the EU and obtaining certificates. Number of implemented quality systems, certificates. Number/kind of SME starting export or exporting new products or exporting on new markets. Percentage share of export sale of SME in total sale production. Percentage share of SME in export according to particular types of activity (sections/divisions). Number of new workplaces created in sectors of low, medium and high-tech.
Supporting exploitation of ICT in SME	Number/kind of activities promoting exploitation of ICT in SME. Number of services available in ASP model. Number/kind of advisory and training packages improving skills in the area of e-business and e-learning by SME. Number/kind of instruments supporting SME in implementation of ICT within the Structural Funds.	Number of new SME delivering information technologies and related services (on-line, e-commerce, virtual servers, services in ASP model etc.). Number of SME using ASP model. Percentage of SME using information technologies and related services. Percentage of SME running economic activity using modern systems of information transfer.

2. Increase in exploiting of research and development potential		
2.1 Strengthening excellence in the R&D sector		
Objectives	**Product rates**	**Result rates**
Supporting innovative culture in the R&D sector	Number/kind of activities promoting own research work in new technology directions. Number/kind of R&D projects concerning innovative solutions within the Structural Funds and other European programmes. Number of research and development projects prepared for SME in R&D institutions. Number of research and development projects prepared in R&D institutions according to technology level and activity kinds.	Number/kind of new technologies prepared in R&D institutions. Percentage of successful R&D projects (publications, implementations etc.). Number/kind of new created SME set up by employees of R&D institutions which implement technologies they developed. Percentage of increase in expenditures for investment in the R&D sector. Percentage of increase in employment in research and development activity. Number of patents created on the basis of innovations in the stage of development.
Supporting market reorientation	Number of R&D institutions participating in development and implementation of new procedures. Number of new agreements on co-operation between the R&D sectors and SME. Number/kind of developed methodologies of analysis of SME needs and market trends. Regional system of information on market trends for SME. Number/kind of activities promoting co-operation between the R&D sector and SME.	Number/ kind of SME co-operating with the R&D sector - kind of co-operation. Percentage of SME satisfied with co-operation with the R&D sector. Number/kind of SME which used information on market trends. Number of implemented development projects created on the basis of co-operation between SME and the R&D sector. Number/kind of new products/ processes/ innovative solutions resulting from co-operation between SME and the R&D sector.
Increase in participation in international co-operation networks	Number/kind of activities related to benchmarking in R&D institutions. Number/kind of activities promoting and supporting participation of R&D institutions in international co-operation networks. System of information on possibility to participate in international co-operation networks.	Number/kind of R&D institutions involved in international teams/R&D projects. Number/kind of employees of R&D institutions involved in international teams/R&D projects.

2.2 Introducing to R&D sector technologies necessary to develop the region economy		
Objectives	**Product rates**	**Result rates**
Supporting specialisation of the R&D sector operating in traditional sectors	Number/kind of expert groups appointed to solve determined research problems in traditional sectors. Number/kind of integrated research institutions appointed to solve determined research problems in traditional sectors.	Number/kind of new products/processes developed by expert groups appointed to solve determined research problems. Number/kind of new products/processes developed in integrated research institutions. Number/kind of new products/processes implemented as a result of work of expert groups appointed to solve determined research problems. Number/kind of new products/processes implemented as a result of studies prepared in integrated research institutions. Number/kind of projects prepared for competitions of frame EU programmes. Percentage of projects approved in competitions of frame EU programmes. Number of patents/licences sold. Number/kind of SME using offers of expert groups. Number/kind of SME using offers of integrated research institutions.
Supporting creation of new specialisation in R&D activity	Number/kind of expert groups appointed to solve defined research problems in high and medium-tech sectors. Number/kind of integrated research institutions appointed to solve defined research problems in high and medium-tech sectors. Developed standard system of evaluation of R&D capability. Developed regional programme of development of research infrastructure of the R&D sector. Developed methodology of selection of technology necessary to develop the region economy.	Number/kind of investment in infrastructure of R&D sector. Percentage of expenditures for infrastructure of new specialisation of the R&D sector. Number/kind of scientific specialisation created according to market and technology trends. Number/kind of new direct foreign investment created due to scientific specialisation. Number/kind of new innovative solutions in regional scientific specialisation.
Promoting best practices as the show-case of the region	Percentage of institutions of the R&D sector which support actively development and implementation of common marketing programme in favour of R&D. Number/kind of activities promoting best practices in the R&D sector. Number/kind of R&D institutions running planned marketing activities.	Number/kind of new direct foreign investments. Number/kind of SME using promoted offers.

3. Ensuring efficient Regional Innovation System based on mutual confidence, creativity and excellence		
3.1 Development of partnership in favour of innovation		
Objectives	**Product rates**	**Result rates**
Developing sector co-operation between SME/with SME participation	Number/kind of SME networks in particular sectors. Number/kind of SME involved in particular networks. Number/kind of implemented projects by SME based on advanced technologies, carried out as a result of common research in networks.	Percentage of growth in innovativeness in SME participating in networks. Percentage of growth in sold production in sectors of low, medium and high-tech. Percentage of growth in number of workplaces created in sectors of low, medium and high-tech.
Creating flexible network structure in favour of innovation	Created Regional Innovation System of the Śląskie Voivodeship. Number/kind of network instruments (monitoring, information system, foresight, comprehensive advisory and training packages) created within the Regional Innovation System.	Percentage of units involved in innovative activities participating in the Regional Innovation System. Percentage /number/kind of SME using instruments created within the Regional Innovation System. Percentage of new relations between SME and R&D centres. Percentage of SME satisfied with co-operation with the R&D sector. Percentage of SME satisfied with co-operation with business support institutions. Number/Percentage of share of workplaces in sectors of low, medium, high-tech.
Supporting foresight process of market trends	Number/kind of activities promoting foresight process. Number/kind of experts/institutions involved in creation of foresight system. Foresight system created for the Śląskie Voivodeship.	Number/kind of experts/institutions involved in creation of foresight system. Number/kind of experts/institutions involved in implementation of foresight system. Number/kind of persons/units using foresight results.

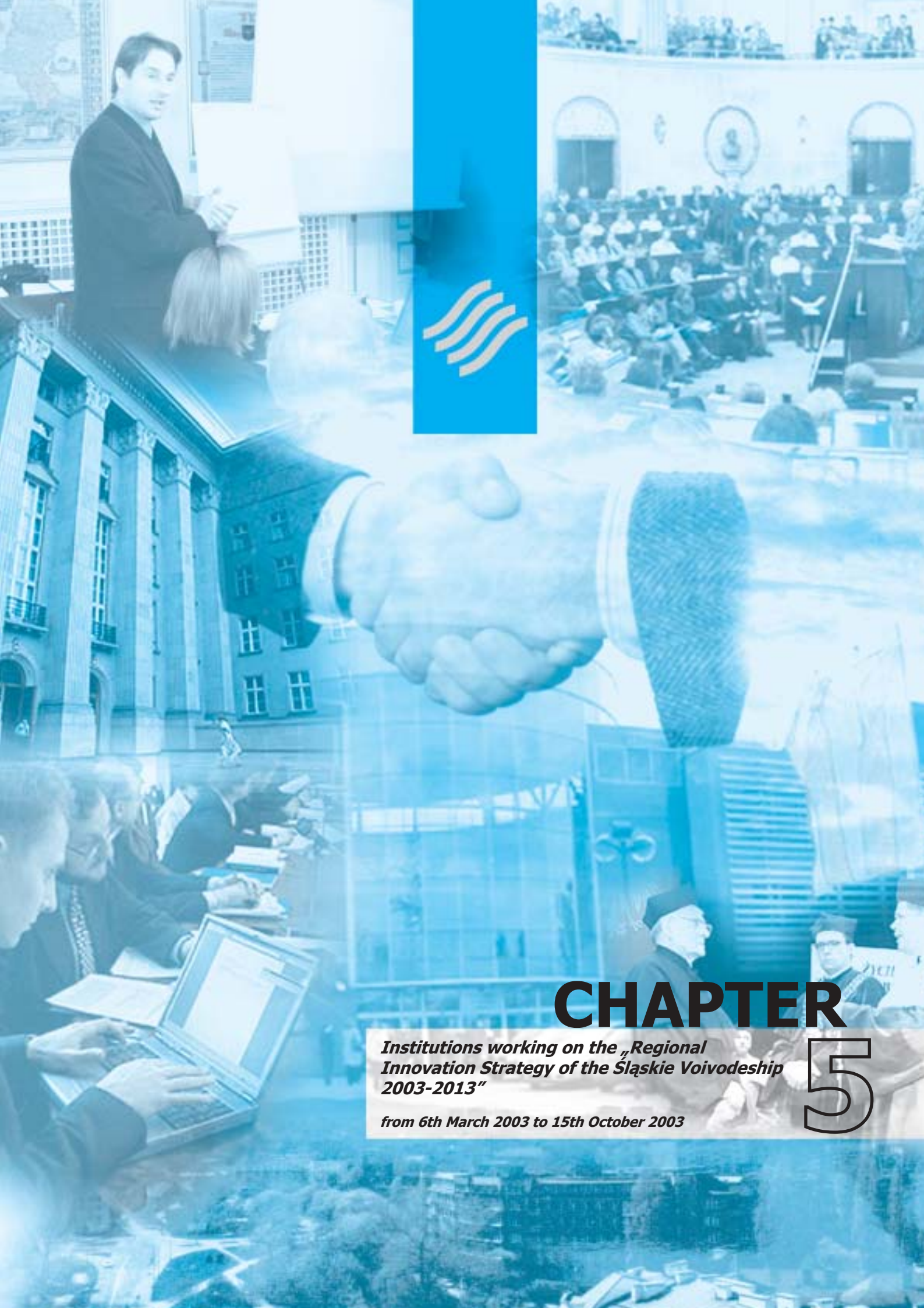
3.2 Supporting creation of new innovative products and companies		
Objective	**Product rates**	**Result rates**
Promoting industrial design and product development	Number/kind of activities promoting advantages of using industrial design and product development among SME. Created regional network of institutions dealing with industrial design and product development. Number/kind of service offers of institutions dealing with industrial design and product development among SMEs.	Number/kind of SME participating in activities promoting advantages of using industrial design and product development. Percentage of institutions in the area of industrial design and product development which participate in service offer networks. Percentage of SME which introduced trademark/ industrial pattern. Number of registered trademarks/ industrial patterns.

Objectives	Product rates	Result rates
Increase in use of industrial property right	Number/kind of activities aiming at increasing of use of industrial property right. Number/kind of business support institutions involved in above-mentioned activities.	Number/kind of new patent applications. Number/kind of new patents.
Supporting innovative culture in education system	Number/kind of curricula for secondary and institutions of higher education enabling development of innovation culture approved of by the Silesian Superintendent and the Regional Conference of Chancellors of Institutes of Higher Education. Number/kind of activities (programmes) promoting creativity, entrepreneurship etc. in secondary schools and institutions of higher education.	Number of students (according to departments) covered with curricula enabling development of innovative culture. Number of programmes/schools implemented in order to develop innovative culture. Number/kind of new companies set up by graduates. Number of new workplaces created in sectors of low, medium and high-tech.
Support of setting up innovative companies (spin-offs, start-ups)	Number/kind of education and promotion activities encouraging students to set up innovative companies. Percentage of growth in number of courses concerning setting up innovative companies in institutes of higher education. Number/kind of service offers available in technology parks and incubators. Area in m^2/ha available for technology parks and incubators for innovative companies.	Number/kind of new innovative SME set up in technology parks and incubators. Number/kind of innovative SME created in technology parks and incubators. Number of workplaces created in innovation companies in technology parks and incubators. Number/kind of new innovative SME set up by R&D employees, academic employees or graduates.
Facilitating technology transfer	Created regional network of centres of innovation support and technology transfer. Number/kind of centres of innovation support and technology transfer in the region. Percentage of centres of innovation support and technology transfer participating in the Regional network. Area of technology parks (ha). Number/kind of service offers of centres of innovation support and technology transfer adapted to particular target group in the SME sector. Developed procedures facilitating technology transfer through personnel allocation between R&D institutions and SME. Number/kind of support instrument to implement research results developed within the Structural Funds.	Number/kind of technology transfers carried out from centres of innovation support and technology transfer to SME. Number/kind of technology transfers carried out from R&D institutions to SME. Number/kind of SME using services of centres of innovation support and technology transfer. Number/kind of SME receiving financial support for research and scientific projects or for purchase of technologies within the Structural Funds. Number/kind of supported companies which received patents, licences or got involved in common R&D projects. Number of high-tech companies set up as a result of technology transfer. Number of new workplaces created in sectors of low, medium and high-tech.

4.5 Indicators for benchmarking

Benchmarking (comparison of evaluation of own achievements with environment) allows evaluating the impact of the Regional Innovation Strategy on the level of innovativeness of the Śląskie Voivodeship in relation to other regions in Europe and in the world.

Indicators for regional innovativeness
Number of patents submitted in the Patent Office
Expenditures on R&D activities (percentage of GDP)
Employment rate in R&D activity
Share of new products/services in total sale of a company
Share of export in total sale of a company
Expenditures on innovation in industry
Indicators for regional research activity and capacity
Number, kind and specialisation of R&D institutions
Financing R&D activity from public sources (amount, percentage)
Financing R&D activity from private sources (amount, percentage)
Employment rate in research laboratories
Number of scientific articles
Number of companies with own research departments
Indicators related to innovation support activities
Employment rate in the area of innovation in business support institutions
Level of skills in business support institutions (quality rate)
Number and kind of activities in the area of innovation received by SME in co-operation with business support institutions
Level of awareness and customs change of SME as a result of actions organised by business support institutions



CHAPTER 5

Institutions working on the „Regional Innovation Strategy of the Śląskie Voivodeship 2003-2013"

from 6th March 2003 to 15th October 2003

Structure of the RIS-Silesia Project:

The Regional Innovation Strategy RIS–Silesia project has been realised under the EU 5th Framework Programme from 3 November 2001 to 30 June 2004.

Manager of the RIS-Silesia Project:

Luk Palmen, Limburg Development Agency GOM-Limburg

Project Co-ordinator:

Bogusław Holeksa, Upper Silesian Agency for Enterprises Restructuring Co.

Project Consortium:

Śląskie Voivodeship Board

Upper Silesian Agency for Enterprises Restructuring Co.

Upper Silesian Regional Development Agency Co.

Institute for Chemical Processing of Coal

Limburg Development Agency GOM-Limburg

Agence Regionale de Developpement Nord-Pas de Calais

Project Team:

Representatives of the Polish consortium members.

Steering Committee:

Chairman of the Steering Committee:

Michał Czarski, Marshal of the Śląskie Voivodeship

Jan Olbrycht, Marshal of the Śląskie Voivodeship (from 16.01.2002 to 27.10.2002)

Deputy Chairman of the Steering Committee:

Marian Jarosz, Member of the Śląskie Voivodeship Board

Members of the Steering Committee:

Krystyna Czaplicka	Director of Central Mining Institute
Leszek Czerwiński	Chairman of Committee on Development and Land Planning (Sejmik of Śląskie Voivodeship)
Grzegorz Tobiszewski	President of Upper Silesian Regional Development Agency in Katowice
Marian Dolipski	Vice-Rector for Research of Silesian University of Technology in Gliwice

Tadeusz Donocik	President of Regional Economic Chamber in Katowice
Józef Dulian	President of FG Capital in Katowice
Zygmunt Frnakiewicz	President of Silesian Association of Municipalities and Poviats
Bogusław Holeksa	President of Upper Silesian Agency for Enterprises Restructuring Co.
Jan Klimek	President of Chamber of Craft and Small and Medium Enterprises
Przemysław Koperski	Director of Voivodeship Labour Office in Katowice
Izabela Krawczyk	Vice-Director of Department of Banking and Finance, Faculty of Management (Częstochowa University of Technology)
Hubert Leśnik	Director of Institutions for Research and Certification „ZETOM"
Józef Matuszek	Vice-Rector of University of Bielsko-Biała
Wiesława Nowak	Vice-Director of Voivodeship Statistical Office in Katowice
Czesław Sobierajski	Chairman of Silesian Economic Association in Rybnik
Maria Socha	Representative of Regional Development Agency in Bielsko-Biała
Jan Stachowicz	Vice-Director for Research at the Centre of Entrepreneurship Research and Management of Polish Academy of Sciences
Marek Ściążko	Manager of Institute for Chemical Processing of Coal
Wojciech Świątkiewicz in Katowice	Vice-Rector for Teaching Matters of University of Silesia
Mieczysław Woch	Main Council of Research & Development Institutions, Director of Material and Processing Department of Institute of Non-Ferrous Metals
Piotr Wojaczek	President of the Katowice Special Economic Zone
Andrzej Zając	Vice-President of Board - Southern Energy Concern Co.

Authors of analyses carried out under the RIS-Silesia Project:

Prof. dr hab. Edward Stawisz	University of Łódź
Dr Paweł Głodek	University of Łódź

„Innovation needs of the SME sector in the Śląskie Voivodeship"

Dr Krzysztof Matusiak	University of Łódź

„Potential of supporting institutions in Śląskie Voivodeship"
„Innovative potential of research and development sector in Śląskie Voivodeship"

Project Team
„Integrated analysis of Silesian Voivodeship economic structure"

Authors of the „Regional Innovation Strategy of the Śląskie Voivodeship 2003-2013" completed in the framework of the RIS-Silesia project:

Luk Palmen	Limburg Development Agency GOM-Limburg
Dr Halina Kocek, Eng.	Institute for Chemical Processing of Coal in Zabrze FP 6 Regional Contact Point
Bogumiła Kowalska	Marshal's Office of the Śląskie Voivodeship
Dr Joanna Machnik-Słomka	Upper Silesian Agency for Enterprises Restructuring Co., Regional Centre for Innovation and Technology Transfer

and representatives of institutions to the Consortium.

Regional Innovation Forum

Research and Development Institutions:

1. The Karol Adamiecki University of Econimics in Katowice
2. University of Bielsko-Biała
3. Academy of Fine Arts in Katowice
4. Beskidian Textiles Institute in Bielsko-Biała
5. Research and Development Centre of Electric Machines KOMEL in Katowice
6. Polish Packaging Research and Development Centre (COBRO) in Warsaw
7. Research and Development Centre for Building Insulation Industry in Katowice
8. Center of Polymer Chemistry (Polish Academy of Sciences) in Zabrze
9. EMAG Centre in Katowice
10. KOMAG Mining Mechanization Centre in Gliwice (Technology Transfer Centre)
11. Centre of Oncology, Maria Skłodowska-Curie Institute, branch in Gliwice
12. Centre for Industrial Management (Polish Academy of Sciences) in Bytom

13. Central Mining Institute in Katowice
14. The Karol Godula Upper Silesia Academy of Entrepreneurship (Centre for Research on Entrepreneurship and Local Development – Centrum Badawcze Przedsiębiorczości i Rozwoju Regionalnego) in Chorzów
15. Institute of Non-Organic Chemistry (Instytut Chemii Nieorganicznej) in Gliwice
16. Institute for Ecology of Industrial Areas in Katowice
17. Instytut Ekonomiczny MODUS Ltd in Gliwice
18. Institute of Chemical Engineering (Polish Academy of Sciences) in Gliwice
19. Institute of Non-Ferrous Metals in Gliwice
20. Stanislaw Staszic Institute for Ferrous Metallurgy in Gliwice
21. INORG Institute of Organisation Ltd (Instytut Organizacji INORG Sp. z o.o.) in Gliwice
22. Polish Welding Centre of Excellence in Gliwice
23. Institute of Spatial and Cadastral Systems in Gliwice
24. Institute of Control Systems in Chorzów
25. Instytut of Medical Technology and Equipment in Zabrze (Medical University of Silesia)
26. Ośrodek Badawczo-Rozwojowy Dźwignic i Urządzeń Transportowych DETRANS in Bytom
27. Automotive Research and Development Center in Bielsko-Biała
28. Research and Development Centre for Mechanical Appliances OBRUM in Gliwice
29. Centre for Research and Development of Motoreducers and Reducers REDOR in Bielsko-Biała
30. Polish Geological Institute in Warsaw, Upper Silesian Branch in Sosnowiec
31. Silesian University of Technology in Gliwice
32. Polish Committee for Standarization (Metallurgy and Mining Team in Katowice)
33. Medical University of Silesia in Katowice
34. University of Silesia in Katowice
35. Higher School of Management and Social Sciences in Tychy
36. Częstochowa University of Management

Companies:

1. 2 SI Sieciowe Systemy Informacyjne Co. in Katowice
2. Aqua Co. in Bielsko-Biała
3. ASI Polska Ltd in Gliwice
4. Bahpol Sp. j. in Kłobuck
5. Baupol Ltd Cast Steel Foundary in Sosnowiec
6. Digital Systems Design Office Co. in Chorzów
7. Biznes Nieruchomości in Katowice
8. Business Consulting Ltd in Katowice
9. Celifag Ltd in Częstochowa
10. Ceramika Avanti Ltd in Czeladź
11. Chłodnia w Częstochowie Ltd in Częstochowa
12. Ciepłownia Rydułtowy Ltd in Rydułtowy
13. Consultanty Ltd in Katowice
14. Dega-Plus Ltd in Ruda Śląska
15. Diament 2100 Centrum Transferu Technologii in Bieruń
16. Eco-Bet in Piekary Śląskie
17. Eko in Rybnik

18. Ekoprodukt in Częstochowa
19. Elektro Kaba 1 in Czyżowice
20. Elkon in Rybnik
21. Elpor Co. in Mysłowice
22. Elsen Co. in Częstochowa
23. Energopomiar Ltd in Gliwice
24. Energoprojekt-Katowice Co. in Katowice
25. Enko Co. in Gliwice
26. Fastening Elements Factory Co. in Siemianowice Śląskie
27. Flor-El Ltd in Świętochłowice
28. Gal-Sil Ltd in Sosnowiec
29. Global Management J.V. Ltd in Rybnik
30. Górnośląski Zakład Elektroenergetyczny Co. in Gliwice
31. Green Pack in Lubojnia
32. HTS Ltd in Sosnowiec
33. Huta Bankowa Ltd in Dąbrowa Górnicza
34. Huta Częstochowa Co. in Częstochowa
35. Hybryd Ltd w Pyskowice
36. Hydro-Montex Ltd in Częstochowa
37. Inforg Consulting Ltd in Katowice
38. Izoling in Tarnowskie Góry
39. Jestor in Tarnowskie Góry
40. Kobet in Piekary Śląskie
41. Komer in Racibórz
42. Marbet Ltd in Bielsko-Biała
43. Media Recovery in Katowice
44. Megawat Ltd in Czerwionka –Leszczy
45. Merawex Ltd in Gliwice
46. Mexem Ltd in Gliwice
47. Mikromed in Dąbrowa Górnicza
48. MS Consulting Co. in Zabrze
49. Nadwiślańska Spółka Węglowa Co. in Tychy
50. Nawigator s.c. in Katowice
51. Omikron Konsulting in Katowice
52. Osiny Ltd in Poczesna
53. Environment Research and Monitoring Centre S.E. in Katowice
54. Perfectpol Ltd. In Częstochowa
55. Polish Chemical Reagents Co. in Gliwice
56. South Energy Concern Co. in Katowice
57. South Energy Concern Co. Elektrownia Łaziska in Łaziska Górne
58. Premex Ltd in Częstochowa
59. Profil Ltd in Częstochowa
60. Prointech Ltd in Katowice
61. Promotor in Dąbrowa Górnicza
62. Protech in Katowice
63. Remebud Ltd in Sosnowiec
64. Upper Silesian Rehabilitation Centre „Repty” in Tarnowskie Góry
65. Silcard Ltd in Katowice

66. Stőlze Częstochowa Co. (formerly Częstochowska Huta Szkła) in Częstochowa
67. Wako Ltd. In Bielsko-Biała
68. Zakład Produkcyjno-Naprawczy Sprzętu Medycznego in Bytom
69. Zakłady Azotowe Chorzów Co. in Chorzów

Supporting institutions and others:

1. Agencja Inicjatyw Gospodarczych in Gliwice
2. Agencja Inicjatyw Lokalnych in Bytom
3. Agencja Inicjatyw Lokalnych in Żarnowiec
4. Agencja Promocji i Rozwoju Gospodarczego Miasta Tychy Co. in Tychy
5. Agencja Rozwoju Lokalnego „Agrotur" Co. in Krupski Młyn
6. Agencja Rozwoju Lokalnego Ltd in Gliwice
7. Agencja Rozwoju Lokalnego Co. in Sosnowiec
8. Agencja Rozwoju Przedsiębiorczości Co. in Żory
9. Bielsko-Biała Regional Development Agency
10. Bank Gospodarki Żywnościowej Co. Branch in Katowice
11. Bank Inicjatyw Społeczno-Ekonomicznych Co. Branch in Bielsko-Biała
12. Beskidzka Izba Rzemiosła i Przedsiębiorczości in Bielsko-Biała
13. Beskidzki Fundusz Ekorozwoju in Bielsko-Biała
14. Biuro Współpracy między Regionem Nord-Pas de Calais i Województwem Śląskim in Katowice
15. „Eurobusiness-Haller" International Business Assistance Office in Katowice
16. BRE Bank Co. in Katowice
17. HEURON Innovation Centre in Katowice
18. Centrum Promowania i Wspierania Przedsiębiorczości in Częstochowa
19. Business Incubator Fund in Jastrzębie Zdrój
20. Fundacja na Rzecz Rozwoju Miasta Knurowa
21. Foundation of Cardiac Surgery Development in Zabrze
22. FG Capital in Katowice
23. Fundusz „Mikro" Ltd, local office in Bielsko-Biała
24. Mining Chamber of Industry and Commerce in Katowice
25. Górnośląski Fundusz Restrukturyzacyjny Co. in Katowice
26. The Metallurgical Chamber of Industry and Commerce in Katowice
27. ING Bank Śląski Co. in Katowice
28. Chamber of Building Industry in Katowice
29. Polish Economic Chamber of Non-Ferrous Metals in Katowice
30. Industrial and Commercial Chamber of the Rybnik Industrial District in Rybnik
31. Chamber of Craft and Semi and Middle Enterprises in Katowice
32. Katowice Special Economic Zone Co. in Katowice
33. Katowice Special Economic Zone Co. Subzone Gliwice
34. Komitet Rozwoju Zagłębia in Dąbrowa Górnicza
35. Konsorcjum Inwestycyjno-Autostradowe Co. in Częstochowa
36. Miejski Ośrodek Wspierania Przedsiębiorczości in Częstochowa
37. Naczelna Organizacja Techniczna NOT Federacja Stowarzyszeń Naukowo-Technicznych in Katowice
38. Naczelna Organizacja Techniczna NOT in Gliwice

39. Regional Chamber of Commerce and Industry in Tychy
40. Państwowa Agencja Restrukturyzacji Górnictwa Węgla Kamiennego in Katowice
41. Technology Park in Tychy, Katowice Special Economic Zone Co.
42. Technology Park-Odnawialne Źródła Energetyczne in Częstochowa
43. Regionalna Agencja Promocji Zatrudnienia Ltd in Dąbrowa Górnicza
44. Regional Economic Chamber in Katowice
45. Regional Chamber of Commerce and Industry in Gliwice
46. Regional Chamber of Commerce and Industry in Częstochowa
47. Regionalna Izba Rzemieślnicza w Częstochowie
48. Regional Club of Inventiveness and Technology in Katowice
49. Rudzka Agencja Rozwoju „Inwestor" Ltd in Ruda Śląska
50. Stowarzyszenie „Bielskie Centrum Przedsiębiorczości" in Bielsko-Biała
51. Association of Polish Electrical Engineers, office in Katowice
52. „Homo Homini" Association in Rybnik
53. Polish Association of Metallurgical Engineers and Technicians in Katowice
54. Silesian Entrepreneurship Development Foundation in Gliwice
55. Silesian Association of Municipalities and Poviats in Katowice
56. Śląsko-Dąbrowskie Towarzystwo Gospodarcze in Rybnik
57. Chamber of Commerce and Industry in Dąbrowa Górnicza
58. Zakład Doskonalenia Zawodowego in Katowice

Self-government institutions:

1. Będzin Poviat Starosty
2. Bielsko-Biała Poviat Starosty
3. Cieszyn Poviat Starosty
4. Pszczyna Poviat Starosty
5. Rybnik Poviat Starosty
6. Marshal's Office of the Śląskie Voivodeship
7. Bielsko-Biała City Council
8. Cieszyn City Council
9. Częstochowa City Council
10. Gliwice City Council
11. Jastrzębie Zdrój City Council
12. Katowice City Council
13. Ruda Śląska City Council
14. Rybnik City Council
15. Zabrze City Council
16. Voivodeship Labour Office in Katowice and its branch in Bielsko-Biała

Second term Councillors to the Sejmik of the Śląskie Voivodeship:

1. Józef Berger
2. Jan Borzymowski
3. Alfred Brudny
4. Ludgarda Buzek
5. Michał Czarski
6. Leszek Czerwiński
7. Longin Dobrakowski
8. Andrzej Dobrzański
9. Tadeusz Fudała
10. Marian Gajda
11. Janusz Gałkowski
12. Jan Grela
13. Jadwiga Hyrczyk-Franczyk
14. Grzegorz Janik
15. Marian Jarosz
16. Jędrzej Jędrych
17. Sergiusz Karpiński
18. Jerzy Kłudka
19. Jolanta Kopiec
20. Janusz Krakowian
21. Alojzy Lysko
22. Marian Maciejczyk
23. Grzegorz Makowski
24. Wiesław Maras
25. Tadeusz Mazanek
26. Eugeniusz Mikołajczak
27. Krzysztof Nowak
28. Małgorzata Ochęduszko-Ludwik
29. Jan Olbrycht
30. Maria Pańczyk-Poździej
31. Antoni Piechniczek
32. Irena Pierchała
33. Rajmund Pollak
34. Antoni Sosnowski
35. Karol Stasica
36. Dariusz Staszyński
37. Henryk Szczerba
38. Grzegorz Szpyrka
39. Bernard Szweda
40. Marek Trombski
41. Michał Urban
42. Antoni Waleczek
43. Paweł Wieczorek
44. Zbigniew Wieczorek
45. Michał Wójcik
46. Stanisław Zapała
47. Piotr Zienc
48. Czesław Żelichowski