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Regional profile

Slovakia

1 Introduction

The CrowdStream project

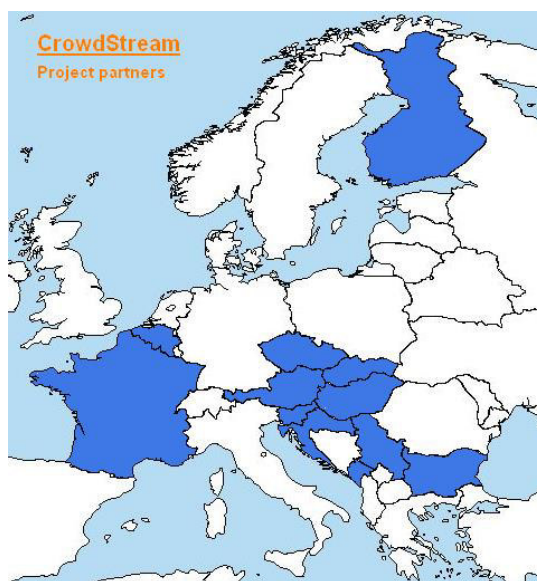
CrowdStream's main objective is to improve the effectiveness of public/private business-support for innovative spin-offs & social enterprises to access qualitative alternative financing (crowdfunding). The main project result will be improved cooperation between business-support-organisations and enterprises to guarantee a qualitative access to crowdfunding in the Danube region.

Crowd Stream outputs:

- ✓ Strategies for alternative finance (crowdfunding) in the Danube Region
 - Regional Action Plans
 - Policy recommendations for the region
- ✓ Quality tools for crowdfunding
- ✓ Capacity building for innovative small and medium enterprises (SMEs) and business support organizations
- ✓ Pilot actions

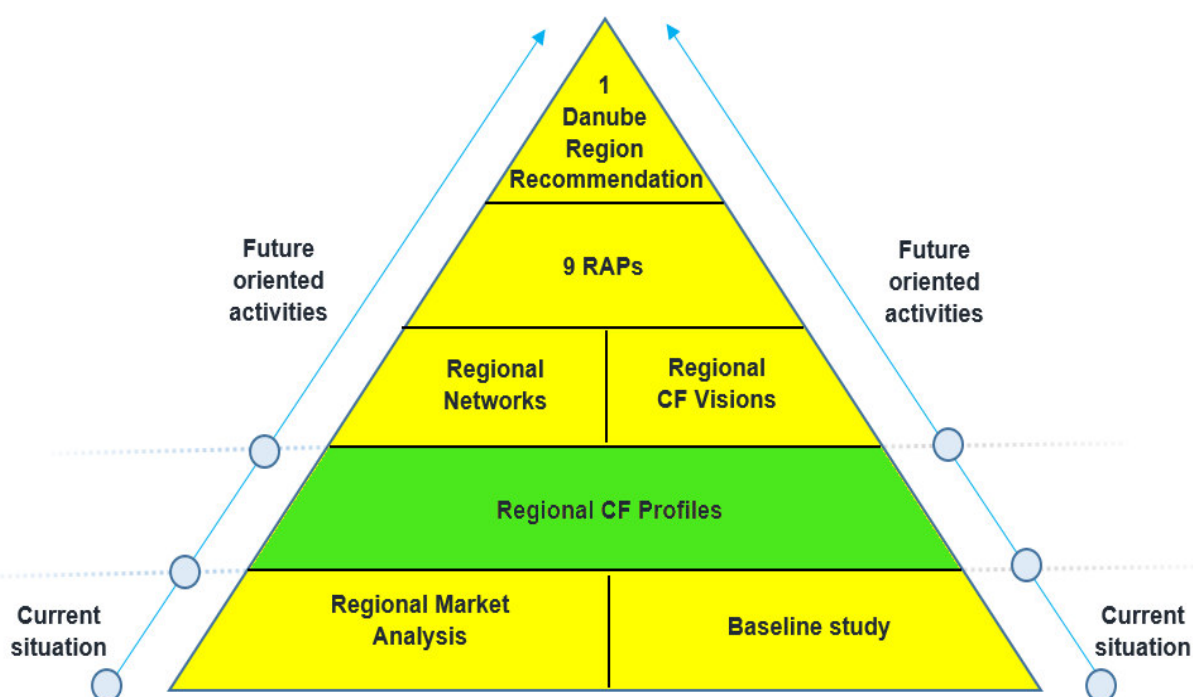
Who we are:

In this partnerships **16 organisations coming from 10 regions** aim at improving framework conditions for the development of alternative financing sources for SMEs in the Danube Region.



How we work:

The regional profiles will guide the project partners towards including relevant stakeholders in regional networks for developing the Regional Action Plan and the long-term targets on CF in their region (Regional CF visions). Those visions will enable the stakeholder groups to work jointly on the development and implementation of the RAPs and recommendations.



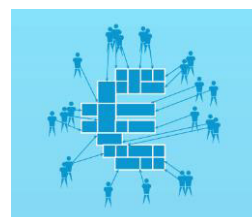
2 The regional profiles

- ✓ Describe the current situation of alternative finance in the partner regions
- ✓ Identify, inform and involve relevant stakeholders
- ✓ Support the development of common visions, Regional Action Plans (RAPs) and policy recommendations for the region

3 Crowdfunding basics

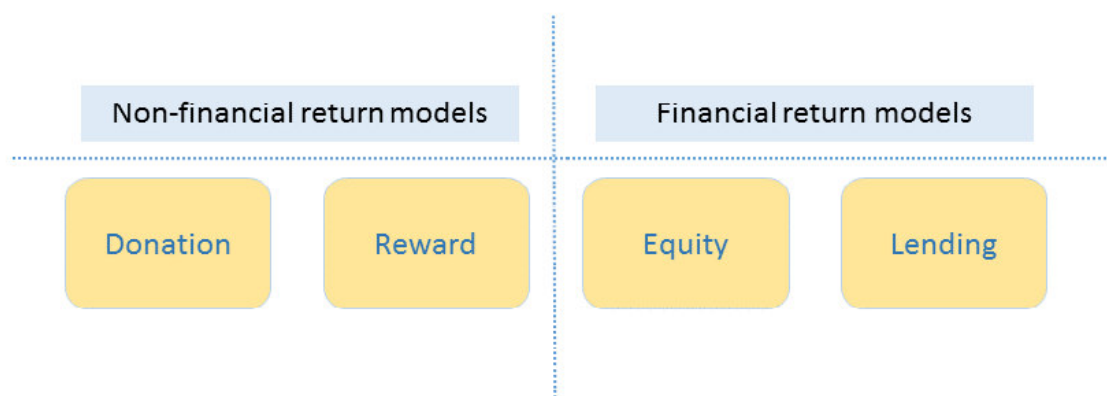
Types of Crowdfunding

Crowdfunding represents an effort from many individuals by offering a small contribution to support a project or a company in raising capital (*European Crowdfunding Network*).



Source: European Commission, Crowdfunding Explained to small and medium sized enterprises

In the case of **non-financial return crowdfunding models** individuals support a project because of emotional aspects of the campaign (donation-based) or they receive a symbolic award (reward model), which is not proportionate to the actual donation (*European Commission, Crowdfunding Innovative ventures in Europe*). The main advantages in the reward model can be attraction of first customers and a fast feedback on the commercial potential.



Financial return crowdfunding models provide an opportunity for the public to invest in start-ups or to offer loans with the expectation of a financial return while accepting some risks. The crowd could invest in early-stage companies (equity-based) or offer loans to SMEs under certain legal conditions (lending-based).

4 Slovakia - general information

4.1 Regional characteristics and economic situation

4.1.1 Area

Slovakia, officially the Slovak Republic, is the country situated in the Central Europe bordering with Czech Republic and Austria to the west, Poland to the north, Ukraine to the east and Hungary to the south. Slovakia's territory spans about 49,000 square kilometers and is mostly mountainous. Population density is 111 people per unit of area km².

Surface area	49 035 km ²
Number of municipalities	2 890
Number of towns	138



Figure 1 Area of Slovakia within Europe
Source: <http://www.slovak-republic.org/pictures/map-slovakia.jpg>

4.1.2 Population

The population is over 5,4 million and comprises mostly ethnic Slovaks (81,25% in 2015). We can find in the are also people from Hungarian minority (8,40%), Romany (2%) and others like Czech, Moravian, Silesian, Ruthenian etc. which are represented by less than 1% in the overall structure.

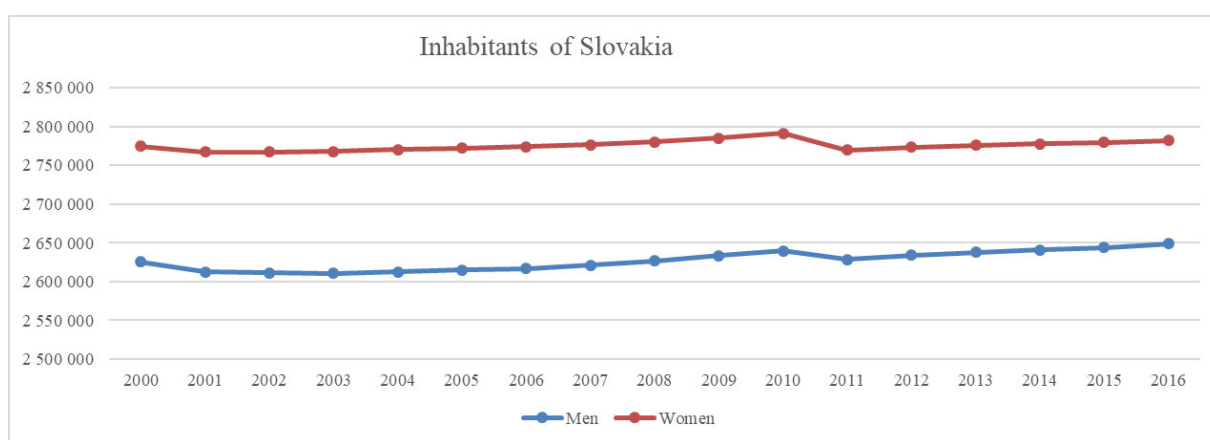


Figure 2 Inhabitants of Slovakia
Source: Eurostat

Natural increase in the population, which shows the difference between the number of live-born children and number of the deceased, was in 2015 0,3 per 1 000 inhabitants.

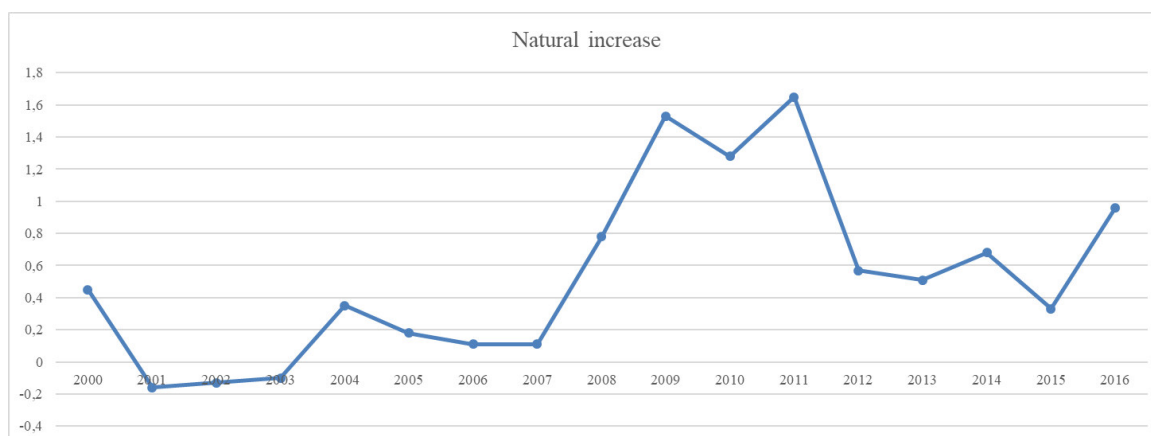


Figure 3 Natural increase in the population of Slovakia
Source: Eurostat

The balance of foreign transfers has been positive during the whole review period, since 2004.

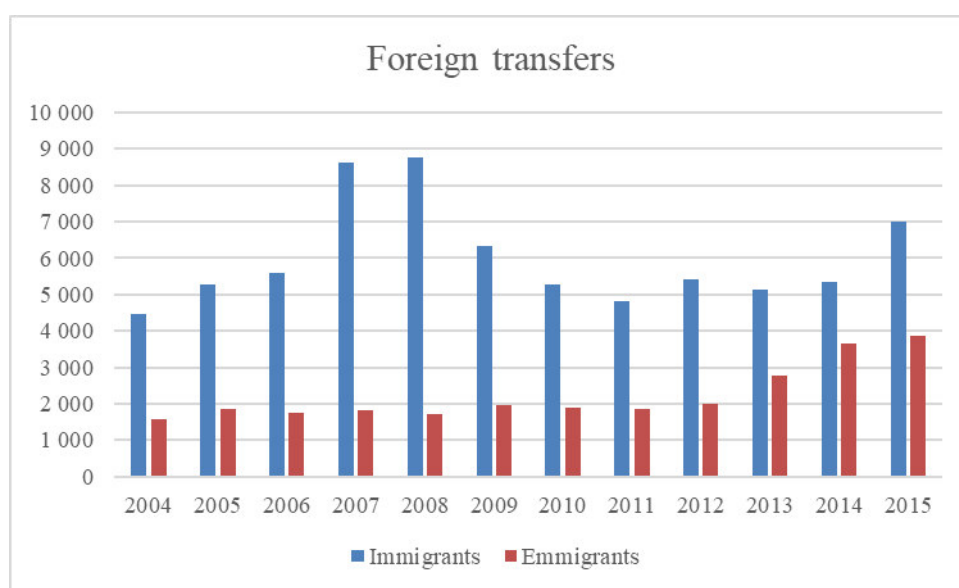


Figure 4 The balance of foreign transfers of Slovakia
Source: Eurostat

4.1.3 Gross Domestic Product

In recent years, Slovakia's economic performance has remained one of the strongest in the EU, as we can see on the graph below, according the value of GDP in millions of EUR. According to the Commission winter 2017 forecast, real GDP growth slowed slightly to a still-solid 3.3 % in 2016 and is set to remain around 3 % in 2017 and to increase to 3.6 % in 2018. (EC)



Figure 5 GDP of Slovakia
Source: Eurostat

Comparing year-to-year changes of GDP, we can see that Slovak economy reached the better values (higher increase or lower decrease), than average of EU 28.

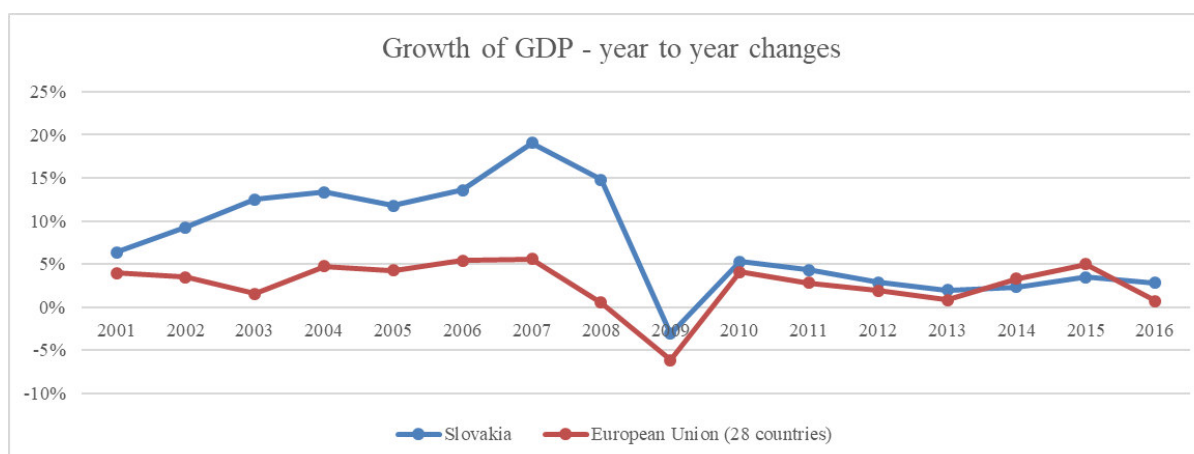


Figure 6 Comparison of GDP changes
Source: Eurostat

4.1.4 Labour Market

Labour market conditions are set to improve further, with a continued decline in unemployment and gradual increases in the activity rate. The annual unemployment rate fell below 10 % in 2016, for the first time since 2008 and the second time since 1995.

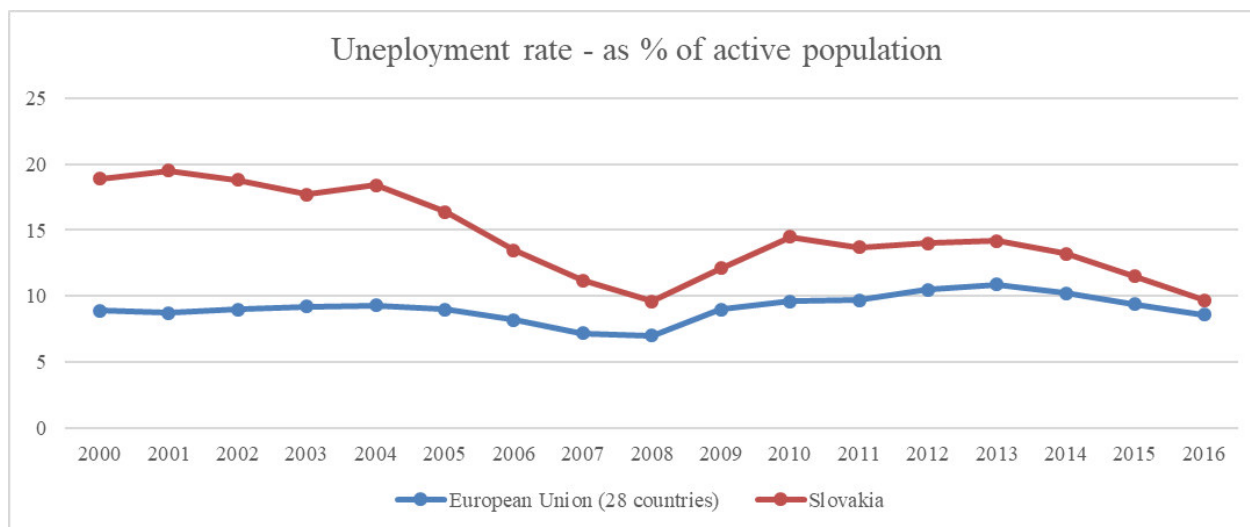


Figure 7 Comparison of unemployment rate
Source: Eurostat

Recent sharp declines in unemployment point to a tightening labour market, which is likely to drive up labor costs. With regard to emerging labour shortages, especially in the Western region, nominal wage growth is projected to steadily strengthen in 2018. Despite subdued inflation, real wage growth is expected to remain below real GDP dynamics.

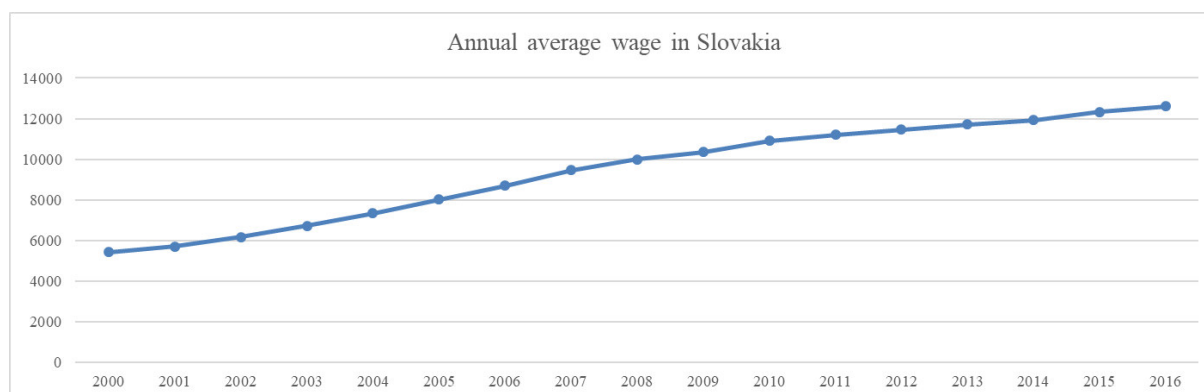


Figure 8 Annual average wage in Slovakia
Source: Eurostat

4.1.5 Innovative Sectors

Structural changes are necessary due to the fact that, though the Slovak Republic in the framework of the European Union belongs to the most rapidly growing economies (its gross domestic product per capita in purchasing power parity increased from 47 % of the EU27 average in 1995 to 73 % in 2012), its competitive advantage was made by low taxes

and labour price. In the international comparison, the Slovak Republic still belongs to the countries with the lowest innovation performance, lagging behind the EU average considerably.

Slovakia permanently lags behind in the intensity of innovation activities on the level of enterprises, in expenditures for projects of research, development and innovation resulting in practice, in technology transfer, in the use of cooperation potential, patent activities, in cooperation of research institutions with industry, in the use of venture capital and in a number of aspects conditioning the effective use of human resources. There is still a low level of cooperation between the institutions of science and research, education and economy in development and growth of competitiveness of the industrial basis, in connection with creation of competitive innovative products, technologies and services.

The share of knowledge-intensive services in GDP and export, compared to other countries, is very low and the use of innovative processes in the areas services, creative industry and social sphere has started only in the recent years.

This situation requires adopting concrete, clearly formulated steps which can be found in the strategic document “Through knowledge towards prosperity - Research and Innovation Strategy for Smart Specialisation of the Slovak Republic” which has been prepared on the basis of the methodological recommendations of the European Commission: Guide to Research and Innovation Strategies for Smart Specialisations, Regional Policy, European Commission, of May 2012.

Based on the analysis of the development of the Slovak economy there were identified the areas of specialization based on traditional sectors and prospective areas of specialization concerning the fast growing sectors, which have a high potential for the development of the Slovak economy. The analysis of economic development, infrastructure and R&D capacities and their interconnection are the basis for the specialization. An allocation of the Slovak industry does not correspond with the R&I capacities. For using of both potentials, it is necessary to create R&I opportunities for existing businesses and to create an environment for the creation of enterprises using already built capacities of R&I. The priority areas must be consistent with the environment and society to make the best use of the potential and synergies. By this way it would be achieved the national and regional competitiveness of businesses, not only at the local but also the global market, which will help to increase the overall competitiveness of the European Union.

4.1.5.1 Areas of Economic Specialisation

- Automotive and mechanical engineering industries
-

- Consumer electronics and electrical equipment
- Information and communication products and services
- Production and processing of iron and steel

Development trends in the specialization areas of economy:

- to increase domestic value-added products, particularly through the effective transfer of technology and science and research results into the production process,
- to develop production processes in industry focusing on better use of available resources, greater use of recycling materials and environment-friendly materials through the R&D&I development,
- the use, placement and replacement of previously used materials for advanced materials with a new and more complex performance, including technological processing (machining, forming, joining),
- to develop technological investment units, particularly in the field of metallurgy, engineering, energy and integrated industrial equipment, with respect to the application and use of light metals and advanced materials in the production of transport and construction facilities to reduce overall weight and contribute to the green economy, development and application usage of composite materials,
- to develop technological investment units, particularly in the energy and industrial facilities, with respect to internationalization activities and the development of so-called "Emerging countries",
- to make more efficient the production and logistics processes,
- to use ICT and robotics in the production processes,
- to involve in supply chains and internationalization - "the purchase of cooperation is also a purchase",
- know-how transfer from large to small subjects and vice versa in the framework of the cooperation,
- energy efficiency and renewable energy sources.

4.1.5.2 Prospective Areas of Specialisation

- Automation, Robotics and Digital Technologies,
 - Processing and increasing the value of light metals and their alloys,
 - Production and processing of polymers and progressive chemical substances (including smart fertilizations),
 - Creative industry,
 - Increasing the value of domestic raw material base,
-

- Support of smart technologies in the area of processing raw materials and waste in the regions of their occurrence.

Development trends in prospective areas of specialization

- new technologies allowing the transmission, processing and storage of data,
- smart production system,
- smart and industrial transport,
- smart technologies for the intelligent management of smart products consumption,
- progressive chemical technologies for the production of modern fertilizers,
- technologies and services for the active life and aging, i.e. health care, diagnostics and wellness,
- support of smart technologies in the area of processing raw materials and waste in the regions of their occurrence.

Some identified areas of specialization have partly created conditions for increasing their economic performance and competitiveness through the implementation of R & I activities in cooperation with R & I organizations with infrastructure capacity. To make more efficient their activities it will be needed to complete the necessary structure, mechanisms and linkages which will increase their innovation performance.

4.1.5.3 Areas of Specialisation from the Point of View of Available Scientific and Research Capacities

- Research of materials and nanotechnologies,
- Information and communication technologies,
- Biomedicine and Biotechnology,
- Environment and agriculture including modern enviro-friendly chemical technologies
- Sustainable energy and energetics.

Development trends based on the available R&I capacities

- R&I in the field of new materials, their components, polymer composites and their application in the business practice,
 - R&I in the field of linking dynamic parts of machines and mechanisms in order to increase the life and performance of devices,
-

- in the field of plastics it will be realized a research focused on for e.g. the use of recycling and biodegradable plastics in specific applications with reduced burden on the environment after their lifetime,
- R&I in the field of welding, surfacing and untraditional coupling of components,
- in the field of R&I technologies for the exploration and mining of raw materials,
- R&I technologies for acquiring of the electricity and heat from renewable sources (water, sun, wind, biomass and geothermal energy),
- research in nuclear energy with a focus on safety, storage of spent fuel; research of Generation IV reactors and problems of the nuclear fusion, Slovakia's participation in global projects,
- development in the area of improving the efficiency of energy transfer systems,
- development of innovative solutions enabling the rational management in the agriculture and forestry and reducing environmental burdens such as advanced fertilizer systems and chemical substances used in these sectors,
- technologies with a focus on the special chemical and pharmaceutical substances,
- development of solutions in the context of the climate change adaptation and strengthening of the internal security.

In Slovakia those prospective areas currently have not established sufficient conditions for the economic revaluation and therefore it will be necessary to complete the links between the research institutes and the business sector as well as the mechanisms of direct economic revaluation.

4.2 General investment situation

While remaining considerably above the EU average as a percentage of GDP in 2015 (23 % vs. 19.5 %), total investment in Slovakia (measured as gross fixed capital formation) has not fully recovered from the marked decline in the period following the financial crisis. General government investment remained broadly stable between 2009 and 2014 at an average rate of 3.7 % of GDP, and saw a marked rise to 6.3 % in 2015 as drawdowns of EU funds under the 2007-13 programming period ended. Meanwhile, decreasing private investment accounted for the entire fall in total investment between 2009 and 2014, and in 2015 stood at 16.7 % of GDP, only 0.3pp above its 10-year low of 2014. Based on the Commission 2016 autumn forecast, these trends are expected to reverse over the medium term, as drawdowns of structural funds in the new programming period will normalise and lower public investment, while private investment (including in car manufacturing plants) is likely to accelerate somewhat.

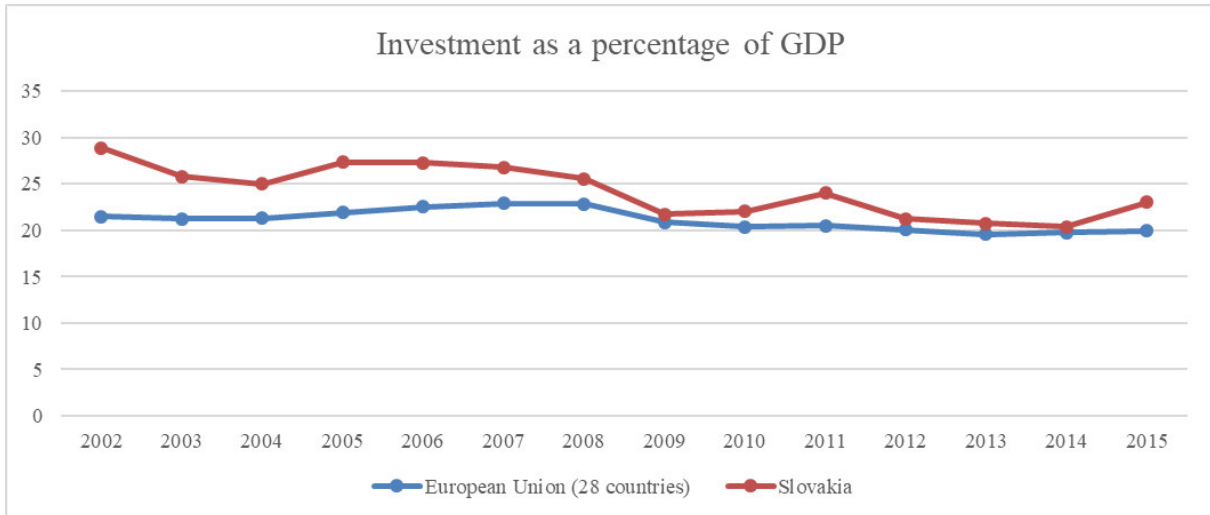


Figure 9 Investment as percentage of GDP
Source: Eurostat

4.2.1 Foreign Direct Investment

The situation of Foreign Direct Investment flows, compared to OECD members' and EU average, is presented in following graphs.

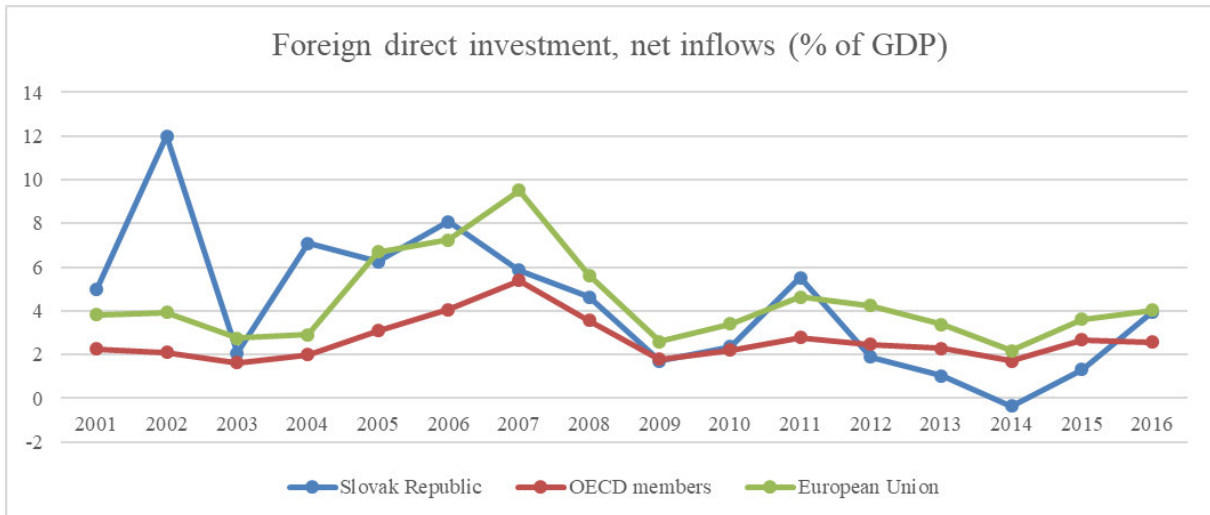


Figure 10 Foreign direct investment as % of GDP – net inflows
Source: OECD

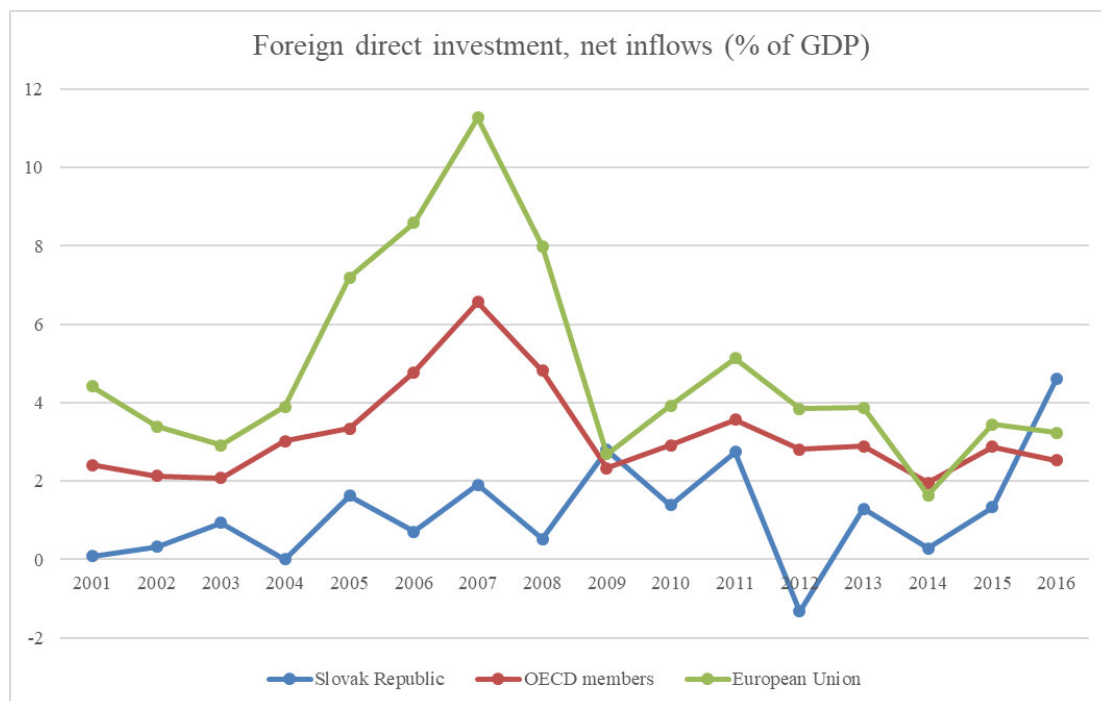


Figure 11 Foreign direct investment as % of GDP – net outflows
Source: OECD

4.2.1.1 Structure of Investments

4.2.1.1.1 Investments by Sector

Investment by sector includes household, corporate and general government. For government, this typically means investment in R&D, military weapons systems, transport infrastructure and public buildings such as schools and hospitals. (OECD)

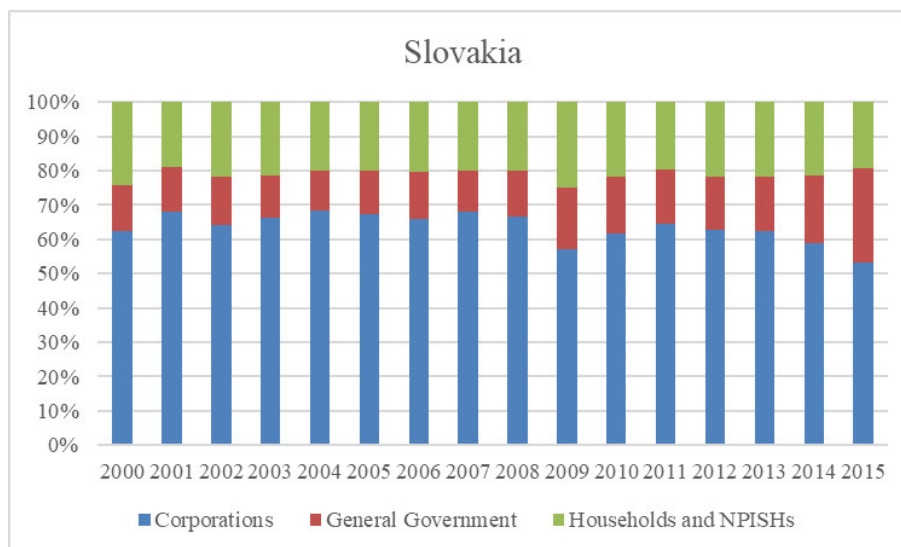


Figure 12 Investment by sector in Slovakia
Source: OECD

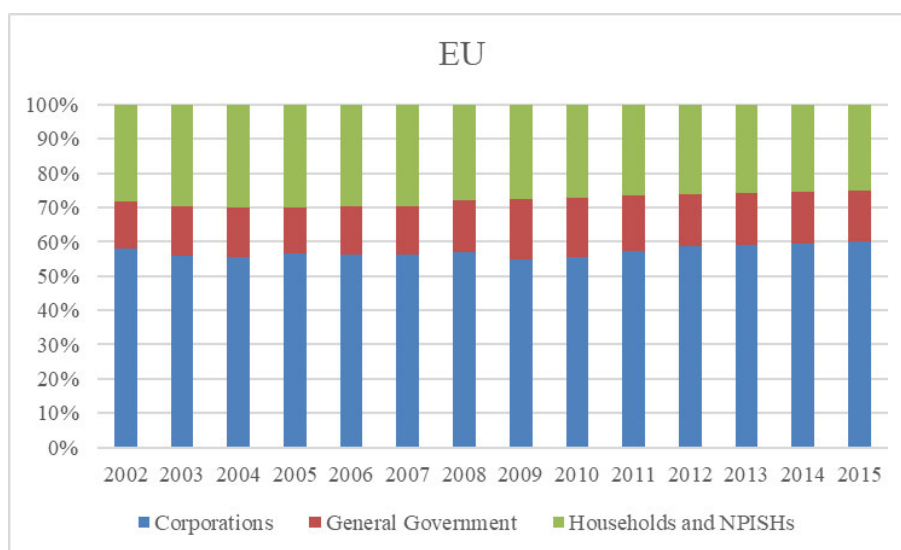


Figure 13 Investment by sector in EU
Source: OECD

4.2.1.1.2 Investments by Assets

Asset types in this indicator include six groups: dwellings (excluding land); other buildings and structures (roads, bridges, airfields, dams, etc.); transport equipment (ships, trains, aircraft, etc.); other machinery and equipment (ICT equipment, office machinery and hardware, as well as weapons systems etc.); cultivated assets (managed forests, livestock raised for milk production, etc.) and intellectual property products

(intangible fixed assets such as R&D, mineral exploration, software and databases, and literary and artistic originals, etc.). (OECD)

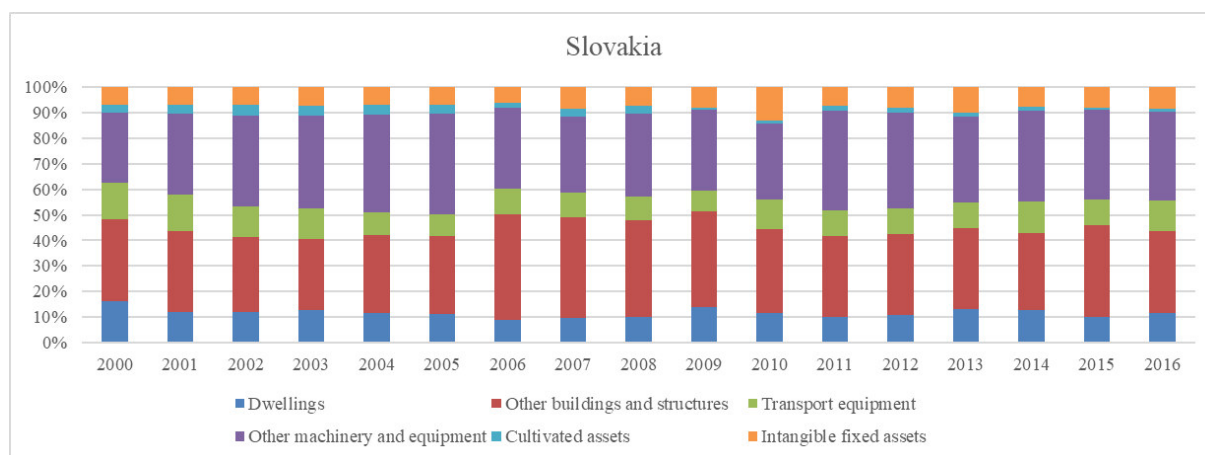


Figure 14 Investments by Assets in Slovakia
Source: OECD

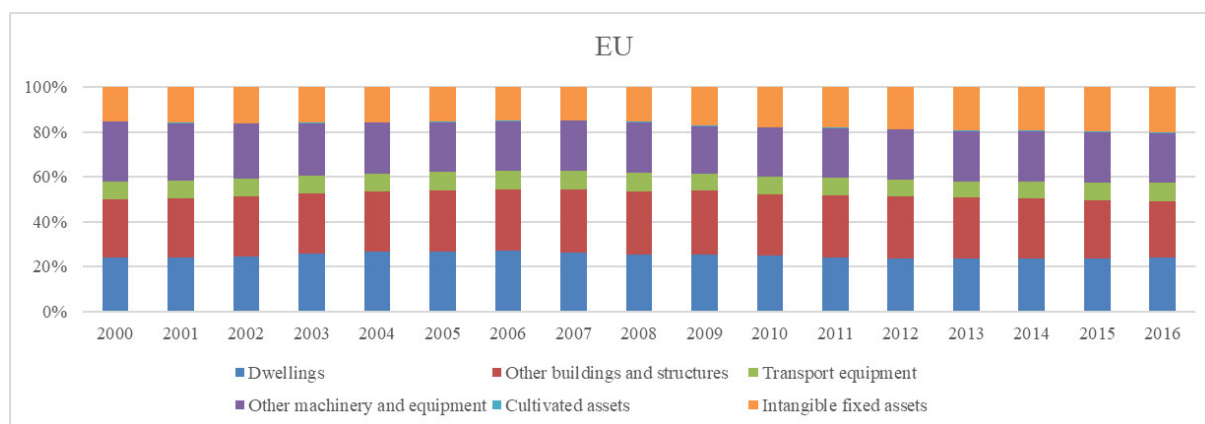


Figure 15 Investments by Assets in Slovakia
Source: OECD

4.2.2 Business Environment

There are several methodologies which can be used for assessment of business environment with concrete area around the world. One the main, popular and broaden distinguished, enable comparison countries of all over the world, is Doing Business report by World Bank.

Doing Business report sheds light on how easy or difficult it is for a local entrepreneur to open and run a small to medium-size business when complying with relevant regulations. It measures and tracks changes in regulations affecting 11 areas in the life cycle of a business: starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting minority investors, paying taxes, trading across borders, enforcing contracts, resolving insolvency and labor market regulation. Doing Business presents the data for the labor market regulation indicators in an annex. The report does not present rankings of economies on labor market regulation indicators or include the topic in the aggregate distance to frontier score or ranking on the ease of doing business.

The World Bank's 2017 Doing Business report ranks Slovakia 68th out of 190 for starting a business — a slight deterioration compared to the 2016 report (World Bank, 2017).

Weaknesses in Slovakia's business environment are reflected in cross-country comparisons. **Slovakia scores significantly worse than the EU average in a number of areas relating to the responsiveness of the administration to the needs of small and medium-sized enterprises (SMEs).** In particular, these are the time needed to start a business, the complexity of administrative procedures, and the burden of government regulations (European Commission, 2016). These factors can inhibit investment and growth by discouraging entrepreneurs from starting or expanding a business.

One of the main identified problem is time needed to obtain a construction permit for a warehouse (286 days in Slovakia, while OECD high-income average is 152 days). On the other hand, cost is very low (0.1 % of warehouse value, OECD average 1.6 %). Although, since October 2015, the Construction Act has allowed for shorter procedures to receive building permits, the fast-tracking applies only to large-scale investments and infrastructure projects (European Commission, 2016).

Insolvency arrangements still represent a major business hurdle. According to Doing Business 2017, Slovakia is ranked 35th of 190 economies on the ease of resolving insolvency. Slovakia performs worse than the EU average in respect of the procedure for resolving insolvency, both in terms of the time needed (4 years for Slovakia and 1.97 for the EU) and the costs (18 % of debtors' estate in Slovakia, 10.3 % in the EU).

On the table below, we can see assessment of several fields core for doing business in Slovakia by OECD. More information can be found on website:

<http://www.doingbusiness.org/data/exploreeconomies/slovakia>

<http://www.interreg-danube.eu/approved-projects/crowdstream>

Topics	DB 2017 Rank	DB 2016 Rank <small>(i)</small>	Change in Rank	DB 2017 DTF (% points) <small>(i)</small>	DB 2016 DTF (% points) <small>(i)</small>	Change in DTF (% points) <small>(i)</small>
Overall	33	30	↓ 3	75.61	75.44	↑ 0.17
Starting a Business	68	64	↓ 4	88.62	88.54	↑ 0.08
Dealing with Construction Permits	103	102	↓ 1	67.82	67.81	↑ 0.01
Getting Electricity	53	47	↓ 6	80.31	80.30	↑ 0.01
Registering Property	7	5	↓ 2	91.00	90.99	↑ 0.01
Getting Credit	44	42	↓ 2	65.00	65.00	-
Protecting Minority Investors	87	85	↓ 2	53.33	53.33	-
Paying Taxes ✓	56	58	↑ 2	80.57	79.46	↑ 1.11
Trading across Borders	1	1	-	100.00	100.00	-
Enforcing Contracts	82	81	↓ 1	58.92	58.92	-
Resolving Insolvency	35	34	↓ 1	70.53	70.04	↑ 0.49

Figure 16 DB Rank of Slovakia
Source: World bank

And on the following picture, we can see how Slovak Republic and comparator economies rank on the ease of doing business.

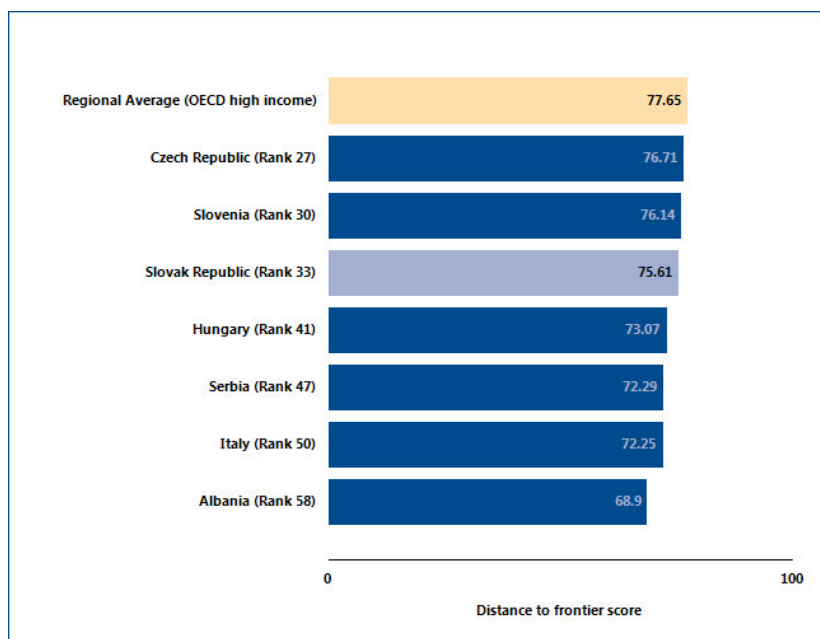


Figure 17 How Slovak Republic and comparator economies rank on the ease of doing business
Source: World Bank

Main barriers to investment and priority actions underway (European Commission, 2016)

Frequently changing legislative environment

A frequently changing legislative environment makes it difficult and costly for companies to comply with legislation, and legislative and regulatory processes are often viewed as insufficiently business-friendly. While the lack of evidence-based policy making is often noted, the framework for regulatory impact assessments is being strengthened. The lack of eGovernment services complicates business interactions with authorities. Perceptions of corruption and favouritism are rife, especially in public procurement.

The justice system in Slovakia

The justice system in Slovakia continues to face challenges with regard to its overall effectiveness. While efficiency has started to increase, the workload of the courts remains high. Efficiency aside, the quality of the justice system can be further improved, and persistently low levels of perceived judicial independence in Slovakia undermine the trust of citizens and business.

Skilled staff and experienced managers

According to the latest Annual Report on European SMEs, the availability of skilled staff and experienced managers is the second most pressing problem for Slovak SMEs. Slovakia's labour market recovery is likely to be causing labour supply pressures. Official statistics currently show about 40 000 vacancies, while recruitment companies cite far higher figures. After a period of deterioration and stagnation, dual education was rolled out in 2015, but results have yet to materialise.

4.3 Financing of innovation

From the point of view of expenditures on research and innovations Slovakia permanently provides insufficient resources in this area. One of the reasons has been the selected form of privatisation of large companies when research and innovation departments have been separated and privatised which has led to their separation from practice. In the previous decade, the total expenditures for research and development were roughly 0.5 % of GDP, growing in recent years. This growth has been made by growth of capital expenditures for appliances and equipment which can be caused by the use of the structural funds in research and development. In the 2010-2011, the resources for salaries were increased significantly.

Slovakia belongs to the countries with the lowest expenditures. An important part of public sources in research and innovations covers expenditures of basic research without connection to economic performance of the country.

The share of business expenditures in research and innovations is roughly 0.25% of GDP (2% of GDP in developed economies) The reason of this reality is that the present multinational companies carry out research and innovation activities mostly in their home countries. However, the Slovak companies and medium enterprises intensively develop their research and innovation and intend to build research and innovation centers in Slovakia.

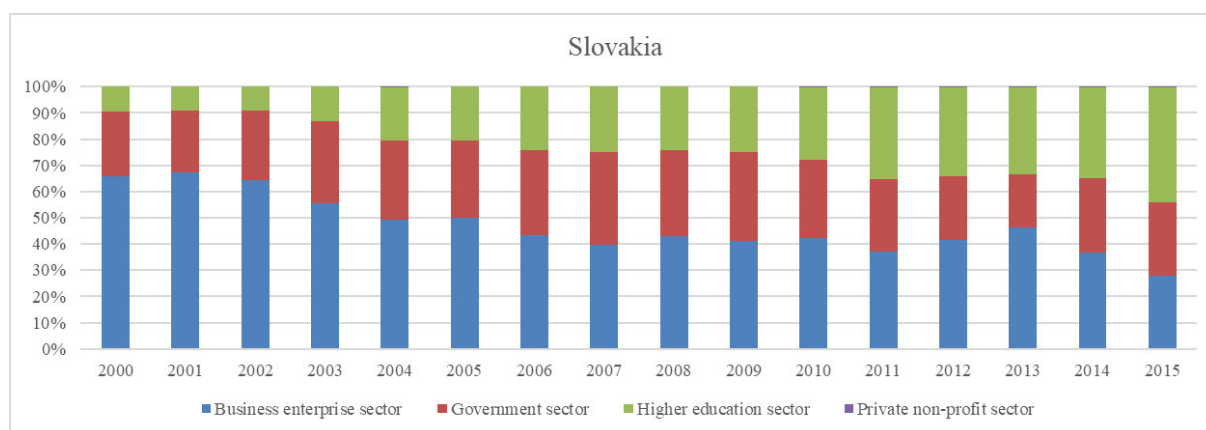


Figure 18 R&D expenditures by sectors in Slovakia
Source: Eurostat

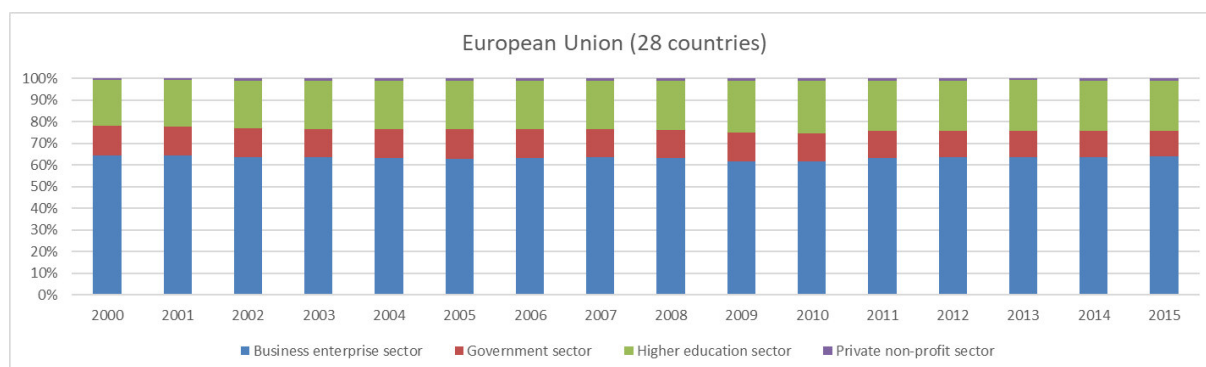


Figure 19 R&D expenditures by sectors in EU 28
Source: Eurostat

4.3.1 Tools of funding of research and development

Tools to support research and development under the existing legislation are as follows:

National programmes are conducted pursuant to the Act 172/2005. Ten national research and development programs in accordance with the priorities of the state science and technology policy were approved by the Government. This instrument pursuant to the Act has been in force since 1 July 2005.

Agency to support research and development (hereinafter referred to as "APVV") supports research and development programmes in accordance with Act 172/2005. Agency programmes are approved by the Government after consultation of the Government Council for Science, Technology and Innovation. By 31 December 2012, APVV through a grant scheme supported 22 projects in the amount of EUR 1,023 thousand.

The APVV will be transformed to become a more effective institution, coordinating its activities with ASFEU. In the 2014-2020 period, there are planned expenditure on operations and programmes of APVV in total sum of EUR 316 million. This tool will be now tripled which assumes more effective activity.

Incentives for research and development are provided to entrepreneurs in accordance with the Act 185/2009 on incentives for research and development as amended to deal with R & D projects with the aim to base their development and business plans on the results of research, development and innovation, to extend the staff capacity of R & D, as well as to increase investment in research and development. Totally, 16 subjects were supported with the amount of EUR 7,500 thousand. In the 2014-2020 period, expenditures on R & D incentives in total amount of EUR 108 million are planned. It is an essential tool for promoting business sector. That sum should be doubled by 2020.

Grants to legal persons and natural persons are provided in accordance with the Act 172/2005 on the organization of state support for research and development by the central state administration bodies. This tool was introduced on 1 July 2005. In the 2014-2020 period, the budget for R & D is planned at the sum of EUR 115 million.

Grants for scientific and technical services are provided in accordance with the Act 172/2000 on the organization of state support for research and development. Grants may be provided from the state budget for activities of legal persons and natural persons - entrepreneurs to support research and development. Providers may be central state administration bodies or the Slovak Academy of Sciences. The grant is state aid. In the

2014-2020 period, the budget for scientific and technical services is planned in total sum of EUR 73 million.

Operational Programme Research and Development

Operational Programme Research and Development plays the role in modernising the system of support for research and development and improvement of infrastructure in order to increase the competitiveness of the economy, reduce regional disparities, create new innovative (high-tech) SMEs, promote creation of the new jobs and improve the conditions of the educational process at universities. By 31 May 2013, more than EUR 1,118 thousand were contracted, which is 81.91% of the total allocation. The total number of projects is 485.

Effectiveness can be increased by introduction of rules on coordination and communication between the management authority and the implementing agency ASFEU and communication with APVV.

The following weaknesses have been identified in the process of implementation:

- Insufficient connection to state policies of research and development and relative separation of the Operational Programme Research and Development;
- Missing strategy of implementation for the entire programming period related to the objectives of the Operational Programme Research and Development;
- Low rate of complementarity and synergies in the process of implementation of the Operational Programme Research and Development and activities and initiatives of the European research space;
- Excessive administrative burden imposed on the applicants for a grant;
- Inappropriate set of indicators;
- Existing barriers between individual projects, especially ban on the use of infrastructure built in one projects in other activities of the applicant, including the use in international projects;
- Inappropriate rules of state aid which do not allow to use the infrastructure built from public resources to meet the needs of industry and practice. The same applies on the rules of the use of this infrastructure by public operators for payment

Positive effects of projects funded by the Operational Programme Research and Development:

- building a basic public infrastructure and reduction of long-term lagging
 - increasing potential for involvement of international projects of research and development
 - starting the process of identification of strong thematic orientations of the Slovak science required by the industry
-

- definition of priorities and linking the scientific teams allowed the universities and the Slovak Academy of Sciences to start building the science parks and research centres of national importance

Operational Programme Education

Operational Programme Education plays the role of ensuring long-term competitiveness of Slovakia by adapting the education system to the needs of the knowledge society. Through the grants from the European Social Fund it supports the formation and promotion of human capital in the acquisition of basic skills and key competencies needed in the knowledge economy and the labour market. Demand-oriented projects carried out by ASFEU do not exceed EUR 2 million. By 31 May 2013 there was contracted EUR 565 345 874.13, which is 101.60% in relation to the total allocation. The total number of projects is 832.

- Insufficient support of professional education, natural sciences, practical skills (changes appeared in 2012 which is not sufficient, taking into account the needs to comply the education with the needs of practice).
- The life-time education area and education of persons with specific needs (due to various handicaps) were supported insufficiently.

Operational Programme Competitiveness and Economic Growth

Basis of the Operational Programme Competitiveness and Economic Growth, the Managing Authority of which was the Ministry of Economy, was a priority axis 1 "Innovation and growth of competitiveness" in the framework of which 456 projects were supported with a total contract less than EUR 395 million. The projects resulted in the increase of innovations of technologies and products in enterprises and services, prototypes and tests, innovations of management systems. Almost 2,000 new jobs were created. As the projects continue, 2,000 further jobs are expected in the future.

In the framework of the measure "Innovation and technology transfers", which was oriented to innovation and technology transfer, 403 projects were supported, including 376 projects of small and medium-sized enterprises. These enterprises were particularly interested in the purchase and restoration of technology park. The measure is very popular and used by businesses, but sources were not used only for the purchase of high-tech technologies. This situation is mainly due to the current status of technology companies in Slovakia and that is why the measure is evaluated as positive.

Within the measure "Support of innovation activities in enterprises" 42 projects of research and development were supported, of which 37 in the area of small and medium-sized enterprises and 4 projects in large companies.

From the funds allocated in the Operational Programme Competitiveness and Economic Growth also so called "Common services to businesses" were supported to promote public sector in building infrastructure for business development in industry and services sector, in particular micro-, small- and medium-sized enterprises (SMEs). In total, 11 projects were supported, which should lead to creation of more than 3,200 new jobs, especially in industrial parks in Slovakia. The main drawback was the lack of action synergy and complementarity with other Operational Programmes, stemming for example from the unfinished road infrastructure.

From the sources of the Operational Programme Competitiveness and Economic Growth a JEREMIE project was supported to improve the financing of business activities. The sum of EUR 60 million was allocated. To this date, however, JEREMIE was not launched practically (more information below).

The targets and objectives of the Operational Programme Competitiveness and Economic Growth are being achieved. Within the implementation the following weaknesses have been identified:

- complicated management process under the JEREMIE initiative because of a lack of coordination (Ministry of Finance, Ministry of Economy, EIF, managing authorities of particular operational programmes),
- complicated bureaucracy - the administrative burden both for donor and recipient,
- exclusive orientation to SMEs without the use of the potential of large companies
- inadequate funding system (reimbursement of eligible costs)
- inappropriately (ambiguous) set procurement system,
- system of the evaluation of the programme is focused more on the quantitative side than on quality assessment.

Despite these weaknesses, the Operational Programme Competitiveness and Economic Growth in promoting growth, competitiveness and job creation succeeds in meeting those parameters which are not measured at the programme level, but are pursued at the measure level in line with the objectives of Europe 2020.

At the same time, the Operational Programme Competitiveness and Economic Growth is the producer of jobs for disadvantaged groups – the young unemployed up to 29 years of age.

On the basis of currently accepted applications it is possible to expect that roughly 1,600 new jobs will be created in the promotion of innovation and technology, dedicated to this disadvantaged population group and in the support of tourism service provision 320 new jobs should be created, occupied by young people under 29 years of age.

The support of projects focused on innovation and competitiveness growth also brings increased value added or sales growth of the supported businesses, and increase of private investment. In these areas, it is possible to see the physical progress, as the enterprises so far have invested more than EUR 188 million from its own resources, or their value added on average grew by almost 70%, and sales grew by more than 110%

5 Regional Analysis on crowdfunding

5.1 CF actors (platforms, initiatives, intermediaries etc.)

Detail description can be found in the attachment - Stakeholder mapping, created as part of D3.1.1 Regional market analysis on crowdfunding - Identification, description & evaluation of relevance of all crowdfunding activities and relevant stakeholders in each partner region (success stories/lessons learnt)

Donation-based platforms



www.startlab.sk



www.ludialudom.sk



<https://darujme.sk/>



<https://www.startovac.cz>

Reward-based platforms



<http://www.marmelada.sk/>



<https://www.hithit.com/sk>

Loan-based platforms



<https://zlytmelon.sk/>



<https://finzo.sk>

Equity-based platforms



www.conda.sk



OAK Investment

www.investujes.sk



www.crowdberry.eu

5.2 Available types of CF

According to the conclusion of analysis performed as the activity for CrowdStream project (D3.1.1 Regional market analysis on crowdfunding - Identification, description & evaluation of relevance of all crowdfunding activities and relevant stakeholders in each partner region (success stories/lessons learnt)) we found out that all four types of crowdfunding exist at the moment in Slovakia (2017).

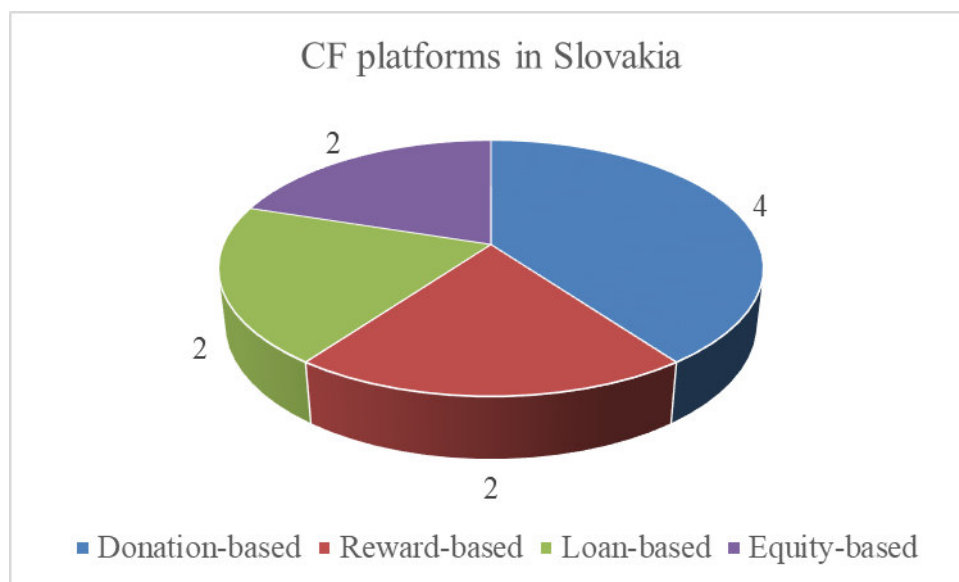


Figure 20 CF platforms in Slovakia – categorization by type
 Source: Stakeholder mapping

5.3 CF volume of investment

The Slovakian crowdfunding industry represents a newcomer in Europe. So far, projects from Slovakia have widely used international crowdfunding platforms.

By mid 2015, some local crowdfunding platforms started their business and tried to survive in the difficult policy and legislative environment.

In 2017 we can observe the better situation assessing the number and volume of finance. But no detail analysis is possible as there are currently no numbers available for crowdfunding volumes in Slovakia. Some of the working platforms release their statistics, but not all and detail described, what causes no way for description of their volume of investment.

The only platform providing statistics is <https://zltymelon.sk>. On the picture below, we can see volume of provided loans for customers in Slovak and Czech Republic.

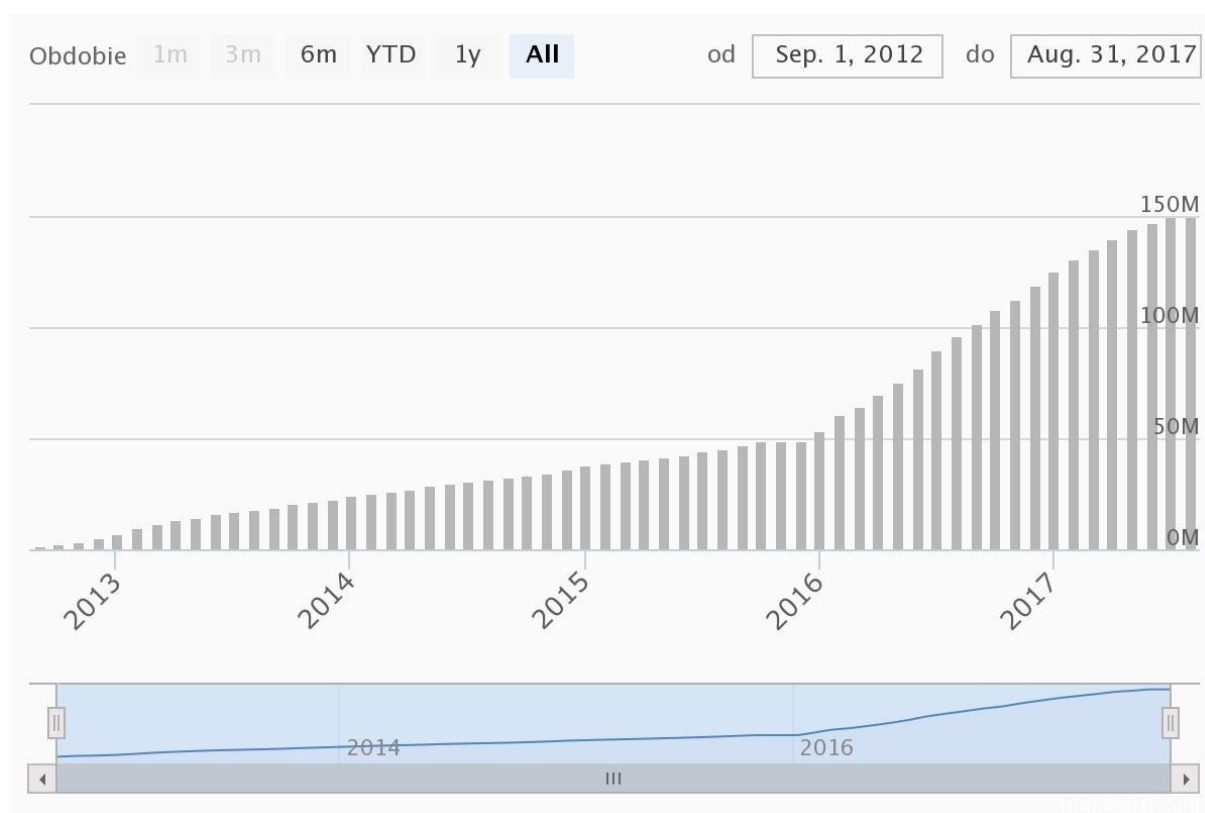


Figure 21 Provided loans to customers of www.zltymelon.sk
Source: Stakeholder mapping

5.4 Existing Regulation Framework

5.4.1 Existing EU-level legislative framework

The 2014 Commission communication 'Unleashing the potential of Crowdfunding in the European Union' notes that Member States have addressed concerns around crowdfunding in two ways: through guidelines (as in the case of Germany, the Netherlands and Belgium), or through regulatory action (Italy, UK, France and Spain). In addition to national legislation, crowdfunding can also be subject to EU legislation, depending on the business model used. The communication cites Directive 2000/31/EC on certain legal aspects of information society services, in particular electronic commerce, in the internal market (platforms charging money for successfully financed projects may engage in e-commerce); Directive 2006/114/EC concerning misleading and comparative advertising, which provides minimum harmonisation for misleading marketing practices in a business-to-business context; Directive 2005/29/EC concerning unfair business-to-consumer commercial practices in the internal market, which protects consumers against misleading and aggressive crowdfunding practices; and Council Directive 93/13/EEC on unfair terms in consumer contracts, in case the standard terms and conditions used by crowdfunding operators contain unfair clauses. In addition, crowdfunding activities may also be subject to EU state aid and competition rules.

Specifically, for lending- and equity-based crowdfunding, the communication notes that further EU rules that may apply include provisions from Directive 2003/71/EC on the prospectus to be published when securities are offered to the public or admitted to trading, Directive 2007/64/EC on payment services in the internal market, Directive 2004/39/EC on markets in financial instruments, Directive 2013/36/EU on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, Directive 2011/61/EU on alternative investment fund managers, Directive 2008/48/EC on credit agreements for consumers, Directive 2002/65/EC concerning the distance marketing of consumer financial services, Regulation (EU) No 575/2013 on prudential requirements for credit institutions and investment firms, Regulation (EU) No 345/2013 on European venture capital funds and Regulation (EU) No 346/2013 on European social entrepreneurship funds.

5.4.2 Existing Slovak legislative framework

There are several laws and regulation regulating activities of crowdfunding, but none of them was created as the answer to actual trend of raising crowdfunding volume.

Act no. 513/1991 Coll. Business Code

- This Act regulates the position of entrepreneurs, business engagement relationships, as well as some other business-related relationships.

Act no. 40/1964 Coll. Civil Code

- The Civil Code regulates property relations of natural and legal persons, property relationships between these persons and the State, as well as relations arising from the right to the protection of people, unless those civil relations are not governed by other laws.
- The Civil Code also regulates the legal relations of intellectual property rights when these relations are not governed by other laws.

Act no. 102/2014 Coll. Consumer Protection Act in the Sale of Goods or the Provision of Services under a Long-Distance Contract or a Contract Out of the Operator's premises and the Amendment of Certain Acts

- This law governs the rights of consumers and obligations of the sellers in the sale of goods or services under a contract concluded at a distance or contracts concluded away from business premises of the seller, the conditions for organizing sales events and the sale of goods or services for sales promotions and scope of supervisors in checking compliance with this Act.

Act no. 136/2010 Coll. on services in the internal market

- This law governs the rights and obligations of service providers, the rights of recipients of services, the supervision of service providers, the operation of points of single contact and cooperation with authorities of other Member States of the European Union.

Act no. 122/2013 Coll. on the protection of personal data

- This Act regulates:
 - o the protection of individuals' rights against unauthorized interference with their privacy in the processing of their personal data,
 - o the rights, duties and responsibilities in the processing of personal data of natural persons,
 - o the status, scope and organization of the Office for the Protection of Personal Data of the Slovak Republic.

Act no. 128/2002 Coll. on state control of the internal market in consumer protection matters

- This law regulates:
 - o state control of the sale of products and services to consumers in the internal market, state supervision and control of the business in the energy sector according to special regulations and market surveillance according to a special regulation,
 - o the scope of the Slovak Trade Inspection in the control of the internal market,
 - o protective measures and fines for breach of law,
 - o cooperation of the Slovak Trade Inspection with other public administration bodies and civil associations.

Act no. 191/1950 Coll. bills of exchange and check

- The law regulates bills of exchange and checks.

Government Regulation no. 87/1995 Coll., Which implements some provisions of the Civil Code

- Changes of regulation by Civil Code, regarding also money lending.

6 SWOT analysis of regional CF potential

STRENGTHS

- Raising interest of businesses and government in innovations
- Increasing share of information services in export services
- Good results in selected scientific and technological disciplines, with concentrated research teams and workplaces
- Dynamic growth of ICT usage
- The quality of human resources

WEAKNESSES

- Low level of knowledge about CF
- Lack of skilled staff for preparing good campaign
- Small CF market
- talented people attracted by abroad countries
- Low level of trust by investors, especially local people who seem CF as very risky

OPPORTUNITIES

- Support of government for financing innovations by private sources
- Growing supply and demand for different types of CF
- Raising population of CF

THREATS

- Low level of promotion by government and NGO institutions
- High trust level of classic bank products
- Lack of regulation and control by public authorities supporting the trustworthiness of the CF concept

7 Regional development demand

7.1 Investment and business environment

7.1.1 Investment environment

One of the base requirement of good investment environment is developed financial market. The market in Slovakia can be regard as developed, and values of indicators lead to more positive position as overall assessment of the country (65th position of 138) describing overall business environment by World Economic Forum.

 8th pillar: Financial market development	33	4.6	
8.01 Financial services meeting business needs	36	4.7	
8.02 Affordability of financial services	35	4.4	
8.03 Financing through local equity market	74	3.5	
8.04 Ease of access to loans	21	4.7	
8.05 Venture capital availability	49	3.1	
8.06 Soundness of banks	15	5.9	
8.07 Regulation of securities exchanges	52	4.6	
8.08 Legal rights index 0-10 (best)	28	7	

Figure 22 Financial Market Development – Assessment by WEF
Source: World Economic Forum

In accordance with that were also findings of World Bank in country profile for Slovakia. Globally, Slovak Republic stands at 44 in the ranking of 190 economies on the ease of getting credit and we are above the average of OECD.

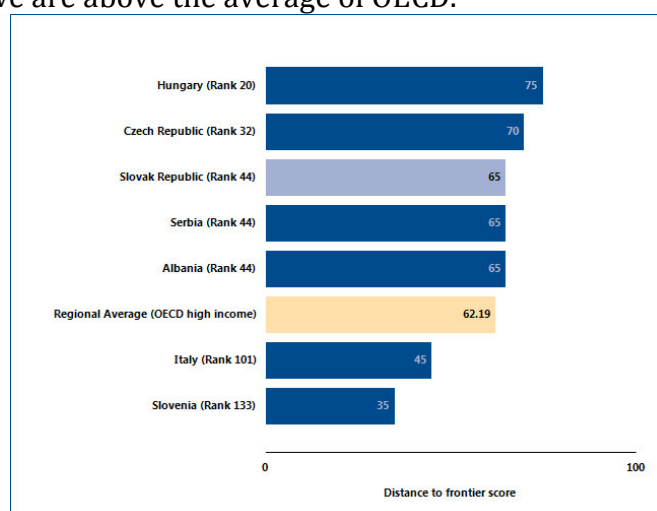


Figure 23 How Slovak Republic and comparator economies rank on the ease of getting credit
Source: World Bank

But as we can see, despite the opportunities provided by financial sector, Slovak entrepreneurs are still conservative and use to start a company primary by own sources.

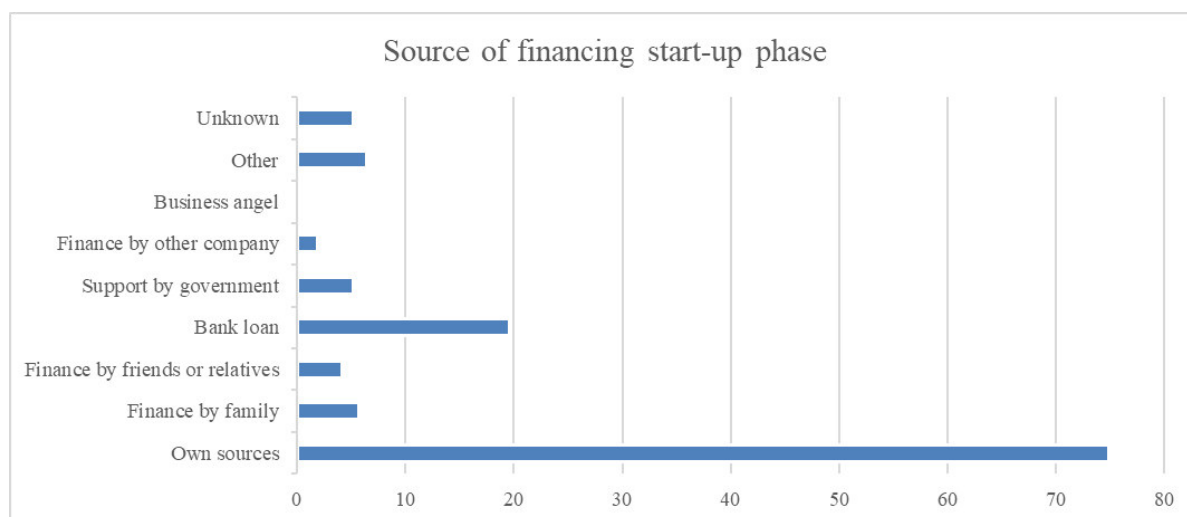


Figure 24 What financial resources have you used to start your business?
Source: Slovak Business Agency

Using of external sources are more common after the first years of competing on the market, what is connected also with the barriers and still quite disadvantageous circumstances, especially from the view of financial resources which classic bank is ready to provide for the company without any history. Once, company can prove their ability to “survive” on the market, they became the interesting partner for the financial institution.

On the following graph, we can see for what purpose are used the investment resources allocated in the Slovak business entities. Over half (55%) of investment activity in Slovakia was in machinery and equipment, and 17% in land, business buildings and infrastructure, in line with the EU average. But, investment in R&D is running behind the EU as a whole (and as a share of GDP it is below the OECD average), which could lead to innovation bottlenecks and skills mismatches. Regarding the aimed geographical area of investment, only 6% of firms in Slovakia invested in another country in the last financial year, below EU average. (EIBIS, 2016)

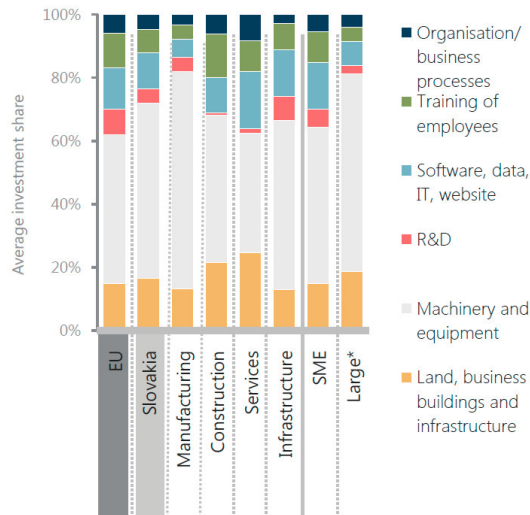


Figure 25 Investment areas
Source: EIBIS 2016

According to the EIBIS 2016, the top priority for future investment is the replacement of existing buildings: 38% of firms' name this as their key priority for the next three years. Expecting a continuation of strong domestic demand trend, 30% of firms in Slovakia plan to invest in capacity expansion over the next three years, ranking among the top five countries in the EU as a whole. (EIBIS, 2016)

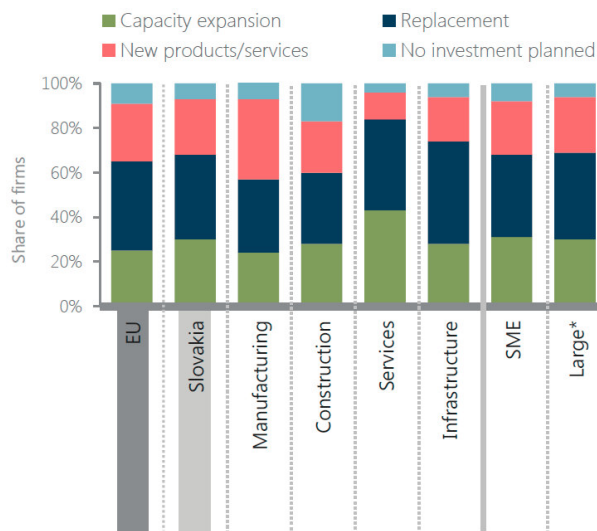


Figure 26 Future investment priorities
Source: EIBIS 2016

Slovakian firms consider uncertainty about the future, business and labour market regulations and availability of staff with right skills as their main long term obstacles to investment. This mirrors the observed rising skill mismatches, tertiary education gaps and high youth unemployment rate in Slovakia. Firms in Slovakia are more likely than the EU as a whole to cite business and labour market regulation, energy costs, availability of finances and availability of staff with right skills as long term investment barriers. (EIBIS, 2016)

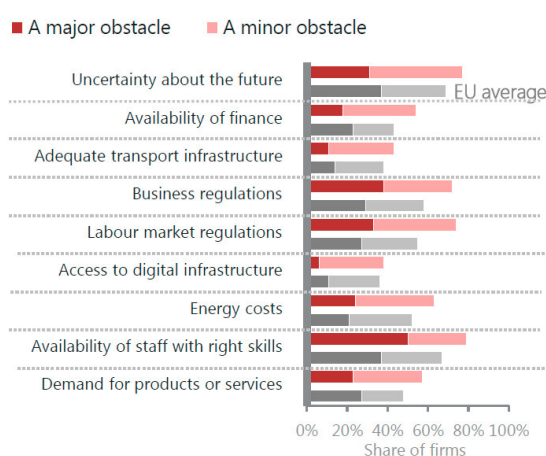


Figure 27 Long term barriers to investment
Source: EIBIS 2016

For firms in Slovakia that invested too little in the last financial year, uncertainty about the future, availability of staff with right skills, business and labour market regulation were reported as the main obstacles. Labour market regulations and uncertainty about the future were on balance the main factors differentiating between firms that invested enough and those that invested too little. (EIBIS, 2016)

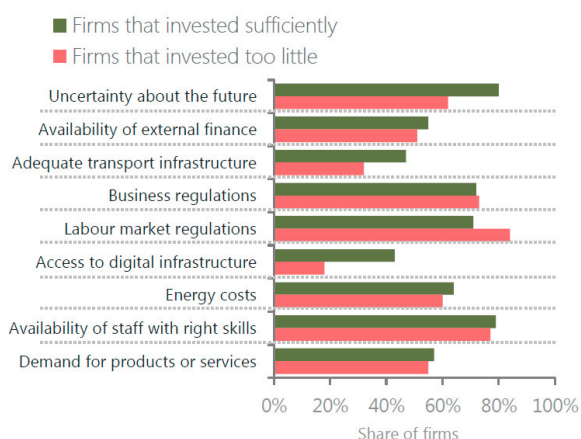


Figure 28 Long term barriers by investment performance
Source: EIBIS 2016

7.1.2 Business environment

Description of business environment can be found in the section 4.2.2 Business Environment.

7.2 Innovation

The description of regional situation, including needs and requirements, in the innovation environment, can be found in RIS3 strategy for Slovakia, as the following: From a long-term point of view, Slovakia according to the Innovation Union Scoreboard (IUS) international comparison belongs to the EU countries which lag behind the EU average considerably in the factor innovation performance. Of 27 EU countries, Slovakia occupied the 20th position in 2011 and still belongs to the group of so-called moderate innovators with the second lowest innovation performance in the group. In order to be more specific, we would like to mention that Slovakia belonged to the countries with the highest growth of innovation potential in the 2010-2012 period (19.9%) till the entering into force of the Europe 2020 strategy

According to a more detailed breakdown by NUTS II regions in 2011 (Regional Innovation Scoreboard 2012), the Bratislava region belongs to moderate innovators with high performance (stable position since 2007, except 2009), the Western and Central Slovakia belongs to moderate innovators with medium performance (in 2007, the Western Slovakia had high performance while the Central Slovakia low) and the Eastern Slovakia belongs to moderate innovators with low performance (since 2007).

In the area of conditions for innovation development the strengths of Slovakia include a high share of PhD graduates (3.1 per 1,000 inhabitants in age 25-34, but with insufficient representation of technical and nature sciences) and a share of young people with completed secondary education (93.3 %). In these two indicators Slovakia achieves the best position within the whole EU. A worse situation is in the share of population with higher education in age 30-34 where Slovakia occupies the 24th position in the EU (23.4 % of population in age 30-34 with completed higher education).

Quality of the system of science and research in Slovakia lags behind considerably according to the IUS assessment. As far as the number of PhD students from non-EU countries is concerned, Slovakia is on the 24th position within the EU, which reflects the education policy. However, the number of PhD students corresponds to the attractiveness of Slovakia as a “career destination of scientific growth”. Based on these two indicators we can mention that the Slovak science is considerably closed and its rate of involvement

into the international research context is low. There is a low number of cited scientific publications in Slovakia. On the other hand, as regards the number of international scientific publications with at least one co-author from a non-EU country, Slovakia is above the EU average (379 publications in Slovakia versus 300 publications in the EU) which together with the number of PhD students offers opportunities for improvement. In the area of funding the innovations, Slovakia from a long-term point of view can be characterised by insufficient use of risk capital. In 2010, the amount of invested risk capital made 0.03 % of GDP, while in the EU the investments of risk capital are six times higher (0.2 %).

The second dimension of assessing the innovation performance according to the IUS is enterprise activities. Unsatisfactory situation is first of all in the area of intellectual property where we are lagging behind the EU average, neighbouring economies and the European innovation leaders, especially in the area of patents. The countries like Finland or Sweden create almost 25 times more patents than Slovakia (measured per a billion of GDP). This adverse situation in the area of forms of intellectual property can be partly explained by a comparison of two IUS indicators – enterprise expenditures in research and development and expenditures in innovations which are not related to research and development. The Slovak enterprises prefer purchase of ready-to-use technologies, external knowledge or external research and development (0.65 % of turnover of enterprises in Slovakia versus 0.56 % of turnover of enterprises in the EU) against enterprise expenditures in their own research and development (0.25 % in Slovakia, 1.25 % in the EU). Simply said, there is a low level of patenting in Slovakia (also) due to the fact that enterprises invest insufficiently in their own research and development and buy ready-to-use technologies and knowledge instead. The reason of this reality is that the present multinational companies carry out these activities mostly in their home countries.

The innovation development is also linked to mutual cooperation of enterprises with their surroundings, creation of partnerships, clusters and enterprise networks. In the share of innovative small and medium enterprises (SME), cooperating in innovation activities with other stakeholders, Slovakia reaches the value of 8.3 % of all SMEs (the EU average is 11.7 %). We are lagging behind the developed countries in this indicator, but our value is higher than that in Poland and Hungary. The IUS measures the cooperation among enterprises and public research and development organisations through co-authorship of scientific publications. In this indicator Slovakia achieves only one-third performance of the EU (15.7 publications per a million of inhabitants in Slovakia and 52.8 publications per a million of inhabitants in the EU) and a half of performance in the Czech Republic and Hungary (but three times higher than Poland).

The third dimension of innovation performance is represented by economic effects of innovations. Of the analysed indicators, Slovakia achieves a relatively best position in the

contribution of export of medium-high and high technologies to the trade balance (4.35; the EU average is 1.28), where it occupies the 6th position in the EU, and in the sale of products which are new on the market and new for a firm (as % of turnover), where we are the second in the EU with the value of 23.3 %. The worst situation in the economic effects is in the indicator of incomes from the sale of licences abroad where Slovakia according to the IUS achieves minimal values. Incomes from the sale of licences for patents are directly linked to the low patent generation of the domestic research and development.

7.3 Regulation framework

In this year of 2017, European Commission, released document “Report of the independent High Level Group on maximising the impact of EU Research & Innovation Programmes”, known also as Lamy’s report, according the name of Pascal Lamy, Chair of the High Level Group, the group of professionals who are authors of the report including 11 recommendations are aimed at maximising the impact of future EU research and innovation programmes.

In this report, we can find also following proposition of changes, which are regarded as needed in the current European area, also in Slovakia:

Administrative processes along the entire project life-cycle, including amendments, should be simplified and streamlined across the programme. Consortia should have the flexibility, within the existing project budget, to easily adapt work plans and composition of research teams to new developments and opportunities.

Non-performing projects should be stopped. To further reduce the burden for beneficiaries of EU-funded R&I projects, the Commission should accept usual accounting practices of the beneficiaries. Reporting obligations should be kept to a minimum, and be weighed against the need to have continuous and real-time data on the results and impacts of projects.

In order to reduce the audit burden, the obligation to provide representative ‘error rates’ for the programme should be dropped. Audits should only be carried out when there is a suspicion of fraud or serious financial wrongdoing on a project.

8 Good practice examples

Three good practice examples from the respective region are described below.

Gettpal

- **Company:** Gettpal
- **CF platform used:** www.conda.sk
- **Topic:** Software – Social Net
- **Amount of money raised:** 30 100 EUR



Short description

Gettpal is an online social network where you find new buddies for your offline activities in real life. When you feel like doing something, Gettpal helps you find a friend to join you. Simply upload a post and invite people to join you for the activity that you want to do and let them decide if they are interested. You can also explore activities of others and join them.

Recent influence: 73 backers

Bentianna

- **Company:** Taste Evolution s.r.o.
- **CF platform used:** www.conda.sk
- **Topic:** Alcohol
- **Amount of money raised:** 57 400 EUR



Short description

Every sip of BENTIANNA is a little experience of its own, a dance of flavors and scents. Silky tones of honey, the unique combination of 13 healing herbs and the delicate bitterness of gentian are blended with juice from carefully chosen varieties of grapes and a genuine Tokay wine. All of this comes together in a unique harmony in which you can, time and again, keep discovering new stories.

Recent influence: 55 backers

Let's build a class for children in Iraq

- **Company:** Taste Evolution s.r.o.
- **CF platform used:** www.starlab.sk
- **Topic:** Education
- **Amount of money raised:** 5 131 EUR



Short description

Humanitarian organization A person in distress in northern Iraq near the town of Mosul has been helping the local children return for years after fighting back to schools. Children returning to school for several years do not go back to school.

However, school buildings are often destroyed after bombing, the environment is tampered, schools do not work with electricity and water does not flow.

In addition, there are many children in northern Iraq who never went to school.

During the last week of our students, we found out that the parents' interest in sending children back to school is enormous - 650 students were expecting "our" schools, more than 1,000 of them arrived!

Recent influence: 109 backers

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