

NATIONAL REPORT ON EXISTING STRUCTURES FOR SUPPORT OF ECO- INNOVATION – SLOVAKIA

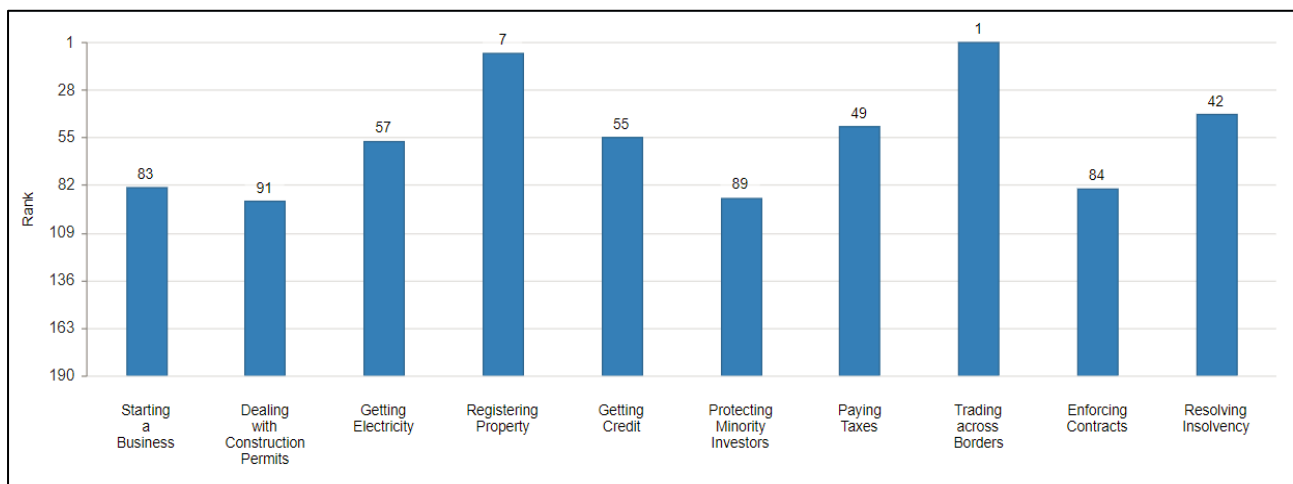


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ACTIVITY 3.2	Analysing the environment for ecoinnovation in partner countries
DELIVERABLE 3.2.3	National report on existing structures for support of Ecoinnovation

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1. Abstract

Eco-innovation is the introduction of any new or significantly improved product, process, organisational change or marketing solution that reduces the use of natural resources (including materials, energy, water and land) and decreases the release of harmful substances across the whole life-cycle. Each developed country should prepare support programs, which include tax incentives, direct financial support or, at least, simplify process of starting a new company. Slovak republic chose similar approach for innovation support. A number of companies in Slovakia claim the dedication to responsible business and the consumption or use of waste as a source. However, most of the companies implement only partial measures that save costs, but they are far away from the transition to the circular economy. Multinational companies comply mostly with policies of their parent organizations and as far as some Slovak companies are concerned. However, most large companies innovate their production processes only to accomplish environmental regulations, which are defined by Slovak government. Since 2017, government offers tax incentives for private companies that have created innovative product. The Slovak government also offer direct financial help for innovative start-ups. Mentioned programs are relatively new, and it is difficult to estimate, how effective these regulations will be. Generally, establishing a business in Slovakia is influenced by numerous variances. Founder can apply for establishing a new company online. Unfortunately, the legal procedures are so complicated, that it is impossible to do that without notary or lawyer. Moreover, paid-in minimum capital required for company registering is relatively high (2500 €). Limited availability of loans from banking sector and lengthy legal procedures (for example construction permits) are obstacles that may come in the way of creating a company. The dataset from the World Bank places Slovak Republic at the 39th position worldwide. The research was divided into 10 distinct categories. The rank of the Slovak Republic in all categories is shown on picture 1.



Picture 1. Rankings on Doing Business topics for Slovak Republic in 2018 (www.doingbusiness.org)

The results of the research show the pros and cons for doing business in Slovak Republic. Positive rankings are Registering a property (7) and Trading across Borders (1). The most negative ranking is Dealing with Construction permits. Founder have to accomplish 10 different procedures, what usually takes approximately 286 days. Highly problematic is also Slovak judicial system. It takes 775

days and 30.6 % from the cost of claim to solve an issue. Starting a business in Slovak Republic can be summarized as a slightly demanding process.

2. Support structures and sources for facilitating eco-innovation

This section summarizes national and international support structures and sources useful for implementation of innovations on market in Slovak Republic. The key factors of support structures are presented below. Detailed specification of each program is listed in subsections.

Accessibility

The accessibility of support structures is relative easy. Founder of innovative company can choose from EU, government or regional support programmes. Basic information about recent calls are provided by websites of Departments or regional websites and support offices. Regional offices often publish appropriate calls from ministries on their own websites. A special position in accessibility of innovations have Deputy Prime Minister's Office for Investments and Informatization of the Slovak Republic. This recently created office publish calls for support of innovations in various fields. Important role in this area plays also national technology transfer centre consisting of Slovak Centre of Scientific and Technical Information (SCVTI), major universities, Slovak Academy of Sciences. Centre offers services, which cover the whole technology transfer process, as well as partner search for commercialization, drafting of license agreements and creating of spin-off companies. Besides government information portal, there is also a few private organizations, for example www.eurodotacie.sk or www.grantexpert.sk (Centire) offering calls for innovations as well as consultations.

Despite of relatively easy access to calls, founder need to search in many different websites with various form of presentation. Except one portal, www.opvai.sk, which publishing most of calls from EU, all the rest of sources uses their own structure and visualization and sometimes special experiences are necessary to find the specific requisition. Generally speaking, access to various calls or at least to consultations are in every regional office. Moreover, every potential innovator can use one of many websites of ministries, other state authorities or private companies.

Frequency

Frequency of calls depends on provider authority. Slovak government provide timeless financial support for new innovative businesses. Each new company can apply for this kind of support since 2017. Office offers two kind of support, one is financial (up to 15000 € per company), and second kind of support rests in education and consultations. Timeless are also tax incentives for private companies that have created innovative product.

On the other hand, most national and international projects are listed for 5 years. Specific calls are regularly scheduled, and calls are released in advance. Almost all innovation supporting programs are founded by EU framework programmes like Horizon 2020 and Interreg. Authorities, as the research agency has announced offers for support almost on a periodic basis, but many programs are bundled for a highly specialized area or for one particular region.

Government agencies often organize support events and training programs, but they are often part of other projects and are designed for a specialized business area. In addition, they are not regular and it is difficult to predict their reopening.

Since 2017, deputy minister's office for investments and informatization preparing new National investment plan of the Slovak Republic (NIP SR) for the years 2018 – 2030. NIP SR will include investment programs and projects aimed at supporting the green economy, in particular for the following sectors: transport, information and communication technologies, energy, green infrastructure, water and waste management, adaptation and mitigation of climate change, R & D and innovation, housing, health and education.

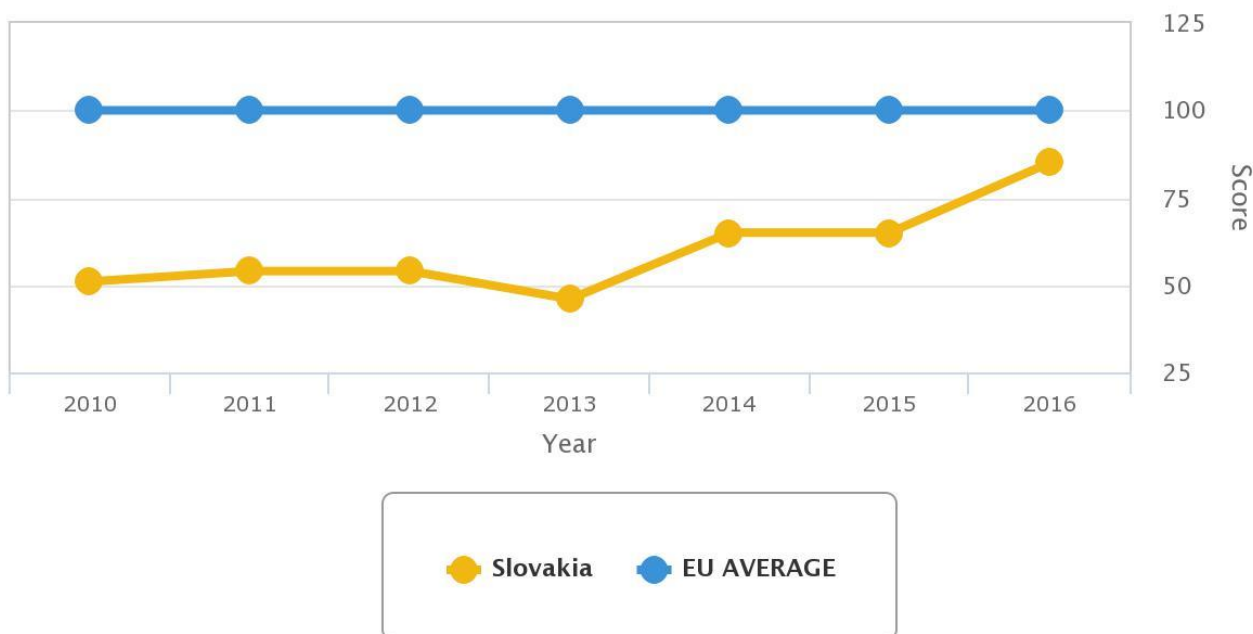
Stability

Large EU or national programs are usually listed for at least 5 years. From previous experience, we know that two scenarios are possible. Usually, the continuity of projects is guaranteed by launching new challenges that have a similar focus. This is the case for projects supporting mainly scientific and doped-oriented research (for example projects like BIOMACRO, BIOMACRO2, REVOGENE, REVOGENE2). Sometimes the new projects have different general focus, but some goals are mutual. Unfortunately, there were negative cases, programmes which finished without any replacement from EU or national structures. The Slovak Government, through the Agency for Investment and Trade Development (SARIO), tries to secure a continuous supply of foreign investment. Nevertheless, the amount of foreign capital differs every year. An example is the year 2015, when the volume of investments grew by 100%. For long-term development of the country it is necessary to invest in research and development. For Slovakia, only 1% of foreign investment support science and innovations.

Impact

Slovak Republic still belongs to Average eco-innovators, but since 2013 its index continuously grows, as you can see at picture 2. Unfortunately, much of the eco-related government research goes to areas with lowpotential for inventive activities, such as air, water, waste. There is a need to focus government R&D on emerging environmental areas that could boost Slovakia's long-term competitiveness. An attempt to strengthen R&D in Slovakia was the adoption of the Research and Innovation Strategy for Smart Specialization (RIS3 SK) in 2013 and its Action plan for years 2014 – 2016. It resulted in couple of changes since 2013, but the process in general has been hindered by other priorities and new action plan including complex monitoring and evaluation process have not been set up yet.

Eco-Innovation Index, 2016, Slovakia and EU AVERAGE



Picture 2: The development of the Eco-innovation index for Slovak Republic compared with EU average (http://ec.europa.eu/environment/ecoap/indicators/index_en)

Replicability

Replicability and Adaptability depends on the supporting structure. Most of the structures are designed for particular field, and its adaptation on different field can be difficult. National support structures are easily adaptable, but the amount of capital is low. Also international funding support structures, like Swiss- Slovak cooperation programme or EAA and Norway Grants are relatively easy adaptable and amount of capital is bigger. From Slovak point of view, EU support funds are oblique. The EU funds representing variable set of grants from relatively easy accessible to very complicated funds. Some support structures, for example Zelená domácnostiam, is well adapted. Other, like funds supporting Science and research, still waiting for call to be published and their adaptation is questionable.

2.1 Government support

Active or passive labour policy

Based on positive results of our economy, Slovak government approach actively to support innovations. Especially in the case of starting or innovating small or medium companies. Leaders in providing support for innovation in Slovakia are the Ministries of Economy and Education. Ministry of Economy also prepared strategies of innovations support.

The Strategy for Research and Innovation for Smart Specialization:

The Slovak Republic, as a Member State of the European Union, is committed and has the obligation to develop a unified Smart Specialization Strategy as a starting document from the ex-ante conditionalities for the Multi-Annual Financial Framework 2014-2020. This strategy under the conditions of the SR must not only meet the priorities of the Europe 2020 Strategy, including its key initiatives, but also to define measures for the fulfilment of the objectives of the National Reform Program and the specific recommendations of the Council for the Slovak Republic. Its elaboration and acceptance by the European Commission is a prerequisite for the conclusion of a Partnership Agreement between the Slovak Republic and the European Commission. The Ministry of Economy of the Slovak Republic, in cooperation with the Ministry of Education, Science, Research and Sports of the Slovak Republic, elaborated, according to the above mentioned, the Strategy of Research and Innovation for Intelligent Specialization of the SR (RIS3), approved by the Government of the Slovak Republic. The creation of the RIS3 was attended by the Office of the Government of the Slovak Republic, representatives of the business, academic and research sectors. RIS3 is the basic framework strategy document for supporting research and innovation in the upcoming programming period 2014-2020 and is the basis for the creation of operational programs.

Support for innovative solutions in Slovak cities:

The document is one of the activities of the Ministry of Economy of the Slovak Republic, which can form the basis for the support of Smart City projects in the Slovak Republic. The presented document describes the key aspects of the Smart City theme with an emphasis on their implementation in practice through entrepreneurial subjects. At the same time, it provides a practical tool for businesses and cities in the form of new support mechanisms and a review of already implemented examples both at home and abroad. Part of the document is an overview of the Smart City funding opportunities identified so far at regional, national, interregional and international levels. In addition to a passive informative role, the document can also be used to identify specific experiences / problems associated with the use of resources to facilitate the formulation of development priorities for cities. It also includes a draft scheme to support the introduction of innovative solutions in cities.

Available tax incentives

Slovak government prepared relatively generous tax incentives for companies with own research and development. Since 2015, all companies have an opportunity to deduct 25% of the cost of scientific research and development from taxes. The same legislative warrants to deduct 25% of staff wage costs, newly enrolled graduates of secondary and higher education institutions in the year of their recruitment, and 25% of the year-on-year increase in the cost of science and research from taxes. Ministry of economy also declared, that every new company will be exempt from the tax license for the year. It follows that Slovakia has chosen a positive motivation of companies with tax incentives.

Accessible trainings and seminars for skill development

During my data collection for this document, I found several seminars, training and conferences. All of them were prepared for small or medium businesses and also for potential founders of start-up companies. Many of them were organized by private companies, as Grantexpert s.r.o., EDUCO-

CONSULT s.r.o., CeMS, s.r.o. and many others. Each department prepares trainings, seminars and conferences according to field of interest. Ministry of economy prepares mostly business based trainings like: Information seminars for applicants on the Call for Applications for a Non-repayable Financial Contribution to promote Smart Innovation in Industry to be held in March 2018, or seminar organized by CVTI SR: Patents, trademarks and licenses in business and research, which took place on February 2018. Also Slovak Business Agency organizes many seminars and trainings for starting businessmen.

2.2 Domestic support funds

According to our research, none of Slovak domestic funds are directly designed for eco-innovations support. However, there are suitable funds, which support research and development in small and medium companies and start-ups.

HR development funds

HR development funds are cofunded by EU. All of mentioned programs are easy accessible using official webpage (<https://ludskezdroje.gov.sk/projekty>). Managing authority for HR development funds is Slovak Ministry of Labour, Social Affairs and Family. Slovakia is involved in drawing on two HR development funds, the Regional Development Fund (ERDF) and the European Social Fund (ESF). Given their focus, they set four key priorities: Technical Assistance, Education and training, Employment and labour market and Social inclusion. Currently, there are 14 separate projects aimed at supporting youth employment, employment in regions with high unemployment and social inclusion.

National scholarship funds

The Government of the Slovak Republic approved the establishment of the National Scholarship Programme of the Slovak Republic for the support of mobility of students, PhD students, university teachers, researchers and artists in 2005. The National Scholarship Programme of the Slovak Republic (NSP) is funded by the Ministry of Education, Science, Research and Sport of the Slovak Republic. The National Scholarship Programme of the Slovak Republic supports mobility of international students, PhD students, university teachers, researchers and artists for scholarship stays at higher education institutions and research organisations in Slovakia. The institution publicly declares two regular calls every year that support the scholarship around the world. Occasionally, the NSP is preparing a special call to promote country-specific learning, such as the recent Slovak-Austrian challenge.

Local/regional development funds

The Slovak Republic can support development at a regional level from its own resources, as well as from EU sources. Government support can be separated into two levels; first is support through action plans and calls from government itself. Second possibility is to use regional offices from one of eight Slovak regions. Action plan for less developed districts is aimed to 15 districts from Southeast and East Slovakia. However, it is difficult to get involved in this type of support. Every year, the government publishes the challenges of its national regional development program in which it supports small businesses. In recent years, it has supported approximately 20 projects worth around 30 000 euros. The EU has the bulk of funding for regional development. European Commission prepared integrated regional operational program, which main objective is to contribute to the

promotion of quality of life and to ensure sustainable provision of public services across the country. This will be beneficial for a balanced and sustainable regional development, as well as economic, territorial and social cohesion of Slovak regions, cities and municipalities. Slovakia is involved in five national programmes:

Integrated Infrastructure (<http://www.telecom.gov.sk>, Managing authority : Ministry of Transport, Construction and Regional Development of SR)

Integrated Regional Operational Programme (<http://www.ropka.sk/>, Managing authority: Ministry of Agriculture and Rural Development of the Slovak Republic)

Operating Programme Human Resources (<http://www.esf.gov.sk/>, Managing authority: Ministry of Labour, Social Affairs and Family)

Quality of Environment and Research and Innovation (<http://www.opzp.sk/>, Managing authority: Ministry of Environment of the Slovak Republic)

Research and Innovation (<https://www.minedu.sk/193-sk/strukturalne-fondy-eu/>, Ministry of Education, Science, Research and Sport of the Slovak Republic)

2.3 Transnational support funds

Cohesion funds

The Cohesion Fund is aimed at Member States whose Gross National Income (GNI) per inhabitant is less than 90 % of the EU average. It aims to reduce economic and social disparities and to promote sustainable development. For the 2014-2020 period, the Cohesion Fund concerns Slovakia as well as Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania and Slovenia. The Cohesion Fund allocates a total of € 63.4 billion to activities under the following categories:

Trans-European transport networks, The Cohesion Fund will support infrastructure projects under the Connecting Europe Facility.

Environment: here, the Cohesion Fund can also support projects related to energy or transport, as long as they clearly benefit the environment in terms of energy efficiency, use of renewable energy, developing rail transport, supporting intermodality and strengthening public transport.

Slovak Republic is involved in infrastructure projects:

Railway axis Paris-Strasbourg-Stuttgart-Wien-Bratislava

Railway axis Gdańsk–Warszawa–Brno/Bratislava-Wien

Motorway axis Gdańsk–Brno/Bratislava-Vienna

Framework programmes

The only framework scheme active in Slovakia is Horizon 2020. Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly €80 billion of funding available over 7 years (2014 to 2020) – in addition to the private investment that this money will attract. It promises more breakthroughs, discoveries and world-firsts by taking great ideas from the lab to the market. So far, Slovak institutions have received support for 250 projects with a budget of 77.5 million euros. Positive fact is, that private companies received 49% of founding. Food and agriculture and the environment and climate are the most successful Slovak thematic areas according to success rate. Unfortunately, We are very unsuccessful in ERC grants for basic research where, only one of 30 projects has succeeded.

SME instrument

The SME Instrument is aimed at exceptionally innovative SMEs that have the ambition to develop their own growth potential. It offers lump sums for feasibility studies (50,000 per study) and grants for the main phase of an innovative project (demonstration, prototyping, testing, usability development up to 2.5 million). Under Horizon 2020, it is expected to finance projects with a total contribution of up to € 3 billion, which will support several thousand European SMEs with the potential to successfully deploy innovative products in international markets. The SME instrument will cover all areas of science, technology and innovation in a bottom-up approach within a particular societal challenge or supportive technology in order to leave sufficient space to finance all promising ideas as well as interdisciplinary projects. Proposals are implemented through a constantly open call, which has 4 cut-offs per year. The program has three phases. The first is the feasibility phase, the second is the phase of validation and development of the project and the third is concerned with the development of the company. Unfortunately, Slovakia achieves only 3% success rate, representing 10 companies in the first phase and only one company in the second phase.

Foreign aid

The Slovak Republic uses funding mostly from EU, but especially in case of small projects, Slovak innovator can apply for non EU foreign aid. According to my research, there is three possible grant structures: EAA and Norway Grants, Swiss-Slovak Cooperation Programme and Visegrad funds.

EAA and Norway Grants

The Financial Mechanism of the European Economic Area and the Norwegian Financial Mechanism represent support funds from contributing countries: Norway, Iceland and Liechtenstein to several Member States of the European Union. The contribution for the Slovak Republic in 2009-2014 is more than 80 mil. and divided into nine programs:

1. Adaptation to climate change
2. Local and regional initiatives to reduce national inequalities and promote social inclusion
3. Protecting and revitalizing cultural and natural heritage and promoting diversity in culture and art within Europe's cultural heritage
4. Green innovation in industry
5. Domestic and gender-based violence
6. Cross-border cooperation
7. Scholarship program
8. Global Fund for Decent Work and Tripartite Dialogue
9. NGO Fund

The first six programs are administered by the Government Office of the SR, others have either an international administrator or the administrator has not yet been established. Funds have so far supported 200 innovative and development projects

Swiss-Slovak Cooperation Programme

The global aim of the Swiss Financial Mechanism, financed from resources of the Swiss Confederation, is to contribute to the decrease of economic and social disparities in the enlarged European Union. In Slovakia, 21 projects, supported from the Swiss-Slovak Cooperation Programme and co-financed from the state budget of the Slovak Republic, significantly contributed to this goal. The projects were strategically focused on safety, stability and reform support, environment protection, and infrastructure, as well as human and social development. The total budget of the projects supported from this programme was more than 60 million EUR. The total sum of the grants was approximately 59 million EUR, whereby part of this sum, usually 85 % of the project budget, was financed from the resources of the Swiss Confederation. 42 % of the contribution was provided to projects in Eastern Slovakia. The implementation period was set at 10 years, from June 2007 to June 2017. 3 projects contributed to economic growth and enhanced employment. After reconstruction, tourist information centres were opened in Trebišov, Čerhov, Zemplínske Hámre and Slovenský raj. In Slovenský raj, tourist trails were restored, entrance gates built, and trail marking renewed to a total length of more than 300 km. Thanks to the support, Zemplínske Hámre opened a museum with four external and four internal exhibitions and local landmarks and monuments were connected by an educational trail. 8 projects were aimed at protection of the environment, 6 of which contributed to the protection of groundwater and surface water by means of a sewerage system and wastewater treatment plant which were built and extended in the municipalities of Častá, Dlhé nad Cirochou, Modra nad Cirochou, Dvorníky, Gemerská Poloma, Tušice, Tušická Nová Ves, Horovce and Veľké Ripňany, totalling 13,700 inhabitants. In order to conserve and sustainably manage forests influenced by ongoing climate changes, more than 7,300 km² of forests in the territory of Slovakia were scanned. 2 newly built and one reconstructed information centres, a new educational trail and realisation of more than 40 restoration plans for degraded wetland and grassland sites included in the Natura 2000 network are helping to improve the conservation and management of protected areas and selected habitats. Significant resources were provided to finance further 40 projects supported through the Block Grant. These projects were beneficial especially in the area of increasing the quality and improvement of access to social services, protection of the environment and sustainable regional development.

Visegrad fund

The objective of the Fund is to facilitate and support the development of closer cooperation between V4 countries (and V4 countries with other countries, but not exclusively outside the EU, Member States in Eastern Europe, the Western Balkans and the South Caucasus) through a grant to promote joint cultural, scientific and educational projects, youth exchanges, cross-border projects and tourism promotion, and through mobility programs (scholarships, stays). Non-governmental organizations (NGOs), municipalities and local and regional governments, schools and universities, as well as private firms or natural persons are eligible for grant support, provided their projects are in the region and further develop cooperation between project partners located in the region. The Visegrad Fund offers two types of grants. Small grants lasting 6 months with a maximum grant of € 540000 and a large grant of 12 months and a budget of € 2 200 000. The condition of both grants is the participation

of institutions from at least three V4 countries and the co-financing of the project. Support should not exceed 70% of the total costs.

2.4 Business incubators

Local incubators/National incubator network

Business incubators are programs designed to accelerate the successful development of entrepreneurial companies through an array of business support resources and services. The incubation period in the business incubators in Slovakia is mainly maximum three years.

Currently, exist 15 incubators of two types: business and technological in different regions of Slovakia. Of course it has not yet been developed in full but it is possible to say that the incubators have recently experienced some growth. The first incubators were set up in 2002 and 2003 thanks to PHARE programme and state budget: Martin, Bratislava, Spišská Nová Ves, Rožňava and technological incubators in Banská Bystrica, Prešov and Košice. The research and technological park in Žilina was reconstructed in 2004. In 2005, the technological incubators in Sládkovičovo and in Bratislava were established from PHARE Programme 2002 CBC – Cross-border co-operation Austria – Slovakia. Others the business incubators are located in Prievidza in Moldava nad Bodvou.

Gelnica, Handlová and Filákovovo added in 2006. Investments in to incubators were supported from the Structural Fund.

Mentorship programmes

Mentoring is one of the tools of guiding and counseling in the workplace and should be read as a method of transfer of knowledge and experience. It describes the operation of skilled people who pass on their knowledge to an inexperienced person. In the foreground of mentoring there are two members, often from the same organization who share knowledge. Important aspects in this relationship are trust, openness and mutual respect. At the moment, companies providing mentoring services appeared in the Slovak market. The most services are offered for free, but few programs are charged. In some cases, the mentoring is provided directly in incubators or technology transfer centre. Also Slovak Business Agency organized mentoring programmes and seminars. Among the most important mentoring programs are Startup Sharks (SBA), mentoring in tourism (SBA), MENTOR NETWORK PROGRAMM (AmCham Slovakia, CSI leasing), ETP Slovensko Mentoring program, Odyssey and so on.

Co-working initiatives, “fab-labs“

The only Slovak Fab Lab is locted in Bratislava. It is a project for the support of small and medium-sized entrepreneurs. The Center for Scientific and Technical Information of Slovakia (CVTI SR) and Slovak Business Agency (SBA) is the solver of the national project Supporting the Establishment and Development of the National Business Center in Slovakia - Phase I. (NPC). This project significantly supported the construction of FabLab. In last three years, there are also few co-working platforms offering free or cheap place to work and finish innovator ideas. Currently Slovakia has 22 co-working places in bigger cities (For example VTP ZILINA, Salia Kosice, Kreativo Poprad, Ideospace Trencin, The spot Bratislava, Fly and Work Bratislava and so on).

2.5 Support by companies (internal and external)

Apprenticeship programs

Declining unemployment and the associated drop in skilled workers have increased the demand for apprenticeship programs. Companies are training new employees with them. The most Apprenticeship programs in Slovakia are created by automobile companies such as Volkswagen, Kia and Peugeot. The reason is the lack of qualified people in engineering. Huge supporter of this kind of education is Železnice Slovenskej republiky. Company is co-working with technical secondary schools and offers jobs for graduates.

Private scholarships/fellowships

Large Slovak companies or companies operating in Slovakia are trying to get quality employees during their studies. Scholarships are mainly offered by companies operating in the fields of IT, electrical engineering and mechanical engineering. As an example of Slovak companies offering scholarship, we can mentioned refinery Slovnaft, US Steel Košice or ŽSR. As I mentioned before, companies operating in Slovakia also offers scholarships, for example IBM, Volkswagen or Microsoft.

Organizations of hackathons

A hackathon is a gathering where programmers collaboratively code in an extreme manner over a short period of time. Hackathons are at least a few days - or over a weekend - and generally no longer than a week. While working on a particular project, the idea is for each developer to have the ability and freedom to work on whatever he/she wants. A hackathon is also known as a hackfest or hack day. According to my research, there were four Hackathons in Slovakia. All of them were in Bratislava. Two of them were organized by IBM, one by Telekom and the last one by 0100 Campus.

2.6 Crowdfunding

National and international crowdfunding platforms

Crowdfunding is one of the emerging alternative forms of funding linking directly to those who have the funds available and want to borrow them or invest with those who need the funds to fund a particular project. Crowdfunding campaigns work on the principle of collecting smaller individual contributions from a large number of people, crowd, mostly via the Internet. Projects are usually aimed at funding relatively small targets, but there are also exceptions. Through crowdfunding, it is possible to finance different types of projects, whether they are works of art, various charitable and philanthropic initiatives, public projects, innovation, research and development or other business intentions. On the one hand, the crowdfunding transaction is a person with a project idea that prepares the crowdfunding campaign - the owner of the project and, on the other hand, the "crowd" of people who give money to realize that idea - the contributors. There are several types of crowdfunding platforms:

1. Benefit (contributors do not expect anything)

- National: Ľudia ľuďom (<https://www.ludialudom.sk/>)
- International: GoFundMe (<https://www.gofundme.com/>)

2. Reward (contributors received rewards)

- National: Dobra Krajina (<https://www.dobrakrajina.sk/sk/>)

- International: Indiegogo (<https://www.indiegogo.com/>)
3. Shuffle (contributors acquire share in a company)
- National: Crowdberry (<https://www.crowdberry.eu/en/about-crowdberry/>)
 - International: Crowd cube (<https://www.crowdcube.com/>)

2.7 Events and networking

Local workshops

A workshop is modern form of learning. Lector teach participants using many techniques like brainstorming, mind maps or feedback. When I tried to prepare list of workshops, which were organized, I figured out, that almost every public institution prepared at least one. That was the main reason, why I picked out only workshop involved in Eco-innovations.

Workshop How to manage a farm: Eco-community Sekier (<http://www.zajezka.sk/en/content/eco-community-sekier>)

Ecology workshop Živica (<http://www.zivica.sk/sk/zivica-realizuje>)

Workshops for schools: Zelená škola (<http://www.zelenaskola.sk/>)
EkoAlarm (<https://www.ekoalarm.sk/>)

International seminars

Similar to workshops, seminars also help to improve information and education of Slovak citizens. The participation of international lecturers increases the quality of seminars. Also organizing seminars in Slovakia will help to wider audience to participate on event. Few examples for seminars are listed below.

Social- Service and Eco Innovations Seminar Held by ZSI in Slovakia
(<https://www.zsi.at/en/object/news/4745>)

Energocoaching, seminar about energy efficiency of public buildings and renewable energy sources
(<http://www.ekocentrum.sk/projekty/energocoaching/1248-2/>)

SBA semina: Eco-innovations in small companies will get support
(<http://mesacnikpodnikanie.sk/eko-inovacie-v-malych-firmach-cka-podpora/>)

2.8 Promotion and marketing

Promotion of Slovakia on international fairs, expos

Markets and exhibitions are one of the strongest, most versatile and effective tools for business and marketing strategy. The exhibitions allow you to precisely target and hit the target audience, effectively and without unnecessary loss. The advantage is also that the customer comes to the fair behind you. He makes a conscious decision in advance that he wants to participate

and dedicate your time and interest in the show. Exhibitions are a relevant business platform that allows project, activity and decision making in one place. Slovakia, as well as other countries with export economy need advertisement of their products or investment opportunities. For that reason Slovakia is participating in many trade fairs every year. In 2018 will Slovak investment and trade development agency (SARIO) present Slovak products and look for investors at four fairs:

Gulfood Dubaj 2018
MIDEST Pariž 2018
Hannover Messe 2018
EUROSATORY Pariž 2018

Promotional and marketing support under national start-up initiatives

SARIO has a major role to play in the search and placement of foreign investors. The agency is committed to increasing the share of start-up advertising companies. In general, we can say, that promotion and marketing of Slovak start-ups and innovations are very weak. However, Ministry of economy organize competitions: “Innovative action of the year” and “young creator” where young innovators compete. At the same time, the results of these competitions are presented in media but mainly in Slovak ones. Last year (2017) Slovak television prepared primetime program, Startup awards, where 12 start-ups were presented and evaluated by international committee.

3. Support structures and sources for energy efficiency, renewable energy and environment conservation

Describe the national support structures for financing energy efficiency, renewable energy and environmental purchases. Describe the availability of for example public purpose programs administered by utilities, state agencies, or other third parties and paid for by utility ratepayers, typically through a system of benefits charge instituted as part of restructuring legislation or rules, utility programs administered by the local utility and paid for by utility ratepayers through their bundled rates, programs sponsored by state agencies designed to promote energy efficiency and renewable energy and typically funded out of general tax revenues, demand-response and load-management programs, which offer incentives to curtail demand during peak energy use periods in response to system reliability or market conditions.

The survey of national support systems and mechanisms through several programs supporting energy efficiency in the Slovak Republic is listed below:

TOP programmes on national level

1/ The Rural Development Programme of the SR 2014-2020/Ministry of Agriculture SR

The Rural Development Program 2014-2020 focuses on the six main areas of support for knowledge transfer and innovation, enhancing viability and competitiveness, innovative technologies and

sustainable management, as well support for promotion of resource efficiency, poverty reduction and economic development.

Current focus area: “Investments related to the use of renewable energy sources”, EPFRV Fund

- 2/ The Operational Program Research and Innovation (OP Val) 2014-2020/Ministry of Education, Science, Research and Sport of the Slovak Republic and the Ministry of Economy of the Slovak Republic

OPVal 2014-2020 is a joint program document of the Ministry of Education, Science, Research and Sport of the Slovak Republic (MŠVVaŠ SR) and the Ministry of Economy of the Slovak Republic (MoE SR) providing support from the European Structural and Investment Funds in the 2014-2020 programming period, in the area of creating a stable innovation-friendly environment for all actors, and promoting the increase in efficiency and performance of the R & D system as a key pillar for boosting competitiveness, sustainable economic growth and employment.

Current focus area: “The support for increased efficiency and performance of R & D and innovation systems”, ERDF fund

- 3/ The Environmental Quality Operational Program 2014-2020/Ministry of Environment SR

It is a SR programming document for drawing assistance from structural EU funds and Cohesion Fund for period 2014-2020 in the field of sustainable areas and the efficient use of natural resources, protecting the environment, active adaptation to climate change and the promotion of energy-efficient low-carbon economy.

Stream Energy Efficiency areas is Priority Axis 4: Energy efficient low carbon economy in all sectors, EFRR fund

Focus on:

- 4.1 Support for the production and distribution of energy from renewable sources;
- 4.2 Promoting energy efficiency and the use of renewable energy in businesses
- 4.3 Support for energy efficiency, intelligent energy management and exploitation energy renewable resources in public infrastructures, including public buildings and the housing sector

This program is mainly aimed at supporting promising and innovative technologies using renewable energy sources, introducing a program for support of energy audits for small and medium-sized enterprises, supporting the implementation of such measures which will reduce the energy intensity of production in enterprises as well aims to reduce the energy consumption in the operation of public buildings t. j. buildings of state administration and local self-government.

- 4/ the Program LIFE 2014-2020/ Ministry of Environment SR
Life 2014-2020/MŽP SR

LIFE is a community program for the European Commission and the EU Member States in the field of environment and climate protection.

The one of the priority of LIFE program is to contribute to the transition to a low-carbon economy, to protecting and improving the quality of the environment including support for the Natura 2000 network.

Supported EE areas: The sub-program Environment - includes areas environment and resource efficiency, nature and biodiversity, environmental management and information.

The Ministry of the Environment of the Slovak Republic as the National Authority for the LIFE Program in the Slovak Republic provides successful applicants with funds from the state budget to co-finance LIFE projects.

5/ The Green Householder project/ Slovak Innovation and Energy Agency (SIEA), and MoEconomy SR

The grant for the use of renewable energy sources is a support for households within the Environmental Quality Operational Program managed by the Ministry of the Environment of the Slovak Republic. The Green Householder project implementer is the Slovak Innovation and Energy Agency (SIEA), which is a contributory organization of the Ministry of Economy of the Slovak Republic.

Focus area: "To increase the share of households using renewable energy sources for electricity, heat and water heating. And so help reduce greenhouse gas emissions."

The Ministry of the Environment of the Slovak Republic (MoE SR) starts work on the preparation of the Low-Carbon Strategy for the Development of the Slovak Republic until 2030 with a view to 2050 for selected sectors of economic activities ("Low-Carbon Strategy"). The low-carbon strategy will include effective and cost-effective measures in the industrial, energy, energy efficiency, transport, agriculture and forestry and waste sectors. At present, the Ministry of the Environment cooperates with the World Bank on the preparation of the Low-Carbon Study, which will serve as the main supporting document for the preparation of the Low-carbon Strategy. The main role in spreading task and role of energy efficiency is taking Slovak Innovation and Energy Agency (SIEA). It carries the information service for the Ministry of Economy of the Slovak Republic, with special focus on innovations and energy sector. SIEA specialists have long-lasting experience with analysis and professional consulting in the field of energy savings, utilization of renewable energy and development of innovations and in the implementation of international projects within various EU community programs (Intelligent energy – Europe, Central Europe Programme, INTERREG IVC). Other associations dealing with the broad idea of energy efficiency, renewable energy and environment conversation in Slovakia are: Slovak Chamber of Commerce , Slovak Centre of Scientific and Technical Information, Energy Centre Bratislava and Slovak Environment Agency.

4. Summary

Slovak Republic still belongs to Average eco-innovators, but since 2013 its index continuously grows. Unfortunately, much of the eco-related research goes to areas with low potential for inventive activities. Slovakia urgently need new action plan including complex monitoring and evaluation process. Despite the fact, that the new national strategy is still in the process of creation, private companies and research institutions use actual supports schemes. Supporting structures can be divided into two groups. The first is state support, which consists of tax benefits as well as direct start-up financing. Support is easily available and is legally assigned. For that reason, many innovation-making companies can easily get it. Unfortunately, this support is only € 15,000 per company. The disadvantage is therefore a small amount of resources. In terms of the amount of

funding, it is better to ask for EU support for the structure. EU reserved 15,3 billion € in 9 programs, this represents an average of 2823 € per person over the period 2014-2020. Unfortunately, country was able to spend only 10% of the budget and only 50% of this budget is already contracted. The problem is in the monstrous bureaucracy (mainly from Slovak offices) and the length of the approval process. Solution is difficult and simple at the same time. The moment, when we remove unnecessary bureaucracy and shorten the duration of the approval process, will be the moment, when a lot of private companies choose this support structures. Second problem is relatively low awareness. That is a reason, why we have only 10 companies in phase 1 and only 1 company in phase 2 in EU SME instrument. Introducing information hours for EU support opportunities at least to secondary schools would help raise awareness.