

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



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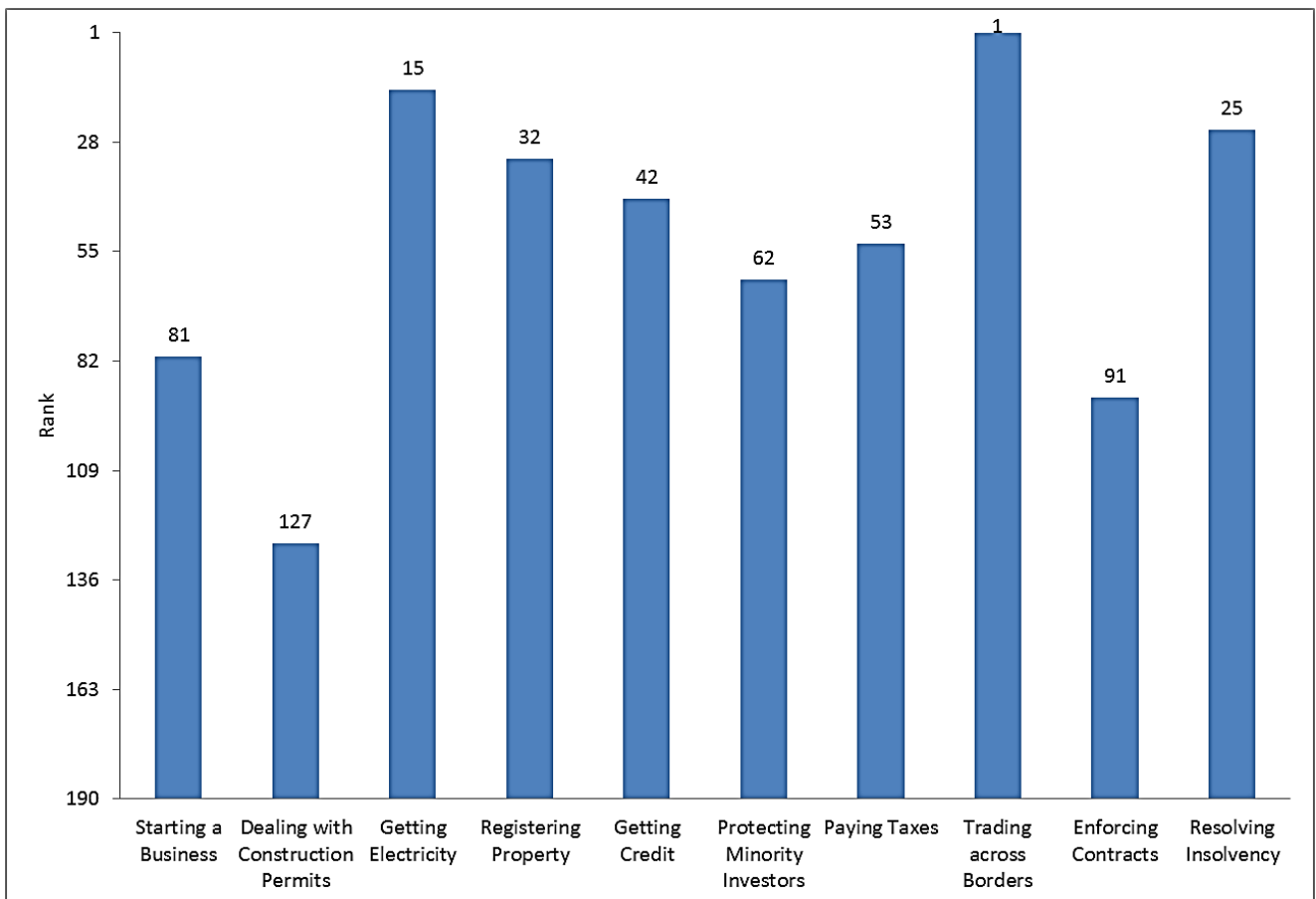
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1. Abstract

Eco-innovations are innovations that contribute to reduction of negative environmental impacts caused by production and consumption. This paper concerns with launching eco-innovations in the Czech regions. The most common reason for eco-innovations introducing is the need to meet the legislative requirements. This reason is more important in the CR than in most of EU countries. If companies launch eco-innovations voluntarily they are often motivated by reward in a form of tax incentives or financial help from national/European dotation funds. Recycling of waste, water or materials is the most common effect of eco-innovations for producers. The advantages for consumers are reduced energy use, reduced air, and water or soil pollution and improved recycling of product after use.

Generally, when it comes to establishing the business in Czech Republic, there are numerous variables influencing the chances of success. Complicated tax systems, limited availability of loans or lengthy legal procedures may come in the way of creating a company. The dataset from the World Bank places Czech Republic at the 30th position worldwide, ranking it high in the simplicity of doing business. The research was divided into 10 distinct categories. The rank of the Czech Republic in all measured categories is shown on picture 1.



Picture 1. Rankings on Doing Business topics for Czech Republic in 2017 (www.doingbusiness.org)

The results of the research show the pluses and minuses for doing business in Czech Republic. The greatest obstacles when starting new business could be the price of registration a business, which is about 21 000 CZK. The reason why the country scores at 81st place is that it takes more external party interactions for the founders to start a company. Also there is a problem to get a construction permit for any type of building. It is a long process during which one would have to visit a number of organizations ranging from the local municipality's departments to fire department and geodesic. The disadvantage for doing business in Czech Republic could be also complicated Czech judicial system. It takes 611 days and 33 % from the cost of claim to solve an issue. On the other hand the trading across borders is relatively easy thanks to the EU's single market. Another advantage for doing business is lower cost of the electricity comparing to other high-income countries. Overall it could be stated that it is relatively simple do business in the Czech Republic.

2.Support structures and sources for facilitating eco-innovation

The next section summarizes the support structures and national and international sources for facilitating eco-innovations in Czech Republic. The key factors of each support structure are presented below. The detailed specification of the supporting structures is listed in subsections.

- **Accessibility**

The availability of support for eco-innovation is relatively high in the Czech Republic. Business support is primarily provided by ministries, regions and the European Union. A problem can be found in the ideal form of support for a particular project. The individual calls are published on the ministries' pages; the form of information dissemination is not always uniform and may be needed to have specific experiences. Besides the ministries' websites, the information can also be found on special web portals, which are currently not operated by the government (<http://www.businessinfo.cz/>, <http://www.dotacni.info/>). The regions are also following the calls of the ministries, and the appropriate ones for the particular region publish on their websites. The government is helping entrepreneurs through its organization CzechInvest, which provides expert advice for entrepreneurship, from start-ups to large-scale businesses. In recent years, there are still more consulting firms for start-up entrepreneurs. Generally speaking, professional advice is provided in all the cities, centers of the region, where the labor market is expected.

- **Frequency**

Most national and international eco-innovation programs are listed for at least 5 years. For each program, specific calls are regularly scheduled. Information about them is published well in advance of their lute (usually at least 12 months). At present, innovations are primarily supported by the European Union throw the cohesion funds and framework programmes

(Interreg, Horizon 2020). In the spring of 2017, the agenda Czech Republic 2030 was adopted by the Czech government. The main objective of the agenda is innovation and sustainable development in the field of energy, transport, environment and, last but not least, socio-economic development. In the recent years the greatest amount of support has been provided to interconnect research and development with industry sphere.

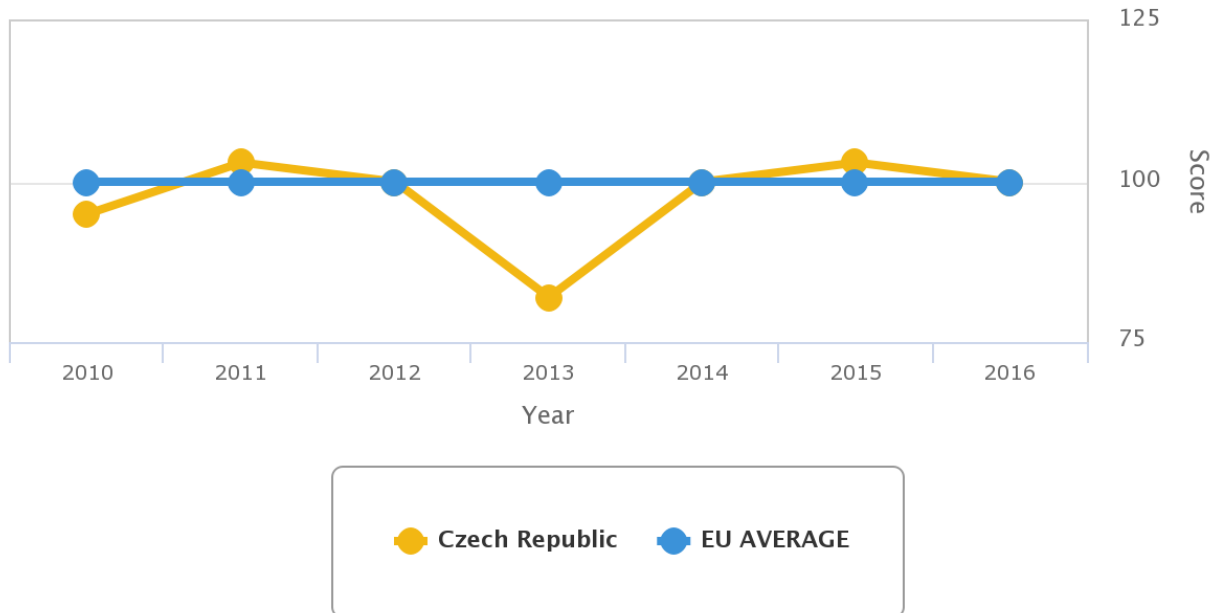
- **Stability**

Over the course of past programs and calls, the continuity of the new programs can be expected after the end of the ongoing projects. Even if new projects are not exactly linked to the same goals as previous ones, it is always possible to find an axis in the new project's scope or to wait for the proper call or tender will be announced. According to the CzechInvest news release 2016, the financial volume of the investment projects differs annually, but since 2010 there is a record of growth. The most supported branches in 2016 were the automotive and engineering industries. The highest amount of support was provided to the regions with a higher degree of unemployment, such as Ústecký and Moravian-Silesian region.

- **Impact**

One of the conclusions of the INKA program implemented within the TACR (technologic agency of Czech Republic) support framework shows that the Czech Republic has a stable, predictable and motivating business environment. The Czech Republic has relatively good eco-innovation performance, which has been around the European average during the past years. The illustration of development of the eco-innovation index in past years is illustrated on picture. The Czech Republic belongs to average Eco-I performers. Generally, the policy framework and the research and development have been still improving in recent years, but there are still some obstacles preventing the country and the enterprises from fully realizing the country potential. The main problem is still in interconnecting the research and development, which have a great potential in a field of eco-innovations with the enterprises.

Eco-Innovation Index, 2016, Czech Republic and EU AVERAGE



Picture 2. The development of the Eco-Innovation index for Czech Republic comparing with EU average (<http://ec.europa.eu/environment>)

- **Replicability**

Adaptation and replicability mainly depends on the supporting structure. A major problem can be the lengthy process of submitting both national and international grants. The awareness rate is still not ideal. A number of projects have been easily adapted, such as the Nová Zelená úsporám, which provides the support for the energy-efficient renovation of family houses and apartment buildings or the national program Záruka, which financially supports small and medium-sized enterprises. The adaptability rate is rising, mainly thanks to the increasing numbers of centres for supporting start-ups or the co-working places, where the specific experiences and knowledge could be transferred. Problems with the support may arise primarily in fulfilling the conditions of the project, failure to do so leads with severe sanctions and penalties on the part of the support provider. Narrowly, this could primarily happen in the field of research and development, where the guarantee of accomplishing all the conditions is not always easy.

2.1 Government support **Active or passive labour policy**

The government of Czech Republic issued an Action Plan for supporting the small and medium-sized businesses in 2017. The Action Plan is a key implementation document of the Ministry of Industry

and Trade, which reflects the current needs of small and medium-sized business entities in the Czech Republic. The aim of the action plan is to present a set of measures, in line with the SME Support Framework for 2014-2020, to enable more effective development of small and medium-sized enterprises in the Czech Republic in all phases of their business cycle. The support is targeted to three priority areas, including a favourable business environment for SMEs, direct support for SMEs with access to finance and labour resources. Ministry of Industry and Trade developed agency **CzechTrade**. Its main objective is to develop international trade and cooperation between Czech and foreign entities. Wherever in the world you are, the agency is your official contact partner when looking for qualified Czech-based manufacturers and services providers.

Available tax incentives

Motivation from the government to environmentally friendly behaviour for individual or a company could be negative (strict legislative, higher environmental taxes, etc.) or positive (dotation or tax incentives). In Czech Republic the positive approach is realised mainly through the donations. Dotation sponsored by government will be discussed in the next subsection. In 2007 the government approved the "Ecological tax reform" (EDR), which regulates using the ecologically unfriendly products and services (energy from non-renewable sources, producing of greenhouse gases, etc) through raising taxes. Except the donations, investors who place or expand their investments in the Czech Republic can receive support in the form of investment incentives. In arranging investment with the state support, the Investment and Business Development Agency **CzechInvest** plays an important role. It is a state contributory organisation subordinate to the Ministry of Industry and Trade of the Czech Republic. The agency arranges for the Czech Republic both domestic and foreign investments in the areas of manufacturing (implementation or expansion of production), business support services (call centres, software development) and technology centres (research, development and innovation of advanced products). It also supports small, medium-sized and start-up innovative companies, the country's business infrastructure and innovation. It is the only organisation in the Czech Republic with which investors can register their applications for investment incentives. The amount of financial support is different depending on the size of the company (ranging from 25-40% of eligible costs). The investment incentives are provided in four main forms:

- corporate income tax relief for 10 years,
- cash grants for training and retraining, up to 50 % of training costs,
- cash grants for job creation, up to 300 000 CZK per job,
- cash grants for purchase of fixed assets, up to 10 % of eligible costs (only for strategic investment project).

Training or seminars for skill development

There are several possibilities for skill development in a field of eco-innovation. Presidency of the European Movement in the Czech Republic hosted a conference called Circulation economy 2018:

The future of waste management in the EU, where the main representatives of Czech government discussed about the waste management legislative in Czech Republic. Agency CzechTrade organises seminars. For example in March the seminar called Support for the sale of products and services not only in international trade will be held in Prague. Another seminar for marketing skills improvement called How to use the most of SOCIAL MEDIA for your business to the fullest will take place in May.

2.2 Domestic support funds

There is a system of funds supporting the eco-innovation in Czech Republic. The support could be directed to many fields connected with the eco-innovations like financial support for starting business, human resources in existing firms, scholarships in a public or private schools and support in a regional development.

Development funds

Most of the funding is provided by the Czech ministries. Some of them is listed below in a Table1.

Table 1. List of the projects for financial support provided by Czech ministries

Project	Main aim of the project	Duration	Possible beneficiaries	Donator *
TRIO	described below	2016-2021	<ul style="list-style-type: none"> businesses (both legal and physical persons) which carry out an economic activity and which solve the project in effective cooperation with at least one research organization research organizations 	MIT
Záruka	the support through the guarantees the access to bank loans for the implementation of their business projects - businesses in a field of energetic, infrastructure, etc.	2015-2023	for small and medium-sized businesses	MIT
Národní program Životní prostředí (NPŽP)	described below	2015-2030	depends on each call for tender	ME

Nová zelená úsporám	supports energy-efficient renovation of family houses and apartment buildings, the exchange of unsuitable sources for heating and the use of renewable energy sources	2013-2020	homeowners and house builders (individuals and legal entities)	ME
Demonstrační farmy	strengthening the system of knowledge transfer in agriculture aimed at practical demonstrations and presentation of sustainable farming systems and soil protection in practice	2017-2019	farms which meet these conditions: <ul style="list-style-type: none"> • The farm is at area threatened by erosion • meet the standards of good agricultural and environmental condition • prove that there have been no recurrent erosion events 	ME
Alfa programme	aims to support applied research and experimental development especially in the field of advanced technologies, materials and systems, energy resources and the protection and creation of the environment and the sustainable development of transport	2011-2019	<ul style="list-style-type: none"> • independent business entities (legal entities and individuals) • research organizations 	TACR
Gamma programme	aims to support the verification of the results of applied research and experimental development in terms of their practical application and to prepare their subsequent commercial use	2014-2019	<ul style="list-style-type: none"> • business • research organizations only as participant of the project 	TACR

Delta programme	<ul style="list-style-type: none"> • aims at supporting collaboration in applied research and experimental development projects through joint projects of enterprises and research organizations • projects must respond to the current and future needs of the country, 	2014-2019	at least one candidate participating from a country in which the partner agency is registered and at least one candidate from the Czech Republic, which is an enterprise	TACR
Epsilon programme	<p>to support projects, whose results have a high potential for rapid application in new products, production processes and services in these areas:</p> <ul style="list-style-type: none"> • Competitive knowledge-based economy • Sustainability of energy and material resources • Environment for quality of life 	2015-2025	<ul style="list-style-type: none"> • business • research organizations 	TACR
Theta programme	aims of the programme is to contribute in the medium and long term to fulfilling the vision of transformation and modernization of the energy sector in accordance with the approved strategic materials through the outputs, results and impacts of the supported projects. This aim will be	2018-2025	<ul style="list-style-type: none"> • businesses • research organizations • natural and legal persons of public and private law 	TACR

	achieved by supporting research, development and innovation in the energy sector			
Competence centres	aims of the programme is to support the establishment and operation of centres for research, development and innovation in advanced fields with high application and innovative potential and a perspective for making a substantial contribution to the growth of competitiveness of the Czech Republic.	2012-2019	<ul style="list-style-type: none"> • businesses • research organisations 	TACR
CzechStarter	helps start-ups to develop their business activities for 7 months through dedicated mentoring and counselling services	2017-	<ul style="list-style-type: none"> • start-ups with existing product or service and maximum of 50 employees 	CzechInvest
CzechMatch	a participation in a three-month acceleration program in a foreign incubator in Silicon Valley, New York, Singapore or London, full of mentoring, counselling, workshops, networking events, and other related services	2018-	<ul style="list-style-type: none"> • Czech businesses with innovative product 	CzechInvest
CzechDemo	provides the opportunity to take part in renowned international start-up events on which you will have the opportunity to present the product / service, to apply for an	2018-	<ul style="list-style-type: none"> • Czech businesses with innovative product or service 	CzechInvest

	investor's interest and to establish important contacts during networking			
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*ME – Ministry of the Environment, MIT - Ministry of Industry and Trade, TACR – Technology agency of the Czech Republic

The main national dotation funds will be described in more details:

- **TRIO** – the main aim of this programme is to support applied research and experimental development activities that will be exploited and further developed the Key Enabling Technologies potential (KETs). KETs are knowledge-intensive and skilled workforce technologies, requiring a substantial share of research activities with fast innovation cycles. KETs are applicable to new products and services with high added value and will contribute to economic growth and growth of competitiveness of the Czech Republic. Emphasis is placed on economic areas in which the Czech Republic has significant growth potential. This is mainly the production of transport engineering, electronics and electrical engineering, IT services and software, electricity generation and distribution and pharmaceuticals and medical devices.
- **NPŽP** – the main aim of this programme is the support of effective and friendly use of natural resources, rectification of negative environmental impacts of human activity, mitigation and adaptation to the impacts of climate changes and effective prevention through environmental education and enlightenment of the population of the Czech Republic. The specific objective is to achieve measurable improvements in each priority region and sub-region. The program is divided into 7 priority axes, covering the following areas – water, air, wastes and old burdens, environmental hazards, nature and landscape, the environment in towns and municipalities, environmental prevention, innovative and demonstration projects. Requests for support are submitted within the framework of individual calls for tender.

National scholarships

There is also a support in a field of education. Technology agency of the Czech Republic realising the project called Zeta programme, which focuses on supporting cooperation between the academia and companies by putting together students of MA and doctorate study programmes at universities and young research workers aged up to 35. One of the goals of this project is to support and promote the equalization of opportunities for young researchers – both women and men – in resolving projects for applied research financed by this programme. The duration of the programme is set from 2017 to 2025, i.e. 9 years. The Pilsen region provides scholarships to a students and apprentices who study the agriculture in this region. The ministry of education, youth and sport provides a partly scholarship for students in 9 grade for study in secondary schools in France (Carnot lyceum in Dijon, Alphons Daudet lyceum in Nimes). The public universities are in Czech Republic for

free and in the additional support are provided by government through the accommodation or social stipends.

Regional development funds

For the description of the system of regional support the Olomouc region was picked up as a representative. Some of the funds sponsored by Olomouc region administrative or by legal organisations are listed below:

Table 2 Projects for supporting innovations in Olomouc region

Project/Organisations	Main aim of the project	Possible beneficiaries	Donator
<p>Program na podporu podnikání 2018</p> <ul style="list-style-type: none"> Podpora poradentství pro podnikatele Podpora soutěží propagujících podnikatele 	<p>Two main subprojects:</p> <ul style="list-style-type: none"> aim is to support consultancy, information and consulting activities for local entrepreneurs, as well as support for pro-export activities such as the organization of information seminars, round tables for entrepreneurs and foreign missions aim of the grant title is to support the organization of competitions for entrepreneurs, which lead to the active promotion of successful small and medium-sized entrepreneurs and start-up entrepreneurs from the Olomouc region 	<p>Legal entity having its registered office in Olomouc region</p>	<p>Olomouc region</p>
<p>Program na podporu vzdělávání na vysokých školách v Olomouckém kraji v roce 2018</p>	<p>the aim is to increase the employability of graduates of all types of study programs in the labour market and increasing the professional level of R & D staff by:</p> <ul style="list-style-type: none"> improving the quality of education at universities development of cooperation between secondary and higher education development of human resources in the field of research and development 	<p>Legal entity</p>	<p>Olomouc region</p>

	<ul style="list-style-type: none"> school cooperation with employers' organizations and specialist workplaces 		
OK4Inovace	it is an association of legal entities established in 2011 for supporting the creation, development and commercial use of innovations created in companies and research institutions in Olomouc region throw seminars, workshops, conferences and meetings	Everybody	<ul style="list-style-type: none"> Olomouc region City Olomouc UP* FRC** MedChem Bio
Vědeckotechnický park	It is the centre for innovation and technology transfer at Palacky University, it support the development of innovative companies, the emergence of spin-off and start-up companies with an emphasis on the potential of Palacky University in Olomouc. Also support cooperation in the application of science and research results in the commercial domain and transfer the needs of the commercial domain into the research institutes.	<ul style="list-style-type: none"> researchers companies 	Palacký University Olomouc

*Palacký University Olomouc, **Foundation for Regional Cooperation

2.3 Transnational support funds

European Union funding

For helping the technology reach the market, European Union realised a project called Environmental Technology Verification (ETV). The technology idea goes throw a verification project and at the end the Statement of Verification could be delivered. This statement assures the credibility of the innovative environmental technology and helps easier access to the market – the market risk is reduce.

The support from EU is provided throw all different forms of funding from R&D to financing, and from small enterprises to infrastructure. The summarization of the funding programmes is in table 3, the detailed information of each of the funding programmes is described under the table.

Table 3 The EU funding programmes for supporting eco-innovation

Funding programme	Main target	Duration	Financial support
HORIZON 2020	<ul style="list-style-type: none"> resource efficiency 	2014-2020	almost 80 billion €

	<ul style="list-style-type: none"> • water • waste • key enabling technologies • SMEs 		
LIFE	<ul style="list-style-type: none"> • environmental technologies • resource efficiency • industry & production • waste • water 	2014-2020	3.4 billion €
COSME	<ul style="list-style-type: none"> • improving access to finance and markets • improving conditions for competitiveness & sustainability • promoting entrepreneurship 	2014-2020	2.3 billion €
ESIF	<ul style="list-style-type: none"> • regional development • research & innovation • SME competitiveness • low carbon economy • environment & resource efficiency 	2014-2020	351 billion €

Horizon 2020 is the EU framework programme for research and innovation and it is the biggest programme ever. Funding opportunities under Horizon 2020 are set out in multiannual work programmes, which cover the large majority of support available. The work programmes are prepared by the European Commission within the framework provided by the Horizon 2020 legislation and through a strategic programming process integrating EU policy objectives in the priority setting. The main topics for the work programme 2018-2020 are:

- *Excellent science* pointed to - Future and Emerging Technologies and Research Infrastructures, including e-Infrastructures (i. e. The Marie Skłodowska-Curie actions (MSCA) provide grants for all stages of researchers' career and encourage transnational, intersectoral and interdisciplinary mobility).
- *Leadership in Enabling and Industrial Technologies* pointed to - Nanotechnologies, Advanced Materials, Biotechnology, and Advanced Manufacturing and Processing (NMBP), and Information and Communication Technologies.
- *Innovation in SMEs* (i.e. EUREKA/Eurostars-2 - it is joint programme of European commission and EUREKA funding and support programme to be specifically dedicated to research-performing SMEs).
- *Access to Risk Finance* - helps companies and other types of organisation engaged in research and innovation (R&I) to gain easier access to debt and equity finance.
- *Societal Challenges* pointed to – Health, demographic change and wellbeing; Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the

Bioeconomy; Smart, Green and Integrated Transport; Climate Action, Environment, Resource Efficiency and Raw Materials.

- *Spreading Excellence and Widening Participation.*

The LIFE programme is the EU's funding instrument for the environment and climate action. The general objective of LIFE is to contribute to the implementation, updating and development of EU environmental and climate policy and legislation by co-financing projects with European added value. In general, grants will make a financial contribution of 60% to project during the first multiannual work programme (2014-2017). Grants may finance a variety of projects including pilot projects, demonstration projects, best practice projects or 'integrated projects. The LIFE Programme is split in two sub-programmes:

- *Environment* - including as priorities areas environment and resource efficiency, nature and biodiversity, and governance and information (i. e. air quality, waste, water environment, etc.),
- *Climate Action* - including as priorities areas adaptation, mitigation and governance and information (i. e. reduction of greenhouse gas emission, etc.)

The COSME is the EU programme for the competitiveness of enterprises and small and medium-sized enterprises. COSME support SMEs in the following areas:

- Facilitating access to finance – in all phases of the business cycle (creation, expansion, or business transfer). EU 'financial instruments' (The Loan Guarantee Facility (LGF) and The Equity Facility for Growth (EFG)) are channelled through local financial institutions in EU countries
- Supporting internationalisation and access to markets - helps businesses to access markets in the EU and beyond. It funds the Enterprise Europe Network (EEN) that helps SMEs find business and technology partners, and understand EU legislation.
- Creating an environment favourable to competitiveness - supports actions to improve the framework conditions in which enterprises operate, in particular SMEs, by reducing unnecessary administrative and regulatory borders.
- Encouraging an entrepreneurship - mobility exchanges, research, best practices diffusion and pilot projects in areas such as entrepreneurship education, mentoring or the development of guidance and support services for new and potential entrepreneurs, including young, women and senior entrepreneurs.

European structural and investment funds (ESIF) support economic development in all EU countries, in line with the Europe 2020 objectives. The main help is going from the European Regional Development Fund (ERDF), European Social Fund (ESF) and Cohesion Fund (CF). The support for the programming period 2014–2020 co-funded from the ESIF are in Czech Republic divided into 20 different programmes, the national operational programmes are listed in table 4. The international cooperation programmes are listed in table 5. The funding goes throw a system of calls focused on specific issue.

Table 4 National operational programmes co-funded from ESIF

Funding programme	Czech authority	EU fund	Financial support
OP Enterprise and Innovation for Competitiveness	Ministry of Industry and Trade	ERDF	4.33 mld. €
OP Research, Development and Education	Ministry of Education, Youth and Sports	ERDF	2.77 mld. €
OP Employment	Ministry of Labour and Social Affairs	ESF	2.15 mld. €
OP Transport	Ministry of Transport	CF	4.70 mld. €
OP Environment	Ministry of the Environment	CF/ERDF	2.64 mld. €
Integrated Regional OP	Ministry of Regional Development	ERDF	4.64 mld. €
OP Prague – Growth Pole of the Czech Republic	Prague City Hall	ERDF	201.6 mil. €
OP Technical Assistance	Ministry of Regional Development	CF	0.22 mld. €
OP Fisheries 2014–2020	Ministry of Agriculture	EMFF*	31.1 mil. €
Rural Development Programme	Ministry of Agriculture	EAFRD**	2.31 mld. €

* European Maritime and Fisheries Fund ** European Agricultural Fund for Rural Development

The OP Enterprise and Innovation for Competitiveness is the most convenient operational programme for supporting eco-innovations. The programme is focused on research and development for innovation, development of SMEs' entrepreneurship and competitiveness, energy savings and development of high-speed internet access networks and information and communication technologies. The main priority axes are:

- Promotion of research and development for innovation.
- Development of SMEs' entrepreneurship and competitiveness.
- Efficient energy management, development of energy infrastructure and renewable energy sources, support for the introduction of new technologies in the management of energy and secondary raw materials.
- Development of high-speed internet access networks and information and communications technologies.
- Technical assistance.

Table 5 International operational programmes co-funded from ESIF

Funding programme	Czech authority	Foreign countries
Interreg CENTRAL EUROPE	Ministry of Regional Development	Austria, Germany, Hungary, Italy, Poland, Slovak Republic, Croatia
DANUBE	Ministry of Regional Development	Austria, Bosnia and Herzegovina, Bulgaria, Germany, Hungary, Moldova, Montenegro, Romania, Serbia, Slovenia, Slovakia, Croatia, Ukraine
INTERREG EUROPE	Ministry of Regional Development	entire territory of the EU and Switzerland and Norway
ESPON 2020	Ministry of Regional Development	EU members + Iceland, Liechtenstein, Norway and Switzerland
INTERACT III	Ministry of Regional Development	EU members + Norway and Switzerland

Foreign aid

Beside the European Union the funding is also provided by another international organisations or European states – the main providers of funding are Visegrad Group, EEA and Norway grants and The Swiss contribution.

- **Visegrad group**

The Visegrad Fund is an international donor organization, established in 2000 by the governments of the Visegrad Group countries—Czechia, Hungary, Poland and Slovakia to promote regional cooperation in the Visegrad region (V4) as well as between the V4 region and other countries, especially in the Western Balkan and Eastern Partnership regions. The Fund provides funding to a diverse range of activities in all areas of life. From small cross-border projects that strive to improve mutual understanding in the border areas to multilateral initiatives with potential to benefit people across the whole region. The main goals are:

- Culture & Common Identity - strengthen regional and European identity,
- Education & Capacity Building - raise the Central and Eastern Europe region's competitiveness through improved skills of citizens,
- Innovation, R&D, Entrepreneurship - improve the environment for innovation and joint R&D projects and advancement of regional cohesion in economic development,
- Democratic Values & the Media - advance democratic values, support human rights and minorities, contribute to development of civil society, strengthen media freedom and access to information,

- Public Policy & Institutional Partnership - good governance and improving the effectiveness of public policymaking in the regional context,
 - Regional Development, Environment, Tourism - environmentally sustainable regional development and tourism,
 - Social Development - strengthen an inclusive society and solidarity in the region.
- The funding could be in form of the grants or in a form of university studies grants.

- **EEA and Norway Grants**

The EEA and Norway Grants are Iceland, Liechtenstein and Norway's contribution to reducing economic and social disparities in Europe and to strengthening bilateral relations with 15 beneficiary countries in Northern, Central and Southern Europe. The support provided through the Grants reflects the priorities set out in the 'Europe 2020' strategy – the European Union's ten-year growth strategy for smart, sustainable and inclusive growth. The main coordinator of the EEA and Norway Grants in the Czech Republic is the Ministry of Finance, which also manages most of the programmes in cooperation with the competent Ministries. The funding period 2014-2021 represents the most ambitious effort so far by the EEA countries resulting in an agreed total budget of €2.8 billion. The following five priority sectors have been agreed between the donor countries and the European Union:

- Innovation, Research, Education and Competitiveness,
- Social Inclusion, Youth Employment and Poverty Reduction,
- Environment, Energy, Climate Change and Low Carbon Economy,
- Culture, Civil Society, Good Governance, and Fundamental Rights and Freedoms,
- Justice and Home Affairs.

The priority sectors include 23 programme areas. The EEA Grants and Norway Grants both focus on identical priority sectors and programme areas.

- **The Swiss contribution**

Since 2007, Switzerland has been participating in various projects designed to reduce the economic and social disparities in an enlarged EU. Switzerland decides autonomously which projects it will support and agrees this directly with the partner countries. The Swiss contribution to the Czech Republic amounts to CHF 110 million. At the national level, the program is designed to complement complementary support from the EU Structural Funds, the Cohesion Fund and the EEA and the Norwegian Funds. The Swiss-Czech Cooperation Program complements these programs and focuses mainly on areas that are not at all or only partially covered by other financial sources. In addition to the thematic focus, part of the enlargement contribution is also geographically concentrated. The regions of Moravian-Silesian, Olomouc and Zlín are vested with priority. At least 40% of the enlargement contribution to the Czech Republic is to go to the benefit of these regions either directly or indirectly.

2.4 Business incubators

National and local incubators

Incubation of companies is another possibility to support the creation and development of innovative entrepreneurship, especially of small and medium - sized enterprises, and is an important factor for the creation of a business - innovation network between universities, research institutions and businesses themselves. In order for a new firm to enter and above all to remain on the market, it needs not only a good idea with market potential. It also needs to get high-quality facilities and backgrounds for its business, support for advice, marketing, accounting, taxes, or financial support for a good idea. All this can be provided by a business incubator that focuses on supporting innovative start-ups, whose main goal is to develop new products, technologies and services and then market them. The system of incubators in Czech Republic is very extensive, the help could be provided by business incubators or by research centres or by technological parks. The main help from Czech government is going through the company CzechInvest, which has several projects for new starting businesses, mainly the CzechStartups.org. It is the first official online hub for start-ups and starting entrepreneurs.

The most incubators are centred in capital Prague. Except there is also an extensive network of local incubators. Some of them are listed in table 6.

Table 6 Business incubators and technological parks in Czech Republic

Incubator/Technological centre	City/Region	Contact
Laboratoř nadace Vodafone	Czech Republic	http://www.laboratornadacevodafone.cz/
Česká Inovace	Czech Republic	http://www.ceskainovace.cz/
Prague Startup Centre	Prague	http://www.praguestartupcentre.cz/
xPORT Business Accelerator (The University of Economics)	Prague	http://xport.vse.cz/
Point One (Czech University of Life Sciences Prague)	Prague	http://pointone.czu.cz/
InQbay (Czech Technical University in Prague)	Prague	http://www.inqbay.cz/
ESA Business Incubation Centre Prague	Prague	http://www.esa-bic.cz/
AI Startup Incubator	Prague	http://www.suincubator.ai/cz
BIC Brno – business and innovation centre	Brno/South Moravian	http://www.bicbrno.cz/
Vědeckotechnický park Brno-Jih	Brno/South Moravian	http://www.vtpbrno.cz/
TITC – Technology Innovation Transfer Chamber	Brno/South Moravian	http://www.titc-vtp.cz/
VIENNAPoint	Brno/South Moravian	http://www.viennapoint.cz/

ICUK – Innovation centre of the Usti region	Ústí nad Labem	http://icuk.cz/
VYRTYCH – Technologický park a Inkubátor s. r. o.	Březno/Ústí nad Labem region	http://www.vyrtych-tpi.cz/

TIC – Technological Innovation Centre	Zlín	http://www.inkubatorzlin.cz/
PIK – Podnikatelský inkubátor Kunovice	Kunovice/Zlín region	http://www.pik-pd.cz/
BIC Plzeň – business and innovation centre	Plzeň	http://www.bic.cz/
Pilsen’s Science and Technology Park	Plzeň	http://www.vtpplzen.cz/
BIC Ostrava – business and innovation centre	Ostrava /Moravian-Silesian	http://www.bicova.cz/
PI – podnikatelský inkubátor (Technical University of Ostrava)	Ostrava /Moravian-Silesian	http://cpi.vsb.cz/?pipages=u vodni-stranka-pi
MS!C – Moravian-Silesian Innovation Center	Ostrava /Moravian-Silesian	https://www.ms-ic.cz/en/
KANOV	Karlovy Vary	http://www.kanov.cz/
JAIP - Jihočeská agentura pro podporu inovačního podnikání	České Budějovice/South Bohemian	http://www.jaip.cz/
Technology centre Hradec Králové	Hradec Králové	https://www.tchk.cz/
Steel-it	Třinec/ Moravian-Silesian	https://www.steel-it.cz/
Center for innovation and technology transfer (Palacky University)	Olomouc	http://www.vtpup.cz/
PIN – Podnikatelský inkubátor Nymburk	Nymburk/Central Bohemian	http://www.inkubator-nymburk.eu/

Mentorship programmes

The mentoring is often provided directly in incubators or in co-working spaces, where the experts on different scopes of starting business work. Also there are many possibilities to skill-up and learn from mentors on specialised seminars, which are mostly held in a big cities like Prague and Brno. Besides this “casual” mentoring, the specialised mentorship programmes are realised. Some of them are listed in table 7.

Table 7 Mentorship programmes in Czech Republic

Programme	Scope	Contact
YODA mentorship	<ul style="list-style-type: none"> It is a nonprofit program that links Czech high school students with young professionals and successful students from Czech and foreign universities. We are here for students who, 	http://yodamentorship.cz/

	through individual mentoring, want to move beyond the curriculum boundaries and expand their horizons.	
NKC mentoring – Gender a věda	<ul style="list-style-type: none"> The main objective of the program is to support the career development of (post) postgraduate students and (post) PhD students, help with starting a scientific career and clarifying its direction. 	http://genderaveda.cz/mentoring/
CzechStarter	<ul style="list-style-type: none"> Helps the start-up for 7 months, develop its business by providing specific mentoring and counselling services. 	http://www.podporastartupu.cz/projekty/czechstarter-2/
Senior Executives Mentoring Club	<ul style="list-style-type: none"> It is a unique club whose mission is about the ability to transfer unique managerial experience through mentoring. Offers mentoring for top managers, middle managers and talents. 	http://www.asociacementoringu.cz/semclub/

Co-working, fab-labs

Co-working is a growing worldwide phenomenon that gives its followers a real sense of independence while offering an ideal environment for sharing common goals. It is a cost effective dedicated work space. In the Czech Republic, these centres have emerged since 2009 predominantly in larger cities, see table 8.

Table 8 Co-working centres in Czech Republic

Centre	City	Contact
CoWorking Prague – free2work	Prague	http://www.coworkingprague.cz/
Desk Room	Prague, Pardubice	https://sites.google.com/site/deskroomcz/
IN-SPIRO	Prague	http://in-spiro.cz/
Locus Workspace	Prague	http://www.locusworkspace.cz/
Paper Hub – Paralelní Polis	Prague	http://paperhub.cz/#contact
Pracovna	Prague	http://pracovna.cz/
Opero	Prague	http://www.opero.cz/
MicroHub	Prague	https://microhub.cz/
NODE5	Prague, Ústí nad Labem	http://node5.cz/
Impact Hub	Prague, Brno, Ostrava	https://www.impacthub.cz/
COWO Brno	Brno	http://www.cowobrno.cz/
Coworking Mitrovski	Brno	http://www.mitrovski.cz/coworking/
Techsquat	Brno	http://techsquat.com/
KoPlac	Brno	http://koplac.cz/
Kafec	Brno	http://www.kafec.cz/novinky-kavarny-kafec/2017/novy-cowork-v-brne/
VIVA	Ostrava	http://www.vivaostrava.cz/
Kovork	Ostrava	http://www.kovork.cz/
Liána	Hradec Králové	http://www.lianahk.cz/
Coworkingový motor Liberec	Liberec	http://coworkingliberec.cz/
KultiVAR	Liberec	http://www.kultivar.xyz/
Coworking Olomouc	Olomouc	http://www.coworkingolomouc.cz/
Vault 42	Olomouc	http://www.vault42.cz/
Coworking Pardubice	Pardubice	http://cowopce.cz/
DEPO2015	Plzeň	https://www.depo2015.cz/coworking/
UPPER	Zlín	http://upper.utb.cz/
Hubbr	Havlíčkův Brod	https://www.hubbr.cz/

Business Gate	Karviná	http://www.businessgate.cz/
Coworking Přeřov	Přeřov	http://cow.unas.cz/
Cowosedlice	Novosedlice	http://www.cowosedlice.cz/
Cowárna.cz	Příbram	http://www.cowarna.cz/

Fab-lab is an abbreviation of the "fabrication laboratory" or manufacturing lab, and refers to a place equipped with computer-controlled machines capable of producing a wide range of products. Labels FabLab can officially carry laboratories meeting three requirements:

- have some minimal equipment (3D printers, laser cutter, CNC milling machine, drill, grinder and other hand tools),
- share with the world-wide community the know-how relating to the manufacturing processes of the FabLabs created,
- make the laboratory available to the general public.

FabLab Brno is part of a worldwide movement whose members define that they will not be satisfied with the finished product solution they find in the store. Instead, it develops and manufactures its own, and then processes it to improve it. FabLab Brno is the first and for now only Fab-lab in Czech Republic. On the area of 182 square meters, three laboratories are available. The electroworkroom offers four workplaces with soldering tools, oscilloscopes, power tools and IoT equipment. The machineworkroom is equipped with a portal CNC milling machine, saw, grinder, drill and other tools and devices. The 3D workroom features a laser cutter, a 3D printer, a 3D scanner and a cutting plotter.

2.5 Support by companies (internal and external)

Apprenticeship programs

Lack of high-quality employees of the company to acquire ward schools and study fields that focus on the needs of the company. After completing the school, students are immediately able to enter the factory for full-fledged assignment and their training or re-training is not necessary. Establishment of a school is not only an advantage for a company that attracts skilled workers but also for students who have a certain job at the end of school.

ŠKODA AUTO a.s. is one of the companies that founded and operates in the Czech Republic Welsh Secondary School. ŠKODA AUTO a.s., Secondary Technical School of Engineering is part of ŠKODA Akademie, founded in April 2013 for the purpose of comprehensive education of pupils and adult employees. The school is a modern learning center that celebrates this year 90 years since its founding. It provides its students with the highest level of teaching using innovative learning technologies and tools.

Třinecké železářny is the largest Czech ironworks with domestic capital and produces the most steel in the Czech Republic. The tradition of production dates back to 1839. The foundation of the successful company is a quality staff and therefore the company has established its racing school already in 1936. Since 1952, the school has been under various founders and has been operating under the name of the Secondary Technical School of Třinecké železářny since 2011.

TOS VARNSDORF a. s. situated in Varnsdorf, Czech Republic has a years-lasting tradition in machine tool production. TOS VARNSDORF's product program is based on horizontal milling and boring machines of medium class. To maintain its position, it annually invests hundreds of millions of crowns in new product development and upgrading the production base. New constructions and manufacturing technologies put increasing demands on the knowledge and skills of people who make up and use them. That is why the company decided to start a private Secondary Industrial School, TOS VARNSDORF s.r.o., which started its activity on September 1, 2016.

Private scholarships/fellowships

Educated people with innovative ideas are important factor for design and implementation of innovations and eco-inovations in various fields. Large companies operating in Czech Republic therefore have various scholarships and their own foundations to support the education of secondary schools and university students. Examples of companies providing scholarships or fellowships are given in table 9.

Table 9 Companies providing scholarships

Company	Foundation	Business Area
Agrofert	Nadace Agrofert	agriculture, food and chemistry
ČEZ	Nadace ČEZ	energy
Unipetrol	Nadace Unipetrol	petrochemistry
E.ON Distribuce		energy
České dráhy		transportation
ArcelorMittal		metallurgy
Siemens		electrotechnics

Organizations of hackathons

“Hacking is creative problem solving. (It does not have to involve technology.) A hackathon is any event of any duration where people come together to solve problems. Most hackathons run also have a parallel track for workshops. Participants typically form groups of about 2-5 individuals, take out their laptops (if the event is technology themed), and dive into problems.”*

Hackathons are organized by different companies to find innovations in a particular field, to solve specific real problems or to improve the current situation. Examples of events organized by Czech companies and organizations are in the table 10.

Table 10 Hackathons held in the Czech Republic

Hackathon	Date	Place	Organizer	Content
Prague Hackathon 2017	22.–23.4.2017	Prague	Prague Hackathon	innovation in mobility
Smart Mobility Hackathon Prague 2017	16.–19.3.2017	Prague	Agentura CzechInvest	how to implement your idea
Smart Energy Hackathon	3.– 5. 11.2017	Prague	Confidence digital	innovation in energy saving
Travel Hackathon 2017	24.–25.11.2017		Kiwi	traveling
EOVation Agriculture	13.–14.11.2017	Prague	ESA BIC Prague, ČZU Point One	soil optimization and the fight against soil degradation

Food-waste hackathon	21.–23.4.2017	Prague	Glopolis, Zachraň jídlo	“smart” solution to the problem of food waste
CRA IoT Hackathon	31.3.2017 7.4.2017	Prague Brno	CRA	a functional prototype of the device
Accenture Hackathon	21.11.2016	Prague		solving global challenges by connecting people
V4 Hackathon	7.–8.4.2017	Brno	Český telekomunikač ní úřad	

* <https://hackathon.guide/>

2.6 Crowdfunding

National and international crowdfunding platforms

Crowdfunding is a way of financing where the target amount is contributed by a larger number of people with a small amount of money. Crowdfunding platforms can be divided into several types (www.crowder.cz/moznosti-crowdfundingu).

- Benefit crowdfunding

People do not expect anything but a good feeling for their contribution.

Charity crowdfunding is mostly used by non-profit organizations to fund socially beneficial projects. People contribute because they believe in the essence and benefits of the project, and they only expect their good feeling for their contribution.

Examples of benefit crowdfunding platforms are listed in table 11.

Table 11 National and international benefit crowdfunding platforms

National		International	
Peněždroj	http://penezdroj.cz/	GoFundMe	https://www.gofundme.com/

- Reward crowdfunding

People receive rewards or pre-paid products for their contribution. The crowdfunding reward is currently the most widely used form of crowdfunding. Projects funded in this form are artistic or otherwise engaging. People receive a reward for their contribution.

Examples of reward crowdfunding platforms are listed in table 12.

Table 12 National and international reward crowdfunding platforms

National		International	
HitHit	https://www.hithit.com/cs/home	Kickstarter	https://www.kickstarter.com/
Startovač	https://www.startovac.cz/	Indiegogo	https://www.indiegogo.com/

Peněždroj	http://penezdroj.cz/		
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- Loan crowdfunding

Contributors make a loan from which they receive interest.

People with their contributions make a loan and become the creditors of the project or company. Loans have fixed interest and duration. This type of funding is thus bypassed by traditional banks, since it allows lenders to borrow directly to those seeking the loan. At the same time, lenders see what the finances are used to, and they can entrust their finances to sectors that are interesting to them or want to support them.

Examples of loan crowdfunding platforms are listed in table 13.

Table 13 National and international loan crowdfunding platforms

National		International	
Zonky	https://zonky.cz/	Prosper	https://www.prosper.com/
Pujč mé firmě	https://www.pujcmefirme.cz/	Funding Circle	https://www.fundingcircle.com/uk/
		LendingClub	https://www.lendingclub.com/

- Shuffle crowdfunding

By their contribution, people buy a smaller share in a company or project. They can evaluate their finances, but at the same time they can lose everything.

Examples of loan crowdfunding platforms are listed in table 14.

Table 14 National and international shuffle crowdfunding platforms

National		International	
Peněždroj	http://penezdroj.cz/	Entoro	https://www.entoro.com/
Fundlift	https://www.fundlift.cz/#/	CircleUp	https://circleup.com/
		OurCrowd	https://www.ourcrowd.com/
		CrowdCube	https://www.crowdcube.com/

2.7 Events and networking

Local workshops

The workshop offers the opportunity to learn something new, to meet experts in the field. Examples of workshops held within the Czech Republic focused on various topics related to eco-innovation or how to turn your idea into a real, functioning company are presented in the table 15.

Table 15 List of the local workshops organized by local organizations

Workshop	Date	Place	Content
Odpad Zdrojem ...	24. 10. 2017 26.10. 2017	Prague Brno	circular economy and eco-innovation, as well as in water management of cities, municipalities and industry
Dotační možnosti na financování energeticky úsporných a ekoinovativních projektů	21.3. 2017	online	energy-saving projects, eco-innovation and waste treatment
NEW pro průmysl - možnosti recyklace energie a úspor ve vodním hospodářství průmyslových podniků	15.01.2016	online	minimizing water consumption and recycling, nutrient recycling, and the energy side of wastewater treatment
Jak žít zdravě, ekologicky a ekonomicky	17.11.2017	Kroměříž	healthy lifestyle and ecology in everyday life
Workshop udržitelná domácnost	01.05.2017	Olomouc	how to live without waste
Bezodpadový život s Tiny Life	18.11.2017	Olomouc	how not to produce waste
Nakopněte inovace!	02.06.2016	Prague	the process of managing innovation from idea to market success
Inovace bez legrace	09.10.2014	Prague	how to properly support the Innovation Environment in a large corporation
Inovační potenciál univerzit – jak inovovat ve spolupráci s univerzitou	30.11.2017	Plzeň	types of cooperation between universities and companies
Podpora inovací – dotace – strukturální fondy a komunitární programy	30.11.2017	Plzeň	possibilities of Financing of Business Innovations from EU Community Programs
Invention Cycle Workshop	16.11.2017	Hradec Králové	acquiring skills in the development of business thinking
Výroba ekopaliv z trávy	10.12.2014	Hostětín	the introduction of a system for the collection, processing and use of biowaste
SME Instrument workshop	19.09.2017	Brno	how to prepare a successful project proposal
Inovační leadership	02.11.2017	Prague	how to drive your business to the path of innovation and make it a truly innovative

			business
Inovační techniky a metody		Brno	intensive workshop with examples of the best innovative methods and techniques
Jak nakopnout inovace		Brno	workshop focusing on launching and supporting innovative culture
START-UP show	25.10.2017	Zlín	an overview of support tools at national and regional level and about the services offered to start your business in the Zlín Region
SYNOPCITY	05.12.2017	Dolní Břežany	The Synopcity Network offers to Mayors, Deputy Mayors, Secretaries and City / Citizens, Citizens and Businesses to communicate with other stakeholders and share their themes, issues and experiences with implementing new smart solutions projects.

International seminars

International events allow people from different countries working in the same field to exchange information and experience, to establish international co-operation, and move their work forward. Organizing an international home event will make it easier for our citizens to participate and improve the quality of our production. Examples of international conferences held in the Czech Republic are given in the table 16.

Table 16 List of the international actions held in the Czech Republic

Seminar	Date	Place	Content
14. evropské fórum pro ekoinovace	15.5.2013	Prague	air pollution
EKOinovační fórum	30.11.- 1.12.2017	Křtiny	sustainable technologies for the future
SingularityU Czech Summit 2018	5.-6.3.2018	Prague	new trends from the world of technology that will shape the future of mankind
Workshop 4elements	10.12.2015	Prague	innovation in environmental technology
Týden inovací	22.- 28.5.2017	Prague	innovation support, cutting-edge technology and artificial intelligence
Senzorika & inovace	14.4.2016		mechatronics, automotive and environmental technology, automation or Life Sciences
Inovační potenciál ČR	05.9.2017	Prague	science and technology parks in the Czech Republic, international cooperation, technology transfer

2.8 Promotion and marketing

Promotional of Czech Republic on international fairs, expos

The Ministry of Industry and Trade of the Czech Republic (MIT) offers the Czech official participation in trade fairs and exhibitions abroad (CTO) in the framework of measures to support exports. Domestic legal and natural persons with registered office, respectively residing in the Czech Republic who presents goods or services of Czech origin, have the opportunity to participate in selected international trade fairs supported by the Ministry of Industry and Trade.

Depending on the category of support, this is either a common national exposition or a separate presentation of companies. The company can obtain for its participation exhibition area, stand, technical and other related services, including the accompanying program. About three-tenths of Czech official participations are organized annually and the specific support scheme for each of them is set with respect to the character of the individual exhibitions.

Examples of events on which Czech companies could participate in the Czech Republic's official participation abroad are listed in the table 17.

Table 17 Fair and expos with Czech Republic's official participation by MIT

Fair/Expo	Date	Place	Content
Pollutec	29.11.– 2.12.2016	Lyon, France	the Environmental Technology Fair and Services Fair
Middle East Electricity	14.- 16.02.2017	Dubai (United Arab Emirates)	energy, transmission and distribution of electricity, nuclear and renewable energy sources and lighting
Nano Tech	15.- 17.02.2017	Tokyo (Japan)	nanotechnology Fair
Ecology of BIG CITY	05.- 07.04.2017	Saint Petersburg (Russian Federation)	ecology and environmental protection
Bio International Conference	19.- 22.06.2017	San Diego (United States)	biotech and pharma industry
CPhI Worldwide	24.- 26.10.2017	Frankfurt (Germany)	pharmaceutical fair
FIHAV	30.10.- 03.11.2017	Havana (Republic of Cuba)	international general fair
Central Asian Industrial Week	15.- 17.11.2017	Tashkent (Uzbek republic)	Mining World Uzbekistan (the mining industry) Trans Uzbekistan (transport, logistics and telematics) Machinery Central Asia (metallurgy, engineering and industrial automation) Securika (protection and safety)

The Ministry of Agriculture of the Czech Republic (MA) also has patronage over the national

expositions of the Czech Republic at international exhibitions and trade fairs. Under the auspices of the Czech Republic, the Czech Republic attended the trade fairs listed in the table 18.

Table 18 Fair and expos with Czech Republic's official participation by MA

Fair	Date	Place	Content
Internationale Grüne Woche 2017	20.- 29.1.2017	Berlin, Germany	international Food, Agricultural and Horticultural Trade Fair
BioFach 2017	15.- 18.2.2017	Nuremberg, Germany	international trade fair for organic farming and organic production
Agri Expo Zambia 2017	27.- 29.4.2017	Chisamba, Zambia	international Agricultural Exhibition
International Agricultural Fair 2017	13.- 19.5.2017	Novi Sad, Serbia	international Agricultural Fair
Belagro 2017	6.- 10.6.2017	Minsk, Belarus	international Agricultural Fair

Besides events with the official support of the Ministry of Industry and Trade of the Czech Republic, the Czech companies stayed on fairs and expos, which are listed in the table 19.

Table 19 Fairs and expos without Czech Republic's official participation

Fair	Date	Place	Content
Czech Republic Business Expo 2017	12.– 14.09.2017	Olomouc, Czech Republic	Electronics and Electrical Engineering, Food Industry, General Mechanical and Precision Engineering, Industrial Machinery and Heavy Equipment
MIPIM 2017	14.- 17.3.2017	Cannes, France	MIPIM brings together the most influential real estate professionals to explore major international property development projects, connect with potential partners.
CES Las Vegas 2018	9.– 12.1.2018	Las Vegas, United States	CES stands for innovators and the promise and power of technology
EXPO 2017	10.6.– 10.9.2017	Astana, Kazakhstan	the future of the power industry with focus on innovations

Promotional and marketing support, competitions or commercial programs

An important role in the promotion of the Czech Republic as a suitable place for foreign investment placement is the state contributory organization ChzechInvest. In addition to financial support (see paragraph 2.1), it also provides advice to foreign investors.

CzechInvest offers several start-up entrepreneurs to several projects that mediate meetings with strategic partners or presentations to investors.

Internal project support for start-ups within the separate activities of CzechMatch and CzechDemo

will support entrepreneurs who would like to expand their activities abroad and take part in start-up events or join as an investor.

The CzechLink Start project is designed for start-up innovative Czech companies looking for a strategic or investment partner. Its aim is to facilitate Czech start-ups not only with foreign investors, but also to capitalize on the start of their business and to increase the inflow of foreign investment into the Czech Republic.

Česká televize, the only Czech public broadcaster, in 2009 to 2012 relied on four series of Den D (Day D) TV show. The Day, when ambitious entrepreneurs, owners of smaller and larger companies and innovators are invited to a hidden place and get a chance to get the money to realize their dreams. They must convince five successful and experienced investors about their business plans - and offer them a share in their business. If they succeed in Day D, they will get the money, contacts, and experience they can do with their business much more successful.

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

There are several programs in the Czech Republic to support energy saving and renewable sources. Some of them are co-financed by European funds. They are listed in table 20.

Table 20 Programmes to support energy saving and renewable sources

Program	Duration	Czech authority	EU fund	Supported areas
Program rozvoje venkova	2014–2020	Ministry of Agriculture	EAFRD	promoting resource efficiency and supporting the transition to a low-carbon economy in climate-proofing agriculture, food and forestry
Národní operační program podnikání a inovace pro konkurenceschopnost	2014–2020	Ministry of Industry and Trade	ESIF	effective energy management, development of energy infrastructure and renewable energy sources, support for the introduction of new technologies in the field of energy management and secondary raw materials
Program EFEKT	2017–2021	Ministry of Industry and Trade	-	implementing energy-saving scalding, increasing energy efficiency, and reducing energy performance
Nová zelená úsporám	2013–2020	Ministry of the Environment	-	support of energy-efficient renovation of family houses and apartment buildings, the exchange of unsuitable

				sources for heating and the use of renewable energy sources
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The Chamber of Renewable Energy Sources is a Czech association associating professional associations of individual renewable resources, including industrial producers of technologies and scientific institutions. It supports the use of renewable energy sources, a continuous increase in their share of energy consumption in the Czech Republic and their sustainable development.

Green Energy is a project of CEZ Group, which has been focusing since 2006 on support for beneficial nonprofit projects that contribute to the ecological solution and use of renewable energy sources. These resources are an interesting and ecologically more sensitive alternative to fossil fuel burning, which is constantly declining.

4. Summary

The Eco-Innovation Scoreboard (Eco-IS) and the Eco-Innovation Index illustrate eco-innovation performance across the EU Member States. They aim at capturing the different aspects of eco-innovation by applying 16 indicators grouped into five dimensions. The Eco-Innovation Index shows how well individual Member States perform in different dimensions of eco-innovation compared to the EU average and presents their strengths and weaknesses. The comparison of the Czech Republic with the averaged value for European Union is presented in table 21. Each of the sub-indices is re-scaled to [EU average = 100] as well. The Czech Republic has a relatively good overall eco-innovation performance according to the 2016 Eco-innovation scoreboard, ranking 10th out of 28 EU Member States with an overall score of 100, which corresponds with the EU average.

Table 21 Eco innovation scoreboard values for Czech Republic for year 2016

Indicator		Unit	Value for Czech Republic
Eco-innovation inputs (index)			
1	Governments environmental and energy R&D appropriations and outlays	(% of GDP)	92
2	Total R&D personnel and researchers	(% of total employment)	104
3	Total value of green early stage investments	(USD/capita)	4
Eco-innovation activities (index)			
4	Firms having implemented innovation activities aiming at a reduction of material input per unit output	(% of total firms)	84
5	Firms having implemented innovation activities aiming at a reduction of energy input per unit output	(% of total firms)	108
6	ISO 14001 registered organisations	(per mln population)	207

Eco-innovation outputs (index)			
7	Eco-innovation related patents	(per mln population)	41
8	Eco-innovation related academic publications	(per mln population)	54
9	Eco-innovation related media coverage	(per numbers of electronic media)	40
Resource efficiency outcomes (index)			
10	Material productivity	(GDP/Domestic Material Consumption)	65
11	Water productivity	(GDP/Water Footprint)	198
12	Energy productivity	(GDP/gross inland energy consumption)	36
13	GHG emissions intensity	(CO2e/GDP)	228
Socio-economic outcomes (index)			
14	Exports of products from eco-industries	(% of total exports)	98
15	Employment in eco-industries and circular economy	(% of total employment across all companies)	149
16	Revenue in eco-industries and circular economy	(% of total revenue across all companies)	185

For successful implementation of innovation, both financial and professional support is important. The most essential support in Czech Republic is financial support from European Union and the Czech government. HORIZON 2020, LIFE, ESIF or COSME are EU funds or programmes supporting innovation. In the Czech Republic the crucial financial support comes from the ministries, Ministry of Industry and Trade, Ministry of the Environment, Ministry of Finance and Ministry of Regional Development, and from the government organisation such as TACR and CzechInvest. CzechInvest also provides expert advice for entrepreneurship, from start-ups to large-scale businesses. At the beginning of 2017, the VUPI (Research Institute for Innovation Support) was established, which focuses on improvement of cooperation between leading companies and Czech universities. Their main aim is to develop the business environment in the field of innovation. The promotion of cooperation between the company and the research sector is important in the field of eco-innovation, as evidenced by the more and more emerging organizations that allow co-operation.