Interreg
Danube Transnational Programme
EcoInn Danube

Common Guidebook on Eco-Innovation

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Common Guidebook on Eco-Innovation

Introduction

Perhaps you are a scientist with a bright new idea, wondering what to do next. Perhaps you are an entrepreneur with a brilliant business plan and need to find financing. Or perhaps you are an entrepreneur in a field where a transition to more environmentally friendly approach would do wonders for our world, and you need to find the right research partners to help you make that transition. Or, perhaps, you are all of the above…

The good news is that you do not have to do it alone. There is information available out there, and there are professionals who can help you with your project. What is more, you do not need to limit yourself to your own country; cross-border cooperation across Europe is a growing trend. The purpose of this Guidebook is to map the environment for eco-innovation in the Danube Region countries; to offer a general overview and to point the interested reader towards relevant sources of more information.

Overview of the contents

This Guidebook focuses on several aspects of the innovation environment:

- We start with an overview of professional organizations which can help you and offer you various supporting services in the innovation field. They are generally the best starting point if you are looking for complex information.

- Then there follows a section on intellectual property protection instruments available in the country of your interest. Since when you innovate, you are marketing an idea which needs to be protected from being copied. With a contact to the local patent office and patent lawyers you have a good starting point.

- A brief introduction of national legislation on state aid, contracts, and starting a company is provided for further study, depending on where your project leads you. Depending on the nature of the eco-innovation in question, another batch of product-specific legislation will need to be studied, such as legal norms on health care, waste management, energy production, construction, waste treatment or general product safety; all of this is too specific to be included in the Guidebook.

- Financing a project is another big issue and we put together a list of possible national and international grant providers and private investors to whom you can turn for support. Good news is that eco-innovation is increasingly a priority for governments across the Danube region and there are opportunities open for those who look for them.

- An integral part of doing business is promotion of the new product or service. Each country offers various events and opportunities for thematic networking, and these are listed in the Guidebook for your inspiration.

How to read the Guidebook

The Guidebook consists of two main parts:

- A nation-specific part dedicated to each country in the Danube Region gives specific information on the country and its national legislation. Each country analysis follows a common structure of chapters.

- Annexes which provide information common to more countries. There you can study the topic to a greater depth. The Annexes concentrate on international methods of Intellectual Property protection, on international financing and on state aid rules in the European Union. The reader should therefore check the Annexes for complex information on any country of interest. Note that the Annexes are not always referenced in the national part.

Important advice to the reader

Always double check information that is provided herein before using it or acting upon it. We are covering topics that are susceptible to rapid changes and may become outdated very fast.

List of contents

Tables and figures

Austria

National innovative infrastructure

In 2011 the Austrian federal government adopted the Strategic Plan for Research, Technology and Innovation (RTI) as the central reference framework for defining domestic RTI policy. With an aim to transform Austria by 2020 into one of European leading countries for innovation, the RTI strategy is implemented at multiple levels. A broad-based and systemic approach is being taken to organise and support the innovation system. Specifically, an RTI Task Force for Coordination and Implementation of the Strategy was created, under the leadership of the Federal Chancellery (BKA) and in collaboration with representatives of the relevant federal ministries (Federal Ministry of Finance (BMF), Federal Ministry for Transport, Innovation and Technology (BMVIT), Federal Ministry of Science, Research and Economy (BMWFW) and Federal Ministry of Education (BMB).

Several institutions in Austria are fully, or at least partly, dedicated to supporting innovation. Each federal state has its own particular institutions, for example: In Burgenland: provincial administration, Department of Culture and Science; in Vorarlberg: Office for Future-Related Issues, Business-Location Vorarlberg GmbH (WISTO). Vienna is clearly a hot-spot in that respect. Its geographic proximity to other innovation hotspots (e.g. Bratislava, Brno, Prague) in other Danube Region countries could be advantageous and should be explored for transnational collaboration. Prominent examples of Vienna-based institutions include:

Table 1 Institutions in Vienna

Name	Entrepreneurship Centre Network (ECN) University of Natural Resources and Life Sciences (BOKU)
Contact Address	Gregor-Mendel-Strasse 33, A-1180 Vienna
Website	http://ecn.ac.at
Main Area of Services	The ECN platform aims to support students already in the early stage of entrepreneurship and invites young innovative thinkers to realize their ideas. The Entrepreneurship Avenue, an initiative under ECN, is Europe's largest start-up event series that aims to inspire young start-ups with a specific focus on students. It brings students, founders, investors and mentors together and holds customized coaching sessions.
Name	Institute for Entrepreneurship and Innovation (E&I)
Main Area of Services	The Institute for Entrepreneurship and Innovation (E&I) at the Vienna University of Economics (WU) joined forces with five universities, including the University of Natural Resources and Life Sciences https://www.boku.ac.at, to establish an online platform and to promote all aspects of entrepreneurship. Noteworthy is E&I´s dedication to supporting female founders.[1]
Contact Address	Welthandelsplatz 2 A-1020 Vienna
Website	https://www.wu.ac.at/entrep

[1] Wirtschaftsuniversität Wien. Female Founders Report [online]. © 2018 Wirtschaftsuniversität Wien. [cit. 2018-12-14]. Available at: https://www.wu.ac.at/gruenden/data/female-founders-report/

International association of science parks and areas of innovation (IASP)

IASP is a worldwide network of science parks and areas of innovation. It is a knowledge-based network that brings together established and emerging science and technology parks (STPs), innovation-based business incubators (BICs), as well as R&D institutions, universities, experts in economic development and technology and knowledge transfer. IASP Science and Technology Parks aim to promote environment that is conducive to creating new business opportunities and fostering entrepreneurship and incubating new innovative companies. There are two such parks in Austria.

Table 2 IASP Science and Technology Parks in Austria

Name	Lakeside Science & Technology Park GmbH - Klagenfurt
Contact Address	Lakeside B11, A-9020 Klagenfurt am Wörthersee
Website	www.lakeside-scitec.com
Name	Techno-Z Network Company-The Salzburg Enterprise Network
Contact Address	Schillerstrasse 30, BTX, A-5020 Salzburg
Website	www.techno-z.at

Table 3 Other national innovative supports

Name	AUSSENWIRTSCHAFT AUSTRIA
Type	The Aussenwirtschaft Austria, an agency within Austrian Federal Economic Chamber, supports national enterprises in various ways.
Contact Address	Wiedener Hauptstrasse 63, A-1045 Vienna
Website	https://www.wko.at/service/aussenwirtschaft
Main Area of Services	It offers expert advice, workshops, platforms and matchmaking services. Initiatives such as Go-International aim to boost SMEs capacity to deliver new products and services globally.
Name	RESSOURCEN FORUM AUSTRIA
Type	Ressourcen Forum Austria is an initiative of the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW; now BMNT), created with the aim to promote resource efficiency in the field of environmental technologies, sustainable production and sustainable consumption.
Contact Address	Schwarzstrasse 19, A-5020 Salzburg
Website	www.ressourcenforum.at
Main Area of Services	The initiative offers opportunities for cooperation, networking and knowledge transfer. Its main achievement to date is establishment of an association of enterprises/institutions focused on resource efficiency and compilation of a list of funding and consulting opportunities in the field of material efficiency.
Name	WKO (Gruenderservice)
Type	The Business Start-up Service of the Austrian Federal Economic Chamber offers personal consulting and services to business start-ups.
Contact Address	Stubenring 8-10, 1010 Wien

Website	www.gruenderservice.at
Main Area of Services	More than 90 information centres located in the provincial Chambers and regional contact points offer legal and economic consultations, business start-up coaching etc. to new entrepreneurs. The local Chambers also organize events such as, Business Start-up Days ("Gruendertage“), workshops, lectures. Furthermore, they provide information regarding guidelines for new businesses, contact information of required government authority, financing and marketing possibilities. The website www.gruenderservice.at offers entrepreneur-check, information about subsidies, bulletins, checklists, podcasts and information in foreign languages.
Name	COMET – COMPETENCE CENTRES FOR EXCELLENT TECHNOLOGIES Austrian Research Promotion Agency (FFG)
Type	The national programme COMET was launched in 2006. The Austrian Research Promotion Agency (FFG) is responsible for the management of COMET. COMET is sponsored by the Ministry for Transport, Innovation and Technology (BMVIT) and the Ministry for Digital, Business and Enterprise (BMDW). The Austrian provinces also support COMET with additional funds.
Contact Address	Sensengasse 1,A-1090 Vienna
Website	https://www.ffg.at/program/comet-competence-centers-excellent-technologies
Main Area of Services	The Competence Centre’s programmes - internationally recognised as best-practice models - have been among the most successful technology policy initiatives in Austria. These Centres aim to focus on existing competences and develop new competences in collaboration with nationally and internationally recognised researches and innovators.
Name	AUSTRIANSTARTUPS e.V.
Type	AustrianStartups is an independent non-profit networking platform for innovative entrepreneurs.
Contact Address	Lindengasse 56, A-1070 Vienna
Website	https://www.austrianstartups.com
Main Area of Services	It connects successful innovating entrepreneurs, aspiring entrepreneurs, investors and media representatives. In order to strengthen the start-up initiatives all over Austria and to facilitate connection among local start-ups, a network of local representatives (available in the contact page of the website) has been developed. AustrianStartups furthermore engages in raising awareness in government and society regarding the support needed by the start-ups and the important role they can play in the country´s innovation landscape.

Name	AUSTRIAN BUSINESS AGENCY (ABA)
Type	ABA is owned and operated by the Austrian government.
Website	https://investinaustria.at
Main Area of Services	As a national investment promotion company ABA acts as first contact point for foreign companies aiming to establish their own business in Austria. Consulting (e.g. selection of appropriate location) and other services are free of charge.
Name	JUNIOR CHAMBER AUSTRIA (JW)
Type	The JW is set up within the Austrian Federal Economic Chamber and is specially geared towards helping young entrepreneurs in having the best possible condition for their work.
Website	https://www.jungewirtschaft.at
Main Area of Services	The JW focuses on providing concrete framework conditions and non-wage subsidies in the form of employment bonus, legal certainty, mobilizing private capital etc.

AMS (Public Employment Service Austria)

The Public Employment Service supports unemployed individuals wishing to become self-employed, i.e. starting their own business. Emerging entrepreneurs receive both counselling from a qualified consulting firm and help in acquiring respective qualifications (project management, business development, etc.) in training courses paid for by the AMS. The programme also includes a feasibility check of the business idea and follow-up counselling. In Austria, the AMS has supported more than 4000 business starters, amounting to 15% of all newly founded businesses. 87% of these businesses still existed three years later, illustrating the investment´s sustainable success.

Social insurance institution for trade and industry (SVA)

The SVA helps start-ups with setting up social insurance mechanism for new entrepreneurs and is linked with the Chamber of Commerce.

National Legislative Framework

Intellectual Property Protection

Copyrights

Copyrights – the protection of creative and technical expression – need no special registration; they are generated by the creation of the work itself. The copyright belongs solely to the creator. The applicable national law is the Federal Law on Copyright in Literary and Artistic Works and Related Rights. The legal text is available in German online[2].

Both exploitation and moral rights are protected under Austrian copyright law. Exploitation rights include: protection of original content (Copyright Act, § 14, paragraph 3); the right to adapt and translate the work (Copyright Act, § 14 paragraph 2); the

[2] Republic of Austria. The Copyright Act (Urheberrechtsgesetz), 111/1936 Coll., as amended [cit. 2018-12-14]. Also vailable at: https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10001848

right to reproduction (Copyright Act, § 15); the right to distribution (Copyright Act, § 16); the right to lending (Copyright Act, § 16a); the right to broadcasting (Copyright Act, § 17); the right to perform or display to the public (Copyright Act, § 18); and the right to make internet content available to the public (Copyright Act, § 18a). Moral rights are also recognised under the Austrian Copyright Act. These are protected according to §§ 19 to 21 of the Copyright Act. These guarantee to the originator the unlimited and mandatory right to defend his or her creatorship against third parties. According to the Copyright Act, § 20, it is within the creator's sole discretion as to whether or not, and by which means, he or she shall be named as originator. § 21, paragraph 3, preserves for the originator the right to object to defacing changes to his or her work, even if the right to an adjustment was granted to a third party.

Industrial property rights

A patent protects your invention. For an invention to be patentable it must be novel, contain an innovative step, be capable of industrial application and must not have been published at the time of application; anything that has been made publicly accessible anywhere in the world, in whatever form, constitutes the state-of-the-art and no longer qualifies as novel. A patent is a geographically limited exclusive right of limited duration (20 years). You alone may produce, sell or use the protected invention in Austria. Hence a patent grants the right for a limited period to exclude others from producing, using or selling the invention without permission. The right can be sold or transferred by means of a licence. Inventions which cannot be protected by a patent are: discoveries, scientific theories and mathematical methods; the human body at the various stages of its formation and development; the simple discovery of one of the elements of the human body, including the sequence or partial sequence of a gene; aesthetic creations; schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers; presentations of information; inventions that are contrary to generally recognised laws of nature (the law of conservation of energy, the principle of conservation of linear momentum, etc.) such as a perpetual motion machine. Patents are regulated in the Patents Act of 1970. The legal text in German is available online[3].

Besides a patent, a second form of protection for inventions in Austria is a utility model ("Gebrauchsmuster"). A utility model (commercial right for technical inventions) involves no testing for novelty, for inventive process or for commercial applicability. It is, however, necessary to submit the same application documents as for a patent. If your utility model is formally in order, you will be sent a search report regarding the novelty and inventiveness of the claims. After you pay the registration fee, your utility model will be registered, even if it is not novel and inventive according to the search report. The advantage is that you obtain protection faster than a patent. The disadvantage is that third parties can request a declaration of nullity of a utility model. The protection through utility models is limited to a maximum period of 10 years, it is normally granted more quickly than a patent, but it confers weaker protection. The applicable law is the Utility Model Act[4].

Supplementary Protection Certificates ("Ergänzendes Schutzzertifikat") offer extended protection for authorised active ingredient/s of a medicinal product or for plant

[3] Republic of Austria. The Patent Act (Patentgesetz), 137/1971 Coll., as amended [cit. 2018-12-14]. Also vailable at: https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10002181

[4] Republic of Austria. The Uility Model Law (Gebrauchsmustergesetz). 211/1994 Coll., as amended [cit. 2018-12-14]. Also vailable at: https://www.patentamt.at/fileadmin/root_oepa/Dateien/Patente/PA_Gesetze/GMG_englisch.pdf

protection products that are covered by a patent (the underlying patent). Since medicinal products are not permitted to be sold without authorisation, the aim is to compensate patent holders for commercial disadvantages arising from the lengthy process to obtain authorisation. The protection certificate comes into effect upon expiry of the maximum term (20 years) of the underlying patent. The term of the protection certificate is equal to the elapsed period between the filing of the patent application and the granting of the first marketing authorisation in the EEA, minus five years. The maximum term of the protection certificate is five years dating from the time of coming into effect. Extension by a further 6 months is possible if the application is supported by studies carried out in line with a paediatric investigation plan. In order to submit an application, you must be the patent holder and/or authorisation holder of an underlying patent for the authorised active ingredient/s of a medicinal product or for plant protection products. These are regulated in the Federal Act on Supplementary Protection Certificates. German version of the legal text is available online[5].

A company label can be protected by a trademark – an independent property right which allows for identification of goods and services offered by different companies. Trademarks can be protected for 10 years – this period may be extended indefinitely by paying the fee every ten years. Trademarks are subject to the Trademarks Protection Act 1970. The legal text in German is available online.[6]

Design protection may be obtained for designs that are new and have individual character. To obtain a design protection, the application needs to specify the categories for which the design protection is sought. The categories follow the Locarno classification. Design protection offers a territorial right, limited to the country for which it was granted and limited to a maximum period of 25 years (renewal fee is payable every 5 years). It is governed by Federal Law of June 7, 1990 on the Protection of Designs (Design Protection Act 1990). Legal text in German is available online.[7]

Information for applicants and current fees are available in English on the website of the Austrian Patent Office https://www.patentamt.at/en.

Table 4 Protective instruments in Austria

Form of protection	Patent
Granting authority	Austrian Patent Office
Material conditions for grant	The invention has to be novel and innovative, and must not have been published at the time of application. The following cannot be patented: discoveries, scientific theories and mathematical methods; human body at the various stages of its formation and development; simple discovery of one of the elements of the human body, including the sequence or partial sequence of a gene; aesthetic creations; schemes, rules and methods for performing mental acts, for playing games or for doing business, and programs for computers; presentations of information; inventions that are contrary to

[5] Republic of Austria. The Supplementary Protection Certificate Act (Schutzzertifikatsgesetz) 11/1997 Coll., as amended [cit. 2018-12-14]. Also vailable at: https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10003470

[6] Republic of Austria. The Trademark Protection Act (Markenschutzgesetz) 260/1970Coll., as amended, consollidated version. [cit. 2018-12-14]. Also vailable at: https://www.ris.bka.gv.at/dokument.wxe?abfrage=bundesnormen&dokumentnummer=nor12041057

[7] Republic of Austria. The Design Protection Act (Musterschutzgesetz) 497/1990 Coll., as amended, [cit. 2018-12-14]. Also vailable at: https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10002963

	generally recognised laws of nature (the law of conservation of energy, the principle of conservation of linear momentum, etc.) such as a perpetual motion machine
Prior publication by the applicant	Anything that has been made publicly accessible anywhere in the world, in whatever form, constitutes the state-of-the-art and no longer qualifies as novel.
Examination	The examination takes place at the Patent Office. Once the patent application is filed, submitted documents will be examined (for compliance with formal requirements) and the invention will be examined (in substantive terms). After the examination, a written preliminary decision document will be drafted with the result of the examination. The applicant may respond to the decision within a stated deadline. Thereby any deficiencies can be rectified. In the event of failure to do so (or to do so satisfactorily), the application will be rejected.
Publication of the application	Eighteen months after the date of application (or, where applicable, the priority date), the application documents originally filed will be published together with a search report (if already available) and, where applicable, the most recent version of the claims. The applicant enjoys provisional protection as of the date of publication, if the application ultimately results in a patent being granted. Should the application with the originally filed documents be published before the end of the 18 month period, they can file an application to that effect by letter (no special form is required). Such publication, however, is subject to the documents being formally in order.
Granting of the patent/publication	If the Patent Office has no reservations about granting the patent, the decision to grant the patent will be made; the patent will be granted when the decision comes into effect (upon expiry of the period for serving the decision to grant the patent).
Validity	A patent is a geographically limited exclusive right of limited duration (20 years). The patent holder alone may produce, sell or use the protected invention in Austria.
Form of protection	European patent
Granting authority	European Patent Convention (EPC) The EPC is a multilateral treaty instituting the European Patent Organisation and providing an autonomous legal system according to which European patents are granted.
Description	A European patent is not a unitary right, but a group of essentially independent, nationally-enforceable and nationally-revocable patents, subject to central revocation or to group-based narrowing; all pursuant to two types of unified, post- grant procedures: a time-limited opposition procedure, which can be initiated by any person except the patent proprietor, and limitation and revocation procedures, which can be initiated by the patent proprietor only.
Unified prosecution phase	The EPC provides a legal framework for the granting of European patents, via a single, harmonised procedure before the European Patent Office. A single patent application, in one language (English, French or German), may be filed at the European Patent Office in Munich and the grant of a European patent may be requested for one or more of the Contracting States.

Form of protection	Utility model
Granting authority	Austrian Patent Office
Description of terms	A utility model protects your invention in Austria just like a patent. Applicants need the same application documents as for a patent application, but there are differences with respect to the procedure, the term of protection, the costs, etc. The utility model does not involve such lengthy examination as for a patent before protectable claims become protected. If your utility model is formally in order, you will be sent a search report regarding the novelty and inventiveness of the claims. If you pay the registration fee, your utility model will be registered, even if it is not novel and innovative according to the search report. The advantage is that you obtain protection faster. The disadvantage is that third parties can request the declaration of nullity of a utility model. The procedure is described in further detail below. A utility model cannot protect discoveries, scientific theories and mathematical methods; aesthetic creations; schemes, rules and methods for performing mental acts, for playing games or for doing business, and programs for computers; presentations of information; inventions that are contrary to generally recognised laws of nature (the law of conservation of energy, the principle of conservation of linear momentum, etc.) such as a perpetual motion machine. Nevertheless, as with a patent, the holder of a utility model may produce, sell or use their invention in Austria. Other parties are not permitted to do so.
Examination	If the utility model is formally in order, a search report is sent regarding the novelty and inventiveness of the subject on the application. The identified state of the art is categorised as X, Y or A. Even in case of a negative search report (category X or Y), the applicant can have the utility model registered by paying a registration fee. However, that entails a certain risk, since the utility model may be declared void based on a third-party request for a declaration of nullity. The claims can, however, be changed and modified following receipt of the search report, except in the case of accelerated registration, where the search report comes after the registration.
Length of the granting proceedings	Registration takes on average eleven months. However, for a supplementary fee, you may apply for accelerated registration. In that case the application is registered immediately after it has been found to be in conformity with the law, and the utility model specification is published. The search report is only prepared and published afterwards. However, claims can no longer be modified in the case of accelerated registration.
Registration/Publication	Utility model protection commences upon registration in the Utility Model Register according to the decision of the examiner and publication in the Utility Model Gazette. The utility model specification is posted on the publication's website and a utility model certificate is issued.
Period of protection	Maximum duration of 10 years.
Form of protection	Industrial design
Granting authority	Austrian Patent Office
Legal protection of designer solutions	Design right protects the appearance of an industrial product. What it does not protect however, is the idea or invention upon which the product is based, a product's production method or the like. Design protection encompasses all features that are visible to the human eye such as shape, colour, gloss, surface

	structure, ornamentation etc. As a first step, the applicant should obtain information about the International Classification for Industrial Designs and the classes of goods to which the protectable products belong. Designs must not be confused with utility models. As in the case of patents, utility models protect an invention in a technical field.
Examination	The design application will be formally examined. Should there be any defects; the applicant will be asked to rectify these. The application will be rejected if the design contradicts the principle of public order or morality (legal examination).
Application	Special application forms for Single Design or for Multiple Designs are available at https://www.patentamt.at/en/forms. The application must include at least one image of the design (photographs or drawings in duplicate form). An exception to this is the secret design application.
Period of protection	Maximum duration of a design protection is 25 years from the date of application. Expiry ensues upon failure to pay renewal fees, after renouncing the protective right, or if th2ere is a declaration of nullity for the design. It is possible for third parties to contest the registered design (declaration of nullity application) should these be of the opinion that the design registration is not justified.
Publication/Registration	Design registration in each case takes place on the 20th of the respective month. The Austrian Design Gazette publishes the registration, the registration is entered in the register and a certificate issued.
Note	It is also possible to obtain EU design protection; all necessary information is available at EUIPO.
Form of protection	Trademark
Granting authority	Austrian Patent Office
Description	A trademark may consist of any signs, in particular words, including personal names, or designs, letters, numerals, colours, the shape of goods or of the packaging of goods, or sounds, provided that such signs are capable of giving distinctiveness to the goods or services of one company compared to those of other companies and are represented on the register in a manner which enables the competent authorities and the public to determine the clear and precise subject matter of the protection afforded to its proprietor.
Application	Anyone may file an application, regardless of whether they are an individual person or legal entity (company). The similarity search accessible at https://www.patentamt.at/servip/ lists identical trademarks or confusingly similar, already registered trademarks. This list is an important decision-making tool that enables the applicant to decide whether to go ahead with the trademark's application or, should older comparable trademarks of third parties exist, cancel the application.
Formal Examination	The authorities first vet the formal aspects of the application such as trademark images, list of goods/list of services, power of attorney etc. If there are any shortcomings, a notification is sent to remedy these.
Notification of the Similarity Search	Owners of older, identical or confusingly similar trademarks registered for comparable products/services might take legal action against your trademark if they regard your novel application as being prejudicial to their protective rights. They could, for instance, submit a notice of opposition against the

	registration of your trademark or a request for cancellation at the Austrian Patent Office and bring a civil action before the Viennese Commercial Court (e.g. sue for an injunction, damages etc.). It has to be noted that the Austrian Patent Office's application procedure does not comprise findings concerning the issue whether identical trademarks or older similar trademarks capable of being mistaken actually exist. The plain fact that such prior registrations exist does not constitute an obstacle to your own trademark's registration.
Examination of Legality	The examination of legality comprises an investigation of whether the trademark is capable of being protected and a search for registration obstacles (e.g. lack of distinctiveness of the trademark, a solely descriptive statement of the trademark etc.). The most significant of these registration obstacles are contained in § 4 MSchG. Should there be any such obstacles, the applicant is notified and is entitled to respond to these objections within a certain prescribed period. If there is no response on the applicant's part or should they be unable to submit arguments capable of overriding the official objections, the application will be rejected. Applicant is entitled to lodge an appeal against such an unfavourable decision before the Higher Regional Court of Vienna (Oberlandesgericht Wien) and subsequently the Supreme Court (Oberster Gerichtshof). If the applied-for trademark fulfils all registration requirements, it will receive a consecutive registration number with which it is entered in the trademark register. The applicant in turn receives a confirmation of registration. Additionally, the registered trademark is published in the Austrian Trademark Gazette, issued on the 20th of each month. Subsequent to registration of the trademark, the sign ® may be used in trade. This serves as a note that this is a Registered Trademark. The owner of such a trademark has an obligation of disclosure to third parties.
Length of the granting proceedings	The average duration of these proceedings is 3 months (Fast Track applications approx. one month). Any exchange of correspondence, however, will prolong this period of time.
Note	It is also possible to obtain EU trademark, all necessary information is available at EUIPO.

Ownership of a research result

Paragraphs 6 - 19 of the Austrian Patent Act specify the rights and obligations of employees and employers in the event that an employee has made an invention during the legal duration of the employment relationship. In essence, it is about the assignment of the rights to such inventions and the question of whether and to what extent assigning the inventor's rights to the employer entails compensation claims by the employee.

Paragraph 6 of the Patent Act provides the basic rule that an employee shall be entitled to the grant of a patent (according to Section 4 Patent Act) for inventions they have made during their employment relationship. However, the law lists two exceptions to this basic rule: First, agreements between employers and employees under which any future inventions of the employee are to belong to the employer or which grant the employer a right to use such inventions, are valid in the case of service inventions. A service invention is defined as an invention which is made by an employee who, by reason of its subject matter, falls within the activities of the enterprise in which the employee works. To be valid, the agreement must be in writing; this

requirement is satisfied if the agreement is included in a collective agreement. The second exception is where a person is employed under public law, the employer may, even in the absence of agreement with the employee, claim the service inventions of the latter completely or the right to use such inventions, such right being also binding on third parties. An employee is entitled to special and fair remuneration in any case where his invention becomes the property of his employer or subject to the employer's right of use.

The copyright belongs solely to the creator. This also applies for in-service creations when the work itself is generated during the time of the creator being an employee. However, the employer can be granted the right to exploit the copyright.

Contact details of the national intellectual property office

Table 5 Contact details of the Austrian intellectual property office

Name	Austrian Patent Office
Address	Dresdner Straße 87, 1200 Vienna
Phone	+43 1 53424
E-mail	info@patentamt.at
Website	https://www.patentamt.at/en

Patent attorneys

Patent Attorneys provide proceedings representation before the Austrian Patent Office (APO) in Vienna, the European Patent Office (EPO) in Munich, Berlin, and The Hague, the European Union Intellectual Property Office (EUIPO) in Alicante, and the World Intellectual Property Organization (WIPO) in Geneva as well as before all patent and trademark offices. Patent attorneys are also eligible to represent clients in court in infringement and in litigation proceedings before ordinary courts. Patent attorneys help enforce intellectual property rights by contesting trademarks and designs that were wrongly granted, and provide counsel in license and cooperation agreements.

Patent attorneys are organized in a chamber, called the "Österreichische Patentanwaltskammer". The contact details are +43 1 523 43 82, office@oepak.at and they are located at Linke Wienzeile 4/1/9, 1060 Vienna.

Commercialization

Sale of IP

The patent entitles the holder to exclude others from using and commercially exploiting the patented invention. The holder may either exploit the patent themselves or transfer the rights completely or partially to another individual or a company (licensing according to § 35 Patent Act). To become effective against third persons, the licencing must be entered into the patent register. The contracting partners are free to decide on the type, extent, term and conditions of the licence as well as the licence fee to be paid to the licence holder. According to Austrian law, a compulsory licence is also possible under certain circumstances (e.g. if the patent is necessary to put an invention on the market which represents an important technological progress).

The patent can also be sold and inherited. According to Austrian law a patent can be transferred according to § 33 Patent Act. The patent can be transferred by itself, hence it is qualified under Austrian law as an incorporeal

property according to § 293 ABGB (Civil Code). For the transfer of ownership, a special mode is necessary in addition to the title: the registration into the patent register (§ 43 Patent Act; constitutive effect). The patent office will examine the deed of transfer regarding form and content. The transferring party has to sign in an authenticated form. The right to be acknowledged as the inventor (§ 20 Patent Act) is personal and consequently not transferable.

Start-up

Austrian company law provides for different types of companies, tailored to the specific needs of companies with respect to the stipulations contained in tax and liability laws. Basically, a distinction is made between two types of companies: corporate entities (corporations, joint stock companies) and business partnerships. The most common forms of companies are a Partnership (OG), a Limited Partnership (KG), Limited Liability Company (GmbH), a Dormant partnership (stille Gesellschaft), Civil Law Partnership (Gesellschaft bürgerlichen Rechts). Detailed information is available at the website of the Ministry for digital and economic affairs[8].

State aid

Austria is subject to EU legislature on state aid.

Funding of additional development

Even though there is no particular policy programme dedicated specifically to eco-innovation or circular economy in Austria to date, a number of measures and initiatives have been introduced by different government bodies in recent years relating to eco-innovation and, to a lesser extent, to circular economy. The main legislative bodies involved include the Ministry of Sustainability and Tourism (BMNT), the Ministry of Transport, Innovation and Technology (BMVIT), and the Ministry of Science, Research and Economy (BMWFW). Furthermore, other organisations, such as the Austrian Chamber of Commerce (WKO), play an important role in supporting eco-innovation-related initiatives. While for BMWFW, the key concern is support of basic research, BMVIT focuses on applied research and runs a number of specific programmes related to eco-innovation in support of the sustainability-oriented transformation of the Austrian economy.

R & D funding by the state

In Austria, R&D expenditure accounted for 3.07 % of GDP in 2015 (Eurostat), one of EU's strongest increases in R&D intensity since 2000. However, the growth in R&D intensity has slowed in recent years. Despite the high overall spending levels, funding of basic research remains low.

In 2011, a comprehensive national strategy was introduced to boost research and innovation (Der Weg zum Innovation Leader). An updated plan, comprising new guidelines for research, technology and innovation funding came into force in January 2015. In addition, the research premium was increased from 10 % to 12 % in January 2016. In early 2017, Austria announced a further increase to 14 % effective as of January 2018.

The Austrian government also provides financial support for research and development activities in companies. According to Austrian income tax law,

[8] Federal Ministry for Digital and Economic Affairs. Starting a Business. ©2018. Last updated 16.07.2018 [cit. 2018-11-08]. Available at: https://www.help.gv.at/Portal.Node/hlpd/public/content/149/Seite.1490000.html

companies can claim the Research and Development Tax Credit annually. This scheme amounted to €500 million worth of funding paid to companies in 2013 (Statistics Austria).

National support – public Agencies

In Austria, research and development in educational and entrepreneurial sectors is covered by three major funding agencies – the Austrian Science Fund (Fonds zur Förderung der wissenschaftlichen Forschung – FWF), the Austrian Research Promotion Agency (Forschungsförderungsgesellschaft– FFG) and Austria Wirtschaftsservice (aws). They are responsible for achieving the objectives of the Federal Government's research, technology and innovation (RTI) strategy.

Table 6 National support of innovations in Austria

Name	FWF Austrian Science Fund, Haus der Forschung
Contact Address	Sensengasse 1, 1090 Vienna
Website	www.fwf.ac.at
Name	Forschungsförderungsgesellschaft mbH (FFG)
Contact Address	Sensengasse 1, 1090 Wien
Website	www.ffg.at
Name	Austria Wirtschaftsservice Gesellschaft mbH (aws)
Contact Address	Walcherstrasse 11A,1020 Vienna
Website	www.aws.at

A few examples of the interventions carried out by the above agencies are:

The FFG support fund focuses on promoting application-oriented and business-relevant R&D in Austria. The support provided by FFG includes monetary and non-monetary instruments in research and development at firm as well as research institution levels. These measures, aimed at strengthening human resources and optimising the structure of innovation systems, include a wide range of services, such as a job bank for R&D personnel, evaluations for tax concessions for research activities, partner search and advisory, facilitating training and networking for research programmes of the EU (Horizon 2020) and the European Space Agency (ESA). The FFG "Innovationsscheck 10.000" enables enterprises to largely cover costs for a particular piece of research to be conducted at universities or research institutions that have the requested knowledge and equipment.

Wirtschaftsservice GmbH (aws) provides monetary funding and financing support that includes low-interest loans, guarantees, grants, as well as equity capital financing. Aws is 100% owned by the Federal Republic of Austria. The Federal Ministry for Digital, Business and Enterprise (BMDW) and the Federal Ministry for Transport, Innovation and Technology (BMVIT) are responsible for executing its mandate. 80% of projects submitted to aws for financing are innovation projects, and 66% of submissions are approved for funding.

The Austrian Science Fund (FWF) is the main institution for promoting basic research in Austria. The FWF supports scientists at different levels (incl. PhD, Postdoc) in all fields of science by financing 3- to 4-year research projects. A detailed overview of (government-provided) budgets and their spending on the various programmes is published in the publicly

available annual report[9]. There are special FWF scholarships for female scientist career development. For example, the Elise-Richter-Programme provides a 4-year-support (finance, advice, workshops) for advanced female researchers up to the level of habilitation, qualifying them to apply for a professorship. However, at Austrian (seriously budget-limited) Universities, professor positions as well as virtually any tenure-track-position are extremely scarce. As a consequence, top scientists go abroad and the fruits of national investment (education, scholarships) into human resources are harvested outside Austria. Due to lack of budget, the FWF has to decline a substantial and growing number of research proposals, even those evaluated as "very good / worth supporting" by international reviewers. With approximately €24 per head of population per year, the FWF receives significantly less resources than corresponding institutions of innovation leader countries like Switzerland (€97), Finland (€76) or Germany (€37). Funding of joint projects (duration 3-4 years) has become more and more important, and there are regular calls for specific bilateral partnerships. Many of those consider collaboration with Danube region countries (e.g. AT- CZ, AT-HU, AT-Slo)[10].

Austrian Agency for International Cooperation in Education and Research (OeAD) provides scholarships in various areas so as to promote Austria as a research hub for young scientists. Support programmes (finance, advice, help with accommodation etc.) exist both for incoming and outgoing scientists.

The creation of a new legal entity, the "Mittelstandsfinanzierungsgesellschaft (MiFiG)" (financing company for SMEs) aims to provide incentive investors into providing risk capital for small and medium-sized companies. Tax exemptions will apply for up to €15,000 in dividends for investors in a MiFiG.

As part of the Global Incubator Network (GIN), "goAustria" is another initiative that supports small start-up companies with funds up to €5,000. A second promotion format "goAustria individual" supports international start-ups in the construction of a specific Austrian and European network. "goAustria" offers assistance in the form of co-working spaces, mentoring and coaching as well as promoting cooperation of network activities in Austria.

COIN (Cooperation and Innovation) is a joint initiative launched by the Federal Ministry of Science, Research and Economy (BMWFW). COIN contributes towards promoting Austria's innovation performance by knowledge into innovation. The COIN "Network" funding line aims to stimulate technology transfer within entrepreneurial cooperation schemes, which, in turn, can stimulate the level of innovation within businesses. The COIN "Aufbau" (capacity building) funding line focuses on building RDI competence and infrastructure at universities of applied sciences and research institutes, and increasing the cooperation between applied sciences and companies, especially SMEs.

[9] FWF Austrian Science Fund. FWF annual report 2016 [online]. © FWF 2016. [cit. 2018-12-14]. Available at: https://www.fwf.ac.at/fileadmin/files/Dokumente/Ueber_den_FWF/Publikationen/FWF-Jahresberichte/fwf-jahresbericht-2016.pdf

[10] FWF Austrian Science Fund. Joint projects [online]. © FWF 2018. [cit. 2018-12-14]. Available at: https://www.fwf.ac.at/de/forschungsfoerderung/fwf-programme/internationale-programme/joint-projects/

Table 7 Other public programs

Name	KLI.EN (federal climate and energy fund)
Year of foundation	2007
Dotation	€105 million on 85 000 projects
Focus	Thematically open for projects related to environmental protection, energy saving, sustainability.
Name	UFI (Umweltförderung im Inland) managed by Kommunalkredit Public Consulting (KPC)
Year of foundation	2015
Dotation	€63.2 million
Focus	Focus on green technologies, renewable energies, energy efficiency.
Name	Provincial governments (managed by KPC) for provinces of Tyrol, Salzburg, Vorarlberg Lower Austria
Focus	Environmental support programme for companies investing into clean air/water, reducing energy consumption etc.
Name	EcoBusinessPlan City of Vienna, together with the Vienna Economic Chamber
Focus	Funding for consulting services and financial support for environmental protection measures.

Transnational support funds

European Union funding

European Structural and Investment Funds (ESIF)

Over 50 % 0f the European Funds are channelled via European Structural and Investment Funds. The ESIF aims to promote innovation and research and development activities in SMEs. Other areas of focus are improvement of competitiveness of SMEs through innovation, energy efficiency and use of renewable energies.

The total budget for implementation in Austria during 2014-2020 is €10.65 billion, with EU contribution of €4.92 billion and Austrian contribution amounting to €4.73 billion. In Austria, the programme is to a very high degree (more than 80%) focused on 3 main areas:

- Research, development and innovation.
- Competitiveness of SME.
- Transition towards a low carbon economy.

Table 8 ESIF funds in Austria (Data. http://ec.europa.eu/regional_policy/en/funding/cohesion-fund)

Name	The European Agricultural and Rural Development Fund (EARDF)
Dotation	€7.7 billion
Focus	The Austrian Rural Development Programmes are developed with main emphasis given to restoring, preserving and enhancing the ecosystems related to agriculture and forestry.
Name	The European Regional Development Fund (ERDF)
Dotation	€2.06 billion
Focus	Research and Innovation, Digital Economy, SME Competitiveness and Low Carbon Economy.
Name	European Social Fund (ESF)
Dotation	€0.88 billion
Focus	The European Social Fund is Europe's main instrument helping people find employment or create businesses, improve education and makes public services more efficient.
Name	European Maritime and Fisheries Fund (EMFF)
Dotation	€0.14 billion
Focus	The EMFF focuses on sustainable and competitive fisheries and aquaculture.

The Joint Programming Initiative on Agriculture, Food Security and Climate Change (FACCE-JPI)

FACCE-JPI brings together 22 countries that are committed to building an integrated European Research Area addressing the interconnected challenges of sustainable agriculture, food security and impacts of climate change. FACCE-JPI provides and steers research to support sustainable agricultural production and economic growth, to contribute to a European bio-based economy, while maintaining and restoring ecosystem services under current and future climate change.

Foreign aid (EU-independent)

Though international funding primarily derives from EU budgets, other sources also exist.

A comprehensive overview on what type of grants are available for selected target groups, topics, countries etc. can be found at https://grants.at, an online portal with various filtering options.

The Swiss NOMIS foundation https://nomisfoundation.ch supports the project "Hybrid Semiconductor – Superconductor Quantum Devices" at IST Austria with a financial grant amounting to €1.4 million over the next four years. The aim of the research work is to develop building blocks for future quantum computers.

More information on international financing in the Danube region countries can be found in Annex 4 to this Guidebook.

Business incubators

Table 9 Business incubators in Austria

Name	GLOBAL INCUBATOR NETWORK (FFG, AWS)
Website	http://www.gin-austria.com/index.html
Description	The Global Incubator Network (GIN) was initiated 2015 by the Austrian Federal Government and is financed by "Nationalstiftung für Forschung, Technologie und Entwicklung". It is managed by Austria Wirtschaftsservice (AWS) and the Austrian Research Promotion Agency (FFG). This initiative aims to connect entrepreneurs and investors as well as incubators and provides an international network of key players in innovation and finance. The GIN offers services tailored to fit the participants' individual needs. This network supports start-ups to expand their business internationally. Incubators are invited to endorse their most promising start-ups and these are in turn, introduced to the Austrian and European start-up scene.

Support by companies or private investment

A number of companies provide investment for innovative projects. Realistic success expectations provided, such investments can be substantially high. Hurdles for investment are lower if EU and other grants provide additional funding. Recent examples include the SUSBIND www.susbind.eu and SUSFERT www.susfert.eu projects, supported among others by IKEA and AGRANA, respectively.

Other sources of investment include:

- Austrian Private Equity and Venture Capital Organisation (AVCO) https://www.avco.at/avco
- Österreichische Hotel- und Tourismusbank (OEHT) http://www.oeht.at The OEHT, owned by three major national banks, is a partner institute of the European InvestmentBank. It provides financial support for tourism-related investments. There are regular calls for innovative projects[11].

Private support for innovation plays a very minor role only. With the most prominent investor Peter Haselsteiner, a TV show regularly features start-ups with their (frequently eco-oriented) innovative ideas and business cases).

Promotion and marketing

Promotion and marketing

In Austria, more than 300 trade shows and expos take place annually. Most common types of trade fairs relate to buildings and construction material. A complete list of all expos is available at http://www.expodatabase.com.

Events and networking

Several workshops and seminars on innovation were undertaken, both at Federal Government

[11] Tourismus Bank. Leuchtturmprojekte [online]. © Österreichische Hotel- und Tourismusbank GmbH 2018. [cit. 2018-12-14]. Available at: http://www.oeht.at/finanzierung-und-foerderungen/leuchtturmprojekte/

and Private sector level in recent years. For example:

On 18th January 2016, the Austrian Federal Ministries BMVIT, BMWFW and Austrian Council (RFTE) together with "winnovation" hosted Open Innovation Strategy Stakeholder Workshop. 413 participants, representing the various economic sectors in the area of policy, science and civil society, participated in the workshop. The workshop was aimed at gathering feedback and ideas from Austrian society for the development of a new Open Innovation Strategy for Austria (www.openinnovation.gv.at). This was an initiative that is first of its kind globally. As a follow-up to this workshop, since the autumn of 2016, an assessment of Austrian innovation system in relation to leading countries in innovation around the world has been an ongoing initiative.

Atos, a leading multinational company providing integrated design and operational solutions in business processes opened its first Competence Centre for Industry 4.0 in Aspern, Vienna in October 2016. (Industry 4.0 is defined as fundamental change in the economic system that is associated with a change in the business processes and business models of industrial companies.) The competence centre aims to provide training in most efficient and practicable way to implement Industry 4.0 projects, by organizing workshops and training sessions. The Competence Centre is also open to Austrian businesses as a laboratory for testing innovations and as an exhibition platform for concept productions. Vienna University of Technology (TU Wien), in partnership with Atos, opened Austria's first Industry 4.0 pilot factory in late 2015.

Expert database

Table 10 List of expert organizations in Austria

Organisation	AGES - Austrian Agency for Health and Food Safety
Specialization	Environmental & health risk assessment of new products and technologies.
Scope of activities	Analytics and certification, information database.
Place	Vienna
Email	alexandra.ribarits@ages.at
Phone	+43 (0)5 0555-34914
Website	https://www.ages.at/en
Organisation	BIZ business Upper Austria
Specialization	Investor services, innovation funding, network creation.
Scope of activities	Counselling, training.
Place	Linz
Email	andrea.bruckner@biz-up.at
Phone	+43 732 79810 5212
Website	www.biz-up.at
Organisation	A Kern Consultancy
Specialization	Access to international markets.
Scope of activities	Tax and start-up consultancy, business planning.
Place	Vienna
Email	office@akern.at

Phone	+43 18908284
Website	http://akern.at/en/company-formation-in-austria
Organisation	ANKÖ Auftragnehmerkataster Österreich Service GmbH
Specialization	International public contracts.
Scope of activities	Support for tender creation and tender application, eligibility checks.
Place	Vienna
Email	office@ankoe.at
Phone	+43 1 333 66 660
Website	https://www.ankoe.at/en
Organisation	Austrian Patent Office
Specialization	Intellectual property rights.
Scope of activities	Patent counselling, European patents, patent attorneys.
Place	Vienna
Email	info@patentamt.at
Phone	+43 1 534 24 76
Website	https://www.patentamt.at/en
Organisation	WKÖ funding support service
Specialization	National and international funding, environmental legislation.
Scope of activities	Start-up consulting, various services related to innovation and environment.
Place	Vienna
Email	bsi@wko.at
Phone	+43 5 90 900 3417
Website	http://wko.at/industrie
Organisation	IÖB Innovationsfördernde öffentliche Beschaffung
Specialization	Public procurement, focus on eco-innovation.
Scope of activities	Free consulting and matchmaking services, updated project database.
Place	Vienna
Email	ines.sturm@bbg.gv.at
Phone	+43 1 245 70 817
Website	http://www.ioeb.at
Organisation	FFG, unit European and International Programmes
Specialization	EU funding and application support.
Place	Vienna
Email	andrea.hoeglinger@ffg.at
Phone	+43 5 7755 4001
Website	https://www.ffg.at/en
Organisation	Aracuba GmbH
Specialization	Energy and resource efficiency.
Scope of activities	Strategy consulting, start-up coaching, training.
Place	Vienna
Email	michael.muellneritsch@aracuba.eu

Phone	+43 664 7372 8205
Website	www.aracuba.eu
Organisation	Austrian Standards
Specialization	EU legislation and standards.
Scope of activities	Online services, official certification of products, processes etc.
Place	Vienna
Email	service@austrian-standards.at
Phone	+43 1 213 00 300
Website	https://www.austrian-standards.at/en/products- services

Bosnia

National innovative infrastructure

In regards to eco innovations Bosnia and Herzegovina is still not on the development level where focused programs for development of eco innovations exists. Programs that exist are providing support to development of innovative products or introduction of new technologies but are not primarily focused on eco aspect of doing business. EU accession process brings toward Bosnia and Herzegovina set of rules and regulations that has to be adopted focusing on energy efficiency, pollution, waste management which will improve policy framework and set some standards in mentioned fields as well as create some new markets in Bosnia and Herzegovina. This process has been supported by international donor funded projects from which most active are GIZ and USAID.

Table 11 List of innovative organisations in Bosnia and Herzegovina

Name	Innovation Centre Banja Luka (ICBL)
Type of organisation	Innovative Centre
Contact Address	info@icbl.ba
Website	www.icbl.ba
Main Area of Services	The Innovation Centre Banja Luka (ICBL) foundation is focused on the creation of future - oriented jobs, based on knowledge and technology, providing assistance to entrepreneurs in creating successful companies and assist BiH in transition to a knowledge-based country. The ICBL was established on 25. 11. 2009 in Banja Luka with help of Ministry of Foreign Affairs of the Kingdom of Norway, aiming to become driving force of innovation society by linking science and R&D to business sector. ICBL is a concept that is significantly wider than an "ordinary" incubator. While the centre is designed to have an incubator function, it contains education and training elements, conference facilities and so called "business gardens" inspired by the Norwegian experience. ICBL has also contacts with Area Science Park from Trieste, Technopark Zagreb and Serbian R&D Centre.
Name	Entrepreneurship and Innovation Centre at the University of Zenica (CIP UNZE)
Type of organisation	Innovative Centre
Contact Address	info@cip.unze.ba
Website	https://cip.unze.ba/en/staje.htm
Main Area of Services	The Entrepreneurship and Innovation Centre UNZE defines its mission in close cooperation and implementation of joint programmes and projects with the Business Start-Up Centre Zenica, Local and Regional Development Agencies – ZEDA and REZ, Business Service Centre (BSC) of the Cantonal Government, Business Incubator Zenica and Business Incubator Vitez. The CIP will be mostly oriented towards younger academic fellows who should acquire experience and references for their involvement in more advanced organisational units of the UNZE. Moreover, the CIP aims to create a scientific environment where exchange between senior researcher and junior researcher will be promoted.
Name	Business Innovation and Technology Centre Tuzla
Type of organisation	Innovative Centre
Contact Address	info@bit.ba
Website	www.bit.ba

Main Area of Services	The Business Innovation and Technology Centre Tuzla (BIT Centre Tuzla) was established in October 2005. The BIT Centre project has four partners: Tuzla Municipality and University of Tuzla as local partners and SINTEF (Foundation for Scientific and Industrial Research at the Norwegian Institute of Technology) and Grey (Industrial Development Corporation of Norway) as international partners. A main goal of BIT Centre Tuzla is to provide an opportunity for young prospective experts and entrepreneurs to start and develop their businesses, which are in the domain of ICT, to support development using Seed Capital.
Name	Republic Agency for the Development of Small and Medium Enterprises (RARS)
Type of organisation	Agency
Contact Address	info@rars-msp.org
Website	www.rars-msp.org
Main Area of Services	Republic Agency for the Development of Small and Medium Enterprises (loc. - Republička agencija za razvoj malih i srednjih preduzeća - RARS) was established in accordance with the Law on Promotion of small and medium enterprises in September 2004 as a legal entity and a non-profit organization. The Agency is authorised to provide professional services of support for the establishment, management and development of small and medium-sized enterprises. It also offers professional services in order to encourage investments in SMEs, support the establishment of entrepreneurial infrastructure, innovator activity, creation of new products and introducing new technologies. RARS is authorized to conduct researches and collect data, provide analysis and reports on the situation in the field of SMEs, participate in drafting of Strategy and other development documents, as well as prepare and implement projects to achieve the objectives and introduction of measures from the Strategy. The Agency is also in charge of cooperation with international institutions and participation in the development and implementation of international and national SMEs support projects.
Name	The City Development Agency Banja Luka (CIDEA)
Type of organisation	Agency
Contact Address	info@cide.org
Website	www.cidea.org
Main Area of Services	The City Development Agency Banja Luka has been established by the City in accordance with the Law on the Encouragement of the Development of Small and Medium-sized Enterprises of the RS. The Agency has the status of a legal entity and is a non-profit organisation. Its work is supervised by the City Assembly and the Mayor. The main goal of establishing the Agency is to have a functional and operational unit which, as an independent legal entity, can easily adapt to changes and quickly react in line with the development trends and requirements and, as such, continuously initiate, propose, prepare and implement development projects.
Name	Sarajevo Economic Region Development Agency Sarajevo (SERDA)
Type of organisation	Agency
Contact Address	serda@serda.ba
Website	www.serda.ba
Main Area of Services	In an effort to overcome the numerous social and economic problems that Bosnia and Herzegovina faced in the post-war period, local communities, with

	the support of the international community, launched an initiative to recover and stimulate economic development. The result of this initiative is to start the process of economic regionalization, by establishing the Office for Coordination and Monitoring the Implementation of the Project "Sarajevo Economic Region" (SER). The Office, which was established in 2001, was an administrative and legal framework for the realization of initial activities in the realization of the concept of economic reintegration and development of the SER. In May 2003, the SER Office expanded to the Sarajevo Regional Development Agency (SERDA). The territory of operation of SERDA has been extended from the original Sarajevo region of 20 municipalities to the wider region, the Sarajevo Economic Macro region, which includes the area of ten municipalities of the Upper Drina area, with coordination and partnership with REDRIN, a sub-regional agency for this area.
Name	Regional Development Agency for Herzegovina (REDAH)
Type of organisation	Agency
Contact Address	info@redah.ba
Website	www.redah.ba
Main Area of Services	REDAH is a non-government, non-profit and independent regional development agency for Herzegovina founded by the regional economic development entities in 2003 for the purpose of promoting, coordinating, planning and implementing development activities in the region. The work of REDAH is based on partnership between public, private and non-government sector, which is considered as the key for success. Its vision is to transform Herzegovina into a developed and competitive economic region within the European Union. To achieve this goal, REDAH's mission is to be a catalyst that will structure and provide comprehensive support to the regional economic development of Herzegovina region as well as Bosnia and Herzegovina. Within its mission and defined goals, REDAH implements its activities in order to fulfil its priorities defined in the Regional Development Strategy, which present the basis for REDAH activities.
Name	Foreign Investment Promotion Agency of Bosnia and Herzegovina (FIPA)
Type of organisation	Agency
Contact Address	fipa@fipa.gov.ba
Website	www.fipa.gov.ba
Main Area of Services	Established in 1998, the Foreign Investment Promotion Agency of Bosnia and Herzegovina (FIPA) is a state Agency with a mission to support foreign investments in the country. FIPA assists potential and existing foreign investors by providing current data and information on: • FDI related legislation; • Macro-economic indicators; • Business environment; • Investment projects, privatisation projects, tenders, etc.
Name	Chamber of Commerce and Industry of Republic of Srpska
Type of organisation	Chamber of Commerce
Contact Address	info@komorars.ba
Website	www.komorars.ba

Main Area of Services	The Chamber is a non-governmental, independent, professional – business organization, non-profit public – legal association of business subjects and economic associations from the territory of Republic of Srpska. Activities of RS Chamber of Commerce and Industry are primarily focused on representing the interests of members and the economy as a whole before the legislative and executive authorities, as well as to connect entrepreneurs in the RS and BiH and development of economic relations of the RS economy with the economies of other countries, professional trainings and the provision of all necessary information and advisory services to its members. Chamber members are: companies, banks, insurance companies and other financial institutions engaged in economic activity in Republic of Srpska. Also, members can be: business and professional associations, interest associations, scientific – research and educational institutions, associations, foundations, entrepreneurs, agricultural cooperatives and other entities engaged in activities of importance to the economy, if they show interest in membership in the Chamber. Funds for the Chamber activities are collected from membership fees, paid by Chamber members as mandatory, incomes from providing business services and other sources.
Name	Chamber of Economy of the Federation of Bosnia and Herzegovina
Type of organisation	Chamber of Commerce
Contact Address	info@kfbih.com
Website	www.kfbih.com
Main Area of Services	The Chamber of Economy of the Federation of Bosnia and Herzegovina (P/GK FBiH) is an association constituted in November 1999 as a consequence of harmonizing the organization of the chamber system with the new state system of Bosnia and Herzegovina, in accordance with the Dayton Peace Agreement. All chambers in the Federation of Bosnia and Herzegovina (FBiH) have the status of legal entities and wide authorizations in representing and promoting businesses from their territory. Membership in the Chamber of Economy of FBiH as well as in all cantonal chambers has been on a voluntary basis since 2004, which has made financing and work harder and therefore threatened the sustainability of several smaller cantonal chambers. Due to problems with financing and self-sustainability, a certain number of chambers in FBiH have had difficulties in carrying out their activities. The activities of P/GK FBiH cover the territory of the whole FBiH, which consists of 26 076 km² and 79 municipalities in total. P/GK FBiH is headquartered in Sarajevo and has an office in Mostar. In total, P/GK FBiH has 42 employees, of which 15 works in the Mostar office.
Name	Foreign Trade Chamber of Bosnia and Herzegovina
Type of organisation	Chamber of Commerce
Contact Address	info@komorabih.ba
Website	www.komorabih.ba
Main Area of Services	Foreign Trade Chamber of Bosnia and Herzegovina has a 100-year long tradition of existence, continual work and legal succession. The Chamber has been established in Sarajevo by the Law on Establishment and Organization of the Chamber of Trade and Crafts for BiH. The Chamber had public authorizations as well, such as keeping a register of registered companies, issuance of protective stamps, issuing certificates on the solvency of companies, discussing

	companies' disputes, etc. All exporting and importing companies in Bosnia and Herzegovina registered for performing of international trade related activities are members of the Foreign Trade Chamber. Currently the Chamber counts about 14 000 members.
Name	Chamber of Commerce and Industry of Banja Luka Region (CCI BL)
Type of organisation	Chamber of Commerce
Contact Address	info@bl.komorars.ba
Website	www.bl.komorars.ba
Main Area of Services	Chamber of Commerce and Industry of Banja Luka Region (CCI BL) is a part of the chamber system of Republic of Srpska, established by the Law on Chamber of Commerce of Republic of Srpska (Official Gazette of RS 65/08), the Statute of the Chamber of Commerce of RS and the Statute of CCI BL. Chamber of Commerce of RS, together with the five regional chambers, is organized in line with the European tradition and model of Austrian and German chambers as a so-called continental type chamber with mandatory membership. Chamber of Commerce is the autonomous and independent, professional and business association of business entities, whose headquarters are in the area of operation of the chamber. The Chamber of Commerce has the status of a legal entity. To become a leading institution in Republic of Srpska in the area of representing the interests of its economy, promoting and linking the economy, business education, information and advisory services.
Name	Chamber of Economy of Sarajevo Canton
Type of organisation	Chamber of Commerce
Contact Address	info@pksa.ba
Website	www.pksa.com.ba
Main Area of Services	Chamber of Economy of Sarajevo Canton was established in 1910 is an independent, non-government, non-profit, public-legal association of juristic and physical persons. Its activities are: to represent the members' interests in the authorized state bodies, in preparing economic legislation, in adopting measures and mechanisms of economic system and policy; to provide other services like as business information, presentations, promotions, representing, fairs etc; to organize training and education in the management, financing and other skills needed to companies, to make demands to the government in establishing a system of secondary, higher and no formal education, that require companies and has 15 councils which are consists of representatives of universities, government and companies, whose role is to consider the problems of sectors and initiate requests to the government on the harmonization of legislation in each of the individual sectors.

National legislative framework

Intellectual property rights[12], commercialization and state aid are regulated at the level of Bosnia and Herzegovina trough relevant legal acts (laws) and international conventions and agreements applied in Bosnia and Herzegovina.

Commercialization options for intellectual property rights are regulated trough relevant laws and contracts on the entire or partial assignment of rights, licence contracts, franchise contracts, etc.

State aid is regulated trough the Law on State Aid in Bosnia and Herzegovina and the competent authority in this area is State Aid Council of Bosnia and Herzegovina[13] headquartered in Istočno Sarajevo.

Intellectual property protection

In Bosnia and Herzegovina are in force Law on Patents, Law on Trademarks, Law on Industrial Design, Law on the Protection of Indications of Geographical Origin, Law on the Protection of Topographies of Integrated Circuits, Law on Copyright and Related Rights[14] and Law on the Collective Management of Copyright and Related Rights, as well as bylaws (not available on English language). Protection procedures for Intellectual Property in Bosnia and Herzegovina are available on following link http://www.ipr.gov.ba/en/stranica/acquiring-intellectual-property.

Copyrights

Copyright includes literary and artistic works such as novels, poems and plays, films, musical works, artistic works such as drawings, paintings, photographs and sculptures, and architectural designs. Rights related to copyright include those of performing artists in their performances, producers of phonograms in their recordings, and those of broadcasters in their radio and television programs. Copyright stems from and belongs to the author by mere creation of a work and it is not conditioned by the fulfilment of any formalities or requirements in respect of the contents, quality or purpose thereof. Copyright is an indivisible right to a work, containing exclusive personal and legal entitlements (moral rights of the author), exclusive economic entitlements (economic rights of the author) and other entitlements of the author (other rights of the author).

Copyright and Related Rights Protection Procedure in BIH

The principle according to which copyright is acquired without formalities is applicable in most countries worldwide, including BIH.

In order to preserve evidence of his or her creativity or for other various reasons, an author may deposit his or her originals or copies of their works of authorship or items of their related rights within the Institute for Intellectual Property of Bosnia and Herzegovina. A deposited work is entered into the book of records of authorship works maintained by the Institute.

Depositing is not an obligation of the author, nor does it constitute a requirement for

[12] Institut za intelektualno vlasništvo, Intellectual Property [online], Sarajevo: Institut za intelektualno vlasništvo, Last modified 11.11.2018 15.57 Available at: http://www.ipr.gov.ba/en/

[13] Vijeće za državnu pomoć BiH, State aid council of BiH [online], Vijeće za državnu pomoć BiH, Last modified 14.11.2018 13:45 Available at: http://www.szdp.gov.ba/

[14] Institut za intelektualno vlasništvo, Intellectual Property [online], Sarajevo: Institut za intelektualno vlasništvo, Last modified 15.11.2018 09:25 Available at: http://www.ipr.gov.ba/en/stranica/ip-laws-and-regulations-in-bih

acquisition of copyright protection, but it is only a possibility.

Copyright is an exclusive right and it lasts for the entire lifetime of the author plus a period of 70 years after his or her death. When it comes to the collective works, the term of 70 years starts running from the day of legal publication of the work. If it involves a work of an anonymous author, the said term is calculated in the same way. If the subject matter of copyright on a collective work or a computer program is a legal entity, copyright runs for 70 years from the disclosure of the work or the creation of the computer program.

Industrial property rights

Industrial property includes inventions (patents), trademarks, industrial designs, geographic indications of source, topographies of integrated circuits and plant varieties.

Patent Protection Procedure in BIH

The procedure is initiated by filing an application for the grant of a patent with the Institute. It is necessary to furnish a completed request for the grant of a patent, accompanying documents and proof of payment of the costs involved. The application is filed in written form, directly or by mail, by fax or electronically to the official e-mail of the Institute, provided that within 15 days from the date of its receipt by the Institute, it is furnished to the Institute in written form. A separate application is filed for each invention.

A patent application consists of a request for the grant of a patent (P1 Form) with an indication that the grant of a patent is requested, the title of the invention reflecting its essence, information concerning the applicant, and information concerning the inventor. The patent application contains:

- a detailed and clear description of the invention,
- one or more patent claims that need to be clear, concise, and fully supported by the description of the invention and drawings, if any,
- any drawings referred to in the description of the invention and patent claims,
- an abstract of the essence of the invention serving exclusively the purpose of providing technical information.

The term of patent shall be twenty years, counting from the date of filing a patent application.

The material conditions for grant are regulated by the above-mentioned laws on intellectual property rights (available on English language). According to the relevant law, Institute for Intellectual Property controls formal aspects of every application and if the conditions are not met, Institute informs the applicant about the missing elements and requires completion of the application in time frame regulated by the law.

A patent application, established in the examination to fulfil all the conditions referred to in the Law, concerning which the Institute shall issue a conclusion, shall be published in the Official Gazette of the Institute after the expiration of the period of eighteen months from the filing date or from the date of granted priority right, whereby it shall become available to the public. The patent application may be published, at the request of the applicant, even before the expiration of the said period, but not before the expiration of the period of three months from the date of the filing thereof with the Institute.

Consensual patent is recognized patent in Bosnia and Herzegovina and the procedure for recognition of this kind of patent is much simplified compared to patent in usual sense. The procedure is:

- Publish of request in National Gazette: number of patent, date of request, info on person
- Number of National Gazette
- Name of the invention

Consensual patent is valid until it is being disputed by public or other representative.

The term of consensual patent shall be ten years, counting from the date of filing an application. The maintenance of the rights conferred by an application and a granted patent or a consensual patent shall be subject to the payment of the prescribed annual fee and procedural charges, in the manner prescribed by a special regulation.

The annual fee and the procedural charges shall be paid for the third and every subsequent year, counting from the application filing date. The annual fee and the procedural charges shall be paid for each year within a time limit which expires before the end of the preceding year.

According to the Law on Administrative Tax, the procedural charges are cca BAM 100, and the annual fee for the maintaining the protection goes from BAM 10 to BAM 280, depend on number of the years of protection (up to 20 years).

Articles 84 to 92 of the Law on Patents regulates Extended European Patent (EPC):

Trademark Protection Procedure in BIH

A trademark is the right protecting a sign capable of distinguishing the products or services of one undertaking from the same or similar products/services of other undertakings. The nature of the products/services to which a trademark is to be applied shall not constitute an obstacle to registration of the trademark. A sign that is capable of distinguishing identical or similar products/services, and that may be represented graphically may be protected by a trademark. A sign may consist of: words, including personal names, drawings, letters, numerals, images, the shape of a product or its packaging, colours, tri-dimensional forms or the combination of such elements. A trademark as an identity sign has four main functions: distinguishing products/services, their source, quality, and market promotion. A trademark is granted by a responsible authority of a state with the payment of fees, and it lasts for a certain period of time in a certain territory.

The procedure is initiated by filing an application for the grant of a trademark with the Institute. It is necessary to submit a completed request for the grant of a trademark, accompanying documents, and proof that the costs have been paid. The application is filed in written form, directly or through the post, by telefax or at the official e-mail of the Institute, provided that within eight days of its receipt it is furnished to the Institute in writing.

An application for the grant of an INDIVIDUAL TRADEMARK contains:

- Request for the grant of only one trademark that relates to one or several kinds of products/services (Form Z-01).
- Sign that the applicant wishes to protect by a trademark.
- List of products/services to which the sign relates, which must be made according to the International Classification of Goods and Services established under the Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks.

An application for the grant of a COLLECTIVE TRADEMARK, in addition to the above documents, also contains:

- Information concerning the applicant/person authorized to represent him/her,
- provisions on the appearance of a sign and on the goods/services to which the sign relates,
- provisions on who is entitled to use a collective trademark and under what conditions,
- provisions on the rights and obligations of the user of a collective trademark in case of the infringement thereof,
- provisions on the measures and consequences in case of noncompliance with the provisions of the general act.

Application for the grant of a GUARANTEE TRADEMARK, in addition to the above documents, also contains:

- A general act on the guarantee trademark that must contain the provisions on:
- Common characteristics of the goods/services guaranteed by a guarantee trademark,
- Supervision of the use of a guarantee trademark by its holder.

Industrial Design Protection Procedure in BIH

An industrial design is an exclusive right to the appearance of a product. A design means the two-dimensional or three-dimensional appearance of the whole or a part of a product resulting from its features, in particular the lines, contours, colours, shape, texture, and/or materials of the product itself and/or its ornamentation. Any industrial or handicraft products, including parts intended for assembly into a complex product, group or product composition, packaging, fashion design, graphic symbols, and topographical marks, may be protected as an industrial design.

The procedure is initiated by filing an application for the grant of an industrial design with the Institute. It is necessary to furnish completed application for the grant of an industrial design, accompanying documents, and proof of payment of the costs involved. The application is furnished in written form, directly or by post, by telefax or electronically to the official email of the Institute, on condition that it is furnished to the Institute in written form within eight days from its receipt by the Institute.

The application for the grant of an industrial design contains:

- Request for the grant of an industrial design (Form D-01). One application may contain a request for the grant of one or more designs (up to 100) belonging to the same class of the International Classification for Industrial Designs.
- Two-dimensional representation of a design which the applicant wishes to protect. The details of appearance must enable the assessment of novelty and individual character of the design.
- Description of a design is an optional element of the application, having maximum 150 words. The description must refer only to the appearance of a subject matter of protection, and not to its functional and technical features.

Ownership of a research result

The right to protection of and invention shall belong to the inventor or his legal successor. If an invention has been created jointly by several inventors, the right to a patent shall belong to the all inventors. If the employee creates an invention, innovation, technical improvement or other discovery related to the employer's business, he/her is obliged to inform employer and to offer him priority in redemption of the invention.

The author of a work is a natural person who created the work. The author is presumed to be a person whose forename and surname,

pseudonym or another artist's mark appears in the customary manner on the work, until proven to the contrary.

Contact details of the national intellectual property office

The Institute for Intellectual Property of Bosnia and Herzegovina, headquartered in Mostar is an independent state institution with competences in the domain of intellectual property in charge of the procedure of registration of industrial property rights (patent, trademark, industrial design, and geographical indication) and copyright and related rights protection procedure.

Table 12 Contact details of the Bosnian and Herzegovian intellectual property office

Name	Institute for the Intellectual Property of Bosnia and Herzegovina
Address	Kneza Domagoja bb, 88000 Mostar
Website	http://www.ipr.gov.ba/en
Main Areas of Services	The Institute conducts the procedure for the acquisition, maintenance, transfer and cessation of industrial property rights (patent, utility model, trademark/service mark, industrial design, and geographical indication) in Bosnia and Herzegovina. The Institute conducts the procedure for the registration of integrated circuit layouts in Bosnia and Herzegovina. The Institute conducts the procedure for the international registration of industrial property rights under the international conventions to which Bosnia and Herzegovina acceded. The Institute carries out the tasks in the domain of copyright and related rights, relating to the rights of authors on their works in the domain of literature, science and art, the rights of performers, broadcasting organizations and phonogram and database producers in Bosnia and Herzegovina. The Institute issues licenses to the associations of authors and other copyright holders for the collective management of such rights and it supervises their work. The Institute carries out information and documentation tasks in accordance with the standards set out by the World Intellectual Property Organization, laws and implementing regulations governing intellectual property. The Institute prepares the ground for the accession of Bosnia and Herzegovina to bilateral and multilateral agreements, conventions and treaties in the domain of intellectual property. The Institute drafts laws and implementing regulations in the domain of intellectual property. The Institute fosters international cooperation with the institutions in other countries, as well as with the international intellectual property organizations operating at world, regional or other levels. The Institute organizes seminars and other meetings in the domain of intellectual property. The Institute maintains registers of industrial property rights applied for and granted. The Institute publishes data on industrial property rights in Bosnia and Herzegovina in the Institute Gazette.

	The Institute provides information on the manner of the exercise of rights before other institutions in Bosnia and Herzegovina.

Patent attorneys

The List of IP Representatives is available on this link http://www.ipr.gov.ba/en/stranica/list-of-ip-representatives_en. Patent attorneys do not have any kind of organization which represent them they are only represented at the Institute for IPR.

Patent attorneys can be only citizens of Bosnia and Herzegovina or companies registered in Bosnia and Herzegovina.

Commercialization

Options for commercialization of the eco-technology are regulated by general rules governing the intellectual property rights. There is no dedicated legal framework applicable exclusively to eco-technology. It means that the assignment of right to file the application, rights arising from the application, right on patent or trademark may be either in whole or in part the consequence of an assignment contract, a change of status of the applicant or right holder, as well as inheritance, court or administrative decision. Copyright as a whole is not transferable. The author may not transfer the moral rights of the author to another person. The author may transfer to another person the individual economic entitlements (economic rights of the author) and other rights of the author by a contract or another legal transaction, unless otherwise provided by the Law.

For all information about investment, legal aspects of registration of company and many other information on start-ups etc, can be found on http://www.investsrpska.net. Also, National contact point for business activities is represented through https://pscsrpska.vladars.net and it is expected that the English version will be available till mid-2019.

State aid

According to Article 71 Paragraph 4 of the Stabilization and Association Agreement between the European Communities and their Member States, of the one part, and Bosnia and Herzegovina, of the other part, "Bosnia and Herzegovina shall establish an operationally independent public authority, which is entrusted with the powers necessary for the full application of paragraph 1(c) within two years from the date of entry into force of this Agreement. This authority shall have, inter alia, the powers to authorise State aid schemes and individual aid grants in conformity with paragraph 2, as well as the powers to order the recovery of State aid that has been unlawfully granted." Also, related to the approximation of laws, B&H is committed, based on Article 70 (1) of the Stabilization and Association Agreement between the European Communities and their Member States, to ensure that its existing laws and future legislation gradually become compatible with the Community acquis.

With the intention to become an EU Member state and signing the Stabilization and Association Agreement, Bosnia and Herzegovina have taken the obligation to adjust its system of subventions and other forms of state intervention in economy with EU legal framework for state aid. Accordingly, since 2012 there is State Aid Council of Bosnia and Herzegovina established by the Law on State Aid System in Bosnia and Herzegovina (Official Gazette of B&H, no. 30/2012).

There are four forms of the state aid in Bosnia and Herzegovina:

1) State aid for the promotion of regional development.
2) State aid available to the whole Economy:
   a. For the SMEs.
   b. For the rehabilitation and restructuring of the business entity in difficulties.
   c. For the employment of less employable employees and disabled persons.
   d. For the environment protection.
   e. For the research, development and innovations.
   f. For the improvement.
   g. In the area if culture.
3) State aid for specific sectors:
   a. Steel production.
   b. Coal exploitation.
   c. Transport.
4) State aid “de minimis”.

Funding of additional development

R & D funding by the state

Bosnia and Herzegovina is at the bottom of the list of countries in Europe with 0.2% of GDP invested in R&D, which is significantly lower

than the average of EU – 2.4%.[15] It is evident that R&D capabilities in both the public and private sector are week and R&D undertaken at universities has a weak relevance to industry. Therefore, base for development of innovations is a fairly poor. The field of technological development is characterized by the low awareness of decision-makers about the importance of innovation and the necessity of using modern technology. At the same time, there are a small number of large companies investing in innovation. Also, a marginal government funding does not initiate and encourage R&D which in conjunction with much bigger problems that private sector face, results with a situation where R&D activities are left aside.

National support – public Agencies

In Bosnia and Herzegovina each government provides scholarships through ministries of science or ministries of education[16].

Table 13 List of provided scholarships in Bosnia and Herzegovina

Name of organization	Ministry of Science and Technology of Republic of Srpska Government[17]
Website	http://www.vladars.net/sr-SP-Cyrl/Vlada/Ministarstva/mnk/Pages/default.aspx
Application	Scholarships are awarded through "dr. Milan Jelic Foundation", stipends for researchers to take part in scientific events.
Name of organization	Ministry of Education of Republic of Srpska Government
Website	http://www.vladars.net/sr-SP-Cyrl/Vlada/Ministarstva/mpk/Pages/default.aspx
Application	Different kind of stipends for education at all levels, financing study visits, conferences etc.
Name of organization	Ministry of Education and Science of FBiH Government[18]
Website	http://www.fmon.gov.ba
Application	Support to programs and projects for the institutions for Science and Culture, cofinancing R&D projects
Name of organization	Ministry of Education and Science Canton Sarajevo[19]
Website	http://mon.ks.gov.ba
Application	Different kind of stipends for education at all levels, financing study visits, conferences etc.
Name of organization	Department of Education, Government of Brcko District[20]

[15] Dnevni avaz, Dnevni avaz [online]. Sarajevo: Dnevni avaz. Last modified 15.11.2018 10:00 Available at: https://avaz.ba/vijesti/bih/375685/bih-najmanje-ulaze-u-razvoj-i-istrazivanje-u-regionu

[16] Federalno ministarstvo obrazovanja i nauke. JAVNI POZIV za dodjelu podrške programima i projektima institucija nauke i kulture od značaja za BiH u 2016. godini [online]. Sarajevo: Federalno ministartsvo obrazovanja i nauke, 20/6/2016. Last modified 15.11.2018 12:00. Available at: http://www.fmon.gov.ba/Obavjest/Pregled?id=245

[17] Ministartsvo nauke i tehnologije. Ministartsvo nauke i tehnologije [online]. Banjaluka: Ministarstvo nauke i tehnologije. Last modified 15.11.2018 13:45. Available at: http://www.vladars.net/sr-SP-Cyrl/Vlada/Ministarstva/mnk/Pages/default.aspx

[18] Federalno ministarstvo obrazovanja i nauke. Federalno ministarstvo obrazovanja i nauke [online]. Sarajevo: Federalno ministarstvo obrazovanja i nauke. Last modified 17.11.2018 13:00. Available at: Last modified 17.11.2018 10:55. Available at: http://www.fmon.gov.ba/

[19] Ministarstvo za obrazovanje, nauku i mlade Kantona Sarajevo. Ministarstvo za obrazovanje, nauku i mlade Kantona Sarajevo [online]. Sarajevo: Ministarstvo za obrazovanje, nauku i mlade Kantona Sarajevo. Last modified 17.11.2018 13:00. Available at: http://mon.ks.gov.ba/

[20] Razvojno – garantni fond Brčko distrikt BiH. Razvojno – garantni fond Brčko distrikt BiH. [online]. Brčko distrikt: Razvojno – garantni fond Brčko distrikt BiH. Last modified 17.11.2018 13:00. Available at: http://rgfbd.com/

Website	http://www.bdcentral.net/index.php/odjeljenja-vlade-brko-dsitrikta-bih/obrazovanje
Application	Financial and technical support to the educational institutions in Brčko district.
Name of organization	Ministry of Civil Affairs[21]
Website	http://www.vijeceministara.gov.ba/ministarstva/civilni_poslovi/default.aspx?id=104&langTag=en-US
Application	Grants that support innovation and technical culture in BIH. For 2018 Ministry of Civil Affairs BiH dedicated €59 820 for these grants.
Name of organization	Federal Ministry of Entrepreneurship, development and craft[22]
Website	http://www.fbihvlada.gov.ba/english/ministarstva/razvoj_poduzetnistvo.php
Application	The funds are channelled through the program for scientific and research activities. Also, ministry has a fund of €1.5M to support development of SMEs which also includes development of new products, introduction of new technologies, introduction of quality standards etc.
Name of organization	Guarantee fund of Republic of Srpska[23]
Website	http://garantnifondrs.org/language/en/homepage-v2-default-eng
Application	To ease access to credits for business activities and to provide support to development of entrepreneurship.
Name of organization	Development Gurantee Fund of government of Brčko district
Website	http://rgfbd.com
Application	To support to development of small and medium enterprises in Brčko district.

Beside government, scholarships are provided to students by majority of cities/municipalities where they live. Scholarships are awarded on a yearly basis based on a public call for applications and based on upfront determined criteria's.

Transnational support funds

European Union funding

The support from EU is provided through different forms of funding from R&D to financing, and from small enterprises to infrastructure. Following programs are available for organizations and companies in Bosnia and Herzegovina: HORIZON 2020, C0SME, COST, EIT, the EEA and Norway Grants, details on which can be found in the annex 4 International financing. More programs are listed in the table.

[21] Council of Ministers of Bosnia and Herzegovina. Council of Ministers of Bosnia and Herzegovina Council of Ministers of Bosnia and Herzegovina [online]. Sarajevo: Council of Ministers of Bosnia and Herzegovina. Last modified 18.11.2018. 12:00. Available at: http://www.vijeceministara.gov.ba/ministarstva/civilni_poslovi/default.aspx?id=104&langTag=en-US

[22] Government of Federation of Bosnia and Herzegovina. Government of Federation of Bosnia and Herzegovina [online]. Sarajevo: Government of Federation of Bosnia and Herzegovina. Last modified 18.11.2018. 14:00. Available at: www.fbihvlada.gov.ba/english/ministarstva/razvoj_poduzetnistvo.php

[23] Guarantee Fund of the Republic of Srpska. Guarantee Fund of the Republic of Srpska [online]. Banjaluka: Guarantee Fund of the Republic of Srpska. Last modified 18.11.2018. 17:00. Available at: http://garantnifondrs.org/language/en/homepage-v2-default-eng/

Table 14 EU funding programmes available in Bosnia and Herzegovina

Funding programme	Interreg IPA CBC
Main Target	Interreg IPA Cross-border Cooperation Programme Croatia-Bosnia and Herzegovina-Montenegro 2014-2020 is a new trilateral programme envisaged to be implemented during financial period 2014-2020. The overall objective of the Interreg IPA Cross-border Cooperation Programme Croatia-Bosnia and Herzegovina-Montenegro 2014-2020 is to strengthen the social, economic and territorial development of the cross-border area through the implementation of joint projects and activities to be supported within four priority axes: - Improving the quality of the services in public health and social care sector. - Protecting the environment and biodiversity, improving risk prevention and promoting sustainable energy and energy efficiency. - Contributing to the development of tourism and preserving cultural and natural heritage. - Enhancing competitiveness and developing business environment in the programme area.
Funding programme	Interreg DANUBE
Main Target	The Danube Transnational Programme promotes economic, social and territorial cohesion in the Danube Region. The cooperation programme is structured across four priority axes that intend to develop coordinated policies and actions in the programme area reinforcing the commitments of the Europe 2020 strategy towards the three dimensions of smart, sustainable and inclusive growth. Danube Transnational Programme is covering following four thematic priorities with its specific objectives: 1. Innovative and socially responsible Danube region - Improve framework conditions for innovation - Increase competences for business and social innovation 2. Environment and culture responsible Danube region - Strengthen transnational water management and flood risk prevention - Foster sustainable use of natural and cultural heritage and resources - Foster the restoration and management of ecological corridors - Improve preparedness for environmental risk management 3. Better connected and energy responsible Danube region - Support environmentally-friendly and safe transport systems and balanced accessibility of urban and rural areas - Improve energy security and energy efficiency 4. Well-governed Danube region - Improve institutional capacities to tackle major societal challenges - Support to the governance and implementation of the EUSDR

Table 15 Foreign aid available in Bosnia and Herzegovina

Funding programme	Swiss support programs
Main Target	BiH is a priority country for the Swiss Cooperation in Eastern Europe. Since 1996, Switzerland has officially contributed over one billion BAM to BiH through local and regional development projects, and through contributions to multilateral programs. The Swiss Cooperation Strategy Bosnia and Herzegovina 2017-2020 is the expression of Switzerland's renewed commitment to continue its longstanding partnership with Bosnia and Herzegovina. The overall goal of the Swiss Cooperation Program is to provide more and better economic, social and political opportunities and perspectives to the people of Bosnia and Herzegovina. In the spirit of long term commitment and engagement, the main domains remain unchanged: - Health. - Economy and Employment. - Democratic Governance. - Municipal Services. - Justice. The financial commitments for the period of 2017- 2020 amount to 74 million Swiss francs.
Funding programme	USAID support
Main Target	USAID support programs improve economic opportunities and promote a business-friendly environment by supporting BiH efforts to increase competitiveness and productivity, attract investment, and make economic policy reforms. Efforts to improve economic opportunities target the sectors with the highest growth potential: agriculture, wood products, tourism, and light manufacturing. Assistance includes marketing BiH as a tourist destination, introducing new technologies in the agriculture sector, promoting marketing linkages, and supporting the use of IT applications to improve efficiency of small and medium-sized enterprises. USAID uses Development Credit Authority credit guarantees to improve access to finance for SMEs and capitalize on technical assistance through other programs.
Funding programme	GIZ support
Main Target	GIZ is supporting Bosnia and Herzegovina's efforts to increase economic and domestic stability and implement reforms. Priority areas are: - Sustainable economic development and employment. - Energy sector development (energy efficiency and renewable). - Reform of the public administration. GIZ also facilitates regional cooperation among the six Western Balkan countries – Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia.

Business incubators

Business incubators play a significant role in providing development services for innovations in the areas of high-tech, R&D, support for companies to attract direct foreign investment and accessing venture capital markets. Their role is to assist and accelerate the development process for companies located in these centres through the provision of services, training, infrastructure and other necessary support.

The list of Business incubators/ accelerator that provide support to development of innovative ideas is in the following table.

Table 16 List of business incubators in Bosnia and Herzegovina

Name	Innovation Centre Banja Luka
Website	www.icbl.ba
City	Banja Luka
Description	Innovation Center Banja Luka was founded in and it is only business incubator in Bosnia and Herzegovina that is established and funded by entity government. It is organized as combined centre consisting of business incubator and training centre. ICBL offer support to its tenants through pre-incubation, incubation and virtual incubation programs. Depending of a program INTERA provides support from 6 months to 3 years.
Name	Business Innovation and Technology Park Tuzla
Website	www.bit.ba
City	Tuzla
Description	Business Innovation and Technology Park Tuzla is formed in 2005. BIT Centre has a main goal to provide opportunity for young prospective experts and entrepreneurs to start and develop their businesses. Beside 2700m2 of office space the BIT Centre offers professional help in finance, marketing accounting and law. BIT Centre has Seed Capital Found on which residents of BIT Centre can apply.
Name	Technology Park INTERA
Website	www.intera.ba
City	Mostar
Description	Technology Park INTERA started in end of 2012 aiming to introduce incubation services in Mostar region. Same as ICBL, INTERA offers pre-incubation, incubation and virtual incubation programs. Depending of a program INTERA provides support from 3 months to 2 years.
Name	Technology park SPARK
Website	https://spark.ba
City	Mostar
Description	SPARK is an advanced digital technology acceleration platform dedicated to regional start-ups. SPARK start-up program offers access to space, education, mentoring and collaboration with corporates.
Name	Networks
Website	www.networks.ba
City	Sarajevo
Description	Networks is a business centre and a co-working community For its start-ups Networks provides access to educational events, mentoring and access to money through network of investors.
Name	Burch Incubator

Website	http://incubator.ibu.edu.ba
City	Sarajevo
Description	Burch incubator is student incubator with an idea to create a sustainable innovation platform through education, and market experimentation to support the formation of new companies leveraging existing university-enterprise partnership.

Support by companies or private investment

Unfortunately, there are no business angels or similar types of risk investment options at this moment in Bosnia and Herzegovina.

Private scholarships/fellowships

Looking the source of scholarships for students in Bosnia and Herzegovina we could list them as follows:

- Entity and cantonal ministries of science and ministries of education.[24]
- Cities and municipalities.
- Erasmus +.
- Foreign government scholarships (Germany, Turkey, Romania, USA, UK, Thailand, France, Italy…).
- Foreign universities scholarships.
- Foreign companies and foundations
- Domestic companies and foundations.

Organizations of hackathons

Table 17 Hackathons in Bosnia and Herzegovina

Name	Together We Achieve More
Description	It is a series of three hackathons organized in Sarajevo, Banja Luka and Mostar gathering young IT people in 72 hours event to ideate and develop socially responsible IT solutions from following fields: Human rights. Education. Environment/green technologies. Youth engagement. Improving local communities.
Name	D4STARTUPS
Description	It is a hackathon organized in Mostar during which software solutions for real problems faced by local companies in agriculture, tourism and metal industry are developed by 30 young people from throughout Bosnia and Herzegovina.
Name	CITYOS Mostar
Description	It is a hackathon, where developers, engineers, makers, architects, UI/UX designers and others apply everything they learned and join forces to build the best smart city solutions for their challenges using IoT and robotics technology.
Name	Inspire and Innovate Hackathon

[24] Federalno ministarstvo obrazovanja i nauke. KONKURS za finansiranje/sufinansiranje naučno-istraživačkih i istraživačko-razvojnih projekata u Federaciji Bosne i Hercegovine u 2016. godini [online]. Sarajevo: Federalno ministarstvo obrazovanja i nauke. Last modified 18.11.2018. 19:30. Available at: http://www.fmon.gov.ba/Obavjest/Pregled?id=237

Description	Hackathon was organized by Technology park SPARK form Mostar. Hackathon was organized as 24-hour event aiming to develop mobile and web application form following fields: Health, fitness, smart wearable. Augmented reality. Smart homes.

Promotion and marketing

Most of activities in regards to promotion of Bosnia and Herzegovina in the field of innovations, energy efficiency, and ecology are carried by Foreign Investment Promotion Agency. Agency presented investment opportunities in Bosnia and Herzegovina at various events.

In order to promote new ideas, innovation development and to raise awareness about importance of entrepreneurship for country development Republic of Srpska Ministry of Science and Technology broadcast finals of the Competition for Best Technological Innovation. In this way finalist get opportunity to promote their products toward wider audience and from other side audience has opportunity to get insights about development process.

Expert database

Table 18 List of experts in Bosnia and Herzegovina

Name	Olivera Radić – Quality management
Institution	Chamber of Commerce and Industry of Republika Srpska
Contact	oliverap@komorars.ba
Name	Nihad Šušnjar – Strategy, business development
Institution	Chamber of Commerce and Industry of Una Sana Canton
Contact	nihadsusnjar@gmail.com
Name	Dalibor Drljača – project management, IT consulting
Institution	EuroProjekt centar
Contact	drljacad@gmail.com
Name	Đorđe Markez - IPR
Institution	EuroProjekt centar
Contact	gensek@unibl.org
Name	Zoran Dimitrijević – Project management, IT consulting
Institution	Preda, Local Development Agency
Contact	zoran.dimitrijevic@preda.rs.ba
Name	Milka Kantar – HR, project management
Institution	Union of Employers' Associations of RS
Contact	milka.kantar.bl@gmail.com
Name	Dragana Kokot – IPR, HR
Institution	Chamber of Commerce and Industry of Republika Srpska

Contact	draganak@komorars.ba
Name	Miroslav Minić – IPR, General Legal Consulting
Institution	Chamber of Commerce and Industry of Republika Srpska
Contact	miroslavm@komorars.ba
Name	Aleksandar Sajić - General Legal Consulting
Institution	Law firm "Sajić"
Contact	aleksandar@afsajic.com
Name	Željko Vlačić - General Legal Consulting
Institution	Law firm "Sajić"
Contact	zeljko@afsajic.com
Name	Boris Stojanović – IPR, General Legal Consulting
Institution	Boris Stojanovic Law Office
Contact	info@advokatstojanovic.ba

Bulgaria

National innovative infrastructure

Access to support mechanisms for eco-innovations in Bulgaria is not easy, available information is spread across the websites of the different responsible agencies and Programme management authorities. Specific research needs to be done for the particular measures and mechanisms focused at supporting eco-innovations. Usually, applicants use services of consultancy organizations or NGOs working in the sphere in order to obtain the information relevant to their needs. It is evident that there is a need for a unified portal/platform which provides specific information for the eco-innovation financing opportunities.

The available supporting mechanisms follow the strategic goal of Innovation Strategy for Smart Specialisation 2014–2020 of Bulgaria, which aims by 2020 to move Bulgaria from the group of "modest innovators" into "moderate innovators". Currently, there are numerous projects in the field of eco innovations, technological modernization, energy efficiency, effective resource managements, etc. which have received financing and are being implemented. However, a lot still needs to be done, especially in the sphere of good interaction between research, education and innovation (business).

Table 199 List of innovative organisations in Bulgaria

Name	Regional Chamber of Commerce and Industry - Vratsa
Type of organisation	NGO
Contact Address	Vratsa, Bulgaria, Hristo Botev 24
Website	http://www.cci-vratsa.org/en/home
Main Area of Services	CCI Vratsa provides services in the following areas: support for international trade, education, consulting, EEN centre, Europe direct centre and others. CCI-Vratsa works in close cooperation with national, regional and local authorities and other non-government organizations, SMEs, academic and research bodies, as well as with other business support structures and CCIs from abroad. All goals and tasks of the CCI-Vratsa are directed towards establishment of the most favourable economic environment for Bulgarian business and facilitation of its activity.
Name	Cleantech Bulgaria
Type of organisation	Business cluster
Contact Address	Sofia, Bulgaria, Tsarigradsko shoes 111B, Sofia Tech Park, sgrada Biznes incubator
Website	http://cleantech.bg
Main Area of Services	Cleantech Bulgaria operates as a business network to promote sustainable economic development through clean technologies and green innovation in Bulgaria. The organization has a focus on enabling collaboration, professional matchmaking, mentors and innovation and supports commercial and strategic partnerships among different clusters, associations and companies that work in the field of greening business, the environment and education and social innovations. They connect these elements into a single pivotal goal – enabling sustainable change towards an eco-conscious culture, business and life.
Name	Sofia Tech Park
Type of organisation	JSC

Contact Address	Sofia, Bulgaria, Sofia Tech Park JSC 111, Tsarigradsko Shose Blvd.
Website	http://sofiatech.bg/en
Main Area of Services	The main goal of the company is to boost the development of research, innovation and technological capabilities of Bulgaria through the implementation of various projects. For this purpose, "Sofia Tech Park" partners with private and public institutions in order to create and manage a unique environment for innovation, build and implement educational programs and provide support to the commercialisation of new technologies, products and services.
Name	GIS TransferCentre Foundation
Type of organisation	Foundation
Contact Address	Sofia, Bulgaria, Akad. Georgi Bonchev 1113 Str, Block 4
Website	http://www.gis-tc.org
Main Area of Services	The foundation experts participated in the development and implementation of over 30 innovative and technological projects in chemical industry, machinery, energy, incl. renewable energy sources (for bioethanol, biogas, biodiesel, hydro, etc..), food technology etc.
Name	GIS-TC on "RES and EE"
Type of organisation	Bulgarian Technology Transfer Network
Contact Address	Sofia, Bulgaria, Akad. Georgi Bonchev 1113 Str, Block 4
Website	http://www.gis-tc.org
Main Area of Services	Research, consultancy and expertise on renewables, energy efficiency, sustainable development, environmental responsibility, information technology and intelligent solutions, smart computing.
Name	GIS-TC on "Gene engineering in medicine and ecology"
Type of organisation	Bulgarian Technology Transfer Network
Contact Address	Sofia, Bulgaria, Akad. Georgi Bonchev 1113 Str, Block 4, room 3
Website	http://www.gis-tc.org
Main Area of Services	Studying internet data bases for human and organism genomes in the environment, in order to apply the methods of molecular bioinformatics and systems biodynamic for supplying with estimations for health, medical and economical utility and potential risks.
Name	GIS-TC "Transport management and smart transport vehicles"
Type of organisation	Bulgarian Technology Transfer Network
Contact Address	Sofia, Bulgaria, Akad. Georgi Bonchev 1113 Str, Block 2
Website	http://www.gis-tc.org
Main Area of Services	The key actions of the Centre concern advanced and applied research in IT; analysis, design, programming and implementation of large-scale information systems for e-learning, industry and public administration; IT consultant, automatic control and management; "turnkey" systems delivery upon users' requests; software development; training and knowledge improvement in IT; technical assistance in implementing software products.
Name	CETUS – Centre or Excellence for Technology Development and Transfer
Type of organisation	Innovation centre
Contact Address	Sofia, Bulgaria, Technical University
Website	http://cetus.tu-sofia.bg

Main Area of Services	Human resource development, research infrastructure development of the Innovation Centre, development of approach for effective application of virtual engineering in educational, scientific and innovation activities.
Name	Technology Transfer Centre, Russe University “A. Kanchev”
Type of organisation	TTC
Contact Address	Russe, Bulgaria
Website	https://www.uni-ruse.bg/centers/TSTT
Main Area of Services	The TTC in Russe is an intermediary in the process of technology transfer between technology users and providers of these technologies from A. Kanchev University. The TTC strives to meet the technological needs of companies with innovative and scientific solutions that are beneficial to society and at the same time provide revenue for research laboratories.
Name	Betahaus Sofia
Type of organisation	Shared co-working space
Contact Address	Sofia, Bulgaria, Krum Popov str. 56-58
Website	https://www.betahaus.bg/en
Main Area of Services	The company assists start-up entrepreneurs at an early stage by creating a favourable infrastructure and environment for turning ideas into real products with potential for commercialization. Betahaus functions as a shared workspace that attracts people sharing common goals, interests and ambitions - managing business as an expression of personal freedom and responsibility, sharing knowledge and know-how, mutual support in ventures, and achieving success by creating real value with great products.
Name	GIS-TC "Innovative Management - Vratsa"
Type of organisation	Bulgarian Technology Transfer Network
Contact Address	Vratsa, Bulgaria, Hristo Botev 24
Website	http://www.gis-tc.org
Main Area of Services	Development and implementation of international and European programs and projects including the Danube strategy. Cluster policy, mentoring, partner search, internationalisation, transfer of technology, quality standardisation and services.
Name	Technology Centre and TT office, Plovdiv University “Paisii Hilendarski”
Type of organisation	TTC
Contact Address	Plovdiv, Bulgaria, 21 Kostaki Peev str, 4000
Website	https://uni-plovdiv.bg
Main Area of Services	Expanding the availability of R & D services for companies in the region, Commercialization of scientific developments from Plovdiv University and other higher education institutions in the region through the development of their own industrial capabilities for prototyping, Capacity building in the field of intellectual property rights and the provision of financial and marketing consulting services for innovative firms and scientists from Plovdiv University.
Name	TTC, Sofia University “St. Kliment Ohridski”
Type of organisation	TTC
Contact Address	Sofia, Bulgaria, 1164, 1 James Bourchier Blvd, Faculty of Chemistry, Floor 8
Website	http://tto.bg/Default_en.aspx
Main Area of Services	The mission of the Technology Transfer Office at Sofia University "St. Kliment Ohridski" is to act as a mediator between the university research departments

	and industrial enterprises, thus supporting the transfer of scientific knowledge and technology, and to encourage the innovation and entrepreneurial spirit of scientists and researchers establishing a proper business climate in the university environment.

National legislative framework

Intellectual property protection

Bulgarian law provides protection for intellectual and industrial property rights, including copyright and related rights, trademarks, patents, utility models, geographical indications and industrial design.

Copyrights

The copyright over literary, artistic and scientific works arise for the author with the creation of the literary, artistic and scientific work.

The law provides for protection of copyright during the whole life of the author and for 70 years after their death, irrespective of the date when the work is legally published.

The author is entitled to the exclusive right to use the work created by him and to permit its use by other persons. The reproduction of the work, regardless whether it is related to the distribution, presentation, broadcasting, transmission, public exhibition, translation in other language, revision and synchronization or import from and export to non-EU member states of the work in commercial quantities, and whether it is addressed to unlimited number of people or to a limited number of people (in certain cases), is considered as a use of this work.

Computer programs are copyright objects and the law provides for their protection for 70 years. The copyright over such program belongs to the person whose work has resulted in the creation of the computer program. In case the computer program was created under an employment contract and unless otherwise agreed, the copyright over it belongs to the employer.[25]

Industrial property rights

According to the Patents and Registration of Utility Models Act, patents are granted for inventions from any area of technology which are new, have an inventive step and are industrially applicable.

Utility models are granted legal protection by registering them with the Patent Office. Utility models are registered if they are new, industrially applicable and have an inventive step.

Discoveries, scientific theories and mathematical methods, results of artistic work, schemes, rules and methods of intellectual activity, for playing games or doing business, computer programs as such, or particular presentations of information are not regarded as inventions. The following objects are not patentable:

- An Invention whose exploitation would be contrary to public order or morality.
- Methods for treatment of human or animal body by therapy or surgery, as well as diagnostic methods practiced on the human or animal body. This provision is not related to products, in particular substances or compounds used in these methods.

[25] Invest Bulgaria Agency. Industrial and Intelectual propert – copyrights and rights. bpo.bg [national patent office]. Sofia. Last Modified [January 2018]. [cit. 2018-11-15]. [last visited 2018 - 12 - 03]. Available at: http://investbg.government.bg/en/pages/2-general-review-159.html

- Plant varieties or animal breeds, or essentially biological processes for obtaining them. This provision does not apply to microbiological methods and the products thereof.

Patents

The exclusive right to an invention is obtained by issuance of a patent by the Bulgarian Patent Office. The procedure involves:

- A formal examination.
- An examination whether the criteria for patentability are fulfilled.

Any patent application may enjoy a priority from earlier application filed in a Member-State of the Paris Convention within 12-months.

The scope of protection is determined by the patent claims. The exclusive right to an invention includes the right to use the invention, the right to prevent third parties from usage and the right to dispose of the patent.

Legal protection of patentable inventions and utility models is granted, respectively, by means of a patent and a certificate of registration of utility model.

Patents and registrations with the Patent Office are effective with respect to third parties from the date of publication in the official bulletin of the Office. At the request of the applicant, any patent application may receive national or international priority effectiveness from the date of the application.

The term of the patent is twenty years from the filing date. The duration of a utility model registration is four years from the filing date, but may be extended for two successive periods of three years each.[26]

Mark is a feature capable of distinguishing goods or services of one entity from those of another, and which can be presented graphically. Such features can be words, including names of persons, letters, numerals, drawings, figures, the shape of the products or the packing thereof, combination of colours, sound signs, or any combinations of such signs.

Exclusive right to a mark is obtained by its registration in the Bulgarian Patent Office. The law provides protection for trademarks, service marks, certificate marks and collective marks. The procedure of registration involves two stages:

- Formal examination.
- Examination for existence of absolute and relative grounds for refusal.

Each application which satisfies the requirements as to proper form, and which is not in conflict with the absolute grounds for refusal of registration, is published in the Official Bulletin of the Patent Office. Within three months after the date of publication of the application, any person may give notice of objection to the registration of the mark in pursuance of the absolute and relative grounds for refusal of registration. Within the same period holders of earlier rights can file an opposition against the trademark application based on the relative grounds for refusal of registration.[27]

A trademark is acquired by registration with the Patent Office from the date of filing, with effect in respect to third parties from the date of publication of the registration. Any

[26] Invest Bulgaria Agency. Industrial and Intellectual property - patents. invest.bg.government.bg [informational portal]. Sofia. Last Modified [January 2018]. [cit. 2018-11-15]. Available at: http://www.investbg.government.bg/en/pages/10-industrial-and-intellectual-property-183.html [last visited 2018 - 12 - 03]

[27] Patent office of Republic of Bulgaria. Industrial Property-Marks. bpo.bg [national patent office]. Sofia. Last Modified [January 2018]. [cit. 2018-11-15].. Available at: http://www.bpo.bg/index.php?option=com_content&task=view&id=14&Itemid=152 [last visited 2018 - 12 - 03]

trademark application may enjoy a priority from an identical application filed in member-state of the Paris Convention within a 6-month period.

The duration of **trademark** registration is 10 years from the filing date. Registration may be renewed indefinitely for further periods of up to 10 years each. If the registration holder has not actually started the use of the trademark in Bulgaria for a period of 5 years from the date of registration, or has discontinued its use for a period of 5 years, registration may be cancelled.[28]

Industrial Design is the appearance of the whole or a part of a product resulting from the specific features of the shape, lines, contours, ornamentation, colours or combination thereof. Product means any industrial or handcrafted item, including parts intended to be assembled into a complex item, sets or composition of items, packaging, graphic symbols and typographic typefaces.

The right to industrial design is acquired through registration with the Patent Office as of the date of filing. Designs which are new and original can be registered. The procedure of registration consists of two stages: formal examination and examination for the presence of criteria for registration.

The scope of protection of registered industrial design is determined by its representation(s) and includes any design which does not invoke in the informed user a different overall impression. The exclusive right on registered industrial design includes the right for its owner to use it, to dispose of it and to prevent third parties from copying or using in the course of business activity a design included in the scope of protection.

The duration of the registration of industrial designs is 10 years from the date of filing. Registration may be renewed for three successive periods of 5 years each.[29]

Options for international protection of industrial property is detailed in Annex 1 to 3 to this Guidebook.

Ownership of a research result

In cases where a copyrighted work is created by the author under an employment, service or assignment contract, the employer/assigner has the right to use the work without any permission necessary from the author.

Enforcement of intellectual property rights

Civil protection

In cases of unlawful use of a patent, trademark, industrial design or geographical indication, the rightful owners are entitled to lodge a claim against the infringer with the competent first-instance court – the Sofia City Court – in order to:

- Establish the infringement took place.
- Claim compensation for the damages suffered because of the infringement.
- Demand cessation of the infringing actions.
- Demand seizure and destruction of the products involved in infringement.

The Marks and Geographical Indications Act and the Industrial Designs Act provide explicitly the terms and conditions for determining the amount of compensation for damages claimable as a result of the infringement.

[28] Invest Bulgaria Agency. Industrial and Intellectual property - trademarks. invest.bg.government.bg [informational portal]. Sofia. Last Modified [January 2018]. [cit. 2018-11-15]. Available at: http://www.investbg.government.bg/en/pages/10-industrial-and-intellectual-property-183.html [last visited 2018 - 12 - 03].

[29] Invest Bulgaria Agency. Industrial and Intellectual property – industrial design. invest.bg.government.bg [informational portal]. Sofia. Last Modified [January 2018]. [cit. 2018-11-15]. Available at: http://www.investbg.government.bg/en/pages/10-industrial-and-intellectual-property-183.html [last visited 2018 - 12 - 03].

Sofia City Court is the competent first-instance court to rule on disputes over authorship of inventions and utility models, and on disputes related to marks and industrial designs

Upon infringement of a right to a mark or infringement of a registered geographical indication or industrial design, or where there is good reason to believe that any such infringement will be committed or some evidence will be lost, destroyed or concealed, the court, acting at the request of the rightful owner or of the exclusive licensee, may furthermore order some of the following provisional measures without notifying the respondent of this:

- Prohibition of performance of any acts which allegedly constitute or will constitute unauthorized use of a mark, geographical indication or industrial design.
- Seizure of the goods which allegedly wrongfully bear a registered mark or geographical indication or have allegedly been manufactured by means of copying or using any design within the scope of protection.
- Sealing of the premise on which an infringement is allegedly committed or will be committed.

In any case of infringement of a copyright or a similar right, the rightful owners or the persons entitled to exclusive rights of use are entitled to lodge a claim with the competent district court against the infringer in order to:

- Establish the infringement took place.
- Demand cessation of the infringing actions.
- Receive a compensation for the damages suffered because of the infringement. When the claim's validity is established but the amount of the damages cannot be estimated, the claimant is entitled to receive, in lieu of compensation:
  - the value of the subject of infringement calculated on the basis of retail prices of legally reproduced copies; or
  - a sum between BGN 500 and BGN 100,000 determined by the court upon its discretion. In determining the payable sum, the court takes into account the proceeds obtained as a result of the violation.
- Demand the seizure and destruction of the infringing copies and of the equipment exclusively used for their production.
- Demand the court decision be published in two dailies, as well as be announced at a time determined by the court on a TV channel with national coverage.

Administrative Protective Measures

The President of the Patent Office is empowered to impose administrative penalties – fines or monetary sanctions between BGN 500 and 5,000 – on infringers of rights of owners of trademarks or geographical indications.

The President of the Patent Office is also empowered to impose administrative penalties on infringers of rights protected by the Patents and Utility Models Act and Industrial Design Act.

The administrative penalties on infringers of rights of the owners of copyrights or similar rights are imposed by the Minister of Culture or a person authorized by him.

Furthermore, in all aforementioned cases the infringing goods shall be seized, regardless of the ownership thereof, and shall be destroyed.

Foreign Investors Related Measures

Foreign authors enjoy the same rights as Bulgarian authors unless otherwise provided by international treaties and agreements. In case Bulgarian law is applicable to foreign authors, or if the object of copyright was first created or published in a foreign country, the holder of the right will be determined by the respective foreign law and the term of protection will be the one provided by the

foreign law if Bulgarian law provides for a longer period.

Foreign individuals and legal entities and all persons with a domicile or seat outside Bulgaria may apply for the registration of a patent, trademark, geographical indication, industrial design only through their local industrial property representatives listed with the Patent Office.

The provisions of Bulgarian law will apply to foreign individuals and legal entities whose respective country of origin is a member of international agreements to which Bulgaria is a party. To other foreigners, Bulgarian laws will apply only in cases of reciprocity, to be established by the Patent Office on a case-by-case basis. Where bilateral international agreements exist, their provisions will apply.[30]

Contact details of the national intellectual property office

Table 20 Contact details of the Bulgarian intellectual property office

Name	Patent office
Address	Sofia, Bulgaria, 1040, 52 b Rd. G.M. Dimitra Blvd
Website	http://www.bpo.bg
Main Areas of Services	Examination of and decisions on industrial property. Granting of patents on inventions and certificates of utility model registration; certificates for industrial designs, trademarks, service marks, appellations of origin, and other documents for the protection of industrial property. Hearing of disputes. Representation of the country in relevant intergovernmental industrial property organizations and pursuance of international cooperation in this field, including in the field of industrial property searches and examinations. Publication and issuance of a bulletin and international exchange of patent documents; Establishment and maintenance of industrial property information systems, and provision of industrial property information services. Issuance of regulations and instructions and preparation of proposals for schedules of fees for the activities and services provided by the Office. Maintenance of State registers of protected industrial property. Provision of information to the public, raising awareness in the field of industrial property and promotion of legal protection of industrial property and innovation activity.

Patent attorneys

Patent attorneys provide services in: Copyrights, Patents, Trademarks, Unfair competition, Industrial design, Internet law, and GDPR implementation. Main patent attorney services in Bulgaria are:

- Study of patent purity: these are expert examination activities

[30] Invest Bulgaria Agency. Industrial and Intelectual property – protection against infrigiment. investbg.government.bg [informational portal]. Sofia. Last Modified [January 2018]. Available at: http://www.investbg.government.bg/en/pages/10-industrial-and-intellectual-property-183.html [last visited 12 – 03- 2018].

concerning the official patent registers and databases in order to establish whether the same (or similar) patent is not considered lawful possession of another person.

- Completing the application form for registration of a patent or utility model and its submission to the Bulgarian Patent Office, together with a receipt for paid registration fee.
- Consultations in any disputes arising from the phases of formal examination and examination of the merit.
- Issue and publication of a patent.
- Legal protection in court where a conflict of interest arises regarding patents and utility models.

An applicant who has no permanent address or headquarters in the Republic of Bulgaria is obliged to file a patent application with the Patent Office through a local entity.

Commercialization

Licenses

The owner of a patent, registered mark or industrial design can assign the right of usage through a license agreement which should be recorded with the Patent Office. The License Agreement (or at least a summary thereof) has to be submitted to the Patent Office, containing the identification data of the licensor and the licensee, bibliographic data about the patent, trademark or industrial design, the kind of the license (exclusive or non-exclusive), the term of the agreement. The license agreement is in effect with regard to third parties as of the date of its recording in the State Register.

Start-ups

Bulgaria is starting to attract the attention of the whole region for innovative ideas, interesting start- up companies and knowledge. Having investment funds in Bulgaria is really helping the entrepreneurs. The network has experienced a significant growth and progress in the last couple of years. Investment funds are helping also by educating young entrepreneurs how to present their projects to potential investors, prepare their pitch, etc. Bulgaria has pre-accelerators like Start It Smart, investment funds like NEVEQ, LAUNCHub and Eleven. There are many events and co-working places, and different programs are available to help start-ups.

On the http://www.investbg.government.bg/en anyone considering starting a business in Bulgaria can find detailed information on key steps in the investment process, including visa and residence issues for foreigners registering a company in Bulgaria, the registration procedure and types of companies, purchase of property and associated rights and obligations, and also on franchising and mergers and acquisitions issues.

State aid

Bulgaria is subject to EU legislature on state aid.

Funding of additional development

R & D funding by the state

Innovation policy in Bulgaria follows a model of divided responsibilities (like Germany, Norway, Finland, Chile and the Netherlands). It is designed and implemented by multiple ministries and agencies, and has the fragmentation and coordination problems characteristic of that model. The Ministry of Economy is responsible for industrial innovation and technology, the Ministry of Education and Science is responsible for human resources and research, the Ministry of Environment and Waters oversees innovations in the sphere of ecology and the environment; the Ministry of Transport, Information Technology and Communications watches over ICT projects, etc. The downside of this model is that it distances education and research policies from businesses and innovation.

In support of innovations, including eco-innovations, the Bulgarian Government has issued the following strategic documents:

Table 21 Strategic document issued by Bulgarian Government to support innovations

Document	Innovation Strategy for Smart Specialisation 2014 – 2020
Description	The strategic goal is to move Bulgaria by 2020 from the group of "modest innovators" into the group of "moderate innovators" by implementing the following objectives: Objective 1: Focus the innovation potential investment into smart thematic areas (to create and develop new technologies leading to competitive advantages and increased added value of domestic products and services). Objective 2: Provide support for accelerated implementation of technologies, methods, etc. which improve resource efficiency and application of ICT in enterprises in all industries.
Document	National Strategy for Scientific Research 2020
Description	It is consistent with objectives of the Innovation Strategy for Smart Specialisation and its implementation aims at increasing the competitiveness of Bulgarian enterprises by strengthening their scientific capacity, providing joint financial instruments for supporting science and innovation, and building centres of competence in priority areas of the economy.
Document	National Roadmap for Research Infrastructure 2017-2023
Description	National roadmap for developing research infrastructure is the key instrument for implementing the national research strategy.
Document	National Strategy for the Promotion of Small and Medium Enterprises 2014-2020, also known as Small Business Act (SBA)
Description	The SBA supports small and medium-sized enterprises (SMEs) as the engine of any economy in the European Union and worldwide.
Document	National Waste Management Plan 2014-2020
Description	The Plan includes objectives to be reached in the transition from waste management to efficient use of waste as a resource, and to a sustainable development by preventing waste as far as possible.
Document	National Energy Effectiveness Plan 2014-2020
Description	The document is setting targets contributing towards energy effectiveness goals for Bulgaria by 2020.

Document	Green Public Procurements section of the Public Procurement Law
Description	Green Public Procurements are already a part of the Procurement Law in Bulgaria. It is a measure to stimulate businesses to develop environmentally friendly technologies which produce products and services with a beneficial impact on the environment and on the whole economy.

Bulgaria today has one of the lowest rates of R&D state aid in the EU, both in absolute terms and as a share of GDP. At 0.36 % it is considerably lower than the average in the new EU member states (1.35 %) and even lower than the average of the old member states (0.45 %). Although the proportion spent on horizontal measures is still below the old member states, it is nearly double the average in the new member states.

National support – public agencies

There is no specific category in the available funds in Bulgaria which specifically targets eco-innovations. Available general funds are follows:

National Innovation Fund (NIF)
NIF is one of the tools for implementing the Innovation Strategy. It is administered by the Bulgarian Small and Medium Enterprises Promotion Agency (BSMEPA). The main goal of NIF is to support scientific projects, R&D projects and projects for technical feasibility, with the aim to produce new or improved products, processes or services designed to raise economic efficiency, improve the innovative potential and technological development of enterprises, increase private investment and enhance the dynamics of innovative processes.

Transnational support funds

European Union funding
EU support through Operational Programmes and Transnational Programmes provide another opportunity for financing eco-innovations. From all Operational Programmes in Bulgaria, the ones described below provide specific measures focusing at eco-innovations:

The National Science Fund (NSF)
The National Science Fund (NSF) aims to support science and research projects and activities which are consistent with the ratified EU Framework Programmes and with the National Strategy for Scientific Research 2020 in Bulgaria. NSF promotes research by means of:

- Supporting scientific organizations and higher education institutions on the basis of project and programme funding.
- Funding projects, developments and demonstration projects in the scientific fields designated by the Fund.
- Funding projects, developments and demonstration projects of young scientists.

The National Trust EcoFund (NTEF)
The Fund manages assets from the national budget, including under the Debt-for-Environment and the Debt-for-Nature swaps. Funds are also generated via the Assigned Amount Units (AAUs) international trade deal(s), the sale of greenhouse gas emissions quotas for aviation activities, as well as funds provided by other environmental protection agreements between the Republic of Bulgaria and international or local financing sources.

Table 22 Programmes focused on eco-innovations

Programme	Priorities/Measures
OP "Innovations and Competitiveness" 2014 - 2020[31]	Priority Axis 2: Entrepreneurship and Growth Capacity for SMEs: Provision of institutional support by the Ministry of Tourism for activities related to increasing the capacity of SMEs in the field of tourism. "Improving the Business Environment for Bulgarian Producers and Creating Testing Conditions for Facilities by Supporting the Activities of the Bulgarian Institute of Metrology (BIM)". LAG - Maritsa Municipality M08 "Improvement of Production Capacity in SMEs in the LAG". Support for Small and Medium Enterprises (SMEs) growth through the pilot implementation of voucher schemes by the Small and Medium Enterprises Promotion Agency (BSMEPA). LAG Isperih OPIC 1 Growth capacity of SMEs. Stimulating the Implementation of Innovations in Enterprises. Development of innovation cluster in Bulgaria. "Promoting Entrepreneurship (in areas related to European and Regional Challenges and the specified sectors in the NSSME)". Priority Axis: 3 – Energy and resource efficiency "Sustainable Energy Development of Bulgarian Enterprises by Supporting the Activities of the Agency for Sustainable Energy Development" Support for Pilot and Demonstration Initiatives for Effective Use of Resources
OP "Environment" 2014 - 2020[32]	Priority Axis 1: Waters Construction of plumbing infrastructure in agglomerations with over 10,000 equivalent inhabitants. Completing and / or optimizing water monitoring networks. Equipping of laboratories of the EEA and the state health authorities for the purpose of monitoring. Priority Axis 2: Waste Design and construction of anaerobic plants for separately collected biodegradable waste. Design and construction of composting plants for separately collected green and/or biodegradable waste. Priority Axis 3: Natura 2000 and Biodiversity: Measures and activities under the National Priority Framework for action under Natura 2000 network.

[31] European Commission. EU regional and urban development. Regional Policy. In your Country. Programmes. [cit. 2018 - 11 - 15] Available at: https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/bulgaria/2014bg16rfop002 [last visited 2018 - 12- 03].

[32] Operational Programme Environment 2014-2020 [cit. 2018 - 11 - 15] Available at: http://ope.moew.government.bg/en/pages/programirane-2014-2020/18#1 [last visited 2018 - 12- 03].

	Priority Axis 4: Prevention and management of flood and landslide risks Establishment of a real time National Water Management System. Risk prevention and management solutions for floods, incl. ecosystem-based solutions. Establishing 6 centres for increasing the readiness of the population for adequate response to floods. Prevention and management of the risk of landslides. Demonstration /pilot projects and information campaigns related to the prevention and management of flood and landslide risks. Priority Axis 5: Improving air quality Assisting the relevant authorities in the preparation/ processing, implementation and control of municipal programmes and in development and optimization of monitoring systems. Reducing the quantities of PM10 and nitrogen oxides from main sources of pollution.
OP "Regions in Growth" 2014 - 2020[33]	Priority axis 6 "Regional Tourism" (together with the use of financial instruments) Measures supporting conservation, protection, promotion and development of cultural heritage in Bulgarian regions. Its main focus is to exploit the unexplored potential of the cultural tourism in the regions.
OP "Transport and transport infrastructure" 2014 -2020[34]	Increasing railway traffic of passenger and freight through improving the quality of the TEN-T railway infrastructure Removal of bottlenecks in the TEN-T road network Increasing intermodal transport Increasing the use of metro Improvement of transport management through introduction of innovative systems Improvement of management of the railway network Establishment of necessary conditions for successful completion of OPT 2007-2013 and implementation of OPTTI 2014-2020, strengthening the administrative capacity and public awareness.
OP "Science and Education for Smart Growth" 2014-2020[35]	Priority axis 1 Research and technological development Enhancing research and innovation (R&I) infrastructure and capacities to develop R&I excellence, and promoting centres of competence, in particular those of European interest.

[33] European Commission. EU regional and urban development. Regional Policy. In your Country. Programmes. [cit. 2018 - 11 - 15] Available at: https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/bulgaria/2014bg16rfop001 [last visited 2018 - 12- 03].

[34] European Commission. Transport. Transport themes. Infrastructure - TEN-T - Connecting Europe [cit. 2018 - 11 - 15] https://ec.europa.eu/transport/themes/infrastructure_en [last visited 2018 - 12- 03].

[35] European Commission. EU regional and urban development. Regional Policy. In your Country. Programmes. [cit. 2018 - 11 - 15] Available at: https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/bulgaria/2014bg05m2op001 [last visited 2018 - 12- 03].

Programme "Rural development" 2014-2020	Sub-measure 4.2 Investment in processing / marketing of agricultural products Sub-measure 4.1.2. Investments in agricultural farms under thematic sub-programmefor development of small farms Sub-measure 6.1 Setting up farms of Young Farmers Sub-measure 7.6 Studies and investments related to the maintenance, restoration and the cultural and natural heritage of the villages Sub-measure 8.3 Prevention of forest fires, natural disasters and catastrophic events Sub-measure 8.4 Recovering forest damage from forest fires, natural disasters and catastrophic events Sub-measure 8.6 Investments in technologies for forestry and in the processing, mobilization and marketing of forest products
Programme "Maritime and Fisheries" 2014-2020	Priority 1: Promoting environmentally sustainable, innovative, competitive and knowledge-based fisheries characterized by resource efficiency. Measure 1.3. Final cessation of fishing activities Measure 1.5. Innovations related to the conservation of marine biological resources Measure 1.6. Conservation and restoration of marine biodiversity and ecosystems and compensation regimes within sustainable fisheries Measure 1.7. Added value, product quality and use of unwanted catches Measure 1.8. Fishing ports, landing docks, fish fairs and shelters Priority 2: Promoting environmentally sustainable, innovative, competitive and knowledge-based aquaculture characterized by resource efficiency. Measure 2.1. Innovations Measure 2.2. Productive investments in aquaculture Measure 2.3. Promoting new aquaculture producers developing sustainable aquaculture Measure 2.4. Transition to environmental management and audit schemes and organic aquaculture Measure 2.5. Aquaculture providing environmental services.

Table 23 Cross-border cooperation programmes

Programme	Priorities/Measures
INTERREG-IPA CBC Bulgaria–Serbia Programme 2014-2020[36]	The programme is aiming at improving the living conditions in the CBC region Bulgaria-Serbia. It finances projects related to development of sustainable tourism, youth and environment in the CBC area. Eco-innovations are supported under the priority axes 1 Sustainable tourism and 3 Environment.
INTERREG-IPA CBC Bulgaria–Turkey Programme 2014-2020[37]	The overall objective of the Programme is to strengthen the Bulgaria-Turkey cross-border cooperation capacity in the field of nature protection and sustainable tourism, leading to enhancement of

[36] Interreg – IPA CBC Bulgaria - Serbia [cit. 2018 - 11 - 15] Available at: http://www.ipacbc-bgrs.eu/ [last visited 2018 - 12- 03].
[37] Interreg – IPA CBC Bulgaria – Turkey [cit. 2018 - 11 - 15] Available at: http://www.ipacbc-bgtr.eu/ [last visited 2018 - 12-03].

	European territorial cohesion. Eco-innovations are supported under priority axes Environment and Sustainable tourism.
INTERREG-IPA CBC Bulgaria–the former Yugoslav Republic of Macedonia Programme 2014-2020[38]	The overall objective of the Programme is to intensify cross- border cooperation between people and institutions in the region to jointly address common challenges and exploit untapped potential. Eco-innovations are supported under priority axes Environment, Tourism and Competitiveness.
INTERREG V-A Romania–Bulgaria Programme 2014-2020[39]	The programme's goal is to develop the border area between the two countries by financing joint projects. Eco-innovations are supported under priorities "A green region" and "A safe region".
INTERREG V-A Greece–Bulgaria Programme 2014-2020[40]	The INTERREG V-A Greece – Bulgaria Programme contributes to smart, sustainable and inclusive growth, as well as for economic social and territorial cohesion. Eco-innovations are supported under priorities: "A competitive and Innovative Cross-Border area" and "A Sustainable and climate adaptable Cross-Border area".
"Danube" 2014-2020 Transnational Cooperation Programme[41]	"Danube" 2014-2020 Transnational Cooperation Programme is a financial instrument to promote and initiate project ideas related to overcoming common challenges and needs in specific areas to achieve real benefit for the people and build effective relationships between authorities and organizations in the Danube region. Eco-innovations can be supported under the following priority axes: PA 1 "Innovative and socially responsible Danube region", PA 2 "Environment and culture responsible Danube region", PA 3 "Better connected and energy responsible Danube region".
"Balkan–Mediterranean" 2014-2020 Transnational Cooperation Programme[42]	"INTERREG Balkan-Mediterranean 2014-2020" is a new cooperation Programme, deriving from both the strong will of the "BalkanMed" participating countries to promote cooperation in the area and the split of the "South East Europe 2007-2013". The Programme is focused on addressing two key challenges: territorial competitiveness and environment. Accordingly, the Programme is built upon the following two Priority Axes: PA 1: "Entrepreneurship & Innovation", PA 2: "Environment".
"Interreg Europe" 2014 – 2020	The programme helps regional and local governments across Europe to develop and deliver better policy. The programme provides support for

[38] Ministry of Regional Development and Public Works [cit. 2018 - 11 - 15] Available at: https://www.mrrb.bg/en/infrastructure-and-programmes/programmes-for-territorial-cooperation-2014-2020/interreg-ipa-cbc-bulgaria-the-former-yugoslav-republic-of-macedonia-programme-2014-2020/ [last visited 2018 - 12- 03].

[39] Interreg V-A Romania-Bulgaria Programe [cit. 2018 - 11 - 15] Available at: http://www.interregrobg.eu/en/ [last visited 2018 - 12- 03].

[40] Interreg Greece – Bulgaria [cit. 2018 - 11 - 15] Available at: http://www.greece-bulgaria.eu/home/ [last visited 2018 - 12- 03].

[41] Ministry of Regional Development and Public Works [cit. 2018 - 11 - 15] Available at: https://www.mrrb.bg/en/infrastructure-and-programmes/programmes-for-territorial-cooperation-2014- 2020/danube-2014-2020-transnational-cooperation-programme/ [last visited 2018 - 12- 03].

[42] Interreg Balkan – Mediterranean [cit. 2018 - 11 - 15] Available at: http://www.interreg-balkanmed.eu/com/5_The-BalkanMed-priorities [last visited 2018 - 12- 03].

Interregional Cooperation Programme[43]	investments, innovation leading to integrated and sustainable impact for people. The project can be in the following spheres: Research and innovation. SME competitiveness. Low-carbon economy. Environment and resource efficiency.
ESPON 2020 Cooperation Programme[44]	The ESPON 2020 Programme aims at promoting and fostering a European territorial dimension in development and cooperation by providing evidence, knowledge transfer and policy learning to public authorities and other policy actors at all levels. It is targeting the policymakers, national and regional authorities, as well as universities, research institutes and the private sector. The programme is supporting research, analyses and knowledge transfer.
Joint Operational Programme Black Sea Basin 2014-2020[45]	The Programme focuses on Improving welfare of people in the Black Sea Basin regions through sustainable growth and joint protection. Promoting business and entrepreneurship within the Black Sea basin. Promoting coordination and environment protection and joint reduction of marine litter.

SME instrument

The Bulgarian Operational Programme SME Initiative is supported by the European Regional Development Fund (ERDF) under the "Investment for Growth and Jobs" goal in Bulgaria. The Programme's budget was taken from the Operational Programme Innovation and Competitiveness that had originally earmarked EUR 102 million for bank guarantees. Thanks to the SME Initiative, the ERDF has allocated those EUR 102 million for an uncapped loan guarantee instrument. The latter would support implementation of appropriate financial instruments to provide Bulgarian economy participants with an easier access to finance and to pave the way for economic prosperity, environmental sustainability, and social development.[46]

[43] Interreg Europe [cit. 2018 - 11 - 15] Available at: https://www.interregeurope.eu/ [last visited 2018 - 12- 03].
[44] ESPON 2020 [cit. 2018 - 11 - 15] Available at: https://www.espon.eu/programme/espon/espon-2020/espon-evidence-and-tools-eu-cohesion-policy-2014-2020 [last visited 2018 - 12- 03].
[45] Black Sea Basin 2014-2020 [cit. 2018 - 11 - 15] Available at: https://blacksea-cbc.net/black-sea-basin-2014-2020/ [last visited 2018 - 12- 03].

[46] European Commission Funding. Tenders.Funding opportunities.Funding programmes.Horizon 2020 [cit. 2018 - 11 - 15] Available at: https://ec.europa.eu/programmes/horizon2020/en/h2020-section/sme-instrument [last visited 2018 - 12- 03].

Foreign aid

Table 2420 Foreign aid available in Bulgaria

Funding programme[47]	Bulgarian-Swiss Cooperation Program
Main Target	Through the Bulgarian-Swiss cooperation program, Switzerland provides assistance to Bulgaria at the rate of CHF 76 million for priority areas in which Switzerland can provide expertise and experience. The programmesupports a total of 93 projects and 22 doctoral students and researchers. All projects must be completed by the end of 2019. Five interlinked priorities were identified in the development of the program: support for economic growth and improvement of working conditions; improving social stability; improving public security; environmental protection; strengthening civil society and supporting project development.

More international means of financing relating to more Danube region countries are described in Annex 4 International financing.

Business incubators

National incubator network

Established in 2003 under the JOBS project, with the support of the Ministry of Labour and Social Policy, the United Nations Development Programme (UNDP), the National Business Development Network (NBDN) is an association of 42 business centres and 10 business incubators working in small and medium size municipalities all over Bulgaria. The mission of NBDN is to create new entrepreneurial culture, to improve standard of living through various forms of support for development of smalls and medium businesses and securing greater employment opportunities. NBDN supports its members with design and management of international projects in areas such as employment encouragement, increasing competitiveness of Small and Medium Enterprises, professional training and re-qualification, tourism, handicrafts, etc.

At the end of 2016 the Government of Bulgaria approved a change to the Action Plan “Entrepreneurship 2020”. It included the measure "National Network of Local Centres and Business Development Incubators" in the field of "Development of a favourable environment for growth and enterprise development". The measure will be implemented through the support of the operational programs in the country in the period 2017-2020.

Mentorship programmes

In recent years, the Bulgarian government has made it a priority to promote entrepreneurship and growth in economic sectors with innovation potential through implementing various instruments, including mentoring, funded by public institutions through national and operational programs, as well as in support of international foundations working in the country.

[47] Bulgarian-Swiss Cooperation Programme [cit. 2018 - 11 - 15] Available at: http://swiss-contribution.bg/en [last visited 2018 - 12- 03].

A number of leading organizations from the sector of business support have successfully implemented their mentoring programmes for development of start-up companies in the country.

Table 25 Mentoring programmes

Programme	Goal
Cleantech Bulgaria[48]	Cleantech Bulgaria operates as a business network to promote sustainable economic development in Bulgaria through clean technologies and green innovation. The organization focuses on enabling collaboration, professional matchmaking, mentors, innovation and support for commercial and strategic partnerships among different clusters, associations and companies that work in the field of greening business, the environment, and education and social innovations, connecting these elements into a single pivoting goal – enabling sustainable change towards an eco-conscious culture, business and life. Cleantech Bulgaria represents two Regional Innovation Hubs – Climate KIC and InnoEnergy, and since 2018 the organization has been appointed to manage the first EIT Community Hub in Europe. Cleantech Bulgaria connects all the tips of the Knowledge Triangle through continuous interaction of business, higher education, academia and technology, and the entrepreneurial world in the field of innovation. Cleantech Bulgaria operates an array of entrepreneurial formats and pre-incubation and acceleration programmes in partnership with Climate-KIC and InnoEnergy such as the Climate LaunchPad green business idea competition, PowerUp sustainable energy start-up competition, InnoEnergy Primer Pre-Accelerator, GreenHouse Pre-Incubation Programme and the Climate-KIC RIS Accelerator Programme. In the last three years they have accelerated over 20 new ventures that enable transition of the local economy into circular models, applying successful mentorship by leading professionals and entrepreneurs in the country.
Junior Achievement[49]	Junior Achievement offers contemporary programmes and courses in business, economics, and entrepreneurial spirit development through educational and practical activities in economic and financial literacy, business skills, leadership, and success strategies. It has been implementing knowledge in Bulgaria since 1997. By providing innovative experience-based training in the thematic areas of financial literacy, readiness to work and entrepreneurship, JA improves the preparedness of young people and creates opportunities for work. Every year, a network of around 470,000 volunteers serves more than 10 million students in about 100 countries. The result is the creation of an empowered generation of young people on a global level who are ready to compete for highly skilled jobs, manage their savings, and start-up companies in their communities.

[48] Cleantech [cit. 2018 - 11 - 15] Available at: https://cleantech.bg/en/home/ [last visited 2018 - 12- 03].
[49] Junior Achievement Bulgaria [cit. 2018 - 11 - 15] Available at: http://www.jabulgaria.org/ [last visited 2018 - 12- 03].

Co-working initiatives, "fab-labs"[50]	Over the past 10 years, a number of successful shared workspaces and entrepreneurship laboratories have been set up in the large and small cities in the country to boost entrepreneurship. As of 31 December 2017, 33 spaces are available where you can meet and work with entrepreneurs and freelancers. The largest concentration of co-working spaces and laboratories is in Sofia:.17 spaces with technological, artistic, or social specialisation.
Betahaus[51]	Betahaus is the first shared workspace in Sofia and Bulgaria, created in 2012 and modelled on the German Betahaus. The company assists start-up entrepreneurs at an early stage by creating a favourable infrastructure and environment for turning ideas into real products with potential for commercialization. Betahaus functions as a shared workspace that attracts people sharing common goals, interests and ambitions - managing business as an expression of personal freedom and responsibility, sharing knowledge and know-how, mutual support in ventures, and achieving success by creating real value with great products.
Puzl CoWorking[52]	This is the largest shared workspace in the country, centre of gravity especially for digital and IT companies - about 300 from the LauncHub and Eleven investment funds. Currently it has 2,500 square meters, soon additional space on Cherni Vrah Blvd. will add another 2,700 square meters of space, and the long-term vision calls for 50,000 sq.m. Puzl has open spaces with desks and smaller offices, conference and event rooms. At the moment it has two floors: The Space - a combination of open work area and detached offices, appropriate for start-up companies at a more advanced stage of development, and The Factory - a fully open shared work area for younger companies.
Incubator, Sofia Tech Park[53]	It is a part of the first technology park in Bulgaria. Currently there are 23 start-up companies selected for incubation and receiving government support in the form of affordable rentals and consultancy services. The Incubator is in close proximity to the Sofia Tech Park complex with 11 high-tech laboratories and a large event centre. A classical co-working space is expected to be added soon.
Cleantech Bulgaria Booster	Shared workspace for the Cleantech Bulgaria Accelerator. Start-up companies focusing on green business can find support here in early stages of development. Located in the building of the Business Incubator of Sofia Tech Park it has about 200 sq.m. There are jobs for teams of 2 to 4 people with an option to adapt to larger teams. CleanTech also has an 80 sq.m. event hall.
Smart Fab Lab [54](SFL)	It is the first Fab Lab in Sofia, Bulgaria. It is hosted at the Laboratory for Urban Design, which is a working space at the campus of the University of Architecture, Civil Engineering and Geodesy in Sofia. SFL was founded in the summer of 2013 by the Transformatori

[50] Fab Lab [cit. 2018 - 11 - 15] Available at: http://fablab.org/ [last visited 2018 - 12- 03].
[51] Betahaus Sofia [cit. 2018 - 11 - 15] Available at: https://www.betahaus.bg/en/ [last visited 2018 - 12- 03].
[52] Puzl Coworking. About [cit. 2018 - 11 - 15] Available at: https://www.puzl.com/about-puzl-coworking [last visited 2018 - 12- 03].
[53] Sofia Tech park. About. Incubator [cit. 2018 - 11 - 15] Available at: http://sofiatech.bg/en/about/tin/incubator/ [last visited 2018 - 12- 03].
[54] Smart Fab Lab [cit. 2018 - 11 - 15] Available at: http://www.smartfablab.org/en/ [last visited 2018 - 12- 03].

	Association http://transformatori.net/en, the Digital Spaces Living Lab http://www.digitalspaces.info and private investors.
ZaraLabs[55]	ZaraLabs has created the first shared workspace in the centre of Stara Zagora. It offers a place for events, meetings and work for young entrepreneurs interested in the synergy that comes with working with like-minded and talented professionals in the same space.
Innovator Creative Spaces[56]	Innovator Creative Spaces was started in Varna in 2017 and provides companies with high-tech workshops to develop their ideas. The idea of Innovator Creative Spaces is to create an interactive workspace network across the country, focusing on providing high technology hardware and software development workshops, as well as developments in various fields of technology, science, lifestyle, culture and human life.
Startup Hambar[57]	Startup Hambar is a JA Bulgaria social-innovation project promoting the entrepreneurial spirit in the country. This is a shared work, training and mentoring space for young entrepreneurs between the ages of 14 and 26 and their start-up companies. It is located in the first technological park in Bulgaria - Technology + Innovation Network.
BizLabs[58]	This is the oldest cooperative in Plovdiv. The members are mostly companies from abroad or from Sofia, freelancers, digital nomads and expatriates in Plovdiv, and the spheres in which they work include software development, graphic design, user experience and research, architecture, human resources, marketing, PR and communications. There are also various people from consulting professions and R & D in new technologies.
Business Incubator Burgas[59]	The area is a good example for a shared space created with municipal support. Business Incubator Burgas is a social space as well as a physical space designed for the development of small and medium-sized businesses. There are offices, meeting rooms, conference hall, recreational space, training hall, presentation hall, an interactive exhibition space, and many other facilities.

Support by companies or private investment

Apprenticeship Programmes and Scholarships in the field of eco-innovations are still underdeveloped in Bulgaria. However, there are specialized NGOs which provide programmes for university students as well as pre-acceleration and acceleration programmes for start-ups in the field of eco-innovation.

An example of such company is Cleantech Bulgaria, which is an official and exclusive partner of KIC InnoEnergy in Bulgaria and National Lead of a series of start-up support programmes.

[55] Zaralab [cit. 2018 - 11 - 15] Available at: https://www.zaralab.org/ [last visited 2018 - 12- 03].
[56] Innovator Creative Spaces [cit. 2018 - 11 - 15] Available at: https://www.innovator.bg/ [last visited 2018 - 12- 03].
[57] Junior Achievement Bulgaria [cit. 2018 - 11 - 15] Available at: http://www.jabulgaria.org/article/news/podkrepi_startap_hambara_na_ja [last visited 2018 - 12- 03].

[58] Bizlabs [cit. 2018 - 11 - 15] Available at: https://bizlabs.eu/en/ [last visited 2018 - 12- 03].
[59] Business Incubator Burgas [cit. 2018 - 11 - 15] Available at: http://www.business-burgas.com/%D0%B7%D0%B0-%D0%BD%D0%B0%D1%81/ [last visited 2018 - 12- 03].

Cleantech Bulgaria cooperates closely with the European Institute for Innovation and Technology (EIT) and the KICs offering official road to their acceleration, business creation and innovation programmes, as well access to education and scholarships for PhD and Master Programmes at leading European universities.

However, private companies in Bulgaria have a great potential for developing scholarship programmes and initiatives in the field of eco-innovation, especially the so called "Green Companies" which have been recognised by the B2 Media competition "Green Oscars".

Some companies are engaged in supporting eco-innovation activities by means of sponsorships of different green initiatives.

Hackathons are organized by different companies to provoke new ideas in the field of innovations.

There is a Fund for risk capital investment which is part of the Fund implemented under the Operational Programme "Innovations and Competitiveness" (2014-2020).
Public resources provided by the Fund amount to BGN 47.1 million. Successful financial intermediary will have to provide private co-financing amounting to at least 30% of the total amount of investment to final recipients, as a pledge for the Fund's successful operation and sustainability of investments. With these funds, the chosen intermediary will have the task of managing a private equity fund in high-tech and innovative micro, small and medium-sized enterprises (SMEs) at an early stage of development. The amount of investments made by the venture capital fund in one company ranges from BGN 1.5 to 7 million.

Promotion and marketing

Innovations create sustainable competitive advantages and as a result of their stimulation the Bulgarian economy is be able to move up the value chain. To promote and market eco-innovation in the different sectors of the economy, different tools to support the start-up initiatives, competitions or even commercial programs are implemented (including reality TV shows that test business ideas under the guidance of experienced entrepreneurs and investors).

Table 26 Promotion of innovations

Action	Description
National broadcasters like bTV	Shows: Four Steps to Own Small Business; How to start a small business? etc.
"The Greenest Companies in Bulgaria"	Annual national competition "The Greenest Companies in Bulgaria" by B2B media has been attended by municipalities, large, small and medium-sized enterprises, NGOs and start-up companies for seven years now. Prizes are awarded in 16 major categories, as well as special prizes such as Green Innovation, Green Investment, Paperless, Green Media and Green Feathers.
Central European Start-up Awards (CESA)[60]	The Association of the Bulgarian Leaders and Entrepreneurs (ABLE) is an active community of entrepreneurial young people who

[60] Central European Start up awards [cit. 15.11 – 2018] Available at: http://centraleuropeanstartupawards.com/ [last visited 2018 - 12- 03].

	contribute to the development of environment around them, wherever they are. The Central European Start-up Awards (CESA) is a unique series of events which aims to connect businesses with entrepreneurs' ideas in Poland, the Czech Republic, Serbia, Slovenia, Croatia, Romania, Hungary, and Bulgaria. The initiative in Bulgaria has been organized by ABLE. The project was started in 2014 and seeks to bring together the cream of the crop of the start-up community in this part of the continent. CESA strives to reward, encourage and inspire entrepreneurs, while at the same time uniting companies, investors, and all other stakeholders in the ecosystem. CESA is one of the four regional events which are part of the Global Start-up Awards.
Sofia Start-up Expo 2018 (SSE)[61]	It is a showcase for start-ups and new entrepreneurs who present their innovative products, technologies and services for production and everyday life related to creating convenience, efficiency and higher quality of life for people. As a platform to support innovation, SSE aims to cover all components needed to start and maintain a start-up innovative business. Exhibitors and participants include start-ups, representatives of leading corporations, government agencies, incubators, investors, venture capital funds, banks, students and technology companies from the EU and the region. The organizers' ambition is for SSE to become the meeting place for technology developers, innovation managers and investors to build partnerships and shape the future.

Events and networking

Local workshops

As the main representative of the entrepreneurial eco-system aimed at introducing eco-innovation in the country, Cleantech Bulgaria has managed to influence the development of the local innovation environment by:

- providing education campaigns to more than 22 000 employees on green office practices.
- executing dedicated formats for sustainable business for 200 C-Level professionals and 700 entrepreneurs and students (see Table 40).

Table 27 Events managed by Cleantech Bulgaria

Event	Description
Start-up Universiade[62]	Start-Up Universiade is a unique entrepreneurial format targeting university students from Bulgaria with the purpose to evoke and focus their entrepreneurial vigour and skills on business ideas that can combat climate change. It provides the opportunity to identify and support promising ideas in the very beginning of their development, while tapping on students' potential, enthusiasm and creative minds. It seeks

[61] The Sofia Startup Expo [cit. 2018 - 11 - 15] Available at: https://sofiastartupexpo.eu/en/ [last visited 2018 - 12- 03].
[62] Cleantech Bulgaria [cit. 2018 - 11 - 15] Available at: http://cleantech.bg/ [last visited 2018 - 12- 03].

	innovative ideas that can contribute to reducing GHG emissions, reducing air, water and even noise pollution, and raising the quality of life of people via bringing positive effects to the environment.
Green Business Network Bulgaria	Business representatives within Cleantech Bulgaria are engaged in a Business club for sustainable business growth. Green Business Network Bulgaria provides regular networking meetings and partnership to its members. The topics and activities of the Club are related to innovation management, certification and sustainability reporting mechanisms, transition to new business models and approaches for green business (incl. circular economy, waste management and raw materials reuse, application of energy efficient technologies and green buildings etc.).
Cleantech Ambassadors	Young professionals are engaged within Cleantech Bulgaria through Cleantech Ambassadors which enables young people to develop their interest in "green" issues within the platform and offers them opportunities to participate in partnerships and projects and to interact with business professionals to boost their career development in the sustainability field.
Climathon[63]	Climathon (hosted in Bulgaria by Cleantech Bulgaria) is a global 24-hour climate change event organised by Climate-KIC which took place simultaneously in major cities around the world on 27 October 2017. Climathon brought together the challenges of the world's cities with the people who have the passion and ability to solve them. City citizens around the world got to take direct climate action in their own cities by coming up with innovative solutions to local climate change problems.
Entrepreneurship for Circular Economy solutions	Cleantech Bulgaria operates an array of entrepreneurial formats and pre-incubation and acceleration programmes in partnership with Climate-KIC and InnoEnergy such as the Climate LaunchPad green business idea competition, PowerUp sustainable energy start-up competition, InnoEnergy Primer Pre-Accelerator, GreenHouse Pre-Incubation Programme and The Climate-KIC RIS Accelerator Programme. Ii the last three years they have accelerated over 20 new ventures that enable the local economy to transition towards circular models.
Higher education to enable circular economy transition	Building awareness and knowledge are the first steps towards helping individuals and sectors to act on climate change, but empowering people through developing new competencies and skills is when they can really make a difference. In 2017 they designed and launched the Circular Economy and Sustainable Management Master Programme in partnership with the University of Finance, Business and Entrepreneurship. The programme aims to provide active managers and professionals with up-to-date knowledge and skills to adopt circular economy principles and approaches in their work and organisations. Started in October 2018, the master programmeoffers highly individualized curriculum, practical cases and unique complementing opportunities.

[63] Climate – KIC. Climathon[cit. 2018 - 11 - 15] Available at: https://climathon.climate-kic.org/en/ [last visited 2018 - 12- 03].

International seminars

The 21st European Eco-Innovation Forum was held in Sofia, Bulgaria, on 5.-6. 2. 2018. The Forum considered environmental innovation solutions to improve air quality. It brought together companies and public authorities that have already been able to develop and implement effective new technologies or innovative business and management models with those seeking such solutions and practices[64].

Fostering stakeholder's dialogue, in 2018 Cleantech Bulgaria Foundation mobilised recognised agents of change and local and European stakeholders in the CIRCULAR ECONOMY AND CLEAN TECHNOLOGIES Forum – a high level international event which took place on 18th of May 2018. It was part of the official agenda of the Bulgarian Presidency of the Council of the EU in 2018 under the patronage of the Ministry of Environment and Water. The event focused on introducing sustainable economic models through the principles of circular economy and cleantech integration. Ultimately shifting away from the extractive industrial model was encouraged by looking closely into best practices which support EU stakeholders in shaping the sustainable innovative future of Europe. The format provided a series of specialized events, starting from the institutional perspective, moving to best practices coming from businesses and key examples from the biggest innovation drivers in the EU – The 6 Knowledge and Innovation Communities (KICs); all complemented with round tables and open discussions.

Expert database

Table 28 List of experts in Bulgaria

Name	Maya Milova
Institution	CCI-Vratsa
E-mail	majam@abv.bg
Phone number	359878598218
Address	Bulgaria, Vratsa, Hristo Botev 24
Website	http://www.cci-vratsa.org
Specialization	Energy and resource efficiency.
Name	Galina Gavrilova
Institution	CCI-Vratsa
E-mail	galinaplamenova@yahoo.com
Phone number	359877737581
Address	Bulgaria, Vratsa, Hristo Botev 24
Website	http://www.cci-vratsa.org
Specialization	Access to international markets.
Name	Svetlana Borisova
Institution	CCI-Vratsa
E-mail	sgg1842@abv.bg
Phone number	359878598219

[64] European Commision. Environment. Ecko-innovation Action plan [cit. 2018 - 11 - 15] Available at: http://ec.europa.eu/environment/ecoinnovation2018/1st_forum/index_en.html [last visited 2018 - 12- 03].

Address	Bulgaria, Vratsa, Hristo Botev 24
Website	http://www.cci-vratsa.org
Specialization	EU funding and application support.
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Specialization	Energy and resource efficiency.
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Specialization	EU funding and application support.
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Specialization	Energy and resource efficiency.
Name	Nikolay Stimchev
Institution	Self-employed
Phone number	359889204877
Specialization	Energy and resource efficiency.
Name	Luybomir Lilovski
Institution	Self-employed
Phone number	359879941420
Specialization	Energy and resource efficiency.
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Phone number	899175500
Website	www.cibolabg.com
Specialization	Management and business consulting services. EU funding and application support.
Name	Svetlana Marinova
Institution	Almarex Ltd
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Specialization	Business planning, investment and innovative projects for SMEs. EU funding, innovations and planning.
Name	Viktor Manev
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Website	www.mmconsult.biz
Specialization	Project finance, M&A, private equity. Project financing.

Croatia

National innovative infrastructure

Business support infrastructure is very well developed in terms of geographical coverage. In the last 15 years, many local and regional supporting institutions like local and regional development agencies, technology parks and business incubators have been established with the main goal to support business development on the local or regional level, trying to improve business environment in many respects. However, the services these institutions provide are rather limited, especially for innovative companies. Many business support institutions have rather limited resources, both in terms of finance as well as availability of subject matter experts. They do not have the constant and sufficient funding that would give them the opportunity to improve their competences and perhaps specialize in certain sectors. Therefore, they usually offer some basic services and try to use their networks to give entrepreneurs at least contact points where they could get more value- added support. Eco-innovation is not an exception and usually companies in eco-innovation area rely on themselves and their abilities and resources to either acquire the required knowledge or try to find experts that could support them in their projects.

In many parts of Croatia, business incubators have been established to support specific, usually technical oriented sector (eg. TICM Čakovec, TP Varaždin, BIOS Osijek, ZIP, Technology parks in Zagreb, Split etc.).

Technology transfer and commercialization offices are institutions established to link universities with the market and provide competences related to transfer of technologies and innovations from various R&D projects to the market. Unlike local and regional development agencies and business incubators, TTCs usually have a longer reach and have the broad network of relevant stakeholders in their innovation eco-system but they still focus their activities mostly on commercialisation of R&D projects stemming from academic community.

Other stakeholders include non-governmental and private organisations like regional energy agencies, Croatian Association of innovators; Croatian Business Angels Network (CRANE) and many private consulting companies that could provide various means of support to entrepreneurs.

In general, innovation infrastructure geographically resembles the level of development – most of the relevant institutions – public or private are in Zagreb, the economic and administrative centre of Croatia and headquarter of many national companies and hub of international companies. The level of expertise required for the innovation management process is also concentrated in Zagreb, making it more difficult to other parts of Croatia to match the eco-system in Zagreb. Innovators can rarely find a one-stop-shop institution due to fragmentation of competences but recently some institutions were able to establish an eco-system where most of requirements for innovative companies can be found and innovators can be supported throughout the entire process.

Main institutions that can support the innovative process are listed below.

Table 30 Institution supporting the innovative process

Name	University of Zagreb, Centre for Research, Development and Technology Transfer (CRDTT)
Type of organization	Technology Transfer Office
Address	Trg Republike Hrvatske 14, 10000 Zagreb, Croatia
Website	http://cirtt.unizg.hr/en/about-us
Main areas of Services	CRDTT provides support to research groups at the University in securing funds for research and development as well as in management of research projects. CRDTT also helps research groups and partners from the business sector to establish cooperation in technology development and commercialization of intellectual property originating from University's research groups. CRDTT also supports researchers and students in starting knowledge and technology-based businesses. In addition to individual support, CRDTT regularly organizes workshops and other events aimed at University's researchers and students.
Name	University of Rijeka, Step Ri Science and Technology Park (Step Ri)
Type of organization	Science and Technology Park
Address	Radmile Matejčić 10, 51 000 Rijeka, Croatia
Website	http://www.step.uniri.hr/en/about-us
Main areas of Services	Dissemination and exploitation of project results. Pilot testing. Innovation management, knowledge and consulting in: creation of disruptive and sustainable innovations – products and services, product and business model innovation, improvement of existing products/services – customer centred innovation based on outcome driven innovation methodology, innovation commercialisation strategies, IPR protection, accounting and access to finance. Education on topics like IPR protection, business model innovation, pricing. Organisation of various workshops. Networking with the University of Rijeka researchers and scientists. Step Ri delivers personalised innovation consulting services for: Creation of disruptive and sustainable innovations – products and services. Improvement of existing products/services – customer centered innovation based on outcome driven innovation. Innovation from non-consumption. Business model innovation – an improvement of existing and creation of new business models. Innovation commercialisation strategies – "go to market" and implementation support for innovative products, services and business models, distribution strategies. Pricing strategies – development of successful pricing strategies based on cost, perceived or estimated value of the product/service.

	Step Ri provides work spaces combined with integrated business support and internationalisation services.
Name	University of Rijeka, Technology Transfer Office of the University of Rijeka
Type of organization	Technology Transfer Office
Address	Radmile Matejčić 10, 51 000 Rijeka, Croatia
Website	http://www.utt.uniri.hr/o-nama
Main areas of Services	Raising awareness on the importance of technology transfer and IPR protection. Advising on IP rights, possibilities for protection of research results. Evaluation of technical and commercial potential of the research results. Ensuring expert assistance on patent application and other relevant procedures related to IPR protection. Expert assistance on IPR protection as part of contracting of EU or another int'l or domestic projects. Finding potential financial sources for research and technology and knowledge transfer.
Name	University of Split, Centre for science-technology development, Technology Transfer Office
Type of organization	Technology Transfer Office
Address	Livanjska 5, 21 000 Split, Croatia
Website	http://www.utt.unist.hr/hr/o-nama/o-nama
Main areas of Services	Establishment and improvement of the co-operation between science and business community. Establishing contacts for participation in R&D programmes Intellectual property rights protection. Business related education of research fellows and students. Establishing contacts with business partners. Creating opportunities for business internationalisation and new markets penetration. Organisation of education on entrepreneurship related topics.
Name	Ruđer Bošković Institute, Department for Projects and Knowledge Transfer
Type of organization	Technology Transfer Office
Address	Bijenička cesta 54, 10000 Zagreb, Croatia
Website	https://www.irb.hr/eng
Main areas of Services	Commercialization of innovations and technology transfer. Rudjer Innovations Ltd. Commercialization of innovations and technology transfer owned by the Ruđer Bošković Institute. Consulting services on technology transfer, closing business contracts, and the financing of innovations and projects. Helping to choose and implement suitable commercialization models.
Name	University of Zagreb, Faculty of Mechanical Engineering and Naval Architecture, Centre for Technology Transfer Ltd.
Type of organization	Technology Transfer Office
Address	Ivana Lučića 5, 10000 Zagreb, Croatia

Website	http://www.ctt.hr/o_nama.html
Main areas of Services	Mechanical Engineering and Naval architecture technological processes improvement. Establishing contacts between science/technology and business community. Initialisation of innovative projects aimed at sustainable development. Lifelong education aimed at technology transfer processes and increasing competitiveness of Croatian industry.
Name	Tera Tehnopolis Ltd.
Type of organization	Science and Technology Park
Address	Trg Ljudevita Gaja 6, 31000 Osijek, Croatia
Website	http://portfolio.web.tera.hr/index.php/o-nama
Main areas of Services	Business Incubation. Business Consulting. Technology transfer – commercialisation of IP of the University of Osijek and establishing of cooperation between University and business community. 3D printing. Education.
Name	Enterprise Europe Network in Croatia
Type of organization	part/project of Croatian Chamber of Economy
Address	Rooseveltov trg 2, 10000 Zagreb, Croatia
Website	http://www.een.hr/en/een-croatia
Main areas of Services	Enterprise Europe Network provides internationalisation and innovation services to small and medium-sized companies. The Croatian network includes seven partners. Enterprise Europe Network provides: Commercialization of innovations. Business consultation. Intellectual property protection.
Name	Technology park Varaždin Ltd.
Type of organization	Technology Park
Address	Zagrebačka 89, 42 000 Varaždin, Croatia
Website	http://www.tp-vz.hr/index.php?content=StojeTehnopark
Main areas of Services	Business Incubation. Business Consulting. Technology transfer. Commercialisation of products and services. Education. Networking. Office space.
Name	Technology Innovation Centre Medjimurje Ltd.
Type of organization	Technology Park
Address	Bana Josipa Jelačića 22B, 40000 Čakovec, Croatia
Website	https://ticm.hr
Main areas of Services	Developing technological and business infrastructure and by creating employment and advancement conditions.

	Establishment of new companies by providing incubation and consulting services. Technology transfer and innovation commercialisation. Learning and applying new business and technology skills. Human resources development in STE(A)M areas. Office space.
Name	Technology Park Zagreb Ltd.
Type of organization	Technology park, a business incubator
Address	Dragutina Golika 63, 10000 Zagreb, Croatia
Website	https://www.tehnopark.hr/eng/About-Us
Main areas of Services	Setting up a business and a business plans preparation. Accounting and legal advice. Business processes management. Product development and technology transfer. Preparation of projects for national, local and/or EU-funded grants. Preparation of applications for national or local grants. Intellectual property protection and innovations patenting. Internationalisation. Commercialisation. Marketing and promotion. Education. Office space.
Name	Poduzetnički inkubator ZIP Ltd.
Type of organization	Business incubator
Address	Remetinečka cesta 7, 10000 Zagreb, Croatia
Website	http://zipzg.com/en
Main areas of Services	Mentorship. Networking. Support. Media exposure
Name	IRI Centar Ltd.
Type of organization	Cluster organisation, NGO
Address	Brce 4, 21215 Kaštela, Croatia
Website	http://iricentar.hr/en/sample-page
Main areas of Services	Operational implementation and execution of R&D projects and business investments. Internationalisation of R&D activities. R&D project fund raising. Business incubation. Education.

National legislative framework

Intellectual property protection

In general, eco-innovation is not treated separately or given any special treatment.

Copyright

Copyright is the exclusive right of authors to dispose of their literary, scientific or artistic works, and works covering other fields of creativity; related rights relate similarly to the rights of performers, the producers of phonograms and broadcasting organizations.

In terms of copyright, the Copyright and Related Rights Act[65] is applied. According to Article 42 of the Act, copyright is not transferable, except by inheritance and transfer for the benefit of coheirs in the case of dissolution of the community of heirs. Other dispositions of copyright are allowed unless otherwise provided for in the Act.

Industrial property rights

Industrial property comprises the rights by which manufacturers protect from competitors their business interests, their position on the market and their investments in research, development and promotion.

Aspects or characteristics of a product may be protected by one or several different forms of intellectual property, supplementing one another. New solution of a technical problem is protected by a patent, new outer shape or appearance of a product is protected by an industrial design, and a sign serving to distinguish products or services from similar products and/or services on the market is protected by a trademark.

In the territory of the Republic of Croatia the State Intellectual Property Office (SIPO) carries out a patent granting procedure in compliance with the Patent Act and the Patent Regulations.

Since April 1, 2004 the procedure for granting patents effective in the territory of the Republic of Croatia can also be carried out through the European Patent Office, by filing a corresponding application directly to the European Patent Office.

The patent granting procedure consists of several phases in which particular elements of a patent application are examined. The procedure is commenced by submitting the application; after its formal examination, the application is published in the SIPO official gazette. A published patent application becomes available to the public, whereby it forms part of the state of the art, and any interested person is entitled to inspect the text of the application. After the publication of the application, the procedure is continued only under the condition that the applicant files one of the requests for examination of the requirements for the patent grant. If within the prescribed time limit, one of the specified requirements has not been filed and the corresponding fee and procedural charges have not been paid, the patent application will be considered to be withdrawn, and SIPO will suspend the patent granting procedure.

After one of the specified requests for examination has been filed, SIPO carries out a corresponding additional procedure comprising the examination as to the substance of the patent application. The procedure may result in the grant of a patent for a proposed invention, provided that the prescribed requirements are complied with, or in a refusal of the request for the grant of a patent if such requirements are not complied with. It is important to point out that before

[65] Copyright And Related Rights Act And The Act On Amendments To The Copyright And Related Rights. State intellectual property office [online]. Zagreb, ©2017. Last modified: 26. 11. 2018. 20.17. Available at: http://www.dziv.hr/files/File/eng/Zakon_autor_ENG.pdf

the final decision on the refusal of the request for the grant of a patent, the applicant is given the opportunity to possibly amend the claims or to file additional arguments and to change the outcome of the procedure in his favour.

The protection for a patent granted on the basis of the results of the substantive examination shall last for 20 years as from the filing date of a patent application, and for a consensual patent, it shall last for 10 years. For the maintenance of a patent, the prescribed annual maintenance charges need be paid[66]. Failing this, the protection shall be terminated even before the expiration of the mentioned terms, namely, immediately after the expiration of the time limits prescribed for the annual payment of charges.

Filing an application

The patent granting procedure is instituted by filing an application consisting of:

- Request for the grant of a patent (P-1 Form).
- Description of the invention.
- Claims.
- Drawings - where the invention is such that it is appropriate to be represented by drawings.
- Abstract - a summary of the essence of the invention for the purpose of technical information.

Details on how to draw particular elements of an application may be found in the Patent Regulations[67].

Patent applications as established in the examination to comply with the pre-requisites for the publication are published in SIPO's official gazette after the expiration of 18 months as from the date of filing or the date of the granted priority right, respectively. At a request of the applicant, the application may be published even earlier, but not before 3 months from the date of its filing with SIPO. The published patent application becomes available to the public, whereby it forms part of the state of the art, and the text of such application may be inspected by any interested person[68].

European patent

According to Patent regulations, a European patent application may be filed directly with the European Patent Office or SIPO.

A European patent application is to be be filed with SIPO in a manner described in Article 2 paragraphs 1 and 2 of the Regulations, and in accordance with the provisions of the European Patent Convention and the pertaining implementation regulations, which relate to the filing of European patent applications and the requirements.

Within three months from the date on which the note of the grant of the European patent has been published, the owner of the patent needs to furnish SIPO with a translation of the specification of the European patent into the Croatian language, and pay the prescribed administrative fee and procedural charges for publication in the official gazette of SIPO, in compliance with Article 16 of the Patent Act[69].

[66] List Of Basic Procedural Charges For The Patent Grant. State intellectual property office [online]. Zagreb, ©2015. Last modified: 2015. [cit: 26. 11. 2018. 20.27.] Available at: http://www.dziv.hr/files/File/eng/intellectual/fees_patents.pdf

[67] Patent Act And The Act On Amending The Patent Act. State intellectual property office [online]. Zagreb, ©2013. Last modified: July, 2013. [cit: 26. 11. 2018. 20.17.] Available at: http://www.dziv.hr/files/File/eng/zakon_patent_ENG.pdf

[68] Filing an application and its publication. State intellectual property office [online]. Zagreb, ©2013. Last modified: 6. 9. 2013. [cit: 26. 11. 2018. 20.23]. Available at: http://www.dziv.hr/en/intellectual-property-protection/patents/the-application-process/filing-an-application/

[69] Patent Act And The Act On Amending The Patent Act. State intellectual property office [online]. Zagreb, ©2013. Last modified: July, 2013. [cit: 26. 11. 2018. 20.17.] Available at: http://www.dziv.hr/files/File/eng/zakon_patent_ENG.pdf

Ownership of a research result

In case the invention is created at work or is related to work, the invention is regulated by the Labour Act[1]. According to the Labour Act, any invention related at the workplace or in relation to work shall be the property of the employer, and the worker shall be entitled to a reward established by collective agreement, employment contract or special agreement. Where the worker's invention is neither created at the workplace nor in relation to the work, but is rather connected with the employer's economic activity, the worker is obliged to inform the employer thereon and make a written offer to the employer concerning the assignment of invention rights. The employer is obliged to respond to the worker's offer within one month. Where the employer agrees to apply a technical innovation suggested by the worker, the employer shall be obliged to pay the worker the reward established by collective agreement, employment contract or special agreement. The Labour Act does not prescribe any further details on rights in terms of intellectual property legal framework, so it is reasonable to conclude that inventor will have the moral right to be identified as such in the patent application and all documents issued on the grant and in the Register of Applications and Register of Patents. At this moment, there are no special regulations regarding inventions created in public institutions, but it is important to know that universities and public research institutions have adopted regulations regarding innovation (e.g. Rudjer Bošković Institute's IP Regulation[70], in Croatian only).
In case invention is created independently, the Patent Act[71] and Patent Regulations[72] are applied.

For copyrighted works, Articles 75 and 76 of the Copyright and Related Rights Act define works created while executing employment contract. If copyright works are created in the course of employment, the employment contract shall specify, among other things, whether the employer acquires the right to use the copyright works, and if he acquires it, it shall specify in particular the scope and duration of such right. Unless otherwise provided by the Act, or by an employment contract or by other act regulating employment, the copyright in the work created in the course of employment shall be retained by the author without limitations.

Contact details of the national intellectual property office

Table 31 Contact details of the Croatian intellectual property office

Name	State intellectual property office of the republic of Croatia
Address	Ulica grada Vukovara 78, HR - 10000 Zagreb, CROATIA
Website	http://www.dziv.hr/en

[70] Republic Of Croatia, Institute Ruđer Bošković, Public Institute Of The Republic Of Croatia Intellectual Property Rules [online], Zagreb, ©2016. Last modified: September, 2016. [cit: 26. 11. 2018. 20.43.] Available at:http://www.irb.hr/content/download/14902/307648/file/Pravilnik-o-intelektualnom-vlasnistvu-09-2016-prihvaceno-na-UV.pdf

[71] Patent Act And The Act On Amending The Patent Act. State intellectual property office [online]. Zagreb, ©2013. Last modified: July, 2013. [cit: 26. 11. 2018. 20.17.] Available at: http://www.dziv.hr/files/File/eng/zakon_patent_ENG.pdf

[72] Patent Regulations Regulations On Amendments To The Patent Regulations [online], Zagreb, ©2013. Last modified: September, 2013. [cit: 26. 11. 2018. 20.46.] Available at: http://www.dziv.hr/files/File/eng/pravilnik_patent_eng.pdf

Main Areas of Services	The State Intellectual Property Office of the Republic of Croatia (SIPO) is the State administration body with responsibilities in the field of protection of intellectual property rights. The Office carries out procedures for granting industrial property rights (patents, trademarks, industrial designs, geographical indications and designations of origin, topographies of semiconductor products) and performs the accompanying professional and legislative activity. The Office activities in the legislative and professional segments include copyright and related rights. In addition to the legislative and professional activities, including the procedures for granting rights, a significant segment of the Office activities makes the provision of information and services in the field of intellectual property, the cooperation with other institutions for the enforcement of intellectual property rights and support of innovation activity, as well as the cooperation with economic and R&D entities.

Patent attorneys

Natural and legal persons not having permanent residence or registered office in the territory of the Republic of Croatia, are obliged to appoint a representative in industrial property rights who represent them in the procedure before the Office, unless provided otherwise in international treaties by which the Republic of Croatia is bound.

Activities of representation before the Office may be performed by natural and legal persons entered in the Register of the Representatives[73][74] maintained by the Office (the authorised representatives) under the conditions and in the manner prescribed by the Act on Representation in the Area of Industrial Property Rights[75], and attorneys entered in the Register of Attorneys[76] maintained by the Croatian Bar Association, or law firms entered in the Register of Law Firms[77] also maintained by the Croatian Bar Association. Representatives are representing the party in the procedure pursuant to the content and scope of a written power of attorney. A power of attorney may refer to one or more applications or registrations, or, if so indicated under the power of attorney, to all present and future applications or registrations. A power of attorney referring to all the applications and registrations of the same grantor is a general power of attorney. A Register of general powers of attorney is maintained by the Office.

A patent attorney (representative) may be:

- Any natural person who is a Croatian citizen having permanent residence in the territory of the Republic of Croatia, holding a university degree in technical or natural sciences and having passed the professional examination for patent representative before the Office.

[73] Patent representatives. State Intellectual Property Office [online]. Zagreb, ©2018. Last modified: 21. 11. 2018. [cit: 26. 11. 2018. 20.57.] Available at: http://www.dziv.hr/en/representation-before-sipo/patent-representatives/

[74] Trademark representatives. State Intellectual Property Office [online]. Zagreb, ©2018. Last modified: 21. 11. 2018. [cit: 26. 11. 2018. 20.57.] Available at: http://www.dziv.hr/en/representation-before-sipo/trademark-representatives/

[75] Act On Representation In The Area Of Industrial Property Rights And Act On Amendments To The Act On Representation In The Area Of Industrial Property Rights. State Intellectual Property Office [online]. Zagreb, ©2013. Last modified: May, 2013. [cit: 26. 11. 2018. 21.01.] Available at: http://www.dziv.hr/files/File/zakonodavstvo/zakon_zastupanje_ENG.pdf

[76] Croatian Lawyer Chamber, Address book [online]. Zagreb, ©2018. Last modified: 2018. [cit: 26. 11. 2018. 20.57.] Available at: http://www.hok-cba.hr/hr/imenik

[77] Croatian Lawyer Chamber, Address book [online]. Zagreb, ©2018. Last modified: 2018. [cit: 26. 11. 2018. 20.57.] Available at: http://www.hok-cba.hr/hr/imenik

- Any natural person who is a Croatian citizen having permanent residence in the territory of the Republic of Croatia, holding a university degree in an area other than technical or natural sciences, at least five years of working experience in jobs relating to the acquisition and maintenance of industrial property rights, obtained after completing the studies, and having passed the professional examination for patent representative before the Office.
- An attorney entered in the Register of Attorneys maintained by the Croatian Bar Association who passed the professional examination for patent representative before the Office or a law firm employing such an attorney or cooperating with him pursuant to some other contractual relationship.
- Any legal person with a registered office in the Republic of Croatia employing at least one person meeting the conditions referred to in points 1 or 2 of this paragraph or cooperating with such person pursuant to some other contractual relationship and performing the activities of representation before the Office as its registered activity.

Contact of Patent Attorneys (a Chamber of Patent Attorneys):
The Chamber of representatives in intellectual property is an autonomous and independent organisation. The organisation, competence, composition, election procedure, and the rights and duties of the bodies of the Chamber are regulated by the Articles of Association and other general acts of the Chamber. The Chamber cooperates with the SIPO on all issues related to representation in industrial property rights.

A foreign person must be represented before the SIPO by a representative entered in the Register of Representatives kept by the SIPO, if the matter of representation is not otherwise provided for by law[14]. However, a foreign person can still perform certain acts, provided it has valid correspondence address in Croatia:

1. File patent applications,
2. Perform other acts relating to the establishment of the filing date of a patent application,
3. File true copies of the first patent application, when claiming priority right,
4. Receive from the SIPO notifications relating to certain procedures,
5. Pay the administrative fees and procedural charges.

Commercialization

Commercialisation is the process of turning products and services into a commercially viable value. Concerning Intellectual Property (IP), this term can be more specifically defined as the process of bringing IP to the market in view of future profits and business growth. It is certainly not an easy task to manage IP commercialisation as the success of this process depends on several internal and external factors such as business objectives, type of IP as well as economic and intellectual resources. In addition, since IP can be commercialised either directly by its owner, through an assignment or by building up business partnerships, the selection of the most appropriate tool is often challenging, especially for Small and Medium-sized Enterprises (SMEs).

In general, commercialisation of innovation (eco-innovation included) is subject to existing IP legislation framework and other relevant legal framework of the Republic of Croatia. No special legal treatment has been given to eco-innovation. Figure 4 gives an overview of options, inventors can pursue in its commercialisation process.

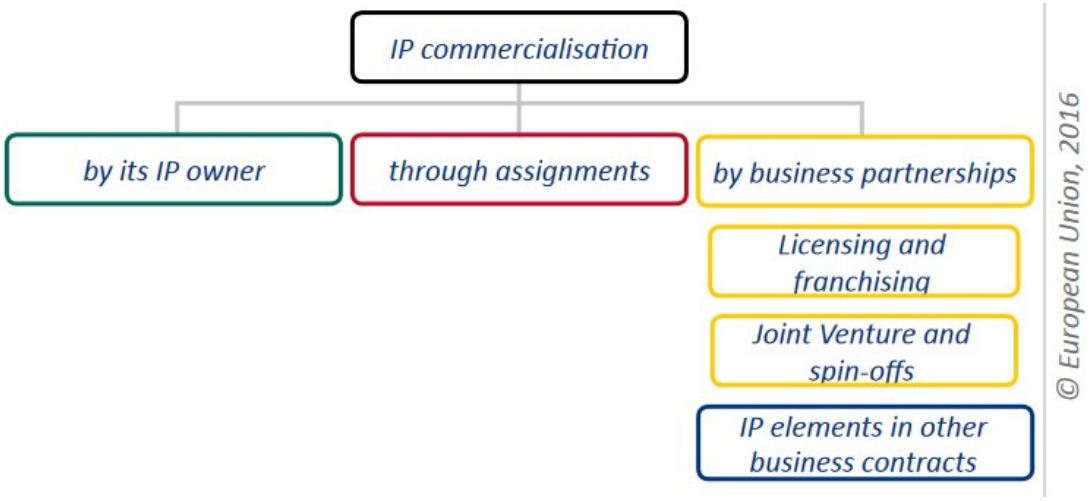

Figure 1 IP Commercialisation options (source: European Union, IPR Helpdesk[78])

Setting up a company

To accelerate and simplify the procedure for establishing a company, the government of the Republic of Croatia has established service HITRO.HR which, with more than 60 offices, fully covers Croatian territory. HITRO.HR accelerates the procedure, making the state administration more efficient, flexible and transparent, enabling the investor to establish a company within 8 working days.[79]

State aid

On 1 July 2013, on the date of accession of the Republic of Croatia to the European Union, the State Aid Act (Official Gazette 72/13 and 141/13) introduced a new mechanism in the state aid system in the Republic of Croatia the

[78] The European IPR Helpdesk Your Guide to IP Commercialisation [online], © European Union, 2016, Last modified: 2016. [cit: 26. 11. 2018. 21:09.] Available at: https://www.iprhelpdesk.eu/sites/default/files/documents/EU-IPR-Guide-Commercialisation.pdf

[79] Agency for investments and competitivness. Setting up a compny. ©2017, Last modified: 2017. [cit: 27. 11. 2018. 08:06.] Available at: http://www.aik-invest.hr/en/investment-guide/establishing-a-company/setting-up-a-company/

priority objectives of granting state aid and the purpose of efficient use of state budget funds will be set in a specific three-year period.

The State Aid Policy is an integral part of the applicable State Aid Act (Official Gazette 47/14 and 69/17). The Act regulates the implementation of Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (OJ L 187, 26.6.2014, p. 1).

The main instrument of this mechanism is guidance from the state aid policy, the contents of which should be guided by state aid providers (apart from the state aid provider of local and regional self-government authorities) when planning and drafting new state aid proposals. Guidelines on State Aid Policies state the objectives of granting state aid whose realization the donors need to strive to keep in mind in addition to the purpose of state aid and the availability of budget funds for the implementation of state aid measures.

According to the Policy Guidelines for State Aid for the Period 2018 – 2020[80], state aid providers in the Republic of Croatia must ensure that state aid that they intend to award is well designed and that they are to the detriment of competition to the slightest extent possible.

State aid providers are encouraged to seek that the funds they intend to award as state aid are specifically intended to:

- Research, development and innovation.
- Environmental protection.
- Professional development (vocational education).
- Employment.
- Investments, in particular in the form of regional aid.

State aid for research, development and innovation should, in particular, be allocated for:

- Research and development projects.
- Innovation clusters.
- Innovation for small and medium enterprises.
- Process innovation and business organization.

Commercialization of innovation is one of the measures where SMEs can get national financial support without being forced to give up on any IP rights.

Funding of additional development

Croatia is in the midst of its first full EU membership 7-year budget period. This gives an ample opportunity to a wide variety of actors in the innovation eco-system to seize the opportunity and use available funding for their development in different perspectives. Business support institutions as one of the main pillars of innovation eco-system are eligible for funding from ESIF and CF but there are also other funding opportunities available for their development.

R & D funding by the state

In 2015 Croatia invested 0,42 % of GDP in research and development in the public sector. This represents 59,15 % of the EU member states' average and only 53,62 % of the average of strong innovators. Regarding the given

[80] Croatian Government. Decision on the adoption of the Guidelines for State aid policy for the period 2018 - 2020. ©2018, Last modified: 4. January 2018. [cit: 27. 11. 2018. 08:14.] Available at: https://narodne-novine.nn.hr/clanci/sluzbeni/full/2018_01_2_60.html

indicator Croatia is lagging the Danube region average (0,6 % GDP) as well.

In the period from 2008 to 2015 Croatia reported a decline in R&D expenditure in the public sector from 2009 (0,5 %) and then stagnates from 2010 onwards keeping the expenditure at 0,41-0,42 %. The trend corresponds to the overall national economic performance.

National support – public Agencies

EU structural and investment funds almost completely replaced national funding for various programmes intended to support entrepreneurship. A small fraction of programmes funded by national component remained available to micro- and SMEs as well as science and research institutions. Although not focused on any sector, these programmes are an opportunity for companies in the eco-innovation sector to improve their capacities for research and development in various phases of their innovation process.

Innovation support programmes

EUREKA – main aim is to enhance European competitiveness by fostering innovation-driven entrepreneurship in Europe, between small and large industry, research institutes and universities. EUREKA projects are financed from national budgets and managed by and each partner country preserves the right to define its own rules about eligible partners, the intensity of support and the evaluation process. Croatia decided that eligible partners are micro, small, medium and large enterprises. Science and research institutions are not eligible partners, but they can participate in the project as external associates. One company can implement only one project at the same time.

Types of projects include:

- Network projects,
- Clusters,
- Eurostars,
- Umbrellas,

EUREKA is managed by HAMAG-BICRO.

Innovation process support programmes

Croatian government started several programmes with the main aim to directly or indirectly support the development of start-ups and/or innovative projects. The programme is not focused on any particular sector but several companies in eco-innovation sector managed to use the programme for their innovation projects. Main programmes that are still available include:

- Proof of concept (POC) – main aim is to support innovative companies in the commercialization process of their R&D results.
- Knowledge-based companies' development (RAZUM) – secure initial financing to start-ups or initial financing of new products or services to existing SMEs; finance innovative precommercial technology-based projects.
- Research and development programme (IRCRO) – main aim is to support the innovation process where private companies co-operate with public science and research institutions.

All programmes are managed by HAMAG-BICRO[81]. Table 45 shows the main characteristics of each programme.

Transnational support funds

In the short term, public institutions dedicated to business support have the best funding opportunities to develop by using Operational Programme Competitiveness and Cohesion (OPCC). OPCC is co-financed from the European Regional Development Fund (ERDF) and Cohesion Fund (CF). Investment priorities

[81] Croatian Agency For SMEs and Investments – HAMAG-BICRO. E- Liberary - Presentations. Innovation support programmes. ©2015, Last modified: 2015. [cit: 27. 11. 2018. 08:42.] Available at: http://hamagbicro.hr/e-knjiznica/prezentacije/

are generic and don't specifically address sectors.

Horizon 2020 is also very attractive for supporting institutions focused on innovation whereas other EU funds (primarily Interreg Europe programmes) will probably be used less frequently, especially because of their "soft" nature and the fact that they usually don't present 100% match for needs of supporting institutions. Following is an overview of funds that can be used to support (eco)innovation, plus the programmes listed in Annex 4.

Table 32 EU funding programs available in Croatia

Funding programme	Structural funds
Main Target	PA 1 Strengthening the Economy through Application of Research and Innovation Two investment priorities are identified under this priority axis: Enhancing research and innovation (R&I) infrastructure and capacities to develop R&I excellence, and promoting centres of competence, in particular, those of European interest. Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general purpose technologies. Specific objectives include: Increased development of new products and services resulted from R&D activities will cover R&D projects of business sector in one or more of the following categories: industrial research, experimental development and feasibility studies, and fundamental research where it represents a necessary component of an R&D project leading to result identified for this specific objective (introducing new products, services, processes). RDI activities of business sector increased through the creation of favorable innovation environment will cover further development of supporting infrastructure and capacities for innovation.
Funding programme	LIFE
Main Target	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. Croatian partners became eligible after Croatia's accession to EU. Two main priority areas are covered by the programme: Environment – priority includes environment and resource efficiency, nature and biodiversity, and governance and information sub-programmes Climate action – priority includes adaptation, mitigation and governance, and information sub-programmes.

Funding programme	Interreg V - European Territorial Co-operation
Main Target	Croatian organizations and institutions can also use various territorial co-operation programmes to finance their projects. Programmes are available to public science and higher education institutions. Following programmes from Interreg V are eligible for Croatian legal entities: European Cross-border Cooperation (Hungary-Croatia, Italy-Croatia, Slovenia-Croatia). IPA Cross-border Co-operation Programmes (IPA CBC Croatia–Serbia, IPA CBC Croatia–Bosnia and Herzegovina–Montenegro). Transnational Cooperation (Central Europe, Danube, Mediterranean, Adriatic-Ionian). Interregional Cooperation.

SMEs, as well as public institutions, are eligible partners in the programme where EU co-financing rate of up to 60%.

Ministry of Environment Protection and Energy issues annual calls for additional funding of approved project proposals. In the 2017 call, additional maximum 16% of the total budget of the Croatian partner can be covered by the Ministry for projects coming from the water sector.

Business incubators

Croatian business support infrastructure can be divided into two categories. Industrial/business zones and business support institutions[82].

Business support institutions encompass following institutions:

- Development agencies.
- Business support centres.
- Business Incubators.
- Business Accelerators.
- Business parks.
- Science and technology parks.
- Competence centres.

Business incubators' mission is to help and give support to entrepreneurs in the early development of their projects/initiatives. Incubators provide expert, technical, financial, legal, educational and other support to entrepreneurs.

Local incubators

There is an overwhelming number of local incubators in Croatia. Ministry of Economy, Entrepreneurship, and Crafts runs a register of business support institutions established mainly by local/regional authorities. In total, there are 34 business incubators all over Croatia[19]. Many of them are legally independent institutions but there are also cases where incubators are part of another type of business support institutions like development agencies, technology parks etc. In general, incubators established by public institutions heavily rely on (limited and sometimes unstable) public funding which usually implies lack of competent employees, lack of focus and vision, limited outreach and sometimes outdated and irrelevant programmes to support entrepreneurs. In most cases, local incubators primarily support entrepreneurs by offering business space at affordable prices. Most of the tenants come from ICT industry and usually, there is no sectorial focus in incubators. Apart from

[82] Ministry of entrepreneurship and crafts. Law on Promoting Entrepreneurial Infrastructure. © 2018. Last modified: 5.7.2018. [cit: 27. 11. 2018. 09:07.] Available at: https://www.zakon.hr/z/652/Zakon-o-unapre%C4%91enju-poduzetni%C4%8Dke-infrastrukture

business incubators located in main regional centres of Croatia (Zagreb, Rijeka, Osijek, and Split) local/regional incubators rarely provide a full scope of services entrepreneurs need in their initial development phase. Some regional authorities recognized this issue and started with activities to map competencies and identify gaps to consolidate incubators and provide full-scale services to entrepreneurs or to support the creation of eco-system that could provide full-scale support. Lately, some business supporting institutions try to form clusters based on geographical proximity and principles of complementarity but stronger ties between incubators/supporting institutions are largely influenced by political agenda of their constituting authorities and decision makers.

Support by companies or private investment

Companies in Croatia are increasingly following trends in pursuit for new employees and ideas by establishing structured and targeted programmes to attract new employees or organizing focused events like hackathons to try finding solutions to the challenges they might have.

Companies are also increasingly trying to establish early relationships with students by presenting themselves on events like career days or job fairs[20] where they try to lure students with special development programmes. Companies are also increasingly establishing formal cooperation programmes with faculties to both attract new employees but also try to build competences as a prerequisite for their long-term development.

It is also important to note that companies indirectly support eco-innovations through buying products and solutions to reduce their CO_2 footprint by decreasing energy consumption, waste, water consumption, using renewable energy sources etc.

Croatian Business Angels Network (CRANE)

CRANE is a Croatian network of business angels/private investors interested in investments in production and innovation companies in their early development stage.

Entrepreneurs/start-ups get in the contact with CRANE through *one-pager* (in Croatian or English) that contains main information about the idea, current phase of development, the staff/team, competition, required level of investment etc. CRANE's expert team periodically analyses applications and evaluates them according to several criteria, completeness being the most important of them. Applicants that passed primary analysis have the opportunity for meeting/pitch with interested network member. Involvement of CRANE ends when entrepreneurs manage to establish a relationship with the potential investor[83].

Apprenticeship programmes

Apprenticeship and internship programmes aimed at the development of new employees. They are usually structured so that companies can benefit from new employees in a relatively short time and according to their needs. Apprenticeship programmes differ in terms of required education level – larger companies usually search for highly educated and skilled workforce, whereas most SMEs' requirements are directed towards craftsmanship programmes. Some examples of apprenticeship/internship programmes in Croatia include:

Table 33 Apprenticeship/internship programmes in Croatia

[83] Croatian Business Angels Network. Call for proposals. © 2018. Last modified: 5.7.2018. [cit: 27. 11. 2018. 09:07.] Available at: http://crane.hr/prijava-projekta/

Programme	Growww
Enterprise	Ina
Website	https://www.ina.hr/career/youth-projects/growww-10066/10066
Programme	Shape Your Future with a Heart
Enterprise	Podravka
Website	https://www.podravka.hr/kompanija/karijera/shape-osvoji-svijet-s-podravkom
Programme	The Future in Adris
Enterprise	Adris
Website	http://www.adris.hr/odnosi-s-javnoscu/buducnost-u-adrisu/o-programu

No specific programmes supporting the sector of eco-innovation have been established in Croatia.

Private scholarships/fellowships

Private scholarships are not so popular anymore in Croatia because companies do not want to spend a lot of money on longer-term education unless they are in the industry with a significant shortage of the labor force.

One of the reasons for many companies not to invest in scholarships is that local and regional authorities have programmes to support students and pupils. Programmes for supporting students are usually not focused on a specific sector and they merely present a form of social aid. Furthermore, with the inception of the programme called "Scholarships in craft professions" managed by the Ministry of Economy, Entrepreneurship, and Crafts that is specifically focused on deficit professions.

Some (usually multinational) companies prefer to organize student (summer) camps. Camps are targeted mainly at senior students where they are confronted with real challenges and working with senior colleagues. Companies use camps to seize the opportunity to lure students and perform a preliminary candidate selection procedure without facing big risks related to new employment.

Organizations of hackathons

Hackathons and other similar problem-solving competitions are becoming very popular in (especially) technology companies. These events tend to attract more and more (predominantly) young people/students trying to offer solutions to the companies' challenges. Companies use hackathons and competitions to both get fresh ideas but also find new talents. Companies usually partner with business incubators or angel investor organisations to organise such events and reap full potentials of the start-up community. In Croatia, hackathons only rarely address challenges in eco-innovation sector and more specific energy. In 2017, only one hackathon related to energy (Energy Codefest) was organised by energy company RWE and a local business incubator.

Ina-MOL, an energy company, established a competition called 'Freshhh'[84] to challenge students in the oil industry.

[84] Ina – Oil industry. Youth projects. Freshhh. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 09:35.] Available at: https://www.ina.hr/career/youth-projects/freshhh-10068/10068

Promotion and marketing

Promotion and marketing is an extremely challenging field of activity for small businesses and start-ups due to a tight budget but also customers they want to reach. Traditional channels of promotion like fairs, newspapers or TV do not work for everyone. Companies producing tangible products and solutions still prefer specialized fairs and expos to promote their business whereas service-oriented companies and start-ups try to intensively rely on digital marketing.

Croatian Chamber of Economy (HGK), Croatian Chamber of Trades and Crafts (HOK), Croatian Inventors Association[85] and Croatian Association of Innovators[86] are still dominant organisations when it comes to supporting of companies looking for traditional ways to promote themselves or trying to find business partners. Digital marketing (excluding traditional TV advertising) requires a completely different approach and there are no dominant players in that area in Croatia. However, digital marketing share in the market is constantly rising and will become more important in the future.

Promotion on international fairs and expos

All above-mentioned organisations have a tradition of organizing and supporting companies in their promotion on national and international fairs and expos. HGK and HOK announce their annual calendars of fairs and plans to promote Croatian economy. Promotions are based on three main pillars:

1. Own promotional activities include organisation of national or regional fairs in Croatia.
2. Joint international exhibition where HGK/HOK organise and financially support Croatian companies asking for promotion abroad and.
3. Support for specialized fairs and expos and B2B matchmaking events where members of chambers can get advisory or financial support for their appearance at specialized events.

Promotional and marketing support, competitions and commercial programs

In terms of structured marketing support to certain sector and organisation of various promotional events apart from traditional fairs and expos, Croatian companies do not have many options.

The only specialized TV show in an eco-industry sector called Eko zona is broadcast weekly on Croatian national television (HRT).

In terms of marketing support for micro companies, HOK and its regional affiliates started to work on the education of their members in digital marketing to enhance their marketing capacities.

Events and networking

Events are a great opportunity for innovators to present their products and solutions to prospect, partners, investors, and buyers. Usually, events take the form of workshops, one-to-two day thematic conferences, and B2B matching.

Private companies aiming to increase their visibility usually participate as sponsors or co-organisers of events. Public institutions ranging

[85] Association of Croatian Inventors. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 09:43.] Available at: http://inovator.hr/

[86] Croatian Association of Innovators. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 09:45.] Available at: http://www.inovatorstvo.com/

from ministries, local/regional authorities, national agencies, chamber of commerce, universities, energy agencies etc. organise events that are less focused on commercial activities but nevertheless do give a limited opportunity for private companies to present themselves.

In recent years, media companies are increasingly involved in thematic conferences using their large customer base and influence to cover contemporary subjects like energy efficiency and renewable, smart cities, digital transformation, sustainable development etc. and attract both interesting national and international speakers as well as influential persons in Croatia.

Events are also organised by foreign countries chambers of commerce representative offices in Croatia. Austrian, German and Danish companies are given the opportunity to establish partnerships and penetrate the Croatian market with their products.

Local workshops

Local workshops are very often organised in the framework of various European initiatives (e.g. EU Mobility week, EU Sustainable Energy Week, EU Green Week), EU financed projects, international anniversaries (e.g. World Water Day, International Mother Earth Day etc.) and thematic. Local authorities and business support institutions are predominant organisers of such events where (local) SMEs are given the opportunity to present themselves to the local community. Several cities and counties organise Sustainable energy days/week to raise awareness and promote various perspectives of sustainability.

Increasingly, private companies specialised in marketing tend to add workshops to their portfolio.

International seminars and conferences

International conferences are mostly organised in Zagreb and they usually target countries bordering with Croatia. However, only a few of these seminars or conferences has a tradition and a big reach. The proximity of Vienna, Budapest and recently Belgrade greatly influence the number and attractivity of international events in Croatia.

Organisations for professionals

There are some traditional organisations that offer various services or try to add value to their members in the innovation process. More traditional organisations like the Croatian Chamber of Economy (HGK)[87], Croatian Chamber of Trades and Crafts (HOK)[88] offer more traditional services like the organisation of events, education, support in attending international fairs etc. Both organisations have formed dedicated support to traditional sectors, but they still didn't find the way to attract the attention of start-up community and lag other organisations that tend to be more focused on this market segment (HGK is responsible for Enterprise Europe Network that tends to change this perception). Both HGK and HOK are in rather favorable position, because their financing is regulated by pertinent laws and membership for all entrepreneurs in Croatia are obligatory.

On the other side, there are NGOs like Croatian Inventors Association[89] and Croatian Association of Innovators[90] that must find ways to finance their activities focused on innovation

[87] Croatia – Unique location for your business. Investment Promotion Division. Croatian Chamber of Economy. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 09:47.] Available at: http://www.investincroatia.hr/

[88] Croatian Chamber of Trades and Crafts. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 09:48.] Available at: https://www.hok.hr/

[89] Association of Croatian Inventors. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 09:43.] Available at: http://inovator.hr/

[90] Croatian Association of Innovators. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 09:45.] Available at: http://www.inovatorstvo.com/

and support to innovators through various services, usually through organization of own events or organization of joint presentations at international fairs and other thematic events.

Private initiatives are also increasingly involved in the organization of various events, both national and international. Some of the most influential include Croatian Business Angels Network (CRANE)[91], HUB 385[92], Netokracija[93] and more recently traditional media companies (newspaper publishing companies) try to capitalize their market position by organizing thematic events.

Expert database

Table 34 List of experts in Croatia

Name	Vlatka Petrović
Institution	Centre for Research, Development and Technology Transfer
E-mail	vlatka.petrovic@unizg.hr
Phone number	+385 1 4698 177
Address	Trg Republike Hrvatske 14, 10000 Zagreb
Specialization	Technology transfer and innovation, life sciences.
Scope of activities	Commercialization, intellectual property, business development, product development.
Name	Neven Tamarut
Institution	STEP RI Science and Technology Park of the University of Rijeka
E-mail	ntamarut@uniri.hr
Phone number	+385 51 265 963
Address	Radmile Matejčić 10, 51 000 Rijeka
Website	http://www.step.uniri.hr/en
Specialization	Business development, organization management, logistics, sales, technology transfer, intellectual property management, project management.
Scope of activities	Pre-incubation and incubation program, customized support and training to SMEs, connecting academic researchers with industry partners, commercialization, IPR, technology transfer.
Name	Ivan Štefanić
Institution	Tera Tehnopolis
E-mail	ured@tera.hr
Phone number	+385 31 251 000
Address	Trg Ljudevita Gaja 6, 31000 Osijek
Website	http://portfolio.web.tera.hr
Specialization	Intellectual property rights (IPR).
Scope of activities	Patent protection, trademark protection, business development.
Name	Ljiljana Kuterovac
Institution	State Intellectual Property Office of the Republic of Croatia
E-mail	kabinetravnatelja@dziv.hr
Phone number	+385 1 61 06 100
Address	Ulica grada Vukovara 78, 10000 Zagreb
Website	http://www.dziv.hr/en
Specialization	Intellectual property rights (IPR).

[91] Crane. Croatian Business Angels Network. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 09:50.] Available at: http://www.crane.hr/en/

[92] HUB385. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 10:02.] Available at: https://hub385.com/o-nama

[93] Netokracija. © 2018. Last modified: 2018. [cit: 27. 11. 2018. 10:03.] Available at: https://www.netokracija.com/o-nama

Scope of activities	Patent protection, industrial design protection, trademark protection.
Name	Vedran Đidara
Institution	Croatian Agency for SMEs, Innovations and Investments
E-mail	Vedran.Didara@hamagbicro.hr
Phone number	+385 1 235 2628
Address	Ksaver 208, 10000 Zagreb
Website	http://www.hamagbicro.hr
Specialization	National coordinator EUREKA/ Eurostars projects, IRCRO Programmeleader, European IPR Helpdesk Ambassador.
Scope of activities	Supporting the development of small and medium-sized enterprises, improving the innovation process and encouraging investments.
Name	Lada Benzon
Institution	Croatian Agency for SMEs, Innovations and Investments
E-mail	Lada.benzon@hamagbicro.hr
Phone number	+385 1 235 2628
Address	Ksaver 208, 10000 Zagreb
Website	http://www.hamagbicro.hr
Specialization	Technology transfer and technical cooperation database management.
Scope of activities	B2B matching.
Name	Željko Bihar
Institution	Admoveo Ltd.
E-mail	zeljko.bihar@admoveo.hr
Phone number	+385 1 6197584
Address	ALeja lipa 1G, 10000 Zagreb
Website	http://www.admoveo.hr/index.html
Specialization	Intellectual property rights (IPR).
Scope of activities	Patent protection, industrial design protection, trademark protection.

Name	Ivan Plačko
Institution	Technology Innovation Centre Međimurje
E-mail	ivan.placko@ticm.hr
Phone number	+385 40 499 405
Address	Bana Josipa Jelacica 22a, 40 000 Čakovec
Website	http://ticm.hr
Specialization	EU funding, project management, Proof-of-Concept projects, business management.
Scope of activities	Business idea screening, PoC project development, business incubation.
Name	Daliborka Fundak
Institution	Patent projekt Ltd.
E-mail	ured@patent-projekt.hr
Phone number	+385 40 499 401
Address	Bana Josipa Jelacica 22b, 40 000 Cakovec
Website	http://patent-projekt.hr
Specialization	Intellectual property rights (IPR).
Scope of activities	Patent protection, industrial design protection, trademark protection.
Name	Vesna Torbarina
Institution	Enterprise Europe Network
E-mail	vtorbarina@hgk.hr
Phone number	+385 1 4561 671
Specialization	EU funding, project management.
Scope of activities	Supporting development of small and medium-sized enterprises.
Name	Davorin Štetner
Institution	Croatian Business Angels Network
E-mail	info@crane.hr
Address	Ulica grada Vukovara 269 D, 10000 Zagreb
Website	http://www.crane.hr

Specialization	Media industry, TV production.
Scope of activities	Start-ups, business development, product development, funding.
Name	Marijana Klasnić Kožar
Institution	Institute Rudjer Bošković
E-mail	Marijana.Klasnic.Kozar@irb.hr
Phone number	+385 1 457 1342
Address	Bijenička cesta 54, 10000 Zagreb
Website	https://www.irb.hr
Scope of activities	Project management, knowledge transfer, EU funding.
Name	Boško Ljubenkov
Institution	University of Split, Technology transfer office
E-mail	bosko@utt.unist.hr
Phone number	+385 21 566 882
Address	Livanjska 5, 21000 Split
Website	http://www.utt.unist.hr/hr
Specialization	EU funding, agricultural sciences.
Scope of activities	Technology transfer, innovation management, intellectual property.
Name	Jako Horvat
Institution	Regional Development Agency Međimurje REDEA Ltd
E-mail	jako.horvat@redea.hr
Phone number	+385 99 313 41 81
Address	Ulica bana Josipa Jelacica 22b, 40 000 Čakovec
Website	http://www.redea.hr
Specialization	EU funding projects - preparation and implementation.
Scope of activities	Providing information to entrepreneurs, organising training for SMEs, creation of business plans and investment studies, preparing applications for national and EU support programmes.
Name	Karlo Kukec
Institution	Technology park Varaždin
E-mail	karlo.kukec@tp-vz.hr
Phone number	+385 42 500 051
Address	Zagrebačka 89, 42 000 Varaždin
Website	http://www.tp-vz.hr
Specialization	EU funding, project management, Proof-of-Concept projects, business development.
Scope of activities	Business incubation management, start-up mentoring, scale-up mentoring, soft landing, ecosystem building.

Czech Republic

National innovative infrastructure

The innovative infrastructure has been developing bottom-up by the initiative of companies, which is the traditional role of business chambers, and created top to bottom by the government on different levels. From state-wide (starting with the Ministry of Industry and Trade) to regional and municipal.

The innovative infrastructure began to bloom after joining the EU in 2004, when the EU funding facilitated the creation of many innovation centres, incubators, and platforms. A good example of a well developed innovation infrastructure is the South Moravian Region.

Table 35 Institution supporting the innovative process in Czech Republic

Name	Brno Regional Chamber of Commerce
Type of organization	Chamber of Commerce
Address	Výstaviště 1, 648 04 Brno
Website	www.rhkbrno.cz/en
Main areas of Services	RCC Brno provides services in the following areas - support for international trade, education, consulting, CzechPoint services and renting offices to member companies.
Name	Technology Transfer Office of Masaryk University
Type of organization	Technology Transfer Office
Address	Komenského nám. 2, 602 00 Brno
Website	www.ctt.muni.cz
Main areas of Services	The MUNI TTO helps to get research results into practice, to protect and manage the intellectual property of Masaryk University and provides its clients with professional support and services in all related areas, e.g. Biochemistry, Chemistry, Modification of material properties, Information science and Social sciences.
Name	Technology Transfer Office of Brno University of Technology
Type of organization	Technology Transfer Office
Address	Antonínská 548/1, 601 90 Brno
Website	www.spolupracesvut.cz/en www.vutbr.cz/en/ctt
Main areas of Services	The VUT TTO operates as a mediator between the academia and industry, between scientists and companies. It also provides legal protection for hundreds of inventions of the university employees. Establishes a successful collaboration with large numbers of local and international companies, teaches scientists in the area of intellectual property protection and offers consulting in the use of technologies for companies.
Name	Technology Transfer Centre of Mendel University in Brno
Type of organization	Technology Transfer Office
Address	Zemědělská 1, 613 00 Brno
Website	www.ctt.mendelu.cz
Main areas of Services	The MENDELU TTO is a specialized office for the protection of intellectual property, analysis, development, and utilization of the commercial potential of intellectual property of the university while

	ensuring the professional business and partnership communication of the university with industry representatives.
Name	BIC Brno spol. s r.o.
Type of organization	Business and Innovation Centre
Address	Purkyňova 648/125, 612 00, Brno
Website	www.bicbrno.cz
Main areas of Services	BIC Brno is active in supporting companies that are engaged in research, development, and innovation. It offers advice and cooperation in the field of finance, special education or technology transfer and helps to find partners for project consortia or establish cooperation with scientific institutions at both national and international level.
Name	JIC, an association of legal entities
Type of organization	Business and Innovation Centre
Address	Purkyňova 649/127, Brno – Medlánky 612 00
Website	www.jic.cz/en
Main areas of Services	JIC supports start-ups by providing contact network, expertise, finance and infrastructure.
Name	Czech Technology Park Brno
Type of organization	Technology Park
Address	Purkyňova 646/107, 612 00 Brno
Website	www.technologypark.cz
Main areas of Services	CTP offers a smart business location for technology innovation in the vicinity of Brno University of Technology campus.
Name	Technology Innovation Transfer Chamber
Type of organization	Scientific park and business incubator
Address	Purkyňova 125, 612 00 Brno
Website	http://www.titc-vtp.cz
Main areas of Services	TITC´s offer of space for settlement is primarily designed to host technologically oriented companies with innovative potential, scientific organizations, clusters and start-up projects; it offers complex advice in technology transfer, intellectual property protection, selection and solution of projects and contact mediation with universities and scientific institutions.
Name	Impact Hub Brno
Type of organization	Hub
Address	Cyrilská 7, 602 00 Brno-střed-Trnitá
Website	www.hubbrno.cz/en
Main areas of Services	The hub provides inspirational co-working space, plug-and-work office, conference room rental, vibrant networking events and 8 acceleration programmes.

National legislative framework

Intellectual property protection

Copyrights

Copyright protects the original creations of human literary and other artistic activities, as well as computer programs. The author, by creating a work without having to register it anywhere, will acquire a set of personal and property rights to his/her work. Property rights usually last 70 years after the author's death. The main author's right is to use the work, especially copy the work and disseminate these copies. Copyrights are non-transferable and can be shared only by a license agreement. Generally, a user of the work needs a license whenever the copyright law does not provide an exception. Non-commercial use for private purposes is usually allowed. For computer programs, special provisions modify the general rights and obligations more for the benefit of the investing developer. Copyright law in the Czech Republic is harmonized with both international conventions and EU directives.

Industrial property rights

Industrial rights[94] are a set of rights focused to protect an investment. Patents for inventions, design protection and trademark protection are among the most important. For industrial rights, the need for paid registration, shorter duration and territorial reach (the right only applies only to the state that granted the protection) is characteristic. Industrial rights are freely transferable as a whole or as a joint-ownership share. Each co-owner is entitled to use the subject of the rights on its own; the license to a third party requires the consent of all co-owners. The Czech Republic is a signatory of all important international treaties in this area.

Patent

Patents are granted for inventions (technical solutions) that are new, involve an inventive step and are susceptible of industrial application. Discoveries and/or scientific theories, computer programmes, plant or animal varieties and methods of medical treatment of human and animal body cannot be patented.

Table 36 Basic information about Czech patents

Granting authority	IPO CZ
Applicant	The inventor or the person whom the right was transferred to by the inventor.
Application	A set form which must also include a description of the invention and/or related drawings and so called patent claims. The claims precisely define the subject-matter, for which the protection is requested. Applications can be filed in person, by post or electronically.
Prior publication by the applicant	Not possible.
Examination	Yes, full examination.

[94] Information about protection of industrial rights in the Czech Republic may be found e.g. on the IPO CZ website. Industrial Property Office. IP rights [online]. © Industrial Property Office 2008. Last modified: 21.05.2012 [cit. 2018-10-10]. Available at: https://www.upv.cz/en/ip-rights

Preliminary examination	Every filed application undergoes a preliminary examination to eliminate those containing matters evidently non-patentable, lacking unity and/or containing defects which prevents it from publishing. An applicant is notified of all the deficiencies by an official letter.
Publication	The IPO CZ publishes applications and also notes on disclosure in the Bulletin after 18 months from the priority date.
Substantive examination	In compliance with the European patent system the substantive examination is carried out upon the applicant's request (so called deferred examination). This request must be filed within 36 months from the filing date. The patent is granted by the IPO CZ only after the substantive examination was carried out and on condition that the invention complies with all requirements on patentability.
Duration of protection	A patent granted in the Czech Republic is valid for 20 years from the filing date of the application.
Length of the granting proceedings	Years.
Administration fees	They are tied to the patent procedure; there is a filing fee, a fee for examination request, a fee for issuing the patent. The patent owner must also pay every year progressive maintenance fees to keep the patent valid, starting from the year after the patent has been issued.

European patent

The Czech Republic is a full member of a European Patent Convention[95] and it is possible to validate granted European patent in the CZ. The conditions are to submit translation of the whole patent specification (not only claims) into Czech language within 3 months from the day the granting of the European patent was published in the EP Bulletin and paying a fee. The European patent then has the same effect as a national patent.

Utility model

Utility model protection can be used for new technical solutions susceptible of industrial application, exceeding common technical skill (a lower level of creativity). All production methods or work activities and biological reproduction materials are excluded from utility model protection, unlike patents.

Table 217 Basic information about Czech utility models

Granting authority	IPO CZ
Applicant	The inventor or the person whom the right was transferred to by the inventor.

[95] European Patent Office. The European Patent Convention [online]. © EPO, 2018. Last modified: 18.10.2018 [cit. 2018-10-25]. Available at: https://www.epo.org/law-practice/legal-texts/epc.html

Application	A set form which must also include a description of the invention and/or related drawings and so called patent claims. The claims precisely define the subject-matter, for which the protection is requested. Applications can be filed in person, by post or electronically.
Prior publication by the applicant	6 months grace period before filing. A utility model application can - under certain circumstances - branch off the original patent application while maintaining its original priority.
Examination	Very limited, registration principle. The IPO CZ examines if basic conditions are fulfilled and then enters the utility model in the Register without any examination on novelty and creative level and whether it is eligible for protection (these issues are only open upon formal request by a concerned third person (e. g. competitors of the applicant).
Length of the granting proceedings	Usually three to four months after application filing.
Duration of protection	The protection under utility model lasts four years, but may be extended for maximum of 10 years.

Comparing to patent protection, the utility model protection may be more appropriate for the subject-matter of the lower level inventive step or less economically important, being simpler, faster and less costly. This protection is not suitable for cases in which the subject of protection is to be utilised at a later stage but it is ideal for items with shorter lifespan because the effect of registration of a utility model is the same as that of a patent while the fees are much lower. However due to the fact that there is no novelty and inventive level examination done, the protection under utility model is much more fragile and owner's position less confident.

Industrial design

Legal protection of designer solutions: appearance of a product or its part, consisting particularly of signs of lines, contours, colours, shape, material structure of the product per se or ornamentation. It involves a visually perceivable feature or component of a product. It does not involve engineering, structural, functional, material or another nature of it. It is also possible to obtain EU design; all necessary information is available at EUIPO[96].

Table 38 Basic information about Czech industrial design

Granting authority	IPO CZ
Applicant	The author or the person whom the right was transferred to by the author.
Application	A set form which must also include representation (usually pictures) of the design.

[96] European Union Intellectual Property Office. Trade marks [online]. © EUIPO 1995-2018. Last modified: 22.09.2017 [cit. 2018-10-10]. Available at: https://euipo.europa.eu/ohimportal/en/trade-marks

Prior publication by the applicant	12 months grace period before filing.
Examination	Yes.
Length of the granting proceedings	Usually between 6 months and 2 years.
Conditions	Novelty and individual nature (different over-all appearance) of the design.
Duration of protection	The protection lasts five years, may be extended for maximum of 25 years.
Fees	Filing fee and renewal fees.

Trademark

A trademark is a designation capable of graphical representation consisting especially of words, letters, numbers, colours, drawings or product shapes or packages, which serve to distinguish goods or services on the market. A trademark is registered in connection with respective products or services. It is also possible to obtain EU design; all necessary information is available at EUIPO[17].

Table 39 Basic information about Czech trademark

Granting authority	IPO CZ
Applicant	Any person (if the trademark is a work of copyright, with its author´s consent).
Application	A set form which must also include representation of the trademark.
Prior publication by the applicant	Possible without limitation.
Examination	Yes. Initial partial examination followed by resolving third party objections after publication.
Length of the granting proceedings	Usually 6 months to 18 months depending on the objections.
Conditions	Various reasons for refusal as stated in the respective legal act.
Duration of protection	The protection lasts ten years, may be extended indefinitely.
Fees	Filing fee and renewal fees.

Information for applicants and current fees are available in English on the IPO CZ website. Copyright protection and industrial rights protection is complemented by the protection of business secrets and confidential information through civil law, namely rules on unfair competition. Disputes over infringement of intellectual property rights are decided by a specialized court, the Municipal Court in Prague.

Ownership of a research result

The author is the owner of copyright in the case of a work created in the course of the employment, but the employer has a wide legal right to realize these rights instead of the author. The school work concept ensures the rights of the institution (including universities), which allowed the student to achieve the author's work as a part of his/her studies.

In an employment relationship, the employer is the owner of the industrial right or may

become an owner (in the case of a patent, utility model and industrial design) after having formally stated such interest, within three months of the notification of the employee, against the payment of reasonable remuneration to the employee.

Table 220 List of the relevant national legislature

Number	Name
Act No. 89/2012 Coll.[97]	the Civil Code
Act No. 121/2000 Coll.[98]	the Copyright Act
Act No. 441/2003 Coll.[99]	on Trademarks
Act No. 221/2006 Coll.[100]	on Enforcement of Industrial Property Rights
Act No. 527/1990 Coll.[101]	on Inventions and Rationalisation Proposals
Act No. 206/2000[102]	on the Protection of Biotechnological Inventions and on the Amendment to Act No. 132/1989 of Coll., on the Protection of Rights to New Plant and Animal Varieties, as amended by Act No. 93/1996 of Coll.
Act No. 478/1992 Coll.[103]	on Utility Models
Act No. 207/2000[104]	of the Protection of Industrial Designs
Act No. 452/2001 Coll.[105]	on the Protection of Designations of Origin and Geographical Indications and on the Amendment to the Act on Consumer Protection

[97] CZECH REPUBLIC. Act No. 89/2012 Coll. of 3 February 2012 The Civil Code. Available also at: http://obcanskyzakonik.justice.cz/images/pdf/Civil-Code.pdf

[98] CZECH REPUBLIC. Act No. 121/2000 Coll. of 7 April 2000 on Copyright, Rights Related to Copyright and on the Amendment of Certain Laws (Copyright Act), as amended. Available also at: https://www.mkcr.cz/predpisy-v-anglickem-prekladu-711.html

[99] CZECH REPUBLIC. Act No. 441/2003 Coll. of 3 December 2003, on Trademarks and on amendments to Act No. 6/2002 Coll. on judgements, judges, assessors and state judgement administration and on amendments to some other Acts (Act on Courts and judges) in the wording of later regulations (Act on Trade Marks). Available also at: http://upv.cz/dms/pdf_dokumenty/zakony/2015/441_2003-072014_en.pdf

[100] CZECH REPUBLIC. Act No. 221/2006 Coll. of 25 April, 2006 on Enforcement of Industrial Property Rights and on the Amendment of Industrial Property Protection Acts (Enforcement of Industrial Property Rights Act). Available also at: http://upv.cz/dms/pdf_dokumenty/zakony/221_2006_a/221_2006_A_CS.PDF

[101] CZECH REPUBLIC. Act No. 527 / 1990 Coll. of 27 November, 1990, on Inventions and Rationalisation Proposals, as amended (Act on Inventions and Rationalisation Proposals). Available also at: http://upv.cz/dms/pdf_dokumenty/zakony/2015/527_1990-072014_en.pdf

[102] CZECH REPUBLIC. Act No. 206/2000 Coll. of 21 June 2000 on the Protection of Biotechnological Inventions and on the Amendment to Act No. 132/1989 Coll., on the Protection of Rights to New Plant and Animal Varieties, as amended by Act No. 93/1996 Coll. Available also at:
http://upv.cz/dms/pdf_dokumenty/zakony/206_2000_a/206_2000_A_CS.PDF

[103] CZECH REPUBLIC. Act No. 478/1992 Coll. of 24 September 1992 on Utility Models, as amended. Available also at: http://www.wipo.int/edocs/lexdocs/laws/en/cz/cz012en.pdf

[104] CZECH REPUBLIC. Act No. 207/2000 Coll., of June 21, 2000, on the Protection of Industrial Designs and the Amendment to Act No. 527/1990 of Coll., on Inventions, Industrial Designs and Rationalization Proposals. Available also at: http://www.wipo.int/wipolex/en/text.jsp?file_id=126160

[105] CZECH REPUBLIC. Act No. 452/2001 Coll. of 29 November 2001 on the Protection of Designations of Origin and Geographical Indications and on the Amendment to the Act on Consumer Protection. Available also at: www.wipo.int/edocs/lexdocs/laws/en/cz/cz033en.pdf

Contact details of the national intellectual property office

Table 41 Contact details of the Czech intellectual property office

Name	Industrial Property Office (IPO CZ)
Address	Antonína Čermáka 2a, 160 68 Praha 6, Czech Republic
Website	http://upv.cz/en.html
Main Areas of Services	Administrative proceedings on providing protection by way of patents, utility models, topographies of semiconductor products, trademarks, geographical denominations and appellations of origin and administers registries of those industrial rights. Compliance with the provisions for patent attorneys. Obtains processes and makes accessible the world patent literature. Fulfillment of international treaties in the area of industrial property in which the Czech Republic takes part. Cooperation with other bodies of state administration on industrial rights enforcement. Collaborates with international organizations and national offices of individual countries in the field of industrial property.

Patent attorneys

A patent attorney is a technically and legally erudite specialist with a practice in the field of industrial (intellectual) property of at least five years who has passed the professional exam before the Industrial Property Office and who has taken the oath before the Chamber chairman in which he pledged on his civic honour and conscience to observe the constitution and the laws, to conscientiously fulfil his/her duties, particularly to his clients, and to maintain the secrecy. He/she is recorded in the register of patent attorneys kept by the Chamber of Patent Attorneys and is a holder of a certificate for practicing an industrial protection business as a patent attorney issued by the Chamber.

A patent attorney provides professional assistance to physical and legal persons in matters concerning industrial (intellectual) property. He/she considers and advises which kind of protection is the most effective for the technical solution and, according to rules and legal practice, composes claims and works on desired documents, and represents the client at the patent office.

The Chamber of Patent Attorneys is a self-administered organization established under the Act No. 417/2004 Coll., on Patent Attorneys. All patent attorneys in the Czech Republic have to be members. The Chamber guarantees the professional ability of members and provides them with the certificate for practicing an industrial protection profession. It plays two roles: on one hand, it protects and enforces the interests of patent attorneys; on the other hand, it supervises the proper practicing of their industrial property profession by means of its elected bodies. If the Chamber finds a professional failure, it carries out disciplinary proceedings and decides on disciplinary measures according to the law cited above. More information is available on the Chamber of Patent Attorneys´ website[106].

[106] Komora patentových zástupců ČR. Chamber of Patent Attorneys [online]. © Komora patentových zástupců, 2007 - 2016. [cit. 2018-10-25]. Available at: http://www.patzastupci.cz/

Representation before the patent office is mandatory for foreigners in case of national and European patents (similarly for other industrial property rights). Applicants who do not have domicile or residence in CZ must be represented by a patent attorney or a lawyer registered in the Czech Bar Association.

Sale of IP

Industrial rights can be sold in part or as a whole by a purchase contract according to section 2079 and following of the Civil Code. Joint owners have a pre-emptive right to purchase a share on a jointly owned patent.

Licensing

Licensing is the most common way to commercialization. Licence agreements are governed by section 2358 and following of the Civil Code, which provides dispositive rules for the transaction, the parties to the contract are however free to agree other terms.

Start-ups

It is relatively easy to start a company in the Czech Republic. One needs only premises, notarized documents on foundation, some capital (starting from 1 CZK) and a trade licence to register in a Corporations Register. Trade licences are divided into groups depending on level of expertise required; most of the trades are so called free where only registration is needed. Detailed information is available at the Ministry of Industry and Trade web[107]. IP rights may become equity of the company, bought, or licensed in. University spin-offs, that is companies created around university IP usually by the inventors, have the situation complicated when the university seeks a share in the equity, because the mandatory administrative procedure is lengthy and complicated.

Commercialization

There are no general restrictions on commercialization of eco-innovations except state aid rules concerning mainly research institutions and those companies who financed research and development from public grants.

[107] Ministry of Industry and Trade. Licensed Trades [online]. © MPO 2005 – 2018. [cit. 2018-11-13]. Available at: https://www.mpo.cz/en/business/licensed-trades/

Table 42 List of the relevant national legislature connected with commercialization

Number	Name
Act No. 89/2012 Coll.[108]	the Civil Code
Act No. 90/2012 Coll.[109]	Business Corporations Act
Act No. 261/2017 Coll.[110]	the Trade Licensing Act

State aid

The Czech Republic is subject to EU legislature on state aid.

State aid is dealt with also on a national level in the Act No. 130/2002 Coll.[111] on support of Research and Development. National rules basically copy and simplify the EU Framework.

State aid rules are in the spotlight in the past few years and grant providers are more and more frequently prosecuting those institutions and companies who fail to meet the respective rules. Penalties for misconduct differ according to seriousness of the offence from mere warning to a financial penalty to an obligation to return a grant and a ban from future grant competitions; those last measures are an existential threat to the research institutions that largely depend on grants from public sector.

In a commercialization case, the provider of eco-technology will better carefully study the relevant documentation. It is advised to leave a paper trail of all negotiations so that the provider can prove the transaction was conducted on market conditions.
It is best practice and advised to publish a technology offer in a number of public

[108] CZECH REPUBLIC. Act No. 89/2012 Coll. of 3 February 2012 The Civil Code. Available also at: http://obcanskyzakonik.justice.cz/images/pdf/Civil-Code.pdf
[109] CZECH REPUBLIC. Act No. 90/2012 Coll. of 25 January 2012 on Commercial Companies and Cooperatives (Business Corporations Act). Available also at: http://obcanskyzakonik.justice.cz/images/pdf/Business-Corporations-Act.pdf
[110] CZECH REPUBLIC. Act No. 159/1999 Coll. of 30 June 1999, on Certain Business Conditions and on the Performance of Certain Activities in the Field of Tourism, as amended. Available also at: https://www.mpo.cz/en/business/licensed-trades/legislation/trade-licensing-act--172390/
[111] CZECH REPUBLIC. Act No. 130/2002 Coll., of 14 March 2002, on the support of research and development from public funds and on the amendment to some related acts (the Act on the Support of Research and Development). Available also at: http://www.vyzkum.cz/storage/att/2D962B39DFEE8904BD6E509A5354FACA/Act%20No130%20_2002.pdf

databases such as Enterprise Europe Network (EEN)[112] to ensure wide and non-discriminatory competition among the interested. If in doubt of the market conditions, use the services of a court expert[113] on pricing the intellectual property that should provide independent expert opinion. Funding of additional development.

R & D funding by the state

R&D expenditure accounted for 1.678 % of GDP in 2016 (OECD[114]).

National support – public Agencies

Research and development support in the Czech Republic is fragmented and shared among many grant providers, both resort Ministries and specialized agencies. Despite some effort to this regard in the last few years, the innovation scene remains rather confusing, especially for a foreign company. The most relevant grant providers for eco-innovation are listed in table 60.

The Czech Science Foundation (also known as the Grant Agency of the Czech Republic, GA CR) was established in 1993 as the main independent public organization with the aim to support basic research in the Czech Republic and promote international collaboration of researchers and research teams on the bilateral and multilateral levels.

On the basis of calls for proposals, the Czech Science Foundation provides financial support for experienced as well as young and early-stage researchers. Moreover, it funds bilateral projects together with projects carried out within international research programmes. The subject of a project proposal is determined by the applicant (bottom-up principle).

Table 43 National grant providers in Czech Republic

Organization	The Czech Science Foundation (the Grant Agency of the Czech Republic)
Website	https://gacr.cz/en
Use of the finances	Basic research for scientists.
Organization	Ministry of the Environment of the Czech Republic
Website	www.mzp.cz/en
Use of the finances	Depends on each call – project Národní program Životní prostředí (NPŽP). Homeowners and house builders (individuals and legal entities) – project Nová zelená úsporám.
Organization	Ministry of Industry and Trade of the Czech Republic
Website	www.mpo.cz/en

[112] European Commision. Enterprise Europe Network, International partnerships [online]. © European Union, 1995-2018. Last modified: 18.10.2018 [cit. 2018-10-25]. Available at: https://een.ec.europa.eu/content/international-partnerships-0

[113] Ministerstvo spravedlnosti České republiky. Evidence znalců a tlumočníků [online]. © Česká republika. Available at: http://datalot.justice.cz/justice/repznatl.nsf/$$SearchForm?OpenForm

[114] Organisation for Economic Co-operation and Development. Gross domestic spending on R&D[online]. © 2018 Organisation for Economic Co-operation and Development [cit. 2018-11-13]. Available at: https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm

Use of the finances	Businesses (legal entities and individuals) which carry out an economic activity and which solve the project in effective cooperation with at least one research organization – project TRIO. For small and medium-sized businesses – project Záruka.
Organization	Technology Agency of the Czech Republic
Website	www.tacr.cz
Use of the finances	Independent business entities (legal entities and individuals) and research organizations – Alfa programme. Business and research organizations only as participants of the project – Gamma programme. 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 – Delta programme. Business and research organizations – Epsilon programme. Businesses, research organizations and natural and legal persons of public and private law - Theta programme. Businesses and research organizations – Competence centres.
Organization	CZECHINVEST - Investment and Business Development Agency
Website	www.czechinvest.org/en
Use of the finances	Start-ups with existing product or service and maximum of 50 employees – CzechStarter. Czech businesses with an innovative product – CzechMatch. Czech businesses with an innovative product or service – CzechDemo.

Transnational support funds

European Union funding

EU wide funding opportunities are described in Annex 4 to the Guidebook.

Foreign aid

Besides the European Union, the funding is also provided by other international organisations or European states – the main providers of funding are Visegrad Group, EEA and Norway grants and the Swiss contribution. For further details, see Annex 4 to the Guidebook.

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 on this directly with the partner countries. The Swiss contribution to the Czech Republic amounts to CHF 110 million. At the national level, the programme 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 Programme 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.

Business 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 the 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 the Czech government is implemented by CzechInvest, which have several projects for new starting businesses, mainly the CzechStartups.org. It is the first official online hub for start-ups and starting entrepreneurs.

Table 44 List of business incubators in the Czech Republic

Name	Laboratoř nadace Vodafone
City	Czech Republic
Website	http://www.laboratornadacevodafone.cz
Name	Česká Inovace
City	Czech Republic
Website	http://www.ceskainovace.cz
Name	Prague Startup Centre
City	Prague
Website	http://www.praguestartupcentre.cz
Name	xPORT Business Accelerator (The University of Economic)
City	Prague
Website	http://xport.vse.cz
Name	Point One (Czech University of Life Sciences Prague)
City	Prague
Website	http://pointone.czu.cz
Name	InQbay (Czech Technical University in Prague)
City	Prague
Website	http://www.inqbay.cz
Name	ESA Business Incubation Centre Prague
City	Prague
Website	http://www.esa-bic.cz
Name	Al Startup Incibator
City	Prague
Website	https://www.suincubator.ai/cs
Name	BIC Brno –business and innovation centre
City	Brno/South Moravian
Website	http://www.bicbrno.cz
Name	Vědeckotechnický park Brno-Jih
City	Brno/South Moravian
Website	http://www.vtpbrno.cz

Name	TITC – Technology Innovation Transfer Chamber
City	Brno/South Moravian
Website	http://www.titc-vtp.cz
Name	VIENNAPoint
City	Brno/South Moravian
Website	http://www.viennapoint.cz
Name	ICUK – Innovation centre of the Usti region
City	Ústí nad Labem
Website	http://icuk.cz
Name	VYRTYCH – Technologický park a Inkubátor s. r. o.
City	Březno/Ústí nad Labem region
Website	http://www.vyrtych-tpi.cz
Name	TIC – Technological Innovation Centre
City	Zlín
Website	http://www.inkubatorzlin.cz
Name	PIK – Podnikatelský inkubátor Kunovice
City	Kunovice/Zlín region
Website	http://www.pik-pd.cz
Name	BIC Plzeň – business and innovation centre
City	Plzeň
Website	http://www.bic.cz
Name	Pilsen's Science and Technology Park
City	Plzeň
Website	http://www.vtpplzen.cz
Name	BIC Ostrava – business and innovation centre
City	Ostrava /Moravian-Silesian
Website	http://www.bicova.cz
Name	PI – podnikatelský inkubátor (Technical University of Ostrava)
City	Ostrava /Moravian-Silesian
Website	http://cpi.vsb.cz
Name	MS!C – Moravian-Silesian Innovation Centre
City	Ostrava /Moravian-Silesian
Website	https://www.ms-ic.cz/en
Name	KANOV
City	Karlovy Vary
Website	http://www.kanov.cz
Name	JAIP - Jihočeská agentura pro podporu inovačního podnikání
City	České Budějovice/South Bohemian
Website	http://www.jaip.cz
Name	Technology centre Hradec Králové
City	Hradec Králové
Website	https://www.tchk.cz
Name	Steel-it
City	Třinec/ Moravian-Silesian
Website	https://www.steel-it.cz
Name	Centre for innovation and technology transfer (Palacky University)

City	Olomouc
Website	http://www.vtpup.cz
Name	PIN – Podnikatelský inkubátor Nymburk
City	Nymburk/Central Bohemian
Website	http://www.inkubator-nymburk.eu

Support by companies or private investment

Scholarships and fellowships

Educated people with innovative ideas are an important factor for design and implementation of innovations and eco-innovations in various fields. Large companies operating in the 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 listed in table 63.

Table 45 Provided scholarships or fellowships

Company	Agrofert
Foundation	Nadace Agrofert
Business area	Agriculture, food and chemistry.
Company	ČEZ
Foundation	Nadace ČEZ
Business area	Energy.
Company	Unipetrol
Foundation	Nadace Unipetrol
Business area	Petrochemistry.
Company	E.ON Distribuce
Business area	Energy.
Company	České Dráhy
Business area	Transportation.
Company	ArcelorMittal
Business area	Metallurgy.
Company	Siemens
Business area	Electrotechnics.

Business angels and venture capital

The support by private investors may be divided into several phases according to the maturity of the technology/innovation: pre-seed, seed, series A, series B a series C.

Pre-seed investments

This is the phase of the idea's creation, the definition of the concept, the validation of the problems, the determination of the market and the customers willing to pay, the writing of the business plan, the composition of the project team, the verification of the commercial potential of the product, the making of the presentation with the description and financial demands of the project, the pitch to the investors. At this stage, a functioning prototype is not developed. This phase is the riskiest for investors, but on the other hand, if the investor correctly sees the potential of such a project, it can be the most profitable.

Seed investments

A functioning prototype of the product is developed in the seed phase and tested on the target group of customers. There are already the first paid orders for the still raw product. Business strategies are being developed. The project team is personally specified. Seed investors are also very cautious as this is still a very risky phase of product development. But such investors are definitely more common than in the pre-seed phase.

Series A

At this stage of product development, the prototype focuses on optimizing the final product and, if possible, on boosting the growth of domestic paying customers. Investor companies with an interest in Series A are even more common, as the risks of losing the investment are greatly eliminated here.

Series B

At this stage of product life, the main focus is on building foreign markets, massive promotion and customer support. Investments at this stage are already very high.

Series C

At this stage, the company is uniquely focused on becoming a globally dominant player in its segment. If one of the pre-seed or seed stage investors got the project into the C series, it is a very profitable investment for them.

Business angels are most commonly oriented on the pre-seed and seed phases. The list of Czech business angels can be found on the AngelList platform[115].

Venture capital companies are most commonly present at series A, B, C. The list of Czech venture capital firms is available at the website CzechStartups by CzechInvest[116], most of them are also grouped at the Czech Private Equity and Venture Capital Association[117].

Promotion and marketing

Promotion and marketing

Promotion of the 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 residing in the Czech Republic, who present 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 an exhibition area, a 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.

115 AngelList, Czech Republic Angel Investors. 2018. cit. 2018-10-20. Available at: https://angel.co/czech-republic/investors

116 CzechInvest. CzechStartups.org, Database of investors. CzechInvest 2018. cit. 2018-10-20. Available at: http://www.czechstartups.org/en/investori

117 Czech Private Equity and Venture Capital Association, Members. © 2010 Czech Private Equity & Venue Capital Association, s.r.o. cit. 2018-10-20. Available at: https://www.cvca.cz/en/members/

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.

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 start-up entrepreneurs a number of 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 D is 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 money to realize their dreams. They must convince five successful and experienced investors of their business plans - and offer them a share in their business. If they succeed on the Day D, they will get money, contacts, and experience they can do their business with much more successful.

Events and networking

A large number of organizations, societies, associations or agencies act in the innovative field in the Czech Republic. Various workshops, seminars and conferences are held, for example:

European Leadership & Academic Institute (ELAI) organizes the most extensive events to promote innovation and business, namely the Innovation Week held in May. Innovation Week is the largest annual event in support of innovations in the Czech Republic, with the assorted events, innovation fair, seminars and conferences.

The Association of Innovative Entrepreneurship CR implements the goal of the non-government organization in the field of innovative entrepreneurship since 1993. The association represents series of scientific, technical, organizing, financial and business activities whose aim is to develop a new or a marked improved product (product, technology or service) effectively located in the market. Research and development represent one of these activities.

The new national platform Transfera.cz connects the Czech transfer community. Activities of Transfera.cz and its members are strengthening mutually beneficial relationships between the academia and the industry, supporting innovations with the aim of improving the competitiveness of the Czech Republic, maintaining partnerships with relevant public authorities, providing information, expert opinions and analyses in the field of technology and knowledge transfer, establishing international cooperation with similar foreign institutions and helping to disseminate R&D results.

Licensing Executives Society International (LESI) is the umbrella organization of national and regional associations for licensing executives, as the LES Czech Republic and Slovak. The LES unifies the professionals and

expert in licensing, Intellectual Property Right and commercialization.

Expert database

Table 46 List of experts in the Czech Republic

Name	Dr. Karel Čada
Institution	ČERMÁK a spol. – Law and patent office
Position	Adviser
E-mail	kcada@apk.cz
Phone number	+420 296 167 565
Address	Elišky Peškové 735/15, Praha 150 00, Czech Rep.
Website	www.cermakaspol.cz
Specialization	Expert in Valuation of Intellectual Property.
Scope of activities	Adviser of Intellectual Property, Commercialization of Intellectual Property.
Name	Mgr. Alžběta Jurtíková
Institution	Inproches
Position	Patent Attorney
E-mail	jurtikova@inproches.eu
Phone number	+420 737 802 235
Address	Mezírka 1, 602 00 Brno, Czech Republic
Website	www.inproches.eu
Specialization	Expert in Intellectual Property.
Scope of activities	Providing services of Patent Attorney and consultation of IPR.
Name	Ing. Vratislav Harabiš, Ph.D.
Institution	Faculty of Electrical Engineering and Communication and Technology Transfer Office at Brno University of Technology
Position	Technology Transfer Manager and Researcher
E-mail	harabis@feec.vutbr.cz
Phone number	+420 778 541 427
Address	Technická 3082/12, Královo Pole, 61600 Brno, Czech Republic
Website	http://www.spolupracesvut.cz
Specialization	Expert in Biomedical Engineering
Scope of activities	Technology Transfer Manager at Faculty of Electrical Engineering and Communication, Technology Scouting, Researcher in Biomedical Engineering.
Name	Ing. Michal Kriška-Dunajský, Ph.D.
Institution	Faculty of Civil Engineering and Technology Transfer Office at Brno University of Technology
Position	Technology Transfer Manager; Researcher
E-mail	kriska.m@fce.vutbr.cz
Phone number	+420 541 147 778
Address	Žižkova 17, Veveří, 60200 Brno, Czech Republic
Website	http://www.spolupracesvut.cz
Specialization	Expert in Landscape Water Management

Scope of activities	Technology Transfer Manager at Faculty of Civil Engineering, Technology Scouting and Researcher in Landscape Water Management.
Name	RNDr. Vojtěch Krmíček, Ph.D.
Institution	JIC – innovation centre
Position	Support of Spin-offs
E-mail	krmicek@jic.cz
Phone number	+420 511 205 260
Address	Purkyňova 649/127, Brno 612 00, Czech republic
Website	www.jic.cz
Specialization	Expert in Supporting Entrepreneurship and Development of Spin-offs.
Scope of activities	Supporting entrepreneurial spirit and entrepreneurship at high schools and universities. Supporting creation of spin-off companies and start-ups, business development, consultations.
Name	Mgr. Martina Mahmoud
Institution	Technology Transfer Office at Brno University of Technology
Position	Lawyer
E-mail	mahmoud@ro.vutbr.cz
Phone number	+420 541 144 230
Address	Kounicova 966/67a, 601 90 Brno, Czech Republic
Website	www.tt.vutbr.cz
Specialization	Expert for Licensing and Intellectual Property Rights¨.
Scope of activities	Preparation of licenses and consultation of IPR.
Name	Ing. Tomáš Mauder, Ph.D.
Institution	Faculty of Mechanical Engineering and Technology Transfer Office at Brno University of Technology
Position	Technology Transfer Manager and Researcher
E-mail	mauder@fme.vutbr.cz
Phone number	+420 541 143 241
Address	Technická 2, Královo Pole, 61600 Brno, Czech Republic
Website	http://www.spolupracesvut.cz
Specialization	Expert in Mechanical Engineering and Thermodynamics.
Scope of activities	Technology Transfer Manager at Faculty of Mechanical Engineering, Technology Scouting and Researcher in Thermodynamics.
Name	Ing. Roman Molík, MBA
Institution	Projects Department and Technology Transfer Office at Brno University of Technology
Position	Head of support of projects department and technology transfer department
E-mail	molik@ro.vutbr.cz
Phone number	+420 541 145 238
Address	Antonínská 548/1, 601 90 Brno, Czech Republic
Website	www.tt.vutbr.cz
Specialization	Expert for Support of Transnational funds from Public financial.
Scope of activities	Providing information on International projects and creation of Project applications.

Name	Ing. Tomáš Opravil, Ph.D.
Institution	Faculty of Chemistry and Technology Transfer Office at Brno University of Technology
Position	Technology Transfer Manager
E-mail	opravil@fch.vut.cz
Phone number	+420 541 149 423
Address	Purkyňova 118, Královo Pole, 61200 Brno, Czech Republic
Website	http://www.fch.vut.cz
Specialization	Expert in Chemistry and Inorganic materials.
Scope of activities	Technology Transfer Manager at Faculty of Chemistry, Technology Scouting and Researcher in Inorganic materials.
Name	Ing. Martina Šiborová
Institution	Brno University of Technology
Position	Head of economic and accounting department
E-mail	siborova@ro.vutbr.cz
Phone number	+420 541 145 318
Address	Antonínská 548/1, 601 90 Brno, Czech Republic
Website	www.vutbr.cz
Specialization	Expert of Economics and Financing of Intellectual Property.
Scope of activities	Economy with intellectual Property and Financing of Intellectual Property; domestic support funds.

Germany

National innovative infrastructure

Germany has a strong network of universities competing against each other in the R&D field (17,500 courses and 2.6 million students at more than 400 universities). The R&D budget (additional support for education and science infrastructure) went over 95 billion in 2015. This amount is equivalent to 3% of the German GDP. Germany places about 30% of the EU-wide R&D expenses. The country holds about 12% of the worldwide market for research intensive products. Every year an expert group (EFI) with up to six scientists creates a report concerning research and innovation in Germany. 2006 the government implemented the „Hightech-Strategie“, extended by the „Hightech-Strategie-Innovationen“ policy, concerning: digital economy and society, sustainable management and energy, innovative work environment, healthy living, intelligent mobility and civil security. Several entities also have projects on state and municipal level with low to high spending.[118]

There are also service providers for patent search (e.g. IP Bewertungs AG) and patent economists. These are intermediaries who take over marketing for inventors. For universities, it is patent exploitation agencies which on this job. The Technology Alliance website https://www.technologieallianz.de/en unites the patent, exploitation and technology transfer agencies in a nationwide network. INSTI, which is funded by the Federal Ministry of Economy and Technology, also promises tested quality. On its innovation market, the network brings together patents and interested parties. Only innovations that experts have tested for marketability are presented here. Further contact points are the IHK Technology Exchange and the Fraunhofer Patent Office for German Research. Inventors' fairs are also held.

Table 48 Overview of organisations providing supporting services, eg technology transfer, incubation, networking etc, in Germany

Name	Chambers of Commerce and Industry (*Industrie- und Handelskammer, IHK*)
Type	Organisation
Contact Address	Deutscher Industrie- und Handelskammertag (DIHK) Breite Strasse 29, 10178 Berlin Tel: 030 20308-0
Website	https://www.dihk.de/en
Main Area of Services	The Association of German Chambers of Commerce and Industry (Deutscher Industrie- und Handelskammertag, DIHK) is the central organisation for 79 Chambers of Commerce and Industry, CCI (Industrie- und Handelskammern, IHKs) in Germany. All German companies registered in Germany, with the exception of handicraft businesses, the free professions and farms, are required by law to join a chamber. Thus, the DIHK speaks for more than three million entrepreneurs. They include not only big companies but also retailers and innkeepers. This gives the association considerable political influence. It does not represent any specific corporate group but all commercial enterprises in Germany.

[118] A. Bahn-Wollawik & H. Wilts: Eco-Innovation in Germany. Eco-Innovation Observatory. Country Profile 2014-2015: Germany. Available at: https://ec.europa.eu/environment/ecoap/germany [last visited 2018-10.015].

Name	Economic Affairs and Energy, Labor and Social Affairs and the Labor Office
Type	Government department
Contact Address	Institut der deutschen Wirtschaft Köln Postfach 10 19 42 50459 Köln Phone: +49 221 4981-1
Website	https://www.make-it-in-germany.com/en
Main Area of Services	Make it in Germany is carried out by the Cologne Institute for Economic Research on behalf of the Federal Ministry of Economic Affairs and Energy. Make it in Germany is backed up by a range of personalised advisory services. These are offered by the International and Specialized Services (ZAV) of the Federal Employment Agency of Germany (BA), the Federal Office for Migration and Refugees (BAMF) and the Federal Institute for Vocational Education and Training (BIBB).
Name	Federal Ministry of Economic Affairs and Energy
Type	Government department
Contact Address	Bundesministerium für Wirtschaft und Energie Referat Öffentlichkeitsarbeit Scharnhorststr. 34-37 10115 Berlin Postanschrift: 11019 Berlin
Website	https://www.bmwi.de/Navigation/EN/Home/home.html
Main Area of Services	At the website https://www.existenzgruender.de/EN the Ministry offers an overview about all important information for entrepreneurs. They offer checklists for financing, planning and calculating all necessary factors.
Name	Steinbeis Verbund
Type	Group
Contact Address	Haus der Wirtschaft Willi-Bleicher-Str. 19, 70174, Stuttgart, Germany
Website	www.steinbeis.de
Main Area of Services	Steinbeis experts act as a flywheel between basic research and industrial application. New solutions to problems and new developments increase the competitiveness of companies and give them a lead in global markets. In the field of research, Steinbeis portfolio ranges from the optimization of products, processes and systems through to the integration of new technologies in existing applications to new developments. In the Engineering Forum, Steinbeis networks those involved in the product development process in order to discuss current issues of this essential element of successful engineering and point out future perspectives. The Forum organizes conferences and publishes specialized studies.
Name	Start-up Stuttgart e.V.
Type	Association
Contact Address	Gewerbestraße17 70565 Stuttgart
Website	http://start-up-stuttgart.de
Main Area of Services	The community initiative of Start-up Stuttgart exists since 2011. At the end of 2014 Start-up Stuttgart was transformed into an association. They offer their

	members access to a start-up network and regularly organize events for entrepreneurs. The website contains a start-up atlas and job offerings.
Name	Accelerate Stuttgart
Type	Accelerator
Contact Address	+49711 9952 1190 kontakt@accelerate-stuttgart.de Rotebühlstrasse 87, 70178 Stuttgart
Website	https://accelerate-stuttgart.de
Main Area of Services	Accelerate Stuttgart offers expert inputs, office space and mentoring for local start-ups, but demand company shares for their services.
Name	How to Germany
Type	Association
Contact Address	Chuck Emerson Media Services Owner/Inhaber: Charles Emerson Auf der Schorr 10 54331 Pellingen
Website	https://www.howtogermany.com
Main Area of Services	The homepage offers a wide range of information about living and working in Germany. The most information are very useful for foreign entrepreneurs starting in Germany but the homepage is designed to apply to a wide range of people who want to live in Germany.
Name	SpinLab Accelerator GmbH
Type	Company
Contact Address	SpinLab Accelerator GmbH Weißenfelser Straße 65G 04229 Leipzig +49 341 355785-70
Website	http://www.spinlab.co
Main Area of Services	SpinLab offers free services to innovative start-ups without taking no equity share including Coaching & Mentoring, Financing and Venture Capital, Network and Events, Co-Working, Technology, training programmes, etc.
Name	Smart Green Accelerator
Type	Company
Contact Address	Grünhof GmbH Belfortstr. 52 79098 Freiburg im Breisgau
Website	https://smartgreen-accelerator.de
Main Area of Services	Smart Green focusses on sustainable start-ups and a new emancipated work culture. They offer several workplaces and different programs for different stages of start-ups.
Name	Arbeitsgemeinschaft industrieller Forschungsvereinigungen
Type	Association
Contact Address	AiF Arbeitsgemeinschaft industrieller Forschungsvereinigungen „Otto von Guericke“ e.V. Bayenthalgürtel 23, 50968 Köln
Website	https://www.aif.de/en/about-aif.html

Main Area of Services	Promoting applied research and development benefiting Germany's small and medium-sized businesses; Industry-driven innovation network; Centre of Excellence in R&D Support for SMEs.
Name	**DB Start-upxpress**
Type	Accelerator
Contact Address	Holzmarktstraße 6-9, 10179 Berlin
Website	https://dbmindbox.com/en/dbstart-upxpress
Main Area of Services	DB Start-upxpress is aimed at young companies whose technologies, apps or business models have the potential to "take Deutsche Bahn to the next level and support the DB business units in their digital transformation". Participants in the programme will receive coaching, access to infrastructure and analysis data from Deutsche Bahn and start-up financing of €25,000 without having to cede shares in the company.
Name	Digital Hub
Type	Accelerator/network
Contact Address	Rheinwerkallee 6, 53227 Bonn, +49 228 4334 2600
Website	https://www.digitalhub.de
Main Area of Services	The Digital Hub based in Bonn offers its own accelerator, in which founders benefit above all from office space and a large network of partners and coaches. Also with the Start-up financing participants are advised and supported.
Name	M. Tech Accelerator
Type	Accelerator/working space
Contact Address	Quellenstraße 7a, 70376 Stuttgart
Website	https://www.mtechaccelerator.com
Main Area of Services	The M.Tech Accelerator is an important building block in the promotion of young companies. In the early phase of business start-ups, when there is little more than the idea, founders from the fields of mobility, manufacturing and engineering receive targeted support services. The aim is to turn an innovative idea into a marketable product as quickly as possible. Founders benefit from comprehensive information, consulting services, training and a broad network of relevant companies and financing options.
Name	SpinLab – The HHL Accelerator
Type	Accelerator/Network/wokring space
Contact Address	SpinLab – The HHL Accelerator Spinnereistrasse 7 04179 Leipzig
Website	https://spinlab.co
Main Area of Services	The private Leipzig Graduate School of Management (HHL Leipzig Graduate School of Management) and the Leipzig Cotton Spinning Mill cooperate in this programme; six to ten start-ups each can take part and use a place in the coworking space, they receive advice, coaching and mentoring as well as access to the network of founders and innovators in Leipzig. The participating teams do not have to cede company shares; the duration of the programme is limited to six months.
Name	Next Commerce Accelerator
Type	Accelerator/network

Contact Address	NCA, 7th Floor, Am Sandtorkai 27, 20547 Hamburg
Website	https://www.nca.vc
Main Area of Services	NCA provides free office space, access to their network, weekly workshops, individual mentoring and a range of different funding but asks for some of the company's equity. They offer to connect Start-ups with likely customers out of their ten commerce industry investors, first business and valuable feedback along with KPIs for follow-on fundraising.

National legislative framework

Intellectual property

Copyright

Legal sources of autonomous German copyright are in particular the Copyright Act (Urheberrechtgesetz UrhG), the Collecting Societies Act (Verwertungsgesellschaftengesetz VGG) and the Publishing Act (Verlagsgesetz VerlG). Also important is the Civil Code (Bürgerliches Gesetzbuch BGB, especially the General Part and the Part on the Law of Obligations)[119]. Copyright is particularly confronted with cross-border issues, because the authors have an interest in being able to claim copyrights abroad. Therefore, the relevant copyright regulations for Germany are to a considerable extent derived from EU and international law.

Table 49: List of the international agreements on copyright and related rights to which Germany is bound

Agreement/Act	Start for Germany
Berne Convention for the Protection of Literary and Artistic Works ([R] BÜ) of 9 September 1886	9. 12. 1897
World Copyright Convention (WUA) of 6 September 1952	16. 9. 1955
European Convention for the Protection of Television Broadcasts (European Television Agreement) of 22 June 1960	22. 1. 1965
International Convention on the Protection of Performers, Producers of Phonograms and Broadcasters (Rome Convention) of 26 October 1961	21. 10. 1966
Geneva phonogram agreement of 29 October 1971	18. 5. 1974
Convention on the dissemination of program-transmitted signals transmitted by satellite (Brussels Satellite Agreement) of 21 May 1974	25. 8. 1979
Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) of 15 April 1994	1. 1. 1995
WIPO Copyright Treaty (WCT) and WIPO Performances and Phonograms Treaty (WPPT) of 20 December 1996	14. 3. 2010

(Wikipedia: Urheberrecht)

[119] Mathis Ruff: urheberechtsgesetz. https://www.urheberrecht.de/urheberrechtsgesetz/ [online]. Place: 17.11.2017. Last modified [cit. 2018-10-09]. Available at: https://www.urheberrecht.de/urheberrechtsgesetz/ [last visited 2018-10.015].

Copyright regulates the protection of certain personal cultural intellectual creations, so-called works and certain intellectual achievements, which are not creations[120].

The Copyright Act forms the legal basis for copyright (§ 1 UrhG): authors of works of literature, science and art enjoy protection for their works in accordance with this Act. The Copyright Act clarifies which criteria a person must fulfil in order to be considered an author and when a work is considered worthy of protection. The Copyright Act consists of 216 individual paragraphs. Only considered intellectual creations works from the various fields of literature, science and art can be protected (§ 2 UrhG):

- Language works, such as written works, speeches and computer programs.
- Works of Music.
- Pantomime works including works of dance art.
- Works of fine arts, including works of architecture and applied arts, and designs of such works.
- Photographs, including those created in a similar way to photographs.
- Cinematographic works, including works similar to cinematographic works.
- Scientific or technical representations, such as drawings, plans, maps, sketches, tables and plastic representations.

Whether a photograph or a piece of music meets the criteria of a work is not checked in advance. Lawyers therefore speak of an unexamined property right in copyright law. A corresponding appraisal usually only takes place within the scope of a copyright dispute in court.[121]

Copyright protection already arises with the creation and completion of a work; the law does not provide for separate registration. According to § 7 UrhG, the author is always the creator of the respective work. Only natural persons can act as authors. If several persons are involved in the creation of a work and the shares cannot be used separately (e.g. film), the participants act together as co-authors. So-called stimulators are involved in the creation of the work by referring to an idea or placing an order. They are not involved in the practical implementation.

The moral rights of the author are not transferable and mainly deal with the relationship between the author and his work. The right of publication (§ 12 UrhG) defines that only the creator may decide when, if and how his work is made accessible to the public. Article 14 of the Copyright Act provides for protection against distortion of the work, because the author's version is considered optimal by law. Third parties may only modify a work with the consent of the author. In contrast to the moral rights, the exploitation rights are transferable to a certain extent (licenses). Rights of use are often given in return for financial compensation. The various collecting societies such as GEMA or VG WORT are often responsible for this.[122]
The author of a work has personal rights and exploitation rights as "creator". In details, these would be e.g.[123]:

[120] Institut für Freie Berufe Nürnberg: Schutz geistigen Eigentums. In: Gründerinformationen Nr, 12. Place: Erlangen, 01.2013. [cit. 2018-10-09]. Available at: http://www.ifb.uni-erlangen.de/fileadmin/ifb/doc/publikationen/gruendungsinfos/12_schutz_eigentum.pdf [last visited 2018-10.015].

[121] Wienke & Becker: Wirtschaftsrech-Urheberrecht. 11.10.2018, Köln. [cit. 2018-10-09]. Available at: https://www.kanzlei-wbk.de/wirtschaftsrecht-urheberrecht.php [last visited 2018-10.015].

[122] M. Melien: Das Urheberrecht – Fluch und Segen. [cit. 2018-10-09]. Available at: https://www.verlagederzukunft.de/das-urheberrecht-fluch-und-segen/ [last visited 2018-10.015].

[123] Spindler/Schuster Elektron. Medien/Wiebe, 3. Aufl. 2015, UrhG § 69c. [cit. 2018-10-09]. Available at: https://beck-online.beck.de/?vpath=bibdata/komm/SpindlerSchuster

- Right of publication (Section 12 UrhG).
- Right of physical exploitation (Section 15 UrhG).
- Reproduction rights (Sections 16; 69c No. 1 UrhG).
- Distribution right (Sections 17; 69c No. 3 UrhG).
- Lecture and performance law (Section 19 UrhG) and many more.

§ 31 of the Copyright Act lists various requirements and options for granting rights of use. For example, it is possible to limit the scope of the usage rights to a certain period of time or to national borders. The copyright law limits the rights of the author to the extent that the works may be used under certain conditions without the consent of a third party. Such a barrier is, for example, a temporary act of reproduction pursuant to § 44a UrhG like the intermediate storage in the cache. Copying for private and other personal use (§ 53 UrhG) - commonly referred to as private copying - or quotes (§ 51 UrhG) are also permitted. For copyright law in schools and other educational institutions § 60a UrhG defines a barrier with regard to making it publicly accessible for teaching and research. Infringement is often handled by warnings and out- of-court settlements but is also punishable under criminal law. The level of punishment is set out in the Copyright Act.

Industrial property rights

Patents

The patent procedure is completed on average after 2 to 2 1/2 years, provided that the request for examination is filed within the first four months after filing and the examination fee is paid. In exceptional cases, however, the grant procedure may take much longer[124].

Examination procedures: In the examination procedure, the patent examiners at the DPMA ensure that the invention meets the following criteria: novelty, inventive activity, industrial applicability. In addition, it must be a technical invention that is obviously disclosed.

Preliminary examination of the application: By filing a patent document and transferring the application fees, the applicants secure a priority for their application. The registration is then pre-checked (documents are analysed for compliance with the formal requirements and for obvious obstacles to patentability). In addition, the invention is classified according to its substantive content in an internationally applicable, finely divided classification scheme (International Patent Classification IPC).

Request for examination: In order to receive a patent, a request for examination must be filed and paid (examination fee of €350). The DPMA will then carry out the examination of the application and grant a patent if necessary. The time limit for examination request is 7 years. To maintain the application, an additional fee must be paid from the third patent year onwards. Prior to the request for examination, it is also possible to request a fee-based search request for the application under Sec. 43 Patent Law. In this case, the protectability of the invention will be assessed and justified in a detailed search report, which also contains the documents that may be relevant for the examination of the patentability of the invention.

Disclosure: The patent application remains secret for 18 months, after which it is published. A reference to the publication of the so-called disclosure document appears in the

KoREM_3/UrhG/cont/SpindlerSchusterKoREM.UrhG.p69c%2Ehtm [last visited 2018-10.015].

[124] M. Keefer: Wie lange dauert das Patetnverfahren? [cit. 2018-10-09]. Available at: http://www.gruenderportal.de/xist4c/web/Wie-lange-dauert-das-Patentierungsverfahren-_id_2092_.htm;jsessionid=D0BA98F67DC0D791E730F2BECFAE53C9 [last visited 2018-10.015].

DPMA register database. These can be viewed there from the first day of publication. This enables the public to obtain information about the state of the art. The 1.5-year period of secrecy is intended to give inventors the opportunity to pursue the application further or, if necessary, to withdraw it before the publication of the disclosure document. The disclosure document appears regardless of whether or not the examination has been requested[125].

Patent costs overview (max 20 years):

- Registration in paper form with up to 10 claims €60.
- Additional €30 for each additional claim.
- Electronic registration with up to 10 claims €40.
- Additional €20 for each additional claim.
- Request for examination (incl. search; no patent granted without examination) €350.
- In addition, there are the annual fees, payable from the third year after the filing date.

In Germany, in addition to the actual patent, utility model (Gebrauchsmuster), also known as a "little patent", can be used. It protects innovations for ten years; patents are valid for 20 years. Utility model is granted more quickly because no one checks whether it is actually an innovation. However, you cannot rely on an official examination if someone copies the idea. It must then be proven in court that the utility model was rightly granted. A utility model application can be updated to a patent within one year.

National validation in the EPC contracting states:

Under Article 2(2) EPC, the European patent has the same effect in each contracting state for which it has been granted and is subject to the same provisions as a national patent granted in that state, unless the EPC provides otherwise. The national validation requirements can be found in Table IV in the EPO publication "National law relating to the EPC" and on the EPO website relating to the London Agreement.

National validation in the extension/validation states:

Under the national law of the extension and validation states, a patent extended to these states or validated in them has the same effects as a national patent granted there and is subject to the same provisions.[126]

Trademarks

Company identifiers include, but are not limited to, the name, company name or special designations of a business or company used in day-to-day business operations. These also include ornate designations such as "Le Crobag". For the protection of such company trademarks, it applies that it begins with the commencement of the use of the trademark in the course of business. Furthermore, the grandfathering applies to the protection of company trademarks. For example, the owner of the earlier right may demand injunctive relief and possibly damages pursuant to Sections 14 (5), (6) MarkenG from the owner of the later right.

Overview of the costs of trade names (10 years, can always be expanded to another 10 years):

- Application in paper form (fee for three goods and/or classes of services, including a term of protection of ten years) €300.
- Electronic registration €290.
- For each additional class of goods and/or services an additional €100.

[125] German Patent and Trademark Office: Fees. [cit. 2018-10-09]. Available at: https://www.dpma.de/english/services/simple_german/index.html [last visited 2018-10.015].

[126] German Patent and Trademark Office: European Patents. [cit. 2018-10-09]. Available at: https://www.dpma.de/english/patents/protection_outside_germany/european_patents/index.html [last visited 2018-10.015].

Designs

Design law protects designs and models with an aesthetic value. The maximum term of protection is 25 years and requires registration in the design register at the German Patent Office. The boundaries between design law and copyright law are quite fluid. The design depends more on the general public's taste, e.g. new design for a technical device.

Registered taste-design: 25 years, beginning on the date of filing with the German Patent and Trade Mark Office. The protection is initially valid for five years. Utility model protection is maintained by paying a maintenance fee for the 6th to 10th, 11th to 15th, 16th to 20th and for the 21st to 25th year of protection (Sec. 28 (1) Designs Law). If the maintenance fee is not paid in time, the design expires (Sec. 28 (3) Designs Law).

- Single paper application (for a five-year term of protection) €70.
- Electronic registration €60.
- Multiple application for up to 100 designs can be filed with one application) in paper form per sample €7 but at least €70.
- Electronic application €6 per design but at least €60.

Ownership of a research result

Legal entities are not eligible for creator protection under copyright law but they can purchase patents.

"An employee invention (service invention) is a patentable or utility model-able invention which an employee has made within the scope of his service obligation. According to the Act on Employee Inventions, the employer is generally entitled to the rights to the service invention, while the employee is only entitled to a compensatory claim for remuneration. Even after the abolition of the so-called university lecturer privilege, special provisions apply to inventions made by employees of a university. The law also regulates the treatment of those creative achievements of employees which cannot be protected by a patent or a utility model or are otherwise capable of being protected, but which improve the performance of an enterprise ("technical improvement proposals").

The legal regulation of employee inventions is necessary because two interests collide here, namely labour law, according to which the employer is entitled to the result of the employee's work, and intellectual property law, which, according to the so-called "inventor principle", places the rights to an invention with the inventor.

The Arbeitnehmererfindungsgesetz (ArbnErfG) regulates the exchange of compensations between employer and employee.[127]

Enforcement

If a copyrighted work is used without authorization, the following claims can be asserted:

- Claim for damages (Section 823 II BGB in connection with a copyright crime under Sections 106-108 b UrhG).
- Right to removal and omission (Sections 97 (1), 96 UrhG, Section 1004 BGB analogous).
- Right to surrender of unjustified enrichment (§§ 812ff. BGB).
- Pursuant to Section 102 UrhG, the aforementioned claims become statute-barred 3 years after knowledge of the infringement, but no later than 30 years after the infringement.

[127] Arbeitnehmererfindung. In: Wikipedia: the free encyclopedia [online]. Place: Pass. Germany, Martin Steinmetz, 08.01.2006. Last modified on 6. Oktober 2018 [cit. 2018-10-09]. Available at: https://de.wikipedia.org/wiki/Arbeitnehmererfindung

Contact details of the national intellectual property office

Table 50 Contact details of the German intellectual property office

Name	Deutsches Patent- und Markenamt
Contact Address	Zweibrückenstraße 12, 80331 München
Website	https://www.dpma.de/english/index.html
Main Area of Services	Offering effective protection of technical inventions, trademarks and product designs. Small and medium enterprises, the large corporate groups, research institutions and inventors receive tools to defend their intellectual property from unwanted copying. Information on existing IP rights is gaining increasing importance today and in itself is becoming a factor of innovation as this knowledge can influence business decisions. Provide extensive IP information and offer online search services.

The German Patent and Trade Mark Office (DPMA, offices in Munich, Jena, Berlin, staff of 2,500) is the centre of expertise in the field of industrial property protection in Germany. It examines inventions, grants patents, registers trademarks, utility models and designs, administers IP rights and provides IP information to the public. The DPMA is the largest national IP office in Europe and the fifth largest national patent office in the world and operates within the portfolio of the Federal Ministry of Justice and Consumer Protection. They are a partner in a network of national, European and international industrial property systems. DPMA is a modern service provider, offering effective protection of technical inventions, trademarks and product designs. SMEs, the large corporate groups, research institutions and inventors receive tools to defend their intellectual property from unwanted copying. Information on existing IP rights is also gaining increasing importance today and in itself is becoming a factor of innovation as this knowledge can influence business decisions.

Patent attorneys[128]

Patent attorney work at the interface between law and technology. They are kind of interpreter that need to be familiar both with relevant law as with the technology involved. They help highly specialised engineers, chemists and physicists and companies to take advantage of the legal and economic benefits of the various intellectual property rights.

In order to perform these challenging tasks, patent attorneys have to undergo one of the longest periods of training in Germany. The 4,000 odd patent attorneys in Germany are engineers or scientists with degrees, practice in industry and three years of legal training. Tasks usually performed by patent attorneys include:

- Advising on inventions, trademarks, designs, know-how, protection of software, protection of plant variety rights.
- Filing applications for all industrial property rights nationally and internationally: patents, incl. European patents, utility models, designs, trademarks, protection of plant variety rights, semiconductor protection.

[128] Dr. U. Wittenzellner: Profile of the profession [cit. 2018-10-09]. Available at: https://www.patentanwalt.de/en/patent-attorneys/profile-of-the-profession.html [last visited 2018-10.015].

- Representing clients before the German Patent and Trademark Office, the Federal Patent Court, the Federal Office for Plant Varieties, the European Patent Office, the European Union Intellectual Property Office and other international authorities concerned with industrial property rights; and, in special cases, also before the Federal Court of Justice.
- Monitoring and managing intellectual property rights (e.g. paying renewal fees).
- Prosecuting infringements of intellectual property rights; appearing before all the relevant courts.
- Advising and representing on all matters regarding employee inventions.
- Advising on and drawing up licence agreements.
- Conducting searches and producing documentation.
- Producing translations with a legal and technical content.

The experts in intellectual property rights can provide comprehensive advice and representation with regard to inventions, innovations, trademarks, designs and know-how – and therefore play a decisive role in deciding over the success of an innovation, design and trade mark.

Commercialization

Germany performs particularly well in the subcategories eco-innovation patents where it is sharing the first place with Finland and exports of products from eco-industries where it is sharing rank 1 with Luxembourg. The demand for high-tech and waste technologies and know-how is expected to remain high in the world and –as one of the pioneers and market leaders for waste technologies– Germany has a strong standing in exporting innovative technologies. The German green tech sector is expected to further develop dynamically. The early implementation of the Renewables Energies Act (in 1991) and the introduction of the German Resource Efficiency Programme (ProgRess) in 2012 serve as important milestones and drivers for energy and resource efficiency, eco-innovation and the energy transition in Germany.[129]

The options for commercialization are licensing, establishing a start-up, or particularly in the high-tech area selling a patent. Licenses can also be purchased. This means that the patent holder transfers the right to use his invention to someone. The contracts will be freely negotiated. Patents can be purchased at eBay or at the Intellectual Property Auction in Munich[130]. In addition to patents, there are also licenses and trademark rights to be acquired. Some of these are offered by large companies and research institutes (Bayer Innovation GmbH, Merck Patent GmbH, Rolls-Royce Deutschland, Fraunhofer Gesellschaft). The focus is on mechanical engineering, life science, automotive and environmental protection technology.

Before starting a business in Germany, there are many bureaucratic and economic factors to consider. On https://www.howtogermany.com you can find information available about self-employment, taxes, hiring or legal form. It is also a good idea to use a cost-free consulting from one of the many IHK (Chamber of Industry and Commerce) and branches about self-employment. Some federal states like Baden-Württemberg have https://newinbw.de for foreign entrepreneurs.

State aid

Germany[131] is subject to EU legislature on state aid, further details to be found in Annex 5 to

[129] A. Bahn-Wollawik & H. Wilts: Eco-Innovation in Germany. Eco-Innovation Observatory. Country Profile 2014-2015: Germany. [cit. 2018-10-09] Available at: https://ec.europa.eu/environment/ecoap/germany [last visited 2018-10.015].

[130] Sabine Phillipp: Patentkauf. Available at: https://www.mittelstandswiki.de/wissen/Patentkauf

[131] Bundesministerium für Finanzen: Sechundzwanzigster Subventionsbericht. [cit. 2018-10-09]. Available at:

this Guidebook. Exceptions from state aid prohibition particular relevant to Germany are state aid of a social nature to individual consumers, disaster aid and aid resulting from the division of Germany.

Compared to 2015 Germany plays a large role in the increases in state aid for environmental protection, including energy savings of about €9.3 billion with an amount of more than €4 billion. The European Commission has concluded that the Renewable Energy Sources Act of the Federal Republic of Germany in the version of 2014 (EEG 2014) is in line with EU state aid law. The EEG 2014 provides for state support for electricity generation from renewable energy sources and mine gas. In addition, a partial exemption from the EEG levy will ease the financial burden on energy-intensive electricity customers and certain proprietary producers. In addition, the EEG 2014 provides that state support will be phased in through calls for tenders to which producers from other Member States will gradually be granted access. The Commission concluded that the 2014 EEG will contribute to the EU's environmental and energy objectives without unduly distorting competition in the internal market.

Examples for Germany[132]:

- Increase of state aid to environmental protection including energy savings: €4 billion.
- Increase of state aid for regional development: €241 million.
- Increase of state aid to other objectives including broadband, Projects of Common European Interest or local infrastructures: €296 million.
- Increase in aid to the agricultural and forestry sectors: €154 million.

Funding of additional development

R & D funding by the state

The German Federal Government regards research and development (R&D) as one of the most important area for the development of the economy. Overall, the industry and the public sector have made a commitment to spend around 3% of national GDP per year on R&D activities.

Government financial support for research essentially consists of institutional funding, goal-oriented project funding and the funding of departmental research. Direct project funding is allocated to concrete areas of research and is implemented within the framework of specific programmes, which have been concentrated within the federal new High-Tech Strategy.

Within its programmes, the Federal Government promotes basic technologies, which push forward developments in key fields of application and thus serve as a force for growth in many industrial sectors. Moreover, small and medium-sized enterprises (SMEs) are supported by means of specific funding programmes that are not bound to a certain sector or research direction.

All research programs have been concentrated within the federal High-Tech strategy which defines specific lead markets and priorities as well as key technologies. Annually €5 billion are dedicated to R&D project in the form of non-repayable project grants. The co-funding rate is

https://www.bundesfinanzministerium.de/Content/DE/Downloads/Broschueren_Bestellservice/2018-08-23-subventionsbericht-26.pdf?__blob=publicationFile&v=2
http://www.borgenmagazine.com/german-foreign-aid/ [last visited 2018-10.015].

[132] European Commission Competition DG: State Aid Scoreboard 2017. Available at: http://ec.europa.eu/competition/state_aid/scoreboard/state_aid_scoreboard_%202017_final.pdf [last visited 2018-10.015].

up to 50% of eligible project costs, whereas SMEs can have higher rates.

National support – public Agencies

On a national level, Germany offers several programs to support SMEs and research institutions that range from funding programs for research and innovation to a technology transfer or start-up, including specialist and industry related R & D support activities. The most important are:

Das Zentrale Innovationsprogramm Mittelstand (ZIM)

The Central Innovation Programmefor SMEs (ZIM) is a nationwide, technology and industry-oriented funding programmeof the Federal Ministry for Economic Affairs and Energy (BMWi) to support small and medium-sized enterprises as well as cooperating research institutions.

With ZIM, the Federal Ministry for Economic Affairs and Energy (BMWi) wants to motivate small and medium-sized enterprises (SMEs) to do more research, development and innovation. Research and development results should be translated more quickly into market-effective innovations. ZIM also helps to develop cooperation between SMEs and research organizations and to improve entrepreneurial innovation, cooperation and network management.

Support is provided to SMEs and the cooperating business-related research institutions within three different kind of project: a) single project; b) cooperation projects; c) cooperation network.

Table 51 Agencies responsible for the programs ZIM

Name	AiF Projekt GmbH
Type	ZIM Kooperationsprojekte
Contact Address	Tschaikowskistraße 49, 13156 Berlin
Website	http://www.zim-bmwi.de/kooperationsprojekte/kontakt-zim-koop
Name	EuroNorm GmbH
Type	ZIM-Einzelprojekte
Contact Address	Stralauer Platz 34, 10243 Berlin
Email address	zim@euronorm.de
Website	http://www.zim-bmwi.de/einzelprojekte
Name	VDI/VDE Innovation + Technik GmbH
Type	ZIM Kooperationsnetzwerke
Contact Address	Am Steinplatz 1, 10623 Berlin
Email address	zim-netzwerk@vdivde-it.de

KMU Innovativ

The Federal Ministry of Education and Research (BMBF) is promoting "KMU-innovativ" industrial research and pre-competitive development projects for cutting-edge research in small and medium- sized enterprises (SMEs).

Funded are research and development projects in the following fields of technology and subject areas:

- Biotechnology.
- Electronics; Autonomous electric driving.
- Research for Civil Security.
- Information-and communication technologies.
- Materials research.
- Medical technology.
- Human-computer interaction.
- Photonics.
- Production research.

- Technologies for resource efficiency and climate protection.

Table 52 Funded research and development projects KMU Innovativ

Name	Forschungszentrum Jülich GmbH, Projektträger Jülich (PtJ), Bereich Bioökonomie (BIO)
Field	KMU-innovativ: Biotechnology
Contact Address	52425 Jülich
Website	http://www.ptj.de/kmu-innovativ/biochance
Name	VDI/VDE Innovation + Technik GmbH, Elektronik- und Mikrosysteme
Field	KMU-innovativ: Electronics; Autonomous electric driving
Contact Address	Kramergasse 2, 01067 Dresden
Website	https://vdivde-it.de/thema/elektronik
Name	VDI Technologiezentrum GmbH, PT Sicherheitsforschung
Field	KMU-innovativ: Research for Civil Security
Contact Address	VDI-Platz 1, 40468 Düsseldorf
Website	http://www.vditz.de/forschungsfoerderung/sicherheitsforschung
Name	Deutsches Zentrum für Luft- und Raumfahrt e. V. (DLR), DLR Projektträger, Softwaresysteme und Wissenstechnologien
Field	KMU-innovativ: Data Science, Information Technologies, Industry 4.0 (DII)
Contact Address	Rosa-Luxemburg-Str. 2, 10178 Berlin
Website	http://www.pt-sw.de/de/kmu-innovativ-ikt.php
Name	VDI/VDE Innovation + Technik GmbH, PT Kommunikationssysteme; IT-Sicherheit
Field	KMU-innovativ: Communication Systems, IT Security (HIS)
Contact Address	Steinplatz 1, 10623 Berlin
Website	http://www.forschung-it-sicherheit-kommunikationssysteme.de/foerderung/kmu-innovativ
Name	VDI/VDE Innovation + Technik GmbH, PT Mensch-Technik-Interaktion; Demografischer Wandel
Field	KMU-innovativ: Human-Computer-Interaction
Contact Address	Steinplatz 1, 10623 Berlin
Website	https://vdivde-it.de/thema/mensch-und-technik
Name	Technologiezentrum GmbH, PT Nanotechnologien
Field	KMU-innovativ: Materials research / materials for health and quality of life, materials for a sustainable construction and infrastructure, materials for information and communication VDI
Contact Address	VDI-Platz 1, 40468 Düsseldorf
Website	https://www.vditz.de/forschungsfoerderung/nano-und-werkstoffe
Name	Forschungszentrum Jülich GmbH, Projektträger Jülich (PtJ), Geschäftsbereich Neue Materialien und Chemie (NMT)
Field	KMU-innovativ: Material research / Materials for energy technology, Sustainable use of raw materials and materials, Materials for mobility and transport
Contact Address	52425 Jülich
Website	https://www.ptj.de/promat-kmu

Name	VDI Technologiezentrum GmbH, PT Gesundheitswirtschaft
Field	KMU-innovativ: Medical technology
Contact Address	Bertolt-Brecht-Platz 3, 10117 Berlin
Website	http://www.vditz.de/forschungsfoerderung/gesundheitswirtschaft
Name	VDI Technologiezentrum GmbH, PT Photonik, Optische Technologien
Field	KMU-innovativ: Photonics
Contact Address	VDI-Platz 1, 40468 Düsseldorf
Website	http://www.photonikforschung.de
Name	Karlsruher Institut für Technologie (KIT), Projektträger Karlsruhe, Produktion und Fertigungstechnologien (PTKA-PFT)
Field	KMU-innovativ: Production research
Contact Address	Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen
Website	http://www.produktionsforschung.de/kmu-innovativ/UCM01_000146
Name	Forschungszentrum Jülich GmbH, Projektträger Jülich (PtJ), Geschäftsbereich Umwelt
Field	KMU-innovativ: Technologies for resource efficiency and climate protection / resource efficiency
Contact Address	Zimmerstraße 26-27, 10969 Berlin
Website	http://www.ptj.de/kmu-innovativ
Name	Deutsches Zentrum für Luft- und Raumfahrt e. V. (DLR), DLR Projektträger, Geschäftsbereich Umwelt, Kultur und Nachhaltigkeit
Field	KMU-innovativ: Technologies for resource efficiency and climate protection / Energy efficiency and climate protection
Contact Address	Heinrich-Konen-Str. 1, 53227 Bonn
Website	http://www.dlr.de/pt/klimawandel
Name	Karlsruher Institut für Technologie (KIT), Projektträger Karlsruhe Wassertechnologie und Entsorgung (PTKA-WTE)
Field	KMU-innovativ: Technologies for resource efficiency and climate protection / Sustainable water management
Contact Address	Postfach 36 40, 76021 Karlsruhe
Website	http://www.ptka.kit.edu
Name	Forschungszentrum Jülich GmbH, Projektträger Jülich (PtJ), Geschäftsbereich Nachhaltigkeit, Fachbereich Ressourcenmanagement (UMW 2)
Field	KMU-innovativ: Technologies for resource efficiency and climate protection / Sustainable land management
Contact Address	Zimmerstraße 26-27, 10969 Berlin
Website	http://www.ptj.de/kmu-innovativ

The promotion of R&D differs in Germany between the individual federal states as to the terms of content and the instruments. The trend is towards focusing on key technologies and cluster development. The target groups of the technology promotion programs of the countries are in particular innovative SMEs. Each federal state offers therefore additional funding programs for SMEs and research institutions.

Transnational support funds

European Union funding

There are several funding programmes provided at European level. In regards to EcoInnovation the most relevant programmes are listed in Annex 4 to this Guidebook.

Foreign aid

After the help received through the Marshall Plan after the 2nd World Word, Germany has become a giver of foreign aid. This decision was taken even before the foundation of the European Union and till today Germany is still an independent donor. According to the data of the European Commission, in 2015 Germany spent $24.7 billion in foreign. In 2016, Germany was the world's third-largest supplier of foreign aid.[133] The German foreign aids are mostly distributed through the German Federal Ministry for Economic Cooperation and Development, or BMZ. In 2017, the BMZ had a budget of €8.541 billion. Additionally, Germany works with international organizations such as the World Bank. The majority of the German foreign aid budget is invested in bilateral agreements. These bilateral aid programs encourage economic growth with the help of monetary and professional assistance.

German foreign aid is distributed to 57 other countries around the world. Among them are six European countries (Bosnia and Herzegovina, Kosovo, Moldova, Albania, Serbia and Ukraine).

Business incubators

In Germany, more and more incubators or similar programs are operated or supported by large corporations. They are very much interested in making start-up a success in their favour - in order to create products or services for their own customers or to create a lucrative takeover candidate. The individual funding programs of the "Corporates" therefore differ enormously in type and design. More incubators and accelerators in Germany are listed in the analysis by Lea Weitekamp.[134]

Table 53 List of the main incubators in Germany

Name	Main Target
1st MOVER	1st MOVER from Düsseldorf helps founding teams in the areas of publishing, marketing and productivity. The start-ups receive up to €100,000 financing, plus advice, operational support and a reduced-rate infrastructure.
GREENHOUSE	Das GREENHOUSE Innovation Lab von Gruner + Jahr promotes internal and external ideas around new media formats, ecommerce models, apps and social media tools. It offers office space, coaching, a start-up budget and "access to the G + J brands and network".
hub:raum Incubator	Telekom's incubator "hub: raum" focuses on telecommunications and connectivity, video and multi- screen, cloud solutions, e-commerce, big data, cyber security, health, and the Internet of Things. Up to €300,000 in subsidies are possible.
Main Incubator	The Frankfurt FinTech incubator "main incubator" of the Commerzbank mainly supports start-ups in the seed stage. In addition to consulting and infrastructure,

[133] State Aid Scoreboard 2017: Results, trends and observations regarding EU28 State Aid expenditure reports for 2016. [cit. 2018-10-09]. Available at: http://ec.europa.eu/competition/state_aid/scoreboard/state_aid_scoreboard_%202017_final.pdf [last visited 2018-10.015].

[134] Lea Weitekamp: Inkubatoren und Accelerator für Startups in Deutschland. Available at: https://t3n.de/news/inkubatoren-accelerator-startups-deutschland-655475/ [last visited 2018-10.015].

	they will also have access to the business and corporate customers of Commerzbank. The average amount starts at €25,000.
The Media Lab Bayern	The Media Lab Bayern supports start-ups who are involved in the digitization of the media landscape. Through a scholarship programmefounders receive between €600 and €1200 per month to devote themselves to their start-up idea full time. In addition, they receive workshops and coaching and a coworking space.
Project Flying Elephant	Behind the Berlin incubator Project Flying Elephant is the early-stage investor WestTech Ventures. In a technology / deep tech and media / media tech division, WestTech supports start-ups with mentoring, infrastructure and up to €50,000 seed capital.
The Rheingau Founders	The Rheingau Founders promote Berlin's marketplace, fintech and e-health start-ups from as early as possible. In addition to mentoring and infrastructure up to €250,000 in capital are possible, as well as later engagement as a co-investor.

Support by companies or private investment

Companies are increasingly active in creating so-called company builders and corporate accelerator programs.

Companies like Hitfox, Project A Ventures or Rocket Internet are "company builders" and rely on their own capital to found ideas and put together teams in order to turn them into successful start-ups. Sometimes they also hire founders "from outside" to benefit from their operational expertise. As companies dictate the design of the funding program, benefits for start-ups vary.

- With its Google for Entrepreneurs programme, the search giant is helping start-up founders worldwide. Although there is no official Gründercampus in Berlin at the moment, Google works together with the Start-up Factory Berlin and shares many resources. For example, the Google Launchpad: a course that provide insights to UX, UI, marketing and Google's developer tools.
- Microsoft BizSpark (Provisions Link) promises "three years of free stuff" - including access to the Azure cloud platform, development and trial software, Windows, Office 365 and free training.
- AWS Activate gives start-ups free resources and starter usage quota for Amazon Web Services.
- SAP Start-up Focus: Provides start-up support for start-ups based on its own technologies. The programme SAP Start-up Focus helps to create the minimum viable product (MVP), to scale and sell start-ups idea.

Many corporations such as Mercedes, BWM and Bosch have created their own accelerator programs to support the creation of start-ups in their field. This represents for many corporate with a high number of employees and heavy structure a fast track to innovation: start-ups are in fact more agile and thus are more inclined to innovate. This programme usually offers to start-ups spaces, equity and corporate's technology and contacts. Corporate use them as a way to acquire and integrate innovation from the outside.

German industry makes the largest contribution to German research and development funding. In 2015, for example, business enterprises invested €61 billion in R&D. Industry runs its own research institutes in specific fields and cooperates with public institutions through various interfaces. Furthermore, German companies invest a great deal of money in developing academic

talent, especially by funding dual study programmes and internships.

In addition, there are over 4,000 foundations incorporated under civil law in Germany that aim to promote science and research.[135]

While the government financial support is already quite developed in Germany, there is instead a lack of venture and risk capital, especially for start-ups in later stages of growth. This is partly due to the small number of domestic investors. If compared to the US market where major pension and insurance funds are allowed to invest in high-risk business such as start-ups, this is instead not allowed in Germany. Also, in the country there is no exchange segment for the share of young high companies.

But there are some possibilities, for example the business angel network Germany on https://www.business-angels.de/en (BAND).

As for higher investments, there are several VCs that invest in the German start-up market and together reached a budget of estimated 7.9 billion USD in 2017.[136]

Promotion and marketing

Promotion and marketing

The number of platforms fostering cooperation as well as exhibition and fairs in Germany is extremely high. It is almost impossible to keep track of all events happening all over the country.

In regards to entrepreneurship and company founding, in April 2018 a new digital start-up platform has been officially launched by initiated by the Federal Ministry of Economics and KfW. The aim of the free platform is to provide even better support for founders in the decisive phase of preparing for start-ups and to strengthen the dynamism of start-ups in Germany. On www.gruenderplattform.de start-Ups can find interactive tools with which the development of their idea, business model or business plan is continuously possible and the search for suitable support and financing is facilitated.

The central actors of start-up promotion - such as chambers, state development institutions, guarantee banks and credit institutions - are involved with their offers on the platform. Founders can contact the platform administration directly to obtain advice or feedback on their business model or business plan or to submit a financing request to a credit institution. The new platform guides users through a standardized start-up process. All the necessary digital services can be found directly on the platform.

Table 54 List of fairs focus on green technologies and lifestyle

Name	The Fair-Friends fair
Information	It tries to show the whole variety of fair trade. Numerous exhibitors from Germany and other European countries presents their products and trends

[135] Die Bundesregierung: Forschung und Innovation für die Menschen. [cit. 2018-10-09]. Available at: https://www.bmbf.de/pub/Forschung_und_Innovation_fuer_die_Menschen.pdf [last visited 2018-10.015].

[136] Thomas Prüver & Michael Weber: Fast growth in Germany. [cit. 2018-10-09]. Available at: https://start-up-initiative.ey.com/wp-content/uploads/2018/03/Studie_Venture_Capital_and_Start_ups_in_Germany_2017.pdf page 28. [last visited 2018-10.015].

	relating to new lifestyles, fair trade and social responsibility in the Westfalenhallen in Dortmund.
Name	Green World Tour
Information	It wants to show what is already possible today in the field of sustainability and how sustainable action in many situations can be easily implemented in everyday life and often brings personal benefits. At the Green World Tour fair everyone should be able to try, taste, touch and experience sustainability live. The main topics are lifestyle & consumption, mobility & logistics, construction & renovation, financial investments & insurance, studies & careers as well as trade & science. As part of the accompanying lecture programme, scientists and experts will also give lectures on the latest technological developments, innovative consumer alternatives and current social discussions.
Name	Green Money
Information	Secure interest rates and good returns, but no earnings industries with arms trade, child labour or totalitarian regimes: How this works is shown by the Grünes Geld trade fair for sustainable investments. From participation in solar and wind power projects to sustainable equity funds to microfinance and savings books at green and ethical banks, visitors are offered a broad spectrum of sustainable investments. At the "Forum Grünes Geld" panel discussion, investment experts will provide information on sustainable investment opportunities in many lectures and two panel discussions.
Name	Branchentag Windenergie NRW
Information	Düsseldorf is the meeting place for the wind industry in the industry's most important supplier country. Here exhibitors provide information on the prospects for wind energy use and current trends in the industry. Among the central contacts at the wind energy trade fair are wind turbine manufacturers, internationally operating wind farm operators and gear manufacturers. An extensive conference programme with expert lectures on topics from the development of turbines to commissioning and other generally interesting and technical issues relating to wind energy complements the offer.
Name	Recycling-technik Dortmund
Information	The trade fair focuses on machinery and technical components for recycling and disposal of waste products. The diverse range includes balers, crushers, shredders, sorting plants, shredders, conveyor belts, screening and separating machines for recycling companies, recycling depots, disposal companies as well as companies with in-house recycling plants.

Events and networking

The amount of workshop, seminar and networking events in Germany is extremely high and cannot be easily summarized in a simple overview. The country has recognized for many years the importance of lifelong learning, professional development and companies exchange in clusters, network and further events.

Considering the specific case of ecoinnovation, the number of events in this field is also constantly growing. To bring a few examples, the Boarder Step Institute for Innovation and Sustainability promotes High-Level-Matching for green start-ups and business angel and VC investors, as part of their GreenUpInvest project. German-based green start-ups which are no older than seven years, receive the

opportunity of qualifying for a capital requirement of €50,000 to €2 million. They also organize the Boarderstep Impact Forum. Another initiative in this filed is the Green Start-Up Investment Alliance, funded by the German National Climate Protection Initiative which aim is to strengthen and advance start-up financing in Germany. To this end, the project compiles best practice in the field of green start-up investment and at the same time provides support for representing the interests of new green businesses. GreenUpInvest also wants to get Business Angels and other early investors involved in the field of green enterprises.

Hungary

National innovative infrastructure

The innovation support infrastructure in Hungary has been developed both bottom-up through the initiative of companies and top-down by the government on different levels.

There are a number of associations, business chambers, incubators and business support organisations that are key actors in the national innovation support infrastructure. Many of these innovation supporting initiatives are facilitated either through finding, ownership or support by the government. In Hungary, national, regional and municipal organisations are key in supporting innovation at various levels and in different areas.

Global Innovation Index (GII) compiled by the World Intellectual Property Organization (WIPO) in 2018 shows that Hungary sits in 33rd place globally. In the Innovation Efficiency Ratio sub-index, Hungary is in eighth place globally[137].

Hungary ranks 24th on the EU-28 Eco-Innovation Scoreboard (Eco-IS) in 2017[138].

A selection of innovation support organsaitions can be found in Table 1 below, listed alphabetically.

Table 56: Institutions supporting the innovative process in Hungary

Name	Budapest Chamber of Commerce and Industry (BKIK / BCCI)
Type of organization	Chamber of Commerce
Address	1016 Budapest, Krisztina krt 99
Website	http://bkik.hu/language/en/contact/
Main areas of Services	BCCI plays an important role in the central economic region in helping corporations accessing new markets and also upgrading the market environment to the EU level. The Chamber aims to help our member organizations and in general the representatives of the business sector in Hungary with the development of the business environment, economical studies and forecasts, management of the tasks and duties of vocational trainings and education, establishment of reliable business partnerships and consulting services of taxation, legal and other business management issues.
Name	Budapest University of Technology and Economics (BME) TECHNOLOGY AND KNOWLEDGE TRANSFER OFFICE
Type	Research, Development and Innovation
Website	https://www.bme.hu/techtransfer-office?language=en
Main Area of Services	The Budapest University of Technology and Economics' (BME) organizational unit for knowledge transfers was established in 2009. The main task of MTTI is to set up an efficient portfolio of services for supporting the utilization of intellectual products created at the University, coordinate the acquisition of Intellectual Property Rights and

[137] GLOBAL INNOVATION INDEX 2018, Energizing the World with Innovation, 11TH EDITION Available at: https://www.globalinnovationindex.org/Home

[138] Virág, Annamária. Eco-innovation in Hungary: EIO Country Profile 2016-2017. Eco-Innovation Observatory. Available at: https://ec.europa.eu/environment/ecoap/country_profiles_en

	manage the protection and utilization of intellectual products (licences, spin-off ventures).
Name	Design Terminal Non-Profit Ltd.
Type of organization	Business support
Address	Kálvin tér 3., Budapest, Hungary
Website	http://designterminal.org/
Main areas of Services	Business and innovation support services: • Broad network of contacts in industry • Structured learning program covering product, sales and organizational development • Scholarships • Coworking space • Hackathons • Tailor-made mentoring program - Hungarian and international mentors
Name	Digital Success Programme – Startup Hungary Coordination and Methodological Centre (Digital Startup strategy/Digital Export Development Strategy)
Type of organization	Govermental
Address	Digitális Jólét Program Titkársága- Innovációs és Technológiai Minisztérium 1016, Budapest, Gellérthegy utca 30-32.
Website	https://digitalisjoletprogram.hu/
Main areas of Services	Hungary's digital Startup strategy aims to support the emergence and development of innovative startups with high growth potential. The long-term strategy will contribute to the development of a thriving startup centre Budapest and related rural academic research centres.
Name	European Institute of Innovation & Technology (EIT) / KNOWLEDGE AND INNOVATION COMMUNITIES
Type of organization	European regional
Address	Infopark 1 Building E - Neumann Janos utca - 1117 Budapest - Hungary
Website	https://eit.europa.eu/
Main areas of Services	The EIT is the EU's flagship institute designed to connect European business and research, and to integrate innovation, research and economic growth in Europe. The mission of EIT is carried out through the so-called Knowledge and Innovation Communities (KICs), integrating European innovation platforms of leading European stakeholders from industry, academia, and policy. HUNGARIAN PARTICIPATION IN ESTABLISHED KICS: Climate-KIC: Central Hungary hosts a regional implementation and innovation centre, EIT Digital has an Associate Partner Group consisting of two universities (BME and ELTE), and their industrial partners, KIC InnoEnergy has an Accelerator HUB in Budapest KIC Health has a regional office in Budapest and four Hungarian Innostar partners: GE Healthcare, Semmelweis University, University of Debrecen and the National Healthcare Service Center.

Name	Hiventures
Type of organization	Investor
Address	1027 Budapest, Kapás u. 6-12.
Website	https://www.hiventures.hu/en/
Main areas of Services	Hiventures' mission is to support the cutting-edge ideas of freshly established startups and innovative businesses, to strengthen the entrepreneurial culture and protect the values of its community. Since we believe Hungary is the country of great talents, with our new investment programs our aim is to endorse and mentor these young entrepreneurs' ideas, thus contributing to the growth of a sustainable and continuously developing startup ecosystem. Besides helping the young talents to thrive, we are dedicated to build and maintain a long term and strong strategic partnership with the domestic and regional capital market participants. We believe that Hiventures will not only be able to support the domestic growth, but through the invested companies we can contribute to the increase of Hungary's international competitive advantage.
Name	Hungarian Academy of Sciences (MTA)
Type of organization	Research, Development and Innovation
Address	Széchenyi István sqr. 9, 1051 Budapest, Hungary
Website	https://mta.hu/english
Main areas of Services	The MTA is a public body functioning as a self-regulatory legal entity which carries out a national civic duty by practising, supporting, overseeing and representing science. In order to support and further the cause of scientific research, the MTA maintains a network of full-time research personnel which in turn is a fundamental pillar of the country's scientific life. Civic duties of the Academy include supporting the cultivation and research of sciences.
Name	Hungarian Association for Innovation
Type of organization	Business support organisation
Address	Fehérvári út, 108-112, 1116 Budapest, Hungary
Website	www.innovacio.hu
Main areas of Services	The Association assists its members in having access to concrete financial, professional, business information and studies that help their activities related to the creation of intellectual products.
Name	IVSZ - ICT ASSOCIATION OF HUNGARY
Type of organization	Business support organisation
Address	Wesselényi utca 16/A, Budapest 1077, Hungary
Website	http://ivsz.hu/en/
Main areas of Services	IVSZ is the largest and most significant leading interest group of the Information and Communication Technologies industry in Hungary. The association operates as a joint platform for the information technology, telecommunications and electronics sectors.

Name	Ministry for Innovation and Technology

Type of organization	Governmental
Address	
Website	http://www.kormany.hu/en/ministry-for-innovation-and-technology
Main areas of Services	Organization responsible for the integrated management of domestic science policy.
Name	National Research, Development and Innovation Office
Type of organization	Governmental
Address	Kéthly Anna tér 1, H-1077 Budapest, Hungary
Website	https://nkfih.gov.hu/english#
Main areas of Services	The NRDI Office is a national strategic and funding agency for scientific research, development and innovation. It is also the primary source of advice on RDI policy for the Hungarian Government and the main RDI funding agency. The NRDI Office handles the National Research, Development and Innovation Fund (NRDI Fund). National Research, Development and Innovation Office (NRDI Office) aims to create a stable institutional framework for the Government coordination and predictable funding of research, development and innovation (RDI) in Hungary, ensuring the efficient and transparent and value-creating use of available resources.
Name	Somogy County Department of Commerce and Industrial Park (SKIK)
Type of organization	Chamber of commerce
Address	H-7400 Kaposvár, Anna u. 6.
Website	http://www.skik.hu/hu/somogyi-kereskedelmi-es-iparkamara/english-8655
Main areas of Services	SKIK is an information and service centre for the enterprises functioning in the county. Its wide range of services was constructed according to the real demands of economic participants and these have been continuously expanded. The Chamber offers the following basic services for the registered enterprises: consultancy, business partner search through the online application of the Chamber, usage of the tender- and event monitoring system.
Name	University of Pécs Technological Transfer Office
Type	Research, Development and Innovation
Website	http://innovacio.pte.hu/en/page/introduction?language=en
Main Area of Services	One of the biggest Research Universities in Hungary with its nearly 30 000 students, 2000 researchers, 21 doctoral schools and with its 10 faculties. It is also the knowledge centre of the South Transdanubian Region and the first University of Hungary, which dates back to 1367. The Technology Transfer Office was founded in 2005 and provides its services for researchers, students and for business partners. Our mission is to channel in our University's knowledge basis into the innovation processes to create R&D results and inventions which form real value for the society and for the economy as well. Our main aim is to provide high quality services for our internal and external clients, and to help the utilization of our intellectual products all around the world.

Name	Valor Hungariae Zrt
Type of organization	Business support
Address	Nagysándor József utca 4., 1054 Budapest, Hungary
Website	http://www.valhu.hu/?lang=en
Main areas of Services	Valor Hungariae Zrt. is a state-owned company, committed to contribute to the success of Hungarian inventors and innovations, and to promote the market presence of their inventions on both domestic and international markets. Cooperation includes inter alia the establishment, management, and coordination of market-making relationships, the support, international representation, promotion, market launch and exchange of ground-breaking Hungarian developments and products, as well as technological transfer and EU cooperation.

National legislative framework

Intellectual property protection

Intellectual property rights are governed by individual state acts. In questions not specified by these acts, the Hungarian Civil Code (Act 5 of 2013 of the Hungarian Civil Code) is applicable.

Since Hungary is a member of the European Union, each intellectual property act shall be in line with the respective EU directives and regulations. In addition, certain EU regulations apply directly[139] .

Hungary is a member of many international treaties related to intellectual property; consequently the law for the protection of intellectual property is in accordance with the European regulations:

- Berne Convention for the Protection of Literary andArtistic Works;
- Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations;
- Paris Convention for the Protection of Industrial Property;
- MadridAgreement Concerning the International Registration of Marks;
- LisbonAgreement for the Protection ofAppellations of Origin and their International Registration;
- TRIPSAgreement (Trade RelatedAspects of Intellectual Property Rights); etc.

Trademarks, designs, patents and copyright are the principal forms of IP protection available to companies and individuals. IP law, especially for patent protection, is not totally harmonised within the EU. The Hungarian Intellectual Property Office has responsibility for IP[140].

Links to the Legal Sources of Intellectual Property in Hungary can be found on the Hungarian Intellectual Property Office website[141].

[139] DLA Piper Guide to Going Global, Last modified 1 Jan 2019. Available at: www.dlapiperintelligence.com/goingglobal/

[140]Guidance, Doing business in Hungary: Hungary trade and export guide, Updated 1 December 2016 https://www.gov.uk/government/publications/exporting-to-hungary/doing-business-in-hungary-hungary-trade-and-export-guide

[141] Hungarian Intellectual Property Office. Legal Sources of Intellectual Property [online]. Budapest,

Copyright

All literary, scientific and artistic work are entitled to copyright protection on the basis of its individual and original character deriving from the intellectual creating activity of the author.

Table 57. Details about protection in Hungary

Registration	Copyright protection arises automatically and no application or registration is needed. Registration is only optional and serves as proof for authorship in possible contentious cases.
Ownership	The copyright owner is entitled to moral and economic rights. The economic rights of the copyright holder include the exclusive right to use (eg, reproduce, distribute, communicate to the public, broadcast, exhibit, perform) and to authorize others to use his work, or part of it in any material or non-material form. Under the moral rights of the author, the author is entitled to the right of first publication, the indication of his/her name on the work as the author of the work. The author also has a right for the protection of the integrity of the work. According to the Hungarian Copyright Act, a work protected by copyright may have several authors.
Legal framework	Act 76 of 1999 on Copyright. Hungary became signatory to Berne Convention in 1922. Today the version of 1971 of the Convention is implemented. As a member of the EU, Hungary has implemented several directives into its Copyright Act.
Duration	Copyright generally lasts during the life of the author and for 70 years after the date of death of the author. The duration of protection for related rights is usually 50 years, although in certain works (eg, sound recordings) the term lasts for 70 years.,
Remedies for infringement	No prior registration required whatsoever for recourse to remedies in the event of copyright infringement. The Copyright Act contains specific remedies – eg, the following can be requested from the court: establishing the infringement, claim for cease and desist, amendment declaration, providing information on the infringement, termination of the injurious situation and restoration of the situation preceding the infringement, and among others confiscating or destroying the products affected by the infringement and also the tools and materials used for the infringement. In regards to financial remedies, compensation for damages according to the civil law and restitution of the economic gains achieved through the infringement can be requested. According to the actual court practice the minimum of the economic gains achieved with the infringement is the amount of the unpaid royalty. It is also possible to prevent importation and distribution of goods that are infringing. Injunctive relief is also a possible remedy that can be requested before initiating a lawsuit. Ex parte injunctive relief can also be requested.

Source: DLA Piper Guide to Going Global, Last modified 1 Jan 2019.

Hungarian Intellectual Property Office 2019. Last modified [cit. 30.01.2019]. Available at: http://www.sztnh.gov.hu/en/legal-sources-of-intellectual-property

Industrial property rights

Patents

An invention is patentable if it is capable of industrial application, is new and involves an inventive step. An invention is new if it does not pertain to the state of technical knowledge. An inventive step shall mean an activity that is nonobvious to an expert in the view of the state of technical knowledge. An invention is deemed susceptible of industrial application if it can be produced or used in any branch of industry or agriculture.

Table 58. Details about protection in Hungary

Registration	Registration is required. Hungarian patent may be obtained by national or European application or by an application submitted in the framework of the Patent Cooperation Treaty (PCT) provided that the application and the invention comply with requirements set out in laws and regulations. In foreign countries patent may be obtained by application filed with the national offices or, beyond that, by an European application for the Member States of the European Patent Convention (EPC). The application may be filed directly or in the framework of Patent Cooperation Treaty.
Ownership	The right to a patent belongs to the inventor or his/her legal successor. If two or more persons have jointly created an invention, the respective share of authorship of the inventors shall be deemed equal, failing any indication originally filed in the patent application to the contrary. The patent holder has the exclusive right to exploit the invention. In the frame of this, the patent holder may prohibit, among others: To manufacture, use, distribute, offer to distribute, store, or import the patented product, to use the patented method, or to offer it for use and to manufacture, use, distribute, offer to distribute, store, import, the product created with the patented method. In relation to the moral rights, the inventor has the exclusive right to publish its invention before the filing of the patent application.
Legal framework	Act 33 of 1995 on the Patent Protection of Inventions. The relevant EU directives have been duly implemented.
Duration	The term of the definitive patent protection shall be 20 years from the date of application. A yearly renewal fee shall be paid.
Remedies for infringement	Article 35 of the Patent Act contains special remedies, eg, the following can be requested from the court: establishing the infringement, claim for cease and desist, amendment declaration by the infringer, providing information on the infringement, among others confiscating or destroying the products affected by the infringement and also the tools and materials used for the infringement. In regards to financial remedies, compensation for damages according to the civil law and restitution of the economic gains achieved through the infringement can be requested. According to the court practice the amount of such economic gain can be equal to the unpaid license fee, or with the net income (after the deduction of the costs) achieved through the infringement. In each case, the proportion of the patented part within the infringing product shall be taken into account. Injunctive relief is also a possible remedy even before initiating a lawsuit. Ex parte injunctive relief can be requested as well.

Source: DLA Piper Guide to Going Global, Last modified 1 Jan 2019.

Utility model

The utility model protection is a legal protection for the new technical solutions not reaching the level of a patentable invention.

Table 59. Details about protection in Hungary

Registration	Registration is required. The utility model protection can be obtained through the granting procedures set out in law before the Hungarian Intellectual Property Office. The utility model protection can be obtained through the granting procedures set out in law before the Hungarian Intellectual Property Office. In Hungary it is also possible to obtain a valid utility model protection through an international application within the frame of Patent Cooperation Treaty (PCT). A utility model application filed in Hungary can be transformed into a European patent application within the union priority range of 12 months, if the utility model application meets the requirements of European patent applications.
Ownership	By virtue of utility model protection, the owner of the said protection has, as provided for by legislation, the exclusive right to exploit the utility model or to license another person to exploit it.
Legal framework	
Duration	The protection has a term of 10 years, then the utility model becomes part of the public domain.
Remedies for infringement	

Source: Hungarian Intellectual Property Office.

Industrial design

Designs can be used for the protection of the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product. Design rights grant legal protection for the appearance of a product. By means of this protection, the right holder can create or strengthen his position on the market[142].

Table 60. Details about protection in Hungary

Registration	Registration is required. Design protection in Hungary can be obtained by filing a design application with the Hungarian Intellectual Property Office, or an international application under the Hague Agreement Concerning the International Deposit of Industrial Designs.
Ownership	The designer or his/her successor in title.
Legal framework	Law in force: Act XLVIII of 2001 on the legal protection of designs. In the case of applications filed prior to that date, Decree-LawNo. 28 of 1978 on the Protection of Industrial Designs shall continue to apply, on the basis of which industrial design protection can be obtained.

[142] Hungarian Intellectual Property Office. Source: http://www.hipo.gov.hu/en/design

Duration	It lasts for five years beginning on the filing date of the application. Upon request, this term can be renewed for further periods of five years each, four times at the most. After expiration of twenty-five years from the filing date of the application, the protection shall not be renewable anymore.
Remedies for infringement	

Source: Hungarian Intellectual Property Office, http://www.hipo.gov.hu/en/design

Trademarks

Any sign that (i) can be represented in a way that the subject of the trademark can be precisely defined, and (ii) is capable of distinguishing goods or services from goods or services of others can be registered as a trademark.

Table 61. Details about protection in Hungary

Registration	Registration is required.
Ownership	Trademark protection grants exclusive right for the trademark owner to use the trademark. On the basis of this exclusive right of use, the owner may initiate proceedings against any party who, without his or her consent, uses in its business operations in connection with goods or services: • A sign identical to the trademark in connection with goods and services which are identical to those specified in the specification of goods for which the trademark is registered • Any sign that consumers may confuse with the trademark due to the identity or similarity of the sign and the trademark, or due to the identity or similarity of the goods or services in question • Any sign identical or similar to the trademark, regardless of whether the goods or services that are listed in the specification of goods for which the trademark is registered are identical or not with the goods or services in connection to which the sign is used, to the extent that such trademark has a good reputation in the domestic market and the use of the sign without due cause would be detrimental to or unfairly exploit the trademark's distinctive character or reputation Any and all legal or natural persons are entitled to obtain trademark protection irrespective of whether they carry out business activity. It is also possible to obtain trademark protection jointly.
Legal framework	Act 11 of 1997 on the Protection of Trademarks and Geographical Indications. As a result of its membership of the European Union, the following law applies in Hungary: The Trademark Directive
Duration	Ten years, renewable for successive periods of ten years.
Remedies for infringement	Article 27 of the Trademark Act contains special remedies, eg, the following can be requested from the court: establishing the infringement, claim for cease and desist, amendment declaration, providing information on the infringement, and among others confiscating or destroying the products affected by the infringement and also the tools and materials used for the infringement.

	In regards to financial remedies, compensation for damages according to the civil law and restitution of the economic gains achieved through the infringement can be requested. Injunctive relief is also a possible remedy even before initiating a lawsuit. Ex parte injunctive relief can be also requested.

Source: DLA Piper Guide to Going Global, Last modified 1 Jan 2019.

Trade secrets

Trade secrets include any confidential fact, information and other data, or a compilation thereof, connected to economic activities, which are not publicly known in whole or in the complexity of its elements, or which are not easily accessible to other operators pursuing the same economic activities, where the proprietor of the secret has taken reasonable efforts that may be expected in the given circumstances to keep such information confidential.

Table 62. Details about protection in Hungary

Registration	
Ownership	No special provisions applicable. Joint ownership is possible.
Legal framework	As a general rule, Act LIV of 2018 on the Protection of Trade Secrets provides protection for the trade secret that is being exchanged during the execution of an agreement, in case the parties fail to agree on such a provision of confidentiality themselves. Act LIV of 2018 on the Protection of Trade Secrets. Act 100 of 2012 on the Criminal Code.
Duration	Duration of right is potentially perpetual, as long as it does not become part of the public domain.
Remedies for infringement	According to Hungarian law it is a criminal offense if a person illegally acquires, uses, or discloses a business secret for financial gain or advantage, or makes it available to others or publishes such information, causing pecuniary injury to others. Act LIV of 2018 on the Protection of Trade Secrets also contains special remedies, eg, a person whose trade secrets have been violated, among others, shall have the right to demand: • A court ruling establishing that there has been an infringement of rights • The cessation of or the prohibition of the use or disclosure of the trade secret • Destruction of the infringing goods or their withdrawal from the market • The termination of the injurious situation and the restoration of the previous state • Restitution of the economic gains achieved through infringement In the event of infringement of the right to trade secrecy, the proprietor of the trade secret may also demand compensation in accordance with the provisions of civil liability. It is also common in Hungary to include a chapter into the contracts stipulating a confidentiality agreement, which would set out the amount of compensation (penalty) the breaching party has to pay in case of violation.

Source: DLA Piper Guide to Going Global, Last modified 1 Jan 2019.

Contact details of the national intellectual property office

Table 63 Contact details of the Hungarian intellectual property office

Name	Hungarian Intellectual Property Office
Type of organization	Intellectual Property Office
Address	H-1438 Budapest, PO Box 415, Hungary
Website	http://www.sztnh.gov.hu/en
Main areas of Services	Hungarian Intellectual Property Office regards its mission as operating the modern tools of intellectual property, efficiently protecting the national basis of knowledge and cultural wealth, promoting creativity and innovation, increasing competitiveness and supporting the creation of new jobs. Client Service of the Hungarian Intellectual Property Office is available to answer all questions about the protection of intellectual creations. Phone: +36 1 474 5561 e-mail: sztnh@hipo.gov.hu

Patent attorneys

A patent attorney has the duty of helping his or her clients to enforce their rights and to meet their obligations in industrial property matters. In the course of this, patent attorneys act by being retained or by virtue of an ex officio designation, as representatives in industrial property matters before the competent authorities and courts; they draft patent specifications, petitions, contracts and documents, carry out searches and give expert opinion, advice and information in industrial property matters. Patent attorneys are obliged to act conscientiously and to the best of their knowledge in all matters entrusted to them, to keep the prescriptions of the Code of Conduct of Patent Attorneys and to show conduct worthy of the dignity of the patent attorney profession.

Since January 1, 2003, when Hungary joined the European Patent Convention (EPC), Hungarian patent attorneys have had the possibility in case of fulfilment of particular conditions to be entered on the list of European professional representatives, allowing them to practise as European Patent Attorneys also.

Only a person who is a member of the *Hungarian Chamber of Patent Attorneys (*HCPA) may act as, and hold the title of patent attorney. HCPA keeps a register of patent attorneys, patent attorney candidates, patent law firms and partnerships. Since joining the European Union, the register comprises also a list of representatives from EU countries other than Hungary who have the intention of carrying on their professional activity in Hungary.

Table 64 Contact details of the Hungarian Chamber of Patent Attorneys

Name	Hungarian Chamber of Patent Attorneys (HCPA)
Contact address	1054 Budapest, Kálmán Imre utca 14
Website	http://www.szabadalmikamara.hu/Index.aspx?MN=Bemutatkozas&LN=English
Email	ugyvivo@szabadalmikamara.hu

Commercialization

The options for commercialization are licensing, establishing a start-up, or particularly in the high-tech area selling a patent.

In common with international practice, there are an number of options for the commercialisation of technology. These include sale of technology, licensing (to existing organisations), creating a new venture / company / product line using an organisation's intellectual property (spin-out), creating a company not from within the organisation (start-up), founding a joint venture, and providing consultancy services.

The EU licensing rules apply to Hungary. For some special product - however - special Hungarian legislation is also in force, obviously not contradicting any EU regulations.

One of the main forms of commercialization is start-up creation. Up-to-date procedures, time, cost and paid-in minimum capital to start a limited liability company and Starting a business in Hungary are detailed in the World Bank Group's Doing Business series.

See: http://www.doingbusiness.org/

Commercial contract framework

General contract law and the rules governing specific commercial contracts are set forth in the Hungarian Civil Code. In general, the parties may freely agree on the contract terms and they are free to define the content of a contract. The Civil Code sets out general rules (eg, for termination of a contract and rules for the event of breach of a contract) that are applicable for a contract if the parties do not agree otherwise. Among the provisions on special contracts, the Civil Code regulates the following main commercial contract types: transfer of property (eg, buying and selling), contracts for professional services (including research contracts), commission contracts, lease agreements, deposit contracts, distribution and franchise agreements, credit and account agreements, security (guarantee) agreements, insurance agreements.

The acts on intellectual property rights lay down particular provisions on license agreements concerning artworks, trademarks, patents and designs.

Source: DLA Piper Guide to Going Global, Last modified 1 Jan 2019.

State aid

Hungary is subject to EU legislature on state aid.

There are no general restrictions on commercialization of eco-innovations except state aid rules concerning mainly research institutions and those companies who financed research and development from public grants.

Funding of additional development

R & D funding by the state

Gross domestic spending on R&D accounted for 1.349 % of GDP in 2017 (OECD[143]).

Gross domestic spending on R&D is defined as the total expenditure (current and capital) on R&D carried out by all resident companies, research institutes, university and government laboratories, etc., in a country. It includes R&D funded from abroad, but excludes domestic funds for R&D performed outside the domestic economy. This indicator is measured in USD constant prices using 2010 base year and Purchasing Power Parities (PPPs) and as percentage of GDP.

National support – public Agencies[144]

Open calls for research, development, innovation and other relevant use funding can be viewed at the National Research, Development and Innovation Office website.

https://nkfih.gov.hu/english-2017/funding-schemes/open-calls

Open funds include:

- National Research, Development and Innovation Fund (NRDI Fund)
- Széchenyi 2020 RDI
- Horizon 2020
- Joint programmes

National Research, Development and Innovation Fund

The National Research, Development and Innovation Fund is an extra-budgetary fund earmarked for the support of research, development and innovation, financed from the innovation contributions of businesses and the complementary contribution of the central budget.

In 2018 the NRDI Office, the manager of the Fund, has announced various calls with a total budget of HUF 80 billion. The calls provide a balanced support to discovery research, business innovation and cooperation between businesses and research centres.

Project proposals for NRDI Fund calls must be submitted through the proposal administration and evaluation systems in line with the conditions set out in the given call for proposals and its integral part, the application guidelines. The call for proposals may also require applicants to submit certain documents and statements in hard copies.

[143] Organisation for Economic Co-operation and Development. Gross domestic spending on R&D[online]. © 2018 Organisation for Economic Co-operation and Development [cit. 2018-11-13]. Available at: https://data.oecd.org/rd/gross-domestic-spending-on-r-d.htm

[144] Source: National Research, Development and Innovation Office (NRDI Office). https://nkfih.gov.hu/english-2017/first-time-applicant/submission-of-proposals. Last modified: 29 May 2018.

Domestic calls

Table 65. List of domestic calls in Hungary

Title of the call/Code	Submission deadline	Funds available per project	Project duration
National technology and intellectual property, venture capital programme (GINOP-8.1.3/A-16)	31 December 2023	HUF 9-500 Mn	2-7 years
Smart specialisation, venture capital programme (VEKOP-2.1.2-17)	21 December 2023	HUF 200-1500 Mn	2-7 years
Business RDI, loan (GINOP-8.1.1-16)	02 December 2019	HUF 100-3000 Mn	Maximum 15 years, for start-ups maximum 10 years.
Support to Hungarian participation in the EUREKA programme (2019-2.1.1-EUREKA)	15 October 2019	HUF 20-70 Mn	max: 36 months
Call for proposals to foster Hungarian participation in the Horizon 2020 programme and other joint programmes of the European Union (2019-2.1.5-EU_KP)	30 September 2019	HUF 1,5 - 3 Mn	max. 12 months
National support for Horizon 2020 SME Instrument applications (2019-2.1.4-KKV)	30 September 2019	HUF 4 Mn	max. 6 months
Call for project proposals implemented in bilateral science and technology (S&T) cooperation (2019-2.1.11-TÉT)	26 September 2019	max. HUF 2 Mn	max. 24 months
promote Austrian-Hungarian bilateral innovative project cooperations related to autonomous vehicles (2019-2.1.14-ÖNVEZETŐ)	25 September 2019	HUF 30-100 Mn	max. 12 months
Support for market-driven research, development and innovation projects (2019-1.1.1-PIACI KFI)	05 August 2019	HUF 100-1000 Mn	max: 48 months
Support for participation in joint EU initiatives (2019-2.1.2-NEMZ)	15 July 2019	HUF 0-120 Mn	max: 36 months
Support for participation in the ECSEL joint EU initiative (2019-2.1.3-NEMZ_ECSEL)	15 July 2019		max: 48 months
University Innovation Ecosystem (2019-1.2-EGYETEMI ÖKO)	28 June 2019	HUF 30 - 150 Mn	18 months

Call for industrial research and development projects in Hungarian–Israeli cooperation (2019-2.1.10-TÉT-IL)	12 June 2019	HUF 50-200 Mn	36 months
Exportable innovative product development (GINOP-2.1.6-16)	01 June 2019	HUF 200-1000 Mn	30 months
Support of activities fostering the domestic and international protection of intellectual property with the aim of facilitating the utilisation of such intellectual property (IPARJOG_15)		HUF 0.6 - 7.1 Mn	max 24 months

Source: National Research, Development and Innovation Office website. https://nkfih.gov.hu/english-2017/funding-schemes/open-calls

Horizon 2020 (H2020) calls

Horizon 2020 (H2020) calls can be viewed here.

https://nkfih.gov.hu/english-2017/funding-schemes/open-calls?json=1

Transnational support funds

European Union funding

EU wide funding opportunities are described in Annex 4 to the Guidebook.

Foreign aid

Besides the European Union, the funding is also provided by other international organisations or European states – the main providers of funding are Visegrad Group, EEA and Norway grants and the Swiss contribution. For further details, see Annex 4 to the Guidebook.

Business 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.

Some of the important accelerators and incubators active in Hunghary are listed below.

Table 66 The list of Hungarian incubators and technological centres

Accelerator / Incubator/ Technological centre	City/Region	Website
Aquincun Incubator	Budapest	http://aquincumincubator.hu/index_en.html
Baconsult	Budapest	https://www.baconsult.hu/copy-of-rolunk
BNL Start Partners	Miskolc	http://bnlstart.com/
Bridge Budapest	Budapest	http://bridgebudapest.org/
CEED Tech - Hungary		

CEU InnovationsLab	Budapest	https://www.ceu.edu/ilab
Colabs	Budapest	http://www.colabs.hu/
Creative Exccelerator	Szeged	http://creativeaccelerator.hu/en/landing-page/
DBH Seedstarters	Budapest	https://dbh-group.com/
Design Terminal	Budapest	http://designterminal.org/
Digital Factory	Budapest	https://www.facebook.com/DigitalFactoryIncubator/
EH Inveszt	Debrecen	http://ehinvest.hu/
Hiventures	Budapest	https://www.hiventures.hu/en
iCatapult		http://icatapult.co/
IKT Startup Inkubátor	Hungary	https://www.facebook.com/ilincbce/
Incubator My-Way	Budapest	www.mywaystartup.eu/newmap/budapest/services?incubator
IT4 Startup	Budapest	http://it4startup.hu/en
K&H Bank Incubator	Budapest	https://startitkh.hu/
Kitchen Budapest	Budapest	http://kitchenbudapest.hu/en/startups/about
Minneráris Startup Campus	Budapest	https://www.millenaris-startupcampus.hu/
MKB Fintech	Budapest	https://fintechlab.hu/
MOL designterminal	Budapest	http://mol.designterminal.org/
Mosaik	Budapest	http://mosaik.space/about
NEGOS	Pécs	http://www.negos.hu/
OXO Labs	Budapest	http://oxolabs.eu/
Quantum Leap	Budapest	http://quantumleap.hu/kontakt.html
Seed Foundation	Budapest	https://seed.hu/en#actual-news
Smartware.tech	Bonyhád	https://hu.smartware.tech
SparkLab		https://www.nn.hu/sparklab
Start It		https://startitkh.hu/
Traction Tribe		http://traction-tribe.com/
Valor Hungariae Zrt	Budapest	http://www.valhu.hu/?lang=en
Venture Capital Monitor	Győr	http://vcmonitor.hu/
Virgo Ventures	Balatonfüred	http://www.virgo.ventures

Table 67 The list of Hungarian University Incubators centres

University Incubator centres	City/Region	Website
CEU Innovation LAB	Budapest	http://archivebusiness.ceu.hu/innovationslab
Corvinus University	Budapest	http://www.ilincnetwork.eu/network_members/corvinus-university-of-budapest/
Széchényi István University	Győr	http://tmk.sze.hu/en_GB/startpage
University of Pécs	Pécs	http://www.inkubatorpecs.hu/
University of Szeged	Szeged	http://szegediinkubatorhaz.hu/

Support by companies or private investment

There is a significant network of investors operating in Hungary, investing in innovative start-ups and early stage ventures. Alongside angel investors, venture capital organisations and government owned investor organisations there are a number of companies that invest as part of acceleration or incubation schemes.

The two main points of call for information about risk capital in Hungary are the Hungarian Venture Capital and Private Equity Association (HVCA) and the Hungarian Business Angel Network (HUNBAN). These organsaiotns represent the interests of the private equity and venture capital industry in Hungary.

Table 68 The list of selected Hungarian sources of private equity

Investor name or organisation name	City/Region	Website
angel.com: List of Angel investors in Hungary	Budapest	https://angel.co/hungary/investors
Day One Capital		https://dayonecapital.com/
Hiventures	Budapest	https://www.hiventures.hu/en/
Hungarian Business Angel Network (HUNBAN)	Budapest	https://hunban.eu/
Hungarian Venture Capital and Private Equity Association (HVCA)	Budapest	https://www.hvca.hu/EN/about/the-association/
Oktogon VC		https://www.oktogon.vc/

Promotion and marketing

Promotion and marketing of innovation, innovative capacity, services is important for supporting knowledge transfer and commercialisation of eco-technologies. There are a number of initiatives in place in Hungary to help promote and market innovation. These include government initiatives and private ones.

Table 69 Investment Promotion Agency

Name	Hungarian Investment Promotion Agency
Type of organization	Government
Address	H-1055 Budapest, Honvéd u. 20.
Website	http://www.investhipa.hu/index.php?option=com_iproperty&view=allproperties&Itemid=958
Main areas of Services	Hungarian Investment Promotion Agency (HIPA) is a national investment promotion organisation governed by the Ministry of Foreign Affairs and Trade. It provides management consulting services to interested companies free of charge in an end-to-end, one-stop-shop service model, supporting them in selecting a business location, providing tailor made incentive offers and information on state aid issues. Besides this, HIPA also aims to link the potential financial and strategic investors with Hungarian projects in need of investment, handling a continuously growing database.

Events and networking

There is significant number of workshop, seminar and networking events in Hunagry that support innovative activity. Some of the most well known are listed in table below.

Table 70 The list of Hungarian University Incubators centres

Event	City/Region	Website
BrainBar	Budapest	https://brainbar.com/
Craft Conference	Budapest	https://craft-conf.com/
Crunch Conference	Budapest	https://crunchconf.com/
Think BDPST	Budapest	https://think.bdpst.org/
Budapest Startup Safari	Budapest	https://budapest.startupsafari.com/
Eco x Digital	Budapest	http://ecoxdigital.eu/
EIT events	Europe	https://eit.europa.eu/news-events/events

Expert database

Table 71 Expert database in Hungary

Name	Ákos DERVALICS
Area of research/ specialization	Business development and go-to-market strategy EH Invest, InnoEnergy HUB Hungary
E-Mail	www.ehinvest.hu
Name	Imre HILD
Area of research/ specialization	Entrepreneurship, Startup development, platforms Fundraising - Mentoring - Market Access - Global Business Development Global Traction
E-Mail	www.globaltraction.org, http://imrehild.com
Name	Lénárd HORGOS - M27 ABSOLVO Consulting
Area of research/ specialization	Growth Financing, M&A, Internationalization, Business Development, EU Grants, Project Management, Support in the preparation and deal phase, Detailed business and financial planning, Preparing the client for the presentation or investor pitch, Assessing the investor's offer, negotiating term sheets, Support in due diligence, negotiating SPA, assistance in closing, Coordinating follow-up financing rounds, co-investors,
E-Mail	http://m27absolvo.hu/home/
Name	Ágnes HŰVÖS Megoldás.Most
Area of research/ specialization	Early phase business development Businesses strategy, project acceleration, business practice coaching, training.

E-Mail	http://megoldasmost.hu
Name	Peter KADAS - 7Digits HOLDING Ltd.
Area of research/ specialization	Digital marketing, growth hacking, online influence psychology PPC, email marketing, chat marketing, CRO, LPO, b2b online marketing, business development consultancy, strategic consultancy
E-Mail	https://7digits.net
Name	Peter KALDOS - Consultant
Area of research/ specialization	Intellectual Property Rights (IPRs), Intellectual Property valuation, Intellectual Property management, Technology and Intellectual Property transfer (sale, licencing etc), Intellectual property valuation, patent valuation, trademark and brand valuation, partner search.
E-Mail	p.kaldos.office <at> gmail.com
Name	Zsofia KEREPESI - Consultant
Area of research/ specialization	Innovation management, Grants ,Finance and funding, Intellectual Property Rights (IPRs), Project funding assistance, knowledge transfer, innovation management
E-Mail	Kerepesi.zsofia <at> gmail.com
Name	Levente PETHŐ - DANUBIA IP Innovációs Tanácsadó Kft.
Area of research/ specialization	Intellectual Property Rights (IPRs), technology transfer, Intellectual Property, technology transfer and patent attorney services
E-Mail	www.danubiaip.hu
Name	László ZENTKÓ - Pannon Pro Innovations Ltd. /PPIS
Area of research/ specialization	Sustainability, energy, climate change and bioeconomy, low carbon economy transition - Full-scale innovation management agency and strategic consultancy: innovation management, entrepreneurship support, incubating, consulting and developing new strategies for and with companies, acceleration and incubation programme, awareness raising and dissemination, product and business model development (incl. IP management), market research, challenge/gap analysis, networking, stakeholder mobilization, educational activities.
E-Mail	www.ppis.hu, www.klimainnovacio.hu

Serbia

National innovative infrastructure

Following the disintegration of the former dominant industrial model of the state owned clusters of industrial entities with complementary economic activities (former "combinates"), existing innovative infrastructure of those times (various institutes, industry dedicated branches of education system, development divisions of companies and other similar instances) which supported industrial progress, slowly faded to a state stage where their role is now insignificant.

Re-introduction of the market-oriented economy in Serbia during last decade of the 20th century caught economic operators with lacking capacities for innovative infrastructure within themselves, with the only pioneering efforts coming from the governmental institutions (relevant national ministries and provincial secretariats, chambers of commerce). Out of these efforts, re-building of innovative infrastructure started in the first decade of this century, sometimes facilitated by newly established entities (agencies, development centres, incubators, technology parks) modelled on similar entities in developed economies or the EU, and very often with technical and financial aid from the EU and bilateral donations.

Table 72 Some of the organizations which make up the innovative infrastructure in Serbia

Name	Development Agency of Serbia (DAS)
Type	Government agency of the Republic of Serbia, established in the year 2016, enveloping the activities of the Agency for foreign investments and promotion of export (SIEPA) and National agency for regional development (NARR).
Contact Address	Kneza Milosa 12, 11000 Belgrade, Serbia
Website	http://ras.gov.rs
Main Area of Services	The main activity of DAS is to support micro, small and medium enterprises and entrepreneurs in order to strengthen the Serbian economy, support direct investment and export promotion, raising the reputation of Serbia and Regional Development. Support is implemented trough a network of accredited regional development agencies.
Name	Chamber of commerce and industry of Serbia (CCIS)
Type	Government institution (national chamber of commerce)
Contact Address	Resavska 13-15, 11000 Beograd, Serbia
Website	www.pks.rs
Main Area of Services	Maintenance of registers and databases; issuance of qualified electronic certificates; provision of export/import documents; certificates, beliefs and opinions; oganising fairs, meetings, seminars, mediation; market research; education; issuance of ATA and TIR Karnets; provision of intermediate traffic gateway; training centre; assistance in corporate management, franchising in Serbia and in applying to international tenders; provision of business information; issuance of "Excellent SME" certificate; provision of database of offers and requests; various business info services; information on CE sign.
Name	Chamber of commerce of the province of Vojvodina
Type	Government institution (provincial chamber of commerce)
Contact Address	Hajduk Veljkova 11, 21137 Novi Sad, Serbia
Website	https://www.pkv.rs

Main Area of Services	Main goal is the constant improvement of the competitiveness of the economy of the AP Vojvodina, as this accelerates the economic growth of the state. By presenting the investment potential of AP Vojvodina in countries in the region and beyond, this chamber finds potential business partners for its members. This opens the way for Vojvodina businessmen to expand their business to foreign markets, but also to improve their performance existing ones.
Name	Science Technology Park Belgrade (STP)
Type	STP Belgrade is established by the RS Government (represented by the Ministry of Education, Science and Technological Development), the City of Belgrade and the University of Belgrade.
Contact Address	Veljka Dugoševića 54, 11060 Belgrade, Serbia
Website	https://www.ntpark.rs
Main Area of Services	The aim of the park is to create a favourable environment for developing links between industry and science & research organizations and universities, knowledge transfer, new technology development, innovation commercialization, networking and stimulating growth in the knowledge-based economy.
Name	Business Technology Incubator of Technical Faculties Belgrade (BITF)
Type	The Business Technology Incubator of Technical Faculties Belgrade L.L.C. has been established as a partnership between the four technical faculties of the University of Belgrade (Civil Engineering, Mechanical, Electrical and Technological/Metallurgical), the Municipality of Palilula and the Democratic Transition Initiative, and the establishment has also received support from the Organization for Security and Cooperation in Europe (OSCE).
Contact Address	Ruzveltova 1a, 11120 Belgrade, Serbia
Website	http://www.bitf.rs
Main Area of Services	BITF supports young, technically educated people to start and develop their own business and stay in the country, as well as the creation of spin-off companies and thus promotes the knowledge and technology transfer from universities to the economy. BITF is constantly working on the developing of technology entrepreneurship by creating new small and medium enterprises in the field of high tech.
Name	Serbian Innovation Fund
Type	The Innovation Fund has established an independent governance structure
Contact Address	Nemanjina 22-26, 11000 Belgrade, Serbia
Website	http://www.innovationfund.rs
Main Area of Services	The intention of the Innovation Fund is to contribute to the overall development of innovations through various financial aid instruments, particularly by fostering establishment of new and strengthening of existing companies, by positioning them to access venture capital markets, and by attracting foreign direct investment in high-tech research and development. Innovation Fund aims to promote linkages between research and technology development and economy, and encourage and support the development of innovative technologies.
Name	Business Incubator Novi Sad
Type	Non-profit organization, established by the city of Novi Sad, Faculty of Technical Science and public utility company “Informatika”.

Contact Address	Vojvodjanskih brigada 28, 21000 Novi Sad, Serbia
Website	http://inkubator.biz
Main Area of Services	Provision of access to resources which are necessary for faster and better development of the new company. Mentors and consultants are available to provide guidance through the process of defining business concept, target market and favourable product attributes and creation of business exit strategy and other issues start-ups might face. Assistance in turning innovative ideas into successful businesses.
Name	Business Innovation Centre Kragujevac
Type	Limited liability company whose founders are the City of Kragujevac, Regional Chamber of Commerce Kragujevac, Regional Agency for Economic Development of Šumadije i Pomoravlje, Association of Private Entrepreneurs "Šumadija" and General Association of Entrepreneurs "Sloga"
Contact Address	Trg Topolivaca 4, 34000 Kragujevac, Serbia
Website	http://www.bickg.rs
Main Area of Services	Business Innovation Centre offers a unique opportunity for innovative ventures in the combination of low-cost, furnished office facilities; top-of-the-line computing, telecommunications; strategic advice from our on-site Management Team and through our “Know-How Network” of professional service providers, experienced business advisors, academics; access to funding sources; marketing and PR support; responsive on-site management; and a culture of quality and cooperation. Through this targeted services package, BIC fosters entrepreneurial ideas from the early stage of business development until the graduation stage of growth.
Name	Knowledge Transfer Centre, Kragujevac
Type	Organizational unit of the University of Kragujevac
Contact Address	Sestre Janjic 6, 34000 Kragujevac, Serbia
Website	http://www.ktc.kg.ac.rs/index.html
Main Area of Services	Improvement of the possibilities for efficient and effective application of the scientific and research results of the University in order to develop the economy and society; encouraging transfer of knowledge between the University and the economy; support for the placement of new technologies and innovations; linking relevant entities, networking and collaboration for the purpose of more intensive transfer of technologies; development of knowledge and skills in the protection and exploitation of patents and other forms of intellectual property in the process of technology transfer; raising awareness about the importance of the intellectual property and increasing technology transfer capacity at the University; providing general information on intellectual property; expertise and support in the preparation of technological and economic feasibility studies, as well as assessment of the value and total potentials in the use of patents; assistance in the creation of new innovation centres, incubators and business-technological parks established by the University and faculties within the University.
Name	Science and technology park Cacak
Type	Limited Liability Company
Contact Address	Nikole Tesle 42, Cacak 32000, Serbia
Website	http://www.ntpcacak.rs

Main Area of Services	Science and Technology Park in Cacak was established to enable collaboration between industry, science and research through the development of new ideas in order to increase the competitiveness of the regional economy. It provides the infrastructure, management and technical assistance to innovative start-up businesses, enabling them further growth and development through professional support and technology transfer from academic and research sector.
Name	Institute for Chemical Energy Sources (IHIS) Zemun
Type	Joint Stock Company
Contact Address	Batajnicki drum 23, 11080 Belgrade
Website	www.ihis.co.rs
Main Area of Services	Provides company headquarters and the use of space for performing their activities; the use of the IHIS name as a logo in the name of the company; usage of the structure of IHIS NTP Zemun; the use of the work of the joint services of IHIS NTP Zemun (in accordance with Article 25 of the Law on Innovative Activity); using research and development cooperation with IHIS NTP Zemun Institute and / or with faculties and institutes with which HOLDING had already concluded contractual cooperation; joint efforts in securing the conditions for investments in new production programs of interest to TP members.
Name	Science and technology park Vrsac
Type	Limited Liability Company
Contact Address	Beogradski put bb, 26300 Vršac, Serbia
Website	Under construction
Main Area of Services	Services in the domain of promotion, media appearance, legal advice, bookkeeping, consulting and education, offices and office utilities, support in the establishment and registration of new innovative companies.

National legislative framework

Intellectual property

Copyright

Copyright[145] applies to literary works (novels, poems, etc.), dramatic works, manuals, newspapers, computer programs, databases, films, musical works, choreographic works, and artistic works such as paintings, drawings and engravings, photographs and sculptures, architectural works, works of applied art, maps, technical drawings, etc.

Original authors of works protected by copyright and their heirs have certain rights vis-à-vis all third parties. They have an exclusive right to use a work, or allow others to use it, on agreed terms.

The creator of a work can give permission or prohibit:

- Reproduction of his work in different forms.
- Public performance of his work.
- Recording of his work on lasting tangible carriers.

[145] BESAROVIĆ, Vesna and ŽARKOVIĆ, Blagota. Intellectual Property. Vol. 2: International Treaties. Belgrade: Dosije, 1999. ISBN 86–81563–44–0

- Broadcasting of his work on the radio, cable or satellite.
- Translations of his work into other languages or other adaptations of his work.

Many works of authorship protected by copyright require mass distribution and communication to the public, which are associated with sizeable cash investments into their dissemination. For that reason, authors often assign the rights to their works to individuals or legal entities with a view to securing the best marketing of their works. Charges related to the consumption of the work depend on the circumstances of the actual use of the work and they are called royalties.

Under the applicable WIPO Treaties, the property rights of the author last for the life of the author and 70 years after his death (the Law on Copyright and Related Rights also provides for the 70-year post mortem duration of protection). This period enables the authors and their heirs to enjoy material benefits in a reasonable time period of the exploitation of the work. Copyright protection also covers moral rights of the author, which inter alia, include the right of authorship (the right to be recognized as the author of his work), the right to oppose the alterations of his work which could damage the standing and reputation of the author.

The author or the owner/holder of a copyright to a work can exercise his right in administrative procedures or before courts with jurisdiction in rem and territorial jurisdiction, and he can request a search of premises for the purpose of finding evidence of manufacture or possession of illegally made copies of protected works (measures aimed at pirated copies of the work). The owner/holder of the right may request a court order for a ban on the performance of certain activities, and he can also request to be compensated for the material damage and the violation of moral rights.

- The Law on Copyright and Related Rights (Official gazette of RS 119/2012 and 29/16)
- Law on the amendments of the law on Copyright and Related Rights (Official Gazette RS 119/2012 from December 17th, 2012.)
- The Law on Optical Discs (Official Gazette RS 52/2011; from July 15th, 2011; in force since July 23rd, 2011)
- Regulations on the conditions to be fulfilled the copies of copyright protected works and subject matter of related rights which are deposited, entry in the register and deposition of copyright protected works and subject matter of related rights and the contents of the registration of deposited copyright protected works and subject matter of related rights with the competent authority (Official Gazette RS 45/2010; from July 3rd, 2010; in force since July 11th, 2010)
- Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms (1971)
- The WIPO Copyright Treaty (1996)
- The WIPO Performances and Phonograms Treaty (1996)
- The Berne Convention for the Protection of Literary and Artistic Works (of September 9th, 1886)
- Universal Copyright Convention (of September 6th, 1952)
- The International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations ("the Rome Convention") - of October 26th, 1961)

Industrial property rights

Patents[146]

Inventions in Serbia can be protected by patent or by utility model. A patent and a utility model

[146] The Patent Law. Intellectual Property Office. Available at: http://www.zis.gov.rs/upload/documents/pdf_en/pdf_patenti/The%20Patent%20Law.pdf

protect the invention in any area of the invention which is novel, which has an inventive step and is industrially applicable. The subject matter of an invention protected by a patent may be a product, a process, use of a product and use of a process.

The right to protection of an invention belongs to the inventor or his successor in title, or in cases prescribed by the Law, to employer or his successor in title. If an invention is the result of the joint effort of a number of inventors, they have a joint right to the protection. A person rendering technical assistance to an inventor is not to be considered to be an inventor. If two or more persons have filed an application for a protection of the joint invention, it shall be considered, unless otherwise stipulated by them, that their aliquot parts are equal. Appropriate provisions of the law regulating obligations and proprietary right shall apply to those issues concerning the mutual legal relations between two or more titular's of rights on the joint invention, that are not provided for by this Law. If two or more persons have made an invention independently of each other, the right to protection of invention therefore shall belong to the person whose patent or petty patent application has the earliest date of filing.

The inventor has the right to be designated as such in the application for a protection of an invention, specifications, registers, certificates and publications related to his invention, in accordance with the provisions of the law (i.e. moral rights). The inventor has the right to enjoy economic benefits from the invention for which he has filed an application or for which the patent or petty patent has been granted (i.e. pecuniary rights).

The patent and the utility model differ:

- By object of protection: the object of the invention protected by the patent may be the product, the process, the application of the product and the application of the procedure. The object of the invention which is protected by a utility model may be only a solution that relates to the construction of a product or a schedule of its components.
- By duration: patent lasts for 20 years, and utility model for 10 years, from the date of filing the application.
- By the application procedure: application for utility model is not published, a report on the state of the art of the invention is not produced and it is not examined whether the invention for which protection is sought by utility model is new, whether it has an inventive step and whether it is industrially applicable.

The patent and the utility model are identical in their effects and provide the same rights to their bearer. Patent / Utility Model Legal Protection means that the invention may not be commercially manufactured, used, placed on the market or sold without the consent of its holder. Thus, the patent / utility model holder has the right to decide who can, and who cannot use his invention during the protection period. The rights holder may grant a license to others to use the invention under the conditions that are the subject of mutual contracting. The rights holder may also transfer the right to another person who becomes his new carrier. After the expiry of the right or the termination of its maintenance, the protection ceases, and the invention becomes a public good. This means that the right holder no longer has the exclusive right to find an invention, which becomes free for commercial exploitation.

Inquiry on whether the invention is already protected is available in the public reading room of the Serbian IPO. Public reading services involve placing documents on protected industrial property rights available for an interested person, as well as providing consultations on issues related to procedures for all intellectual property rights maintained by the IPO. In the premises of the public reading room, it is possible to access and

search through available databases that the IPO maintains and access details on inventions.

A patent / utility model is a territorial right and a patent / utility model recognized by Serbian IPO is valid only in the territory of Serbia.

Legal protection of inventions outside the territory of the Republic of Serbia can be achieved in three ways: through the national system, the PCT system and the European registration system.

- The Patent Law (Official Gazette of the RS 99/11, from December 27, 2011; in force since January 4, 2012).
- Cooperation and Extension Agreement, Agreement between the Federal Government of the Federal Republic of Yugoslavia and the European Patent Organisation on Cooperation in the field of Patents — Co-operation and Extension Agreement (Official Gazette of Serbia and Montenegro - International Agreements 14/2004 from June 18, 2004; in force since November 1, 2004).
- Law on the Ratification of the Strasbourg Agreement Concerning the International Patent Classification (Strasbourg, 1971, as amended in 1979) (Official Gazette of the RS - International Agreements 42/2009 from June 2, 2009; in force since July 15, 2009).
- Law on the Ratification of the Patent Law Treaty (Official Gazette of the RS - International Agreements 19/2010 frp, March 23, 2010; in force since August 8, 2010).
- Law on the Ratification of the Convention the Grant of European Patents (European Patent Convention) from October 5th, 1973, with the amendments of article 63 of the European Patent Convention from December 17, 1991, and amendments from November 29th, 2000 (Official Gazette of the RS - International Agreements 5/2010 from June 9, 2010; in force since October 1, 2010).

Trademarks[147]

After filing an application for recognition of the trademark, the IPO will examine whether the application contains all the essential elements:

1. The request for recognition of the trademark.
2. A sign protected by a stamp.
3. The list of goods or services to which the sign refers.

If some of the elements of the application are missing, the applicant will be directed to complete the application. If the application contains all the essential elements, it will be entered in the E-Registry of trademarks, where it is assigned to class Z, assigned the date of filing and the listing of all data. That date is also the date of obtaining the priority right to the declared sign.

If the IPO finds that a sign for some reason fails to meet the requirements for the protection of the trademark, it shall notify the applicant of the reasons and leave a reasonable time for reply. If the applicant does not respond to the IPO, or if he answers, but the IPO remains in his earlier opinion, the application will be rejected.

Registration of a trademark

If the mark that the applicant wishes to protect with the trademark fulfils all the prescribed conditions, the IPO will invite the applicant to pay the prescribed fee on behalf of the registered mark (see schedule of fees) by the specified term and to provide proof of payment slip or origin of the bank's confirmation of the transfer of funds).

If the applicant fails to pay the prescribed fee, or if he fails to pay within the prescribed term, the IPO shall suspend the procedure. If the applicant pays the prescribed fee within the set

[147] Law On Trademarks. Intellectual Property Office. Available at: http://www.zis.gov.rs/upload/documents/pdf_en/pdf_zigovi/LAW%20ON%20TRADEMARKS%20-%20AMENDED%20PRECISCEN%20NOV%2025022013.pdf

deadline and delivers proof of payment, the IPO will register the trademark, enter the stamp in the E-Register of the IPO and issue to the signer of the trademark document, which has the character of decision in the administrative procedure.

An appeal against the decision of the Institute (decisions and conclusions which end the procedure) can be appealed with the government within 15 days from the date of receipt of the decision. An administrative dispute may be initiated against the decision of the Government with the Government within 30 days from the date of receipt of the original decision of the Government.

If the IPO does not encounter any reason to not grant the registration and there is no other interference with the registration, it usually takes 6-7 months before the registration is completed. If the application is unreliable, there are reasons for possible refusal of protection or there is a termination of the procedure due to a previous issue, the procedure may last longer than 7 months, as determined by the following sources:

- The Law on Trademarks (Official Gazette RS 104/2009; 16/12/2009 and No. 10/2013; 30/01/2013).
- The Methodology Applied by the Intellectual Property Office to the Procedure Relating to the Registration of Trade Marks and the Procedures Based on Registered Trade Marks.

Designs[148]

A design is a three-dimensional or two-dimensional appearance of an entire product, or of its part, which is determined by its visual characteristics, in particular by lines, contours, colours, shape, texture and materials of which the product is made or with which it is decorated, and the combination thereof.

The appearance of the product is understood to mean a complete visual impression which the product makes on an informed consumer or user.

"Product" is an industrial or handicraft item, including the parts intended to be assembled into a complex product, the packaging of the product, graphic symbols and typographic typefaces, but excluding computer programs. To which products does industrial design apply?

Industrial design applies to all the products which can be manufactured industrially or as handicraft items: watches, jewellery, fashion or other luxury items, industrial machinery and medical instruments, furniture, household and electrical appliances, vehicles, architectural structures, packaging of products, textile and wallpaper patterns, and entertainment items, such as toys or items for pets.

The protection of industrial designs in Serbia is regulated by the law and it is obtained by filing an application for registration of a right to a design with the Intellectual Property Office, which decides, in an administrative procedure, after examining the absolute novelty of the deposited design, on the registration of the right to the design, or on the refusal of its registration, if all the statutory requirements have not been fulfilled. The decision is final and an administrative dispute may be instituted against it by means of a direct lawsuit filed with the Supreme Court of Serbia.

The term of protection of the registered design is 5 years, and by paying renewal fees it can be extended for another 20 years.

- Law on Legal Protection of Industrial Design (Official Gazette RS 104/2009; 16/12/2009).

[148] Law On Legal Protection On Industrial Design. Paragraf – on-line legislative. Available at: https://www.paragraf.rs/propisi/zakon_o_pravnoj_zastiti_industrijskog_dizajna.html

Trade secrets

This Law regulates the legal protection of trade secret against all acts of unfair competition. Within the meaning of the provisions of this Law, information which enjoys protection as trade secrets in the meaning of the provisions of this Law are considered to be in particular: financial, economic, business, scientific, technical, technological, production data, studies, results of research including formula, plan, project prototype, code, model, compilation, program, method, technique, procedure, internal information or instruction etc., regardless how saved or compiled.

- The Law on the Protection of Trade Secrets (Official Gazette RS 72/2011, in force since October 6th, 2011)

Enforcement of rights

- The Law on Special Powers for the Purpose of Efficient Protection of Intellectual Property Rights (Official Gazette of the RS 46/06, 104/09)

Ownership of a research result

Employee who comes up with an invention in the course of employment shall be required to submit a written report to the employer immediately upon the creation of the invention, informing him thereof. Within a period of two months from the receipt of the admissible report from the employee, the employer shall be required to notify the employee in writing whether he considers the invention to be an invention in the sense of the patent law.

With regard to the use of an invention protected in the name of the inventor, the employer is obliged to state, within a period of six months from the receipt of the admissible report on the invention whether he is interested in obtaining an exclusive license from the inventor. Until the expiry of the six months' time limit, the inventor shall not be entitled to assign the right to the invention to a third party or to license the use of the invention. Effectively enough, the employer is eligible to kick start the production utilising the invention and employ additional staff to be able to profit on the endeavour. If the employer finds no interest in exploiting the invention and has informed the employee of that decision in writing in due six months period, employee who brought the invention is free to pursue adequate intellectual property protection right to it.

Conversely, when the person can undoubtedly prove that the invention is the fruit of his own efforts and usage of his own material and/or intangible resources, prior or after he was employed with an enterprise, then the invention is in the domain of his IPR and he is free to start his own enterprise to profit on the invention.

Contact details of the national intellectual property office

Table 73 Contact details of the Serbian intellectual property office

Name	Republic of Serbia Intellectual Property Office
Contact Address	Kneginje Ljubice 5, 11158 Beograd, Republic of Serbia
Website	www.zis.gov.rs
Main Area of Services	The Intellectual Property Office is an institution which is responsible for the tasks related to industrial property rights (patents, trademarks, industrial designs, indications of geographical origin, and topographies of semiconductor products), copyright and related rights.

Patent attorneys

The role of a patent attorney in Serbia is not legally distinguished from general term of attorney at law. This means that there is no separate chamber of attorneys other than the Chamber of Attorneys of the Republic of Serbia or separate exams on the IP issues. However, simple internet enquires will return results pointing out that there is a number of attorney offices and bureaus who specialized in the field of intellectual property rights.

They provide professional assistance and services for:

- Protection and exercise of author and copyrights and related rights in extra-judicial and judicial proceedings.
- Registration and protection of trademarks, patents and other forms of industrial property.
- Creation of a contract models on the order of the author's work, regulation of mutual rights and obligations of the co-author and author's contracts of all kinds.
- Making legal opinions and assessing cases and other cases related to copyright and IP law.
- Other related services.

Commercialization

Options for commercialization of the eco-technology are regulated by general rules governing the intellectual property rights, i.e. there is no dedicated legal framework applicable exclusively to eco-technology. It means that the assignment of right to file the application, rights arising from the application, right on patent or petty patent may be either in whole or in part the consequence of an assignment contract, a change of status of the applicant or right holder, as well as inheritance, court or administrative decision.

A trademark and/or rights arising from the application may be assigned to other person in respect of some or all the goods or services for which it is registered or applied for. The assignment of a trademark and/or rights arising from the application may be the consequence of an assignment agreement, license agreement, grant license or pledge agreement. The trademark shall be terminated upon expiry of the ten-year period for which the fee has been paid, unless its validity has been extended.

Commercialization of the eco-technology is therefore bounded only by the above-mentioned Laws on patent and Law on trademarks and legal framework of the Republic of Serbia. There is no exclusive legal framework or restrictions which apply to eco-technology per se.

State aid

After the EU Council's recommendation on 28 February 2012, Serbia received full candidate status on 1 March the same year, and is therefore still subject to provisions of the rules for external actions of the EU.

Republic of Serbia has its own national state aid rules which are regulated by the Law on State Aid Control.[149] In accordance with this law, state aid is allowed:

1. When it is of a social nature, and assigned to individual consumers without discrimination in relation to the origin of goods or products, which constitute concrete assistance.
2. When it is assigned for the elimination of damage caused by natural disasters or other emergency situations.
3. When it is assigned to improve the economic development of the republic of Serbia with an extremely low standard of living or a high unemployment rate.

[149] Law on State Aid Control. Paragraf – on-line legislative. Available at: https://www.paragraf.rs/propisi/zakon_o_kontroli_drzavne_pomoci.html

4. When it is assigned to eliminate a serious disorder in the economy of the republic of Serbia or to perform a particular project of special importance for the republic of Serbia.
5. When it is assigned to improve the development of certain economic activities or certain economic areas in the republic of Serbia, unless seriously disturbed, nor is there a threat of serious distortion of competition on the market.
6. When it is assigned to promote the preservation and preservation of cultural heritage.

In the domain of innovation and eco-innovation, the Rulebook governing the State Aid[150] allows for these amounts of state aid:

1. For large business entities - up to 50% of the eligible costs (established by the Rulebook).
2. For medium-sized enterprises - up to 60% of justified costs.
3. For small business entities - up to 70% of eligible costs.

When the investment involves the acquisition of assets for eco-innovation or for the start of the eco-innovation project, the amount of state aid can be increased by a maximum of 10 percentage points:

1. If the property or the project of eco-innovation is new or at least significantly better than the highest technology in the same industry sector in the Republic of Serbia, which is proved by a precise description of the innovation and market conditions in which it is introduced or expanded, whereby innovation is compared with processes or organizational techniques that use other companies in the same sector of industry using state-of-the-art technology.
2. If the expected environmental benefit is significantly higher than the improvement resulting from the general development of state-of-the-art technology in the comparable activities. When quantitative parameters can be used to compare ecological innovative activities with standard ecologically non-innovative activities, "significantly higher" means that the marginal improvement expected from ecologically innovative activities in terms of reduced environmental risk or pollution or improvements in the efficiency of energy or resource consumption - must be at least twice as high as the marginal improvement expected from the general development of non-innovative activities to be used for comparison. In cases where this approach is not appropriate or when quantitative comparison is not possible, the state aid application must contain a detailed description of the method used to evaluate the fulfilment of the criterion "significantly higher" and to provide a standard that is comparable to the standard of this method.
3. The innovative nature of the property or project contains a clear degree of risk in a technological, market or financial sense, which is greater than the risk usually associated with non-innovative assets or projects in the comparative activities, and this risk can be presented in the form of costs related to the income of the enterprise, the time needed for development, the expected returns from eco-innovation compared to costs, the likelihood of failure, etc.

In cases of granting of state aid to a large business entities, this entity must demonstrate incentive effects in accordance with the following criteria: increasing the scope of the project, extending the scope of activities, faster project implementation and increasing the

[150] The Rulebook Governing the State Aid. Ministry of Finance of the Republic of Serbia. Available at: http://www.mfin.gov.rs/UserFiles/File/drzavna%20pomoc/Uredba%20o%20pravilima%20za%20dodelu%20drzavne%20pomoci%281%29.pdf

total amount for research, development and innovation.

State aid for process innovation and business organization in the service sector cannot be assigned to routine or regular changes in products, production lines, production processes, existing services, or other ongoing operations, and if these changes can be made improvements.

State aid may be granted if the following conditions are met:

1. The innovation of the processes and the organization of business is obvious or significantly improved in relation to the existing situation in a certain branch of industry, which is proved by the precise description of innovation, its comparison with the existing techniques in the process and organization of business used by other economic entities in the same sector.
2. The process and business organization innovation relates to the use of information and communication technologies in order to change the organization of business.
3. The business innovation is in the form of a project for which a project manager has been appointed and the project costs indicated.
4. Result of the project is a development of standards, a model of commercial business, and a methodology of procedures that is possible to reproduce, certify or protect the patent systematically.
5. the project that contains the innovation of the processes and the organization of business has a clear degree of risk, which is proved by comparing the project costs with the income of the undertaking, the time needed for the development of the new process, the expected profit from the process innovation compared to project costs and the probability of failure project.

Funding of additional development

R & D funding by the state

The Strategy of Scientific and Technological Development of the Republic of Serbia, proposes, as a strategic goal, raised investment in research, development and innovation, with annual increase of 0.15% of GDP per year. Given that it is in the process of joining the European Union (EU), Serbia seeks to fulfil the requirement that total investments amount to 3% of GDP with the participation of public sources of 1% of GDP. However, it is still far from that goal. For the year 2017, it is expected that expenditure for R&D reach 0.6% of GDP through direct budget financing. At the same time, authorities are introducing measures to strengthen financing and development by the business sector, as well as other national and foreign sources, with aim that these sources contribute 1.5% of GDP by 2020.[151] The allocations for R & D from the budget of Serbia in 2013 were at 0.34%, which indicates the insufficiency of investment and the loss of pace from the EU countries and other individual countries in the region.[152]

The share of total budget for research and development in gross domestic product in the year 2016 in the Republic of Serbia was

[151] REPUBLIC OF SERBIA. Official Gazette No. 25/2016. Strategy for Scientific and Technological Development of the Republic of Serbia for the period from year 2016 to 2020 – Researches for Innovations, Available also at: http://aler.rs/files/STRATEGIJA_naucnog_i_tehnoloskog_razvoja_Republike_Srbije_za_period_od_2016_do_2020_godine_Istrazivanja_za_inovacije_Sl_gl_RS_br_25_2016.pdf

[152] OBRADOVIĆ-ĆUK, Jelena, MITIĆ, Petar and Dmitrović, Mirjana. Significance of investments in science - regional and national analysis. XXIII Conference: GROWTH TRENDS: "Position of Higher Education and Science in Serbia". Zlatibor, 22-24 February 2017. Available at: http://www.trend.uns.ac.rs/stskup/trend_2017/radovi/T2.1/T2.1-3.pdf

0.39%.[153] The largest percentage of budget funds for research and development in 2016 was allocated to the state sector (47.5%) and to the higher education sector (36.9%). In funds for financing higher education, funds from international organizations account for around 10%. Business sector accounts for around 4%, while only 1.4% of the funds were allocated for the non-profit sector.

National support – public Agencies

In general terms, allocation of the funds from state budget to various economic activities is channelled through ministries of the national government, secretariats of provincial government, development agency of Serbia and chamber of commerce network. Strategy of Scientific and Technological Development proposes establishment of a fund for financing research and development, but to date this fund still is not operative.

Table 74 National support of innovations in Serbia

Name	Ministry of Economy
Website	http://privreda.gov.rs
What are the finances used for?	The funds of the national budget which are channelled tough this ministry are used for: support to small enterprises for purchase of equipment, improvement of local and regional infrastructure, encouraging entrepreneurship through the development projects, incentives for investors, development of entrepreneurship through investment support, development of business infrastructure, support for direct investment, development of entrepreneurship through financial support for beginners in business, development of entrepreneurship through development projects.
Name	Ministry of education, science and technological development
Website	http://www.mpn.gov.rs
What are the finances used for?	According to the website of this ministry, most of the funding is used for: scholarships for students of doctoral academic studies and financing of material costs of inclusion of the scholarships for the project of this ministry; co-financing of the participation of students who enrolled in master academic studies, respectively doctoral academic studies and scholarship of the ministry at scientific meetings in the Republic of Serbia, and abroad, study visits abroad for students who enrolled in master academic studies, respectively doctoral academic studies and scholarship of the ministry; scholarships for young researchers; co-financing the participation of young researchers at the Olympiads of knowledge and at scientific meetings and meetings of working bodies of the scientific meetings abroad, the residence of researchers from abroad in the Republic of Serbia upon invitation, postdoctoral training of researchers; financing the procurement of scientific and professional literature from abroad and access to electronic scientific and professional databases; financing the development, maintenance and publication of bibliometric reports on journals for categorization and ranking of journals that are published in the Republic of Serbia; co-financing of the issuing of scientific journals in the Republic of Serbia, monographies, scientific gatherings, collective memberships

[153] GOVERNMENT BUDGET APPROPRIATIONS OR OUTLAYS FOR R&D, 2016/2017. Statistical Office of the Republic of Serbia [online]. Belgrade. ©2018. Last modified 30.06.2017 [cit. 2018-01-31]. Available at: http://www.stat.gov.rs/en-US/vesti/20170630-budzetska-izdvajanja-za-nauku/?s=1001

	in international scientific associations, additional education and training of talented students and students for scientific research work and similar activities.
Name	Development agency of Serbia
Website	http://ras.gov.rs/en
What are the finances used for?	The main activity of RAS is to support micro, small and medium enterprises and entrepreneurs in order to strengthen the Serbian economy, support direct investment and export promotion, raising the reputation of Serbia and Regional Development. Mission of RAS is to empower and inform entrepreneurs about applying for support programs, cooperation with state institutions in creating economic policy, cooperation with business associations in order to improve the business environment. For all parts of Serbia to develop evenly, RAS has 16 regional development agencies (RDAs) in its network, as follows: in Belgrade, Novi Sad, Subotica, Zrenjanin, Ruma, Požarevac, Loznica, Kragujevac, Zaječar, Užice, Kraljevo, Kruševac, Niš, Novi Pazar, Leskovac, Kosovska Mitrovica, and RAS is intensively cooperating with them in the implementation of the program.
Name	Chamber of commerce and industry of Serbia
Website	www.pks.rs
What are the finances used for?	Funding is used for various activities aimed to support the economy and entrepreneurship in Serbia, assistance in promotion, registration and certification of economic players in Serbia, their performance and increase in export and in investment attraction.

Transnational support funds

European Union funding

Republic of Serbia is currently beneficiary of the financial and technical help of the Instrument for pre-accession Assistance (IPA) and therefore is not eligible to use EU Cohesion funds. It is, however, eligible to participate in the number of programmes for the EU external actions as listed in Annex 4 to this Guidebook and the following overview[154]:

Table 75 The list of programmes for the EU external actions in which is Serbia participate

Funding programme	Creative Europe
Main target	The programme is the European Commission's framework programme for support to cultural and audio-visual sectors. It was adopted in 2014 for a seven-year period, building on previous Culture Programme and MEDIA, which ran from 2007-2013. The Republic of Serbia joined the Culture programme on 19 June 2014; Creative Europe Desk Serbia is an implementation body of Creative Europe, set up within the Ministry of Culture and Information of the Republic of Serbia.
Funding programme	Erasmus+
Main target	The programme provides funding for cooperation projects in three areas: education, youth and sport. The Republic of Serbia is one of the programme's partner countries. Having recently started preparatory measures for full participation in the programme, Serbian institutions are

[154] EU PROGRAMMES/CREATIVE EUROPE. The Delegation of the European Union to the Repubic of Serbia [online]. Belgrade. ©2018. [cit. 2018-01-31]. Available at: https://europa.rs/eu-assistance-to-serbia/eu-programmes/?lang=en

	offered the possibility of limited participation in 2017 call for proposals for several new types of projects. In addition to opportunities given to it as a partner country form the Western Balkans region, Serbia has been granted access to: KA1 Higher Education KA1 School Education KA1 Mobility in the area of Vocational Education and Training KA1 Adult Education KA1 Youth Mobility KA2 Strategic Partnerships for Vocational Education and Training. The management of project proposals in Serbia is delegated to Tempus Foundation acting as the national Erasmus+ office.
Funding programme	Europe for Citizens
Main target	The programme aims to promote European identity and citizenship and strengthen citizens' participation in all segments of life of the Community. The Republic of Serbia joined the programme in November 2012, following the signature of the International Agreement signed with the European Commission. Up until 2017, over 200 Serbian civil society organisations, local self-governments, educational and cultural institutions have submitted their project proposals. Over 230 national stakeholders have created partnerships across Europe. Office for Cooperation with Civil Society of the Republic of Serbia acts as the national contact of the Programme. The Office promotes the programme, organises info sessions and conferences. It also helps applicants to prepare project applications and find partners in other countries taking part in the programme.
Funding programme	CUSTOMS 2020
Main target	CUSTOMS 2020 is an EU cooperation programme providing national customs administrations with the possibility to create and exchange information and expertise. It allows for developing and operating major trans-European IT systems in partnership and establishing various human networks by bringing together national officials from across Europe. The Republic of Serbia joined the programme Customs 2020 on 19 November 2014, upon the entry into force of the International Agreement between the European Union and the Republic of Serbia on the participation of the Republic of Serbia in Customs 2020 programme. The implementation of the programme in Serbia falls under the responsibility of Customs Administration of the Republic of Serbia.
Funding programme	Fiscalis 2020
Main target	Fiscalis 2020 is an EU cooperation programme enabling national tax administrations to create and exchange information and expertise. It enables development and operation of major trans-European IT systems in partnership, as well as the establishment of various person to person networks by bringing together national officials from across Europe. The Republic of Serbia joined the programme in 2015.
Funding programme	Employment and Social innovation Programme
Main target	EaSI is a financing instrument at EU level to promote a high level of quality and sustainable employment, guaranteeing adequate and decent social

	protection, combating social exclusion and poverty and improving working conditions. Serbia joined EaSI programme in August 2015.
Funding programme	EU Scheme for Young Professionals in the Western Balkans (YPS)
Main target	Based on encouraging results of the pilot project presented in the context of the Trieste Summit held in July 2017, the European Commission, following a positive opinion of the IPA Committee (Member States), decided to continue the EU Scheme for Young Professionals in the Western Balkans (YPS) for a further two years. The overall objective of this follow up Action is "to contribute to progress in the accession process and deepen regional cooperation in the Western Balkans".
Funding programme	The SME Instrument
Main target	The programme provides business innovation support to SMEs in the 28 EU Member States and Horizon 2020 associated countries. Being established in a Horizon 2020 associated country, Serbian SMEs are eligible to get EU funding and support for breakthrough innovation projects with a market-creating potential. According to the "SME Instrument Impact Report – 2017", Serbia was in the group of countries with less than 10 SMEs applies for the funding (5 SMEs applied from Serbia), with the 4% of the SME Instrument success rate, where the Iceland was by far the best faring with the 20% success rate. By topic, Serbian SMEs competed for the funding with: eco-innovation and a sustainable supply of raw materials; climate action, environment, resource efficiency and raw materials; introduction of ICT solutions for Health, Well-Being and Ageing Well; bridging between different programme languages and platforms and low carbon and efficient energy systems. Total EU contribution to the projects sought was more than EUR 1.8 million. The biggest contribution of more than EUR 1.6 million applies for the topic "Accelerating market introduction of ICT solutions for Health, Well-Being and Ageing Well" of a Belgrade based company who previously used the SME instrument funding in the year 2015.

Foreign aid

The EU is by far the biggest donor to Serbia with more than €3.6 billion (as of October 2018) in grants provided over the past 18 years in all fields, ranging from rule of law, public administration reform, social development, environment and agriculture. The financial assistance is provided through EU's Instrument for Pre-Accession (IPA) which aims to help Serbia to prepare for assuming and effectively implementing obligations of its future membership in the EU. EU Member States provided substantial bilateral assistance too.[155] According to the USAID statistics,[156] Serbia received total of more than $33 million since the year 2001, covering number of sectors, from civil rights, judicial reform to business enabling.

Norway is a significant bilateral donor to Serbia, Montenegro and Macedonia. Norwegian aid aims to support Euro-Atlantic

[155] EU ASSISTANCE TO SERBIA. The Delegation of the European Union to the Repubic of Serbia [online]. Belgrade. ©2018. [cit. 2018-10-8]. Available at: http://europa.rs/eu-assistance-to-serbia/?lang=en

[156] U.S. FOREIGN AID BY COUNTRY/SERBIA. USAID from the American people [online]. ©2018. [cit. 2018-01-31]. Available at: https://explorer.usaid.gov/cd/SRB

integration, which we see as a key to democracy based on the rule of law, and stability in these three countries and the region. Norwegian Embassy in Belgrade funds a number of projects[157] in the region of Western Balkans in the 2017.

Another significant donor to Serbia is Japan with about 20 projects, half of which are still ongoing. Projects are covering several topics with primary focus on: 1) Market-oriented economic reform, 2) Health/Education, and 3) Environmental Protection, tackling social, infrastructural, tourism to SME and medical aid issues, amongst others. According to the data for the year 2015 from the site of Japan International Cooperation Agency (JICA), Japan dedicated $1.88 million in the form of grant, $2.8 million as technical assistance and $0.78 million in the form of loans.[158]

Business incubators

Local incubators[159]

In an unpublished study[160] which German experts produced for the needs of the government of the Republic of Serbia, it is suggested that 25 incubators in Serbia have been established, half of which are functional, but no precise list is given. At that time Business Registers Agency (APR), retrieves data on 25 incubators, but only 13 of them were on the NARD (nowadays DAS) list.

Another study[161] on business incubators in the region was conducted within the TEMPUS programme specifies that by the year 2014, 23 incubators were established in Serbia, along with five other initiated initiatives. The business-technological incubator of technical faculties Belgrade (BITF)[162] is the most successful business and technology incubator in Serbia, registered as a non-profitable Ltd IN 2016.

Another institution which is host to business incubating initiatives is Science Technology Park (STP). STP Belgrade is primarily intended for growing high-tech development companies, small businesses and start-ups. It is established by the RS Government (represented by the Ministry of Education, Science and Technological Development), the City of Belgrade and the University of Belgrade, with the aim to create a favourable environment for developing links between industry and science & research organizations and universities, knowledge transfer, new technology development, innovation commercialization, networking and stimulating growth in the knowledge-based economy. STP Belgrade is becoming a new technology core of the city that brings together domestic and foreign high-tech development companies and promotes start-ups by creating a favourable environment to innovation, technology development and competitiveness.[163]

[157] ROYAL NORWEGIAN EMBASSY IN BELGRADE / EMBASSY PROJECTS AGREED IN 2017. Norwegian Ministry of Foreign Affairs [online]. Oslo ©2018. [cit. 2018-01-31]. Available at: https://www.norway.no/contentassets/0cf812d763e046a29a4c081850c1c364/embassy-supported-projects-2010---2017.pdf

[158] COUNTRIES & REGIONS / EUROPE / SERBIA. JICA - Japan International Cooperation Agency [online]. Tokyo ©2018. [cit. 2018-01-31]. Available at: https://www.jica.go.jp/serbia/english/c8h0vm0000brl5zg-att/serbia.pdf

[159] KOVAČEVIĆ, M. Establishing business incubators as a measure of support to local development. Belgrade: Unpublished Master Thesis, 2015.

[160] DEUTSCHE GESELLSCHAFT FÜR INTERNATIONALE ZUSAMMENARBEIT (GIZ). GIZ Project: Business Incubators in Serbia. Part 1 Screening of the Business Incubators and recommendations to improve their performance. Belgrade: Unpublished Report, 2014.

[161] GROUP OF AUTHORS. Strategic Development Plan for Business Incubators and Science and Technology Parks in Western Balkan Region. Kragujevac: University of Kragujevac and WBCInno project, 2014. Available at: http://www.wbc-inno.kg.ac.rs/pub/download/13956474458596_wbc_inno_academic_strategic_development_plan_for_web.pdf

[162] Business Technology Incubator of Technical Faculties [online]. Belgrade ©2018. Available at: http://www.bitf.rs/cms/item/home/en.html

[163] Science Technology Park [online]. Belgrade ©2018. Available at: https://www.ntpark.rs/about/

The reasons that led to such a confusing situation about determining basic facts as the number of incubators are numerous, some of which are mentioned in the aforementioned study conducted within the framework of the TEMPUS program: "After the initial support at the inception phase, a large number of incubators in Serbia have encountered the problem of long-term, sustainable financing, which resulted in serious difficulties in the functioning of the development of services for small enterprises, tenants of the incubator. Except for follow up support through the ENTRANS programme and assistance through the National Investment Plan, there were no state aid programs, and as a result, a number of these incubators were no longer operational (no tenants), and those who are still operative face major problems in the development of their functions and giving full contribution to the development of the SME sector"[164].

The problem of maintaining the list of operational incubators persisted to date, fostered by the fact that private enterprises sometimes add "business incubator" adjacent to the simple name of the company in their trial to capitalize on virtual attributes of structured SME assistance.

National incubator network

The study[165] from the year 2015 extensively elaborates the need for establishment of the national network of incubators in Serbia which would be comparable to the models such are: US based NBIA (National Business Incubation Association), EBN (European BIC Network) or German ADT (Bundesverband Deutscher Innovations, Technologie und Gründerzentren e.V.), and its inclusion in greater array of networks, like European Enterprise Network. This idea was in line with SME development paradigm of the government, DAS and NALED at that time.

To corroborate this initiative, the STIPNet incubator network was established at the end of the year 2013. Founders were BITF (Incubator of Technical Faculties in Belgrade), Business Incubator Zrenjanin, Business Incubator Novi Sad, Business Incubator Subotica and Scientific Technology Park Čačak. It was created as part of a project of support of the Government of the Swiss Federation to the development of entrepreneurship. However, when the programme was completed, there were no longer any funds for the functioning and implementation of the common activities, so even if the network is not extinguished, it is not active.

Results of the success of incubators are not instantly visible and sometimes cannot be expressed by sheer numbers, since most (if not all of them), are organized as non-for profit organisations, hence not paying dividends nor presenting financial benefit. The real beneficiary of the work of incubators in any given country is the State budget, since all the taxes on wages, corporate taxes and social benefits of any employee and enterprise is budgetary revenue. For example, if an incubator hosts only 50 employees (of any number of incubated companies) on legally mandated minimal wages, wage taxes and social giving's to the state budget are RSD 9 million. If one adds 20% on any turnover of VAT, the numbers score rises for additional RSD 2.6 million, totalling in RSD 11.6 million (about EUR 100.000) each year, plus corporative taxes, where applicable. Usually, though these obligations of the incubated companies, an incubator who is dependent on the budget brings multiplied amount of received funds back to it.[166]

[164] KOVAČEVIĆ, M. Establishing business incubators as a measure of support to local development. Belgrade: Unpublished Master Thesis, 2015.
[165] Ibid.
[166] MOLNAR, Robert. Interview with CEO of Business Incubator CenterCentre in Zrenjanin. Zrenjanin [cit. 2018-01-24].

Support by companies or private investment

Apprenticeship programs

As mentioned with the mentorship programmes, there are certain activities driven by internal company interests for development of specialised workforce[167], especially where there are proprietary solutions or where an economic entity operates within narrow or non-standardised market niches. This, however, is limited to few national companies with traditionally well-established business and access to national and international markets ("NIS" and "Hemofarm", to name a few), but is more of a regular practice of the foreign direct investors bringing the plug-and-play production factories ("Leoni", "DrexlerMayer", ...).

Support to external apprentices' programs is even scarcer, since no companies in Serbia seem to be specializing its core business in providing dedicated syllabuses as an external service provider to the companies in need.

Private scholarships/fellowships

There are no private (outside) scholarships nor fellowships awarded by private foundations, companies, and service groups which are founded in Serbia to date. Outstanding students from Serbia do however compete for international scholarships/fellowships for studying abroad. This field is yet to be recognized by the national legal framework of the educational system in this country.

Organizations of hackathons

Hackathon as a term has its origins since 1990s. In its informal meaning, it is "an event typically lasting several days, in which a large number of people meet to engage in collaborative computer programming".[168] Unlike in richer countries Serbian experiences in this type of open source events are relatively new feature but very important in mobilising very dynamic IT community. While first event labelled as hackathon was organized in 1999,[169] in Serbia it was in 2011,[170] when SEE ICT from Belgrade organized the first non-company hackathon in Serbia and established the tradition of hackathons influencing positive social changes. Since then, numerous hackathons were organized in different Serbian towns; unlike first hackathons where international donor organizations (financially) supported them, private business sector in Serbia did recognise this form of event as an opportunity for their businesses.

In many cases today's hackathons in Serbia are initiated and supported by business sector in tight relations with some NGO or other type of IT community formal or/and informal organization (SEE ICT, ICT HUB[171], Startit[172], …). Beside these, hackathons in Serbia are often accompanied by academic institutions related

[167] KOVAČEVIĆ, M. Establishing business incubators as a measure of support to local development. Belgrade: Unpublished Master Thesis, 2015.

[168] Oxford living dictionaries [online]. Oxford ©2018. Oxford University Press. Available at: https://en.oxforddictionaries.com/definition/hackathon

[169] OpenBSD project [online]. ©2017. [cit. 2017-12-22]. Available at: https://www.openbsd.org/hackathons.html

[170] News/Open data hackathon: 48 hours – 10 projects. Social inclusion and poverty reduction [online]. Belgrade. ©2017. Last modified 10.12.2015 [cit. 2017-12-22]. Available at: http://socijalnoukljucivanje.gov.rs/en/open-data-hackathon-48-hours-10-projects/

[171] ICT Hub [online]. Belgrade. ©2018. Available at: https://www.icthub.rs/

[172] RANGELOV, Nevenka. Tag: Hackathon / 8 Hyperhack: najveći hakaton u Novom Sadu — 12+ timova, 5.000€ nagrada. Startit [online]. Belgrade. ©2018. Last modified 20.02.2018 [cit. 2018-22-02]. Available at: https://startit.rs/hyperhack-blockchain-hakaton-novi-sad/

to IT sector (Faculty of Electrical Engineering[173], Faculty of Computing[174] …).

Hackathons in Serbia are widely recognized by different social groups outside of IT sector, but mostly by private business sector, NGO sector (social activists) as well as financial sector.

Most of today's hackathons last 24 or 48 hours with prizes for the best solutions. They are great opportunity to join IT professionals / start-ups / students / individuas with social activists as well as with other professionals from private sector in order to create useful solutions for businesses and/or for wider society.

The list of recent and upcoming hackathons in Serbia is available at various e-sources (i.e. GitHub Inc.[175])

Promotion and marketing

Promotion and marketing

Table 76 Promotion of Serbia

	Development Agency of Serbia (DAS)
Website	http://ras.gov.rs/en
Information	Promotion of Serbia on international fairs and exhibitions is the responsibility of the Development Agency of Serbia. It is a government organization dedicated to facilitating and implementing direct investments, promoting and increasing exports, improving the competitiveness of Serbian economy, as well as reputation and economic and regional development of the Republic of Serbia. Activities of the DAS in the field of promotion of Serbian economy range from organization and support to the SMEs from Serbia to participate in international fairs publish guides and other publications to attract foreign investment and number of other promotional activities.
	Chamber of Commerce and Industry of Serbia (CCIS)
Website	www.pks.rs
Information	It plays significant role in connecting Serbian economy to its foreign counterparts. CCIS is integrated in several International chamber associations (The International Chamber of Commerce (ICC); EUROCHAMBRES – Association of European Chambers; Association of Balkans Chambers (ABC) and Association of Mediterranean Chambers of Commerce (ASCAME)), providing it invaluable insight into benchmarking of the Serbian economy and tool for international promotion.
	Fairs
Website	http://tofairs.com
Information	Aside from participation on international fairs throughout the globe, Serbia itself is a host for number of international fairs, exhibitions and expos. According to

[173] Faculty of Electrical Engineering [online]. Belgrade. ©2018. [cit. 2018-10-08]. Available at: https://www.etf.bg.ac.rs/en

[174] Faculty of Computing [online]. Belgrade. ©2018. [cit. 2018-10-08]. Available at: https://raf.edu.rs/en/

[175] zsevic/hackathonist/code/README.md. GitHub Inc. [online]. ©2018. [cit. 2018-10-08]. Available at: https://github.com/zsevic/hackathonist

	the internet source keeping the record on global fair events, there are about 30 international fairs which are taking place in Serbian cities of Belgrade[176] and Novi Sad[177]. Apparently, this source of information is not keeping data on fairs in smaller cities of Serbia, lots of which do have international character, but with limited impact on international promotional scene.
	NGOs
Information	There are a lot of NGOs from local level to national level which deal with eco issues even in innovation sense. Chamber of Commerce of Green Serbia is just one of them.[178] It gathers experts from eco area as well as each one who is oriented to implement its knowledge in environment protection.
	Internet
Information	Numerous websites deal with some area of eco-innovation related to its promotion or marketing. First of all, there is an Energetski portal[179] which is a business web portal on clean energy. It deals with wide range of contemporary energy and environment related issues, such as: RES, energy efficiency, sustainable development, relevant regulations, tenders, projects and funding. Additionally, there is a business portal on waste management and recycling

[176] Belgrade Fair [online]. Belgrade. ©2018.[cit. 2018-10-08]. Available at: http://sajam.rs/en/
[177] Novi Sad Fair [online]. Belgrade. ©2018.[cit. 2018-10-08]. Available at: https://www.sajam.net/en/
[178] Privredna komora zelene Srbije [online]. Belgrade. ©2018.[cit. 2018-10-09]. Available at: http://www.pkzs.rs/
[179] Business web portal on clean energy – Energetski portal [online]. Belgrade. ©2018.[cit. 2018-10-09]. Available at: https://www.energetskiportal.rs/en/

	„Reciklaža i upravljanje otpadom“[180], which promotes this two ecological cathegories. There is also a very practical and specialized website „Eko-kuće“[181], which promotes eco-innovations and eco-culture in field of housing.

Beside this institutional infrastructure for promotion, as well as NGOs and Internet sources, there are number of actions for promotion of entrepreneurial culture in Serbia and promotion of its economy in the framework of various projects implemented through IPA and other donor programmes. One such activity is traditional competition for the best technological innovation in Serbia.[38] The aim of the competition is to promote the entrepreneurial climate in Serbia and to help potential and existing high-tech entrepreneurs who are willing and able to turn their own ideas and inventions into market-valued innovations.

Events and networking

Local workshops

Local workshops on various topics are frequently organized and hosted by interested parties, depending on the fields of interest. By that criterion, there is abundance of providers and events, hosted and organized by interest groups, who may include: employer’s union organizations, syndicates, NGOs, various associations, local municipalities and so on. One good example is regional centre for the professional development of the employees in education in Čačak.[182]

However, speaking of a structured approach, there are only a handful of government/established institutions with sufficiently developed network of the branch offices. This is presenting significant number of local workshop events: regional centres for socio-economic development as part of the DAS array of agencies,[183] local branches of the National Employment Service (NES),[184] universities and institutions which are part of the national healthcare and social security system.

International seminars and conferences

Similar to workshops, international seminars are organized and conducted by professional organizations and associations, depending on the topics. The coverage and impact may be national or regional with the participation of international parties, experts, associations or exquisite individuals. There are also numerous conferences with international significance that are organised by different organisations, or public institutions in Serbia. There is no clear evidence on this issue.

When it comes to networking, one of the most relevant is Enterprise Europe Network – Serbia[185], with 6 contact points in 3 major cities: Belgrade, Novi Sad and Niš. Like in other European countries, EEN helps companies with

[180] Reciklaža i upravljanje otpadom [online]. Belgrade. ©2018.[cit. 2018-10-09]. Available at: http://reciklaza.biz/
[181] Eko kuće [online]. Belgrade. ©2018.[cit. 2018-10-09]. Available at: http://www.ekokuce.com/
[182] Regional centercentre for the professional development of the employees in education – Čačak [online]. Čačak. ©2018.[cit. 2018-10-09]. Available at: https://www.rc-cacak.co.rs/en/
[183] Regionalni razvoj / Akreditovane regionalne razvojne agencije. Development Agency of Serbia – RAS [online]. Belgrade. ©2018.[cit. 2018-10-09]. Available at: http://ras.gov.rs/en/regionalni-razvoj
[184] Mreža / Filijale. Nacionalna služba za zapošljavanje [online]. Belgrade. ©2018. [cit. 2018-10-09]. Available at: http://www.nsz.gov.rs/live/mreza/filijale
[185] Enterprise Europe Network [online]. Belgrade. ©2018. [cit. 2018-10-09]. Available at: http://een.rs/

advice, support and opportunities in their business internationalisation. Besides EEN, the Union of Engineers and Technicians of Serbia organizes on regular way relevant conferences and the latest one was the International Conference "Green Economy and Environmental Protection" held April 22-25, 2018 in Belgrade.[186] The Union has its local branches Serbia-wide, and also has collective members such as some of the country's professional and multidisciplinary associations.

Expert database

Table below provides contacts and area of research of experts who are listed in expert database arranged by RCR BANAT.

Table 77 List of experts in Serbia

Name	Biljana Viduka
Area of research/ specialization	Business development, project management
Telephone	+3816211088 95
E-Mail	office@spescom.rs
Name	Daniela Zlatić Šutić
Area of research/ specialization	Information on protection and management of intellectual, preferably industrial property rights
Telephone	+38163469818
E-Mail	dsutic@zis.gov.rs
Name	Danijela Jašin
Area of research/ specialization	Environmental protection, water and wastewater technology, biotechnology
Telephone	+381608565023
E-Mail	danijelajasin@gmail.com
Name	Dejan Molnar
Area of research/ specialization	Local and regional economic development, urban economics, economics of environment, economics of (renewable) energy, creative economy
Telephone	+381653397476
E-Mail	molnar.dejan@gmail.com
Name	Matilda Lazić
Area of research/ specialization	Catalytic Technology; Catalytic Wastewater Treatment-Green Chemistry; Petrochemical and Chemical Industry; AlFe-Pillared Clay Catalyst for Phenol Oxidation in Aqueous Solution, Dangerous and Harmful Substances
Telephone	+381628578899
E-Mail	matildalazic@outlook.com
Name	Miodrag Kovačević
Area of research/	Energy and resource efficiency

[186] Conferences / International Conference "Green Economy and Environmental Protection". Union of Engineers and Technicians of Serbia [online]. Belgrade. ©2018. [cit. 2018-10-09]. Available at: : http://www.sits.org.rs/textview.php?file=konferencije.html&lang=en

specialization	
Telephone	+38163564125
E-Mail	miodrag.kovacevic.zr@gmail.com
Name	Miodrag Kovačević
Area of research/ specialization	Energy and resource efficiency
Telephone	+38163564125
E-Mail	miodrag.kovacevic.zr@gmail.com
Name	Tatjana Nikolin
Area of research/ specialization	Ecology and environmental protection
Telephone	+381693003099
E-Mail	pejackit@gmail.com
Name	Jovan Stepanović
Area of research/ specialization	Technological engineering/Mechanical textile technology
Telephone	+38116247203
E-Mail	jovan@tf.ni.ac.rs
Name	Aleksandar Starčević
Area of research/ specialization	Energy management for the field of industrial energy, municipal energy, energy efficiency in building, quality control system, gas handling and maintenance of gas pipeline, fire protection, environmental protection
Telephone	+381648438060
E-Mail	aleksandar.starcevic@privreda.gov.rs
Name	Dragan Ćoćkalo
Area of research/ specialization	Quality management and Enterpreneurship
Telephone	+381642431853
E-Mail	dragan.cockalo@tfzr.rs

Slovakia

National innovative infrastructure

Most innovators depend on national innovative infrastructure. Each country should have support services on different levels, to increase the number of successful eco-innovation transfers. Support services for entrepreneurs and innovators who want to bring their innovations to the market in the Slovak Republic may be categorized into six main areas:

- Financial support for small and medium enterprises, financial services, insurance and seed capital.
- Services focused on comprehensive counselling and provision of infrastructure – offices, laboratories.
- Services to support export.
- Competitions such as promotional events organized by public sector institutions for business support.
- Services aimed at the protection of intellectual property and leading of a transfer of knowledge of science and research into practice.
- Crowdfunding and coworking. Crowdfunding is a way to raise funds using public or private company capital.

Infrastructure services and support services for business are aimed at creating space for business (providing offices equipped with communication infrastructure), research space (labs), consulting room, and access to information needed to set up a business. These include business incubators, business centres, fab labs, science parks.

Table 79 List of agencies providing support services in Slovakia

Name	Slovak Business Agency
Contact Address	Karadžičova 2, 811 09 Bratislava 2, Slovenská republika
Telephone	+421 2 203 63 100
E-Mail	agency@sbagency.sk
Main Area of Services	Slovak Business Agency is the oldest specialized non-profit organization for the support of small and medium-sized enterprises (SMEs). Mission: Support for SMEs at the national, regional and local level; Complex support of SMEs in compliance with the Small Business Act's (SBA) principles;To improve the competitiveness of SMEs within the single EU market as well as in the non- EU markets.
Name	Slovak Innovation and Energy Agency /SIEA
Contact Address	Bajkalská 27, 821 01 Bratislava
E-Mail	office@siea.gov.sk
Name	Neulogy, a.s.
Contact Address	Ilkovičova 2, (new building of FIIT STU), 842 16 Bratislava (Company seat)
E-Mail	info@neulogy.com
Main Area of Services	Neulogy is one of the Central European leaders in providing complex consulting services for research, development, technology transfer and commercialization. Their mission is to help companies, academic institutions and research centres to conduct world class research and development that would bring economic and social benefits. Neulogy facilitates access to financing for R&D projects and innovative companies in all development stages from both public and private

	sources, as well as seed and venture capital through Neulogy Ventures. They also offer strategic advisory services in core areas of R&D issues, including public policy and institutional strategies.
Name	Slovak Chamber of Commerce
Contact Address	Gorkého 9, 816 03 Bratislava
Telephone	+421 2 544 33 291
Fax	+421 2 541 31 159
E-Mail	sopkurad@sopk.sk
Main Area of Services	Consultation support including consultations on international trade. The Slovak Chamber of Commerce has regional chambers in 8 cities across Slovakia.

Fablabs and creative workshops are equipped with technology like 3D printers, laser cutters, CNC, etc. They aim to provide the starting entrepreneurs and students as inventors with tools to create prototypes rapidly and test their ideas.

Table 80 List of fab-labs in Slovakia

Name	FabLab Bratislava Slovak Centre of Scientific and Technical Information (SCSTI)
Contact Address	Ilkovičova 8, 842 16 Bratislava
Website	https://www.fablab.sk/sk
Name	Lab.cafe
Contact Address	Námestie SNP 25, 811 01 Bratislava, Slovakia
Website	http://lab.cafe

Table 81 List of scientific parks and research centres in Slovakia

Scientific Parks	Research Centre
University Scientific Park for Biochemistry Bratislava	Martin Centre for Biomedicine
University Science Park of Comenius University in Bratislava	AgroBioTech Research centre (Nitra)
Medical University Science Park in Košice (MediPark, Košice)	Research centre of Žilina University in Žilina
Technical University Technicom (Košice)	centre for Applied Research on New Materials and Technology Transfer (Bratislava)
University Science Park STU Bratislava	Research centre of progressive materials and technologies for current applications "PROMATECH" (Košice)
University science park CAMBO (Trnava)	

Export Support Services - are key to openness of the Slovak economy to global trade. In the Slovak Republic, Eximbanka supports foreign business in particular with its banking and insurance products, the Business Support Centre at MZVaEZ (Ministry of Foreign and European Affairs of the Slovak Republic). They provide comprehensive information. Sario (Slovak Investment and Trade Development Agency) which promotes Slovak entrepreneurs.

Business Promotion Contests may not be supportive services in a true sense, but they are usually organised by business support

institutions and give an opportunity not only to compare but also to win a prize. The prize can then boost the business and finance some innovation in an enterprise. In the Slovak Republic there are a number of competitions for entrepreneurs and start-ups, for example: Start-up Awards, Entrepreneur of the Year - Support of Women in Business, Innovation of the Year and Innovation Vouchers.

Intellectual Property Protection is a business support service, especially when it comes to transferring product science and research into practice. The National Technology Transfer centre, the Industrial Property Office (also a consulting centre) and the UK Technology Transfer Promotion centre play a significant role in advising and supporting services in this area. Technology transfer offices are grouped under the National Technology Transfer centre.

Table 79 List of expert organisations for Transfer technology in Slovakia

Name	Slovak Centre of Scientific and Technical Information (SCSTI) Technology Transfer Centre at SCSTI (TTC SCSTI)
Contact Address	Lamačská cesta 8/A, 811 04 Bratislava I, Slovak Republic
E-Mail	nptt@cvtisr.sk
Name	The centre for the Transfer of Technologies at Comenius University in Bratislava (CTT UK)
Website	https://cusp.uniba.sk/pracoviska/centrum-transferu-technologii
Name	National centre of Technology Transfer
Website	www.nptt.cvtisr.sk
Name	Patlib (Patent Library)
Website	http://patlib.cvtisr.sk
Name	Technology Transfer Office of the Slovak Technical University
Website	http://www.ksp.stuba.sk/en
Name	University Centre for Innovation, Technology Transfer and Intellectual Property Protection (UCITT)
Website	http://ucitt.tuke.sk
Name	The Slovak Chamber of Patent Representatives
Website	https://www.skpz.sk
Name	Centre for technology transfer University of Zilina
Website	https://www.uniza.sk/index.php/vedci-a-partneri/spolupraca/centrum-pre-transfer-technologii
Name	Slovak Environment Agency (SAŽP)
Website	http://www.sazp.sk/en/the-environment
Name	Sario (Slovak Investment and Trade Development Agency)
Website	http://www.sario.sk
Name	ECOCAPSULE
Website	https://www.ecocapsule.sk
Name	GOSPACE Tech Ltd.
Website	http://www.gospace.sk
Name	SENSONEO
Website	https://sensoneo.com

National legislative framework

Intellectual property protection

Intellectual property rights are governed by several acts. They are listed and also translated to English on the website of the Industrial Property Office of the Slovak Republic.

Table 80 Possibilities of intellectual property protection

Field	Patent legislation
Website	http://www.upv.sk
Information	Act No. 435/2001 Coll. on patents, supplementary protection certificates (The Patent Act) amended by the Act No. 402/2002 Coll.
Field	Utility models
Website	http://www.upv.sk
Information	Act No. 517/2007 Coll. on Utility Models.
Field	Design
Website	http://www.upv.sk
Information	Act No. 444/2002 Coll. on Designs.
Field	Trade Marks
Website	http://www.upv.sk
Information	Act No 506/2009 Coll. on Trade marks defines conditions for so-called registrability of a trade mark.
Field	Copy Right Act
Website	http://www.wipo.int
Information	Act No. 185/2015 Coll. on Copyright and Related Rights.
Field	Acts and Codes that also govern intellectual property right
Information	Act No. 527 / 1990 Coll. on Inventions and Rationalisation Proposals[187] Commercial Code of the Slovak Republic (Act No. 513 / 1991 Coll.[188] Act No. 202/2009 Coll. on Legal Protection of Plant Varieties[189]
Field	Acts and Codes that govern support of small and medium companies and start-ups
Information	Act No. 290/2016 Coll. on Promotion of Small and Medium-Sized Enterprises. This act amended the Act No. 71/2013 Coll. on Granting Subsidies within the Competence of the Ministry of Economy of the Slovak Republic

Copyright:
The copyright act also provides that:[190]

- The author has the right to use his work and the right to consent to the use of his work.

[187] SLOVAK REPUBLIC. Act No. 3/2001 Coll., Complete wording of Act No. 527 / 1990 Coll. on Inventions and Rationalisation Proposals, as follows from amendments implemented by Act No. 519/1991 Coll., Act No. 116/2000 Coll. and Act No. 207/2000 Coll. (Act on Inventions and Rationalisation Proposals). Available at: http://www.wipo.int/edocs/lexdocs/laws/en/cz/cz071en.pdf

[188] SLOVAK REPUBLIC. Act No. 513/1991 Coll. of 5November, 1991 Commercial Code, as amended, in wording of 1th January 2011, an excerpt. Available at: http://www.wipo.int/wipolex/en/text.jsp?file_id=467048

[189] SLOVAK REPUBLIC. Act No. 202/2009 Coll. of 29 April, 2009 on the Legal Protection of Plant Varieties. Available at: http://www.wipo.int/wipolex/en/details.jsp?id=10460

[190] SLOVAK REPUBLIC. Act No. 185/2015 Coll. of 5 August, 2015 The Copyright Act. §19, parts 1,2 and 3 and §20 parts 1,2 and 3. Available at: http://www.epi.sk/zz/2015-185

- The work may be used only with the consent of the author, unless otherwise provided in the Act.
- For the use of the work, the author has the right to remuneration
- Property rights do not expire by granting consent to the use of the work; the author is required to tolerate the use of the work by another person within the scope of the consent.
- Property rights are non-transferable, cannot be surrendered and cannot be surrendered to be affected by exequatur; this does not apply to claims arising from property rights.
- Property rights are subject to inheritance. If co-author does not have heirs or the heirs refuse to accept the inheritance, his property rights pass on to the other co-authors.
- Copyrights are not transferable but licensable. The Act defines that "By the license agreement, the author grants the consent of the purchaser to the use of the work"[191]. The act on copyright further governs the contents of the license agreement.

Industrial property rights

Table 81 Slovak national options of protective instruments

Protective instrument	How long does it take to be granted?	Costs	How long is the protection granted for?
Patent	3-5 years	€176 for grant; and then approximately €10,000 for 20 years of patent grant payable in yearly instalments	20 years
Utility models	9- 12 months	Approximately €200 for registration 1st renewal after 4 years: 150 € 2nd renewal after 3 years (for next 3 years) is €300 (renewal fees double if protection had already expired)	10 years
Design	6 months	€20 per individual person, €40 per company	25 years
Trade Marks	3-6 months	€166	10 years (prolongation is possible)

For patents, complete and detail research is performed by The Industrial Property Office of the Slovak Republic (the national intellectual property office) to ensure the invention is new and no information was published about this invention in the world. The invention must not be published anywhere before the patent application is submitted (no prior publication also applies to exhibitions, conferences and it also applies to partial information). For utility model, design and trademarks partial research is performed. In Slovakia it is possible to validate a European patent (translation of the whole application into Slovak language is mandatory).

[191] SLOVAK REPUBLIC. Act No. 185/2015 Coll. of 5 August, 2015 The Copyright Act. 65 point 1. Available at: http://www.epi.sk/zz/2015-185

Ownership of a research result

If someone has created a technology during a job contract or a similar relationship (such as a work agreement), he is required by law to immediately notify the employer about the creation of the new technology. The employer has 3 months to respond – whether or not he is interested in the technology. If an employer has an interest in the newly created technology, he becomes the technology owner and is entitled to file a patent or similar application. Otherwise, the developer or all co-developers become the technology owner(s)[192]. Different provisions apply to copyrights. If an author's work or a computer programme is created by an employee in an employment relationship in a work assignment, then the copyright holder will automatically be the employer. However, if the product was created by an employee for an agreement whose purpose is the creation or regular creation of such works, the employer does not become a copyright claimant.

Contact details of the national intellectual property office

Table 82 Contact details of the Slovak intellectual property office

Name	Industrial Property Office of the Slovak Republic
Contact Address	Švermova 43, 974 04 Banská Bystrica 4, Slovak Republic
Web page	https://www.indprop.gov.sk

Patent attorneys

Individual EU citizen can represent himself/herself before the intellectual property office. A patent attorney is recommended, however. An additional requirement is have a postal address in the Slovak Republic, where the Industrial Property Office of the Slovak Republic can communicate with the applicant. A patent attorney is mandatory for foreigners from outside the EU. The patent attorney is a specific profession in the Slovak Republic and patent attorneys are gathered in The Slovak Chamber of Patent Representatives[193].

Table 83 Contact details of the Slovak Chamber of Patent Representatives

Name	Slovenská komora patentových zástupcov
Contact Address	Ružová dolina 6, 821 08 Bratislava, Slovenská republika
Web page	https://www.skpz.sk only in Slovak language

Commercialization

Overall, the commercialization of all kind of technologies are governed by acts related to technology transfer and intellectual property, usually there are no specific requirements or restrictions for ecotechnologies. A specific situation is when technologies governed by the Act for Legal Protection of Plant Varieties are commercialized as these require several specific testing procedures. The ecotechnologies commercialization is currently

[192] Národný portál pre transfer technológií. Vytvoril som novú technológiu, ako mám postupovať? [online]. © Centrum vedecko-technických informácií SR 2018. [cit. 2018-11-30]. Available at: http://nptt.cvtisr.sk/sk/transfer-technologii/vytvoril-som-novu-technologiu-ako-mam-postupovat.html?page_id=4751

[193] Slovenská komora patentových zástupcov [online]. © Slovenská komora patentových zástupcov 2014 - 2015 – 2018. [cit. 2018-11-30]. Available at: https://www.skpz.sk/

rather considerable in terms of financial benefits for the private companies. One of the forms of commercialization is to start a business company. Conditions for establishing a company are published on the government portal[194].

State aid

The Slovak republic is subject to EU legislature on state aid. State aid is governed in the Slovak Republic by an Act from November 2015 on the adjustment of certain state aid and minimum aid relations (State Aid Act). State aid is under de minimis regime. For the total aid amount, the de minimis for a single business may not exceed
€200 thousand during the period of 3 (three) fiscal years. That applies also to other providers, or to other aid schemes' de minimis. The three-year periods (to be considered in connection with the provision of assistance) are determined on the basis of the beneficiary's accounting period.

Funding of additional development

R & D funding by the state

At international level, Slovakia is committed to continuously improving R & D conditions, in particular to raise the overall level of public private investment in this sector to 1.2% of Slovak GDP, with a European target of 3% of EU GDP.
SAO (Supreme Audit Office SR) analysts note that for the 2007-2017 periods, little R & D has been spent in the field of research and development by international comparison.

The Supreme Audit Institution has developed a comprehensive analysis of the R & D funding system from public budgets, which will subsequently serve to plan SAO audit activities. The analytical report evaluates the area of research and development for the period 2007-2017, with an emphasis on how much money has been invested in this area in this period and how it has been translated into results or sustainable projects.

On the basis of an international comparison of research funding, SAO analysts note that Slovakia has positioned itself on the bottom sections of the EU and at the tail of the Visegrad Group. However, according to the Inspection Authority, Slovakia can only move to modern times if it invests in science and research, the supported projects will be linked to measurable indicators but also to their long-term sustainability.

"The volume of funds spent by Slovakia on R & D is one of the lowest among EU countries, with a total of €640 million representing 0.79 percent of Slovakia's GDP, with the EU's average of 1.54 percent of GDP," the SAO said.

One of the most comprehensive indicators of R & D quality is the country's success in joining Horizon 2020 projects. From that program Slovakia received only EUR 0.9 million, which is significantly lower than the EU average. (Source: TASR, 26.10.2018)

National support – public Agencies

National support is provided via public agencies providing financial instruments for entrepreneurs. The key institutions are Slovak Business Agency, Slovak Guarantee and the

[194] MINISTERSTVO HOSPODÁRSTVA Slovenskej republiky. Schéma na podporu malého a stredného podnikania v SR (schéma pomoci de minimis), page 22. [online]. © Slovenská republika, year of publication unknown. [cit. 2018-11-30]. Available at: http://www.cvtisr.sk/buxus/docs//Projekty/Schema_na_podporu_maleho_a_stredneho_podnikania_v_SR.pdf

development bank[195]. Also structural funds and ERDF funds are available for Slovak applicants.

Table 84 List of Slovak national structural funds

Name	Slovak Business Agency
Founder	Ministry of Economics of the Slovak Republic
Website	http://www.sbagency.sk
What are the finances used for?	SMEs, start-ups, various support activities for them: travel costs to exhibitions, study visits, seed money. The agency started to provide different support programmes for different stages of business.
Name	Structural fund and national operational programme: Research and Innovations
Founder	Governed by: The Ministry of Education, Science, Research and Sport of the Slovak Republic and Ministry of Economy of the Slovak Republic
Website	https://www.opvai.sk
What are the finances used for?	For projects in the area of innovations, research and development
Name	Structural fund and national operational programme: Quality of the environment
Founder	Governed by: Slovak Minister for Environment; Coordinator: Slovak Innovation and Energy Agency (SIEA)
Website	http://www.op-kzp.sk
What are the finances used for?	For projects with focus on improvement of protection against floods, improvement of quality of air and energy efficiency in firms.

Transnational support funds

Besides the national structural funds, Slovak companies are also eligible to participate in programmes:

- Horizon 2020
- Interrec C: Interreg Europe
- Interreg B:
  - Interreg Central Europe Programme
  - Danube Transnational Programme
- Interreg A:
  - Austria- Slovakia Cross Border cooperation
  - Czech Republic – Slovakia Cross Border cooperation
  - Poland – Slovakia Cross Border cooperation
  - The Hungary-Slovakia-Romania-Ukraine ENI CBC Programme 2014-2020 Cross Border Cooperation
- Erasmus+
- Eurostars
- EEA and Norway Grants
- Life Funding[196]
- Slovak Aid Grants 2018 business partnership programme, transformation experience sharing programme, micro-grants

More details can be found in Annex 4 on International Financing.

Business incubators

Business incubators provide entrepreneurs with office and conference space as well as

[195] Slovenská záručná a rozvojová banka [online]. © Slovenská záručná a rozvojová banka, a. s. 2018. [cit. 2018-11-30]. Available at: https://www.szrb.sk/

[196] European Commission. 2018 Call for proposals for LIFE Grants [online]. © European Union, 1995-2018. Last modified: 21.11.2018 [cit. 2018-11-30]. Available at: http://ec.europa.eu/environment/life/funding/life2018

with events and consultations in the field of entrepreneurship.

Table 85 List of Slovak business incubators

Name	Comenius University Science Park Incubator (CUSPI)
Contact Address	Ilkovičová 8, 84104 Bratislava
E-Mail	cuspi@uniba.sk
Name	University Technology Incubator of STU
Contact Address	Pionierska 15, 831 02 Bratislava
E-Mail	info@inqb.sk
Website	www.inqb.sk
Name	University Centre for Innovation, Technology Transfer and Intellectual Property Protection (UCITT)
Contact Address	Technical University of Košice, Block A, ground floor, Letná 9, 042 00 Košice
Website	http://www.tuke.sk/wps/portal
Name	Startup Centrum Košice o.z.
Contact Address	Hviezdoslavova 7, 040 01 Košice - Staré Mesto, Slovakia
Website	http://www.eastcubator.sk

Support by companies or private investment

Financial Support Services for start-up financing for enterprises in early stage are usually provided by seed and venture capital companies such are Neulogy Venture, Investeers, Arca Capital or others. Commercial banks also offer options to finance entrepreneurs, but usually in more developed stages with 2-3 years history where they can check the quality of future clients using financial statements and accounting documentation. Supported by EU funds they are also provided through several banks, e.g COSME and European Fund for strategic Investments (provided by e.g: OTP banka and ČSOB banka). Significant support for business in the area of financial services in Slovakia is provided by institutions such as the Slovak Guarantee and Development Bank, Slovak Business Agency and Eximbanka - mainly for exporters. Eximbanka offers, in particular, export-supporting loans (bank products), predominately export-related products are particularly important, especially insurance products for mainly non-marketable risks (eg political risk). In recent years one of most important banks in Slovakia Slovenská sporiteľňa, a.s. (member of Erste group) started an initiative "Zaciname podnikat" (We are starting business)[1] and this initiative provided complex support (from counselling, education to finance) to new entrepreneurs and ideas with business potential.

Promotion and marketing

Starting companies can use different public channels to promote their products or ideas.

Table 86 Public channels for promoting products

Name	Description
Website	Using the website of the institution that covers the product/prototype, or creating a separate website for the market product.
Social media	Facebook profile (the most effective means of communicating with young people).
Linked-in	Has the ability to get contacts and share information with a professional community, depending on the use of the service.
Databases	Creating a database of your own community based on entry data for registered persons at events (events, workshops).
Workshops	New personal contacts and community building, sharing and dissemination of knowledge, experience.
Summer schools	Ideal for cross-border collaboration, knowledge sharing.
Creating a contact network for mentors, professionals, entrepreneurs	Online via the web, personal contacts and addressing.
Personal addressing, meeting and promotion on specific subjects	Ideal for those who focus on the area solves.
Performing pre-service inquiries about services, activities, events	In the form of an online questionnaire that also helps to gradually build awareness about the demand/offer.
Regarding to promo activities to take into account the different factors	The social group for which the event is intended, the date and time of the action, a fee for the event (motivation for participation when paid in advance), the style of communication, benefit and next cooperation.

Events and networking

There is significant number of workshop, seminar and networking events in Slovakia. The most frequent are set up in table below.

Table 87 List of platforms and events to support the ecotechnologies and ecoideas

Name	Description
Startup awards	Competition of best Slovak start-ups (organized by Neulogy), https://futurenowconf.com
Enviroportál	Platform to share all kind of eco-information, https://www.enviroportal.sk
Eyes 2.0	Completion of start-ups in Start-up Centre in Kosice close to the Technical University of Košice.
Prize for technology Transfer	Technology Transfer Award, www.nptt.sk
Tech Inno Days	Organized by INQB (Business Incubator next to the Slovak Technical University).
Portal NPTT	Portal was created within the implementation of the national project National infrastructure for supporting technology transfer in Slovakia. www.nptt.sk
Innovation of the Year	Competition of Minister of Economy of the Slovak Republic for "Innovation of the Year" is to draw the attention of the general public to interesting innovative

	activities of Slovak entrepreneurs each year. https://www.siea.sk/inovativny-cin-roka-2017
Media Forbes	Promotes new entrepreneurs, f.e. it brings top ranking of Slovak women who have been innovating with us.
Start It Up	The portal about business, technology and start-up for many young people https://www.startitup.sk.
CONECO Fair	The CONECO - RACIOENERGY fairs brings new trends in construction and architecture each year. The offer 2019 is complemented by new revolutionary materials that will ensure energy efficiency, intelligent electric installations as well as rich accompanying programme full of advices and recommendations. http://www.incheba.sk/vystavy/coneco-racioenergia.

Expert database

Table 88 Expert database

Name	Description
Alena Kurecova	WRI is the only organization in Slovakia conducting comprehensive water management research and other related activities resulting from the needs of water sector in the Slovak Republic. Its main activities are aimed at research and development, expertises, professional water management consulting services and solutions for water management and ecological problems.
Branislav Bonk	Electric energy, artificial intelligence, electric technologies
Daniel Čurka	energy services, facility management, technology installations
Daniel Daniš	research and development
Ján Szolgay	smart buildings as a product of ecological and cybernetic architecture, building materials innovation, improving their technical parameters and reducing energy intensity and environmental impacts
Jaroslav Noskovič	counselling, support in technology transfer services, complex technology transfer services
Ľubomír Kucka	patent research, patent information services
Marcel Lauko	Consortium of Energy Services
Martin Moravčík	research and development in the area of forestry, agriculture and environment
Milan Belko	optimization of industrial processes, environment friendly production technologies
Peter Adamišin	research on quality assessment of environmental components, sustainable development and environmental management systems, revitalization of territory
Peter Brozman	product innovation and increasing of competition ability
Peter Mišík	lighting design, consultancy, smart and innovative solutions
Veronika Dugovičová	National Contact Point for Horizon 2020, conceling in the field of Climate action, environment, resource efficiency and raw materials
Vladimír Kováč	ecology, geoecology
Roman Cingel	market research, product innovation, increasing of competition ability

Slovenia

National innovative infrastructure

The ecosystem for supporting new innovative companies and individuals in Slovenia has made great progress in the past decade, particularly from 2011-2012 onwards, when the effects of the economic crisis became omnipresent, forcing many to rethink their careers in the prevailing absence of so-called traditional employment opportunities. The innovative company sector has had a major impact on the national economy by connecting hundreds of entrepreneurs and creating thousands of well-payed jobs. The ecosystem for supporting growth of innovative companies is now scaled, very efficient and has a monumental impact on how business is carried out and how business culture is viewed by the public. An operational network of business incubators, technology parks, development agencies, technology transfer offices and similar organizations has been successfully providing a platform for innovative individuals and enterprises, on which they can develop, grow and expand their businesses. Positive trends are also observed in the field of identification and implementation of appropriate legislative measures, which is being carried out on the highest decision-making level[197].

The following section provides a brief overview of some key organizations that make up the innovation support ecosystem in Slovenia.

Table 89 List of Bussines support and development organizations in Slovenia (Source: Slovenian Business portal[198]

Name	Technology park Ljubljana
Type	Technology park
Contact Address	Tehnološki park 19, 1000 Ljubljana, Slovenia
Website	http://www.tp-lj.si/en
Main Area of Services	Technology park Ljubljana is the largest innovation ecosystem in south-east Europe. Operating a smart-city of over 300 innovative companies with over 1500 employees, several training and capacity development programs available onsite as well as network of Fab- and OpenLabs. Together with the Tovarna Podjemov, TPL is the carrier of the Start:up Slovenia initiative, the Scale:up initiative (developing the national policy framework and support programmes for SMEs) and several ongoing pilot project for facilitating innovation in public research organizations, academic institutions and large companies[199].
Name	ABC Accelerator
Type	Private business accelerator
Contact Address	ABC Accelerator Group, Šmartinska cesta 152, 1000 Ljubljana
Website	https://abc-accelerator.com

[197] "Inovativno okolje". Podjetniški portal [https://www.podjetniski-portal.si/]. Ljubljana, Spirit Slovenia, MGRT, 2018. Last modified [April 2018]. Available at: https://www.podjetniski-portal.si/ustanavljam-podjetje/inovativno-okolje

[198] "Evidenca-subjektov-inovativnega-okolja". Podjetniški portal [https://www.podjetniski-portal.si/]. Ljubljana, Spirit Slovenia, MGRT, 2018. Last modified [April 2018]. Available at: https://www.podjetniski-portal.si/ustanavljam-podjetje/inovativno-okolje/Evidenca-subjektov-inovativnega-okolja

[199] Official webpage. Technology Park Ljubljana [http://www.tp-lj.si/]. Ljubljana, Tehnološki park Ljubljana, 2018. Last modified [April 2018]. Available at: http://www.tp-lj.si/en

Main Area of Services	The most successful and largest private accelerator that originated from Slovenia. Founded initially as BTC City Ljubljana in March 2015, it has expanded its operations to Germany (Munich), Ukraine (Kiev), the USA – Silicon Valley (San Jose). In the very short time since the accelerator has been in operation, it managed to obtain international recognition, partnering with companies like Microsoft, BMW, IBM and Cisco. There are 5 programme areas in which the organizations operate, ordinarily titled as commercial technology, smart living and health, smart cities, internet of things/everything, etc[200].
Name	Tovarna Podjemov
Type	University incubator
Contact Address	Sedež: IRP, Tovarna podjemov, Ulica škofa Maksimiljana Držečnika 6, 2000 Maribor, Slovenija
Website	https://www.tovarnapodjemov.org
Main Area of Services	The university Incubator is one of the key elements of the innovation ecosystem of the University of Maribor aimed at promoting and supporting entrepreneurial engagement of students, researchers and professors of the University of Maribor as well as other innovative groups of individuals. It has a 10-year track record in implementing incubation programs on the national level and is the central organization of the Start:up Slovenia initiative. The organization provides programs and services in the areas of intellectual property protection and sales, licensing, contract research and research in cooperation with industry, and most importantly by setting up and developing new start-ups (especially spin-out and spin-off companies)[201].

Table 90 List of Research and Development Institutions in Slovenia

Name	Jožef Stefan Institute
Type	National research institute
Contact Address	Jamova cesta 39, 1000 Ljubljana, Slovenia
Website	https://www.ijs.si/ijsw/V001/JSI
Main Area of Services	The Jožef Stefan institute is the largest and most renowned research institute in Slovenia. The institute provides a wide variety of services in terms of innovation, working closely with the Universities and companies. It is able to carry out research and development projects for companies, from concept to product, it provides access to equipment and laboratories, secures interdisciplinary expert and human resource support and the access to a large network of partner

[200] Official webpage. ABC accelerator [https://abc-accelerator.com/]. Ljubljana, ABC pospeševalnik, 2017. Last modified [April 2018]. Available at: https://abc-accelerator.com/

[201] Official webpage. Tovarna Podjemov [https://www.tovarnapodjemov.org/]. Maribor, Start:up Maribor, 2018. Last modified [April 2018]. Available at: https://www.tovarnapodjemov.org/

	organizations and investors. It is also the main carrier of the centre for technology and innovation transfer.[202]
Name	National Institute of Chemistry
Type	National research institute
Contact Address	Hajdrihova 19, 1001 Ljubljana, Slovenia
Website	https://www.ki.si/en
Main Area of Services	The National Institute of Chemistry focused on basic and applied research in fields of long-term relevance for the country and beyond, which includes the research on materials, life sciences, biotechnology, chemical engineering, structural and theoretical chemistry, analytical chemistry and environmental protection; through which the institute is in line with the needs of the domestic and foreign pharmaceutical, chemical, automotive and nanobiotechnological industries. The work of the Institute is also in line with the priority thematic areas of the EU Research and Innovation programme Horizon 2020, which places emphasis on nanotechnology, genomics and biotechnology for health, climate change, energy, sustainable development and global change and quality and safety of food.[203]
Name	Milan Vidmar Electric Power Research Institute
Type	National research institute
Contact Address	Hajdrihova ulica 2, 1000 Ljubljana, Slovenia
Website	https://www.eimv.si/eng/ed.html
Main Area of Services	The Milan Vidmar Research Institute is focused on energy and power system planning, support to the energy sector local communities and the state in the area of environmental protection, electric power system control and operation, high voltage equipment and power plants, electric power plants and facilities environmental effects, physical-chemical transformer diagnostics. The institute provides technical support in the area of preparation of environment-related expert documents, preparation of spatial planning-related expert documents, analysis of environmental quality parameters, feasibility studies of the input of substances and energy in the environment, information technology, basic and applied research and so on.[204]

Table 91 Contact details about chamber of commerce

Name	The Chamber of Commerce and Industry of Slovenia
Type	Chamber of Commerce and Industry
Contact Address	Dimičeva ulica 13, 1000 Ljubljana, Slovenia

[202] Official webpage. Jožef Stefan Institute – IJS *[https://www.ijs.si/ijsw/IJS].* Ljubljana, Jožef Stefan Institute research institute, 2014. Last modified [March 2018]. Available at: http://tehnologije.ijs.si/en/

[203] Official webpage. National Institute of Chemistry – KI *[https://www.ki.si/].* Ljubljana, National Institute of Chemistry, 2014. Last modified [March 2018]. Available at: https://www.ki.si/en/

[204] Official webpage. Milan Vidmar Electric Power Research Institute – EIMV [https://www.eimv.si/]. Ljubljana, EIMV, 2014. Last modified [March 2018]. Available at: https://www.eimv.si/eng/ed.html

Website	https://eng.gzs.si
Main Area of Services	The Chamber of Commerce and Industry of Slovenia is focused on providing services to national and international enterprises operating in the country. It provides expert support in a broad range of sectors, consulting services, organization and management of events, networking, promotion and awareness raising, education and training, certification, consultation with national decision makers, and is involved in several international capacity building as well as research, innovation and development projects.[205]

Table 92 Contact details about development agency

Name	Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology
Type	Public development agency
Contact Address	Verovškova ulica 60, 1000 Ljubljana, Slovenia
Website	www.spiritslovenia.si
Main Area of Services	The Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology (SPIRIT Slovenia) provides support to entrepreneurs and innovators by establishing networks of relevant stakeholders, promotional activities and development of targeted media content, development of expert studies about drawing EU structural funds, support of knowledge transfer between researchers and the industry, organization of events and many other activities.[206]

Table 93 Contact details about governmental organization

Name	Ministry of Economic Development and Technology
Type	National Ministry
Contact Address	Kotnikova ulica 5, 1000 Ljubljana, Slovenia
Website	http://www.mgrt.gov.si/en
Main Area of Services	The Ministry of Economic Development and Technology is the key governmental organization responsible for implementing legislative and support mechanisms for enterprises operating in Slovenia, The Ministry performs tasks in areas of internal market, entrepreneurship and competitiveness, internationalisation, trade policy, regional development as well as in the wood and furniture industry. Entrepreneurship, competitiveness and technology is managed by the Directorate for Internationalisation, Entrepreneurships and Technology and is focused on promoting entrepreneurship and entrepreneur-friendly

[205] Official webpage. Chamber of Commerce and industry of Slovenia – *GZS [https://www.gzs.si].*Ljubljana, GZS, 2014. Last modified [April 2018]. Available at: https://eng.gzs.si/

[206] Official webpage. Public Agency for Entrepreneurship, Internationalization, Fore-ign Investments and Technology – *SPIRIT [https://www.spiritslovenia.si].*Ljubljana, SPIRIT, 2014. Last modified [April 2018]. Available at: http://www.spiritslovenia.si/en

	environment, promoting small and medium-sized enterprises with equity and debt instruments and supporting technological development of enterprises.[207]

Table 94 List of support funds in Slovenia

Name	Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia
Type	National support fund
Contact Address	Dunajska cesta 20, 1000 Ljubljana, Slovenia
Website	www.sklad-kadri.si
Main Area of Services	The fund is the key national institution for providing study and research scholarships as well as other incentives for human resource development, including financial incentives for companies/employers. The fund also provides timely information on support mechanisms to the public and increases international mobility of students as well as researchers through various initiatives and networks.[208]
Name	Slovene Enterprise Fund
Type	National support fund
Contact Address	Ulica kneza Koclja 22, 2000 Maribor, Slovenia
Website	http://www.podjetniskisklad.si/en
Main Area of Services	The Slovene Enterprise fund (SEF) was established to improve access to financial resources for business development, particularly investments into micro, small and medium- sized enterprises (SMEs) as well as microfinancing of start-ups in the Republic of Slovenia. The fund supports business projects within the broader Slovenian entrepreneurial sector, mostly with the use of refundable financial instruments (loans, guarantees for loans, subsidised interest rates, venture capital). The fund manages the two most essential programmes for supporting business development, the Young enterprises and SME5+ programmes.[209]
Name	Slovenian Regional Development fund
Type	National support fund
Contact Address	Škrabčev trg 9a, 1310 Ribnica, Slovenia
Website	http://www.regionalnisklad.si/english
Main Area of Services	The Slovenian Regional Development fund is one of the key institutions for implementing regional development policies. Its main goal is to achieve regional

[207] Official webpage. Ministry of Economic Development and Technology - MGRT *[http://www.mgrt.gov.si/].* Ljubljana, Ministry of Economic Development and Technology of the Republic of Slovenia, 2012. Last modified [April 2018]. Available at: http://www.mgrt.gov.si/en/

[208] Official webpage. Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia *[www.sklad-kadri.si].* Ljubljana, Javni štipendijski, razvojni, invalidski in preživninski sklad Republike Slovenije, 2017. Last modified [April 2018]. Available at: http://www.sklad-kadri.si/en/

[209] Official webpage. Slovene Enterprise fund – SEF *[http://www.podjetniskisklad.si/].* Maribor, Podjetniški sklad Slovenije, 2017. Last modified [April 2018]. Available at: http://www.podjetniskisklad.si/en/

	and rural development targets in the areas attributed to smart and sustainable growth. They are focused on providing incentives to entrepreneurs and companies, agricultural holdings, co-operatives and the food processing industry, projects in the areas of autochthonous national communities and local communities (municipalities).[210]

National legislative framework

Intellectual property

Copyright

Copyright protects an idea of unauthorized copying or editing of its graphic, written or photographic descriptions over the long term. This right does not protect the idea itself, but in some cases - for example, in computer code - it can be the only effective way of protecting intellectual property.

Copyright is created automatically and is free of charge. It is important because it readily determines the date of origin or changes of an idea. However, it does not provide protection against another person who independently comes up with the same or similar idea. The competitor can declare that the similarity of his idea with yours is accidental or that your idea is a copy of his. Ownership of a copyright in your conflict may be proven by the following: written descriptions, sketches, photographs etc. of ideas and printing them. Alternatively one can save them on a CD or DVD, store documents or a disc in a secure sealed envelope with a signed and dated statement of an independent witness confirming that the envelope was sealed on the day it was inspected; one can also mail the envelope as recorded delivery to one's address or a place where it will be safely stored, and save the mail receipt with a clearly marked date. Do not open the envelopes until requested by a court authority. (It is advisable to have more envelopes for the case if the copyright is to be repeatedly proven. An open envelope is no longer a valid proof of it for subsequent cases.)[211]

Industrial property rights

Patents

Patent systems exist in most countries, and their purpose is to promote the development of new technologies. The patent is a form of legal monopoly - the right to say, "This is mine, and you can`t use it, without paying me". It is awarded by the state in exchange for public disclosure of the idea. That is all that it is. It is important to understand what patent can accomplish and what it cannot. It is not only necessary that the patenting of the idea will increase its market value. If nobody wants to use the invention, it will probably not change the patent in all likelihood. But if the invention has a market perspective, a patent may be the only way to get a financial interest. Many inventors of marketable products acknowledge that their financial success is almost entirely due to strong patent protection.

The cost and complexity of the patenting process can be a problem for many inventors. Therefore, one should never decide on a patent application without carefully considering a number of factors (more on these below). It is

[210] Official webpage. Slovenian Regional Development fund *[http://www.regionalnisklad.si/].* Ribnica, Slovenski regionalno razvojni sklad, 2017. Last modified [April 2018]. Available at: http://www.regionalnisklad.si/english

[211] Uknown. „Copyright". Slovenian Intellectual Property Office – SIPO [http://www.uil-sipo.si/sipo/]. Ljubljana, SIPO, uknown. Last modified [April 2018]. Available at: http://www.uil-sipo.si/sipo/activities/copyright/

best to consult a patent attorney before taking a decision. If one decides to file a patent application, one should be represented by a patent attorney in a lengthy, complex and rigorous application process. Without it, there is a risk of defects that might endanger effective patent protection. In such cases there is little hope of ever achieving any pecuniary benefit from the invention. Patents generally last for 20 years, but only if the annual maintenance fees are paid.

Other than existing environmental protection, health, safety and other standards each product must comply with, there are no specific provisions for eco-technology, in terms of intellectual property rights protection. However, there are differences as to which type of intellectual property rights protection is applied:

Filing of a patent application with the Slovenian Intellectual Property Office is straightforward. It may be filed in any foreign language, provided that it includes at least the indication of the rights requested, and giving permission to the Office to contact the applicant, in Slovenian, English, French or German language. The Office then invites the applicant to submit, within three months, the translation of the application into the Slovenian language. The application is examined only as to formal requirements and the excludability examination is made before its publication. Patents are granted without a substantive (novelty) examination 18 months after the application filing date or the date of the claimed priority. The protection conferred by the Slovenian patent is limited to 20 years as from the date of filing the application.

An application for a patent in Slovenia can also be filed under one of two international agreements which Slovenia is party to, namely under the Patent Cooperation Treaty, where one should designate the European Patent Office, or under the European Patent Convention. Both systems enable the applications to enter the national phase in Slovenia once the European patent has been granted. The procedure of a national phase is practically the same as in the case of designating other member states of the European Patent Organisation. After the grant of the European patent, the owner should submit a translation of claims to the Slovenian Intellectual Property Office and pay a fee for its publication. Fees include the filling fee including maintenance for the first three years (€110) and the supplementary protection certificate (€420). Each patent is then subjected to annual renewal fees that range from €30 (for the third year) and up to €1101 EUR in year 20. Any fee the applicant pays to intermediary agents varies between providers.[212]

Designs

In the European Union, an unregistered model enjoys informal protection and a registered industrial design may be obtained by a registration at OHIM, for more details see Annex 3 Design Protection.

Slovenian Intellectual Property Office charges an application fee in the amount of €80 for each industrial design, which includes the registration fee for the first five years; and €65 for each additional design included in the same application. The registration is valid for five years as from the date of filing the application, and can be renewed every subsequent five years, up to a total term of 25 years, upon payment of a renewal fee of €70 for each industrial design.[213]

[212] „Patents". *Slovenian Intellectual Property Office – SIPO [http://www.uil-sipo.si/sipo/]*.Ljubljana, SIPO, uknown. Last modified [April 2018]. Available at: http://www.uil-sipo.si/sipo/activities/patents/

[213] Uknown. „Industrial design". Slovenian Intellectual Property Office – SIPO [http://www.uil-sipo.si/sipo/].Ljubljana, SIPO, uknown. Last modified [April 2018]. Available at: www.uil-sipo.si/sipo/activities/industrial-designs/

Trademarks

A trademark can be a word, a slogan, logo, or a combination of characters that differentiates one product or activity from others. Proper use and maintenance can take an unlimited amount of time, so it can be in invaluable for the owner, combined with a popular marketing name. Application for registration of the mark shall be submitted to the National Intellectual Property Office. Multi-national protection can be obtained by filing a single application with the World Intellectual Property Organization (WIPO), or the Madrid Trademark registration system, or the Office for Harmonization in the Internal Market (OHIM) for the acquisition of a Community trade mark valid throughout the territory of the EU. Trademarks do not protect ideas or products as such. If the goal is to market the invention, it may be a fairly long, long-term investment. Over time, it can become even the most valuable form of one's intellectual property rights.

The filling of the national trademark application to the SIPO can also be in a foreign language, provided that it, same as with the patent application, includes at least the indication of the rights requested, and a permission for the office to contact the applicant; in Slovenian, English, French or German language. The Office then invites the applicant to submit, within three months, a translation of the application into the Slovenian language. The application is first examined as to formal requirements, which is followed by an examination for absolute grounds for refusal. If the latter exist, the Office gives the applicant an opportunity to comment. If the trademark is accepted for registration, the application is published in the Official Gazette to allow the owner of an earlier trademark to oppose, within three months, the registration. If no opposition is filed or it has been refused, the trademark is registered. The Slovenian Intellectual Property Office charges the application fee of €100 which covers three classes (each additional class costs 20 EUR). The registration fee is 150 EUR, inclusive of maintenance for the first 10 years and up to three classes, and can be renewed every subsequent 10 years upon payment of a €150 renewal fee. The Office does not perform an ex officio examination as to earlier rights (relative grounds for refusal) but its Information Department can search on your behalf (against remuneration) for identical and similar trademarks.[214]

Ownership of research result

Similar as in other countries, the ownership is dependent on the terms of its creation. Therefore, in the case of individuals (natural or legal persons) creating on their own, the copyright belongs to the actual author of the work (research and development, design, etc.) carried out, which includes its entire set of economic, moral and other rights.

On the other hand, when work is created by an employee as part of executing his or her employment duties or when work is delegated by his employer with clear instructions, all rights of such author's work are exclusively assigned to the employer for a minimum period of ten years starting from the completion of the work in question, with the exception of moral rights, which always and without exceptions stay in the domain of the author. Alternative arrangements between the employer and employee can be negotiated bilaterally at any time. After the period of ten years, all rights are automatically transferred back to the author.

The same goes for inventions created during employment activities, which are in general in the ownership of the employer, who can assert unlimited claim to the invention (no limit

[214] „Trademarks". *Slovenian Intellectual Property Office – SIPO [http://www.uil-sipo.si/sipo/]*.Ljubljana, SIPO, uknown. Last modified [April 2018]. Available at: http://www.uil-sipo.si/sipo/activities/trademarks/

period) when no alternative limited form is applied.

Confidential data and non-disclosure agreements

Although confidential information is not covered by any intellectual property law, it is closely linked to it and is often considered to be intellectual property. The most common form of protection of confidential information is an agreement on their non-disclosure. Such an agreement documents the promise of a person to not use or otherwise disclose information about your idea. A person who violates the terms of a non-disclosure agreement is threatened by a legal dispute. A non-disclosure agreement can help protect the idea at all stages of its development – regardless of the form of intellectual property obtained, and even long after the invention has been on the market.

Non-disclosure agreements are widely used in all forms of business; these are binding legal agreements and only apply when both parties agree that the idea should be disclosed to an extent.

In addition, non-disclosure agreements prevent others from just disclosing or exploiting the precise and unknown secrets that they can only have learn from you. Any information that is already well-known is available to everyone for continued use, regardless of the non-disclosure agreement. This also applies in the case where the confidential information protected by such an agreement becomes otherwise known in any other way; then the agreement of its signatories is no longer binding.

Table 95 Relevant legislation in the Republic of Slovenia (Source: Slovenian Intellectual Property Office[215])

Field	Intellectual property – Acts comprising provisions on intellectual property rights
Legislation	Penal Code of the Republic of Slovenia (Official Gazette RS, No 55/2008, No 55/2009) Liability of Legal Persons for Criminal Offences Act (Official Gazette RS, No 98/2004, No 65/2008, No 57/2012) Act Implementing the Customs Regulations of the European Community (Official Gazette RS, No 25/2004, No 111/2007) (this regulation falls within the competence of the Customs Administration) Rules on ensuring payment of expenses and determining the level of costs of safe-keeping and maintenance of goods during temporary detention and seizure of goods in case of application of customs measures in cases of intellectual property violations (Official Gazette RS, No 33/2004) (this regulation falls within the competence of the Customs Administration) Obligations Code (Official Gazette RS, No 83/2001, No 40/2007)

[215] „Legislation on intellectual property". Slovenian Intellectual Property Office – SIPO [http://www.uil-sipo.si/sipo/]. Ljubljana, SIPO, uknown. Last modified [April 2018]. Available at: http://www.uil-sipo.si/sipo/addition/ resources/legislation/legislation-slovenia/

	Civil Procedure Act (Official Gazette RS, No 36/2004 - officially consolidated text, No 52/2007, No 45/2008)
Field	Copyright
Legislation	Copyright and Related Rights Act (Official Gazette No 16/2007 - unofficial English translation; No 68/2008, No 110/2013 and No 56/2015) Decree on amounts of remuneration for private and other internal reproduction (Official Gazette RS, No 103/2006) Decree on mediation in disputes concerning copyright and related rights (Official Gazette RS, No 35/2005) Decision determining the list of mediators (Official Gazette RS, No 82/2005) Decision on the completion of the list of mediators (Official Gazette RS, No 36/2007) Decree on arbitration in disputes concerning copyright and related rights (Official Gazette RS, No 65/2006)
Field	Industrial property
Legislation	Industrial Property Act (Official Gazette RS, No 51/2006 and No 100/2013) Decree on the fees of the Slovenian Intellectual Property Office (Official Gazette RS, No 128/2006) Rules on the registers of applications and industrial property rights and on the certificate of the priority right (Official Gazette RS, No 102/2001) Rules on passing the qualifying examination and entry into the register of agents kept by the Slovenian Intellectual Property Office (Official Gazette RS, No 111/2001) Order on the tariff of information services (Official Gazette RS, No 71/2006)
Field	Patents & supplementary patent certificates
Legislation	Decree on the legal protection of biotechnological inventions (Official Gazette RS, No 81/2003) Decree implementing Council Regulations (EC) concerning the creation of a supplementary protection certificate for medicinal products and for plant protection products (Official Gazette RS, No 56/2005, No 65/2006) (reference to Council Regulation (EEC) No 1768/92 of 18 June 1992 concerning the supplementary protection certificate for medicinal products is to be taken as a reference to Regulation (EC) No 469/2009 of the European Parliament and of

	the Council of 6 May 2009 (Codified version), and should be read in accordance with the correlation table in Annex II hereto – 2. paragraph of Article 22) Decree on the extension of European Patents to Slovenia (Official Gazette RS, No 15/2002) (applicable for requests for extension of European patents filed before 1 December 2002) Rules on the contents of patent applications and divisional patent procedure (Official Gazette RS, No 102/2001)
Field	Industrial designs
Legislation	Decree implementing Council Regulation (EC) on Community designs and Council Regulation (EC) on Community trademarks (Official Gazette RS, No 4/2007) Rules on the contents of industrial design applications (Official Gazette RS, No 102/2001, No 112/2004)
Field	Trademarks
Legislation	Decree implementing Council Regulation (EC) on Community designs and Council Regulation (EC) on Community trademarks (Official Gazette RS, No 4/2007) Rules on the contents of trademark applications (Official Gazette RS, No 102/2001) Rules on the procedure concerning requests for the international registration of trademarks (Official Gazette RS, No 124/2006)
Field	Job related inventions
Legislation	Job Related Inventions Act (Official Gazette RS, No 15/2007) Rules on compensation for job-related inventions (Official Gazette RS, No 65/2007)
Field	Topographies of semiconductor circuits
Legislation	Act on the Protection of Topographies of Integrated Circuits (Official Gazette RS, No 81/2006) Decree on the fees of the Slovenian Intellectual Property Office (Official Gazette RS, No 65/2006) Rules on the registration of topographies of integrated circuits (Official Gazette RS, No 34/2003)
Field	Geographical indications*
Legislation	Agriculture Act (Official Gazette RS, No 51/2006)

	Rules on procedures for the recognition of special agricultural products or foodstuffs (Official Gazette RS, No 76/2003, No 18/1994, No 47/2005) Rules on the trade mark for labelling agricultural products or foodstuffs (Official Gazette RS, No 58/2001, No 28/2004, No 87/2004, No 121/2006) Rules on requirements for the use of the indication of geographical denomination of agricultural products and foodstuffs (Official Gazette RS, No 7/2001)
Field	Plant variety rights*
Legislation	Protection of New Varieties of Plants Act (Official Gazette RS, No 113/2006) Decree on the annual fee for varieties entered in the Agricultural Plant Variety List and on fees and costs for plant variety protection (Official Gazette RS, No 27/2005) Rules on the procedure for granting the plant breeders' rights (Official Gazette RS, No 85/1999) Rules on standard methods for testing the distinctness, uniformity and stability of new varieties of plants (Official Gazette RS, No 30/1999)

* These regulations are the competence of the Ministry of Agriculture, Forestry and Food.

Contact details of the national intellectual property office

Table 96 Contact details of the Slovenian intellectual property office

Name	Slovenian Intellectual Property Office
Contact Address	Kotnikova 6, 1000 Ljubljana
Website	www.uil-sipo.si
Main Area of Services	The office grants protection for patents, supplementary protection certificates, industrial designs, trademarks, topographies of integrated circuits and geographical indications, with exception of agricultural products and foodstuffs.

Patent attorneys

Foreign natural and legal persons must obtain representation from the Register of Agents to work with the national intellectual property office. In the event that the applicant can provide an address for correspondence with the office that is in the national territory of Slovenia, then he or she can independently perform tasks related to the establishment of the filling date, pay fees, file copies of the first application when claiming the right of priority and receive notifications related to proceedings from the intellectual property office. Intellectual property is one of the many

specializations in the area of law and can be considered to be a special profession.[216]

For foreign natural and legal persons without a permanent residence or factual/effective industrial or commercial establishment within the country, a representative must be sought at the IPO, who is a registered patent, trademark or design agent. Registered agents have the jurisdiction to act in proceedings as outlined within the Industrial Property Act. Registered patent agents can be engaged in proceedings related to the acquisition and maintenance of patents, industrial designs, trademarks and geographical indications and similarly, trademark and design agents can act in proceedings related to the acquisition and maintenance of industrial designs, trademarks and geographical indications and other requests concerning such rights.[217]

Commercialization

Licensing of Slovenian manufactured products is carried out relative to the specific sector and industry requirements under which it is subjected. Generally, the most important element for the commercialization of a product is the provision of the mandatory CE label on products within the single market in the European Economic Area (EEA). The label certifies that the product meets the essential requirements for consumer safety, health or environmental protection as defined by EU guidelines or regulation. This can be issued by the company internally or can be allocated to an external organization against a fee, such as the Slovenian Institute for Quality and Metrology.

The Company Act of the Republic of Slovenia defines 406 special permits and licenses in the tourism, financial, medical, food processing and energy sector industries. Eco-technologies are not yet subjected to any special limitation, unlike some specific industries. There are several distinctive ways in which a product/service innovation can be commercialized.

Table 237 List of ways in which a product/service innovation can be commercialized

Licensing	One or more companies will conclude a license agreement to use intellectual property in return for payment. The payment is usually in the form of royalties paid at agreed regular intervals during the duration of the agreement. The precise terms of the license must be determined by negotiation, which can be lengthy (often many months) and complex. The license is a binding legal document, so it is usually necessary to include patent agents and other legal professionals. The licensee undertakes to pay the innovator for the use of intellectual property, whereby the licensee acquires an advantage over competitors through a new product or technology. Legal dispute against anyone who doesn`t comply with the intellectual property limitation can be initiated by the innovator or the licensee, depending on the license agreement. The main advantage for the innovator is that the licensee assumes the costs and risks of production and marketing. Additionally, only well-established companies are

[216] „Patent and trademark agents“. Slovenian Intellectual Property Office – SIPO [http://www.uil-sipo.si/sipo/]. Ljubljana, SIPO, uknown. Last modified [April 2018]. Available at: http://www.uil-sipo.si/sipo/addition/resources/patent-and-trademark-agents/

[217] 20 Uknown. „Registers“. Slovenian Intellectual Property Office – SIPO [http://www.uil-sipo.si/sipo/]. Ljubljana, SIPO, uknown. Last modified [April 2018]. Available at: http://www.uil-sipo.si/sipo/activities/registers/

	able to exploit the innovation and the issue of a license may provide the inventor with multi-annual revenue with relatively little effort.
Starting a company	The establishment of a company may be useful in the following types of inventions: o Knowledge-based knowledge products and where small businesses can thrive - for example, information technology or high value-added medical technology. o Products with low production costs, which mainly depend on marketing. o Products that cannot be successfully patented. o Products that do not seem to be of profitable interest by larger companies.
Joint undertaking/investment	One of the possible forms of entrepreneurship is a joint venture with a company - either an individual or perhaps a university - whose expertise is required by the innovator. For example, a partner can be a company who is ready to assist in further developing the idea in order to be able to better understand its business opportunities.
Complete divestiture	A company can also purchase intellectual property. In an invention with good market prospects, this route should be viewed with scepticism. It is worthwhile to consider sales if the idea does not have a larger or longer lasting value for the company and for the innovator. The benefits such sale can bring to the selling company include avoidance of a multi-year commitment to a licensing agreement, quick cash inflow for the innovator, and absolutely no liability and costs related to the ownership of the idea, which can include the maintenance of a patent.
Companies for the promotion of inventions	Some companies offer the promotion of value propositions against payment, however in the majority of cases, their operation is borderline fraudulent and are based on marketing an idea or concept at the expense of the innovator. For excellent value proposition, this should be avoided.

The creation/establishment of companies (as well as subsequent business operations) is regulated by the Companies act (Zakon o gospodarskih družbah ZGD-***1***[218], English translation available), which transposes relevant directives and implementation of regulations of the European community into national legislation. The administrative procedures for company formation are defined for each organizational form; for example, Article One deals with unlimited liability companies. The majority of companies in Slovenia are organized either in the form of limited liability companies (družba z omejeno odgovornostjo – d.o.o.) or joint-stock companies (delniška družba – d.d.). In addition, SMEs are frequently registered as sole traders (sole proprietors), which defines business activities of private individuals who are liable also with personal funds. A comprehensive

[218] Zakon o gospodarskih družbah ZGD-1. Zakonodaja (information portal): *[https://zakonodaja.com/].* Ljubljana, Zakonodaja.com 2017. Last modified [March 2018]. Available at: https://zakonodaja.com/zakon/zgd-1

overview of topics related to doing business in Slovenia is outlined within a guidebook prepared by the national business portal, company formation is defined within chapter 5: Establishing a company.[219]

State aid

Slovenia is subject to the European legislative framework on state aid rules.

The most notable legislature currently in place is the so called "State Aid Act"[220] (The Act Governing Rescue and Restructuring Aid for Companies and Cooperative Societies in Difficulty) on the European Commission's Guidelines on state aid for rescuing and restructuring non-financial undertakings in difficulty (2014/C 249/01) (the "Guidelines") and regulates the conditions under which the Republic of Slovenia will approve state aid measures to companies and cooperatives in the form of credit lines, subsidies, guarantees and capital investments. The act was a pre-condition for setting up an institutional framework for the Republic of Slovenia in restructuring proceedings, in the event that it would be required in order to secure national economic interests. However, the government made clear that state aid measure may be granted explicitly in the event and scope that is necessary and justified from a cost-benefit perspective of the country and/or one of its regions.[221]

The aim of the State Aid Act is to choose the measures and grant state aid to companies and cooperatives more selectively and to ensure efficient use of public resources by giving a more prominent role to economic stakeholders, applying adequate support mechanisms and preparing satisfactory restructuring plans.

The funds available for state aid support mechanisms are determined by the annual budget plan of the Republic of Slovenia, which amounted €8 million in the period between 2016 and 2017. Research and development is specific in the sense that is funded through targeted calls and tenders, for example through a funding programme coordinated by the Ministry of Education, Science and Sport, which makes a clear distinction between "pure" research organizations (such as universities, public and private research institutes) whose financed activity is non-economic in accordance with the provisions of Community Framework for State Aid for Research and Development and Innovation (OJ EU C 198, 27. 6. 2014). Wide dissemination of research results on a non-exclusive and non-discriminatory basis is required. For research organizations whose financed activity is economic in accordance with the provisions of Community Framework for State Aid for Research and Development and Innovation the provisions of the Community Framework for State Aid for Research and Development and Innovation (OJ EU C 198, 27. 6. 2014) as well as the national scheme for state aid in Research and Development (slo. Program za spodbujanje raziskav in razvoja Ministrstva za izobraževanja, znanost in šport na področju znanosti, št 631-1/2016-7, 8.1.20169 is applicable.

[219] CMSR. Doing business in Slovenia guidebook. Slovenian Business Portal [https://poslovniportal.si/]. Ljubljana, Centre for International Cooperation and Development - CMSR, 2018. Last modified [March 2018]. Available at: https://poslovniportal.si/Doing_Business_Slovenia.php

[220] Zakon o pomoči za reševanje in prestrukturiranje gospodarskih družb in zadrug v težavah (ZPRPGDZT). Legal information system of the Republic of Slovenia – PisRS (information portal): *[http://www.pisrs.si/Pis.web/].* Ljubljana, Služba Vlade RS za zakonodajo 2017. Last modified [March 2018]. Available at: http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO7300

[221] „IP Laws and Treaties". World Intelectual Property Organization – WIPO (information portal) *[http://www.wipo.int/portal/en/].* Geneva, Switzerland, World Intellectual Property Organization, 2017. Last modified [April 2018]. Available at: http://www.wipo.int/portal/en/

The state stimulates business in different ways. After Slovenia joined the EU, companies that had not received state support in the past were also active in acquiring grants and loans for financing, with a more favourable interest rate. Often, the irretrievability of the funds is conditional upon the fulfilment of certain conditions, but the funds may also be acquired without any special connection with business operations. The amounts of government grants received, which are found in the accounts of an increasing number of companies, are rising in perpetuity. A good example of the importance of state aid can be seen with the company Pipistrel Aviation Company. This, however, does not mean that these funds are given to companies, since these companies are, with their growth, returning the country in the form of paid taxes and contributions. This is particularly true of companies such as Pipistrel who are knowledge-based and employ professionals with highly sought-after skills and qualifications.

The process of state aid allocation is governed through the Act on Monitoring State Aid [222] and the Decree on transferring information and reporting about state aid funding and funding under the "de minimis" rule[223] (Ur.l.RS, št. 61/04, 22/07).

Funding of additional development

R & D funding by the state

According to the national report on obstacles and opportunities in the area of eco-innovation, Slovenia allocated 0.53% of its GDP to fund research and development activities in the public sector, including the government and higher education in 2015. Sources of the national Statistical Office of the Republic of Slovenia (SURS) indicate that gross domestic expenditure on R&D (GERD) decreased in nominal terms, whereby €809 million or 2.0% of GDP was spent on R&D in all sectors.

National support – public Agencies

Table 98 Financial incentives

Measure	Incentive for young entrepreneurs
Institution	Employment office of the Republic of Slovenia
Features	One-time financial grant (€5,000 lump sum) for starting a company and business development.
Eligibility criteria	Up to 29 years of age (a maximum of 28 years before entrepreneurship training ensues) registered among the unemployed, existing business ideas, fulfilment of conditions and opportunities for self-employment, successful completion of the mandatory entrepreneurship training.

[222] Zakon o spremljanju državnih pomoči (ZSDrP). Legal information system of the Republic of Slovenia – PisRS (information portal): *[http://www.pisrs.si/Pis.web/].* Ljubljana, Služba Vlade RS za zakonodajo 2017. Last modified [March 2018]. Available at: http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO3849

[223] Uredba o posredovanju podatkov in poročanju o dodeljenih državnih pomočeh in pomočeh po pravilu "de minimis". Legal information system of the Republic of Slovenia – PisRS (information portal): *[http://www.pisrs.si/Pis.web/].* Ljubljana, Služba Vlade RS za zakonodajo 2017. Last modified [March 2018]. Available at: pisrs.si/Pis.web/pregledPredpisa?id=URED3392

Information	The incentive is widely accessible for the target group and requires no previous experience. Every step of the process is clearly defined and supported by free of charge counselling. The support structure is guaranteed for the period from 2018 until 2019, for which a minimum of €2.5 million is secured. The funds are provided through the European Social Fund (80%) and the Republic of Slovenia (20%). It is very likely that the incentive will be made available also after 2019, approximately at the same level as in the past decade. The support structure is very effective and popular, especially amongst first time job seekers who are unable to obtain relevant experience elsewhere. The support mechanism can be easily adapted to various target groups and is highly replicable.
Measure	Incentive for female entrepreneurship
Institution	Employment office of the Republic of Slovenia
Features	One-time financial grant (€5,000 lump sum) for starting a company and business development.
Eligibility criteria	A minimum of post-secondary level of education, registered among the unemployed for at least 3 months, existing business ideas, fulfilment of conditions and opportunities for self- employment, successful completion of the mandatory entrepreneurship training.
Information	The incentive is widely accessible for all unemployed women with at least post-secondary level education and requires no previous experience. Every step of the process is clearly defined and supported by free of charge counselling. The support structure is guaranteed for the period 2018 and is unclear whether or not the incentive will be available also in 2019 and beyond. The support structure is very effective and popular, as thus far nearly 800 women have started their entrepreneurship since the beginning of the programme. The support mechanism can be easily adapted to various target groups and is highly replicable.

Table 99 Tax incentives

Measure	Refund of work contributions for youth employment
Institution	Institute for Pension and Disability Insurance of Slovenia
Features	Reimbursement of contributions for pension and disability insurance: for the first year of employment in the amount of 50% of the paid contributions by the employer, for the second year of employment in the amount of 30% of the paid contributions of the employer for.
Eligibility criteria	For pension insured persons who have not yet completed 26 years of age and/or are mothers who care for a child up to the age of 3 years. They must be employed with an time-unlimited contract and have remained with the same employer without interruption for at least 2 years.

Measure	Tax incentive for employment of young and elderly unemployed persons for indefinite time.
Institution	Financial administration of the republic of Slovenia
Features	Reduction of the tax base in the amount of 45% of the salary of these persons, for the first 2 years of employment of these persons.
Eligibility criteria	For employment of unemployed persons who are younger than 26 or older than 55 and have been registered in the unemployment register for at least 6 months before employment.
Measure	Tax incentive (general investment allowance)
Institution	Financial administration of the republic of Slovenia
Features	40% of the amount invested in plant, equipment and/or intangible assets
Eligibility criteria	Taxable legal person.
Measure	Tax incentive (investment allowance in R&D activities)
Institution	Financial administration of the republic of Slovenia
Features	100 % tax allowance on the volume of qualifying expenditure for research and development (operational and capital expenditures – equipment acquisition costs). Can be used for internal R&D activities within the company as well as the purchase of R&D equipment from related or unrelated parties or from a private research institution.
Eligibility criteria	Taxable legal person established in Slovenia.
Measure	Foreign tax credit
Institution	Financial administration of the republic of Slovenia
Features	Tax paid abroad can be credited against tax liability in Slovenia. The amount of tax that can be credited is the amount of final and actually paid tax. If there is a double taxation treaty (DTT) made between countries in question, the amount of tax that can be credited is the amount calculated at the rate determined in the DTT.
Eligibility criteria	Taxable legal person. A taxpayer needs to provide proof of the amount of foreign tax, the basis for calculation of the tax, and the amount of the tax paid.
Measure	Tax relief for investments in the Pomurje region
Institution	Financial administration of the republic of Slovenia
Features	In addition to the incentives for employment, additional tax reliefs for investment are available in some marginalized, less developed regions such as Pomurje. Additional benefits in question have been available from 2010 onward and will presumable remain in place at least until the end of 2019. Legal entities that are based anywhere in the Pomurje region are entitled to obtain up to a 70% tax allowance for investments in equipment and intangible assets.
Eligibility criteria	Taxable legal person based in the Pomurje region.

Table 24 Domestic support funds

Programme	Young enterprises
Institution	Slovene Enterprise Fund
Features	The fund provides financial support for newly established innovative companies that demonstrate high growth potential. The fund provides young enterprise with start-up incentives, seed capital, venture capital, microcredits and guarantees. There are 3 main products for young innovative enterprises offered from the category of start-up incentives, namely incentives for innovative start-ups with high-growth potential (financial incentives plus support from the best local and foreign start-up mentors), incentives for start-ups in problem regions (not technologically innovative companies per se, however demonstrate positive economic and social potential, especially in terms of reducing the unemployment in problem regions) and incentives for start-up enterprises in the field of wood utilization (for supporting the introduction of products and services in the area of wood utilization that demonstrate higher value added than conventional enterprises within the field) focused on the integration and exchange of knowledge in the forest-wood chain. Besides financial support, the first development phase covers the entire assortment of services associated with setting up an enterprise, inclusive of the support for the creation of a minimum viable product (MVP) based on own development, the creation of an entrepreneurial team in addition to a direct transfer of knowledge and knowledge institutions into the business environment.
Programme	SME5+
Institution	Slovene Enterprise Fund
Features	The fund also provides microcredits and guarantees for already established (5+) micro, small and medium-sized enterprises in promotion of growth (expansion of operation) or optimizing existing or developing new complementary products or services. The credit is secured by the funds guarantee and as such offers better terms for enterprises because of lower collateral requirements, competitive interest rates, maturity of the credit and the possibility of a grace period for repayment of the credit. Furthermore, enterprises that obtain a credit within this product at one of the participating banks, have the possibility of obtaining a guarantee in the framework of the three credit-guarantee lines, which also include the opportunity to secure conventional projects, to secure technologically innovative projects and to enforce and secure trade activities.

Table 25 Human resource development and scholarships

Programme	Competence centre for personnel training (KOC)
Institution	Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia
Features	The Ministry of Labour, Family, Social Affairs and Equal Opportunities (within the framework of the European Social Fund) support the integration of Slovenian companies into human resource development partnerships, making it easier for them to invest in personnel and consequently long-term positive business results. The main activity is the implementation of training for personnel employed in companies operating in a particular industry or in the field of operation of the Smart Specialization Strategy in line with the requirements and long-term strategy of the companies involved. Under the guidance of independent experts, a model of primary competencies is drawn up (identifying greatest deficits and greatest growth potentials) which forms the basis for the training plan for the employees. Primarily training is provided to strengthen professional-specific competences, which represent a comparative advantage for the business, the economy and the wider society. This includes training of transversal, multi-disciplinary content, such as managerial, sales and soft skills, as they have a significant impact on the commitment of employees, the performance of the organization and the achievement of results. The training is also focused on delivering new knowledge in the field of marketing, design, introduction of changes, ecology and digitization.
Programme	Following the creative path to knowledge 2016-2020 (Open, responsive and quality system of higher education - Project work with the economy and non-economy in the local and regional environment)
Institution	Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia
Features	The programmeenables the integration of higher education institutions with the labour market and thus gives students the opportunity to gain practical experience. In the framework of co-funded projects, students explore creative and innovative solutions to the challenges of the economic and social environment. The programmealso introduces promotion of mutual exchange of knowledge, experience and good practices of higher education teachers and experts from the real economy. The main purpose of this activity is the transfer of professional and academic knowledge, which will consequently encourage higher education institutions to modernize study programs and introduce an innovative teaching approach. The programmeenables co-financing of projects that are carried out in groups of 6 to 8 students under

	the mentorship of the pedagogical and working mentor. In addition, an organization from an economic or social field can join the project. Projects can last from 3 to 5 months.
Programme	Competence Centre for the Woodworking Industry - KOCles
Institution	Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia
Features	The Competence Centre for Personnel Development in the Woodworking Industry project introduced concepts of management and branding and developed other employee competences that enhance the success of Slovenian operations and thus contribute to the competitiveness and preservation of jobs in this key Slovenian industry. The project's main intent was to achieve higher value added from an industry with low investment in research and development, namely by focusing on design and development of innovative products and services as a key opportunity to adapt to the modern business world with new knowledge and improved practices. The project introduced hundreds of training session (focused on design management and branding, management and business improvements as well as marketing, sales and communications) and business process improvement within the companies from the Slovenian wood industry. It was concluded at the end of 2017.
Programme	Zois scholarships
Institution	Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia
Features	Zois scholarships are awarded as an incentive for achieving exceptional achievements and thereby creating added value in the fields of knowledge, research, development, and art. They are aimed at promoting education and attaining a higher level of education, raising the responsibility of scholarship holders for their education, as well as for choosing an education program, shortening education and improving employability.
Programme	Personnel (human resource) scholarships
Institution	Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia
Features	The purpose of human resources scholarships is to integrate/connect future employment seekers and the employment sphere, because companies can, through long-term human resources planning, ensure the on-time development of appropriate personnel, thus stimulating the development of enterprises. Personnel scholarships are on average the highest among all types of scholarships, but many of them remain unused each year. The advantage of

	staff scholarships is to provide immediate first employment after finishing school.
Programme	Ad futura scholarship for Education
Institution	Public Scholarship, Development, Disability and Maintenance Fund of the Republic of Slovenia
Features	Ad future scholarships are intended for applicants who wish to obtain a scholarship for an educational programme at a foreign academic institutions as well as for foreign citizen that apply for tertiary education in Slovenia.

Transnational support funds

Details on international financing are in the table or in Annex 4 to this guidebook.

Table 26 European Union funding

Funding programme	LIFE programme
Duration	2014-2020
Financial support	€3.4 billion
Main target	Environmental protection. Nature conservation. Climate action projects. Resource efficiency. Waste management.
Funding programme	Erasmus+ programme
Duration	2014-2020
Financial support	€14.7 billion
Main target	Reducing unemployment, especially among young people. Promoting adult learning, especially in acquisition of new skills and skills required by the labour market. Encouraging young people to take part in European democracy. Supporting innovation, cooperation and reform. Reducing the rate of school drop-outs. Promoting cooperation and mobility with EU's partner countries.

Table 27 Transnational support funds (Territorial cooperation funds)

Funding programme	Interreg Alpine Space
Duration	2014-2020
Financial support	€117 million
Main target	Foster sustainable growth and promoting innovation in the Alps: from theory to practice, from research centres to enterprises. Support connectivity for all: in search of a balanced territorial development through environmentally friendly mobility patterns, transport systems and communication services and infrastructures.

	Ensure sustainability in the Alps: preserving the Alpine heritage and promoting a sustainable use of natural and cultural resources. Improve cooperation and the coordination of action in the Alpine Region.
Funding programme	Interreg Central Europe
Duration	2014-2020
Financial support	€246 million
Main target	Cooperating on innovation to make Central Europe more competitive. Cooperating on low carbon strategies in Central Europe. Cooperating on natural and cultural resources for sustainable growth in Central Europe. Cooperating on transport to better connect Central Europe.
Funding programme	Interreg Mediterranean
Duration	2014-2020
Financial support	€224 million
Main target	Increase transnational activity of innovative clusters and networks of key sectors of the MED area. Raise capacity for better management of energy in public buildings at transnational level. Increase the share of renewable local energy sources in energy mix strategies and plans in specific MED territories. Increase capacity to use existing low carbon transport systems and multimodal connections among them. Enhance the development of a sustainable and responsible coastal and maritime tourism in the MED area. Maintain biodiversity and natural ecosystems through strengthening the management and networking of protected areas. Support the process of strengthening and developing multilateral coordination frameworks in the Mediterranean for joint responses to common challenges.
Funding programme	Interreg Danube
Duration	2014-2020
Financial support	€202 million
Main target	Improve framework conditions for innovation. Increase competences for business and social innovation. Strengthen transnational water management and flood risk prevention. Foster sustainable use of natural and cultural heritage and resources. Foster the restoration and management of ecological corridors. Improve preparedness for environmental risk management. Support environmentally-friendly and safe transport systems and balanced accessibility of urban and rural areas. Improve energy security and energy efficiency.

	Improve institutional capacities to tackle major societal challenges. Support to the governance and implementation of the EUSDR.
Funding programme	Interreg Adriatic-Ionian
Duration	2014-2020
Financial support	€84 million
Main target	Support the development of a regional Innovation system for the Adriatic-Ionian region. Promote sustainable value and preservation of natural and cultural assets as growth assets in the Adriatic-Ionian area. Enhance capacity for integrated transport and mobility services and multimodality. Facilitate the coordination and implementation of the EUSAIR by enhancing the institutional capacity of public administrations and key stakeholders and by assisting the progress of implementation of joint priorities.

Table 104 Cross-border cooperation programmes

Funding programme	Interreg V-A Italy- Slovenia (IT-SI)
Duration	2014-2020
Financial support	€91 682 300.00
Main target	Strengthen research, technological development and innovation. Support the shift towards a low-carbon economy in all sectors. Preserve and protect the environment and promote resource efficiency. Enhance institutional capacity of public authorities and stakeholders and efficient public administration.
Funding programme	Interreg V-A Slovenia- Austria (SI-AT)
Duration	2014-2020
Financial support	€57 213 193.00
Main target	Strengthen cross-border competitiveness, research and innovation. Environmental protection and promotion of resource efficiency. Improve institutional capacity and efficient public administration. Technical assistance.
Funding programme	Interreg V-A Slovenia- Croatia (SI-HR),
Duration	2014-2020
Financial support	€5 690 913.00
Main target	Reduction of flood threats in the cross-border basins of Dragonja, Kolpa, Sotla, Drava, Mura and Bregane. Active conservation of heritage through sustainable tourism. Protecting and restoring biodiversity and promoting ecosystem services. Strengthening partnerships between public authorities and stakeholders for healthy, safe and accessible cross - border areas.
Funding programme	Interreg V-A Slovenia- Hungary (SI-HU).

Duration	2014-2020
Financial support	€18 611 194.13
Main target	Better utilization of natural and cultural values through participation in tourism Creating or strengthening the local economy (locally available jobs, new businesses, entrepreneurship) in rural areas through the development of sustainable tourism and connecting remote locations of cultural and natural heritage and their further integration with major tourist destinations, magnets. Further development of the brand "green and dwelling worth" the region of cross-border cooperation by preserving, revitalizing and evaluating natural and cultural resources, and strengthening cooperation between stakeholders and with social, economic and institutional links. Extending cross-border cooperation by strengthening the institutional capacity of public and civil stakeholders in mutually important areas of public policies and services.

Table 105 Interregional cooperation programmes

Funding programmes	INTERACT III INTERREG EUROPE URBACT III ESPON 2020
Duration	2014-2020
Financial support	€514 million
Main target	Strengthen the effectiveness of cohesion policy by promoting the exchange of experience between regions. Improve the implementation of European territorial cooperation programs and projects. Promotion of analysis of development trends in the field of territorial cohesion through studies, data collection and other measures.

Business incubators

Table 28 List of Slovenian incubators and technology parks

Name	Location and address	Type	E-mail
Primorski tehnološki park	Vrtojba, Mednarodni prehod 6, 5290 Šempeter pri Gorici	Technology park	ptp@primorski-tp.si
Tehnološki park Ljubljana	Tehnološki park 19, 1000 Ljubljana	Technology park	info@tp-lj.si

INKUBATOR Sežana	Kraška ulica 2, 6210 Sežana	Business incubator	info@inkubator.si
RRA Koroška - Regionalna razvojna agencija za Koroško	Meža 10, 2370 Dravograd	Business incubator	info@rra-koroska.si
Pomurski tehnološki park	Plese 9A, 9000 Murska Sobota	Technology park	info@p-tech.si
Razvojni centre Novo mesto	Ljubljanska cesta 26, 8000 Novo mesto	Business incubator	info@inkubator-nm.si
Razvojni centre za informacijske in komunikacijske tehnologijie	Ljubljanska cesta 24A, 4000 Kranj	Business incubator	info@rcikt.com
Regionalni center za razvoj	Podvine 36, 1410 Zagorje ob Savi	Business incubator	info@rcr-zasavje.si
SAŠA inkubator	Šaleška cesta 2A, 3320 Velenje	Business incubator	info@sasa-inkubator.si
Štajerski tehnološki park	Pesnica pri Mariboru 20A, 2211 Pesnica pri Mariboru	Business incubator	info@stp.si
IRP Inštitut za raziskovanje podjetništva	Ulica škofa Maksimilijana Držečnika 6, 2000 Maribor	University incubator	info@tovarnapodjemov.org
Ljubljanski univerzitetni inkubator	Vojkova cesta 63, 1000 Ljubljana	University incubator	info@lui.si
UIP, Univerzitetni razvojni center in inkubator	Ferrarska ulica 8, 6000 Koper	University incubator	info@uip.si
Inkubator Savinjske regije	Gregorčičeva ulica 6, 3000 Celje	Business incubator	info@inkubatorsr.si
Mrežni podjetniški inkubator Ormož	Vrazova ulica 9, 2270 Ormož	Business incubator	jara@siol.net
Podjetniški inkubator Kočevje	Trata XIV 6, 1330 Kočevje	Business incubator	info@zavod-pik.si
Podjetniški inkubator Kostel	Petrina 11, 1336 Kostel	Business incubator	info@inkubator-kostel.si
Univerzitetni inkubator Savinjske regije	Kidričeva ulica 25, 3000 Celje	Business incubator	info@inkubator-celje.si
Zavod Znanje Postojna	Kolodvorska cesta 3, 6230 Postojna	Business incubator	inkubator@zavod-znanje.si

Support by companies or private investment

Table 107 List of domestic organizations supplying high-risk capital to companies (Source: Start-up.si[224])

Name	Description	Website
Business Angels of Slovenia	The Business angels of Slovenia was founded in 2007 and is the first and biggest club of angel investors in Slovenia. It is the focal point connecting ambitious entrepreneurs, who are in the early stages of company growth and the most successful businessmen in Slovenia. Members of the club are businesspeople with a high level of integrity, extensive experience, rich social capital (e.g. "smart money") and a willingness to assist a fast-growing startup company with expansion and development (*Source: Start-up.si*)	www.poslovniangeli.si
Fil Rouge Capital	Fil Rouge Capital (FRC) is a private investment company based in Ljubljana, Slovenia. FRC invests in early stage businesses from angel investment, seed, VC and Series A rounds through a combination of equity and debt structures. FRC's approach is to target investments that complement the skills and experience of its Founders so that they can bring more than just capital to help a business grow. Both FRC's Founders have a core knowledge of technology, services, and an entrepreneurial history that they can bring to the benefit of an investment. Fil Rouge Capital is financed by the Founders and a group of private individuals all of whom share the same entrepreneurial approach and a desire to help early stage businesses grow. FRC is Europe-centric, with additional focus on Central and Eastern Europe, Austria and Southern Germany. (*Source: Start-up.si*)	http://www.filrougecapital.com
Silicon Gardens Fund	Since 2010, Silicon Gardens has been uniting some of the successful Slovenian high-tech companies and individuals who share common values of open communication, mutual help and modern views on entrepreneurship. In 2014, an angel seed capital fund started working under the wing of Silicon Gardens, helping them support Slovenian start-up stories. (*Source: Start-up.si*)	www.silicongardens.si
PRVI SKLAD - RSG Capital	RSG Capital is a venture-capital management company. Its mission is to fill the equity gap or the lack of financial	www.rsg-capital.si

[224] "Venture capital". Start-up Slovenia initiative [https://www.startup.si/]. Ljubljana, Slovenski podjetniški sklad, MGRT, 2018. Last modified [April 2018]. Available at: https://www.startup.si/en-us/venture-capital

	resources faced by companies in the early stages of their development. RSG Capital's team is highly experienced and possesses broad complementary knowledge, which has enabled the company to establish itself as a competent and reliable partner to start-up companies, and as an important factor in stimulating business and the development of venture capital markets in the region. (*Source: Start-up.si*)	
STH Ventures	STH Ventures, venture capital firm, Ltd. is a venture capital fund founded by the company S.T. Hammer Ltd. in 2010. The entire resources of the fund amount to a little more than €7 million. Investments of the fund STH Ventures are focused on small- and medium-sized companies in Slovenia and the region, with long-term development potential. They are looking for ambitious entrepreneurs who want quick growth and are targeting the global market. They also focus on projects that contribute to ecological sustainability and reducing the burden on the environment. Their investment policy is primarily focused on companies that have mostly finished the development of their product/service and are ready to enter the market but need capital to do so. (Source: Start-up.si)	www.sth.si
Meta Ingenium	Meta Ingenium Ltd. is a newly founded venture capital fund searching for innovative companies with high potential for growth. The fund is investing into companies in the early stages of development, growth and expansion: it targets companies that are displaying a dedicated and balanced team as well as a leading position on the market. META Ingenium provides equity investments into companies, while at the same time encouraging their growth and internationalization in the following rounds of financing. The fund, which has €10 million at its disposal, is searching for investment opportunities in Slovenia as well as abroad: up to 30 % of the fund's resources can be invested into companies outside Slovenia. (*Source: Start-up.si*)	http://www.zernikemetaventures.com/funds/IngeniumSlovenia/Pagine/default.aspx
DTK Murka	DTK Murka, venture capital company, Ltd. was founded in 2010 with the purpose of investing venture capital and the so-called quasi-equity capital into the target micro-, small and medium sized companies (SMEs).	www.dtkmurka.si

	The company carries out the investments of venture capital in accordance with the investment policy while adhering to certain investment limitations. (*Source: Start-up.si*)	

Promotion and marketing

Slovenian Strategy for strengthening the European Research Area 2016-2020 states the ambition for the country to become an innovation leader on the Innovation Union Scoreboard, for which governmental support for research and development should reach 1.5% of GDP already in 2020. Wholesale promotion of science and innovativeness in society and promotion of research achievements and inventions in addition to the comprehensive promotion of creativity, innovativeness and entrepreneurship for the young is also outlined as a priority within the Research and Innovation Strategy of Slovenia 2011-2020 (RISS). Technical studies and science are already strong through information campaigns, communication/info days from the side of the Slovenian Research Agency[225]. A best practice example of promotion and awareness raising in science (research, development and innovation) is the "Excellent in Science project", which represent the selection of the most important achievements of the past year, carried out by members and members of the scientific research councils of individual disciplines. The selected achievements are presented in publicly accessible events every autumn in the form of short popular lectures. In 2017, the achievements of researchers and researchers were presented at six thematical events organized by the Agency in cooperation with the Pan-European Nights of Researchers, collaborators and collaborators of the Science on the Road project, the Slovenian Ethnographic Museum, the Slovenian Academy of Sciences and Arts and the Novo mesto Grammar school. Another very successful activity is the organization of the "Days of Communication of Science" which is organized in the form of a three-day set of events dedicated to raising awareness and acquiring skills in the field of communication about science. From a business perspective, access to promotional, marketing and general networking mediums in Slovenia is very good as there is a variety of events, media and organizations (both public and private), that provide strong support to innovators and start-ups. The strong community of business support organizations allow innovators and businesses to be visible across several platforms for addressing supporters, investors, clients, co-workers, partners and other partnering organizations. Information campaigns and other promotional activities have engrained the very essence of innovation and entrepreneurship into the public domain where it now receives high admiration and strong positive consensus.

In this respect, the initiative Start:up Slovenia is one of the key facilitators and promoters of innovation, development and entrepreneurship, connecting public and private stakeholders within the national start-up ecosystem. The initiators of the Start:up Slovenia initiative are the Technology Park Ljubljana and Tovarna podjemov, with the

[225] Tina Vuga. Official webpage. Slovenian Research Agency - ARRS [https://www.arrs.gov.si]. Ljubljana, Slovenian Research Agency, 2018. Last modified [April 2018]. Available at: https://www.arrs.gov.si/en/index.asp

Primorska and Pomurska Technology Parks, Regional Incubator of the Savinjska and Šaleška regions and the Development Centre for Information and Communication Technologies. The most influential international event for networking and promoting innovation and entrepreneurship is the PODIM[2] annual conference. It is the largest and most visible start-up conference in the Alps-Adriatic region with more than 6,800 participants (start-ups, investors, corporations and other stakeholders with global presence) is a dynamic two-day entrepreneurial event hosting internationally renowned speakers, start-up celebrities and prominent investors organized annually. It represents one of the most relevant networking platforms for connecting and opening the regional start-up ecosystems from the European Adriatic and Western Balkans area to the global scene. A very high-profile event organized within the country is the Industrial forum of Innovation, Development and Technology-IRT[3]. The forum focuses on achievements and novelties within industry, innovation and innovative technological solutions, successful application projects of research organizations, institutes and universities carried out in an industrial environment as well as best practice examples of transferring useful knowledge from the scientific and research environment to industry. The national innovation ecosystem is very strong on the local/regional level, therefore topical events focusing on local environments inclusive of training seminars, co-creation and co-working events, such as the start-up Müsli meetings for the City of Maribor are very commonplace across the country.

Award ceremonies are also a very popular and effective way of promoting both specific innovations and products, as well as the very concept of entrepreneurship and innovation among the general public. One such event is the Slovenian "Start-up of the year" award which rewards most promising Slovenian start-up entrepreneurs, with the intent of highlight their activities and not only promote their own companies, products and/or services, but to promote entrepreneurship and innovation with the recipients of the award in the role of business/innovator ambassadors. There are several other publicly visible award ceremonies, such as the entrepreneur of the year, the Gazelle Award for best, most rapidly growing companies as well as international awards such as the European awards for entrepreneurship.

Events and networking

Active participation on national and international fairs is supported from the side of various public and private organizations in Slovenia. Most notably this activity is facilitated by the Chamber of Commerce and Industry-GZS (and it`s sub and partner organizations) as well as the Public Agency for Entrepreneurship, Internationalization, Foreign Investments and Technology-SPIRIT. For example, the public Agency SPIRIT Slovenia issues and manages open public tenders for the joint participation of national organizations in international trade fairs abroad in 2019, which are published each year. There is substantial interest from the side of the of Slovenian companies, industry associations, sections and clusters or other interest-based economic associations to promote their services and products and to establish new business contacts with foreign business partners, which leads to the conclusion of new businesses and, consequently, to the growth of participating and partner companies. In the framework of group presentations at the fairs abroad, SPIRIT Slovenia covers the costs of renting an unspoiled exhibition space, technical connections for the needs of the group exhibition and the entry of exhibitors in the fair catalogue.

There are numerous other promotions, events, awards and other relevant activities that inform and promote ecologically oriented innovation within the country.

Expert database

The tables below provide information about contacts of experts in the area of research and development, business, marketing, design, intellectual property and others.

Table 108 List of experts in Slovenia

Name	dr. Duško Odić
Organization	Jožef Stefan Institute, Centre for Technology Transfer and Innovation
Position	EU Projects, Organisation of visits, Connecting with education, PR, Administration
E-Mail	dusko.odic@ijs.si
Telephone	+386 1 477 30 96
Contact address	Jamova cesta 39, 1000 Ljubljana, Slovenia
Website	http://tehnologije.ijs.si/en
Area of research/ specialization	Electronics, IT and Telecommunications, Nanotechnology and New Materials, Biological Sciences, Physical Sciences, etc.
Scope of activities	Overview and search of current public calls, assistance with preparation of project proposals, help with search for project partners, support with expansion and strengthening of contacts network, support with intellectual property protection, assistance with execution of procedures for acquisition of IP at JSI, marketing of intellectual property, aid with establishing new companies, contractual collaboration with industry, etc.
Name	Barbara Tišler
Organization	National Institute of Chemistry, Knowledge Transfer Office
Position	Head of Project Management Office
E-Mail	projektna.pisrana@ki.si
Telephone	+386 1 476 02 00
Contact address	Hajdrihova 19, PO Box 660, SI-1001 Ljubljana, Slovenia
Website	https://www.ki.si/en/about-the-institute/knowledge-transfer-office
Area of research/ specialization	Biotechnology and Health, Advanced materials and Engineering.
Scope of activities	Chemical analyses, GMP (service according to Good manufacturing Practice), biological and biochemical research, chemical technology, chemical engineering and materials, etc.
Name	M. Sc., Rudi Voncina
Organization	Milan Vidmar Electric Power Research Institute, Dept. for support to the energy sector, local communities and the state in the area of environmental protection
Position	Head of Department
E-Mail	rudi.voncina@eimv.si
Telephone	+386 1 474 36 70

Contact address	Hajdrihova ulica 2, 1000 Ljubljana, Slovenia
Website	https://www.eimv.si/eng/ed.html
Area of research/ specialization	Energy and power system planning, support to the energy sector local communities and the state in the area of environmental protection, Electric power system control and operation, High voltage and power plants, Electric power plants and facilities environmental effects, Physical-chemical transformer diagnostics.
Scope of activities	Preparation of environment-related expert documents; preparation of spatial planning-related expert documents, Consideration of environmental quality parameters; Consideration of the input of substances and energy in the environment; Information technology; Research and development, etc.
Name	Barbara Tišler
Organization	Technology park Ljubljana, Entrepreneurial support
Position	Project manager at the department for entrepreneurial support
E-Mail	elvisa.basailovic@tp-lj.si
Telephone	+386 1 620 34 00
Contact address	Tehnološki park 19, 1000 Ljubljana, Slovenia
Website	http://www.tp-lj.si/sl
Area of research/ specialization	Business support.
Scope of activities	One of the largest innovation ecosystem in south-east Europe operating a smart-city of over 300 innovative companies with over 1,500 employees. Providing training and capacity development, coordinator of networks of Fab- and OpenLabs, ongoing pilot projects for facilitating innovation in public research organizations, academic institutions and large companies, etc.
Name	Jurij Avsec
Organization	Faculty of Energy technology, Research laboratory for thermo-mechanics and nanotechnologies
Position	Head of Department
E-Mail	jurij.avsec@um.si
Telephone	+386(0)7 6202 217
Contact address	Hočevarjev trg 1, 8270 Krško, Slovenia
Website	https://www.fe.um.si
Area of research/ specialization	Energy technology, Thermo-mechanics, Nanotechnologies, Renewable energy.
Scope of activities	Project development, Prototyping, Feasibility studies, Stakeholder consultations, etc.
Name	Meti Ketner

Organization	KETNER, Legal Consultancy, Representation and Protection, Ltd. - Intellectual Property Law Practice
Position	Independent consultant
E-Mail	info@ketner.si
Telephone	+386 (0)51 344 655
Contact address	Tržaška cesta 134, 1000 Ljubljana
Website	http://www.zascita.si
Area of research/ specialization	Intellectual property rights protection.
Scope of activities	Intellectual property (IP) focused on the protection of industrial property (patents, trademarks, industrial designs, etc.).
Name	Klemen Vehovar
Organization	Energy Industry chamber of Slovenia
E-Mail	klemen.vehovar@ezs.si
Telephone	+386 (0)1 5898 270
Contact address	Dimičeva ulica 13, 1000 ljubljana, Slovenia
Website	https://www.gzs.si/energetska_zbornica_slovenije
Area of research/ specialization	Energy production, supply and distribution.
Scope of activities	Energy consultancy, Strategical planning, Policy development.

Annex 1: Regional and international patent protection

European patent

What is a European patent

European Patent Convention (EPC) is a multilateral treaty instituting the European Patent Organization and providing an autonomous legal system according to which European patents are granted. It enables the applicant to use a single administrative procedure to gain protection in several or all of the covered territories and save patenting costs. European patents are administered by the European patent office (EPO), Munich, Germany, www.epo.org

How does the European patent work

The EPC provides a legal framework for the granting of European patents, via a single, harmonized procedure before the EPO. A single patent application, in one language (English, French or German), may be filed at the EPO and the grant of a European patent may be requested for one or more of the contracting states.

The contracting states do not perform any material evaluation of the European patent but a validation procedure has to take place, which consists of paying a validation fee and providing a translation of the patent text to the national language of that country (some countries require translation of the whole document, while in others it is sufficient to translate the claims or no translation is required at all).

A European patent is not a unitary right, but a group of essentially independent nationally-enforceable, nationally-revocable patents, subject to central revocation or narrowing as a group pursuant to two types of unified, post-grant procedures: a time-limited opposition procedure, which can be initiated by any person except the patent proprietor, and limitation and revocation procedures, which can be initiated by the patent proprietor only.

Representation before the EPO

If you have your residence or principal place of business in a contracting state, you may act on your own behalf in proceedings before the EPO, otherwise you must appoint a representative and act through him in all proceedings before the EPO other than in filing your European patent application and paying the fees. Representation before the EPO may be undertaken only by professional representatives who are on a list maintained by the EPO, or by legal practitioners entitled to act before the EPO. You will find a searchable online database of professional representatives on the EPO website[226]. Representation is strongly recommended as both the patent writing and the proceedings at EPO are complicated matter.

Costs

The fees for the European patent consist mainly of a filing fee, fee for the request of examination, renewal fee (from the 3rd year) and a granting fee. The current fees may be

[226] European Patent Office. Guide for applicants: How to get a European patent [online]. © EPO, 2018. Last modified: 29.06.2018 [cit. 2018-10-5]. Available at: https://www.epo.org/applying/european/Guide-for-applicants/html/e/ga_c_i_10.html

checked on the EPO website[227]. In addition, the applicant needs to count with costs of representation and subsequently costs of validation in the selected national countries and maintenance of the patent there.

Unitary (EU) patent

One of the most criticized aspects of the European patent system is that the enforcement of rights in both ways (somebody is infringing on the European patent and the owner wants to stop that person doing that, or a third party seeks to invalidate the European patent) is costly and time-consuming, because the aggrieved party has to go to court in every country separately. Also it happens that said national courts come to different verdicts on the merit of the dispute. The EU in particular views this as a barrier to the functioning of the internal market and therefore is preparing a modification of this system, introducing the concept of the European patent with a unitary effect in the EU. The unitary patent will no longer be a group of independent national patents, but similarly to EU trademark or design, it will be administered by a single office and its validation contested or asserted by a central decision making bodies (the EPO and specialized court/s). The effect is that the unitary patent will stand or fall as a whole. The unitary effect will be awarded upon a request of the applicant. The advantages of the system should be evaluated by the applicant in each patent case as it sometimes may be strategic to use the unitary effect and other times the regular system. The unitary patent is not yet available to applicants; the system is ready and waiting for a required number of EU member states to sign the international agreement on the Unified Patent Court[228].

International patent application according to PCT

What is a PCT application

The Patent Cooperation Treaty (PCT) administered by the World Intellectual Property Organization (WIPO) makes it possible to seek patent protection for an invention simultaneously in each of more than a 150 countries of the World by filing an international patent application. Such an application may be filed by anyone who is a national or resident of a PCT Contracting State. A PCT application is very useful in securing priority right for the application and gaining more time for the applicant to decide where to proceed with the patent protection.

Proceedings at the WIPO

The PCT procedure consists of two main phases, international and national. It begins with the filing of an international application and ends (in the case of a favorable outcome for the applicant) with the grant of a number of national and/or regional patents. The international phase done by the WIPO consists of five stages. The first three steps which occur automatically for all applications consist of the filing of the international application by the applicant and its processing by the receiving office, the establishment of the international search report and written opinion by one of the International Searching Authorities, and the publication of the international application together with the international search report.

[227] European Patent Office. Schedule of Fees [online].© EPO, 2018. Last modified: 09.07.2018 [cit. 2018-10-5]. Available at: https://my.epoline.org/portal/classic/epoline.Scheduleoffees

[228] European Union. Agreement on a Unified Patent Court (UPC), ratification details [online]. © European Union, 2017 [cit. 2018-10-5]. Available at: https://www.consilium.europa.eu/en/documents-publications/treaties-agreements/agreement/?id=2013001 This information is up to date to 5. 10. 2018 when this text was created and the reader is advised to check the current development at the source web page.

The fourth step is optional and includes the establishment of a supplementary international search resulting in a supplementary international search report. The optional fifth step involves what is known as international preliminary examination of patentability. All reports are upon request of the designated countries communicated to their national patent offices.

National phase

On completion of the international phase, further action is required before and in each of the national (or regional) offices where the applicant seeks to have a patent granted. In particular, the applicant has to pay to those Offices the required national (or regional) fees, furnish them with any translations that are required and appoint a representative (patent agent) where required. There are time limits by which those steps must be taken if the application is to proceed in the national phase. The national (or regional) Offices then examine the application and grant or refuse the national (or regional) patent on the basis of their national laws[229]. The national/regional offices may, if they choose, use reports from WIPO to help them assess patentability of the invention, which may reduce costs in the national phase. A favorable report from WIPO does not secure a grant of a patent in any national country.

Costs

Costs of the international phase consist of fees to WIPO (or a national office when filing there) and the costs for representation. Current fees are available at WIPO website[230] and note that if not stated otherwise, the currency is the Swiss franc (CHF).

Danube region countries

	European patent	Unitary patent	PCT application
Austria	✓	✓	✓
Bulgaria	✓	✓	✓
Bosnia-Herzegovina	Extension state	N/A	✓
Croatia	✓		✓
The Czech Republic	✓		✓
Germany	✓		✓
Hungary	✓		✓
Serbia	✓	N/A	✓
Slovakia	✓		✓
Slovenia	✓		✓

[229] World Intellectual Property OrganizationThe PCT Applicant 's Guide, chapter 3 [online]. © WIPO, 2018. Last modified: 09.07.2018 [cit. 2018-10-5]. Available at: http://www.wipo.int/pct/en/appguide/text.jsp?page=ip03.html#_chapt3

[230] World Intellectual Property Organization. PCT Fee Tables [online]. © WIPO, 2018. Last modified: 20.09.2018 [cit. 2018-10-5]. Available at: http://www.wipo.int/export/sites/www/pct/en/fees.pdf

Annex 2: Protection of trade marks

A trade mark (or brand) is a sign which distinguishes the goods and services of one company from those of another and so serves as an indicator of business origin. Trade marks can be words, logos, devices or other distinctive features, or a combination of these.

A trade mark can become one of a company's most important assets. It is the mark through which a business can attract and retain customer loyalty, and create value and growth. The trade mark works in this case as an engine of innovation as the necessity to keep it relevant promotes investments in R&D, which in turn leads to a continuous process of product improvement and development. This dynamic process also has a favorable impact on employment.[231]

A trade mark may be used as a manufacturer's mark, a mark for goods of a trading company, or service mark. It may also take the form of a collective trade mark: properly applied, the regulation governing the use of the collective trade mark guarantees the origin, the nature and the quality of goods and services by making them distinguishable, which is beneficial to members of the association or body owning the trade mark.

Usually, a form of trade mark protection exists in each civilized country, but the applicant may sometimes use more effective way of international protection established by international law.

EU trade mark

European Union trade mark is a special instrument of protection of trade marks next to the individual national trade marks (national trade marks may be better for small and medium-sized enterprises (SMEs) or local firms who don't need EU-wide protection). The EU trade mark system consists of one single registration procedure that grants the owner an exclusive right in all 28 EU countries. The EU trade mark system is administered by the European Union Intellectual Property Office, which is located in Alicante, Spain (EUIPO)[232]. When registered with EUIPO, transferred or allowed to lapse, the effect of such action is EU-wide. The trade mark is valid for a period of 10 years and may be renewed indefinitely. The rules of law applicable to it are similar to those applied to national trade marks by the EU member states; companies will therefore find themselves in a familiar environment, just on a larger scale.

Procedure

The EUIPO first conducts a formal examination of the application, then a material examination of the mark (if it can perform a function as a trade mark, i.e. it is distinctive yet not descriptive). The applicant may, free of charge, request that the EUIPO make a search in the database for earlier identical or similar EU trade marks (it can be both an advantage and a disadvantage because the owners of the earlier marks are notified by the EUIPO about the pending application). The trade mark application is then published and anybody may

[231] European Union trade mark. In: Wikipedia: the free encyclopedia [online] ©2018. Last modified 08.05.2018 [cit. 2018-10-10]. Available at: https://en.wikipedia.org/wiki/European_Union_trade_mark

[232] All relevant information for applicants may be found on the EUIPO website: European Union Intellectual Property Office. Trade marks [online]. © EUIPO 1995-2018. Last modified: 22.09.2017 [cit. 2018-10-10]. Available at: https://euipo.europa.eu/ohimportal/en/trade-marks

object to the registration in a certain period of time (the opposition period), usually the grounds for opposition are that the trade mark is infringing on third party earlier rights. If there are objections, both parties have time to submit evidence and the EUIPO decides on the merit. If nobody files an opposition or third party observations, your trade mark is registered and the registration is published.

Costs

The initial cost of filing an application to register an EU trade mark is much less than filing separate national applications in all EU member states (which currently number 28). The filing fee depends on the number of classes of goods and services the trade mark will be associated with. Online filing is cheaper. The complete list of fees and a fee calculator are available on the EUIPO website[233]. For filing purposes, the economic advantage of using the EU system increases according to the number of member states where a trade mark owner uses or proposes to use its mark. If a trade mark owner will only sell products or deliver services in fewer than three or four member states, consideration should be given to seeking registration in these countries rather than applying for an EU trade mark.

Madrid – The International trade mark system

The Madrid system is a set of international treaties enabling to file an international application effective in more than a hundred countries. It is a convenient and cost-effective solution for registering and managing trade marks worldwide by filing a single application and pay one set of fees and modifying, extending and renewing a global trademark portfolio through one centralized system[234]. The Madrid system is a closed system, which means the applicant must be domiciled, have an industrial or commercial establishment in, or be a citizen of a member state to the Madrid system. The system is administered by the World Intellectual Property Organization, Geneva, Switzerland (WIPO).

Procedure

Before the international application according to Madrid system, the applicant needs to have a national application in place in the country of origin (basic mark). Via the national trade mark office it is then possible to file the international application that is forwarded to WIPO. WIPO performs the administrative tasks of checking the formalities, registering the mark and publishing of the in the official Gazette. WIPO informs the national offices in the designated member states and the substantive examination of the trade mark takes place before the individual national offices within a certain deadline (12 or 18 months). The office of a designated member state examines the international registration in exactly the same way as an application filed directly. If grounds for objection are found during the ex officio examination, or if an opposition is filed, the national office has the right to declare that protection cannot be granted to the mark in that member state[235]. Results of the examinations are collected by WIPO and published. The owner has an international trade mark with effects in the countries where the proceedings ended well. The owner of the international mark may later designate other countries and thus expand the protection to countries the owner expanded its business to

[233] European Union Intellectual Property Office. Fees & payments [online]. © EUIPO 1995-2018. Last modified: 19.04.2018 [cit. 2018-10-10]. Available at: https://euipo.europa.eu/ohimportal/en/fees-and-payments

[234] World Intellectual Property Organization. Madrid – The International Trademark System [online]. © WIPO 2018. Last modified: 19.04.2018 [cit. 2018-10-10]. Available at: http://www.wipo.int/madrid/en/

[235] World Intellectual Property Organization. The Madrid System for the International Registration of Marks [online]. © WIPO 2016. [cit. 2018-10-10]. Available at: http://www.wipo.int/edocs/pubdocs/en/wipo_pub_418_2016.pdf

or which became members of the Madrid system later on.

Effects of the international registration

The international trade mark is a hybrid between a bundle of national registrations and e.g. the EU trade mark. It is administered (e.g. renewed) at WIPO, but any invalidation proceedings or infringement actions are conducted on the national level. Also, it is possible to transfer or license it in respect to only a portion of the designated countries.

Costs

The fees usually consist of a basic filing fee (you pay more if you have more than 3 classes of goods and services) and fees for each designated country. The currency is Swiss Franc (CHF). The complete list of fees is available online on the WIPO website[236].

Danube region countries

	EU trade mark	Madrid system
Austria	✓	✓
Bulgaria	✓	✓
Bosnia-Herzegovina	N/A	✓
Croatia	✓	✓
The Czech Republic	✓	✓
Germany	✓	✓
Hungary	✓	✓
Serbia	N/A	✓
Slovakia	✓	✓
Slovenia	✓	✓

[236] World Intellectual Property Organization. Madrid system: Schedule of Fees [online]. © WIPO 2018. [cit. 2018-10-10]. Available at: http://www.wipo.intmadrid/en/fees/sched.html

Annex 3: Design protection

An industrial design is the appearance of the whole or a part of a product resulting from the features of, in particular, the lines, contours, colors, shape, texture and/or materials of the product itself and/or its ornamentation. The design of the product or its part must be visible to the user of the product during its normal use (the design cannot protect parts of the product that only a mechanic sees). Designs are not intended for protection of technical solutions, rather for the esthetic quality of a product.

Designs may be protected if a) they are novel, which means no design identical or differing only in immaterial details has been made available to the public, and if b) they have individual character, which means the overall impression of the design on an informed user is different from other designs available to the public. Designs cannot be protected insofar as their appearance is determined by their technical function, or by the need to interconnect with other products to perform a technical function (no protection where there is no space for creativity of the designer).

Design protection in the EU

A registered Community design (RCD) is available to applicants by registration at the European Union Intellectual Property Office (EUIPO) in Alicante, Spain. The system is open to any applicant, without the need to be seated or domiciled in the EU.

Procedure

The registration can be made online and … Designs that are materially related (e.g. a pattern applied to different products) may be registered together. The EUIPO performs a substantial examination of the registration conditions. The first registration lasts five years and may be repeatedly extended to as much as twenty-five years from the filing date.

Complete information on the registration procedure and fees is available in all official EU languages at the EUIPO website.[237]

Costs

The costs of design protection depends on how many designs are there in the application and whether the publication will be deffered, starting at €230 for registration and €120 for publication.[238]

Unregistered design

An unregistered Community design is protected for three years from the date on which the design was first made available to the public within the territory of the EU. The protection is available for any design that meets the definition of a design and material conditions for protection, without the need to register it and pay any fees. It is therefore suitable for products with quick innovation curve and affected by ever changing fashion trends, typically clothing, shoes and accessories.

EU harmonization of national laws

National laws are harmonized by the Directive on the legal protection of designs: the criteria for eligibility and the duration of protection are the same as for registered Community designs. Many Member States also

[237] European Union Intellectual Property Office [online]. Alicante, © EUIPO 1995-2018 [cit. 2018-09-18]. Available at: https://euipo.europa.eu/ohimportal/en

[238] European Union Intellectual Property Office. Fees & payments [online]. © EUIPO 1995-2018. Last modified: 17.03.2015 [cit. 2019-03-21]. Available at: https://euipo.europa.eu/ohimportal/en/rcd-fees-and-payments

protect unregistered design rights under their national law, but these are not covered by the Directive.

International protection

International means of design protection is established by the Geneva Act of the Hague Agreement Concerning the International Registration of Industrial Designs (the Hague system).The Hague system is administered by the World Intellectual Property Organization (WIPO), Geneva, Switzerland and covers around 70 countries.

The Hague system means a single international application filed with the WIPO that results in a single international registration with individual effect in each of the contracting parties designated therein. The Hague system allows users to save time and money by enabling them to easily and swiftly acquire design protection in multiple markets.[239] The system is closed; that means only residents or organizations established in a contracting party may use it (the EU is also a contracting party, which means the system is open to any EU member state resident or organization).

Procedure

It must, in particular, contain a reproduction of the industrial designs concerned, together with the designation of the Contracting Parties where protection is sought. No prior national or regional application or registration is required. An international application may include up to 100 different designs on the condition they belong to the same class of the international classification.[240] The application may usually be filed directly with WIPO, but some countries require the indirect route via a national office.

WIPO checks the application for formal requirements. Where an international application complies, WIPO proceeds with its recording in the register and with the publication of the corresponding registration in the International Designs Bulletin. WIPO does not perform substantive examination of the application, which is in the exclusive competence of a respective national office.

The national office considers conditions of the domestic legislation and within a certain period (6 or 12 months) from publication of the application may refuse protection of the design on its territory. In the event of a refusal, the applicant has the same remedies as he would have had if he had filed the design in question directly with the office which has issued the refusal. The ensuing procedure takes place solely at the national level. If no refusal is notified by a given designated Contracting Party within the prescribed time limit (or if such refusal has subsequently been withdrawn), the international registration has the effect as a grant of protection in that contracting party. [241]

The industrial design may be renewed at WIPO, but any invalidation proceedings or infringement actions are conducted on the national level.

Costs

An international application is subject to the payment of a basic fee, a publication fee and a designation fee for each of the designated countries. Online filing is cheaper. The currency is Swiss franc (CHF). A schedule of fees, as well

[239] World Intellectual Property Organization. The Hague System for the International Registration of Industrial Designs. © WIPO, 2017 [cit. 2018-09-18] Available at: http://www.wipo.int/edocs/pubdocs/en/designs/911/wipo_pub_911.pdf Also available as: WIPO Publication No.911E ISBN 978-92-805-2852-7

[240] ibid

[241] Ibid.

as an automatic fee calculator, is available on the WIPO website[242].

Danube region countries

	EU registered design	Hague system
Austria	✓	x
Bulgaria	✓	✓
Bosnia-Herzegovina	N/A	✓
Croatia	✓	✓
The Czech Republic	✓	x
Germany	✓	✓
Hungary	✓	✓
Serbia	N/A	✓
Slovakia	✓	x
Slovenia	✓	✓
The EU	N/A	✓

[242] World Intellectual Property Organization. Schedule of Fees (as in force on January 1, 2015). © WIPO [cit. 2018-10-10] Available at: http://www.wipo.int/hague/en/fees/sched.htm

Annex 4: International financing

European Union funding

The support from the EU is provided in different forms of funding, from small enterprises to large infrastructures. The following programs are funded directly from the EU budget[243] and are available for organizations and companies in the European Union and certain associated countries.

Horizon 2020

Horizon 2020[244] 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.
- Bioeconomy; Smart, Green and Integrated Transport; Climate Action, Environment, Resource Efficiency and Raw Materials.o Spreading Excellence and Widening Participation.

COSME

The COSME[245] is the EU programme for the competitiveness of enterprises and small and medium- sized enterprises. COSME supports 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.

[243] The EU also contributes financing by means of „operational programs" which are administered through the member states´ governments who use the knowledge of their country´s needs to choose supported projects in the priorities outlined by the EU. These are mentioned in the national section of the Guidebook.

[244] The European Union, Horizon 2020 [online]. ©European Union, 1995-2018 [cit. 2018-10-18]. Available at: https://ec.europa.eu/programmes/horizon2020/en

[245] The European Commission, COSME [online]. ©European Union, 1995-2018 [cit. 2018-10-18]. Available at: https://ec.europa.eu/easme/en/cosme

- 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.

COST

COST[246] is and EU-funded programme that enables researchers to set up their interdisciplinary research networks in Europe and beyond. COST provide funds for organizing conferences, meetings, training schools, short scientific exchanges or other networking activities in a wide range of scientific topics. COST's interdisciplinary bottom-up networks are effectively bridging the innovation divide and participation gaps in Europe and are providing a large spectrum of opportunities for young generations of researchers and innovators. COST has defined three priorities for its positioning in the next Framework Programme for Research and Innovation:

- Promoting and spreading excellence.
- Fostering interdisciplinary research for breakthrough science.
- Empowering and retaining young researchers and innovators.

EIT

The European Institute of Innovation and Technology[247] (EIT) is a unique EU initiative that boosts innovation and entrepreneurship across Europe with one simple idea: through diversity, there is strength. It supports the development of dynamic pan-European partnerships between leading universities, research labs and companies. Together, they develop innovative products and services, start new companies, and train a new generation of entrepreneurs. They bring ideas to market, turn students into entrepreneurs and, most importantly, they innovate.

The EIT's support helps innovators and entrepreneurs across Europe to turn their ideas into products and services for the market. This is crucial to fulfilling the mission of the EIT: delivering the jobs and sustainable economic growth opportunities that Europe is seeking. The EIT is playing a vital role in helping to increase economic growth and create jobs.

EIT creates Innovation Communities that bring together businesses (industry and SMEs), research centres and universities as partners, creating a favourable environment for creative thought and innovation to flourish, allowing innovative products and services to be developed in every area imaginable, including climate change, healthy living and active ageing, new companies to be started, and a new generation of entrepreneurs to be trained. They carry out a whole range of activities that cover the entire innovation chain – including training and education programmes, reinforcing the journey from research to the market, innovation projects as well as business incubators and accelerators. Innovation Communities have been conceived so that they

[246] COST Association, COST - European Cooperation in Science and Technology [online]. © COST 2014-2020 [cit. 2018-10-18]. Available at: http://www.cost.eu/

[247] The European Institute of Innovation and Technology, EIT - Making innovation happen [online]. © EIT 2018 [cit. 2018-10-18]. Available at: https://eit.europa.eu/

are able to react in an effective and flexible way to new challenges and changing environments. Currently there are six EIT Innovation communities:

- EIT Climate
- EIT Digital
- EIT InnoEnergy
- EIT Health
- EIT Raw Materials
- EIT Food

All Innovation Communities have the objective of decreasing the average time to market of innovations and they have established specific activities to fulfil this objective such as the EIT Climate-KIC Market Accelerator, the EIT Digital Business Development Accelerator, the EIT InnoEnergy Highway, EIT Health Accelerator, the EIT Raw Materials Start-up Booster and EIT Food Start-Up Club TheRisingFoodStars.

Visegrad Fund

The Visegrad Fund[248] is an international donor organization, established in 2000 by the governments of the Visegrad Group countries - the Czech Republic, 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 to people across the whole region. The funding could be in form of the grants or in a form of university studies grants. 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.

EEA and Norway Grants

The EEA and Norway Grants[249] 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

[248] Visegrad Fund [online]. © International Visegrad Fund, 2018 [cit. 2018-10-18]. Available at: https://www.visegradfund.org

[249] EEA Grants - Norway Grants [online]. ©2018 [cit. 2018-10-18]. Available at: https://eeagrants.org/

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.

Danube region countries

	EU Programs	Visegrad Fund	EEA and Norway Grants
Austria	✓	x	x
Bulgaria	✓	x	✓
Bosnia-Herzegovina	✓	✓[250]	✓
Croatia	✓	x	✓
The Czech Republic	✓	✓	✓
Germany	✓	x	x
Hungary	✓	✓	✓
Serbia	N/A	✓[251]	✓
Slovakia	✓	✓	✓
Slovenia	✓	x	✓

[250] Visegrad+ grants only.

[251] Visegrad+ grants only.

Annex 5: EU State aid rules

Definition of state aid

In the Treaty on the Functioning of the European Union (TFEU)[252], article 107, state aid is defined as an advantage in any form whatsoever conferred on a selective basis to undertakings by national public authorities. To be state aid, a measure needs to have all of these features:

- there has been an intervention by the state or through state resources which can take a variety of forms (e.g. grants, interest and tax reliefs, guarantees, government holdings of all or part of a company, or providing goods and services on preferential terms, etc.);
- the intervention gives the recipient an advantage on a selective basis, for example to specific companies or industry sectors, or to companies located in specific regions
- competition on the internal market has been or may be distorted;
- the intervention is likely to affect trade between member states.

State aid is harmful to the competition on the internal market and for this reason it is generally prohibited in the EU unless an exemption applies. Any aid found unlawful has to be immediately recovered from the aid recipient.

Exceptions to the state aid prohibition related to eco-innovation

Despite the general prohibition of state aid in the EU, in some circumstances government intervention is necessary for a well-functioning and equitable economy and the legislation grants several exemptions.

The Europe 2020 strategy identifies research and development (R&D) as a key driver for achieving the objectives of smart, sustainable and inclusive growth. The Commission has therefore identified a series of R&D&I measures for which state aid may, under specific conditions, be compatible with the internal market:

- aid for R&D projects,
- aid for feasibility studies,
- aid for the construction and upgrade of research infrastructures,
- aid for innovation activities,
- and aid for innovation clusters.

Notification to the Commission

Member states must notify R&D&I aid pursuant to Article 108 (3) TFEU and wait for a prior consent of the Commission, with the exception of measures that fulfil the conditions laid down in the General Block Exemption Regulation (GBER)[253]. Member states are required to notify the Commission of all plans to grant aid or to alter existing approved aid schemes unless an exemption applies, the aid may not be granted unless it is approved by the

[252] The European Union. Consolidated version of the Treaty on Functioning of the European Union. Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012E/TXT&from=EN

[253] COMMISSION REGULATION (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (General Block Examption regulation, GBER). Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0651&from=FR

Commission. The notification procedure takes many months.

The Commission has considerable discretion in evaluating whether or not an aid measure is compatible under Article 107(3) TFEU. It has adopted block exemptions (regulated in GBER) covering various categories of aid measures to reduce the number of cases that it is required to examine. It has also published various guidelines setting out the criteria that it will apply when assessing the compatibility of particular categories of aid measures. If an aid measure falls outside one of the block exemptions or the relevant guidelines, or where no guidelines exist, the Commission will apply Article 107(3) TFEU directly to assess the compatibility of the measure on an individual basis, balancing the positive effect of the measure against its potentially negative effects.

Exemption for research grants according to GBER

Undertakings may receive grants which they co-finance with their own money (SMEs having preferable treatment, that is higher aid intensity), while research institutions (including universities) may receive up to 100 % support for their research activities.

De minimis

Another exception to the notification requirement is insignificant aid fulfilling the conditions of the De Minimis Aid Exemption Regulation[254], which covers aid provided to a single undertaking not exceeding €200,000 over any consecutive three years. These do not have to be notified in advance, but every member state administers a register where all these mini subsidies need to be evidenced for better control of the financial threshold by various subsidy providers.

Indirect state aid

Beneficiaries that are research organizations need to beware of indirect state aid according to the Framework for state aid for research and development and innovation[255]. The requirements on the research organizations are e.g.:

- their primary activities need to be research and development and dissemination of knowledge (including education),
- they need to separate their accounting for economic and non-economic activities,
- they need to avoid situations when an undertaking gains advantage by purchasing goods and services from the research organizations on other than market conditions (undervaluing prices for contract research or intellectual property licensed from a university),
- they have to carefully balance conditions when entering research collaboration with an undertaking to set fair and reasonable arrangement on ownership and access rights to created results to be safe from state aid risks.

In short, arm's length transactions and market conditions should always be present.

More information may be gained e.g. from the publication The EU rules on State aid by Slaughter and May[256].

[254] The European Union. Regulation (EC) 1407/2013 of 18 December 2013, Available at: http://ec.europa.eu/competition/state_aid/legislation/de_minimis_regulation_en.pdf

[255] The European Commission. Commission communication N°C (2014) 3282 of 21.5.2014, Available also at: http://ec.europa.eu/competition/state_aid/modernisation/rdi_framework_en.pdf

[256] Slaughter and May. The EU rules on State aid [online]. © Slaughter and May 2018. Version 08. [cit. 2018-10-19]. Available at: https://www.slaughterandmay.com/media/2536656/the-eu-rules-on-state-aid.pdf

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