JAGIELLONIAN UNIVERSITY IN KRAKÓW

UNIVERSITY of DEBRECEN

FACULTY OF LAW Charles University

SOVVA SLOVENSKÁ ORGANIZÁCIA PRE VÝSKUMNÉ A VÝVOJOVÉ AKTIVITY

Financial incentives as a tool for improving the V4 innovation ecosystem and enhancing IP protection

Mapping report

on national and regional financial schemes, programmes and incentives supporting IP protection in the V4

Visegrad Fund

The project is co-financed by the Governments of Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.

Mapping report on national and regional financial schemes, programmes and incentives supporting IP protection in the V4

Project consortium, Kraków, 2023

Coordination

Dr hab. Justyna Ożegalska-Trybalska

National report – Poland

Dr hab. Justyna Ożegalska-Trybalska, Krystian Gurba, Centre for Technology Transfer CITTRU of Jagiellonian University (Centrum Transferu Technologii CITTRU) Uniwersytet Jagielloński

National report - Czech Republic

Dr Petra Žikovská, Dr Tomáš Dobřichovský, Charles University, Faculty of Law (Univerzita Karlova, Právnická fakulta), Czech Republic, partner

National report – Hungary

Dr Bene Tamás, Gabor Nemeth, University of Debrecen (Debreceni Egyetem), Hungary

Authors of the national report - Slovakia

Ľubomír Bilský, Slovak Organisation for Research and Development Activities (Slovenská organizácia pre výskumné a vývojové aktivity (SOVVA), Slovakia, partner

This report was prepared by the project “Financial incentives as a tool for improving the V4 innovation ecosystem and enhancing IP protection” . The project is financed by the Visegrad Fund under the Visegrad Grant No. 22220130. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.

TABLE OF CONTENTS

ABOUT THE REPORT

The report on mapping national and regional financial schemes, programmes and incentives supporting IP protection in the V4 was prepared within the implementation and as a result of the project “Financial incentives as a tool for improving the V4 innovation ecosystem and enhancing IP protection” financed by the Visegrad Fund under the Visegrad Grant No. 22220130, by the consortium of four partners from the V4 countries:

- Centre for Technology Transfer CITTRU of Jagiellonian University (Centrum Transferu Technologii CITTRU) Uniwersytet Jagielloński, coordinator
- University of Debrecen (Debreceni Egyetem), Hungary, partner
- Slovak Organisation for Research and Development Activities (Slovenská organizácia pre výskumné a vývojové aktivity (SOVVA), Slovakia, partner
- Charles University, Faculty of Law (Univerzita Karlova, Právnická fakulta), Czech Republic, partner

The project aim was to identify effective financial schemes and incentives that support IP protection, exchange best national practices, and develop recommendations for policymakers and financing organisations at the national and regional V4 levels to design new effective financing incentives.

Although the goal of the project was not the creation of a financial schemes and incentives database or collection and verification of empirical data regarding existing programmes, by identification and description of financial schemes available in each V4 country, the report should support companies from the region in accessing information important for enhancing the IP protection culture and incentivise IP strategies.

By securing more effective IP protection, regional companies can build a more competitive position and improve their business image and value. Furthermore, the recommendations based on mapping European, national and regional financial schemes, programmes and incentives supporting IP protection should serve as a valuable source of information for policymakers and a basis for establishing new financing schemes and joint IP support programmes within regional V4 cooperation. Improved national and regional innovation and IP policies can help increase the number of applications for IP protection filed at the national and international levels and increase innovation indicators for the V4 countries.

The report is divided into three main parts. The first part aims to provide general characteristics of the V4 region regarding R&D activities and IP protection. The second part covers national reports (Poland, Czech Republic, Hungary, Slovakia) prepared independently by the project partners. Each national report includes an overall description of the national innovation ecosystem and a detailed description of national support schemes, programs and initiatives relevant to R&D support, focusing on financing R&D activities and IP protection, as well as national conclusions and national recommendations. The third part includes joint conclusions and recommendations for improving innovation ecosystems and enhancing technology transfer activities in the V4 region.

According to a report mapping methodology, priority was given to ongoing programmes in 2022-2023 and future programmes aimed at financing or co-financing the costs of obtaining formal protection for intellectual property or supporting failing applications (referred to in the report as "recent"). However,

for a complete picture of funding policies supporting IP protection, historical programmes were also included in the analysis, as the monitoring of project indicators often extends a project's life (e.g., covers five years after a project's accomplishment). The study of historical projects also helps identify and evaluate such initiatives that can be considered best practices, which might be used as reference points for consideration by Visegrad countries, even if these activities do not support the applicants' current needs for obtaining funding for IP protection.

Within the framework of the adopted mapping methodology for funding strategies of industrial property management, priority was given to schemes aimed at financing administrative fees for obtaining formal protection of industrial property rights, with the focus on patents, referred in the report as “IP protection”. Since the costs of obtaining formal protection of intellectual property rights are not limited to administrative fees alone but also include the costs of professional support, therefore, mapping also includes programs that finance consulting services related to the evaluation of the protection eligibility and assistance in preparing formal applications for IP protection.

The mapping of the programs and preparation of the report covered the period November 2022-September 2023. Each partner is responsible for the reliability of information covering this period included in the national report and their country's data. Due to the dynamics of the duration of the programs and the availability of funds to finance protection in each program, the information contained in the report should be verified before using it as binding data.

INTRODUCTION

Over the last few years, various incentives have been developed for R&D activities and IP protection and its commercialisation to increase innovativeness in the V4 region, particularly by increasing the number of innovative projects and promoting patents and other industrial property rights to protect innovative results. Some of the constraints in innovation policies in the V4 which still exist include:

1) overlooked intellectual property protection strategies in the implementation of business strategies,

2) limited or not widely used financial support mechanisms for early-stage funding of product development, in particular by securing IP protection at a national level and abroad,

3) limited regional financing schemes adjusted to the needs and specificities of innovative activities in the region (e.g. profile of R&D activities, financial situation of SMEs),

4) no financial schemes available for applicants performing R&D activities at the regional V4 level,

5) existing but not effectively used financing schemes at the national level.

While recognising the importance of IP protection of innovations and its economic value and contribution to economic growth, many companies from the region, including start-ups and university spin-offs, face difficulties in accessing financial funds to protect their intellectual assets, as well as in expanding their businesses and increasing their competitive position on the EU market. Constraints may be overcome by mechanisms supporting IP awareness and IP protection (particularly in the form of patents) and commercialisation of IP assets generated at the national level and/or as a result of cooperative R&D projects in the V4. Thus, effective policies and financial incentives for this purpose are of crucial importance.

In the V4 countries, there are national mechanisms for funding innovative projects, protecting intellectual property, and supporting EU-funded projects. However, there is a gap in regional financial incentives for R&D collaborators in the V4 countries and in access to information about financial schemes available in the region. Also, there is no exchange of information and good practices regarding these financial mechanisms and which are the most effective in supporting the protection of innovations.

The European Innovation Scoreboard 2023 shows that countries from the V4 are still at the bottom of the list regarding the level of innovation. One indicator used in the Scoreboard is the number of patent applications filed by applicants from a country. Thus, there is a need to improve innovation indexes in the region, among others, by facilitating the protection of intellectual assets, in particular in the form of patents, which are not affordable for many companies in the region due to high costs or limited awareness and incentives to apply for formally granted IP protection.

I. GENERAL CHARACTERISTICS OF THE V4 REGION – INNOVATION PERFORMANCE AND IP PROTECTION

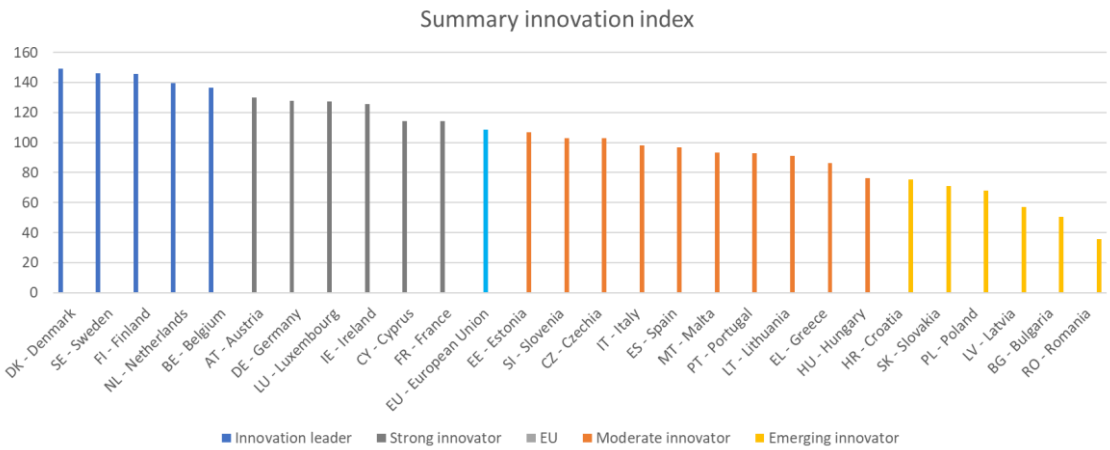
1.1 INNOVATION PERFORMANCE OF THE REGION

Innovativeness is one of the most critical factors determining the competitiveness of a country or region. Assessing innovativeness in the regional dimension requires verifying various factors, including indicators commonly used in innovation indexes. (such as the Global Innovation Index, the European Innovation Scoreboard, the Bloomberg Innovation Index, and the Global Competitiveness Index), and the number of IP asset applications (in particular, PCT patent applications)[1].

According to the European Innovation Scoreboard 2023, as regards intellectual assets and PCT application criteria, two of the V4 countries, namely the Czech Republic and Hungary, have the status of "Moderate Innovator" country, followed by Poland and Slovakia, ranked with the lowest innovation status of "Emerging Innovator" country. Compared to the 2022 scoreboard, Hungary has improved its ranking by advancing to the "Moderate Innovators" (with a promising 16th place). Slovakia and Poland were placed at the bottom of the innovation index scoreboard (24th and 25th, respectively), which indicates an unsatisfactory position compared to other EU countries.

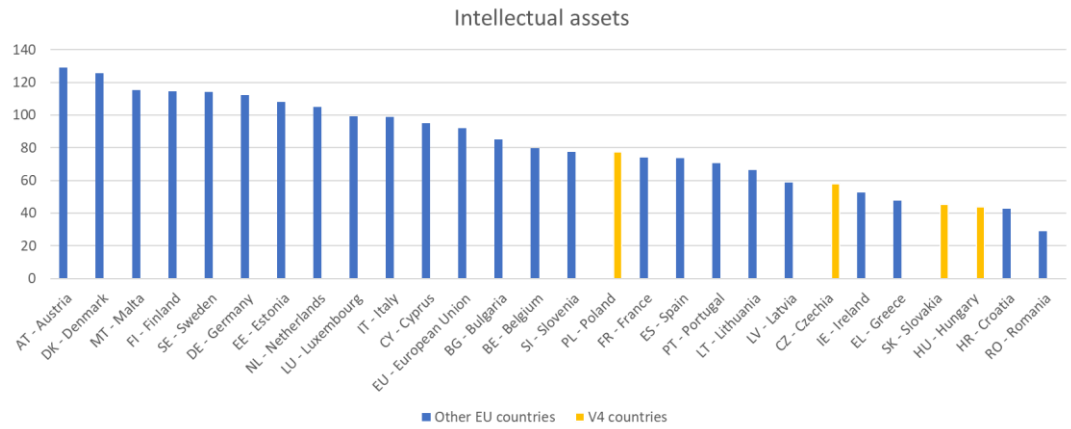
According to WIPO statistics, the PCT applications filed per 1 000 000 inhabitants in 2022 are 22 (CZ), 14 (HU), 10 (PL) and 8 (SK).[1]

Graph **European innovation scoreboard 2023 – O. Summary innovation index**



[1] Virag Halgand, Eva Stefanovska, WIPO Project on PCT for Universities, SMEs and Startups in the Visegrad Countries (V4), online project conference, September 25, 2023.

Graph European innovation scoreboard 2023 – 3.3. Intellectual assets



As regards more detailed characteristic, Czech Republic as a Moderate Innovator has performance at 94.7% of the EU average, which is above the average of the Moderate Innovators. Performance is increasing at a rate higher than that of the EU (8.5%-points). With this performance, Czech Republic's gap to the EU is becoming smaller, despite relative weaknesses in PCT patent applications (a decrease compared to 2021)[2].

Among the V4 countries, also Hungary become in 2023 a Moderate Innovator has performance at 70.4% of the EU average. Performance is below the average of the Moderate Innovators. Performance is increasing at a rate lower than that of the EU (85.6%- points). The country's performance gap to the EU is becoming larger. A relative weakness identified is in design applications[3].

Slovakia is an Emerging Innovator with performance at 64.3%65.6% of the EU average, so above the average of the Emerging Innovators and is increasing. The country's performance gap to the EU is becoming larger. A relative weakness is in PCT patent applications and a strong decrease of design applications[4].

Poland is an Emerging Innovator with performance at 62.8% of the EU average, which is above the average of the Emerging Innovators. The country's performance gap to the EU is becoming smaller.

[2] European innovation scoreboard 2023. Country profile – Czechia, https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en#country-profiles-eu

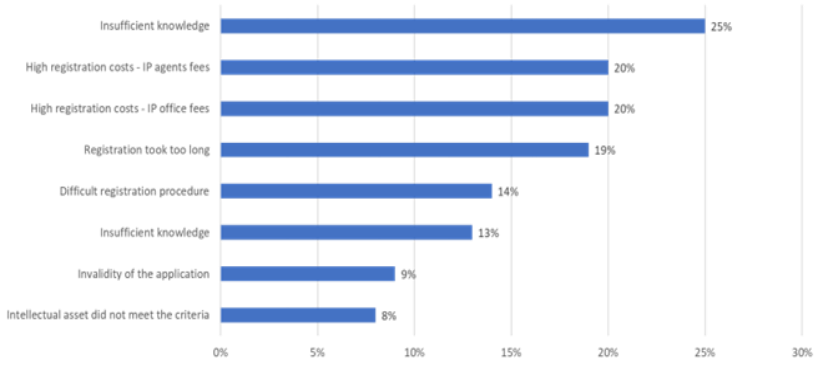
[3] European innovation scoreboard 2023. Country profile – Hungary, https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en#country-profiles-eu

[4] European innovation scoreboard 2023. Country profile – Slovakia, https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en#country-profiles-eu

Relative strengths are design and trademark applications and relative weaknesses in PCT patent applications[5].

As regards the V4 country's weaknesses in application for patent, trademarks and design protection and relatively low ranging of V4 countries based on IP assets, next to such factors as spending on R&D activities, one of the main difficulties are the high costs of obtaining IP protection, in particular financing patent protection in several jurisdictions. This is the most common difficulty for SMEs; high IP office fees and IP agent fees were reported by 20 % of SMEs with registered IPRs.

Graph Types of difficulties experienced when registering IPR (overall)



Source: 2022 Intellectual Property SME scoreboard, EUIPO

1.2 REGIONAL IP SUPPORT SCHEMES AND IP COOPERATION IN THE V4

1.3.1 Regional programmes supporting IP protection

Although the preliminary focus of this report is mapping IP financing schemes at the national level in V4 countries, those provided by the EU but available for applicants from Poland, Czech Republic, Hungary and Slovakia as EU countries, are also relevant and important. The availability of financing from EU resources may influence the decisions of both national policymakers regarding the provision of similar schemes locally and applicants as to the source of financing.

Currently, the EU provides attractive support for companies from the region in effective IP portfolio management, particularly in meeting the needs of SMEs. From 2021, SMEs in the EU, including V4 countries, can benefit from the EU SME Fund. The SME Fund, established as part of the Action Plan on Intellectual Property, aims to support the EU's recovery after the Covid-19 crisis, including helping

[5] European innovation scoreboard 2023. Country profile – Poland, https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en#country-profiles-eu

them benefit from the value of IP. To promote the effective use and deployment of IP, the first EU SME Fund[6], with a total budget of €6.8 million, offered services to reimburse the costs of IP Scan and national trademark and design registration costs of 12,989 SMEs from all 27 Member States, including beneficiaries from Poland, Czech Republic, Hungary and Slovakia. The second EU SME Fund, with a budget of €47 million launched for 2022-2024, offers, among other services, the reimbursement of the following costs related to obtaining formal IP rights:

- 75% of the fees charged by intellectual property offices (including national intellectual property offices, the European Union Intellectual Property Office and the Benelux Intellectual Property Office) for **trademark** and **design registration;**
- 50% of the **fees charged by the World Intellectual Property Organisation (WIPO)** for obtaining international trademark and design protection;
- 50% of the **fees charged by national patent offices** for the registration of patents in 2022; and partial reimbursement of the costs of the patent priority search, costs of the patent filing application; private IP advice charged by IP attorneys (for patent registration, licensing agreements, IP valuation, alternative dispute resolution costs, etc.

Additionally, the SME Fund offers reimbursement of 90% of the fees charged by Member States for **IP Scan services.**

The grant application is open throughout 2022-2024 on a 'first in, first out' basis. The 2023 edition, entitled the Ideas Powered for Business SME Fund, was scheduled from 23 January 2023 to 8 December 2023 with two new intellectual property vouchers for EU-based SMEs. The new EU SME Fund services include:

- 90 % reimbursement of the fees for IP Scan services.
- 75 % reimbursement of the application fees for trademarks and designs (at national, regional, and EU level).
- 50 % reimbursement of the application fees for trademark and designs for customers outside the EU.
- 75 % reimbursement of the application fees charged by national patent offices and the European Patent Office.
- 50 % reimbursement of the application fees for new plant varieties at the Community Plant Variety Office (CPVO).

The SME Fund proved to be highly successful. Of the applicants for the SME Fund 2022, a total of 21,976 SMEs came from 27 EU countries, the vast majority of which were trademark and design application grants (Vaucher 1)**.** Voucher 2 (national patents), a new addition to the 2022 SME Fund, received 2208 requests. Poland with 2764 requests is placed as the second country (after Spain) that made the most applications in 2022[7]. By November 2023, the SME Fund over 33 000 applications have been submitted from businesses all over Europe, with 75% of applicants used the SME Fund to file an

[6] https://www.euipo.europa.eu/en/discover-ip/sme-fund/overview

[7] EUIPO, *A look back at the Ideas Powered SME Fund 2022*, January 16, 2023 *News,* https://www.euipo.europa.eu/pl/the-office/news-and-events/news

IP right for the first time[8], which reflects the impact of the scheme in facilitating the access of IP protection to EU-based SMEs.

1.3.2 Mutual co-operation of V4 countries in the field of innovation and IP protection

Visegrad Group countries collaborate closely in many areas, with a focus on priority areas determined by the country of the annual Presidency. The cooperation involves joint support of the innovation ecosystems of the Visegrad countries and cooperation between national patent offices in the field of protection of innovations by patents.

1.3.1.1 The Visegrad Patent Institute

The cooperation between national patent offices in the field of protection of innovations by patent is conducted via a special regional agency - **the Visegrad Patent Institute (VPI)**, which was established by industrial property offices of the four-member states under the Agreement on the Visegrad Patent Institute signed on February 26, 2015. The VPI has the status of a non-governmental organisation operating with the aim to promote innovation in the region through better and less expensive protection of innovative solutions in the V4 countries[9].

The primary mission of the VPI is to provide services as an International Searching Authority (ISA) and International Preliminary Examining Authority (IPEA) under the Patent Cooperation Treaty (PCT)[10] and assist applicants from the V4 by enabling easier and cheaper access to the PCT system and the obtainment of patent protection in several countries abroad.

Submitting an international application in the international phase of the PCT procedure before the VPI significantly decreases the costs. While maintaining the quality of searches and examinations conducted by the VPI, the authority offers fees lower by 25-37% compared to the fees charged by the EPO for the same. Lowering the costs of obtaining patent protection abroad is of particular importance for SMEs, local universities and research institutes.

Meanwhile, the operation of VPI proves to be an important incentive for applications from the region to ensure patent protection at the international level. It supports the development of innovation and competitiveness in the region and helps in increasing innovation indicators in the V4.

Joint activities initiated by the VPI also play an important role in raising awareness about patenting and the sharing of experience, expertise and practice in protecting inventions by patents. The knowledge hub of the VPI helps share information on events, publications and other useful information with respect to patenting.

---

[8] EUIPO, *SME Fund: Vouchers 1 and 2 will close for applications on 10 November*, November 11, 2023, News, https://www.euipo.europa.eu/pl/the-office/news-and-events/news

[9] More information on the VPI activities, https://vpi.int/en/02-about-the-vpi/

[10] Visegrad Patent Institute has had the status of International Searching Authority (ISA) since October 6th, 2015, under the decision of the International Patent Cooperation Union acting under the Patent Cooperation Treaty (PCT) by the World Intellectual Property Organisation (WIPO).

1.3.1.2 Cooperation of V4 countries in the area of R&D and IP protection in the V4 Presidency Agenda

The collaboration and support for the further development of VPI and the quality of its services, as well as the development of common positions on the most important aspects of industrial property (including cooperation with the EC, EUIPO, EPO, WIPO) can be listed as forms of cooperation between the V4 in the area of IP protection. This was explicitly mentioned in the Programme of the Polish Presidency (July 2021 – June 2022)[11]. Within the framework of VPI cooperation, the Polish Patent Office's examiners prepared 43 reports on the current state of applications submitted under the PCT procedure, along with a written (preliminary) opinion on the applications[12].

However, additional activities aimed at IP protection are not included among priority areas of activities in the Presidency Programmes of the V4[13]. The Programmes more generally mention:

- exchange of experience concerning planned instruments to support enterprises in research, development and investments in the 2020+ perspective and presentation of best practices in support instruments in the 2014–2020 perspective,
- exchange of experiences between V4 countries and partner countries about the use of EU funding for science, research and innovation (Programme for the Czech Presidency of the Visegrad group 2019/2020 "V4 Reasonable Europe"),
- assessing the implementation of centrally managed programmes and joint discussion on factors facilitating success in programmes, as well as an attempt to identify good practices,
- formulating recommendations for V4+ countries to increase the participation of the region's countries in using funds from centrally managed programmes.

The last two priorities are of particular relevance to the aim of mapping IP schemes funded by VF funds.

[11] https://www.visegradgroup.eu/download.php?docID=451

[12] Annual Report 2021, The Polish Patent Office, p. 38

[13] Presidency Programme of the Slovak Presidency of the Visegrad Group (July 2022 – June 2023), https://www.visegradgroup.eu/download.php?docID=492; Presidency Programme Recharging Europe, Hungarian Presidency of Visegrad Group (July 2021 – June 2022); Programme for the Czech Presidency of the Visegrad group 2019/2020 "V 4 Reasonable Europe" https://www.visegradgroup.eu/download.php?docID=492; the Programme of the Polish Presidency (July 2021 – June 2022), https://www.visegradgroup.eu/download.php?docID=451

NATIONAL REPORT – POLAND

Jagiellonian University, CTT CITTRU

1. OVERALL DESCRIPTION OF THE NATIONAL INNOVATION ECOSYSTEM

1.1 LEADING STAKEHOLDERS AND REGIONAL PLAYERS AND THEIR ROLES

1.1.1. Government and national institutions

The leading governmental stakeholders in Poland's innovation ecosystem include the Ministry of Education and Science, the Ministry of Development Funds and Regional Policy, the National Centre for Research and Development (NCBR), the Polish Agency for Enterprise Development (PARP), and the Patent Office of the Republic of Poland (UPRP). These public stakeholders play a critical role in shaping the country's innovation ecosystem at the national level.

The Ministry of Education and Science is responsible for developing and implementing national policies related to science, technology and innovation. The Ministry's priorities include supporting research and development, promoting commercialisation of research results, and fostering cooperation between research institutions and businesses. The Ministry is responsible for overseeing the development of science and technology in Poland. It works closely with universities and other research institutions to support innovation and entrepreneurship.

The Ministry of Development Funds and Regional Policy has a leading role in the designing of financing operational programmes that would be available on a national and regional level, co-financed by EU funds and the state budget.

The National Centre for Research and Development (NCBR) is Poland's largest research funding agency. It is responsible for implementing the government's innovation policy and funding research as well as development projects in the country. It aims to support research and development projects which are focused on creating innovative solutions that can be commercialised. NCBR also provides funding for international R&D projects.

The National Science Centre (NCN) it is the second largest research funding agency in Poland – responsible for supporting basic research conducted at Polish universities and in other research organisations. Although it is focused on scientific aspects of research, the results of the projects financed by NCN are often developed further and can be translated into innovations. The Centre also runs joint initiatives with the NCBR that involve both academic researchers and the business sector.

The Polish Agency for Enterprise Development (PARP) is responsible for supporting entrepreneurship and business development in Poland. The agency runs financial support programmes targeted towards the business sector, in particular SMEs. In addition, PARP provides various services, including business consulting, financial support and training for entrepreneurs.

The Patent Office of the Republic of Poland (UPRP) is responsible for the registration and protection of intellectual property rights, including patents, trademarks and industrial designs. UPRP also provides information and support related to IP protection and enforcement. It plays a critical role in shaping the intellectual property legislation in Poland and increasing IP awareness and education among entrepreneurs.

The government's initiatives aim to create an environment that supports innovation, R&D and entrepreneurship. Governmental agencies are responsible for operationalization and execution of the programmes and for distribution of the financial support in the form of grants and other schemes. A similar structure is doubled on the regional level within 16 voivodeships.

The governmental institutions identify the following priorities of Poland's innovation policy in the coming years: digitisation and transformation towards industry 4.0; supporting the competencies of citizens; the green economy; innovations, start-ups and new technologies[14].

1.1.2. Universities and other research organisations

Poland has a number of world-class universities and public research organisations (research institutes – including the Lukasiewicz Research Network, associating 22 of them – and institutes of the Polish Academy of Science). The third mission of universities and other research institutions is usually managed through the activity of specialized units in the form of technology transfer centres or special purpose companies. Although the first technology transfer centres in Poland were established in the early 1990s, their development began in the early 2000s with access to various support programmes and EU financial instruments. Technology transfer centres facilitate the commercialisation of research results from universities and research institutions by enterprises. Often, the mission of these units is broader and includes all activities that strengthen the partnership between science and industry, including a wide range of relationships such as joint research projects and contract research. They employ professionals referred to as technology brokers - project managers with experience in a particular scientific field who assist research teams in that field[15].

The capabilities of universities and other public research organisations have increased rapidly since the introduction of support programmes of the Ministry of Education and Science - in particular, the "Innovativeness Incubator" (in 2013) and its subsequent editions. The increasing role of the technology transfer centres is also a result of the activity of the Polish Association of Centres of Technology Transfer (PACTT), an informal network established in 2015. As of 2022 it has 84 centres[16]. Following the introduction of the possibility for universities and research institutes to create special purpose companies for the creation and support of academic spin-offs, nine of them formed the Special Purpose Company (PSC) Association in 2014. This network currently consists of 31 members[17].

[14] https://www.gov.pl/web/ncbr-en/polish-research--innovation-policy

[15] Gurba K. (2020), "Academic Technology Transfer in Poland-30 Years of Growth", Technology Transfer and Entrepreneurship, Vol. 7 (Issue 1), Bentham Science.

[16] http://pactt.pl

[17] http://psc.edu.pl

1.1.3. Entrepreneurs and other business support organisations

Innovations are introduced to the market through the activity of the business sector[18]. In addition to the governmental institutions, the following types of stakeholders in the non-governmental and non-academic sectors are *inter alia* important elements of the Polish innovation ecosystem:

Technology Parks provide space and support for businesses and entrepreneurs to develop and commercialise innovative technologies. They offer infrastructure and support for startups and SMEs. There are currently over 100 technology parks in Poland.

Private Investors and venture funds are sources critical funding and expertise to help Polish startups and SMEs grow and scale up. In 2022, the total value of capital that Polish and foreign funds invested in 460 deals in 435 domestic innovative companies amounted to PLN 3.6 billion, which is a similar level as in 2021 despite the downward trend observed in Europe during the same period[19]. The private equity sector in Poland has been extensively supported financially since 2010 through programmes such as Bridge Alfa (organised by NCBR) and through the creation of financial instruments (funds of funds) by public company PFR Ventures.

An important role is played by **incubators and accelerators** - Incubators and accelerators provide support and resources to startups and SMEs, including mentorship, networking opportunities and access to funding. They play an important role in helping businesses grow and scale up.

R&D projects are also supported by **cluster initiatives –** sustainable and long-term networks of stakeholders from each industry sector are an important tool to increase and facilitate cooperation. They also enable the building of consortiums for realisation of R&D projects and the successful implementation of their results. The precise number of all cluster initiatives is unknown (it is approximately 300). Within the Polish innovation ecosystem, a special role is given to networks that have obtained the Key National Cluster status. They need to demonstrate a substantial impact on the economy, innovativeness, a link with national smart specialisations and international recognition. Key National Clusters (currently 20 inter-organisational networks) have access to a wider range of financing programmes[20].

1.2 NATIONAL IP STATISTICS

In 2022, the Patent Office of the Republic of Poland received in total 28 457 applications, including 3 906 patent and utility model applications submitted under national and international procedures

[18] For example, in 2019-2021 in Poland, 26.3% of industrial enterprises and 22.2% of service enterprises showed innovative activity. In 2021, the share of revenue from the sale of new or improved products introduced to the market in 2019-2021 of industrial enterprises was 8.9% of total revenue, and in service enterprises - 3.1%, *Innovation activities of enterprises in Poland in the years 2019-2021*, StatisticsPoland 2022.

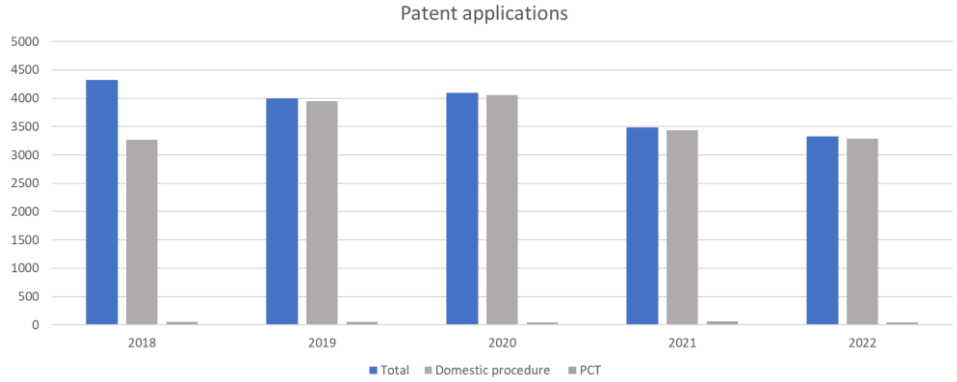
[19] Polish VC Market Outlook 2022, PFR/Inovo, 2023, https://pfrventures.pl/en/news/polish-VC-market-outlook-2022.html

[20] https://www.gov.pl/web/rozwoj-technologia/krajowe-klastry-kluczowe

(compared to 4267 in 2021), 14 471 trademark applications, 867 industrial designs applications, 52 supplementary protection certificates applications, nine applications for topographies of integrated circuits and 1 for geographical indications. The number of exclusive rights granted in 2022 under national and international procedures reached 26 878.

A total of 3323 patent applications were failed I 20222, of which 3284 under the national procedure and 39 under the international procedure, and 9061 applications for European patent validations. Domestic entities filed 3240 and foreign entities 82 applications for inventions, and foreign entities 82 such applications. Regarding utility model applications, the statistics are as follows: a total of 773 applications were under both procedures, of which 610 applications under the national procedure and 13 applications under the international procedure (PCT). Domestic entities submitted 673 utility model applications, while foreign entities – 57 such applications[21].

Graph **Patent applications in Poland 2018-2022 broken down by the procedure**



The Patent Cooperation Treaty (PCT) received 382 patent applications from Poland in 2022, compared to almost the same number of 386 patent applications from Poland in 2021 and 341 applications in 2020, with the majority of applications originating from businesses (ca. 15% coming from universities and other public research organisations)[22].

Poland is an Emerging Innovator, as it is placed 25th in the European Innovation Scoreboard 2023. Although Poland's total innovation indicator increased by 8.5%, this level is still below the EU average of 8.8%8.8%[23]. In the WIPO Global Innovation Index 2023, Poland was ranked 41st (compared to 38th in 2021)[24].

Research and development intensity in Poland – measured by expenditure on R&D as a percentage of Gross Domestic Product rose from expenditure on R&D (GERD) increased by 18.6% in comparison to

[21] UPRP (2023), Annual Report 2022, Urząd Patentowy Rzeczypospolitej Polskiej

[22] Source: PCT Yearly Review 2022, p.46, PCT Yearly Review 2022, p.42

[23] https://www.gov.pl/web/ncbr-en/polish-research--innovation-policy

[24] World Intellectual Property Organisation (WIPO) (2022). Global Innovation Index 2023: What is the future of innovation-driven growth? Geneva, WIPO 2023, https://www.wipo.int/edocs/pubdocs/en/wipo-pub-2000-2023-en-main-report-global-innovation-index-2023-16th-edition.pdf, p.176.

1.44% in 2021 and 1.39% in 2020. At the same time, the R&D intensity in the EU27 area is visibly higher but experienced a decrease from 2.19% in 2020 to 2.15% in 2021. The number of R&D entities increased by 0.8% in comparison to the previous year.

1.3 BARRIERS AND OPPORTUNITIES

1.3.1 FINANCIAL

A significant barrier to accessing formal protection of intellectual assets is financial constraints, which include the following:

1. **High costs of IP protection and insufficient funding for IP protection.** Obtaining a patent can be a costly process, especially for small and medium-sized enterprises (SMEs) that may not have the financial resources to cover the fees associated with the application process. This can discourage SMEs from applying for patent protection. Furthermore, lack of funding is a barrier for public entities such as universities and research institutions (especially smaller ones), which may have limited resources to invest in IP protection. This can make it challenging for these organisations to protect their research results and may impact their ability to attract private investment.
2. **Limited resources for IP enforcement**. Even if an entity is successful in obtaining IP protection, enforcing those rights can be a costly process. This is especially true for smaller entities, which may not have the resources to take legal action against infringers.
3. **Limited availability and continuity of government support**. While the Polish government has introduced various programmes and initiatives to support innovation and entrepreneurship over last years, some businesses and organisations may still struggle to access the necessary funding and resources to protect their IP. Furthermore, financial support schemes largely rely on EU funds, which are not continuously available. This creates insecurity among entrepreneurs regarding the possibility of benefiting from public support at all times. This can be especially challenging for SMEs and startups, which may not have an established track record or access to other financing options.

1.3.2 LEGISLATIVE

Poland has extensive legislation in industrial property protection, which aligns with international standards arising from conventions and agreements to which Poland is a party and harmonized with EU law. However, there is a lack of clarity surrounding certain aspects of IP law. For example, the criteria for patentability are not always clearly defined and communicated, particularly in the context of software protection. This can make it difficult for businesses to determine whether their inventions are eligible for patent protection.

IP regulations do not specify the duration of most procedures related to obtaining and enforcing intellectual property rights. Thus, complex and time-consuming legal proceedings can be considered as a barrier. IP infringement cases can take a long time to resolve, which can be particularly challenging for small and medium-sized enterprises (SMEs) that may not have the resources to wait for a resolution.

1.3.3 OTHER

Other potential barriers to IP protection and commercialisation are:

1. **Limited Awareness and Understanding of the importance of IP**. Many enterprises (in particular SMEs) are not aware of the importance of protecting their intellectual property, or they lack the necessary knowledge to do so. This can lead to a reluctance to invest in IP protection and can make it challenging for businesses to effectively use their intellectual property.
2. **Limited access to information and resources on IP protection and commercialisation**. Many businesses in Poland struggle to navigate the complex patent system and are not aware of the resources available to them, such as technology transfer centres and business incubators. Furthermore, the value of intellectual property is often difficult to assess, which can make it difficult for businesses to determine how much to invest in protecting their IP.
3. **Limited collaboration between academia and industry.** The lack of collaboration between academia and industry in Poland is another non-legislative barrier to IP protection and commercialisation. While universities and research institutions are producing innovative research and technology, there is often a disconnect between these institutions and businesses.

2. SUPPORT SCHEMES, PROGRAMMES AND INCENTIVES WITH FOCUS TO FINANCING IP PROTECTION

2.1 NATIONAL

Name of programme	**Programme European Funds for a Modern Economy Priority 1 Support for Entrepreneurs Recruitment FENG.01.01-IP.01-002/23 - SMART Path**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	EU Funds	
Intensity of financing/aid	Minimum	Minimum eligible costs: PLN 1 million (applies to R&D module)
	Maximum	Maximum value and level of co-financing: dependent on the type of public assistance selected within the modules
	Fixed	
Programme budget	PLN 667,000,000 - for projects implemented by large enterprises on their own	
Supported projects	Expected	
	Factual	
IP supported	Inventions, utility models or industrial designs	
Institution/entity responsible for support	National Centre for Research and Development	
Eligible activities	Internationalisation Module - funding for foreign promotion of products (products or services) under the company's product brand or products owned by the entrepreneur or planned to be developed/implemented under the project, or to obtain protection of industrial property rights or their defence in case of their infringement; Project external services, including industrial property rights, with the following eligible costs under this category: a) coverage of the costs of the services of a professional attorney covering preparation of application documentation for an invention, utility model or industrial design and representation before an	

	industrial property protection body; 12 Under the Expenditure Eligibility Guidelines 2021-2027 b) coverage of the costs of translation, including certified translation, of documentation necessary to apply for an invention, utility model or industrial design and conduct proceedings before a competent national, regional, EU or international industrial property protection body.	
Formalities	The project subsidized in the call must fit into at least one National Smart Specialization.	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	Micro-companies and SMEs	
	Large companies	Large enterprises (with the exception of small mid-cap companies) must plan to cooperate with SMEs under the project in order to receive support
	Universities/ research institutions	
	Other	
Eligibility criteria		
Duration	Recent Start of call for proposals: 10.05.2023 End of call for proposals: 30.06.2023	X
	Historical	
Conditions for getting support	The project must obligatorily include an R&D module (industrial research and development or only development work). The remaining modules are optional. The eligible costs of the R&D module must constitute at least 20% of the total eligible costs of the project. Funding is provided in the form of grants as state aid and de minimis aid. A conditional grant will be provided for the implementation of the innovation implementation module. - The value of each type of public aid must not exceed the limits in Article 4 of Commission Regulation (EU) No. 651/2014 - The value of *de minimis* aid must not exceed the limits indicated in Regulation 1407/2013.	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	

Source of additional information (links)	https://www.gov.pl/web/ncbr/sciezka-smart-nabor-feng0101-ip01-00223 [in Polish]

Name of a program	**2.3.2 Technology Credit** **Priority 2 Innovation-friendly environment**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Program European Funds for a Modern Economy 2021-2027	
Intensity of financing/aid	Minimum No minimum value of total eligible project expenditure is set	
	Maximum	Costs related to obtaining patents (within the framework of innovation support aid for micro, small or medium-sized entrepreneurs). The intensity of support for these expenses may not exceed 50% of the value of these eligible expenses. The maximum amount of eligible expenditure in this category is PLN 500,000
	Fixed	
Programme budget	PLN 578 million total budget of the programmed aimed at financing also other forms of activities	
Supported projects	Expected	
	Factual	
IP supported	Patents, licenses, know-how, and other intellectual property rights	
Institution/entity responsible for support	Bank Gospodarstwa Krajowego BGK (Polish development bank BGK) VARSO 2 Chmielna 73 street, 00-801 Warsaw	
Eligible activities	Protection of intangible assets, in the form of patents, licenses, know-how, and other intellectual property rights, which: - will be used by the entrepreneur exclusively at the company receiving assistance,	

	- will be subject to depreciation in accordance with accounting regulations, - will be purchased on market terms from third parties unrelated to the company, - will constitute assets of the company and will remain related to the project: - in the case of a micro, small or medium entrepreneur for a period of at least 3 years, from the date of completion of project execution	
Formalities	The technology loan is a non-refundable support instrument designed for micro, and SMES. The support takes the form of a technology bonus paid by Bank Gospodarstwa Krajowego BGK. It is used to partially repay an investment loan investment loan, which the entrepreneur has taken from a lending bank cooperating with BGK. The loan is used to finance expenses in the project necessary to implement a product or process innovation on the market, as a result of the application of a new technology. The amount of funding for investment expenses is calculated on the basis of the regional aid map for 2021-2027, which depends on the size of the enterprise and the location of the project. In addition it is possible to take advantage of consulting support and for obtaining patent protection. Support is provided for projects involving the implementation of technological innovations - own or generated results of research and development work and launching on its basis the production of new or significantly improved products, processes or services.	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	Micro-companies and SMEs	X
	Universities/research institutions	
	Other	
Eligibility criteria	Activity performed in the territory of Poland	
Duration	Recent	23.03.2023 do 31.05.2023
	Historical	
Conditions for getting support	One of the document required is a copy of the technology loan promise or conditional technology loan agreement from the lending bank lending bank	
Programme impact (e.g. number of applications	N/A	

filed, number of entities supported)	
Source of additional information (links)	https://www.bgk.pl/male-i-srednie-przedsiebiorstwa/finansowanie-dzialalnosci-biezacej/pozyczki-unijne/kredyt-technologiczny-feng-2021-2027/ [in Polish]

Name of a programme	**Incubator of innovativeness 4.0**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Financed from European Funds as part of the non-competitive project "Support for the management of scientific research and commercialisation of the results of R&D work in scientific entities and enterprises", implemented under the Smart Growth Operational Programme 2014 -2020	
Intensity of financing/aid	Minimum	
	Maximum	The amount of funding is a maximum of PLN 1.1 million (PLN 1.9 million if the project is implemented as part of a consortium), but cannot exceed 90% of the project implementation costs. Own contribution of at least 10% of the grant amount requested (in cash or in kind)
	Fixed	
Programme budget	Total expenditure foreseen: PLN 66 111, 750 Value of granted funding: PLN 58 500, 228 Own contribution from consortia: PLN 7 611, 523 (after extension the value of granted funding increased to PLN 75 million)	
Supported projects	Expected	-
	Factual	32 consortia and 2 stand-alone grantees comprising 76 entities

IP supported	Patents, utility models, industrial designs and other intellectual property rights	
Institution/entity responsible for support	Ministry of Education and Science Wspólna Street 1/3 00-529 Warsaw	
Eligible activities	Application for an invention, utility model or industrial design and the conduct proceedings before the relevant national, regional, EU or international industrial property protection authority, official fees	
Formalities	Projects selected in the competition procedure – there has been one call for projects.	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	Micro-companies and SMEs	
	Universities/ research institutions	X
	Other	
Eligibility criteria	Innovation Incubators, i.e. universities and their special purpose vehicles or consortia established by universities, special purpose vehicles of universities, scientific institutes of the Polish Academy of Sciences, research institutes or international scientific institutes established on the basis of separate acts operating in the territory of the Republic of Poland	
Duration	Recent 1 July 2020 – 30 April 2023	X
	Historical	
Conditions for getting support	- fulfilling eligibility criteria - entity/consortium applying must be active in the commercialisation of the scientific results (applied for at least 15 patents or utility models, domestic or foreign and commercialised at least 10 technologies i.e. sold or licensed them) or created at least 1 spin off company. - entity/consortium must ensure the establishment of a board or investment committee, with a majority of representatives from the business community and investment funds, to monitor and evaluate the tasks carried out under the programme and approve decisions on support for pre-implementation work	
Programme impact (e.g. number of applications filed, number of entities supported)	Statement of funds as at 31.01.2023: Funds spent in accordance with the financial statements – PLN 55 082, 047 Performance of programme indicators (as for 31.01.2023):	

	- Number of R&D works performed: planned originally - 495, planned after extension: 649, executed - 756 (116%) - Number of patent applications filed: planned originally - 966, planned after extension: 1255, implemented - 1531 (122%) - Number of established forms of cooperation between the scientific community and the business environment (licence, sale, lease, research services agreements): planned originally - 1947, planned after extension: 2545, implemented - 2631 (103%) - d) Number of created spin-off companies: planned originally - 82, planned after extension: 77, implemented - 36 (47%).
Source of additional information (links)	https://www.gov.pl/web/edukacja-i-nauka/inkubator-innowacyjnosci-40 [in Polish]

Name of a program	**Priority III: SUPPORT FOR INNOVATION IN ENTERPRISES Measure 3.2: Support for implementation of the results of R&D works Sub-action 3.2.2: Credit for technological innovations**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Intelligent Development Operational Program 2014-2020 (EU Funds)	
Intensity of financing/aid	Minimum	
	Maximum The maximum amount of expenditure eligible expenditure – PLN 500,000	
	Fixed	
Programme budget	422 million euro (original) + 50 million euro	
Supported projects	Expected	N/A
	Factual	N/A
IP supported	Patents and other intangible assets (purchase of intangible assets in the form of patents, licenses, know-how and unpatented technical knowledge)	
Institution/entity responsible for support	Bank Gospodarstwa Krajowego BGK (Polish development bank BGK), VARSO 2 Chmielna 73 Street 00-801 Warsaw	
Eligible activities	Costs associated with obtaining, validating and defending patents and other intangible assets, related to the technological investment	
Formalities	A prerequisite for applying to BGK for a credit is a company's	

	creditworthiness, as assessed by the lending bank lending bank, confirmed in the content of a conditional technology credit agreement or a technology credit promise concluded or issued no later than on the date of submission of the application for co-financing in BGK, constituting an attachment to the application for co-financing	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	
	Other	
Eligibility criteria	Micro, SMEs may apply for support entrepreneurs, conducting business activity in the territory of the Republic of Poland	
Duration	Recent (2021-20…)	
	Historical 2020-2021	X
Conditions for getting support	Projects financed by a loan for technological innovation. Credit for technological innovation is granted on a commercial basis by banks cooperating with the Bank of National Economy. Co-financing in the form of a grant - "technology bonus" is received to repay part of the technology loan. Co-financing is provided for eligible expenditures for the technological investment and for expert opinions, studies, concepts and projects related to the investment carried out by external entities.	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://www.funduszeeuropejskie.gov.pl/nabory/32-wsparcie-wdrozen-wynikow-prac-br-322-kredyt-na-innowacje-technologiczne-5/ [in Polish]	

Name of a programme	**Intellectual property in your company**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	

Source of financing	The project financed from the Intelligent Development Programme, Measure 2.6 "Non-Competitive Project of the Patent Office of the Republic of Poland", under the European Regional Development Fund.	
Intensity of financing/aid	Minimum	
	Maximum - Micro companies – up to 95% of the IP audit costs - SMEs 90% of IP audit costs	X
	Fixed Average price for the service: PLN 1, 800 (400 EUR)	
Programme budget	The planned budget PLN 4 544,020 The used amount 2 mln PLN (0,26 mln EUR)	
Supported projects	Expected	N/A
	Factual	N/A
IP supported	All IP rights	
Institution/entity responsible for support	The Patent Office of the Republic of Poland	
Eligible activities	The intellectual property identification service (IP audit by regional contractors - experts in intellectual property protection, experienced in working with businesses), performed on-site or online, resulted with “tailor-made" recommendations for protecting his company's intellectual property: - how to protect your intellectual property, i.e., for example, logos, company secrets, inventions, design projects, etc.; - how to obtain a patent, how to exercise copyrights, - how to structure contracts with employees working for the company; - what benefits it can derive from intellectual property protection to increase its company's competitiveness.	
Formalities		
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	Micro-companies and SMEs	X
	Universities/ research institutions	
	Other	

Eligibility criteria	- status of a micro, small or medium-sized entrepreneur; - registered office in the territory of the Republic of Poland; - operation in the area of National Smart Specializations (NSS); - the amount of support must be within the limit of permissible de minimis aid	
Duration	Recent (2021-2022)	
	Historical	X
Conditions for getting support	- status of a micro, small or medium-sized entrepreneur; - registered office in the territory of the Republic of Poland; - operate in the area of National Smart Specializations (NSS); - the amount of support must be within the limit of permissible de minimis aid	
Programme impact (e.g. number of applications filed, number of entities supported)	Estimated number of supported SMEs: 576 Final no. of supported SMEs: 64 (26 resigned) Direct indicators: 64 services/supported SMEs Result indicators: implemented recommendations (estimation: 1 implemented recommendation per 1 company, achieved: 150 implemented per 64 SMEs i.e. 234% of the target	
Source of additional information (links)	https://uprp.gov.pl/pl/wlasnosc-intelektualna-w-twojej-firmie/o-projekcie/dokumenty [in Polish]	

Name of a program	**Patent PLUS**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Republic of Poland (state budget)	
Intensity of financing/aid	Minimum	
	Maximum	800 000 PLN
	Fixed	
Programme budget	12,302, 000 PLN (2013-2018)	
Supported projects	Expected	
	Factual	55 projects

IP supported (with focus on patents)	The PATENT PLUS program provided financial support, but was primarily intended to mobilize increased efficiency in intellectual property management through patenting. The main objective of the program was to increase the number of patent applications.	
Institution/entity responsible for support	Narodowe Centrum Badań i Rozwoju (NCBR) National Centre for Research and Development	
Eligible activities	Funding for Phase I, which includes: - examination of the state of the art in the scope covered by the content of the invention application; - analysis of the economic viability of covering the invention with patent protection; - development of a strategy for commercialisation of the invention. Funding for Stage II, which includes: - application for an invention under the EPC procedure; - application for an invention under the PCT procedure; - entering the national phases of countries - other than the Republic of Poland - in which the applicant, according to the declaration, is seeking a patent.	
Formalities		
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	X
	Other Research institute; A scientific institute of the Polish Academy of Sciences	X
Eligibility criteria	The total period of implementation of the Project may not exceed 36 months. The Applicant may not finance and apply for financing of the tasks covered by the Application with funds from other sources. The Applicant must engage its own financial resources in the implementation of the Project in the amount of at least 10% of the eligible costs of the Project, regardless of whether the Project involves the application for one or more inventions and whether the implementation of the Project involves Stage I and Stage II, or only Stage	

	II. In the case of an Applicant who is not an entrepreneur, the subsidy may not be higher than that specified in the Application and may not be more than 90% of the eligible costs of the Project.	
Duration	Recent (2021-20…)	
	Historical (2018) with the impact assessment during 5 years (2023)	X
Conditions for getting support	In case of SMEs – a headquarters in the Republic of Poland.	
Programme impact (e.g. number of applications filed, number of entities supported)	One of the specific impact was effectiveness in obtaining patents outside the Republic of Poland (percentage of patent applications co-financed under the Program, which obtained protection); (result indicator monitored within 5 years from completion of projects under the Program). This was calculated as 30% (Supplement for Program PATENT PLUS).	
Source of additional information (links)	https://archiwum.ncbr.gov.pl/programy/programy-krajowe/patent-plus/ [in Polish]	

Name of a programme	**Protection of industrial property**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	Smart Growth Operational Program 2014 -2020	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	For projects located in Masovian Voivodeship - PLN 3 551 107,45 For project located in other voivodeships than Masovian Voivodeship - PLN 4 123 000,00

Programme budget		
Supported projects	Expected	
	Factual	
IP supported	Patents and other IP rights	
Institution/entity responsible for support	Polska Agencja Rozwoju Przedsiębiorczości Pańska 81/83 Street 00-834 Warsaw	
Eligible activities	Financial assistance can be used to cover the costs of: - attorney's assistance in terms of obtaining property rights including: - preparation of necessary application documents, essential to receive protection (patent etc.) - representation before the competent authority - conducting proceedings concerning the property rights of the company - help in field of protection of owned rights - the costs of fees, translations and consultancy related to obtaining or defending protective rights. - advisory services regarding the commercialisation of the subject of protection.	
Formalities	Projects for co-funding are selected in the competition procedure. Competition is divided into two rounds. The aim of the competition is to select projects for co-funding, which to the greatest extent will contribute to the achievement of the Smart Growth Operational Program objectives. These objectives include, in particular, supporting SMEs in the process of obtaining protection of industrial property rights in the national, regional, European or international procedure, excluding the possibility of application to the Patent Office of the Republic of Poland for the purpose obtaining and implementation of protection solely on the territory of Poland.	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	Micro-companies and SMEs	X
	Universities/research institutions	
	Other	
Eligibility criteria	Activity performed in the territory of Poland	
Duration	Recent	
	Historical 31 January 2019 - 14 June 2019	X

Conditions for getting support	- status of a micro, small or medium-sized company - registered office in the territory of the Republic of Poland - project implementation cannot start before the date of submission of the application for funding or on the day of submitting the application for funding - the project implementation period cannot extend beyond the end date of the period eligibility of costs under SG OP (Smart Growth Operational Program) - 31 December 2023
Programme impact (e.g. number of applications filed, number of entities supported)	N/A
Source of additional information (links)	https://www.parp.gov.pl/component/grants/grants/ochrona-wlasnosci-przemyslowej

2.2 LOCAL

Name of a programme	**RPLU.01.05.00-IP.01-06-001/19 Priority 1 Research and innovation, Measure 1.5 Voucher for innovations Regional Operational Programme Lubelskie Voivodeship for the years 2014-2020**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	European Regional Development Fund (ERDF)	
Intensity of financing/aid	Minimum	Beneficiary's own contribution understood as % of eligible expenditure: 15%
	Maximum	Maximum allowable percentage of ERDF funding for the project: 85%
	Fixed	
Programme budget	PLN 12 871 500,001 (total budget, without distinction to specialised services supporting intellectual property rights	
Supported projects	Expected	

	Factual	9 project financed under the scheme, but any of the projects used the fund for obtaining IP protection
IP supported (with focus on patents)	Patents, utility models	
Institution/entity responsible for support	Lublin Agency for Entrepreneurship Support (Lubelska Agencja Wspierania Przedsiębiorczości)	
Eligible activities	Among other eligible activities for financing, projects involving the purchase of consulting services for the protection of intellectual property, related to the preparation of a patent or utility model application, concerning: the performance of studies, legal, economic and technical analysis and expertise on the subject matter of the application, as well as fees for filing the application.	
Formalities	Described in Call for projects Regulations	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	
	Other	
Eligibility criteria	An applicant must be micro, small and medium-sized enterprises (as defined in Commission Recommendation 2003/361/EC of May 6, 2003 concerning the definition of micro, small and medium-sized enterprises, OJ. and medium-sized enterprises, OJ EU. L 124/36 of 20.5.2003). The projects must be implemented in the Lubelskie Voivodeship The applicant is required to have a registered office or branch (in the case of a sole proprietorship business activity - place of business) on the territory of the Lubelskie Voivodeship no later than on the day of application submission.	
Duration	Recent (2021-20…)	
	Historical 2019	X
Conditions for getting support	Projects selected in a call for projects	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	

Source of additional information (links)	https://www.funduszeeuropejskie.gov.pl/nabory/15-bon-na-innowacje-2/ [in Polish]

Name of a programme	**Priority 1 Research and innovation, Measure 1.5 Voucher for a patent Regional Operational Programme, Lubelskie Voivodeship for the years 2014-2020**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	EU Regional Development Fund	
Intensity of financing/aid	Minimum	
	Maximum financing	PLN 48 000, 00
	Fixed	
Programme budget	PLN 12 873 900 00	
Supported projects	Expected	N/A
	Factual	N/A
IP supported (with focus on patents)	The grant is intended to cover costs related to the preparation and filing a patent application for an invention in the region's smart specializations (bioeconomy, medicine and health, low-carbon energy, information technology and automation). The main objective is to support entrepreneurs in the process of applying for patent protection of patent protection of inventions, including protection of inventions resulting from scientific research or development work carried out by entrepreneurs of scientific research or development works operating in the Lubelskie Voivodeship. The above will contribute to an increase in the number of patent applications within the scope of smart specializations of the region included in the Regional Innovation Strategy of the Lubelskie Voivodeship until 2020.	
Institution/entity responsible for support	Lublin Agency for Entrepreneurship Support (Lubelska Agencja Wspierania Przedsiębiorczości)	
Eligible activities	Patent Voucher WL ROP may concern patent application made in national, regional (European) or international.	
Formalities	Application meeting the requirements	
Status of a programme	Public	X

	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	
	Other	
Eligibility criteria	An applicant must be micro, small and medium-sized enterprises (as defined in Commission Recommendation 2003/361/EC of May 6, 2003 concerning the definition of micro, small and medium-sized enterprises. The projects must be implemented in the Lubelskie Voivodeship The applicant is required to have a registered office or branch (in the case of a sole proprietorship business activity - place of business) on the territory of the Lubelskie Voivodeship no later than on the day of application submission. Projects related to the preparation and filing of a patent application for an invention in the field of smart specializations of the region (bioeconomy, medicine and health, low-carbon energy, IT and automation). Support under may be granted to applicants who have a right to obtain a patent relating to the invention(s) described in the project. The solution being the subject of the patent application made under the project must fit into regional smart specializations in accordance with the Regional Innovation Strategy Lubelskie Voivodeship until 2020 in accordance with the Indicative list of PKD codes falling within the Regional Smart Specializations of the Lubelskie Voivodeship. Support may be granted to projects concerning a patent application covering one invention or projects concerning patent application covering more than one invention. In the case of a patent application covering more than one invention, the inventions must be linked together in such a way that they clearly constitute a single inventive idea (principle of unity of invention). The requirement of unity for an application containing more than one invention is satisfied when the combination of these inventions is based on common or mutually corresponding technical features (one or more), which technical features determine the contribution that each invention makes to the state of the art. Under certain condition it was allowed for combining two or more inventions in a single application.	
Duration	Recent (2021-20…)	
	Historical 2016	X

Conditions for getting support	Maximum allowable percentage of project funding from ERDF: 80% Minimum beneficiary's own contribution understood as % of eligible expenditure: 20%
Programme impact (e.g. number of applications filed, number of entities supported)	N/A
Source of additional information (links)	https://www.funduszeeuropejskie.gov.pl/nabory/15-bon-na-patent/ [in Polish]

Name of a programme	**Priority 3 Competitiveness enterprises Measure 3.5 Voucher for consultancy of the Regional Operational Programme Lubelskie Voivodeship for the years 2014-2020**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	EU Regional Development Fund	
Intensity of financing/aid	Minimum	PLN Co-financing 5, 000
	Maximum	PLN 150 000, 00
	Fixed	
Programme budget	26 603 488 PLN (total budget, without distinction to specialised services supporting intellectual property rights	
Supported projects	Expected	N/A
	Factual	N/A
IP supported (with focus on patents)	The purchase of specialized consulting services from external entities in the field of, among others intellectual property law. Such specialised consulting services should not be understand as related to the company's usual operating expenses, such as regular legal services.	
Institution/entity responsible for support	Lublin Agency for Entrepreneurship Support (Lubelska Agencja Wspierania Przedsiębiorczości)	
Eligible activities	The purchase of specialized consulting services from external entities in the field of, among others, intellectual property rights	
Formalities		
Status of a programme	Public	X
	Private	

	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	
	Other	
Eligibility criteria	The applicant is obliged to document the possession of own financial resources (financial input) for implementation of the project	
Duration	Recent (2021-20…)	
	Historical 2019-2020	X
Conditions for getting support	The maximum percentage of EU funding of eligible expenses - public aid 50%, de minimis aid 80% Minimum beneficiary's own contribution understood as % of eligible expenditure: (i) having the nature of public aid: 50% (ii) having the nature of de minimis aid: 20% The projects must be implemented in the Lubelskie Voivodeship The applicant is required to have a registered office or branch (in the case of a sole proprietorship business activity - place of business) on the territory of the Lubelskie Voivodeship no later than on the day of application submission	
Programme impact (e.g. number of applications filed, number of entities supported)	101 signed granting contracts, without detailed information how many applicants for consultancy services related to IP	
Source of additional information (links)	Service of Regional Programme of Lubelskie Voivodeship https://rpo.lubelskie.pl/rpo/wiadomosci/nabory-konkursy/3-5-bon-na-doradztwo/ [in Polish]	

Name of a programme	**Grant programme for R&D work of science institutions (3 editions)**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Carried out under the project titled "Podkarpackie Innovation Centre" co-financed from the European Regional Development Fund under Priority Axis No. I "Competitive and innovative economy" of the Regional Operational Programme of the Podkarpackie Voivodeship 2014-2020	
Intensity of financing/aid	Minimum	
	Maximum	The amount of funding is a maximum of PLN 0,2

		million (in first edition) / PLN 0,5 million (in third edition) Costs of patent protection or other protection of intellectual property rights (in the territory of the Republic of Poland), maximum net PLN 10,000
	Fixed	
Programme budget	Over PLN 30 million	
Supported projects	Expected	-
	Factual	148 projects
IP supported	Patent protection or other protection of intellectual property rights	
Institution/entity responsible for support	Podkarpackie Centre for Innovation (Podkarpackie Centrum Innowacji - PCI) ul. Teofila Lenartowicza 4 35-051 Rzeszów	
Eligible activities	- application for an invention (national), - official fees (national),	
Formalities	Projects selected in the competition procedure – there have been 3 calls for projects.	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	Micro-companies and SMEs	
	Universities/research institutions	X
	Other	
Eligibility criteria	Programme for research teams from the Ignacy Lukasiewicz Rzeszow University of Technology, the University of Rzeszow, the University of Information Technology and Management in Rzeszow and other universities based in the Subcarpathian region, which carry out research activities not less than 12 months before the announcement of the call.	
Duration	Recent	2019-2021
	Historical	X
Conditions for getting support	fulfilling eligibility criteria minimum Technology Readiness Level (TRL) for submitted projects was II – verified concept project implementation period - up to a maximum of 6 months	

	participation was a subject to the research teams' compliance with the university's internal procedures, in particular with regard to the rights to inventions, the requirements for reporting the resulting intangible assets and the adopted rules for the use of infrastructure a member of the research team, may have been involved in a maximum of two projects submitted within the announced call a member of the research team may have served as leader in a maximum of one project submitted within the announced call
Programme impact (e.g. number of applications filed, number of entities supported)	Under the three announced calls for R&D projects, institutions submitted 422 applications, 148 of which received funding for more than PLN 30 million
Source of additional information (links)	https://naukowcy.pcinn.org/ [in Polish]

2.3 INSTITUTIONAL

Name of a programme	**Programme Titanium supporting international patent applications**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Excellence Initiative - Research University (Inicjatywa Doskonałości – Uczelnia Badawcza - IDUB Programme) Republic of Poland state budget	
Intensity of financing/aid	Minimum	
	Maximum	PLN 18 000,00
	Fixed	
Programme budget		
Supported projects	Expected	N/A
	Factual	N/A
IP supported	Patents	
Institution/entity responsible for support	Gdańsk Technical University – Knowledge and Technology Transfer Centre,	
Eligible activities	Funding may be granted only for activities relating to inventions to which the University is entitled, in whole or in part, to property rights, and the University is not subject to restrictions on the commercial use of the invention.	

	The grant is conditional on the applicant unit's commitment to cover the costs of obtaining a patent in further procedures (validation costs in selected countries, official fees, etc.). Eligible project costs include: - costs of patent research (state of the art analysis), - costs of preparing documentation for application of inventions in the international PCT or European procedure, - costs of translation of application documentation, - costs of official fees for the application	
Formalities	Recruitment of applications under the Programme is carried out on a competitive basis. The applicant submits an electronic application to titanium@pg.edu.pl and a paper application to the Technology Transfer Centre, which conducts an analysis of the legal conditions and commercial potential of the invention, and obtains the opinion of the PG Patent Attorneys Team as to the patent potential of the invention	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	
	Universities/research institutions	X
	Other	
Eligibility criteria	An application for grant can be filed by an employed researcher, a PhD student, student of Gdańsk Technical University If the rights to the invention covered by the application belong to the University in part (joint rights), the subsidy is proportional to the University's share in these rights. The portion shall be determined based on the agreement on joint rights to/from the patent concluded with the other co-inventors.	
Duration	Recent (2021-20…)	X
	Historical	
Conditions for getting support	The grant is conditional on the applicant unit's commitment to cover the costs of obtaining a patent in further procedures (validation costs in selected countries, official fees, etc.).	
Programme impact (e.g. number of applications filed, number of entities supported)	The Programme is part of the implementation of the tasks of the IDUB programme in increasing knowledge and technology transfer. The purpose of the Programme is to implement mechanisms for identifying and protecting internationally the intellectual property of valuable inventions developed at Gdansk University of Technology. The Programme offers funding to cover the costs of activities aimed at obtaining or extending international legal protection of an invention.	

Source of additional information (links)	https://pg.edu.pl/badawcza/2022-12/nabor-wnioskow-w-iv-edycji-programprogrammeu-titanium-supporting-international-patent-applications-231222-310123-godz-1200 (visited 13.05.2023) [in Polish]

3. CONCLUSIONS

As the general analysis of the innovation ecosystem in Poland indicates, over the last few years, there has been an increase in innovation indicators based on intellectual property assets, comparing to innovation other indicators. However, they remain at an unsatisfactory level compared to other European Union countries.

Being aware of the importance of intellectual property rights protection for innovation, research and development activities, as well as the role of the rate of the applications for IP rights for the assessment of the country's innovation status, in recent years, various measures have been taken to improve these indicators, in particular through financial support for activities aimed at securing the protection of created intangible assets.

The mapping analysis of programmes directly subsidizing the fees for obtaining formal protection or indirectly supporting the strategy of securing formal protection through various activities, including special consultations, allows the following observations, conclusions and recommendations.

1. **Financing programme availability**

The mapping of national programmes aimed at supporting IP protection confirms the ongoing availability of such initiatives over the last years. For the detailed assessment, priority was given to currently ongoing or future programmes aimed at financing or co-financing the costs of obtaining formal protection for intellectual property or supporting failing applications. However, historical programmes were also included in the analysis, as the monitoring of project indicators often extends a project's life (e.g., covers five years after a project’s accomplishment). Additionally, some historical programmes can be considered as examples of best practices.

2. **Type of financial support**

Within the framework of the adopted mapping methodology, priority was given to schemes financing administrative fees for obtaining IP protection with a focus on patents. This criterion was met by a limited number of programmes offered, most notably **the Technology Credit** programme implemented in 2023 and **the Credit for technological innovations programme** implemented in 2021. These programmes supported the filing of applications for an invention, utility model or industrial design and conducting proceedings before the relevant national, regional, EU or international industrial property protection authority, including covering the relevant administrative fees.

Tools indirectly influencing the number of applications for objects of protection to patent offices in schemes supporting the obtainment of formal protection (e.g. consultancy, free assistance in preparing applications) were also considered applicable. Programmes such as "Intellectual property in your company" deserve particular attention.

In the secondary focus analysis, tools indirectly supporting obtaining IP rights were identified, such as tax incentives for R&D and IP protection, an example of which is **IP Box**. This is a national tax incentive programme where a taxpayer who produces so-called "qualified IP" as part of its research and development activities and grants exclusive rights to that IP to another entity can apply a preferential tax rate of 5% to the income derived upon meeting certain conditions. "Qualified IP" is an IP that enjoys formal protection. As ensuring formal protection of IP is a prerequisite to benefit from this kind of tax incentive, the tool is qualified as an indirect mechanism supporting formal protection of IP assets.

3. Types of industrial property rights covered by financing

Most of the identified programmes indirectly supporting the acquisition of industrial property rights, e.g., through support for advice and consultation on drafting applications to patent offices, are not limited to a specific type of industrial property rights and cover different types of rights (e.g., 2.32 Technology Credit).

Since many of the programmes are designed to support innovative activities that usually result in inventions, among the support programmes implemented in recent years are those dedicated exclusively to financing the costs of obtaining patent protection. An example of a recently available type of support aimed particularly at supporting patent protection that has been identified at the institutional level is the **TITANIUM** programme implemented at the University of Gdansk.

Historically, the most significant programme aimed at financing patent protection implemented at the national level to date was the former national **Patent Plus** programme. The programme's aim was to encourage scientists and management of scientific units to apply for legal protection of the results of their research. Its main objective was to increase the number of patent applications and thus increase the protection of industrial property rights in Poland by subsidizing or reimbursing the costs necessary to prepare a patent application. The offered funding was, however, available not for financing patents granted by the Patent Office of the Republic of Poland but for financing the administrative costs of failing (i) applications for an invention under the EPC procedure, (ii) applications for an invention under the PCT procedure, (iii) entering the national phases of countries - other than the Republic of Poland.

Among the dedicated regional programmes funding patent protection, it is also important to point out the historical regional programme **1.5 Voucher for a patent** (2019), intended to cover costs related to the preparation and filing of a patent application for an invention in the region's smart specializations (bioeconomy, medicine and health, low-carbon energy, information technology and automation). At the same time, it is an example that offers dedicated support only to inventions in specific technology fields.

4. Outreach of programmes/assistance

The identified programmes are national, regional and institutional in terms of the availability of financing. Also, as to the range of financing understood as financing of protection at the national level and abroad, it is possible to indicate programmes aimed at direct and indirect support for industrial property protection in the national procedure by the Patent Office of the Republic of Poland, as well as in EU and international procedures.

No particular programmes aimed at directly financing IP protection or indirectly supporting IP strategies have been identified available for applicants from Poland at the V4 level, covered by the operation of the Visegrad Patent Institute (VPI). Its operation involves joint support of the innovation ecosystems of the Visegrad countries and cooperation between national patent offices in the field of the protection of innovations by patents. The support includes significant fee reduction where the VPI benefits from the results of an earlier search carried out by any of the national offices of the Contracting States and of an earlier international search report or international-type search report. No direct financing for an administrative fee is available via the VPI.

5. Sources of programme funding

EU funds and sources are the primary sources of funding programmes analysed in the case of intellectual property. From these sources come the vast majority of forms of support at the national level, distributed through national institutions and agencies. These include nationwide and regional programmes dedicated to specific regions of the country. Also identified are programmes implemented at the level of a specific institution but financed from public funds, e.g. grants from the Ministry of Science and Higher Education under the "Excellence Initiative - Research Unit" programme (e.g. the **TITANIUM** programme implemented at the University of Gdansk). In this case, it is the institution that decides what to devote funds to in the implementation of this nationwide programme.

6. Funding entities/managers of support programmes

The types of identified programme management entities are a logical consequence of adopting the mapping methodology that distinguishes national, regional, local, and institutional programmes. No central funding institution has been identified that manages all the financial schemes.

At the national level, the programme management entities are different institutions. Among the institutions directly involved in the country's IP policy is the central industrial property rights granting authority, i.e. the Patent Office of the Republic of Poland. In recent years, it has managed the national **IP in your company** programme to provide financial support to SMEs in building intellectual property protection strategies, including obtaining industrial property rights.

Among the central national institutions, one can also point to research funding institutions such as the National Centre for Research and Development (NCBR). For several years, this institution has run the critical **Patent Plus** programme to stimulate patent applications at home and abroad, mainly for inventions created at universities and research institutes.

At the regional level, IP funding programmes are managed by, for example, agencies supporting local entrepreneurship. One of the examples is the Lublin Agency for Entrepreneurship Support, which in the past implemented such projects as **1.5 Voucher for a patent; 1.5 Voucher for innovations** in the framework of the Lubelskie Voivodeship Regional Operational Programme for the years 2014-2020.

Regarding activities at the institutional level, e.g., supporting patenting at universities, the responsible entities are university technology transfer centres (e.g., the **TITANIUM** programme supporting international patent applications implemented at the Gdansk University of Technology).

7. Beneficiaries

As the mapping confirms, the main beneficiaries of financial support in the area of intellectual property management are micro, small and medium-sized enterprises.
Programmes implemented with the transfer of EU funds specify formal criteria for recognition as a small and medium-sized enterprise. National programmes specify further requirements, e.g. registration of the enterprise or seat in the territory of the Republic of Poland. Similar eligibility criteria in the form of headquarters within a specific province are specified by some regional programmes.
Institutional beneficiaries can also be universities and research units (e.g., the Patent Plus programme) or employed researchers and PhD students of the unit offering support.

8. Identified best practices

Based on the availability and the characteristics of the mapped national programmes and incentives, the following can be considered good practices:

(i) Decentralised (local) distribution of funds for financing IP protection

- for companies and universities in less industrialised regions of Poland
- at an institutional level

(ii) Support for the prospective applicants at the stage of building IP strategy, helping in applying for optimal form of IP protection

(iii) Combined forms of support (free consultancy support for the preparation of formal protection applications + financing of administrative fees + financing of protection maintenance).

9. Identified problems and challenges

Undoubtedly, due to the region's geopolitical situation and the effects of the economic crisis, it has been a significant challenge to stimulate innovation and protect the results of such activities between 2020 and 2023. Many companies are currently focused on current operational activities rather than innovative development and investment activities.

As most funding mechanisms, even if managed at the national level, come from EU funds, the use of subsidies from these sources is subject to numerous requirements under European law, which generates additional formalities and bureaucratic difficulties. Although the mechanisms are aimed at

small and medium-sized enterprises, the requirements and procedures for obtaining subsidies are complicated (SME declarations and conditions are the same as for high-budget EU projects from structural funds state aid regulations). Moreover, the requirement for getting financial support in most of the available financial schemes is its own financial contribution in many financing programmes, which is a significant constraint and roadblock for many SMEs.

10. Impact of programmes on the number of applications

The decline in the total number of patent applications (both national and PCT) that failed in the national patent office over the last years is significant, with 3323 in 2022 compared to previous years (3488 in 2021 and 4098 in 2020)[25], which may be due to various factors and circumstances. The analysis falls during the unrepresentative pandemic period (2020-2022), which paralyzed or delayed much activity among companies, the Patent Office of the Republic of Poland, and funding institutions. In the case of national patent applications, the number between 2020 (4058) and 2022 (3284) is significantly lower, almost 20%.

The limited number of identified national programmes aimed at co-financing IP protection is justified by the comprehensive EU SME Fund support programme launched at the EU level, from which Polish applicants can also benefit by receiving co-financing of the fees charged by intellectual property offices (including national intellectual property offices, the EUIPO and the Benelux Intellectual Property Office) for trademark and design registration; the fees charged by the WIPO for obtaining international trade mark and design protection; and the fees charged by national patent offices for the registration of patents. The 2023 edition entitled the 'Ideas Powered for Business SME Fund' offers two new intellectual property vouchers for EU-based SMEs. Poland, with 2764 requests, was placed as the second country (after Spain) that made the most applications from the Fund in 2022.

4. RECOMMENDATIONS

Based on information and data gained on completed or ongoing financing schemes supporting the obtainment of IP protection available in Poland, the following recommendations can be proposed to support designing future IP financial schemes and policies in Poland and the V4 region.

1. Tailored-made financing

In the case of many of the identified financial schemes aimed at supporting R&D activities, financing the costs of IP protection directly or indirectly is available as one of the eligible services or eligible costs. As the indicators suggest, in this situation, applicants tend to choose different types of eligible costs (as a priority) to be covered by financing, not IP protection. Programmes dedicated solely to services related to IP protection (including support at the stage of preparing IP applications and directly

[25] Annual Report, The Patent Office of the Republic of Poland 2022, https://uprp.gov.pl/sites/default/files/inline-files/Annual%20Report%202022.pdf, p.81

financing administrative costs) can be recommended as a more visible “tailor-made” form of support. Such financial schemes are also more suitable for monitoring the impact of such financing on obtaining formal IP protection.

2. Balancing internal and external financial contributions

Although one’s own contribution to financing IP protection is undoubtedly evidence of the applicant's own commitment to the implementation of an IP protection strategy, projects with one’s own contribution dedicated to small and medium-sized enterprises may be less competitive than a recommended system of vouchers of less value but without own investments as requirements of applying for financing. Assuming that SMEs have limited budgets and other priority expenditures related to day-to-day operations, many such enterprises may be reluctant to consider the contribution required by the programme to apply for funding.

3. Limiting bureaucratic barriers

To encourage more companies to apply for external (public) resources to improve IP protection strategies, applicants should not experience bureaucratic barriers. Although any kind of financial support from the public and the EU sources should be transparent, verifiable and auditable in terms of eligible spending with the fund's purposes, requirements that are difficult to pay or that require the collection of a large number of documents needed for the application for funds is often considered as a disincentive to applicants. This observation is exceptionally accurate for small and medium-sized enterprises, which often must meet the same requirements as large enterprises[26].

4. One-stop-shop assistance for developing and performing IP strategies

Many of the identified programmes are available only for micro, small, and medium-sized enterprises due to the need to support this group of companies, which often do not have sufficient financial resources to cover the costs of securing formal protection for their inventions and other industrial property rights. This group of enterprises more generally face organisational, financial and other constraints in developing and implementing an IP strategy, which is not limited to the problem of raising funds to finance formal protection.

For more targeted assistance to increase IP culture among SMEs, a more comprehensive form of support is the solution, which helps identify the objects of protection, the best procedures for obtaining protection, and, most importantly, the resources needed to finance protection. Meanwhile, among available programmes, some are directed solely at financing administrative fees of IP protection, and some only at providing advice on designing IP strategy. Thus, one of the recommendations is developing programmes that would centralise this assistance in the form of a “one-stop shop” support scheme, which offers IP consultation services aimed at the identification of

[26] Based on the experience on running the programme „Intellectual property in your company“, J. Kupka, The role of national IP offices in promoting IP protection - "IP in your company” project, on-line project conference, Septmeber 25, 2023, https://cittru.uj.edu.pl/documents/1587933/154454071/Polish+Patent+Office.pdf/c35efe06-f91e-41c4-9b5e-52114955b63a

valuable innovations and IP assets and eligibility for obtaining IP protection and assists in co-financing administrative fees required to secure such protection. To some extent, this demand has been addressed by a pilot programme, “Innovation Coach”[27], although it is not focused preliminary on IP protection and management but primarily on R&D consultations. Still, the so-called “innovation coaching” service is aimed at assessing the potential of the company in the context of implementing innovative solutions and providing individual recommendations for the company for the implementation of innovation, as well as an indication of how to finance it using European funds. The support also includes training in the basics of IP protection or the possibility of obtaining funding from the EU for the implementation of innovative IP strategy.

5. **Strengthening support for obtaining IP protection for results generated in international and regional projects, including the V4 region**

Among the identified programmes in Poland, there are national and regional programmes, but intra-national (limited to individual provinces in Poland). No programmes available on the regional (V4) level have been identified, with no programmes aimed at supporting companies and collaborative projects from the V4. In particular, no programmes or projects aimed at co-financing patent protection are designed to enhance the operation of the Visegrad Patent Institute (VPI). Although the programmes of the Visegrad countries' rotating leadership of the Institute include support for R&D projects and innovative ventures, there is no proposal to launch a programme to support applicants using the Institute's services financially. Therefore, to increase the attractiveness of the services provided by the VPI for applicants from V4, it is essential to consider creating such an additional source of funding, including one under the Visegrad Fund.

5. BIBLIOGRAPHY AND USEFUL LINKS

Clayton, T., et al. (2023), "Enhancing intellectual property use for a stronger innovation ecosystem in Poland", OECD Science, Technology and Industry Policy Papers, No. 138, OECD Publishing.

Dernis, H. et al. (2023), Polish Firms’ Industrial Property (IP) Activities and Performance, OECD.

UPRP (2022), Annual Report 2021, Urząd Patentowy Rzeczypospolitej Polskiej.

Gurba K. (2020), “Academic Technology Transfer in Poland - 30 Years of Growth”, Technology Transfer and Entrepreneurship, Vol. 7 (Issue 1), Bentham Science.

https://www.gov.pl/web/ncbr-en/polish-research--innovation-policy

https://www.pactt.pl

https://www.funduszeeuropejskie.gov.pl

www.parp.gov.pl

[27] See more; https://www.innovationcoach.pl/ [in Polish]

NATIONAL REPORT – CZECH REPUBLIC

Charles University

1. OVERALL DESCRIPTION OF THE NATIONAL INNOVATION ECOSYSTEM

1.1 LEADING STAKEHOLDERS AND NATIONAL PLAYERS AND THEIR ROLES

1.1.1 Government and central institution at the national level

On the national level, there are certain tools and schemes aimed to support innovations (and also registration of the respective inventions) provided by the **Ministry of Industry and Trade** ("**MIT**") and its agencies, mostly in the form of subsidies. In particular, the Ministry of Industry and Trade itself has run a programme called **The Country for the Future** in recent years as one of the first financial measures of the **Innovation Strategy of the Czech Republic 2019 – 2030**. The programme has focused on areas of the national start-up and spin-off environment, digitization and smart investments with the goal to support the facilitation of robotisation, automatisation and the promotion of innovation in companies. It placed an emphasis on SMEs in accordance with the Industry 4.0 standards and key trends of prospective industries. It also became a part of the National Recovery Plan based on Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021, establishing the Recovery and Resilience Facility[28].

A key MIT agency within the national innovation ecosystem is **The Business and Innovation Agency**, which is the intermediate body for the current flagship aid programme for supporting Czech entrepreneurs **Operational Programme Technologies and Applications for Competitiveness** (OP TAK). The operational programme consists of five priorities that are further divided into specific objectives, each of which has defined supported activities. The target group is primarily small and medium-sized enterprises (SMEs), but some specific activities are also suitable for large companies. There are a number of different 'calls' within the programme, focusing on knowledge transfer between enterprises and research organisations, sharing knowledge and know-how between the business and the research sector, and protecting industrial property rights, etc.

Another MIT agency is **CzechInvest**, with the main task to advising and supporting existing and new entrepreneurs and foreign investors in the Czech Republic. It administers business-related and science-related Structural EU funds for the Czech Republic. In particular, CzechInvest offers a Technological Incubation scheme. The agency provides technological start-ups with both direct financial support and indirect support including technological transfer, consultations, counselling, etc[29].

An important body within the national innovation ecosystem is an independent government agency **The Technology Agency of the Czech Republic** (**TAČR**). Its purpose is the preparation and implementation of its own programmes of applied research, experimental development and

[28] OJ L 57, 18.2.2021, p. 17–75

[29] https://www.mzv.cz/vilnius/en/business_and_economy/commercial_and_economic_section/?force_format=mobile

innovation. TAČR runs many programmes, which focus on the verification of R&D results generated in research and organisations for practical applications and commercial use.

Another potential source of innovation are universities. Therefore, **the Ministry of Education, Youth and Sports** established a special department - Department of Research and Development- in order to coordinate support on this agenda, particularly aimed at IP protection and increasing IP awareness at universities. This body is responsible for programmes such as a long-term project called **Inter-Excellence II** (2021-2029), which offers indirect incentives for potential inventors, where cross-border co-operation is involved[30], **ERC CZ** (2023-2032) oriented on experimental development and research (labelled as "frontier research", i.e., projects pushing the boundaries of knowledge regardless of traditional categorisation[31]), or **EXCELES** opened in 2021 and oriented solely on research in health care in several specialised segments[32]. Nevertheless, no programmes were offered by the Ministry detected for the support of IP formal protection.

Last but not least, a national stakeholder is **the Industrial Property Office of the Czech Republic** (**IPO**), which is responsible for granting formal IP protection. It is responsible for an SME Fund, and more precisely, for the IP Scan project under this fund. Even though established by the European Commission and the EUIPO at the EU level, the above-mentioned SME Fund also plays an important role on the national level in the field of IP protection.

1.1.2. Stakeholders at the regional and local level

To describe the regional or local level, the Czech Republic consists of 14 regions (higher-level territorial self-governing units) and 6258 municipalities (including 27 statutory cities)[33] in 2021.

At the level of country regions, they establish the **innovation centres** that are responsible for supporting innovation in their respective regions. Among other activities, these centres run innovation incubators and hubs, which provide analysis of business, networking and educational opportunities. They are also oriented on startups or student projects, and they share their capacities with technological parks run by universities[34]. The centres cooperate in a network called *ynovate*[35], which consists of innovation centres in 8 out of 14 regions.

According to interviews performed for the purpose of the report with the *ynovate* network itself and three of those innovation centres, including COK (Olomouc Region), JIC (South Moravian Region) and MSIC (Moravian-Silesian region), the representatives of those innovation centres claimed that they provide consultation, feedback and valuation for individual businesses who request their support.

---

[30] https://www.msmt.cz/vyzkum-a-vyvoj-2/inter-excellence-ii-2021-2029

[31] https://www.msmt.cz/vyzkum-a-vyvoj-2/7-verejna-soutez-ve-vyzkumu-experimentalnim-vyvoji-a

[32] https://www.msmt.cz/vyzkum-a-vyvoj-2/programme-exceles-komponenta-5-1-narodniho-planu-obnovy

[33] Data published by Czech Statistical Office, published here: https://www.czso.cz/documents/10180/143520710/32019921040en.xlsx/758a8e1a-ddc2-41b3-ab08-7ccb55dbda8b?version=1.3

[34] As mentioned by ICOK from Olomouc, which closely cooperates with The Science and Technology Park of Palacký University Olomouc

[35] https://www.ynovate.cz/en/contact-us

When providing these services, they can also provide general consultation on IP or put the clients in contact with patent attorneys who can assist with professional expert knowledge on IP. None of the respondents claimed that they provide direct financial incentives on IP protection. In the case of MSIC or JIC, they can pay for an individual consultancy on IP to individual business if needed. It usually takes several (1-10) hours with a patent attorney, but they run nothing like grant programmes oriented especially towards IP protection. In each case, the respondents confirmed our hypothesis that there is no need to run any special grant programmes on formal IP protection as there is the programme The Ideas Powered for business at the EU level in place, which covers up to 90 % of the costs of IP formal protection. This turned out to be a more than suitable solution for the businesses. Running an extra programme to cover this remaining 10 % of costs is both economically and administratively inefficient.

In addition to innovation centres, there are also PATLIB IP support centres active in 7 out of 14 Czech Regions, which work either independently as NGO organisations or as branches of local universities and/or public libraries[36] IPO also runs one in the place of its seat, i.e. Prague. They focus on education, information, consultation and similar services. They do not provide any financial incentives programmes for IP protection.

Based on the facts above, the conclusion on mapping on regional or local level in the Czech Republic is that there are no financial incentives for IP protection.

1.2 NATIONAL IP STATISTICS

According to the European Innovation Scoreboard (2022), the Czech Republic is a Moderate Innovator with a performance of 101.6 % of the EU average. This number has been increasing over the last five years. The country's relative strengths include Non-R&D Innovation expenditures and Business Process innovators; on the other hand, patent applications and innovation expenditures per employee are identified as weaknesses.

Table Country performance relative to that of the EU in 2018-2022 in selected areas according to the European Innovation Scoreboard[37]:

Year	2022	2021	2020	2019	2018
0. Summary innovation index	101,6	89,85	89,62	86,65	84,16
2.1.3 Direct and indirect government support of business R&D	83,49	84,73	82,97	73,05	87,14
3.3.1 PCT patent applications (regional)	40,59	44,31	46,45	50,16	52,40
3.3.2 Trademark applications (regional)	94,72	84,04	81,27	78,61	78,64
3.3.3 Design applications (regional)	54,85	50,09	47,08	83,98	80,96

[36] https://upv.gov.cz/informacni-zdroje/instituce/tuzemske

[37] https://ec.europa.eu/research-and-innovation/en/statistics/performance-indicators/european-innovation-scoreboard/eis#

The figures are in % of the whole EU average.

Table General overview of national applications in 2018-2022

Year	2022	2021	2020	2019	2018
PCT patent applications	189	219	156	124	125
Utility model application	1095	1104	1324	1301	1130
Trademark applications	6262	7669	7713	7700	7638
Design applications	158	177	247	247	252

Patents

When it comes to the number of applications, both national and European Patents ("EP"), we have to focus on one trend, which is the decline in patent applications in 2022.

Statistics presented by IPO for the year 2022 show that the number of patent applications from Czech applicants (500) declined by 8% compared to the previous year of 2021 (541). Similarly, the number of patent applications from domestic applicants declined by 13% in 2021 compared to 2020 and decreased in 2020 by 12% compared to 2019 (probably due to the Covid-19 pandemic), and thus reached a level comparable to 2018. On the contrary, the number of patent applications from domestic applicants increased by nearly 13% in 2019 compared to 2018. However, in 2018, the number of patent applications from domestic applicants decreased by nearly 15 % compared to 2017. As a result, only the year 2019 represents an increase in the number of patent applications from domestic applicants, while all other years show a clear tendency to decline.

In 2022, a quarter of applications (26%) were filed by Czech universities and research institutions, which implies a functioning system of the innovation process and appropriate incentives, promotion and management of innovations in these (predominantly public) institutions. That corresponds to the numbers in 2021 (29% filed applications by Czech universities and research institutions).

As for foreign applicants who chose to obtain patent protection in the Czech Republic through EP applications, 4662 patents obtained protection in the Czech Republic in 2022, which shows a sharp decrease of 26% from 2021. In comparison, 6338 patents acquired protection in the Czech Republic in this manner in 2021, which is 9% less than in the previous year, 2020. The overall number of EP granted also saw a 25% decline in 2022. This reflects a continual trend – the overall number of European patents granted declined in 2021. It is interpreted (e.g., by IPO itself) as a tendency to delay the granting of EP in the applicant´s anticipation of the possibility of granting EP with unitary effect. However, it is worth noting that the Czech Republic is still reluctant to ratify the international instrument, allowing accession to a system of European patents with unitary effect.

Regarding the PCT system and applications by Czech applicants for protection abroad, their number also decreased compared to 2021 (219 applications), with 189 of these applications. On the contrary, 2021, the number of applications filed by Czech applicants for protection abroad through the PCT system increased significantly compared to 2020. This is because in 2021, 221 of these applications

were filed with the IPO CZ as a Receiving Office, and there were 156 filings of international PCT applications through the Office in 2020. Still, the number increased to 210, including filings through the mentioned authorities. However, the total number of international PCT applications in 2022 will be increased by the applications filed through the EPO or directly with the International Bureau of WIPO (not known yet, but for comparison, there were 272 applications in 2021), as the IPO predicts.

In total, 352 patents were granted by IPO in 2022, of which 87% come from the Czech Republic. Among these Czech applicants, Universities and higher education institutions obtained a significant portion of patents, i.e. 125 patents in total. Once again, proof of a functioning system of the innovation process in these institutions has to be highlighted.

Utility Models

This traditional domestic form of industrial property protection, which is used very often by Czech applicants, has not indicated as deep a decrease in application numbers as we can see in the patent area. In total, 1095 utility model applications were filed in 2022; that is only app. 1% less than in 2021, when 1104 applications were filed. In 2021, the decline is almost 17% in comparison to 2020 (1324 applications). Being a highly popular form of protection (the less costly “petty patent“), Czech applicants clearly prefer utility models to patent, when 97 % (!) were filed by domestic applicants (similarly 95% in 2021, 96% in 2020, 97% in 2019 and 95% in 2018). In 2022, IPO entered 1038 utility models into the register, compared to 352 patents only, as mentioned above.

Focusing on these numbers, it is absolutely clear that the utility model plays a crucial role in the innovation process of SMEs in the Czech Republic, unlike costly and time-consuming patent protection, which is becoming a “luxurious“ form of protection affordable for big companies only.

IP Scan

When analysing the national IP trends and statistics, it is important to mention the role of the role of IP scan service consultancy for SMEs in the area of effective intellectual property rights management. The service is provided by trained patent attorneys at a cost of EUR 900, of which 90% is covered by a subsidy from the SME fund and governed by the IPO on behalf of the SME Fund. The quality of the service is monitored by the IPO. In 2022, this service was provided to 216 companies in the Czech Republic. A network of around 40 providers has been built from the ranks of patent attorneys and lawyers specialising in intellectual property rights. The functioning of this network and the implementation of the IP scan service are carried out in cooperation with the Chamber of Patent Attorneys.

1.3 BARRIERS AND OPPORTUNITIES

1.3.1 FINANCIAL

The cost of IP Law formal protection is still relatively high, especially for SMEs. Also, the current economic crisis is a reason for companies to postpone or cancel the application process. There are no tax incentives in place which would encourage the right holders to obtain formal protection.

1.3.2 LEGISLATIVE

Generally speaking, the Czech Republic has legal regulations for the protection of industrial property fully harmonized with European and international regulations. Nevertheless, there are so many acts and the terminology so complicated that it is not possible for non-experts on IP to get more than a general overview of the matter.

There are 11 most important acts in the area of industrial property:

- Act No. 14/1993 Coll., on measures for the protection of industrial property,
- Act No. 527/1990 Coll., on inventions and improvement proposals, (governing patents and utility models)
- Act No. 478/1992 Coll., on utility models,
- Act No. 207/2000 Coll., on industrial designs,
- Act No. 441/2003 Coll., on trademarks,
- Act No. 452/2001 Coll., on the protection of designations of origin and geographical indications,
- Act No. 529/ 1991 Coll., on the protection of topographies of semiconductor products,
- Act No. 206/2000 Coll., on the protection of biotechnological inventions,
- Act No. 221/2006 Coll., on enforcement of industrial property rights,
- Act No. 417/2004 Coll., on patent attorneys.

Most of these laws have been amended over time to correspond to the latest legislative status in the EU and the world, implementing the EU directives. Besides the above-mentioned laws, there are several decrees (issued by government or ministries).

A potential solution could be the defragmentation of the Czech law on protection of industrial property (currently split into eleven acts), which would help to reduce the confusion for entrepreneurs or companies. A problem requiring better orientation and understanding can also be the use of easily interchangeable terms (e.g. industrial design and utility model, in Czech “užitný vzor” – usable template – vs.“průmyslový vzor” – industrial template) or legal terms that are semantically not entirely clear, for example (entry/registration), which, however, are based on the Czech legal tradition or part of an administrative decision-making practice and jurisprudence and cannot be easily overcome.

Another recent problem identified by the IPO is the relatively frequent use of a preliminary ruling based on a mere utility model registration. This means, according to Article 74 of the Czech Code of Civil

Procedure[38], that an owner of a utility model can use it to limit the business of its competitors even though there is no (material) examination of the novelty of the utility model.

1.3.3 OTHER

The relatively sharp decrease in patent numbers, but on the other hand, only a slight decrease in utility model applications, as discussed above, has not yet been analysed in detail as a continuous trend. Therefore, one can only speculate about the factors causing such a decrease. Certainly, shortcomings in the technical innovation process could be blamed first. Nevertheless, other factors, such as economic uncertainty, hand in hand with the post-Covid period and negative prospects for many commercial firms, ought to be taken into account. Viewing the problem within the report's context, we tend to believe that these other factors prevail.

[38] § 74 (1) Before the commencement of proceedings the presiding judge may grant interim measures, if necessary, to provisionally adjust ratios of participants, or if it is a concern that enforcement of the judgment has been compromised.
(2) a party petitioner and those who would be if it was the thing itself.
(3) The one competent for a preliminary injunction in a court that is competent to control the
matter, unless the law provides otherwise.

2. SUPPORT SCHEMES, PROGRAMMES AND INCENTIVES WITH FOCUS TO IP PROTECTION

2.1 NATIONAL

Name of a programme	**The Ideas Powered for business SME Fund**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	European Commission together with EUIPO	
Intensity of financing/aid	Minimum	
	Maximum	Up to: 90 % €810 (IP scan) 75 % €1000 (EU or national trademarks and designs) 50 % €1000 on trademarks and designs outside the EU) 75 % €1500 (patents) 50 % €225 (plant varieties)
	Fixed	
Programme budget	€60,1 million in 2023 €47 million in 2021 and 2022	
Supported projects	Expected	N/A
	Factual	2022: 706 on the Czech level 12 743 for the whole EU
IP supported	Voucher 1 – IP scan Voucher 2 – trademarks and designs, Voucher 3 – patents, Voucher 4 – plant varieties	
Institution/entity responsible for support	EUIPO, European Commission Czech IP office (certificating the providers of IP scan)	
Eligible activities	application, examination, granting, publishing, fees	
Formalities	The grant provided in form of vouchers. Application submitted online via EUIPO web. After the voucher for a particular applicant is granted and they wish to receive the money, they must submit a bill containing specified information.	
Status of a programme	Public	X

	Private	
	Public-private partnership	
Beneficiaries	SMEs	X (up to 250 employees, and annual turnover up to EUR 50 million i.e. no foundations, universities etc.)
	Universities/research institutions	
	Other	
Eligibility criteria	VOUCHER 1 or 2 to be activated in 2 months (can be extended in 4 months) and used in 6 months VOUCHER 3 to be activated in 12 months Activation = submitting an application (for IP Scan) for payment for service consumed	
Duration	Recent	(2021-2024) Applications for 2023 submitted since 27th January 2023 till 8th December 2023
	Historical	Started in 2021. In year 2022 established as multiannual fund for 2022-2024.
Conditions for getting support	After the voucher for a particular applicant is granted and they wish to receive the money, they must submit a bill containing specified information.	
Programme impact (e.g. number of applications filed, number of entities supported)	Year 2022: 784 activated vouchers, 706 if them were used (spent). i.e. spent 608 778 EUR, on average per each applicant 862 EUR for Czech Republic only. 12 743 applicants supported in whole EU, while nearly 5% of all SMEs applying for subsidies were from the Czech Republic	
Source of additional information (links)	https://upv.gov.cz/sluzby/cosme-fund https://euipo.europa.eu/ohimportal/en/online-services/sme-fund?mtm_campaign=euipo-PaidAds-SME-Fund&mtm_kwd=google-adwords-CZ-EN&pk_campaign=Paid-AdWordsSearch&pk_kwd=sme%20fund&gclid=Cj0KCQjw3a2iBhCFARIsAD4jQB1z-gc5q5uvk4o635w7KdarmMVLClmn1T9UerlQegGlCyKQYFIOOjYaAsUKEALw_wcB	

Name of a programme	The Country for the Future (4th call)	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Czech Republic	
Intensity of financing/aid	Minimum	
	Maximum	Up to CZK 20 million, no more than 50% of eligible costs.
	Fixed	
Programme budget	CZK 240 million in 2023 CZK 500 million for the entire duration of the projects.	
Supported projects	Expected	N/A
	Factual	65
IP supported (with focus on patents)	All (patents, trademarks and designs, etc.)	
Institution/entity responsible for support	Ministry of Industry and Trade	
Eligible activities	Product innovation, process innovation, organisational innovation, a combination of the previous types of innovation	
Formalities	According to the Act on support for research, experimental development and innovation from public funds (130/2002 Coll.)	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	
	Other	
Eligibility criteria	The eligible projects must meet at least one of the following objectives in the field of digitisation: Systems Integration, Big Data Analytics, Communication Infrastructure, Process Engineering, Robotics, Data Storage and Cloud Computing, Augmented Reality, Cybernetics and Artificial Intelligence.	
Duration	Recent	Applications deadline 5 August 2022, completion of the

		project by 31 December 2025 at the latest
	Historical	Started in 2019 (the first call)
Conditions for getting support	Project proposals are comprehensively evaluated in accordance with the Act on support for research, experimental development and innovation from public funds (130/2002 Coll). Projects will be selected by the Programme Council based on the following criteria: - fulfilment of the objectives of the Programme (the impact of the project results on increasing the applicant's international competitiveness is assessed in accordance with the corporate strategy, especially the use of digitization in industry and services; - benefits of the project (economic benefits, non-economic benefits - universal design, non-economic benefits - energy savings / energy security); - innovativeness (includes an assessment of the novelty of the project outputs for the applicants, and a comparison of the parameters of the innovative product / process / organisational innovation within the Czech Republic and in the world); - technical level and complexity of the proposed solution (a comprehensive assessment of the quality and comprehensibility of the project, the suitability of the proposed methods, the integration of project activities into the innovation process, the quality of risk analysis, etc.).	
Programme impact (e.g. number of applications filed, number of entities supported)	65 projects have been approved; 43 projects have been rejected	
Source of additional information (links)	https://www.mpo.cz/cz/podnikani/podpora-vyzkumu-a-vyvoje/vyhlaseni-ctvrte-verejne-souteze-v-programeu-the-country-for-the-future--268189/	

Name of a programme	**Technological incubation** (1st call)	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Czech Republic	
Intensity of financing/aid	Minimum	

	Maximum	Up to CZK 1.1 million / 4.5 million direct support
	Fixed	CZK 0.5 million indirect support
Programme budget	CZK 98 million	
Supported projects	Expected	38
	Factual	N/A
IP supported (with focus on patents)	All (patents, trademarks and designs, etc.)	
Institution/entity responsible for support	CzechInvest	
Eligible activities	Development of expert skills and knowledge of the startup team Development of the startup and its product or service (development, testing, measurement, etc.) Services related to the incubation of the startup Other activities according to the business plan and incubation plan	
Formalities	According to the Act on support for research, experimental development and innovation from public funds (130/2002 Coll.)	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	
	Other	
Eligibility criteria	- Innovation: the project must be innovative at least at the EU market level. - Scalability: The project must be potentially scalable to the EU/global market in the sector. - Feasibility: The project or project team must have the key skills and knowledge to achieve the goal of incubation and product launch. - The project must have the character of a start-up incubation with its gradual development to an innovative company. - The project must fall under one of the Technology Incubation Sectors: Mobility, AI, Green Technologies and Creative Industries. - The Project must be unique	
Duration	Recent	2021 - 2027
	Historical	-
Conditions for getting support	Project proposals are comprehensively evaluated in accordance with the Act on support for research, experimental development and innovation from public funds (130/2002 Coll).	

	Projects will be selected by the Evaluation committee of the TI programme based on the eligibility criteria described above (i.e. level of innovation, feasibility, scalability, sector relevance).
Programme impact (e.g. number of applications filed, number of entities supported)	38 projects have been approved; 79 projects have been rejected
Source of additional information (links)	https://www.czechinvest.org/cz/Sluzby-pro-startupy/Technologicka-inkubace

Name of a programme	**Operational Programme Technologies and Application for Competitiveness** (Innovation vouchers – protection of industrial property rights – Call I)	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	European Union	
Intensity of financing/aid	Minimum	CZK 50 thousand
	Maximum	CZK 500 thousand
	Fixed	
Programme budget	CZK 50 million	
Supported projects	Expected	N/A
	Factual	N/A
IP supported (with focus on patents)	Publication of patent applications, registration of utility models, registration of industrial designs, registration of trademarks.	
Institution/entity responsible for support	Business and Innovation Agency	
Eligible activities	Services of patent agents	
Formalities	According to the Act on support for research, experimental development and innovation from public funds (130/2002 Coll.)	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X

	Universities/ research institutions	X
	Other	
Eligibility criteria	The applicant must file a patent (utility model / industrial design / trademark) application	
Duration	Recent	Applications deadline 31 December 2023, completion of the project by 31 August 2025 at the latest
	Historical	-
Conditions for getting support	An application shall be made no earlier than submission of an application for an invention, trademark, utility design or industrial design with the competent office (Industrial Property Office of the Czech Republic and other international, regional and national offices for the protection of intellectual property) was made and no later than publication of the application for invention, registration of the utility model, industrial design or trademark took place.	
Programme impact (e.g. number of applications filed, number of entities supported)	No data	
Source of additional information (links)	https://www.agentura-api.org/cs/podporovane-aktivity-optak/inovacni-vouchery-optak/inovacni-vouchery-ochrana-prav-prumysloveho-vlastnictvi-vyzva-i/	

Name of a programme	**Operational Programme Technologies and Application for Competitiveness** (Application – Call I)	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Czech Republic	
Intensity of financing/aid	Minimum	CZK 2 million
	Maximum	CZK 125 million
	Fixed	
Programme budget	CZK 4 billion	
Supported projects	Expected	N/A

	Factual	N/A
IP supported (with focus on patents)	All (patents, trademarks and designs, etc.)	
Institution/entity responsible for support	Business and Innovation Agency	
Eligible activities	The supported outputs of the project are: Proven technology; Utility model; Industrial design; Prototype; Functional sample; Software.	
Formalities	According to the Act on support for research, experimental development and innovation from public funds (130/2002 Coll.)	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	X
	Other	
Eligibility criteria	Implementation of industrial research (planned research or critical investigation aimed at obtaining new knowledge and skills for the development of new or improvement of existing products, processes or services) and experimental development (acquiring, connecting, shaping and using existing scientific, technological, commercial and other relevant knowledge and skills in order to develop new or improved products, processes or services).	
Duration	Recent	Applications deadline 30 November 2022, completion of the project by 31 December 2026 at the latest
	Historical	-
Conditions for getting support	The support will be paid in accordance with the "Rules on co-financing by the European Regional Development Fund, European Social Fund Plus, Cohesion Fund, Equitable Transition Fund, European Maritime, Fisheries and Aquaculture Fund, the Asylum, Migration and Integration Fund, the Internal Security Fund and the Border and Visa Facility for the programming period 2021-2027" and will be reimbursed retroactively upon completion of the project or its phase.	
Programme impact (e.g. number of applications filed, number of entities supported)	No data	
Source of additional information (links)	https://www.agentura-api.org/cs/podporovane-aktivity-optak/aplikace-optak/aplikace-vyzva-i-op-tak/	

Name of a programme	**TREND** (10th call)	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	European Union	
Intensity of financing/aid	Minimum	
	Maximum	CZK 25 million, 70 %
	Fixed	
Programme budget	CZK 1,35 billion	
Supported projects	Expected	18
	Factual	N/A
IP supported (with focus on patents)	Patent, Utility model, Industrial Design	
Institution/entity responsible for support	Technology Agency of the Czech Republic	
Eligible activities	The programme is aimed at the development of R&D (research and development) results and their use for applicants' own business activities (especially for production efficiency, introduction of new products or services): - for enterprises that already have experience in carrying out research and development with their own capacities; - for enterprises that have experience in purchasing R&D services from research organisations, but have not yet developed their own R&D activities	
Formalities	According to the Act on support for research, experimental development and innovation from public funds (130/2002 Coll.)	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	X
	Other	Any enterprise

Eligibility criteria	Only project proposals focusing on application of outputs/results into practice can be supported. Each project proposal must select at least one objective out of the following: - industrial design - utility model - prototype - functional sample - software - semi-operation	
Duration	Recent	Applications deadline 24 May 2023, completion of the project within 12-30 months
	Historical	since 2019
Conditions for getting support	The main applicant must demonstrate a two-year accounting history (minimum two published annual accounts in the commercial register).	
Programme impact (e.g. number of applications filed, number of entities supported)	No data	
Source of additional information (links)	https://www.tacr.cz/soutez/programme-trend/desata-verejna-soutez/	

Name of a programme	**National Centre of Competence** (2nd call)	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Czech Republic	
Intensity of financing/aid	Minimum	
	Maximum	80 %
	Fixed	
Programme budget	CZK 6,2 billion	
Supported projects	Expected	18
	Factual	N/A
IP supported (with focus on patents)	Patent, Utility model, Industrial Design	

Institution/entity responsible for support	Technology Agency of the Czech Republic	
Eligible activities	Each project proposal must consist of one major and one minor research topic from the list below: - Biomedicine - Biotechnology, skilled chemistry and bioeconomy - The Czech Republic in the 21st century (climate change and globalisation) - Transport and Smart City - ICT in the digital era (AI, virtual reality, big data) - Aerospace technology - Modern energy: Optics and optoelectronics; Advanced materials and nanotechnology; Robotics, informatics and cybernetics for Society 4.0; Societal impacts of technological change; Engineering for the 21st century	
Formalities	According to the Act on support for research, experimental development and innovation from public funds (130/2002 Coll.)	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	X
	Other	
Eligibility criteria	The main applicant can only be a research organisation with its registered office, place of business or branch in the Czech Republic, which must cooperate on the project with at least five additional participants – SMEs established in a Member State of the European Union (including the Czech Republic).	
Duration	Recent	Applications deadline 6 April 2022, completion of the project within 48-72 months
	Historical	since 2018
Conditions for getting support	The conditions includes the following: - Relevance, timeliness and necessity of the project in relation to the chosen topic and the objectives of the programme; - Quality of the research team and institutions involved, their technical equipment, extent/measure of cooperation between the participants;	

	- Balance and adequacy of the financial plan; - Applicability and commercial potential of the results, ability to implement the results into practice and the impacts and benefits of project implementation.
Programme impact (e.g. number of applications filed, number of entities supported)	18 projects have been approved; 26 projects have been rejected
Source of additional information (links)	https://www.tacr.cz/soutez/programme-narodni-centra-kompetence/druha-verejna-soutez-6/

Name of a programme	**ZÉTA** (4th call)	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Czech Republic	
Intensity of financing/aid	Minimum	
	Maximum	CZK 10 million, 85 %
	Fixed	
Programme budget	CZK 315 million	
Supported projects	Expected	N/A
	Factual	70
IP supported (with focus on patents)	Patent, Utility model, Industrial Design	
Institution/entity responsible for support	Technology Agency of the Czech Republic	
Eligible activities	Each project proposal must focus to at least one outcome from the list below, including outcomes eligible for IP protection, e.g.: industrial design, utility model, prototype, functional sample, treatment procedure, specialised map with specialised content, software	
Formalities	According to the Act on support for research, experimental development and innovation from public funds (130/2002 Coll.)	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X

	Universities/research institutions	X
	Other	
Eligibility criteria	The research team must consist of at least four members, out of whom are three students/young researchers and one mentor with relevant experience in academic and/or application field. Each project proposal must have at least one guarantor based in the Czech Republic.	
Duration	Recent	-
	Historical	2016 - 2022
Conditions for getting support	Fulfilment of the objectives as well as the substantive focus of the programme consistency with national priorities: - An R&D project and the appropriateness of the methods used - Knowledge of the state of the art - Relevance of the project results - Applicability, contribution of the project and ability to be put into practice - Cost and time effectiveness of the project proposal - Organisational and technical support for the project, risk analysis - Management of the team - Motivational effect of the support	
Programme impact (e.g. number of applications filed, number of entities supported)	70 projects have been approved; 316 projects have been rejected	
Source of additional information (links)	https://www.tacr.cz/soutez/programme-zeta/ctvrta-verejna-soutez-zeta/	

2.2 LOCAL

No particular programmes to financially support IP protection at the municipal level detected.

2.3 INSTITUTIONAL

No particular programmes to financially support IP protection at the municipal level detected.

3. CONCLUSIONS

As a result of mapping more programmes have been identified aiming at promoting innovations, but based on mapping methodology only seven national programmes have been subject to detailed analysis, which are the most relevant to the intentions of this report. Investigators conducted a thorough examination of such programmes, which are devoted not only to the encouragement of invention and innovation but mainly to the formal protection of intellectual property.

Based on the analysed data. it is possible to make certain conclusions, which should be taken as preliminary observations of the situation in the Czech Republic. These include not only using data analysis as a method, but we have also taken advantage of interviews with experts from the IPO, MIT and regional innovation centres, which we have included as an additional source of information. Based on the above, it is possible to draft conclusions, which should serve as a tool for further analysis of the Visegrad countries´ patent incentives and their efficiency.

1. **Financing programme availability**

The mapping is primarily focused on currently ongoing programmes in terms of intellectual property funding. However, in order to get a comprehensive understanding of funding opportunities, the analysis also included certain historical programmes.

2. **Type of financial support**

All identified programmes (or their respective 'calls') consist of non-refundable financial support (subsidies and grants) provided based on the Act on support for research, experimental development and innovation from public funds (Act no. 130/2002 Coll.). Aside from the Technological Incubation programme by the CzechInvest agency (see below), all grants are in the form of direct support.

3. **Types of industrial property rights covered by the financing**

The financial support offered by the majority of the identified programmes is not limited to a specific category of industrial property rights; instead, it typically encompasses various forms of intellectual property rights. These programmes aim to provide assistance and funding for a wide range of rights, including but not limited to patents, utility models, industrial designs and trademarks. By adopting such an inclusive approach, these programmes strive to support innovation and the protection of different types of intellectual property, recognising the value and significance of diverse forms of industrial property rights.

4. **Outreach of programmes/assistance**

The mapping identified only national programmes, revealing the absence of any regional, local or internal programmes within the scope of the analysis. By narrowing the investigation to national programmes, the study aimed to provide a comprehensive understanding of the funding landscape specifically related to financial incentives as a tool for improving the innovation ecosystem and enhancing IP protection within the country.

5. Sources of programme funding

The source of funding is in all cases either the state budget or European Union funds (or joint co-financing).

6. Funding entities/managers of support programmes

Most of the programmes are of a combined nature, which means that they support the inventive process and the formal protection of its results. Only the programme administered by EUIPO, ***SME Fund***, which is eligible only for SMEs, is intended purely for obtaining the formal protection provided in the form of vouchers. In 2022, there were 706 supported projects in the Czech Republic. As confirmed with experts from several regional innovation centres, who work more closely with SMEs on a day-to-day basis, this programme is a suitable solution for most IP subjects and encourages their IP protection on a formal level.

The second most relevant programme regarding formal protection incentives is the **Operational Programme Technologies and Application for Competitiveness, Innovation vouchers – protection of industrial property rights- Call *I***, financed by the European Union. The eligible activities are services of the patent agents, and the supported IP subjects are patents, utility models, industrial designs and trademarks. Beneficiaries are both SMEs and Universities.

Another programme intended for SMEs worth of highlighting is entitled **The country for the future.** This project is not directly focused on obtaining formal IP protection, but the eligible activities are product innovation, process innovation, organisational innovation and a combination of previous types of innovations. The source of financing is the Czech state, and the form of the support is a non-refundable grant.

Very popular with startups is a programme named **Technological Incubation**, financed by the Czech state and organised by the MIT agency CzechInvest. The form of the respective support is a non-refundable grant. As eligible activities are the development of expert skills and knowledge of startup teams and services related to incubation startups, the formal protection and its financing might also be part of the respective eligible activities. Aside from direct support, successful applicants (technology startups) will receive indirect support in the form of workshops, seminars, assistance from incubation managers and consultations with business and technology experts for up to 2 years.

A programme which is intended not only for SMEs but for all types of enterprises, including universities, is called **TREND** (10th call). The source of financing is the European Union, and the form of support is a non-refundable grant. The programme is aimed at research and development results and its use for applicants´ own business activities. Each project proposal must select at least one objective out of the following: industrial design, utility model, prototype, functional sample, and software.

One programme with a substantial budget – 6,2 billion CZK - is called **the National Centre of Competence** and is intended for SMEs, Universities and research institutions and is governed by the Technology Agency of the Czech Republic (TAČR). The programme deals with projects based on cooperation between the European Union research organisations, as the applicant (a research organisation with its registered office, place of business or branch in the Czech Republic) is obliged to

cooperate with at least five additional participants – SMEs established in a member state of the European Union.

7. Beneficiaries

From the above, it is obvious that most of the projects consist of indirect financial incentives supporting obtaining IP formal protection; only two of them are directly focused on financing registration and patent obtaining procedure. Most of the projects are intended for SMEs, only a few others for universities and research institutions. Only one of the described projects is intended for all kinds of enterprises. Some of the projects also requested co-operation between European Union based researchers, one of which is limited by the participance of students. It is obvious that the Czech Republic does have a whole spectrum of different kinds of supportive programmes, which should be able to serve as supportive tool for obtaining formal protection in different business situations and for different legal entities.

8. Identified problems and challenges

The mapping confirms that there is no central point (state authority based), which might serve as a one-stop shop source of information about funding for potential applicants (e.g. inventors), except for private businesses oriented on gaining subsidies for their clients. Decentralization of the government administration is related to the decentralization of the grant system. The advantage of such an approach is the accessibility of sources on several levels, though as a side effect, it also might cause a lack of transparency.

The Czech Republic Supreme Audit Office has issued its annual report[39], where the effectiveness of the incentives targeted to inventions is also evaluated. Some concerns have been expressed regarding the actual economic results of the incentive programmes. In the years 2016-2022 the MIT and TAČR invested 10 mil CZK in the inventive processes, but the economic results have not been achieved in most of the followed cases. The planned incomes have been reached in only 10% of the followed cases, and the Czech Republic Supreme Audit Office concluded that the effectiveness of these programmes is rather low and suggested some important changes, which should lead to investment in projects with more predictable profit in general.

Therefore, we would like to stress the strong need for a public awareness campaign, which should be targeted at several socio-economic groups including, university students, junior managers, junior state employees, etc. It should lead to the appreciation and basic understanding of the patent system, its importance and the role of industrial property in general. The level of public awareness regarding intellectual property and its importance for modern society in the Czech Republic is still rather low.

Innovation is a crucial part of society's development, and patents should serve as a reward for human inventiveness. An effective patent system as such must provide incentives for innovation and safeguard dynamic competition, which is crucial for effective technological development. From that perspective, also the examination covered also the legal system related to patent protection and we realized that the Czech national law is fully harmonized with the EU industrial property legal framework. Nevertheless, some improvement should be made at the level of international treaties,

[39] https://www.nku.cz/assets/publikace-a-dokumenty/vyrocni-zprava/vyrocni-zprava-nku-2022.pdf, p.50

namely the Czech Republic's accession to international treaties, such as the Hague Agreement on the International Registration of Industrial Designs or the ratification of the Patent Law Treaty (PLT) and its implementation into Czech legislation. PLT is an international treaty that the Czech Republic signed in 2000 but has not yet ratified. PLT provides applicants with a so-called safety net in case of defects in the application and submission, which would otherwise prevent the continuation of proceedings. The provisions of the PLT have already been implemented in the European Patent Convention, the Patent Cooperation Treaty and the national regulations of a number of countries. The implementation of PLT into Czech patent legislation would thus enable Czech applicants to correct certain filing defects in national and international patent applications and thus continue their patent proceedings.

9. Impact of programmes on the number of applications

In general, our observations about the incentives aimed at patent protection are quite optimistic, as it is evident that there is a system in place which is at least partly convenient. As the interviews performed during the research confirm, the main obstacles for SMEs in the grant applications are formal requirements and administration, which is too complicated and sometimes even labelled as confusing. The application procedure should be made more accessible for really small entities, which should be able to apply by themselves without the need to hire an expert to prepare the grant application on their behalf. A good example here might be the patent voucher system, which has been evaluated as the most accessible and the most convenient to SMEs.

On the other hand, our other concern in connection with projects that are supposed to support the innovation processes themselves is the low economic impact because inventions funded via those projects have rather low patentability.

4. RECOMMENDATIONS

Based on the national mapping of financing schemes and programmers, the following recommendations can be proposed for further consideration:

1. Tax benefits

Several European Union countries provide tax benefits for businesses protecting their intellectual property. The Czech Republic is not one of them, and this should be reconsidered, as tax benefits might be an important and persuasive tool for formal protection. For example, Ireland has one of the most favourable tax regimes for intellectual property in the EU. It has a 12.5% corporate tax rate and a knowledge development box (KDB) regime that provides a 6.25% tax rate for income derived from qualified patents[40].

[40] https://www.revenue.ie/en/companies

2. **Priority for financing projects generating results with potential patentability**

As there is no confirmed direct link between financing support and an increase in national patent applications, policymakers and financing institutions should make a priority of introducing programmes that would generate outcomes with potential patentability as one of the prerequisites of the programme.

3. **Simplicity of regulatory IP framework**

To promote the national IP system as more popular and user-friendly, it should be redesigned in order to become more structured and easy to navigate.

5. BIBLIOGRAPHY AND USEFUL LINKS

https://www.msmt.cz/vyzkum-a-vyvoj-2/inter-excellence-ii-2021-2029

https://www.msmt.cz/vyzkum-a-vyvoj-2/7-verejna-soutez-ve-vyzkumu-experimentalnim-vyvoji-a

https://www.msmt.cz/vyzkum-a-vyvoj-2/programme-exceles-komponenta-5-1-narodniho-planu-obnovy

https://www.czso.cz/documents/10180/143520710/32019921040en.xlsx/758a8e1a-ddc2-41b3-ab08-7ccb55dbda8b?version=1.3

https://www.ynovate.cz/en/contact-us

http://transfer.vtpup.cz/

https://www.inovaceok.cz/

https://www.jic.cz/en/

https://ms-ic.cz/

https://upv.gov.cz/sluzby/cosme-fund

https://upv.gov.cz/informacni-zdroje/publikace/vyrocni-zprava

https://upv.gov.cz/informacni-zdroje/instituce/tuzemske

https://ec.europa.eu/research-and-innovation/en/statistics/performance-indicators/european-innovation-scoreboard/eis#

https://euipo.europa.eu/ohimportal/en/home

https://www.mpo.cz/

https://www.czechinvest.org/

https://www.agentura-api.org/cs/

https://www.tacr.cz/

https://www.nku.cz/assets/publikace-a-dokumenty/vyrocni-zprava/vyrocni-zprava-nku-2022.pdf

NATIONAL REPORT – HUNGARY

University of Debrecen

1. OVERALL DESCRIPTION OF THE NATIONAL INNOVATION ECOSYSTEM

Hungary's current Research, Development and Innovation Strategy (2021-2030) (RDI Strategy) was adopted by the Government Decision 1456/2021 of 13 July 2021. The RDI Strategy was jointly prepared by the Ministry of Innovation and Technology and the National Research, Development and Innovation Office (NRDI Office) and it provides a background of the Hungarian RDI system while also defining its vision, missions, and underlying target system. Various key dimensions of domestic innovation performance, such as innovators, funding, tax incentives, human resources, intellectual property, and attractive research systems, are identified in the document. The policy document also provides responses to the "Peer Review of the Hungarian Research and Innovation System", a Horizon 2020 Policy Support Facility paper written by an independent panel of experts and national peers.

The RDI strategy sets out three main overarching objectives for domestic innovation policy:

- making more use than at present of the research results of public research institutions (research institutes and higher education institutions);
- improving the innovation performance of domestic SMEs;
- strengthening cooperation between actors in the R&D and innovation system.

The objectives of the RDI strategy are structured around three main pillars, as outlined above:

- strengthening **knowledge production** by expanding and modernizing the capacity of the RDI institutional system and ensuring a supply of researchers;
- enhancing **knowledge exchange** by encouraging more effective cooperation between actors in the RDI ecosystem, increasing interoperability between sectors and expanding opportunities for knowledge transfer;
- making more effective **use of knowledge** by boosting innovation in enterprises.

Increasing the efficiency of knowledge production, knowledge flows and knowledge use is the basis of the RDI Strategy, but to achieve its vision, it is also necessary to move forward on horizontal issues that have a major impact on the functioning of the innovation ecosystem. However, RDI actors have limited influence, so government intervention is essential.

Horizontal objectives of the RDI strategy:

- Openness and receptiveness to innovation, stimulation of creative thinking and value creation
- Establishment of an RDI-supporting regulatory framework and business environment
- Strengthening regional, social and economic cohesion through an RDI toolkit
- Creation of a funding system that promotes stability and incentive
- Stimulation of challenge and demand-driven RDI
- Ensuring gender equality in the RDI system

In parallel with the development of the RDI strategy, Hungary also prepared the 2021-2027 National Strategy for Smart Specialisation (S3). While the RDI strategy defines the horizontal objectives and RDI-

specific areas of intervention necessary for the development of the innovation ecosystem, S3 builds on the pillars of the strategic objectives of the three areas, and sets priorities with high development potential, where the concentration of resources can contribute to increasing the competitiveness of the economy. The RDI strategy is also in harmony with several other important domestic strategic documents, such as the prior RDI strategy of Hungary (2013-2020), the National Development and Territorial Development Concept, the Irinyi Plan (The Directions of Innovative Industrial Development in Hungary), the National Digitization Strategy and the strategy for the development of the higher-educational sector entitled ”Gear shift in higher education. Directions in the improvement of performance-based higher education“.

In recent years, starting in 2016, the gross domestic expenditure on R&D (GERD) as a percentage of GDP has grown dynamically. For example, Hungary spent 1.65 % of GDP on R&D in 2021. Detailed data confirms the following distribution of funds:

- 75% of the more than HUF 900 billion spent on R&D is spent in the business sector
- Public funding of R&D in 2021 amounted to HUF 318 billion, of which 36% went to businesses and 64% to research centres and universities
- Of total R&D expenditure, 58% is spent on experimental development, 19% on applied research and 23% on basic research
- R&D in the business enterprise sector: 60% of total business R&D expenditure is carried out in enterprises with more than 500 employees.

In June 2023 the Ministry of Culture and Innovation published a new strategic programme for science and innovation, established by the Ministry of Culture and Innovation. The John von Neumann Programme[41] focuses on strengthening the knowledge economy through the development of existing institutions and the implementation of new initiatives. The objective of the Programme is that Hungary will be in the world's top 10 innovators by 2040 (and in the top 25 by 2030) based on the European benchmark (European Innovation Scoreboard, EIS); Hungary is to move from 21st place today to 10th place in 2030. Nine groups of measures have been established in the Programme to achieve the above objectives.

In order to further strengthen innovation outcomes, the NRDI Office as a funding office needs to be complemented by a service agency that actively and continuously engages the innovation ecosystem. The aim of the establishment of this National Innovation Agency (NIA) is to create a key catalytic and flexible organisation in the national innovation ecosystem, capable of accompanying and supporting innovative ideas from their conception to their commercialisation.

The Programme notes that, in terms of international patenting activity, Hungary lags significantly behind the EU's leading countries in an EU comparison. Still its performance is above average compared to the countries of the Central and Eastern European region. Regarding the number of trademark and design applications, Hungary lags significantly behind internationally as well.

In order to strengthen industrial property protection activity, differentiated fee reductions will be introduced for certain forms of industrial property protection: while in general, patent and other

[41] https://nkfih.gov.hu/hivatalrol/hivatal-hirei/neumannjanosprogramme

application and maintenance fees will not be reduced, four priority target groups, including individuals (individual inventors), SMEs, higher education institutions, research institutions] will benefit from a 75 % fee reduction. In addition, the amendment includes a 15% fee reduction for electronic filings, which is intended to shift IP administration towards electronic filing as much as possible.

1.1 LEADING STAKEHOLDERS AND NATIONAL PLAYERS AND THEIR ROLES

1.1.1 Governmental organisations and funds

In Hungary, the Act LXXVI of 2014 on Scientific Research, Development and Innovations (SRDI Act) established detailed legislative and financing conditions to ascertain the autonomy of scientific research as set out in the Fundamental Law, a knowledge-based society to ensure the competitiveness and productive capacity of the Hungarian economy and society, as well as growth based on development and innovation in the interest of sustainable social and economic development and for the purpose of job creation. Detailed purposes of the Act are:

- setting up a solid institutional background for government coordination and a predictable financial environment for research, development and innovation in Hungary, designed to ensure the efficient and transparent use of available resources,
- establishing an institutional framework for the professional support of fundamental (exploratory) scientific research,
- supporting industrial research and experimental development projects relying on the results of fundamental research so as to lay down the foundation for further development and innovation processes,
- supporting the creation and utilization of research, development and innovation results with a view to promoting the sustainable development of the Hungarian economy,
- promoting the growth of the competitiveness of enterprises based on research, development and innovation,
- encouraging the creation of jobs performing very high value-added tasks,
- promoting the improvement of the professional skills of those employed in research and development and innovation and increasing their social recognition,
- contributing to the deployment of advanced technologies required for the country's defence and security capabilities, and
- contributing to the formation of an economy based on knowledge and innovation and thus to the initiation and maintenance of intelligent growth.

The Act defines government responsibilities relating to research, development and innovation, while it also gives detailed provisions for the National Research, Development and Innovation Fund (NRDI Fund), for public funded support relating to research, development and innovation, for the assessment of research and development activity and for the Eötvös Loránd Research Network.

The Government

According to the SRDI Act, the Government performs the tasks related to the support of research, development and innovation through public funding via the Minister responsible for the coordination of government policy for science.

Ministry of Culture and Innovation

The Ministry of Culture and Innovation was established in 2022 and it took over the strategic management of RDI from the former Ministry for Innovation and Technology. Parts of the governmental RDI strategic management are policy-related and inter-ministerial coordination, monitoring of strategy implementation, monitoring the competitive environment in relation to science and technology, innovative entrepreneurship and RDI-policy, as well as monitoring trends in public sector innovation.

National Science Policy Council

The National Science Policy Council (NTT) is an advisory body involved in the administrative supervision of the operation of the NRDI Fund and supporting the Government's research, development and innovation activities. The NTT consists of 12 members. and it is chaired by the Minister of Culture and Innovation.

National Research, Development and Innovation Fund (NRDI Fund)

The NRDI Fund, managed by the NRDI Office, is a separate public fund under the Public Finance Act that provides public support for research, development and innovation from domestic sources and is used exclusively for this purpose. The innovation contribution paid by businesses and the complementary contribution from the central budget provides a significant part of the NRDI Fund's resources. According to the RDI Act, the annual detailed programme strategy of the NRDI Fund, including both incentive and support programmes, is approved by the Minister of Science and Technology after consulting the National Science Policy Council.

In 2020, the NRDI Fund was split into two parts: the Research Sub-fund finances socially useful research projects, programmes to support excellence in higher education, research institutions and individual researchers. The Innovation Sub-fund supports business innovation and market-oriented R&D activities, partly carried out in business-academia cooperation, through programmes with an investor approach.

As of 2022, the NRDI Fund consists of the following three Sub-funds:

1) the Research Sub-fund responsible for financing socially useful research projects, programmes to support excellence in higher education, research institutions and individual researchers
2) the Innovation Sub-fund that supports entrepreneurial innovation and market-oriented research and development activities, partly carried out in business-academia partnerships, through programmes with an investor-driven approach
3) the new National Laboratories Sub-fund that supports the operation of a national network of laboratories, with a focus on applied research.

National Research, Development and Innovation Office (NRDI Office)

The establishment of the National Research, Development and Innovation Office (NRDI) on 1 January 2015 was a major step in developing the current RDI system. The NRDI Office of Hungary is a national strategic and funding agency for scientific research, development and innovation. The Office is responsible – among others – for the fulfilment of decision-preparation tasks related to the Hungarian RDI strategy, participation in the implementation of decisions and management of the NRDI Fund.

According to the above-referred John von Neumann Programme, the NRDI Office as a funding agency should be complemented by a service agency in order to further strengthen innovation outcomes. The purpose of establishing this National Innovation Agency is to create a key catalyst in the domestic innovation ecosystem, actively addressing and supporting innovative ideas from their conception to their commercialisation.

Hungarian Intellectual Property Office

The Hungarian Intellectual Property Office (HIPO) is the central government office responsible for the protection of intellectual property, established in 1896 (more information in a section related to national statistics).

1.1.2 Universities and research institutions

Hungarian Academy of Sciences

The Hungarian Academy of Sciences is a public body working as a legal personality on the principle of self-government, performing nationwide public duties related to the cultivation, promotion and representation of science.

Eötvös Loránd Research Network

The Eötvös Loránd Research Network (ELKH) Secretariat is an independent public budgetary institution. It It was established by the Hungarian Parliament, effective August 1, 2019, with the aim of managing and operating the publicly funded independent research network in Hungary, which constitutes a central pillar of the country's scientific domain. ELKH is led by a 13-member independent Governing Board whose President and most members are academicians, including a member of the Hungarian Academy of Sciences.

The ELKH research network currently comprises 11 research centres, 7 research institutes, and 116 additional supported research groups operating at universities and other public institutions. Its mission is to support technology transfer, promote collaboration between domestic and international research groups and the development and innovation ecosystem[42].

Bay Zoltán National Applied Research Network

The Bay Zoltán National Applied Research Network started its operations on September 20 2021, with the signing of the founding charter. Its founding member is the Bay Zoltán Applied Research Non-Profit Ltd., on the basis of which the Network Centre was established. The Network aims to support Hungarian companies with industrial applied research solutions and services through the coordination of the R&D activities of its member and partner institutions and the efficient use of available resources, to strengthen the Hungarian RDI ecosystem and to contribute to the higher added value production of Hungarian SMEs in the long term.

[42] Source, https://elkh.org/en

Universities (Science and Innovation Parks, Regional Innovation Platforms)

As of May 2023, in Hungary, there are 5 public universities, 24 non-public universities and 11 non-public universities of applied sciences. It has been a priority of the Government to transfer the maintenance rights of higher education institutions to public trust foundations. This transformation has greatly increased the flexibility of higher education institutions, as they are able to carry out their activities without the legal constraints of public finance, which often makes the operation of budgetary organisations difficult. This facilitates cooperation with market players in many respects, both in the area of university procurement and in the area of research, development and innovation. Higher education institutions can respond to the needs of industry by making better use of the available infrastructure to develop their research activities, launch joint projects and ventures with innovative companies, and ensure more efficient exploitation of research results.

The foundations that run the higher education institutions ensure a high level of public service in private law, while long-term framework agreements with the state guarantee predictable funding. This system allows for the establishment of objectively measurable and accountable qualitative and quantitative performance expectations for higher education institutions, as opposed to the previous baseline-based state funding.

Currently, most of the leading research universities are in the process of establishing their own science and innovation parks through governmental support. The Science and Innovation Park network aims to create an innovation ecosystem and central support system in Hungary's academic, industrial and technological centres that fosters an idea-to-product service environment. Among them, the University of Debrecen was a pioneer in this field, as it has had its own a science and innovation park since 2001 and new units are being continuously built on their site. 14 Science and Innovation Parks have been prepared in the country, linked to 11 institutions.

University Technology and Knowledge Transfer Forum

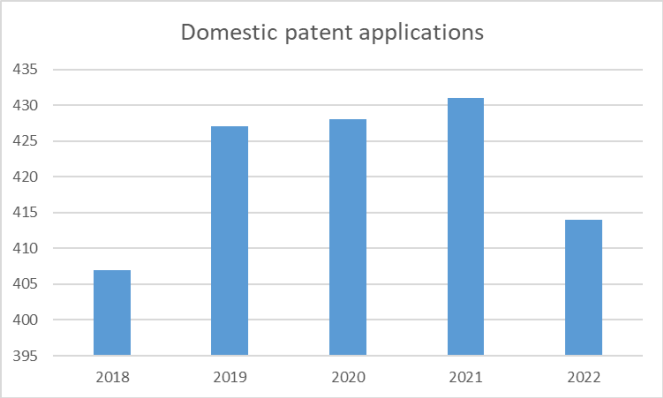
Established in 2018 the University Technology and Knowledge Transfer Forum consists of representatives of the technology and knowledge transfer offices (TTOs) of the Hungarian universities.

The mission of the Forum is to shape the approach and mindset of knowledge transfer at Hungarian higher education institutions, to share the knowledge base and disseminate information available in the field, to develop common methodological elements and tools, to exploit the benefits of cooperation, to provide a professional background for the realisation of development goals, and through these to continuously improve the culture and conditions of intellectual property management and exploitation in Hungary, while also raising awareness of the need for it.

1.2 NATIONAL IP STATISTICS

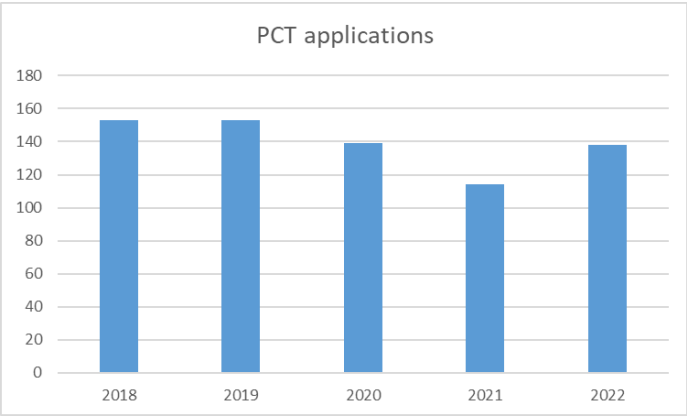
The Hungarian Intellectual Property Office is the central government office responsible for the protection of intellectual property of the economy, as well as of science and culture. Its activities cover the areas of industrial property protection and copyright. HIPO is directed by the government and its supervision is exercised by the Minister for Culture and Innovation. The HIPO covers its operational costs from its own revenues; it manages its revenues independently, and uses them to ensure its operations. Further tasks of the HIPO include – among others – central governmental information and documentation activities in the field of intellectual property; participating in the preparation of laws on the protection of intellectual property; IP education and awareness raising; international IP diplomacy, and providing IP information services.

Graph **Number of domestic patent applications by Hungarian residents (2018-2022)**



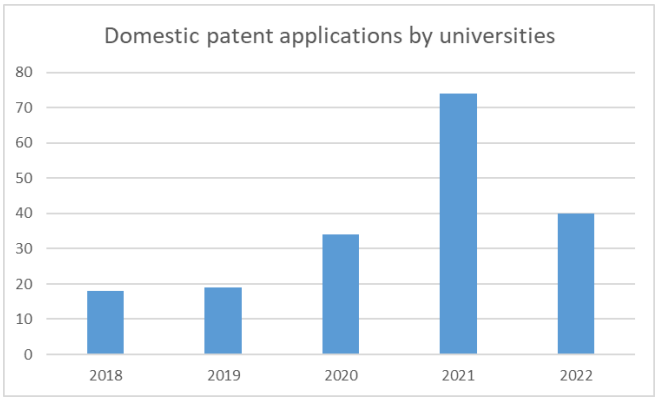
Source: *Hungarian Intellectual Property Office*

Graph **Number of PCT applications by Hungarian residents (2018-2022)**



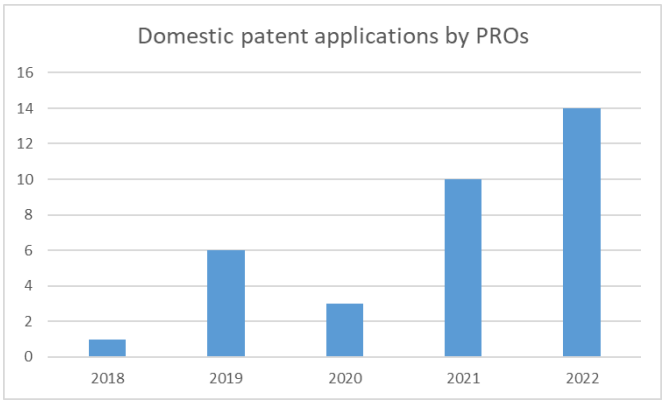
Source: World Intellectual Property Organisation

Graph Number of domestic patent applications by Hungarian universities (2018-2022)



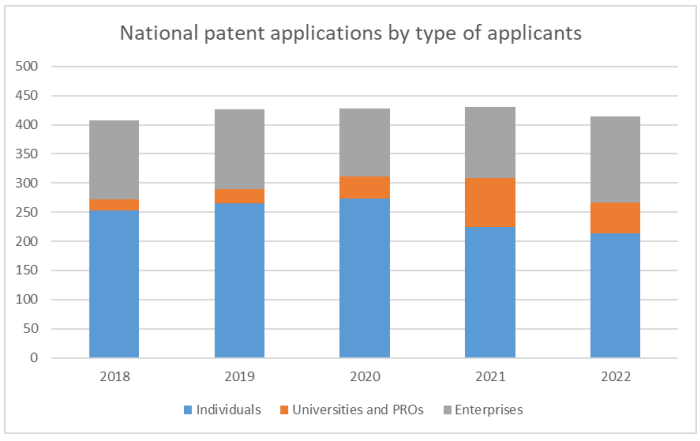
Source: *Hungarian Intellectual Property Office*

Graph Number of domestic patent applications by Hungarian public research organisations (excluding universities) (2018-2022)



Source: *Hungarian Intellectual Property Office*

Graph Breakdown of domestic patent applications by type of applicants



Source: Hungarian Intellectual Property Office

1.3 BARRIERS AND OPPORTUNITIES

1.3.1 FINANCIAL

The costs of obtaining IP protection (especially patent protection and covering areas other than the domestic market) might seem to be too high for certain applicant groups (e.g., for individuals and SMEs) and discourage SMEs from applying for patent protection. Only a small part of the costs of obtaining domestic patent protection is accounted for by official fees, while the larger part is accounted for by patent attorneys' costs.

The industrial property offices have the possibility to "cross-subsidise" the costs of the patent granting procedure from the renewal fees in order to keep the administrative costs of the patent procedure low. However, the applicant or patent proprietor must also bear the costs of hiring professional representatives (patent attorneys) to assist in patent procedures and the costs of translations that may be required in the course of patent procedures in other countries. Obtaining international protection and maintaining patent protection can be a considerable financial burden for the applicants.

1.3.2 LEGISLATIVE

The Government is constantly striving to ensure that industrial property legislation complies with the needs of the stakeholders. The amendment of the SRDI Act, which entered into force on 1 January 2019, contributed to laying the foundations for a new domestic R&D and innovation strategy and innovation ecosystem. The amendment restored universities as the owners of their intellectual property, allowing them to decide whether to protect, transfer or otherwise exploit an intellectual property in accordance with their IP management policies. At the same time, the amendment clarified the legal definition of 'exploiting undertakings' (spin-off company) to ensure that universities are able to set up and participate in such undertakings when this is the most appropriate way of exploiting intellectual property. The new rules give universities a direct interest in exploitation, thus increasing the willingness to exploit R&D results, inventions and other intellectual property created by domestic universities.

According to the regulations in force, the individual inventors receive a 75% discount on procedural fees and a 50% discount on maintenance and renewal fees for a patent, utility model and plant variety applications and registered rights. It results in the fact that a significant proportion of SMEs inventors - who are also the owners of their businesses - file the inventions they have developed themselves as individual applicants, not as a company, and finally, the intellectual property rights do not appear in the value of the enterprise.

A fee system that only favours individual applicants is not common in Europe. Existing fee rebates in Europe (e.g. for translation fee compensation for the European patent with unitary effect) favour individual inventors, SMEs and universities/research institutes together. As of 1 January 2024, individuals (individual inventors), SMEs, higher education institutions, and research institutions will benefit from a 75% fee reduction for patent applications and 50% for patent renewal. In addition, the amendment includes a 15% fee reduction for electronic filings, which is intended to shift as much IP administration as possible to electronic filing.

1.3.3 OTHER

Several factors influence the development of IP activity of the Hungarian stakeholders, such as the structural, cyclical and ownership conditions of the economy and their changes, the intensity of domestic R&D and innovation activity, the regulatory environment, the functioning of the funding system supporting the acquisition of domestic and international IP protection, its continuity and, last but not least, the level of IP awareness. The lack of proper knowledge on the benefits of intellectual property protection and the operation patent filing procedure is one the main barriers to the more effective use of this system.

IP filing activity is also affected by the availability of patent attorney services. In Hungary, with the exception of a few large pharmaceutical companies, enterprises do not employ in-house patent agents. Since patent attorneys' offices are almost exclusively located in Budapest, virtually no such services are available outside the metropolitan area. The profession of patent attorney is not attractive to young people with technical qualifications due to the long training period and the increasingly centralised patent system in Europe. In addition to the ageing of the patent attorney profession, this also means that the number of patent attorneys is decreasing, leading to an increase in service fees, which, in turn, is already a financial constraint for potential patent applicants.

2. SUPPORT SCHEMES, PROGRAMMES AND INCENIVES WITH FOCUS TO IP PROTECTION

2.1 NATIONAL

Name of a programme	**Stimulating business research, development and innovation (GINOP PLUSZ-2.1.1-21)**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	co-financed by the EU Regional Development Fund	
Intensity of financing/aid	Minimum 20 %	
	Maximum 80 %	
	Fixed	
Programme budget	HUF 136 670 000 000	
Supported projects	Expected	130-270
	Factual	262
IP supported	Cost related to obtaining industrial property protection	
Institution/entity responsible for support	Deputy State Secretariat for the Implementation of Economic Development Programmes (Prime Minister's Office)	
Eligible activities	Experimental development Industrial research Procurement of fixed assets Research and development project support activities (hardware and software procurement, software subscription services, project preparation, project management, mandatory publicity, obtaining industrial property protection, overheads and marketing)	
Formalities	Submission via: https://eptk.fair.gov.hu/ Applicants for funding must have a pre-qualifying opinion from a government research, development and innovation policy aspect of the NRDI Office.	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X

	Universities/ research institutions	X
	Other	large companies
Eligibility criteria	Eligible applicants: micro-, small and medium-sized enterprises and large companies, research centres, research & knowledge-dissemination organisations.	
Duration	Recent (2021-20…)	X
	Historical	
Conditions for getting support	Funds available per project HUF 50.000.000 – 1.000.000.000	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://www.palyazat.gov.hu/ginop-plusz-211-21	

Name of a programme	**Support of activities fostering the domestic and international protection of intellectual property to facilitate industrial utilization (2020-1.1.3-IPARJOG)**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	National Research, Development and Innovation Fund (NRDI Fund)	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	100 %
Programme budget	HUF 260 000 000	
Supported projects	Expected	50-200
	Factual	
IP supported	Patents, trademark, designs	
Institution/entity responsible for support	NRDI Office	
Eligible activities	- Application for Hungarian patent, utility model or plant variety protection	

	- Application according to the Patent Cooperation Treaty (PCT) - Commencing national/regional procedures under the Patent Cooperation Treaty (PCT) - Validation of European patents - Application for domestic trademark registration - Application for EU trademark registration - Application for international trademark registration - Application for domestic design registration - Application for Community design registration	
Formalities	Submisson via: https://eptk.fair.gov.hu/	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	X
	Other	Large enterprises (non-research type), Non-profit research organisation,
Eligibility criteria	In connection with a foreign application only those applications can be eligible where the applicant have claimed the priority of a patent, plant variety right, utility model or design application filed with the Hungarian Intellectual Property Office, further, who claim the grant for the maintenance or renewal of a foreign protection based on priority of an application filed with the Hungarian Office.	
Duration	Recent (2021-20…)	
	Historical	May 2020 – December 2021
Conditions for getting support	Maximum funding per application: HUF 100,000 to HUF 7,500,000 depending on the activity.	
Programme impact (e.g. number of applications filed, number of entities supported)	Number of submitted applications: 128	
Source of additional information (links)	https://nkfih.gov.hu/english/nrdi-fund/fostering-domestic-international-protection-of-intellectual-property-2020-113-iparjog/call-for-application	

Name of a programme	**Support of activities fostering the domestic and international protection of intellectual property to facilitate industrial utilization (2021-1.1.1-IPARJOG)**	
Form of the support	Financial	
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	National Research, Development and Innovation Fund (NRDI Fund)	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	100 %
Programme budget	HUF 40 000 000	
Supported projects	Expected	6-30
	Factual	16
IP supported	Patents, trademark, designs	
Institution/entity responsible for support	NRDI Office	
Eligible activities	- Application for Hungarian patent, utility model or plant variety protection - Application according to the Patent Cooperation Treaty (PCT) - Commencing national/regional procedures under the Patent Cooperation Treaty (PCT) - Validation of European patents - Application for domestic trademark registration - Application for EU trademark registration - Application for international trademark registration - Application for domestic design registration - Application for Community design registration	
Formalities	Submisson via: https://eptk.fair.gov.hu/	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	
	Universities/ research institutions	
	Other	Private persons

Eligibility criteria	In connection with a foreign application only those applications can be eligible where the applicant have claimed the priority of a patent, plant variety right, utility model or design application filed with the Hungarian Intellectual Property Office, further, who claim the grant for the maintenance or renewal of a foreign protection based on priority of an application filed with the Hungarian Office.	
Duration	Recent (2021-20…)	June 2020 –
	Historical	
Conditions for getting support	Maximum funding per application: HUF 100,000 to HUF 7,500,000 depending on the activity.	
Programme impact (e.g. number of applications filed, number of entities supported)	Number of submitted applications: 26	
Source of additional information (links)	https://nkfih.gov.hu/english/nrdi-fund/fostering-domestic-international-protection-of-intellectual-property-2021-111-iparjog/call-for-application	

Name of a programme	**University Innovation Ecosystem (2019-1.2.1-EGYETEMI ÖKO)**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	National Research, Development and Innovation Fund (NRDI Fund)	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	100 %
Programme budget	HUF 4 000 000 000	
Supported projects	Expected	12-24
	Factual	24
IP supported	All form of industrial property (fees of applications and in proceedings for the maintenance of protection or in enforcement proceedings, including any opposition, revocation or invalidity proceedings) in respect of national and international proceedings.	
Institution/entity responsible for support	NRDI Office	

Eligible activities	▪ Establishment of a central unit responsible for technology and knowledge transfer ▪ Assessing and reviewing RDI capacities and developing a competence management system to exploit them ▪ Developing a local knowledge management database ▪ Updating the institutional IPR management policy ▪ Preparation of a business and operational model for the selected activities ▪ Establishment of an institutional fund for the protection of intellectual property for the duration of the project ▪ Organisation of training courses for university citizens in innovation and research management ▪ Supporting student innovation: organising and rewarding hackathons, innovation and start-up competitions ▪ Establishment and operation of a Proof of Concept (PoC) Fund	
Formalities	Submission via: https://eptk.fair.gov.hu/	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	
	Universities/ research institutions	X
	Other	
Eligibility criteria	state universities and universities maintained by a legal person established by the Hungarian State	
Duration	Recent (2021-20…)	
	Historical	As from 2019 (duration 48 months)
Conditions for getting support	Funding per application: HUF 30,000,000 to HUF 300,000,000 depending on the activity.	
Programme impact (e.g. number of applications filed, number of entities supported)	24 universities take part in the programme, the evaluation of the programme has not been published yet	
Source of additional information (links)	https://nkfih.gov.hu/palyazoknak/nkfi-alap/egyetemi-innovacios-okoszisztema-2019-121-egyetemi-oko/palyazati-felhivas-2019-121-egyetemi-oko	

Name of a programme	IP pre-diagnosis (IP Scan) service by the Hungarian Intellectual Property Office (HIPO)	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	Budget of HIPO and support of the European Patent Office	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	
Programme budget	N/A	
Supported projects	Expected	yearly ca. 50
	Factual	N/A
IP supported	The service and the report to be prepared covers all aspects of IP protection.	
Institution/entity responsible for support	HIPO	
Eligible activities	The service gives an objective and qualified analysis taking into account all industrial property tools (patents, trade marks, designs and models etc.) and copyright as well that can be used within the company, including contracts, licenses, documentary research, purchases and sales of technologies. The report prepared by HIPO provides a prospective vision of its competitive advantages both in terms of the protection provided by IP Rights and its other possible uses.	
Formalities	Application by completing an online questionnaire and the respective form	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	
	Other	

Eligibility criteria	IP pre-diagnosis service is open to SMEs that wish to develop an approach to protection of their IP assets	
Duration	Recent (2021-20…)	
	Historical	As from 2009
Conditions for getting support	IP pre-diagnosis service is open to SMEs that wish to develop an approach to protection of their IP assets	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://www.sztnh.gov.hu/hu/vallalkozoknak/ip-scan-szellemivagyon-diagnozis	

Name of a programme	**Hungarian Startup University Programme (HSUP)**	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	National Research, Development and Innovation Fund (NRDI Fund)	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	100 %
Programme budget	ca. HUF 900.000.000 per year	
Supported projects	Expected	yearly ca. 300
	Factual	N/A
IP supported	N/A	
Institution/entity responsible for support	NRDI Office	
Eligible activities	The main objective of HSUP is to introduce Hungarian students to the world of innovation, modern entrepreneurship and start-ups, through a new common e-learning platform. After learning about innovative thinking and the startup world (including IP) in the first semester, students take an exam at the end of the semester and present their business idea in a one page which will be evaluated and selected for the second round by a panel of innovation experts from each university. In the second semester, students acquire practical knowledge of enterprise building and join winning projects in teams of 3-5 people, with the help of mentors, to implement their ideas.	

Formalities	The programme is available for the students directly at their university	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	
	Universities/ research institutions	X
	Other	university students
Eligibility criteria	N/A	
Duration	Recent (2021-20…)	
	Historical	As from 2020
Conditions for getting support	Students from the participating universities working in the project team receive a grant of HUF 150,000 per month per student at this stage.	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://nkfih.gov.hu/english/online/hungarian-startup-university-programme	

Name of a programme	**Support for market-driven RDI projects 2021-1.1.3-PIACI KFI**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	National Research, Development and Innovation Fund (NRDI Fund)	
Intensity of financing/aid	Minimum	25 %
	Maximum	70 %
	Fixed	
Programme budget	HUF 50 000 000 000	
Supported projects	Expected	130-200
	Factual	196
IP supported	Cost related to obtaining industrial property protection.	

Institution/entity responsible for support	NRDI Office	
Eligible activities	Sub-programme 'A': Funding to businesses for RDI projects with a market potential and a high probability of return on investment, implemented alone or in consortium. By successfully implementing the RDI projects, businesses lay the foundations of new business opportunities. Sub-programme 'B': Funding to businesses for RDI projects implemented in consortium which may include research and knowledge-dissemination organisations as partners. Funding for highly important and complex RDI projects involving the professionally outstanding stakeholders of the given field. The results of the funded projects will be used in various economic and social areas, contributing to the solution of existing important problems, and ultimately bringing significant economic and social benefits through the reasonable concentration of resources.	
Formalities	Submission via: https://eptk.fair.gov.hu/ Applicants for funding must have a pre-qualifying opinion from a government research, development and innovation policy aspect of the NRDI Office.	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	X
	Other	large companies
Eligibility criteria	Eligible applicants: micro-, small and medium-sized enterprises and large companies, research centres, research & knowledge-dissemination organisations.	
Duration	Recent (2021-20…)	X
	Historical	
Conditions for getting support	Sub-programme 'A': HUF 100 to 400 million per project is available for individual applicants, and HUF 150 to 500 million per project for consortia, in the form of non-refundable funding. 100% of the funding has to be received by for-profit companies. Sub-programme 'B': HUF 400 to 800 million per project can be disbursed, in the form of non-refundable funding. At least 65% of the funding has to be received by for-profit companies.	
Programme impact (e.g. number of applications	N/A	

filed, number of entities supported)	
Source of additional information (links)	https://nkfih.gov.hu/english/nrdi-fund/support-for-market-driven-rdi-projects-2021-113-piaci-kfi/call-for-applications

Name of a programme	**Thematic Excellence Programme TKP2021**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	National Research, Development and Innovation Fund (NRDI Fund)	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	100 %
Programme budget	HUF 75 000 000 000	
Supported projects	Expected	15-30/ subprogramme
	Factual	29+27+25
IP supported	All forms of industrial property protection	
Institution/entity responsible for support	NRDI Office	
Eligible activities		
Formalities	Submission via: https://eptk.fair.gov.hu/ Applicants for funding must have a pre-qualifying opinion from a government research, development and innovation policy aspect of the NRDI Office.	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	
	Universities/research institutions	X
	Other	
Eligibility criteria	Thematic research projects that can be implemented under three subprogrammes:	

	Health Subprogramme: Medical and veterinary research, drug discovery, biology, biotechnology, chemistry, translational medicine, brain research, cancer research, safe food, clinical research on COVID-19 disease and post-COVID syndrome, etc. *National Research Subprogramme*: Culture and family; Secure society and environment; Industry and digitalisation. *National Defence, National Security Subprogramme*: Developing solutions for the protection and security of civilians against hostilities and disasters (e.g. cyber defence, artificial intelligence, sensor technology and signal processing, laser technology, robotics, radio engineering, energy security, cognitive enhancement, personal communication development, developments and research to improve the physical and physiological condition of persons performing tasks in special circumstances, etc.)	
Duration	Recent (2021-20…)	
	Historical	X
Conditions for getting support	The Programme will provide support for university knowledge centres and research centres for their research, development and innovation activities until the end of 2025. Available funds Health Subprogramme: from HUF 50 million up to HUF 2,000 million. National Research Subprogramme: up to HUF 1,000 million. National Defence, National Security Subprogramme: up to HUF 2,000 million.	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://nkfih.gov.hu/english/nrdi-fund/thematic-excellence-programme-tkp2021/call-for-applications	

2.2 LOCAL

No local support schemes were identified.

3. CONCLUSIONS

1. Financing programmes availability

The funding system to enhance the patenting of Hungarian inventions abroad started in 1992 and has undergone significant changes over the past thirty years. Initially granted with an obligation to reimburse, it has been available without a reimbursement obligation since 2003, and since 2015 it is also available for domestic industrial property applications. With the exception of a few years, the possibility of this kind of post-funding to cover the cost of obtaining industrial property rights has been continuously available to applicants. The grant system is based on the hypothesis that one of the obstacles to obtaining and maintaining patent protection is the high cost of obtaining IP protection.

However, the main historical funding scheme, known since 2008 as **IPARJOG - Industrial Law**, has not had the desired impact based on practical experience over the past two decades. During this period, there has been no significant change in the number of international patent applications of domestic origin.

In addition to grants that specifically support the costs of obtaining industrial property protection, an increasing number of programmes have included the costs of obtaining and maintaining protection among the eligible costs, in addition to other costs.

2. Type of financial support

With the **IPARJOG - Industrial Law** grant, non-reimbursable funding may be requested specifically for the costs of obtaining industrial property protection with post-financing.
For proposals and programmes supporting mainly research and development activities, the cost of obtaining industrial property protection is usually included as an eligible cost. However, since the results of the R&D are usually visible at the end of the project, but only costs incurred during the lifetime of the project are eligible, the vast majority of the costs of obtaining protection fall outside this period.
The innovation infrastructure support programmes of universities and research institutes also include eligible costs for obtaining industrial property protection for research results, but they do not fully cover the long-term maintenance and renewal fees.

3. Types of industrial property rights covered by the financing

The available funding covers all industrial property rights which can be relevant from the point of view of innovation. It includes the costs relating to:

- Hungarian national patent, utility model or plant variety applications
- International patent applications under the PCT
- National/regional procedures under the PCT
- Validation of European patents
- Applications for national trademark registration
- Application for EU trademark registration
- Application for international trademark registration
- Application for national design registration
- Application for Community design registration

4. Outreach of programmes/assistance

The identified programmes are both national and institutional in terms of availability of financing. Also, in terms of the range of financing understood as financing of domestic protection and protection abroad, it is possible to indicate programmes aimed at direct and indirect support for industrial property protection in the national procedure by the national office, as well as in EU and international procedures.

5. Sources of programme funding

The calls with specific support of IP protection and technology transfer are financed from the Innovation Sub-fund of the National Research, Development and Innovation Fund, which supports entrepreneurial innovation and market-oriented research and development activities. Some call for proposals that support mainly research and development activities but also include the acquisition of industrial property rights among the eligible costs co-financed by the EU Regional Development Fund.

6. Funding entities/managers of support programmes

In the case of calls for proposals from national sources, most are managed by the National Research, Development and Innovation Office (NRDI). In the case of international patent applications under the PCT, a patentability assessment issued by the Hungarian Intellectual Property Office shall also be submitted, certifying that the application (the invention) satisfies the requirements of novelty, inventive step and industrial applicability. In the case of grants co-financed by the EU Regional Development Fund, the Deputy State Secretariat for the Implementation of Economic Development Programmes (Prime Minister's Office) is in charge of their management.

11. Beneficiaries

According to the call of the **IPARJOG – Industrial Law** grant, companies with or without legal personality, non-profit business companies budgetary organs and budgetary entities (including higher education institutions and public research organisations), non-profit and other organisations, as well as individuals can submit their applications for post-financing. Only those applications can be eligible where the priority of a patent, plant variety right, utility model or design application filed with the Hungarian Intellectual Property Office in connection with a foreign application has been claimed. They

are entitled to file an application for a grant for the maintenance or renewal of a foreign protection based on the priority of an application filed with the Hungarian Office.

12. Identified problems and challenges

In the case of R&D calls for proposals, industrial property rights applications are typically used as indicators and the related costs are included in the eligible costs. At the same time, the number of notifications of grants paid under this heading has fallen short of the potential.

13. Impact of programmes on the number of applications

The funding scheme, known since 2008 as **IPARJOG - Industrial Law**, has not had the desired impact based on practical experience over the past two decades. During this period, there has been no significant change in the number of international patent applications of domestic origin: in practice, the number of applications did not decrease in the years when the call was not open, nor did the opening of new calls result in an improvement in the application rates. In fact, the number of domestic patent applications fell sharply after 2017, just after the opening of the grant application. It is likely that those who would have filed an IP application anyway, will make use of this post-funding support. Their costs will be reduced, but the application will not achieve its original purpose.

4. RECOMMENDATIONS

Based on the experiences gained in completed or ongoing financing schemes, the following recommendations can be proposed for further discussion and deeper consideration:

1. **Development of an industrial property rights voucher scheme in the framework of the project development service at the NRDI.**

Project proponents assessed by peer review as having the right qualifications would receive support to develop and file a patent application through a voucher scheme (or other simple pre-financing scheme). The voucher system should be designed in a similar way to the EU SME Fund: simple, fast-track, not only national but also EU and international, and suitable for obtaining not only patents but also trademarks and design protection (due to the EIS indicators). This might also solve the current problems that typically arise from post-funding schemes.
The voucher system could be complemented by strengthening the university innovation ecosystem and by filling the Territorial Innovation Platforms with further content to ensure they are geographically accessible to all.

2. **The minimum mandatory part of the innovation grants amount used for international IP protection.**

The increase in R&D funding in Hungary has not been accompanied by an increase in the number of IPR applications resulting from the R&D projects supported. In addition to the inclusion of the industrial property application as an indicator, in the case of proposals supporting research and development activities, where justified, a grant institution should require a specific minimum part of the grant amount to be used for the (international) industrial property positioning of the "result" of the proposal. Such an amount should not be used for any other activity; if it is not used for this purpose, it should be considered as non-eligible costs. Compared to the total amount of the grant, this is a negligible amount. Still, it can significantly contribute to ensuring that the result of the grant can, in some way, become a value-adding factor, an intangible asset.

3. **IP awareness and cooperation between innovation ecosystem actors**

Since the lack of adequate knowledge on IPR is also an obstacle to the proper IP protection and economic exploitation of research results, in particular inventions, it is appropriate that the services necessary for the commercialisation of intellectual property (from a basic novelty research service to the professional support drafting a patent application) should be directly available to any stakeholders. Training programmes should be launched to enhance cooperation between innovation system actors to ensure that these services become a valuable tool for potential innovators, thus contributing to both the innovative and IP-focused activity of enterprises.

5. BIBLIOGRAPHY AND USEFUL LINKS

Research, Development and Innovation Strategy (2021-2030), Hungary

SMART SPECIALISATION STRATEGY (S3) 2021-2027

Facts & Figures, 2022; Annual Report of the Hungarian Intellectual Property Office

The innovation and start-up ecosystem in Poland and Hungary; KKI 4:1 Series of the Institute for Foreign Affairs and Trade, 08/2021

Website of the National Research, Development and Innovation Office: https://nkfih.gov.hu/english/research-development-innovation-strategy

John von Neumann Programme: https://nkfih.gov.hu/hivatalrol/hivatal-hirei/elfogadta-parlament-neumann-janos-programot

Irinyi Plan - The Directions of Innovative Industrial Development in Hungary

https://www.sztnh.gov.hu/en

https://elkh.org/en/about

NATIONAL REPORT – SLOVAKIA

Slovak Organisation for Research and Development Activities

1. OVERALL DESCRIPTION OF THE NATIONAL INNOVATION ECOSYSTEM

1.1 LEADING STAKEHOLDERS AND NATIONAL/REGIONAL PLAYERS AND THEIR ROLES

In Slovakia, the central body of state administration for the field of industrial property is the **Industrial Property Office of the Slovak Republic**[43], which carries out activities arising from the law. The main tasks of the Industrial Property Office of the Slovak Republic include the performance of state administration in the field of protection of industrial property objects, the maintenance of the central fund of patent and trademark documentation and its accessibility to the public, as well as operating as a specialised centre of patent information. In addition to the above activities, the Industrial Property Office of the Slovak Republic also provides other related services to the general public, including small and medium-sized enterprises, universities and research institutions.

There are currently not many direct tools and schemes aimed at supporting innovations and IP protection in Slovakia. One of the most important providers of support in the area of IP protection and its commercialisation at the national level is the **Slovak Centre of Scientific and Technical Information**[44] (SCSTI). The SCSTI is a directly managed organisation of the Ministry of Education, Science, Research and Sport of the Slovak Republic.

The **Technology Transfer Centre**[45] (TTC) at SCSTI is a nationwide workplace focused on providing expert support services in various areas of IP protection and its commercialisation. TTC provides these services and activities exclusively to public scientific research institutions on the basis of their membership in the association in the **National Technology Transfer Centre of the Slovak Republic**[46] (NTTC SR) or on the basis of a special contract for the provision of these expert support services. In addition, the Patent Fund of the NTTC SR association allows its members to draw funds in order to support the technology transfer in accordance with the established terms and conditions of the Patent Fund. As all services provided by the TTC are free of charge, the overall scope of the provided services depends on the currently available financial resources allocated from the EU Structural Funds, the State Budget of the SR, or other sources intended to ensure the provision of expert support services in the process of technology transfer.

At SCSTI there is also located the **PATLIB Patent Information Centre**[47], which is a part of the network of European PATLIB (Patent Library) Centres. The role of the PATLIB Centre is to provide patent information services (patent searches) along with consultancy in the areas of IP protection.

[43] https://www.indprop.gov.sk/

[44] https://www.cvtisr.sk/

[45] https://www.cvtisr.sk/cvti-sr-vedecka-kniznica/podpora-vedy/centrum-transferu-technologii-pri-cvti-sr/uvod.html?page_id=508

[46] https://nptt.cvtisr.sk/

[47] https://patlib.cvtisr.sk/

Other tools providing some support for IP protection and innovation - the **Slovak Research and Development Agency**[48] and the **Research Agency**[49] - are also under the Ministry of Education. The Slovak Research and Development Agency is the only national grant agency established for the purpose of supporting research and development in Slovakia that provides funding from the State Budget for projects in various fields of science and technology.

The Research Agency is an organisation linked to the State Budget, which ensures assistance in the implementation process with the European Structural and Investment Funds of the EU. After merging the former OPVaI under OPII, it is dedicated to the continuous process of implementation of demand-oriented projects mainly in the field of research.

In this context, it is also necessary to mention the **Operational Programme Integrated Infrastructure**[50] (OPII), which is the successor programme after the abolition of the **Operational Programme Research and Innovation**[51]. It is a programme document of the Slovak Republic on drawing aid from EU Funds in the transport sector, informatisation of society and supporting research, development and innovation, the aim of which is, among other things, to strengthen research, technological development and innovation. Within the OPII, the *National Infrastructure for Support of Technology Transfer in Slovakia II* project is currently dedicated to the support of research and innovation, which provides a non-repayable financial contribution to enhance the knowledge and technology transfer from research institutions to practice. The project is implemented by the SCSTI /or the TTC at the SCSTI.

Other support tools and schemes are primarily aimed at increasing the innovation capacity of Slovakia by targeting the private sector and SMEs. One such tool is the **Slovak Innovation and Energy Agency**[52,53], which, within the framework of the national project co-financed by the EU entitled *Increasing the innovation performance of the Slovak economy*, provides assistance and support to business entities and the general public in the search for innovative solutions and raises awareness of the importance of innovation, including consultancy in this area. Innovation vouchers are also used for this purpose and can provide direct financial aid to entrepreneurs who submit a request upon the call.

Another important organisation in terms of support for SMEs in Slovakia is the **Slovak Business Agency**[54], which focuses on business start-ups and the development of companies from the public and private sector, while increasing the innovative performance of Slovak enterprises is one of the main objectives of the SBA. A **National Business Centre**[55] has been established within Slovakia, which brings together under one roof a wide portfolio of information and complementary services, especially for small and medium-sized entrepreneurs, with the intention of supporting both the creation and development of new businesses. Thus, clients of the NBC have a number of benefits at their disposal, e.g. in the form of free use of non-financial services. This includes free expert advice in the form of

[48] https://www.SRDA.sk/agentura/o-nas.html

[49] http://www.vyskumnaagentura.sk/sk/o-nas/vyskumna-agentura

[50] https://www.opii.gov.sk/

[51] https://www.opvai.sk/

[52] https://www.siea.sk/

[53] https://www.inovujme.sk/

[54] https://www.sbagency.sk/

[55] https://www.npc.sk/sk/

consultancy and research services on innovation protection (provided by the TTC at the SCSTI or Patlib). In order to support entrepreneurial initiatives and the simultaneous development of entrepreneurship, employment and the economy towards an innovative economy, the SBA, in cooperation with investors has also created the **Innovation and Technology Fund**[56], which is a form of provision of risk capital for the aforementioned purposes.

To a certain extent, EU funds within the **Slovakia Programme (Program Slovensko)**[57] can be also considered a support scheme in the field of innovation, since it has a specific objective in the Science, Research and Innovation section focusing on the development and expansion of research and innovation capacities and the use of advanced technologies.

Research, development, and innovation are also key public policy areas of the forthcoming EU-funded **Recovery PlanRecovery Plan**[58,59]. The Recovery Plan is a mechanism to promote recovery and resilience, with the main objective of supporting reforms and investment to raise living standards in Slovakia. The Recovery Plan Section operates in the **Government Office of the Slovak Republic**[60] and also acts as the **National Implementation and Coordination Authority**[61] (NIKA), whose task is to coordinate the implementation of the Recovery Plan at the national level. The NIKA is the single point of contact for communication with the European Commission for the implementation of the Recovery and Resilience Mechanism.

The Research and Innovation Authority[62] (VAIA) has also been established at the Government Office to reform state support for science, research and the innovation ecosystem. In order to increase Slovakia's innovation performance, the VAIA plans to introduce the evaluation of research and development by foreign experts, to propose a new model for the management and financing of research and development under the Government Council for Science, Technology and Innovation, and to prepare a National Strategy for Research, Development and Innovation.

The National Strategy for Research, Development and Innovation[63] is aimed at defining long-term strategic goals and investments in the field of research, development and innovation. The changes proposed in the forthcoming strategy represent the most effective way to significantly contribute to the long-term competitiveness of the Slovak economy and the quality of life in Slovakia. The strategy consists of several parts/attributes that aim to create the preconditions for an attractive, smart, competitive, and resilient Slovakia by achieving the set objectives. The main ambitions include building the necessary competencies, government-wide cooperation, and introducing mechanisms not only to simplify and make transparent the management of research, development and innovation but also to set self-development mechanisms. The proposed strategy is intended to represent a systemic

[56] https://www.fondfit.sk/

[57] https://www.mirri.gov.sk/sekcie/program-slovensko-2021-2027/index.html

[58] https://www.planobnovy.sk/

[59] https://www.mirri.gov.sk/plan-obnovy/plan-obnovy-a-odolnosti/index.html

[60] https://www.vlada.gov.sk/plan-obnovy-a%C2%A0odolnosti-sr/

[61] https://www.planobnovy.sk/o-nas/

[62] https://vaia.gov.sk/o-nas/vaia/?csrt=14231821202897988743

[63] https://formulare.vlada.gov.sk/site/assets/files/1057/narodna_strategia_vyskumu-_vyvoja_a_inovacii_verejna_konzultacia.pdf

approach in order to increase the national innovation ecosystem that is based on previous strategies, cooperation, and experience from the current research, development, and innovation environment in Slovakia.. The main ambitions include building the necessary competences, government-wide cooperation, introducing mechanisms not only to simplify and make transparent the management of research, development and innovation, but also to set self-development mechanisms. The proposed strategy is intended to represent a systemic approach in order to increase the national innovation ecosystem that is based on previous strategies, cooperation and experience from the current environment of research, development and innovation in Slovakia.

As mentioned above, the TTC at the SCSTI provides support in the field of protection and commercial exploitation of IP in Slovakia at the national level. In addition, it also systematically supports the establishment of local TTCs at public R&D institutions. A TTC is a specialised workplace that is usually established at a scientific R&D or academic institution and its primary task is to provide information and services necessary for the protection of IP and its commercialisation, i.e. technology and innovation transfer. The basic agenda of the TTCs at our Slovak scientific R&D institutions (which include universities, the Slovak Academy of Sciences and departmental research institutes) is to receive reports on the creation of IP from employees (employed as researchers), to provide an evaluation or searches (literature or state of the art patent searches) of such reports, then to ensure the preparation of a patent or other relevant application if the employer claims the right to an invention, and finally to administer the employee's remuneration related to the IP. In addition to communicating with scientists within the institution and dealing with internal processes, the TTC also ensures communication with those subjects interested in commercialisation and collaboration, as it is the TTC that has a relatively good overview of what research projects are currently being carried out within their institution. For this reason, the TTC is an ideal first-contact point for companies interested in research collaboration with an R&D or academic institution. In addition, the local TTC can arrange various types of contracts, from collaboration to IP licensing.

Since currently not every R&D or academic institution in Slovakia has established its own or full-fledged TTC which could cover the agenda of IP protection and its commercialisation to the necessary extent, the relevant institution can be used to cover these needs related to technology transfer and free expert support services provided through the TTC at the SCSTI.

Functional workplaces covering the agenda of technology transfer, which also actively cooperate with the TTC at the SCSTI, are mainly those scientific R&D institutions that have the largest volume of scientific research output, and thus the greatest potential for the implementation of technology transfer. These institutions are also participants of the NTTC SR association, whose common goal is to support the implementation of technology transfer of scientific R&D institutions in Slovakia. The NTTC SR association consists of seven public universities, the Slovak Academy of Sciences and the SCSTI, which is also the administrator of the association[64].

Here is an overview of the technology transfer departments at these institutions and a brief description of their main activities:

[64] https://nptt.cvtisr.sk/nTTC.html?page_id=4444

The activities of the Technology Transfer Office of **the Slovak Academy of Sciences**[65] are mainly focused on two basic areas, which are the protection of IP and its subsequent commercialisation. The third area is promotion, i.e. raising awareness of the issue of technology transfer not only among the scientific staff of the components of the Slovak Academy of Sciences, but also among the TTO itself.

The main mission of the TTC of **Comenius University in Bratislava**[66] is to provide industrial law protection of IP owned by the CU and its processing, which involves processes ranging from identification and assessment of the results of R&D activities to the provision of acts related to commercialisation. Overall, TTC CU covers the agenda of advice and support in the field of IP and technology transfer to all its staff and students and raises awareness of the issue.

The TTO department was established also within the of the **Know-how Centre** at **the Slovak University of Technology in Bratislava**[67], which is a specialised university workplace. The role of the TTO is to create favourable conditions for the transfer of the results of R&D activities from faculties and institutes to social and economic practice, in particular in the form of consulting and services in the field of IP protection for employees and students, ensuring the protection of industrial property objects, search and mediation of potential commercialisation partners, providing legal support and other related activities.

The Transfer Centre of **the Slovak University of Agriculture in Nitra**[68] is a specialized workplace with university-wide competence focused, among other things, on cooperation with industry, the promotion of R&D results, protection of IP and transfer of technology, knowledge and education.

At the **Technical University of Košice**[69]**,** employees and students are provided with support, advice and consultation in the area of copyright protection and industrial law protection by the Division of Innovations and Technology Transfer within the university-wide workplace, which is the University Science Park TECHNICOM.

The TTC at the **Pavol Jozef Šafárik University in Košice**[70] contributes to the development of the university mainly by supporting the commercialisation of part of academic research, developing collaborations, popularising innovative strategies in science, research and education or providing consultations in the field of IP protection, while the primary goal of the TTC is the commercialisation of IP and know-how created at the university. The basic activity of the TTO of the **Technical University of Zvolen**[71] is preparing a report on the creation of new IP objects, their assessment, subsequent provision of industrial law protection, registration and management of the applied IP rights, their commercialisation, as well as the organisation of various training sessions and workshops on the subject, etc.

[65] https://ktt.sav.sk/en/

[66] https://cusp.uniba.sk/pracoviska/centrum-transferu-technologii/

[67] http://www.ksp.stuba.sk/en

[68] https://www.agrobiotech.sk/en/transfer-centre-2/

[69] https://www.tuke.sk

[70] https://www.upjs.sk/pracoviska/tip/TTC/

[71] https://www.tuzvo.sk/sk/referat-pre-transfer-technologii

The Centre for Technology Transfer of **the University of Žilina**[72] is a specialised workplace that serves to ensure the transfer of university R&D results into economic and social practice by providing comprehensive support in the field of IP rights protection and commercialisation.

A few other Slovak public universities also have a department or at least an employee responsible for the protection and commercialisation of IP. These institutions are supported by SCSTI as well, on the basis of bilateral agreements.

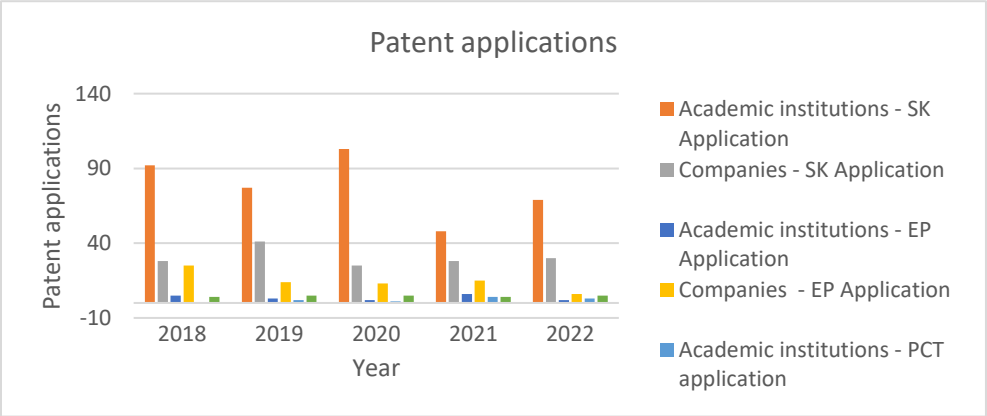
However, some of the abovementioned institutions are not so active in the field of IP protection and technology transfer nor in cooperation with the TTC at the SCSTI, thus cannot be considered a full-fledged and functional TTC.

1.2 NATIONAL IP STATISTICS

The graphs and tables below provide some basic statistics on the patenting activity of academic institutions and companies in Slovakia in the last 5 years.

Graph 1 / Table 1 shows the mid-term development of different types of patent applications (Slovak, European and PCT) filed since 2018 by academic institutions and companies. Patent applications filed by academic institutions have been supported by the technology transfer centre at the Slovak Centre of Scientific and Technical Information with nationwide operations towards academic institutions.

Graph 1 Patent applications of Slovak entities filed between 2018-2022



Source: Industrial Property Office of the SR; European Patent Office

[72] https://www.uniza.sk/index.php/vedci-a-partneri/spolupraca/centrum-pre-transfer-technologii

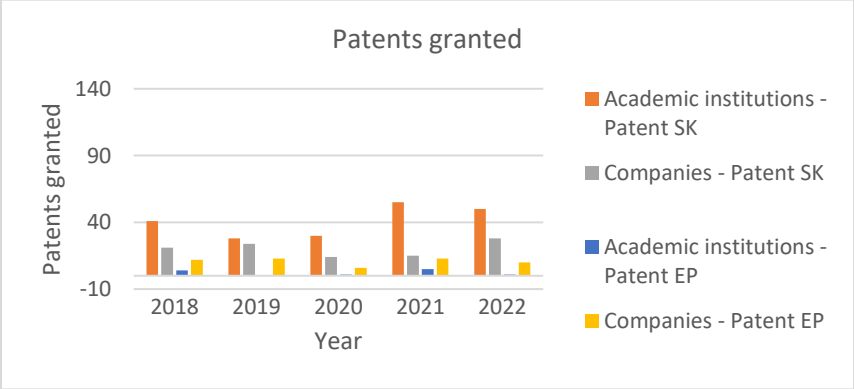
Table **Patent applications of Slovak entities filed between 2018-2022**

Patent applications / Year	2018	2019	2020	2021	2022
Academic institutions - SK Application	92	77	103	48	69
Companies - SK Application	28	41	25	28	30
Academic institutions - EP Application	5	3	2	6	2
Companies - EP Application	25	14	13	15	6
Academic institutions - PCT application	0	2	1	4	3
Companies - PCT Application	4	5	5	4	5

Source: Industrial Property Office of the SR; European Patent Office

As statistical data shows the development of SK/EP patents granted to Slovak academic institutions and companies since 2018. The number of patents granted at both types of entities has fluctuated through the years, probably as a result of different support measures available and provided within the EU structural fund schemes

Graph **Patent applications of Slovak entities granted between 2018-2022**



Source: Industrial Property Office of the SR; European Patent Office

Table 2 **Patent applications of Slovak entities granted between 2018-2022**

Patents granted / Year	2018	2019	2020	2021	2022
Academic institutions - Patent SK	41	28	30	55	50
Companies - Patent SK	21	24	14	15	28
Academic institutions - Patent EP	4	0	1	5	1
Companies - Patent EP	12	13	6	13	10

Source: Industrial Property Office of the SR; European Patent Office

1.3 BARRIERS AND OPPORTUNITIES

1.3.1 FINANCIAL

Financial barriers are a common challenge faced by organisations (both public and private) involved in the field of technology transfer in Slovakia. For this purpose, several support schemes for companies and academic institutions have been developed with the aim of helping Slovak entities to overcome these issues, funded mainly from EU structural funds. However, the patent filing costs are usually not eligible, and for universities and research institutions, as well as for small companies, it is not easy to allocate enough financial resources for filing and especially maintaining patents. There is also a limited willingness and/or possibility to spend money on paying TT specialists at academic institutions.

1.3.2 LEGISLATIVE

The biggest problem in the technological transfer of intellectual property from state/public institutions to business is considered to be in the rules for dealing with property established in two Slovak regulations – the Act. No. 176/2004 on handling the property of public institutions and Act. No. 278/1993 on state property management. There is no special type of property defined for intellectual property (IP), so in praxis, IP has to be treated under the rules, ignoring technology transfer aspects and requirements.

- Rules for treatment of both already defined asset types – movable/immovable assets, are not fully applicable for original intellectual property treatment in the technology transfer process (licencing, IP rights transfer) at public and state institutions. Additionally, there are no specific rules of treatment for IP assets.
- Problems with commercial companies founded at both – state (restricted) and public (not flexible) institutions.
- Restricted business activities at state research institutions.

Other issues include public procurement obligations and Universities' management standards and regulations, which might be a possible barrier to taking shares in spin-off companies by public academic institutions[73].

1.3.3 OTHER

Other barriers include the lack of motivation and experience for considering commercial cooperation with business as an opportunity for academic institutions to establish another source of income, get experience for academic staff members, and to offer opportunities for practical education to students. Another problem in the Slovak environment is still relatively low awareness of the importance of intellectual property, the need for its protection and the possibilities of its utilisation and commercialisation, although awareness activities in this area started 10 years ago.

[73] https://ttb.sk/clanky/legislativne-prekazky-efektivneho-transferu-technologii-na-slovensku/

2. SUPPORT SCHEMES, PROGRAMMES AND INCENTIVES WITH FOCUS TO IP PROTECTION

2.1 NATIONAL

Name of a programme	**Support for the cooperation of business entities and scientific and research institutions – innovation vouchers**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	co-financed by the EU Recovery and resilience plan for Slovakia	
Intensity of financing/aid	Minimum	EUR 2 000 / 5 000
	Maximum	EUR 15 000
	Fixed	
Programme budget	7 622 000,00 € / 9 146 400,00 € with VAT	
Supported projects	Expected	
	Factual	X
IP supported	Refunding the costs of IPR protection filing and maintenance fees	
Institution/entity responsible for support	Government Office of the Slovak Republic / Slovak Innovation and Energy Agency	
Eligible activities	A. Implementation of research and development services, the aim of which is to help develop new or improve existing products, services or processes and apply knowledge and technologies in practice B. Protection of industrial property rights (reimbursement of administrative and maintenance fees related to the submission of applications for the protection of industrial property rights in Slovakia and abroad)	
Formalities	submitting the application within the programme	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	
	Other	X

Eligibility criteria	SMEs	
Duration	Recent	Since 08/2023
	Historical	
Conditions for getting support	fulfilment of eligibility conditions	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://ispo.planobnovy.sk/app/vyzvy/457115022285254656	

Name of a programme	**Expert support services by the National Technology Transfer Centre of the Slovak Republic**	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	EU Structural and Investment Fund; EU Regional Development Fund; Project No.: 313011T438; Acronym: NITT SK II EU Structural Funds	
Intensity of financing/aid	Minimum	N/A
	Maximum	N/A
	Fixed	N/A
Programme budget	NITT SK II budget: 20 564 643,82 € - services provided free of charge	
Supported projects	Expected	
	Factual	X
IP supported	all kinds of IP applications; full-scale process of technology transfer	
Institution/entity responsible for support	Slovak Centre of Scientific and Technical Information	
Eligible activities	patent/state-of-the-art searches; IP identification and evaluation; IP protection – patent applications preparation; technology marketing; partner searches, market research and other related IP support services	
Formalities	application submission through nptt.sk	
Status of a programme	Public	X

	Private	
	Public-private partnership	
Beneficiaries	SMEs	
	Universities/ research institutions	X
	Other	
Eligibility criteria	any public research / academic institutions	
Duration	Recent	since 2013
	Historical	
Conditions for getting support	any public research / academic institution as the owner of IP rights	
Programme impact (e.g. number of applications filed, number of entities supported)	since January 2013: - more than 400 cases at Slovak academic institutions supported - 259 patent/other IP applications supported	
Source of additional information (links)	https://nptt.cvtisr.sk/national-portal-for-technology-transfer.html?page_id=224	

Name of a programme	**Patent Fund by the National Technology Transfer Centre of the Slovak Republic**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	State budget/Slovak Centre of Scientific and Technical Information budget	
Intensity of financing/aid	Minimum	N/A
	Maximum	N/A
	Fixed	N/A
Programme budget	In average EUR 20 000 / year	
Supported projects	Expected	
	Factual	X
IP supported	all kinds of IP applications	
Institution/entity responsible for support	Slovak Centre of Scientific and Technical Information	

Eligible activities	IP protection – all kinds of patent applications preparation; payment of IP application related fees	
Formalities	request/application for using the funds from the programme	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	
	Universities/research institutions	X
	Other	
Eligibility criteria	meet the established criteria of the programme as a member of NTTC SR (or to have a special contract, alternatively)	
Duration	Recent	since 2015
	Historical	
Conditions for getting support	any public research organisation as the owner of IP rights; eligibility of IP for commercialisation	
Programme impact (e.g. number of applications filed, number of entities supported)	Since 2015 about 45 patent and other IP applications supported financially	
Source of additional information (links)	https://nptt.cvtisr.sk/sk/hradenie-spravnych-a-udrziavacich-poplatkov.html?page_id=450 https://nptt.cvtisr.sk/nTTC/zakladne-dokumenty.html?page_id=4446 https://nptt.cvtisr.sk/buxus/docs//ESP_spravy/2022_EPS_report_final_1.pdf https://nptt.cvtisr.sk/nTTC/vyrocne-spravy.html?page_id=4448	

Name of a programme	**National Business Centre (NPC)**	
Form of the support	Financial	X
	Non-financial	X
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	Operational Programme Integrated Infrastructure co-financed by the EU Regional Development Fund	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	
Programme budget	NPC project in Bratislava region budget: EUR 25 million	

	NPC project in regions: EUR 41 million - services provided free of charge	
Supported projects	Expected	
	Factual	X
IP supported	support for developing innovative companies with IP and for start-up entrepreneurs	
Institution/entity responsible for support	Slovak Business Agency; Slovak Centre of Scientific and Technical Information	
Eligible activities	providing information and additional services mainly for SMEs; including support for early-stage businesses and entrepreneurs: - financial services - advisory, consultancy, audits - business incubator, accelerator, coworking - entrepreneurship education - patent information services and consultancy in the areas of IP protection: - patent/state-of-the-art searches - patent monitoring - patent analysis and statistics - competitor activity searches - legal document searches - design searches - trademark searches - non-patent literature searches	
Formalities	Registration and application submission required through npc.sk	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	
	Other	X
Eligibility criteria	SMEs; including support for early-stage businesses and entrepreneurs; personal entities	
Duration	Recent	2015
	Historical	
Conditions for getting support	SMEs; early-stage businesses and entrepreneurs; personal entities	
Programme impact (e.g. number of applications	NBC BA – supported total of 469 clients (including personal entities and SMEs), 25 applications	

filed, number of entities supported)	NBC REG – supported total of 170 clients (including personal entities and SMEs), 75 applications
Source of additional information (links)	https://www.npc.sk/sk/ https://www.npc.sk/sk/services/

Name of a programme	**Industrial Property Office of the Slovak Republic – Prediagnostics of IP and Patent/State-of-the-Art Searches**	
Form of the support	Financial	X
	Non-financial	X
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	State budget/IPO SR budget	
Intensity of financing/aid	Minimum N/A	
	Maximum	N/A
	Fixed	N/A
Programme budget	N/A – pre-diagnostics provided free of charge	
Supported projects	Expected	
	Factual	X
IP supported	central state administration body operating in the field of IP protection	
Institution/entity responsible for support	Industrial Property Office of the Slovak Republic	
Eligible activities	- pre-diagnostics of IP (provided free of charge) including consultancy services for SMEs, universities and research institutions - patent/state-of-the-art searches and patent monitoring (charged services) for public - information and advisory office sites for innovations established in the regions	
Formalities	Request submitting through the Office websites	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	X
	Other	X
Eligibility criteria	None; or IP rights ownership	

Duration	Recent	since 1992
	Historical	
Conditions for getting support	None	
Programme impact (e.g. number of applications filed, number of entities supported)	Not available	
Source of additional information (links)	https://www.indprop.gov.sk/	

Name of a programme	**Inovujme.sk**	
Form of the support	Financial	X
	Non-financial	X
	Non-refundable (grant)	X
	Refundable (loan) financial contribution	
Source of financing	co-financed by the EU Regional Development Fund through Operational Programme Integrated Infrastructure	
Intensity of financing/aid	Minimum	
	Maximum	variable
	Fixed	
Programme budget	Project budget: EUR 32 033 791,64	
Supported projects	Expected	
	Factual	X
IP supported	support for developing innovative companies with IP and start-up entrepreneurs	
Institution/entity responsible for support	Slovak Innovation and Energy Agency	
Eligible activities	Providing information and additional services mainly for SMEs; including assistance and support for early-stage businesses and entrepreneurs: - basic individual counselling – innovative workshops/educational programmes - enhanced individual counselling - providing publications in the field of innovation, entrepreneurships, creativity and self-development - events in the field of innovation consultancy	

	- state of national innovation and business environment surveys	
Formalities	submitting a request/application	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	X
	Other	X
Eligibility criteria	entrepreneurs; schools; public	
Duration	Recent	2015
	Historical	
Conditions for getting support	entrepreneurs; schools; public	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://www.siea.sk/ https://www.inovujme.sk/sk/o-projekte	

Name of a programme	**FIT – Innovation and Technology Fund**	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	
	Refundable (loan) financial contribution	Investment fund
Source of financing	State budget/Slovak Business Agency budget	
Intensity of financing/aid	Minimum	EUR 20 000
	Maximum	EUR 1 500 000
	Fixed	
Programme budget		
Supported projects	Expected	
	Factual	X
IP supported	support for developing innovative companies with IP and start-up entrepreneurs	

Institution/entity responsible for support	Slovak Business Agency	
Eligible activities	provision of venture capital to foster entrepreneurial initiative and developing entrepreneurship, employment and the economy towards and innovative economy	
Formalities	Applying through contact form or contact details	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	
	Other	X
Eligibility criteria	the location of the investment objective and at least part of the activities on the territory of the Slovak Republic	
Duration	Recent	2013
	Historical	
Conditions for getting support	The location of the investment objective and at least part of the activities on the territory of the Slovak Republic	
Programme impact (e.g. number of applications filed, number of entities supported)	Not available	
Source of additional information (links)	https://www.fondfit.sk/ https://www.sbagency.sk/o-nas	

Name of a programme	**National Holding Fund**	
Form of the support	Financial	X
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	X
Source of financing	Public money	
Intensity of financing/aid	Minimum	depends on the programme
	Maximum	depends on the programme
	Fixed	
Programme budget	Not available	
Supported projects	Expected	

	Factual	X
IP supported	support for developing innovative companies with IP and start-up entrepreneurs	
Institution/entity responsible for support	Slovak Business Agency	
Eligible activities	- stimulating the development of SMEs; valuation of financial resources of each managed fund; profits used for further SMEs support - providing expert advice to applicants for funding on the submitted projects - counselling companies in the company's portfolio - ensuring co-financing for applicants requesting a higher amount of funding than is the maximum allowable limit of each managed fund	
Formalities	Applying through contact form or contact details	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	
	Other	
Eligibility criteria	Entrepreneurs registered and based in the territory of the Slovak Republic and meeting other criteria of the programme	
Duration	Recent	since 1994
	Historical	
Conditions for getting support	entrepreneurs registered and based in the territory of the Slovak Republic and meeting other criteria of the programme	
Programme impact (e.g. number of applications filed, number of entities supported)	- financial resources provided to more than 140 businesses in the value of EUR 10 million - helped to create more than 1 000 jobs through investments	
Source of additional information (links)	http://www.nhfond.sk/ https://www.sbagency.sk/o-nas	

2.2 LOCAL

Name of a programme	BBSK - Catching-up regions Initiative	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	Public money – Self-Governing Region Banska Bystrica; co-operation with the World Bank	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	
Programme budget	N/A	
Supported projects	Expected	
	Factual	
IP supported	regional innovation support	
Institution/entity responsible for support	Self-Governing Region Banska Bystrica	
Eligible activities	Support in catching-up regions: - promote growth and innovation in the region; - remove obstacles to better use of European funds and to increase the benefits of these investments - organizing workshops etc.	
Formalities	apply via contact details	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	X
	Other	X
Eligibility criteria	citizens, entrepreneurs and organisations	
Duration	Recent	since 2019
	Historical	

Conditions for getting support	citizens, entrepreneurs and organisations
Programme impact (e.g. number of applications filed, number of entities supported)	N/A
Source of additional information (links)	https://www.bbsk.sk/iniciativa-catching-up-regions https://www.bbsk.sk/komponent-3-3

Name of a programme	**Innolab**	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	Public money – Self-Governing Region Banska Bystrica; co-operation with the World Bank	
Intensity of financing/aid	Minimum	
	Maximum	
	Fixed	
Programme budget	N/A	
Supported projects	Expected	
	Factual	
IP supported	regional innovation support	
Institution/entity responsible for support	variable	
Eligible activities	regional centres to foster creativity, new technologies and innovative solutions via: - providing technical equipment - organizing events and workshops - creating and mediating collaborations between business community and research institutions - - support in realisation of innovative ideas	
Formalities	apply via contact details	
Status of a programme	Public	X
	Private	
	Public-private partnership	

Beneficiaries	SMEs	X
	Universities/ research institutions	X
	Other	X
Eligibility criteria	public – students, businesses and start-ups, schools, academic and research institutions	
Duration	Recent	
	Historical	
Conditions for getting support	public – students, businesses and start-ups, schools, academic and research institutions	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://innolabb.sk/	

Name of a programme	**INOVIA Innovation Centre**	
Form of the support	Financial	X
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	resources from Zilina Self-Governing Region, City of Žilina, University of Zilina	
Intensity of financing/aid	Minimum N/A	
	Maximum	N/A
	Fixed	N/A
Programme budget	N/A	
Supported projects	Expected	
	Factual	X
IP supported	focus on regional innovation strategy	
Institution/entity responsible for support	Inovia	
Eligible activities	full-scale business consultancy; assistance in commercialisation, proof of market, technology partner searches; preparation of business plan and other related consultancy and support services; organisation of events such conferences, seminars, webinars, workshops	

Formalities	Applying through contact form/submitting application upon the call	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	X
	Other	X
Eligibility criteria	businesses; start-ups and spinoffs; municipalities; researchers	
Duration	Recent	since 2021
	Historical	
Conditions for getting support	businesses; start-ups and spinoffs; municipalities; researchers	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://inovia.sk/	

Name of a programme	**The Regional Innovation Centre of the Košice Region**	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	implemented within the Regional Innovation Strategy	
Intensity of financing/aid	Minimum N/A	
	Maximum	N/A
	Fixed	N/A
Programme budget	N/A	
Supported projects	Expected	
	Factual	X
IP supported	regional innovation strategy	
Institution/entity responsible for support	The Regional Innovation Centre of the Košice Region	

Eligible activities	- professional individual consultancy and mentoring to entrepreneurs facing a problem or want to further develop their businesses, setting a business model and further business direction - business consultancy in the fields of financing, know-how and innovations; - - organizing events	
Formalities	applying through contact form or contact details	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	
	Other	X
Eligibility criteria	entrepreneurs, innovative start-ups etc.	
Duration	Recent	since 2021
	Historical	
Conditions for getting support	entrepreneurs, innovative start-ups etc.	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://ickk.sk/	

Name of a programme	**INOVATO**	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	N/A	
Intensity of financing/aid	Minimum N/A	
	Maximum	N/A
	Fixed	N/A
Programme budget	N/A	
Supported projects	Expected	

	Factual	
IP supported	regional innovation support	
Institution/entity responsible for support	INOVATO	
Eligible activities	Support in a field of innovations: - business idea evaluation - design development, prototyping and business model creation including business modelling, development and marketing - financing advices - - organisation of events, education and networking	
Formalities	applying through contact form	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	
	Other	X
Eligibility criteria	supporting innovators and business with innovation ideas	
Duration	Recent	since 2021
	Historical	
Conditions for getting support	supporting innovators and business with innovation ideas	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://inova.to/	

Name of a programme	**Business & Innovation Centre Bratislava**	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	N/A	
Intensity of financing/aid	Minimum N/A	
	Maximum	N/A

	Fixed	N/A
Programme budget	N/A	
Supported projects	Expected	
	Factual	
IP supported	regional innovation support	
Institution/entity responsible for support	BIC Bratislava	
Eligible activities	fostering entrepreneurship, innovations and technology transfer including consultancy and assistance in IP protection; assistance in obtaining external financial resources; organisation of events	
Formalities	applying through contact details	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/ research institutions	X
	Other	X
Eligibility criteria	None - innovators and innovative businesses	
Duration	Recent	since 1991
	Historical	
Conditions for getting support	None - innovators and innovative businesses	
Programme impact (e.g. number of applications filed, number of entities supported)	not available	
Source of additional information (links)	https://www.bic.sk/	

2.3 INSTITUTIONAL

Name of a programme	**University Technology Transfer Offices**	
Form of the support	Financial	X
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	

Source of financing	Universities' budgets	
Intensity of financing/aid	Minimum N/A	
	Maximum	N/A
	Fixed	N/A
Programme budget	N/A	
Supported projects	Expected	
	Factual	
IP supported	All kinds of university IP	
Institution/entity responsible for support	Comenius University; Slovak University of Technology; University of Zilina; Technical University of Kosice; UPJŠ Kosice; Slovak University of Agriculture in Nitra; Slovak Academy of Sciences	
Eligible activities	University R&D technology transfer - IP identification and evaluation; IP protection – patent applications preparation; Technology marketing; Partner searches, Market research and other related IP support services; educational workshops and seminars; consultancy; networking events etc.	
Formalities	applying through contact details	
Status of a programme	Public	X
	Private	X
	Public-private partnership	
Beneficiaries	SMEs	
	Universities/research institutions	X
	Other	
Eligibility criteria	university businesses, researchers, students	
Duration	Recent	variable
	Historical	
Conditions for getting support	applicants from the relevant university	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	Universities' websites	

Name of a programme	STU Scientific, s.r.o.	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	N/A	
Intensity of financing/aid	Minimum N/A	
	Maximum	N/A
	Fixed	N/A
Programme budget	N/A	
Supported projects	Expected	
	Factual	
IP supported	All kinds of university's IP	
Institution/entity responsible for support	Slovak University of Technology (STU)	
Eligible activities	University R&D technology transfer; university IP valorisation including: - consultancy (financial, business, information and communication technologies, area of public procurement and commercial tendering, use of EU financial funds) - organizing events, workshops, seminars	
Formalities	Applying through contact details	
Status of a programme	Public	x
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	X
	Other	X
Eligibility criteria	university businesses, researchers, students	
Duration	Recent	since 2008
	Historical	
Conditions for getting support	Applicants from STU - university businesses, researchers, students	
Programme impact (e.g. number of applications filed, number of entities supported)		
Source of additional information (links)	http://www.stuscientific.sk/	

Name of a programme	STU InQb - University Incubator	
Form of the support	Financial	
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing		
Intensity of financing/aid	Minimum N/A	
	Maximum	N/A
	Fixed	N/A
Programme budget	N/A; services provided free of charge	
Supported projects	Expected	
	Factual	X
IP supported	all kinds of university IP	
Institution/entity responsible for support	Slovak University of Technology - InQb	
Eligible activities	Supporting and developing entrepreneurial ideas of student and graduates via incubation programmes, organizing educational events and building community, networking and mentoring	
Formalities	apply through contact form or contact details	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	
	Universities/research institutions	X
	Other	X
Eligibility criteria	University students and graduates	
Duration	Recent	since 2005
	Historical	
Conditions for getting support	university students and graduates	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://www.inqb.sk/	

Name of a programme	UVP TECHNICOM – University Science park	
Form of the support	Financial	X
	Non-financial	
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing	Co-financed by the EU structural fund (ERDF)	
Intensity of financing/aid	Minimum	N/A
	Maximum	N/A
	Fixed	
Programme budget	phase I. 41 984 703,52 € phase II. 5 273 137,45 €	
Supported projects	Expected	
	Factual	X
IP supported	All kinds of IP from public academic and research institutes	
Institution/entity responsible for support	Technical university of Kosice – UVP Technicom	
Eligible activities	Support in the field of IP protection; technology and innovation transfer; business acceleration via: - business incubators for SMEs, high-tech companies, start-ups and spin-offs - promotion of R&D cooperation - creating conditions for knowledge and technology transfer and innovation practice at international, national and regional level - - consultancy, educational activities and expertise	
Formalities	Apply through contact form or contact details	
Status of a programme	Public	X
	Private	
	Public-private partnership	
Beneficiaries	SMEs	X
	Universities/research institutions	X
	Other	X
Eligibility criteria	research and innovation activities and projects from public academic and research institutes	
Duration	Recent	
	Historical	phase I. 06/13-12/2015

		phase II. 11/2015-06/2018
Conditions for getting support	research and innovation activities and projects from public academic and research institutes	
Programme impact (e.g. number of applications filed, number of entities supported)	N/A	
Source of additional information (links)	https://uvptechnicom.sk/	

Name of a programme	**TIP UPJŠ – Technology and Innovation Park of Pavol Jozef Šafárik University in Košice**	
Form of the support	Financial	X
	Non-financial	X
	Non-refundable (grant)	
	Refundable (loan) financial contribution	
Source of financing		
Intensity of financing/aid	Minimum	N/A
	Maximum	N/A
	Fixed	
Programme budget	Free of charge services	
Supported projects	Expected	
	Factual	X
IP supported	all kinds of IP from public academic and research institutes	
Institution/entity responsible for support	TIP UPJŠ	
Eligible activities	Services focused on innovation support and technology transfer; support of capitalizable research and applications; providing background for entrepreneurial activities; full-scale process of creating spin-off companies - technology/ innovation evaluation - providing facilities for further technology development - promoting ideas to start-up accelerator - support in setting up a start-up company	
Formalities	Apply through contact form or contact details	
Status of a programme	Public	X
	Private	
	Public-private partnership	

Beneficiaries	SMEs	
	Universities/ research institutions	X
	Other	X
Eligibility criteria		
Duration	Recent	X
	Historical	
Conditions for getting support		
Programme impact (e.g. number of applications filed, number of entities supported)	- companies in the stage start-up incubator – 1 - companies in the stage spin-off – 3	
Source of additional information (links)	https://www.upjs.sk/pracoviska/tip/	

3. NATIONAL CONCLUSIONS

The mapping of programmes aimed at supporting IP protection in Slovakia allows for an assessment of the available financial schemes and support programmes specifically designed to facilitate intellectual property (IP) protection in the country. The analysis focuses on the various financing options, the types of industrial property rights covered by these programmes, their outreach and accessibility, as well as the identified challenges and limitations. By examining these aspects, we aim to gain a deeper understanding of the current landscape of IP protection in Slovakia and highlight key areas for improvement and further development.

Private sector

In the business sector (mainly SMEs), the support of R&D and innovation, including the field of IP protection, is coordinated by the Ministry of Economy of the SR and its organisations. Increasing the innovation capacity of Slovak SMEs is one of the aims of the Slovak Innovation and Energy Agency (SIEA)**.** Another institution involved in providing support for SMEs is the Slovak Business Agency (SBA), operating the National Business Centre**,** which provides specific consulting services to SMEs also in the area of IP protection. The SBA, in cooperation with investors, also operates the Innovation and Technology Fund.

For the companies' support in the area of R&D&I, mainly the funding sources coming from the EU structural and investment funds have been used (OP Integrated Infrastructure, section Research and Innovation / Slovakia Programme 2021/2027) administrated by the Ministry of Investment, Regional Development and Informatization of the Slovak Republic, as well as within the EU funded Recovery and Resilience Plan administrated by the Government Office of the Slovak Republic. However, currently there are no programmes providing direct financial incentives for covering the fees of IP application filing available for companies in Slovakia.

Academic sector

Building and support of a friendly environment for technology transfer at Slovak academic institutions have been provided since 2010 mainly by the Slovak Centre of Scientific and Technical Information (SCSTI), a public institution under the Ministry of Education, Science, Research and Sport of the Slovak Republic. Among other activities, it coordinates the operations of the so-called National Technology Transfer Centre of the Slovak Republic (NTTC SR). In general, technology transfer (TT) primarily represents the financial utilization of academic institutions' (AI) assets in the form of intellectual property (IP) created by that institution, which is a known procedure applied in a number of countries around the world for decades. Other institutions under the Ministry of Education financing the R&D&I activities are the Slovak Research and Development Agency (SRDA), which administrates state budget money, and the Research Agency (RA), which administers the EU funds.

Academic institutions in Slovakia use public resources to carry out science and research. The result of scientific research activity is new knowledge, i.e. new intellectual property. Although the state formally imposes on academic institutions the obligation to deal with these outputs "efficiently", this obligation is not specified in detail; moreover, the state does not carry out any deduction or control of how the public resources transformed into the intellectual property of academic institutions are ultimately used.

1. Financing programme availability

Several financing programmes have been established to support intellectual property (IP) protection and foster innovation across various sectors. These programmes aim to facilitate access to financial resources, enabling individuals, organisations, and enterprises to obtain adequate IP protection for their innovative ideas, technologies and products.

In Slovakia, there are several schemes and programmes aimed at supporting IP and innovations in a particular way. However, on the basis of mapping, which primarily focuses on such tools that provide financial support, we can conclude that there are not enough tools with direct financial resources intended for IP protection. The main tool for this purpose is **the Patent Fund** of the NTTC SR, which allows the contracting parties, i.e. universities and Slovak Academy of Sciences institutes to draw funds for IP protection of all kinds. Other schemes represent mainly non-financial services in the field of IP protection and technology transfer for companies, universities and R&D institutions or those supporting innovations in developing businesses.

2. Type of financial support

Various types of financial support are available to assist individuals, organisations, and enterprises in obtaining intellectual property (IP) protection. These funding mechanisms aim to alleviate the financial burden associated with IP-related activities and promote innovation and knowledge transfer.

Basically, we can identify two types of financial support related to IP rights in Slovakia that are available for public and state academic institutions. The first type is financial support provided in the form of payment of administrative fees associated with ensuring industrial-law protection of IP (especially patents) from **the Patent Fund** of the NTTC SR. In order to draw these funds, cases of new technologies must meet the conditions to guarantee that the institution will try in the spirit of best practice for the commercial use of the protected technology and that the technology has an identified potential for commercial use. The second form of financial support is the possibility of paying patent fees and the performance of patent attorneys for the results of scientific research projects that are solved within the framework of SRDA challenges. With this form of support, the potential of the financed technologies for commercial use is not evaluated, while the support is widely provided.

Concerning the private sector, there are no financial schemes aimed at providing the financial support available to SMEs available at the moment. However, the patent and other IP filing fees may be eligible costs in different funding (mainly EU) programmes.

3. Types of industrial property rights covered by the financing

The financing programmes available encompass various types of industrial property rights, aiming to support the protection and commercialisation of innovative ideas and creations. These programmes recognise the importance of safeguarding different forms of intellectual property and provide financial assistance tailored to specific industrial property rights. Eligible costs include provisions for patent protection, enabling inventors to secure exclusive rights to their inventions. Funds may be allocated to cover patent application fees, patent attorney fees, and other IP protection-related costs.

The existing tools with direct financial resources used to cover administrative fees and other costs related to patent application or indirect services, including consultancy, preparation of patent application, patent searches, etc., are not limited to a certain type of IP rights and can be used as for both patents and other IP rights protection. Generally, the most frequently supported types of IP rights protection are patent and utility patent applications (national, EP and PCT), with a few for trademark and design protection, but to a much lesser extent. However, it is necessary to emphasize that these direct financial tools – especially those provided by the TTC at SCSTI – are financially supporting solely new technologies and innovations which arise within the R&D activities at Slovak public academic and R&D institutions.

4. Outreach of programmes/assistance

The effectiveness of financing programmes aimed at obtaining IP protection depends greatly on their outreach and accessibility to potential beneficiaries. In Slovakia, efforts have been made to ensure that these programmes reach a wide range of individuals and organisations involved in innovation and the creation of intellectual property.

The outreach of financing programmes in Slovakia is complemented by collaboration with European initiatives and funding schemes. Integration with broader European frameworks enhances the visibility and accessibility of the programmes, attracting potential applicants from not only Slovakia but also other European countries. Cooperation with European Union programmes and initiatives ensures that Slovakian innovators have access to a wider network of resources and expertise, fostering cross-border collaboration and knowledge exchange.

Regarding the availability of schemes and mechanisms in the field of IP rights protection and supporting innovations, several ongoing programmes have been identified on a national, regional, and institutional level.

On the national level, the support in the area of IP protection in the academic sector is covered by both financial and non-financial services of the SCSTI. The Industrial Property Office of the Slovak Republic can also be included in this group, even though its main activities relate to IP rights protection on the national and international levels. Other identified national mechanisms are mostly designated for entrepreneurial activities and developing innovative businesses but cannot be considered a real financial tool aimed at obtaining IP protection.
The aim of regional programmes is especially to allow regions to grow and innovate, raising their competitiveness along with an increase in the development of innovations within businesses and fostering entrepreneurship provided by their different non-financial services, thus indirectly facilitating the innovative potential of the region.

Institutionally provided support in the field of IP protection is predominantly represented by university technology transfer offices with the main focus on transferring the results of R&D activities from faculties and institutes to social and economic practice, particularly in the field of IP protection and its commercialisation for employees and students. University technology parks, incubators and accelerators, or technology clusters have been established to provide mentoring focused on developing an early-stage business or creating and further developing innovative technologies. Local mechanisms were not identified during our survey.

5. Sources of programme funding

The Slovak government allocates funds from the national budget to support various innovation and IP-related programmes. The funds allocated from the national budget are directed towards specific initiatives and programmes designed to stimulate innovation, enhance competitiveness, and encourage the creation and protection of IP assets. Slovakia, as a member of the EU, benefits from funding opportunities provided through EU frameworks and programmes. The EU offers financial support to member states for research, development and innovation activities, including those related to IP protection.

Funding programmes such as Horizon Europe, the EU's Framework Programme for Research and Innovation, and the European Structural and Investment Funds provide additional financial support available also for Slovak entities. These programmes aim to promote technological advancements, knowledge transfer, and the effective management of intellectual property rights across the EU. Collaboration between public institutions, private enterprises and industry stakeholders forms another important source of funding for IP-related programmes. Public-private partnerships leverage the resources and expertise of both sectors to support innovation, IP management and commercialisation efforts.

In both cases (identified in point 2 of the national conclusions), the source of financing is the state budget of the Slovak Republic. In the case of the NTTC SR Patent Fund, the Ministry of Education provides special-purpose funds to the departmental organisation - SCSTI, which, at its discretion, invests them in the NTTC SR association. From there, participants can draw the funds according to the set conditions. In the case of SRDA grant schemes (or KEGA/VEGA agencies), these are funds of the Slovak Republic provided primarily for the implementation of applied research at academic institutions of the Slovak Republic, while the researchers can use part of the budget (approx. EUR 3,000-5,000) to cover costs associated with security PP protection of the created DV (fees and possibly services of patent attorneys).

6. Funding entities/managers of support programmes

Funding entities and programme managers play crucial roles in implementing and administering support programmes aimed at obtaining intellectual property (IP) protection. These entities act as key facilitators, providing financial resources, expertise and guidance to individuals, businesses and organisations seeking assistance in IP-related matters.

The main funding bodies in Slovakia administrating the EU money are the Ministry of Investment, Regional Development and Informatization of the Slovak Republic (European Structural and Investment Funds) and the Government Office of the Slovak Republic (Recovery and Resilience Plan).

Research and innovation support (including the field of IP protection) targeted towards companies (mainly SMEs) is coordinated by the Ministry of the Economy of the SR and its organisations – the Slovak Innovation and Energy Agency and the Slovak Business Agency. For support of the academic sector in the field of technology transfer, the coordinating role is played by the Ministry of Education, Science, Research and Sport of the Slovak Republic and its directly managed organisation, the Slovak Centre of Scientific and Technical Information. Other ministerial institutions involved in R&D support are the Slovak Research and Development Agency (SRDA) administrating state budget money, and the Research Agency (RA) administrating the EU funds.

The administrators and financing institutions of the two main programmes (identified in points 2 of national conclusions) are the Ministry of Education and its authorized institutions – SCSTI and the state agencies for financing research and development SRDA and KEGA/VEGA. The managers of the support programmes are employees of these institutions and, in the case of NTTC SR, which is an association, also its presidency.

7. Beneficiaries

A diverse range of beneficiaries can avail themselves of the support programmes aimed at obtaining IP protection. These beneficiaries include individuals, start-ups, SMEs, research institutions and other entities engaged in innovative activities.

According to the information on individual funding programmes that we collected during the survey, we can conclude that there are two groups of beneficiaries represented by public academic and research institutions, i.e. universities and early-stage businesses or SMEs. Almost every funding programme has established criteria and requirements which must be met by the beneficiaries in order to receive either financial or nonfinancial support. Beneficiaries of the institutional programmes are employees (researchers) and students of the relevant university.

8. Identified problems and challenges

While various financing programmes have been implemented to support technology transfer and IP protection in Slovakia, there are still several challenges and issues that need to be addressed. The following problems and challenges have been identified. One of the key challenges is the lack of awareness among potential beneficiaries about the availability and details of the financing programmes. Many individuals, start-ups and SMEs may not be fully aware of the support available to them in the field of R&D&I support. Enhancing awareness through targeted communication, workshops and collaborations with relevant stakeholders is crucial to ensure that eligible entities can take advantage of the funding opportunities.

While there are different R&D support programmes available for Slovak companies, these are not targeted directly to provide financial incentives for IP protection (except for IP cost eligibility in some funding programmes). The available funding programmes for TT and IP protection do not seem to be sufficient to meet the demands and needs of applicants. It might be beneficial to introduce funding schemes focused directly on IP protection in the business sector.

Some applicants may face administrative burdens and complexity when applying for funding programmes. The application and evaluation processes should be streamlined, simplified and transparent to encourage more entities to participate. Clear guidelines, online application systems and efficient procedures can help reduce administrative burdens and enhance the overall accessibility of the programmes. Regular evaluation of funding requirements and potential adjustments to the budget can ensure that the programmes remain effective and impactful.

Concerning the academic sector, there are some basic infrastructure and procedures defined at Slovak universities and research institutes for handling IP in accordance with the best-known practice in such a way that the academic institutions themselves, as well as their employees, can benefit from the commercial use of this asset. However, these basics need to be supported both motivationally and by enforcement. Otherwise, there is a real threat of their extinction and a return to the situation before

2010. The reason is the fact that for decades (1990-2010), the absence of management IP results at the academic institutions in Slovakia caused the emergence of a situation where academic institutions with voluntary participation in support instruments (especially the NITT SK and NITT SK II national projects) are not able to change their situation by themselves, and state intervention is needed to enforce the change.

In order to support the sustainability of the outputs achieved so far and to implement state intervention in the introduction and enforcement of rules for sufficiently effective handling of intellectual property acquired from public sources, it is desirable to use, in particular, the means of strategic financial instruments, e.g. the Recovery and Resilience Plan of the Slovak Republic and European Structural and Investment Funds.

In Slovakia, it is somehow automatically assumed that public resources invested in research at academic institutions will generate new knowledge, the creation of which is carefully evaluated and, where it is expedient, is documented in the records of academic institutions. Subsequently, after expert assessment in terms of commercial application, this property is used to be protected as know-how or under industrial law and will be included in the set processes of commercial exploitation, i.e., into technology transfer. But this does not actually happen because the described procedure takes place only until the creation of new knowledge, which is usually published in a professional periodical, and the evaluation of its commercial usability, consideration of its inclusion in the property of the institution and the process of commercial evaluation through technology transfer only occurs in a minimum number of cases.

Today, it appears that the natural will to manage one's own property as best as possible in the form of IP does not generate a sufficiently strong incentive to positively change the situation in the conditions of Slovak academic institutions. On the contrary, the infrastructure built with the support of the national projects NITT SK and NITT SK II in the years 2010-2020 is in real danger of decay. For this reason, consistent state intervention is necessary.

4. NATIONAL RECOMMENDATIONS

The effective protection and management of intellectual property are crucial for fostering innovation, driving economic growth and maintaining a competitive advantage in today's knowledge-based economy. Although there are some programmes aimed at supporting businesses, start-ups, research institutions and individuals in the area of IP protection currently available in Slovakia, the concrete schemes and programmes providing financial assistance, guidance, and incentives to facilitate the IP rights protection processes in the business sector are missing. The situation is a little better in the public research sector, where there are different initiatives supporting IP-related activities.

To further strengthen the IP ecosystem in Slovakia and maximize the benefits derived from different support programmes, the following national recommendations have been formulated.

1. Enhancing Awareness and Information

To create a conducive environment for IP protection and management in Slovakia, it is crucial to enhance awareness and information dissemination about the benefits and processes of IP rights. This recommendation focuses on empowering businesses, start-ups, researchers and individuals with the knowledge and understanding necessary to leverage IP assets effectively. It is important to develop and implement targeted educational campaigns aimed at raising awareness about the importance of IP rights, their role in fostering innovation and the potential economic benefits they bring. By implementing this recommendation, we can significantly enhance awareness and foster a culture of IP awareness and protection in Slovakia.

It might be useful to collaborate with industry associations, academic institutions, and innovation hubs to conduct workshops, seminars and training programmes on IP protection, management and commercialisation. Digital platforms, social media and online resources to disseminate information and reach a wider audience should be actively utilised. IP awareness programmes specifically targeted at SMEs should consider their unique needs, challenges and limited resources. Comprehensive guidance and support for SMEs regarding IP protection strategies, including patenting, trademark registration and trade secret management, should be part of this endeavour.

2. New funding schemes development

To foster innovation and strengthen IP protection, it is essential to allocate adequate funding to support various aspects of the IP ecosystem. Increasing funding allocation and creating new funding-tailored programmes, it will ensure that all key areas in the area of IP protection and promotion are covered. Additional funds should be used for R&D grants that specifically support the development of innovative technologies, products and processes. Support of R&D projects having strong potential for generating valuable IP assets should be the preferred option.
Mechanisms to encourage collaboration between research institutions, universities and industry players, leveraging their expertise and resources to drive innovation, should also be developed. Funds should be allocated to establish and enhance IP financing schemes that provide financial support to businesses, particularly SMEs, for obtaining and protecting their IP rights. Existing programmes should be extended and new initiatives developed so that they offer grants, subsidies or low-interest loans specifically dedicated to IP-related activities, including IP filing fees, patent searches, IP audits, etc.

Considering the limited state budget resources, it is recommended to use European funds (European Structural and Investment Funds, Recovery and Resilience Plan) for these types of activities. Funding for educational and training programmes focused on IP awareness, management and commercialisation should be allocated/increased as well. Initiatives providing entrepreneurs, innovators and researchers with the necessary knowledge and skills to navigate the IP landscape, including IP strategy development, licensing and technology transfer, should be supported as well.

Still, with the view of reducing formalities required by funds founded by the EU and diversification of the funding sources, it is recommended to develop national and local schemes that support R&D activities and IP protection. In particular, the mapping identified a niche in accessing venture funding. Thus, it would be important to foster partnerships between educational institutions, IP offices and industry associations to deliver effective training programmes that meet the specific needs of different sectors and target audiences. The potential of collaboration with financial institutions and venture

capital firms to explore funding options and create innovative financing models tailored to support IP-driven businesses and start-ups should also be explored.

Because of the limited financial resources of Slovak SMEs, it appears reasonable to design and introduce a grant scheme supporting SMEs to protect their IP rights by covering part of the IP protection fees. A similar initiative exists at the European level - the SME Fund. The SME Fund is a European Commission initiative implemented by the EUIPO as a reimbursement programme that issues vouchers that can be used to cover the fees for patents, trademarks, and designs partly.

3. Main recommendations for building an IP supportive environment in the academic sector

Based on conclusions following experience in the field of protection and commercialisation of the results of scientific and research activities at Slovak AIs, it is recommended to support the functioning of professional units for technology transfer, established directly at research institutions by their statutory representatives and with delegated competence to deal with the institution's assets in the form of created intellectual property. If the institution does not have such a department, its establishment should be supported. For their efficient and productive functioning, their professional development should be supported (educational and foreign assignments of these employees), as well as improvement of their competencies in dealing with the IP of the institution and the provision of supplementary services from the national level in the implementation of technology transfer.

The condition for obtaining support for IP protection and TT services by respective academic institutions should be compliance with Minimum Standards for handling the intellectual property created from public resources. The Minimum Standards should be defined in such a way that they are objectively and transparently certifiable. An authority for assessing the fulfilment of the conditions of Minimum Standards should be established. The Minimum Standards will contain at least: a) requirements for the innovation management system (implemented internal regulations for the handling of property in the form of IP to a minimum extent, a workplace for TT with whole-institutional scope occupied by defined working positions to a minimum extent, ensuring professional handling of property in the form of IP either by one’s own capacities or with the use of supplementary services provided from the national level); b) a published and updated portfolio of offered technologies for TT and list of competencies in the field of research and development for TT implemented in the form of consultations, commissions and joint research.

The main recommendations for supporting the academic sector (academic institutions – AI) are as follows:

Firstly, the state must enforce its will in that the public resources provided by it for financing science and research at the academic institutions of the Slovak Republic are subject to professional care and control, not only in the phase of the implementation of the scientific research projects, but also after its completion, after the project outputs have been achieved in the phase of evaluating the commercial usability of these outputs and in the phase of realizing the commercial utilization of these outputs.

Secondly, the formal definition is required what is the systematic and effective management of property in the form of IP at AI. It is necessary to specify this in the form of a Minimum Standard for property management in the form of IP obtained from public sources at Slovak academic institutions. The minimum standard defines the processes through which any new knowledge, which may be

intellectual property, created within the framework of publicly funded projects must go through at each AI.

Thirdly, state must ensure that public and state AIs, according to the formal definition of the Minimum Standard, implement the necessary processes on their premises, follow them and keep verifiable records.

Fourthly, The state should introduce or supplement and expand the existing motivational and enforcement tools to enforce the Minimum Standard and to ensure the proper management of assets in the form of IP.

Fifthly, the state needs to establish an instance that:

- will define the Minimum Standard for property management in the form of IP obtained from public sources on the territory of Slovak AIs;
- will develop a methodology for evaluating the fulfilment of the conditions of the Minimum Standard by public academic institutions and will be entrusted with the evaluation of the fulfilment of these conditions;
- will provide academic institutions with professional assistance in meeting the conditions of the Minimum Standard;
- will implement motivational tools for enforcement of the Minimum Standard and for ensuring proper property management in the form of IP at academic institutions, including implementation of TT support activities by internal capacities and for the implementation of motivational instruments such as the Patent Fund and the Proof of Concept Fund. It will be necessary for this instance to function as a grant agency;
- will provide materials for enforcement tools to enforce the Minimum Standard and to ensure proper property management in the form of IP at AIs;
- will carry out educational and promotional activities towards academic institutions in the field of property management in the form of IP and technology transfer.

Last, but not least, the state needs to remove the demotivating tools that it produces itself. That is, such requirements placed on AI or such methods of remuneration that distract AI from proper care of IP with an emphasis on its commercial exploitation; for example, the reward for publishing applications for industrial property rights, or the commitment to file a patent application as a condition of getting the research grant.

It needs to be ensured that the mentioned facts and recommendations are defined in the main strategic financial instruments and that a national authority for the management of intellectual property at Slovak state and public academic institutions is established, whose primarily role would be:

- Enforcing the principle that as long as property (intellectual property) is created at state and public institutions from public resources, the public, represented by the relevant authorities, has the right to demand that such property be handled with the best care and in accordance with the best-known practice.
- Determination of minimum mandatory standards for handling IP within the framework of technology transfer at state and public academic institutions.

- Establishing a tool for enforcing Minimum Standards - e.g., linking to funding, conditioning funding from state grant schemes for science and research projects, including those from EU Funds, with a certificate granted and maintained.
- Determining the competencies of the established authority for control and certification of the implementation of Minimum Standards in the internal regulations of academic institutions (guidelines).
- Availability of one's own financial support instruments, in a form of:

  Patent fund – responsible for payment of administrative fees associated with industrial-legal protection of IP according to the established conditions (according to the current model of the NTTC SR)

  Proof of market/Proof of concept fund – that ensures the verification of the applicability of the technology on the market and the technological feasibility of the technology (creation of a prototype), according to the prepared model for NTTC SR.
- Enhancement of professional capacities, including internal patent attorneys and lawyers for the field of industrial property (in staff positions). The model of providing expert services of these professions through external supplies through public procurement, as implemented within the NITT SK II project, is unsustainable.
- Provision of legal assistance "on demand" to technology transfer centres of academic institutions (the problem is often bad contracts and incomplete guidelines).
- Comprehensive implementation of technology transfer on a commercial basis.
- Establishment and launch of a unified database of technologies created at the university and available for the use in private sector.
- Establishment and operation of a single point of contact for directing those interested in research and development cooperation with academic workplaces from the private sector, responsible for: (i) auditing and updating of the scientific research competencies of experts and workplaces of public R&D institutions, and (ii) promotion of the research and development competencies of identified scientific research teams of academic institutions.
- Raising awareness of TT and the possibilities of cooperation with RDI professionals in the private sector (ongoing active education - clusters, unions, associations, independent companies, start-ups, university students; Promotion of RDI competences).

Until such an authority is established, the TTC at SCSTI is able to partially take over this role and operate some of the mentioned activities.

5. USEFUL LINKS

https://www.opii.gov.sk/

https://www.opvai.sk/

https://www.mirri.gov.sk/plan-obnovy/plan-obnovy-a-odolnosti/index.html

https://www.planobnovy.sk/

https://www.planobnovy.sk/o-nas/

https://vaia.gov.sk/o-nas/vaia/?csrt=14231821202897988743

https://www.inovujme.sk/

https://www.npc.sk/sk/

https://www.fondfit.sk/

https://www.mirri.gov.sk/sekcie/programme-slovensko-2021-2027/index.html

https://www.eurofondy.gov.sk/dokumenty-a-publikacie/dokumenty/

https://www.siea.sk/

https://www.sbagency.sk/

https://www.minedu.sk/

https://www.economy.gov.sk/inovacie/podporne-nastroje

https://www.indprop.gov.sk/

https://www.cvtisr.sk/

https://nptt.cvtisr.sk/

https://patlib.cvtisr.sk/

https://www.vlada.gov.sk/plan-obnovy-a%C2%A0odolnosti-sr/

https://www.SRDA.sk/agentura/o-nas.html

http://www.vyskumnaagentura.sk/sk/o-nas/vyskumna-agentura

https://formulare.vlada.gov.sk/site/assets/files/1057/narodna_strategia_vyskumu-_vyvoja_a_inovacii_verejna_konzultacia.pdf

JOINT CONCLUSIONS AND RECOMMENDATIONS

	PROGRAME/SUPPORT SCHEME	FORM OF SUPPORT	PERIOD	TYPE OF FINACING	FORM OF SUPPORT	TYPE OF IP	BENEFICIARIES
	POLAND						
1	**SMART Path - FENG.01.01-IP.01-002/23**	direct/indirect national	recent	public	non-refundable (grant)	all (obtaining & management)	large companies
2	**2.3.2 Technology Credit**	direct, national	recent	public	non-refundable (grant)	all (obtaining & defence)	micro, SMEs
3	**Incubator of innovativeness 4.0**	direct, national	recent	public	non-refundable (grant)	all	universities
4	**Program Titanium supporting international patent applications**	direct, institutional	recent	public	non-refundable (grant)	patents	universities
5	**Patent Plus**	direct, national	historical	public	non-refundable (grant)	patents	SMEs, universities
6	**Protection of intellectual property**	direct/indirect local	historical	public	non-refundable (grant)	all	micro, SMEs
7	**Measure 3.2: Support for implementation of the results of R&D works Sub-action 3.2.2: Credit for technological innovations**	direct, national	historical	public	non-refundable (grant)	all	SMEs
8	**Measure 1.5 Voucher for innovations (Lublin Region)**	direct, local	historical	public	non-refundable (voucher)	patents, utility models	micro, SMEs (smart specializations)
9	**Measure 1.5 Voucher for a patent (Lublin Region)**	direct, local	historical	public	non-refundable (voucher)	patents	SMEs from the region
10	**3.5 Voucher for consultancy (Lublin Region)**	direct, local	historical	public	non-refundable (voucher)	all	SMEs from the region

11	**Grant program for R&D work of science institutions (Podkarpackie region)**	direct, local	historical	public	non-refundable (grant)	all (national)	universities
12	**Intellectual Property in your company**	indirect, national	historical		Free IP related services	all	micro, SMEs
	THE CZECH REPUBLIC						
13	**The Country for the Future (4th call)**	direct, national	recent	public	non-refundable (grant)	all	SMEs (new technologies)
14	**Technological incubation (1st call)**	direct, national	recent	public	non-refundable (grant)	all	start-ups
15	**Operational Programme Technologies and Application for Competitiveness**	direct, national	recent	public	non-refundable (grant)	all	SMEs
16	**TREND** (10th call)	direct, national	recent	public	non-refundable (grant)	patents, utility models, industrial designs	SMEs, universities
17	**National Centre of Competence (2nd call)**	direct, national	recent	public	non-refundable (grant)	patent, utility model, industrial design	SMEs, universities (targeted profile)
18	**ZÉTA (4th call)**	direct, national	historical	public	non-refundable (grant)	patent, utility model, industrial design	SMEs, universities (international research projects)
	HUNGARY						
19	**Stimulating business research, development and innovation (GINOP PLUSZ-2.1.1-21)**	Direct, national	recent	Public	non-refundable (grant)	all (national & international)	micro, SMEs, universities
20	**Support for market-driven RDI projects 2021-1.1.3-PIACI KFI**	Direct, national	recent	public	non-refundable (grant)	all	SME, universities
21	**University of Debrecen Innovation Fund**	Direct, institutional	recent	public	non-refundable (grant)	all	university
22	**Support of activities fostering the domestic and international protection of intellectual property**	Direct, national	historical	public	non-refundable (grant)	all, national, international	SMEs, universities

	to facilitate industrial utilization (2020-1.1.3-IPARJOG)						
23	**Support of activities fostering the domestic and international protection of intellectual property to facilitate industrial utilization (2021-1.1.1-IPARJOG**)	direct, national	historical	public	non-refundable (grant)	all	universities
24	**Thematic Excellence Programme TKP2021**	direct, national	historical	public	non-refundable (grant)	all	universities
25	**IP pre-diagnosis (IP Scan) service by the Hungarian Intellectual Property Office (HIPO)**	Indirect, national	historical	public	free IP related services	all	SMEs
26	**Hungarian Startup University Program (HSUP)**	Indirect, national	historical	public	free IP related services	all	universities
	SLOVAKIA						
27	**Support for the cooperation of business entities and scientific and research institutions – innovation vouchers**	direct, national	recent	public	non-refundable (grant)	(obtaining & management)	SMEs/other
28	**Patent Fund by the National Technology Transfer Centre of the Slovak Republic**	direct, national	recent	public	micro-loan	all	universities
29	**University Technology Transfer Offices**	direct/indirect	variable	Public/ private	non-refundable (grant)/ free IP related services	all	universities
30	**Expert support services by the National Technology Transfer Centre of the Slovak Republic**	Indirect, national	recent	public	free IP related services	all	universities/ research institutions
31	**National Business Centre (NPC)**	Indirect, national	recent	public	free IP related services	all	start-ups/ companies
32	**Prediagnostics of IP and Patent/State-of-the-Art Searches**	Indirect, national	recent	public	free IP related services	patents	SMEs, universities

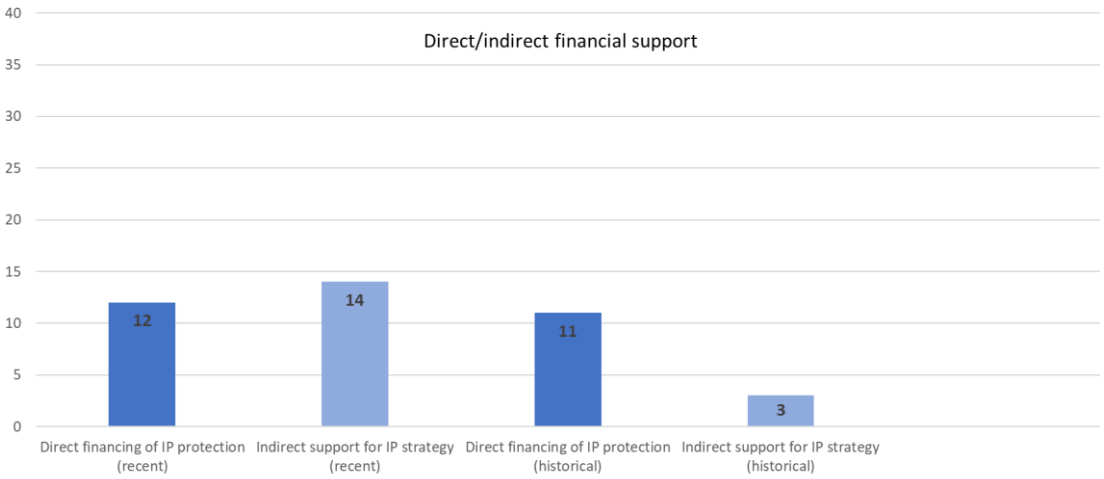
33	**FIT – Innovation and Technology Fund**	Indirect, national	recent	public	free IP related services	all	SMSs
34	**National Holding Fund**	Indirect, national	recent	public	free IP related services	all	all applicants
35	**Innolab**	indirect, local	recent	public	free IP related services	all	all applicants
36	**The Regional Innovation Center of the Košice Region**	indirect, local	recent	public	free IP related services	all	SMEs
37	**INOVIA Innovation Centre**	indirect, local	recent	public	free IP related services	All	all applicants
38	**Business & Innovation Centre Bratislava**	Indirect, local	recent	public	free IP related services	All	all applicants
39	**STU Scientific, s.r.o.**	Indirect, local	recent	public	free IP related services	All	all applicants
40	**STU InQb - University Incubator**	Indirect institutional	recent	public	free IP related services	All	students, research
41	**UVP TECHNICOM – University Science park**	Indirect institutional	recent	public	free IP related services	All	universities/ research institutions
42	**TIP UPJŠ – Technology and Innovation Park of Pavol Jozef Šafárik University in Košice**	Indirect institutional	recent	public	free IP related services	All	universities

JOINT CONCLUSIONS AND RECOMMENDATIONS

1.1 GENERAL REMARKS AND CONCLUSIONS ON THE MAPPED NATIONAL POLICIES SUPPORTING OBTAINING IP PROTECTION

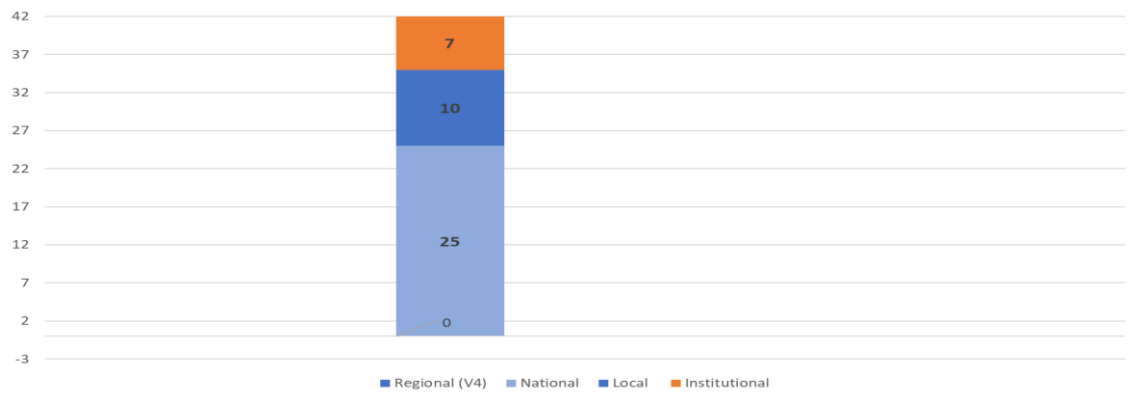
The mapping of available schemes supporting IP protection confirms the existence of different forms of support in all the V4 countries. The identified programmes involve those directly subsidizing the fees for obtaining formal protection or indirectly supporting the strategy of securing formal protection through various activities, including financing costs of assistance in preparing applications for obtaining IP protection.

Graph Type of financing



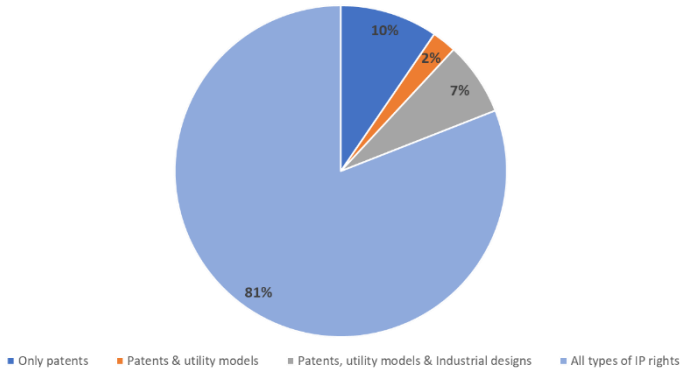
In all V4 countries, the mapped programmes are mainly national, with some examples of internal or institutional programmes and funds available primarily at universities. Only in Poland is the financing of IP protection a part of regional or local policies.

Graph Programme outreach



Most of the programmes are combined, which means they support inventive processes and formally protect their results. The financial support offered by most of the identified programmes is not limited to a specific category of industrial property rights; instead, it typically encompasses various forms of intellectual property rights. These programmes aim to provide assistance and funding for a wide range of rights, including but not limited to patents, utility models, industrial designs and trademarks. Some programmes are focused on patents and cover patent application fees, patent attorney fees and other related IP protection costs. The existing tools with direct financial resources are used to cover administrative expenses and other costs related to patent applications filed under national, EPC and PCT routes with a few trademark and design protections.

Graph IP right supported



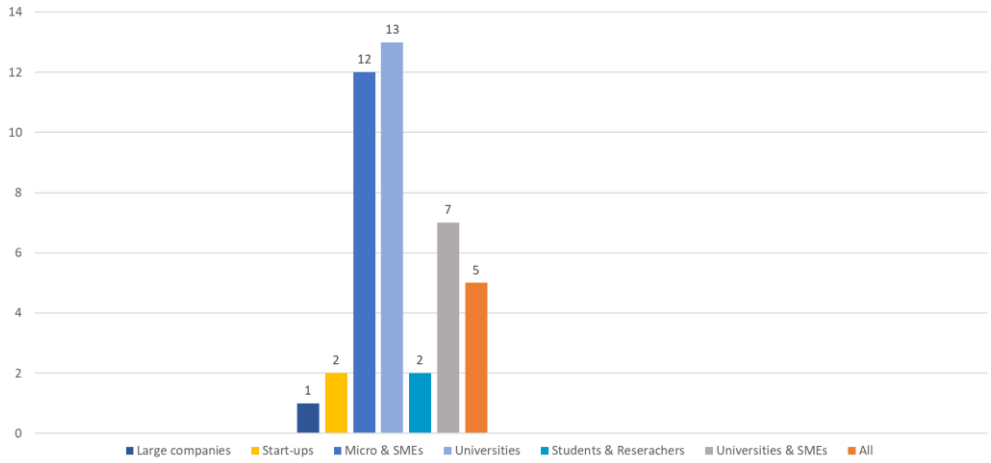
The financing of IP protection comes mainly from public funds. No private funds have been identified in the V4 for financing IP protection. As the mapping and research have found, no central contact point or database at the national or V4 level might serve as a one-stop-shop for potential applicants for information about funding.

The available programmes offer non-refundable financial support (subsidies and grants), loans and IP vouchers. EU funds are the primary sources of national IP-related funding programmes. These sources provide the vast majority of support at the national level, distributed through national institutions and agencies. For companies' support in the area of R&D, the funding sources come from the EU structural and investment funds and the EU Regional Development Fund, with the funded Recovery and Resilience Plan. At the national level, financing also comes from special funds (e.g. the National Research, Development and Innovation Fund, which supports entrepreneurial innovation and market-oriented research and development activities.

Graphs **Type and form of financial support**

The main beneficiaries of financial support in intellectual property management are micro companies and SMEs. The other eligible beneficiaries of financing are universities and research institutions. A limited number of identified financing programmes are aimed at supporting start-ups and individual inventors.

Graphs **Beneficiaries of support**



1.2 BEST PRACTICES IDENTIFIED

1.2.1 Support for companies at the regional level

Although the preliminary focus of mapping was the identification of best practices related to national schemes supporting IP protection, all the national reports identified the regional SME Fund available at the EU as the best practice in the area of financing IP protection and the reference point for developing similar schemes at the national level or regional level of V4 countries. The positively assessed and advantageous characteristics of the scheme are:

- simplicity of procedure
- limited requirements for the applicants
- targeted financing
- broad scope of financed IP rights

1.2.2 Indirect consultancy services ("IP Scans") provided by or via national patent offices

The concept of "IP Scans" has been identified as a best practice, with reference to services financed from the EU funds, as well as available in some of the V4 countries, e.g. IP in your company, run by the Patent Office of the Republic of Poland and IP pre-diagnosis (IP Scan) service offered by the Hungarian Intellectual Property Office, Hungary. Identify your intellectual property and learn how to incorporate an IP strategy into your company's business plans.

The idea is to link a company with an IP expert designated by a National IP office who assists in reviewing a company's business model and advises on an effective IP strategy, including a guide on how to register and commercialise IP.

1.2.3 Decentralised (local) schemes supporting IP protection

Programmes managed at the national level, especially those financed from European sources, often have formal and financial conditions that are difficult to meet (requiring one's own contribution). Central management usually entails further inconveniences and bureaucratic procedures that may discourage applicants from applying for funding. A good practice identified in some V4 countries (i.e. Poland) is programmes managed at the level of a specific smaller administrative region or local programmes offered by local business support institutions. These tend to be dedicated in nature. They aim at entrepreneurs from less developed and industrialized areas as a form of support for local innovation and, thus, the development of a specific region. The local management of programmes supporting IP protection can have a more "personalised" character, allowing for more efficient procedures due to the smaller number of beneficiaries covered.

Institutionally provided support in the field of IP protection is predominantly represented by university technology transfer offices with the main focus on transferring the results of R&D activities to market-ready products by ensuring IP protection and its commercialisation. University technology parks, incubators and accelerators or technology clusters have been established to provide mentoring focused on developing early-stage businesses or the creation and further development of innovative technologies.

1.3 IDENTIFIED PROBLEMS/BARRIERS

The report identifies the following common problems and barriers to obtaining financing IP protection:

National level

- Formalities involved in obtaining support
- Lack of other forms of financing other than public support
- Lack of central management/contact point for applicants
- Lack of a central database of supporting programmes/data related to funded projects

Regional level

- Financing support for IP protection at the national level that is limited only to entities having seats within a country, which limits access to national funds for entities from other V4 countries
- Increasing IP culture and protection as areas of cooperation not explicitly included among priority areas of activities in the Presidency Programmes of V4
- Lack of existing regional support programmes for the V4 region
- The existence of 'competing' funding schemes for IP protection at the EU level that can limit national policymakers' decisions on implementing similar national IP financing programmes.

Additionally, lack of indirect financial supporting tools in the form of tax incentives related to IP strategies in all the FV countries can be listed as a potential disincentive.

1.4 JOINT RECOMMENDATIONS

1.4.1 Enhancing and supporting financing of IP protection in the V4 region

The collaboration within the V4 region is essential to collectively voice concerns, propose recommendations, and advocate for policies that support the interests of Central European countries. Engagement with relevant EU forum working groups and an active contribution to shaping the EU policies and funding programmes is also desirable. By aligning national strategies in V4 countries with EU policies and actively participating in EU initiatives, the region can enhance its position in the European innovation ecosystem, attract additional funding and create synergies with other EU member states. This alignment will strengthen the V4's competitiveness, support the growth of its innovation-driven sectors and contribute to a vibrant and sustainable IP ecosystem within the European Union.

While the current support schemes in each country of the V4 region primarily support the national and international ways of obtaining IP protection, cooperation within the V4 region can contribute effectively to the growth of socio-economic welfare if innovative enterprises are able to implement their IP strategies in the markets of several countries of the region at the same time. The first condition

for a company to be able to enter the market with a new solution is to obtain a form of IP protection appropriately selected for its characteristics and best supporting the company's business strategy.

To encourage innovative regional businesses to operate in the V4 region, the report recommends promoting favourable conditions for regional universities, research institutes, and businesses to secure IP protection of research results in the other three V4 countries. In addition to European protection systems, policymakers should pay particular attention to opportunities for securing protection in the V4 region.

To further contribute to policies aimed at strengthening collaboration within the V4, possible recommendations involve developing policies and tools for assisting applicants in obtaining IP protection at the V4 level. Based on mapping historical and existing national schemes and policies, the number of areas of possible future actions at the V4 level can be identified, recommended, and further developed.

1.4.1.1 Complement the operation of the Visegrad Patent Institute with a regional patent-focused financing scheme

The operation of the VPI is an essential incentive for applicants from the region to ensure patent protection at the international level. The Institute supports the development of innovation and competitiveness in the region and helps increase innovation indicators in the V4. Joint activities performed by the VPI also play an important role in raising awareness of patenting and sharing experience, expertise, and practice in protecting inventions by patents.

Applicants who choose the VPI as an ISA/IPEA can have several benefits. First, they can use their respective national languages when filing the international application and communicating with the patent examiner throughout the procedure. Second, a significant fee reduction is granted to applicants in cases where the VPI benefits from the results of an earlier search carried out by any of the V4 national offices. Applicants who opt for a European regional phase receive a fee reduction from the supplementary fee for a European search report. The amount paid as a supplementary search fee is also considered in the examination fee to be paid later in the procedure.

Applicants from the V4 region usually validate the granted European patent in the other V4 countries if they want to ensure the protection of their inventions in this region. As none of the V4 countries have ratified the UPC Agreement, the relevant official fees (translation costs) and the patent attorney and maintenance fees will continue to be paid separately in these countries. Although fee reduction can be considered an important financial incentive for the applicants from the V4 countries, in order to further strengthen the ability of applicants from the region to obtain protection in each other's countries (which is a prerequisite for enhancing mutual economic links in innovative industries), it is appropriate to develop a support scheme that specifically provides support for these costs. Support should be given in those cases where validations are made in all Visegrad countries for the same European patent.

However, as the mapping findings confirm, no existing programmes are available to support applicants from the region in preparing and filing patents via the Visegrad Patent Institute. In contrast, for many applicants, lack of financial resources is an important obstacle in building an effective international patenting strategy.

Thus, one of the main project recommendations is to design and implement a regional funding scheme that can support and supplement services offered by the VPI. Although it provides attractive financial conditions due to a fee reduction, which makes this patenting track competitive compared to standard procedures, the number of applications filed annually has decreased in recent years. This trend is not unique to the VPI. Similar tendencies have been identified in all V4 countries. The situation can be improved in the future by additional supporting tools for applicants, including financial incentives, for example, in the form of a targeted fund for co-financing costs of services offered by the Institute but charged in international patenting procedures: International Search (IS); Supplementary International Search (SIS) and International Preliminary Examination (IPE). The proposed co-financing scheme can be linked to new commercial search services in the VPI service portfolio available from October 2023.

The new search services aim to support the patenting efforts of applicants by providing them with information on their invention's novelty and patentability prospects in the form of a preliminary patentability report at the earliest stage possible. The relevance of such a service for discussing the financial side behind the patenting strategy is straightforward. On the one hand, it helps verify the success of implementing a patenting strategy without the financial commitment of a patent application. On the other hand, once results can prove patentability, the applicant must have financial resources to cover the administrative costs of patent protection.

A possible scheme supporting the use of existing services or a new service offered by VF for applicants from V4 may be considered as follows:

1) a “Visegrad Patent Institute voucher”

2) a non-refundable grant reserved for patenting in VPI-funded projects

Sources of relevant financing could be national programmes, regional programs/projects, the Visegrad Fund, or a special fund supporting international patent services offered by the VPI.

The intuitive choice for appointing a relevant founding body would be the International Visegrad Fund, a donor organisation established by the governments of the Visegrad Group countries – Czech Republic, Hungary, Poland and Slovakia to support cooperation between these countries. The Fund’s annual budget is EUR 10 million, provided by equal contributions of the V4 governments. The proposal to dedicate part of the budget to the IP support fund would require a political decision of the governments to extend the funds and activities of IVF to finance possible projects supporting patent protection via FV.

The VF is already funding projects in the area of Innovation, R&D and Entrepreneurship with strategic priorities (for 2022) focused on Research, Development and Innovation, including projects aiming to build new business and cluster networks for SMEs, startups and research institutions within the V4, as well as projects dealing with innovation, new technologies and scientific research on regional and cross-sectoral levels. These projects are relevant for IP-focused support in terms of beneficiaries and the potential for generating innovative outputs.

1.4.1.2 Supporting applicants from V4 in benefiting from a new Unitary Patent System

Future policies to support patent protection at national and regional levels as part of the strategy to increase innovation in the V4 group should consider the recent reform of the European patent system. This regards the launch of a new regime for obtaining and enforcing patents under the European patent system with unitary effect, which has been in operation in the EU since June 1, 2023.

The unitary patent system intends to offer a potentially alternative path for obtaining, maintaining and enforcing patent protection with a regional scope, covering much of the European Union[74]. Of the V4 group, Hungary, the Czech Republic and Slovakia have signed but not yet ratified the UPCA but may ratify it at any time. Poland has not signed the UPCA but may still accede to it in the future. Nevertheless, applicants from these countries can apply for European patents with unitary effects with coverage in countries where the system is already in force.

A patent with a unitary effect is based on the European patent system and granted by the EPO. Applicants have to file a European patent before the EPO. Within one month of the grant's publication date, a "request for unitary effect" must be filed at the EPO to obtain a unitary patent. For unitary effect, the European patent must have been granted with the same set of claims for all the Member States participating in enhanced cooperation.

The new unitary patent system for granting and enforcing patents in the EU may be considered both an alternative and a competitive option compared to national or PCT patenting procedure for those applicants seeking extended territorial protection. This is due to the anticipated much lower costs of obtaining and maintaining a unitary patent, as well as financial compensation for translation costs for applicants from countries with official languages other than English, French, and German. The lower costs could be an opportunity for patenting, particularly for SMEs, universities, research centres and individual inventors. The cost of renewing a unitary patent for 10 years should be less than EUR 5,000, compared to current costs for European patents estimated at EUR 29,500 for the first ten years. The costs for the full 20-year term will be over EUR 35,500 compared to EUR 159,000 for the full 20 years. This estimation means a reduction of 78% compared to the current expenses involved in maintaining a traditional European patent[75].

The reduction in costs of unitary patents concerns the costs of enforcement due to the centralised jurisdiction of the Unified Patent Court over infringement and revocation of unitary patents and, in the future, traditional European patents, which are not subject to an opt-out option from the jurisdiction of UPC. The lower costs of obtaining wide territorial patent protection and enforcing unitary patents could also be a decisive factor for applicants to choose cost-effective EU-oriented regional protection rather than national or PCT procedures.

As might be expected, in the future, the UPC system will play an important role as a patenting strategy in Europe. Applicants from V4 countries can already use the system, so it should be included in a future

[74] As of October 2023, 17 countries that have ratified the Agreement on Unified Patent Court.

[75] The Guidance for the payment of fees, expenses and prices for European patents with unitary effect adopted by the decision of the Select Committee of the Administrative Council of December 15 2015, applies (SC/D 2/15, OJ EPO 2016, A40). The fee amounts fixed there apply from June 1, 2023.https://new.epo.org/en/legal/official-journal/2023/etc/se3/p26.html

framework for financing patent protection. Policymakers can consider it part of a strategy aimed at improving the innovation indexes of V4 countries and promoting EU-wide protection of innovations from the region.

1.4.2 Establishment of proof of concept and start-up/spin-off funds

It is common experience in publicly funded research that the potential for exploitation of promising research results often remains unexploited. However, the technological and market validation of research results is an essential prerequisite for developing a new technology to become a successful innovation. There are several institutional or national proof of concept funds. However, consideration should be given to a form of support for the market validation of research results that have been produced in collaboration with several regional universities or company consortiums and are thus potentially exploitable in several countries.

Start-ups and spin-offs play a key role in converting research and development results into economic outcomes. Start-ups at universities or publicly funded research centres of the Visegrad region ready to exploit the results generated in other V4 countries should be given special attention. For start-up companies, operating beyond the national market is often a fundamental difficulty. It may be useful to develop a support scheme for companies thinking beyond national markets from the outset, possibly immediately into the V4 regional market.

Thus, one of the recommendations for all V4 countries is to put more attention on establishing proof of concept funds at the regional level, which could effectively bridge the funding gap in the exploitation of intellectual property generated in research centres.

1.4.3 Promotion of one-stop-information points and one-stop assistance in obtaining IP protection

To facilitate access channels to up-to-date information about financial incentives for applicants seeking IP protection, centralised access to facilitated data is recommended both at the national and the V4 level. Diversification of sources of information may delay access to dynamically changed information and involve more time and a bigger workload in accessing useful calls, information, and data.

For funding assistance to be more effectively aimed at improving IP protection, enterprises should benefit from possibly the most comprehensive support that covers consultation services assisting in identifying and verifying the objects of protection and financial support when applying for the protection, maintaining and enforcing IP rights. It is therefore recommended to consider programmes that would centralize this assistance in the form of a “one-stop shop” that offers both consultative support at the identification stage for intellectual property protection and assistance in financing administrative fees related to obtaining such protection. Such a “one-stop shop” supporting scheme would be welcome at the V4 regional level to facilitate applicants seeking IP regional protection.

Visegrad Fund

The project is co-financed by the Governments of Czechia, Hungary, Poland and Slovakia through Visegrad Grants from International Visegrad Fund. The mission of the fund is to advance ideas for sustainable regional cooperation in Central Europe.