











# Analysis

of the use of the potential of intellectual property protection



















# List of acronyms

Czech Republic Czech Republic

EIS European Innovation Scoreboard

EPO European Patent Office

EU European Union

EUIPO European Union Intellectual Property Office
ESIF European Structural and Investment Funds

GII Global Innovation Index
GDP Gross domestic product

NP National Policy of Research, Development & Innovation in the Czech Republic

NRP National Reform Programme

OECD Organisation for Economic Co-operation and Development

PCT Patent Cooperation Treaty

PLT Patent Law Treaty

RIS3 National Research and Innovation Strategy for Smart Specialisation of the Czech

Republic

R&D&I Council Research, Development and Innovation Council

TA AS Technology Agency of the Czech Republic
SWOT Strengths Weaknesses Opportunities Threats
TC AS Technology Centre of the Academy of Sciences

TRIPS Agreement on Trade-Related Aspects of Intellectual Property Rights

IPO Industrial Property Office

R&D&I Research, Development and Innovation

RO Research organizations
TUB Technical University in Brno

WIPO World Intellectual Property Organization









# **Table of Contents**

| Α        | NALY:        | SIS OF THE USE OF THE POTENTIAL OF INDUSTRIAL PROPERTY PROTECTION  | . 4 |
|----------|--------------|--|-----|
| 1.       | Im           | nportance of intellectual property to the economy  | . 4 |
| 2.       | In           | dicator analysis of intellectual property protection   | . 4 |
|          | 2.1<br>prot  | Analysis of the European Innovation Scoreboard in terms of intellectual property ection  | . 4 |
|          | 2.2          | Analysis of the Global Innovation Index in terms of intellectual property protection   | . 5 |
| 3.       | Ar           | nalysis of governance and strategic documents for innovation management  | . 6 |
|          | 3.1          | European Commission IP Action Plan   | . 6 |
|          | 3.2          | Priorities of the EU internal market agenda  | . 6 |
|          | 3.3          | 2019-2030 Innovation Strategy of the Czech Republic  | . 6 |
|          | 3.5          | National Research, Development and Innovation Policy of the Czech Republic for 2021+   | . 7 |
|          | 3.6<br>(RIS3 | National Research and Innovation Strategy for Smart Specialisation of the Czech Republic 3)  |     |
|          | 3.7<br>Repu  | Analysis of the Existing State of Research, Development and Innovation in the Czech ublic and Comparison with the Situation Abroad | . 8 |
|          | 3.8          | Supreme Audit Office's Report  | . 8 |
| 4.       | Ar           | nalysis of support for industrial property protection in the education system  | . 9 |
|          | 4.1          | Analysis of information provided in elementary and secondary schools   | . 9 |
|          | 4.2          | Expert assessment of the state of teaching of industrial property at universities  | . 9 |
| 5.<br>ar |              | opert assessment of the treatment of industrial property in science, research and innovation universities                          | . 9 |
| 6.       | Ex           | pert assessment of the treatment of industrial property in the manufacturing sector  | . 9 |
| 7.<br>ri |              | pert assessment of the quality of the legal system for the exploitation of industrial property                                     |     |
| 8.       | Ar           | nalysis of the issue of enforcement of intellectual property rights  | 12  |
| 9.       | Co           | ompetence of the Industrial Property Office  | 14  |
| 1(       | o. sv        | VOT Analysis   | 15  |
| 1:       | 1. Ar        | nnexes   | 16  |









# ANALYSIS OF THE USE OF THE POTENTIAL OF INDUSTRIAL PROPERTY PROTECTION

The analysis of exploitation of the intellectual property protection potential describes the importance of the intellectual property to the economy. This consists of: the analysis of its importance for business, government governance and strategic documents, support for industrial property in the educational system, and the enforcement of industrial property rights; statistical analysis conducted in line with the European Innovation Scoreboard (EIS) and Global Innovation Index (GII); and expert estimation of the handling of industrial property in science, research, innovations and the manufacturing sector, and of the quality of the legal setting of the system in the terms of the exploitation of the industrial property rights. The position of the Industrial Property Office within the state administration is also described.

# 1. Importance of intellectual property to the economy

The development of the knowledge-based economy, the globalisation of markets and the increasing complexity of products and services increase the importance of tools that can protect individual industrial property while contributing to the development of society as a whole by making the latest technical knowledge available. A balanced system of industrial property protection thus not only rewards innovators appropriately, but it also stimulates the overall innovation environment.

In many institutions and companies, the value of their intangible assets far exceeds that of their physical assets. The state of care of intangible assets in Europe is reflected in the development of patent, trademark, and design applications by European applicants. In the last two decades, an increasing trend can be seen, except for small fluctuations.

Studies by the European Patent Office (EPO) and the European Union Intellectual Property Office (EUIPO)<sup>1</sup> show that industries that make heavy use of the industrial property system generate 45% of GDP in the EU annually, representing € 6.6 trillion (see Fig. 1 and 2). They also account for 63 million jobs, 29% of all jobs in the EU. An additional 21 million people are employed in industries that supply goods and services to these sectors (see Fig. 3).

The knowledge-based economy, which is closely linked to the protection of intellectual property, can best be used to kick-start the economy after the impact of the Covid-19 pandemic.

# 2. Indicator analysis of intellectual property protection

# 2.1 Analysis of the European Innovation Scoreboard in terms of intellectual property protection

The innovation activity of individual countries is assessed by different indices and benchmarked. One of the innovation indices is the European Innovation Scoreboard<sup>2</sup> (EIS) defined by the European Commission. The EIS provides a comparative analysis of innovation performance across countries. It assesses the relative strengths and weaknesses of national innovation systems and helps countries identify areas where they should focus to improve their innovation activities. According to the 2019 EIS values, the Czech Republic is classified as a "Moderate Innovator" compared to other European countries (Fig. 1, highlighted in yellow). The Innovation Strategy 2019-2030 aims to move the Czech Republic into the "Strong Innovators" category (Fig. 1, marked in green).

<sup>&</sup>lt;sup>2</sup> https://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards\_en







 $<sup>^{1}\</sup> https://euipo.europa.eu/tunnel-web/secure/webdav/guest/document\_library/observatory/documents/IPContributionStudy/IPR-library/observatory/documents/IPContributionStudy/IPContri$  $intensive\_industries\_and\_economicin\_EU/WEB\_IPR\_intensive\_Report\_2019.pdf$ 

The EIS index consists of sub-indices covering different innovation activities of countries. One of them is:

"Intellectual assets". <sup>3</sup> Based on the total EIS index value in 2019, the Czech Republic was in the middle of the countries compared, ranked 16th, in the overall EIS index (see Graph 1), but is lower, ranked 22nd, in the Intellectual Assets sub-index (see Graph 2).

This situation does not apply only to 2019, but long-term. According to the overall EIS index, the Czech Republic is in the middle of the countries compared, but in the "Intellectual assets" sub-index it is around 20th place.

The "Intellectual assets" sub-index among countries in the "Moderate innovators" category shows that the Czech Republic ranks lower than Malta, Cyprus, Italy, Slovenia, Spain, Poland, Lithuania, and Latvia (see Fig. 3). Given the overall state of these economies compared to the Czech Republic, it should be possible to outperform these countries in this sub-indicator, as well.

It follows from this that increasing the use of industrial property protection in the Czech Republic has the potential to contribute to moving the Czech Republic from the "Moderate Innovators" category to the "Strong Innovators" category.

According to the EIS, the Czech Republic is still far from reaching the level of their competitors from EU countries of comparable size, such as Austria, Belgium, Denmark, and Sweden. If we focus on the parameters of industrial property and licensing, the difference between the country and these countries is even bigger. So far, there is little sign of an advance in the desired direction of improvement.

# 2.2 Analysis of the Global Innovation Index in terms of intellectual property protection

The Global Innovation Index<sup>4</sup> (GII) is a ranking of the global economies based on innovation capabilities. It consists of 80 indicators grouped into innovative inputs and outputs, captures multi-dimensional aspects of innovation, and provides information on the innovation potential and performance of 131 countries. It is product of cooperation between Cornell University, INSEAD and the World Intellectual Property Organization (WIPO).

In 2020, the Czech Republic ranked 24th among 131 benchmarked economies, 23rd among 49 highincome economies and 15th among 39 European economies.

The Global Innovation Index consists of two innovation sub-indices, the Innovation Input sub-index and the Innovation Output sub-index (see Fig. 4).

The Czech Republic scores above average compared to other European countries in a total of 4 pillars: Knowledge and Technology Outputs, Creative Outputs, Infrastructure and Business Sophistication. It is below the European average in 3 pillars: Institutions, Human Capital & Research and Market Sophistication (see Graph 4).

The Czech Republic did not rank among the top 10 in Europe in any of the pillars assessed. However, it fares better than the European average in several pillars and does not significantly lag behind the European average in those pillars where it is not better than the European average (see Fig. 5).

Improved use of IP protection would be reflected in the Knowledge and Technology Outputs pillar and the Creative Outputs pillar. The value in both these pillars is below the overall GII value of the Czech Republic.

Improving the use of intellectual property protection has the potential to move the Czech Republic

<sup>4</sup> https://www.globalinnovationindex.org









<sup>&</sup>lt;sup>3</sup> The EIS indicator uses the term intellectual property incorrectly, as it only includes industrial property, namely PCT applications, European Union trademarks and Community designs, in the "Intellectual assets" sub-index.

up the GII index, as well as the EIS, to an overall better position in the innovation rankings.

# 3. Analysis of governance and strategic documents for innovation management

# 3.1 European Commission IP Action Plan

On 25 November 2020, the Commission published a new Intellectual Property Action Plan<sup>5</sup>. Its goal is to enable Europe's creative and innovative industries to remain world leaders and to accelerate the transition to a "green and digital" Europe. The coronavirus crisis has also highlighted certain dependencies on important innovations and technologies, so the Action Plan addresses these challenges and ensures that the necessary intellectual property can be made available in times of crisis. The Action Plan builds on the strengths of the European IP framework to ensure that it supports economic recovery and resilience in key areas. The Action Plan is also the Commission's work programme and sets out the time frame for the launch of each action.

The Action Plan sets out actions in five key areas:

- Improve IP protection,
- Strengthen the use of intellectual property by small and medium-sized enterprises (SMEs),
- Facilitate access to and sharing of intellectual property,
- Fighting counterfeiting and better enforcement of intellectual property rights,
- Promoting globally equal conditions.

#### 3.2 Priorities of the EU internal market agenda

The material "Priorities of the Czech Republic in the Internal Market Agenda of the European Union 2015-2020" formed a framework for the fulfilment of one of the objectives of the "Policy Concept of the Czech Republic in the EU: Active and comprehensible Czech Republic in a united Europe". The EU internal market is one of the most tangible and economically significant benefits of EU membership for the Czech Republic and its citizens, as well as a key prerequisite for further socio-economic development, convergence and stability of the EU.

The Priorities of the Czech Republic on the EU Internal Market Agenda 2015-2020 document did not contain the support of protection of intellectual property.

Support for maximum use of industrial property protection tools should be included in the Priorities on the EU Internal Market Agenda 2021-2024 not only on the basis of the IP Action Plan, but also in relation to the Innovation Strategy of the Czech Republic 2019-2030 which states that the issue of intellectual property protection should be included in strategic and conceptual documents of the Czech Republic and the EU.

### 3.3 2019-2030 Innovation Strategy of the Czech Republic

In 2019, the R&D&I Council and subsequently the Government of the Czech Republic approved the Innovation Strategy of the Czech Republic 2019-2030 - The Czech Republic: The Country For The Future document. It is a strategic framework that predetermines the government's policy in the field of R&D&I

https://upv.gov.cz/files/uploads/PDF\_Dokumenty/eurostranky/informace\_eu/obecne/eu\_akcni\_plan\_IP\_listopad\_2020cj.pdf



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and should help the Czech Republic become one of the most innovative countries in Europe within twelve years. The strategy consists of nine pillars: Financing and Evaluation of Research and Development, Innovation and Research Centres, National Start-Up and Spin-Off Environment, Polytechnical Education, Digitalization, Mobility and Building Environment, Intellectual Property Protection, Smart Investment and Smart Marketing. The Industrial Property Office (IPO) is coresponsible for the Intellectual Property Protection pillar.3.4 National Reform Programme

The National Reform Programme (NRP) is submitted annually to the European Commission to assess the Czech Republic's economic policy and to propose key measures that should lead to greater prosperity and competitiveness of the Czech Republic. In May 2021, the government approved of the National Reform Programme of the Czech Republic for 2021<sup>6</sup>. The material states that obstacles to the development of a fully functional innovation ecosystem should be removed, referring to the Innovation Strategy of the Czech Republic 2019-2030 and specifically to the protection of intellectual property. Compared to previous years, there has been a positive shift, as the area of support for the protection of intellectual and industrial property was not mentioned in the National Reform Programme in previous years.

# 3.5 National Research, Development and Innovation Policy of the Czech Republic for 2021+

The National Research, Development and Innovation Policy of the Czech Republic 2021+ 7 contains the basic objectives of R&D&I support, its substantial focus, the assumption of the development of R&D&I expenditures from the state budget, EU funds and private sources, priorities of applied R&D&I and measures for their implementation. In relation to RIS3 (see below), it introduces a continuous process of identifying and evaluating the substantive needs of business entities and other users in the field of applied research.

The National Research, Development and Innovation Policy of the Czech Republic 2021+ in its analytical section points to the inadequate use of industrial property protection. For this reason, the IPO was tasked with the creation of a Concept for the Promotion of the Protection of Industrial Property and sets out the necessary measures in outline.

A positive development in the consideration of the protection of industrial property has also occurred in this strategic document, since previous version of the National Research, Development and Innovation Policy did not address the protection of intellectual or industrial property at all.

# 3.6 National Research and Innovation Strategy for Smart Specialisation of the Czech Republic (RIS3)

RIS3 identifies promising areas of the economy that should be subsequently supported by the European Structural and Investment Funds (ESIF). It contains applied research priorities according to the framework set by the National Research, Development and Innovation Policy 2021+ and related to ESIF and selected national R&D&I support programmes. The IPO participated during the development of RIS3, therefore, the protection of industrial property is included in the document. It can be concluded that there has been a positive shift in the document as well, since in the previous version, IP protection was mentioned only in the form of indicators, i.e. to measure innovation performance, not as an area to be supported.

<sup>&</sup>lt;sup>7</sup> https://www.vyzkum.cz/FrontClanek.aspx?idsekce=913172







 $<sup>^6 \</sup> https://www.vlada.cz/cz/evropske-zalezitosti/aktualne/vlada-schvalila-narodni-program-reforem-cr-2021-188487/2012-188487/2018-188487/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-1884887/2018-18848887/2018-18848887/2018-1884887/2018-18848887/2018-1888887/2018-188887/2018-188887/2018-188887/2018-188887/2018-188887/2018-18887/2018-18887/2018-18887/2018-18887/2018-18887/2018-18887/2018-18887/2018-18887/2018-18887/2018887/2018-18887/2018-18887/2018-18887/2018-18887/2018-18887/2018-18887/2018-18887/2018-188$ 

# 3.7 Analysis of the Existing State of Research, Development and Innovation in the Czech Republic and Comparison with the Situation Abroad

In January 2020, the Government accepted the Analysis of the state of R&D&I in the Czech Republic and its comparison with foreign countries. The analysis provides an expert assessment of the reasons for the inadequate use of industrial property protection in the Czech Republic as follows:

- insufficient awareness of IP protection in the education system (primary schools, secondary schools, universities lack of information in educational programmes, lack of support from teachers, lack of IP specialists with academic degrees),
- insufficient awareness of IP protection in the application sphere; insufficient exploitation of IP with commercial potential,
- insufficient use of intellectual property protection in science and research,
- existing public support for IP protection without subsequent support for subsequent commercial exploitation through licensing,
- insufficient motivation of research institutes to set up incentive rules for scientists to avoid illegal transfer; insufficient motivation to use licensing policy,
- failure to use patent information in the formulation of R&D&I plans,
- failure to use patent information in the assessment of publicly funded programmes and projects,
- absence of objectives and measures supporting the protection of intellectual property in strategic and conceptual documents,
- absence of IP specialists in the formulation of conditions for public support for IP protection,
- persistent belief of some companies or entrepreneurs that they will not be able to finance the costs of patent protection,
- a number of "non-Czech" patents have Czech originators; this may be due to the policy of multinational companies where intellectual property is managed by their headquarters and the application is filed in a country other than the Czech Republic, it may also be because human capacities do not work in the Czech Republic, another factor may be illegal transfer,
- analysis of the European Innovation Scoreboard (EIS) Intellectual assets sub-index shows that the Czech Republic lags behind in the frequency of intellectual property protection. It is very likely that the state does not invest as much in activities related to IP protection as in activities assessed in the other sub-indices. However, analysis of government investment correlated by EIS sub-indices is not available.

#### 3.8 Supreme Audit Office's Report

The insufficient use of the system of protection of intellectual<sup>8</sup> property is pointed out by the SAO<sup>9</sup> in the audit conclusion of the action 17/15 State funds for R&D&I from 2018. It points out that, despite the increasing budget, there are long-standing problems in R&D that cannot be solved, such as the low number of new patents granted, which are linked to the low number of results that can be applied in practice.

<sup>&</sup>lt;sup>9</sup> https://www.nku.cz/assets/kon-zavery/K17015.pdf



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<sup>&</sup>lt;sup>8</sup> The SAO's report uses the term intellectual property, but in practice it focuses only on industrial property, specifically patents and trademarks.

### 4. Analysis of support for industrial property protection in the education system

### 4.1 Analysis of information provided in elementary and secondary schools

Industrial property protection is not firmly established in the current curricula. It appears marginally in subjects focusing on information and communication technologies for elementary schools, grammar schools and some secondary vocational schools. It is particularly lacking in technical courses and in technically oriented schools.

# 4.2 Expert assessment of the state of teaching of industrial property at universities

Courses of industrial and other intellectual property rights issues take place at almost all major universities, to the greatest extent at the University of Economics in Prague, at the faculties of law at Charles University, Masaryk University, and the University of West Bohemia in Pilsen. At some universities, such as the University of Chemical Technology in Prague, the Czech Technical University in Prague and the Technical University in Liberec, the courses of industrial property rights are included in the form of individual lectures. The optimal situation is not in the pedagogical, science and humanities fields.

### 5. Expert assessment of the treatment of industrial property in science, research and innovation and at universities

The system used for the evaluation of science and research in the Czech Republic included among the indicators the number of patent applications or utility model applications, regardless of the future fate of the protected technical innovations, whether it will be used by the applicant or licensed or both. However, using only the quantitative aspect has resulted in R&D institutions drawing public funds only to apply for the technical innovations, without paying attention to their subsequent commercialisation. The Methodology for the Evaluation of Research Organisations and the Evaluation of Programmes of Special Purpose Support for Research, Development and Innovation approved by the Government of the Czech Republic in February 2017 (Methodology M17+)<sup>10</sup> tries to correct this situation. According to the M17+ Methodology, it is no longer sufficient to submit technical solutions just for the purpose of better evaluation.

Internal regulations regarding industrial property are mostly addressed in universities and research organizations. The regulations of the TUB can be cited as a model.

# Expert assessment of the treatment of industrial property in the manufacturing sector

In most Czech enterprises, especially small and medium-sized ones, the systemic management of intangible assets are not sufficiently or not at all established. Long-term industrial property protection strategies are not developed, especially in the area of patent protection, and relevant patent areas or patent portfolios of competing companies are not monitored. There is a lack of invention and

<sup>&</sup>lt;sup>10</sup> Available from: https://www.vyzkum.cz/FrontClanek.aspx?idsekce=799796







improvement expertise that would describe in more detail the process of invention creation by employees and their remuneration. In any case, there is a direct correlation between the size of a company in the Czech Republic and the use of formal instruments for the protection of technical solutions, especially patents.<sup>11</sup>

To improve the situation, the lack of private methodological and consultancy services, mainly serving small and medium-sized entrepreneurs who do not have their own corresponding workplace, needs to be addressed. Patent experts do not provide such comprehensive services. Generalised services are offered by the public sector, e.g. the Technology Centre of the Academy of Sciences (TC AS) as the services of the Enterprise Europe Network<sup>12</sup> or the IPO.<sup>13</sup> Consulting services in the field of technology and knowledge transfer are offered or mediated by associations, such as Transfera.cz<sup>14</sup> or Licensing Executives Society Czech Republic & Slovakia<sup>15</sup> The European Commission's Intellectual Property Action Plan which provides advice to SMEs, aims to improve the treatment of intellectual property rights in SMEs.

This situation can be documented in more detail based on the results of a survey carried out by TC AS CR<sup>16</sup>.

A survey of 150 Czech mostly small and medium-sized innovative enterprises from five industrial sectors (mechanical engineering; electrical engineering; automotive, aerospace and railway; new technologies and ICT) showed that enterprises mainly use utility models, patents, and trademarks to protect their innovations, altogether with a strategy aimed at continuous innovation, maintaining the lead of the competition and maintaining the confidentiality. The most intensive protection by patents and utility models, but also by confidentiality, was found among enterprises in the new technology sector where patent protection is used by more than 80% of enterprises. ICT companies, on the other hand, rarely patent and protect their innovations (software) mainly by copyright. Across the entire sample of enterprises, there is a clear relationship between patenting intensity and firm size; smaller firms use patents significantly less frequently than larger enterprises. The reasons why companies use patent protection are mainly related to defending against competitive imitations, but strategic considerations, such as blocking competitors with patents, preventing litigation, and corporate reputation are also common. The main factor that discourages companies from patenting is the financial costs associated with filing and maintaining a patent and litigation. In general, however, regardless of industry sectors, firm size and patenting intensity, firms consider trade secret protection to be more important. A comparison with the results of analogous foreign surveys shows that these features and motivations of Czech firms are basically similar to those of firms in the EU and North America.

The issue of foreign owners of large companies is reflected in the offshoring of patents. Fewer patents are being filed in the Czech Republic, because the economy is heavily dependent on foreign companies filing applications for protected intellectual property developed in the Czech Republic in their home countries. In recent years, there has been an increase in offshoring of Czech patents. In total, 19.8% of patents in the active Czech patent portfolio<sup>17</sup> are registered outside the Czech Republic. The same trends in patenting activity of their originators as in the Czech Republic can also be observed in structurally similar countries (Hungary, Poland, Slovakia). The offshoring rate is the highest

<sup>&</sup>lt;sup>17</sup> https://www.tacr.cz/dokums\_raw/novinky/190822\_patenty\_podle\_typu\_vlastnictvi.pdf





<sup>&</sup>lt;sup>11</sup> Suchý, V., Intellectual property protection in Czech technology firms - its means, strategy and importance for corporate development, in Ergo 2015, 10, 2-3, 21-29

 $<sup>^{12}\</sup> https://www.enterprise-europe-network.cz/poradenstvi/dusevni-a-prumyslove-vlastnictvi$ 

<sup>&</sup>lt;sup>13</sup> https://www.upv.cz/cs/sluzby-uradu/IPDiagnosis.html

<sup>14</sup> https://www.transfera.cz/

<sup>&</sup>lt;sup>15</sup> http://www.les-crs.org/les-crs.html

 $<sup>^{16}</sup>$  Suchý, V., Intellectual property protection in Czech technology firms - its means, strategy and importance for corporate development, in Ergo 2015, 10, 2-3, 21-29

in Hungary (26%), with Poland showing the lowest level of 17%. In contrast to this, Germany, which is much more active in patenting than countries in our region, only achieves 7% in offshoring.

# 7. Expert assessment of the quality of the legal system for the exploitation of industrial property rights

The development of legal regulations in the Czech Republic follows the development in the former Austria-Hungary and the former Czechoslovakia. After World War I, Czechoslovakia was one of the European countries which, immediately after the establishment of its statehood, regulated its legal relations in the field of industrial property as early as in 1919. For example, the Patent Office and the Patent Court were established in Prague. However, the successful development in the former Czechoslovakia was interrupted for several years by the events of World War II and for 40 years after the change of the political system after 1948. After 1989, the Czech Republic had the opportunity to build on the legal awareness of industrial property established before 1939.

Prior to joining the European Union, the Czech Republic, as a new member state, had to adapt its legal system to the *acquis communautaire*, including regulations in the area of intellectual property protection. Even after accession to the EU, secondary legal norms are being adopted and implemented by the Czech Republic.

Currently, the Czech Republic has a legal regulation of industrial property protection fully harmonised with European and international regulations. The basic sources of law in the field of industrial property are the Act No. 14/1993 Coll. on measures for the protection of industrial property, Act No. 527/1990 Coll. on inventions and improvement designs, Act No. 478/1992 Coll. on utility models, Act No. 207/2000 Coll. on industrial designs, Act No. 441/2003 Coll, 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 the enforcement of industrial property rights, Act No. 417/2004 Coll. on patent attorneys. Most of these laws have been amended over time to reflect the latest legislative developments in the EU and worldwide.

A partial discrepancy could be the fragmentation of the Czech legal regulations on the protection of industrial property into eleven laws and several decrees, which makes the area relatively unclear for the lay user, however, this state of affairs is due to the continuity of these legal norms. The use of easily interchangeable (e.g. industrial design and utility model) or semantically, at first glance not entirely clear legal terms (registration), which, however, are based on a strong Czech legal tradition and are part of a rich decision-making practice and case law, can also be a problem for better orientation and understanding of the lay user.

At the international level, the Czech Republic is a member of the World Intellectual Property Organization (WIPO) which is a global international organization in the field of intellectual property protection, whereas the Czech Republic is a party to a number of international treaties for the protection of industrial property administered by this organization. The Czech Republic is also a party to the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) administered by the World Trade Organization (WTO). At the regional level, the Czech Republic is a member of the European Patent Organisation (EPO) and a contracting party to the Convention on the Grant of European Patents which is administered by the EPO. In the European Union, the Czech Republic participates in the negotiation and adoption of EU intellectual property law. There is close cooperation between the IPO and the European Union Intellectual Property Office (EUIPO). There is continuous cooperation in the field of industrial property at the level of the Visegrad Group and its allied countries, such as Austria, Slovenia, Romania and Croatia. Cooperation within the Visegrad Group









culminated in the establishment of the Visegrad Patent Institute in 2016, operating in the Central European region as an international body for search and preliminary examination of international patent applications under the Patent Cooperation Treaty (PCT) system administered by WIPO.

However, it is also possible for the Czech Republic to improve its position in the area of setting the legal framework. Examples include the consideration of the Czech Republic accession to other 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. The PLT is an international treaty that the Czech Republic signed in 2000 but has not yet ratified. The PLT provides applicants with a safety net in the event of defects in the application and filing that would otherwise prevent continuation of the proceedings. The provisions of the PLT have already been implemented in the European Patent Convention, the PCT and the national legislation of a number of countries. The implementation of PLT into the Czech patent legislation would thus enable Czech applicants to correct certain filing defects in national and international patent applications and thus to continue patent proceedings.

Furthermore, a problem was identified consisting in the relatively frequent use by the institute of a provisional measure based on a mere utility model, where no room is given to determine whether or not it meets the conditions of registrability.

#### Analysis of the issue of enforcement of intellectual property 8. rights

Counterfeiting, unauthorised imitation and other infringing practices not only deprive the owners of industrial property rights of legitimate profits but can also damage them in other serious ways. Lower quality imitations can affect reputation and the trust of customers. On the consumer side, counterfeits can pose significant health and safety risks.

According to a study on trade in counterfeit and pirated products by the OECD and EUIPO<sup>18</sup>, the global market for counterfeit products has grown to a value of € 460 billion, which is 3.3 percent of global trade. According to data for the Czech Republic, counterfeit goods cause losses of CZK 16.16 billion annually, which represents 8.2% of all sales. According to the analysis, the total value of lost sales in the Czech Republic is CZK 1,530 per person.

In 2019, EUIPO published a study on the risks posed to consumers by counterfeits<sup>19</sup>. Research has shown that counterfeit products are often produced by criminal networks. Businesses that deliberately infringe intellectual property rights are usually negligent in terms of product quality and safety. Products may, therefore, contain substances or ingredients that do not meet European safety standards and pose potentially dangerous risks to the health and safety of consumers.

However, the statistics of the Customs Administration of the Czech Republic show that both the value and the quantity of seized counterfeit goods have been decreasing in recent years. They reached their peak in 2016 when the customs officers seized almost five million pieces of counterfeit goods worth more than CZK 625 million. In 2018, however, it was just over 378,000 pcs, the value of which was less than CZK 380 million.

Conversely, the opposite trend is observed by the Czech Trade Inspection Authority which seized a

web/secure/webdav/guest/document\_library/observatory/documents/reports/2019\_Risks\_Posed\_by\_Counterfeits\_to\_Consumers\_Study/ 2019 Risks Posed by Counterfeits to Consumers Study Executive SUMMARY EN CS.pdf







<sup>&</sup>lt;sup>18</sup> https://euipo.europa.eu/tunnel-

web/secure/webdav/guest/document\_library/observatory/documents/reports/trends\_in\_trade\_in\_counterfeit\_and\_pirated\_goods/trend  $s\_in\_trade\_in\_counterfeit\_and\_pirated\_goods\_en.pdf$ 

total of 41,379 counterfeits in 2018, 2,994 counterfeits more than in 2017. The value of such seized goods has also increased. While in 2017 it amounted to less than CZK 84 million, in 2021 it was more than CZK 92 million.

The production of counterfeits is a worldwide problem and is widespread in many countries. However, according to the EUIPO and OECD studies, China and Hong Kong have long been the largest source countries for pirated products.

The EUIPO and OECD study also states that the most counterfeited goods include consumer products, such as footwear, clothing, leather goods, electronics, watches, perfumes and toys. The situation in the Czech market is very similar in this respect. In the terms of statistics, clothing, footwear and various accessories have long held the top positions.

However, according to this study, industrial goods are also an important segment. They belong to the group of frequently counterfeited commodities, as it is often a consumer item in great demand. From the point of view of the average consumer, we can mention, for example, spare parts for passenger cars. This results from the fact that the domestic industry is strongly oriented towards the production of cars.

However, these counterfeit industrial goods can also pose significant danger, especially when it comes to parts of more complex machinery.

In June 2019, the EUIPO published a qualitative study on the risks posed to consumers by counterfeits<sup>20</sup>.

The European Observatory on Infringements of Intellectual Property Rights has investigated the links between counterfeit and unsafe products, both in the terms of infringements of intellectual property rights and non-compliance with applicable safety and health standards. To this end, they looked at various options for collecting available qualitative and quantitative data that could be useful for this study. A qualitative study<sup>21</sup> demonstrates the extent of the health risks posed by counterfeit products, based on data from alerts submitted by EU market surveillance authorities under the European Commission's "Rapid Alert System for Dangerous Non-Food Products" (RAPEX). RAPEX is the only system available for reporting actions taken by authorities in relation to dangerous products on the markets of European countries.

Specifically, RAPEX covers products that are both dangerous and counterfeit (or at least suspected of being counterfeit) and that are labelled as such by the relevant market surveillance authorities. The report focuses on the seven risks most frequently highlighted in the warnings analysed. These risks, which account for approximately 92% of all risks identified in the alerts, are chemicals and the risks of injury, strangulation, suffocation, electrocution, hearing damage and fire hazards. An analysis of the warnings reported in RAPEX between 2010-2017 shows that:

- 97% of the dangerous counterfeit products recorded were assessed as posing a serious risk.
- The alerts mostly concern toys, but also clothing, textiles and fashion accessories. The end-users of the products reported as unsafe, and counterfeit were children in 80% of cases (toys, childcare products, and children's clothing).
- The most commonly reported risk (32%) was related to exposure to hazardous chemicals and toxins that can cause acute or long-term health problems as a result of immediate or long-term exposure.

https://euipo.europa.eu/tunnelweb/secure/webdav/guest/document\_library/observatory/documents/reports/Situation%20Report%20EU IPOEuropol en.pdf.



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<sup>&</sup>lt;sup>20</sup> https://euipo.europa.eu/tunnel-

 $web/secure/webdav/guest/document\_library/observatory/documents/reports/2019\_Risks\_Posed\_by\_Counterfeits\_to\_Consumers\_Study/2019\_Risks\_Posed\_by\_Counterfeits\_to\_Consumers\_Study\_Executive\_SUMMARY\_EN\_CS.pdf$ 

<sup>&</sup>lt;sup>21</sup> Zpráva z roku 2017 o situaci v oblasti padělání a pirátství v EU:

- 24% of dangerous products reported as counterfeit put users at risk from more than one risk.
- The causes of the risks identified varied from poorly manufactured products, use of poor-quality materials and components to a lack of understanding of regulations or safety mechanisms.
- China was the major country of origin of dangerous counterfeit products in the EU when 73% of these products originated in the EU, while 13% originated in the EU in 2010-2017.

In the Czech Republic, in the case of unauthorized infringement of industrial property rights, according to the Act No. 221/2006 Coll. on the enforcement of industrial property rights, it is possible to request in court, in particular, that the infringement of the right be prohibited and that the consequences of the infringement be eliminated, or to claim compensation for damages. The Police of the Czech Republic, the Customs Administration of the Czech Republic and the Czech Trade Inspection Authority are active in the field of enforcement of industrial property rights.

# 9. Competence of the Industrial Property Office

The IPO is the central body of the state administration for the protection of industrial property. It is established by the Act No. 21/1993 Coll., amending and supplementing the Act No. 2/1969 Coll. on the establishment of ministries and other central state administration bodies. Its competence is defined by the Act No. 14/1993 Coll. on measures for the protection of industrial property. The executive activities of the IPO are governed by laws and implementing regulations relating to industrial property, a set of international treaties to which the Czech Republic is bound and EU legislation. The IPO mainly serves as the national patent and trademark office. As defined by its statutory competence, it decides on the granting of legal protection, in particular, for inventions, utility models, industrial designs, trademarks, designation of origin and geographical indications. It is also committed to raise awareness of the benefits and optimal methods of using the system of industrial property rights in order to promote entrepreneurship and competitiveness and R&D&I.

The IPO is a separate budget chapter. Its revenue exceeds its expenditure by around EUR 100 million each year. It is a matter for political consideration whether or not the funds raised from industrial property protection activities should be utilised for the development of this area.









# 10. SWOT Analysis

#### Strengths (S)

- There is a strong tradition of industrial rights protection in the Czech Republic
- The Czech Republic has acceded to most major international agreements
- The IPO has been raising awareness of industrial property protection issues for a long time
- The IPO information systems are of a very good standard
- The IPO cooperates with other offices, both Czech and international, in the exchange of data on industrial property rights
  - The IPO enables electronic communication with the applicants to a large extent
- The IPO cooperates with the EUIPO and the EPO to harmonise its legislation and practice
- Existing industrial property legislation is at a good level compared to most advanced EU countries The IPO continuously strives for further computerisation of its services
- The IPO cooperates with foreign industrial property offices
- The Czech Republic has a solid network of business and trade support persons and centres both abroad and at home at the regional level
- The Czech Republic has a network of technical libraries, some of which also act as PATLIB centres
- The Czech Republic has a well-developed network of technical secondary and higher education institutions at a very good level
- The Czech Republic has an above-average number of programmers and IT specialists at the highest world level, as well as a new generation of designers and computer graphic artists, which represents a high innovation potential with economically exploitable outputs in the field of intellectual property

#### Weaknesses (W)

- The IPO is having to reduce the number of employees, even though its income exceeds expenditure by about CZK 100 million annually. This may cause a lengthening of administrative procedures There is a lack of public confidence in the enforceability of intellectual property rights, in particular the prompt and fair resolution of disputed cases
- There is a shortage of experts in the field
- Lack of quality mediation services or conciliation activities that could informally resolve some disputes
- The level of information provided on the possibilities of protecting intellectual property rights at all levels of the education system is low
- The educational activities of the Institute are not systematically linked to the school system in the Czech
- Expert assessment interprets the treatment of intellectual property rights in science, research, and innovation as inefficient
- Expert assessment identifies the treatment of industrial property rights in the manufacturing sector as insufficient
- The promotion of industrial property has not been sufficiently considered in governance and strategic documents of the Czech  $\,$ Republic in the past
- There are no effective standards for the valuation/appraisal of intangible assets
- Protecting industrial property in multiple countries is expensive
- There is no known analysis indicating how much the Czech Republic does/does not invest in industrial property protection
- A problem has been identified in the relatively frequent use of the institute of interim relief based only on a registered utility

#### Opportunities (O)

- There is now the political will to encourage more frequent use of industrial property protection
- The Innovation Strategy of the Czech Republic 2019-2030 declares systemic support for providing information on industrial property protection at all levels of education
- The Innovation Strategy of the Czech Republic 2019-2030 declares support for the use of industrial property rights in the production and application sphere
- The Innovation Strategy 2019-2030 declares a systemic support for setting up industrial property protection in the state administration
- Possible improvements in IP enforcement support
- Industrial property and transfer offices are gradually developing within the largest universities in the Czech
- The Czech Republic has a strong position in the EPO leadership, cooperates closely with EUIPO (which hosts a number of IPO interns) and has been continuously active in WIPO over the long term. In the framework of international cooperation with WIPO, EPO and EUIPO, IT infrastructure, services, best practices and publications to support the protection and exploitation of industrial property can be transferred to the Czech Republic at minimal cost.

#### Threats (T)

- Insufficient financial resources for effective IPR enforcement. Political will to implement changes in the promotion of industrial property protection may not be continuous and long-term
- The financial burden of protecting industrial property rights in multiple countries may persist
- Misuse of industrial property protection
- Administrative procedures are taking longer due to headcount cuts in the IPO
- Incorrect definition of research results in the terms of efficient industrial property protection







# 11. Annexes

# **CCONTRIBUTION OF IPR-INTENSIVE INDUSTRIES TO GDP IN EU AND EFTA MEMBER STATES**

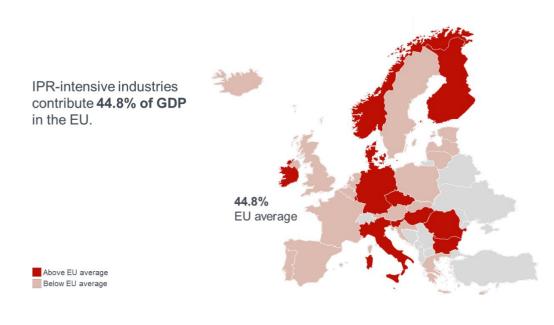
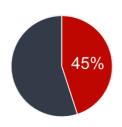


Fig. 1

#### CONTRIBUTION OF IPR-INTENSIVE INDUSTRIES TO EU GDP

# **IPR-intensive industries:**

€ 6.6 trillion of value added or 45% of EU GDP



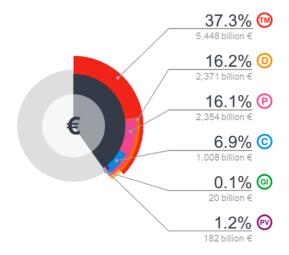


Fig. 2





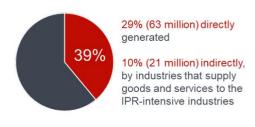




#### **EMPLOYMENT IN IPR-INTENSIVE INDUSTRIES**

# **IPR-intensive industries:**

84 million jobs or 39% of EU employment



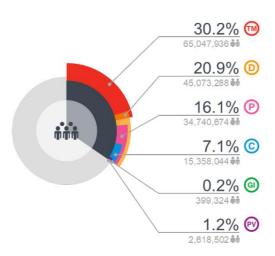


Fig. 3

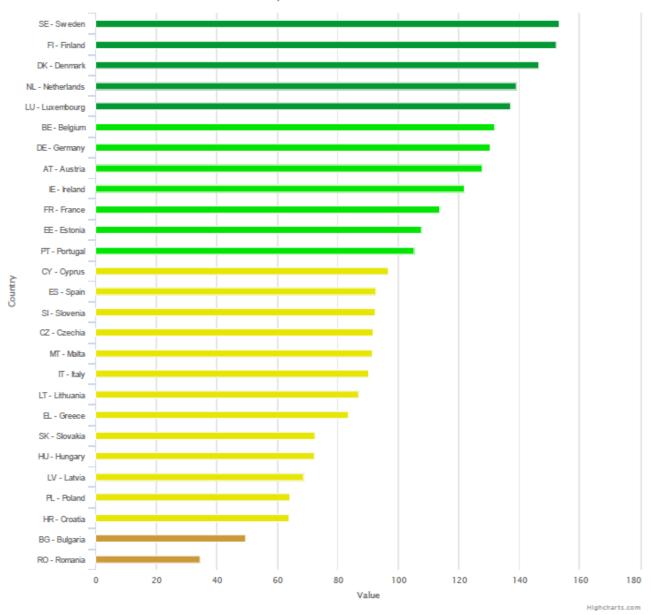






### Innovation index

Source: European Innovation Scoreboard 2020



Graph 1



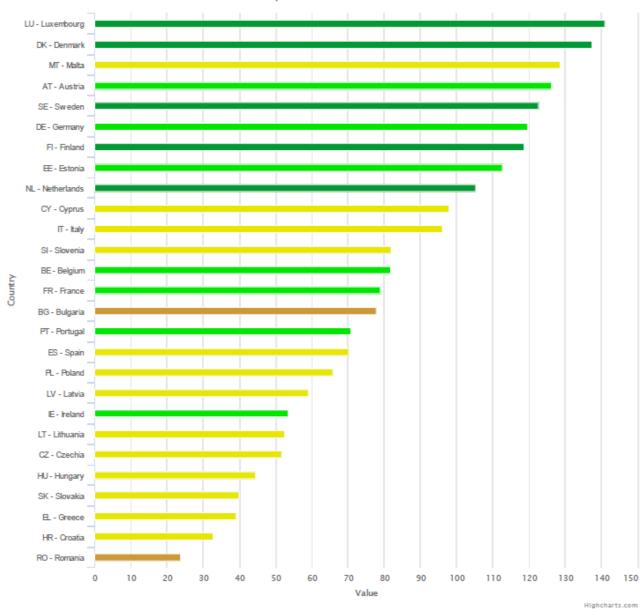






### Intellectual assets

Source: European Innovation Scoreboard 2020



Graph 2

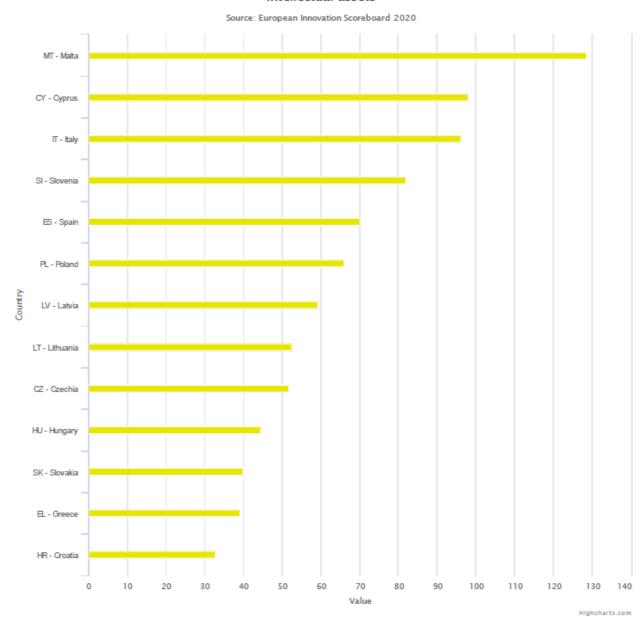








# Intellectual assets



Graph 3









#### **ABOUT THE GLOBAL INNOVATION INDEX**

#### Framework of the Global Innovation Index 2020

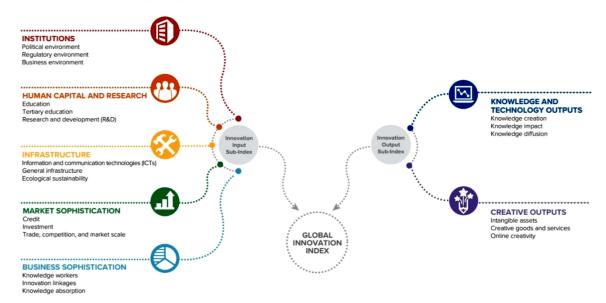


Fig. 4



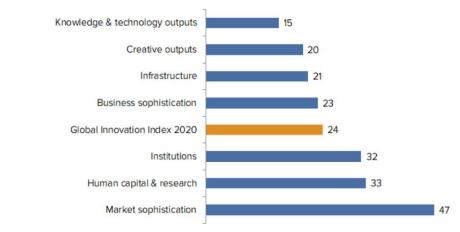






### **OVERVIEW OF THE CZECH REPUBLIC RANKINGS IN THE SEVEN GII AREAS**

The Czech Republic performs best in Knowledge & technology outputs and its weakest performance is in Market sophistication.

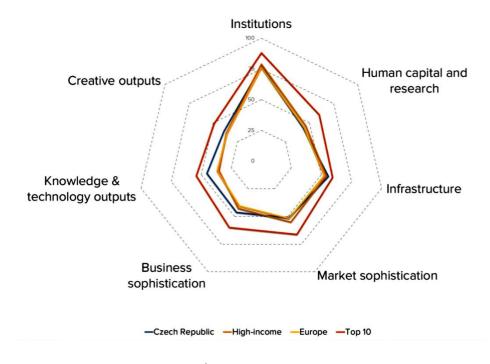


<sup>\*</sup>The highest possible ranking in each pillar is 1.

Graph 4

# BENCHMARKING THE CZECH REPUBLIC AGAINST OTHER HIGH-INCOME **ECONOMIES AND EUROPE**

The Czech Republic's scores in the seven GII pillars



Graph 5















