



ANNUAL REPORT

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Foreword from the Director



Ing. Karel Klusáček, CSc., MBA

Director of the TC Prague

Dear partners, colleagues, and friends, in the past year 2024, we celebrated the 30th anniversary of the founding of Technology Centre Prague. The thirty-year journey from one part-time employee to today's team of seventy, our own building, hundreds of completed projects and contracts, and an annual budget of nearly one hundred million Czech crowns has not always been easy — at times, it has been somewhat winding, with occasional setbacks and dead ends. However, the past 30 years are not only a period of growth for one organization; they also represent a wonderful story in which I have had — and continue to have — the privilege of working with many excellent colleagues, partners, and supporters — motivated, motivating, and inspiring individuals. To all of them, I extend my heartfelt thanks.

In this annual report, we will present the most significant results of our work over the past year. However, in this introductory note, I would also like to briefly summarize the key achievements of the past thirty years. In summary, the Technology Centre has become an important and respected element of the national innovation infrastructure. The core pillars of our activities are three expert departments — the National Information Centre for European Research, the Strategic Studies Department, and the Business Development Department.

The National Information Centre for European Research (NICER) serves as the National Contact Point (NCP) for the EU Framework Programmes for Research and Innovation — currently Horizon Europe and the EURATOM programme. The NCPs provide a portfolio of information, training, and consulting services that are essential for the successful participation of national teams, including those from the business sector, in the framework programmes. They also assist in finding international partners for collaboration in joint projects. These services are provided free of charge to all those interested in participating in the framework programme as well as to beneficiaries of funded projects. An integral part of their activities is the monitoring of the Czech Republic's participation in the framework programmes and the preparation of analytical reports, including selected participation trends. Cooperation between the NCPs and experts within the national support system for applicants for prestigious ERC grants has demonstrably increased the success rate of Czech applicants. The NCPs work closely with project specialists from research, development and innovation institutions, with public administration, and with the European Commission, particularly through participation in the Horizon Europe programme committees.

The Strategic Studies Department (STRAST) provides expert analytical and conceptual background materials for strategic decision-making in the field of research, development, and innovation (RDI) at the European, national, and regional levels. At the national level, it serves as a key expert body for research and innovation policy, supplying public administration with analytical materials for the formulation of research priorities, strategies, and programmes, and assessing their results and impacts. At the international level, STRAST is a recognized partner in the fields of foresight, technological trends, and the assessment of the societal impacts of emerging technologies. At the regional level, it cooperates with innovation centres and agencies in preparing foresight studies for regional innovation strategies. These activities confirm department's exceptional position as the national leader in strategic analysis and as an internationally respected centre for responsible, data-driven RDI policymaking.

The Business Development Department (ORP) focuses on supporting technology start-ups, commercializing research results, and developing the innovation ecosystem in the Czech Republic. Its mission is to connect science, innovation, business, and the investment sector, to support the creation of start-ups, and to enhance the competitiveness of Czech companies at both the European and global levels. Over 18 years of leading the Czech consortium of the Enterprise Europe Network (EEN), ORP has helped hundreds of Czech small and medium-sized enterprises (SMEs) connect with international partners, enter new markets, protect their intellectual property, and grow their businesses through expert consulting.

Surveys conducted by EISMEA, the EU agency coordinating the EEN network, have repeatedly shown that clients rate ORP's services well above the EU network average. The department has also been highly successful in facilitating technology transfer between the space sector and other industries. As part of its role as an ESA Technology Broker, it has identified and initiated dozens of terrestrial applications of space technologies, as well as the use of space applications for technologies from other sectors and supported these transfers through funding provided by the ESA Spark Funding project. The activities of the TC Runway incubator, including its acceleration programme for technology start-ups and spin-offs from research organizations, were also further developed.

Over its thirty-year journey, TC has had to face numerous challenges and find new solutions to ensure that its activities remain useful and effective. I believe we will be just as successful in the future. TC possesses not only extensive expertise but, above all, a team of skilled and flexible people, who are our most valuable asset for the future. I would like to thank all colleagues for their dedicated efforts and look forward to continuing our work together.



Ing. Karel Klusáček, CSc., MBA



Meeting to mark the 30th anniversary of the founding of TC



The TC Prague Council Members



prof. Ing. Martin Nikl, CSc.

Deputy Director of Targeted Research at the Institute of Physics of the CAS
Chairman of the Council of TC Prague

Ing. Martin Polák

Deputy Director of Administration at the Institute of Molecular Genetics of the CAS, *Vice-chairman of the Council of TC Prague*



Ing. Tomáš Chráska, Ph.D.

Director of the Institute of Plasma Physics of the CAS

Ing. Jiří Hašek, CSc.

Director of the Institute of Microbiology of the CAS



Ing. Karel Klusáček, CSc., MBA

Director of the Technology Centre Prague

Ing. Jiří Plešek, CSc.

Member of the Academy Council of the CAS



Ing. Miroslav Punčochář, CSc., DSc.

Director of the Institute of Chemical Process Fundamentals of the CAS

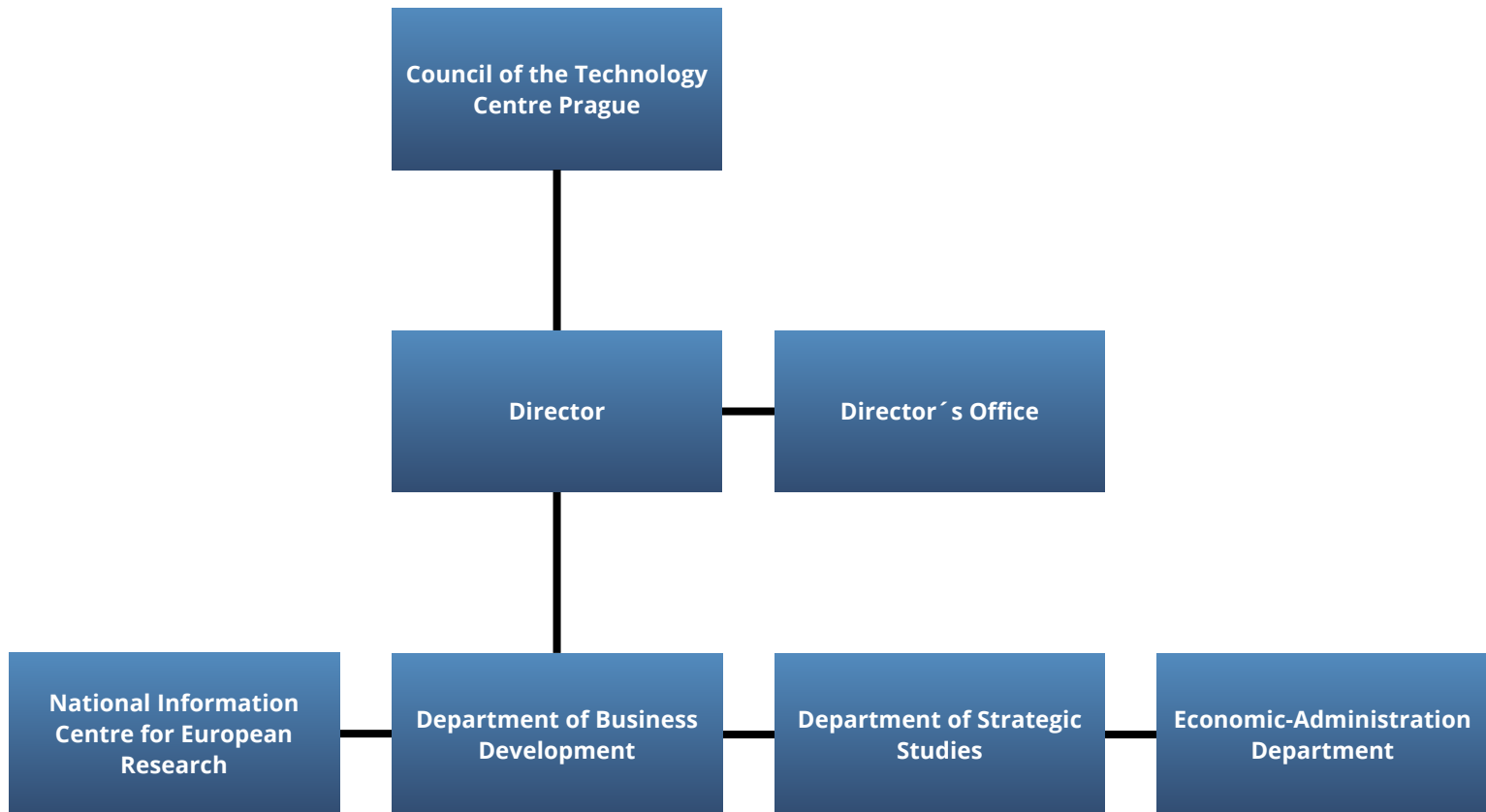
prof. RNDr. Jaroslav Spížek, DrSc.

Institute of Microbiology of the CAS
Honorary Chairman of the Council of TC Prague





Organisational Structure





Overall Statistics of Selected Activities

- **126** seminars and workshops organised or co-organised
- **27** active projects for national and international clients
- **56** lectures at national and international events
- **4** e-learning videos
- **29+11** articles for internal, external and online media
- **40** intellectual property consultations
- **48** analyses, evaluations and expert studies
- **919** personal consultations
- **7** podcasts on HE and ERA topics
- **21** B2B meetings
- **6** agreements on international technology cooperation
- **8** released publications and periodicals



Selected Results

In 2024, TC Prague continued to implement its key projects. One of them is the shared activities project **CZERA (2021–2027)** funded by the Ministry of Education, Youth and Sports (MEYS). At the same time, it was involved in twelve projects of the National Contact Points (NCPs) network within the **Horizon Europe** programme. These activities were focused on increasing the expertise needed to perform the role of NCPs, exchanging experiences and examples of good practices, creating supporting materials and organizing international meetings that facilitate the establishment of cooperation for European research projects.

As part of the activities of the National Information Centre for European Research, TC Prague organized or co-organized 64 information and training events, 18 of which were of an international nature. The most significant was the **21st annual conference Czech Days for European Research**, followed by the spring and autumn series of courses "**How to get to Horizon Europe**" and thematic seminars for applicants for ERC grants. Four **e-learning videos** focusing on administrative aspects of the framework programmes were produced and seven **podcasts** with interviews on Horizon Europe and ERA were published. Three issues and one special issue of the **Echo magazine**, and two new brochures in the **Vademecum series** of the HE programme were published.

During the year, NCPs provided 806 individual consultations. The most common topics were general information and cross-cutting aspects of the HE programme, as well as MSCA, ERC and Widening-focused projects. There was a consistently high level of interest in the pre-screening of MSCA Postdoctoral Fellowship project proposals, with 76% of Czech applicants who consulted NCP achieving above-threshold (compared to 58% of applicants who did not use the consultation).

The free pre-screening service for project proposals through the **NCPWIDERA.NET** project, which the department provides to Czech coordinators in cooperation with external experts, was also very actively used. This service was provided to a total of 35 applicants in 2024.





Seminar on Project Coordination



Czech Days for European Research 2024



There was also a high level of interest in workshops for ERC grant applicants. After expert consultation of the materials, 43 participants were invited to the workshop series. All three successful Czech applicants for ERC Starting Grants in 2024 underwent preparatory activities organized by the NICER department and the Expert Group for supporting ERC applicants.

TC Prague analysts also prepared 31 **expert analyses** of the Czech Republic's participation in framework programmes, intended for the state administration and external interested parties. These analyses were continuously published in the **Framework Programme Evaluation section** of the Horizon Europe portal. Members of the department represented the Czech Republic in expert groups of the European Commission and HE programme committees and cooperated with the MEYS and other ministries on issues related to European research.

Another key project for TC Prague was the BISON3T project (2022–2025), implemented within the framework of the international Enterprise Europe Network (EEN), financed by the EU Single Market Programme and co-financed by the Ministry of Industry and Trade.

TC Prague employees participated in the organization of 21 international B2B events, which led to the conclusion of eleven business and technology agreements between Czech and foreign companies. In the area of business development, the department's employees provided individual consulting and management mentoring to 73 companies. The result was 50 so-called Advisory Achievements, i.e. demonstrable positive impacts of the support provided on specific clients. Consulting in intellectual property protection was provided to 40 clients.

BTC Prague also continued to implement the European Space Agency **ESA Technology Broker** contract, within which eight projects were selected for funding in the ESA Spark Funding program in 2024. Among them were, for example, the **Icarus Armor**, **Dronetag Rider**, and **Space in Beehive** projects, which use space technologies in terrestrial applications.

The incubator's activities were also developed with the TC Runway acceleration programme for technological start-ups and spin-offs of research organizations. In 2024, the companies **Stratosyst** and the Israeli startup **KAMO AI** were incubated here. Cooperation continued with the Ministry of Industry and Trade (MIT), the CzechTrade and CzechInvest agencies, the National Cluster Association, the Society of Science and Technology Parks of the Czech Republic, the CzechInno association, and the Industrial Property Office of the Czech Republic.

During the year, the objectives of the **EENergy** and **EDIH Cybersecurity Innovation Hub** projects were further met, and the **ADMA Trans4mers** project solution was successfully completed. At the end of November, the final project conference took place, which was also attended by the company involved Houfek, with whom a promotional video was shot.

In the Industry Liaison Officer's agenda, the department remained involved in the activities of the ESS, ESO, ILL and FAIR research infrastructures and informed Czech companies about the possibilities of participating in their tenders. For example, the **MShield** company successfully participated in tenders for the supply of technologies for ESS.





Seminar on the IPR protection in Asia



ESA Technology Broker Info-day

In strategic studies activities, we successfully completed the **STRATIN+** shared activities project (2021–2024), which provided systematic support to the MYES, the MIT and other public institutions in obtaining strategic information for the development of research, development and innovation in the Czech Republic.

Significant project outputs were analytical materials for the preparation of the National Strategy for Artificial Intelligence under the auspices of the MIT, including studies on the state of AI research in the Czech Republic and the **impacts of generative AI on the labor market**. Strategic studies analysts also cooperated with the MIT and the Technology Agency of the Czech Republic (TA CR) on the evaluation of the national RIS3 strategy, the preparation of a new methodology for the development of RIS3 missions, and the proposal of priorities after 2025.

A study on the risks of cooperation between Czech research organizations and partners from Iran and China was prepared for the MYES and the Ministry of Interior. At the same time, the solution of a contract for the Office of the Government of the Czech Republic focused on supporting the R&D&I Council was completed.

In 2024, activities focused on harmonizing the R&D targeted support system and proposing new National Priorities for Oriented Research. The results of these activities led to the preparation and approval of the follow-up project **STRATIN+ for the period 2025–2030**, which will ensure further continuous support for the entire R&D&I system.



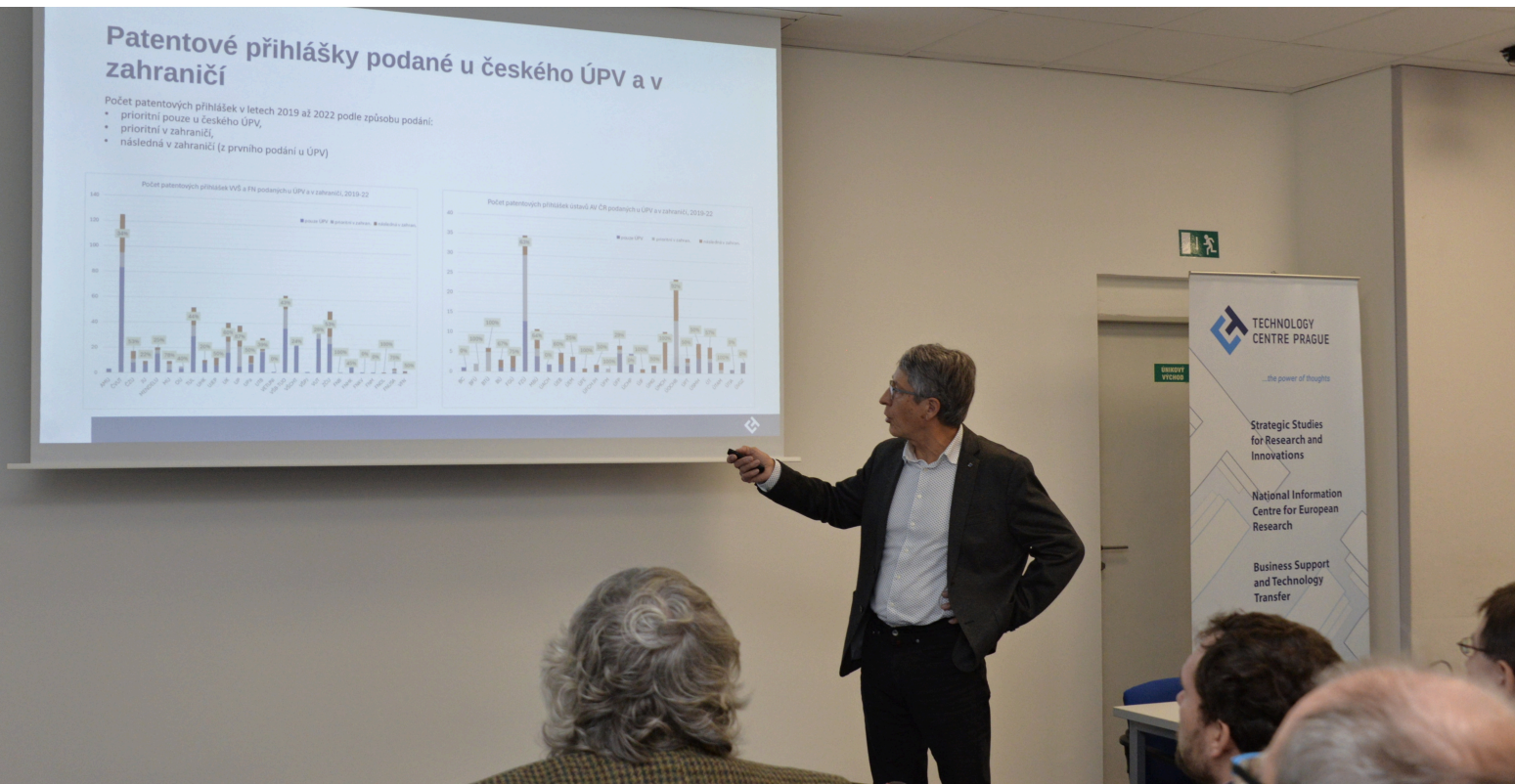
We participated in a project of the Ministry of the Interior focused on the strategic management of security research, where a prospective study for this area was prepared. As part of the project for the TA CR agency, an assessment of technological developments in the field of decarbonization and its impacts on the energy sector was completed.

At the international level, the team of strategic studies worked on the **BrightSpace** and **Eye of Europe** projects, both funded by the Horizon Europe programme. The first focused on modelling the impacts of the Green Deal on agriculture, while the second, Eye of Europe, focused on the use of foresight in the management of research and innovation policies. TC Prague led the Mutual Learning Exercises part of this project, including a workshop on the institutionalization of foresight and a follow-up online meeting on communicating foresight results.

The contract for the ELI ERIC research infrastructure was also successfully implemented, focusing on assessing the benefits of this infrastructure for science, innovation and society. The strategic studies team continued to represent the Czech Republic in the OECD Government Foresight Community and was an active member of the European Technology Assessment Group and Foresight on Demand consortia.

The publication of the professional journal Ergo also continued, with two issues published in 2024.

As every year, the traditional seminar organized jointly with the Czech Statistical Office – **Research, Development and Innovation in Statistics and Analyses**, took place.

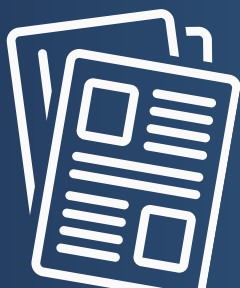




R&D&I in Statistics and Analyses



Harmonization of Methodology



Publications

ANALÝZA V OBLASTI VÝZKUMU,
TECHNOLÓGIÍ A INOVACÍ



TECHNOLOGICKÉ
CENTRUM PRAHA

01 Centra transferu technologií: dopady dotací ze strukturálních fondů a programů TA ČR

ročník 10 / čísto 01 / květen 2024

Přímé transfery realizují existující a vznikající managementové a personální kapacitní štáby a výzkumné instituce již po řadu desetiletí. Na účinnost výzkumných kapacitních štábů a center TA ČR byla například vložena, a to zejména prostřednictvím dotačních programů, zejména v rámci výzkumných kapacitních štábů (VKS) a programů TA ČR. V rámci transferu technologií (TT) se jedná o specifický druh transferu, který umožňuje přímý transfer technologií z výzkumných kapacitních štábů a center TA ČR do firem. V rámci transferu technologií se jedná o specifický druh transferu, který umožňuje přímý transfer technologií z výzkumných kapacitních štábů a center TA ČR do firem.

Autor: Vlastimil ŘEZNÍČEK

11 Patentová aktivita v ČR – mezinárodní porovnání

Společnost vědeckých institutů financovaných z veřejných zdrojů, zejména v oblasti výzkumných kapacitních štábů (VKS) a center TA ČR, je v České republice jedním z hlavních zdrojů patentové aktivity. V rámci transferu technologií (TT) se jedná o specifický druh transferu, který umožňuje přímý transfer technologií z výzkumných kapacitních štábů a center TA ČR do firem.

Autor: Vlastimil ŘEZNÍČEK



TECHNOLOGICKÉ
CENTRUM PRAHA

Informace
o evropském výzkumu,
vývoji a inovacích

Speciál 1/2024

VYBRANÉ ASPEKTY ÚČASTI ČR A STÁTŮ EU V PROGRAMU HORIZONT EVROPA V LETECH 2021 A 2022

Lenka Chvojková
Milana Lujková

VADEMECUM²⁰²⁴
Horizont Evropa

Osobní náklady – různé smlouvy
a denní sazba

European IP Helpdesk

FACT SHEET

trade secrets

Obchodní tajemství: Management důvěrných informací v obchodním styku

www.ec.europa.eu/ip-helpdesk

TECHNOLOGICKÉ
CENTRUM PRAHA

Policy brief

Analýza dopadů generativní AI na zaměstnání v Česku

Východiska

Tento policy brief je součástí analýzy, která byla zpracována Technologickým centrem Praha (TC Praha) v rámci projektu sítělných Ovocí, Strategická inteligence pro výzkum a inovace (M2104). Výsledky analýzy slouží jako jeden z podkladů aktualizace Národní strategie umělé inteligence v České republice 2030 (NAIS). Analýza navazuje na studii očekávaných socioekonomických dopadů rozvoje umělé inteligence (AI) v Česku zpracovanou TC Praha v r. 2018 pro potřeby přípravy NAIS 2019. Vzhledem k vývoji v oblasti AI bylo šlábnutí analytické podstaty aktualizováno a zaměřeno zejména na posouzení vlivu rychlé se vyvíjející generativní AI. Z tohoto důvodu byla v rámci analytické práce provedena některé aktualizace studií ekonomických organizací a společnosti (OECD, WEF, McKinsey, UNESCO, Statistik HAI apod.) zaměřených na analýzu a diskusi vlivu AI (zejména na pracovní trh) a následně byl v rámci vyvíjeného analytického modelu posouzen současný a očekávaný posuv AI ve vybraných oblastech dopadů potvrděných pro výkon povolání. Na rozdíl od analýzy TC Praha z r. 2018 bylo abstrahováno od vlivu AI na rozvoj fyzických schopností (jako jsou například jemná motorika, schopnost do neregulované schůzky), která souvisí spíše s robotikou, a aktualizovaný model proto odstavil fyzických dovedností pro výkon jednotlivých povolání. Novou částí prezentované výsledky se v souvislosti se současným a očekávaným vývojem generativní AI zaměřují výhradně na účinky nadřazenosti senzitivních kognitivních, sociálních, emočních a jazykových dovedností. Tato zaměření umožňuje reflektovat specifické efekty generativní AI na dovednosti, které jsou zásadní pro kognitivní a sociální aspekty jednotlivých zaměstnání, a poskytuje tak představu o jejich možné transformaci.

Současná diskuse o vlivu AI na trh práce

V roce 2023 byl nejen technologický svět svědkem mimořádného rozvoje generativní AI, která stále více ovlivňuje celé spektrum oblastí lidské činnosti včetně ekonomických procesů a aktivit. Vzhledem k tomu, jak bylo realizováno množství mezinárodních studií zaměřených na posouzení a prognózu dopadů technologie generativní AI na pracovní trh. Přestože se přehledný vývoj AI do této míry vymaňuje z hlediska společenských dat o konkrétních dopadech, pokud jde o její vliv na rozvoj AI, ale i předpoklad budoucí vývoje technologie AI. Analýzy se pak soustředí zejména na související dopady na zaměstnanost, požadované dovednosti a podobu pracovních modelů. Navzdory rozdílným metodologickým přístupům a využívaných datech, aktuální studie shodně přinejmenším následující zjevné poznatky.

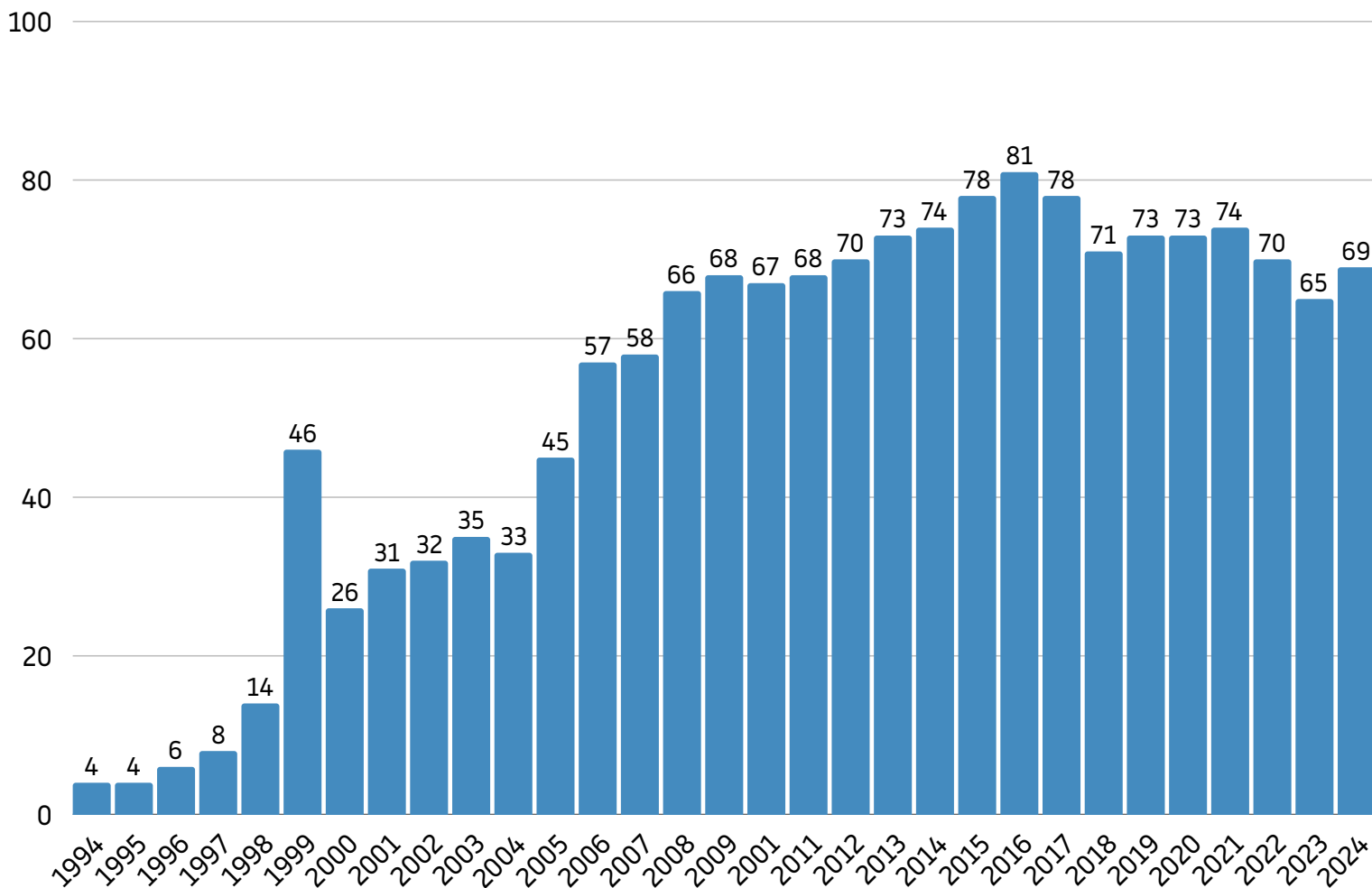
Přestože zatím nedošlo k významnému poklesu v celkové zaměstnanosti, je patrné, že AI transformuje charakter práce na mnoha úrovních. Vzhledem k disruptivnímu vývoji generativní AI jsou, na rozdíl od technologie zaměřených na automatizaci fyzických dovedností, zrychlené adaptace AI nové systémy i vývoje kvalifikované typy profesí, se kterými fyzické dovednosti obvykle nejdříve. Nejprve zjevněji skupinami profesí z hlediska potenciální nahrazenosti technologiemi se nadále zintenzivňuje profese zabírající na nižší, méně kvalifikované práci.

Generativní AI dosáhla úrovně, kdy je v řadě oblastí schopna generovat výsledky srovnatelné s lidskou tvorbou. Tím přináší zásadní proměny na různých pracovních pozicích. Produktivní využití AI však vyžaduje různé úrovně digitální gramotnosti a porozumění technologiím AI, a to v závislosti na typu práce. Neméně podstatné jsou dobře navrhované systémy řízení jejich využití, včetně opatření na ochranu dat. Pokud jsou zohledněny aspekty etické, právní, technické a AI nutí potenciál pro zvýšení efektivity a autonomie v pracovních o jejich možné transformaci.

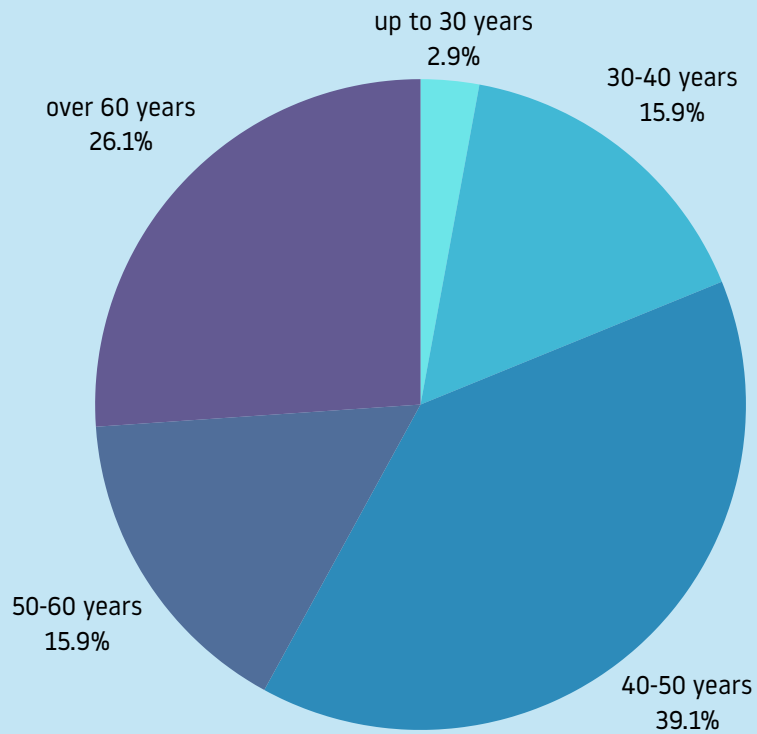


People

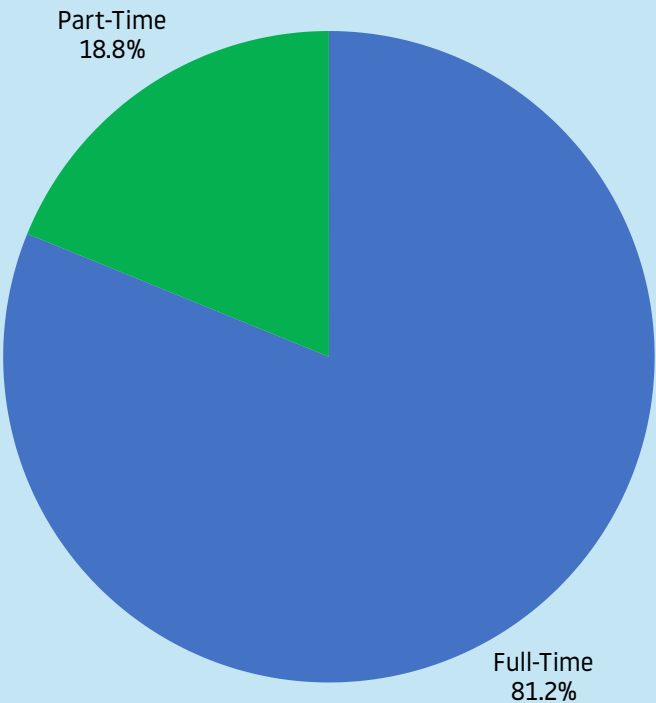
Total Number of Full-Time Employees during the Existence of TC Prague



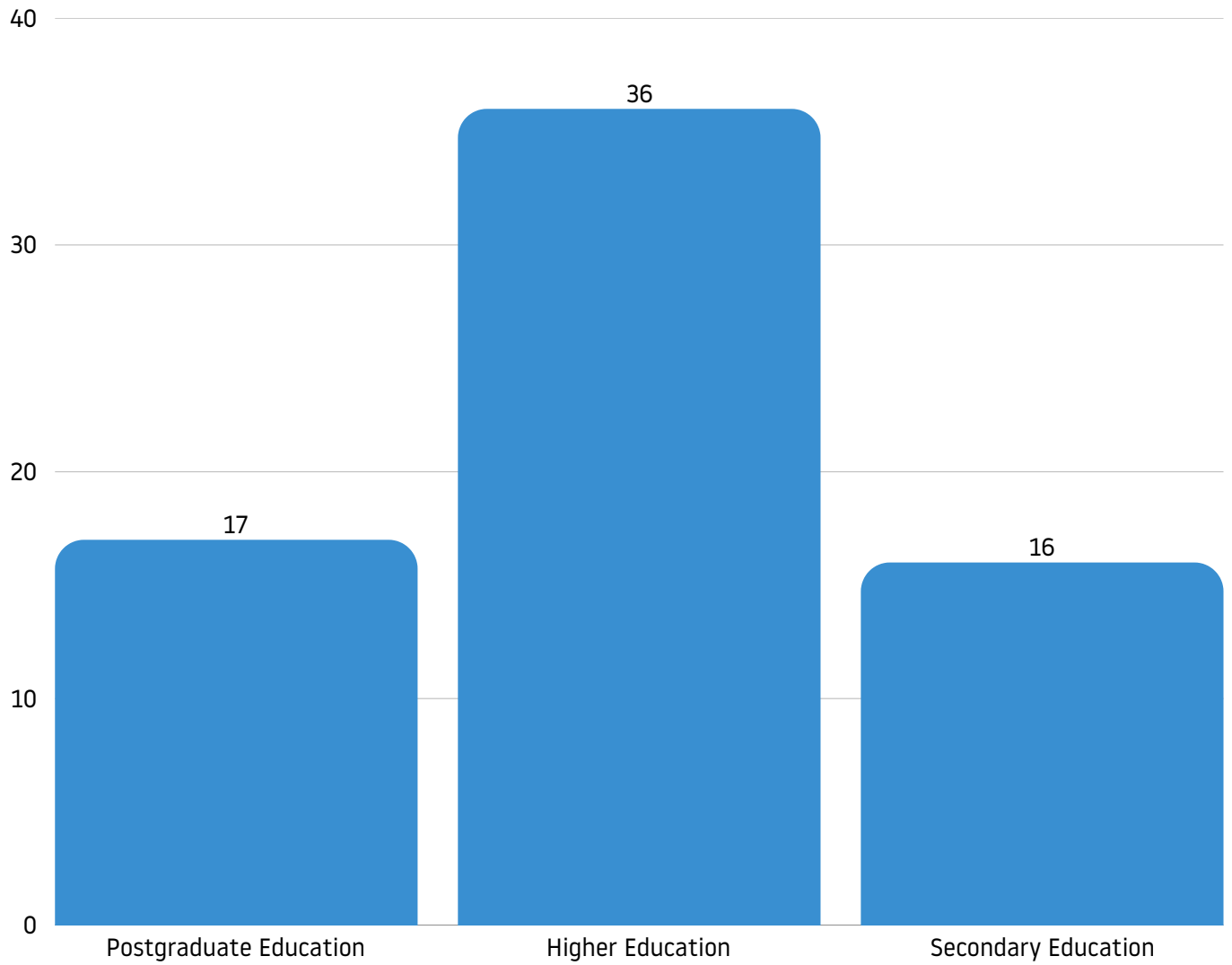
Age Structure of Full-Time Employees



Overview of Full-Time and Part-Time Employees



Employee Education



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