

# Strategy for the Development of the Technology Agency of the Czech Republic 2035



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# Introduction

"Innovation is the market introduction of a technical or organisational novelty, not just its invention."

Joseph Schumpeter

The purpose of the Strategy for the Development of the Technology Agency of the Czech Republic 2035 (referred to as "the Strategy") is to support **the continuous improvement of the Technology Agency of the Czech Republic in fulfilling its mission**: to support high-quality applied research, development, and innovation<sup>2</sup> that make a meaningful impact and contribute to the advancement of the Czech Republic. Projects funded by the programmes of the Technology Agency of the Czech Republic (referred to as "TA CR" or "the Agency") must deliver research results that are practically applicable and contribute to addressing societal challenges. They should also drive the transformation of the Czech economy into a resilient and competitive system rooted in knowledge and innovation, ultimately enhancing the quality of life and the environment.

The Strategy serves as a cornerstone document, providing **a long-term framework for TA CR's leadership** and strategic direction. It is primarily intended for the senior leadership of TA CR, including the TA CR Board, the Research Board, the Supervisory Board, and the TA CR office, which will implement the Strategy. The Strategy provides a clear direction for the design of TA CR programmes and calls for proposals by defining key outcomes and impacts of TA CR support. It also sets the course for the Agency's operational development and core processes.

The Strategy does not specify the orientation of ministerial programmes implemented by TA CR. However, the outcomes of the implementation of the Strategy will positively influence these programmes as well. TA CR, aligned with its objective to enhance processes, is committed to **delivering high-quality and efficient services to its clients**. These include the government and ministries responsible for strategic documents and programmes, as well as researchers and innovators from research organisations and businesses who serve as applicants and beneficiaries of state aid.

The Strategy was developed between 2022 and 2024. The preparatory work built on the "Perspectives for the Development of TA CR in the Research, Development, and Innovation System in the Czech Republic for 2021–2025," approved by the Czech Government in 2021. Preparatory activities were conducted within the SMARTERAdmin project, funded by the Operational Programme Employment of the Ministry of Labour and Social Affairs. The resulting framework was reviewed by TA CR bodies (the TA CR Board, the Research Board, and the Supervisory Board) and approved by the TA CR Board at the end of 2022. The Strategy framework was subsequently discussed with relevant stakeholders, including the Minister for Science, Research, and Innovation.

<sup>&</sup>lt;sup>1</sup> This famous and influential idea of J. Schumpeter is presented in his The Theory of Economic Development (1911) and discussed in many later works of the following economists.

<sup>&</sup>lt;sup>2</sup> Applied research according to the Framework for State aid for research, development and innovation (<u>Commission Communication</u> <u>Framework for State aid for research, development and innovation 2022/C 414/01</u>) includes industrial research and experimental development or a combination thereof. Therefore, in the following text, we primarily use the term 'applied research' and not 'research and development'.

Through the implementation of the Strategy for the Development of TA CR 2035, the Agency will contribute to **fulfilling key national strategic documents for research, development, and innovation**, including the National Research, Development, and Innovation Policy of the Czech Republic 2021+, the National Priorities of Oriented Research, Experimental Development, and Innovation, the National Research and Innovation Strategy for Smart Specialisation 2021–2027, the Innovation Strategy of the Czech Republic 2019–2030, and other relevant strategic documents. The Strategy aligns with the competencies entrusted to TA CR under Act No. 130/2002 Coll.

# Context

The context in which the new mission, vision, and strategy of TA CR were developed.

The Czech Republic faces a number of challenges. The recent years of significant crises (the pandemic, and the war in Ukraine) have affected the Czech economy more severely than neighbouring countries due to its structural characteristics. Dynamic changes in global markets and technological environments present both uncertainty and opportunities. Similarly, societal challenges such as climate change, population health, demographic developments, energy independence, and security pose risks but also create **enormous opportunities for research and innovation**. To overcome the constraints of competitiveness traditionally based on low costs, the Czech Republic urgently needs to identify new sources of economic growth.

Research and innovation support plays a key role in addressing these challenges and moving beyond them. It is essential to focus on **knowledge-based growth** that generates high-added value in production and services while reducing the energy and material intensity of the economy. This necessity stems partly from the limited availability of natural resources. The future of our society depends on the ability to **generate knowledge and new insights and transform them into solutions for current and future problems**.

Despite the Czech Republic's strong research capacities, there is not a sufficient connection between these capacities and businesses or the application sphere. Researchers often lack sufficient incentives to focus on research with practical, transferable outcomes. Simultaneously, the domestic business sector faces a shortage of companies capable of implementing advanced innovations and leveraging them effectively, especially in international markets.

To tackle these challenges, it is essential to continue refining strategies for effectively supporting applied research and innovation while enhancing mechanisms for the transfer and practical application of new knowledge. A pivotal component is fostering cross-sectoral and interdisciplinary collaboration, which transcends traditional boundaries, integrates diverse perspectives and methodologies, and plays a critical role in addressing the multifaceted challenges of today's world. The focus of support programmes must aim towards accelerating the transition to sustainable solutions that effectively address societal challenges. This effort should include harnessing the potential of social sciences research, which provides critical insights for developing sustainable, socially responsible innovations and solutions in both industry and the application sector.

These priorities represent the central focus of the Technology Agency of the Czech Republic, guiding the development and strategic direction of its programmes.

A detailed description of the situation is available in Annex 2: Background Analysis.

# Mission and Vision

# Mission

We support applied research and innovation to strengthen Czech society and economy, thereby paving the way for a better future.

# Vision

### **Vision for Supporting Applied Research and Innovation**

We support the work of researchers in collaboration with their home institutions (both public and private), enabling success in applied research that has global significance and delivers measurable impacts on society, the economy, and the environment in the Czech Republic. By fostering cooperation among research organisations, businesses, and public administration, we accelerate the practical application of research outcomes and promote international collaboration for enterprises and research institutions. Placing emphasis on supporting social sciences research, we actively contribute to addressing societal challenges. Simultaneously, we collaborate with government bodies, ministries, public administration, universities, and the private sector, attentively responding to their real needs. We systematically monitor the impact of our support, assess outcomes, and continuously learn from the insights gained.

### **Vision for TA CR Activities**

We explore new approaches, particularly in leveraging technologies and innovations in our work and reducing bureaucracy, always aiming to add value to the research and innovation ecosystem in the Czech Republic. When necessary, we go beyond expectations, maintaining objectivity and independence in decision-making and project support. We embrace learning through experience, striving to make each programme, call for proposals, and project better than its predecessor.

### Vision for TA CR Corporate Culture, Brand, and Reputation

We cultivate a positive corporate culture at TA CR, fostering an environment where work is both rewarding and enjoyable. We invest in education and offer opportunities to those who can make the most of them. Every team member knows they can genuinely rely on their colleagues. As a result, we are often seen as a model of modern public administration, exemplifying efficiency and professionalism. We proudly share stories of success and represent them both domestically and internationally.

# Strategy

The strategic part defines the key directions for TA CR's development through strategic objectives and corresponding measures.

*Strategic objectives* determine the direction TA CR will pursue during the specified period to fulfil its mission and vision.

*Measures* represent the activities of TA CR that support the gradual achievement of these strategic objectives.

# **Strategic Objectives**

The Strategy is built on three key strategic objectives, each playing a critical role in fulfilling the Agency's mission and vision. The first objective underscores the primary purpose of TA CR by focusing on delivering tangible results and meaningful impacts through the projects supported by the Agency. The second objective emphasizes strengthening international cooperation in applied research, recognizing it as a vital factor for fostering an open research environment, sharing expertise, and gaining access to European resources and global perspectives. The third objective focuses on the continuous improvement of TA CR's internal efficiency and the qualitative improvement of the services it provides in its role as a key funding body for applied research and innovation.



# Strategic Objective 1: Increasing the Impact of Support from TA CR Programmes

The primary task of TA CR and its programmes is to enhance the tangible impact of applied research, innovation, and technology on the advancement of businesses, research organisations, and society. This strategic objective aligns directly with TA CR's vision, underscoring the importance of delivering measurable benefits to the Czech economy and society through its support initiatives.

In practice, this means that TA CR strategically focuses its support on key priorities, including knowledge transfer, enhancing collaboration between businesses and research organisations, and fostering corporate research aimed at developing high-value-added products and services, particularly in specialised and interdisciplinary fields.

A significant part of TA CR's support involves leveraging the potential of social sciences research to address societal challenges and issues arising from technological progress. The focus of TA CR's support is elaborated further in Measure 1.A. A critical element of this strategic objective, however, is a **systematic emphasis on achieving tangible and positive outcomes from the provided support**. These outcomes primarily include:

- Increasing the share of research results utilised in practice.
- Enhancing economic revenues from the commercialisation of research results.
- Attracting private financing for research through the leverage effect of support, encouraging businesses, including those new to research, to engage in research and innovation.
- Enhancing sustainability and resilience in society and improving its ability to predict and flexibly respond to societal challenges (e.g., climate change, social inequalities, health care, energy security).
- Increasing the number of globally ambitious businesses offering innovative products to international markets (including start-ups).
- Strengthening public administration's ability to utilise research results and innovate.

# Strategic Objective 2: Strengthening International Cooperation in Applied Research

TA CR will, through its programmes and in cooperation with the Ministry of Education, Youth, and Sports and other ministries, seek to **enhance the involvement of Czech researchers in international research and innovation collaborations**. The aim is to expand opportunities for Czech researchers to **collaborate with high-quality foreign partners in applied research and innovation**, gaining access to new knowledge, technologies, and markets through these partnerships.

In terms of European programmes, the aim is to **increase the participation of researchers in the Czech Republic through schemes such as the European Partnerships** (EP). These EU instruments open up the possibility for research organisations and businesses to engage in European research on highly attractive and internationally sought-after topics and to gain valuable experience with international projects and contacts that can then be used in the preparation of other projects.

The expected key outcomes of this strategic objective, which focuses on fostering participation in the EP and other similar European schemes and supporting bilateral cooperation in research and innovation, include:

- Increasing participation of research organisations and businesses in Czechia in international (especially European) programmes supporting applied research and innovation.
- Expanding the number of international partners for businesses and research organisations in Czechia.

# **Strategic Objective 3: Enhancing the Efficiency of TA CR Processes**

The effective operation of TA CR is a prerequisite for achieving high-quality results and impacts of applied research support. Simple and efficient internal processes are essential for the rapid and high-quality evaluation of applications, management, and assessment of thousands of supported projects, and for responding effectively to the needs of the Czech government and ministries.

This strategic objective reflects the focus of TA CR's vision on continuous improvement of the Agency's performance in its role as a funding provider. TA CR will focus on **improving the efficiency and quality of key processes for providing financial support for applied research and innovations, and supportive services for its clients** - ministries, research organisations, businesses, and public administration. Key drivers for this improvement include increased digitalisation and automation, and in the future, the integration of artificial intelligence into TA CR processes. The other major aspect of the efforts to improve the efficiency of TA CR is the feedback from the TA CR clients. Regular collection and analysis of the feedback will enable a better understanding of the needs and expectations of the TA CR clients and improvement of the processes and services in the implementation of the applied research support.

The expected key outcomes of this strategic objective include:

- Simplified and more efficient project implementation, reducing administrative burdens and ensuring positive feedback from applicants and beneficiaries.
- Enhanced implementation of calls for proposals and project evaluations notably shortening the timeframe for the implementation of calls for proposals.

# **Measures to Achieve Strategic Objectives**

Measures outline the key activities of TA CR to support the gradual achievement of its strategic objectives.

# 1. Measures for Increasing the Impact of TA CR Support

Measures aimed at increasing the impact of TA CR support fall into two categories:

- Establishing an overarching framework for focusing support and assessing its results and impacts. This framework aligns with the National Research, Development, and Innovation Policy 2021+, the National Priorities of Oriented Research, the National Research and Innovation Strategy for Smart Specialisation 2021–2027, and other relevant strategic documents. It forms the basis for focusing future programmes and calls for proposals towards achieving tangible results and impacts.
- Innovations in TA CR's internal processes that focus on optimising programmes and calls for proposals and improve the utilisation of project results in practice.

# 1.A Implementation of TA CR Programmes in Alignment with the Key Outcomes and Impacts of TA CR Support

To fulfill TA CR's mission, it is absolutely essential to define the key outcomes and impacts of the Agency's programme support and to establish their evaluation. The following table presents a systematic framework that outlines the primary focus of the support provided through TA CR programmes and calls. The second column of the table defines the expected key outcomes and impacts of this support.

In line with the focus of the support and the expected results and impacts, we anticipate implementing future TA CR programmes and calls for proposals accordingly.

The purpose of this Strategy is not to define the specific parameters of future programmes and calls for proposals, but rather to establish a framework that guides their focus toward achieving specific and measurable results and impacts that the support is intended to deliver.

### **Focus of Support**

**Knowledge Transfer:** 

Generating new research results with the potential to lead to applicable innovations

Cooperation between research organisations and the application sector

Transfer of knowledge and results of research and development into practice. Enhancing the stability and efficiency of the knowledge transfer system within research organisations, supporting the verification of the applicability of research results in practice and their use in practice

Establishment and development of start-ups and spin-offs Increasing the sustainability and resilience of society and strengthening the ability to anticipate and respond flexibly to societal challenges and problems

Harnessing the potential of social science research to address challenges relevant to societal issues, technological advancements, and the needs of industry and the application sector (e.g. health, agriculture, services, etc.)

Establishing connections between projects supported by GA CR and TA CR to strengthen the link between basic and applied research, thereby enhancing the practical application of research outcomes.

# Research-Driven Innovation Capabilities of Small and Medium Enterprises (SMEs):

Targeted interventions aimed at specific groups of SMEs that innovate, aspire to develop internationally competitive products and are capable of advancing the technological frontier in their respective industries

Collaboration between SMEs and large enterprises

Corporate research facilitating the advancement of businesses within global value chains toward the production of high-value-added goods and services

Support for research and innovation with an emphasis on the specific characteristics of regional innovation ecosystems, aiming to optimise the utilisation of local resources and potential (in close cooperation with key actors, particularly regional innovation centres)

# Utilisation of Knowledge and Innovations in Public Administration:

Greater utilisation of research results within public administration, alongside support for innovative development of public administration through research and development

### **Key Results and Impacts**

New research results with a high expectation of practical application

Research results utilised in practice

Strengthened collaboration between research organisations and the application sphere

Creation of strong clusters of healthy businesses and agile research organisations that, through mutual collaboration, establish environments with global leadership in a given technology or field

Functional knowledge transfer systems within research organisations

Increased revenues of research organisations involved in knowledge transfer projects from non-public sources

Development of start-ups and spin-offs Contributions of TA CR projects to improving sustainability and resilience while addressing societal problems and challenges (e.g., climate change, healthcare, energy security).

Higher economic revenues from the commercialisation of research results

Increased interest from businesses in conducting research and innovation, including businesses that previously did not engage in research. The leverage effect of support to attract private financing for research

A growing number of businesses with international ambitions—offering innovative products that reach global markets (including start-ups)

New or improved products/services entering the market

Improved positions of supported businesses in global value chains and functional upgrading.

Strengthening public administration's ability to utilise research results and innovate.

The TA CR evaluates the impact of support by monitoring specific **indicators of outcomes and impacts of support**. A list of these indicators, tied to Strategic Objective 1, is provided in Annex 1: Indicators. This annex offers a detailed overview of expected outcomes and impacts in the form of indicators and sets quantified targets for these indicators. The impact of each supported project must be traceable through at least one indicator.

As part of the implementation of the Strategy for the Development of TA CR 2035, the Agency will enhance its monitoring system for these indicators, primarily through project implementation reports and evaluations - see the measures described in Chapter 1.B.

### TA CR Programmes and Calls for Proposals

The aforementioned key outcomes and impacts of TA CR support form the strategic framework, primarily for the **SIGMA Programme**, which the Agency will continue to implement. This programme will play a crucial role in achieving Strategic Objectives 1 and 2 of the Strategy, as it includes sub-objectives focused on both knowledge transfer and the support of international cooperation in applied research. Additionally, the SIGMA Programme supports early-career researchers, promotes equal opportunities in applied research projects, and fosters the innovation potential of social sciences, humanities, and arts. TA CR will continue supporting these areas under the SIGMA Programme. The SIGMA Programme also offers sufficient flexibility to allow TA CR to organise calls for proposals targeting new opportunities and current needs in research and innovation.

TA CR will also implement a programme to **support applied research and innovation in the energy sector** (THÉTA 2 in 2024). At the same time, the Agency will continue to implement the BETA3 Programme, focused on **public tenders for applied research and innovation to meet the needs of public administration**, thereby strengthening collaboration between the research sector and public administration. If necessary, TA CR will also **prepare and implement additional programmes** to address future needs and challenges or to meet the requirements of the Czech government for research and innovation support, should the existing programmes prove insufficient.

# 1.B Innovations in TA CR Activities and Processes to Enhance Outcomes and Impact of Support

To increase the impact of its support, TA CR will implement several innovations in its internal processes. These measures include improvements in programme and call development, effective evaluation of their outcomes, and proactive management of supported projects.

## **★**Enhancing the Monitoring System for Strategy and Programme Objectives

We will improve the existing system for regularly monitoring programmes and call objectives, aligning them with the objectives of the Strategy. A functional monitoring system for project results and impacts will be introduced, including mechanisms for responding to monitoring outcomes. The system will also

highlight and present successful cases of support to emphasise the excellent results achieved within TA CR programmes.

→ Continuously updated and accessible data on programmes results and impacts, as well as on progress in achieving the indicators set out in the Strategy.

# \*Flexible Responses to Current Needs in Applied Research and Innovation in the Czech Republic

To maximise the impact of TA CR support, ensure the responsible use of public resources, and respond swiftly to societal and technological trends, it is crucial to concentrate support on topics with the greatest potential to amplify the impact or value of targeted funding. This includes areas such as economic growth, quality of life enhancement, technological innovation, and addressing critical societal challenges. The interventions implemented by TA CR must be evidence-based and respond flexibly to current developments.

In implementing thematically oriented interventions, TA CR primarily fulfils the updated National Priorities for Oriented Research, Experimental Development and Innovation, the National Research and Innovation Strategy for Smart Specialisation 2021-2027 and, where appropriate, draws on other thematically oriented strategies and government documents.

For thematically targeted calls for proposals, TA CR needs to select the most suitable topics from these documents for support from its programmes. For this purpose, we will use cooperation with experts from research, business and public administration, and will select proposals for current topics and directions based on forecasts (foresight) in the field of trends and technologies and other analyses in regular cycles (approximately once every two years), which will specify the focus of TA CR programmes and calls for proposals (and possibly other interventions). Suggestions for current topics will be prepared based on discussions with the Research Board of the TA CR and possibly other relevant bodies and experts.

→ An updated set of priority themes with significant potential to positively impact the development of the Czech Republic, provided they are effectively supported through TA CR programmes. These themes will be reflected in the design of TA CR interventions and will help to target them effectively.

## **★**Systematic Engagement with Projects During and After Implementation

We will establish a system for systematic work with supported projects during their implementation and after their completion which is a common part of the activities of similar innovation agencies abroad.<sup>3</sup> This system will encourage and support beneficiaries in **maximizing the practical benefits of supported projects and intensify the use of research results in a practice**. Simultaneously, we will sustain or enhance support for applicants and beneficiaries in the preparation and administration of

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<sup>&</sup>lt;sup>3</sup> Work with projects in relation to their results after the end of the project is commonly referred to as "aftercare", i.e. follow-up care.

projects, fostering the development of high-quality projects and ensuring their successful implementation.

 $\rightarrow$  Setting up a **system to support the use of the results of supported projects**, its piloting and gradual increase in the number of TA CR clients involved in this system. This will increase the desired impact of the project results on the economy and society in the Czech Republic.

### ₱ Developing of an Analytical Base and Data Tools

Decision-making regarding TA CR programmes and intervention targeting must rely on high-quality data, which is often lacking. To increase the impact of its support, it is essential to systematically develop an analytical base and data tools to enable better programme design and more precise targeting of TA CR interventions. Additionally, these tools will help to guide research and innovation support for other actors within the research and innovation ecosystem.

In the future, efforts will focus on improving and systematising the availability of data and insights while developing advanced tools for working with data. These tools will enable simple and targeted use of data. To this end, TA CR will develop and operate a data warehouse and data catalogue and will further enhance its existing tools (such as <u>STARFOS</u> and dashboards).

TA CR also plays a long-term role in mapping the research and innovation ecosystem and will continue conducting surveys to serve this purpose. Specifically, the Agency will further develop the <a href="INKA mapping">INKA mapping</a> initiative, which focuses on assessing innovation capacities and monitoring their development. The aim is to identify and describe the main actors, structures, mechanisms, and barriers to the growth of innovation capacity in the Czech Republic.

The analytical base developed by TA CR will significantly contribute to the **greater use of insights in evidence-informed policymaking** in the area of supporting research and innovation system.

Summary of Key Outcomes for Measure 1.B Innovations in TA CR Activities and Processes to Enhance Outcomes and Impact of Support

Measure	Key Outcomes
Improving the Monitoring System for Strategy and Programme Objectives	Continuously updated data on programme results and impacts Continuously updated data on the achievement of Strategy indicators
Flexible Responses to Current Needs in Applied Research and Innovation in the Czech Republic	A set of current priority themes for targeted support
Systematic Engagement with Projects During and After Implementation	A system to support the utilisation of project results, with pilot implementation
	Gradual increase in the number of clients engaged in this system
Developing an Analytical Base and Data Tools	Improved and streamlined availability of data and insights Development of advanced tools for data utilisation

# 2. Measures to Strengthen International Cooperation in Applied Research

Strategic objective 2, focused on international cooperation, aims to increase the participation of research organisations and businesses in the Czech Republic in international collaboration in applied research and innovation. Achieving this objective requires not only the **allocation of resources** for this purpose but also the development of various **supportive activities** to strengthen the Czech presence in international cooperation.

TA CR collaborates in the area of international cooperation with the Ministry of Education, Youth, and Sports (MEYS), which is responsible for preparing and coordinating multilateral and bilateral research and development cooperation within and beyond the European Research Area. TA CR implements applied research support programmes focused on international cooperation and participates in activities ensuring synergies with EU programmes.<sup>4</sup> TA CR and MEYS regularly share information and coordinate their activities. In addition to MEYS, TA CR collaborates on implementing international cooperation with other ministries, such as the Ministry of the Environment, the Ministry of Transport, and the Ministry of Industry and Trade.

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<sup>&</sup>lt;sup>4</sup> A more detailed definition of the cooperation between TA CR and the MEYS is set out in the Memorandum of Cooperation of 26 November 2018.

### \*Creating Opportunities for International Cooperation for Czech Researchers

To maintain and expand opportunities for Czech research organisations and businesses in international cooperation, TA CR must continue to target resources from its programmes and calls for proposals toward this purpose, i.e., to support bilateral and multilateral international cooperation. Additionally, TA CR must actively engage in efforts such as participating in meetings of European partnership consortia to represent the interests of both the Agency and the Czech Republic, supporting the implementation of the EEA and Norway Grants, and similar initiatives. Strengthening collaboration with high-quality foreign partners is crucial to supporting and developing bilateral cooperation through TA CR programmes. TA CR will continue with these activities in collaboration with MEYS and other ministries. If necessary, the Agency will engage in new activities, provided sufficient resources are available and participation is required to ensure Czech involvement in EU programmes.

→ To maintain and, if necessary, expand the number of international cooperation programmes and instruments in which TA CR is involved as a provider, enabling Czech entities to participate in international projects and related activities.

### **★**Synergistic Activities to Support Participation in European Programmes

The low success rate of projects in European programmes can discourage research organisations and businesses from submitting high-quality proposals. Therefore, subject to available resources, TA CR will develop activities that foster synergies with the Horizon Europe programme and other related programmes. Synergistic activities are designed to complement the opportunities offered by European programmes and motivate Czech research organisations and businesses to participate in them. In particular, this involves ensuring national funding to support projects that have received the Seal of Excellence or equivalent recognition in European programmes.

For small and medium-sized enterprises (SMEs) with groundbreaking innovations and significant growth potential, synergistic activities are essential to help them obtain European support through the EIC Accelerator (European Innovation Council Accelerator) or similar schemes. TA CR will continue supporting a scheme that prepares businesses for calls under this accelerator and aligns with the European Commission's Plug-in Certification.<sup>5</sup> Participation in the EIC Accelerator also increases the impact of TA CR support, as engaging in such international tools or preparation for them motivates businesses to conduct market-relevant research and create disruptive potential.<sup>6</sup>

ightarrow The aim of the measure is to maintain and expand the scope of synergistic activities supporting the participation of Czech businesses and research organisations in European programmes,

<sup>&</sup>lt;sup>5</sup> TA CR was the only institution in the Czech Republic to obtain this certification in 2023. See the <u>article on the TA CR website</u> (CS).

<sup>&</sup>lt;sup>6</sup> The term 'disruptive potential' refers to the ability or possibility of a new technology, product or innovation to radically change an existing market, industry sector or business model. The term describes the ability to disrupt established positions and standards in an industry, often bringing new approaches, efficiencies or value to users.

particularly by supporting projects with the Seal of Excellence and preparing businesses for the EIC **Accelerator** or similar activities in the future.

### **★**TA CR in the European Research and Innovation Support System

TA CR will actively collaborate with international partners through the TAFTIE network of innovation agencies and by participating in international development projects. This collaboration allows the Agency to **draw on the know-how and best practices of foreign agencies**, thereby improving its operations. The Agency will continuously collect, evaluate, and implement relevant best practices from national and international levels into its activities and processes. TA CR will also be an active partner in the TAFTIE network, contributing its knowledge and experience to its operations. Simultaneously, TA CR representatives will actively engage in shaping international cooperation policies in the Czech Republic and the EU in collaboration with MEYS and other ministries. These efforts will allow the Agency to provide feedback to the European Commission and highlight barriers to participation in framework programmes for Czech researchers.

→ **Acquisition of know-how and best practices from foreign agencies** to enhance TA CR's performance and efficiency. A knowledge management system will be established within the Agency, focusing on the outputs of foreign best practices, to improve TA CR's operations. These activities will strengthen TA CR's position in the European research and innovation support system through active collaboration, knowledge transfer, and participation in key decision-making forums.

Summary of Key Outcomes for Measures to Strengthen International Cooperation

Measure	Key Outcomes
Creating Opportunities for International Cooperation for Czech Researchers	Increased participation of Czech researchers in European programmes for applied research and innovation  Growth in the number of international partners for Czech businesses and research organisations
	Maintenance and, if needed, expansion of the number of international cooperation programmes/tools in which TA CR participates
Synergistic Activities to Support Participation in European Programmes	Maintenance and expansion of synergistic activities supporting the participation of Czech entities in European programmes (e.g., supported projects with the Seal of Excellence, Czech participation in Plug-in EIC Accelerator)
TA CR in the European Research and Innovation Support System	Acquisition of know-how and best practices from foreign agencies to enhance TA CR's performance and efficiency

## 3. Enhancing the Efficiency of TA CR Processes

To enhance internal processes, TA CR plans to implement the following measures:

# Digitalization, Automation, and Integration of Artificial Intelligence into TA CR Processes

Digitalisation, automation, and the implementation of artificial intelligence (AI) are critical for ensuring the future efficiency of TA CR operations. A key element is the development of the modern and user-friendly SISTA information system, designed not only to support TA CR programme agendas but also to facilitate collaboration with programmes from other ministries. Transitioning to this system will simplify and accelerate processes within TA CR agendas. Additionally, efforts will focus on introducing and gradually **expanding the use of AI in the implementation of processes**, strengthening TA CR's ability to deliver innovative solutions and better respond to the dynamic needs of applied research and innovation. AI can be used for tasks such as automated formal (eligibility) checks of project proposals, monitoring and evaluating project implementation, and efficiently processing and analysing data.

→ The aim of this measure is to achieve a full transition of TA CR processes and related procedures to the SISTA system, resulting in faster and more efficient workflows, with the potential for further expansion if needed. Another key objective is to increase the number of processes utilising AI.

### ★ Simplified and Efficient Project Implementation

TA CR will continue prioritising simple and efficient project implementation to minimise the administrative burden on beneficiaries and the Agency itself. **Simplification processes related to project administration and implementation** will be achieved primarily through further automation of processes and repetitive administrative tasks via the new information system. Efforts will also focus on **making processes and documentation clearer** for applicants and beneficiaries. TA CR will actively seek and utilise feedback from beneficiaries to further simplify and improve project implementation.

 $\rightarrow$  The aim of this measure is to reduce the number of documents returned to applicants and beneficiaries for revision (through simplified and clear processes and documentation). This will significantly decrease the time spent on project-related administration.

# ★Developing TA CR's Professional Capacities

TA CR will focus on recruiting and retaining employees committed to actively developing their skills and abilities. Concurrently, we will focus on the development of the **competency model**, which will be continually refined and improved. In alignment with the competency model and TA CR's career framework, the Agency will further develop a training system to support professional growth and contribute to operational efficiency in strategically important areas of support of applied research and innovation.

→ **Enhance the expertise of TA CR employees** according to the competency model and career framework.

# \*Streamlining and Enhancing Project Evaluation Processes, Implementation of Calls for Proposals, and Public Tenders

TA CR will work on improving project evaluation processes to enhance their efficiency and quality at all stages, from the **evaluation of project proposals (during calls for proposals) to project implementation and after project completion**. To streamline evaluation processes, TA CR will employ automation and AI, continuous collaboration with evaluators, and feedback from institutional partners. Examples of automation include the implementation of chatbots or AI tools for evaluating support applications. Automation will also be applied to optimise the management of public tenders in research and innovation.

A key element in enhancing evaluation quality will be the expansion and refinement of the pool of evaluators, including the inclusion of international experts. Ensuring that evaluators possess the necessary expertise and experience will remain a top priority, supported by sustained collaboration and engagement with them. TA CR will systematically measure the quality of its evaluator pool through assessments and strive to increase the proportion of top-rated evaluators. Improved evaluations will positively impact project proposals, implementation, and outcomes. This measure will also involve refining evaluation criteria and methodologies to reflect the latest trends and requirements in research and innovation.

→ The aim of the measure is to **shorten the time between the closure of calls for proposals and the announcement of their results**, leading to more efficient use of resources and a faster transition from project proposal approval to implementation. Additionally, the measure aims to strengthen the evaluator pool by increasing the proportion of top-rated experts, thereby enhancing the quality of supported projects and making a significant contribution to achieving the first strategic objective: increasing the impact of TA CR programme support.

Summary of Key Outcomes for Measures to Enhance the Efficiency of TA CR Processes

Measure	Key Outcomes
Digitalization, Automation, and Al in TA CR Processes	Full transition of TA CR processes to the SISTA system Expansion of Al use in processes
Simplified and Efficient Project Implementation	Simplification of processes related to implementation of projects
Developing TA CR's Professional Capacities	Enhanced expertise of TA CR employees according to the competency model and career framework
Streamlining and Enhancing Evaluation Processes and implementation of calls for proposals and public tenders	Shorter evaluation timelines Improved evaluator pool with a higher proportion of top-rated experts. Reduction in the number of returned evaluation reports

Additional measures to achieve strategic objectives may be proposed and approved by the TA CR Board as needed.

# **Cross-Cutting Principles**

TA CR will apply the following key principles in implementing its interventions and conducting internal activities. These cross-cutting principles are a vital part of TA CR's operations and contribute to fostering high-quality, ethical, and open research that benefits society as a whole.

### **Equal Opportunities in Research**

Ensuring equal opportunities in research for women and early-career researchers, who are often young, is essential for promoting diversity in ideas and approaches. This diversity enhances research outcomes and benefits society at large. TA CR's support will aim to create an environment that offers equal opportunities and fosters talented researchers, regardless of gender or age. In promoting equal opportunities for men and women in developing their professional careers, TA CR has adopted the Gender Equality Plan 2022–2025, which is being gradually implemented. This plan focuses on ensuring equal opportunities within organisations whose projects are funded by TA CR, and in the Agency's operations.

# Ethics in Research, Scientific Integrity, and Mitigating Potential Negative Impacts of Projects

TA CR emphasises adherence to ethical standards in all supported projects. This includes upholding principles of scientific honesty and integrity during project preparation and implementation, ensuring the fair use of obtained results, and observing scientific integrity standards. The ethical dimension also encompasses mitigating potential negative impacts of project outcomes on social, security, and environmental levels. TA CR prioritises supporting environmentally sustainable projects that contribute to combating climate change, preserving and strengthening social cohesion and resilience, and adequately addressing security requirements.

### The Concept of Open Innovation in the Context of Open Science

TA CR supports access to scientific knowledge and research outcomes through the principles of **open science** and plans to further integrate these principles into its programmes, processes, and outputs. This includes sharing data, publishing results through open access, ensuring free access to scientific publications, and promoting transparency in research processes. The aim is to provide broad access to scientific information, foster collaboration, and improve research efficiency. At the same time, the importance of **open innovation** must be emphasised, as it supports the generation of new ideas and accelerates the development of innovative solutions. TA CR will advocate for the principles of Open Innovation in its programmes and interventions, recognising that Open Innovation is likely to become a key driver of progress and competitiveness in the future. However, it should be stressed that the level of disclosure of data and information will always be weighed against the need to protect trade secrets and intellectual property to strike a balance between open access and the protection of commercially sensitive information.

In the context of open science, it is also essential to take into account the issue of **knowledge security**, as open access to scientific information increases the possibilities for collaboration but also brings risks of unauthorised access and misuse of sensitive information. TA CR will strive for effective management of these risks.

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<sup>&</sup>lt;sup>7</sup> For more information see the TA CR document <u>Research data and open access to outputs/results</u> (CS)

# Strategy Implementation

# Implementation Structure and Management System

Management of the implementation of the Strategy for the Development of TA CR 2035 is carried out by the TA CR Board. The Research Board of TA CR, as the Agency's strategic body, plays a key role in programme development and collaborates on the implementation of the Strategy. TA CR also works closely with the Chair of the Council for Research, Development, and Innovation (RVVI), the RVVI itself, the Office of the Government of the Czech Republic, and relevant ministries.

The implementation of the strategic objectives and measures is carried out by the staff of the TA CR Office. Each measure is assigned to a manager responsible for its implementation, monitoring, and evaluation. The implementation of the Strategy depends on the available personnel and financial capacities of TA CR.

# Implementation of Measures

Most measures will **be implemented within the existing capacities of TA CR**, primarily by adjusting current activities or through internal projects. Funding for future programmes and calls for proposals comes from the state budget. In the field of international cooperation, funding may also come from international programmes (e.g., the EEA and Norway Grants). In some cases, the implementation of measures or parts thereof may be supported externally or realised as internal projects funded by external sources (e.g., the Horizon Europe programme).

Some measures will be followed by **specific action plans and concepts** developed at the process level or by individual TA CR departments responsible for their implementation. These action plans and concepts will further elaborate on the measures, specifying concrete activities and tasks necessary for their achievement.

While strategic objectives remain valid for the entire duration of the Strategy (unless modified during updates), specific measures typically have shorter time frames, generally lasting up to 36 months.

# Monitoring and Evaluation System for Strategy Implementation

The TA CR Board will evaluate the implementation of measures and the achievement of strategic objectives annually based on reports prepared by the TA CR Office. **The Annual Reports on the Implementation of the Strategy for the Development of TA CR 2035** are prepared by individual units of the TA CR Office using inputs from the managers of individual measures.

The annual reports will include an assessment and update of the **Risk Register**, which identifies and evaluates risks associated with the implementation of the Strategy, their likelihood and impact, and measures to mitigate them (in Annex 3).

A **Comprehensive Evaluation of Strategy Implementation** will take place no later than three years after the start of implementation. This evaluation will focus on the following aspects:

- The context in which the Strategy was developed and the potential impact of changes in this context on TA CR's mission, vision, and strategy.
- Whether and how the strategic objectives contribute to fulfilling the vision.
- Whether and how the measures lead to the intended outcomes targeted by the Strategy.
- Whether TA CR's support results in the expected outcomes and impacts.
- Whether the system of indicators aligns with the Strategy's objectives and meets requirements for measurability.

The Comprehensive Evaluation of Strategy Implementation will be prepared by the TA CR Office for the TA CR Board. The evaluation will be discussed with the Research Board and, if necessary, the Supervisory Board of TA CR. The results of the evaluation will be submitted to the Council for Research, Development, and Innovation (RVVI) for information.

# **Strategy Updates**

The TA CR Board will assess the need for Strategy updates annually, based on the Annual Report on Implementation or the Comprehensive Evaluation of Strategy Implementation, and propose modifications if necessary. These updates will also take into account any revisions to government-approved strategies or concepts, as well as those conceptual documents approved by the RVVI.

Strategy updates are divided into two types. If changes to the mission, vision, or strategic objectives are necessary, an interim update will be required. This type of update must be approved by the Council for Research, Development, and Innovation (RVVI) and subsequently by the Government of the Czech Republic before the Strategy's validity expires (i.e., by 2035). If changes are required only for specific measures or annexes of the Strategy that do not alter the purpose and focus of the objectives, a flexible update will be carried out. Flexible updates are approved by the TA CR Board and subsequently submitted to the RVVI for information.

Through a regular process of evaluation and adaptation to current needs, the TA CR Strategy will evolve into a dynamic document, continually reflecting current developments.

# Timeline for Strategy Implementation

Time	Activities
2025	Start of strategy implementation
2026-2027	<ul> <li>First annual report on strategy implementation for 2025 (in 2026)</li> <li>Continuous implementation of measures</li> <li>Annual reports on strategy implementation</li> </ul>
2028	<ul> <li>First comprehensive evaluation of strategy implementation</li> <li>Assessment of the need for an interim strategy update and proposal for such an update</li> </ul>
2028 - 2029	Potential interim strategy update (if necessary)
2028 - 2030	<ul> <li>Implementation of measures, including those arising from the interim strategy update</li> </ul>
2031	<ul> <li>A further comprehensive evaluation of strategy implementation and proposal for another interim update</li> </ul>
2031-2035	<ul> <li>Implementation of measures, including those arising from the interim strategy update</li> </ul>
2034	<ul> <li>Final evaluation of the strategy (to ensure findings are reflected in the subsequent strategy)</li> </ul>
2034-2035	Preparation, discussion, and approval of a new strategy
Do 2040	Ex-post evaluation of the Strategy for the Development of TA CR 2035

# Annexes

**Annex 1: Indicators** 

**Annex 2: Background Analysis** 

Annex 3: Risk Management and Preconditions for Strategy Implementation