

T A  
C R

TA CR

ANNUAL  
REPORT  
2023

2023

TECHNOLOGY  
AGENCY OF THE  
CZECH REPUBLIC

**Organization Name:**

Technology Agency of the Czech Republic

## Residence:

Evropská 1692/37, 160 00 Prague 6

## Legal form:

organizational unit of the state

## ID:

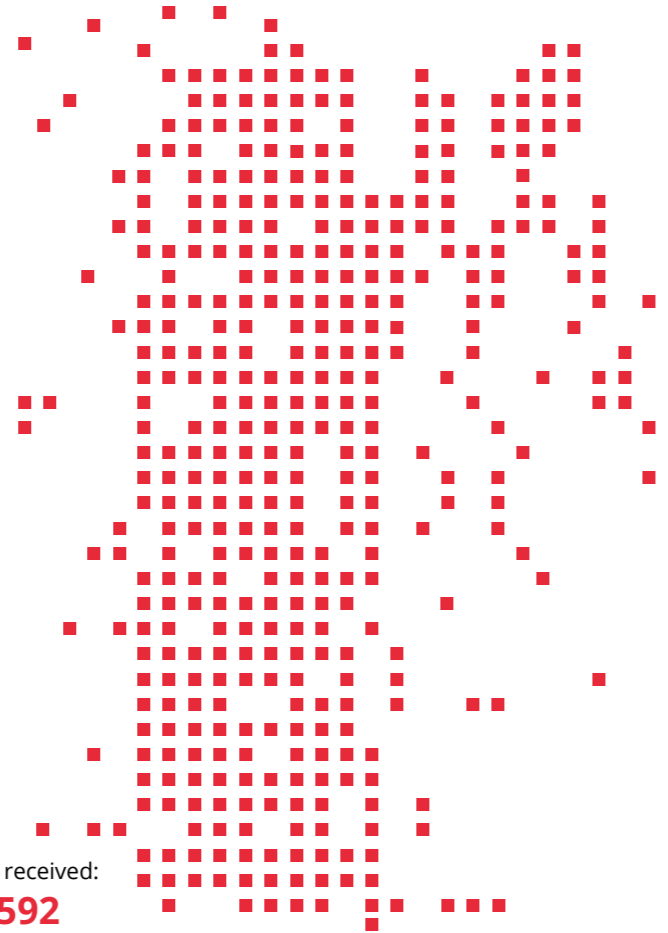
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# THE YEAR 2023 IN NUMBERS

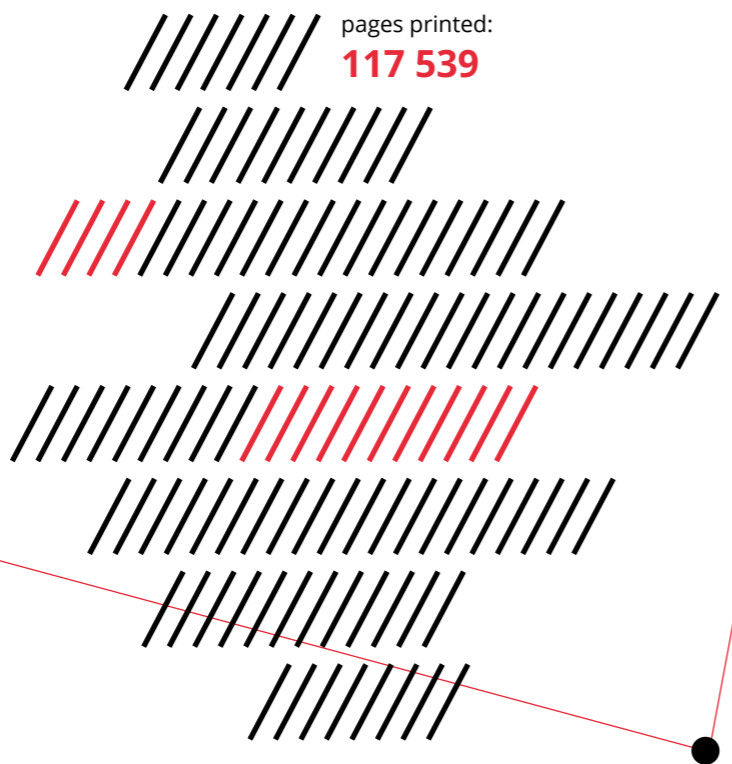


× e-mails received:  
**409 592**

e-mails sent:  
**374 897**  
(including mailing campaigns from the Ecomail tool)

data downloaded:  
**45,7 TB**

data uploaded:  
**50,7 TB**



pages printed:  
**117 539**

×

**5 287** administered projects

**1 310** projects in progress

**2 603** requests processed by the ICT Department

**1 969** requests processed by the Cabinet Department

**806** requests processed by the Communication and Marketing Department

**323** requests processed by the Legal Department



**10** calls for proposals announced

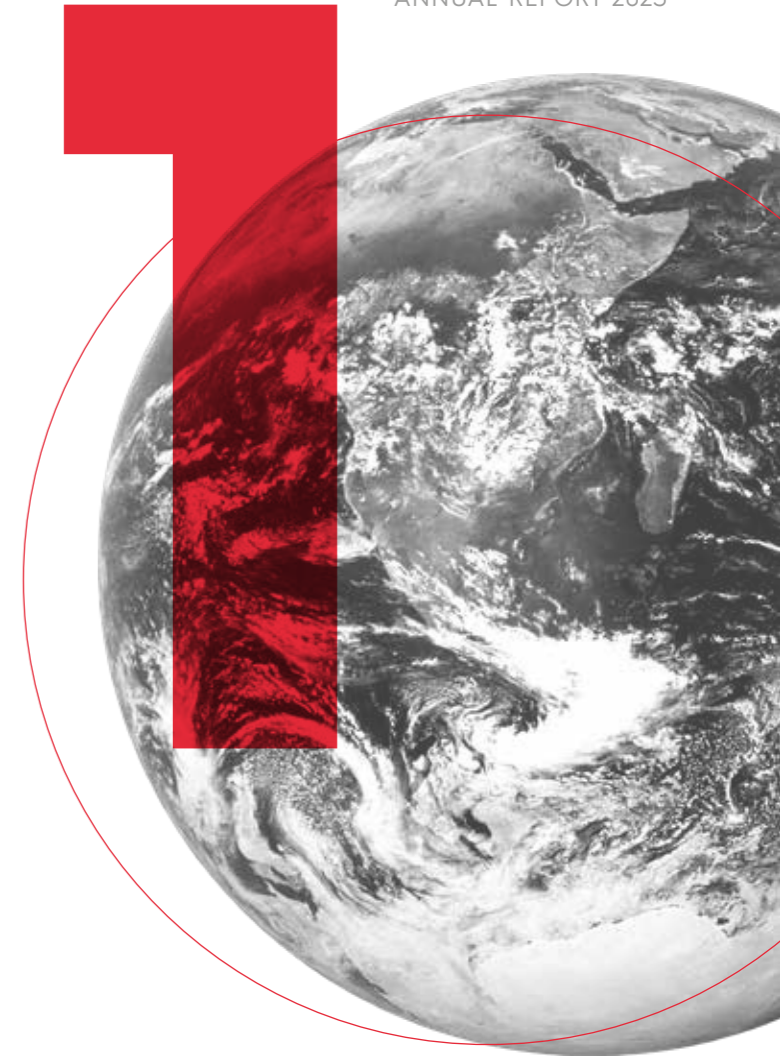


**8** international calls announced (including one national call to support internationally awarded projects)



**19** administered programmes

**1** programme under preparation (PRODEF)



×

# EUR 237 million

PAID TO BENEFICIARIES



## 2

## FOREWORD BY THE CHAIRMAN

I am pleased that you are holding in your hands the fourteenth annual report of the TA CR, recapitulating the past year. It was an exacting year, full of challenges and hard work, but also of positive changes, inspiration and successes, which I would like to present in a short roundup.

I would like to mention here two important milestones that our Agency achieved in 2023. The first milestone is **the „plug-in“ certification obtained from the European Commission**, which will bring Czech companies closer to funding from the EIC Accelerator instrument of the EU Horizon Europe programme. The potential receipt of this support may make it easier for applicants to complete the development and commercialisation of breakthrough innovations. The certification applies to calls under sub-programme 2 of the GAMA 2 Programme and similar calls under the SIGMA Programme. TA CR is the first and so far the only institution in the Czech Republic to receive this certification.

The second major milestone is **the launch of SISTA, a new shared information system**. The development of the system takes place gradually, is not dependent on a single supplier, licensing models or operating environment, and involves multiple suppliers developing partial functional components of the system. In 2023, all users, including the evaluators' profiles, of both existing software solutions (ISTA and IS BETA), were transferred to SISTA. In addition, key cross-cutting services that form the backbone of SISTA were implemented during the year. The development work will continue and the launch of the 1st

call for proposals in SISTA is scheduled for 2025.

Last year, we managed to launch 10 calls for proposals under national programmes and 8 international calls under ERA-NET Cofund/European Partnership projects. The administration of ministerial programmes and cooperation with other ministries continued smoothly on several levels, such as the use of our information system, the provision of evaluation activities, assistance in the preparation of new programmes or the fulfilment of ministerial research needs. I must not forget to mention the completion of the preparation of two new programmes which will constitute a follow-up to successfully implemented previous programmes that are due to expire in the coming years - the THETA 2 Programme and the BETA3 Programme or the preparation of the new PRODEF Programme, on which we are working intensively with the Ministry of Defence.

The following pages demonstrate that TA CR was again working very well and efficiently in 2023. I would like to thank the excellent team of all the Agency's employees who did a tremendous amount of honest and quality work. My thanks also go to our partners in public administration, academia and business, without whose support and cooperation the Agency could not function well. Together, we have accomplished many meaningful things that help improve the lives of all of us.

I wish you a pleasant reading.

Petr Konvalinka

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# INTERNATIONAL COOPERATION

## EUROPEAN AREA

In 2023, TA CR continued its cooperation with the TAFTIE network of 34 European innovation agencies. TA CR regularly participates in the meetings of the TAFTIE Board, Executive Working Group (EWG) and all ongoing Task Forces, to which it has appointed its representatives: the Structural Network on Benchmarking, High Potential Community, Diversity & Inclusion and Innovation-driven high potentials, SDGs, IPCEI as well as the ad hoc State Aid Group. At the same time, our Agency participates in all the trainings available within the Taftie Academy (TA). Last year, TAFTIE discussed the application for accession of the Ukrainian agency USF - Ukrainian Startup Fund. Thanks to a positive decision, TAFTIE will be expanded to include this agency. This step not only marks the accession of a strategically important partner, but also shows that the TAFTIE agenda is still relevant and in demand among European countries. This year, TA CR aims to review the benefits stemming from our participation in TAFTIE (not only) in 2023 and to use them more strategically.

In addition to the four European Partnerships in which TA CR is already involved, during 2023 we also negotiated participation in Partnerships prepared within the Horizon Europe Strategic Plan 2025 - 2027 (the so-called 3rd wave of European Partnerships). TA CR has expressed interest in joining several Partnerships or other schemes that are thematically linked to the ERA-NET Cofund schemes:

- » materials research and innovation (follow-up to ERA-NET Cofund M-ERA.NET)
- » research in the area of raw materials (follow-up to ERA-NET Cofund ERA-MIN)
- » partnership in the ICT area (follow-up to ERA-NET Cofund CHIST-ERA)
- » quantum technologies (follow-up to QuantERA II)

It will become known only during 2024 which schemes will be supported under the Horizon Europe Strategic Plan 2025-2027.

In the past year, we also managed to organise several events within the European area, which, among other things, help to improve our Agency's standing within the various schemes: In April 2023, we organised a major conference in the framework of the Biodiversa+ European Partnership. Around 120 representatives of successful projects, funders, stakeholders (from the European Commission or the UN) and biodiversity experts gathered in Prague for the conference.

In April 2023, we also organised a conference on knowledge valorisation (Awareness Raising Campaign on Knowledge Valorisation) in cooperation with the Ministry of Education, Youth and Sports of the Czech Republic, the Czech National Agency for International Education and Research, and the European Commission's Directorate General for Research and Innovation. The Czech Republic became the first country to organise this event.

In November 2023, TA CR organised a mid-term workshop for 22 projects funded under the ERA-MIN Call 2021. This event was part of the Raw Materials Week in Brussels.

In 2023, the GO-SME project (a coordination and support action project) funded from Horizon 2020 came to an end. It aimed to share good practice in supporting innovation in SMEs and start-ups. TA CR was in the role of a coordinator of 15 similar agencies from 12 European countries. In the framework of the project, 10 agencies proposed new or significantly optimised calls for SME support (in the case of the TA CR this is the sub-programme 2 of the GAMA 2 Programme). The beneficiaries of these calls were able to try out a mock pitch in front of experts



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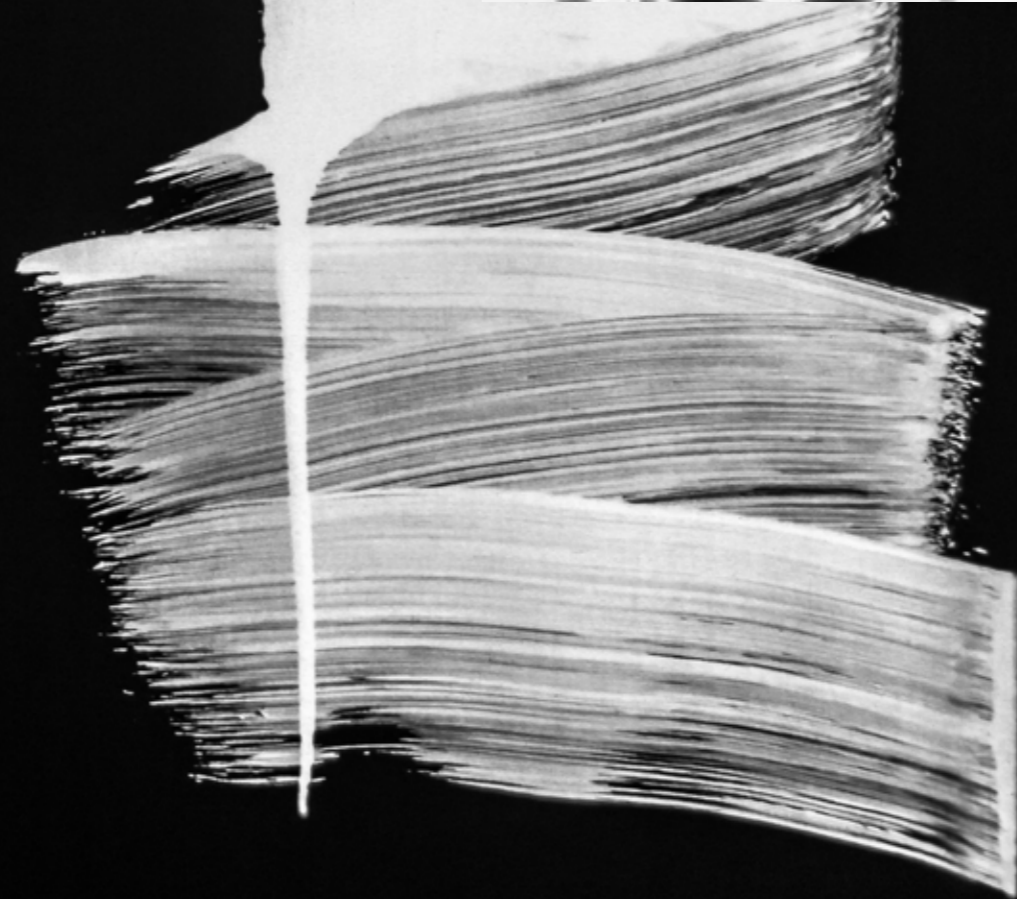
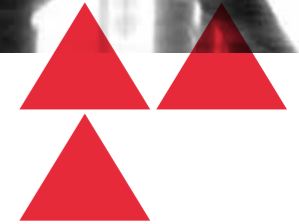


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PHOTO BY ADAM JIANG ON UNSPLASH.COM



PHOTO BY ANDREAS STRANDMAN ON UNSPLASH.COM



PHOTO BY NASA ON UNSPLASH.COM

from the EIC Accelerator. Several schemes were certified for the Plug-in mechanism (including TA CR). TA CR thus became the first and only institution in the Czech Republic to have this certification. The new or optimised calls mainly support feasibility studies and, in addition to increasing the likelihood of successful deployment of the innovation on the market, are intended to help beneficiaries prepare for the competition in the European EIC Accelerator.

For the first time, projects were selected for the Plug-in mechanism. Under this fast-track scheme, two projects have been transmitted to the European Commission for the second phase of the Horizon Europe EIC Accelerator.

In the past year, TA CR also successfully completed the Aquatic-Pollutants TAP Action, an alignment type call to support mobility and sharing of good practice, materials, infrastructure, data and results. TA CR coordinated the whole two-year project. The results and implementation of this call have far exceeded (more than twice) the original targets, both in the number of countries involved as well as in the number of researchers (including young ones) and their outputs.

Information on other international projects can be found in chapter 7 - Improving the quality of TA CR activities.

In the course of 2023, TA CR continued to implement the EEA and Norway Grants Research Programme within the KAPPA Programme which strengthens international cooperation of Czech entities with partners from Norway and Iceland in ap-

plied research and connects research organisations with the application sphere, especially with small and medium-sized enterprises. The first and only call for proposals was launched in 2019, evaluated in 2020 and the implementation of the 25 funded projects has been under way since 2021. As of December 2023, 24 projects were in the implementation phase, all with expected completion in April 2024. Two of the projects involve partners from Iceland and 22 projects involve partners from Norway. In total, 15 SMEs and 43 research organisations participate in these projects. In 2023, TA CR announced the possibility of increasing the budget of projects funded in the 1st call to expand the projects by additional activities. On that occasion, TA CR distributed almost EUR 924 000 among 12 projects. In some of its areas, the KAPPA Programme implements the European principles of the Horizon 2020 programme and seeks to prepare the beneficiaries also for other international calls. In 2023, TA CR co-organised the SOILCON conference – “Ground for future cooperation in Europe” on the topic of synergies with the European Soil Mission (A Soil Deal for Europe) and related opportunities to support scientific projects. The conference was held under the auspices of Helena Langšádlová, the Minister for Science, Research and Innovation, and Victor C. Rønneberg, the Norwegian Ambassador in Prague.

The Agency's employees are also actively involved in the expert working groups of the European Commission within the ERA Forum and the EIC Forum. The Agency's representative co-chairs on behalf of the Member States the ERA Forum sub-group on Access to Excellence – ‘R & I and Cohesion Managing Authorities’ Network.

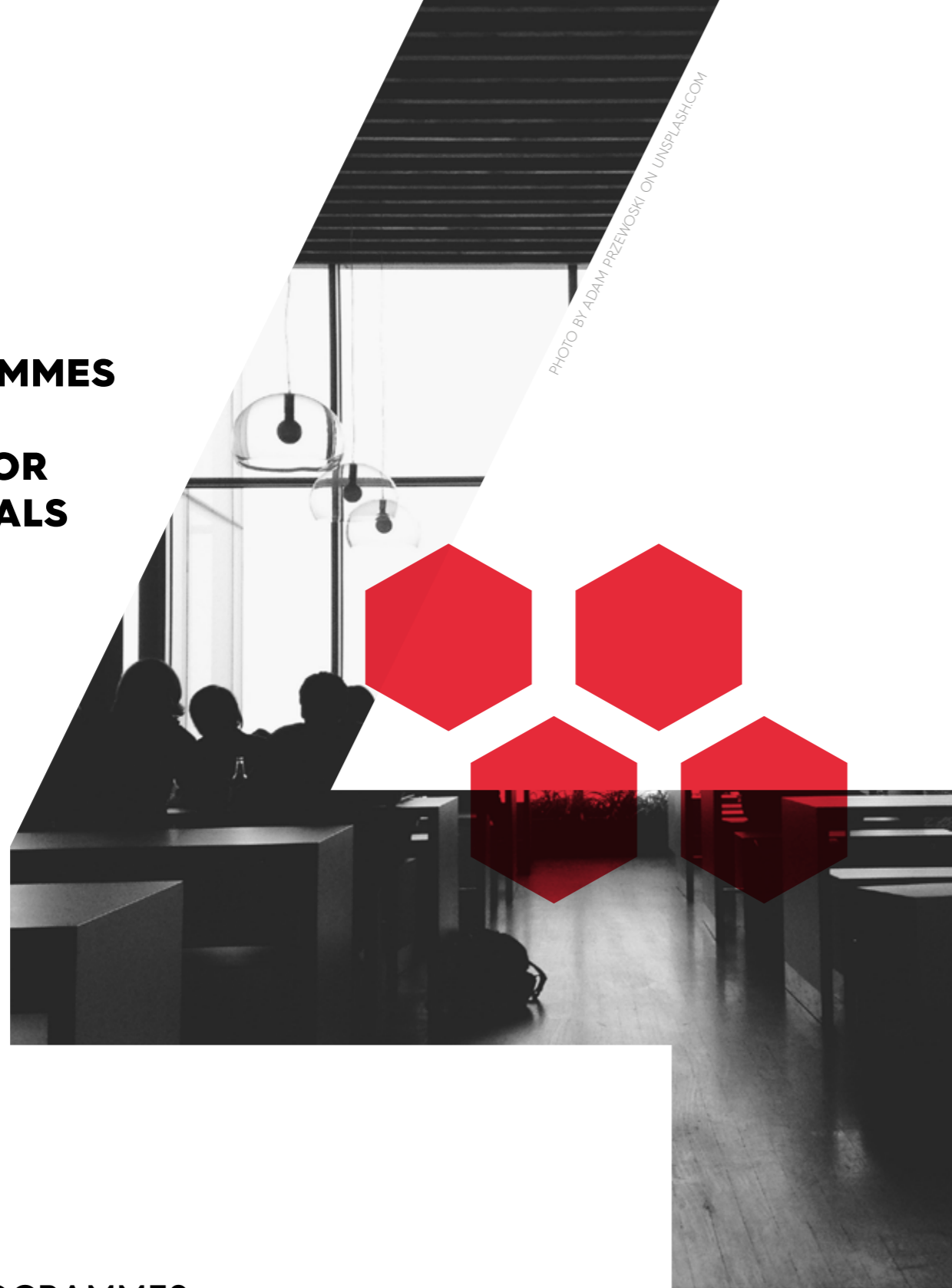
## NON-EUROPEAN AREA

The 5th call for proposals under the DELTA 2 Programme was launched in May 2023. The call was open for submissions from 18 May until 19 July 2023. Six foreign partner organisations from the following locations took part in the call: Israel, South Korea, the United States, Taiwan and newly also Saxony. A total of 29 project proposals were submitted to the 5th call, of which 24 proceeded to the evaluation stage. A total of 15 project proposals were supported both by the TA CR and its foreign counterpart. Within the DELTA 2 Programme, the cooperation with existing partners continued and negotiations were also taking place on the conclusion of new partnerships in accordance with the priority countries for TA CR international cooperation. The programme team organised in cooperation with the partner organisation Israel Innovation Authority (IIA) an informative webinar on the 5th call for proposals under the DELTA 2 Programme. It also actively participated in

the Czech-American webinar organized by the Ministry of Industry and Trade of the Czech Republic focused on R&D cooperation in the field of nuclear energy, and presented the possibility of Czech-Saxon cooperation in the field of transport and mobility in the DELTA 2 Programme at a webinar organized by SAENA - Sächsische Energieagentur GmbH and the Ministry of Transport of the Czech Republic. The aim of all these events was not only to present the conditions of a joint call with a specific foreign research funding organisation, but also to connect Czech and foreign actors interested in project cooperation. In addition, in May, representatives of TA CR and the Ministry of Industry and Trade jointly welcomed in Prague a Korean business delegation led by President Ki-Young Kweon from the Korea Institute of Energy Technology Evaluation and Planning (KETEP). The visit by this delegation was a follow-up to a Czech business mission to Korea and Taiwan, which was also attended by TA CR representatives in March of the same year. TA CR also hosted a delegation of 18 colleagues from its partner organization Korea Institute for Advancement of Technology (KIAT) and 15 colleagues from its Nigerian partner organization National Agency for Science and Engineering Infrastructure (NASANI) to train them in various TA CR processes, and thus deepen mutual cooperation. In July, the management of TA CR received a Taiwanese delegation led by Ming-Hsin Kung, Minister of the National Development Council. The delegation was accompanied by prominent representatives of the academic and business community. It was a courtesy meeting where, among other things, future possibilities of R&D cooperation in applied research were discussed.

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# TA CR PROGRAMMES AND CALLS FOR PROPOSALS



## 4.1 TA CR PROGRAMMES

Last year, the Technology Agency of the Czech Republic had 19 active programmes and 3 closed programmes (ALFA, OMEGA, BETA). A total of 1 310 applied research projects were implemented and supported with EUR 237 million. Ten calls for proposals and 8 international calls (including one national one) were announced last year. One new programme was also under preparation.

Table 1:  
Summary data on programmes administered by TA CR (2011–2023)

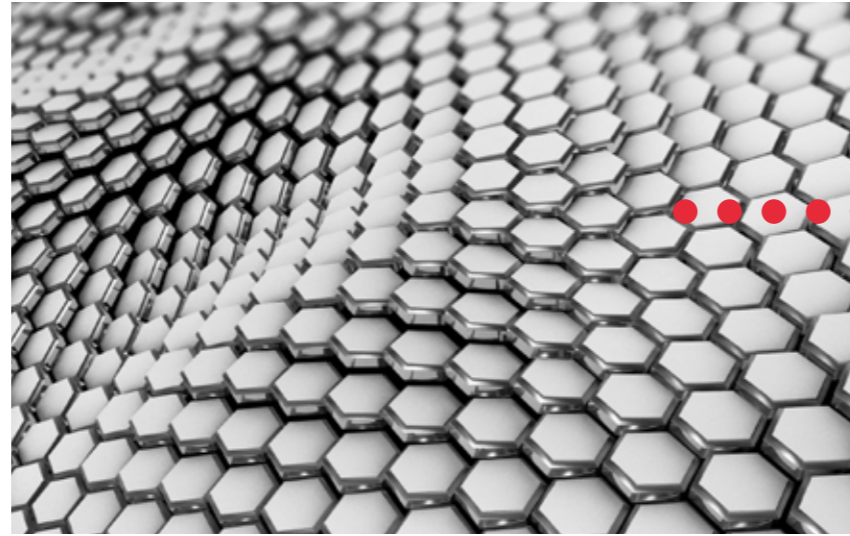
PROGRAMME	PROGRAMME DURATION	CALLS FOR PROPOSALS ANNOUNCED	PROJECT PROPOSALS SUBMITTED	PROJECTS FUNDED	SUPPORT SUCCESS RATE [%]
TA - ALFA	2011–2019	4	3 501	961	27.4
TD - OMEGA	2012–2017	3	650	194	29.8
TE - CENTRES OF COMPETENCE	2012–2019	2	210	34	16.2
TF - DELTA	2014–2021	6	142	47	33.1
TG - GAMA	2014–2019	8	82	42	51.2
TH - EPSILON* **	2015–2026	6+23	2 244	719	32
TJ - ZÉTA	2017–2025	3+1	888	300	33.8
TK - THÉTA	2018–2025	5+1	694	297	42.8
TL - ÉTA	2018–2025	5	2 035	419	20.6
TM - DELTA 2*	2020–2025	5	185	76	41.1
TN - NATIONAL CENTRES OF COMPETENCE	2018–2028	2	61	31	50.8
TO - KAPPA	2019–2024	1	163	25	15.3
TP - GAMA 2	2020–2022	4	87	42	48.3
TQ - SIGMA* **	2022–2029	5+7	975	143	14.7
TS - THÉTA 2**	2024–2031	1	-	-	-
CK - DOPRAVA 2020+	2020–2026	4	765	153	20
CL - DOPRAVA 2030*	2023–2030	1	170	20	11.8
FW - TREND**	2020–2027	10	2 191	650	29.7
SS - ENVIRONMENT FOR LIFE**	2020–2026	7+4	1 216	159	13.1
<b>TOTAL</b>		<b>118</b> (82 calls for proposals and 36 Cofund calls)	<b>16 259</b>	<b>4 312</b>	<b>26.5</b>

Note: Public procurement programmes BETA, BETA2 and BETA3 are not included

\*data for funded projects also include projects for which the contract is expected to be signed

\*\*data on the number of projects and the success rate are calculated only for the calls with announced results

PHOTO BY RESOURCE DATABASE ON UNSPLASH.COM



## DELTA 2 PROGRAMME

TM04000048

### LASER IMPROVED NOVEL SURFACE ENGINEERING AND REPAIR OF TOOLS

The project objective is to use laser treatment to improve the durability of super-hard machining materials. The laser processes are laser shock peening which prevents crack propagation and laser surface texturing which improves the tool cooling and more. The laser treatment will be developed in combination with PVD coatings which are commonly applied to super-hard tools. Here, the technology of laser cleaning will also be utilized. A part of the project is also a parallel development of a new and more efficient type of PVD coating which will be optimized for the laser treatment. The whole development will be supported by advanced computer simulations. The project outcome should be optimized scalable production procedures for carbide inserts and drills with positive economic returns.

Participants:  
**SHM, s. r. o.**  
**Institute of Physics of the Czech Academy of Sciences**  
**Institute of Thermomechanics of the Czech Academy of Sciences**  
**Welle Laser Technology**  
**EMBRAPII Unit Laser Technologies EMBRAER S.A**



PHOTO BY BETTY IMAGES ON PIXABAY.COM

## KAPPA PROGRAMME

TO01000057

### TRANSPLANT IMMUNOLOGY DECISION SUPPORT SYSTEM

Transplant Immunology (TI) is a medical science dealing with transplantation processes of stem cells, tissues and solid organs. It includes a wide range of activities. Their efficiency depends on the ability to make immediate and correct decisions based on comprehensive data. The goal is to develop the TRansplant IMMUnology decision support System (Trimmus) that includes a complete work-flows and enables OUS to upgrade from existing LIMS (laboratory information management system), paper solutions and manual procedures by delivering a unique software tool to improve safety of patients, ensure the best possible care, meet accreditation requirements, improve information flow, increase information security, speed up workflows and improve decision making.

Participants:  
**Steiner, s. r. o.**  
**Oslo University Hospital**

## SIGMA PROGRAMME

TQ01000030

### USING ARTIFICIAL INTELLIGENCE AND VIRTUAL REALITY IN DEVELOPING COMPETENCIES TO SOLVE CHALLENGING BEHAVIOUR IN THE CLASSROOM

The aim is to support student teachers and novice teachers in their efforts to gain competencies to manage challenging student behaviour in the classroom. The first way of support is through a gamified web-based platform of written case studies (cases), where users can search for solutions to different cases of challenging behaviour. Thanks to AI algorithms, students can also track similar case studies. Within the platform, users can practice respectful conversations with a chatbot/voicebot on problematic pupils' statements. The second way of supporting students to develop the key competencies is through a virtual simulated environment of challenging situations in the classroom. It will be possible to use both approaches complementarily, and they will be free of charge and immediately accessible.

Participant:  
**Masaryk University / Faculty of Education**



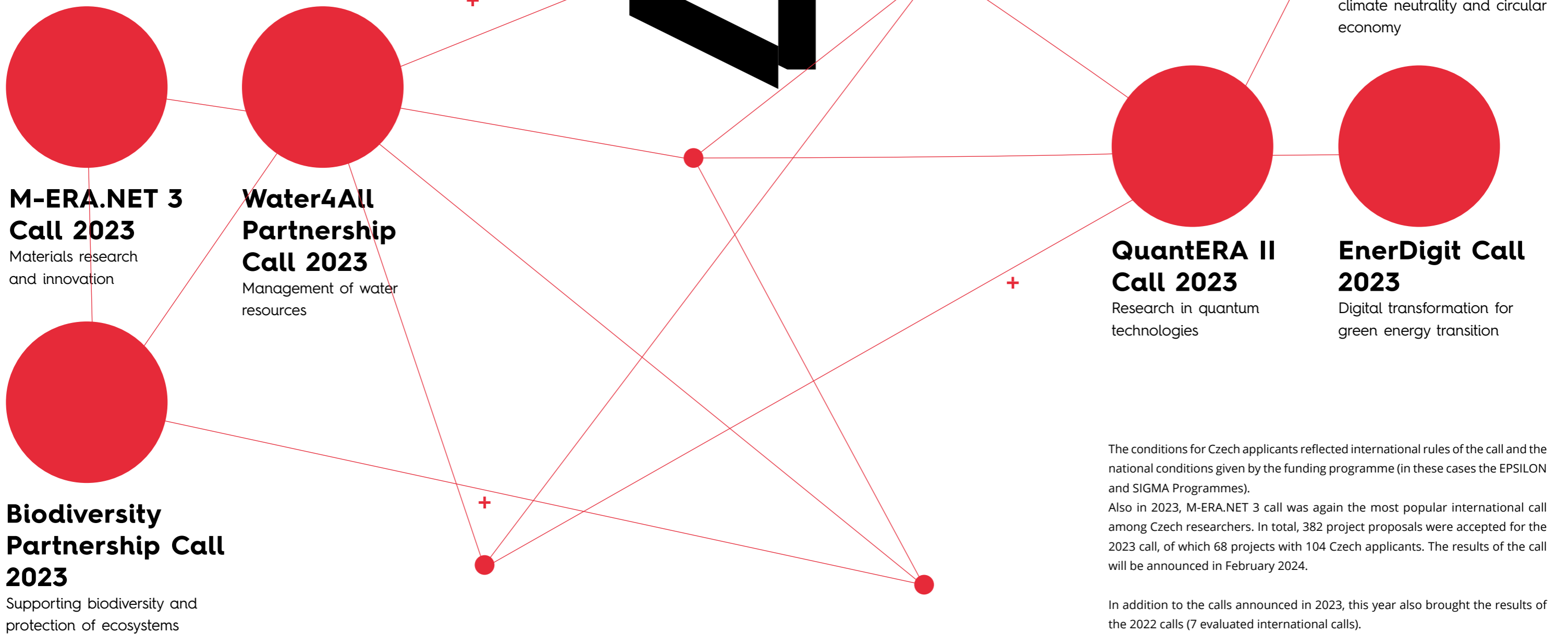
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### 4.3 INTERNATIONAL ERA-NET COFUND CALLS/EUROPEAN PARTNERSHIPS

In 2023, TA CR was part of ERA-NET Cofund/European Partnership projects under which 7 international calls were announced. The awareness and interest of researchers in international calls continues to grow.

#### THE FOLLOWING CALLS WERE ANNOUNCED IN 2023:



The conditions for Czech applicants reflected international rules of the call and the national conditions given by the funding programme (in these cases the EPSILON and SIGMA Programmes).

Also in 2023, M-ERA.NET 3 call was again the most popular international call among Czech researchers. In total, 382 project proposals were accepted for the 2023 call, of which 68 projects with 104 Czech applicants. The results of the call will be announced in February 2024.

In addition to the calls announced in 2023, this year also brought the results of the 2022 calls (7 evaluated international calls).

Table 2:  
**International calls announced and evaluated within  
 ERA-NET Cofund/European Partnerships in 2023**

ERA-NET COFUND/ PARTNERSHIP	CALL	TOTAL SUBMITTED PROJECTS	NUMBER OF PROJECTS WITH CZECH APPLICANTS	NUMBER OF CZECH APPLICANTS IN PROJECTS	NUMBER OF SUCCESSFUL PROJECTS	NUMBER OF SUCCESSFUL PROJECTS WITH CZECH PARTICIPATION
M-ERA.NET 3	Call 2022	289	43	86	46	5/11*
CHIST-ERA IV	Call 2022	42	7	9	8	1/2
CHIST-ERA IV CALL OPEN RESEARCH DATA	Call 2022	35	10	11	8	3/3
BIODIVERSITY PARTNERSHIP	Call 2022	266	40	43	33	9/11
WATER4ALL	Call 2022	167	12	20	27	1/2
CET	Call 2022	112	8	11	46	4/7
DUT	Call 2022	188	5	7	48	1/2
ENERDIGIT	Call 2023	10	4	8	6	2/3
ERA-MIN 3	Call 2023	49	14	18	9	1/1
QUANTERA II	Call 2023	101	7	9	24	1/1
M-ERA.NET 3	Call 2023	382	68	104	results will be known in February 2024	
BIODIVERSITY PARTNERSHIP	Call 2023	191	19	20	results will be known in September 2024	
CET	Call 2023	207	17	18	results will be known in June 2024	
WATER4ALL	Call 2023	116	6	8	results will be known in June 2024	
DUT	Call 2023	183	13	14	results will be known in July 2024	

\*Note: The number 5/11 means that in the total number of successful projects, there were 5 projects with 11 Czech applicants

ERA-NET Cofund calls and European Partnerships have so far supported 122 Czech applicants in 83 projects out of a total of 688 submitted projects with Czech researchers.

In addition to calls within ERA-NET Cofunds and Partnerships, a second national call was launched to support internationally awarded projects. This call was announced in June 2023 and was intended for projects that have been awarded the Seal of Excellence in the 2020 EIC Accelerator Pilot and the 2022 and 2023 EIC Accelerator. Five projects of small and medium-sized enterprises were successful in the call. The National Recovery Plan is used to finance these projects.



PHOTO BY MARCEL STRAUSS ON UNSPLASH.COM

## 4.4 MINISTERIAL PROGRAMMES

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In 2023, the Agency continued to implement three ministerial programmes - the TREND Programme of the Ministry of Industry and Trade, the Environment for Life Programme of the Ministry of the Environment and the Transport 2020+ and Transport 2030+ Programmes of the Ministry of Transport.

Cooperation continued also with the ministries whose programmes are not administered by TA CR but which implement their programmes in the TA CR's ISTA information system. This system is used by the Ministry of the Interior for the IMPACT 1, SECTECH and OPSEC Programmes and by the Ministry of Agriculture for the ZEMĚ Programme. Furthermore, TA CR is in the position of a co-creator and implementer of the PRODEF Programme (Ministry of Defence).

Through its activities and implementation of programmes supporting applied research and innovation TA CR continues to contribute to the implementation of national or ministerial strategies such as the RIS3 Strategy.



## 4.5 NATIONAL RECOVERY PLAN



Funded by the European Union  
NextGenerationEU



In 2023, the implementation of the National Recovery Plan continued under components 1.3 and 5.2, which are focused on research and where TA CR acts as the implementing entity.

Within component 1.3, projects were being implemented which were supported from the 7th and 8th call under the TREND Programme announced in 2022.

The aim of investments under Component 5.2 is to support research and development in enterprises and the introduction of innovations into business practice to help restore the economy and strengthen its resilience by increasing the competitiveness and flexibility of enterprises, especially the small and medium-sized ones, by increasing the innovative performance of endogenous business entities and by contributing to improving cooperation within the innovation ecosystem of the Czech Republic. In the course of 2023, projects were implemented which were supported

by the National Centres of Competence and Environment for Life (sub-programme 2) Programmes announced in 2022.

In the framework of an update of the National Recovery Plan, investments 5, 6 and 7 were added to Component 5.2 in 2023, which will be used to support research and development in enterprises under the TREND Programme, support research and development in transport and space activities under the Transport 2030 Programme and support research and development in the area of the environment under the Environment for Life Programme (sub-programme 2). The implementation of all the three new investments started immediately with the announcement of three calls for proposals (the 10th call under the TREND Programme, the 7th call under the Environment for Life Programme (sub-programme 2) and the 1st call under the Transport 2030 Programme). All the three investments are closely linked to the newly defined reform to strengthen targeted support for the priorities of the RIS3 strategy, which will be reflected by all supported projects starting in 2024.

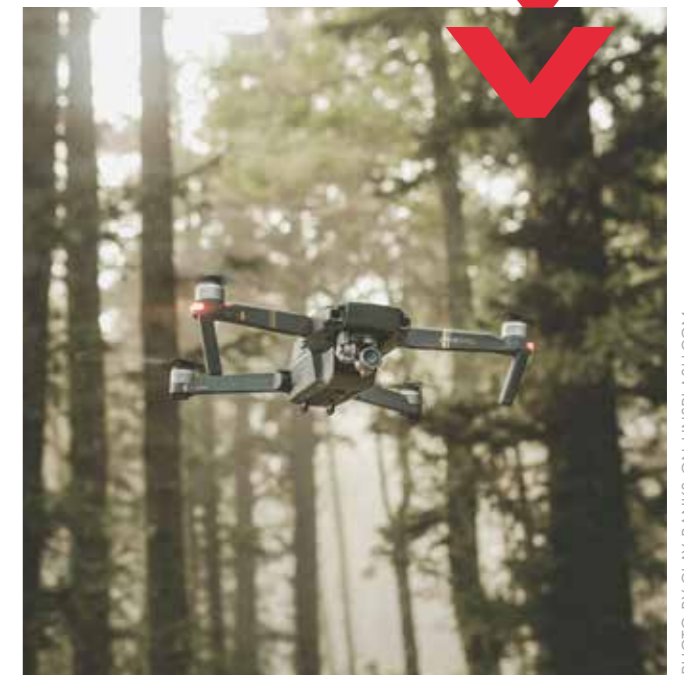
During 2023, a total of 16 projects from the ERA-NET Cofund and Partnership calls were selected for support from the National Recovery Plan. A total of 11 projects from the European Partnerships and ERA-NET Cofund calls were contracted from the National Recovery Plan in 2023. In addition, the National Recovery Plan provides funding for 9 Seal of Excellence projects.

## 4.6 PREPARATION OF NEW PROGRAMMES

In 2023, we completed the preparation of two new programmes following on from successfully implemented previous programmes, which will expire in the coming years. **The THÉTA 2 Programme for Support of Applied Research and Innovation in the Field of Energy** was approved by Government Resolution No. 320 of 30 May 2023 and **the BETA3 Programme of Public Procurement in Applied Research and Innovation for the Needs of Public Administration**, which contributes to improving the performance of public administration functions through research and strengthens the building of an innovation ecosystem in public administration, was approved by Government Resolution No. 670 of 30 August 2023. At the same time, we continued with the Ministry of Defence the joint preparation of the PRODEF Programme in the field of defence industry.

### THE PRODEF PROGRAMME FOR THE SUPPORT OF APPLIED RESEARCH AND INNOVATION

During 2023, we prepared in cooperation with the Ministry of Defence a proposal for the PRODEF Programme aimed at supporting applied research and innovation in the defence industry. The programme will target both international and national support. Through its implementation, we want to develop international and national cooperation between companies and research organisations and create space for linking with the activities of the European Union. The programme will therefore be divided into two sub-programmes - one focusing on the co-financing of activities of the European Defence Fund and the other supporting projects contributing to the strategic objectives of the Czech Republic in the field of defence. We expect its approval in the first half of 2024 and the announcement of a public/national call as early as towards the end of 2024.



# PROMOTING GENDER EQUALITY AND RESPONSIBLE RESEARCH AND INNOVATION

Support for gender equality and responsible research and innovation is one of the topics that TA CR has been addressing for a long time. With the aim of further developing and systematizing its activities to support gender equality, TA CR has been implementing the Gender Equality Plan 2022–2025 since last year. The plan contains both measures aimed at supporting gender equality in the research ecosystem as well as activities supporting equality and an open and respectful environment in the TA CR Office itself.

Within the implementation of the Plan, TA CR has focused in particular on promoting a more balanced representation of women and men among researchers and increasing reflection on possible gender dimensions in the content of research and innovation. In order to strengthen the attention paid to these aspects, they were reflected in the criteria for evaluation of project proposals in selected calls. TA CR thus built on its previous activities in the ZÉTA and ÉTA Programmes.

In relation to its own male and female employees, TA CR focused on mapping their perceptions of the organisation's gender culture, equal opportunities in relation to gender, age, ethnicity, disability and other potentially disadvantaging characteristics, and possible experiences of sexual harassment, mobbing and bossing. Monitoring of gender pay gaps through the Logib analytical tool, which TA CR has been working on since 2020, also continued.

In the field of gender equality, TA CR was active also at the international level. Since June 2022, TA CR has been participating in the GENDERACTIONplus project, which was supported from the Horizon Europe programme. It is a three-year project that brings together 26 partners from 21 countries. Its aim is to create a network of representatives of research funding organisations and ministries that will strengthen the coordination of activities to promote gender equality in research and contribute to meeting the ERA goals for this area. Within the project, TA CR mainly deals with activities focused on

the inclusion of the gender dimension in the content of research and innovation. Moreover, the international project GENDER-NET plus (ERA-NET Cofund) was successfully completed in 2023. Under that project, TA CR, together with other research funding organisations, launched a call for proposals in 2018 focusing on the gender dimension in the knowledge content of various scientific disciplines, and also undertook other activities in this area and promoted institutional changes to ensure gender equality in research.

Related to the theme of responsible research is the promotion of open access to research data and results. Under all calls for proposals, international calls and public procurements launched in 2023, it is mandatory to publish research data (subject to legal exemptions). In selected calls under the SIGMA and Environment for Life Programmes, it is also mandatory for beneficiaries to ensure open access to specified types of publications and research outputs.





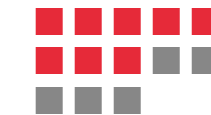
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# COOPERATION WITH BENEFICIARIES

Communication with beneficiaries is very important for TA CR as it plays a key role in improving the Agency's activities and services. The main effort of the Agency is to meet the needs of research project participants as well as applicants for funding. TA CR staff provide information and answers to all partners in a comprehensive and easy-to-follow form through standard helpdesk, email or telephone communication, and in particular also through numerous webinars/events and workshops.

In 2023, a total of 25 events took place for applicants and beneficiaries, and also for selected project participants. Namely:

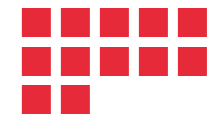
**13** events for applicants for TA CR funding, of which:



**8** webinars in Czech (national as well as international cooperation)

**5** webinars in English (international cooperation)

**12** events for successful participants in funded projects



All events for project participants were held in Czech.

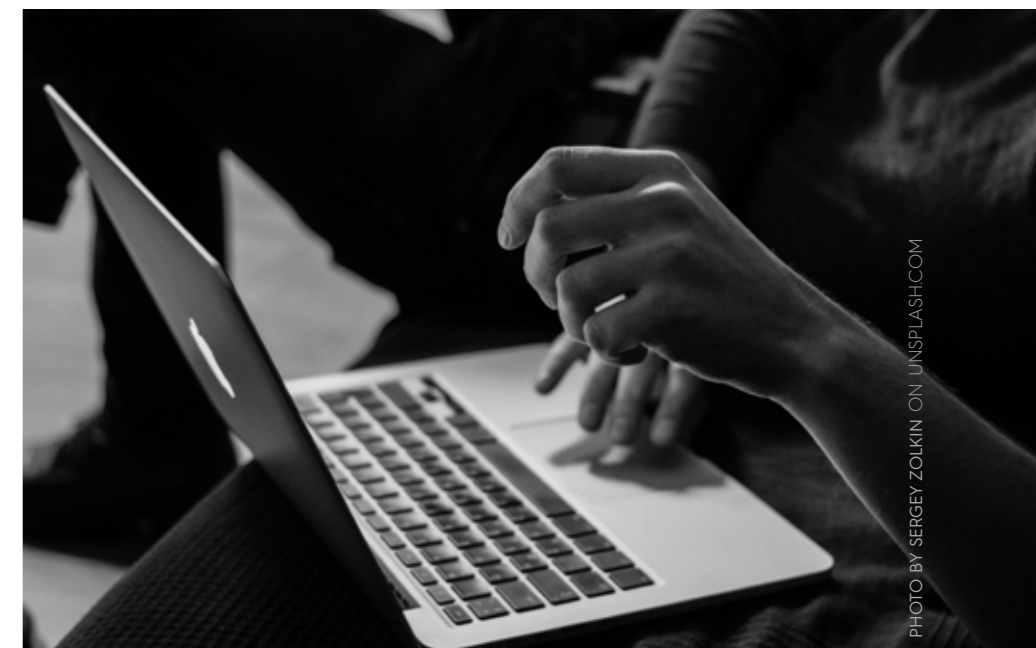


PHOTO BY SERGEY ZOLKIN ON UNSPLASH.COM

7

## IMPROVING THE QUALITY OF TA CR ACTIVITIES

### 7.1 DEVELOPMENT PROJECTS

In 2023, the Agency implemented one project under the Cohesion Policy Funds from the Operational Programme Employment (OPE), and one project from the Operational Programme Jan Amos Komenský (OP JAK). It also implemented international projects under the EU programmes Horizon 2020 and Horizon Europe.

Under OPE, the project “TA CR Education and Training Programme - Competent Administrator of Support for Research, Development and Innovation” was successfully completed in June 2023. A specific education and training programme based on a competence model for the Agency’s employees was completed in the project, thus increasing their competences, specific skills and knowledge.

In cooperation with the Ministry of Industry and Trade and the CzechInvest Agency, TA CR commenced in April 2023 the implementation of the project Systemic Support for Implementation and Management of the National RIS3 Strategy 2023+ (OP JAK), which builds on the previous project successfully completed in 2022. The main objective of the project is to improve the implementation and management of the National RIS3 Strategy so that it intensively supports the development of strengths of the R&D&I system at national and regional level, responds to new challenges/trends/megatrends resulting from the process of discovering business opportunities, strengthens industrial transformation and digitalization, and develops interregional and international cooperation. The main outputs of the project will include a methodology of mission development, analysis of selected topics of industrial transformation, methodology for overcoming barriers between different spheres (triple/quadruple helix), involvement of innovation infrastructures in RIS3 and an overview of good practices from abroad.

At the transnational level, the Agency continued to implement CSA type projects, ERA-NET Cofund projects within the Horizon 2020 programme, and European Partnership projects (of the Cofund type) within the Horizon Europe programme.

In April 2023, TA CR successfully completed the implementation of the CSA project GO-SME (for more details please see Chapter 3 - International Cooperation).

During 2023, implementation of the TRAMI CSA project continued. The aim of the project is to provide support and an information base for the implementation of missions at the European, national and regional level. The objectives are to be achieved by mapping key organisations for mission-oriented policies, spreading awareness of these policies, and creating a best-practice sharing network.

The implementation of the GENDERACTIONplus project continued. The aim of the project is to create a network of representatives of research funding organisations and ministries from individual EU Member States (and several associated countries), which will contribute to the coordination of efforts in promoting gender equality in research and to meeting the ERA goals for this area. The project brings together 26 partners from EU Member States and associated countries, and is coordinated by the Institute of Sociology of the Academy of Sciences of the Czech Republic.

During 2023, TA CR participated as one of the partners in the transnational project “Building capacity for evidence-informed policymaking in governance and public administration in a post-pandemic Europe”. The project is funded by the Technical Support Instrument of the European Union and is managed by experts from the Joint Research Centre (JRC). The project aims to increase the use of evidence in policy-making and to link researchers more effectively with public administration.

TA CR representatives take part in the governing board of the so-called shared activities projects (CZERA, CZELO and STRATIN+), which are managed by the Ministry of Education, Youth and Sports and are aimed at developing international cooperation in research, supporting the Czech Republic’s participation in the Horizon Europe programme and strategic decision-making in research and innovation policy in the Czech Republic.

During the year, preparations were underway for participation in the international KnowledgeAnalytics project submitted to the 2nd call of the Interreg Europe programme. The project, coordinated by the Lithuanian Agency, was approved in December. The aim of the project is to improve the performance of the regional development policy instruments of the participating regions, with TA CR focusing on analytical and evaluation support of the SIGMA Programme.

#### THE SISTA INFORMATION SYSTEM

TA CR continues to implement the shared information system (SISTA), which is built on modern principles of microservice architecture, “cloud native” applications and the development of which involves multiple suppliers. The agile process framework Scrum is applied in SISTA project management. The system was launched in 2023 and all users, including the evaluators’ profiles, of both existing software solutions (ISTA and IS BETA), were transferred to SISTA. In addition, key cross-cutting services that form the backbone of SISTA were implemented during the year. The implementation of business services will continue in 2024 so that the first call using SISTA can be launched during 2025.



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PHOTO BY GETTY IMAGES ON UNSPLASH.COM



## 7.2 STRATEGY – DEVELOPMENT PROSPECTS, STRATEGY PREPARATIONS



PHOTO BY VALENTIN SAJLA ON UNSPLASH.COM

Following the document TA CR Development Prospects approved by the Government, works continued on the preparation of the new TA CR Development Strategy. Activities in 2023 built on the documents drawn up during the implementation of the SMARTERadmin project financed by the European Social Fund, which was completed as planned in 2022. A new framework for the strategy was prepared, taking into account the latest developments, especially in the area of current trends and social and technological challenges. The process of preparing the strategy further reflects the expected changes resulting from the submitted draft law on research, development, innovation and knowledge transfer. The time horizon for which the strategy is proposed has been extended to 2035 with the assumption of regular updates at shorter intervals. The conceptual setting of the strategy was consulted not only with the TA CR Board and TA CR Research and Supervisory Boards, but also with Minister for Science, Research and Innovation Helena Langšádlová and other relevant stakeholders. Not only representatives of TA CR bodies and TA CR Office staff, but also a number of external experts participated in the preparation of the strategy. The completion of the new TA CR Development Strategy 2035 and its approval by the Government is expected in 2024.



## 7.3 INKA SURVEY

In 2023, the evaluation of the third round of the INKA 3 Innovation Capacity Mapping Survey was completed to gain a deeper understanding of the innovation ecosystem in the Czech Republic, with an emphasis on the business sector. The knowledge gained is then translated into the design and specific interventions of the support for research, development and innovation.

In accordance with the methodology "INKA - Innovation Capacities 2014+", the Agency completed work on an analytical report based on secondary data (Analysis of Macroeconomic and Microeconomic Data) in 2023. The report is a basic summary of the economic and innovation situation in the Czech Republic and represents a basic starting point for a more accurate interpretation of the findings from the analysis of primary data (i.e. data obtained from a field survey in firms - a total of 512 interviews were conducted in innovative firms). In view of the considerable scope of the findings described in both reports, TA CR has also produced a shorter summary report describing the most important findings and recommendations on how the results should be treated from the perspective of the business environment.

Last but not least, on the basis of the obtained and processed primary data, TA CR continued to update and include the latest data in the web portal INKAviz, which is used for online presentation of data from this survey.

All final reports from the INKA survey are available at the INKAviz website.

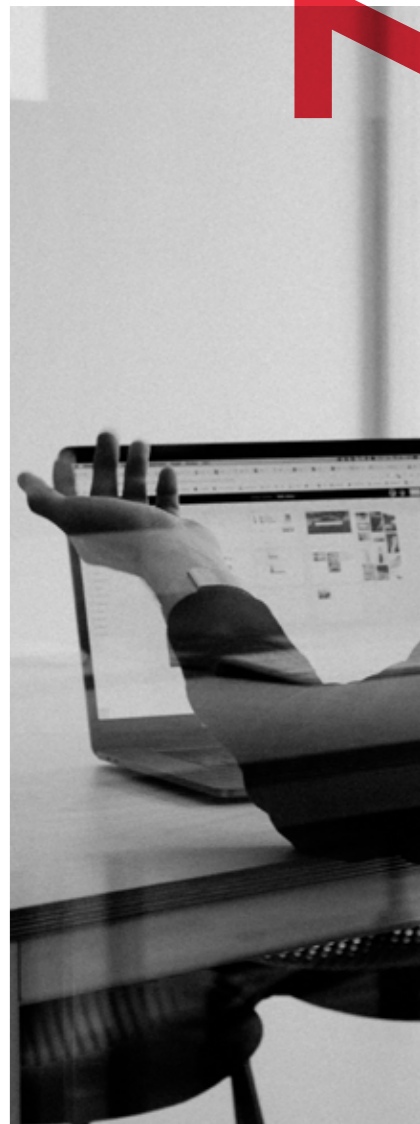


PHOTO BY CHARLES DELUVIO ON UNSPLASH.COM



8

# PEOPLE IN TA CR

## 8.1 EMPLOYEES

For 2023, TA CR was allocated 132 functional regular positions and 19.5 FTEs for internal projects. The resulting annual cumulative recalculated number of regular staff (including 5 members of the Board) was 132 employees.



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PHOTO BY SUGANTH ON PIXABAY.COM

The average age of employees was **38 years.**

The average length of employment in TA CR in 2023 was **4.7 years.**

The turnover rate of TA CR employees in 2023 was **19%.**

The following table provides an overview of the employment situation.

Table 3: Employment situation as of 31 December 2023:

	TOTAL	OF WHICH WOMEN	OF WHICH WOMEN IN %	MEN
FULL-TIME CONTRACTED EMPLOYEES	165	114	69.1%	51
EMPLOYEES WORKING ON THE BASIS OF WORK AGREEMENT	30	14	46.7%	16
<b>TOTAL EMPLOYEES</b>	<b>195</b>	128	<b>65.6%</b>	67
EMPLOYEES IN MANAGEMENT POSITIONS	38	24	63.2%	14
EMPLOYEES IN THE POSITIONS OF DIRECTOR AND SECTION DIRECTOR	4	2	50%	2



PHOTO BY GLEN CARRIE ON UNSPLASH.COM

## 8.2 ORGANISATIONAL STRUCTURE

The TA CR Board remained in the same composition as in the previous year, but there were personnel changes in the TA CR Research Board and the TA CR Supervisory Board.

New members of the TA CR Research Board were appointed with effect from 26 April 2023. Ing. Jiří Reiss, CSc. was appointed for the second term and PhDr. Pavel Baran, CSc. became a new member of the TA CR Research Board.

On 14 April, the term of office ended for prof. Ing. Rostislav Drochytka, CSc., MBA, Dr. h.c., who held the position of chairman of the Supervisory Board. JUDr. Martin Kobert was newly appointed as its chairman.

On 27 November 2023, the term of office ended for prof. RNDr. Ivan Ohlídál, DrSc., member of the TA CR Supervisory Board. With effect from 12 January 2023, the Chamber of Deputies of the Parliament of the Czech Republic appointed PhDr. Kamil Galuščák, PhD, as a new member and with effect from 18 April 2023, the Supervisory Board also welcomed three new members: RNDr. Eva Janouškovcová, Ph.D., LL.M., JUDr. Marcela Káňová, Ph.D. and prof. Dr. Ing. Zdeněk Kůs.

## 8.3 COOPERATION WITH EXTERNAL EVALUATION SPECIALIST

In the past year, 7389 expert evaluation reports, 840 Do No Significant Harm (DNSH) assessments, 2231 summary evaluation reports and 1059 interim and final review reports were drawn up which is 62% more than in the previous year.

In 2023, TA CR had 4885 evaluators registered in its database (896 foreign, 3989 Czech and Slovak) – of which 2364 evaluators were contracted for 2023 (2131 contracts with Czech evaluators, 74 contracts with Slovak evaluators, and 159 with evaluators from elsewhere). The majority of the evaluators, namely 58%, were from the research and academic sphere, 27% from the enterprise sphere and the remaining 15% cannot be clearly classified.

Among domestic evaluators, men (72%) predominate over women (28%).

The foreign evaluators are from 52 countries worldwide, with most evaluators coming from Italy, Spain and Germany. Also among foreign evaluators men (65%) prevail over women (35%). Czech and Slovak evaluators are treated as domestic evaluators and can evaluate all programmes - both Czech as well as foreign ones. Therefore, the number of Czech and Slovak evaluators is aggregated above.

A total of 15 experts were contracted for the evaluation of research needs and public procurements, of which there were 14 men and 1 woman.



## TA CR AWARDS

### THE TA CR DAY

Already for the eleventh time, the Technology Agency of the Czech Republic awarded the best applied research projects. Throughout the TA CR Day 2023, the underlying theme was *“Science is not sci-fi? Pushing the boundaries of what’s possible”*, which highlighted the crucial role of applied research and development in the future development of society. At a gala evening, the TA CR Awards were presented to the four best projects with a high contribution to society and the economy in the categories PARTNERSHIP, GOVERNANCE, BUSINESS and SOCIETY. The absolute winner was voted for by the general public via TA CR’s unique website, together with the audience present in the hall. Thanks to these votes, the Czech Idea for 2023 statuette was awarded to a project from the SOCIETY category.

The TA CR Day 2023 was held under the auspices of Minister for Science, Research and Innovation Helena Langšádlová and was attended by a number of prominent personalities from the research, academic and public spheres. This year, for the first time, the President of the Senate of the Parliament of the Czech Republic, Miloš Vystrčil, attended the event.

The expert part of the TA CR Day, which in previous years was represented by technical seminars, was replaced in 2023 by a unique website with content reflecting the main theme of the event. The reason for the change in the concept was to bring as many as possible interesting examples and information on the topic of pushing the boundaries.

The TA CR Day was not limited to Thursday 2nd November 2023. In the course of November, the Echoes of the TA CR Day followed which is a series of regional debates which took place from 8th to 22nd November 2023. In a selected region, experts focused on a single theme, specifically:

8th November 2023: Moravian-Silesian region (Ostrava) –  
**Research and education as new opportunities for young people**

15th November 2023: South Moravian region (Brno) –  
**AI: Hopes and challenges in the age of disinformation**

22nd November 2023 Ústí nad Labem region (Ústí nad Labem) –  
**Brownfields and affordable housing:  
 space for new transformation opportunities**

*The debates were broadcast online via the TA CR YouTube channel.*





Watch a compilation from the entire TA CR Day 2023.



# WINNING PROJECTS OF THE TA CR DAY 2023

For more information about winning projects and the Day TA CR 2023 visit the website:



## THE BUSINESS CATEGORY Autonomous robotic building system

DEK, a. s.  
Czech Technical University in Prague / Faculty of Civil Engineering



## THE GOVERNANCE CATEGORY The influence of technical snow on biological components of the natural environment on the territory of the Krkonoše National Park and its protection zone

Masaryk University / Faculty of Science  
Biology Centre of the Czech Academy of Sciences



## THE PARTNERSHIP CATEGORY Biorefining as circular technology Institute of Chemical Process Fundamentals of the Czech Academy of Sciences

Algamo s.r.o.  
Institute of Biophysics of the Czech Academy of Sciences  
Institute of Botany of the Czech Academy of Sciences  
BRIKLIS, spol. s r.o.  
EcoFuel Laboratories s.r.o.  
Mgr. David Novotný  
Institute of Microbiology of the Czech Academy of Sciences  
ORLEN UniCRE a.s.  
RABBIT Trhový Štěpánov a.s.  
REMA Systém, a.s.  
Global Change Research Institute of the Czech Academy of Sciences  
Silva Tarouca Research Institute for Landscape and Ornamental Gardening  
Czech University of Life Sciences Prague / Faculty of Environmental Sciences  
Czech Technical University in Prague / Faculty of Electrical Engineering  
University of Chemistry and Technology Prague / Faculty of Food and Biochemical Technology



## THE SOCIETY CATEGORY AND WINNER OF THE CZECH IDEA AWARD Complex screening assessment system GIS

Masaryk University / Faculty of Social Studies  
Janáček Academy of Performing Arts

## THE TA CR FILM AWARD

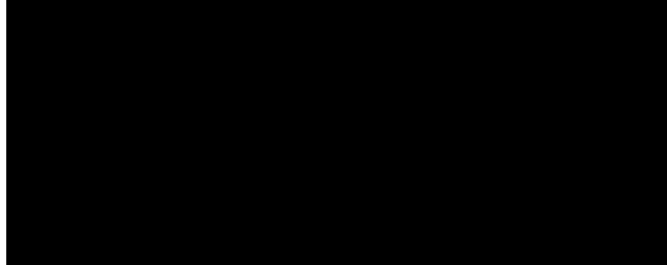
At the opening ceremony of the 63rd Zlín Film Festival, the Film Award of the Technology Agency of the Czech Republic was awarded for the fourth time for the popularisation of science among young people.

This year, the expert jury focused on young artists - primary school pupils, which was a major change from previous years. The pupils were asked to create a short film about how they imagine life in future cities based on new inventions. The short film, which could be up to five minutes long, could be live-action, animated or combined (live-action with animation elements). A total of 11 short films by pupils of primary schools and primary art schools were submitted to the competition. The expert jury selected as the best film the City of the Future, created by the 5th grade art students of the Střezina Primary Art School from Hradec Králové under the guidance of Dominika Cyprová.

The TA CR Film Award was printed by the 3Dees company on a 3D printer and assembled in collaboration with glass-maker Lukáš Jabůrek, author of the TA CR Awards for Applied Research.



Take a look at this year's winning film, **City of the Future**.



## 10

# TA CR AS A RESPONSIBLE COMPANY

The Technology Agency of the Czech Republic has long strived to implement the principles of responsible behaviour, both internally and externally. For example, the Agency holds the P. E.T. Free Pledge certificate, through which it has committed to reducing the use of single-use plastic bottles.

Every year, the Agency's employees actively participate in various charity collections on their own initiative. This year, they helped the Dočasky De De association helping abandoned and abused dogs and cats, the Šance Onkoláčkům Foundation, which has been helping not only children with cancer since 2014, and individually in charity collections of their choice.

The Agency also provides each employee with a leave of absence with salary compensation (equal to average earnings) in excess of the Labour Code requirements, for up to two working days for volunteer activities and activities to improve the environment (e.g. forest cleaning, tree planting, hospice assistance).

# SUMMARY

The role of TA CR, as an organisational unit of the state and the administrator of a budget allocation, is the preparation and implementation of programmes of applied research, development and innovation and the effective provision of targeted funding for the implementation of projects within these programmes. Other tasks include fostering communication and cooperation between research organisations and the private sector, advising project participants and users of results, and cooperating with similar agencies abroad.

## THE PAST YEAR OF TA CR IN A NUTSHELL:

Change in the **Research Board** and **Supervisory Board** members

**EUR 237 million**  
in targeted funding for applied research and innovation

launch and continuing implementation of the new **SISTA** information system

**1 310** implemented projects

**5 287** administered projects

**7 389** expert evaluation reports

**2 364** contracted evaluators

**471** consultations with applicants

obtaining certification for the **plug-in mechanism** as the first and so far only institution in the Czech Republic

# EXPERIENCE THE TA CR IN A DIFFERENT WAY

## ANIMATED PRESENTATION OF THE TA CR



## ENGLISH BROCHURE ON THE TA CR



## THE TA.DI MAGAZINE

TA.Di 16

