

III.

Programme of the Technology Agency of the Czech Republic to support the development of long-term collaboration in research, development and innovation between the public and private sectors

1. Name of the programme

Competence Centres (hereinafter referred to as the “Programme”)

2. Legal framework of the programme

The programme will be implemented pursuant to:

- Act No. 130/2002 Coll., on the support of research and development from public funds and on the amendment to some related acts (Act on the Support of Research and Development) (hereinafter referred to as the “Act”);
- Community Framework for state aid for research and development - Official Journal of the European Union C 323, 30.12.2006 (hereinafter referred to as the “Framework”);
- and other related regulations.

The programme is exempt from the notification requirements of Article 108, paragraph 3 of the Treaty on the Functioning of the European Union as it complies with the provisions of Commission Regulation (EC) No 800/2008 of 6 August 2008, declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (General Block Exemption Regulation) - Official Journal of the European Union L 214, 9.8.2008, pp. 3-47 (hereinafter referred to as the “Commission Regulation”).

3. The provider

The provider of the support is the Technology Agency of the Czech Republic (hereinafter referred to as “TA CR”), headquartered at Prague 6, Evropská 2589/33b.

4. Identification code of the programme

For accounting purposes the programme was assigned the code “TE” in the information system of research, experimental development and innovation.

5. Duration of the programme

The programme is expected run from 2012 to 2019, i.e. 8 years.

6. Announcement date of the programme

A public tender in research, experimental development and innovation (hereinafter referred to as the “public tender”) for the selection of projects for the programme will be first launched in 2011 with the provision of support commencing in 2012. Subsequently, a public tender will be launched in 2013 with the provision of support commencing in 2014.

In 2013, the public tender will be announced as a single-stage tender under the conditions provided by the Act.

7. Total expenditure on programme

The total expenditure on the programme for the duration of the programme is allocated in accordance with the expected announcements of the public tenders and in relation to the expected average duration of the projects. The share of state budget expenditure on the total expenditure reflects the maximum acceptable level of support in the programme of 70%. This maximum acceptable level of support is based on the conditions of the programme and the fact that the programme aims to particularly support applied research projects and also experimental development projects which obtain a bonus for the mutual collaboration of partners according to the Framework.

[mil. CZK]

YEAR	2012	2013	2014	2015	2016	2017	2018	2019	Total
Total expenditure	639	712	1 160	1057	1358	1358	1358	1358	9000
Expenditure from the state budget	447	498	812	740	950	950	950	950	6297
Private sources	192	214	348	317	408	408	408	408	2703
Maximum acceptable level of support	70%	70%	70%	70%	70%	70%	70%	70%	70%

8. Recipients of support

The programme will support the establishment and operation of centres for research, development and innovation (hereinafter referred to as “R&DI”) in advanced fields with high application and innovative potential and a perspective for making a substantial contribution to the growth of competitiveness of the Czech Republic jointly created by research organizations and enterprises. Primarily, centres will be supported which meet the National priorities of targeted research, experimental development and innovation. Recipients of project support according to the Act, Commission Regulation and Frameworks can be:

- Enterprises - legal or natural entities that are economic activity pursuant to Annex 1 of

the Commission Regulation.

- Research organizations - legal entities that meet the definition of a research organization pursuant to the Act and that perform the project in collaboration with other participants, of which at least three must be independent enterprises.
- Enterprises or research organizations founded jointly by at least three independent enterprises pursuant to the Commission Regulation and at least one research organization in order to achieve common objectives in R&DI.

Recipients can only be enterprises that perform the project in collaboration with other participants, which must be at least two independent enterprises and one research organization. Pursuant to Article 2, paragraph 2. j) of the Act, other participants in the project may be research organization or enterprises whose activity is defined in the project proposal and who have entered into an agreement with the recipient for their participation in the project.

The recipient of support is always an organization with legal subjectivity who by entering into a contract for the provision of support (the centre = project of the programme) undertakes to meet all of their obligations regarding the supported centre (including after support of the project has ended). The obligations of the other participants are governed by the collaboration agreement between the recipient and the other participants.

The recipient and other participants must work together to formulate a long-term strategic research agenda (for 6-10 years), which will set out common research objectives with proven benefit for the development of the area under study, for the application of the results of research and development (hereinafter referred to as "R&D") in innovation and for the development of the competitiveness of the Czech Republic in the given industry. The strategic research agenda must set clear objectives which the research organizations and enterprises want to jointly achieve, whilst the interests of the various participants in the project must be balanced.

The recipient and other participants must be able to jointly co-finance the project from public resources so as not to exceed the maximum acceptable level of support.

9. Eligibility of applicants for support

Project support in this programme can only be given to applicants who meet the eligibility requirements stated in Article 18 of the Act. The obligation to demonstrate their eligibility applies to all applicants and other participants in the project. Applicants and other participants in the project demonstrate their eligibility pursuant to the Act in the manner specified in the tender documentation.

10. Collaboration between enterprises and research organizations

One of the principles of this programme is a concentration of research capacity into key research directions, focusing primarily on the fulfilment of the national priorities of targeted research, experimental development and innovation, from the viewpoint of enhancing the

competitiveness of the Czech Republic and the development of long-term multilateral collaboration between research organizations and enterprises in R&DI. The programme will therefore support the establishment and operation of centres created by research organizations and enterprises with the aim of enhancing the competitiveness of the Czech Republic, and the development of long-term multilateral collaboration between research organizations and enterprises and in accordance with the fulfilment of their common objectives in R&DI. These common objectives must be formulated in a common strategic research agenda. An important part of the common strategic research agenda will be the sustainability of the centre after completion of the project.

An important feature of the supported centre is the multilateral character of collaboration in R&DI. Although the scope of multilateral collaboration in the implementation of the research agenda in the programme is not limited, the nature of the collaboration will be taken into account during the evaluation of the project proposals.

In accordance with the terms of the Framework, effective collaboration between enterprises and research organizations will be given a bonus in the form of a higher level of support. According to the Framework, effective collaboration between enterprises and research organizations on a project means that a research organization bears at least 10% to the eligible costs and results of the project. At the same time a research organization has the right to publish the results of the research projects, which do not give rise to intellectual property rights pursuant to the Act, insofar as they stem from research implemented by that organization. The basis for assessing whether the project proposal involves effective collaboration between an undertaking and a research organization shall be the draft collaboration agreement between the applicant (recipient) and the other proposed participants, from which the fulfilment of the above conditions for effective collaboration will be evident. This evaluation will be performed during the evaluation of the project proposals.

11. Duration of projects

In order to ensure conditions for long-term collaboration in R&DI, support will be provided for projects lasting at least 4 years from the start of the project (validity of the contract/decision on grant support). Projects must also fulfil the following requirements in order to obtain support for the period from the beginning of the 5th year:

- The project must be successfully evaluated during the interim evaluation, which will take place by the provider after 3.5 years of the project at the latest, in terms of the objectives of the strategic research agenda, the objectives of the programme and it must also fulfil other conditions according to Article 13 of the Act.
- The recipient will submit a project proposal for the next period (next 2 years) and this proposal will be viewed positively by the provider. The method for evaluating project proposals in the next period is described in paragraph 22 of the programme.

In case of failure to meet these conditions the provider will proceed in ending the project.

Projects can be performed at the latest until 2019, inclusively.

12. Form, level and amount of support

Support will be provided in the form of grants to legal or natural entities or by increasing the expenditure of government departments, organizational units of local autonomous governments or organizational units of ministries engaged in research and development.

The level of support, determined as a percentage of eligible project costs, will be calculated for each project and for each recipient and other participants separately according to the Framework.

Regardless of the type of recipient, the maximum acceptable level of support for a single project is 70% of the total eligible costs.

The minimum amount of public resources of 30%, which the recipient and other project participants must expend together on the project, creates a sufficient incentive for the efficient use of the support in the performance of the project and implementation of the achieved results in practice.

For research organizations the minimum amount of project co-financing is not set. During the evaluation of the project proposals, however, research organizations will obtain a bonus if they contribute to the financing of the project from public funds.

The maximum acceptable level of support for applied research and experimental development and the individual categories of recipients and other participants are listed in the following table:

	Applied research		Experimental development	
	Level of support taking into account allowances for SMEs	Level of support demonstrating effective collaboration with a research organization	Level of support taking into account allowances for SMEs	Level of support demonstrating effective collaboration with a research organization
Small enterprises*	70%	80%	45%	60%
Medium-sized enterprises*	60%	75%	35%	50%
Large enterprises	50%	65%	25%	40%
Research organizations	100%	100%	100%	100%

* Note: For a definition of small and medium-sized enterprises see Annex 1 of the Commission Regulation

In accordance with the Framework the overall public support includes funds from research organizations for the project if these funds come from public sources (e.g. other targeted or institutional support).

The gross aid amount per project, in which the predominant activity is applied research, in accordance with Article 6, paragraph 1 of the Commission Regulation is limited to 10 million EUR (converted at the ECB exchange rate applicable on the day of the announcement of the public tender for the acceptance of projects to this programme for the given year).

The gross aid amount per project, in which the predominant activity is experimental development, in accordance with Article 6, paragraph 1 of the Commission Regulation is limited 7.5 million EUR (converted at the ECB exchange rate applicable on the day of the announcement of the public tender for the acceptance of projects to this programme for the given year).

13. Eligible costs

Support will be provided for eligible project costs defined in accordance with the Act and the Framework. All eligible project costs must be assigned to a specific category of R&D, i.e. applied research or experimental development. In the event that the project does not specify in detail the subject of services or purchase of tangible or intangible assets, including the price and ECB exchange rate applicable at the time of submission of the project proposal and the suppliers and the reasons for their selection, the recipient must proceed in accordance with Act No. 137/2006 Coll. on Public Contracts, as amended.

Eligible project costs in this programme are:

- a) personnel costs or expenses, including scholarships (researchers, technicians and other support staff) to the extent necessary for the purposes of the project;
- b) investment
 - costs or expenses for the acquisition of fixed assets to the extent and for the period used for the research project. If such fixed assets are not used for their full life for the research project, only the depreciation costs corresponding to the life of the research project, as calculated on the basis of good accounting practice, are considered as eligible. The cost of fixed assets in the project may not exceed 20% of the total eligible costs;
 - costs or expenses for intangible assets necessary for the project to the extent and for the duration used for the research project (technical knowledge, patents, software);
- c) costs or expenses for services incurred in direct relation to the project (e.g. data collection);
- d) other
 - other operating costs or expenses incurred in direct relation to the project (e.g. materials, small tangible assets);
 - additional costs or expenses incurred in direct relation to the project (e.g. overhead costs, administrative costs);

- for small and medium-sized enterprises and research organizations costs or expenses for the acquisition and recognition of the rights of industrial property, which is a result of the project.

14. Focus of the programme

The programme focuses on supporting the establishment and operation of centres of research, development and innovation in advanced fields with high application and innovative potential and a prospective for making a substantial contribution to increasing the competitiveness of the Czech Republic. Primarily, centres will be supported which meet the National priorities of targeted research, experimental development and innovation. The centres will also create conditions for the development of long-term collaboration in R&D between the public and private sectors.

One of the fundamental prerequisites for the establishment and operation of the centres is the formulation of a strategic research agenda i.e. common strategic and operational objectives in R&DI which the applicants want to achieve including the provision of sustainability. The strategic research agenda must be created jointly by all of the applicants (research organizations and enterprises) and must reflect the balanced interests of both the research and the application sphere. The quality of the strategic research agenda, including a balanced representation of research and application objectives, will be significantly taken into account during the evaluation of the project proposals.

15. Objectives of the programme

The main objective of the programme is to increase the competitiveness of the Czech Republic in advanced fields with a high potential for the application of R&D results in innovation. The programme therefore stimulates the establishment and operation of such R&D centres, which will be innovative, competitive, sustainable, will have market potential and which will centralize the research and application capacities of the public and private sectors.

These centres should create the conditions for long-term collaboration between research organizations and enterprises, including participation in international collaboration and systematic research and development in important areas for the future growth of the competitiveness of the Czech Republic.

The partial objectives of the programme include:

- strengthening long-term collaboration between research organizations and enterprises in R&DI, through strategic partnerships between the research and corporate spheres, formed to achieve advancement in R&D and for the implementation of its results in practice;
- strengthening the interdisciplinarity of R&D;
- creation of conditions for the development of human resources in R&D, with

particular emphasis on the involvement of early-stage researchers under the age of 35, including students involved in the project;

- creation of conditions for the horizontal mobility of researchers;
- fulfilment of the national priorities of targeted research, experimental development and innovation that are in line with the main objective and focus of the Competence Centres programme;
- sustainability of the strategic research agenda of the centres for at least five years after completion of the project.

16. Comparison of the current situation in the Czech Republic and abroad

The Czech Republic generally lags behind world leaders represented by the USA, Japan and Israel, as well as European leaders in research, development and innovation. Yet in the Czech Republic there are a number of research institutions and enterprises performing high-quality applied research and experimental development in advanced fields on a world or European level. At present, the basic forms of strategic industry clusters in the Czech Republic are technology platforms, research centres supported by the programme of the Ministry of Education, Youth and Sports, 1M Research Centres (2005-2011) and centres supported by EU Structural Funds (2007-2013), in particular from the Operational Programme Research and Development for Innovation (Priority Axis 1- European centres of excellence; Priority Axis 2 - Regional R&D centres). Unlike foreign practice, collaboration at this level in the Czech Republic has only been supported for the past few years; however, it constitutes one of the main strategies for increasing the scientific excellence and competitiveness of the Czech Republic.

A key shortcoming in the area of research, development and innovation in the Czech Republic is the weak collaboration between research organizations and enterprises, which is reflected in the insufficient utilization of R&D results in innovation. One third of the research centres supported by the programme 1M Research Centres was formed exclusively by public research organizations without an application partner. In contrast, in foreign centres for R&D research organizations and enterprises establish common long-term research objectives and collaborate together intensively to achieve them.

The research centres supported by the programme 1M Research Centres thematically cover almost all of the core groups of scientific disciplines. Sometimes, however, they are too narrowly focused or they intermingle in this direction with other centres. Despite the foreign practice, these centres predominantly set objectives in the form of research areas (directions) and not as problem-oriented objectives, which is reflected, among other things, in the ambiguous definitions of their R&D results.

Foreign experience shows that it is necessary to partially co-finance the activities of centres where stakeholders from the public and private sector work together on R&D from public sources and for a sufficiently long period of time. Public support of programmes to support such centres usually does not exceed 60-70%. In the Czech Republic, the share of public

funds to co-finance the activities of centres is relatively low (only about 11%), which largely reduces the motivation to apply the results of R&D on the market.

17. Expected results

It is expected that the programme will contribute to the establishment and operation of centres for research, development and innovation in areas with significant potential for increasing the competitiveness of the Czech Republic. The supported centres will, among other things, continue to generate results which will be implemented and applied on the market even after the end of the programme. The centres will not be fully dependent on support from the state budget after the end of the programme. Due to the fact that the centres are committed to a five-year strategic research agenda of sustainability after the project they will continue to operate even after the end of the programme.

The objectives of R&D implemented in these centres will be established through the collaboration of research organizations and enterprises, which is a prerequisite for the both ensuring the scientific quality and the application potential of the R&D results.

This programme can only support projects that reasonably expect to achieve at least one new R&D result from the following types of results (categorized according to a register of information on results, which is implemented or could be implemented after further development and the preparation of production:

- P - patent
- Z - pilot operation, proven technology
- F - results with legal protection - utility model, industrial design
- G - technically realized results - prototype, functional sample
- N - certified methodologies and practices including specialized maps with expert content
- R - software

For the purposes of this programme, a new result of R&D shall be understood to mean a result which was achieved only in the framework of the project supported by this programme and which is and will be applied in the register of information on results solely as a result of this project.

At least one new result of R&D, which was achieved only in the framework of the project supported by this programme, must also be applied in order to have a significant economic (or other, but demonstrable) benefit.

18. Expected benefits and impacts

The supported R&D centre will create favourable conditions for the development of long-term

collaboration between the public and private sectors in R&DI. This will have a positive impact on progress in R&D in emerging fields and the immediate application of the results of R&D in innovation. The supported R&D centre will help to find new approaches and acquire new knowledge, which will form the basis for the specialization of the Czech Republic and for a growth in its competitiveness in these areas. The supported centre will have a significant positive impact on the development of the knowledge and experience of researchers (especially those just starting out).

19 Criteria for achieving the objectives of the programme

Achieving the objectives of the programme will be evaluated against a set of indicators for monitoring the implementation of the programme and evaluating its overall performance and success. The choice and setting of indicators also respects the need to ensure and monitor the incentive effect of the support framework.

Indicator code	Indicator	Target value
I-01	Minimum number of supported projects	25
I-02	Minimum number of participating entities	120
I-03	Minimum number of new R&D results in any of the categories listed in paragraph 17 of the programme	200
I-04	Minimum number of applied R&D results	120
I-05	Minimum share of private resources in the total expenditure of the programme	30 %
I-06	Minimum number of researchers under the age of 35 years old involved in the supported projects	100

20. Estimated parameters of the programme

Experience from previous programmes supporting centres for collaboration between research organizations and enterprises in R&D shows that, on average, the supported centres will achieve total eligible costs of 284 million CZK for the entire period of the solution of the strategic research agenda. It can thus be expected that a total of 31 centres will be supported, with the average annual volume of support for a single centre being approximately 27 million CZK.

From previous experience, and in relation to the conditions of the programme, it can be assumed that an average of 8 entities will be involved in the supported centres. Overall, it can be expected that the programme will support 248 entities. In terms of the type of entities supported in the programme the majority of involvement is assumed to be from research organizations and small and medium-sized enterprises (SMEs).

Parameter	Number
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Number of projects (centres)	31
Average number of partners in one centre	8
Total number of supported entities	248
of which:	
Number of research organizations	93
Number of SMEs	93
Number of large enterprises	62

21. Incentive effect

The programme fulfils the mission of TA CR, which is to streamline and improve activities in the field of applied research, experimental development and innovation and also to increase the quality of collaboration between industrial companies (especially SMEs), public and private research organizations and organizations providing services with high added value. The aim of the programme is to change the incentive mechanisms of enterprises and research organizations to work together to generate new knowledge, and to use and implement it in new products, services and production processes.

In order to fulfil these objectives, the provider will assess whether the incentive effect of the support is sufficient according to the Framework during the project evaluation process. The Incentive effect will be assessed for all recipients together for the whole project. In accordance with the Framework the applicants must demonstrate in their project proposals that the support will contribute to the performance of the project on a larger scale and with more extensive objectives or a higher financial participation of enterprises in the project or in a shorter period of time than it would without the provision of support, or (especially for small enterprises) that participation in joint R&D is at all possible. Evaluation of the incentive effect will form part of the protocol on the result of the evaluation made by an expert advisory body, which will be established by the provider for the purpose of evaluating the project proposals.

22. General criteria for project evaluation

Projects will be evaluated in three stages:

- Evaluation of project proposals
- Evaluation of project performance
- Evaluation of completed projects

Evaluation of project proposals

Proposals will be evaluated comprehensively based on the rules established by the Act.

In order to increase efficiency and reduce the administrative burden on those submitting project proposals a single-stage tender in R&D will be announced under the conditions provided by the Act.

After evaluating the fulfilment of eligibility conditions and the procedural requirements of the

committee for the receipt of project proposals, the compliance of the submitted project proposals with the objectives and conditions of the programme will be evaluated. For this purpose, the following will be evaluated in particular:

- compliance of the project proposal with the main objective and focus of the programme;
- application potential of the expected results of R&D;
- compliance with the national priorities of targeted research, experimental development and innovation;
- feasibility of the strategic research agenda of the centre and its benefits;
- research and application overlap or complementarity of the proposed centre with already supported centres, taking into account the research potential of the regions;
- appropriateness of the cost of the project;
- experience of the individual applicants participating in the project;
- nature and proportion of direct involvement of students and early stage researchers, especially graduates, in the project;
- size of the incentive effect of the support;
- quality, timeliness and feasibility of the project proposal;
- scope and nature of collaboration within the consortium and the method of ensuring the organizational activities of the centre;
- inclusion of effective collaboration between enterprises and research organizations. The basis of which will be a draft collaboration agreement between the applicant (recipient) and other proposed participants, from which the conditions for effective collaboration will be evident;
- total budget for the project including the level of co-financing of the applicants.

External foreign experts will also be involved in the project proposal evaluation process. Therefore, in order for them to be evaluated the project proposals will be presented in English.

Evaluation of project performance

An ongoing evaluation of project performance will be done on two levels:

- interim monitoring of project performance;
- in-depth evaluation of project performance.

Interim monitoring of project performance will be carried out by the provider once a year during the whole period of the project. The aim is to monitor the compliance of the project with the planned time schedule and utilization of resources with the project budget. The evaluation will take place based on an interim report on the project submitted by the recipient or on-site inspections. The interim evaluation will also assess the fulfilment of obligations on transmission of information to the information system of R&DI (pursuant to Article 31 of the Act).

In-depth evaluation of project performance will be regularly carried out by the provider every two years. The aim of this evaluation is to assess the functioning of the supported centres in terms of fulfilment of the strategic research agenda and programme objectives. The evaluation will focus in particular on the method of implementation of the strategic research agenda, the achieved results of R&D, quality and intensity of collaboration at the centre, the ability to obtain additional resources (in addition to funds from this programme) to achieve the objectives of the strategic research agenda and the ability to apply the results of research in practice. The provider performs the evaluation based on a detailed progress report on the project performance submitted by the recipient and on-site inspections. The plan to implement achieved results (in the previous stage of the project) in practical applications will also be evaluated. The results of the in-depth evaluation will be incorporated into the support activities of the centre in further years, whereby the volume of eligible costs may be changed (increased or decreased) in accordance with the provisions of the Act up to 50% of the eligible costs specified in the Grant Agreement.

- **The evaluation of project performance will also include an evaluation for the purpose of providing support for the project from the beginning of the 5th year onwards, which will be done on two levels:**

- in-depth evaluation of project performance;
- evaluation of proposals for projects in the next period.

The in-depth evaluation of project performance will be carried out by the provider to the extent and manner specified in this chapter.

Proposals for projects in the next period will be evaluated based on the criteria set out below:

- proposed method of implementing the strategic research agenda;
- application potential of the expected R&D results;
- appropriateness of the costs of implementing the strategic research agenda;
- scope and nature of collaboration within the consortium and
- method of ensuring the organizational activities of the centre.

Evaluation of completed projects

Completed projects will be evaluated on the basis of:

- results of the project;
- impacts of the project;
- evaluation of the sustainability of the strategic research agenda of the centre.

The project results will be evaluated by the provider based on the final report of the project submitted by the recipient, contracts for use of the results (according to Article 11 of the Act)

and an on-site inspection by the provider. The evaluation of the results will assess compliance of the results achieved with the objectives set in the strategic research agenda. The project results will be evaluated in three categories:

- Category A: the project met its objectives;
- Category B: the project did not meet its objectives for reasons that neither the provider nor the applicant could have predicted;
- Category C: the project did not meet its objectives.

The impacts of the project will be evaluated based on the plan for the implementation of achieved results in practical applications and strategy for development of future collaboration between the project partners in R&DI submitted by the recipient. The implementation plan and strategy for the development of future collaboration will be part of the final report on the project. Within five years from the completion of the project the recipient will be required to inform the provider of the specific practical impacts of the implementation of the results of the project in accordance with the implementation plan.

Evaluation of the sustainability of the strategic research agenda will be mainly based on the plan for financing the activities of the centre after completion of the project, including the expected resources from the state, private and foreign sources, and income from the implementation of the results, etc.