III.

1. NAME OF THE PROGRAMME

Programme to support applied research and innovation in the defence industry **PRODEF** (hereinafter also referred to as the "Programme").

2. PROVIDER

Technology Agency of the Czech Republic (hereinafter also referred to as "TA CR").

3. IDENTIFICATION CODE OF THE PROGRAMME

For the purposes of registration in the research, experimental development and innovation information system, the code **"OZ"** is assigned to the Programme.

4. LEGAL FRAMEWORK OF THE PROGRAMME

The Programme is implemented according to:

- Act No. 130/2002 Coll., on the support of research, experimental development and innovation from public funds and on the amendment of some related laws (hereinafter also referred to as the "Act on the Support of Research and Development"), as amended;
- Act No. 218/2000 Coll., on budgetary rules and on amendments to certain related acts (Budgetary Rules), as amended;
- Treaty on the Functioning of the European Union 2012/C 326/01 (in particular Article 107, and Articles 93 and 106, where relevant);
- Commission Regulation (EU) No. 651/2014 of 17 June 2014 declaring certain categories of aid to be compatible with the internal market in application of Articles 107 and 108 of the Treaty, in particular Article 25 (25e), 28, 29 (hereinafter also referred to as the "Regulation"), as amended by EC Regulation 2023/1315 and later versions;
- Regulation (EU) 2021/697 of the European Parliament and of the Council of 29 April 2021 establishing the European Defence Fund and repealing Regulation (EU) 2018/1092, (hereinafter referred to as the also the "EDF Regulation");
- Framework for State Aid for Research, Development and Innovation - Official Journal of the European Union 2022/C 414/01, C 7388 of 28 October 2022 (hereinafter also referred to as the "Framework"); and
- Other related regulations.

The Programme is exempt from the notification obligation pursuant to Article 108(3) of the Treaty on the Functioning of the European Union, as it meets the conditions of the Regulation.

The Programme excludes the payment of individual funding in favour of an enterprise:

- against whom a recovery order was issued following the decision of the European Commission, which is outstanding. Based on this decision, the European Commission declared that the funding received from a provider from the Czech Republic is illegal and incompatible with the internal market;
- which meets the definition of an undertaking in difficulty specified in Article 2(18) of the Regulation.

For enterprises receiving state aid in the Programme exceeding the limit set in the Regulation,[1] information about the beneficiary and the funding awarded to it (to the extent according to Annex III of the Regulation) shall be published on the central website in the sense of the Regulation.

5. DURATION AND ANNOUNCEMENT DATES OF THE PROGRAMME

The duration of the Programme is expected to be for the period between 2024 and 2031, i.e., eight years. The first call for proposal in Sub-programme 2 is expected to be announced in 2024. Subsequently, calls for proposals in Sub-programme 2 are expected to be announced in 2026 and 2028. The announcement of national calls for proposals for the funding of projects from Sub-programme 1 shall depend on the timing of the announcement of the calls for proposals from the European Defence Fund (hereinafter referred to as the referred to as “EDF”) and subsequent programmes.

The maximum length of project implementation from both sub-programmes must not exceed the duration of the Programme.

6. FOCUS OF THE PROGRAMME

The Programme shall be implemented in accordance with the currently valid strategic and conceptual documents, with a focus on the area of research, development and innovation, and on the area of the defence industry. In particular, with the following:

- The innovation Strategy of the Czech Republic 2019–2030;
- The National Research, Development and Innovation Policy of the Czech Republic 2021+ in particular with measures No. 3, 21, 22, and 25;

[1] When the Programme is approved, this limit shall be 100,000 EUR.

- The National Priorities of Oriented Research, Experimental Development and Innovation (hereinafter referred to as the referred to as the “RDI Priorities”);
- The updated National Research and Innovation Strategy for Intelligent Specialisation of the Czech Republic (hereinafter referred to as the also “RIS3”);
- The principles of the Industry 4.0 Initiative;
- The long-term outlook for defence 2035;
- The Czech Armed Forces Development Concept 2035;
- The Armaments and Defence Industry Development Support Strategy of the Czech Republic till 2030;
- The Concept of Defence Applied Research, Development and Innovation for the Period 2023-2029; and in accordance with other conceptual documents at the national and inter-ministerial level.[2]

The Programme is focussed on supporting projects that, in accordance with Article 25(2)(b) and (c) and Article 25e of the Regulation and Article 1.3(e) of the Frameworks fall into the category of applied research (includes industrial research, experimental development or their combination), as well as innovations according to Articles 28 and 29 of the Regulation and Article 1.3(t) and (bb) of the Framework.

The Programme is used to fulfil synergistic and complementary effects, especially with the European Defence Fund (and possible follow-on programmes). It shall also focus on independent defence industry projects of national importance. For that reason, **the Programme is divided into two sub-programmes**, each of which has a different method of selecting and evaluating projects (for more details, see Section 16).

7. OBJECTIVE OF THE PROGRAMME

The main objective of the Programme is the further development of national R&D in the field of the defence industry, by increasing the involvement of Czech entities in international chains and consortia, and strengthening the technological level of Czech entities that already work or can work in defence R&D, while also increasing multidisciplinarity through the involvement of entities that have not yet been active in defence R&D.

The main objective is further thematically divided into the objectives of the two sub-programmes, which are specified in more detail in the relevant parts of Section 15.

[2] The Programme also responds to documents of international organisations in the field of EDTs, e.g., the NATO document *"Science & Technology Trends 2023-2043".*

8. JUSTIFICATION OF THE OBJECTIVE OF THE PROGRAMME

Czech entities face several specific challenges when participating in international consortia in EDF. One such challenge is the current absence of a national instrument for financing the participation of Czech applicants in EDF projects. The implementation of Sub-programme 1 is aimed at reducing this unequal position. Through such a financial instrument, Czech entities will have better opportunities to compete and more fully develop their potential in cooperation with international partners. The supported initiatives will strengthen the position of Czech entities in international supply chains and contribute to increasing the overall cooperation and exchange of know-how between EU countries in the field of defence research and innovation. Joint work at the international level will bring new opportunities and increase the security and competitiveness of the Czech Republic and the EU in the field of defence.

The Czech defence industry is further limited not only by the limited number of suppliers of final military technologies and their relevance for real use in practice, but also by a small focus on solving humanitarian/social (and generally social-scientific) issues in the field of defence.

These limitations may lead to difficulties in the application of the results of defence research in practice and partly in the capitalising of the invested funds in the resulting products. In order to support the development of Czech defence research and innovation, it is crucial to increase the involvement of new entities and achieve greater multidisciplinarity. One of the instruments that aims to help effectively support applied research in the field of defence in the Czech Republic is Sub-programme 2. It is intended for national projects in the field of defence research and supports national research and innovation activities. Thanks to this, relevant outputs and results shall be created, which will be utilisable for the Czech Army and others. The sub-programme shall have a positive effect on increasing the security and defence of the country thanks to the development of technologies that will strengthen the defence capability of the Czech Republic, and at the same time the funding of projects with a humanitarian focus shall provide the opportunity to solve social and ethical issues that are closely related to the current situation in the armed forces. With the expansion of the involvement of new entities and a multidisciplinary approach, the security, economy, and innovation of the Czech Republic will be strengthened, which will have a positive impact on the whole of society.

The PRODEF programme also envisages the involvement of early stage researchers in project teams. This in itself is a positive benefit of the Programme, as it involves their involvement in high-quality projects in the field of the defence industry, thereby creating a pool of future researchers with previous practical experience (support for quality projects is guaranteed by the evaluation process when selecting projects for funding).

9. CRITERIA FOR MEETING THE OBJECTIVES OF THE PROGRAMME

The Provider shall evaluate the achievement of the objectives of the Programme in accordance with the Methodology for the evaluation of the results of research organisations and the evaluation of the results of completed programmes valid at the time of the programme evaluation (hereinafter referred to as the “Methodology”), or other conditions set by the Provider.

The achievement of the objectives of the Programme shall be evaluated based on a set of indicators intended for monitoring the progress of the Programme (interim evaluation) and evaluation of its overall performance and success (impact evaluation).

Table 1: Programme indicators

	Indicator	Link to the objective	Minimum target value
1st	Number of supported projects in the Programme	Main objective	120
2nd	Success rate of completed projects	Main objective	80 % of the supported projects
3rd	Number of R&D results according to Methodology 17+	Main objective	1.5 x number of supported projects
4th	Share of new technologies, innovative procedures in the field of defence industry	Main objective	1/10 of the number of supported projects
5th	Share of improved technologies, innovative practices in the field of defence industry	Main objective	1/2 of the number of supported projects
6th	Increase in the number of supported Czech entities in EDF calls for proposals compared to 2021	SP1	by 20 %
7th	Increase in the average share of financing or activities of Czech entities in EDF projects compared to 2021	SP1	by 20 %
8th	Number of new entities involved in R&D in the field of defence	SP2	16
9th	Share of unique entities establishing industrial and research partnerships in the defence and security industry	SP2	10 % of the supported unique entities
10th	Share of results that may be used for the benefit of the Czech Armed Forces	SP2	70 % of the supported projects
11th	Share of follow-up projects developing the results of the PRODEF programme	Main objective	10 % of the supported projects

Note: **SP1 = Sub-programme 1,**
SP2 = Sub-programme 2.

10. EXPENDITURE ON THE PROGRAMME

The total expenditure is determined for the duration of the Programme based on the absorption capacity. This was calculated in accordance with the experience of implementing similar programmes to support applied research and innovation in the defence industry at the national level, and also with the expected implementation of projects financed from the European Defence Fund in the form of national funding. The total expenditure is distributed over the years according to the expected gradual

announcement of calls for proposals in research, development and innovation/national calls for proposals.[3]

Table 2: Planned expenditure on the PRODEF programme (in mil. CZK)

Funding	2024	2025	2026	2027	2028	2029	2030	2031	Total
Total for the Programme	0.0	357.0	765.0	1 139.0	1 292.0	1 241.0	884.0	442.0	6 120.0
Funding from the SB	0.0	210.0	450.0	670.0	760.0	730.0	520.0	260.0	3 600.0
Other sources	0.0	147.0	315.0	469.0	532.0	511.0	364.0	182.0	2 520.0

11. APPLICANTS FOR FUNDING AND THEIR ELIGIBILITY

Funding for a project implemented in the Programme may only be obtained by those applicants who meet the eligibility conditions laid down in Article 18 of the Act on the Support of Research and Development, the Regulation, and the Framework.

Applicants or beneficiaries of funding for a project pursuant to the Act on Support for Research, Experimental Development and Innovation, the Framework and Regulations may be:

- **Enterprises** – legal and natural persons engaged in economic activity, regardless of legal form (Annex I of the Regulation), who implement the project individually or in collaboration with other participants and demonstrate the ability to co-finance the project from non-public sources.
- **Research and knowledge-dissemination organisations** – legal persons meeting the definition of a research organisation pursuant to Article 2(83) of the Regulation and pursuant to the Act on the Support of Research and Development. These organisations may implement the project individually or in collaboration with other participants. If research organisations perform economic activities in addition to non-economic activities, they are obliged to maintain separate accounting for the expenditure and income from these economic activities.

Funding for a project implemented in the Programme may only be obtained by applicants who meet the eligibility conditions given by the **Ministry of Defence of the Czech Republic in the call documentation for the given call for proposals / international call for proposals**.

If several applicants apply for the solution of one project together, the obligation to prove their competence applies to all these applicants. Eligibility is demonstrated by the applicant with documents in accordance with the Act on the Support of Research, Experimental Development and Innovation in the manner specified by the Provider in the call documentation.

[3] The term national call for proposals is an internal term of TA CR used to distinguish between calls in SP1 of the PRODEF programme and EDF calls for proposals. It is not based on Act No. 130/2002 Coll.

12. AID INTENSITY

The expected average aid intensity for the Programme is 60 %. Detailed information on the aid intensity is given in Section 15 for the individual sub-programmes.

13. INCENTIVE EFFECT

In order to achieve the objectives of the Programme and the conditions of the Regulation, the Provider will assess the incentive effect of the funding pursuant to Article 6 of the Regulation as part of the evaluation process of the project proposals. In order to achieve the incentive effect pursuant to Article 6 of the Regulation, the start of works[4] on the project must not be prior to the application for funding being submitted.

14. EXPECTED RESULTS AND BENEFITS OF THE PROGRAMME

In this programme, projects will be funded, which are reasonably expected to achieve usable outputs, the application of which will contribute to the achievement of the set objectives of the Programme.

Due to the specific focus of the Programme, however, there are a number of additional knowledge and skills in accordance with Article 2(2)(i) of the Act on the Support of Research and Development that are expected as results of the calls for proposals. For this reason, the Programme will be evaluated not only based on the outputs (in the form of results) according to the currently valid methodology for the evaluation of research organisations and evaluation of targeted funding programmes, but also according to the knowledge and skills achieved, which will be specified as part of the preparation of a project of this type of research.

Results in the context of the Programme shall mean in particular the improvement of attributes based on its objectives. For example, improving the quality of defence R&D, or helping entities (motivating them) to engage in higher (and preferably the highest) levels of research, as well as increasing their competitiveness on the market (especially international – global). Furthermore, an increase in the number of entities strengthened in this way in the area of R&D of the defence industry and an increase in the number of Czech entities in international chains.

Detailed information shall be provided in the call documentation of a specific call for proposals (there may be differences between individual calls for proposals).

A detailed overview of the types of results is given for the respective sub-programmes in Section 15.

[4] Pursuant to Article 2(23) of the Regulation, 'start of works' means the earlier of either the start of construction works relating to the investment, or the first legally binding commitment to order equipment or any other commitment that makes the investment irreversible. Buying land and preparatory works such as obtaining permits and conducting feasibility studies are not considered start of works. For take-overs, 'start of works' means the moment of acquiring the assets directly linked to the acquired establishment.

15. SUB-PROGRAMMES AND THEIR SPECIFICATIONS

Sub-programme 1: Support of Czech Applicants in EDF Calls for Proposals (SP1)

Objective

The objective of the first sub-programme is to increase the participation of Czech entities in solving calls of the European Defence Fund and related programmes.

Focus

This sub-programme is aimed at facilitating the fulfilment of the conditions set out in the EDF calls for proposals (according to the EDF Regulation) or the follow-up programme.[5] Implementation will take place in the form of national funding of the activities of Czech entities in EDF calls for proposals.[6]

The sub-programme focuses on supporting successful projects within the framework of individual EDF calls for proposals; therefore, the funding of these projects will support excellence, as the projects have succeeded on a European-wide level.

Dates for Announcing the First Call for Proposals

In SP1, the periodicity of the announcement of calls for proposals shall depend on the announcement of the results of the EDF calls for proposals.

Financial Allocation

Table 3: Planned expenditure for SP1 (in mil. CZK)

Funding	2024	2025	2026	2027	2028	2029	2030	2031	Total
Total for the Programme	0.0	252.0	540.0	804.0	912.0	876.0	624.0	312.0	4 320.0
Funding from the SB	0.0	126.0	270.0	402.0	456.0	438.0	312.0	156.0	2 160.0
Other sources	0.0	126.0	270.0	402.0	456.0	438.0	312.0	156.0	2 160.0

Eligible Costs

As eligible costs, the applicant may propose only costs defined always in accordance with the Act on the Support of Research, Experimental Development and Innovation, and further in the case of support in the public support regime according to the support category, i.e., in particular in

[5] That is, to fund project proposals that were selected as successful (winning) in the evaluation of individual EDF calls for proposals and were thereby provided funding from the European Union. Note: For development projects, this funding does not amount to 100% of the eligible costs of the project, and therefore the EU Member States participating in the EDF must ensure additional funding from their own sources, or members of individual winning consortia must obtain money to finance projects in other ways (e.g. from their own resources or individual members of the consortium finance the participation of other members).

[6] The Provider reserves the right to proceed in matters not specified by the PRODEF programme according to the EDF Regulation (e.g. according to Article 20).

accordance with Article 25 (25e) of the Regulation. The applicant may propose as eligible costs only the costs defined in accordance with the Act on the Support of Research and Development, and in the case of funding under the state aid regime according to the aid category, i.e., in accordance with Article 25 (25e) [7]of the Regulation.

For EDF projects, eligible costs will be defined in accordance with the EDF Regulation (in particular Articles 13, 14, and 15).

Expected Results and Benefits of the Sub-Programme

The expected results of SP1 correspond to the eligible actions of the European Defence Fund, according to Article 10 Eligible actions, i.e., actions that relate to one or more of the following activities:

- Activities that aim to create, underpin and improve knowledge, products and technologies, including disruptive technologies for defence, which can achieve significant effects in the area of defence;
- Activities that aim to increase interoperability and resilience, including secured production and exchange of data, to master critical defence technologies, to strengthen the security of supply or to enable the effective exploitation of results for defence products and technologies;
- Studies, such as feasibility studies to explore the feasibility of new or upgraded products, technologies, processes, services and solutions;
- The design of a defence product, tangible or intangible component or technology as well as the definition of the technical specifications on which such a design has been developed, including any partial tests for risk reduction in an industrial or representative environment;
- The system prototyping of a defence product, tangible or intangible component or technology;
- The testing of a defence product, tangible or intangible component or technology;
- The qualification of a defence product, tangible or intangible component or technology;
- The certification of a defence product, tangible or intangible component or technology;
- The development of technologies or assets increasing efficiency across the life cycle of defence products and technologies.

Furthermore, an increase in the number of Czech participants in EDF calls for proposals and an increase in their share in the projects being implemented is expected. This may also lead to more

[7] Specific eligible costs according to Article 25e will always be defined in the call documentation of the national call for proposals.

collaborations between Czech researchers on an international level. The benefit of the PRODEF programme may also be seen in the fact that the Czech Republic may gain a stronger negotiating position within the EDF to promote its security and economic interests as a direct result of the possibility of co-financing projects.

Aid Intensity

For calls for proposals that are defined in Article 10(3)(f) to (h) of the EDF Regulation, financial assistance from the fund will not exceed 80 % of the eligible costs of the action. An integral condition of the applicant in the call for proposals is therefore the provision of part of the funding from other sources (other funds, programmes, EU funds, etc.). Funding in SP1 will be provided in accordance with Article 25e of the Regulation.

In the framework of SP1, funding for the payment of the co-participation of the Czech applicant shall be provided in the amount of up to 50 %. The maximum level of co-funding from TA CR shall be specified in more detail in the call documentation (conditions of participation) for the announced national call for proposals.

Sub-programme 2: National Calls for Proposals in Defence Research (SP2)

Objective

The objective of the second sub-programme is to strengthen the development of Czech R&D in the field of defence industry, by helping to:

- increase the number of entities performing defence R&D at the national level;
- expand the pool of future applicants for support from EDF and other international calls for proposals;
- strengthen the usefulness and relevance of R&D projects in the defence industry;
- increase the usefulness of Czech R&D in the sense of use by specific institutions (e.g., the Czech Armed Forces or NATO).

Focus

The sub-programme is focused on applied research and innovation projects in the areas of modern emerging and disruptive technologies (EDTs) that may be used for the needs of the Czech Armed Forces. Projects that demonstrate a link to technological knowledge domains in the field of EDTs will be supported:

- Big data and advanced data analysis
- Artificial intelligence
- Autonomous systems
- Quantum technologies

- Space technologies
- Hypersonic weapon systems
- Biotechnologies
- Novel materials and manufacturing
- Energy and propulsion[8]

Furthermore, it will include applied research and innovation projects directed in terms of content to the areas established in the Concept of Defence Applied Research, Development and Innovation 2023-2029 and in accordance with key technologies from the point of view of ensuring the essential security interests of the State and the capabilities of the defence industry of the Czech Republic contained in the Armament Strategy and support for the development of the defence industry of the Czech Republic until 2030:[9]

- Command and control system and ISR
- Cybernetisation and robotics
- Protection against weapons of mass destruction and explosives
- C-IED, EOD, EXO
- Energy and non-lethal weapons
- Means of field health care
- Radar systems
- Military cartography
- Analytical support
- Staff competency development, training, and simulation technologies
- Military arts
- Intelligence capabilities and cyber protection
- Logistics systems
- Material engineering

In response to current development trends, these priorities also include electronic warfare, joint fire support (development of unmanned systems and protection against them, development of ammunition for artillery and mortar units), engineering support (replacement of the human crew), medical security (development of medical procedures, equipment and material, medical protection of troops) or other areas that will be established in the updated conceptual documents of the Department of the Ministry of Defence or that will correspond to the current and future priorities and needs of the Czech Armed Forces.

[8] The original areas of EDTs were based on the 2020 NATO analysis *"Science & Technology Trends 2020-2040"*, the list was further refined in the framework of the non-public NATO strategy *"Foster and Protect: NATO's Coherent Implementation Strategy on EDTs"* from 2021. After the revision of the new technological directions, two more technological areas were added in mid-2022, see https://www.nato.int/cps/en/natohq/topics_184303.htm.

[9] More detailed specifications of individual priority areas of defence R&D&I are defined in the Concept of defence and applied research, development and innovation for the period 2023–2029.

Another acceptable area is the funding of projects in the field of social sciences, humanities, and arts, which will focus, for example, on systemic support of personnel and the development of work with troops (e.g., based on the current wording of the Concept of Care for War Veterans) or on the development other processes based on the obligations defined in Act No. 219/1999 on the Czech Armed Forces. Furthermore, according to the recommendations and commitments, for example, from the Concept of Preparing Citizens for the Defence of the State.

Dates for Announcing the First Call for Proposals

The Provider expects to announce the first call for proposals in research, development and innovation (hereinafter also referred to as “call for proposals”), in Sub-programme 2, for the selection of projects in 2024, with start of funding being in 2025; meanwhile, a two-year periodicity of call for proposals is expected.

Financial Allocation

Table 4: Planned expenditure for SP2 (in mil. CZK)

Funding	2024	2025	2026	2027	2028	2029	2030	2031	Total
Total for the Programme	0.0	105.0	225.0	335.0	380.0	365.0	260.0	130.0	1 800.0
Funding from the SB	0.0	84.0	180.0	268.0	304.0	292.0	208.0	104.0	1 440.0
Other sources	0.0	21.0	45.0	67.0	76.0	73.0	52.0	26.0	360.0

Expected Results and Benefits of the Sub-Programme

The following results are expected in the sub-programme:

P – patent;

G – prototype, functional sample;

Z – pilot plant, verified technology;

R – software;

F – industrial design, utility model;

H – results projected into approved strategic and policy documents by state or public administration bodies, results projected in legislation and standards, and results projected in guidelines and other non-legislative regulations that are mandatory under the relevant provider;

N – methodologies, procedures, and specialised maps with professional content;

S – specialised public database;

O - others.

For outputs in the form of results according to the Methodology and RIV type “O”, it applies that they must meet the condition of applicability in practice, and subsequently their application in practice will be monitored as part of the monitoring of implementation plans. Evaluation of the planned outputs, or results, is part of the evaluation of the project proposals. Furthermore, the Provider may specify a special result of type “O” in the call for proposals, which will be, for example, the involvement of the main beneficiary or other participant within an international consortium in a call for proposals at the international level in the EDF, NATO programmes or calls for proposals or similar (e.g., EU) programmes. In such a case, the condition for recognition of the result would be acceptance into an international competition or a call for proposals after a formal inspection.

The expected benefits of the Programme primarily include an increase in quality and the use of research and development results, which will be applied in practice in the form of innovations in products, procedures, processes, or services. For cooperating research organisations, the benefits of the Programme will manifest themselves, for example, in an increase in the number of their results applied in practice, in the number of commercialised patents, and an increase in their commercial potential. A secondary effect may be considered to be the strengthening of the effective transfer of know-how and technology into practice. Furthermore, an increase in the number of R&D projects focusing on the defence industry, an increase in the participation of Czech institutions in the international field, or an increase in the number of entities establishing industrial and research partnerships in defence and security research and development at the national or international level is expected.

The results of the projects will have a high potential for application in a number of civil and military areas, i.e. dual use (use for civil and military purposes).

Eligible Costs

As eligible costs, the applicant may propose only costs defined in accordance with the Act on the Support of Research and Development, and further in the case of support in the regime of state aid according to the aid category, i.e., in accordance with Articles 25, 28, 29 of the Regulation.

The exact specification of eligible costs shall be part of the call documentation for the relevant call for proposal.

Aid Intensity

The expected average aid intensity within the sub-programme is 60 %. The aid intensity, determined as a percentage of eligible project costs, will be calculated for each project and for each beneficiary and other applicant, in particular according to Articles 25, 28, and 29 of the Regulation, and the Framework.

Table 5: Maximum aid intensity by type of entity and activity category

	Beneficiary			
Activity category	Small enterprise*	Medium-sized enterprise*	Large enterprise*	Research organisation**
Industrial research	70 %	60 %	50 %	100 %
Industrial research in case of effective cooperation	80 %	75 %	65 %	100 %
Experimental development	45 %	35 %	25 %	100 %
Experimental development in case of effective cooperation	60 %	50 %	40 %	100 %
Innovation intended for small and medium-sized enterprises	50 %	50 %	N/A	N/A
Innovation of processes and organisational innovation	50 %	50 %	15 %***	N/A

Note: *A small and medium-sized enterprise is defined according to Article 2(2) and Annex I of the Regulation, and a large enterprise is defined according to Article 2(24) of the Regulation.
**Research organisation is defined according to Article 2(83) of the Regulation. The indicated aid intensity is intended for non-economic activities of research organisations, which are activities according to point 20 of the Framework.
***Support for large enterprises for innovation of processes and organisational innovation is compatible only under the conditions stated in Article 29(2) of the Regulation.
Source: the Regulation

16. METHOD AND GENERAL CRITERIA OF PROJECT EVALUATION

Sub-programme 1: Support of Czech applicants in EDF Calls for Proposals

Projects in SP1 shall not be evaluated. The funding shall be provided based on Article 7(4) of the Act on the Support of Research and Development, with the selection of projects taking place at the international level. For projects selected at the international level, only the eligibility of the Czech applicant and the compliance of the project proposal with SP1 are checked as part of the national call for proposals. The beneficiary submits a request to the Provider for the provision of funding according to Article 14 of the budgetary rules, for the part of the costs of the Czech participant. The evaluation will be taken from the international level, where it shall be performed by a group of independent experts pursuant to Article 26 of the EDF Regulation, where the areas mentioned in Article 12 of the EDF Regulation are evaluated. Project means the entire content of the project application submitted to the EDF.

In the national calls for proposals, the Czech applicant must also be able to prove that:

- the submitted project arose from a selection of projects at the international level and was selected for support (all within the framework of the EDF);
- the project received a favourable opinion from the Ministry of Defence of the Czech Republic that the results of the project may be fully utilised for the benefit of the Czech Republic (Declaration of Intent by the Ministry of Defence of the Czech Republic linked to the beneficiary).

Sub-programme 2: National Calls for Proposals

National projects shall be evaluated in accordance with the rules set out in Article 21 of the Act on the Support of Research and Development. The Provider shall appoint a Committee for Admission of Project Proposals. This committee shall evaluate compliance with the conditions of the call for proposal for the submission of the project proposal given by the announcement of the call for proposal and the proof of the eligibility of the main applicant and other participants.

The Provider decides whether or not to accept a project proposal for a call for proposals in accordance with Article 21(3) of the Act on the Support of Research and Development, based on the protocol drawn up by the Committee for Admission of Project Proposals, or the expert advisory body.

The Provider shall establish an expert advisory body for the evaluation of project proposals accepted into the call for proposals. The criteria used for the selection of projects shall be as follows:

- Meeting the conditions of the call for proposal;
- Necessity of the project;
- Feasibility and progress of project implementation;
- Expected results and impacts of the project.

More detailed information on the terms and conditions of a specific call for proposal and other requirements shall be included in the call documentation for the relevant call for proposal.

The Provider will use data and analytical tools to evaluate possible duplications, contiguities, complementarities, and synergies between various already implemented projects and project proposals. The call for proposals will be set up and implemented in such a way that there are no overlaps with Cohesion Policy Funds, for this, cooperation with the relevant governing bodies will take place during the preparation of the call for proposals.

As part of SP2, a favourable opinion may be required that the results of the project are fully utilisable for the benefit of the Czech Republic (Statement of Intent by the Ministry of Defence of the Czech Republic linked to the beneficiary). The need for a statement of intent shall be specified in the call documentation of the given call for proposal.

17. EVALUATION OF THE PROGRAMME

Evaluation of targeted funding programmes takes place in all life cycles of the given programme, i.e., during the conception of the programme design, during the course of its implementation, and after its completion. The following section presents the individual types of evaluation (which will be implemented in conjunction with the PRODEF programme) and also the basic procedures of programme evaluation, i.e., determination of programme evaluation, schedule of planned evaluations.

Types of Performed Evaluations

The evaluation will focus on the Programme itself, its call for proposals, and supported projects, for which the following types of evaluations will be used.

Ex-ante evaluation of the PRODEF programme

The objective of the ex-ante evaluation was to evaluate the coherence of the (prepared) PRODEF programme. The evaluation focused on the following three areas:

- Focus and objectives of the Programme;
- Results and outputs of the Programme;
- Establishment of the indicator system of the Programme.

The output of the evaluation was a final report and its annexes, i.e., analysis of background documents and evaluation of field investigations (if any). In addition, a completed checklist was attached, which, according to the document Procedure of the Council for Evaluating Proposals for Targeted Funding Programmes and Groups of Grant Projects, is submitted by the Provider to the Research, Development, and Innovation Council for evaluation along with the proposal of the programme.

Interim evaluation of the PRODEF programme

Interim evaluation serves to streamline the implementation of the Programme. Due to its financial extent and content, this evaluation is important for the ongoing evaluation of the project implementation, the set processes, as well as for monitoring the achievement of the objectives of the Programme so that calls for proposals may be targeted more effectively. Emphasis shall be placed on providing relevant and feasible recommendations that may be precisely taken into account for the announcement of call for proposals and the overall implementation of the Programme.

In terms of timing, two types of interim evaluations will take place:

- Simplified interim evaluation (monitoring) performed after the end of each call for proposals, which will be performed by the Ministry of Defence in cooperation with the Technology Agency of the Czech Republic;
- Fully-fledged interim evaluation (i.e., more complex) performed twice during the implementation of the Programme.

Final Evaluation of the PRODEF Programme

The final evaluation shall be based on information obtained by monitoring its progress and on interim evaluations. The final evaluation of the PRODEF programme shall be based on the evaluation of the fulfilment of the indicators. The evaluation shall be based on the intervention logic model of the Programme, where the degree of achievement of individual objectives and the functioning of the assumed mechanisms and changes that should have occurred will be evaluated.

As part of the final evaluation, the specific objectives of the individual sub-programmes should also be evaluated, in addition to the programme indicators. For this, the following indicators may be used, for example:

- For all sub-programmes: the number of results utilised in practice (with documentation of their application) three years after the end of the project, the number of early stage researchers in completed projects;
- The benefits that the results have brought in practice, i.e., the benefits, improvements, or changes that the application of the results in the defence industry or in the military have created, and which are directly linked to their use;
- An increase in the number of partnerships or joint projects in the defence industry among participating entities compared to the time before participation in the PRODEF programme;
- To evaluate the achievement of the objectives of both sub-programmes, indicators may be used that show the technological competitiveness of enterprises involved in the PRODEF programme, e.g., increase in R&D expenditure, increase in the number of employed researchers, share of sales from innovative products in total sales, share of sales from license sales in total sales etc.

Evaluation of the objectives of the Programme of a qualitative nature shall only be addressed by the evaluation of the Programme's impacts, which shall take place five years after the end of the Programme, mainly due to the time required for the application of project results in practice and the development of their benefits.

Evaluation of the Impacts of the PRODEF Programme

The impact evaluation shall take place five years after its end, which is sufficient time for the development of the benefits and impacts that occurred based on the implementation of the funded projects. The evaluation shall focus on the qualitative benefits, particularly in the following areas:

- Development of technologies and procedures in the field of defence;
- Increasing the efficiency of development and production in the defence industry;
- Improving the quality and efficiency of personnel services in the Czech Army Forces;
- Facilitating access to new technologies for the Czech Army Forces;
- Number of new projects or production or research collaborations following participation in the PRODEF programme and at the same time not financed by the public sector;
- Monitoring the involvement of SP2 participants in international consortia in the defence industry;
- Contribution of the Programme to the achievement of the objectives arising from the obligations of the Czech Republic as a Member State (e.g., EU and NATO).

An independent heterogeneous group of experts will be involved in the evaluation, which should include representatives of research organisations, the public sector, and the application sphere, including foreign experts who are knowledgeable and actively involved in the defence sector.

Evaluated aspects:

- Functioning of the Programme (functionality of the intervention logic, course of the Programme);
- Calculation of funding impacts (e.g., using counterfactual analysis);
- Use of the outputs and results of the Programme;
- Conclusions resulting from the impacts and recommendations.

18. COMPARISON WITH THE CURRENT SITUATION IN THE CZECH REPUBLIC AND ABROAD

Comparison at an International Level (SP1)

The Czech Republic currently does not provide additional funding for cross-border cooperation projects in the field of the defence industry. The Ministry of Defence of the Czech Republic does not provide targeted funding for international projects, with the exception of projects implemented by the European Defence Agency. The preparatory phases of the European Preparatory Action Plan on Defence Research (PADR) and the European Defence Industrial Development Programme (EDIDP) were dependent on co-financing from private sources. The beneficiary was committed to provide an amount covering the eligible costs of the project above the amount provided from the European Defence Fund, up to 100% of the eligible costs of the project. The inability to receive funding from a

Member State (national funds) may ultimately lead to Czech entities not being approached by foreign partners to participate in a given consortium, even if they have sufficient skills and knowledge. Their share of the funding would have to be paid by another EU Member State, i.e., another member of the consortium if such a Czech entity does not have its own funds to finance its participation in the project. This may lead to a further limitation to the competitiveness of Czech entities and the impossibility of international cooperation in the areas dealt with within the framework of the EDF and, as a result, a decline in the industrial base of defence.

Member States do not have a uniformly set up EDF supplementary funding system, some Member States provide a maximum of 50 % of the supplementary funding amount, others (e.g., the Baltic States) provide the maximum contribution in the form of a fixed amount.

The future direction of defence research and development will place **emphasis on the development of capabilities in the area of EDTs**.[10] EDTs will dramatically transform the current ways of conducting conflict management, and taking into account the possibilities of rapid proliferation of these technologies as a result of globalisation, the balance of power between states and within them will change. The instability and unpredictability of the security environment threatens to grow. **The key importance of EDTs** for maintaining military superiority **is emphasised at the strategic level of both NATO and the EU**. For the North Atlantic Alliance in general, technology is the foundation of successful defence and deterrence capabilities.

Areas of EDTs are based on strategic documents of NATO, which currently include nine key technology areas.

1. Big data and advanced data analysis
2. Artificial intelligence
3. Autonomous systems
4. Quantum technologies
5. Space technology
6. Hypersonic weapon systems
7. Biotechnologies
8. Novel materials and manufacturing
9. Energy and propulsion

EDTs affect the command-and-control system, intelligence and logistics security, capability building and planning, training, recruitment, and deployment of all types of forces. They will also have **influence across all levels of command (vertically) and in all operational domains (horizontally)**.

[10] The term **emerging and disruptive technologies (EDTs)** is an umbrella term for technologies that are expected to significantly transform defence and security requirements in the coming years.

The trend at the European level is an effort to overcome the existing shortcomings in the construction of the European defence pillar, which were mentioned, for example, in the Defence Investment Gaps Analysis (DIGA) document. Shortcomings concern both resource provision and industrial capabilities and manufacturing capacities. The objective is to overcome these shortcomings and ensure the competitiveness of the European Defence Industrial Base (EDTIB). At the European level, there is also an effort to even the lead of global competitors in critical technologies, e.g., in EDTs, where the EU lags behind global competitors in various technologies. The effort to maintain a lead in these technologies where the European Union holds the technological primacy also stems from this.

Comparison at an International Level (SP2)

The defence applied research, experimental development and innovation programmes of the Department of the Ministry of Defence are currently implemented only in the form of public tenders as part of the provision of targeted funding. These programmes are implemented in accordance with Act No. 130/2002 and Act No. 134/2016, and with other internal departmental regulations. The content of the programmes is in accordance with the conceptual and strategic documents of the Czech Republic in the field of research, development and innovation with a direct focus on the field of national defence and security. The programmes of the Ministry of Defence mutually follow on from their previous and discontinued programmes, such as the programme OZ 020 “Development of the Czech Armed Forces” 2015–2022. Currently, the programme OY 050 Ambition (2020–2026) “Supporting the Development of Areas in which the Armed Forces Achieve Significant Results within NATO and the EU” is being implemented, and the follow-up programme OZ 060 “Improvement – Supporting the Development of Areas in which the Armed Forces Components will be the Defence Pillar of NATO and the EU” will be implemented from 2024 in the form of a public tender. In the framework of institutional support, the involvement of Czech entities in international cooperation within the European Defence Agency and their ad hoc projects (categories A and B) and the NATO Science and Technology Organisation is continuously supported.

Defence innovation programmes are continuously thematically close to the security research programmes of the Ministry of the Interior. Key programmes include the Security Research Programme for State Needs 2022-2027 (SecPro) and the Open Calls for Security Research 2023-2029 programme (OPSEC). The SecPro programme is implemented in the form of a public tender and is intended to fulfil the specific research needs of state administration bodies participating in the performance of tasks within the internal security system. This is the same support instrument as the Ambition and Improvement Programmes. The OPSEC programme is implemented in the form of a call for proposals and is a key security research programme with broad support of themes. This programme has the greatest degree of overlap with defence research programmes and dual-use results are produced from in, i.e., for the benefit of both the security and defence components. The programme portfolio is further expanded by the Security Research Programme of the Czech Republic 2021-2026: development, testing, and evaluation of new security technologies

(SECTECH), which is also implemented through a call for proposals and is primarily aimed at supporting the corporate sector for the purpose of developing and transferring new technologies into security practice. Here again, there are thematic overlaps with defence research programmes, especially from the point of view of EDTs, i.e., technologies such as artificial intelligence (AI), big data, etc. On the contrary, the Strategic Support for the Development of Security Research of the Czech Republic 2019-2025 (IMPAKT 1) programme implemented through a call for proposals, represents a key element for creating conditions for utilising the potential of the academic sector for the benefit of the development of the security system of the Czech Republic. Here, too, there are overlaps, especially from the point of view of CBRN. To avoid duplicate funding, the Ministry of Defence is regularly represented as members of the Council of the Ministry of the Interior of the Czech Republic for each individual programme.

The TREND programme, whose guarantor is the Ministry of Industry and Trade, is also technologically relevant. This programme supports industrial research and development and its main objective is to increase the international competitiveness of enterprises in particular by expanding their markets abroad, penetrating new markets, or moving higher in global value chains.

In the framework of the research ecosystem, programme of the Technology Agency of the Czech Republic are also being implemented. The BETA2 programme focuses on supporting applied research and innovation for the needs of state administration bodies, especially for the needs of bodies that are not providers of research, development, and innovation funding. The SIGMA programme has a broader focus on the areas of commercialisation of results, support of scientific workers and development of research in the humanities. The THÉTA programme (and THÉTA 2) targets the energy sector, and the National Centres of Competence programme supports long-term cooperation between the research and application spheres and strengthens the institutional base of applied research.

The great potential of the programme for calls for proposals in R&D for the needs of the Ministry of Defence lies in supplementing existing solutions with newly identified aspects related to the support of the capabilities of components of the Ministry of Defence of the Czech Republic, i.e., the armed forces. In addition to precisely defined needs represented by specific requirements for the implementation of projects via a public tender in R&D&I, proposed solutions in calls for proposals provide the opportunity for new perspectives on the solved issue, new methods of solutions, and methods of applications. In this context, it is possible to count on the use of synergistic effects with the other targeted funding programmes mentioned, where it can be assumed that the scientific and research potential of researchers developed within them may be used in the field of defence research projects, including its specific requirements for the resistance of structures, materials, resistance to interference, electromagnetic compatibility, safety, etc. and the application of proposed solutions under the specific security, climatic, health, and social conditions of the armed forces.

Therefore, the PRODEF programme will be a unique instrument for supporting domestic industry in key technological areas with an overlap between civilian technologies utilisable for military purposes and the possibility of Czech entities participating in the European Defence Fund, which is a key EU instrument for the future development of the innovation ecosystem within the framework of common security and EU defence policy.