









The call: ARTIQ – AI Centres of Excellence Instructions for filling out the funding application form

Institution The National Centre for Research and Development (NCBR), The National

Science Centre (NCN)

Undertaking Joint National Undertaking: ARTIQ – AI Centres of Excellence

Call

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Version of instructions valid

These instructions are to facilitate filling out the funding application form under the ARTIQ call. Particular sections of these instructions correspond to the subsequent sections of the application form. The instructions are of accessory nature only. The project is evaluated under the data and information contained in the application; therefore, the documents titled "Preliminary evaluation criteria" defining in detail the scope and evaluation criteria for the project should be acknowledged before these instructions are read.

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THE MOST IMPORTANT RULES TO BE FOLLOWED WHEN THE APPLICATION FORM IS FILLED OUT

- 1. One application may relate to one project only.
- 2. The application may be submitted only in electronic format via the LSI computer system.
- 3. The application needs to be filled out in the Polish and English languages.
- **4.** The title page of the application is automatically generated and is non-editable.
- 5. Appendices that may be attached to selected fields should include only graphics, figures, charts, formulas, or tables. No appendix may be longer than two A4 pages. Recommended text formatting: top and bottom margins min. 1.5 cm, side margins min. 2 cm, Times New Roman or equivalent, font size 11 points, single leading.
- 6. Any field filled out with the content unrelated to the heading (e.g., "xxx" or "to be filled out later") may result in the application's not being taken into consideration in the substantive assessment.
- **7.** An individual application ID number given on the title page should be used in all communications with the NCBR and NCN.
- 8. The following documents need to be acknowledged before the application is filled out:
- "Rules and Regulations of the Call",
- "The NCBR Cost Eligibility Guide",
- "The Costs of the Basic Research Funded by the NCN under the ARTIQ— AI Centres of Excellence call",
- "Preliminary Evaluation Criteria",
- "Substantive Assessment Criteria".



All important documents may be found on the NCBR webpage: https://www.gov.pl/web/ncbr/artiq-centra-doskonalosci-ai

GLOSSARY OF BASIC TERMS

Basic research – empirical or theoretical works aimed mostly at gaining the new knowledge of basic phenomena and observable facts without focusing on the direct commercial application.

Industrial research – the planned or critical research aimed at gaining the new knowledge and skills to develop new products, processes or services, or to implement important improvements relating to the existing products, processes or services. These include the creation of components of complex systems, and may also include the creation of prototypes in a laboratory environment or in an environment of interface simulating the existing systems as well as, if necessary, pilot lines for industrial research, especially to evidence generic technologies.

Development works — gaining, integrating, shaping, and using the currently available knowledge and skills in the area of science, technology and business, and other types of relevant knowledge and skills, to develop new or improved products, processes or services. These may also include actions aimed at conceptual defining, planning, and documenting new products, processes or services. The development works may include the creation of prototypes, demonstrations, pilot projects, testing, and the validation of new or improved products, processes or services in the model environment of the real functioning conditions, the purpose of which is further technical improvement of the products, processes or services the final form of which is, in general, still undefined. These may include the creation of prototypes and pilot projects that may be used for commercial purposes if, out of necessity, the prototype or pilot project is the final product to be used for commercial purposes and production of it is too expensive to use it only for the purpose of demonstration and validation. The development works exclude all routine and periodical modifications made in the existing products, production lines, production processes, services, and other pending operations, even if such modifications are merely of the nature of improvements.

Pre-implementation works – these works shall be preparatory works for practical application of outcomes of basic research, industrial research and development works encompassing:

- a) hosting the national and foreign studio visits facilitating the collection of information on the good practices currently in operation,
- b) preparation of procedures concerning the future use of the product being the result of scientific research or development works,
- c) pilotage (implementation) of solutions suggested in outcomes,
- d) preparation of the draft of relevant regulations,
- e) obtaining a compliance certificate authorising the labelling of a product with the national or supranational normative mark,
- f) establishing social campaigns and hosting media events aimed at encouraging the public to use the proposed solutions,
- g) holding meetings with decision-makers and institutions having the implementation potential, in order to encourage them to use the specific solution.

DETAILED INSTRUCTIONS FOR FILLING OUT THE APPLICATION FORM

I. PROJECT

1. BASIC PROJECT INFORMATION

Project title (a limit of 350 characters)

Provide the project title.

Acronym (a limit of 10 characters)

Provide the project acronym.

Project summary (a limit of 4500 characters)

The summary should include the concise and synthetic description of the most important project objectives and the way of achieving them, along with planned activities, and intended outcomes. The summary shall be used for the selection of experts and reviewers. If the application is approved for funding, the summary shall be published on the NCBR and NCN webpages. The summary may be also disseminated in other channels of communications in the project duration and following project completion.

2. PROJECT CLASSIFICATION

The selected OECD areas, as well as NABS and NACE codes, shall be used for the selection of experts and reviewers to assess the application.

OECD

A maximum of two areas relating to the project need to be selected from the dropdown list of the areas of science and technology defined in OECD classification.

NABS

The project code needs to be selected from the dropdown list of the NABS classification.

NACE

The relevant code reflecting the type of R&D activities planned within the project needs to be selected from the dropdown list (adequately, from the section, division, group, class, subclass level). The code from the lowest possible level of NACE needs to be selected.

MAE

If any R&D activities planned within the project relate to the area of energy, including renewable energy sources, option "YES" should be marked, and the relevant category needs to be selected from the dropdown list of the MAE classification.

Key words (a limit of 50 characters per field)

A maximum of 5 key words characterising R&D activities planned in the project need to be provided. The key words shall be used for the selection of experts and reviewers to assess the application.

3. PROJECT DURATION

The project needs to be planned for a period of 60 months. The project start date needs to be specified based on which the LSI system shall automatically compute the project end date.



ADDITIONAL INFORMATION

The Applicant may start the project and pay its costs from the funds granted by NCBR and NCN on the date given in the applicable funding agreements.

The start of the project means, in particular, undertaking the following activities:

- commencing R&D activities,
- signing an agreement with the supplier or the service provider,
- delivering goods or providing a given service, including merely starting the service provision process,
- making an advance payment for the delivery of goods or the provision of a service.

Any expenditures made as a result of commencing any of the above-mentioned activities before the day given in the funding agreements shall be considered as illegible.

The following activities may be commenced before the project start day:

- rendering and completing the procedure of selecting an outsourced subcontractor (e.g., by sending a request for proposal, evidencing receipt of the subcontractor's proposal, or assessing the proposal),
- signing a conditional agreement with a person to be involved in the project works,
- signing a conditional agreement with a subcontractor of R&D activities,
- signing a letter of intent.

Commencing any of the above-mentioned activities before the project start day given in the funding agreements **shall not be considered** as the start of the project.

II. COST ESTIMATE OF THE PROJECT IMPLEMENTATION

The table of costs is generated automatically based on input data given in Part VII of the application. Additionally, the costs planned within the basic research should be presented in an Excel table (in accordance with the model given in Appendix No. 7 to the application). The value of the Applicant's contribution to the project should be presented in the "Applicant's expenditures not covered under the above-mentioned tasks" table.

III. THE APPLICANT



ADDITIONAL INFORMATION

Information given in this part shall be evaluated under the "Observance of the Conditions of the Applicant's and Leader's Eligibility Defined in Point 3, Point 4 Subpoints 2 and 3, and Point 10 of the Rules and Regulations of the Call" criterion. More => "Preliminary evaluation criteria".

1. INFORMATION ON THE APPLICANT AND THE LEADER

Applicant's Identification Data

The required fields need to be filled out in accordance with the instructions contained in the system. The provided information needs to be compliant with the actual and legal state of facts.

- Number of the National Official Business Register (REGON),
- Full name in accordance with the National Court Register or another register,
- Abbreviated name,
- Name of the main organisational unit e.g., a faculty or another academic organisational unit defined in the statute (if applicable),
- Catalogue of authorised entities the relevant entity needs to be selected from the dropdown list,
- Head office address the required fields need to be filled out in accordance with the instructions contained in the system; the data must be compliant with the applicable register,
- ePUAP address (/user's_identifier/post box_name) the decision issued by the NCN
 Director shall be sent to the ePUAP address,
- Address for correspondence if different from the head office address, the relevant option should be marked, and then, the fields need to be filled out in accordance with the instructions contained in the system,
- Number of the National Court Register/CEIDG (Central Registration and Information on Business)/other registry,
- Taxpayer Identification Number (NIP),
- NACE code for the main activity of the Applicant the prevailing classification in accordance with NACE and the registration document needs to be selected from the dropdown list,
- Legal form the form of activity compliant with data given in the National Court Register or the Central Registration and Information on Business needs to be selected from the dropdown list,
- Form of ownership the form of ownership of the conducted activity needs to be selected from the dropdown list; in the case of a mixed form, the prevailing property form needs to be selected, and if the prevailing form may not be determined, one of the forms of property with the highest percentage share needs to be selected,

- The entity is an organisation conducting research and disseminating knowledge it needs to be clarified whether the Applicant is an organisation conducting research and disseminating knowledge within the meaning of Article 2 (83) of Commission Regulation (EU) No. 651/2014,
- Contact person the fields need to be filled out in accordance with the instructions contained in the system; the contact person appointed by the Applicant should have the full knowledge about the application, both in terms related to the project and its subsequent execution (no more than 2 persons may be appointed to this end),
- Person authorised to represent the Applicant the fields need to be filled out in accordance with the systemic information; data of persons authorised to represent the Applicant have to be compliant with entries in the National Court Register or another register, and if the persons are not included in the register, the relevant power of attorney in PDF format needs to be attached (no more than 4persons may be appointed to this end).

Leader's Identification Data

The required fields need to be filled out in accordance with the instructions contained in the system:

- First name,
- Surname,
- ID number/identification card number the document so provided shall be the basis for verifying the Leader's identity at the meeting with the Team of Experts,
- ORCID the ORCID number attributed to the Leader needs to be given,
- Affiliation/workplace,
- Telephone number,
- E-mail address,
- ePUAP address (if applicable) the decision issued by the NCN Director shall be sent to the ePUAP address,

• Address for correspondence – the required fields need to be filled out in accordance with the instructions contained in the system.

IV. PROJECT PURPOSE AND JUSTIFICATION

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ADDITIONAL INFORMATION

Information given in this part shall be evaluated under the "Intellectual Property Rights", "Project Purpose and Scientific Value", and "Possibility of Commercialisation of the Project Outcomes and Intended Benefits from Commercialisation" criteria. More => "Substantive Assessment Criteria", access criterion No. 3 and scored criteria Nos. 5 and 6.

1. PROJECT OBJECTIVES AND ASSUMPTIONS (a limit of 16,000 characters + an attachment in PDF format)

The project objectives, the most essential assumptions and the most important final outcomes need to be outlined. It needs to be justified that the scope of the planned activities and the expected outcomes correspond to the project objectives.

An attachment in PDF format may be added.

2. PRACTICAL APPLICATION OF THE PROJECT OUTCOMES

Description of the practical application of the project outcomes (a limit of 5000 characters).

The concept of the practical application and the necessary resources (human, financial or technical) need to be outlined.

There are no barriers for the practical application of the project outcomes (a limit of 3000 characters).

In particular, the following issues need to be addressed:

• Intellectual property rights necessary for the project – the rights vested in the Applicant need to be indicated, and in the case of rights shared with other entities, these entities need to be named and the rules of the rights' sharing need to be outlined.

- Competitive solutions/products/technologies it should be proven that none of the solutions/products/technologies that would make the practical application of the project outcomes unfeasible or unjustified exists or is subject to protection; the likelihood of the emergence of any new solutions/products/technologies competitive to the suggested ones, which could affect the practical application of the project outcomes, should be also considered.
- Intellectual property rights of other entities it needs to be justified that the practical application of the project outcomes shall not violate intellectual property rights of other entities, and the protection currently applied by other entities does not preclude the practical application of the project outcomes.

3. NOVELTY OF THE PROJECT OUTCOMES

Novelty level of the project outcomes

It should be underlined that the expected project outcomes are novel at the international level.

Expected project outcomes (a limit of 10 000 characters + an attachment in PDF format)

The expected project outcomes need to be outlined, and their competitiveness and profitability at the international level need to be justified.

An attachment in PDF format may be added.

Description of the novelty of the project outcomes (a limit of 12 000 + an attachment in PDF format)

The novelty of the expected project outcomes at the international level needs to be outlined. In particular, the key features, benefits, and technical parameters of the project outcomes, differentiating them from competitive or substituting products/ services/technologies, and determining the advantage of the expected project outcomes as compared to the solutions currently available on the international markets, need to be described.

An attachment in PDF format may be added.

4. IMPLEMENTATION OF THE PROJECT OUTCOMES

4.1. IMPLEMENTATION DESCRIPTION

The fields need to be filled out in accordance with the instructions contained in the system.

Implementation date

At least one intended date of project outcomes implementation needs to be specified; however, the implementation may not take place later than within three years from the end of the project (in the case of more than one implementation, this field should be duplicated).

Method of project outcomes implementation

The relevant form of implementation of the outcomes of industrial research and development works needs to be defined. At least one of the following fields needs to be marked:

- granting the license for the utilisation of the Applicant's rights to the outcomes of industrial research and development works or development works under market rules (if the project provides only the second ones) in the framework of economic activities of other enterprises,
- sales of rights to the outcomes of industrial research and development works or development works (if the project provides only the second ones) to implement them in the framework of economic activities carried out by another enterprise, provided that the sales of such outcomes for re-sale purposes shall not be regarded as implementation.

Implementation description (a limit of 10 000)

The nature of implementation needs to be defined, in particular, the following assumed aspects need to be presented:

- revenue streams the form in which the new product/service/technology shall be offered to market recipients,
- forms of promotion and distribution the kinds of promotion tools which are planned to be utilised and the channels through which the new product/service/technology shall be distributed,
- the pricing policy with respect to competitors.

The planned activities necessary for project outcomes implementation, other than listed in Part V of the application (e.g., the creation of production equipment) and resources necessary for the implementation (human and technical resources), both those at the Applicant's disposal and those planned to be obtained by the Applicant, need to be described.



The investment costs of implementation of the outcomes of industrial research and development works are not regarded as eligible costs and may not be included in the project budget.

Implementation risks (a limit of 6000 characters)

The analysis of any potential risks that may hinder or make the effective implementation of the project outcomes impossible, for example, linked to or resulting from the following, needs to be presented:

- the likelihood of the competitors' implementing the same or better products/services/technologies,
- the applicable legal and administrative conditions (the necessity of obtaining permits, decisions, certificates, etc. at the implementation stage),
- characteristics of the target market/groups of recipients.

The following needs to be defined for each risk:

- the likelihood of risk occurrence,
- the impact on the possibility of implementing the project outcomes once the risk occurs,
- the risk response strategy and plans, and the potential opportunities arising in connection with risk occurrence.

Intellectual property

The planned protection of intellectual property (a limit of 4000 characters)

It should be specified what kind of intellectual property shall be protected, and then, the effective and efficient method of protection against duplicating or unauthorised use of the project outcomes (if applicable). The planned policy and the system of protection of intellectual property (e.g., the expected patent applications or industrial designs) should also be discussed. The specificity of the project needs to be considered. If the application for the patent protection is not justified, other methods of protecting the intellectual property rights to outcomes obtained within the project (e.g., copyrights) need to be discussed.



ADDITIONAL INFORMATION

If an invention, utility model or industrial design is the project outcome, the invention patent right or protective right to the utility model or the right to register the industrial design is granted to an entity to which the funding was given under the funding agreement (Article 32 (1) of the Act on the National Centre for Research and Development of 30 April 2010 and Article 36 (1) (1) of the Act on the National Science Centre of 30 April 2010).

No barriers for the project outcomes implementation (a limit of 6000 characters)

In particular, the following issues should be addressed:

- Intellectual property rights necessary for the implementation of the project outcomes the rights granted to the Applicant should be transferred, and if the rights are shared with other entities, these entities need to be named and the rules of the rights' sharing need to be outlined.
- Intellectual property rights to the project outcomes the issue of ownership of the intellectual property rights to the project outcomes needs to be discussed. In particular, it should be specified who the owner of the rights to the outcomes generated in the project is and what rights are to be transferred to the enterprise intending to implement the outcomes of R&D activities in the framework of its economic activities.
- Competitive solutions/products/technologies it needs to be justified that no solutions/products/technologies that would make the planned implementation of the project outcomes unfeasible or unjustified either exist or are subject to protection.
- Intellectual property rights of other entities it needs to be justified that the practical implementation of the project outcomes shall not violate intellectual property of other entities, and protection currently applied by other entities does not preclude the implementation of the project outcomes.



ADDITIONAL INFORMATION

The allocation of rights to the project outcomes should be compliant with the rules applicable to the call and the provisions of the funding agreements.

Description of (social/economic/environmental) benefits resulting from the implementation of the project outcomes (a limit of 3000 characters)

The social, economic, and environmental benefits resulting from the implementation of the project outcomes need to be outlined. The revenues expected from sales of the new product/technology/service on the market are an example of economic benefits.

V. DESCRIPTION OF RESEARCH AND DEVELOPMENT WORKS ADDITIONAL INFORMATION



ADDITIONAL INFORMATION

Information given in this part shall be evaluated under the "Project Compliance with the Thematic Scope of the Call", "Eligibility, Legitimacy and Validity of Expenditure", "Project Purpose and Scientific Value" and "Scope and Legitimacy of Activities Planned in the Project vs. Intended Outcomes" criteria. More => "Substantive Assessment Criteria", access criteria Nos. 1 and 2, and scored criteria Nos. 5 and 7.

The complementary character of individual types of basic research, industrial research, development, or pre-implementation works with regard to the validity of the project funding is also assessed under the "Project Compliance with Thematic Scope of the Call" criterion.

In the part of the project funded by NCN, it is assessed whether the planned tasks are compliant with criterion of basic research.

1. PROJECT IMPLEMENTATION METHODOLOGY (a limit of 6000 characters + an attachment in PDF format)

The methodology of research and development works carried out within the project needs to be discussed, including the way in which the research shall be conducted, the research methods, techniques and tools, methods of analysis and presentation of outcomes, equipment and instruments used for research.

An attachment in PDF format may be added.

2. DESCRIPTION OF RESEARCH AND DEVELOPMENT WORKS

A chronological description of the planned research and development works necessary for the achievement of the project outcomes needs to be presented. The description of the planned works has to include the following rules:

- The planned works have to be divided into tasks, separately for basic research, industrial research, development, pre-implementation works or support for establishing special purpose vehicles.
- The project needs to include the tasks relating to basic research, industrial research and development or pre-implementation works. The application from which the tasks included in the scope of basic research or industrial research, development or pre-implementation works are missing shall not be accepted in the LSI system.
- A logical plan of sentences and the proper order of works to be carried out need to be observed, because these aspects shall also be evaluated.
- The tasks may be carried out in parallel.
- The tasks should be planned in a way providing for carrying out of at least one task per month.

To properly assign the tasks to be carried out within basic research, industrial research, development, and pre-implementation works, definitions given in the introductory part of this document need to be applied.

The required fields for each task need to be filled out in accordance with the instructions contained in the system:

- Task number the relevant number needs to be selected from the dropdown list,
- Task name (a limit of 200 characters) the task name needs to be specified,
- Task duration (number of months) the specified value may not be higher than 60 months,
- Task start month the month of the task start needs to be specified,
- Task end month the system shall automatically insert the month number,

- Task objective (a limit of 3000 characters + an attachment in PDF format) the goal and objectives of the task need to be outlined, and an attachment in PDF format may be added,
- Task final outcome –milestone each task has to be completed with at least one milestone, based on which a decision on the project continuation, discontinuation or modification may be taken.

The milestones are the final outcomes of the key stages of the project, described using specific, measurable, and objectively verifiable parameters, facilitating the monitoring and controlling of the progress of works carried out within the project. The milestones should be defined clearly and explicitly with regard to the research problems addressed under a specific task. Depending on the industry and specificity of each project, the milestones may take the form of an achievement of research outcomes, the creation of the key technological components, test completion, the creation of pilot lines, the preparation of a model or prototype of a future device displaying specific parameters.

The following shall be indicated for each milestone:

- Name of milestone (a limit of 200 characters),
- Parameter (a limit of 300 characters) a measurable indicator expressed in a specific value, limit or the maximum/minimum level, defining a specific milestone and facilitating an objective evaluation of the progress of activities carried out in the project, and the level of achievement of the research objectives planned on a specific stage,
- Description of effects of non-achievement of the milestone (a limit of 1000 characters)
- the impact of non-achievement of a specific milestone on the continuation, discontinuation
 or modification of the project needs to be discussed,

If more than one milestone is assigned to a specific task, the relevant table row should be duplicated.

EXAMPLE

Here are some examples of correctly described milestones:

No.	Milestone name	Parameter	Description	of	effects	of	non-

			achievement of a specific milestone
1	A set of models (algorithms)	Spatial resolution of no less than 20 m x 30 m.	The achievement of this milestone is of the key importance for the successful completion of the entire project. If the specified parameter value is not reached, the project shall be discontinued.
2	A database for the designed neuronal network	The number of entries in the database facilitating a statistically significant division of data into learning, test, and validation data – min. 20 000 cases.	The achievement of this milestone is of the key importance for the successful completion of the project. If the assumed value is not reached, the learning methodology (e.g., leave-one-out) shall be modified or the project shall be discontinued.
3	A tool for the identification of abnormalities in MRI images of the nervous tissue	An error of a tumour structure identification at the max. level of 5% of erroneous responses in the image obtained under the magnetic field of the intensity of 1.5 T.	If the assumed value is not reached, an attempt at learning based on higher-resolution images of (e.g., obtained under magnetic field of the intensity of 3 T) shall be made.
4	A humanoid handling pharmacy desk for OTC preparations	Speech intelligibility in the Polish language for the collection of available (learnt) preparations at the level of 99%.	If learning efficiency at the level of 95% is reached, additional learning procedures with the use of the new learning data shall be rendered.

• Eligible costs of the task— eligible costs of activities planned in a specific task should be specified.

The sum of eligible costs assigned to individual tasks needs to be compliant with the sum of eligible costs of the project given in the "Project Budget", in particular, the sum of costs assigned to tasks carried out in the framework of basic research/industrial research/development works/pre-implementation works/support for establishing special purpose vehicles (if applicable) needs to be compliant with the sum of eligible costs assigned in the "Project Budget" respectively to basic research/industrial research/development

works/pre-implementation works/support for establishing special purpose vehicles (if applicable).

3. COMPLEMENTARY CHARACTER OF THE PLANNED WORKS AND RESEARCH FUNDED UNDER OTHER NATIONAL AND EUROPEAN PROGRAMMES (a limit of 4500 characters)

If the Applicant/Leader is carrying out, or was carrying out, any tasks that could have been double funded if the funding for tasks included in this application was granted, differences between such tasks and the tasks planned under this application need to be explicitly discussed, and the necessity of funding the tasks needs to be explicitly justified. If the Applicant/Leader is carrying out, or intends to carry out, any future projects in the area of artificial intelligence funded from the national or European resources, the complementary character of the tasks carried out/planned to be carried out in the future and the tasks included in the application needs to be discussed.

4. PROJECT RISKS (a limit of 4000 characters)

The main risks and threats that may hinder or make the achievement of the assumed outcomes of the project impossible need to be specified, in particular, the risks of:

- technological nature what factors may jeopardise the application of the assumed concept and why the assumed concept may turn to be inappropriate,
- legal and administrative nature the necessity of obtaining the required consents or decisions.

The following should be discussed for each risk:

- the impact of its occurrence on the project completion,
- the appropriate methods of limiting the risk (prevention, counteracting, hindering) or its neutralisation (mitigating the effects).

The risks need to be identified, and appropriate measures aimed at mitigating them need to be planned, e.g., in areas corresponding to:

• the project strategy – the potential areas where the methods of artificial intelligence may turn to be insufficiently detailed or useless need to be identified as soon as possible,

- the applied technologies, instruments, and data quality,
- financial legitimacy of the proposed solution, in particular in the case of problems with strongly non-linear solutions,
- ethical issues concerning the collection of sensitive or strategic data,
- human resources and potential conflicts of interests,
- stimulating the interest of potential recipients of technology and their probable participation in the improvement of AI tools,
- process risks corresponding to the use of AI and data of insufficient quality,
- legal regulations, in particular, if unfavourable provisions excluding the use or creation of AI tools in line with the project objective are enacted.

5. PROJECT IMPLEMENTATION SCHEDULE

The project implementation schedule in the form of Gnatt's chart is automatically generated in the ILS computer system on the basis of data provided in Part V Point 2 of the application.

VI. ACHIEVEMENTS AND EXPERIENCE OF THE LEADER AND RESOURCES AT THE APPLICANT'S DISPOSAL



ADDITIONAL INFORMATION

Information given in this part shall be evaluated under the "Intellectual Property Rights" and "The Leader's Scientific and Application Achievements, the Applicant's Experience in R&D Projects and Commercialisation and Human and Administrative Resources" criteria. More => "Substantive Assessment Criteria", access criterion No. 3 and scored criterion No. 8.

1. Scientific achievements and experience of the Leader

The required fields need to be filled out in accordance with the instructions contained in the system:

First name (a limit of 100 characters),

- Surname (a limit of 100 characters),
- Education (a limit of 50 characters),
- Academic title/degree (a limit of 200 characters) date of obtaining the doctoral degree needs to be specified,
- ORCID the ORCID number assigned to a Leader needs to be provided,
- Breaks in the academic career these may include:
 - documented breaks continuing for more than 90 days which started not earlier than
 on 20 September 2013, resulting from the sick leave or rehabilitation allowance due
 to incapacity for work, or from compulsory military service, refugee procedures or
 employment out of the academic sector,
 - breaks resulting from staying on leaves due to the necessity of taking care of and bringing up children, granted under the rules defined in the Labour Code, or in the case of women, the period of 18 months per each born or adopted child, if this way of defining the breaks in the academic career is more advantageous,
- Career path and professional experience (a limit of 2000 characters) experience of the Leader in the project R&D areas needs to be described (in particular, in period of 5 years preceding the filing of the application); experience in the implementation of projects (national or international as a leader or leading contractor) encompassing R&D activities that resulted in the implementation of R&D outcomes in economic activities, obtained patents or protective rights for utility models, or other applications of outcomes of R&D activities, awards, or prizes,
- Detailed information on the projects implemented by the Leader:
- Project title (a limit of 350 characters),
- Budget (EUR) the total project budget should be presented,
- Source of financing (a limit of 200 characters) the source of the project funding needs to be specified,
- o **Project duration** the project duration needs to be specified in years,
- **Project carried out by a consortium** an appropriate option ("Yes/No") needs to be selected from the dropdown list,

- o **Role in the project** (a limit of 500 characters) the role in the project needs to be specified, e.g., the project leader, the research leader, the leading contractor, etc.,
- Main project outcomes (a limit of 500 characters) brief information on the most important outcomes of the project needs to be presented,
- Scientific achievements, including the most important publications in the AI area (a limit of 500 characters per each achievement + an attachment in PDF format).

An attachment in PDF format with a more detailed description of the scientific achievements of the Leader may be added.

• Achievements in the field of commercialising research outcomes, including in the area of industrial property rights (a limit of 2000 + an attachment in PDF format).

An attachment in PDF format with a more detailed description of the achievements of the Leader in area of commercialisation can be added.

- 2. Experience of the Applicant in R&D projects and commercialisation of project outcomes
- Experience of the Applicant (a limit of 6000 characters) information on the Applicant's experience in R&D projects and commercialisation of project outcomes needs to be provided including, in particular, the following data: topics of R&D projects, their budget and duration, the nature of the Applicant's participation, the scope of works and final outcomes. Information on no more than five R&D projects and on no more than five commercialisation achievements in the past 5 years may be presented.

3. HUMAN RESOURCES

Human resources (except for the Leader) and administrative resources necessary for the implementation of the activities planned in the project, including resources owned at the moment of filing the application, and those which are planned to be obtained in the project duration, need to be described.



ADDITIONAL INFORMATION

The Applicant needs to have the key human resources at its disposal already upon filing the funding application.

Key R&D personnel

From 1 to 3 persons forming the key personnel should be named, the participation of whom is necessary for the appropriate execution of the R&D activities planned in the project, following which their commercialisation records, achievements and experience should be discussed. A person employed by the Applicant on upon filing the application under a contract of employment/a contract of mandate/a contract for a specific work, and a person whose employment is planned, and with whom the conditional cooperation agreement (employment arrangement/preliminary contract) has been signed, may be a member of the key personnel.

The following information on each of the key contractors needs to be provided:

- First name (a limit of 100 characters),
- Surname (a limit of 100 characters),
- Education (a limit of 50 characters),
- Academic title/degree (if applicable) (a limit of 200 characters) the date of obtaining the doctoral degree needs to be specified,
- ORCID the ORCID number of a given person needs to be specified,
- Career path and professional experience (a limit of 2000 characters) experience of the key contractor in the relevant project R&D areas needs to be discussed (in particular, in period of 5 years prior to filing the application); experience in the implementation of projects (national or international as a leader or leading contractor) encompassing R&D activities that resulted in the implementation of R&D outcomes in economic activities, obtained patents or protective rights for utility models or other applications of outcomes of R&D works, awards, or prizes,
- Scientific achievements, including the most important publications in the AI area (a limit of 500 characters per each achievement),
- Achievements in the commercialisation of research outcomes, including in the area of industrial property rights (a limit of 2000),
- Role in the project (a limit of 500 characters),

- Involvement in the project (a limit of 200 characters) the tasks in which a given person shall be involved and the scope of involvement need to be outlined (specify the work time in FTE, e.g., 0.25 of FTE in the entire project duration),
- Is the person an employee of the Applicant? the appropriate option ("YES/NO") should be selected; an employee is a person employed under a contract of employment/a contract of mandate/a contract for a specific work.

R&D personnel to be employed (if applicable) (a limit of 3000 characters)

Information concerning those persons who are planned to become members of the project team needs to be presented; the number of persons, the required qualifications and experience, the nature of involvement, the scope of works and the scope of involvement in the project should be specified.

4. ADMINISTRATIVE RESOURCES (a limit of 3000 characters)

Administrative personnel necessary for the appropriate project execution should be presented. It should also be proven that the Applicant has the administrative background appropriate to carry out the planned R&D activities.

5. PROJECT MANAGEMENT (a limit of 3000 characters)

The project management method needs to be outlined.

6. TECHNICAL RESOURCES AND INTANGIBLE FIXED ASSETS (IFA) NECESSARY FOR THE PROJECT IMPLEMENTATION

Specific technical resources need to be indicated (scientific and research instruments, facilities, apparatus, machines) along with intangible assets to be used in the project.

Access to instruments/infrastructure necessary for the project implementation

In the *Resources* field (a limit of 500 characters), the name of the resource and its quantity need to be specified, and in the case of small apparatus, the whole sets need to be defined.

In the *Purpose* field (a limit of 500 characters), research works for which a specific resource shall be used need to be specified.

In the *Task No*. field, the number/numbers of tasks for which a specific resource shall be used needs to be specified.

Technical resources at the Applicant's disposal

Technical resources at the Applicant's disposal upon filing the funding application need to be specified.

Technical resources to be acquired

Technical resources which the Applicant is planning to acquire in the project duration need to be specified.

Intangible assets necessary for the project implementation

Intangible assets at the Applicant's disposal

Intangible assets (licenses, technologies, know-how, intellectual property rights) at the Applicant's disposal upon filing the funding application.

Intangible assets to be acquired

Intangible assets which the Applicant is planning to acquire in the project duration, including the intangible assets necessary for the efficient implementation of the project outcomes, need to be discussed.

7. SUBCONTRACTORS (if applicable)

Selection of the option "YES/NO" defines whether involvement of subcontractor/subcontractors is planned.

8. DATA MANAGEMENT PLAN

The plan for data management needs to be discussed in accordance with the model given in Appendix No. 6 to the application (corresponds to the works carried out under the basic research). The description has to be attached in PDF format.

9. ETHICAL ISSUES (a limit of 16,000 characters)

Ethical issues (listed in Appendix No. 14 to the Rules and Regulations of the Call), which correspond, or may correspond, to the R&D activities planned in the project, should be addressed. If those ethical issues concern the project, activities which have been, or shall be,

carried out to ensure that the research and activities planned in the project are compliant with the commonly valid laws, and the rules of good practices approved in the area of artificial intelligence and related areas, need to be discussed.

VII. FINANCIAL PART (PROJECT BUDGET)



ADDITIONAL INFORMATION

Information given in this part shall be evaluated under the "Eligibility, Legality and Validity of Expenditure" criterion. More => "Substantive Assessment Criteria", access criterion No 2.

Project costs



REFERENCE

Before this part of the application is filled out, the documents titled "The NCBR Cost Eligibility Guide" and "Costs of the Basic Research Funded by the NCN in the framework of ARTIQ – AI Centres of Excellence call" should be acknowledged.

The eligible costs to be spent in the project duration need to be discussed by assigning them to the relevant costs category.

The maximum value of funding for the project is **PLN 20 million**, including the costs of funding for basic research which may not be higher than PLN 5 million.

The costs of R&D activities planned in the project and carried out in the framework of basic and industrial research, development and pre-implementation works and support for establishing special purpose vehicles need to be specified.



ADDITIONAL INFORMATION

In case of the basic research funded by NCN, the costs of leasing scientific-research instruments are not regarded as eligible costs.

For each item¹ (Part VII of the application: 1. Remuneration (W), 2. Subcontracting (E), 3. Other direct costs (Op)), the following need to be specified²:

Category REMUNERATION (W)						
Position/role in the project	Amount of eligible cost	Justification	Estimation method	Task number.		
Full name of the position has to be specified (excluding first names and surnames). Limit of characters: 200.	Only the eligible part of a specific cost should be given. The amount to be covered under the project needs to be specified.	Information on the scope of responsibilities (activities) to be carried out by a person in the project has to be given. Limit of characters: 1,000.	It is necessary to discuss how the rate of remuneration applicable to this position was computed (only generally available data on average remuneration on the same position in a specific region may be used) along with providing information on the workload, work time for contracts of employment, the scope of involvement, the number of employed persons and the type of employment (posting, a contract of mandate, a contract for a specific work) ³ . Limit of characters: 1000.	The number of the task/tasks assigned to a specific person needs to be specified.		
Programmer (1 person)	PLN X	Creation of Al-user -communication	Time: 0.80 of FTE. Rate: PLN Y/1	1, 4		
(1 person) 1 If the special purpose vehicles are established, only the part Subcontracting (F) is defined. 2 All required information, including extensive justification and the method of estimating need to be specified at each budget item. The expression establishes sufficient plus non-wage labour 3 The following exemplary description wantly project, be specified plus non-wage. Justification: Personnel necessary for the project, method of estimating: Market rates.						

Analyst/stati stician (2 persons)	PLN X	fragments, programming of prototype versions, testing support. It is planned that 2 scientific-research employees will be hired. Responsibilities: statistical verification of databases (data quality, potential elimination of correlated or irrelevant variables).	Duration: 24 months. Time: 90 hours/1 month (for 2 employees jointly). Rate: PLN Y/1 hour Duration: 8 months. Total: 90 hours/month x 8 months = 720 hours.	1
	CONTRACTING (=)		
Name of eligible cost	Amount of eligible cost	Justification	Estimation method	Task No.
The name of the commissione d research service needs to be given. Limit of characters: 200.	The amount to be covered under the project needs to be specified.	The outsourcing of a service needs to be justified. Limit of characters: 1000.	The method of estimating the amounts of individual expenditure needs to be presented, including the source of data on which computations are based (e.g., generally accessible price lists may be used, or proposals of suppliers collected by the Applicant may be cited). Limit of characters: 1000.	The number of the task/tasks under which a specific service shall be outsourced needs to be specified.

EXAMPLES

fMRI	PLN X	The Applicant does not	The costs estimated on	1
analyses		have the appropriate	the basis of market	
		resources	investigations conducted	
		(instruments/personnel	among entities which are	
) facilitating the	able to carry out the	
		research. The acquired	research planned in the	
		data shall be used for	project.	
		the learning process of		
		the designed neuronal		
		network recognising		
		emotions – task No X.		

Category OTHER DIRECT COSTS (Op)					
Name of eligible cost	Amount of eligible cost	Justification	Estimation method	Task No.	
The cost name and, for instruments, the form of settlement need to be defined (purchase, amortisation/rent al/leasing, etc. Limit of characters: 200.	The amount to be covered under the project needs to be specified.	The specific cost needs to be justified, in particular – if applicable – justification of the use of instruments/ promotion/ audit should be specified. Limit of characters: 1000.	estimating the amounts of individual expenditure needs to be presented,	The number of the task/tasks under which expenditure shall be spent needs to be specified.	

EVANADI EC			amortisation, the initial assets value and the accepted estimation method need to be specified. Limit of characters: 1000.	
Purchase of software	PLN X	Purchase of software necessary to design the artificial neuronal network.	Based on proposals and price lists of potential suppliers and an estimated number of analyses carried out.	1, 3
Computers – amortisation	PLN X	Costs of amortisation of the basic computing and control units.	The costs are estimated based on the assumed initial value and depreciations given in the accounting records pro rata; the initial value of instruments is established under market prices/market investigation). The cost was divided in proportion to the periods of duration of individual tasks. Initial value of fixed assets: PLN X. Amortisation method: linear. Amortisation period: monthly (in total: 24 months); monthly amortisation rate:	1

			20%,	
Rental of disk space and computational capacity	PLN X	The cost of rental of disk space dedicated to generated data and the costs linked to computations on external units of high capacity.	Based on proposals and price lists of potential suppliers.	1, 4
Promotion	PLN X	Planned promotional activities: marking of the project execution venue, project webpage, publications, etc.	lists for the indicated project promotion	1, 2
Audit	PLN X	External audit is mandatory and shall be started upon execution of 50% of all planned project expenditure or in the 36 th month of the project execution at the latest.		4



ADDITIONAL INFORMATION

The rates and prices approved in the project budget should correspond to the commonly applied market values.

The following limitations in the amounts of costs in particular categories are valid:

- the "Subcontracting" (E) for industrial and development works category up to 10% of the total eligible costs for industrial research and development works planned in the project budget,
- the "Subcontracting" (E) for pre-implementation works category up to 70% of the total eligible costs for pre-implementation works planned in the project budget.

Project budget – summary

The table shall be generated automatically.

Expenditure incurred by the Applicant as its own contribution

The expenditure incurred by the Applicant as its own contribution, which was not included in the category of expenditure for individual tasks planned in the project and funded by the NCBR and NCN, needs to be specified.

VIII. INDICATORS

In this section, tables of measurable indicators for the implementation of the project outcomes should be filled out. The indicators given in the tables have to be objectively verifiable, real, reflecting the assumed project objective, and appropriate for a specific type of works. The level of achievement of the specified indicators shall be verified during and after the project completion, and may condition the payment of funding.

1. PRODUCT INDICATORS

The indicators given in this part are the metrics of the tangible outcomes of the project (i.e., publications, software, applications, services, technologies, patent applications) measured with specific amounts. Appropriate values for the planned achievement of the ultimate value should be entered in the table. The indicators for the tangible project outcomes may be presented only for years when the project is executed; therefore, they need to be complaint with the project execution period stated in the application. The indicators are measured in the project duration and after its completion based on periodical reports and the final reports provided by the Applicant.

The obligatory product indicators are:

Indicator name	Unit	Target value

Number of scientific works prepared in the framework of the CE AI project, published in highly ranked/leading, specialised journals in the area of AI:	pcs.	To be filled out by the Applicant. Value on the day of the project completion
including in post-conference materials,	pcs.	To be filled out by the Applicant. Value on the day of the project completion
Number of presentations given during highly ranked, international conferences (category A* or A) in the area of AI, including presentations prepared in the framework of the CE AI project.	pcs.	To be filled out by the Applicant. Value on the day of the project completion

2. DIRECT OUTCOME INDICATORS

The indicators for direct project outcomes and the outcomes referring to the Applicant, which occurred within 3 years from the date of the project completion, should be presented in the table. The direct outcome provides information about modifications that pertained to the Applicant and resulted from the project implementation.

The obligatory direct outcome indicators are:

The Applicant

Indicator name		Target value
Number of doctoral degrees in the area		To be filled out by the Applicant.
of AI conferred in the framework of the	No.	Value up to 3 years from the day of the
CE Al project.		project completion
Number of habilitated doctors		To be filled out by the Applicant.
promoted in the area of AI in the	No.	Value up to 3 years from the day of the
framework of the CE AI project.		project completion

Total for the project

Indicator name		Target value	
Number of established AI Centres of Excellence.		To be filled out by the Applicant. Value up to 3 years from the day of the	
		project completion. Digit 1 needs to be	

		inserted.
Number of entities established in the framework of the CE AI project to commercialise the project outcomes, e.g., in the form of special purpose vehicles	No.	To be filled out by the Applicant. Value up to 3 years from the day of the project completion
Number of agreements or arrangements made in the framework of the CE AI project, including international ones, in the scope of joint scientific-research projects, development works, promotional activities, or business undertakings	No.	To be filled out by the Applicant. Value up to 3 years from the day of the project completion

3. IMPACT INDICATORS

Impact indicators measure the project outcomes in the long-term perspective and reflect permanent changes in the social and economic environment resulting from the project. The impact indicator is a measure of the level of achievement of the main project objective.

The obligatory impact indicators are:

Indicator name		Target value
Number of implemented outcomes of the project, in the framework of the CE Al project, on the territory of the Republic of Poland.	No.	To be filled out by the Applicant. Value up to 3 years from the day of the project completion

IX. REPRESENTATION

Contents of a specific representation needs to be acknowledged, following which the relevant field should be marked. This shall be interpreted as the submission of that representation. The representations correspond to the Applicant and the Leader.

The obligatory representations concern:

- The familiarisation with the Rules and Regulations of the Call, and their acceptance.
- The [fact that the] submitted application does not violate any rights of third parties.
- The [fact that the] English version of the application is identical to its Polish version.
- GDPR representations.
- Compliance with the rule of avoidance of double funding.
- The VAT representation.
- The obligation to obtain the necessary permits of bioethics boards or other relevant bodies.
- Confirmation that a conditional agreement has been concluded between the Applicant and the Leader.
- A representation regarding the reporting obligations towards Statistics Poland with an attached PNT-01 form (if applicable).
- Consent to participate in evaluation research.
- A representation on the acknowledgement of the effects of failure to observe the form of communication with NCBR and NCN as specified in the Rules and Regulations of the Call.
- An authorisation of indefinite validity granted to NCBR to disseminate the economic data processed by entities named in the representation.

X. APPENDICES

No.	Entity	Appendix description	Document form	Source of document model
1.	Applicant	Power of attorney, if the power granted to the Applicant's representative to act for and on its behalf does not arise from the National Court Register or generally	(attached in Part III.1 of the application). A scan of the document	The Applicant's document

		applicable regulations.	qualified electronic signature ⁴ . If the power of attorney is granted to more than one person, scans of these documents need to be attached as one PDF file.	
2.	Applicant	Representation on the intention to file the application/representations via a computer LSI system.	PDF A scan of the document signed in person or with a qualified electronic signature (or an electronic stamp). The document needs to be supplied to NCBR in the original version together with the funding agreement.	Based on NCBR's model
3.	Applicant	Preliminary contract/employment arrangement signed with the Leader.	PDF A scan of the document signed in person or with a qualified electronic signature. The document needs to be supplied to NCBR in the form of a certified copy together with the funding agreement.	The Applicant's and Leader's document
4.	Applicant	The PNT-01 form "The report on research and development activity (R&D)"	XML/PDF	Based on the Statistic of

⁴ Pursuant to Article 78¹ of the Act of 23 April 1965 – The Civil Code (Journal of Laws of 2017, item 459 as amended) and the definition given in Article 3 (12) and under the rules defined in Section 4 – Electronic Signatures – Regulation (EU) No. 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC (O.J.EU.L2014.257.73).-/-

		for the year preceding the filing of the application to be submitted when the Applicant is under the obligation to report to Statistics Poland (relevant).		Poland model (the form is available after logging into the account on the Statistics Poland portal: https://raport.stat.gov.pl)
5.	Applicant	Information for evaluation purposes.	The form is filled out online in the application generator.	Based on NCBR's model
6.	Applicant	Data management plan in the part corresponding to the basic research.	PDF A scan of the document signed in person or with a qualified electronic signature (or an electronic stamp).	
7.	Applicant	NCN's budget table.	XLS/PDF	Based NCN's model