

## **COMPETITION DOCUMENTATION**

**regulating terms and conditions of an open International grant  
competition of National University of Science and Technology  
“MISiS” designed to support scientific research in priority scientific  
areas, conducted under the supervision of the Leading scientists**

MOSCOW 2022



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## INFORMATION ABOUT THE GRANT COMPETITION

### 1. General provisions

- 1.1. The purpose of this competition is to select applications from participants in the competition who have proposed the best projects for support in the form of a grant to NUST MISIS within the framework of the development of international and / or Russian scientific and technical cooperation with the involvement of leading scientists in priority scientific areas in the management of research projects and increasing competitiveness scientific teams.
- 1.2. Grants of NUST MISIS are made available in the amount of up to 29 million rubles each to support a research project over a period of three years (from 01.05.2022 to 31.12.2024).

Grants of NUST MISIS are allocated in the amount of up to 29 million rubles, including:

- expenses for the remuneration of the Leading Scientist (Head of the grant) and members of the research team, taxes and other social benefits accrued for the remuneration of the Leading scientist and members of the research team (the amount of expenses should not exceed 80% of the grant amount);
  - expenses for business trips of the Leading scientist and members of the research team and expenses for internships in the best research centers of members of the research team;
  - expenses for the payment of materials and components for equipment for scientific research;
  - expenses for the payment of equipment for scientific research.
- 1.3. The amount of the grant is determined on the basis of the application submitted by the participant for participation in the competition, which contains, among other things, a work plan and an estimate of the costs of conducting scientific research, but no more:
    - in 2022 – 10 million rubles;
    - in 2023 – 11 million rubles;
    - in 2024 – 8 million rubles.
  - 1.4. Each competition winner will sign a grant agreement with NUST MISIS.
  - 1.5. The legal relationships between all parties involved in the open grant competition are regulated by applicable laws of the Russian Federation.
  - 1.6. Grants are allocated as part of the implementation of the Strategic Academic Leadership Program "Priority 2030".



## 2. Participation eligibility requirements

- 2.1. Research teams in collaboration with leading Russian or foreign scientists that are recognized by the global scientific community as authoritative and influential leaders within their respective fields of science and research areas that designed and submitted their grant applications in compliance with cl. 5.1 to 5.4 of the Competition Documentation are deemed as a single applicant.
- 2.2. The Leading scientist heading the project is eligible to participate in only one research grant under the “Priority 2030” Strategic Academic Leadership Program.

## 3. Research project and research project implementation requirements

- 3.1. Any research projects proposed hereunder may not duplicate any carried out in the previous period or current research projects financially supported by different level budgets or funded from other sources.
- 3.2. NUST MISIS will make its grants available to support successful research projects proposed for implementation within the following Strategic projects (fields of science):
  - **Materials of the future**
  - **Quantum Internet**
  - **Biomaterials and bioengineering**
  - **Technologies for sustainable development**
  - **Digital business**
- 3.3. The research team formed by the Leading scientist to implement the research project at NUST MISIS shall include at least 2 members with doctoral degree, at least 3 postgraduate students and at least 3 undergraduate students of NUST MISIS.
- 3.4. Personal (with full-time presence at NUST MISIS) supervising a scientific research by a Leading scientist is a conditions for conducting a scientific research at least:

Option nR<sup>1</sup>:

- **30 calendar days (total) in 2022;**
- **60 calendar days (in total) in each subsequent year**, provided that at least 2 members of the research team (postgraduates and (or) students) of the laboratory are trained in the direction of scientific research under the supervision of a leading scientist in the organization in which the leading scientist works on a permanent basis, for at least 30 calendar days in each year of scientific research for each of the specified members of the scientific team of the laboratory;
- **90 calendar days (in total) in each subsequent year**, if the internship of members of the research team is not provided or is not organized

Option R<sup>2</sup>:

- **60 calendar days (total) in 2022;**
- **90 calendar days (in total) in each subsequent year**, provided that at least 2 members of the research team (postgraduates and (or) students) of the laboratory are trained in the direction of scientific research under the supervision of a leading scientist in the organization in which the leading scientist works on a permanent

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<sup>1</sup> For the Leading scientist who permanently or predominantly lives outside the territory of the Russian Federation

<sup>2</sup> For the Leading scientist permanently or predominantly residing in the Russian Federation.



basis, for at least 30 calendar days in each year of scientific research for each of the specified members of the scientific team of the laboratory;

- **120 calendar days (in total) in each subsequent year**, if the internship of members of the research team is not provided or is not organized

3.5. NUST MISIS must undertake to:

- Ensure continuous funding of the research project in compliance with its approved budget;
- Provide office space and access to laboratories and other experimental research facilities required to implement research projects proposed hereunder;
- Execute labor agreements (services agreements, fixed-term employment contracts, additional agreements to a main contract and etc.) with the Leading scientist and the research project team members;
- Compensate each member of the research team taking into account the quality and quantity of the work completed by each member of the team specifically (the total amount of compensation payable to the Leading scientist and team members, inclusive of taxes and other social benefits, should not exceed 80 per cent of the grant sum, and as well as the amount of remuneration to the Leading scientist, including taxes and other social benefits, should not exceed 35 percent of the grant amount).

3.6. The Leading scientist shall supervise the scientific research during the entire duration of the project.

3.7. The Leading scientist shall appoint responsible deputy of the Leading scientist (Deputy Head of the project), who will be in charge of administrative supervision of the research team and make organizational decisions during the absence of the Leading scientist.

3.8. The Leading scientist, together with a Deputy Head of the project, shall make decisions regarding the disbursement of the funds in accordance with the previously approved cost estimate.

3.9. The mandatory results of scientific research are the publication of at least 4 articles in 2022, at least 4 articles in 2023, at least 4 articles in 2024 by a fractional account of the scientific team in scientific publications assigned to the I and II quartiles<sup>3</sup> of the Web of Science Core Collection database.

3.10. All published articles must have an affiliation of NUST MISIS, a link to the grant and the Strategic Academic Leadership Program "Priority 2030".

3.11. A mandatory result of the implementation of scientific research is to attract additional funding (from all sources<sup>4</sup>) for the implementation of scientific research of at least 50% of the amount of the requested grant.

3.12. The Leading scientist undertakes an obligation as a research outcome to popularize the scientific research area in the form of oral reports at international conferences and

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<sup>3</sup> In scientific publications assigned to quartiles I and II (according to Journal Citation Reports), as well as scientific publications included in the Arts and Humanities Citation Index (A&HCI), Conference Proceedings Citation Index - Science (CPCI-S) and Book Citation Index - Social Sciences & Humanities (BKCI-SSH) databases Web of Science Core Collection.

<sup>4</sup> Grants of the Russian Academy of Sciences, other competitions-grants, business agreements, other grants of NUST MISIS under the Strategic Academic Leadership Program "Priority 2030".



events as well as other external mass media forms.

3.13. Presentation of the concept of at least one educational product in the areas of the Strategic projects of the university in one of the following formats<sup>5</sup>:

- the concept of a new Master's degree program;
- the concept of the program of additional professional education (36-250 hours)<sup>6</sup> ;
- the concept of an online specialization<sup>7</sup> in English for the edX platform, consisting of 3-5 courses in a MOOC format.

3.14. The Leading scientists and research team shall be responsible for achieving the research project results specified in their project proposals and accounted for by their respective grant agreements with NUST MISiS.

#### 4. Grant competition participation costs

4.1 Applicants are responsible for covering all costs incurred thereby in connection with their participation in the open grant competition, including their costs associated with preparation and submission of their grant applications.

#### 5. Grant application contents

##### **5.1. Application Registration**

Form A. "Application registration" is pre-filled and sent to [projects@mis.ru](mailto:projects@mis.ru) for obtaining a registration number;

##### **5.2. The application for participation in the competition must contain:**

- Form 1. "Document checklist", listing all documents submitted as part of the grant application;
- Form 2. "Grant Application";

##### **5.3. Documents to be submitted by the leading scientist:**

- Form 3. "Leading scientist's Questionnaire";
- Form 4. "Scientific achievements and experience of the leading scientist";

##### **5.4. Documents on scientific research and / or events:**

- Form 5. "The scientific reputation of the group created by the project";
- Form 6. "Prospects for collaborations with foreign and Russian partners";
- Form 7. "Possible topics of educational programs developed under the project";
- Form 8. "Research Project Description";
- Form 9. "Project Efficiency Indicators";
- Form 10. "Project Implementation Plan";
- Form 11. "Research Project Budget";
- Applications (if necessary).

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<sup>5</sup> All the presented concepts of educational products at the next stage participate in the competition for financing the development of new educational programs of NUST MISiS in the areas of Strategic projects of the University.

<sup>6</sup> Programs of additional professional education should provide for the possibility of forming new educational programs based on them

<sup>7</sup> Online specialization programs should provide for the possibility of forming new educational programs based on them



## 6. Preparing a grant application

6.1. NUST MISIS grant applications prepared and submitted by a Leading scientist and research team shall meet the competition selection criteria enlisted in cl.10.4. The application shall be prepared in electronic form.

6.2. Form A. «Application Registration» shall be filled in and mailed to [projects@misis.ru](mailto:projects@misis.ru) . In reply letter registration number will be sent. The registration number shall be specified in Form 1. “Documents checklist” and on the envelope with the grant application.

6.3. Grant applications shall be submitted in Russian and in English. Grant applications submitted in any other languages will be disqualified by the Competition Commission as failing to meet the competition requirements.

*If any documents that are part of a grant application package are in languages other than Russian or English, they must be accompanied by certified translations into Russian and English.*

6.4. The amount of funding requested by applicants in their grant applications shall be specified in Russian rubles and shall not exceed the maximum grant amount that may be made available under a grant agreement.

6.5. All grant application documents shall be signed by the Leading scientist if provided for in the prescribed form.

6.6. Contradictions and inconsistencies identified in grant application documents will be viewed by the Commission as the applicant's failure to meet the selection requirements accounted for by the Competition Documentation.

Grant applications submitted without the documents accounted for by cl. 5.1 to 5.4 of the Competition Documentation, grant applications documented in violation of requirements accounted for by the grant application form, as well as grant applications that fail to provide the requisite data accounted for by the grant application form will be deemed by the Competition Commission as non-compliant with relevant requirements of the Competition Documentation.

6.7. All grant application documents shall be arranged in the order accounted for by Form 1. “Document checklist”.

6.8. The full version of the application must contain the documents provided for in cl. 5.1-5.4 of the grant documentation and is submitted for participation in the competition in electronic form.

6.9. The full electronic version shall be submitted an electronic medium (CD disk and or USB flash drive) and shall contain the following files:

- Application in Russian in Word;
- Application in English in Word;
- Application in Russian in pdf (with all signatures);
- Application in English in pdf (with all signatures);
- Appendix (passport copy, residence permit copy (if applicable), diploma copy, PhD certificate copy, CV, copies of other diplomas and certificates, etc.).

The electronic medium (CD disk and or USB flash drive) shall obligatory carry the Registration number.



## 7. Submitting a grant application

- 7.1. Applicants shall submit an application in electronic form on the portal and on electronic media in a sealed envelope containing a signed electronic version with the application files according to Clause 6.9.
- 7.2. Each applicant shall label the envelope containing his/her grant application as follows: “Application for participation in the open International grant competition of NUST MISiS designed to support scientific research in priority scientific areas, conducted under the supervision of the Leading scientists”, as well as specify the registration number.
- 7.3. Envelopes with grant applications shall be submitted to the address of the grant competition organizer: 119049 NUST MISiS, room B-520, 5<sup>th</sup> floor, Leninsky prospect, 4, bld. 1 Moscow (International Research Projects Department, code №431) in the period from **February 21, 2022 to March 10, 2022 (12:00 Moscow time)**.
- 7.4. Each envelope containing a grant application will be registered in the grant applications registry.
- 7.5. The registrar will issue a receipt stating the date and time of delivery and the registration number of the grant application received thereby if requested by an applicant, having provided the envelope with the application.

## 8. Opening the envelopes containing grant applications

- 8.1. Any grant applications received by the competition organizer after the grant application submission deadline will be disqualified from participation in the open grant competition.
- 8.2. The envelopes opening procedure shall be documented in the form of minutes to be signed by all members of the Competition Commission present at the envelope opening procedure. The minutes shall be posted on the official website of NUST MISiS no later than three working days from the date of signing the minutes.

## 9. Reviewing grant applications

- 9.1. Within 5 working days following the opening of the envelopes containing grant applications the Competition Commission will review the documents and information contained therein on account of:
  - a) Compliance of the grant applications with the selection requirements;
  - b) Compliance of the applicants with the participation qualification requirements accounted for by the Competition Documentation;
  - c) Compliance of the grant applications with the requirements accounted for by the Competition Documentation;
  - d) Compliance of the scientific research proposed for carrying out at the expense of the grant with the requirements established in this Competition Documentation.
- 9.2. Following the examination of the reviewed documents and information contained in the grant applications the Competition Commission shall make a conclusion on:
  - a) on the compliance of the applicants whose grant applications and research project proposals meet the qualification and selection requirements accounted for by the Competition Documentation;
  - b) on the non-compliance of the applicants, who do not meet and/or whose grant applications and/or research project proposals do not meet the qualification and



selection requirements accounted for by the Competition Documentation.

- 9.3. The review results shall be documented in the form of minutes to be signed by all members of the Competition Commission present at review procedure. The minutes shall be posted on the official website of NUST MISIS no later than three working days from the date of signing the minutes.

## 10. Evaluating grant applications

- 10.1. The Competition Commission shall undertake assessment of the submitted documents to be in compliance with all the Competition Documentation requirements.
- 10.2. The grant applications deemed by the Competition Commission to be in compliance with all applicable requirements will be forwarded for the grant competition.
- 10.3. The grant applications submitted to the open grant competition shall be expertized by the International Scientific Advisory Council of NUST MISIS.
- 10.4. The following evaluation criteria will be used to assess the grant applications and research project proposals submitted to the open grant competition:

No.	Assessment criterion	Criteria content (requirements)	Group weight	Weight of criterion within group	Maximum score
1. Leading scientist's work experience and scientific achievements					
1.1	Level of scientific publications	To be assessed: types of journals (professional, leading) and number of articles published by the Leading scientist; how typical this type of publication activity is for leading researchers; Leading scientist's quotation index within his/her the field of science.	20%	80%	16
1.2	Leading scientist's experience in managing research team	To be assessed: Leading scientist's experience in creating and managing world-class research teams and effective management of its further activities is evaluated..		20%	4
2. Research project vision					
2.1	Relevance of proposed scientific research	To be assessed: relevance of the proposed research project from the point of view of the current status of global science; likelihood of achieving breakthrough world-class research results and their relevance in terms of global science and economy.		50%	15



2.2	Applicant's ability to achieve the anticipated project results within the suggested timeframe and using the methods proposed thereby	To be assessed: how detailed the anticipated research project results are and if they meet the world-class research level; how detailed and viable the research project implementation plan is; how likely the applicant is to implement the research project plan within the suggested timeframe and using the methods proposed thereby	30%	30%	9
2.3	Adequacy of the amount of funding requested with the set goals, the quality of the study of the project budget	To be assessed: how adequate the amount of requested project funding is (including extra funding) and if it is excessive or insufficient to achieve the project goals and accomplish its objectives		20%	6
3. Overview of the research team, vision of the laboratory to be established under the project					
3.1	The level of scientific publications of the research team	To be assessed: the level of publications (leading, professional) and the number of publications of the members of the research team; to what extent such a level of publication activity is characteristic of leaders in the field of sciences; how high is the citation of articles for the claimed field of sciences	30%	60%	18
3.2	The scientific infrastructure available to the team of participants of the claimed project	To be assessed: the modernity of the scientific infrastructure available to the team of participants of the claimed project; the possibility of conducting scientific research on its basis corresponding to the world level; the feasibility of upgrading the infrastructure necessary to solve the tasks of the project.		40%	12
4. Prospects for collaborations with foreign and/or Russian partners					
4.1	The potential of the scientific team for Russian and international collaborations	To be assessed: the potential of the scientific team for joint cooperation based on the data provided	20%	50%	10
4.2	Availability of existing forms of cooperation	Availability of valid Cooperation Agreements and / or Contracts for research and development / provision of services		50%	10



- 10.5. The grant applications received by the Competition Commission will be distributed among expert groups for the purposes of assessment. The Competition Commission shall distribute the grant applications ensuring that intellectual activity information from the grant applications is treated in a confidential manner. Conclusions based on the results of the examination of applications for participation in the competition, the Competition Commission forms and send the necessary information on each application admitted to participate in the competition for submission to the Council to determine the winners of the competition.
- 10.6. The Council shall review all the necessary information, determines the winners of the competition and sets the amount of funding for each grant by April 25, 2022.
- 10.7. Information about the outcomes of the open grant competition shall be posted on the official website of NUST MISIS within three working days of the Council meeting minutes being signed.

## 11. Executing a grant agreement

- 11.1. The competition winners will execute grant agreements with NUST MISIS within 30 working days after posting the results of the open grant competition on the official website of NUST MISIS.

## 12. Returning grant applications

- 12.1. The grant applications (including grant application documents) are not returned to the applicants except for the grant applications recalled by applicants in compliance with the established procedure.



## FORMS TO BE COMPLETED BY APPLICANTS

### Form 1. Document checklist

#### DOCUMENT CHECKLIST

List of documents required for submission to the open International grant competition of NUST MISIS designed to support scientific research in priority scientific areas, conducted under the supervision of the Leading scientists

Grant application registration number \_\_\_\_\_

No.	Name of document	Number of pages
1.	Form 1. "Document Checklist"	
2.	Form 2. "Grant application"	
	<b>Documents to be submitted by the Leading scientist:</b>	
3.	Form 3. "Leading scientist's Questionnaire"	
4.	Form 4. "Scientific achievements and experience of the leading scientist"	
	<b>Documents pertaining to the research project proposed hereunder:</b>	
5.	Form 5. "The scientific reputation of the group created by the project"	
6.	Form 6. "Prospects for collaborations with foreign and Russian partners";	
7.	Form 7. "Possible topics of educational programs developed under the project"	
8.	Form 8. "Research Project Description";	
9.	Form 9. "Project Efficiency Indicators"	
10.	Form 10. "Project Implementation Plan"	
11.	Form 11. "Research Project Budget"	
	<b>Appendices</b>	

Leading scientist

\_\_\_\_\_  
Leading scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

\_\_\_\_\_  
Scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic



## Form 2. Grant Application

### APPLICATION

**for participation in the open International grant competition of NUST MISIS designed to support scientific research in priority scientific areas, conducted under the supervision of the Leading scientists**

\_\_\_\_\_  
(full name of the Leading scientist)

hereinafter referred to as «Leading scientist»,  
submits herewith joint application for participation in the grant competition of NUST MISIS designed to support scientific research in priority scientific areas, conducted under the supervision of the Leading scientists.

#### 1. *Information about the research project*

1.1 Strategic project (one of the five Strategic projects is selected):

- ☐ Materials of the future
- ☐ Quantum Internet
- ☐ Biomaterials and bioengineering
- ☐ Technologies for sustainable development
- ☐ Digital business

1.2 Research area (no more than five directions are selected according to Appendix 1)\_\_\_\_\_

1.3 Project Title \_\_\_\_\_

2. *Grant amount requested to support research projects implemented at NUST MISIS under the supervision of the Leading scientists:*

in 2022 \_\_\_\_\_ mln Rub,

in 2023 \_\_\_\_\_ mln Rub,

in 2024 \_\_\_\_\_ mln Rub

Total: \_\_\_\_\_ mln Rub.

3. *The Leading scientist confirms herewith that:*

- He/she has not applied to any other grant competition of NUST MISiS designed to support research projects within the framework of this Competition;
- The research project proposed herein **does not duplicate** any of his/her prior or current



research projects financially supported by different budget levels or funded from other sources.

4. *If his/her grant application is decided a winner, the Leading scientist undertakes the following commitments:*

- Execute a grant agreement in due time;
- Hire research team members, including **at least 2 members with doctoral degree, at least 3 postgraduate students, and at least 3 undergraduate students of NUST MISIS**;
- Carry out from 01.05.2022 to 31.12.2024 personal supervision of the ongoing scientific research with full-time presence at NUST MISIS at least:



**Option nR:**

If the permanent place of residence of the leading scientist is not on the territory of the Russian Federation.

- \_\_\_\_\_ **calendar days (total) in 2022**
- \_\_\_\_\_ **calendar days (total) in 2023**
- \_\_\_\_\_ **calendar days (total) in 2024**

**Internship for young scientists:**

- \_\_\_\_\_ **calendar days (total) in 2022**
- \_\_\_\_\_ **calendar days (total) in 2023**
- \_\_\_\_\_ **calendar days (total) in 2024**



**Option R:**

If the permanent place of residence of the leading scientist is in the territory of the Russian Federation

- \_\_\_\_\_ **calendar days (total) in 2022**
- \_\_\_\_\_ **calendar days (total) in 2023**
- \_\_\_\_\_ **calendar days (total) in 2024**

**Internship for young scientists:**

- \_\_\_\_\_ **calendar days (total) in 2022**
- \_\_\_\_\_ **calendar days (total) in 2023**
- \_\_\_\_\_ **calendar days (total) in 2024**

• Publish in high-ranking journals \_\_\_\_\_ articles by fractional score for the scientific team in scientific publications assigned to the I and II quartiles of the Web of Science Core Collection database during the grant period (until 12/31/2024) in accordance with the years:

\_\_\_\_\_ articles in 2022  
\_\_\_\_\_ articles in 2023  
\_\_\_\_\_ articles in 2024

- Raise additional funding (from all sources) in the amount of \_\_\_\_\_ rubles in the direction of scientific research.
- Prepare \_\_\_\_\_ concepts of an educational product in the areas of strategic projects of



the university in one of the following formats<sup>8</sup>:

- • the concept of a new educational program of the master's program;
- • the concept of the program of additional professional education (36-250 hours)<sup>9</sup>;
- • the concept of an online specialization<sup>10</sup> in English for the edX platform, consisting of 3-5 courses in MOOC format.
- Submit an annual research project progress report documented in compliance with the form approved by NUST MISIS.

#### **The Leading scientist is obliged to:**

- when publishing a scientific work using the results obtained at the expense of the grant, make a reference to state support **within the framework of the implementation of the Priority 2030** strategic academic leadership program, as well as to the **University (NUST MISIS)**, indicating the **grant number**.
- submit reports on ongoing research and/or event organization in accordance with the form approved by NUST MISIS.
- The Leading Scientist has to manage the scientific research during the whole period of the project.
- The Leading Scientist appoints a responsible Deputy Leading Scientist who is responsible for the administrative management of the research team and makes organizational decisions during the absence of the Lead Scientist<sup>11</sup>.
- The Leading Scientist, together with the Deputy Leading Scientist, decides on the system of spending funds, according to the previously approved budget.
- A mandatory result of the implementation of scientific research is the popularization of the scientific direction using different formats of external media.
- Responsibility for the achievement of the results of the scientific research stipulated by the grant agreement of NUST “MISiS” is borne by the Leading scientist and research team.

*5. The Leading scientist shall be personally responsible for achieving the research project results specified in the project proposal and grant application.*

Pursuant to RF Federal Law No.152-FZ of July 27, 2007, «On personal data», the Leading scientist agrees hereby to have his/her personal information presented in his/her grant application processed and used for the purposes of the grant competition and execution of relevant grant agreements by the competition organizer and the third parties contracted thereby, as well as to have his/her personal information saved in the database of NUST MISIS containing information about the grant competition participants, their respective grant applications.

*6. The University confirms herewith that:*

- It fulfills its tax obligations by paying requisite tax amounts to the budgets of all levels

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<sup>8</sup> All presented concepts of educational products at the next stage participate in the competition for financing the development of new educational programs by NUST MISIS in the areas of the university's strategic projects.

<sup>9</sup> APE programs should provide for the possibility of developing new educational programs on their basis

<sup>10</sup> Online specialization programs should provide for the possibility of forming new educational programs on their basis

<sup>11</sup> This clause does not enter into force if the Leading scientist is present in person for more than 8 months a year.



and by making mandatory payments to the state non-budget funds, is solvent, is not under liquidation or reorganization, has not been found insolvent (bankrupt), has not had its property seized or its economic activities suspended;

- The research project proposed herein does not duplicate any of its prior or current research projects implemented by the team financially supported by different level budgets or funded from other sources.

*7. If the application is decided a winner, NUST MISiS agrees to undertake the following commitments:*

- Provide visa support and migration registration of foreign participants;
- Ensure continuous funding of the research project in compliance with its approved budget;
- Execute, within the designated timeframe, a grant agreement in compliance with the form approved by relevant order;
- Execute service or (fixed term) labor agreements or addenda to agreement or civil law contracts with the Leading scientist and the research team members;
- Compensate each member of the research team taking into account the quality and quantity of the work completed by each member of the team specifically, the total amount of compensation payable to the Leading scientist and team members, inclusive of taxes and other social benefits, should not exceed 80 per cent of the grant sum; as well as the amount of remuneration to the leading scientist, including taxes and other social payments, should not exceed 35 percent of the grant amount;
- Provide office space and access to laboratories and other experimental research facilities required to implement the research project proposed herein.

Leading scientist

\_\_\_\_\_

Leading scientist's signature

\_\_\_\_\_

Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

\_\_\_\_\_

Scientist's signature

\_\_\_\_\_

Leading scientist's surname, first name, patronymic



### Form 3. Leading scientist's Questionnaire

Information	Leading scientist's Information
<b><i>Personal data</i></b>	
Last name	
First name	
Patronymic	
Date of birth	
Citizenship	
Second citizenship (for individuals with dual citizenship)	
<b><i>Education</i></b>	
Education, name of institution of higher learning and year of graduation	
Academic degree	
Academic title	
<b><i>Place of residence</i></b>	
Country	
Mailing address	
Telephone	
E-mail	
<b><i>Employer</i></b>	
Full name of employer organization	
Job title	
Country	
Mailing address	
Telephone	
Fax	
E-mail	
<b><i>Previous employers</i></b>	
Full name, country, period	
Full name, country, period	
<b><i>Scientometrical indicators</i></b>	
Researcher ID <sup>12</sup>	
SPIN <sup>13</sup>	

<sup>12</sup> In order to obtain Researcher ID it is necessary to be registered at: <http://www.researcherid.com>.

<sup>13</sup> Only the Leading scientists operating in Russia should fill-in this field. In order to obtain SPIN-code (Scientific Personal Identification Number), it is necessary to be registered in SCIENCE INDEX system at: [http://elibrary.ru/author\\_info.asp?isnew=1&page=](http://elibrary.ru/author_info.asp?isnew=1&page=).



Sphere of scientific interests <sup>14</sup>	
H-index (Web of Science) <sup>15</sup>	
Number of articles published in peer review periodicals referenced in the «Web of Science» database__	
Number of citations of the articles published in periodicals referenced in the «Web of Science» database	
Average number of citations per article in the «Web of Science» database	
Number of articles published in periodicals referenced in the «Web of Science» database for the past five years	
Average number of citations per article in the «Web of Science» database for the past five years	
Weighted average impact factor of publications in which articles were published over the past five years <sup>16</sup>	

### Additional personal information

Leading scientist

\_\_\_\_\_

Leading scientist's signature

\_\_\_\_\_

Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

\_\_\_\_\_

Scientist's signature

\_\_\_\_\_

Leading scientist's surname, first name, patronymic

<sup>14</sup> Key words describing the Leading scientist's specialty.

<sup>15</sup> As of the date of filing an application according to the «Web of Science» database.

<sup>16</sup> Only for periodicals referenced in the «Web of Science» database.



## Form 4. Scientific achievements and experience of the Leading scientist

### Section 1. Leading scientist's research achievements

#### 1.1. *Leading scientist's research work and principal scientific achievements*<sup>17</sup>

#### 1.2. *Leading scientist's awards and honorary titles*

No	Name of award/honorary title	Issuing authority	Year of winning an award	Achievement awarded by prize/honorary title
1.				
2.				

### Section 2. Intellectual achievements of the Leading scientist

#### 2.1. *Leading scientist's major publications for the last 10 years (not more than 10 publications should be listed) in journals indexed in the database "Web of Science"*<sup>18</sup>

No	Name of the journal	Authors (in the order specified in publication)	Title of the article	Year, volume, issue	Impact-factor of publication
1.					
2.					
...					
...					

#### 2.2. *Major international conferences at which the Leading scientist made presentations for the last 5 years (no more than 10 reports are indicated)*

No.	Name of conference	Conference place and time and language of presentation	Authors and title of the presentation	Type of presentation (invited/regular oral/poster)
1.				

<sup>17</sup> Description of the Leading scientist's work and work results in his/her research area.

<sup>18</sup> Impact factors of the publication are specified in the descending order. Publications must meet the following requirements: a) must be of the type "article" (article) or "review" (review); b) must be published in scientific journals indexed at the time of application in Science Citation Index Expanded, Social Science Citation Index, Arts&Humanities Citation Index. Lists of indexed publications and forms for their search are publicly available at <http://ip-science.thomsonreuters.com/mjl/>



2.				
...				
...				

### Section 3. Leading scientist's experience in managing research staff

#### 3.1. Leading scientist's experience in establishing a laboratory of a world level and managing research process

#### 3.2. Research laboratory supervision experience<sup>19</sup>

No.	Name of the laboratory	Name of the organization where the laboratory was established	Period of work of the laboratory (YYYY-YYYY)	Number and total amount of grants	Number of published articles
1.	..				
2.	..				

#### 3.3. Projects implemented or being implemented under the supervision of the Leading scientist (the most significant ones are indicated, but no more than 10)

No.	Project title	Amount of funding (million rubles)	Source of finding	Project implementation term (start-completion) (YYYY-YYYY)	Project's principal results
1.					
2.					

<sup>19</sup> Please list infrastructures created by the Leading scientist and where research was done under the supervision of the Leading scientist.



#### Section 4. Leading scientist's experience in training research and academic specialists

*4.1. Leading scientist's experience in supervising people with candidate of sciences degree and doctors of science degree obtaining*

#### Section 5. Social academic activity of the Leading scientist

*5.1. Membership in editorial and advisory boards in peer-reviewed journals (specify the duration of membership)*

*5.2. Memberships in program and organizational committees of international conferences*

*5.3. Memberships in governing and advisory bodies of international academic societies and associations*

Leading scientist

\_\_\_\_\_  
Leading scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

\_\_\_\_\_  
Scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic



## Form 5. The scientific reputation of the group created in the frames of grant

### Section 1. Anticipated infrastructure staff and their professional qualifications

#### 1.1. Anticipated research group

Types of staff	Total number of employees	Number of employees of NUST "MISIS" being among them
Members with doctor of sciences degree		
Members with candidate of sciences degree		
Postgraduate student		
Undergraduate student		
Other		

#### 1.2. Research group members (the main members of the group are listed)

No.	Full name	Position, academic degree, academic title. Specify if student/graduate student	Year of birth	H-index	Number of publications in journals indexed in the Web of Science <sup>20</sup> (over the last 5 years)	Place of work	Area of research interests
1.							
2.							

#### 1.3. Major articles (no more than 20) published by the proposed research project group members in journals indexed in the "Web of Science" database over the last five years<sup>21</sup>

No.	Name of journal	Authors (in the same order as in the article)	Authors -research project participants	Title of article	Year, volume, issue	Journal impact factor
1.						
2.						
3.						
....						

<sup>20</sup> Publications should meet the following requirements: be an article or a review;

<sup>21</sup> Publications should meet the following requirements: be an article or a review;



**Section 2. Social academic activity of the research group members of the infrastructure/laboratory**

2.1. Membership in editorial and advisory boards in peer-reviewed journals (and their duration)

\_\_\_\_\_

2.2. Memberships in program and organizational committees of international conferences

\_\_\_\_\_

2.3. Memberships in governing and advisory bodies of international academic societies and associations

\_\_\_\_\_

**Section 3. Anticipated impact of the created laboratory upon the University innovation development (development strategy)**

Indicate the possibility of unique results and their impact on further development

Leading scientist

\_\_\_\_\_  
Leading scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

\_\_\_\_\_  
Scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic



## Form 6. Prospects for collaborations with foreign and Russian partners

### Section 1. Planned partnerships

1.1. Planned partners with indication of scientific areas of cooperation:

- 1.
- 2.
- 3...

### Section 2. Available forms of cooperation

2.1. List previously existing forms of cooperation with foreign partners:

Leading scientist

\_\_\_\_\_  
Leading scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

\_\_\_\_\_  
Scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic



## Form 7. Possible topics of educational programs developed under the project

### Section 1. Planned educational activities

*1.1 Preliminary titles of the educational courses*

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*1.2 Main directions of educational courses*

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*1.3 Preliminary titles of the profile and direction of training program*

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Leading scientist

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Leading scientist's signature

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Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

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Scientist's signature

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Leading scientist's surname, first name, patronymic



## Form 8. Research Project Description

### Section 1. General information about the project

*1.1 Project Title*

*1.2 Project goal*

*1.3 Project objectives*

*1.4. Project summary<sup>22</sup>*

*1.5 Anticipated project results<sup>23</sup>*

### Section 2. Project description

*2.1. Scientific problem to be solved by the project*

*2.2. The relevance of the problem for this branch of knowledge, the scientific significance of solving the problem*

*2.3. The specific task within the framework of the problem that the project is aimed at solving, its scope*

*2.4. The current state of research on this issue, the main areas of research in world science (indicate what has been done on this scientific issue by 2020)<sup>24</sup>*

*2.5. Main global scientific competitors*

*2.6. Scientific novelty of the task, justification of the achievability of solving the task and the possibility of obtaining the planned results*

*2.7 Description of the proposed research project<sup>25</sup>*

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<sup>22</sup> This information can be published on the site, the amount of information provided is no more than 1 page.

<sup>23</sup> This information can be published on the website, the expected results and their scientific and social significance are indicated (assessment of the compliance of the planned results with the world level of research, the possibility of practical use of the planned results of the project in the economy and social sphere, including the expected inventions, patents, know-how, etc.) - a brief description of no more than 1 page.

<sup>24</sup> Description based on actual examples with indication of information sources.

<sup>25</sup> Relevance of the research project from the viewpoint of the current status of global science; likelihood of achieving breakthrough world-class research results and their relevance in terms of the global science and economy.



*2.8. Description of the scientific approaches and methods proposed to achieve the anticipated project results*

*2.9. Description of scientific capacity and project-related results achieved by the research team members<sup>26</sup>*

**Section 3. Project funding<sup>27</sup>**

	2022 (mln Rub)	2023 (mln Rub)	2024 (mln Rub)	Total (mln Rub)
Grant funds				
Financial contribution of other sources				

Leading scientist

\_\_\_\_\_

Leading scientist's signature

\_\_\_\_\_

Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

\_\_\_\_\_

Scientist's signature

\_\_\_\_\_

Leading scientist's surname, first name, patronymic

<sup>26</sup> Project-related work already completed by the entire research project group put together by the Leading scientist; productivity, independence, and initiative of the research project group members based on their work outside the research project in question; the research project group's place among the world's best laboratories working within related research areas.

<sup>27</sup> Detailed information about expenditure of the grant funds and from other sources of funding is provided in Forms 10-11.



## Form 9. Project Efficiency Indicators

No.	Effectiveness indicator	Unit of Measure	2022	2023	2024
1.	Number of members with doctoral degree permanently employed by the laboratory <sup>28</sup>	pax			
2.	Number of the NUST MISIS postgraduate students permanently employed by the laboratory <sup>29</sup>	pax			
3.	Number of the undergraduate students of NUST MISIS permanently employed by the laboratory <sup>30</sup>	pax			
4.	Number of articles published in scientific journals as a fractional score for the scientific team in scientific journals, assigned to the I and II quartiles <sup>31</sup> of the Web of Science Core Collection database.	pcs			
5.	Number of applications for an international or Russian patent for an invention and/or received patents of the Russian Federation	pcs			
6.	Number of young researchers under the age of 39 who permanently work as part of the scientific team of the laboratory	pax			
7.	Number of unique research results created	pcs			
8.	Number of doctoral papers defended by the proposed laboratory staff within the proposed research project area	pcs			
9.	Number of foreign specialists employed by the laboratory	pax			
10.	Number of laboratory staff members accepted to postgraduate school within the proposed research project area or approved as candidates for academic degrees	pax			

<sup>28</sup> Planned number of members with doctoral degree permanently employed by the research team.

<sup>29</sup> Planned number of the NUST «MISiS» postgraduate students permanently employed by the research team.

<sup>30</sup> Number of the NUST «MISiS» undergraduate students permanently employed by the research team not less than three students.

<sup>31</sup> In scientific publications assigned to the I and II quartiles (according to Journal Citation Reports), as well as scientific publications included in the Arts and Humanities Citation Index (A&HCI), Conference Proceedings Citation Index - Science (CPCI-S) and Book Citation Index - Social Sciences & Humanities (BKCI-SSH) Web of Science Core Collection databases.



11.	Number of group members with international PhD degree	pax			
12.	Number of young scientists permanently working as part of the scientific team of the laboratory, who have undergone retraining or qualifications improvement training at the laboratory within the proposed research project area	pax			
13.	Amount of attracted extra-budgetary financing	mln rubles			
<i>Other indicators independently identified</i>					

*Note: All data must be specified by the year (not by accrued total).*

Leading scientist

\_\_\_\_\_  
Leading scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

\_\_\_\_\_  
Scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic



## Form 10. Project Implementation Plan

Leading scientist:

Name of Research Project:

Phase No.	List of activities and measures	Scheduled results of activities and measures	Scheduled scientific publications, preparation of materials of the work program on the educational discipline, preparation of agreements, results of inventive activities <sup>32</sup> and conference papers	Implementation period (start -finish)	Grant funds spent for researches during the phase ('000 rubles)	Non-grant budget funds, spent for researches ('000 rubles)
1.	<i>List of activities funded by the grant</i> <i>1.1.</i> <i>1.2.</i>			01.05.2022 – 31.12.2022		
2.	<i>List of activities funded by the grant</i> <i>2.1.</i>			01.01.2023 – 31.12.2023		

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<sup>32</sup> Articles in the periodicals referenced in the «Web of Science» database, monographs, chapters in monographs, applications for a patent for an invention, utility model, or commercial prototype, receipt of certificates, patents



	2.2.					
3.	<i>List of activities funded by the grant</i> 3.1. 3.2.			01.01.2024 - 31.12.2024		

Leading scientist

Leading scientist's signature

Leading scientist’s surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

Scientist's signature

Leading scientist’s surname, first name, patronymic



# Form 11. Research Project Budget

№	Expenditure line-item	2022		2023		2024		TOTAL	
		Grant funds (‘000 RUB)	Other sources (‘000 RUB)	Grant funds (‘000 RUB)	Other sources (‘000 RUB)	Grant funds (‘000 RUB)	Other sources (‘000 RUB)	Grant funds (‘000 RUB)	Other sources (‘000 RUB)
1.	Compensation payable to the Leading scientist and members of the research project team, including taxes and other social benefits, accrued on compensation of the Leading scientist and members of the research team								
2.	Research equipment purchase costs								
3.	Research equipment parts and supplies costs								
4.	Business trip expenses of the Leading scientist and research team members								
	<b>TOTAL</b>								

Leading scientist

\_\_\_\_\_  
Leading scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic

Deputy Head of the project  
(from NUST MISiS)

\_\_\_\_\_  
Scientist's signature

\_\_\_\_\_  
Leading scientist's surname, first name, patronymic



## Form A. Application Registration

Name of competition	Full name of the Leading Scientist	Residence country	Place of work (University, department)	The Leading scientist post	Leading scientist's H-index in «Web of Science» (attach a screenshot of the page)	Number of articles referenced in the «Web of Science»	Citation index in the «Web of Science»	Name of the strategic project (clause 3.2 of the tender documentation)	Project title	Field of Science	Direction of scientific research (no more than five directions are selected according to Appendix 1)	Requested Funding	Person in charge on behalf of NUST MISIS ( name, telephone, e-mail*)	Indicate from which department the application is submitted (Institute, department / laboratory *)

\*Required to fill.



## APPENDIX 1

Rank	Research areas
1	ACOUSTICS
2	ASTRONOMY & ASTROPHYSICS
3	AUTOMATION & CONTROL SYSTEMS
4	BIOCHEMICAL RESEARCH METHODS
5	BIOCHEMISTRY & MOLECULAR BIOLOGY
6	BIOLOGY
7	BIOPHYSICS
8	BIOTECHNOLOGY & APPLIED MICROBIOLOGY
9	CELL & TISSUE ENGINEERING
10	CELL BIOLOGY
11	CHEMISTRY, ANALYTICAL
12	CHEMISTRY, APPLIED
13	CHEMISTRY, INORGANIC & NUCLEAR
14	CHEMISTRY, MEDICINAL
15	CHEMISTRY, MULTIDISCIPLINARY
16	CHEMISTRY, ORGANIC
17	CHEMISTRY, PHYSICAL
18	CLINICAL NEUROLOGY
19	COMMUNICATION
20	COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE
21	COMPUTER SCIENCE, CYBERNETICS
22	COMPUTER SCIENCE, HARDWARE & ARCHITECTURE
23	COMPUTER SCIENCE, INFORMATION SYSTEMS
24	COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS
25	COMPUTER SCIENCE, SOFTWARE ENGINEERING
26	COMPUTER SCIENCE, THEORY & METHODS
27	CRYSTALLOGRAPHY
28	ECOLOGY
29	ECONOMICS
30	EDUCATION & EDUCATIONAL RESEARCH
31	EDUCATION, SCIENTIFIC DISCIPLINES
32	EDUCATION, SPECIAL
33	ELECTROCHEMISTRY
34	EMERGENCY MEDICINE
35	ENDOCRINOLOGY & METABOLISM



<b>Rank</b>	<b>Research areas</b>
36	ENERGY & FUELS
37	ENGINEERING, AEROSPACE
38	ENGINEERING, BIOMEDICAL
39	ENGINEERING, CHEMICAL
40	ENGINEERING, CIVIL
41	ENGINEERING, ELECTRICAL & ELECTRONIC
42	ENGINEERING, ENVIRONMENTAL
43	ENGINEERING, GEOLOGICAL
44	ENGINEERING, INDUSTRIAL
45	ENGINEERING, MECHANICAL
46	ENGINEERING, MULTIDISCIPLINARY
47	ENVIRONMENTAL SCIENCES
48	GEOCHEMISTRY & GEOPHYSICS
49	GEOLOGY
50	GEOSCIENCES, MULTIDISCIPLINARY
51	IMMUNOLOGY
52	LOGIC
53	MANAGEMENT
54	MARINE & FRESHWATER BIOLOGY
55	MATERIALS SCIENCE, BIOMATERIALS
56	MATERIALS SCIENCE, CERAMICS
57	MATERIALS SCIENCE, CHARACTERIZATION & TESTING
58	MATERIALS SCIENCE, COATINGS & FILMS
59	MATERIALS SCIENCE, COMPOSITES
60	MATERIALS SCIENCE, MULTIDISCIPLINARY
61	MATERIALS SCIENCE, PAPER & WOOD
62	MATERIALS SCIENCE, TEXTILES
63	MATHEMATICAL & COMPUTATIONAL BIOLOGY
64	MATHEMATICS
65	MATHEMATICS, APPLIED
66	MATHEMATICS, INTERDISCIPLINARY APPLICATIONS
67	MECHANICS
68	MEDICINE, RESEARCH & EXPERIMENTAL
69	METALLURGY & METALLURGICAL ENGINEERING
70	MICROBIOLOGY
71	MICROSCOPY



<b>Rank</b>	<b>Research areas</b>
72	MINERALOGY
73	MINING & MINERAL PROCESSING
74	MULTIDISCIPLINARY SCIENCES
75	NANOSCIENCE & NANOTECHNOLOGY
76	NUCLEAR SCIENCE & TECHNOLOGY
77	ONCOLOGY
78	OPTICS
79	PHARMACOLOGY & PHARMACY
80	PHYSICS, APPLIED
81	PHYSICS, ATOMIC, MOLECULAR & CHEMICAL
82	PHYSICS, CONDENSED MATTER
83	PHYSICS, FLUIDS & PLASMAS
84	PHYSICS, MATHEMATICAL
85	PHYSICS, MULTIDISCIPLINARY
86	PHYSICS, NUCLEAR
87	PHYSICS, PARTICLES & FIELDS
88	ROBOTICS
89	SOCIAL SCIENCES, MATHEMATICAL METHODS
90	SPECTROSCOPY
91	TELECOMMUNICATIONS
92	THERMODYNAMICS
93	TOXICOLOGY
94	TRANSPLANTATION
95	TRANSPORTATION
96	TRANSPORTATION SCIENCE & TECHNOLOGY
97	WATER RESOURCES