COMPETITION DOCUMENTATION

regulating terms and conditions of the open international grant competition of NUST «MISiS» designed to support research projects in the research areas of strategic academic units implemented under the supervision of the Leading scientist and development of international collaboration

MOSCOW 2020

CONTENT

INFORMATION ABOUT THE GRANT COMPETITION

1. General provisions

1.1. The purpose of this grant competition is to identify the best research project proposal (proposals) submitted by an applicant (applicants) seeking support in the form of a grant of the National University of Science and Technology «MISiS» (NUST «MISiS») within the framework of the development of international scientific and technical cooperation (hereinafter - ISTC) to attract leading scientists to guidance of research projects in scientific areas of the strategic academic units (StrAU) and increase competitiveness of research groups.

1.2. Grants of NUST «MISiS» in the amount of up to 7 million rubles each for conducting research over a period from 01.04.2020 till 30.11.2020 according to following options:

to conduct **scientific research, conclude an agreement of intent** on the chosen direction of research in the period from 01.04.2020 to 30.11.2020 to research group that do not have funding under the Increase Competitiveness Program in mentioned period (not more than 14 grants are planned).

1.3. Each competition winner will conclude a grant agreement with NUST «MISiS»[1]

1.4. The attitudes of the parties in the framework of the competition are governed by the laws of the Russian Federation.

2. Participation eligibility requirements

2.1. Participants in the competition can be research groups, which include employees of NUST MISiS, including participants in open international competitions NUST "MISIS"[2] together with Russian and/or foreign leading scientists, occupying leading positions in the chosen field of science, who have jointly prepared an application for participation in the competition in accordance with the Competition documentation.

2.2. A Leading scientist of the project may take part only in one research grant in the frames of Increase Competitiveness Program.

3. Research project and research project implementation requirements

3.1. Any research projects proposed hereunder may not duplicate any prior or current research projects financially supported by different level budgets of the Russian Federation 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 academic units (StrAU):

- **Meta-materials and post-silicone electronics**
- **Autonomous energy and energy efficiency**
- **Materials and technologies for improving human lifespan and overall quality of life**
- **Industrial design and engineering technologies to reindustrialize the economy**
- **Green technologies for efficient resource use**

[1] The University reserves the right to make a decision on the allocated sum of money on the basis of the announced indicators relevance without changing the declared in the application indicators.

[2] Participants of open international competitions NUST "MISIS", obtaining the grant in the frames of increase competitiveness program in period from 2014 to 2019 years, and doesn't have financing in period from 01.04.2020 to 30.11.2020.

3.3. 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[3]:

2 months (in total) in 2020 year.

Option R[4]:

6 months (in total) in 2020 year.

3.4. NUST «MISiS» should undertake to:

- Ensure continuous funding of the research project in compliance with its approved budget;
- provide visa support and registration of foreign participants with migration records;
- provide premises, access to the available experimental base for the implementation of scientific research;
- 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 amount of compensation payable to the Leading scientist will not exceed 150 thousand RUB/month).

3.5. The leading scientist supervises the scientific research during the entire project period.

3.6. The leading scientist appoints the responsible deputy of the leading scientist, administering the scientific team, and takes organizational decisions during the full-time absence of the leading scientist.

3.7. The leading scientist, together with the deputy leading scientist make decisions on the system of spending funds, according to the previously approved budget.

3.8. Mandatory results of a scientific research during the period of the grant from 01.04.2020 – 30.11.2020 are:

- Conducting **scientific research** in the selected field in the period from 01.04.2020 to 30.11.2020:
  - Preparation and submission at least 5 **articles** in the direction of scientific research in highly rated journals indexed in the Web of Science database and including in the first quartile on the impact factor of the chosen research area. Articles should be submitted before 30.11.2020 and published until the end of 2021 year;
- Conclusion of at least one **Agreement of Intent**[5] between a foreign partner and NUST "MISiS" taking into account the following obligations:
  - Signatories of the Agreement can be legal entities at a head of university level, departments, scientific fields, as well as individuals heading scientific areas on the side of a foreign partner;
  - the Agreement indicates specific research areas for the subsequent intention to apply for a mutual grant with foreign partners[6], indicating the goals and objectives of the study, the relevance of its implementation, the overall composition of the tasks with separation of responsibilities between the research teams, the composition of the key project executors, and the communication mechanism between the research teams in a joint project;

[3] If the permanent place of residence of the leading scientist is not in the territory of the Russian Federation.

[4] If the permanent residence of the leading scientist in the Russian Federation.

[5] Agreements with CIS countries are not considered.

[6] Recommended foreign partners are presented in Appendix 2 of the competition documentation

- The supplement to the Agreement of Intent is drawn up in accordance with the requirements of the competition documentation;
- The agreement must be concluded in period before 30.10.20120.

- Submission of at least two applications for grant programs on the research topic by members of the research group.
- Preparation at least one steering program and methodological documents of the subject, sufficient to be included in the main professional educational program of one of the university departments/institutes from September 2020 (at least 3 units - 108 academic hours, where 50% belongs to classroom work and 50% to independent work) and/or at least one online course.
- Popularization of the scientific field using different formats of external media.

3.9. Leading scientist forms a scientific group, which obligatory includes:

a) not less than 2 candidates of sciences;

b) not less than 2 graduate students and 2 students studying at NUST "MISiS";

c) not more than 20% of the executors participating in other projects 2019-2020 in frames of Increase Competitiveness Program[7].

d) not more than 60% of the research group members who were part of successful research projects previously received grants in frames of the Increase Competitiveness Program.

3.10. Responsibility for achieving the results stipulated by the grant agreement of NUST "MISiS" is borne by the leading scientist and research team.

4. Costs of participation in the tender

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@misis.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";

5.4. Documents on scientific research and / or events:

- Form 4. "Scientific achievements and work experience of the leading scientist";
- Form 5. "The scientific reputation of the group created by the project";
- Form 6. "The prospect of international collaboration";
- Form 7. "Possible topics of educational programs developed under the project";
- Form 8. "Research Project Description";
- Form 9. "Project Efficiency Indicators";
- Form 10. "Plan of the scientific research";
- Form 11. "Estimated cost of conducting research project and or organizing an event";

[7] open international competition for grants from NUST "MISiS" to support scientific research in the field of a new scientific field, conducted under the guidance of leading scientists during the period till the end of 2020 year.

• Applications (if necessary);

6. Preparation a grant applications:

6.1. Grant applications should be prepared jointly by a leading scientist and scientific group, and meet the requirements of criteria for applications in accordance with paragraph 10.3. Those interested in participating in the competition should prepare and submit the grant application in paper and electronic forms.

6.2. Form A. «Application Registration» shall be filled and mailed to 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 language. 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 may not exceed the maximum grant amount available for a grant agreement.

6.5. All grant application documents shall be signed by the Leading scientist if applicable. Facsimile images of relevant signatures may not be used to sign the grant application documents.

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 Clauses 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 must be arranged in the order accounted for by Form 1. «Document checklist».

6.8. All pages of a grant application must be numbered and bound with a band or durable string whose ends must be tied up on the reverse side of the last page and the number of bound pages shall be specified.

6.9. Electronic copy shall be submitted on electronic media (CD-disc) and shall contain the following files:

- Application in Russian in Word;
- Application in Russian with signatures in pdf;

In electronic media (cd-disc) number of the application is obligatory to write down on the disc.

7. Submitting a grant application

7.1. Applicant must submit grant application in hardcopy in a sealed envelope containing a signed CD-disc containing the grant application files according to Paragraph 6.9. Applicants must ensure that the electronic and hardcopy versions of their grant applications are identical.

7.2. Each applicant should inscribe the envelope as follows: “Application for participation in the competition for NUST “MISiS” grants for support a scientific research in StrAU areas, conducted under the guidance of leading scientists and the development of international collaborations". Also the registration number of the application should be written.

7.3. Each envelope containing a grant application must be sealed in a way to prevent its opening without undermining its integrity. If an envelope containing a grant application is not sealed or labeled in full compliance with the requirements of competition documentation, the department

of science declines all responsibility in case of missing documents or untimely open of the documents.

7.4. Envelopes with grant applications must be submitted to the address of the grant competition organizer: 119049, Moscow, Leninsky prospect 4, room B-520, 5th floor, NUST «MISiS», (International Research Projects Department, code №431) **in the period from March 6, 2020 to 17:00 March 16, 2020.**

7.5. Each envelope containing a grant application will be registered in the grant applications registry journal.

7.6. 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. The envelopes containing grant applications will be opened by the Competition Commission publicly on the day and at the time and place specified in the Competition documentation.

8.2. Any grant applications received by the competition organizer after the grant application submission deadline will be disqualified from participation in the open grant competition.

8.3. The envelopes opening procedure will be documented in the form of minutes and signed by every members of the Competition Commission attended the envelope opening procedure. The minutes will be posted on the official website of NUST «MISiS», Internet science portal within three working days of being signed.

9. Reviewing grant applications

9.1. Competition Commission within 5 working days from the date of the envelopes opening would review the grant applications for compliance:

a) Criteria for applications;

b) Requirements for participants;

c) Requirements for applications;

d) Scientific research, planned in the frames of the project,

9.2. Following the examination of the reviewed documents and information contained in the grant applications the Competition Commission makes a conclusion on:

a) The applicants whose grant applications and research project proposals meet the eligibility and selection requirements accounted for by the Competition Documentation;

b) The applicants, who do not meet and/or whose grant applications and/or research project proposals do not meet the eligibility and/or selection requirements accounted for by the Competition Documentation.

9.3. The review results will be documented in the form of minutes to be signed by all members of the Competition Commission present at review procedure. The minutes will be posted on the official website of NUST «MISiS», Internet science portal within three working days of being signed.

10. Evaluating grant applications

10.1. The Competition Commission will 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 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.	15%	80%	12
1.2	Leading scientist's public activity	To be assessed: Leading scientist's public activity (experience in supervising of scientific team, students, phD students, postDocs, teaching, participation in editorial staff, participation in programming and organizing committee of conferences and others)		20%	3
2. **Relevance of grant scientific research**					
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 (scientific and technical) results and their relevance in terms of global science and economy.	25%	50%	12,5
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 requirements; 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%	7,5

2.3	Adequacy of the amount of funding requested by the applicant in terms of its ability to ensure the achievement of the project results; quality of the project	To be assessed: how adequate the amount of requested project funding is (including the additional funding) and if it is excessive or insufficient to achieve the project goals and accomplish its objectives.		20%	5
3. **Scientific reputation of the group, created in the frames of project**					
3.1	Level of scientific publications of scientific group	To be assessed: in which journals (leading, professional) and in what volume the members of the scientific group have made publications; how does this level of publication activity is a feature of leaders in the field of science; how high is the level of citation of articles for the claimed field of science.	25%	60%	15
3.2	Relevance of scientific group	To be assessed: capability of scientific group to international collaborations, activity in international conferences, participation in scientific international events.		40%	10
4. **Educational relevance of scientific group**					
4.1	Educational capabilities of scientific group	To be assessed: presented program of the conference taking into account the chosen direction.	20	100%	20
5. **Prospects for collaborations with foreign partners**					
5.1	Capabilities of scientific group to international collaborations	To be assessed: capabilities of scientific group to conclusion agreement of Intent based on presented material	15%	50%	7,5
5.2	Existence of available active forms of collaboration	To be assessed: existence of active agreements of cooperation and/or agreement of scientific and research work/rendering		50%	7,5

10.4. The competitive commission forms the applications for participation in the competition for the examination by the external expert community, sends out competitive applications with the confidentiality of the information contained in them, related to the results of intellectual activity created during the filing of the competitive application. The conclusions of the

examination of applications for participation in the tender, the competitive commission generates and sends the necessary information for each application admitted to participate in the tender for submission to the Council.

10.5. The Council will review all the necessary information, identify the competition winners and set the amount of funding for each grant until March 30, 2019.

10.6. Information about the outcomes of the open grant competition will be posted on the official website of NUST «MISiS», Internet science portal www.science.misis.ru 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» and/or on Internet science portal.

12. The procedure for the execution and acceptance of the grant agreement concluded at the end of the competition

12.1. In accordance with the execution of the grant Agreement of NUST "MISiS", concluded following the results of the competition, reports (scientific and indicative) are required within the time frames established by the Agreement.

12.2 Acceptance of work performed on scientific projects recognized as winning the open international competition within the framework of the Competitiveness Improvement Program of NUST MISiS among the world's leading scientific and educational centers is carried out by a commission of the Scientific and Technical Council of NUST MISiS.

13. Return of applications for the grant

13.1. Applications for participation in the competition submitted by the participants of the competition (including individual documents included in the application) will not be returned to the participants of the competition, except applications for participation in the competition withdrawn by the participants of the competition in the established manner.

FORMS TO BE COMPLETED BY APPLICANTS

Form 1. Document checklist

DOCUMENT CHECKLIST
in the application for participation in the open international competition for grants from NUST "MISiS" to support scientific research in the directions of strategic academic units (StrAU), conducted under the guidance of leading scientists and to promote international collaboration

Grant application registration number _____

No.	Name of document	Page numbers (from to)	Number of pages
1.	Form 1. «Document Checklist»;		
2.	Form 2. «Grant application»;		
3.	Form 3. «Leading scientist's Questionnaire»;		
4.	Form 4. «Leading scientist's work experience and research achievements»;		
5.	Form 5. «Reputation of scientific group, forming in the frames of grant project»;		
6.	Form 6. «Prospects for collaboration with foreign partners»;		
7a	Form 7. «Possible topics of educational programs developed under the project»;		
7b	Form 8. «Description of the scientific research»;		
8.	Form 9. « Project Efficiency Indicators»;		
9.	Form 10. «Research Project Implementation Plan»;		
10.	Form 11. «Research Project Budget».		
11.	Appendix		

Leading scientist _____ _____
Leading scientist's signature Leading scientist's surname, first name, patronymic

Leading scientist
from NUST «MISiS» _____ _____
Leading scientist's signature Leading scientist's surname, first name, patronymic

Form 2. Grant Application

APPLICATION
For participation in the open international competition grants from NUST "MISiS" to support scientific research in the directions of strategic academic units (StrAU), conducted under the guidance of leading scientists and to promote international collaboration

_____
(Leading scientist's surname, first name, patronymic)

hereinafter referred to as «Leading scientist»,

submits herewith their joint application for participation in the grant competition of the NUST «MISiS» designed to invite world's Leading scientists for short term joined research projects.

1. Information about the research project

1.1. Strategic academic unit (choose one from 5 items s.p. 3.2 – "Information about competition"):_____

1.2. Research area (chose no more than 5 areas according to Appendix №1)_____

1.3. Project Title _____

2. Grant amount requested to support research projects in the directions of strategic academic units (StrAU), under the supervision of the Leading scientists

in 2020 year_____ mln Rubles[8],

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
- The research project proposed herein does not duplicate any of his/her prior or current research projects financially supported by different budget levels of the Russian Federation or funded from other sources.

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

- Conclude a grant agreement within the established time limit;
- Form a research group for conducting a research project, consisting of:
    a) at least two members should be candidates of sciences;
    b) at least two postgraduate students and at least two undergraduate students of NUST

[8] The declared grant amount must comply with the conditions of s.p. 1.2. "Information about the competition". In case of incorrect determination of the project budget, the application will be rejected on a formal basis, as it does not meet the conditions of the competition documentation.

«MISiS»;

c) Not more than 20% of research group members participating in other projects of 2019-2020 years in the framework of Increase Competitiveness Program;
d) Not more than 60% of research group members, which were part of the successful scientific groups obtaining grants in the framework of Increase Competitiveness Program.

- Provide a personal guidance of a scientific research during the period from 01.03.2020 to 31.12.2020 conducted with full-time presence at NUST "MISiS" not less than:

☐ ***Option nR:***
If the permanent residence of the leading scientist is out of the territory of the Russian Federation:
-_____ months (in total) in 2020 year.

☐ ***Option R:***

If the permanent residence of the leading scientist is on the territory of the Russian Federation:

-_____ months (in total) in 2020 year.

In accordance with the following option (choose one of them):

☐ Up to 7 million rubles for conducting scientific research, concluding an agreement of intent on the chosen direction of scientific research in period from 01.04.2020 to 30.11.2020 to scientific groups who do not have funding under the Increase Competitiveness Program during the mentioned period.

- Grants of NUST "MISIS" are given to provide scientific research, including:
  - expenses for paying for the work of the Leading scientist and members of the scientific group, taxes and other social benefits accrued for paying for the work of the Leading scientist and members of the scientific group;
  - expenses for the travel of the Leading scientist and members of the research group;
  - expenses for materials and components for equipment purchase for scientific research;
  - Expenses for equipment purchase for scientific research.

- Prepare and submit in 2020 at least ___ articles according to reasearch in journals included in the first quartile by the impact factor of the chosen scientific field in the Web of Science database.
- Conclude at least ___ agreements of Intent between NUST "MISIS" and foreign partner[9].
- Send at least ____ applications on grant programs on theme of scientific research.
- Prepare at least ___ of working programs and methodological documents, enough to include in fundamental professional educational program one of the departments/institutions of the University from September 2020 year (scope at least 3 points of credit – 108 academic hours, among of them 50% of live work and 50% of homework) or/and at least ___ online course.
- Attract extra-budgetary funding in the amount of _____ rubles in the direction of scientific research.

Leading Scientist

- The leading scientist, together with the deputy leading scientist, decide on the system of spending funds, according to the previously approved estimate.
- The obligatory result of the implementation of scientific research is a series of lectures in the framework of the scientific field[10].
- A mandatory result of the implementation of scientific research is the popularization of the scientific field using different formats of external media.

[9] Agreements with CIS countries are not accepted.
[10] This item does not come into effect in case of the presence of a leading scientist for more than 8 months in a year.

- 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.

6. Pursuant to RF Federal Law No.l52-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.

7. The University confirms herewith that:

- It fulfills its tax obligations by paying requisite tax amounts to the budgets of all levels 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 carried by the structure financially supported different budget levels of the Russian Federation or funded from other sources.

8. If the application is decided a winner, NUST «MISiS» agrees to undertake the following commitments:

- provide visa support and registration of foreign participants with migration records;

- **In accordance with option A, B, C:**

a) ensure continuous funding of the research project in compliance with its approved budget;
b) provide office space and access to laboratories and other experimental research facilities required to implement the research project proposed herein;
c) execute service or (fixed term) labor agreements or addenda to agreement with the Leading scientist and the research team members enlisted thereby;
d) compensate each member of the research team taking into account the quality and quantity of the work completed by each member of the team (inclusive of taxes and other social benefits);

Leading scientist _____ _____

Leading scientist's signature | Leading scientist's surname, first name, patronymic

Leading scientist
from NUST «MISiS» _____ _____

Leading scientist's signature | Leading scientist's surname, first name, patronymic

Form 3. Information about the Leading scientist

Section 1. Leading scientist's Questionnaire

Information	Leading scientist's Information
Personal data	
Last name	
First name	
Patronymic	
Date of birth	
Citizenship	
Second citizenship (for individuals with dual citizenship)	
Education	
Education, name of institution of higher learning and year of graduation	
Academic degree	
Academic title	
Place of residence	
Country	
Mailing address	
Telephone	
E-mail	
Employer	
Full name of employer organization	
Job title	
Country	
Mailing address	
Telephone	
Fax	
E-mail	
Scientometrical indicators	
Researcher ID[11]	
SPIN[12]	
Sphere of scientific interests[13]	
H-index[14](Web of Science)	

[11] In order to obtain Researcher ID it is necessary to be registered at: http://www.researcherid.com.

[12] Only the Leading scientists operating in Russia should fill-in 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=l&rpage=.

[13] Key words describing the Leading scientist's specialty.

[14] As of the date of filing an application in accordance with the database “Web of Science”.

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	
Number of articles published in periodicals referenced in the «Web of Science» database within the past five years	
Average weighted impact factor of the periodicals in which the articles were published within the past five years[15]	

Additional personal information

Leading scientist _____ _____

Leading scientist's signature | Leading scientist's surname, first name, patronymic

Leading scientist
from NUST «MISiS» _____ _____

Leading scientist's signature | Leading scientist's surname, first name, patronymic

[15] 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* [16]

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"* [17]

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 during the last 5 years (not more than 10 presentations should be listed).

No.	Name of conference	Conference place and time and language of presentation	Presentation's authors and title	Type of presentation (invited/regular oral/poster)
1.				
2.				

[16] Description of the Leading scientist's work and work results in his/her research area.

[17] Impact factors of the publication are specified in the descending order. Publications should meet the following requirements: must fall within the «article» or «review» category;

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[18]

No.	Name of the laboratory	Name of the organization where the laboratory was established	Period of work of the laboratory	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 (more significant projects are listed and not more than 10 pcs)

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

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

[18] Please list infrastructures created by the Leading scientist and where research was done under the supervision of the Leading scientist.

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

Leading scientist
from NUST «MISiS» _____ _____

Leading 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[19] (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 staff members in journals indexed in the "Web of Science" database over the last five years[20]

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.						
….						

[19] Publications should meet the following requirements: be an article or a review;
[20] 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

_____
_____

Leading scientist _____ _____
Leading scientist's signature Leading scientist's surname, first name, patronymic

Leading scientist
from NUST «MISiS» _____ _____
Leading scientist's signature Leading scientist's surname, first name, patronymic

Form 6. Prospects of collaboration with foreign partners

Section 1. Planned partners

1.1 Planned partners with scientific direction of collaboration

1.
2.
3.

Section 2. Availiable present forms of collaboration

2.1 List previously available forms of collaboration with foreign partners:

Form 7. Possible themes of educational programs, developed in the frames of grant

Section 1. Planned educational activities

1.1 Preliminary titles of the educational courses _____

1.2 Main directions of educational courses _____

1.3 Preliminary titles of the profile and direction of training program

_____

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 abstract[21]

1.5. Anticipated project results [22]

Section 2. Project Description

2.1. Scientific problem, which project is aimed to solve

2.2. The relevance of the problem for this subject area, the scientific importance of solving the problem

2.3. A specific task within the framework of the problem to be solved by the project, it's scale

2.4. The current state of the problem research, the main directions of research in the world science (indicate what is done on this scientific problem by 2020 year)[23]

2.5. The world's major research competitors

2.6. Scientific novelty of the task, justification of the task achievability solution and opportunity to obtain the planned results

[21] This information can be published on the site, the amount of information provided is not more than 2 pages; including a brief – the relevance and scientific novelty.

[22] This information can be published on the website, the expected results and their scientific and social significance are indicated (assessment of 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.).

[23] Description should have a list of sources and be based on real examples

2.7. Description of the proposed scientific research[24]

2.8. Description of scientific approaches and methods used to solve the tasks

2.9. Description of the scientific background of the project and related scientific results of the research group[25]

Section 3. Project funding[26]

	2020 (mln Rub)	Total (mln Rub)
Grant funds		
Financial contribution from other sources		

Leading scientist _____ _____

Leading scientist's signature Leading scientist's surname, first name, patronymic

Leading scientist
from NUST «MISiS» _____ _____

Leading scientist's signature Leading scientist's surname, first name, patronymic

[24] The article describes the relevance of the planned research on the project and their adequacy to the current state of world science; the possibility of obtaining new, breakthrough scientific (scientific and technical) results corresponding to the world level, and their relevance in the world science (economy).

[25] 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.

[26] Detailed information about expenditure of the grant funds and from other sources of funding is provided in Form 9.

Form 9. Project Efficiency Indicators

No.	Effectiveness indicator	Unit of Measure	2020	2021
1.	Number of members with candidate of sciences degree permanently employed in research group [27]	pax		
2.	Number of the NUST «MISiS» postgraduate students permanently employed in research group [28]	pax		
3.	Number of the undergraduate students of NUST «MISiS» permanently employed in research group [29]	pax		
4.	**Total number of articles** published in scientific periodicals indexed in the data base Web of Science that were written by the Leading scientist in collaboration with research group or independently by research group member in the proposed research project area[30]	pcs		
4.1	*Number of articles published in scientific periodicals indexed in the Scopus included **in the first decile** under SNIP in the chosen research area*	pcs		
4.2	*Number of articles published in scientific periodicals indexed in the Web of Science included **in the first quartile** of impact factor in the chosen research area*	pcs		
4.3	**Total number of articles** published in scientific periodicals indexed in the data base Scopus that were written by the Leading scientist in collaboration with research group or independently by research group member in the proposed research project area	pcs		
5.	Number of new working courses designed and/or introduced in the process of education within the proposed research project area	pcs		

[27] Planned number of members with doctoral degree permanently employed by the research team, but not less than two candidates.

[28] Planned number of the NUST «MISiS» graduate students permanently employed by the research team, but not less than three students.

[29] Number of the NUST «MISiS» undergraduate students permanently employed by the research team not less than three students.

[30] Publications must meet the following requirements: a) they must fall within the «article» or «review» category; b) some articles must be included **in the first quartile** of impact factor in the chosen research area

6.	Number of oral presentations of research group members on the matters of the proposed research area at international (outside the RF) conferences.	pcs		
7.	Number of applications for an international or Russian patent for an invention and/or received patents of the Russian Federation	pcs		
8.	Number of young scientists, specialists, and teaches (scientists with candidates of science degree and younger than 35 years old and scientists with doctors degree and younger than 40 years old, specialists and teachers without academic degrees younger than 30 years) from external organizations who have undergone retraining or qualifications improvement training at the infrastructure within the proposed research project area	pax		
9.	Number of grants received by the laboratory staff during the project implementation period	pax		
10.	Number of commercial contracts executed and implemented by the group members during the project implementation period	pcs		
11.	Number of foreign specialists engaged in research group	pax		
12.	Number of group members with international PhD degree	pax		
13.	*Amount of attracted extra-budgetary financing*	mln rubles		

Leading scientist _____ _____

Leading scientist's signature | Leading scientist’s surname, first name, patronymic

Leading scientist
from NUST «MISiS» _____ _____

Leading scientist's signature | Leading scientist’s surname, first name, patronymic

Form 10. Project Implementation Plan

Phase No.	List of activities	Scheduled results of activities	Scheduled scientific publications, results of inventive activities[31] and conference papers	Implementation period (start -finish) (date)	Grant funds spent for researches during the phase ('000 roubles)	Non-grant budget funds, spent for researches ('000 roubles)
1.	*List of activities* *1.1.* *1.2.*			01.04.2020 – 30.06.2020		
2.	*List of activities* *2.1.* *2.2.*			01.07.2020 – 31.11.2020		

Leading scientist _____ _____

Leading scientist's signature Leading scientist's surname, first name, patronymic

Leading scientist
from NUST «MISiS» _____ _____

Leading scientist's signature Leading scientist's surname, first name, patronymic

[31] Publications indexed in "Web of Science" database, monographs, chapters in monographs, patent applications, prototypes, certificates and patents

Form 11. Research Project Budget

№	Expenditure line-item	2020		TOTAL	
		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				
	TOTAL				

Leading scientist _____/ *(full name)*

Leading scientist
from NUST «MISiS» _____/ *(full name)*

Form A. Application Registration

Competition name	Name of the Leading scientist	Country of the Leading scientist's residence	Leading scientist's place of work (University, Department	Leading scientist's post	H-index in «Web of Science» base	Number of articles indexed in «Web of Science»	Citation index in «Web of Science»	Strategic academic unit	Research Area	Anticipated name of the project	Requested Funding	Person in charge on behalf of NUST «MISiS» (name, telephone, e-mail)

APPENDIX 1

Rank	Research area
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
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
66	MECHANICS
67	MEDICINE, RESEARCH & EXPERIMENTAL
68	METALLURGY & METALLURGICAL ENGINEERING
69	MICROBIOLOGY
70	MICROSCOPY

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

95	TRANSPORTATION SCIENCE & TECHNOLOGY
96	WATER RESOURCES

APPENDIX 2

List of recommended foreign partners

№	*Country*	*Partner University*
1.	France	• University Paris-Sud • National Graduate School of Engineering and Research Center • Institut Jean Lamour • The Institut Laue-Langevin • French National Centre for Scientific Research • National Engineering School of Saint Etienne • École Polytechnique •University of Tours
2.	Germany	• Helmholtz-Zentrum Dresden-Rossendorf • The University of Augsburg • University of Münster • The Ruhr-University Bochum • Technical University of Darmstadt • The Karlsruhe Institute of Technology • Technical University of Dresden • The University of Duisburg-Essen • National Metrology Institute of Germany • Freiberg University of Mining and Technology
3.	Great Britain	• Imperial College London • Cardiff University • National Physical Laboratory • University of Nottingham • University of Kiel
4.	Belgium	• Catholic University of Leuven
5.	Austria	• Vienna University of Technology
6.	Italy	• Tor Vergata University of Rome
7.	Spain	• University of the Basque Country
8.	Sweden	• Linköping University • KTH Royal Institute of Technology
9.	Finland	• Aalto University
10.	Australia	• Monash University
11.	Greece	• University of Crete
12.	India	• Graphic Era University/Графика Эра • K. S. Rangasamy College of Arts and Science/Институт Искусства и науки им. Рангасами • Indian Institute of Science Education and Research Thiruvananthapuram • Indian Institutes of Technology • Indian Institute of Science • Indian Institutes of Information Technology • Institute for Plasma Research • Saha Institute of Nuclear Physics • Vellore Institute of Technology • Jawaharlal Nehru University • Jain University • Jyothy Institute of Technology
13.	Canada	• Quebec University

		• University of Calgary
14.	China	•Harbin Institute of Technology
15.	Mexico	• Center for Optic Research
16.	Slovakia	•University of Veterinary Medicine and Pharmacy in Kosice
17.	USA	• University of Nebraska – Lincoln • Argon National Laboratory • The University of Texas • University of Notre Dame • Rutgers University • University of Nebraska • Louisiana State University
18.	Czech republic	• Brno University of Technology • Masaryk University
19.	Japan	• Josai University • University of Tsukuba • Tohoku University • National Institute of Materials Science