


APPROVED
by
Head of ITMO's 2030 Development Strategy

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TENDER SPECIFICATIONS
FOR THE OPEN CALL FOR PROJECTS UNDER THE AEGIS
OF THE PI GROUP: SCIENTIFIC HYPERJUMP INITIATIVE
AS PART OF ITMO'S 2030 DEVELOPMENT STRATEGY

St. Petersburg, 2021

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1. ABSTRACT

Open call objectives

This open call focuses on the **creation of new and the enhancement and development of existing** groups of young researchers and developers under the supervision of principal investigators (PIs).

The ultimate goal of this open call is to **produce highly-qualified young researchers and developers** from among **school and university students** by involving them in research projects and allowing them to become immersed in actual research work at its earliest stages.

Who can participate

We welcome applications from PIs with at least four years of work experience following their successful PhD thesis defense, aged under 40, who are representatives of ITMO University and/or third-party organizations.

Important criteria

- 1) PIs should aim to **form a research group through supporting the growth and personal fulfillment of each of its members.**
- 2) The project has to include **a program of events** featuring research projects with young scientists, including school students, educational initiatives, as well as collaboration and integration with other parts of ITMO.Family.
- 3) Members of the PI Group collaborate with scientists working in applied research, including members of ITMO.Family who are engaged in real economy projects, such as those conducted within the framework of M-platforms.

Key requirements:

- 1) Your research group must include at least 7 members, including the PI, at the time of the application.
- 2) Over the course of the whole project, each group may include a maximum of 20 members.
- 3) The implemented projects may last up to 3 years and can be extended.

2. TERMS AND DEFINITIONS

TERM	DEFINITION
Priority 2030 strategic academic leadership program	<ul style="list-style-type: none"> - The Priority 2030 strategic academic leadership program aims to support the development strategies of higher education institutions in accordance with the Decree of the Government of Russian Federation dated May 13, 2021 No. 729 (hereinafter the Priority 2030 program).
ITMO University's Development Strategy for 2021-2030	<ul style="list-style-type: none"> - a strategic regulatory and administrative document that defines ITMO University's goals and tasks up to 2030, as well as the indicators for their successful completion. The strategy aims to increase ITMO University's contribution to national development goals until 2030, ensuring the country's balanced development and the availability of high-quality higher education in Russian regions within the Priority 2030 program.
Strategic projects	<ul style="list-style-type: none"> - a system of university's strategic development projects united by a common goal to achieve a unique result within the given timeframe and limited funding. ITMO's 2030 Development Strategy includes four Strategic Projects: ITMO.Impact, Scientific Breakthrough, Highly Personalized Value-Based Education, and Well-Being.
University's policies	<ul style="list-style-type: none"> - a system of priorities, tasks, mechanisms, and institutional changes in the university's key fields: educational policy, research policy and the policy on innovation and R&D commercialization, campus and infrastructure policy, human capital management policy, digital transformation policy, and open data policy.
M-platform	<ul style="list-style-type: none"> - a major functional unit of ITMO University working within the digital economy and serving as a basis for interdisciplinary and cross-sector consortia. M-platforms seek to answer global research, technological, social, and economic challenges. The purpose of M-platforms is to integrate education, research, technology, and innovation at the university, as well as to develop connections with scientific organizations, real economy businesses, development institutes, professional associations, and social organizations.
ITMO 2030 Development Strategy target performance indicators	<ul style="list-style-type: none"> - the indicators reflecting ITMO's development and the effectiveness of the implementation of the 2030 Development Strategy. You can find the indicators primarily targeted by this open call in Appendix 1 of the current document.

Project	<ul style="list-style-type: none"> - a system of interconnected events or activities created to reach the goals, tasks, and results of ITMO's 2030 Development Strategy, including the goals, tasks, and results of Strategic Projects or university policies, as well as to reach the strategy's target performance indicators. Projects are meant to produce unique results (products or services) using a specific amount of resources and time.
Project passport	<ul style="list-style-type: none"> - a description of the project and related obligations made in accordance with a specified template and containing information on project goals, tasks, beneficiaries, results, indicators, effect, budget, including co-funding, etc. You can find the project passport template in Appendix 2 of the current document.
Core technology	<ul style="list-style-type: none"> - a technology serving as the basis for a wide spectrum of science-intensive products and staff training that is not specifically connected to one particular industry or social sector.
Open call participant	<ul style="list-style-type: none"> - a student/staff member or a team of students/staff members of ITMO or another organization that is ready to implement a Project in accordance with the Project passport submitted for the contest and adjusted according to the review at the session of the Development Strategy Coordination Council.
Executor / Open call winner	<ul style="list-style-type: none"> - a participant of the open call whose application was approved and recommended for funding by the Development Strategy Coordination Council and who has signed an agreement with ITMO University by which they are obligated to implement the project within the timeframe and budget specified in the Project passport.
Head of the Project	<ul style="list-style-type: none"> - a member of the team that won the open call and signed a project implementation agreement with ITMO University who has the right to allocate resources and manage the Project team based on the principle of division of administrative and functional subordination. The head of the project is responsible for organizing and monitoring the project's implementation, as well as the successful compliance with planned results and indicators.

Development Strategy Coordination Council	- the executive body of ITMO's 2030 Development Strategy that develops, monitors, and controls the implementation of the strategy, as well as evaluates open call applications, approves the list of Executors and Project budgets, and evaluates the quality of implemented Projects (hereinafter Coordination Council).
M-platform council	- a representative and consultative body of an M-platform responsible for its strategic management. The Council might consist of academic and industrial co-supervisors; executive, technical, and operational directors; or heads of the research, educational, and innovation fields.
Expert group	- a consultative expert board that includes staff and students of ITMO and other organizations (upon negotiation) and is approved in accordance with the procedure for preliminary evaluation of open call applications and for recommendations on Projects to present to the Coordination Council.
Reviewer	- a researcher/specialist/expert with extensive knowledge and competencies, as well as a unique expertise in a specific research and/or professional field, who evaluates Project passports or their sections.
Development Strategy Management Board	- an executive body of the strategy responsible for organizational, technological, informational, methodological, and analytical support of the open call for projects.
Head of ITMO's 2030 Development Strategy	- an ITMO University representative appointed as the senior managing staff of the Development Strategy.
Strategic project coordinator	- an ITMO University representative responsible for management of a specific strategic project and organization of activities intended to reach its goals, tasks, results, and indicators.
M-platform curator	- an ITMO University representative responsible for curation, communication, and organizing interactions between M-platforms in terms of reaching their goals, tasks, results, and indicators and producing a synergistic effect in their development.
Head of M-platform	- an ITMO University representative responsible for managing a specific M-platform and organization of activities intended to reach its goals, tasks, results, and indicators.

3. INFORMATION ON THE OPEN CALL

3.1. General terms

- 3.1.1. The present document contains:
- a) description of goals and expected results of the open call;
 - b) requirements for the open call participants;
 - c) application requirements;
 - d) open call procedure.
- 3.1.2. This open call is held within ITMO's 2030 Development Strategy, presented in detail at its official webpage <https://2030.itmo.ru/en>. Also present on the webpage is an executive summary of the strategy that briefly describes its goals, tasks, results, strategic projects, policies, M-platforms and their core technologies. This information is also available in the current document.
- 3.1.3. The main aim of this open call is the selection of projects to be supported within the Development Strategy via funding from the Priority 2030 program in 2021 and consecutive years.
- 3.1.4. The projects' goals, tasks, results, and indicators have to contribute to the goals, tasks, and results of ITMO's 2030 Development Strategy, including those of its strategic projects and policies, as well as to the strategy's target performance indicators.
- 3.1.5. Representatives of ITMO or other institutions can participate in the open call on the condition that they fulfill the requirements described in the current document.
- 3.1.6. The relationships between parties of the open call are regulated by the legislation of the Russian Federation.
- 3.1.7. The deadline for application submission is set in the open call announcement and cannot be less than 20 calendar days from the date the announcement was published.

3.2. Goals and features of the open call

- 3.2.1. This open call focuses on the creation of new and the enhancement and development of existing groups of young researchers and developers under the supervision of principal investigators (PIs). These groups should focus on completing tasks and producing results outlined in ITMO's 2030 Development Strategy that are relevant to the field of professional training and promotion of established methods and practices via projects, as well as modular and educational programs.
- 3.2.2. The following results and effects for ITMO University must be achieved within the projects chosen in the open call:
- formation of an environment at ITMO conducive to the development and successful fulfillment of personal potential of school and university students and young scientists;
 - rapid training of research staff from among school and university students;
 - continuous updating of educational content through the generation of new knowledge;
 - increase in the percentage of graduates from Master's and PhD programs.
- 3.2.3. The PI Group must focus on a particular highly prominent research field (according to SciVal) and/or an emerging field, including interdisciplinary ones, that aims to produce unique new knowledge and create new markets.
- 3.2.4. Mandatory indicators and results for the PI Group:
- throughout the duration of the project's implementation, the PI Group must consist at least by 70% of ITMO students and by 20% of international students;
 - at least 70% of Bachelor's, Master's, and PhD students involved in the project must graduate successfully;

- at least five school students have to take part in the group's research every year;
- students involved in the group must annually win prestigious international contests, awards, and scholarships;
- the PI Group has to develop and implement a number of educational products (micromodules, online courses, CPD programs, etc.) in their research field, among which is a mandatory open module (including an optional course) that has to be related to the development of competencies necessary for research activities and (or) entrepreneurship;
- the PI Group has to annually organize at least two open scientific events in the format of vocational courses for school students aimed at shaping and developing the competencies necessary for research activities;
- each member of the PI Group must take part in a high-profile project and produce the results described in the following indicators:
 - on average, annually there should be one Q1 publication per member or, for computer sciences, one Conference Proceedings publication as a result of A* level conferences with at least 0.35 average Share¹ of ITMO faculty;
 - the PI must be the last or the corresponding author in at least 30% of the Group's annual publications;
 - each publication must include an acknowledgement of the support received within the framework of the Priority 2030 program;
 - at least one Q1 publication every two years or, for computer sciences, one Conference Proceedings publication as a result of A* level conferences, has to include a school student(s) as a coauthor.
- Amount of co-funding (from external sources, including M-platform-based projects): 20% of the amount provided by ITMO's Development Strategy for the second year; 30% of the amount provided by ITMO's Development Strategy for the third year.

3.3. Open call procedure

- 3.3.1. The Development Strategy Board is responsible for organizational, technological, informational, methodological, and analytical support of the open call for projects. The address and contact details of the organizer are included in the open call announcement.
- 3.3.2. A brief description of the open call, as well as all related documents are published on the Development Strategy's official website <https://2030.itmo.ru/en>.

3.4. Conditions and requirements for participation

- 3.4.1. Representatives of ITMO University and/or other organizations can take part in the open call (in case the Project is supported by the board, PIs must make ITMO University their primary place of employment).
- 3.4.2. At the time of application, the PI Group must have at least 7 members, including the PI (Open call participant). Over the course of the project, the Group can include a maximum of 20 members (excluding those who are school students).
- 3.4.3. At the time the application is submitted, the PI has to fit the following compulsory criteria:
 - has at least four years of work experience following their successful PhD thesis defense and is under 40 years of age;

¹ Share is a count that identifies the share of an institution's contribution to the article. The total Share equals 1 with its fractions distributed between the article's authors given that each of them made an equal contribution to the work and has only one affiliation. For example, in an article with 10 authors each of them gets a Share of 0.1 and if one of them is affiliated with more than one organization, their share is spread evenly between all affiliations.

- in the last 5 years, has at least 10 Q1 publications according to SJR and (or) has participated in 5 A* conferences; has to be the first (last) or the corresponding author in some of these publications;
- has confirmed experience of conducting research and leading a research group in the last 5 years;
- has PhD students with successfully defended theses under their supervision in the last 5 years;
- has confirmed experience of supervising school and university students;
- has experience in developing and (or) teaching new educational courses in Russian or international institutions.

4. APPLICATION FOR THE OPEN CALL

4.1. Application contents

4.1.1. The application for the open call must include:

- a) A filled-out Participant personal data form (Appendix 2).
- b) A proposed Project passport done according to the given template (Appendix 3).

4.2. Compiling the application

4.2.1. A Participant who wishes to take part in the open call must attach the documents (.pdf or .docx format) listed in section 4.1.1. to the application.

4.2.2. All documents attached to the application must be in Russian. In the event that an international participant is not proficient in the Russian language, they are allowed to submit their application exclusively in the English language

4.2.3. Use of various non-primary languages is allowed in titles of publications, inventions, software, technologies, and brands of devices and equipment

4.2.4. All figures listed in the application for the open call must be in Russian rubles.

4.2.5. The Participant is responsible for the completeness, correctness, and relevance of data stated in the application for the open call.

4.3. Submitting the application

4.3.1. The application is to be filled out on the official website of ITMO's 2030 Development Strategy <https://2030.itmo.ru/en>. All required documents (see section 4.1 and 4.2) should be attached.

4.3.2. The applications must be submitted before the deadline specified in the Open call announcement.

4.3.3. Each application is recorded in the application register by authorized specialists of the Development Strategy Management Board.

5. OPEN CALL PROCEDURE

5.1. Procedure for expert evaluation and approval of results

5.1.1. The Participant submits the application according to section 4.3.

5.1.2. The Development Strategy Management Board registers the application and decides if it fits the hereby established requirements. The Development Strategy Management Board has the right to decline the application if it does not fully fit the requirements or contains incorrect information.

5.1.3. Applications that fit the formal requirements are reviewed by recognized experts in the corresponding research field of the Project from among the university's academic staff or third-party representatives.

5.1.4. If the application is submitted as part of the open call for projects focused on core technologies (M-platform projects), the application is further distributed by the

Development Strategy Management Board to the head of the corresponding M-platform to be presented and reviewed by experts at the M-platform Council.

5.1.5. As a result of the review performed by experts from the Development Strategy Coordination Council, the projects can be approved for an in-person defense. The approved projects will be announced at <http://2030.itmo.ru/en> no later than three days prior to the defense. The rest of the projects will no longer be part of the open call. The date and requirements for the defense will be published on the website of ITMO's 2030 Development Strategy <https://2030.itmo.ru/en> no later than three days prior to the defense. The defense may be held in a hybrid format.

5.1.6. The final decision on which of the defended projects to support is made by the Development Strategy Coordination Council, which makes a list of these projects including a budget and target figures for each. The final minutes of the Development Strategy Coordination Council will be published at ITMO's 2030 Development Strategy website <https://2030.itmo.ru/en> no later than three days after the defense.

5.2. Procedure for signing agreements with open call winners

5.2.1. Each open call winner must sign an agreement on the implementation of their project in correspondence with the passport of the Project.

5.2.2. The passport of the Project is submitted as part of an application that must be clarified and adjusted in correspondence with the Development Strategy Coordination Council's recommendations, as well as approved by the Head of the Project, the Strategic project coordinator or M-platform curator, the head of the M-platform, and the head of ITMO's 2030 Development Strategy.

5.2.3. In the event of a project's approval, PIs and team members who represent other organizations must become employed at ITMO University within 60 days after the results are announced. If employment doesn't occur within this time without a valid reason, the Coordination Council will deem the project unfeasible to complete.

6. APPLICATION EVALUATION METHODS

6.1. Review and evaluation

6.1.1. Applications are reviewed based on the following criteria:

	Criterion (evaluator)	Description	Points
1	Key PI Group focus fields (reviewers)	- the chosen research focus of the PI Group, including its prominence (according to SciVal);	10
		- novelty and relevance of the planned research;	10
2	Evaluation of the PI (reviewers and members of the Coordination Council)	- Q1 publications or participation in A* conferences;	10
		- experience in conducting and leading research projects;	10
		- experience as PhD supervisor and	10

		thesis defence participant;	
		- experience in supervising school and university students;	5
		- experience in development and (or) teaching of new educational courses at Russian and international universities;	5
		- awards and other scientific achievements;	5
3	Evaluation of planned events targeting the production of highly-qualified young researchers (members of the Coordination Council)	- evaluation of planned educational events, including vocational training;	10
		- evaluation of planned events for school and university students;	15
4	Part in ITMO's 2030 Development Strategy (members of the Coordination Council)	- the PI Group's role in the implementation of ITMO's 2030 Development Strategy	10

Appendix 1. ITMO's 2030 Development Strategy indicators and results

1.1 Development Strategy indicators relevant to the open call

№	Indicator	Unit	Plan for 2021	Plan for 2022	Plan for 2023	Plan for 2024	Plan for 2030
1	Number of graduates of CPD (continuous professional development) program including online courses (per year)	people	4,300	6,100	7,900	9,700	20,500
2	Ratio of full-time students who have acquired a CPD certificate free of charge	%	30.00	32.50	35.00	37.50	52.50
3	Ratio of international Master's and PhD full-time students	%	21.94	22.27	22.83	23.03	25.06
4	R&D volume (per year)	million rubles	3,200	3,250	3,700	3,800	5,600
5	External R&D funding (per year)	million rubles	2,995	3,045	3,495	3,590	5,370
6	The university's income from income-generating activities (external funding)	million rubles	3,405	3,507	3,612	3,775	5,429
7	Revenue from use of IPs (per year)	million rubles	3	4	5	10	60
8	The number of Q1 and Q2 publications in WoS Core Collection	number	740	775	820	865	1165
9	The number of Q1 and Q2 publications in Scopus	number	940	980	1,030	1,080	1,410
10	Highly-cited articles and reviews in WoS Core Collection during the last five years	number	55	60	68	78	175

1.2. Results of the Development Strategy's strategic projects that are relevant to the open call

Strategic project 1: ITMO.Impact

Quick wins (by 2024):

- A 30% increase in external R&D revenue;
- Development and approval (by the Government of St. Petersburg) of a plan for the development of urban digital social services by 2030;
- Adoption of at least 30 digital services based on the ITMO model by partners;
- Launch of three new certification laboratories;
- Introduction of the RoboForces platform and organization of the international ethical hacking competition CyBRICS;
- Annual addition of two to three projects with a long-term support policy on GitHub;
- Threefold increase in the number of continuing education program graduates;

- Start of the second stage of construction of ITMO Highpark, encompassing new academic (for 3,600 students) and research buildings.

Mid-term effects (by 2027):

- The ITMO Highpark Techno-Valley and Business Park begin operation, providing 12,000 new jobs and housing 40 new laboratories, including joint ones.
- Every year, 100% of the university's market-ready products and at least 10 third-party products are checked for compliance with standards of data and functional safety (ITMO.Approved).
- An IP pool, openly accessible by ITMO partners, has been formed and is updated once every 6 months.

Long-term effects (by 2030):

- A 150% increase in external R&D revenue;
- A 60-time increase in IP usage revenue;
- No less than 10 analytical industry studies every year;
- A five-fold increase in the number of graduates from continuing education programs, including online programs; programs are updated every calendar quarter; 90% of continuing education programs graduates find employment in the most dynamic (technologically advanced) market sectors;
- 300,000 new active members of the alumni community; graduates actively participating in the continuing education program make up 25% of all graduates of full-time educational programs; ITMO graduates make up 70% of all teaching staff of IT-focused professional training courses and 40% of teaching staff on courses dealing with natural and exact sciences.

Strategic Project 2: Scientific Breakthrough

Quick wins (by 2024):

- Reputation: ITMO is no longer just about IT – it's biotechnologies, chemistry, robotics, physics, bioinformatics, art & science.
- Over 50% of ITMO's PhD graduates have publications in Q1 journals.
- ITMO-affiliated publications in journals at the level of Science and Nature make up no less than 5% of Russia's total number of such papers based on ITMO staff members' share index.
- The launch of 3 tech test sites with TRL of 1-7 in collaboration with top global companies in top-priority fields of the national Scientific and Technological Development Strategy.
- 10 commercialized IPs by ITMO scientists each year.
- The launch of at least 5 ITMO partner labs and 10 frontier labs.
- ITMO scientists as "millionaires" – ensuring the commercialization of IPs and technology transfer to the revenue of 1 million rubles to 1 million USD.
- The digital platforms Digital Avatar, Foresight Configurator, and Digital Verifier are completed and employed by the university's partners; a national quantum network has been established in collaboration with Russian Railways.

Mid-term effects (by 2027):

- ITMO researchers' papers on the covers of Science and Nature;
- A 100% increase in R&D revenue per researcher;
- Two researchers from ITMO.FAMILY are included on the Highly Cited Researchers list;

- An ITMO scientist has been named a recipient of a prestigious scientific award: Wolf Prize, Dirac Medal, Breakthrough Prize, etc;
- A paper by ITMO researchers accrues over 1,000 citations within 5 years;
- 60% graduation rate among PhD students;
- ITMO is in the top-three of the Russian Nature Index;
- The autonomous railway monitoring system Silk Road has been launched.

Long-term effects (by 2030):

- The number of successful defenses by PhD students at ITMO in natural and exact sciences amounts to at least 5% of the overall national number;
- Nobel Prize-level achievements, an actual Nobel Prize, or another scientific honor of the highest level;
- A 150% increase in R&D revenue per researcher;
- Over 60% of scientists are under the age of 39;
- At least 3% of ITMO-affiliated publications are in top-1% journals;
- ITMO is the top Russian university on the Nature Index;
- The KST-3 solar coronagraph telescope has successfully begun operation.

Strategic Project 3. Value-Based Personalized Education

Quick wins (by 2024):

- The creation of a digital teaching lab featuring a free-for-all experimental testing site (ITMO.Edu.Lab);
- 100% of Bachelor's and Master's student possess an individual learning track;
- At least 30% of students are employed at ITMO University concurrent to their studies;
- ITMO Accelerator receives at least 30 international teams every year.

Mid-term effects (by 2027):

- 20% of Bachelor's students enroll at ITMO based on their achievements in project work, entrepreneurship, sports, or creative trades (ITMO.STARS);
- No less than 60% of all graduation theses are prepared within the framework of M-platform projects;
- No less than 25% of all graduates find employment in new and rapidly-changing markets.
- ITMO University's awards its own Bachelor's and Master's diplomas

Long-term effects (by 2030):

- More than 3 million people have completed an ITMO minor or received a micro-degree;
- At least 15% of all graduation theses are done in non-conventional formats;
- At least 50% of all graduates begin employment above entry-level positions thanks to work and project experience they received as students;
- At least 50% of all graduates require zero adaptation time in new positions;
- At least 4% of all graduates have experience with entrepreneurial activity, startups, or their own businesses that was acquired during or after their studies at ITMO.

Strategic Project 4: Well-Being

Quick wins (by 2024):

- A new system for the creation of individual lifestyle, education, and career development tracks allows students and staff to reduce emotional and professional burnout;
- ITMO Highpark is the first campus to be built based on the Green Zoom standard.

Mid-term effects (by 2027):

- Every year, 30% of St. Petersburg residents within ITMO's target audience participate in events organized as part of the Well-Being project.
- The number of students regularly engaged in physical activity and sports at Russian universities has increased by 10% due to the introduction of the KronBars student sports club model.

Long-term effects (by 2030):

- 95% of students, staff, and ITMO.Family members use the digital well-being profile to receive recommendations on improving their productivity;
- Annual rotation of 10% of university staff through involvement of young professionals and increase in the percentage of staff under 39 to 50% (ITMO University is the top employer in Russia in the field of education and science when it comes to unlocking the potential of staff);
- On the international arena, ITMO University is an ambassador of Russia as a country that uses well-being technologies in higher education and academia.

Appendix 2. Participant's personal data form

One must provide:

1. A thorough CV of the PI. It must cover work experience, including scientific projects and results, teaching experience, and experience as a research advisor.

Appendix 3. Project passport template

The project was reviewed and is recommended to be implemented by the decision of the Development Strategy Coordination Council

Protocol from _____, 2021

Project passport was specified according to the Development Strategy Coordination Council's suggestions

PROJECT PASSPORT

TITLE OF THE PROJECT

Project No. _____

Head of the project _____ (full name, position)

APPROVED BY:

Coordinator of the Strategic Project / Head of the M-platform _____ (full name)

Head of the Development Strategy _____ Daria Kozlova

St. Petersburg, 2021

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1. Abstract

Maximum 0.5 pages long.

Briefly describe your PI Group, the reasons for its creation, and its role in ITMO's 2030 Development Strategy. Describe the PI's key experience and list the main potential results of the group's activities.

2. Keywords

List at least 5 keywords.

3. Project's compliance with the mandatory requirements. Project team. Previous experience

Maximum 3 pages long.

Describe the PI's experience with a focus on items listed in section 3.4.3 of this document as well as experience in staff training.

Also describe the project team as of the time of application and your plan for its further organization, expansion, and development.

4. Research summary and project's relevance

Maximum 2 pages long.

- 1) Which of the university's challenges/ambitions does the project aim to address? What is (are) the project's goal(s)? Which task/problem does it solve?*

- 2) *Briefly describe your PI Group's research focus, including the subject's prominence level (according to SciVal).*
- 3) *Briefly describe the planned research and highlight its scientific novelty and relevance. Include a short research plan for the entire duration of the project.*

5. Reasons for funding

Maximum 1 page long.

Explain why this PI Group needs to be formed or developed further at ITMO.

What is the PI Group's role in the 2030 Development Strategy? Briefly describe its contribution to the accomplishment of tasks and attainment of results outlined in the Strategic Projects / Policies / M-platforms.

Which of the Development Strategy's performance indicators will the PI Group contribute to?

6. Planned activities

Maximum 3 pages long.

Provide a description of activities, key goals, and tools.

Describe the activities/events planned in order to ensure rapid staff training, including as part of projects involving school students and young scientists, and the PI Groups's educational activities.

Describe the activities intended to develop collaborations within ITMO.Family.

7. Expected project results. Project indicators. Feasibility of the planned results.

7.1. Key results of the project:

Indicate all the key results that will be produced in the course of the project (by year) and briefly describe their impact.

Name of the produced result	Result characteristics

7.2. Project performance indicators:

Performance indicator (according to section 3.2.4 of the tender specifications and Appendix 1)	Unit	Value		
		2022*	2023*	2024*

**keep the dates that are relevant for the project*

7.3. Feasibility of achieving planned results.

Maximum 1 page long.

8. Financial and economic grounds

State the total cost of the project with indicated shares of requested subsidy and co-funding through the years of the project's implementation. Indicate suggested co-funding sources (external).

8.1. Total budget of the project in thousands of rubles:

Project budget, in thousands of rubles	2021*	2022*	2023*	Total
Subsidy				
Co-funding				

**keep the dates that are relevant for the project*

8.2. Suggested co-funding sources:

Maximum 1 page long.

List all planned and/or suggested co-funding sources. Provide a review of opportunities for collaboration as part of externally-funded M-platform projects and/or research and R&D projects for external customers.

8.3. Planned budget breakdown:

Name of payment	2021*	2022*	2023*	Total	Details

employee salary (with taxes)					XX people / XXX rubles per month * XX months = XXX salary in total
services of other employees (with taxes)					<i>Which services do they provide? How many third-party employees will you require?</i>
third-party services					<i>Which services do they provide?</i>
equipment					<i>What kind of equipment are you planning to purchase?</i>
software					<i>What kind of software are you planning to purchase?</i>
materials and components					<i>What materials and components are you planning to purchase?</i>
travel expenses					<i>Number of people, destinations, dates, visa fees, approx. total cost</i>
participation fees					<i>Planned events</i>
renting of space and equipment					<i>Planned events</i>
branded products					<i>What kind of products are you planning to produce?</i>
print products					<i>What kind of products are you planning to produce?</i>
other expenses					<i>Explain what these costs will be (for instance,</i>

						relocation fees for the head or other members of the laboratory, publication fees for open source journals, cover image fees, etc.).
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**keep the dates that are relevant for the project*

9. Risks and risk management

Project risks are events or conditions that will have a negative impact on the project if they occur. Indicate the key risks that can significantly influence project results. You can include both strategic and operational risks.

Briefly indicate the risk management strategies and specific actions within these strategies.

Risk	Potential consequences	Probability	Level of impact (on deadlines, costs, project contents)	Risk management strategy
Risk of...	Describe the consequence	High/low	High/low	
Risk of...				
Risk of...				
Risk of...				

10. Project's connection to M-platform core technologies

Choose one of the following:

- 1) *The project is directly connected to one of the core technologies developed by one of ITMO's M-platforms, namely _____ (indicate one out of five) and will be launched within that M-platform.*
- 2) *The project is directly connected to the core technologies developed by several of ITMO's M-platforms, namely _____ (indicate two or more) and will be launched in close collaboration with ITMO.Family members, including M-platform participants.*
- 3) *The connection between the project and the core technologies developed by ITMO's M-platforms is uncertain. The project will be launched as a standalone one. The PI Group will implement activities intended to establish horizontal relations and collaboration with members of ITMO.Family, including M-platform participants.*
- 4) *The project isn't directly connected to any of the core technologies developed by ITMO's existing M-platforms and will be launched as a standalone one. The PI Group will implement activities intended to establish horizontal relations and collaboration with members of ITMO.Family, including M-platform participants.*