

I-SITE 2018-2019
Call for proposals
« International Research Partnerships (Engineering and Health) - IRP »

Guidelines

The NExT initiative is based on an ambitious implementation plan to foster the internationalization of research (attractiveness of new researchers in Nantes, building of networks...). The **IRPs, International Research Partnerships**, are one of these structuring tools for the international influence of research in Nantes. Topics of these partnerships have to match with priority NExT topics, which are the industry of the future (advanced production technologies or ocean engineering) and the health of the future (innovative biotech, oncology or precision medicine).

The objective of the IRPs is to establish international research networks specialized in the priority areas of NExT. Networks established between research units may foster and develop international partnerships with high-level institutions. Funding of € 400,000 per IRP will be awarded for three years to a research group in Nantes¹, with the aim to develop a partnership with international research groups working on the same topic. IRPs will be made up:

- one researcher in Nantes, leading the research of the IRP (Principal Investigator - PI)
- teachers-researchers (PIs) from at least 2 foreign labs
- at least 3 researchers or teachers-researchers from Nantes
- post-doctoral students
- Ph.D. candidates
- Master's students

Funding

This call may fund :

- travel expenses abroad for the research group in Nantes
- salaries of post-doctoral students, Ph.D. candidates and scholarships for master's students
- dispenses of teaching hours for local teacher-researchers
- travel expenses for the international research groups
- communication costs (participation in seminars...)
- Publications costs
- a position of project manager, whose missions may be: reporting, daily management (including mobility), monitoring, fundraising, local and international coordination, exploitation of research results, communication on progress and news of the project. This dedicated position will allow researchers to focus on their research activities. This non-mandatory position may be set up according to the

¹ Clinical investigation units are eligible.

size of the network; the opening of this position have to be justified by the IRP and validated by the evaluation team before job opening.

Eligibility criteria

Criteria are the following :

- The topics of the competition match with the NExT priority topics
- At least 2 international groups of research within an IRP
- The scientific, administrative and financial leadership of the project is the responsibility of one of the founding members of NExT (University of Nantes, Centrale Nantes, CHU and INSERM) or the CNRS. The IRP can associate founding members or the CNRS and non-founding partner members (ICO, IFSTTAR, IMT Atlantic, INRA, ONIRIS) who are eligible to receive funds.

Evaluation criteria

Criteria are the following :

- The quality of the scientific project and the complementarity of the local and international research groups
- The scientific quality of the local and international research groups as well as their demonstrated individual capacity to obtain co-fundings
- The prospects of long-term joint scientific productions of the partnership and the exploitation of the research results
- The value of the cooperation for the international visibility of Nantes (reputation of international partners)
- Mobility is encouraged for local IRP members and is mandatory for at least half of them
- Projects that already received a significant share of co-funding - in particular from international partners - or at least projects with a co-funding strategy, will be favored (justification to be provided)
- IRPs including young researchers (master, Ph.D. and post-doc) actively participating in the project will be favored
- Special attention will be given to projects offering a thesis in a cotutelle agreement or at least codirection with an international entity (justification to be provided)

Criteria	Points
Scientific quality of the project	10
Scientific quality of the local and international research groups	10
Value of the cooperation and the complementarity of research groups	10
Capacity to get co-fundings	10
Prospects of long-term joint scientific productions and the exploitation of the research results	10
Active participation of young researchers	10
At least half of the research group in Nantes is traveling abroad	10
Research stay of at least a month	10
Total :	80

The total score is 80 points. Each of the 8 items is evaluated from 0 to 10, according to the following scale:

- 0: missing or inadequate information

- 2: insufficient information
- 4: partial answer but with serious weaknesses
- 6: rather satisfactory answer but improvements are needed
- 8: satisfactory answer
- 10: answer perfectly matching expectations

A bonus of 2.5 points is granted for a thesis in cosupervision² with an international entity, and 5 points for an international cotutelle of thesis³.

Submission

Projects may be submitted only after they got the approval from their institution's administration.

To submit an application:

- upload the application form on the NExT Initiative [website](#) (abstract form, application form, list of participants and budget)
- rename the documents with the name of the project following this template: nomProjet_Abstract form_IRP2018, nomProjet_Application form_IRP2018, nomProjet_List of participants_IRP2018, nomProjet_Budget_IRP2018
- send an email with the completed application form and the required documents to aap@next-isite.fr specifying "IRP" in the subject of the email.

For any further information, send an email to aap@next-isite.fr specifying "IRP" in the subject of the email.

Timeline

Action	Date
Launching of the call for proposals	3 December 2018
Deadline for submission of the abstract form: this abstract form is needed for the selection of the experts who will be asked for the evaluation and who will confirm the eligibility of the project	15 March 2019, 6pm
Deadline for submission of the application form, including the list of participants and the budget	12 April 2019, 6pm
Applicants get the results of this call	June 2019
Project implementation while funding by NExT	July 2019 – June 2022
Mid-term report of activities and financial report	January 2021
Final report of activities and financial report	June 2022

NExT priority thematic areas

Health of the future: This priority focuses on three themes:

- The innovative biotherapies for the treatment of multiple pathologies which lead to or are characterized by the loss of function of an organ, tissues, cells or genes and which require replacement (transplantation), reparation, regeneration (cell therapy regenerative medicine)

² Please check the Q&A for the definition of a thesis in cosupervision.

³ Please check the Q&A for the definition of an international cotutelle of thesis.

or reprogramming (regenerative medicine);

- Therapies related to oncology and nuclear medicine, using theranostic approaches for treating different types of cancer: these approaches combining targeted therapies (eg. immunotherapies) and/or combined (eg. radioimmunotherapies, combined immunotherapies) and diagnostics (eg. multimodal imaging) lead more and more to healing or at least to overall survival benefit.
- These innovative and preventive therapeutic approaches are supported by advances in precision medicine: multiparametric approaches to massive data enabled by new epidemiological, bioinformatic and biological tools, putting the patient at the center of a unique and personalized treatment.

Industry of the future: On the basis of scientific excellence in areas such as process engineering and material characterization, ocean engineering and hydrodynamics, robotics, numerical modeling, simulation and optimization, the objective of the NExT project is to develop the following 2 themes:

- **Advanced production technologies:** the energy gain through the lightening of structures (the transition from metal to composites) is a first issue. The replacement of raw materials related to the oil sector by sustainable sources (eg. plant fiber) or from recycling is a second issue. These gains and replacements require innovative processes. In this context, we should think of an optimal relationship between man and robotics, from the point of view of societal acceptability and technicality.
- **Ocean engineering:** mastering energy production technologies of sustainable origin at a reasonable cost, with the possibility of integrating multi-use to optimize the use of land are key issues. In the naval field, the drastic reduction of ship consumption while maintaining high seas maneuverability should be allowed in the very short term.