

The French Centre National de la Recherche Scientifique and the University of Arizona are leaders and long-time partners in research addressing grand challenges of global societal relevance. To foster and expand research cooperation, the two institutions are partnering as a new International Research Center (IRC) "FRANCE-ARIZONA INSTITUTE FOR GLOBAL GRAND CHALLENGES". Launched in 2021, the IRC program is overseen by CNRS together with UArizona Vice Presidence for Research, Innovation and Impact, Vice Presidence for Global Environmental Futures, and multiple Colleges. This 3rd Call for Proposals issued by the IRC program aims at supporting outstanding collaborative projects in all disciplines.

CNRS-UArizona Joint Call for Proposals Graduate Research Fellowship & International Mobility

The France-Arizona Institute for Global Grand Challenges (CNRS & University of Arizona International Research Center) is issuing this call for proposals to support collaborative research in all disciplines. Each project will involve one CNRS-affiliated team and one UArizona team. Each team will be built around a Principal Investigator (PI) and a doctoral student (identified or not at the time of proposal submission). Up to five three-year awards will be made, including:

- to the CNRS-affiliated team: a three-year fellowship for the doctoral student starting in Fall 2023, supplemented with up to 5,000 euros/year for three years to cover mobility costs for visits to the UArizona partner team by the CNRS-affiliated doctoral student and PI and co-PIs.
- to the UArizona team: up to 5,000 US dollars/year for three years to cover mobility costs for visits to the CNRS-affiliated partner team by the UArizona doctoral student and PI and co-PIs. Note that the UArizona doctoral student involved in the project is expected to have her/his own graduate funding (Teaching Assistantship, training grant, NSF GRFP...)

The CNRS-UArizona IRC selection committee is seeking projects that demonstrate four qualities:

- Address a research grand challenge that the two teams, by working together, are in a world leadership position to tackle.
- Focus on a specific goal or milestone that can be reached on a three-year timeline, and that can make a transformative contribution toward the grand challenge.
- Combine and integrate teams' expertise into an exceptional capacity that no single team could achieve, and that has potential to last and develop beyond the confines and terms of the project.
- Offer a unique training opportunity to the doctoral students involved in the project.

While we expect teams with a productive history of collaboration to be in a strong position to apply, projects involving new collaborations are also highly encouraged. This year, we are especially interested in projects that can help tackle grand challenges related to habitability and environmental resilience, the food-energy-water nexus, and climate change and health.

1. Eligibility

A project must have at least one PI from UArizona and one PI from CNRS, and possibly co-PIs and "collaborators". In each team, the PI is responsible for the project and coordination with the other team. The PI or one of the co-PIs in each team will serve as Primary Advisor for the doctoral student involved in that team.

Principal and co-Principal Investigators must be tenure-track or tenured faculty members, at UArizona for the US team, or in a CNRS-affiliated unit for the French team (including CR, DR, MCF, PR in the French academic system). At least one PI or co-PI in each team should be in official capacity to advise the team's doctoral student (e.g. an awardee of the French "Habilitation à Diriger des Recherches").

A PI or co-PI cannot be involved in more than one application, but the same individual may appear as "collaborator" on multiple proposals (not in a capacity to advise the doctoral student).

The doctoral students involved in the project do not need to be identified at the time of proposal submission. If one or both are, their CV will be included (see "Part G" in section 7 below). Selected CNRS team will have to follow the CNRS rules of recruitment process and the CNRS doctoral student will have to start their doctoral contract in Fall 2023.

2. Submission

The CNRS-affiliated and UArizona teams will prepare one joint proposal (see guideline below). Submissions will be handled by CNRS. The CNRS PI will submit the proposal in electronic format (PDF) and in English (except for title and project summary, both in English and French) via the dedicated CNRS web platform CoopIntEER at:

www.cooperation.cnrs.fr

Please note:

The only document to be considered for evaluation is the single PDF file prepared following the guidelines below (section 7, "Proposal preparation"). Therefore, in the CoopIntEER on-line form, pre-defined sections "Résumé/Abstract", "Programme scientifique/Scientific Program", "Résultats attendus/Expected results" should only be filled with "See proposal PDF", and the proposal should be uploaded as one single PDF file in the last section of the on-line form, "Autres documents annexés". Regarding the mandatory number of travels and their duration in CoopIntEER "Missions" section, please just fill in "1" mission and "1" day (this data is not considered for evaluation). Finally, please note that the electronic validation of the director of the CNRS-affiliated lab will be required through CoopIntEER before the submission deadline (click on "Transmettre le projet" on the home page). For any enquiry about the CoopIntEER submission website, please use the CNRS contact below. Please do not hesitate to ask any question, we will respond as quick as possible!

3. Evaluation

Proposals will be evaluated and ranked by the IRC Steering Committee, advised by external experts as needed, based on the scientific quality and originality of the project, scientific merit of the teams, synergy between the teams, and alignment with strategic areas of mutual interest.

Successful recipients will be formally notified of the award and informed of the funding procedure.

4. Reporting

Selected projects will participate in the annual IRC conference to report on their progress.

At the end of the funding period, PIs will provide references, preprints and other relevant products of the project, and prepare a written summary of the project achievements, explaining how the IRC support contributed to them. The summary will review the strategic elements of the cooperation, how the collaboration benefitted the doctoral students involved in the project, and what plans have been developed to continue the cooperation between the teams.

5. Timeline

Call opening: October 10th, 2022

Submission deadline: November 18th, 2022 at 23:59 Paris time (3:59pm Arizona time).

Notification: January 30th, 2023.

6. Proposal preparation

The proposal must consist of the following parts, in **one single PDF file** (named "CNRS PI's Last name"_"UArizona PI's Last name"_CNRS-Arizona Proposal). There is a strict **5-page limit,** not including the title page(s), the list of bibliographical references and the biosketch for each CNRS and UArizona PI and co-PI, and doctoral students if identified.

TITLE PAGE

Please use template provided.

PART A. Project summary

In English and in French (both with a 150-word limit).

PART B. Background and proposed research

Explain what the grand challenge is. Summarize the state of the art. Explain the specific goal of the project and why it would substantially advance the field towards solving the grand challenge. Explain the main steps and methods to be used to achieve the goals of the project. What are the expected deliverables? Include a timetable for the 3-year implementation of the project.

PART C. Team presentation

For each team, list all PIs, co-PIs and collaborators with their field of expertise (using key words or phrases). Explain the role of each team in the project and how each team member will contribute to the project. Explain what funding (besides the IRC doctoral fellowship and student mobility support) and other critical resources (access to technology, equipment...) are available to each team to carry out the project successfully. If applicable, specify current vs. pending funding.

Document the scientific merit of each team by using indicators of academic excellence (selected publications most relevant to this project, external funding, doctoral and post-doctoral training, team members' major scientific responsibilities and distinctions...).

If the project raises ethical issues or requires special permitting, please describe them and how they will be addressed.

PART D. Team collaboration and involvement of doctoral students

Explain how the two teams' expertise are complementary in this project and how the combination of both teams' expertise put the collaborative in a unique position to succeed and significantly advance research on

the grand challenge.

Explain how both teams will work together and how they will coordinate their efforts. Explain how each doctoral student will be involved. Will the two students have to work directly together? How will they do this concretely? How much student mobility between teams is anticipated? Is there also faculty mobility planned? Why and how frequently? Are there other students and post-doctoral fellows involved?

Are there other related projects carried out in each team, or by these two teams together, that are relevant to this project? Are there other national or international collaborations involved that are relevant to this project?

If there is a history of collaboration between the teams, please include indicators of collaborative success: joint publications, external grants, co-advising of graduate students, mobility of faculty and students between the teams...

PART E. Perspectives

Explain how this collaboration may continue, what type of support would help develop it further, and what cooperation mechanisms and sources of funding the collaborative may pursue in the future.

PART F. Bibliographical references – This part is not included in the page limit.

PART G. Biosketches – This part is not included in the page limit.

Please include a 2-page max. biosketch for each PI and co-PI, including: current title and position, professional preparation, past and current appointments, list of 5 publications most relevant to this project, list of 5 other publications, list of up to 5 synergistic activities. Please include a short bio for the doctoral students involved, if one or both have been identified.

7. Enquiries

UArizona enquiries should be directed to Regis Ferriere, regisf@arizona.edu

CNRS and electronic CoopIntEER submission enquiries should be directed to Jean Thèves, <u>jean.theves@cnrsdir.fr</u> and Mathilde Cambournac, <u>Mathilde.cabournac@cnrs.fr</u>