



ANNOUNCEMENT OF RESEARCH OPPORTUNITY

April 2018

“MAKE OUR PLANET GREAT AGAIN”

CONTEXT AND OBJECTIVES

The 2015 Paris Agreement on Climate Change poses unique challenges for Science as Parties recognized *“the need for an effective and progressive response to the urgent threat of climate change on the basis of the best available scientific knowledge”*.

This includes challenges related to:

- Earth system,
- Climate change,
- Energy transition.

Those challenges are complex and intertwined by nature. If an in-depth understanding of the Earth System is mandatory, key issues such as global health, food, water and energy have to be equally studied from ecological, biological, environmental, social, technological, and economic perspectives to characterize the mechanisms at play. The ultimate goals should be to propose mitigation and adaptation strategies for societies as envisioned in the Sustainable Development Goals of the United Nations. This implies the development of top-level research programs, from fundamental to solution-oriented research projects, by bringing together scientists with international ambition.

With this objective and in order to *« facilitate the mobilization, for the protection of our planet, of those wishing to invest in projects, pursue research, undertake entrepreneurial ventures, seek funding »*, the French government is launching a call to non-resident researchers who would like to develop in France, together with French partners, top-level research projects to address global and climate changes. Three main topics of research are prioritized.

1. Earth system sciences

Knowledge and monitoring of the physical, chemical, biological, ecological and social mechanisms that underpin global and regional environmental changes are needed. They include an understanding of how these mechanisms have interacted in the past and how they are likely to evolve in the future

as well as scientific assessments that are relevant to diverse contexts ranging from global to local scale. Topics include:

- Enhanced observation of the Earth System and attribution of environmental and climate changes, including anthropogenic changes.
- Further understanding of processes, interaction scales, risks and thresholds.
- Improvement of modeling activities of complex Earth systems, data assimilation and predictability.
- Exploring future scenarios.

2. Climate change and sustainability sciences

Critical knowledge gaps exist in ways of addressing sustainable development challenges in the context of global and climate changes. This includes meeting basic needs for a growing human population in a stressed ecosystem and how societies may address global environmental and sustainability challenges. These transformative changes are many-sided; they are related to human health and well-being, demography, economics strategies and their associations with sustainable production and consumption, urbanization, new technologies and processes, energy and governance for global sustainability in particular but not only under climate change induced stress. Topics include:

- Meeting basic needs and overcome inequalities.
- Governing and managing sustainable development locally and globally.
- Managing growth, synergies and trade-offs.
- Exploring, understanding and evaluating transformation pathways and life cycle issues.
- Developing, implementing and promoting sustainable technologies.
- Development of recycling technologies and of green and recyclable materials.
- Understanding and evaluating global health challenges and managing health risks and equities of environmental and climate change.

3. Energy transition

The transition from fossil fuels towards innovative zero carbon energy sources, associated to carbon sequestration and usage strategies, appear as the current solutions to diminish the Global Greenhouse Gas Emissions. Zero carbon energy sources have to be made available at the right time and the right place through efficient and affordable energy storage as well as smart management and distribution systems. Overall, the concepts associated to the flexibility of population/economic needs and consumption habits should be put in the perspective of an accelerated energy transition. Topics include:

- Emerging innovative concepts and technologies for massive energy production, storage and distribution.
- Energy efficiency.
- Economically, environmentally and socially viable production and bioproduction of bio-sourced raw materials.
- Systemic approach of the energy transition including economic, ecologic, and social challenges, and the development and analysis of prospective scenarios.

TERMS AND CONDITIONS

1. Eligibility

- Candidates must be living in a foreign country for at least 2 years on January 1st, 2018.
- Candidates must have defended their PhD (or equivalent) before January 1st, 2014.
- Candidates who have not been notified of a permanent position in one of the national research organisms or universities at the time they submit the scientific project are eligible.
- The call is open to all nationalities.

2. Duration

- The project may start on January 2019 for a duration ranging from 3 to 5 years.

3. Agenda

First step: selection on scientific achievements

- The selection is an online submission process based on individual invitation sent by the CNRS [after registration on the CNRS-make our planet great again web site](#).
- The submission platform will be closed on May 2018, the 31st at noon (Paris time).
- For this first step candidates will be notified of the committee's decision in the second week of July.

Second step: selection on a scientific project

- In the second week of July candidates will be notified of the submission processes and timeline organized by the *Agence Nationale de la Recherche* (ANR).
- Final results are expected at the end of December 2018.

4. Host laboratory

- The research project must be conducted in a French host laboratory.
- Identification of a host laboratory is not mandatory at the first selection step, but is strongly recommended. A **non-exhaustive list** of possible host laboratories can be found [here](#). Candidates are free to contact any French laboratories working on the above research areas. In case of selection without an identified host laboratory, the committee will help the candidate to find the most appropriate laboratory to successfully conduct the research project.
- The host laboratory must be involved in the design of the research project to guarantee that the best conditions are met for success.

5. Funding

- Funding, spread over 3 to 5 years, can range from one million euros in total for junior researchers (4 to 12 years of experience since the doctorate) to 1.5 million euros in total for experienced researchers (more than 12 years of experience since the doctorate).
- For maternity and paternity leaves, the limit for junior / senior can be extended by the documented amount of leave actually taken for each child born before or after the PhD award, at the candidate's request.
- The host organization will have to provide matching resources to the cash funding provided by the present call.

CONTACT

- Please contact us at MakeOurPlanetGreatAgain@cnrs.fr