

FRANCO-GERMAN
JOINT CALL FOR PROPOSALS ON
“SUSTAINABLE ENERGY”

within the framework of the collaboration between the French Ministry of
Higher Education, Research and Innovation (MESRI) and the German
Federal Ministry of Education and Research (BMBF)

Open jointly by
the Agence Nationale de la Recherche (ANR, on behalf of MESRI)
and BMBF

Submission deadline:

9 January 2019, 13:00 CET

ANR website:

<http://www.agence-nationale-recherche.fr/en/funding-opportunities/current-calls/>

BMBF website:

<http://www.bmbf.de/foerderungen/>

Contacts

ANR (on behalf of MESRI)

Dr. Pascal BAIN

*Deputy-head of the Physics, Engineering,
Chemistry, Energy Dpt (SPICE)*

Pascal.Bain@agencerecherche.fr

Tel. +33 (0)1 78 09 80 43

Projekträger Jülich (on behalf of BMBF)

Dr. - Ing. Gesine ARENDS

*Head of Basic Research –
Energy Infrastructure (EGF2)*

g.arends@fz-juelich.de

Tel. +49 (0)24 61 61 97 73

Dr. Linda Oukacine

*Project manager in the Physics, Engineer-
ing, Chemistry, Energy Dpt (SPICE)*

Linda.Oukacine@agencerecherche.fr

Tel. +33 (0)1 73 54 82 37

www.ptj.de/suche-foerderinitiativen

Applicants are advised to carefully read the entire document as well as the corresponding national documents (German call text and ANR funding allocation procedures) before submitting research project proposals.

CONTEXT AND GENERAL DISPOSITIONS

In order to limit global warming to two Degrees Celsius, the 2015 Paris Agreement on Climate Change (COP21) calls for the cut of global greenhouse gas emissions and a global net zero carbon footprint by 2050. This requires a fundamental conversion of the current energy-supply towards sustainable and renewable energies. European societies are challenged to completely rethink their power systems as well as energy use for mobility, industry, buildings and heating and cooling.

Research and Development are playing a crucial role in this process as they provide the solutions for efficient, sustainable and smart power-generation, distribution and usage. Therefore with this call for proposals, the German and French ministries of research, BMBF and MESRI, want to strengthen the Franco-German cooperation in energy research and stimulate the innovation processes in both two countries, as it was agreed upon at the German-French Ministerial Council on July 13th 2017. This call is based on the German Federal Government's "6th Energy Research Program"¹ and on the French ANR's "Work Programme 2019"².

The projects funded under the framework of the present joint call are expected to promote high-quality research collaborations among researchers in France and Germany in order to provide highly innovative solutions for an efficient, affordable and ecological energy supply of France, Germany and Europe based on renewable energies across different sectors (energy, mobility, industry, and households). Besides technical aspects, the consortia are as well invited to address economic and sociologic challenges within a systemic approach of the energy transition in Europe.

The call is open to research institutions³ (university or non-university research) and companies. The involvement of partners along the entire innovation chain from research to industry to end users is encouraged to support the practical relevance of the developed solutions.

The purpose of this call for proposals is to support projects in which there is an effective collaboration between French and German partners. Partners will work together as a joint team with complementary competencies in one common project creating a joint output. Partners will ensure that each country provides balanced contributions and scientific inputs. The same will apply to grant applications made to agencies.

Each agency will cover expenditures for their respective country's teams according to its own rules. Details can be found in the German call text⁴ and ANR's funding regulations^{5,6}.

The projects will be funded for **up to three years**.

¹ www.bmwi.de/Redaktion/DE/Artikel/Energie/Energieforschung/energieforschung-6-energie-forschungsprogramm.html

² <http://www.agence-nationale-recherche.fr/financer-votre-projet/plan-d-action-2019/>

³ For further definition, see section "eligibility" and the corresponding sections in the national calls.

⁴ www.bmbf.de/foerderungen/

⁵ <http://www.agence-nationale-recherche.fr/RF>

⁶ In case of discrepancies between this document and national documents, the latter are legally binding

SCOPE OF THE CALL

Funding will be provided to collaborative projects between German and French partners that conduct application-oriented basic research (roughly corresponding to TRL 1-5) aiming at highly innovative, cross-sectoral solutions for economically, ecologically and socially sustainable and secure energy storage and distribution in France, Germany and Europe. Projects have to create added value from the Franco-German cooperation.

Research to be funded shall address one of the following thematic priorities:

1. Conversion and storage of energy from renewable sources

- Electrical and electrochemical storage materials and technology, especially new batteries
- Storage systems for use within smart grids (p. ex. ancillary services, virtual power plants)
- Power-to-X technologies including electrolysis, synthetic fuel production, photo-electrochemistry and solar fuels
- Hydrogen and fuel cell technologies, hydrogen storage and distribution

2. Smart Grids at transmission and distribution levels

- Materials and technologies for smart grids in general and for high-voltage direct current transmission systems
- Grid flexibilization and management (including architectures, digitalization, storage integration, other flexibilization technologies)
- Border-crossing aspects on the technical and governance levels (p.ex. interoperability, regulations, European energy market)

All proposals shall aim at solutions geared to real-world needs for improving the sustainability and security of the European energy supply as stated above and shall feature a high degree of innovation. Scientific excellence shall be clearly evident, the exploitation plan be realistic and comprehensible.

Besides technological developments, researchers are invited to also address economic and sociologic issues to contribute to a systemic understanding of energy challenges (p.ex. socio-economical and territorial dimensions of the energy transition, public perception and engagement). Projects are encouraged to take into account specificities of each country's legal, economical, societal aspects and power-grid design and regulations if this is relevant for the topic of research. If possible, proposals should describe how solutions can contribute to new norms and standards on the European level.

As both sides intend to encourage researchers' mobility and knowledge exchange between France and Germany, consortia are asked to include concepts for integrated collaboration between partners from both countries and cross-border networking (e.g. regular meetings of participating work groups, common workshops, exchange of personnel between research groups, etc.).

SUBMISSION

The French and German partners will prepare a joint scientific project proposal⁷.

Writing in English using the provided template is highly recommended, as evaluation will be carried out, within a bilateral cooperation with the foreign agency, by an international Peer Review Panel. If the common proposal is drafted in French or German, a **translation** will be requested and will serve as a basis for evaluation.

Each country's teams must designate a **national scientific coordinator**. In addition, the proposal shall name a **spokesperson** among the two national coordinators, acting as rapporteur and contact person for both funding agencies. His/her main tasks will include the preparation of joint reports for ANR and BMBF, respectively. Furthermore, he/she will represent the consortium in public and within the scientific community.

The joint project proposal must be submitted by the **German coordinator to Projektträger Jülich (PtJ)** and by the **French coordinator to ANR** via their respective submission websites.⁸

A project proposal consists of:

- **a form to be completed online on each national submission website,**
- **a scientific document (project description, 15 pages maximum),** complemented by an annex to be uploaded to the submission site.

The **project proposal scientific document** should provide the elements necessary for its assessment according to the eight pre-defined evaluation criteria.

The document must be structured in the following order:

- 1 Executive summary of the proposal
- 2 Context and objectives and of the proposal
 - 2.1 Objectives
 - 2.2 Context and relevance of the proposal to the call; scientifically as well as in terms of relevance for industry and society
 - 2.3 Description of possible socio-economic issues in the context of the targeted research area and how these questions are addressed within the project
 - 2.4 State of the art and patents filed (by applicants, third parties)
- 3 Project consortium
 - 3.1 Qualification and contribution of each partner
 - 3.2 Consortium as a whole, including assignment of roles and complementarity
 - 3.3 Added value of the Franco-German cooperation for the project, including how the competence, technology and other resources in each group complement each other

⁷ The German call text refers to Projektskizzen

⁸ PtJ: https://foerderportal.bund.de/easyonline/reflink.jsf?m=GLF_ENERGIE&b=DE_FR_2PLUS2
ANR: <https://aap.agencerecherche.fr/layouts/15/SIM/Pages/SIMNouveauProjet.aspx?idAAP=1213>

and on how the project is expected to help strengthen research cooperation between France and Germany over the longer term;

- 4 Scientific and technical programme, work plan
 - 4.1 Scientific programme and overall project structure
 - 4.2 Description of work packages
 - 4.3 Milestones and task schedule (and Gantt chart)
- 5 Dissemination and exploitation
 - 5.1 Scientific, technical and economic utilisation of the results
 - 5.2 Statement that the partners have reached an understanding of how the intellectual property and know-how arising from the accomplishment of the joint research projects will be handled and exploited by each partner and will enter into a cooperation agreement if selected, conforming to both national regulations.
 - 5.3 Added value for the Franco-German research cooperation
- 6 Calculation and explanation of estimated costs and funding requests for each partner
- 7 Necessity for funding
- 8 References

The **annex** to this project description should present⁹:

- A table detailing the contribution of each French partner
- Short CVs of the national project leaders and of the key researchers involved
- A detailed work breakdown and milestone chart for the French partners
- The justification of costs and funding requests for the French partners

Templates for the scientific document and the annex are available to applicants on the ANR and PtJ websites¹⁰ (and). **Usage of the templates is strongly recommended.**

The project proposal shall be considered complete if the online forms are filled in and the scientific document and the annex are prepared and uploaded to both submission websites by the deadline mentioned above. **For the validity of the online versions of the joint proposal, signed versions of the documents by the German partners shall be submitted to the PtJ within 2 weeks after the submission deadline.**

⁹ French partners are asked to give more detailed information in the annex as they submit a full proposal in the first step. German partners submit proposal outlines (Projektskizzen) and will have to submit more detailed information in a second step along with a formal grant application (see section « Selection and funding »)

¹⁰ ANR: <http://anr.fr/ANR-BMBF-energie-2019>
BMBF: <https://www.ptj.de/projektfoerderung/grundlagenforschung-energie/zwei-plus-zwei-frankreich>

ELIGIBILITY

The project proposal must fulfil the eligibility criteria common to both funding agencies, as well as the criteria specific to each agency. **Project proposals that do not meet the eligibility criteria, whether common to both agencies or unique to each, cannot be funded.**

1. Common eligibility criteria

- The project proposal must be in conformity with the designated research areas
- The project proposal must be submitted by at least one French partner¹¹ and one German partner
- Both agencies must receive a complete application: the common scientific document, the annex, and a specific national form submitted respectively on the online platforms of ANR and PtJ (see the section “Submission”)
- The project proposal must have a time range of up to three years
- Composition of the consortium
 - o The French part of the consortium shall consist of at least one French public research institute (or assimilate) and one company carrying out research and development in France.
 - o The German part of the consortium shall consist of at least one research institute (non-university or university) and one company.
 - o While at least one research institute has to participate as an active partner on each side, companies can participate either as active or as associated partners. Associated partners are asked to contribute to the project e.g. by financial, infrastructural or personal means without additional funding. A letter of intent describing this contribution to the project is required. End user or other civil society organisations can participate as additional active or associated partners or as members of an advisory board.
- Members of the Peer Review Panel cannot be involved in the submitted project proposals to the call in any manner

2. Specific national eligibility criteria

For specific national eligibility criteria, please see the national call texts published by ANR and BMBF respectively.¹² These national criteria concern for example the kind of project partners or regulations concerning similar projects or the number of projects a researcher can be involved in.

¹¹ A French partner is an entity (research organization or company) having an establishment or branch in France. For the definition of partners at ANR, see: <http://www.agence-nationale-recherche.fr/fileadmin/documents/2017/ANR-RF-Fiche-PART.pdf>

¹² ANR: <http://anr.fr/ANR-BMBF-energie-2019>

BMBF: www.bmbf.de/foerderungen/

EVALUATION

A Peer Review Panel (PRP) will evaluate each eligible proposal¹³.

The evaluation criteria are:

- Conformity with the call for proposals aims and degree of conformity with designated research areas
- Scientific and technical quality, innovativeness and knowledge gain of the joint research project
- Methodology and quality of project construction, feasibility and appropriateness of the joint research project
- Quality, competence and complementarity of the consortia to address the objectives of the project including the active involvement and commitment of companies and organisations; possible contribution to the overall Franco-German cooperation in energy research
- Added value of the bilateral cooperation and expected benefit for both the French and the German side and the balance of the cooperation.
- Overall impact of the project, including scientific, technological, economic and social aspects
- Appropriateness of description of how socio-economic questions are incorporated and end users involved, where feasible
- Appropriateness of resources and funding requested

¹³ The PRP will be composed of internationally recognized, independent, responsible scientific experts

SELECTION AND FUNDING

Relying on the evaluation and ranking of the proposals made by the Peer Review Panel (PRP), a Joint Call Steering Committee composed of MESRI, ANR and BMBF representatives will select the projects proposed for funding.

Each agency will fund grant for their respective country's partners according to its own rules and national regulations:

- **ANR's funding regulations are available at:**
<http://www.agence-nationale-recherche.fr/RF>
- **The regulations concerning the Consortium agreement for the French partners are available at:**
<http://www.agence-nationale-recherche.fr/fileadmin/documents/2017/ANR-RF-Fiche-4-AC.pdf>
- The **German partners** will have to submit a **formal grant application** if their proposal has been selected. BMBF guidelines for grant applications on expenditure basis, for grant applications on cost basis and the administrative provisions concerning sections 23 and 44 of the Federal Budget Code (Bundeshaushaltsordnung) apply (see national call text). According to the national call text, funding can be provided for
 - o Project-related costs/expenditures for student, administrative and scientific personnel
 - o Subsidies for project-related equipment and material expenses
 - o Travel, sojourns in France and workshops in Germany