

German-Italian Joint call for proposals on

"Green Hydrogen Research: A Collaboration to Empower Tomorrow's Energy"

within the framework of the collaboration between the German Federal Ministry of Education and Research (BMBF), the Italian Ministry of Foreign Affairs and International Cooperation (MAECI) and the Italian Ministry of University and Research (MUR)

Submission deadline: 07 June 2024, 5 p.m. (CEST)

Brief Version

The German Federal Ministry for Education and Research (BMBF), the Italian Ministry of Foreign Affairs and International Cooperation (MAECI) and the Italian Ministry of University and Research (MUR) aim to pursue their innovation dialogue and agreed on a joint Research and Innovation (R&I) Activity. The deadline for the submission of proposals is 07 June 2024, 5 p.m. (CEST).

Contact Projektträger Jülich (on behalf of BMBF)

Projektträger Jülich

Sustainable Development and Innovation, Energy and Hydrogen Research ptj-ewf-H2@fz-juelich.de

BMBF website: https://www.bmbf.de/bmbf/de/ueber-uns/bekanntmachungen/bekanntmachungen_node.html

Contact MAECI and MUR

Ministero degli Affari Esteri e della Cooperazione Internazionale

 $\label{thm:prop:continuous} Direzione\ Generale\ Promozione\ Sistema\ Paese,\ Ufficio\ IX-Cooperazione\ Scientifica\ Bilaterale\ progetti.germania@esteri.it$

MAECI website: https://www.esteri.it/it/trasparenza comunicazioni legali/bandi-gara-contratti/atti-ammin-istrazioni-aggiudicatrici/avvisi-bandi-ed-inviti/italia-germania-avviso-raccolta-progetti-italia-germania-ambito-ricerca-su-idrogeno-verde-2024-2027

MUR website: https://www.mur.gov.it/it/stampa/notizie-e-comunicati-stampa

Objective of the funding measure

Green Hydrogen and its economic ramp-up are crucial for a sustainable economy and the energy and climate transition. That is why the Italian Ministry of Foreign Affairs and International Cooperation (MAECI), the Italian Ministry of University and Research (MUR) and the German Federal Ministry for Education and Research (BMBF) are pushing ahead with research on green hydrogen.

Research and Development play a crucial role in this process as they provide the solutions for green hydrogen along the entire value chain. Therefore, with this call for proposals, the German and Italian ministries, BMBF, MAECI and MUR, intend to strengthen the Italian-German cooperation in green hydrogen research and stimulate the related innovation processes in both countries.

Joint research collaborations enable results and innovations to be achieved more efficiently, as cross-country research is performed "hand in hand" and supported by the expertise of both countries. Furthermore, by working together, the competitiveness and the recognition of research institutes and SMEs can be increased steadily. Moreover, the joint work can strengthen the link between industry and research, as well as the research capacity and expertise. Overall, an essential element of a common European hydrogen economy can be achieved through collaborative work.

This call is based on the German Federal Government's "7th Energy Research Program" and on the Italian "Piano Nazionale per la Ricerca del MUR – PNR 2021-2027". This joint research and innovation program serves as a national and regional research platform designed to provide the knowledge needed to boost efforts in the area of green hydrogen. Therefore, the funding measure offers higher education institutions, non-university research institutions and commercial companies (in particular SMEs) the opportunity to engage in joint research projects with partners from Italy and Germany and to take advantage of the existing cooperation potential in both countries. Funding is intended to vitalise Italian-German partnerships in innovative areas of research that will help to intensify relations between the partners.

Details can be found in the German research program and Italian funding regulation:

- Research Program "Innovations for the energy transition" as part of "7th Energy Research Program": https://www.bmbf.de/foerderungen/bekanntmachung-2337.html
 Modification of the announcement: https://www.bmbf.de/bmbf/shareddocs/bekanntmachung-chungen/de/2023/12/2023-12-08-%C3%84nderungsbekanntmachung-Energiewende.html
- Funding Regulation "Italia-Germania Avviso per la raccolta di progetti congiunti nell'ambito di ricerca sull'idrogeno verde - periodo 2024-2027" and attached documents: https://www.es-teri.it/it/trasparenza comunicazioni legali/bandi-gara-contratti/atti-amministrazioni-aggiudica-trici/avvisi-bandi-ed-inviti/italia-germania-avviso-raccolta-progetti-italia-germania-ambito-ricerca-su-idrogeno-verde-2024-2027

Priority research area: green hydrogen

Establishing strong bilateral partnerships is an integral part for the ramp-up of a European hydrogen market. Thus, eligible research and development projects are those that focus on the green hydrogen value chain from Italy to Germany. Possible areas of research are:

- Systemic studies, societal research and framework conditions
- Sustainability analysis (e.g. LCA, techno-economic analysis, impacts on the environment)
- Development of green hydrogen business cases
- Materials along the value chain: durability and circular economic developments of existing technologies (e.g. degradation in electrolysers and recyclability of materials used), development of new materials
- Hydrogen infrastructure (hydrogen vectors, storage, technology, regulation and standards, common protocols, etc.)
- Scalability of technologies along the entire value chain

Funding recipients / Prerequisites for funding

The funding measures aim at the public (higher education institutions, non-university research institutions) as well as at the private sector (commercial companies, particularly SMEs).

As an orientation, funding will depend on the expected scientific gain and high potential for realisation and success in line with the objectives of the funding measure. Applicants must be able to furnish evidence of previous work in the field and must demonstrate considerable willingness to cooperate. The project proposals must, as a rule, demonstrate an interdisciplinary and/or transdisciplinary approach and help to enhance research collaboration between Italy and Germany.

Funding will be provided for a collaboration consisting of at least two partners per country (at least one research institution/higher education institution and at least one commercial company). Only applicants whose home organisation is based in Germany or Italy are eligible for funding. Partners (private enterprises and/or research institutes/universities) from other countries may also participate, but no funding is foreseen for their participation in the framework of this call for proposals. The German and Italian partners must regulate their respective national cooperation through corresponding written cooperation agreements in accordance with national law. On the Italian side, participating research/higher education institutions and private companies must form an officially recognised Consortium by Italian laws (ATS/ATI) and choose a coordinating institution, which will be the sole funding recipient. The coordinating institution cannot be a private company.

Scope of funding

This funding measure covers, among others, expenditure/costs for:

- project-related personnel to execute scientific tasks specifically related to the project,
- project-related resources and equipment,
- travel and stays,
- workshops/events,
- necessary subcontracts.

Funding is provided by the respective national funding providers (MAECI and MUR in Italy, BMBF in Germany) in accordance with applicable national laws and guidelines.

On the German side, these rules can be found in the funding announcements for the "7th Energy Research Program "Innovations for the Energy Transition" of the Federal Government", which is to be found under https://www.bmbf.de/foerderungen/bekanntmachung-2337.html

The funding announcements explain who can apply, requirements for being granted, nature, scope and rates of funding, and their grant provisions.

On the Italian side, these rules will be found in a separate document on the following website: https://www.esteri.it/it/trasparenza comunicazioni legali/bandi-gara-contratti/atti-amministrazioni-aggiudicatrici/avvisi-bandi-edinviti/italia-germania-avviso-raccolta-progetti-italia-germania-ambito-ricerca-su-idrogeno-verde-2024-2027.

The call for applications will contain eligibility criteria, admissible costs, submission procedure, and all other pertinent information.

Only joint proposals accordingly submitted will be taken into consideration.

Funding support will be assigned to each partner by its own funding institution (BMBF in Germany and MAECI and MUR in Italy) in accordance with the national laws, rules, regulations and procedures in effect. The BMBF will contribute with three million euros to the funding measure; the MAECI and MUR in Italy intend to fund together three million euros (500,000 euros each for three years). There is no legal entitlement to funding.

Projects that are applied for should extend over 36 months overall, however the individual partner may schedule his activities in a time-frame spanning between 30 and 36 consecutive months in the years 2024 to 2027.

The requested funding volume should be between EUR 400,000 and EUR 1,000,000 per joint project per year (i.e. period of 12 months). Financial and staff participation in the joint project should reflect the respective focus activities.

Application procedure

Each project will define two national coordinators: one for Italy and one for Germany. These coordinators submit joint project proposals to **Projektträger Jülich** in Germany as well as to the **Ministry of Foreign Affairs and International Cooperation - Directorate General for Country Promotion, Office IX** in Italy. Both, in Italy and in Germany, the proposals must be written in English, bear the same English title and be submitted by 07 June 2024, 5 p.m. (CEST). A German-Italian committee will then select suitable projects (details are provided below).

The German partners of the selected projects then submit a full application to Projektträger Jülich. After a final joint approval process, the German and Italian parties are notified of the approval of the proposal and can start to work on their respective part of the project.

Prior to submission of an application, prospective applicants should contact the appropriate national agencies for detailed information about respective national requirements pertaining to applications and funding.

The English language common project description (CPD) should be prepared following the habits of each funding party and shall consist of following topics:

- 1. Information on the project coordinator and all the project partners
- 2. Summary of goals, research priorities, exploitation of results
- 3. Scientific framework of the project
 - a. Planned activities for implementing the goals of the funding measure
 - b. Description of the scientific objective of the project
 - c. Information on the state of development of the methods applied
 - d. Possible participation of third parties e.g. SME participation
- 4. International cooperation in the framework of the project
 - a. Added value of international cooperation
 - b. Contributions of international partners, access to international resources
 - c. Experience of the partners involved in international cooperation, previous cooperation
- 5. Sustainability of the measure/utilisation plan
 - a. Expected scientific results
 - b. Continuation of cooperation with partners in Italy/Germany
 - c. Planned cooperation in follow-up projects
 - d. Planned extension of cooperation to other institutions and networks
- 6. Strategy for the implementation of the research results
- 7. Description of the planned work steps of the project
- 8. Estimated expenditure/costs

Additional written supporting documents may be requested, if needed, by either side according to national requirements. Templates for the scientific document and the annex are available to applicants on the following websites:

The template for the scientific document is available on https://www.ptj.de/projektfoerderung/anwendungsorientierte-grundlagenforschung-energie/deutsch-italienischer-foerderaufruf-gruener-wasserstoff.

Submission for the German partners is required on "Easy-Online": https://foerderportal.bund.de/easyonline/reflink.jsf?m=GLF ENERGIE&b=DE-IT-H2

In Italy: https://www.esteri.it/it/trasparenza comunicazioni legali/bandi-gara-contratti/atti-amministrazioni-aggiudicatrici/avvisi-bandi-ed-inviti/italia-germania-avviso-raccolta-progetti-italia-germania-ambito-ricerca-su-idrogeno-verde-2024-2027

Usage of the provided templates is mandatory. A proposal will be evaluated only if the electronic forms are correctly submitted and the scientific document and its annex have been prepared and submitted to both websites before the above mentioned deadline. Proposals submitted after the deadline will not be considered. National coordinators are encouraged to contact their national funding agency early enough before the deadline and to start the submission of the outline in time for the deadline.

A legal claim to funding cannot be derived from the submission of a project proposal.

Evaluation of proposals

Both countries will each carry out an independent evaluation of the joint proposals received according to the following criteria:

- 1. Fulfilment of the formal prerequisites for funding.
- 2. Relevance to the objectives of the funding measure.
- 3. Scientific criteria (scientific quality and originality of the project, expertise of the applicant and the participating Italian and German partners, scientific benefit, prospects for the distribution and commercialisation of the expected results, quality of the cooperation between the partners from research/science and industry).
- 4. Criteria of international cooperation (preparation/development of new international partnerships, applicant's experience in international cooperation, consolidation of bilateral/international partnerships, quality of the cooperation and value added for the partner institutions, support of young researchers).
- 5. Plausibility and viability of the project (funding, work steps, time frame).

Following the national evaluation, a joint Italian-German selection committee will identify suitable proposals based on the above criteria and evaluation.