

Federal Ministry of Education and Research

Announcement

Regulations governing the funding of collaborative projects on the study of matter in the fields of materials science and structural biology using neutrons and synchrotron radiation as part of the German-Swedish cooperation (Röntgen-Ångström Cluster) under the framework programme “Exploration of the Universe and Matter – ErUM”

of 12 May 2023

1 Funding aim, purpose and legal basis

1.1 Aim of funding

The Federal Ministry of Education and Research (BMBF) intends to provide funding under the BMBF framework programme “Exploration of the Universe and Matter – ErUM” for projects which serve the objectives of the German-Swedish Röntgen-Ångström Cluster (<http://www.rontgen-angstrom.eu/>), particularly against the background of Germany's commitment to the European research infrastructures European Spallation Source (ESS) in Lund (Sweden) and European XFEL in Schenefeld (Germany). The funding measure is based on the Memorandum of Understanding (MoU) signed between the German and Swedish governments on 15 June 2009 and on the recommendations of the steering committee supporting the Röntgen-Ångström Cluster.

The aim of the funding measure is to continuously develop the Northern German-Swedish research area with its large research infrastructures in terms of scientific excellence and international visibility. This will strengthen the science and business sectors in the region, and thus Germany as a whole. It implements the strategic research partnership with Sweden as part of the “Networking” action area of the BMBF's ErUM framework programme.

1.2 Funding purpose

In order to achieve this aim, funding will be provided for collaborative projects conducted jointly by German and Swedish research groups to study matter, the purpose being to

- Intensify binational cooperative activities at selected large research infrastructures
- Use complementary expertise in working on new research methods and develop or improve instruments which are capable of enhancing the performance and possible uses of the selected facilities
- Accelerate the innovation process through the transfer of scientific and technical results from basic research to industry

The BMBF attaches high priority to Germany's sustainable development in accordance with the 2030 Agenda for Sustainable Development¹. The aim is therefore to further increase the contribution of research at large facilities to sustainable development worldwide.

The funding measure supports binational collaborative projects and is coordinated jointly with the Swedish Research Council (VR). The German and Swedish funding institutions will only provide funding for project partners based in their respective countries.

The results from the funded projects may only be used in the Federal Republic of Germany or the European Economic Area (EEA) and in Switzerland.

1.3 Legal basis

The Federal Government will award grants in accordance with these funding regulations, sections 23 and 44 of the Federal Budget Code (BHO) and the administrative regulations adopted thereunder as well as the BMBF's regulations governing applications for expenditure-based grants (AZA/AZAP/AZV) and/or applications by commercial companies for cost-based grants (AZK). There is no legal entitlement to a grant. The granting authority will decide freely after due assessment of the circumstances within the framework of the budget funds available.

Under these funding regulations, state aid will be granted on the basis of Article 25 (1) and (2) (a), (b) and (c) of the General Block Exemption Regulation (GBER) of the European Commission.² Funding is provided in accordance with the Common Provisions set out in Chapter I GBER, in particular taking account of the definitions given in Article 2 of the Regulation (cf. Annex for the requirements of state aid legislation applying to these funding regulations).

2 Object of funding

The focus of funding is on collaborative projects, including long-term exchanges of researchers, which are conducted jointly by German and Swedish research groups in the field of structural biology or materials science using neutrons or synchrotron radiation and pursue the purpose specified under 1.2 above.

The binational collaborative projects are required to involve at least one of the photon/neutron sources listed below as large research facility.

¹ <https://sdg-indikatoren.de/en>

² Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty on the Functioning of the European Union (OJ L 187 of 26 June 2014, p. 1) in the version of Regulation (EU) 2017/1084 of 14 June 2017 (OJ L 156 of 20 June 2017, p. 1), Regulation (EU) 2020/972 of 2 July 2020 amending Regulation (EU) 1407/2013 as regards its prolongation and amending Regulation (EU) 651/2014 as regards its prolongation and relevant adjustments (OJ L 215 of 7 July 2020, p. 3) and Regulation (EU) 2021/1237 of 23 July 2021 amending Regulation (EU) No 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty on the Functioning of the European Union (OJ L 270 of 29 July 2021, p. 39).

Funding will be provided for the development of new research techniques and methods and the expansion of the experimental infrastructure.

Ideally, the projects are closely connected with training for junior researchers and their involvement in research at large facilities. The assignment of junior research group leaders, junior professors and researchers at comparable career levels as project leaders is expressly welcome.

The secondment of post-docs of an RAC collaboration to one of the below listed sources in the other country for the purpose of intensifying bilateral cooperation in line with the other areas of these funding regulations is very much welcome.

Photon sources:

- BESSY II, Helmholtz-Zentrum Berlin für Materialien und Energie (HZB)
- FLASH, Deutsches Elektronen-Synchrotron DESY, Hamburg
- PETRA III, Deutsches Elektronen-Synchrotron DESY, Hamburg
- European XFEL, Schenefeld
- MAX IV Laboratory, Lund
- ESRF, Grenoble

Neutron sources:

- FRM II, Technical University of Munich, Garching
- HFR, Institut Laue-Langevin, Grenoble
- ESS (under construction), Lund

In duly substantiated cases, funding can also be provided for projects at other large facilities if they are closely related to the topic of a funding project conducted at the large facilities listed above.

A major feature of this funding measure is that it targets projects which support the early use of ESS, in particular by preparing first experiments and probing environments as well as developing methods and analysis software. Another objective is to strengthen the links between collaboration partners for commissioning.

Funding will not be provided for work on research topics which are not related to the development of new instruments or methods.

The routine operation of experimental facilities and standard equipment associated with the source are not eligible for funding.

Technological and methodological development activities to increase the large facilities' potential for research in the field of sustainable development are welcome. Specific relevance to at least one of the Sustainable Development Goals of the 2030 Agenda in addition to SDG 9 Industry, Innovation and Infrastructure or SDG 4 Quality Education is therefore highly desirable.

Work packages addressed in cooperation with partners from industry can be funded if either the aim is to transfer ideas and findings from the funded activities into practical application or existing industrial know-how about new methods and innovative technologies is to be used by

universities for their planned activities to study matter at large research facilities so that early exchange will stimulate innovation processes. Examples of such collaborations are:

- Cooperation between universities and commercial companies (involving participation by non-university research institutions as appropriate)
- Cooperation between academic spin-offs and their parent institutions

3 Funding recipients

Applications may be submitted by universities, non-university research institutions and commercial companies.

Applicants are required to have a plant or branch (company) or another entity in Germany serving the non-commercial activities of the funding recipient (university, research institution) at the time of payment of the grant.

Commercial companies can be funded as part of a collaboration. At least one of the collaboration partners must be a German university and the involvement of the company must be essential for achieving the aim of the project.

Research institutions which receive basic funding from the Federal Government and/or the *Länder* can only be granted project funding supplementary to their institutional funding to cover additional project-related expenditure or costs under certain conditions and provided that the involvement of the research institution is essential for ensuring the success of a collaborative project.

Collaborative projects may also cooperate with associated partners, that is, partners which do not receive funding. Any cooperation with associated partners must be described in the proposals for collaborations.

Concerning the conditions for when state aid is or is not deemed to be involved and the extent to which funding can be provided without constituting aid, please consult the Community Framework for State Aid for R&D&I.³

Small and medium-sized enterprises (SMEs) within the meaning of these funding regulations are companies that meet the requirements of the EU definition of SMEs.⁴ Applicants will declare their classification according to Annex I of the GBER to the granting authority in their written application for funding.

³ Commission Communication (2022/C 414/01) of 28 October 2022 (OJ C 414 of 28 October 2022, p. 1 ff.).

⁴ cf. Annex I of the GBER or the Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (notified under document number C (2003) 1422 (2003/361/EC)) (OJ L 124 of 20 May 2003, p. 36): [<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32003H0361&from=EN>].

4 Special prerequisites for funding

The partners in a collaborative project will set out the terms of cooperation in a written agreement. All the collaboration partners including those which are research institutions within the meaning of Article 2 (83) GBER will make sure that companies do not receive any form of indirect aid as part of the collaboration. The provisions of No. 2.2 of the Community Framework for State Aid for R&D&I must be observed. Before a funding decision on a collaborative project is taken, the cooperation partners must prove that they have reached a basic consensus on further criteria stipulated by the BMBF (cf. BMBF form No. 0110).⁵

5 Type, scope and rates of funding

Funding will be awarded in the form of non-repayable project grants.

Grants for commercial companies and for projects of research institutions which fall into the category of economic activities⁶ will be calculated on the basis of the eligible project-related costs. Part of these costs can be covered, taking legislation on state aid into account (see Annex). The BMBF's policy requires that applicants make an appropriate contribution of their own towards the eligible costs incurred.

The basis for calculating the grants for universities, research and science institutions and similar establishments which do not fall into the category of economic activities is the eligible project-related expenditure (in the case of the Helmholtz centres (HZ) and the Fraunhofer-Gesellschaft (FhG), eligible project-related costs), which can receive up to 100% coverage in individual cases, taking into account state aid legislation.

In the case of non-commercial research projects at universities and teaching hospitals, a flat-rate grant amounting to 20% of total expenditure will be awarded in addition to the eligible expenditure funded by the BMBF.

Expenditure/costs which serve to provide the general public with access to the planned research process and/or its results during the funding period and to enter into a dialogue about them with society are eligible for funding. Science communication is the dialogue-oriented transmission of generally understandable information about scientific research to target groups outside the scientific community.⁷

Eligible expenditure/costs are governed by the BMBF's regulations governing applications for expenditure-based grants (AZA/AZAP/AZV) and/or cost-based grants (AZK) of commercial companies.

The determination of the respective eligible costs and rates of funding must take account of the requirements stipulated in the GBER (see Annex)

⁵ https://foerderportal.bund.de/easy/easy_index.php?auswahl=easy_formulare, BMBF Allgemeine Vordrucke und Vorlagen für Berichte.

⁶ For the definition of 'economic activity' please refer to No. 2 of the Commission Notice on the notion of State aid (OJ C 262 of 19 July 2016, p. 1) and No. 2 of the R&D&I State Aid Framework.

⁷ See also BMBF guide (FAQ) on science communication.

6 Other terms and conditions

The *Nebenbestimmungen für Zuwendungen auf Kostenbasis des Bundesministeriums für Bildung und Forschung an gewerbliche Unternehmen für Forschungs- und Entwicklungsvorhaben* (NKBF 2017) (Auxiliary Terms and Conditions for Funds Provided by the Federal Ministry of Education and Research to Commercial Companies for Research and Development Projects on a Cost Basis) will be part of the notification of award for grants on a cost basis.

Notification of award for grants on an expenditure basis will include the *Nebenbestimmungen für Zuwendungen auf Ausgabenbasis des Bundesministeriums für Bildung und Forschung zur Projektförderung* (NABF) (Auxiliary Terms and Conditions for Funds Provided by the Federal Ministry of Education and Research for the Promotion of Projects on an Expenditure Basis) and the *Besondere Nebenbestimmungen für den Abruf von Zuwendungen im mittelbaren Abrufverfahren im Geschäftsbereich des BMBF* (BNBest-mittelbarer Abruf-BMBF) for the drawdown of funds. Participation in the profi-Online procedure is mandatory.

For the purpose of conducting progress reviews within the meaning of administrative regulation 11a pertaining to section 44 of the Federal Budget Code (BHO), funding recipients are required to provide the BMBF or reviewing institutions with the data necessary for the progress review without delay. The information will be used exclusively for the purposes of accompanying research and for subsequent evaluation where applicable; it will be treated confidentially and published in anonymized form, making it impossible to trace it back to individual persons or organizations.

Funding recipients are expected to ensure open electronic access if they publish the results of the research project in a scientific journal. This can be done through publication in an electronic journal which is accessible to the public free of charge. If the results are not initially published in a journal which is electronically accessible to the public free of charge, they must be made publicly available free of charge by electronic means, following a suitable embargo period where appropriate (secondary publication). Embargo periods for secondary publication must not exceed 12 months. The BMBF expressly welcomes secondary open access publication of scientific monographs resulting from the project.

Funding recipients are required to design and describe suitable measures for science communication in the context of their research process and research results.

The partners in a collaborative project are expected to develop a joint strategy for science communication.

Commercial companies (including start-ups and SMEs) are encouraged to take measures for science communication without this being a criterion in decision-making by the funding provider.

7 Procedure

7.1 Involvement of a project management organization, application documents, other documents and use of the electronic application system

The BMBF has currently entrusted the following project management organization with implementing the funding measure:

Projekträger DESY
22603 Hamburg

Phone: +49(0)40 89 98-37 02

Fax: +49(0)40 89 94-37 02

Email: pt@desy.de

Internet: <https://pt.desy.de>

The contacts are:

Dr Caroline Toeche-Mittler

Phone: +49(0)40 89 98-50 26

Email: caroline.toeche-mittler@desy.de

Dr Tinka Spehr-Bechmann (neutrons)

Phone: +49(0)40 89 98-50 37

Email: tinka.spehr-bechmann@desy.de

Dr Jochen Würges (photons)

Phone: +49(0)40 89 98-50 38

Email: jochen.wuerges@desy.de

Administrative issues:

Phone: +49(0)40 8998-3202

Email: materie.pt@desy.de

Any modifications will be announced in the *Bundesanzeiger* (Federal Gazette) or in another suitable form.

Application forms, guidelines, information for applicants and the auxiliary terms and conditions are available at <https://foerderportal.bund.de/> (under "Formularschrank/Bundesministerium für Bildung und Forschung") or can be obtained directly from the above project management organization.

Please take note of the information for applicants on the project management organization's website: <https://pt.desy.de/bekanntmachungen/> (under "Materie-RAC").

The easy-Online electronic application system must be used for drafting formal funding applications (<https://foerderportal.bund.de/easyonline>). This portal enables the electronic submission of the application which must be submitted in writing. An electronic document that bears a qualified electronic signature is sufficient for electronic submission.

The collaborative research proposal is to be assigned either to the neutron or to the photon sources group, depending on which of the two research infrastructures is mainly used.

7.2 Single-step application procedure

The German application procedure will be carried out in coordination with the Swedish procedure. Indication of the Swedish application number is required for clear reference to the Swedish application data.

Timely submission of the Swedish collaboration partner's application in the Swedish application system (Prisma) is the prerequisite for submission of the German application. The deadline for submission in the Swedish application system is a cut-off deadline.

Formal funding applications must be submitted to the project management organization by **23 August 2023** at the latest using the easy-Online electronic application system. The deadline for submission is not a cut-off deadline. It may not be possible to consider applications received after the above date.

Only the joint English description of the collaborative project should be uploaded as a project description. It must be identical to the project description which the Swedish collaboration partner has submitted in the Swedish application system. The cover page of the project description must list all the partners involved in the project (including associated partners) and their respective institutions. The project description (including milestone planning and Gantt chart) must clearly indicate each individual partner's responsibility for the respective work packages.

The project description, including references and charts, will not exceed 17 numbered A4 pages, Arial 11, single-spaced, margin 2.5 cm.

The German applicants will also submit an overview of the collaboration. The relevant form is available on the project management organization's website.

The feasibility of the project and safeguarding of the operation of the established experimental infrastructure (hardware and software) in the medium to long term must be agreed with the source operator before application as necessary and appropriate and described in the application. The project management organization will obtain a relevant statement from the source operator.

An application for funding is only considered complete if at least the requirements of Article 6 (2) GBER (cf. Annex) are fulfilled.

Funding applications for collaborative projects must be submitted in consultation with the envisaged collaboration coordinator.

The review and evaluation of the applications received will involve a joint panel of experts appointed by the BMBF and the Swedish Research Council and be based on the following criteria:

- Contribution of the project to the research policy goals and scientific objectives of the measure

- Scientific quality
- Scientific originality
- Prospects of success and feasibility (work, time and cost schedule)
- Expertise of the applicant
- Utilization of the results

After final consideration of the application, a funding decision will be taken on the basis of the above criteria and evaluation.

Funding is expected to start on 1 April 2024.

The projects should be designed to run for a maximum period of four years and structured around specific milestones.

7.3 Relevant regulations

The approval and payment of and accounting for the funds as well as the proof and examination of the proper use and, if necessary, the revocation of the award and the reclaiming of the funds awarded are governed by sections 48 to 49a of the Administrative Procedure Act (VwVfG), sections 23 and 44 of the Federal Budget Code (BHO) and the related general administrative regulations, unless the present funding regulations allow deviation from the general administrative regulations. The *Bundesrechnungshof* (Germany's Supreme Audit Institution) is entitled to carry out audits in accordance with section 91 of the BHO.

8 Validity

These funding regulations will enter into force on the day of their publication in the Federal Gazette (*Bundesanzeiger*). They will be valid until the day of expiry of their legal basis for state aid, the GBER, to which a six-month adaptation period is added, that is, until 30 June 2024. If the period of the GBER is extended without relevant amendments concerning state aid rules, the duration of these funding regulations will be extended accordingly, though not beyond 31 December 2030. If the GBER is not extended but replaced by a new GBER or if relevant amendments are made to the content of the currently applicable GBER, follow-up funding regulations will be adopted which will comply with the then applicable exemption provisions and remain effective at least until 31 December 2030.

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Federal Ministry of Education and Research

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