

Federal Ministry of Education and Research

Announcement

Regulations governing the funding of international collaborative projects under the National Research Strategy BioEconomy 2030

"Bioeconomy international 2016"

1. Funding purpose, legal basis

1.1 Funding purpose

The Federal Ministry of Education and Research (BMBF) intends to support the implementation of the National Research Strategy BioEconomy 2030 in an international context by funding collaborative R&D projects which involve foreign partners.

The Federal Government's National Research Strategy BioEconomy 2030 provides the basis for realizing the vision of a sustainable, bio-based economy by 2030. Biological resources and processes must be used systematically in order to secure the global food supply, produce healthy and safe foodstuffs, make agricultural production more sustainable and promote the use of renewable resources in industry and energy generation. Using biotechnological methods and focusing on improved biological production systems in industry are also becoming increasingly important. Companies are introducing sustainable processes and products in order to remain competitive. However, we must keep up our efforts to ensure global food security while moving towards a bio-based economy. It is becoming evident in many countries that agricultural biomass production will have to face the increasing problem of competing uses, ranging from feeding the population to industrial extraction of raw materials for the production of biofuels.

Realizing the bioeconomy as a bio-based economic system requires more than merely national and European initiatives. International cooperation is needed to achieve the objectives set out in the National Research Strategy BioEconomy 2030. This is the purpose of the "Bioeconomy International 2016" funding activity. Funding will be provided for research and development projects that are carried out in close cooperation with relevant foreign partners on core issues of the bioeconomy strategy in order to strengthen existing and establish new international partnerships/collaborations. Socioeconomic aspects and systemic approaches are important criteria in addition to technological issues and development goals.

1.2 Legal basis

Project grants will be awarded in accordance with these funding regulations, the BMBF's standard terms and conditions for grants on expenditure or cost basis and the administrative regulations under sections 23 and 44 of the Federal Budget Code (BHO). There is no legal

entitlement to a grant. The funding provider will take a decision after due assessment of the circumstances and within the framework of the budget funds available.

Funding under this regulation fulfils the conditions of European Commission (EC) Regulation No. 651/2014 of June 17 2014 declaring certain categories of aid compatible with the Common Market applying Articles 107 and 108 of the EU Treaty (General Block Exemption Regulation - GBER), (OJ (EU) L 187 of June 26 2014, p. 1) and is thus compatible with the Common Market within the meaning of Article 107, Para 3 of the Treaty on the Functioning of the European Union (TFEU) and exempt from the obligation to provide notification in accordance with Article 108 Para 3 of the TFEU.

According to Article 1, Para 4 a) and b) of the GBER, no payment of individual aid will be made in favour of an undertaking which is subject to an outstanding recovery order following a previous Commission Decision declaring an aid illegal and incompatible with the Common Market.

This funding directive applies in connection with the "National Research Strategy BioEconomy 2030" available at <http://www.bmbf.de/de/biooekonomie.php> and the linked documents.

2. Object of funding

Funding provided in accordance with these regulations is aid for research, development and innovation projects within the meaning of Article 1 para 1 d of the EU GBER.

International collaborative R&D projects which are carried out jointly by German and foreign partners and are selected in a competitive procedure are eligible for funding.

The funded projects will support national bioeconomy activities funded by the BMBF and contribute to the policy objectives pursued by these activities.

They will make a major contribution to at least one of the fields of action listed in the National Research Strategy BioEconomy 2030:

1. Securing global nutrition
2. Ensuring sustainable agricultural production
3. Producing healthy and safe foods
4. Using renewable resources for industry
5. Developing biomass-based energy

Furthermore, the collaborative projects will contribute to at least one of the following objectives of the Federal Government's Strategy for the Internationalization of Science and Research:

1. Strengthening of research collaboration with leading international institutions
2. Development of international innovation potentials
3. Assuming international responsibility and meeting global challenges.

International cooperation, the generated added value in the implementation of the National Research Strategy BioEconomy 2030 as well as the contribution to the objectives of the Federal Government's Internationalization Strategy are the main focus of the "Bioeconomy International 2016" funding activity. The funding activity also provides an opportunity for realizing project ideas which were developed in measures to prepare collaborations.

For further information on the National Research Strategy BioEconomy 2030 and the Internationalization Strategy of the Federal Government please visit http://www.bmbf.de/pub/Biooekonomie_kurzfassung_dt.-engl..pdf and www.bmbf.de/pub/Internationalisierungsstrategie.pdf, respectively.

Funding will be provided for the German partners in international consortia; collaborative projects with Argentina, Brazil, Chile, India, Canada, Malaysia, Russia and Vietnam will be given preference.

Funding will not be provided for collaborative projects which exclusively involve partners from EU countries.

The "Bioeconomy International 2016" funding activity includes three modules with regard to partner countries:

Module 1) "Bioeconomy International - Basis"

Cooperation with partners from all eligible countries excluding Russia and Vietnam. In the frame of this module the submitted proposals have to address at least one of the above mentioned five fields of actions of the National Research Strategy BioEconomy 2030.

Foreign partners are required to produce binding evidence of their financial commitment. Those "financial commitments" should be uploaded as a part of the proposal in the submission platform www.bioeconomy-international.de.

Module 2) "Bioeconomy Germany-Russia"

Cooperation with partners from Russia.

The Ministry of Education and Science of the Russian Federation (MON) has launched a dedicated call. Russian applicants are advised to submit an identical project proposal in Russia. The selection procedure under Module 2 will be implemented jointly with Russia.

The joint German-Russian Call is dedicated to R&D that will enable progress in building foundations of the *Bioeconomy* in both participating countries. Bioeconomy based on the use of renewable resources is considered as a sustainable model of industrial and primary production growth preserving valuable non-renewable resources for future generations and devoid of detrimental effects on environment and climate.

The goal of the call is to strengthen the knowledge base and develop advanced technologies related to the various areas of Bioeconomy. The call focuses on industrial biotechnology for chemicals such as the biotechnological production of intermediates with high potential downstream application in industrial sectors like the chemical, agro, food and feed, and other relevant industries (organic acids and other platform chemicals, building blocks for

biodegradable and biobased polymers, amino acids, vitamins, enzymes, probiotics, etc.). The call addresses biotechnological value chains from the conversion of biogenic raw material to high added value products. A special focus is laid on industrial applications, on processing of waste and novel feed-stocks like lignocellulosic waste from agriculture and forestry, waste from food industry and syngas/CO₂.

The call *will cover* the following subject areas and topics directly related to them:

- Development of new and improved biocatalysts (enzymes, cells) and microbial strains for innovative and more efficient bioprocesses by e.g. metabolic engineering, synthetic and systems biology approaches, directed evolution technologies and/or exploiting natural biodiversity
- Innovative fermentation and integrated biocatalytic processes including bioprocess engineering for platform chemicals, biomonomers, biopolymers, bioproducts for agro and food and feed industry and second generation and advanced biofuels
- Biotechnological processing (including strain development, separation and conversion) of different carbon sources like biomass, syngas and various side streams into value added products
- Sustainable and integrated utilization of biomass in bio-refinery concepts
- Development of novel, unique-performance biobased products
- Waste (agricultural, industrial, municipal) valorization via biotechnology means

The following areas will be *excluded* from the scope of the Call:

- First generation biofuels utilizing food crops
- Biopharma, biomedicine and other related “red” biotechnologies
- Agricultural biotechnologies if not directly relevant to the scope of the call
- Marine biotechnologies if not directly relevant to the scope of the call
- Bioinformatics, “omics” technologies, etc. if not directly relevant to the scope of the call
- Environmental issues like e.g. water and air purification, soil remediation etc.

Module 3) "Bioeconomy Germany-Vietnam"

Cooperation with partners from Vietnam.

The Ministry of Science and Technology (MoST) is planning to launch a parallel call in Vietnam. Vietnamese applicants are advised to submit an identical outline proposal in Vietnam. The selection procedure under Module 3 will be implemented jointly with Vietnam.

As in Module 1, project proposals should address at least one of the above mentioned five fields of actions of the National Research Strategy BioEconomy 2030.

Project structure

Funding will only be provided for collaborative projects which involve companies, universities or research institutions based in Germany and international partners. The collaboration should be composed in an appropriate way to ensure that the project goal can be

achieved. Only the German participants in the project will receive funding. Funding will depend on a financial commitment regarding the foreign partners' activities in the collaboration.

The proposed projects must be structured in such a way that the project objectives can be reached within a period of up to three years. Another essential part of the funding activity is the common scientific and economic utilization of the project results by the partner in all participating countries. Furthermore, the projects must be balanced with regard to the workload and financial volume per country.

3. Funding recipients

Applications may be submitted by universities, non-university research institutions, *Land* and Federal institutions with research responsibilities and by commercial companies based in Germany, particularly small and medium-sized enterprises (SMEs – in accordance with the European Union's definition: http://ec.europa.eu/growth/smes/business-friendly-environment/sme-definition/index_en.htm). Research institutions which receive joint basic funding from the Federal Government and the *Länder* can only be granted project funding for their additional expenditure under certain conditions.

4. General requirements for funding

In their own interest, applicants should familiarize themselves with the EU's Horizon 2020 Program in the context of the envisaged national project. They should check whether the intended project includes specific European components which make it eligible for exclusive EU funding. Furthermore, they should check whether an additional application for funding can be submitted to the EU in the context of the proposed national project. The result of such investigations should be described briefly in the national project application.

The partners in an international "collaborative project" must regulate their cooperation in a consortium agreement. Before a funding decision can be taken, the cooperation partners must prove that they have reached a basic agreement on certain criteria stipulated by the BMBF. Relevant information in German language is available in BMBF form 0110 (see https://foerderportal.bund.de/easy/easy_index.php?auswahl=easy_formulare&formularschrank=bmbf#t6). The *DESCA model consortium agreement* can be used to compose a consortium agreement.

5. Type, scope and rates of funding

Funds will be awarded in the form of non-repayable project grants to the partner based in Germany.

The maximum duration of the funded activity is three years.

The following project-specific costs and expenditures for German partners only are eligible:

- Employment costs for postdoctoral researchers, PhD students and technical assistants
- Consumables
- Small project-specific equipment
- Travel costs
- External orders for services

6. Other terms and conditions for funding

Only relevant for partners based in Germany.

7. Procedure

7.1 Involvement of a project management organization and request for documents

The Federal Ministry of Education and Research has charged its project management organization (PtJ BIO, Forschungszentrum Jülich GmbH) with implementing the funding activity.

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7.2 Two-phase application procedure

The application procedure will take place in two steps.

7.2.1 First step: Project outline

Applicants are first required to submit electronic project outlines in English language to the project management Jülich organization via the web portal www.bioeconomy-international.de.

The project outlines must contain all the information needed to enable the panel of experts to form a final opinion. Required information and structure of the project outlines are published in the submission portal www.bioeconomy-international.de. Applicants have to use the electronic submission tool. Submission of applications via Email, fax etc. is not possible.

In addition, all foreign project partners under Module 1 must confirm their respective binding financial commitments in signed letters. These letters should be uploaded by the German partner as part of the application.

Project outlines must be uploaded to the web portal by **14. October 2016; 15:00 CET**. The portal will be closed when the deadline is passed. The submission deadline is not a cut-off deadline. For technical reasons, however, it may not be possible to consider project outlines received after the deadline. Applicants submitting their outlines after the deadline must contact the competent project management organization.

Plans have been made to issue further calls for "Bioeconomy International". Announcements will be published in due course on the relevant BMBF websites; relevant information can also be obtained from the Jülich project management organization.

7.2.2 Selection of project outlines

The project outlines received will be checked for completeness of required documents and compliance with formal criteria. They will then be evaluated together with external experts in accordance to the following criteria:

- Relevance to funding objectives of the BMBF as set out in the "National Research Strategy BioEconomy 2030" and the "Federal Government's Internationalization Strategy"
- Added value for Germany in the implementation of the "National Research Strategy BioEconomy 2030" generated by the envisaged international cooperation
- Relevance of research approach, quality and originality of the proposed solution
- Prospects of success and applicability of the project results (in scientific and economic terms)
- Excellence and expertise of the applicant and the partners involved (German and international); relevant previous work of all partners
- Adequate volume and structure of the project, quality and stringency of budget as well as time and work schedule, balance of workload and networking of partners.

7.2.3 Second step: Submission of formal proposals and decision-making procedure

After selection of the project outlines that have been evaluated positively and recommended for funding, the German project partners will be invited to submit formal proposals. A decision on these proposals will be taken after final evaluation.

On top of the project outlines, formal proposals require the following information and explanations (if necessary, expert comments and concern need to be addressed):

- Project title (in German)
- Publishable project summary (max. one DIN-A4 page, in German)
- Detailed plan for financing the project
- Milestone planning: a list of potential accomplishments and expected achievements during the period of funding, a contingency plan (if necessary)
- Explicit plans for the utilization of project results (scientifically and economically), chances of success and potential for continuation beyond the funding period
- Necessity of funding
- Timeline for composing a consortium agreement between all partners

The following criteria will be applied to evaluate the formal proposals:

- Eligibility, appropriateness and necessity of requested funds (cost for staff, consumables, business travel etc.)
- Traceability of the financial plan
- Quality of the utilization plan of project results, also in consideration of the objectives of the “Bioeconomy International” funding activity
- Implementation of potential expert stipulations from the first evaluation step

Funding of the projects is subject to the provision that the budget funds required are available to the BMBF and that funding for the foreign partners is guaranteed.

The submission of project outlines and proposals does not establish a legal claim for funding. The deadlines for submission are not cut-off deadlines. However, it may not be possible to consider applications which are received belatedly or which are incomplete.

8. Entry into force

These funding regulations will enter into force on the day of their publication in the German Federal Gazette (*Bundesanzeiger*).

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Federal Ministry of Education and Research

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