


## Information for Applicants 131a

CALL


# CIRCULARITY WITH RECYCLED AND BIOGENIC RESOURCES – Collaborative Projects


Annual deadline: see website


 Natural sciences, engineering


 Research projects

 1.2 million EUR (max.)

 4 years

 Interdisciplinary team of 2 to 3 applicants

 Eligibility: PhD and above; international cooperation possible, provided the leading group is located at a university or research institution in Germany

 Further benefits: Additional funding for data reuse (open science) and for innovative science communication

6 to 8 months



# 1

## OBJECTIVES

(Primary) raw materials are becoming increasingly scarce. Their extraction and processing place an excessive burden on the earth through greenhouse gas emissions, biodiversity loss and water consumption. In view of a high resource consumption in (post-) industrial societies, there is a broad societal consensus that a transformation of production processes and consumption patterns towards a significantly reduced resource footprint is an urgent matter.

In this situation, the funding initiative aims at original and practice-relevant research projects that advance the closing of raw material-product loops. At the same time, this initiative aims to qualify and to build up expertise for a sustainable resource transition.

# 2

## FUNDING OPPORTUNITIES

Interdisciplinary research of two to three groups with demonstrated expertise in sustainable raw materials and product life cycles is fundable. The research objective is to demonstrate options how to close the loop for a concrete example. Preference is given to systems approaches and upscaling concepts for raw material-product systems for which no sustainable recycling strategy has been established yet.

The following research fields are in focus:

- Bio-inspired material design for sustainable raw materials
- Microbial and molecular conversion of recyclates and bio-based raw materials
- Valorization of waste streams featuring complex composition (composites, combination of materials) or high environmental impact
- Functional product design ideally suited for recycling or for the use of recyclates

This includes research into new efficient processes and methods, for example:

- Intelligent separation technologies for the recovery of high-purity substances
- Highly innovative recycling and (bio-)process engineering
- Analytics and characterization methods for biogenic resources and recyclates

It is the task of the applicants to identify an important resource-product system and to describe the knowledge gap addressed. The approach should focus on a weak link in the cycle, while considering the effects on neighboring elements and the overall cycle. The research question posed and the methodology have to be justified with respect to the state of the art.

The following criteria apply to the research approach:

- Systems approach (holistic)
- Problem analysis from a product perspective
- Potential high impact solution (e.g. in terms of up-scalability)
- Transferability into practice
- Impact in all dimensions, i.e. technological, societal, economic, environmental
- Assessment of resilience and sustainability.

Scientific risk in a positive sense ('high risk, high gain') and creative approaches ('out of the box') are very welcome. Machine learning and digitization are included as methods, but not mandatory. The added value of interdisciplinary cooperation and, if applicable, international participation must be outlined in the application.

## 3 WHAT WE OFFER

Project design and eligibility:

- Interdisciplinary team of 2 to 3 applicants with a joint topic
- Target group: Professors, group leaders, postdoctoral scientists at universities, universities of applied sciences and research institutes

- Lead applicant from natural sciences or engineering, at a scientific institution in Germany
- Co-applicant(s) from scientific institutions in Germany or international, incl. Global South
- Active link to practice partners

Budget and duration:

- Total budget 1.2 million euros max. (without overheads)
- Duration 4 years
- Separate budget for each applicant
- Funds for scientific personnel, travel expenses, other recurring costs (consumables etc.), equipment (experimental set-up, prototype, etc.), open access publication fees
- For universities and universities of applied sciences: additional 10 % overheads

A teaching buyout or teaching substitute (project-related sabbatical) is listed under scientific personnel. Travel expenses are also feasible for laboratory rotations and research stays with a practice partner. Applications for additional funding on data reuse (open science) and science communication can be submitted in the respective programs of the Foundation.

If data are used, newly collected, or processed in your project, then please provide essential information on data handling. Please either fill out the data management plan of an already identified data repository or enter the information in the form basic data management plan. If your project does not use or generate any data to a relevant extent, please state this explicitly.

## 4 APPLICATION AND TIMELINE

Applications timeline approx. 7 months:

- Submission by the deadline via the electronic system
- Formal review by Foundation staff
- Shortlist by an interdisciplinary and international review panel

- Invitation of the shortlisted project teams (15 max.) to present their projects
- Review meeting with presentations
- Decision-making by the Foundation's Board of Trustees

If more than 15 proposals happen to make it on the panel's shortlist, then in the 'grey zone' of the ranking the invitation for a presentation will be decided by lot.

Review criteria:

- Relevance of the research question for circularity
- Scientific originality and technological innovation
- Potential for practice transfer
- Coherence of project design and methodology
- Scientific qualification and interdisciplinary team composition.

Optionally, applicants may submit a pre-proposal (in English, 3 to 4 pages outline plus CVs, font size 11 pt) as a preliminary application stage. The set deadline and the timeline also applies to pre-proposals. For pre-proposals the review refers to the topic (relevance, originality, potential for innovation) and the team (interdisciplinarity, qualification). After a positive preliminary review, a full proposal based on the outline can be submitted by the next regular deadline. In case of open questions, hints are given for the preparation of a full proposal. However, no substantive feedback is provided on the decision not to pursue a pre-proposal.

# 5

## CHECKLIST AND GENERAL CONDITIONS

The submission is in English using the Volkswagen Foundation's online application system. In the application system, please select application or pre-proposal accordingly. Please find templates for the project description and curriculum vitae (CV) on the website of the funding initiative. There are no fixed specifications for the other documents.

Checklist for applications (pdf upload)

- Lay summary – in German and English (approx. 200 words)

- Project description with references ( 8 to 12 pages, Arial 11 pt, according to the template)
- Attachment: List with a few words on practice actors involved
- Attachment: Brief delineation from ongoing externally funded projects
- Tabular-narrative curriculum vitae of all applicants (4 pages max., according to the template)
- Justification of budget for each item, scientific personnel with academic field, project tasks, qualification (with/without Ph.D.)
- Only for equipment item(s) above 10,000 EUR incl. VAT: Quotation
- Only if research data generated: Data management plan
- Only if applying for one's own position: Institutional declaration on feasibility, administration of the grant, hiring by the institute

#### Checklist for optional pre-proposals (pdf upload)

- Project outline (3 to 4 pages, Arial 11 pt)
- Tabular-narrative curriculum vitae of all applicants (4 pages max., according to the template)

#### Data entry within the system:

- Name, institution, contact data of all applicants
- Concise title and duration of the project
- Tabular budget: for positions with TVL classification (Germany) or internationally according to the local pay scale, material expensed incl. VAT
- For pre-proposals: estimated total budget
- Only in case of a change of institution in the near future: information on other grant-recipient (new institution)

Please inform yourself about the electronic application system of the Volkswagen Foundation prior to submitting your application. Information can be found in the document 'Electronic Application System – Instructions and Tips'. An early personal registration of all applicants is important. Without an account it is neither possible to invite co-applicants nor to submit the application.

Applications that in principle fit to thematic programs of other funding organizations such as DFG, BMBF, Horizon Europe, etc. will not be reviewed by the Foundation. Please delineate your topic as needed.

# 6 CONTACT

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Additional Information:

- > [Link Website 'Circularity'](#)
- > [Application FAQs \(general\)](#)
- > [Electronic Application System](#)
- > [Instructions Electronic Application System](#)
- > [Download: Personnel Rates, Data Management Plan](#)
- > [Link Webpage 'Open Science'](#)
- > [Link Website 'Science Communication'](#)