

Helmholtz Sustainability Challenge

2nd Call for Applications– Satellite Projects

Helmholtz Association | The Initiative and Networking Fund | 06/04/2023

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The campaign at a glance

The preservation of our livelihoods and the continuous improvement of our living conditions are at the center of our scientific work. For years, the scientists of the Helmholtz Association have made important contributions to the transformation towards a sustainable society through their research. These include major international projects such as the [MOSAIC expedition](#), participation in the World Climate Report or the World Biodiversity Council, joint initiatives such as [Energy Systems 2050](#) or the [Helmholtz Climate Initiative](#), as well as countless research projects for sustainable materials, low-emission mobility and much more. This call for applications adds to the important endeavor of a sustainability transformation.

To promote new research topics, cross-sectional activities and community-wide initiatives, the Helmholtz Association maintains the Initiative and Networking Fund (INF). As part of a research campaign, the fund provides up to 21 million Euro from 2022 to 2027 for joint research projects of the Helmholtz Centers and their partners dedicated to design novel research activities in the field of sustainable value chains and to bring them to the widest possible application.

In the spirit of the Helmholtz creed "Research for Grand Challenges", the Helmholtz Sustainability Challenge [Sustainable Value Chains](#) will focus on research questions that integrate contributions towards a sustainable society in a problem-oriented manner:

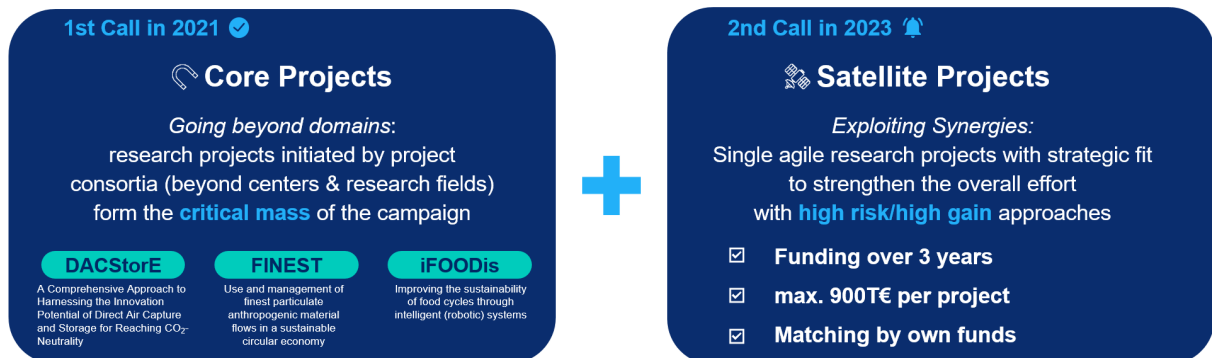
What major challenges exist en route to sustainable value chains and a circular economy and what competencies do we need to combine at Helmholtz to overcome them?

Once the problem has been defined and analyzed, it should be approached creatively, drawing from a diverse group of disciplines to find alternative viewpoints and solutions with a clear goal in mind: bringing solutions to the real world. Unfortunately, today's economic concepts are often not sustainable because they build on linear production processes from a raw material to a single product. This mechanism causes resource demands depleting natural resources, high energy consumption with the connected climate impact as well as increasing waste problems. In contrast, sustainable solutions result from integrated processes and resource flows optimized systemically along value chains while efficiently delivering the required products. Ideally, circularity (circular economy) reduces waste and resource input into systems and contributes to the dynamic equilibrium of the affected ecosystem or overall well-being of the society. Natural ecosystems provide a blueprint for these principles, prompting the use of nature-based solutions and bio-inspired mechanisms. Since many underlying economic processes border on everybody's personal surrounding, the required solutions have to be designed in a transformative manner to unfold an impact on our economy.

The Helmholtz Sustainability Challenge aims at **developing and demonstrating practical examples of sustainable value chains/ circularity** to obtain improved resource and energy use by a combination of technical progress, economic, ecological, and societal innovations. In this context, projects should define a specific challenge or problem that will:

- Address a challenge in line with the **UN Sustainable Development Goals (SDGs)** and the **EU green deal**
and
- Demonstrate **unconventional and innovative approaches** with high potential impact within 3 years;
- Be tackled in a **transdisciplinary fashion**: across domains, across research fields and scientific communities, exploiting existing skills and competencies from the Helmholtz Programs.

Structure of the campaign



The campaign consists of two separate calls concerning research questions addressing **sustainable value chains**; open to all members of the Helmholtz Association.

The first call for applications (concluded in March 2022) included funding opportunities for three joint research projects, so-called **CORE PROJECTS**. These form the critical mass of the campaign and address crosscutting research questions concerning sustainability challenges in the context of sustainable value chains and their contribution towards a sustainable society. The three funded projects – DACStorE, FINEST and iFOODis – were awarded ~5 Mio. € each to support their transdisciplinary consortia and their respective research schools. Further information on the core projects is available via the [Helmholtz Website](#) and at the [networking event on April 19](#) (see below for details).

This second call for applications provides funding for short-term **SATELLITE PROJECTS** that diversify the campaign portfolio and focus on high risk/high gain research ideas to create additional impact and exploit synergies during the funding period of the campaign. These agile satellites allow single projects with a strategic fit to boost the impact of the campaign by addressing an original question or relevant problem that:

- Is aligned with or can relate to a core project,
- Serves as a bridge between two or more core projects,
- or
- Is conceived as a stand-alone project which takes up a new dimension within the thematic framework of the campaign without being directly related to the core projects.

This second call for applications details the funding opportunities for **SATELLITE PROJECTS**.

2nd Call for Applications: Satellite Projects

A. Prerequisites for funding

a) Originality of the research

The research question should clearly **contribute to the Helmholtz mission** and prove its relevance for our society. The following aspects are of particular importance:

- Definition of the problem and approach in the context of sustainability (SDGs) and value networks (transfer orientation), i.e. the sustainability assessment along economic, social and ecological criteria should be fulfilled in a holistic manner (reduced resource and/or energy use need to be quantified showing the impact of the newly designed versus a state-of-the-art reference process, product or service).
- Novel and innovative ideas beyond and complementary to existing research and sustainability initiatives at Helmholtz with a clear distinction from existing research activities in the programs, Centers, or current initiatives.

b) High risk/high gain approaches

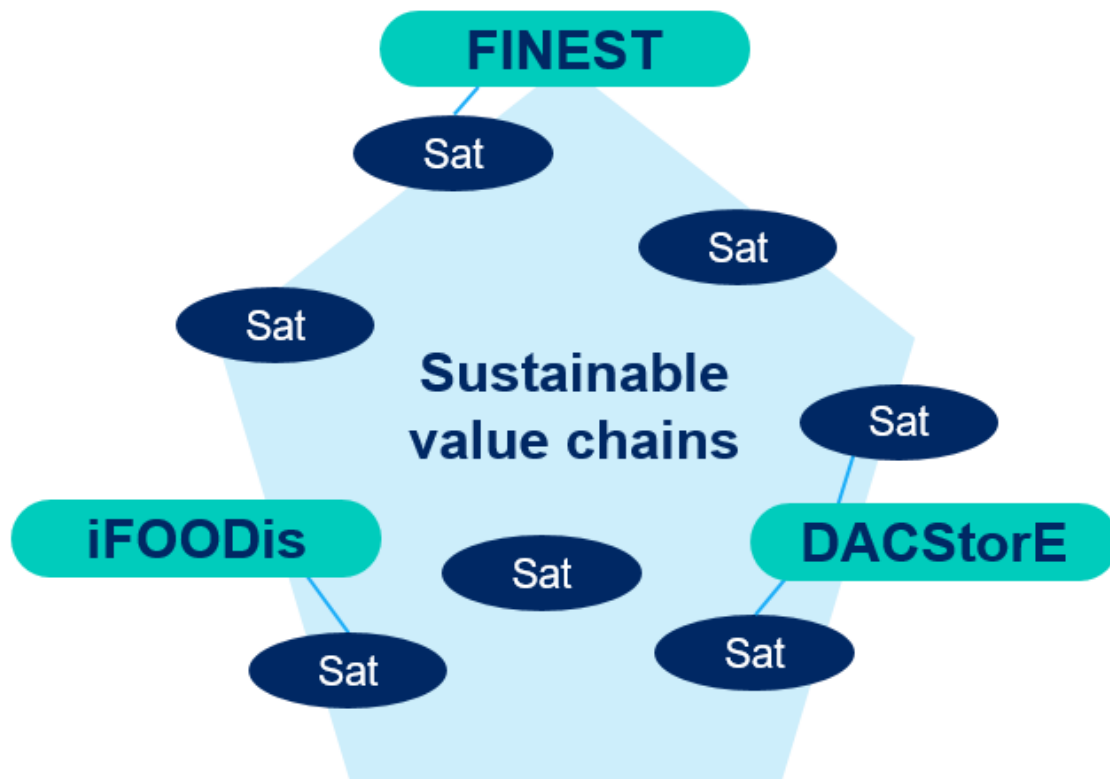
To utilize the innovative power of Helmholtz during this call, the projects are asked to strive for **ambitious exploratory approaches** with a “fail fast” philosophy. The anticipated gain/impact can be achieved both in the basic science regime as well as in the application.

The projects should

- outline the gain/impact of the project in relation to the possible risk(s),
- display both credibility (reliable knowledge gain) and vision,
- outside-the-box thinking,
- highlight make-or-break points in the project, if possible.

c) Thematic and strategic fit

The combination of core and satellite projects aims to map diverse facets from the Helmholtz Centers under the thematic umbrella of sustainable value chains in the research campaign and to link them where additional synergies can be exploited. Proposals for satellite projects can be associated with one of the three funded core projects. However, a proposal can also cover an attractive sustainability relevant topic beyond these cores, if significant contributions to the fields of sustainability value chains and circularity are to be expected. To reflect the thematic focus of this campaign, the satellite projects could either align themselves in a thematic area around the already funded core projects or address other dimensions of sustainable value chains with new ideas, researchers and groups.



Possible constellation of satellite projects in the field of sustainable value chains and circularity.

Projects are asked to outline their added value to the campaign and, if applicable, their complementarity to the funded core projects (FINEST: Closing material cycles; iFOODis: Sustainable food production; DACStorE: Negative emissions & CO₂ utilization). Contact information of the core project coordinators can be found together with the respective project information on the [Helmholtz Website](#).

B. Promotion of early career researchers and diversity

Supporting early career researchers is a top priority at Helmholtz (see [What defines us](#)). The project teams are expected to provide an excellent framework for conducting doctoral and postdoctoral research, such as outstanding infrastructure, stable working conditions, and a training program tailored to the individual needs of early career researchers, independent of their funding and affiliation. Due to the timeframe and aim of the funding, satellite projects are encouraged to prioritize postdoctoral researchers over doctoral students. If the latter are funded through the project, the teams should state how additional resources will be made available to guarantee suitable and stable conditions for completing the doctoral thesis beyond the three years of INF funding. If satellite projects are aligning with core projects (see [Thematic and strategic fit](#) for reference), early career researchers are encouraged to participate in the respective research school curriculum. Helmholtz also expects the projects to account for diversity, equality and inclusion, as specified in the [Helmholtz Guideline on Diversity and Inclusion](#).

C. Recipients, type and scope of the funding

The Initiative and Networking Fund provides funds for satellite projects that meet the following criteria:

- funding from 600T€ up to 900T€ per satellite project
- the funding must be matched by the partners' own funds in the same amount
- a funding period of 3 years
- in total each Center can apply for a maximum of 1.3 Mio € (including the share of the potential university partner) ¹

Helmholtz Centers and German universities (as partners of the Centers) are eligible for funding. The participating Helmholtz Centers and, if applicable, other partners involved are expected to provide co-financing, the total of which should at least correspond to the amount of funding provided by the Initiative and Networking Fund over the entire term. The full proposal must a) specify the co-financing as allocated to the project and involved partners and b) as distributed over the respective project years (a corresponding template will be provided together with the invitation to the full proposal submission). Project funding is provided as fixed-amount financing. Personnel costs (expenditures), material costs (expenditures), and investments according to the NKBF 2017/Version November 2019 (for the funded Helmholtz Centers) and the ANBestP (for partners external to the Helmholtz Association) are eligible for funding.

Project partnerships

The satellite projects may unite additional partners from Helmholtz Centers and/or university institutions (fundable) if they contribute substantially to the implementation of the project.

In the same way associated partners (not eligible for funding) could also be involved to strengthen the proposed satellite project:

- non-university institutions (e.g. Fraunhofer, Max Planck, Leibniz)
- Industrial partners at different corporate levels (start-ups, SMEs, large corporations);
- NGOs or government branches,

New collaborations within and outside the Helmholtz Association should pursue the goal of realizing high-quality complementary research and increasing the visibility of Helmholtz research in the field of sustainable value chains / circular economy.

¹ Examples:

Quota of Center X is fully utilized by applications A & B. Quota of Center Y is utilized by applications A, B & C:

- Application A (900 T€): share Center X (700 T€) + share Center Y (200 T€)
- Application B (900 T€): share Center X (400 T€) + share University Z (partner Center X) (200 T€) + share Center Y (300 T€)
- Application C (800 T€): Center Y (800 T€)

D. Procedure

a) Details of the procedure



The Satellite projects will be selected in a two-step process consisting of a) a draft proposal stage, and b) a full proposal stage.

Draft proposal stage

The aim of this stage is to obtain an overview over the potential high impact projects and to identify those with the most promising challenge and vision. All project ideas have to be submitted as a draft proposal to be eligible for full proposal submission. The draft proposal must at least contain the following information (templates annexed and on the ProMeta platform – information on access see at the end of the call):

- Draft proposal according to the provided template
- Video pitch (5 min) according to the Video Pitch Brief
- List of 6 potential reviewers according to template; please mind the gender ratio of at least 50% suggested female reviewers
- Standardized résumés of the principal investigators (PIs) of ½ page each according to the template (please indicate up to 3 PIs that will actively participate in the remote Q&A); please mind the gender ratio of female researchers on your project
- Informal letter of support by the management of the co-financing institutions (as annex)

The proposal outline and video pitch have to be submitted no later than July 5, 2023 end of the day (EOD) via ProMeta upload on the ProMeta platform: <https://ivf.helmholtz.de/>.

For further details, please refer to the instructions for proposal submission via ProMeta, which will be published on the Helmholtz website from May 2023.

Remote Q&A and first selection meeting

Leading up to the initial selection of draft proposals, we will provide all draft proposals to the selection panel. The indicated PIs will receive an invitation to join the remote Q&A (chat platform) to enter into the discussion with the selection panel members. For each draft proposal, a channel will be supplied where the panel members can post questions. The PIs are asked to answer via thread under each of the questions in a concise and timely manner. The panel will then discuss all draft proposals comparatively in a separate video session to select the project teams to be invited to submit full proposals. The main criteria for this first decision will be **relevance** of the chosen challenge and the chosen **vision** for the approach, while scientific feasibility and quality will be reviewed in the full proposal stage.

Full proposal stage

After the draft selection, the head office will inform the chosen project teams about the requirements of the full proposal submission (templates, criteria, etc.).

The full proposals will undergo a peer review (in the form of written assessments) on the scientific project/endeavor and approach, work program and funding scenario by internationally recognized experts in the respective fields.

In the final selection meeting we ask the project teams to give a presentation of the project proposal to the selection panel (in Berlin or via video conference, if applicable), followed by a short Q&A session. The full proposal and the written assessments together with the presentation/Q&A will form the base of the final selection decision by the panel.

b) Dates & deadlines

Campaigning Month	April 2023
06/04/2023	Publication of second call for applications
18/04/2023	Roadshow #1 02 – 03 p.m. CET
24/04/2023	Roadshow #2 01 – 02 p.m. CET
19/04/2023	Networking event with core projects 02 p.m. – 04 p.m. CET
Draft Proposal Stage	
05/07/2023	Submission deadline for draft proposals
18-30/09/2023	Remote Q&A with selection panel (chat platform)
09-20/10/2023	Draft proposal selection (1-day meeting)
Full Proposal Stage	
15/12/2023	Submission deadline for full proposals
	Full proposal – written peer reviews
March/April, 2024	Final selection meeting

E. Contact & Helmholtz Access

In case of any questions please contact kampagne@helmholtz.de.

Helmholtz ProMeta platform as an information/exchange platform:

How to access the ProMeta platform and further information on proposal submission will be presented during the upcoming Roadshow events. You can register on the ProMeta platform by using the following link: <https://ivf.helmholtz.de/>

The head office will provide all templates and supporting documents (FAQ, Video Pitch brief) on this platform and on the Helmholtz website.