

**Call to submit applications
for the Helmholtz Innovation Labs grants of the Initiative and
Networking Fund**

dated October 08, 2018

1. Purpose

1.1 Objectives of the funding instrument

The call for the first round of "Helmholtz Innovation Labs" took place in September 2015. The first cohort of seven Innovation Labs now reaches the halfway point. Due to the success of the program in many ways, a second call is now being launched to build on this success.

The central goal of the Helmholtz Innovation Labs funding instrument is to establish the concept of Innovation Labs at the centers and adapt these accordingly. These physical "enabling spaces" will be an interface between industry research and non-university research that is embedded in a long-term strategy, going beyond pure contract research and existing transfer instruments.

In Innovation Labs, scientists will perform research and development with partners from private industry. The scope ranges from Innovation Labs to establishing long-term strategic pre-competition collaboration on specific subjects with one or more companies, to User Labs for application- and user-oriented technological and product development, such as application labs for checking with users and customers, or user platforms for facilitating access to large instruments, research infrastructures and Helmholtz Center data.

Close and iterative interaction between science, industry (SMEs and large corporations) and users/customers will contribute not only to helping to improve technology, but also involving the perspectives of other market participants early in the process, which can be critical for the successful development, from the invention to innovation.

Innovation Labs can be the result of existing close collaboration, or the starting point for future strategic partnerships or collaborative research projects.

Innovation Labs will particularly focus on:

- Disruptive innovations: Testing ideas/running innovation projects which may be seen as too radical, and therefore impossible to pursue within central company structures.
- Commercialization: Joint innovation activities are aimed at applications that meet market needs.
- Collaborations: Fruitful new links among multiple Innovation Lab partners can offer additional incentives for all involved to commit for the long term.

- Bi-directional knowledge flows: Knowledge flows from the application/private sector back into research and into joint development.
- Shop windows for the industry: Partners should have easy access to the research competence of the center/institute, which requires the building of a clear external perception.

The call for applications pursues the following overarching objectives:

- The sustainable establishment of Innovation Labs on a long-term basis with a sustainable structure
- Development of Helmholtz Innovation Labs as a seal of quality for application-oriented research and market-oriented development at the Helmholtz Centers.
- Development of expertise for the organizational establishment of new types of collaborative structures in the centers (best practice transfer)
- Possible synergies for other transfer projects run by the Helmholtz Association (e.g. Helmholtz Enterprise, Helmholtz Validation Fund)

The Helmholtz Innovation Labs fund will accordingly support concepts ¹ that...

- ... include SMEs and/or large corporations as partners to encourage knowledge transfer, opening up new technological and business fields.
- ... offer *Innovation Lab* partners an "enabling space" where they can iteratively test, validate and improve technologies, services and/or business models.
- ... present platforms which enable partnering as equals in learning, research and development.
- ... take into account the complementary nature of the collaboration, as well as synergies and competition with existing institutions in the Helmholtz Center or regional environment.
- ... facilitate serendipitous ²and spillover effects by bringing together various key players in the innovation and business ecosystem.
- ... support cross-industry innovation (linking partners from different industries).

Specific objectives for the funding to the proposed Innovation Lab should be embedded into the objectives of the research field, the strategic goals of the Helmholtz Center and the goals and needs of the private sector partners.

The Helmholtz Innovation Labs concept should achieve sustainability by having a structure that is viable in the long-term (either as independent organization or as part of an existing institute/enter). Innovation Labs must therefore be seen as business models and generate

¹ It is not necessary to meet every single criterion; key areas may also be focused on.

² A chance discovery of something not originally sought, which turns out to be new and surprising.

added value for partners, so that Innovation Labs can sustain themselves in the long term through income or independent contributions, after the five-year funding phase.

1.2 Target group

The tender is directed at employees of the Helmholtz Centers who want to establish an Innovation Lab as a platform for joint application-oriented research with private-sector partners. Applications will not be accepted from spin-offs or collaboration partners, although they can be partners. Contributions from the Initiative and Networking Fund will be made to the respective Helmholtz Center. Prior to application submission, the applicant must coordinate with the Center executives and Technology Transfer Offices.

2 Object of funding and configuration of the Innovation Lab

Funding is provided to physical facilities at one or more centers, for which the centers will make suitable space available on their campus. In exceptional cases with justification, locations outside the Helmholtz Center can be part of the Helmholtz Innovation Lab (such as at public universities, non-university research establishments or on companies' premises).

Existing Innovation Labs in industry and science have a broad range of different orientations and designs. In order to take into account the conditions and strengths of the specific centers, the Innovation Labs should be individually adapted to the local contextual conditions of the respective center.

The financial support from the instrument targets freely definable Innovation Labs, which may have roughly three starting points. For this purpose, the Helmholtz Innovation Lab can be built around a *platform technology* or around a *special research infrastructure*, or the lab focuses on a social problem in which technical solutions are used in an interdisciplinary setting. Furthermore, a further distinction can be made with regard to technological readiness / market proximity, whose focus should be understood as the end points of a continuum:

- Exploratory Innovation Labs: Innovation Labs which serve to achieve basic defined goals to create room for new ideas and solutions in the early, pre-competitive phase of the innovation process (fuzzy front end), typically with one or more companies of differing sizes (and from different industries).
- User Innovation Labs: Also called User Platforms, Innovation Labs are heavily focused on applications with the primary goal of identifying and addressing customer needs (e.g. through direct customer involvement), so as to drive user-centric development together with private sector partners.

The seven Innovation Labs of the first cohort can be viewed at https://www.helmholtz.de/en/transfer/technology_transfer/projects_and_initiatives/innovation_labs/.

Further funding conditions

Experience from the ongoing cohort shows that certain prerequisites in the project setup are critical to the success of the Helmholtz Innovation Labs and must be taken into account by the applicants:

- The Innovation Labs are working towards achieving their goals. In the main application phase, success indicators must be selected on the one hand from a given set of indicators and on the other hand from self-composed indicators. These need to be provided with individual target values, which the Innovation Lab intends to achieve after a period of 2.5 years.
- For the Innovation Lab team two positions in the area of communication (at least 0.5 FTE) and in the field of business development (1 FTE) should be provided preferably with experts.
- In the first year, a strategy workshop is to be conducted with an external partner.
- The applicant must report directly to the Board of Directors or the Executive Board.
- In the Innovation Lab concept, a cooperation with a training institution (university/university of applied science) should be implemented to leverage knowledge transfer and potential employee recruitment.

3 Funding conditions

3.1 Type of funding

Funding is provided as fixed-amount financing and is not repayable. Directly project-related personnel and material costs are eligible for funding, as are pro rata (directly project-related) costs to a limited degree for support personnel and investments specific to the project. This includes some technical infrastructure and equipment, but not buildings or real estate. If such investments are necessary for the establishment of a lab, they can be taken from the Center co-payment and are then counted as increased contribution from the Initiative and Networking Fund for personnel or material costs, for example. In addition to material costs, costs for orders to third parties are also eligible for funding, such as for consumable materials, travel, further training, consulting services and conducting studies.

The overhead costs of the centers are not eligible for funding. In justified cases, plausible, quantifiable and demonstrated in-kind services performed by the centers or private sector partners can be counted.

3.2 Funding volume and amount of funding

Financing for the setup and operation of Helmholtz Innovation Labs comes from the Initiative and Networking Fund (INF) and co-payments from the centers, and may be supplemented or substituted by contributions from private sector partners and/or revenues.

From the INF, the funding budget for this instrument is €10 million for 2019-2024. The amount of funding is a maximum of €2.5 million and a minimum of €750,000 for a five-year project. The funding must be matched by a co-payment of the same amount from the center. This means that the center carries 50% of the direct project costs. The co-payment can be higher than 50%, and consist entirely or partially of contributions from the private sector or Innovation Lab revenues.

The number of projects can theoretically be from four to 13, but the actual number of Helmholtz Innovation Labs projects that will be funded is probably four to six.

Financial support is provided on a diminishing basis, being intended as start-up financing (see next section).

3.3 Funding period and phases

Funding is initially approved for three years. After about 30 months a status seminar is held to examine execution and progress. A second follow-up funding phase of two years can then be applied for.

For unsuccessful Innovation Labs, funding will not be extended beyond three years. Any funds that become available can be approved for new Innovation Labs for two years.

The funding is provided on a diminishing basis: In the first year the funding rate is 60%; after this period it is 50% for a maximum of three years; and in the fifth and final year – or in the second year of extension – it drops to 40%. In the final year, co-payments from centers will ideally be increasingly substituted with contributions from private sector partners or Innovation Lab revenues.

The goal is for the Innovation Lab to become self-sustaining by bringing in private sector partners, subsequent institutional center financing and revenues. The long-term financing model must be indicated in the application.

Example calculation for a project with the maximum funding of €2.5 million over five years:

	Project costs	Funding	Amount provided by center/private sector	Funding rate
Year 1	€1,000,000	€600,000	€400,000	60%
Year 2	€1,000,000	€500,000	€500,000	50%
Year 3	€1,000,000	€500,000	€500,000	50%
Year 1 extension	€1,000,000	€500,000	€500,000	50%
Year 2 extension	€1,000,000	€400,000	€600,000	40%
Total over 5 years	€5,000,000	€2,500,000	€2,500,000	50%

4 Procedure

4.1 Application procedure

Multiple applications per center and applications for joint Innovation Lab concepts for multiple centers are permitted. Applications can be in German or English.

The application process has two phases, a preliminary application and the main application. Preliminary applications consist of a basic concept, the plausibility of which is checked by experts (see also 4.3).

In the preliminary application, the basic concept of the Innovation Lab should be briefly described using the template provided (max. 10 pages). This basic concept should describe the relevant aspects in line with the template. The preliminary application should also describe a schedule, a milestone-dependent financing plan and the monies needed. In addition to personal information about the applicant, it must also bear the signature of a

representative of the Helmholtz Center Technology Transfer Office.

Preliminary applications must be submitted by **February 15, 2019**. Within six weeks applicants will receive feedback on the plausibility assessment performed by external experts. This feedback should be taken into account when completing the main application.

Main applications should be submitted by **July 1st, 2019**.

The main application should not exceed 25 pages, and acts as a supplement to the information provided in the preliminary application, describing additional aspects as detailed in the template for main applications. When submitting the main application, a supporting letter from the Technology Transfer Office of the center must also be submitted. In addition, there must be a letter signed by the responsible center executive confirming that the center supports the application and will provide the co-payment. If the co-payment provided by the center is to be substituted by payment obligations of a private sector partner, that partner must supply appropriate verification together with a legally-binding signature.

Forms and templates are available for download from https://www.helmholtz.de/en/transfer/technology_transfer/innovation_and_funding_programms/helmholtz_innovation_labs/call_for_application/ The application must be submitted both electronically (by email) as well in its hard-copy original form with legally-binding signature and cover letter. The digital version should be sent to transfer.innovation@helmholtz.de and rainer.nicolay@helmholtz.de. The hard-copy original of the application must be submitted to:

Geschäftsstelle der Helmholtz-Gemeinschaft Deutscher Forschungszentren e.V.

Bereich Transfer und Innovation

Anna-Louisa-Karsch-Strasse 2

10178 Berlin, Germany

After the formal criteria have been checked, the application will be passed to external experts for assessment. These experts may request clarification of the submitted concepts. Any questions will be forwarded by the head office to the applicant.

In addition to the tender and preliminary and main application templates, various tools are available to the applicants at the centers to assist in the application process; these are available from Mr. Kamprath:

- Tool 1: *Objectives and case studies* (explanation of objectives and the concept of Innovation Labs, as well as an analysis of existing Innovation Labs) [Currently available in German only]
- Tool 2: *Guide* (brochure with details on the funding and on the application and assessment process)
- Tool 3: *Innovation Lab Canvas 1 and 2* (graphical presentation of the key design components of an Innovation Lab for the preliminary and main application)
- Tool 4: *Detail table Partners, Infrastructures and Personnel* (for the main application)
- Tool 5: *Detail table Project and Financial Planning* (for the main application)

Preliminary contact for the innovation program "Helmholtz Innovation Labs" is Dr. Martin Kamprath (martin.kamprath@helmholtz.de, Tel: +49 30 206329-77).

4.2 Selection and approval process

Innovation Lab applications are selected in a competitive process. Quality assurance and transparency are assured by the use of an external assessment and selection party.

The plausibility of preliminary applications is reviewed by external assessors based on the evaluation criteria. The results are provided to applicants.

If there is an extraordinarily high number of applications, two or three assessors will shortlist concepts. Preliminary applications that make the shortlist will then be permitted to progress to submitting main applications.

Once main applications have been submitted, applicants will be invited to make presentations at a selection session. The external assessors and staff of the Transfer and Innovation Department will be in attendance at this selection session. Prior to the meeting, main applications will be assessed by external assessors, but the final decision will be made at the selection session. The first selection session for the preliminary applications will probably be held in March 2019. The selection round of the main applications is expected to take place in July with a personal invitation from the applicants. Applicants will be advised of the exact dates as soon as possible.

Funding decisions will be announced approximately two weeks after the selection session. If approved, funding contracts which govern the further project details on performing the project (status reports, status seminar, final reports, proof of use) will be concluded with Helmholtz centers.

4.3 Assessment criteria

Submitted preliminary and main applications will initially be examined for formal correctness.

Preliminary applications will be assessed using the following criteria:

- How well the concept fits with the defined goals of the funding
- Specified interested private sector partners and partner constellations
- Orientation and attractiveness of the activities planned in the Innovation Lab
- Potential to transfer technologies to specific applications
- Potential for long-term viability after the funding phase
- Increase in profile of the Helmholtz Association through the Innovation Lab

Main applications will be assessed based on the following criteria as well as other aspects:

Added value

- Results/impact (as a flagship in the field) of the Innovation Lab for the center and the research field
- Strategic embedding (linking with existing activities and strategy concepts; consideration of the different starting points of the centers)

- Attractiveness and plausibility of the offering for private sector partners
- Assessment of monetizing concepts
- Increase in profile of the Helmholtz Association through the project

Innovative approach

- Implementation of radical project ideas that would not be possible in another formats
- Improvement of the iterative interaction between science, industry (SMEs and large corporations) and users for early incorporation of different perspectives
- Setting up of value-creation company networks

Feasibility

- Estimation of success probability
- Plausibility of long-term viability of the Innovation Lab
- Assessment of the capabilities of the Innovation Lab leader and team
- Project content and planning (goals, resource requirements, schedule, milestones)
- Plausibility of success indicators developed in-house and milestones for monitoring success
- Inclusion of the transfer offices in the application and execution process

Consistency of the orientation of the Innovation Lab

- Fit between partners and defined objectives
- Level of commitment/participation of private sector partners (letter of intent, financing commitments etc.)
- Consideration and transparency of any barriers
- Clarification of legal aspects: Contract structures, state aid law, compliance, avoidance of IP contamination, labor law, tax implications
- Clear cost and financial planning