Call for proposals – General Guidelines

Type of funding: initial money for exploration of your idea

Background

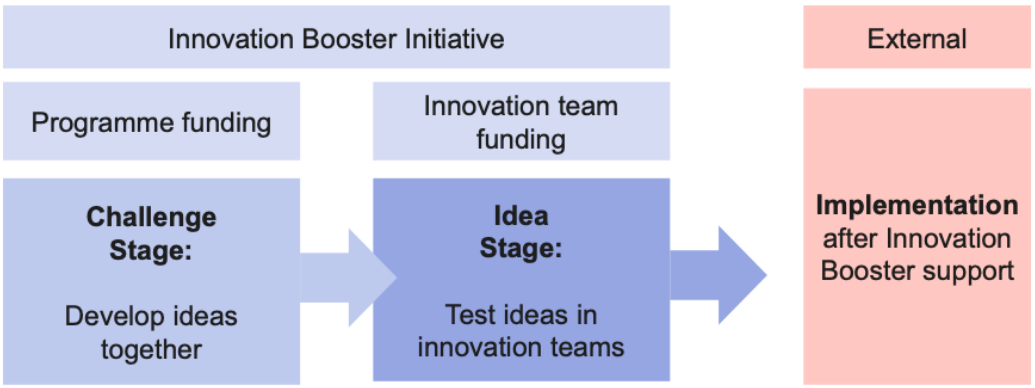
The innovation booster instrument is a space for **early experimentations** and agile learning cycles to be able to **decide early** in the **innovation process** whether to **take the risk** of a **follow-up**, to **pivot** or to **abandon** the project.

Innovation Boosters boost radical innovation in Switzerland by fostering an **open innovation culture,** by using agile learning cycles and by making user-centricity key in their innovation processes.

Innovation Boosters invest time and effort in assembling stakeholders from research, business, politics, and society around a **common challenge to explore relevant and meaningful problems**. They help participants apply user-centric methods to gain a deeper **understanding of a problem and discover opportunities for radical innovation**. IBs facilitate the quick and effective exploration of ideas for radical solutions. They provide selected innovation teams with support to test the desirability, viability, and feasibility of their idea before determining the next steps: implementing an innovation project, pivoting, or abandoning the idea quickly.
IBs foster open innovation through collaborative, cross-sectoral activities open to interested participants with diverse backgrounds.

There are two stages during the funding process proposed by the Innovation Booster Robotics: Challenge and Idea Stage.

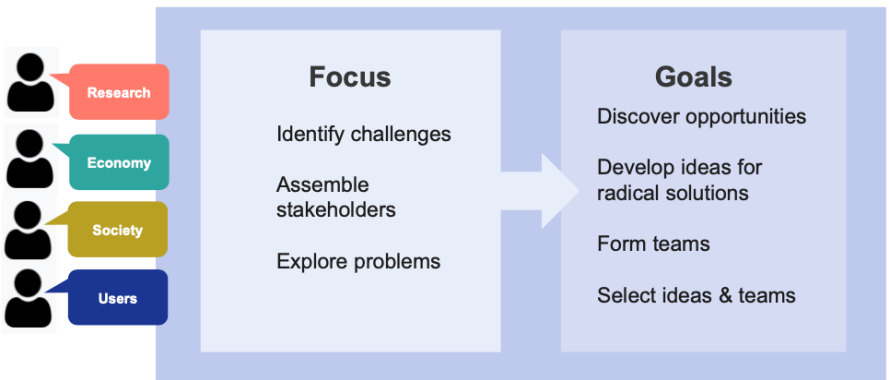
CHALLENGE AND IDEA STAGE



During the challenge stage, the Innovation Booster Robotics organizes thematic workshops.
In the **challenge stage**, IB activities will push the participants to **identify** and **engage with challenges collaboratively and with user-centric methods**. The aim is to help them **better understand and address their key problems**, to **discover radical innovation opportunities** and to **generate and develop ideas for radical solutions**. At the end of this stage, the Innovation Booster selects the innovation teams that generated the best ideas, to offer them further support.

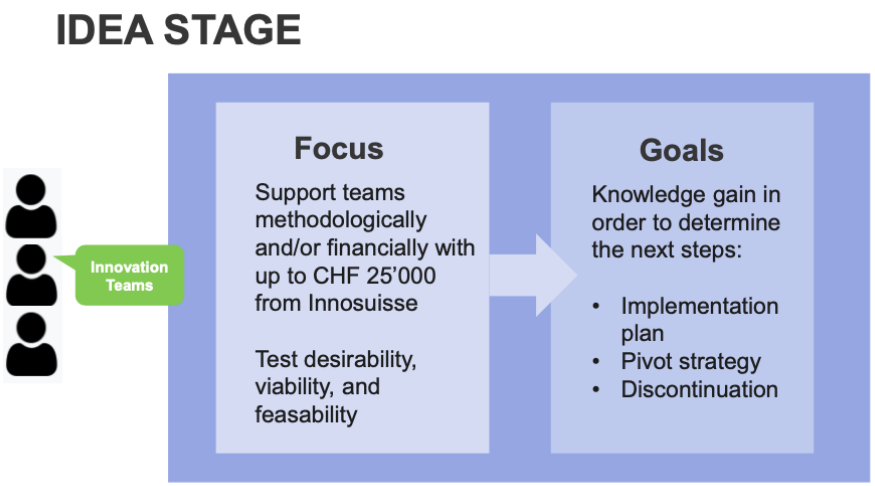
To work on the challenge, IBs assemble a wider range of stakeholders, including potential users. They focus on the interface between research, business, politics and society and assemble all the relevant stakeholders within the innovation theme vertically (along the value chain), horizontally (across topics and sectors) and geographically (supra-regionally, nationally, internationally) and involve participants with diverse backgrounds.

CHALLENGE STAGE



Once IBs have assembled stakeholders around the challenges identified, they facilitate collaborative and user-centric explorations of the underlying problems and thus help them gain novel perspectives and the deeper understanding needed to discover opportunities for radical innovation.

In the **idea stage**, IBs provide selected innovation teams with methodological and/or financial support to explore their initial ideas by testing their desirability, feasibility and viability.



Hence, submitted proposals for funding must have been generated or significantly developed during the Innovation Booster's challenge stage activities.

What should the application address?

The Innovation Booster in Robotics calls for applications for financial support of new technological development or a concept with high innovation and economic potential.

The Proposal has to incorporate a viable innovation idea which should show practical potential and take into account customer needs, feasibility and profitability from the very beginning. As much as practicable, such viable innovation idea should address an **identified or identifiable challenge or issue** or specifically contextualise a defined opportunity for improvement.

What is the monetary support?

Support of up to maximum 25'000.- CHF is offered to the winning teams at each round. Innovation Booster Robotics support enables the conduct of feasibility studies for

innovation ideas creating new processes, products, services, concepts, and business models in robotics. The Innovation Booster Robotics supports the selected innovation teams with funding specifically for testing and verifying concrete hypotheses that are valuable for the evaluation of the ideas. In this way, teams can develop the basis for improving the idea, reorienting it or terminating the project in a qualified manner. The booster encourages experimentation with radical innovation and the project may have the following outcomes: **follow-up**, **pivot** or **abandon** the project.

What is further support provided by the booster?

Additionally, the Innovation Booster Robotics offers free access to coaches to accompany the development of the technology to become a product or service and support teams to seek further **larger financial support** beyond the six months of development.

What are the topics of the proposals?

As mentioned before, the thematic workshops will elicit exploration of certain challenges. The thematic workshops will relate to the below key areas, and we welcome your proposals in these areas as well as beyond.

- Key area 1. **Mobile robots and manipulators**: this includes drones, mobile ground robots, underwater vehicles, robotic arms and hands, and any combination of these. Furthermore, this includes any application of industrial, service or field robotics (e.g. automotive industry, logistics, maintenance, transport industry, farming, forestry, space, construction, industrial installation and maintenance, domestic, etc.).
- Key area 2. **Medical/Biomedical Robots**: this includes all autonomous, assistive, and interconnected robotic devices for rehabilitation, medical and surgical robotics. This also includes wearable devices and neurotechnology, and related areas and applications.

Innovations are sought along the following (non-exclusive) list of themes:

- Development and/or application of **novel approaches for control and/or perception and interconnection** of robots for new or existing industrial products and services; this includes all **AI-based** approaches to control and perception.
- Application and development of **novel robot design and hardware**, e.g. through soft and deformable material, miniaturization of actuators and sensors, for new or existing industrial products.
- Evaluation of **robotic use-cases, and/or of deployment of novel robotic products in existing or novel areas of the industrial and public sector**; this includes use-case evaluation on site (at industrial partner) and in mock-up lab settings, evaluation of use of robots in the public domain (city centers, roads, etc.); it can also include studies and evaluation of economic impact for the particular industrial partner(s) or for the industrial sector;
- Evaluation of **use and deployment of robots in existing industrial or societal sectors (including concepts)**; this includes all *economic, societal, medical, ethical*

and legal evaluations of the impact of robotics for a particular sector; it also includes evaluation of the deployment and use of novel robots in support to education, rehabilitation, surgery, and to other societal and medical contexts; evaluation of the ethical and legal aspects related to the use and deployment of mentioned technology.

Who can apply?

Innovation teams getting IB support for idea testing must consist of at least one research partner and one implementation partner. An innovation team includes all partners who have the potential to make an important contribution to develop and improve the ideas.

Research partners

Research partners include universities, research institutes, non-commercial research centers outside the university sector, departmental research institutions with their own research projects and federal research institutes. They collaborate with implementation partners and contribute to the innovation process through their research findings, knowledge, and competencies.

Implementation partners

Implementation partners can be start-ups, SMEs or larger companies that offer products or services or implement processes. But they could also be non-profit organizations such as municipal administrations, charitable associations or social advocacy groups that can generate societal benefits and/or reduce public costs through the implementation of innovations. Implementation partners are the driving forces for potential future value creation and contribute with their knowledge of the necessary conditions and success factors for implementation.

Implementation partners need not always be commercial entities, their definition depends on the type of idea being explored. Ideas still quite removed from the final customer or B2B projects can also profit from research or non-commercial organization as an implementation partner, doing concrete first tests on a limited number of users or testing the idea in a limited field first.

For ideas closer to the market or B2C products and services, implementation partners must also offer – depending on the case – industrialization or mass production capabilities, commercialization capabilities, product, or service support. It is the job of each IB to evaluate the implementation partners of the supported innovation teams along the lines of this definition.

International partners

Innovation teams can include international partners whose support is necessary for the successful testing and verification of an idea. However, as the IB instrument should primarily benefit the Swiss economy and society, the following conditions apply:

1. IBs have to award and release the innovation team funding to a Swiss beneficiary.
2. In each innovation team, there must be at least one Swiss implementation partner and the main value creation must occur in Switzerland.

Teams of three or more partners are possible. **PLEASE NOTE THAT THE MIX OF MINIMUM ONE RESEARCH PARTNER AND MINIMUM ONE IMPLEMENTATION PARTNER MUST BE ATTAINED.**

If you are a start-up and have a great idea for funding but do not need to involve a research partner in your project, you might consider other fundings at this time available through Innosuisse.

The following type of partnerships are possible:

- *One or more industrial partners (corporation, SME, family business, incorporated start-up)* ***PLUS*** *one or more academic partner (EPFL/ETH, Schools of Applied Sciences).* Each industrial partner must contribute a matching fund *in cash*: of minimum 7'500.- CHF.
- *One or more start-ups* ***and*** *one or more other industrial partner* ***PLUS*** *one or more academic partners (EPFL/ETH, Universities and Universities of Applied Sciences).* The industrial partner must contribute a matching fund *in cash*: of minimum 7'500.- CHF. The start-up may be exempted from contributing to the matching funds. In this case, indicate the request for being exempted with the confirmation of the other industrial partner for contribution of funding.
- *Partnerships between two or more academic institutions* ***PLUS*** *a governmental (city, canton, federal department, etc.) or non-profit organization (NGO, Foundation etc.)* are possible too. The governmental or non-profit organization must contribute a matching fund *in cash* of minimum 7'500.- CHF.

If you are unsure about what does the above means for the composition of your teams, please contact Innovation Booster Robotics for eligibility checks.

In-cash contribution:

In-cash contributions must be cash contributions which include, for example, one team partner's cash contribution to one or several other team partners. Cash expenses for external materials and services can be considered third-party in-cash contributions as long as they are made in addition to the total Innosuisse contributions to innovation team funding, and other third-party contributions to innovation team funding are being used.

In-kind contribution:

Internal personnel costs by innovation team partners are considered in-kind contributions and do not count as third-party contributions. Personnel costs from innovation team members are considered in-kind contributions and therefore do not count as in-cash contributions. In-kind contributions include contributions provided in the form of goods or services that were already an internal part of the implementation partner.

Funding conditions

Funding supports development over a period of **up to six months**. Funding can support salaries of employees, purchase of required materials (for example: hardware), and travel costs. The project must be started within 1-3 months of the announcement of the winning teams. The project teams must announce the start and the end date of the project to Innovation Booster Robotics.

Selection criteria

Projects will be evaluated according to the following criteria:

- Innovative aspects of the technology
- Project's feasibility (within the timeframe and budget constraints)
- Potential of economic impact on the Swiss Economy
- Quality and Relevance of team's expertise
- Future plans beyond the study
- Safety and Regulation

Further details on selection criteria:

- **Innovative aspects of the technology:**

How innovative is this idea; is it radical in terms of innovation; is there a strong case for possible future developments?

Please check this following movie to understand the definition of radical innovation as a key element in selection process.

- **Project's feasibility (within the timeframe and budget constraints)**

How doable is this project within the given timeline and budget within the context of a feasibility study?

- **Potential of economic impact on the Swiss Economy**

Is there future value creation for the Swiss economy in terms of job creations and financial growth stemming from this idea?

- **Quality and Relevance of team's expertise**

What is the quality of the team? Is the mix between research partner and implementation partner relevant? What is the novelty of the team (exploratory phase with a new team with potential vs. continuation of existing projects (modifications) by established robotics stakeholders.

- **Future plans beyond the study**

What is the assessment of the team's future plans beyond the study and is it considered that the team is strategizing for a technology transfer to the market, securing additional funding, and/or has a long-term vision for this project?

- **Safety and Regulation**

Safety issues and regulatory requirements relevant to the project should be detailed in this section. The guidelines and regulations currently in place that affect the work must be described, and any safety and regulatory factors that could impact future project development should be considered. This will help ensure that all potential risks are managed and that the project remains compliant with relevant standards as it evolves.

When to apply?

The call runs twice a year. In 2025, the calls will fall due **April 18th** and **September 1st**. Matchmaking and Ideation workshops to support in matchmaking and application preparation will be held throughout the year as part of ongoing robotics events in the ecosystem.

Frequently asked questions:

Can one of the partners come from abroad?

- The Innovation Booster Robotics calls are for Swiss Institutions and Swiss-based industrial partners, however international partners are welcome as long as value creation stays within Switzerland.

What is the maximum total of the funding one team can receive?

- Basic funding per team is 25'000.-CHF stemming from the booster, added to what would be third party funding from industrial partners (co-funding) in the amount of minimum 7'500 CHF min. Hence, total funding of 32'500 CHF.

What governs the Intellectual Property Rights conceived during the project?

- Any and all Intellectual Property Rights on the Results which are conceived, made, reduced to practiced or learnt by the Participant as part of the Project during the Feasibility Study (Foreground IPR) are solely governed by the Team Rules agreed upon by the Team Members.

- IP and confidentiality matters are to be discussed among partners as part of their agreed Team Rules.

How to apply?

Please download the template of the website of https://ntnrobotics.com/en/call-for-proposals/. E-mail the template to contact@ntnrobotics.com by the deadlines of the calls.

How to contact us:

For any inquiries, please e-mail for inquiries please contact:

contact@ntnrobotics.com