

Φ -lab Finland

How to apply Φ -lab Finland R2B funding

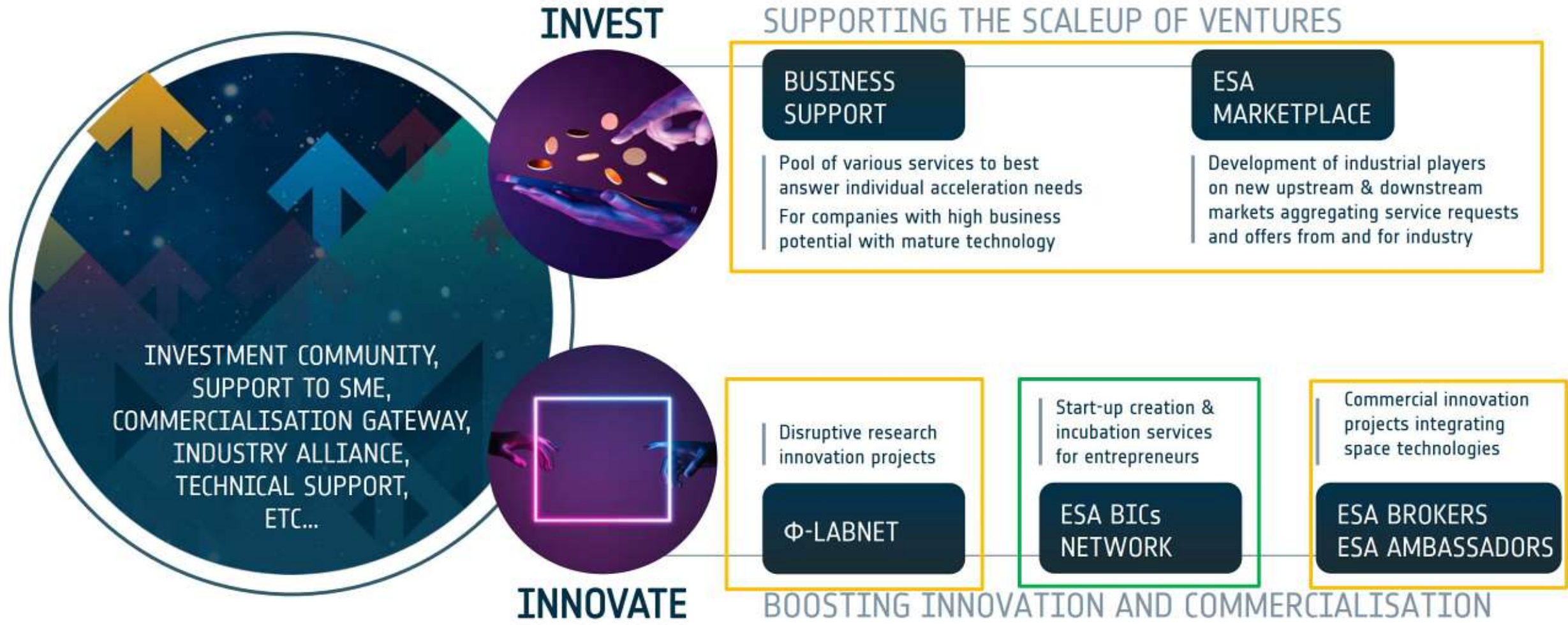
*Jaan Praks, Tomi Erho
 Φ -lab consortium, Aalto University*





**Commercialization
of the space sector is
one of five top priorities in**

ESA AGENDA 2025



ESA BICs

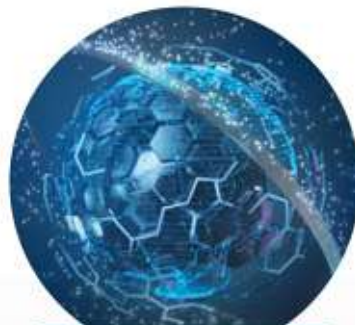
Foster start-up firms that set-up a new and innovative business using space-oriented technology, or data derived from space assets, for products and services in both space and terrestrial markets

ESA TECHNOLOGY BROKERS

Support technology transfer and appliances between established industry from the space and non-space sector, and within the space sector

ESA Φ -LAB NETWORK

Facilitates research teams to engage in groundbreaking science and technology development that have a potential in high-yield commercialisation



Φ -LAB
NETWORK

ESA-WIDE COVERAGE
IN MULTIPLE
MEMBER STATES

GROUND-BREAKING
RESEARCH, DIVIDING
COMMERCIAL
TECHNOLOGIES

FOR PhDs
AND RESEARCHERS



BUSINESS
INCUBATION

29 CENTRES

90 LOCATIONS

200 NEW
STARTUPS P/Y

1600
STARTUPS SELECTED



TECHNOLOGY
BROKERS

9
TECHNOLOGY
BROKERS

404
TECHNOLOGY
TRANSFERS



PARTNERSHIPS

FOR ENTREPRENEURS,
CORPORATES,
INSTITUTES, AND
BUSINESS SCHOOLS

SUPPORTS START-UPS,
ALUMNI AND
NEWCOMERS

CONNECTING TO
CURRENT & FUTURE
DECISIONMAKERS

Mission

The mission of Φ -labNET, one of the components of the *Innovate Element* in ScaleUp; is to accelerate the future of Space by **introducing innovation at fast pace** with:

- talented **researchers, business developers, Industries** (including startups),
- as well as intermediary entities such as ESA Business Incubation Centres (ESA **BICs**), **Technology Brokers, Accelerators**, and private **investors**, including Venture Capital organisations.



| Φlab consortium | Economic Operator |
|--|--|
| Receive funds from Ec Operators for performing Research Activity on-demand and further develop their knowledge | Externalise research tasks to experts |
| Paid for access to their facilities and usage of IP portfolio | Leverage on facilities (test facilities etc.) of the Φ-lab and background IP owned by Φ-lab |
| Granted License on new IP or (co-) owner of new IP | Granted License on new IP or (co-) owner of new IP |

Implementation Φ -labNET 2023-2025

ESA PHILABNET MAP

LEGEND

- Large Philab
- Small Philab
- Pilot Philab



11+ Φ -Labs

Large Φ -Labs: 5.2Meuros



What is
 Φ -lab Finland?

What is Φ -lab Finland

Φ -lab Finland is a **research to business** accelerator which combines **science teams with economic operators**, provides **funding and access to infrastructure** for **disruptive** ideas for fast commercialization.

Φ -lab Finland is concentrating on Space Data Economy „**Space Data for Sustainable World**“ which includes also space data production (spaceborne signals and sensors).

Phi-lab Finland proposing consortium ecosystem

Aalto University

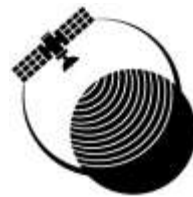
Finnish Meteorological Institute

National Land Survey of Finland

University of Vaasa



ESA BIC FINLAND



Available infra

- Finnish National Satellite Image Center
- Virtual Computing Platform
- Weather and other reference data
- Small satellite lab and test equipment
- RF anechoic chambers
- EMC testing, Cleanrooms
- Location reference measurements
- CalVal environment for EO instruments
- Small satellite platform
- and much more....



Support by science teams

Φ-lab scientists

- Finnish Flagsips -
 - Finnish Center for Artificial Intelligence (FCAI), House of AI, Flagship of Advanced Mathematics for Sensing, Imaging and Modelling (FAME), Digital Waters (DIWA), The Atmosphere and Climate Competence Center (ACCC), Finnish Quantum Flagship
- Finnish Centre of Excellence in Research of Sustainable Space



FCAI Finnish Center for Artificial Intelligence

FQF  **Digital Waters**



**Φ -lab
call for ideas
is open!**

Φ-lab realization depends on your applications!

- If proposal is approved, Φ-lab Finland opens the first call for proposals.
- Typical project is in volume of 100 k€ - 500 k€
 - Funding 100% for research institutions, 50% for large companies
- Candidates for first call proposals should be included already in Φ-lab proposal for ESA.

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Deadline: END OF APRIL!

Preliminary Research Proposal

1. Description of the disruptive idea

2. Brief description of Team Background and Experience

2. Economic operator, academic entity, governmental institute or consortium

3. Evidence of any market pull or research push that would facilitate the future market adoption of the envisaged solution

3. The potential target market

4. Customers/users, current situation, and their needs

4. Preliminary Activity Plan

4. Milestones

5. Budget

6. Access request to ESA Phi-Lab facilities, laboratories, and workspaces

Contact for template!

The proposal can be protected with NDA!

Topic ideas

Data, EO, Navigation, Sensors, Computation, Sensor Fusion

- Big Data
- Satellite Images
- EO sensors
- Navigation data
- Sustainability
- Precise Positioning
- Data-economy
- Safety

Disruptive, Business, Service, Product, Success

- Digital twins
- Metaverse
- Destiny Earth
- Situational awareness
- Space Debris
- AI and data analytics
- HPC and edge computing
- Quantum Sensors

Who can apply?

Economic operators,
big companies, small
companies, research
institutes,
consortiums.

To be included in the first Φ -lab
application round, submit an idea proposal!

Send your idea and negotiate with us!

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Winter Satellite
Workshop 2025
21-23 January

Finland

www.spaceworkshop.fi

Let's build Finnish space ecosystem together!