

Happy international Women's
Day for all female space
enthusiasts!

8. March 2024

Φ -lab Finland

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**Commercialization
of the space sector is one
of five top priorities in
ESA Agenda 2025**

ScaleUp Programme

122.4 M€

TOTAL
SUBSCRIPTIONS

OVERSUBSCRIPTION
OF

+22.4%

INNOVATE ELEMENT
FUNDED WITH

98.46 M€

INVEST ELEMENT
FUNDED WITH

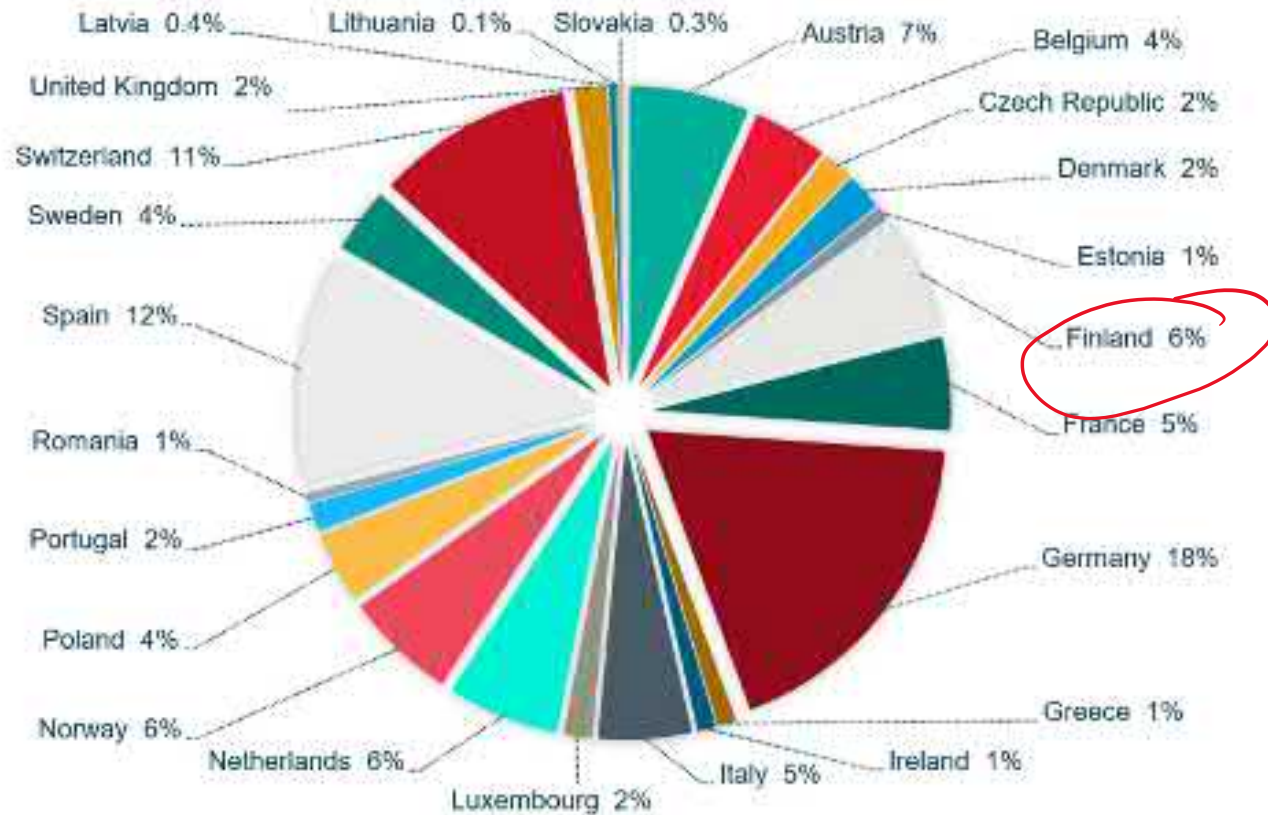
23.92 M€

SCALEUP RESULTS AT CM22

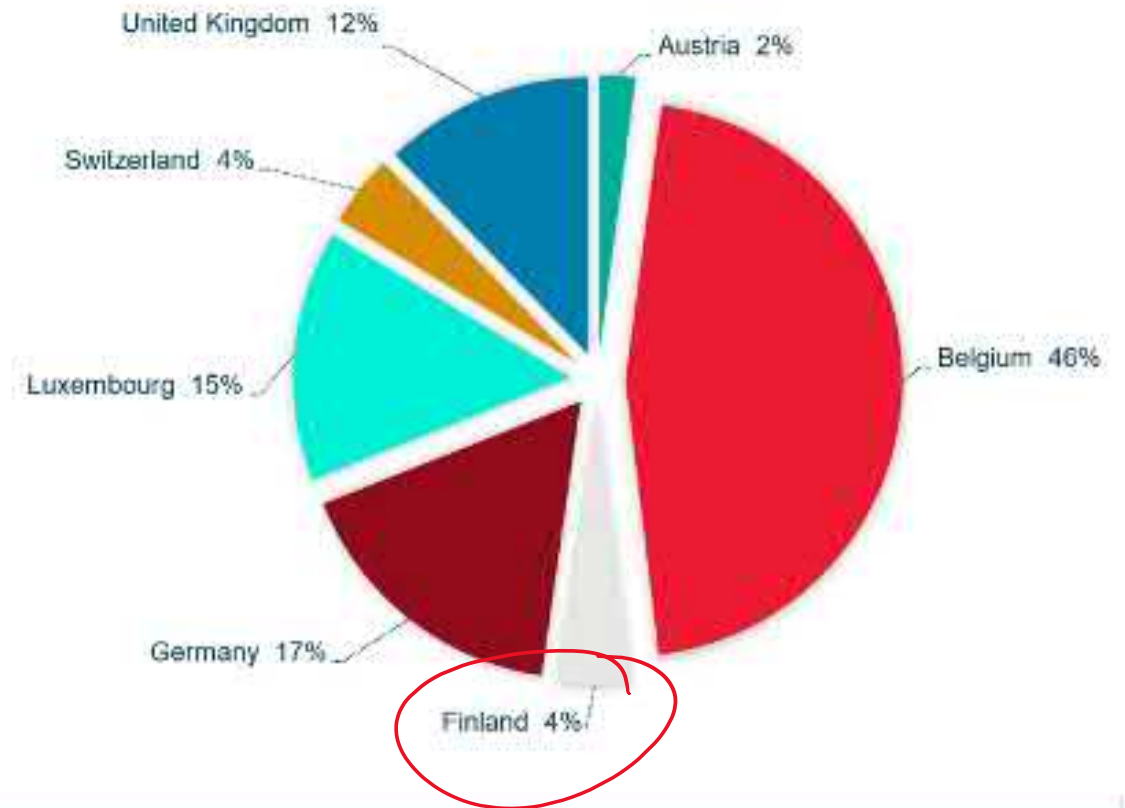
FUNDING BY MEMBER, ASSOCIATE AND COOPERATING STATES



ELEMENT 1 INNOVATE



ELEMENT 2 INVEST



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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



**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

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



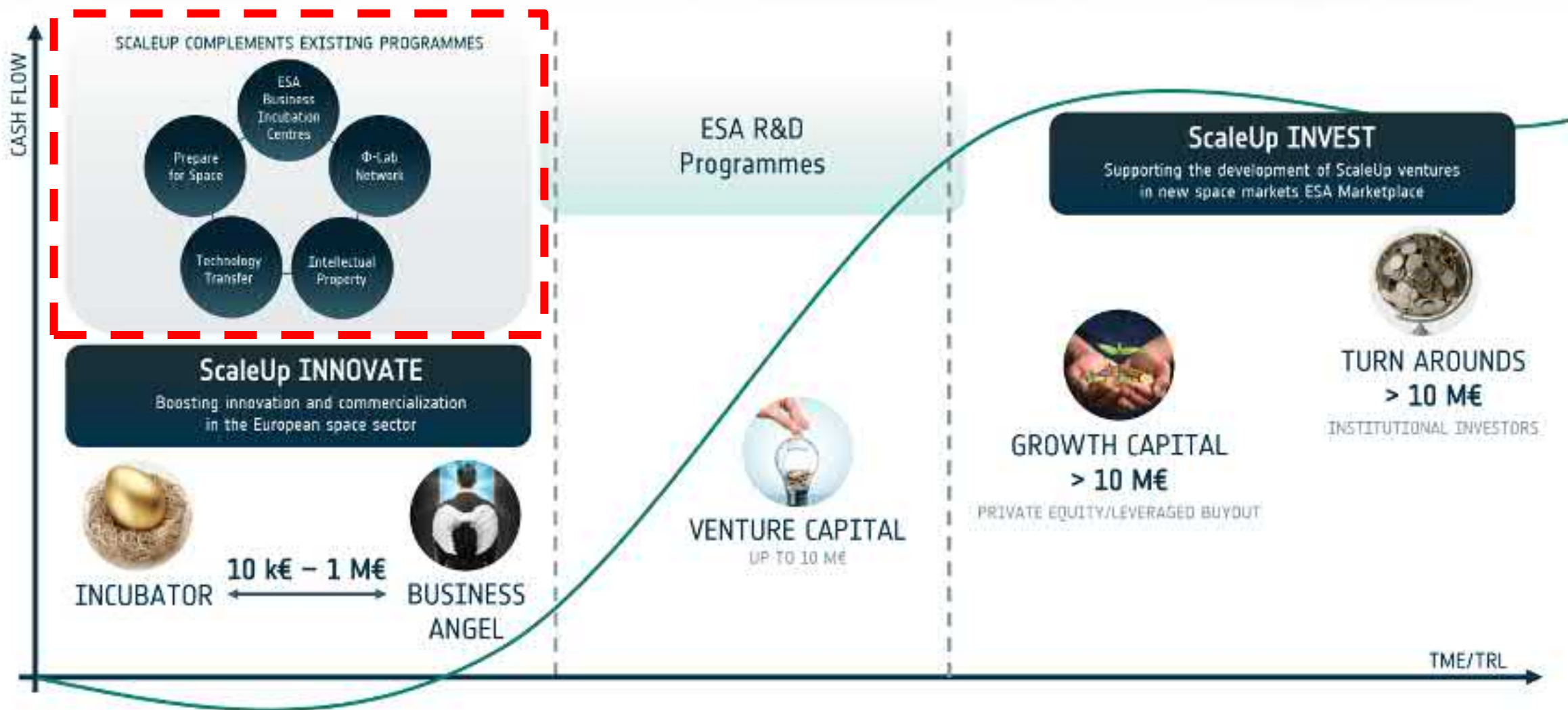
What is the
 Φ -lab?

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.

CONTRIBUTIONS IN THE COMPANY'S LIFE-CYCLE



ESA Φ -Lab Finland Opportunity

ESA COMMERCIALISATION GATEWAY

SPACE FOR BUSINESS
BUSINESS FOR SPACE

ESA ScaleUp Information Day for Finland

Roberto Cossu
Commercialisation Officer
ESA

ESA UNCLASSIFIED - For ESA Official Use Only



ESA PHILABNET MAP

LEGEND

- Large Philab
- Small Philab
- Pilot Philab



11+ Φ -Labs

Large Φ -Labs: 5.2Meuros

Φ -lab structure

The Φ -lab Local Administrator (to be selected as a result of this ITT)

A Local Administrator within the Participating State is contracted to perform activities as stipulated by the ESA Φ -labNET common approach:

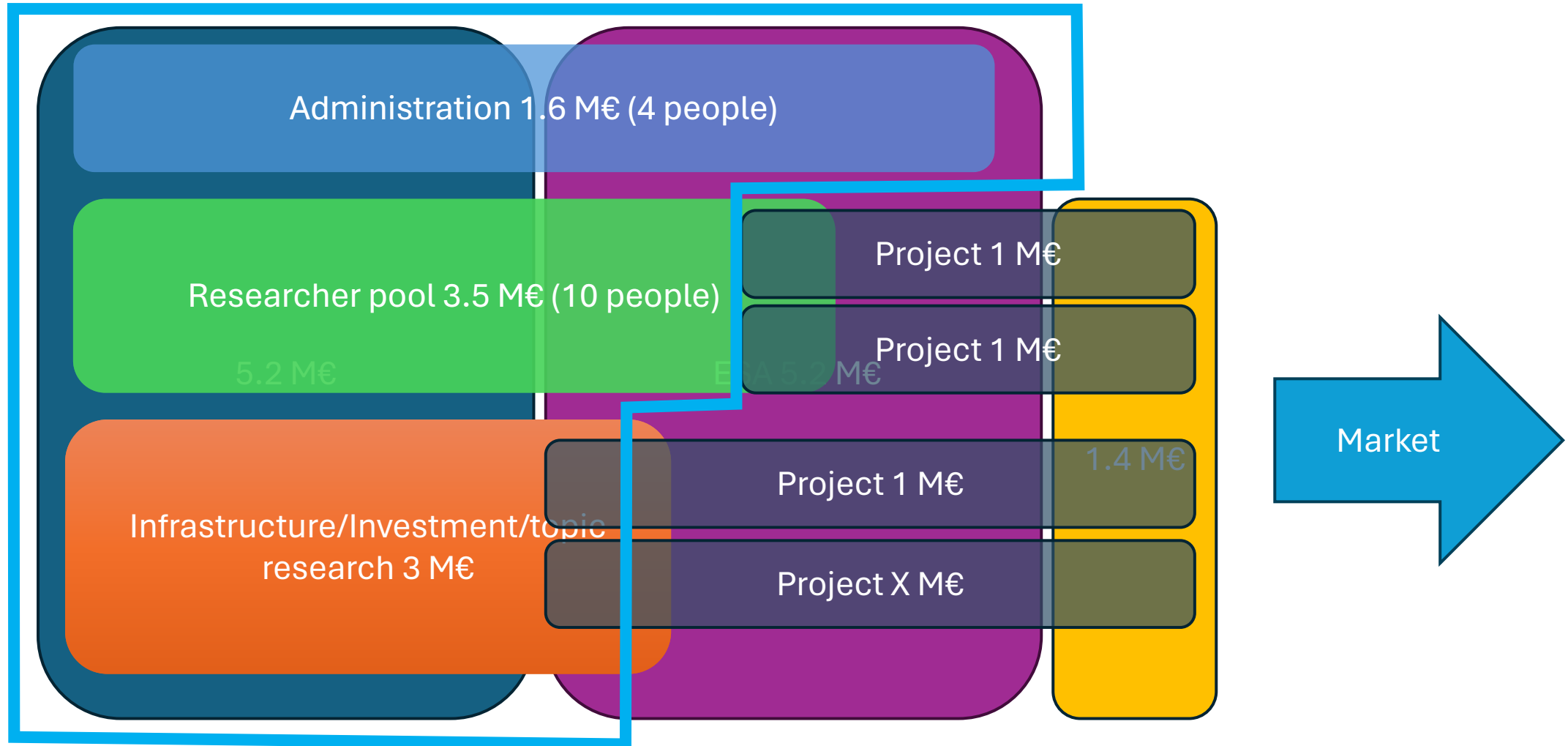
- Φ -labs may be located in a research organisation, a national centre of excellence or in any other location deemed suitable for the activities;
- Φ -labs will focus their innovation in any **pre-defined area(s)** that can be space-wide or specialised / monothematic in scope.
- Each Φ -lab shall be in the position to support the Economic Operators proposing research activities during the entire research journey, up to the inception phase market adoption;

Economic Operators (to be selected via a future Open Call)

Φ -labs are **targeted** at research projects submitted by Economic Operators (in general external to the Consortium) in response to an Open Call to be issued by the Φ -lab Local Administrator

- Research Proposals shall be intended to lead to new products and services and/or space-based solutions in the specific thematic area of the hosting Φ -lab.
- The proposed ideas shall be disruptive, of potential high socio-economic impact, based on solid research-driven evidence. There shall be evidence of any **market pull or research push** that would facilitate the future market adoption of the envisaged solution.

11.8 M€ (4 years) investment to space commercialization





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

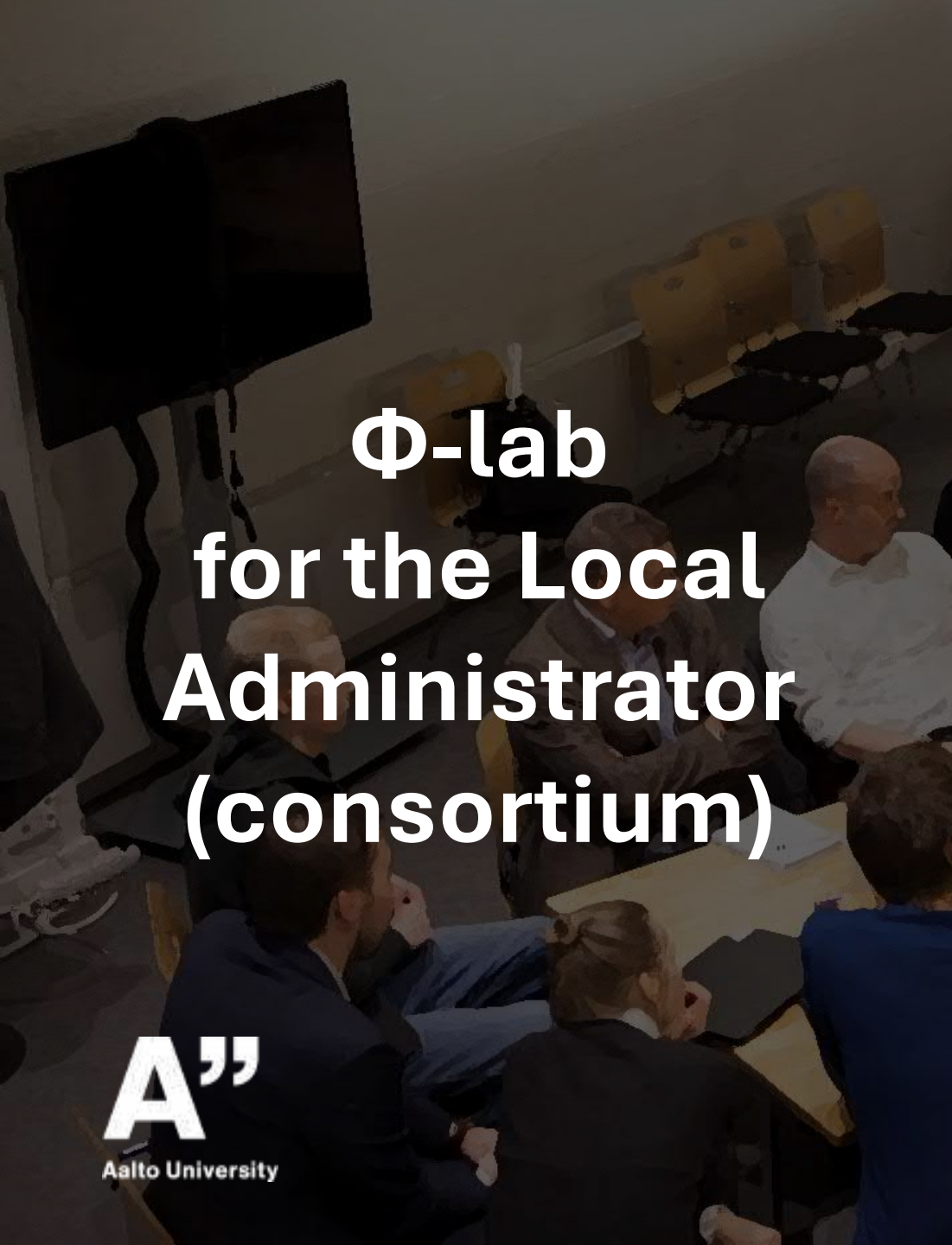


**Φ -lab for an
Economic Operator
(company or
organization)**

Φ-lab for Economic Operator

4.6 M€ direct support available over 4 years

- Open to R&D organizations and consortia
- 20%-50% self funding
- Infra available in favorable terms
- Researchers available for free (100 h)
- Specialists and missing expertise available for the project execution
- Outcome IPR is shared or even proprietary for the applicant
- Topic might be restricted



Φ -lab
for the Local
Administrator
(consortium)



Tasks requested to the Local Administrator (SoW)



Work packages

DEFINE FIELD OF RESEARCH

SELECTION OF RESEARCH TEAMS

SUPPORT TO RESEARCH TEAM

PREPARING FOR MARKET READINESS AND SHOWCASING

CREATING OPPORTUNITIES

MANAGEMENT AND REPORTING

Activities

Programme Proposal	Selection	Support	Graduation	Dissimination, Inception, Commercialisation support.
<ul style="list-style-type: none"> Defining research thematics by MS, ESA and local Φ-Lab Promote the local Φ-Lab as a centre for disruptive innovation in the proposed thematic area; Publication of Call 	<ul style="list-style-type: none"> Scout for research project(s) Selection of research project(s) Goal Setting Selection or acquisition of research equipment Contract/agreement with selected Economic Operators 	<ul style="list-style-type: none"> Administer ESA Seed Innovation Funds Allocating experts Utilization of laboratory equipment Monitor milestone progress (MTR&FR) 	<ul style="list-style-type: none"> Approve final deliverables (prototypes, simulations, papers, etc) Contract closure 	<ul style="list-style-type: none"> Inspiring with showcases stories Connect to talented entrepreneurial Connect to prospective integrators / Customers Connect to intermediary firms e.g.: <ul style="list-style-type: none"> ESA BICs, Accelerators,



Φ-lab for the Local Administrator (consortium)

0.8 M€ direct funding available over 4 years

Contributing to matching funding of 5.2 M€ over 4 years

- Opportunity to operate own infra and research team under Φ-lab
- Obligation to provide infra services below market price
- Obligation to support projects with free labor of specialists
- Topic can be restricted

- The role of the Local Administrator shall go beyond:
 - Administering ESA Innovation Seed Funding
 - Providing the minimum hours of support defined in the SoW
- **There shall be a clear and strong interest:**
 - **From the Local Administrator** (or consortium partners) in supporting external Economic Operators: e.g.
 - (co-)creation of IP; development of in-house knowledge; additional funds
 - **From the Economic Operators** in applying to the specific PhiLab, e.g.
 - leveraging on the PhiLab specific know-how and support (it may be beyond the minimum hours defined in the SoW), IP portfolio, facilities.
- **Different models** can be proposed by the bidder based on their business model. This may include scenarios where the Economic Operators use part of their Innovation Seed Funding for receiving additional support from the PhiLab: i.e. Economic Operators may externalise specific research (sub-)tasks to the PhiLab consortium, or may agree on conditions for additional hours of technical support, etc.

Aalto led consortium prepares application

Synergy with ESA-BIC provided by Aalto led consortium

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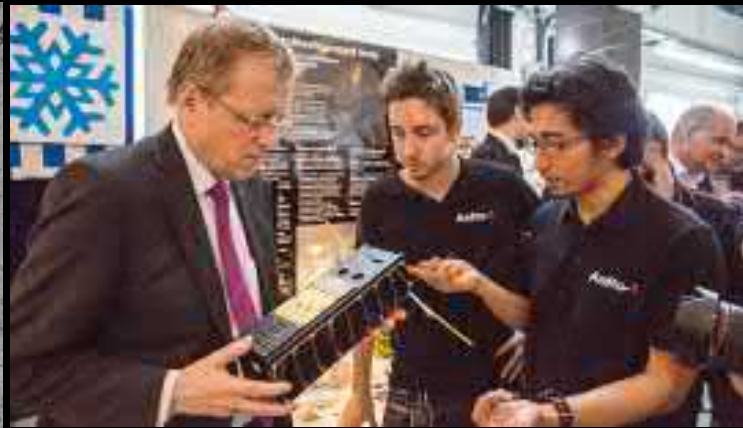
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Φ-lab IP policy

- Different Φ -Labs may have **different business models** that may bring to different strategies for the Intellectual Property (IP) generated in Research Projects executed by the Economic Operators.
- The bidders are invited to **detail their strategy for the Intellectual Property (IP) generated within the Research Projects**. Some considerations:
 - Hours of Tech Support as defined in the SoW is to be considered as **consultancies and doesn't generate any right for IP**
 - **A bigger involvement of Φ -Lab staff in the "co-creation / innovation"** may be result in shared ownership of IP (Φ -Lab + Economic Operator) or access at favorable conditions to licence(s)
 - Supporting the Economic Operator with additional **local co-funding coming from Local Government** usually has no impact on IP generated
 - Supporting the Economic Operator with additional **local co-funding coming from Φ -Lab internal sources** may result in shared ownership of IP (Φ -Lab + Economic Operator) or access at favorable conditions to licence(s)
 - **Shared ownership** may impact the role of the Φ -Lab in the commercialisation of the IP generated.
- IP approach shall be made clear in the **Open Call**; IP clauses shall be included in the **Research Contract** to be signed between the Local Administrator and the single Economic Operators. Specific clauses have to be discussed and agreed in the contract with the single Economic Operators.



Let's build space together!





Winter **Satellite**
Workshop 2025

21-23 January

Finland

www.spaceworkshop.fi