

ESA's challenges for new times - Part I

10 years of Poland in ESA (27 October 2022)

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THIS IS A NEW SPACE AGE

€80

billion

global institutional
space investment
worldwide in 2021

+4% since 2020

€13

billion

global private space
investment in 2021

+95% since 2020

1,819

satellites put into orbit
in 2021

4 x more than in 2019
(457)

95%

of smallsats (<500kg)

Source | Euroconsult, 2022

A NEW SPACE ECONOMY

- Launch price to be divided **by 3** in next 10y
- Higher **payload** capacity and launch **rate**
- **Deorbiting** regulations
- Space-as-a-**Service**
- **Edge-Computing / AI** for Ground Segments and Space Data
- **Green/Electric** propulsion
- **In Orbit** Servicing, Manufacturing, Assembly



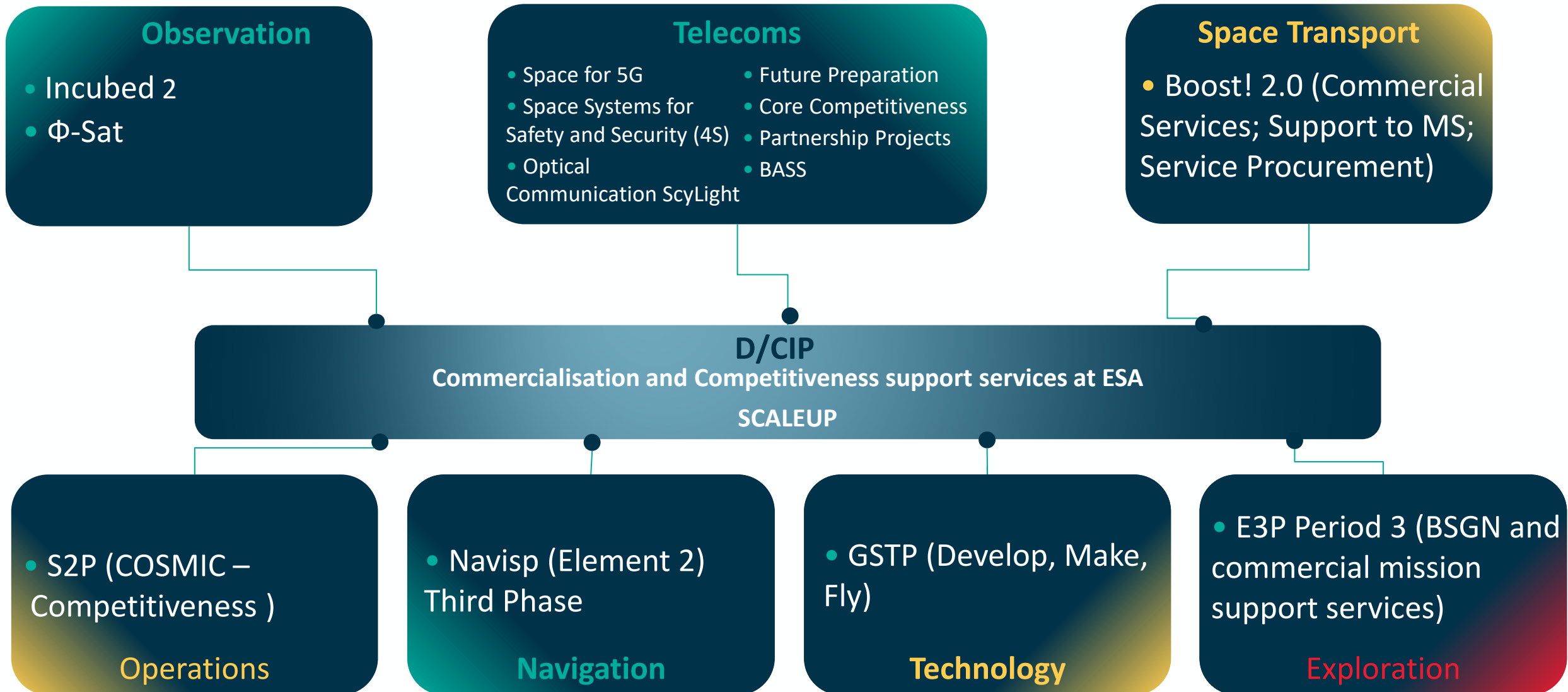
SPEED

OUR AMBITION
**TO MAKE EUROPE A SPACE
COMMERCIALISATION HUB**
**TO LAUNCH AND GROW GLOBAL
COMPETITIVE SPACE COMPANIES THAT
MAKE SENSE FOR OUR FUTURE**

CAPITAL

TALENT

Supporting industrial competitiveness in ESA programmes



SCALE UP

Element 1: INNOVATE

Boost innovation and commercialisation in space

- Foster transformative market-ready innovation by the ‘innovate and apply under-one-roof’ approach (**Φ-labNET**)
- Protection and commercialisation of industry IP (**IP For Commercialisation**)
- Transfer of technology for commercial purposes (**TT 2.0**)
- ESA Business incubation centres network 2.0 (**BICs**)
- Reduce barrier to enter ESA Programmes (**Prepare For Space**)

Element 2: INVEST

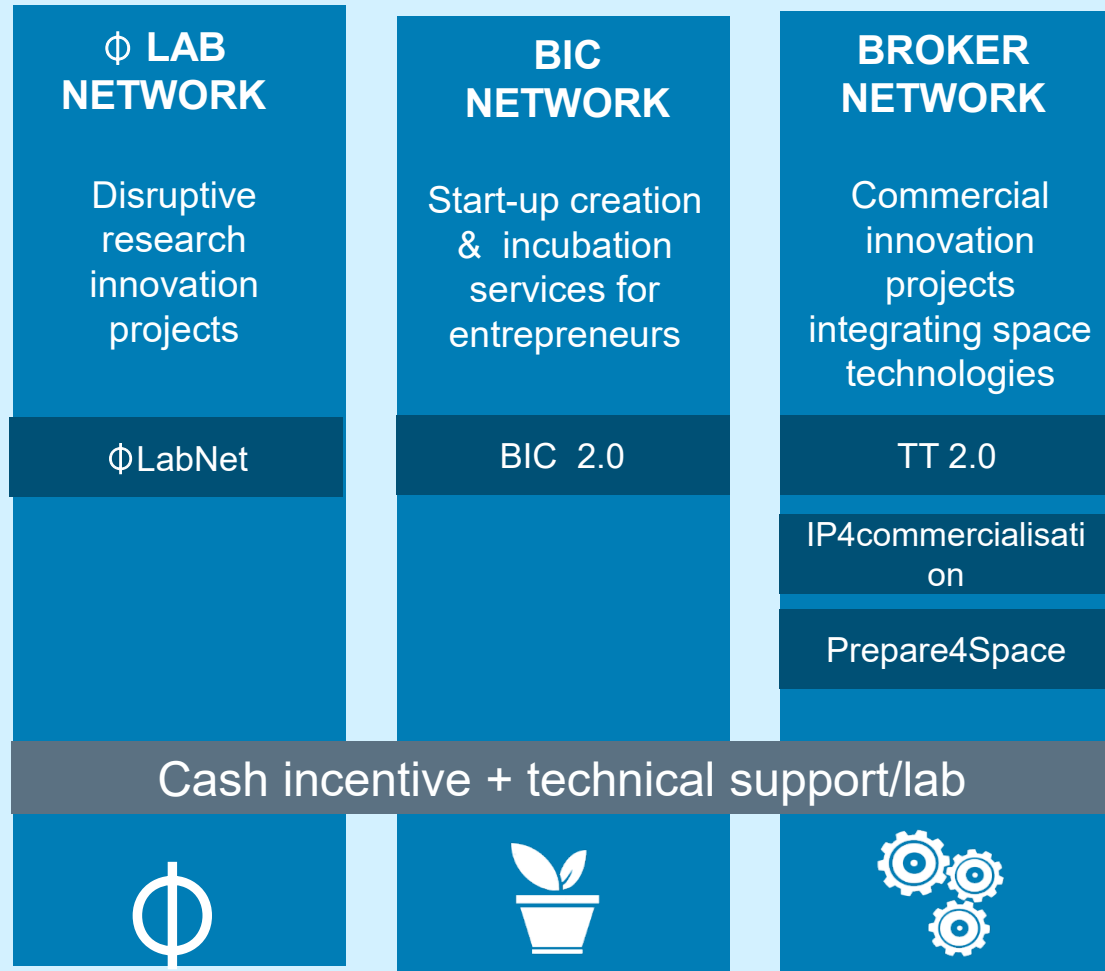
Support the development of **scale-up ventures** in new space markets

- **Business VALIDATION** : a network of business accelerators to support business plans, strategies and growth
- **Business GROWTH**: a marketplace for new space services and products e.g. IOD/IOV opportunities

CONNECTION WITH THE INVESTORS COMMUNITY

Boosting innovation and commercialisation

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Supporting the scaleup of ventures

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Investment community, Support to SME, Commercialisation Gateway, Industry Alliance, Technical support, etc...

INNOVATE Element

ESA COMMERCIALISATION GATEWAY

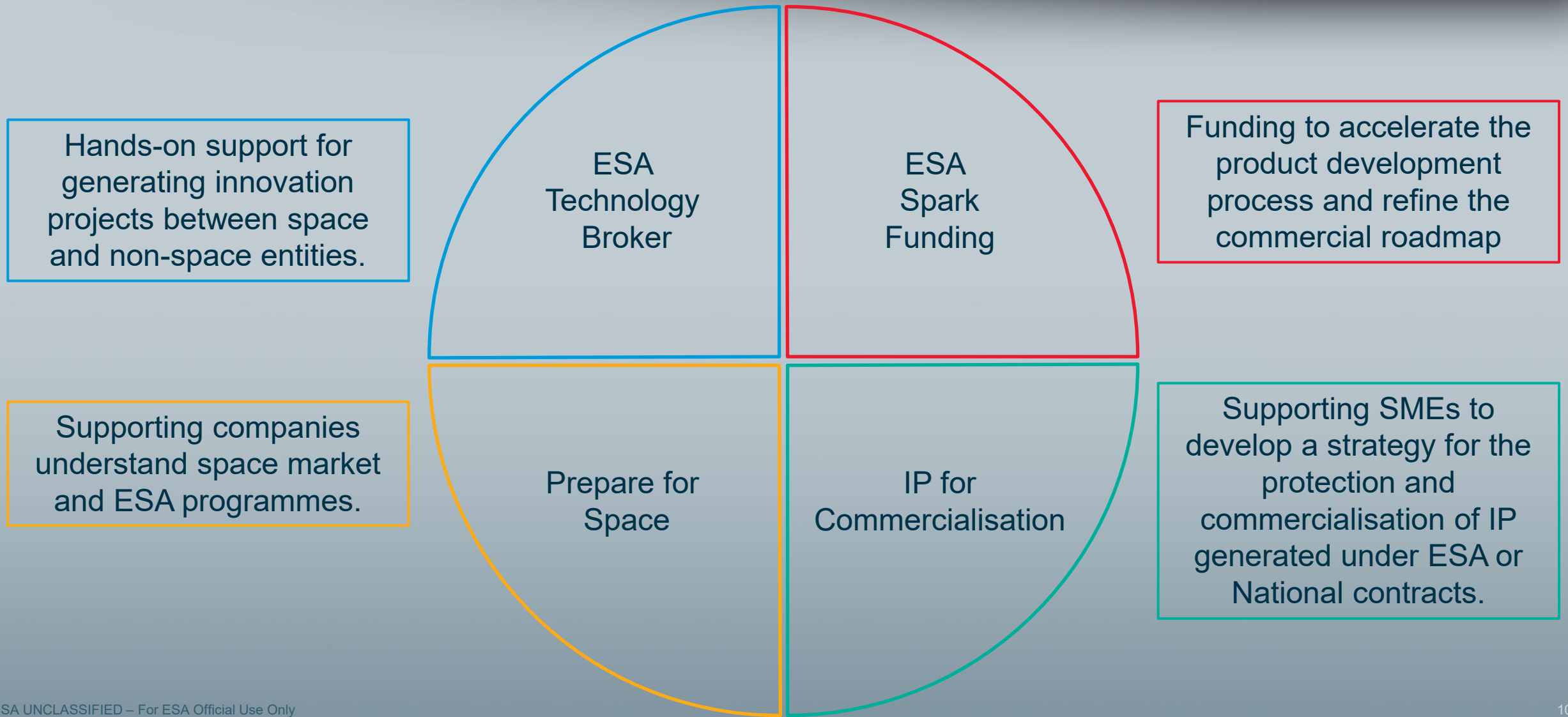
Space for Business | Business for Space

Key Activities

- **Promote** entrepreneurship and diversify the use of space as a business opportunity;
- **Scout** for talented entrepreneurs with business ideas that have commercial potential;
- **Support** the creation of new space start-up firms active in both upstream and downstream markets, ranging from technology creation and transfer, to applications;
- **Procure** innovative products and services from start-up companies and solidify their business case and adoption by the market.
- **Implementation:** An economic operator within the Participating State is contracted to perform activities as stipulated by the ESA BIC common approach.

Sub-Components	Core	New	Add-ons
Business Incubation Management	✓		
Promotion, Events and Workshops	✓		
ESA Start-up Incentive Fund	✓		
ESA Technical Support		✓	
ESA BIC Boost Funding			✓
Pre- and/or Post-Incubation services			✓

- **ESA BIC contracts in PL are currently funded through ARTES.**
- **Continuation and expansion will be funded through ScaleUp**



Φ-LAB NET



One idea received from **Poznan University of Technology** in response to CFI for New Φ-labs about **autonomous operations in space, including rovers, autonomous operations of spacecraft, landers, on board data processing, inspection and repair.**

The theme is considered very relevant. Also non-space industry may benefit from the innovation in this sector.

Accelerate the future of Space via transformative innovation
Generating commercial competitive advantage
Facilitating investment actions

INVEST Element

ESA COMMERCIALISATION GATEWAY

Space for Business | Business for Space

ESA Investor Community

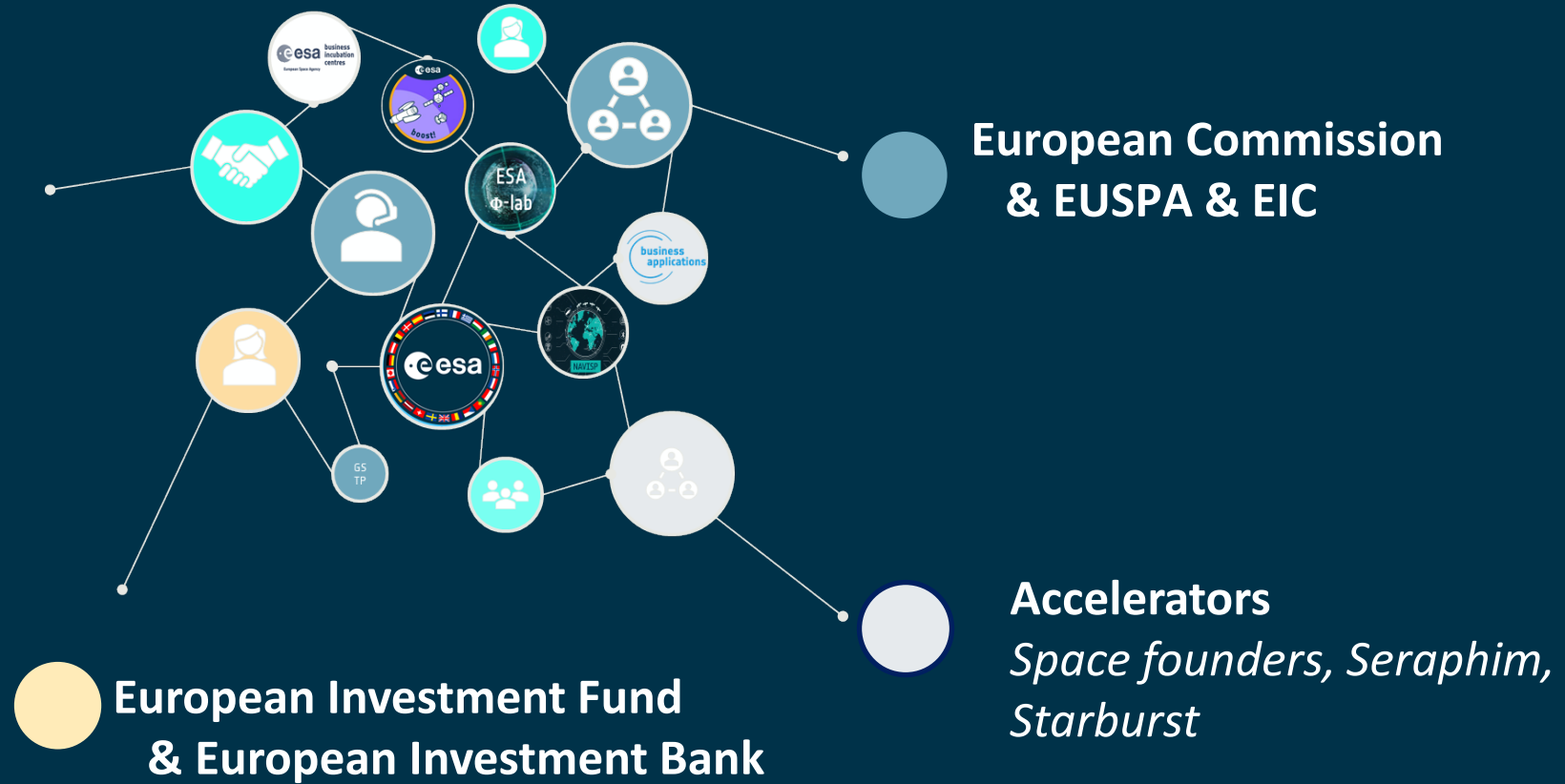
18 Members of the
ESA Investor Network

250+ large investment community

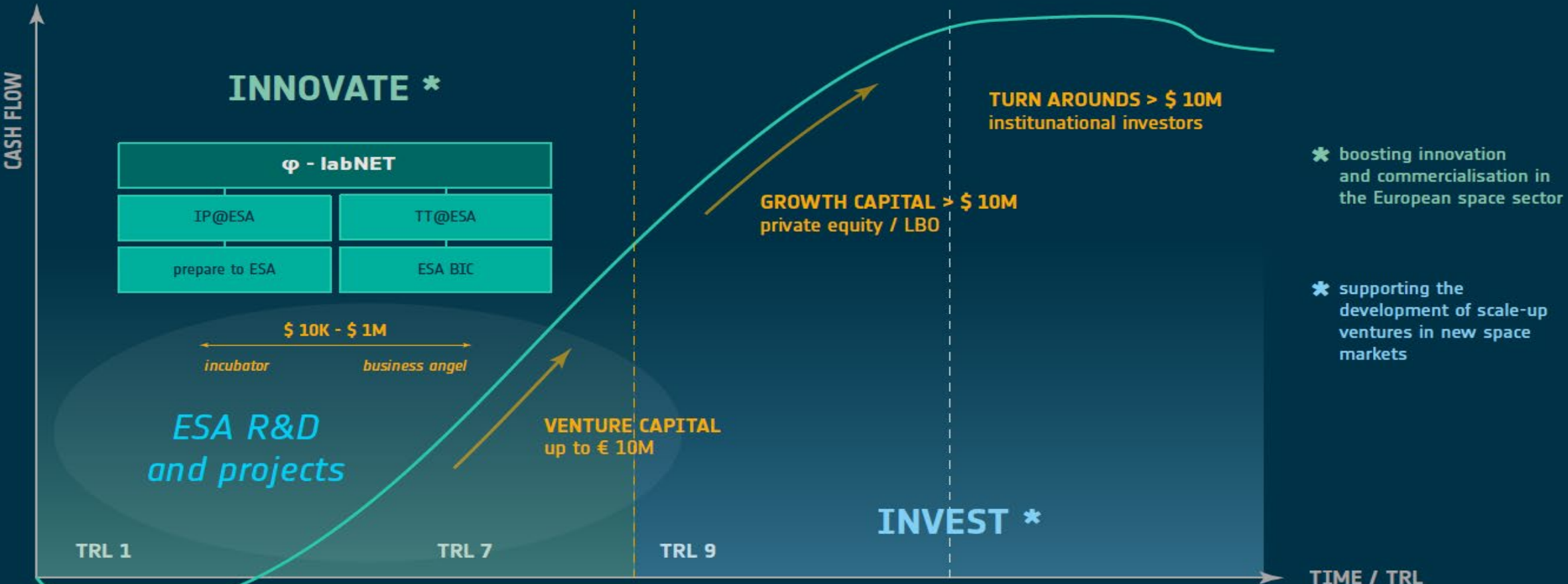


Investors

*Venture Capital, Private Equity,
Institutional investors,...*



Contributions in the company's life-cycle



initial idea personal funds business plan love money FF market product commercialisation and growth IPO / SPAC turnover company maturity



Invest supports NewSpace type of developments, allowing companies to take more risks, hit the markets faster, attract private and institutional investors.

INVEST has two components: Business Acceleration and Marketplace.

ESA Business Acceleration: a network of business accelerators to support business plans, strategies and growth

ESA Marketplace: helps industry to scaleup on new and emerging markets by connecting them with customers and supporting financially the offer.

ScaleUp marketplace: 3 simple steps

1. Application

- **OSIP platform:** campaigns launched by ESA or unsolicited proposals by industry (as demand or offer)
- A Jury advises PS about which companies have the most **credible perspective of business growth aiming at upscaling**



2. Matchmaking

- The buyers freely choose the most suitable offer.
- No ESA's role in assessing the offered services or products.
- **The product or service can be also still in the (final) development phase**



3. Procurement

- When there is a match, ESA procures a product/service of the seller using the co-funding provided by the PS of the seller and/or of the buyer.
- The remaining part of the price shall be borne by the buyer
- If the product or service to be procured is not technically mature yet, the payments made by ESA will be made according to the successful **achievements of milestones (maturity gates) pre-agreed with the seller**



THANK YOU
FOR YOUR ATTENTION