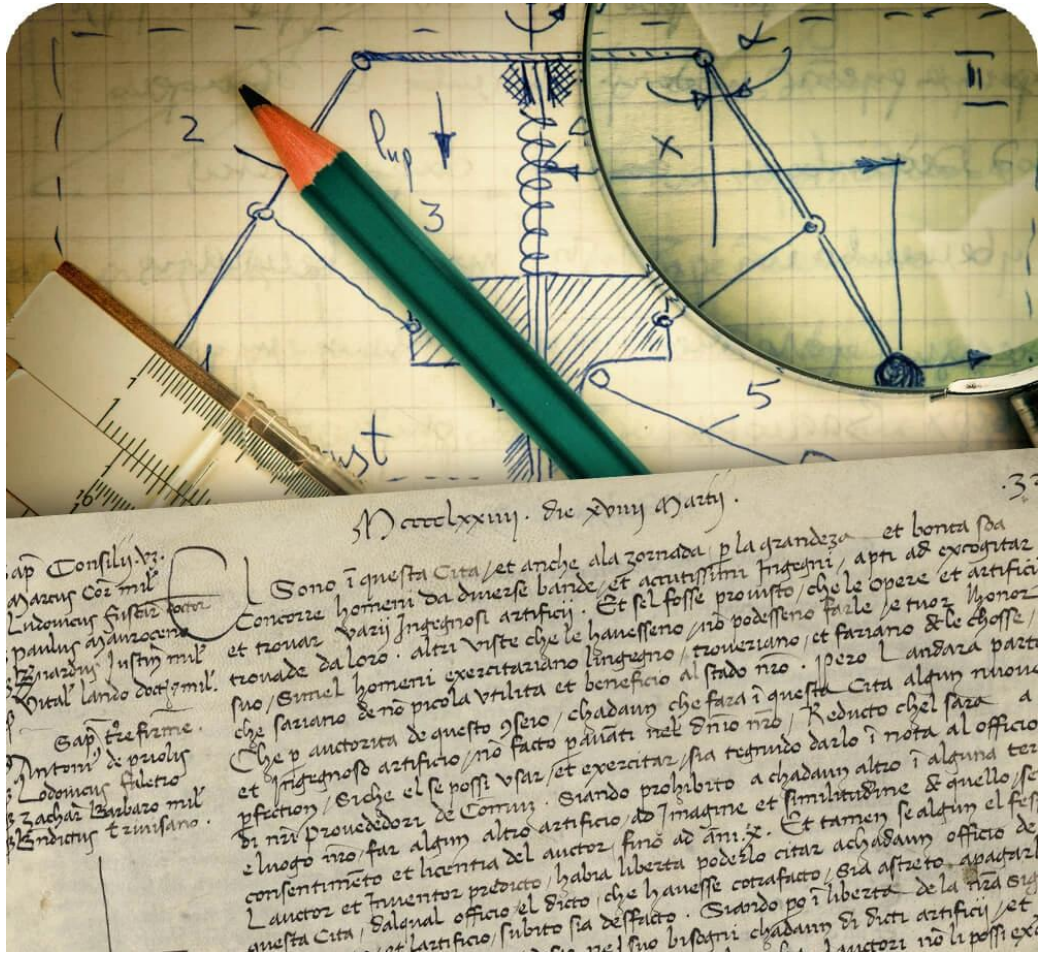
ESA Patents - Technology transfer and Open Innovation

10/09/2026

EUROPEAN SPACE AGENCY

The Venetian Statute (1474)



By granting inventors exclusive rights to their creations, it **encouraged further innovation** and **investment in new technologies**, **sparking a wave of creative activity and technological progress** during the Renaissance

Patents as source of information and oportunities

Do not invent the wheel!

Letter from Isaac Newton to Robert Hooke February 5 1675; In this letter, Newton writes:

"if I have seen further, it is by standing on the shoulders of giants."

What is Technology & Knowledge Transfer?

Geoffrey Nicholson,
father of the Post-It

Source:https://knowledge4policy.ec.europa.eu/technology-transfer/what-technology-transfer_en

Technology Transfer and SMEs

Licensing and Tech transfer are important mechanisms for SMEs often underestimated:

- Gain competitive advantage through cooperation
  - To avoid internal R&D costs.
  - To form partnership with other entities.
- Accelerate growth through innovation activities.
- Reduce financial risk and share tech.

Technology transfer participates to Open Innovation

“Open innovation is the practice of businesses and organizations sourcing ideas from external sources as well as internal ones.

This means sharing knowledge and information about problems and looking to people outside the business for solutions and suggestions.” https://www.braineet.com/blog/open-innovation

ESA facilitates open innovation to...

EXPAND business of space Industry.

Help the Space Industry expand into new space markets.

Foster INNOVATION for space and non-space applications.

Bring benefits of space technologies to the service of non-space applications.

Finding NEW ACTORS to solve space challenges.

Help identify solutions from any industrial sectors which may be relevant for space applications.

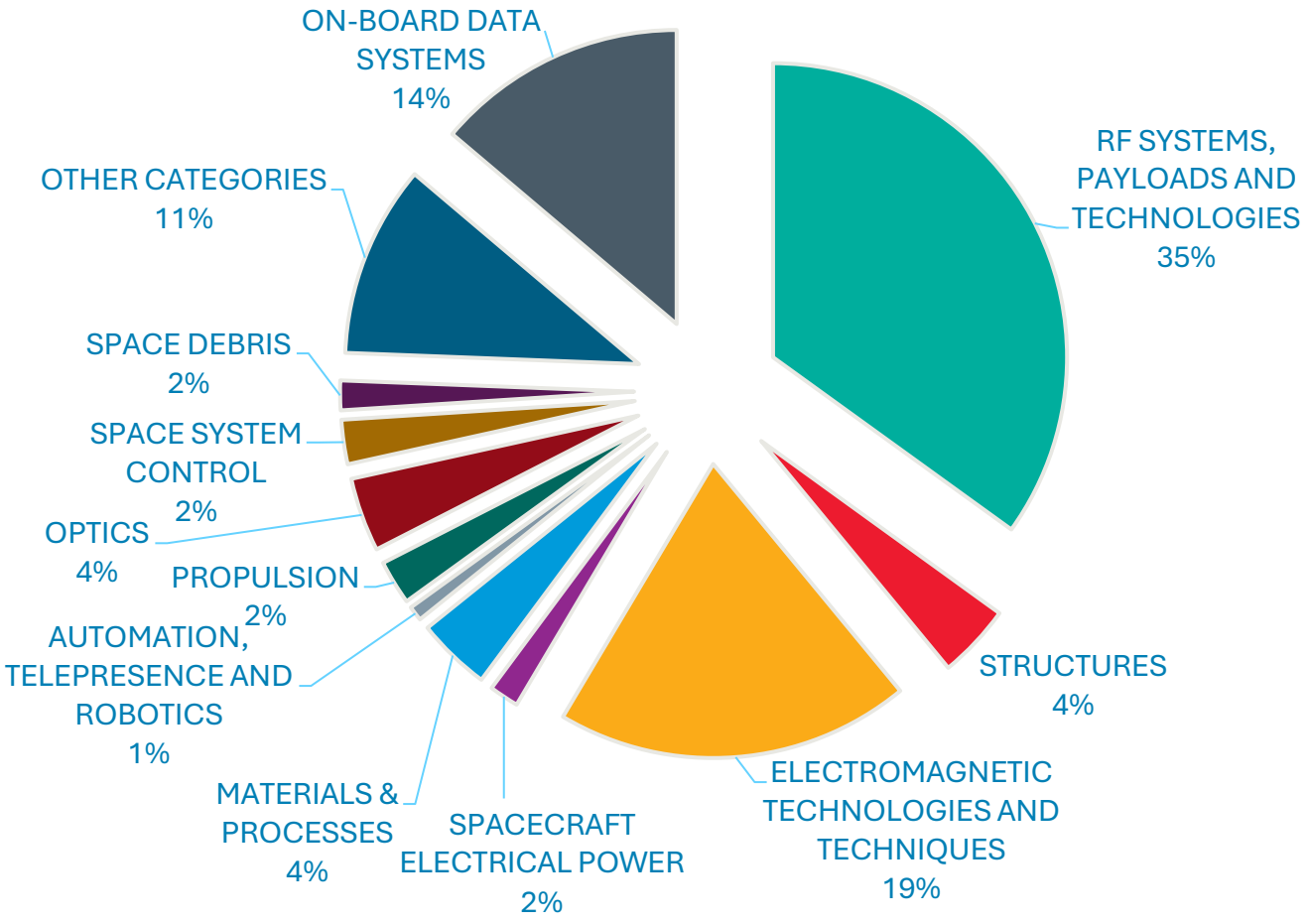
ESA Programs contributing to Innovation

- Space Science
- Human and Robotic Exploration
- Observing the Earth
- Connectivity
- Satellite Navigation
- Space Transportation
- Technology
- Operations
- Commercialisation

ESA PATENTS –OPEN INNOVATION-TECHNOLOGY TRANSFER

ELEVATING THE FUTURE OF EUROPE

ESA patents portfolio profile



121 inventions protected by 543 granted patents and patent applications

~70% of portfolio is in use

- R&D
- Mission
- Licenses

Licensing Policy

European MS Industry

- Non-exclusive, free of charge right of use for **space applications**
- Favorable conditions for **non-space applications**

Non European MS Industry

- Non-exclusive
- Market conditions

Patent licensing is just another option to innovate!

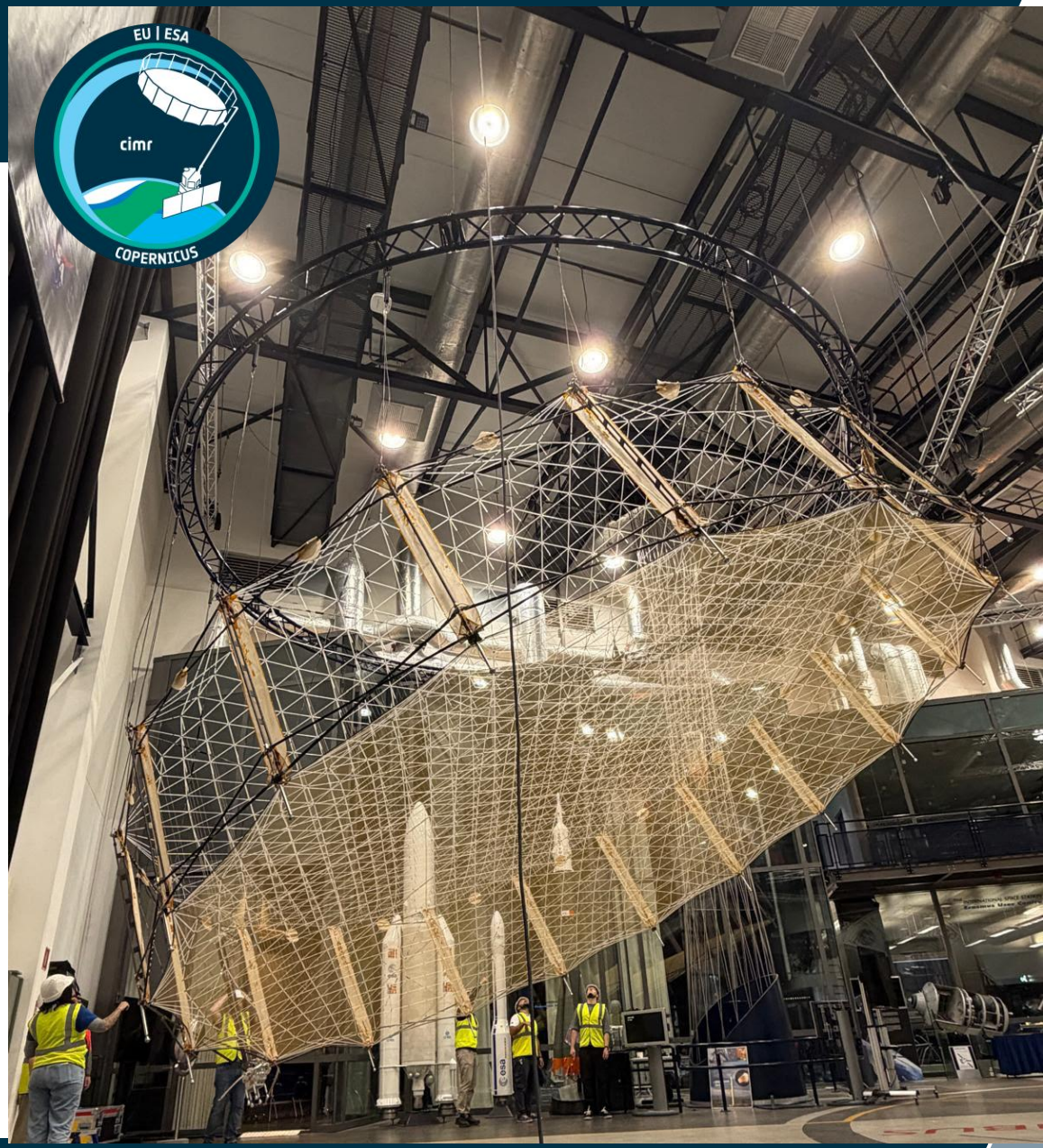
- Access to established intellectual property and being able to enter the market more quickly.
- Leverage resources to conduct research and development to develop their own products or services.
- No need to bear patent costs.
- Market credibility having ESA as a reliable partner.

ESA PATENTS

ESA Patents and Missions

ESA - The CIMR instrument **based on the following ESA patented inventions:**

- EP2825827B1 MECHANICAL SUPPORT RING STRUCTURE -ESA
- EP2904662B1 DEPLOYABLE ANTENNA FRAME- ESA



Open Discovery Ideas Channel

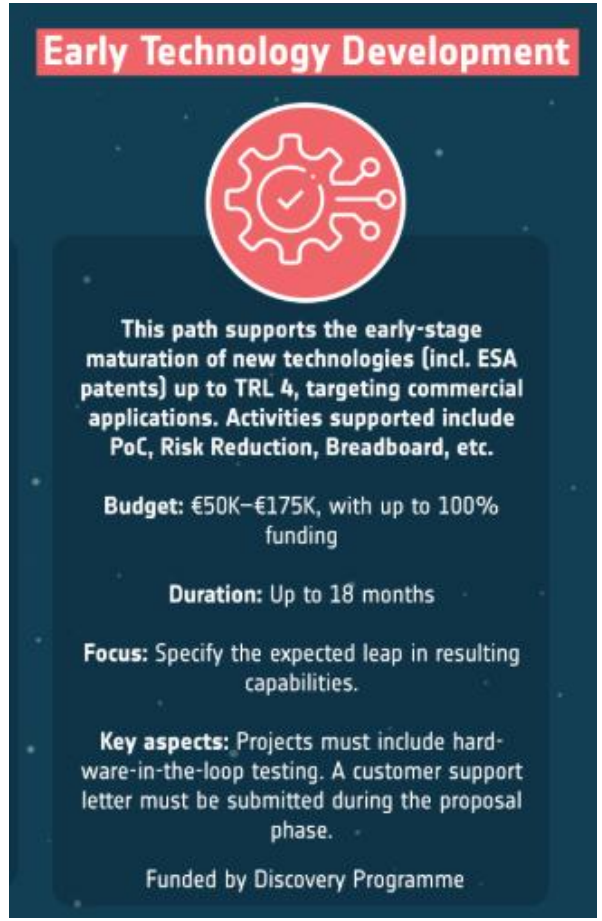
Open Space Innovation Platform - OSIP - Channel: Open Discovery Ideas Channel

Got an idea that could revolutionise space research and technology?

We're looking for visionary concepts and technologies to explore and inject into the European space landscape.

This channel offers a streamlined entry point to ESA's R&D pipeline.

ESA Patents



PAT 747: Compact Ka-Band OMT for Tx/Rx MFB antennas illuminating a single reflector (CoBRa)

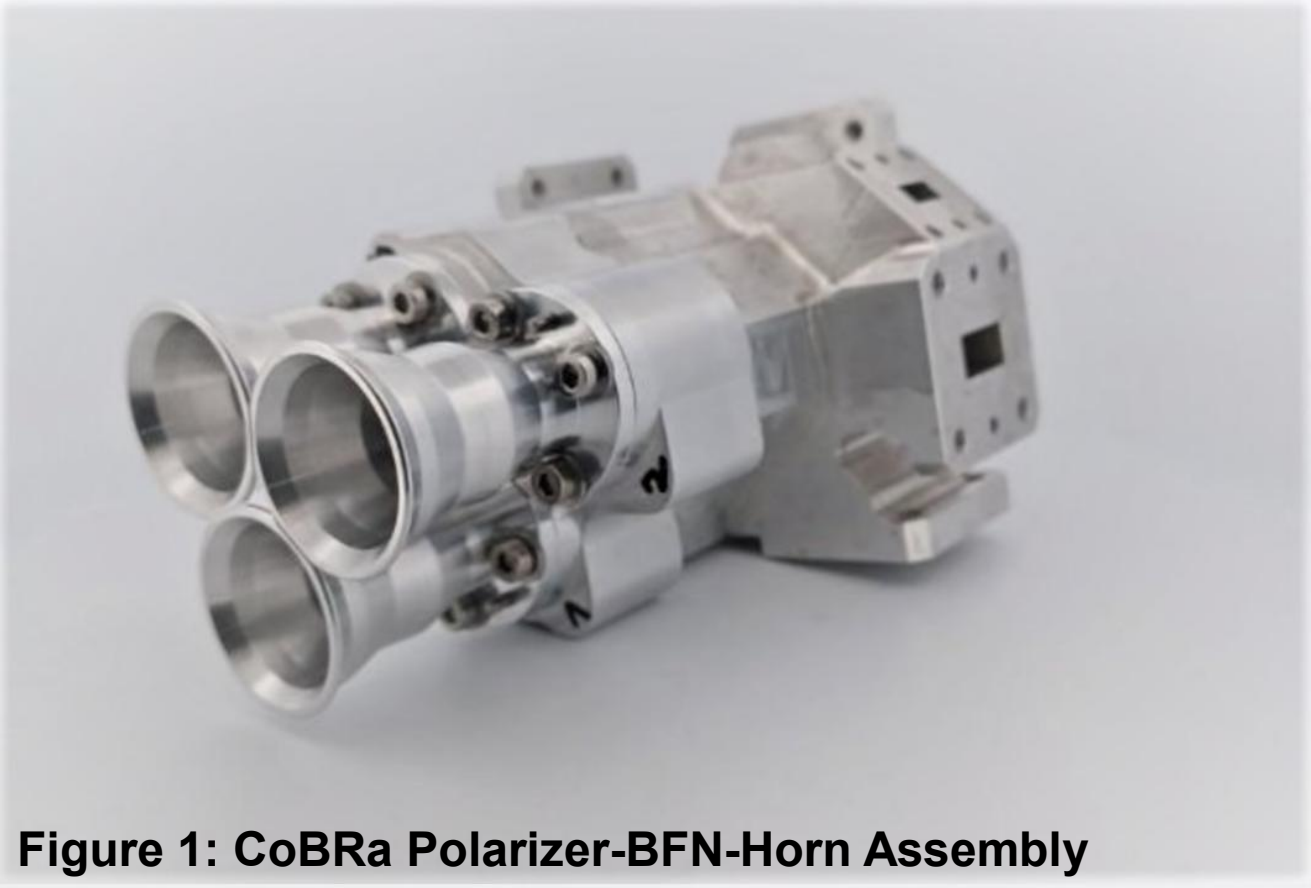


Figure 1: CoBRa Polarizer-BFN-Horn Assembly

AIRBUS

The polarizer is manufactured in an interconnection with a feed horn and qualified for TRL 4.

For the qualification on TRL4 the important specified characteristics were measured or simulated and the measurement results show excellent results what relegates to very precise manufacturing and a robust design implementation as well as a coordinated interconnection of the subcomponents.

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Take aways

BE AWARE

IPR as a source of information for business and R&D intelligence.

PROTECT

Protect IP and stop others from commercially exploiting the patented inventions.

Transfer

Give competitive advantage and market opportunities.

OPEN Innovation

Collaboration opportunities.

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THANK YOU!

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