

ESA Space4Rail Downstream Applications call

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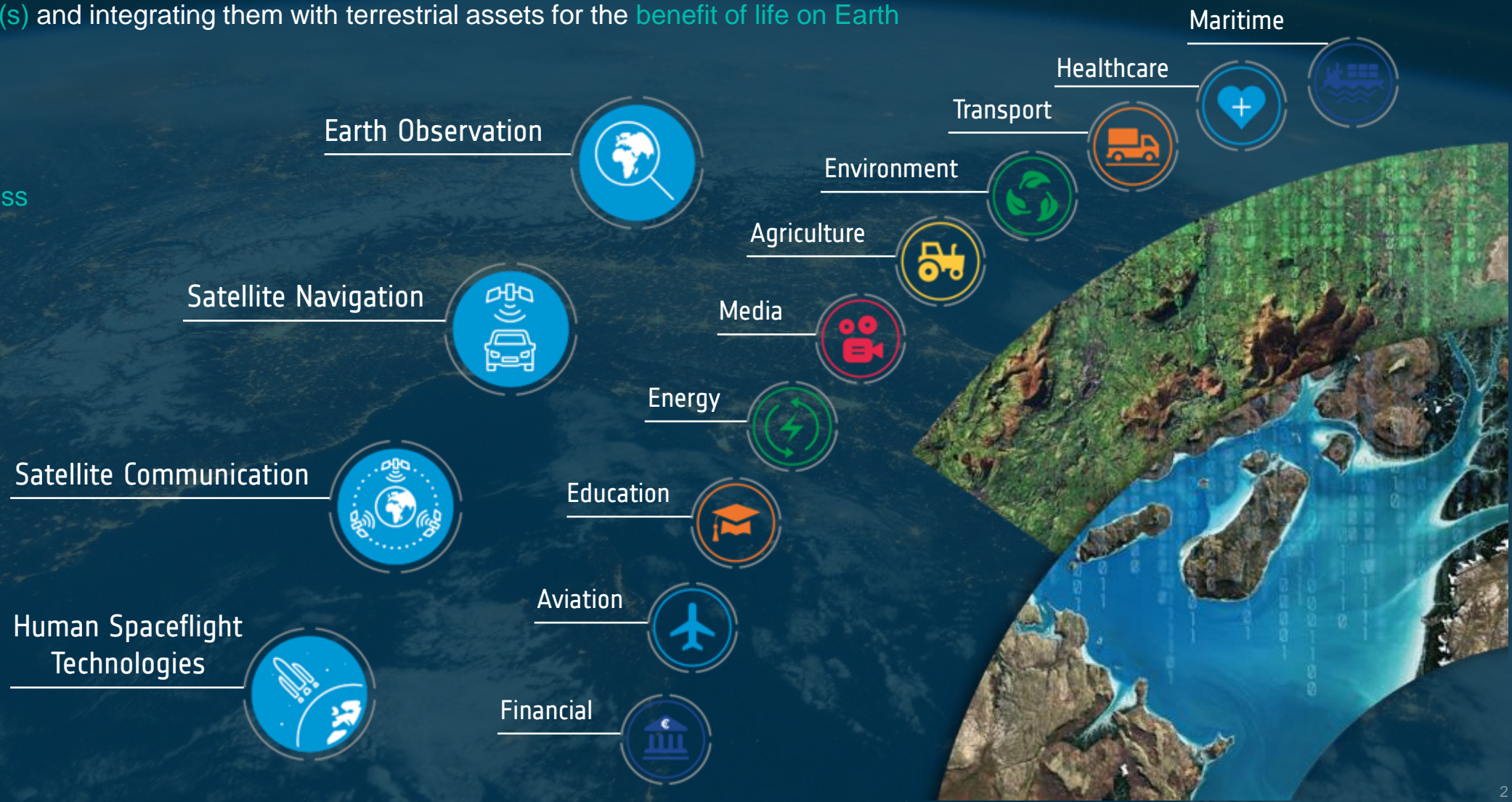
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ESA Business Applications and Space Solutions (BASS)

Using **any space asset(s)** and integrating them with terrestrial assets for the **benefit of life on Earth**

BASS DNA
Sustainability x 3
User-Driven
Industry competitiveness



Why space is important to rail

Tracking and Tracing



Railway infrastructure monitoring



Broadband to passengers



Signalling



A few examples of activities



Satellite Monitoring for Logistics safety Platform



Space Enabled full-stack solution for Infrastructure Monitoring



SODOR CCN#1

Satellites for Digitalisation Of Railways (train connectivity)





Zero equity funding always open for businesses in rail

Focus on close to market services/applications in rail exploiting any space technology or data (SatNav, SatCom, SatEo, Human Spaceflight):

- ✓ *User driven, innovative and sustainable services*
- ✓ *Activities initiated by companies*

What ESA offers:

- ✓ *Co-funding from ESA, IPR remain with companies*
- ✓ *Coaching from ESA*
- ✓ *Association with the ESA Brand*
- ✓ *Interactive and iterative procurement process*



ESA Space4Rail Downstream call – thematic areas



Advanced train positioning,
virtual/moving blocks, on board train
integrity proving, FRMCS, etc.



- Asset management, predictive Maintenance
- Infrastructure monitoring
- Safety of people involved (e.g. workers)
- Optimization of logistics, security of data, sites, etc

FREIGHT (Digitalisation of workflow,
Detection of unusual environmental
conditions for wagons/boxes/cargo, etc)

PASSENGERS (Innovative integrated
ticketing before and during travel,
smart stations, etc)

Intermodal applications





















	Feasibility Study	Demonstration Project
Activity Cost	max. 500'000 EUR (limited to acceptable cost)	case by case assessment (limited to acceptable cost)
ESA Co-Funding		
Baseline	max. 50% of company's cost	max. 50% of company's cost
Micro, Small and Medium-Enterprises ⁵	max. 80% ⁶ of enterprise's cost	max. 80% ⁶ of enterprise's cost
Universities and Research Institutes with no commercial interest in product/service	max. 100% ⁶ of institute's cost	max. 80% ⁶ of institute's cost
	and max. 30% of activity cost	and max. 30% of activity cost
Industry Co-Funding	Remaining part of the cost to carry out the activity	

- ✓ ESA will bear up to 50% (non SME) or 80% (SME) of the eligible cost *pending support from [National Delegations](#)*, and the remainder has to be financed by the tenderer and/or other partners.
- ✓ Activities are in direct negotiation
- ✓ IPRs (Intellectual Property Rights) will **remain with the company**.

Thank you for your attention

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