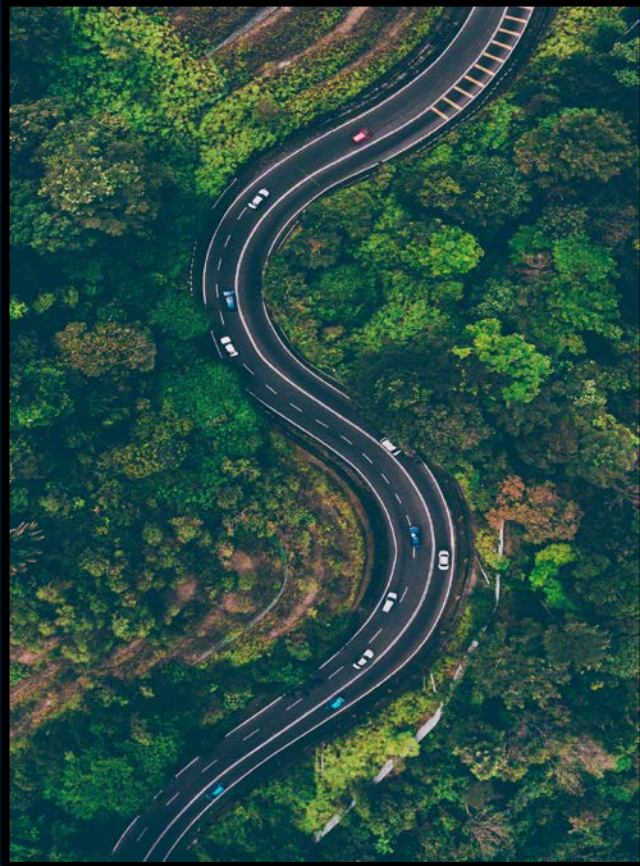


Kick-Start Webinar

Space for Social and Environmentally-Friendly Mobility

✉ Christopher.Frost-Tesfaye@ext.esa.int

[Social and Environmentally-Friendly Mobility | ESA Business Applications](#)



Before we start...

- Please keep your microphones muted at all times and switch off the webcam function
- You can use the conversation function anytime to submit your questions. They will be addressed during the Q&A at the end of the webinar



→ Webinar Agenda

1. Introduction

- ESA and Space Solutions
- What ESA offers

2. Introduction to Kick-Start Activity

- Study Tasks

3. Space for 'Mobility'

- Background
- Key topics
- Enablers from space

5. How to apply to Kick-Start Activity

- How to apply
- Authorization of funding
- The proposal template

6. Q&A

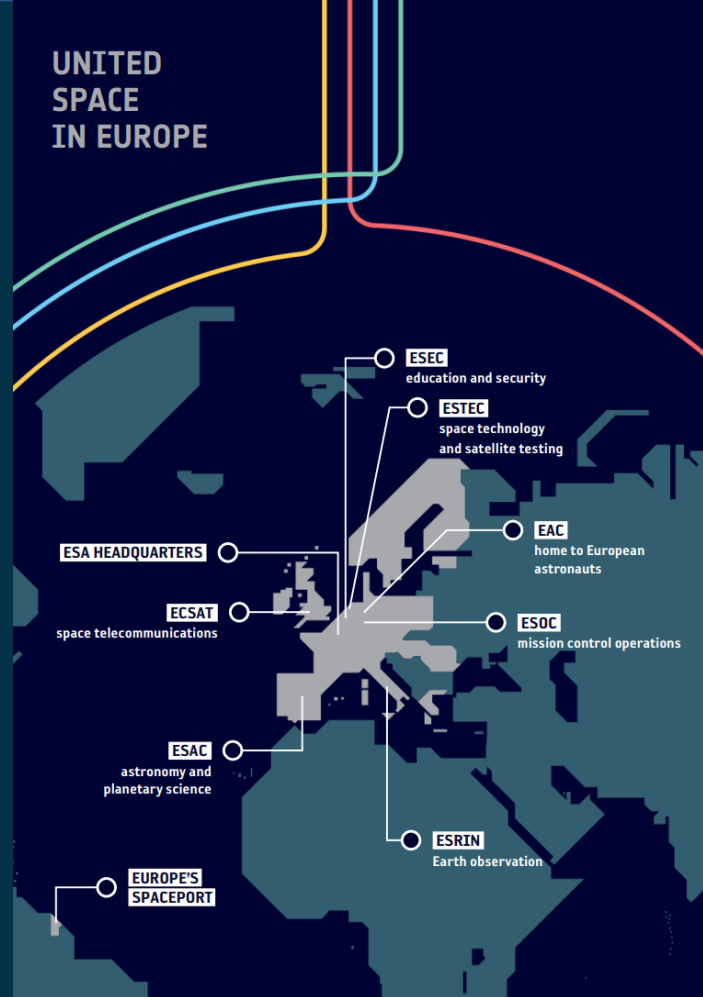


European Space Agency

- Europe's gateway to space
- Peaceful exploration and use of space for the benefit of everyone
- Established in 1975 - over 50 years of experience
- 22 Member States + 9 Associate & Cooperating States
- 8 sites across Europe and a spaceport in French Guiana
- Promote European scientific and industrial interests in space

UNITED
SPACE
IN EUROPE

esa
space solutions



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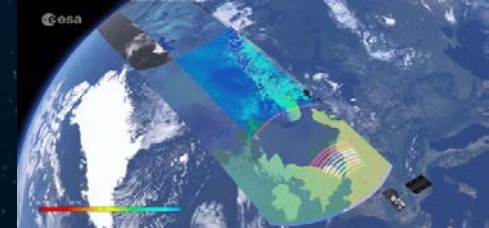
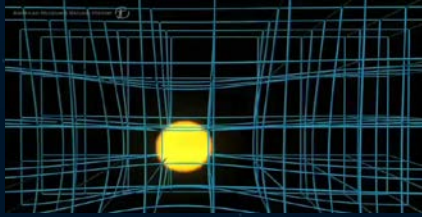
European Space Agency

Science and Exploration

Enabling and Support

Safety and Security

Applications



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→ ESA SPACE SOLUTIONS

The largest space innovation network in the world

- The go-to place for great business involving space to improve everyday life.
- Supporting European start-ups and SMEs to develop businesses using space technology and data.
- Offering funding, business and technical support to help to generate successful business and create jobs.





ESA SPACE SOLUTIONS OFFERS



Zero-equity funding (from
€50k to €2M+ per activity)



A personalised ESA
consultant



Technical support and
commercial guidance



Tailored project
management support



Access to our international
network of ESA and partners



Access to our network
of investors



Credibility of the
ESA brand



Space Technology

Earth Observation



Satellite Navigation



Satellite Communication



Spaceflight Technologies



Space Weather



Users & Markets

Maritime



Environment



Financial



Education



Energy



Agriculture



Healthcare



Transport



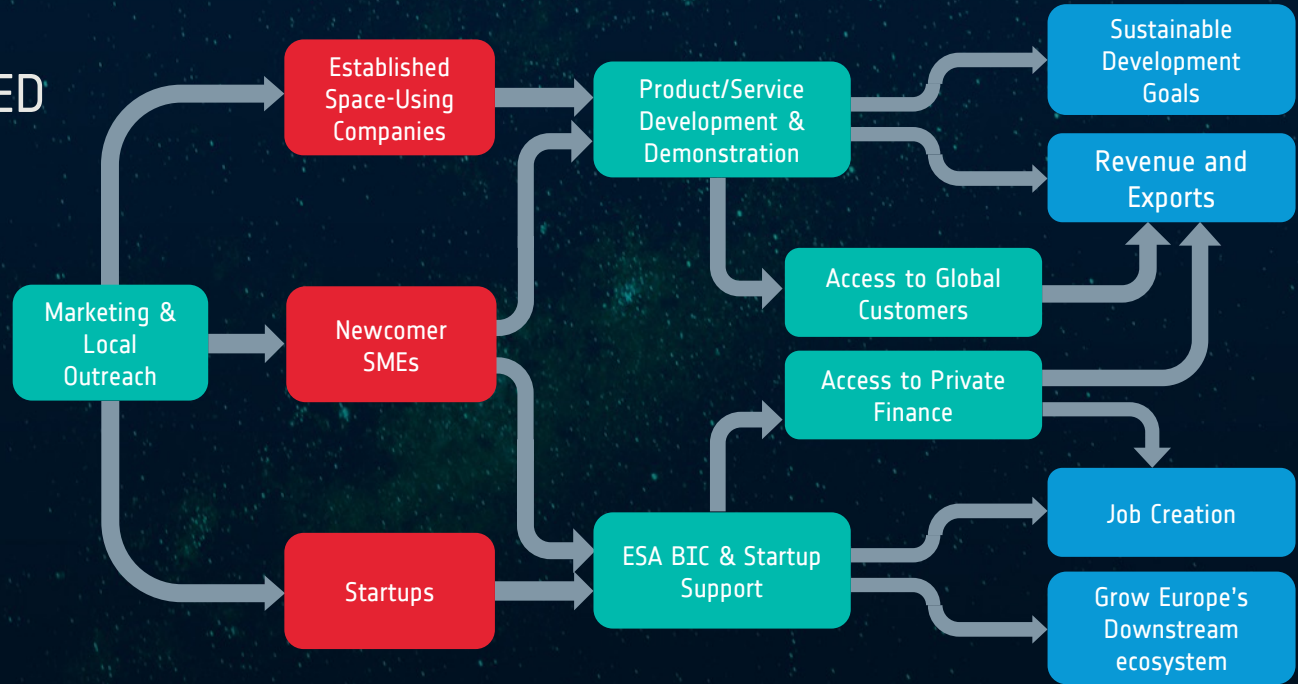
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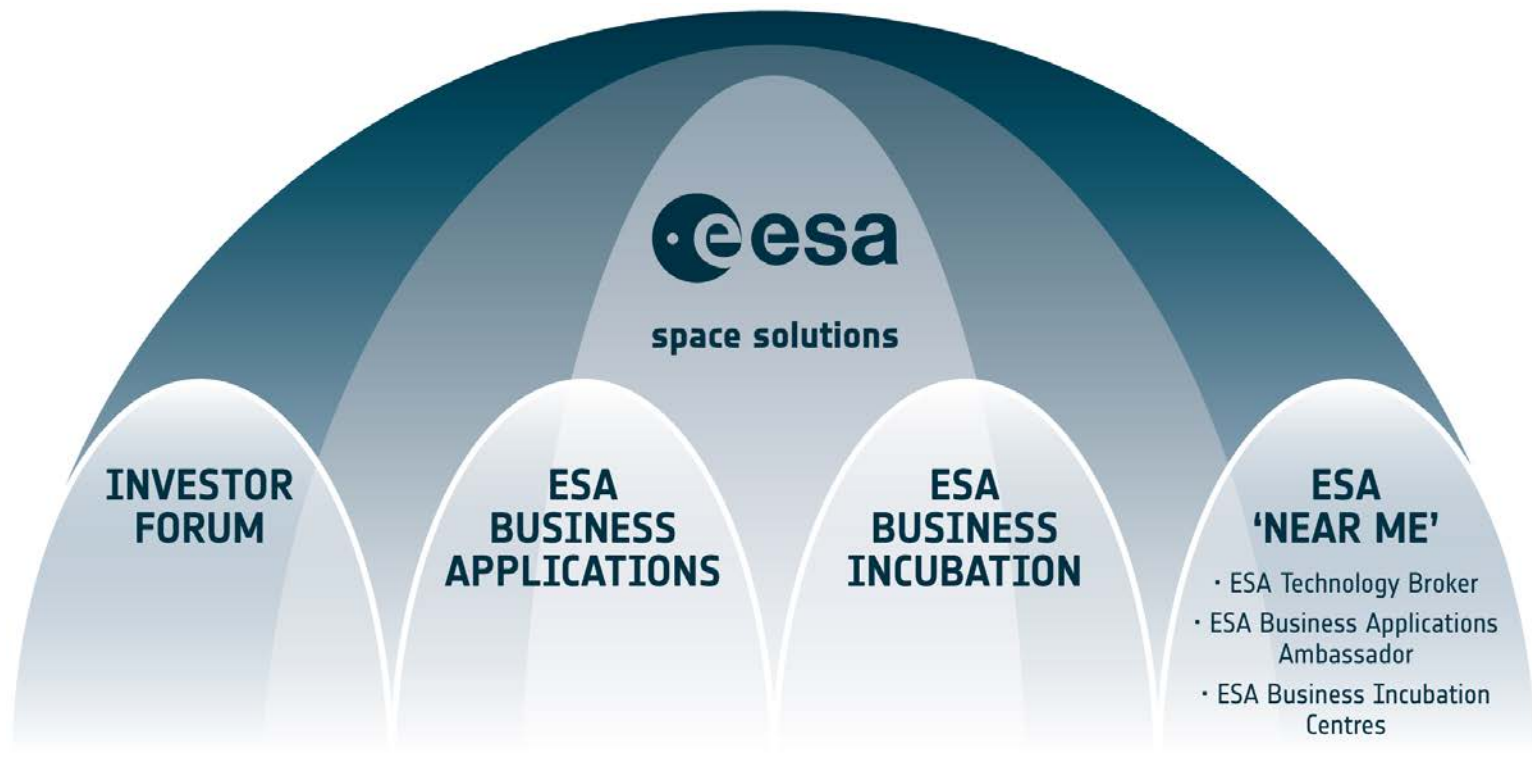


Aviation



A FULLY INTEGRATED TOOLKIT FOR DOWNSTREAM BUSINESSES





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ESA SPACE SOLUTIONS IS NOW LOCAL FOR COMPANIES IN EVERY MEMBER STATE*

LEGEND

- ESA BIC
- ESA Technology Broker
- ESA Ambassadors



*assuming new BICs in RO, PL in 2020



→ ESA BUSINESS APPLICATIONS

Zero-equity co-funding up to €2M

- Demo projects: Mature value proposition & business plan and demo your service with customers.



- Up to 50% co-funding*
- Feasibility studies: Explore ideas, create a business plan & connect with potential users.

- Up to 50% co-funding*
- 100% funding under Competitive Tender
- Kick-Starts: Thematic activities.

- Up to 75% co-funding

* Up to 80% for SMEs (pending specific initiative and approval of National Delegation)





Kick-Start Programme

Kick-Start: Background

- In 2017, ESA Business Applications launched a Kick-Start (feasibility study) framework for providing up to 60k€ zero-equity financing open to any industry in participating Member States.
- Kick Start activities are designed to be particularly interesting for SMEs (including fast-growing) and start-ups looking for opportunities to develop their ideas for new business applications.



→ Kick-Start: Background

6 months duration -
Overall cost €80K

€60K ESA funding
(75% ESA co-funding)

“Kick-Start Activities” are ESA's funding scheme enabling companies to undertake short Feasibility Studies that explore new service and application concepts making use of space capabilities.

- Limited initial investment by companies, particularly attractive for SMEs and start-ups, granting them an easy entry into ESA Business Applications.
- Competitive tendering procedure.
- Rapid evaluation process, to allow companies to keep the pace in the market.
- If successful, possible follow-up support via Demonstration Projects



Kick-Start: Goals

Kick-Starts looks at 3 main elements:

1. Engagement with potential end users and customers to understand their needs and translate these into service requirements.
2. Evaluation of the technical feasibility of the service, and definition of the service and system architecture.
3. Evaluation of the economic viability of the service and development of a business plan.





Space for Social and Environmentally-Friendly Mobility

Background

To explore new business models and space-based solutions for commercially viable services addressing broad mobility applications designed for a socially and environmentally-friendly future:

- Mitigating environmental impacts of transport, and increasing infrastructure resilience to climate change
- Supporting emerging social paradigms in mobility (sharing, post-CV-19, public wellness)
- Enabling novel transport solutions and associated infrastructure: electric/connected/autonomous vehicles
- Enabling novel business models and improved, seamless user experiences

Call is open from 14th October 2021



Relevant Topics



Shared Mobility

- Solutions supporting shared mobility paradigms whether related to cars, buses, scooters, bicycles, or otherwise.
- Supporting environmental protection by offering additional transit options for citizens instead of polluting alternatives.
- Services could address the entire value chain/service provision or support the uptake of existing paradigms, they could introduce new business models or apply existing business models to new geographies, demographics, target markets...



Relevant Topics

OPTIMISATION OF VEHICLE ROUTING AND MOBILITY-AS-A-SERVICE (MAAS)

- Solutions supporting novel routing optimisation solutions (for various mobility solutions) in view of reducing emissions and improving traffic conditions.
- Mobility-as-a-Service – supporting an improved customer experience by integrating different mobility options into a seamless intermodal offering.



Relevant Topics

PLANNING AND UPGRADING OF TRANSPORT INFRASTRUCTURE

- Solutions supporting the planning and upgrading of transport infrastructure.
- This could relate to:
 - Information provision infrastructure
 - Parking solutions
 - Vehicle charging or storage solutions
 - Infrastructure safety solutions
 - Traffic management
 - ...



Relevant Topics

New Driving Solutions

- Solutions supporting the emergence and adoption of new driving solutions including electric, connected and autonomous vehicles.
 - Electric cars, buses, trucks, scooters...
 - Connected vehicle communications – Vehicle-to-Vehicle, Vehicle-to-Infrastructure, Vehicle-to-Everything
 - Autonomous vehicle solutions and enablers

Other Solutions

- Solutions should address emerging paradigms in mobility that account for:
 - Mitigating environmental impacts of transport, and increasing infrastructure resilience to climate change
 - Supporting emerging social paradigms in mobility (sharing, post-CV-19, public wellness)
 - Enabling novel transport solutions and associated infrastructure: electric/connected/autonomous vehicles, shared mobility, mobility-as-a-service, e-scooters...
 - Enabling novel business models and improved, seamless user experiences with a focus on road and intermodal transport.





The Power of Space



Global Navigation Satellite Systems (GNSS) provide precise positioning and guidance for vehicles. Usage of location and tracking data relating to presence and distribution of mobility assets or emissions measurements. Measure structural health of transport infrastructure.



EO satellite data to identify environmental hazards, measure environmental/weather-related risks to transport infrastructure and passengers in transit. Digital elevation models, land subsidence monitoring, mapping to support navigation solutions, air quality data provision. High resolution optical imagery to delineate site specific details.



Satcom offers reliable connectivity in places with insufficient terrestrial cellular coverage, especially in the case of remote or poorly connected environments. Act as a back-up to terrestrial communications infrastructure. Broadcast/multicast message distribution to vehicles and transport infrastructure..

Mobility and Space Examples

Tandem - Tackling Transport Poverty in Towns and Small Cities

Service

Tandem is creating new transport options for people living in towns and small cities – places where poor public transport often prevents access to jobs, healthcare, education and social connections. The project sees Tandem partner with existing local taxi and minibus companies to provide shared transport options to locals.

Role of Space

Smartphone-based satellite positioning is used to share the locations of riders and drivers, and to guide drivers to pick-up and drop-off points.

ESA Support

Demonstration project supporting the team in testing an MVP with end-users on-board.

Further Info

[Tandem - Tandem - Tackling Transport Poverty in Towns and Small Cities | ESA Business Applications](#)

Tracematics - Contactless, or On-demand, Mobility-as-a-Service platform

Service

A “contactless” car rental service allowing users to register, book and complete vehicle rentals, solely through a smartphone app. The app combined with an on-board telematics solution manages and monitors the end-to-end rental.

Role of Space

Satellite positioning is used to identify the pick-up/drop-off location of the vehicle, provide geofencing to ensure the vehicle is used as per the rental terms, returned to the correct location, and to monitor the usage of the vehicle (together with other telematics data).

ESA Support

Demonstration project supporting the team in testing an MVP with end-users on-board.

Further Info

[CONTACTLESS - Contactless, or On-demand, Mobility-as-a-Service platform | ESA Business Applications](#)



→ How to Apply (1/2)

1. Register by completing online questionnaire on [ESA-STAR Registration](#) (minimum 'light registration') [[Doing Business with ESA](#)]
2. Download the official tender documentation (Invitation to Tender) via ESA Star Publication '[AO 10993](#)' from [14th October 2021](#)
3. Create 'Bidder Restricted Area' in ESA-STAR Tendering
4. Write your proposal and obtain Letter of Authorization from National Delegation, if needed.
5. Submit your proposal via 'Bidder Restricted Area' in ESA-STAR Tendering [[Doing Business with ESA](#)] by the relevant closing date ([don't wait until the last minute!](#))





→ How to Apply (2/2)

The Letter of Invitation to Call for Proposals is issued on ESA-Star Publication [[Doing Business with ESA](#)] under 'AO 10993' and includes:

- **Cover letter**
- **Appendix 1:**
List of Thematic Calls for Ideas (including the calendar of the Thematic Call for Ideas and specific information on the themes)
- **Appendix 2:**
Draft Contract
- **Appendix 3:**
Tendering Conditions for Express Procurement Procedure - EXPRO/TC
- **Appendix 4:**
Proposal Template





→ Authorisation from National Delegations

- The **authorization from National Delegation** for the specific Thematic Call against which you submit your Proposal is an admissibility criterion. Proposals not authorized at the closing date of the Thematic Call will not be admitted for evaluation
- For each individual Thematic Call, **dedicated clarifications will be posted in ESA-Star Publication** to provide information on the list of Member States that have already provided their pre-authorization to the Thematic Call
- In case your company/organisation resides in a country which has not provided a pre-authorization to the Thematic Call you are interested in, you need to contact your National Delegation. The contact information of the National Delegations can be found at <https://business.esa.int/national-delegations>

→ Proposal template

Your Proposal shall include the following information:

1. Executive Summary (max 1 page)
2. Business Potential (max 5 pages)
3. Technical Concept (max 5 pages)
4. Team and Resources (max 3 pages)
5. Management (max 4 pages)
6. Financials (max 2 pages)





Thank you!

→ Questions?

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[Social and Environmentally-Friendly Mobility | ESA Business Applications](#)

Thank you!

For more information:

[ESA Space Solutions](https://spacesolutions.esa.int/)
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