

SUSTAINABLE MICRO-MOBILITY

Webinar, 8 February 2023

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Mark Granaghan – EPRI

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



Roberta Mugellesi Dow
Space Applications Initiatives Section
European Space Agency

- ESA introduction
- Kick-Start Programme
- Sustainable Micro-Mobility Objectives
Value of Space
- EPRI – Guest Speaker: Mark Granaghan
- How to apply
- Questions & Answers

PURPOSE OF THE EUROPEAN SPACE AGENCY



To provide and promote, for exclusively peaceful purposes, cooperation among European states in **space research** and **technology** and their **space applications**.”



Article 2 of
ESA Convention

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+ THE EUROPEAN SPACE AGENCY

EUROPE'S GATEWAY TO SPACE

WHAT

22 Member States, 5000 employees

WHY

Exploration and use of space for exclusively peaceful purposes

WHERE

HQ in Paris, 7 sites across Europe and a spaceport in French Guiana

HOW MUCH

€6.49 billion = €12 per European per year

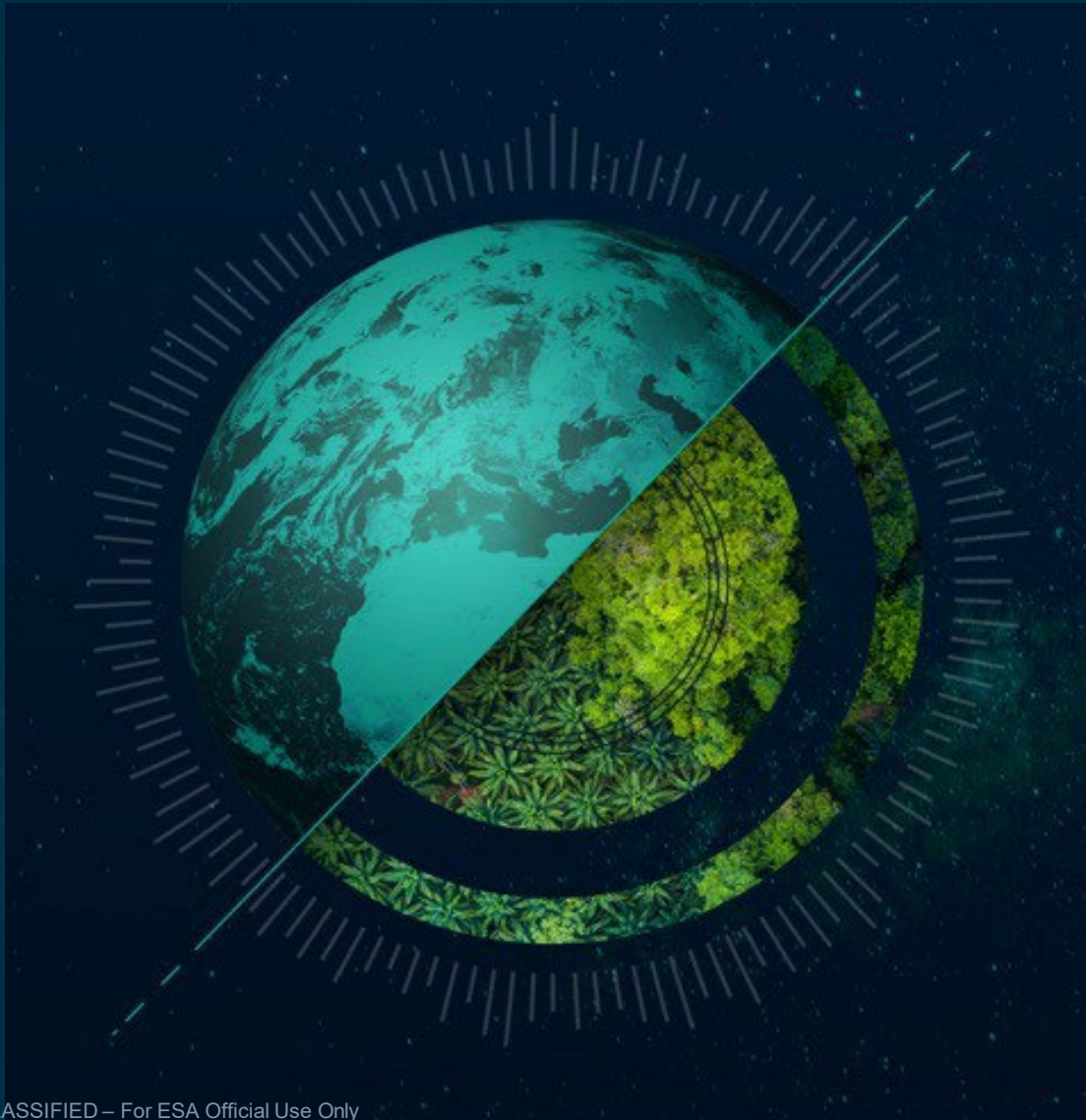


The largest space innovation network in the world

- The **go-to place** for great business involving space to improve everyday life.
- Supporting European companies including 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

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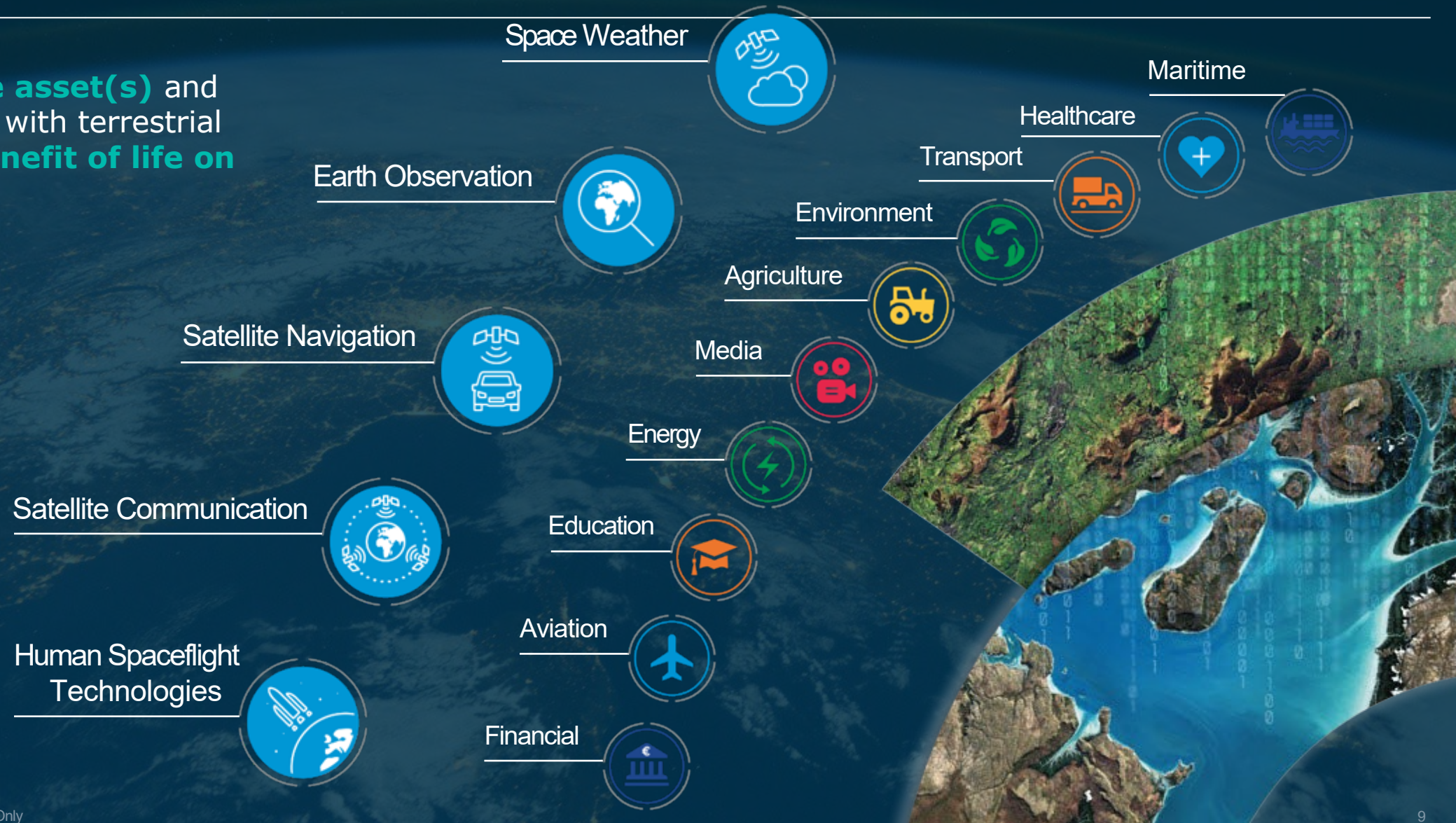


→ THE EUROPEAN SPACE AGENCY

BUSINESS APPLICATIONS AND SPACE SOLUTIONS



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





Kick-start Activity

ESA UNCLASSIFIED



Kick-start Activity - 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.
- Rapid evaluation process, to allow companies to keep the pace in the market.
- If successful, possible follow-up support via Demonstration Projects.



Kick-start Activity

During the Kick-start teams will look at 3 main elements

1. Engagement with **potential end users** and **customers** to understand their needs and translate these into service requirements.
2. Assess 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**.



Overall Aim of the Kick-start Activity





Sustainable Micro-Mobility

Background

- With cities pressed to solve the increased congestion on the roads and the dangerous levels of pollution, several micro-mobility solutions are emerging as a powerful alternative to traditional public transit, offering a huge opportunity to decarbonise transport, reduce congestion, improve air quality, and reduce car dependence.
- There changes in the way people move around and electric bicycles and scooters are increasingly becoming one of the preferred options in urban community neighbourhoods.
- This kickstart theme focuses on the challenges related to micro-mobility, main actors, needs and the potential role of space technologies integrated with other technologies.

Call open from 13 February 2023 until 31 March 2023



Sustainable Micro-Mobility - Topics

The call offers an unique opportunity for companies to develop new applications /services addressing topics such as:



- Platforms with simulation of the urban settlement ecosystem
- Understanding of the micro-mobility patterns

Micro-Mobility Planning and Fleet Management



Micro-Mobility Urban Cluttering

- Solutions for predicting cluttering
- Approach to prevent it



Micro-Mobility Safety

- Solutions to ensure safe riding of e-scooters
- Improve communications V2V and V2I

Satellite Communication (SatCom)



- collect data of micro-mobility vehicles whenever the terrestrial communications are absent or not reliable;
- provide the micro-mobility operators with a faster sharing of large data files containing information on the vehicles;
- connect the vehicles/riders for increased safety, either through V2I communication or integrated connectivity

Satellite Earth Observation (SatEO)



- to collect information on geographical and environmental parameters;
- to monitor pollution levels and associated risks to relevant communities;
- to provide imagery enabling services such as mapping, risk detection, and situational awareness.

Satellite Navigation (SatNav)



- to enable georeferencing for high precision positioning, navigation and tracking of micro-mobility vehicles;
- to enable people flow-monitoring and location-based services to geo-localise points of interest in the maps and to enable geo-fencing and time-fencing features;
- to provide ubiquitous high accuracy position, navigation and timing (PNT) technologies to support accurate and seamless positioning provided by GNSS.



Mark Granaghan

Vice President of Integrated Grid
EPRI



**Electric Power
Research Institute**

HOW TO APPLY, 1/2



Registration (minimum 'light registration') on [ESA-STAR Registration](https://esastar-emr.sso.esa.int) (<https://esastar-emr.sso.esa.int>)

Please note that esa-star allows two levels of entity registration: “Light” and “Full”. This allows new users wishing to do business with ESA to carry out their registration in two steps. A “Light” registration will grant access to all esa-star services up to and including proposal submission. The award of ESA contracts requires “Full” registration.



The screenshot shows the ESA-STAR registration interface. At the top, the ESA logo and 'esa-star registration' text are displayed. Below this is a navigation bar with links: '16 Apr 2020', 'ESA Home Page', 'EMITS', 'ESA Industry Portal', 'Contact Us', and 'Help'. The main content area is titled 'NEW REGISTRATION' and contains a form with the instruction: 'Please select one of the two options:'. Two radio buttons are provided for selection. Option A is 'A. I am an Entity that has the capacity as "legal entity"'. Option B is 'B. I am a Business Unit acting on behalf of a "legal entity", without being entitled to commit on contracts on my own'. A sidebar on the left contains links: 'Home', 'New Registration', 'Maintain Entity Information', and 'ESA Entities Directory'.

HOW TO APPLY, 2/2

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

Cover Letter

Appendix 1

Activity Description / Statement of Work

Appendix 2

Draft Contract

Appendix 3

Tendering Conditions for Express Procurement Procedure - EXPRO/TC

Appendix 4

Proposal Template



- The authorisation from **National Delegation** for the call against which you submit your proposal is an admissibility criterion. Proposals not authorised 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

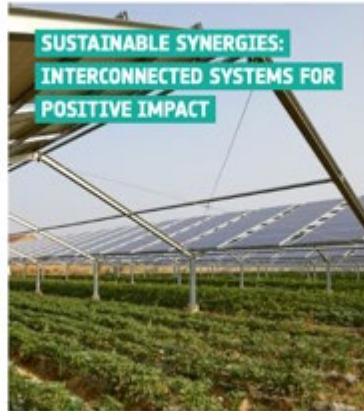
Your Proposal shall include the following information:

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)




Where to find the information

Featured opportunities



Sustainable Micro-Mobility

Home » Funding » Sustainable Micro-Mobility



Credit: Igor Tichonow

OPPORTUNITY	Intended Tender
ACTIVITY	Kick-start Activity
OPENING DATE	2023-02-13
CLOSING DATE	2023-03-31
WEBINAR	08 February 2023 - 10:00 GMT

<https://business.esa.int/funding/intended-tender/sustainable-micro-mobility>

THANK YOU!

Q&A

For more information please contact:
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