→ **Kick-Start Activity - Preparedness and Response to Natural Disasters**

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WELCOME TO THE WEBINAR! Before we start…

- Due to the number of attendees, <u>please keep your microphones muted at all times and switch off the webcam function</u>

- 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

- Introduction
  - Space Applications
  - What ESA offers

- Introduction to Kick-Start Activity
  - Introduction to Kick-Start Activity
  - Thematic Calls
  - Study Tasks

- Preparedness and Response to Natural Disast...
  - Background
  - Key topics
  - Enablers from space: SatNav, SatEO, SatCom

- How to Apply to Kick-Start Activity
  - How to apply
  - Authorization from National Delegations
  - The Proposal Template

- Q&A

→ Space Applications

Space technologies

Space Weather

Earth Observation
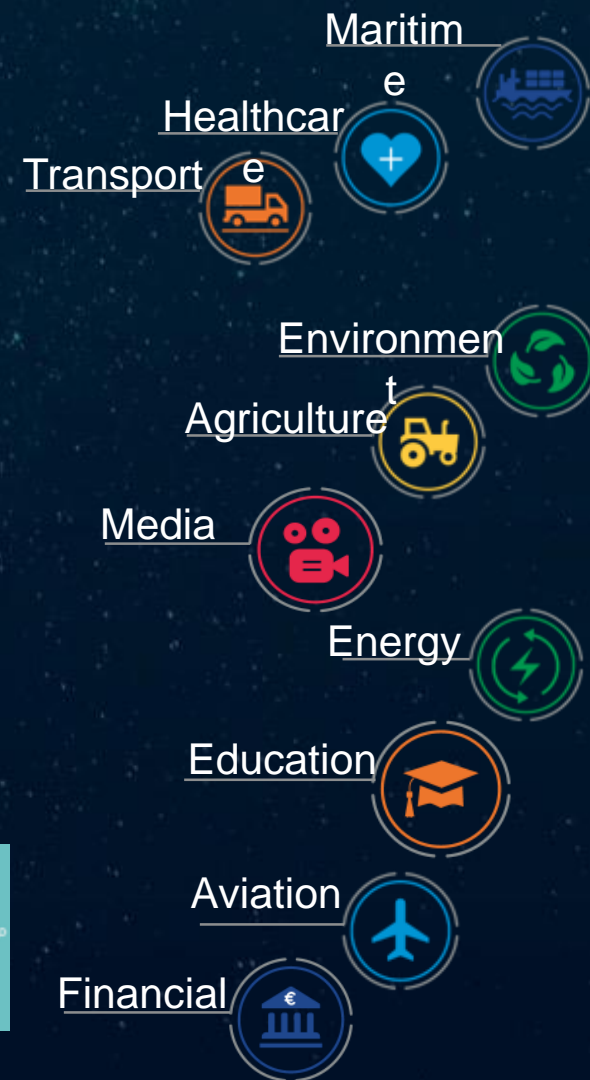
Satellite Navigation

Satellite Communication

Human Spaceflight Technologies

Users and Markets

- **Big Data analytics**
- **VR/AR**
- **Artificial Intelligence**
- **Megaconstellations**
- **5G**
- **Crowdsourcing**
- **IoT**
- **Cybersecurity**
- **Blockchain**
- ….

Maritime

Healthcare

Transport

Environment

Agriculture

Media

Energy

Education

Aviation

Financial

→ What ESA offers

We'll work together to make your idea commercially viable, with:

Zero-Equity
Funding
(€60k-€3M+)

Tailored Project
Management
Support

Access to
Our Network
& Partners

Use of the
ESA Brand for
Credibility

- Kick- Starts are ESA's funding scheme enabling companies to undertake short Feasibility Studies, up to 6 months, that explore new service and application concepts making use of space capabilities.

- Kick-Starts offer an instrument to assess the technical feasibility and commercial viability of an idea with limited initial investment by companies. As such, this scheme is considered particularly attractive for SMEs and start-ups, granting them an easy entry into ESA Business Applications.

- Successful Kick-Starts can be further developed into commercially-viable businesses with follow-up support from ESA Business Applications in the form of Demonstration Projects(*)

(*) https://business.esa.int/funding/direct-negotiation-call-for-proposals/demonstration-projects

→ Thematic calls

- The Thematic Calls for Kick-Start Activities are open to any company or organisation in participating Member States.

- Kick-Start Activities aim at exploring the viability of new service/application concepts and consolidating the user landscape including derivation of user requirements.

- Kick-Start activities resulting from Thematic Calls are funded at 75 % for a maximum amount of 60,000 Euro per activity and at 80% for a maximum of 64,000 Euro for SMEs.

- The Thematic Calls for Kick-Start Activities follow a competitive tendering procedure.

Customer Engagement incl. needs and value proposition validation.

Technical Feasibility Assessment incl. Service and System Architecture, Space data/technology integration.

Commercial Viability Assessment incl. Business Model and Plan

European Space Agency

→ **Preparedness and Response to Natural Disasters-Background**

Natural disasters are extreme and sudden events caused by environmental factors that injure people and damage property

Although there is no a precise pattern of the occurrence of such phenomenon, the general trend, which unfortunately is evident to all of us, is that: a)the yearly number of natural disasters increases, b) the disasters are becoming extraordinary more powerful and active in a shorter period of time.

The opportunity of this call is triggered by the advent of novel terrestrial technologies (such as immersive realities, holography, 5G), empowered by advancements in the space sector which create opportunities for new services and new approaches to emergency management.

- Any kind of natural disaster is eligible for this opportunity. Man-made disasters-such as oil spills or environmental crimes-are not the subject of this call.

- Eligible disasters include:
    - ➤ Drought
    - ➤ Coastal Erosion
    - ➤ Earthquake
    - ➤ Flooding
    - ➤ Avalanches
    - ➤ Tsunami
    - ➤ .....

- Proposed services can target to improve the preparedness (i.e. planning how to respond to a natural disaster) and/or to make response (i.e. efforts to minimize the hazards created by a natural disaster) more effective

1. Proposed service can be relevant only for one specific Disaster.

E.g. DROUGHT

- Management of water resources

- Energy production

- Wildfire Management

- Sustainable Tourism

2. Or services can be common to all disasters

- Disaster risk assessment

- Disaster damage assessment

- Emergency relief and search & rescue

→ The Power of Space

Satellite Navigation

GNSS are the main source of geo- referenced locations data. Satellite navigation is instrumental in order to track and trace users.

Earth Observation

EO imagery are used to provide pictures for risk mapping, disaster situation awareness, post-event damage assessment and reconstruction phase. They are a valid aid to detect precise changes on land, support site selection, urban planning, and optimisation of water resource. Meteorological information belong also to this asset.

Satellite Communication

Satellite communications can provide reliable communication for different data speeds, latency, and traffic needs during an emergency when terrestrial infrastructure is not available.

Multiconstellation satellites devoted either to acquire images (SatEO) or to transmit data (SatCom) are particularly relevant in this context.

→ How to apply, 1/2

1. **Register** by completing online questionnaire on [ESA-STAR Registration](#) (minimum 'light registration') (https://esastar-emr.sso.esa.int)

2. **Download** the official tender **documentation** (Invitation to Tender) via [EMITS 'AO 10345'](#) from 06 May 2020

3. **Create** 'Bidder Restricted Area' in ESA-STAR

4. **Write your proposal** and obtain **Letter of Authorization** from [National Delegation](#), if needed (see below)

5. **Submit** your proposal via 'Bidder Restricted Area' in [ESA-STAR Tendering](#) by 17th June 2020 13:00 CET (Don't wait until the last minute!)

The Letter of Invitation to Call for Proposals is issued on EMITS
(http://emits.sso.esa.int/emits/owa/emits.main)
under 'AO 10345' 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

→ **Authorization from National Delegations**

The authorization from National Delegation for the specific Thematic Call against which you submit your Proposal is an admissibility criteria. 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 EMITS 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.

For the Thematic Call on 'Preparedness and Response to Natural Disasters' **Germany**, **Luxembourg** and **Norway** have pre-approved funding

→ **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)

→ QUESTIONS?

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