

ESA Business Applications

Kick-start Activity

Theme: Arctic and Sub-Arctic Regions

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ESA UNC

- 12:00-12:20
 - Welcome by ESA
 - Introduction to the Kick-start Activity
 - What ESA offers
 - Kick-start Work plan
 - The Thematic Calls for Kick-start Activities
 - Support from National Delegations
 - The Call for Proposals (EMITS)
 - “What you need to do”
 - The Proposal Template

- 12:20-12:30
 - Arctic and Sub-Arctic Regions Background
 - Topics of relevance for Arctic and Sub-Arctic Regions
 - Enablers from space

- 12:30-13:00
 - Open Questions & Answers session

WELCOME BY ESA



- Welcome to participants
- Guidelines how/when to interact during the webinar:
 - Due to the number of attendees, **please keep your microphones muted at all times**
 - You can use the **chat function** anytime to submit your questions to the **presenter**. They will be addressed during the Q&A at the end of the webinar



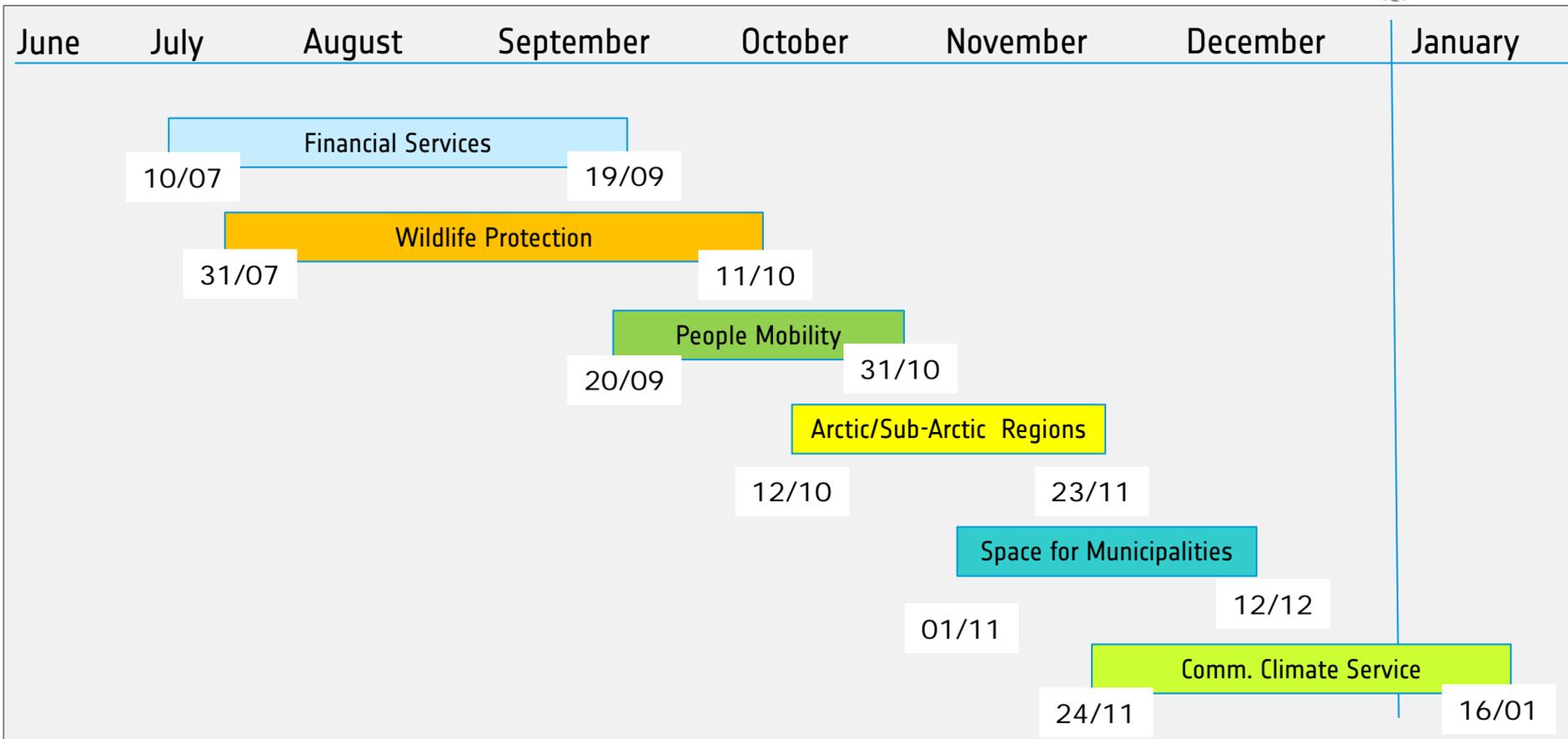
INTRODUCTION TO ESA'S KICK-START ACTIVITY



- The “Kick-start Activity” is ESA's **new funding scheme** which enables companies to undertake **short Feasibility Studies** (up to 6 months) that explore new service and application concepts making use of space capabilities (e.g. Satcom, SatNav, SatEO).
- Kick-start Activities offer an instrument to assess the viability of an idea with **limited initial investment by companies** (both financial and manpower). As such, it is particularly **attractive for SMEs and start-ups granting them an easy entry into ESA Business Applications**.
- ESA is committed to a **rapid evaluation process**, for allowing companies to keep the pace in the market.
- **Successful Kick-start Activities** 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>

KICK-START WORK PLAN, 2nd Sem. 2017



WHAT ESA OFFERS



Financial support



Technical and business expertise



ESA branding and promotion



Network and partnership building

THE THEMATIC CALLS FOR KICK-START ACTIVITIES



- The Thematic Calls for Kick-start Activities are **open to any company or organisation in participating Member States** (Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Sweden, Switzerland and the United Kingdom).
- 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 %** by the Agency for a **maximum amount of 60,000 Euro** per activity.
- The Thematic Calls for Kick-Start Activities follow a **competitive tendering procedure**. The evaluation criteria and associated weighting factors are published in the cover letter of the Call for Proposals.

SUPPORT FROM NATIONAL DELEGATIONS



- The availability of funding for the specific Thematic Call against which you submit your Proposal is an admissibility criteria. Proposals not supported at the closing 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 financial support to the Thematic Call.
- In case your company/organisation resides in a country which has not provided their financial support to the Thematic Call you are interested in, you are encouraged to contact the National Delegation. The contacts of the National Delegations can be found at <https://business.esa.int/national-delegations>.

So far, **Germany, Luxembourg, and Norway** have made funding available for the Thematic Call on Arctic and Sub-Arctic regions



THE CALL FOR PROPOSAL



The Letter of Invitation for the Call for Proposals (ESA AO/1-8872/17/NL/CLP) is issued on EMITS (<http://emits.sso.esa.int/emits/owa/emits.main>) 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

Appendix 1 will be updated on AO 9072, once a new Thematic Call will be opened.

“WHAT YOU NEED TO DO”



- The proposal submissions shall make use of the new **ESA-STAR** system which will allow the **submission of proposals electronically**.
- Companies shall register beforehand by completing the **online questionnaire** on the “ESA-STAR registration” - <https://esastar-emr.sso.esa.int/>
 - For general information about how to do it, see the “esa-star” Registration User Manual http://esamultimedia.esa.int/docs/business_with_esa/CG-EM-ORR-S-16_End_User_Manual_v1.2.pdf
- The content of your proposal will be limited to filling in as necessary the **Cover letter (1 page) and Proposal Template (maximum 20 pages)**.
- **Full compliance to the Draft Contract** is a Key Acceptance Factor.

THE PROPOSAL TEMPLATE



Your Proposal shall include the following information:

- 1) EXECUTIVE SUMMARY (maximum one page)
- 2) BUSINESS POTENTIAL (maximum five pages)
- 3) TECHNICAL CONCEPT (maximum five pages)
- 4) TEAM AND RESOURCES (maximum three pages)
- 5) MANAGEMENT PART (maximum four pages)
- 6) FINANCIAL PART (maximum two pages)

ARCTIC AND SUB-ARCTIC REGIONS BACKGROUND

The current global economic demand for resources and the shrinkage of the ice coverage measured recently is starting to bring international attention to the Arctic. The Arctic is considered to host vast natural resources, including oil, gas, minerals, fresh water, fish and forest resources.

The Arctic region is an area where, given the harsh environment and isolation status, space assets are among the important tools that support, and will support more, the development of the activities in the area, and in particular the sustainability and security and safety of those activities.

Solutions capable to support a safe sustainable development of the arctic regions, overcoming the challenges that operate in ,present are needed. Service providers could pave the way to the arctic “Blue growth”; through the provision of applications such as ocean energy, aquaculture ; as well of services capable to support emergency response operations, ice monitoring, environmental resources protection.

Some examples of topics of relevance that could be addressed via services utilising space capabilities:

- **Supporting safe and sustainable economic development:**

Hydrocarbon Exploration and Production, Fishing, Mining, Tourism, Bio-economy (i.e. those parts of the economy that use renewable biological resources from land and sea – such as crops, forests, fish, animals and micro-organisms – to produce food, materials and energy) sectors are and will drive the Arctic economy. Additionally, the “blue economy” (or “blue growth”) are important dimension to current and future growth in the Arctic and sub-Arctic context. Combination of space assets integrated where needed with terrestrial assets (e.g. UAV, unmanned vessels..), can trigger the development of applications in areas such as sea-bed mining, arctic ocean energy, aquaculture and others. There is a wide range of opportunities in developing innovative applications and services in support of the above economic activities with the focus on protecting and supporting the Arctic's fragile environment.

- **Preparing for future arctic shipping:**

A number of services making use of space and terrestrial assets could be envisaged in support of the safety of navigation, ice monitoring; efficiency of transport and port logistics; tracking of whales, large fish and mammals to prevent collisions; as well as emergency response (including oil spill response). Solutions could be proposed relying on a complementary utilization of terrestrial and satellite communications to rely ship sensors data and other messages.

- **Monitoring and protecting environmental resources**

The Arctic is home to several sensitive ecosystems not only affected by climate change, but also by pollution and invasive alien species. Arctic protection can as well play a crucial role to fight the climate change. Therefore there is a need for tools and services measuring environmental performance, i.e. the environmental foot-prints for making comparisons between production systems, e.g. in the aquaculture and fishery sector.

- **Promoting the development of the local communities**

The focus is to achieve sustainable development in the economic, social and environmental dimension, in a balanced and integrated manner. Services capable to support access to educational resources, preservation and sharing of traditional knowledge and supporting sustainable innovation and local businesses are becoming prominent. A lot remain to be done for support the Arctic communities in developing robust and competitive societies while protecting and promoting their cultural and natural heritage.

ENABLERS FROM SPACE



- Earth Observation (SatEO)

can contribute to weather and sea-ice conditions monitoring, supporting safety of navigation and enabling the huge task of Search and Rescue born by maritime authorities responsible for the Arctic region.

- Satellite based Automated Identification (SAT-AIS) / VHF Data Exchange System (VDES) / Satellite ADS-B [ADS-B Sat]

could support the establishment of or extend already existing location-based communication systems such as AIS /Long Range Identification and Tracking (LRIT)/ ADS-B terrestrial , allowing transmission of among others positional information.

- Satellite navigation (SatNav)

for tracking & tracing the different types of vehicles, such as ships (manned and unmanned), aircrafts, RPAS;

- Satellite communication (SatCom)

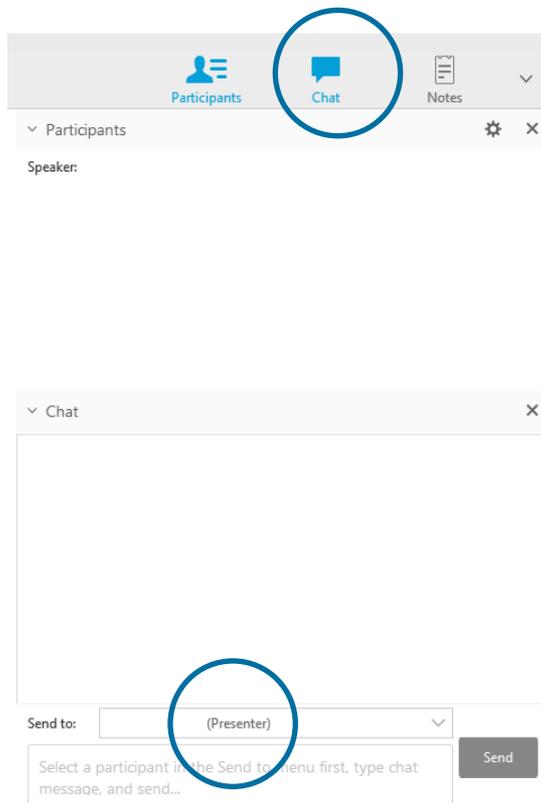
for global communication whenever the terrestrial communications are absent or not reliable

The integration of satellites with innovative technology, big data analytics, Artificial Intelligence techniques, expert systems, pattern recognition, multi-agent systems and others offers a wide range of opportunities for new applications.

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OPEN QUESTIONS & ANSWERS SESSION



Participants

Chat

Notes

Participants

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ESA Business Applications

→ SPACE IS OPEN FOR BUSINESS

<https://business.esa.int/funding/intended-tender/arctic-and-sub-arctic-regions>