

ARTES Integrated Applications Promotion

Kick-start Thematic call for Ideas

Theme: Autonomous Road Transport

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AGENDA

- 16:00-16:20
 - Welcome by ESA
 - Introduction to Kick-start Thematic call for Ideas
 - What ESA offers
 - Kick-start Work plan
 - The Thematic Call for Ideas
 - Support from National Delegations
 - The Call for Proposals
 - “What you need to do”
 - The Proposal Template

- 16:20-16:30
 - Definition of Autonomous Road Transport
 - Background
 - Topics of relevance for Autonomous Road Transport

- 16:30-17.00
 - Open Questions & Answers session

WELCOME BY ESA

- Welcome to participants
- Guidelines how/when to interact during the WebEx session:
 - Due to the number of attendees, **please keep your microphones muted till the Questions & Answers session**
 - You can use anytime the chat function to submit your questions that will be then addressed at the end of the Webinar

INTRODUCTION TO KICK-START THEMATIC CALL FOR IDEAS



- Kick-start is ESA's **new Integrated Applications Promotion (IAP) funding scheme** to enable companies to undertake **short feasibility studies** (up to 6 months) that explore new service and application concepts which make 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 IAP**
- 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 IAP in the form of **demonstration projects**^(*)

(*)<https://artes-apps.esa.int/opportunities/call-for-proposals-artes-iap/demonstration-projects>

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WHAT ESA OFFERS

- Financial support
- Technical and business expertise
- ESA branding and promotion
- Network and Partnership Building

KICK-START WORK PLAN

January

February

March

April

May

June

Outdoor Tourism

30/01

Automated
Road Transport

13/03

Ageing
Population

24/04

Food Security

29/05

10/07

◆ Proposals Evaluation

THE THEMATIC CALL FOR IDEAS

- The Thematic Calls for Ideas are **open to any Industry in IAP 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 Kick-Start Thematic Call for Ideas 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 for Ideas against which you submit your Proposal is an admissibility criteria. Proposals not supported at the closing of the Thematic Call for Ideas 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 IAP Member States that have already provided their financial support to the Thematic Call for Ideas
- In case your company/organization 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://artes-apps.esa.int/national-delegations>.

Austria, Germany, Norway, Luxembourg, Poland and the United Kingdom have made available funding for the Thematic Call on Automated Road Transport

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THE CALL FOR PROPOSAL



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

“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” website (<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 contents 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)



DEFINITION OF AUTONOMOUS ROAD TRANSPORT

- Services supporting any road vehicles (whether cars, buses or trucks) capable of driving itself without human conduction are pertinent to this thematic call



BACKGROUND

- Automated road transport addresses many of the challenges of today's transport system such as:
 - **Increase road safety:** today over 90% of road accidents involve driver error;
 - **Increase efficiency:** by reducing time in congested traffic;
 - **Improve air quality:** by reducing fuel consumption & CO2 emission.
- Automated road transport is a growing market expected to generate about 30% annual revenue growth to €49.3 billion in 2021.
- Other drivers of near-future growth include the increased availability of high-speed wireless networks, cloud-based data services and the development of APIs needed to create connected car software.
- Automated road transport relies on data connectivity (terrestrial/satellite) between the driver, vehicle and surroundings, as V2V and V2X communication.
- The automotive industries are working closely to achieve the target of every new car being connected and partially automated by 2025.

TOPICS OF RELEVANCE FOR AUTOMATED ROAD TRANSPORT



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

- **Traffic flow management:**
 - A platform collecting data from connected cars, also accessing data of other sensors/equipment would allow to monitor a variety of services, such as traffic flow, accidents, etc. Space can be a key element for coordinating and optimizing traffic flow since traffic information, deviations, road closure, collision avoidance to be distributed to all vehicles at the same time.
- **Monitoring automated trucks driving system**
 - Analysis of the requirements for a service monitoring a fleet of automated trucks including decision on optimal routing.
- **Big data analytics :**
 - As the automation and connectivity of the vehicles increases, similarly the amount of data increases and this creates new requirements to be met by vehicles safety and infrastructure and protection of personal data. Big data analytics offers the possibility to extract valuable information from huge and non-homogenous data volumes.
- **Cybersecurity**
 - Autonomous vehicles are safety critical and require a specific accurate and resilient positioning, timing and navigation. Data and information must be protected from external and internal attacks that will occur.

OPEN QUESTIONS & ANSWERS SESSION



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“Space is the Limit”

Thank You!