Acceleration of EGNOS Adoption in Transport

Introduction to the Call webinar

23 April 2021
Agenda

- INTRODUCTION TO THE CALL
- AREAS OF ACTIVITIES
- ELIGIBILITY AND AWARD CRITERIA
- FINANCIAL ASPECTS
- HOW TO SUBMIT A PROPOSAL
- Q&A TIME
INTRODUCTION TO THE CALL
Introduction to the call

**Objective:**
Foster EGNOS adoption in the European **aviation, maritime & inland waterways** and **rail** by:

i) enabling users to **get equipped** with GPS/SBAS-enabled terminals, and

ii) supporting Air Navigation Service Providers, airports/heliports, maritime authorities and rail stakeholders in **implementing and testing** EGNOS-based operations

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**Maximum budget allocated for EU financing under this call:**

EUR **3,000,000** with the possibility to extend to € 10,000,000 pending budget availability

**Indicative number of projects to be funded:**

**6 projects** with the possibility to extend to 20 pending budget availability

**Maximum EU co-financing rate of eligible costs:**

**60%**

**Deadline for submitting applications:**

**19 July 2021**

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**Full call info:** [https://www.gsa.europa.eu/acceleration-egnos-adoption-transport](https://www.gsa.europa.eu/acceleration-egnos-adoption-transport)
The Call is structured in 7 areas of activities

### EGNOS Adoption in Aviation

| 1.A | EGNOS based Operations: RNP APCH/PosS procedures to LPV/LPV200 minima, low level IFR routes and advanced operations |
| 1.B | EGNOS based Avionics solutions development and installation |
| 1.C | EGNOS enablers for wider adoption and other airspace users |

### EGNOS Adoption in Maritime & inland waterways

| 2.A | EGNOS-based equipment in shore infrastructure |
| 2.B | EGNOS-based user terminals |

### EGNOS Adoption in Rail

| 3.A | EGNSS deployment in rail pilot lines |
| 3.B | EGNSS installation in non-interoperable railway lines |
EGNOS Adoption in Aviation

1.A EGNOS-based Operations: RNP APCH/PinS procedures to LPV/LPV200 minima, low level IFR routes and advanced operations

Focus: Design and implementation, achieving operational use of EGNOS approach procedures at European airports and/or heliports. Activities may include, among others, procedure design, obstacle survey, safety assessment, ground and flight validation, training for air traffic control officers and/or pilots, and publication. Proposals shall contribute to track actual EGNOS-based performed approaches in Europe.

Eligible activities:

- Pilot cases aiming at assessing new operational scenarios, such as LPV to aerodromes without Air Traffic Control (ATC) or non-instrument runways
- Publication of 3D approach procedures in accordance with the requirements of the RNP approach specification at European airports, including LPV/LPV200 minima
- Implementation of other EGNOS-based operations including radius to fix (RF) legs and RNP authorisation required approach (RNP AR APCH) and assessment of operational benefits
- Implementation of PinS Procedures to LPV minima and Low-Level Routes to serve heliports, helipads or oil rigs, including Simultaneous Non-Interfering Approaches (SNI) to avoid conflicts with fixed-wing traffic operating at a certain airport
- Design and implementation of other communication, navigation and surveillance applications benefitting from EGNOS for all phases of flight, such as steep approaches or other EGNOS based operation supporting reduction of emissions and benefiting the environment
EGNOS Adoption in Aviation

1.B EGNOS-based Avionics solutions development and installation

**Focus:** Enable large-scale operational use of LPV capabilities on board, including development and/or installation of SBAS/EGNOS LPV capabilities for new aircraft models and/or its entry into operation, as well as hardware upgrades or acquisition, hardware installation and certification and/or obtaining the specific operational approval for aircraft/helicopter in service. Applications are mostly expected from aircraft or rotorcraft manufacturers, airspace users, as well as EASA Part-21 organisations.

**Eligible activities:**

- Development of *retrofit* and *forwardfit* solutions including LPV capabilities
- Installation of GPS/EGNOS-enabled avionics and granting of airworthiness certification for RNP APCH procedures down to LPV minima, including PinS
- Development of *SBAS LPV in new aircraft* models and/or its entry into operation
- Development of *Service Bulletin* and/or *Supplemental Type Certificate* aiming at including SBAS LPV capabilities in aircraft/rotorcraft models
EGNOS Adoption in Aviation

1.C EGNOS enablers for wider adoption and other airspace users

Focus: Development of enablers to accelerate EGNOS adoption and its operational use by civil aviation. Proposals may include but not be limited to hardware/software development, processes implementation and related trials. The proposals under this area of activity should first demonstrate the need for such enablers by aviation stakeholders with short term impact on acceleration of EGNOS adoption and prove readiness of the proposer to accomplish the proposed tasks within the time of the project.

Eligible activities:

• Development of EGNOS capabilities within flight simulators, validation tools, training materials

• Development and/or implementation of EGNOS based solutions for drones’ operations

• Design and implementation of other communication, navigation and surveillance applications benefitting from EGNOS for all phases of flight

• Integration of EGNOS in other airport and or ATC operations, contributing to EU Digitisation
EGNOS Adoption in Aviation

Minimum set of deliverables to be submitted:

Area 1.A:
- Initial Report including evidence on: Feasibility, Cartography, Obstacle Survey, Conceptual and Initial Design Report and draft Chart;
- Chart for procedure with FAS DB information;
- Report from the flight procedure designer who review the procedure design, according to ICAO quality assurance process;
- Safety Assessment;
- Ground/Flight Validation Report;
- Final Report including evidence on: Procedure Design Report, ATCO training, approval, publication and effectiveness dates, EWA signature, Benefits-Risks and other comments

Area 1.B:
- Operation Approval and associated documentation (for upgrade of aircraft in service by the operator)
- Compliance demonstration and EASA STC/SB approval; (for STC/SB development activities)
- Final Report including: summary of the complete process, dates, main barriers found, future expected, benefits/risks and other comments.

Area 1.C:
The minimum set of deliverables should be defined by the applicant(s) together with a short description of the content, their link with the project plan, the expected delivery date and periodicity. Indicative deliverables may be the commercially available enabler (hardware/software/certification) and/or operational implementation of the new EGNOS based operation. It shall also include one demonstration or other dissemination activity of the project result upon request by GSA.
EGNOS Adoption in Aviation

Useful source of information: [https://egnos-user-support.essp-sas.eu/](https://egnos-user-support.essp-sas.eu/)

**LPV Map**
- Deployment April 2021 AIRAC #2104
- 770 LPV approaches 396 destinations

**CBA Tool**
- You must log in or register to view this content.
- **User login**
  - Username:
  - Password:

**STC Tool**
- **EGNOS’ related STC & SB:**
  - 325 STC / 118 SB

- **72 Operators Equipped.**
  - 534 Aircrafts Equipped.

**Graph**
- **Aircrafts Equipped** vs **Operators**
- 2016: 203
- 2017: 279
- 2018: 444
- 2019: 510
- 2020: 534

**Operators Equipped**
- 2016: 44
- 2017: 44
- 2018: 437
- 2019: 510
- 2020: 534
EGNOS Adoption in Maritime and inland waterways

Focus: This area of activity addresses the development and/or installation of equipment in shore infrastructure aiming to accelerate EGNOS adoption and its operational use by maritime and inland waterways Authorities. Proposals may include but not be limited to hardware/software development, processes implementation and related trials.

Eligible activities:

- **Feasibility analysis for upgrade of EGNOS/EDAS equipment in shore infrastructure** (IALA beacons and AIS stations), as a source of differential corrections to be transmitted to increase safety in Inland waterways
- **Upgrade of shore infrastructure** (IALA beacons and AIS stations) with EGNOS/EDAS
- **Operational test and validation** of the infrastructure upgrade

Minimum set of deliverables to be submitted:

- Hardware/software architecture
- Final Report including: summary of the complete process, dates, main barriers found, future expected, benefits/risks and other comments.
EGNOS Adoption in Maritime and inland waterways

**Focus:** This area of activity addresses the development and/or operational introduction of EGNOS based user terminals for vessels and pilots.

**Eligible activities:**
- Design, development and installation of EGNOS enabled user terminals, such as AIS/VDES.
- Design, development and installation of EGNOS capable Portable Pilot Units.
- Design, development and installation of other **EGNOS capable equipment in ports, vessels and for pilots**, aiming at increasing sustainability of maritime/inland waterway transport and digitalization of operations.

**Minimum set of deliverables to be submitted:**
- Hardware/software architecture
- Final Report including: summary of the complete process, dates, main barriers found, future expected, benefits/risks and other comments.
Focus: Development of enablers to prepare for the introduction of EGNSS in rail signaling for pilot lines and the early EGNSS operational introduction in rail signaling in pioneer non-interoperable railway lines.

Eligible activities:
- Installation of EGNSS equipment such as receivers, antennas or augmentation system components for onboard and trackside GNSS-based signaling solutions within pilot lines and trial sites or within projects deploying signaling solutions at non-interoperable railway lines.
- Validation of the proposed solution and implementation of trials, aiming to demonstrate EGNSS-based train localization safety for future inclusion in ERTMS or the EGNSS benefits for non-interoperable railway lines.

Minimum set of deliverables to be submitted:
- Hardware/software architecture
- Final Report including: summary of the complete process, dates, main barriers found, future expected, benefits/risks and other comments.
Eligibility criteria

Applications must be submitted by legal persons established in and/or natural person(s) being citizen of one of the following countries:
- EU Member State
- Norway, Switzerland

Definition of "established": having a registered office, central administration or principal place of business in one of these countries.

In case of multiple applicants, the proposal consequently must be submitted by a consortium composed of at least two entities out of which:
- the coordinator shall be a legal person;
- the co-applicant(s) can be either legal and/or natural person(s).
Award criteria

1. **Relevance** and credibility of the proposed approach
   - *max. score 35*
   - How **relevant** is the proposal to the objectives of the call?
   - Overall quality in terms of **completeness**, **level of detail** and **innovation**
   - Feasibility of the proposal targeting **operational implementation**
   - Involvement and endorsement of key stakeholders

2. Impact in terms of **economic** and **public benefits**
   - *max. score 35*
   - Maximisation of the safety and operational use of EGNSS
   - **Public and economic benefits** resulting from the solution
   - **Creation of new business opportunities** for EU players

3. **Coherence and effectiveness** of the work plan
   - *max. score 30*
   - **Appropriateness** of the management structures and procedures
   - **Complementarity** of the participants within the consortium
   - **Credibility of the work plan** (schedule, effort and cost, resources etc.)

If a total score **lower than 60 points** or a score **lower than 60% for any of the above three criteria** is obtained, the proposal **will not be evaluated further** and will be rejected.
EU funding

<table>
<thead>
<tr>
<th>Maximum budget allocated for EU financing:</th>
<th>EUR 3,000,000 with the possibility to extend to € 10,000,000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Indicative</strong> number of projects to be funded:</td>
<td>6 projects with the possibility to extend to 20</td>
</tr>
<tr>
<td>Maximum EU financing rate of eligible costs:</td>
<td>60%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Non-cumulative award</strong></th>
<th>Each action may give rise to the award of only one grant from the budget to any partner</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-retroactivity</strong></td>
<td>No grant may be awarded retroactively for actions already completed</td>
</tr>
<tr>
<td><strong>Non-profit rule</strong></td>
<td>Where a profit is made, <strong>GSA is entitled to recover the percentage of the profit</strong></td>
</tr>
</tbody>
</table>
| **Subcontracting**       | • Subcontracting shall **in no case cover core activities**
                              | • The proposal should clearly **specify the activities that will be subcontracted** and the corresponding **costs must be indicated in the estimated budget**
                              | • Subcontracting is **not allowed among the beneficiaries** of the proposal |
| **Co-financing**         | Grants shall involve co-financing, which implies that the resources necessary to carry out the action shall not be provided entirely by EU contribution |
Payments and Amounts:

<table>
<thead>
<tr>
<th>Payments</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-financing payment</td>
<td>20% of the grant amount</td>
</tr>
<tr>
<td>Interim payment</td>
<td>max 40% of the grant amount based on actual costs</td>
</tr>
<tr>
<td>Final payment</td>
<td>min 40% of the grant amount based on actual costs</td>
</tr>
</tbody>
</table>

Eligible Costs:

- **Direct costs**: Costs of personnel, costs of natural persons working under a contract with the partner, costs of SME owners not receiving a salary, costs of travel and related subsistence allowances, equipment costs (depreciation/full purchase cost) or other assets, subcontracting costs, duties, taxes and charges, costs of consumables and supplies, costs arising directly from requirements imposed by the grant agreement, costs relating to a pre-financing guarantee lodged by the beneficiary of the grant, costs relating to external audits.

Eligible indirect costs: flat rate of 7%

Non-Eligible Costs:

The following costs shall not be considered eligible:

- Return on capital
- Debt and debt service charges
- Provisions for losses or debts
- Interest owed
- Costs of financial support to 3rd parties
- Doubtful debts
- Exchange losses
- Bank charges from transfers
- Costs of another funded action
- Contributions in kind from 3rd parties
- Excessive or reckless expenditure
- Deductible VAT
- Participation by staff in Union institutions
Subcontracting, equipment and leasing/rental costs

- **Subcontracting** – When some tasks cannot be done by the consortium - may only cover a **limited part of the action** and **cannot cover the core activities**
- **Purchase of equipment** – When achieving the objectives of the action requires the purchase of equipment or the use of equipment subject to depreciation
- **Leasing or rental costs** – When achieving the objectives of the action requires the use of equipment which is leased or rented
- **Common Principles:**
  - Stated in the proposal (Form C1 and B1)
  - Best value for money or the lowest price
  - No Conflict of Interest
  - Necessary for implementation
  - The Legal Entities signing the Grant Agreement must be the ones who are procuring, implementing and incurring the costs related to the Subcontract, Equipment or Leasing/Rent. **The Grant Agreement does not extend to affiliated entities** (Holding Groups, Mother/Sister Companies, Spin-offs), unless they are identified separately as Co-Applicants or Affiliated Entities.
- **Specific cases**
  - Subcontracting, leasing/renting and purchase of equipment **between beneficiaries is not possible**
  - Subcontracting, leasing/renting or purchasing equipment from affiliated entities is not possible except in very specific conditions, where the Applicant can prove that the above principles are respected
HOW TO SUBMIT A PROPOSAL
## Timetable

<table>
<thead>
<tr>
<th>Stages</th>
<th>Date and time or indicative period</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication of the call</td>
<td>29 March 2021</td>
</tr>
<tr>
<td>Deadline for request for clarifications</td>
<td>7 June 2021</td>
</tr>
<tr>
<td>Deadline for publication of the last clarifications</td>
<td>11 June 2021</td>
</tr>
<tr>
<td><strong>Deadline for submitting applications</strong></td>
<td><strong>19 July 2021 – at 23:59 Prague time</strong></td>
</tr>
<tr>
<td>Evaluation period</td>
<td>July-September 2021</td>
</tr>
<tr>
<td>Information to applicants on the outcome of evaluation</td>
<td>October 2021</td>
</tr>
<tr>
<td>Signature of the first Grant Agreement(s)</td>
<td>November 2021</td>
</tr>
</tbody>
</table>
## How to submit a proposal

<table>
<thead>
<tr>
<th>FORM</th>
<th>CONTENT</th>
<th>SINGLE APPLICANT/CO-ORDINATOR</th>
<th>CO-APPLICANT(S)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>CONSORTIUM COMPOSITION</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>A2</td>
<td>COORDINATOR PROFILE</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INCLUDING LEF AND FIF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>CO-APPLICANT PROFILE</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>INCLUDING LEF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A4</td>
<td>DECLARATION OF HONOUR</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>A5</td>
<td>FINANCIAL CAPACITY RATIOS</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>B1</td>
<td>TECHNICAL PROPOSAL</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>OPERATIONAL CAPACITY</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>C1</td>
<td>PRELIMINARY BUDGET</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>TO BE SUBMITTED IN EXCEL (.XLS) FORMAT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
How to submit a proposal

Draft Grant Agreement

- **Annexes V, VI and X are NOT** part of the proposal to be submitted. They are uploaded on the website only for the applicants’ information.

- They contain important elements on payment arrangements, cost eligibility, reporting, etc.

- Please read before submitting a proposal!
How to submit a proposal

- The proposal shall be preferably submitted in **English**.
- The proposal shall always be submitted in a **paper version**.
- Proposals must be placed inside a **sealed envelope with two USBs** containing the full set of proposal documents in machine readable format.
- Envelope should be marked: **“CALL FOR PROPOSALS GSA/GRANT/01/2021-NOT TO BE OPENED”**
- Proposal shall be submitted **by letter**:
  - either by courier or post not later than 19/07/2021
  - delivered **by hand** not later than 19/07/2021 to the address below:

**Address**

CALL FOR PROPOSALS  
GSA/GRANT/01/2021  
ACCELERATION OF EGNOS ADOPTION IN TRANSPORT  
GSA – Legal and Procurement Department  
Janovského 438/2  
170 00 Prague 7 - Czech Republic
Thank you for your attention!

✓ **Write to us!** In case of questions or request for clarifications on the call, please write to us: GNSS-Grants@gsa.europa.eu

✓ **Check our website!** Information on the upcoming webinars and answers to your questions will be published periodically through the release of clarifications on the GSA website:

https://www.gsa.europa.eu/acceleration-egnos-adoption-transport