EGNOS

"The European Geostationary Navigation Overlay Service (EGNOS) is Europe's regional satellite-based augmentation system (SBAS). It is used to improve the performance of global navigation satellite systems (GNSSs), such as GPS and Galileo in the future. EGNOS was deployed to provide safety of life navigation services to aviation, maritime and land-based users".

EUSPA & ESSP

launched the EGNOS survey intended to measure EGNOS user satisfaction and gather valuable suggestions to improve the quality of the EGNOS services.

Thank you for your collaboration. Your opinion is essential to improve the EGNOS services!

EGNOS

YOUR SATISFACTION is our reason for being!

QUESTIONNAIRE STRUCTURE

1.- Introduction and Classification
2.- EGNOS Use
3.- Support in Developing Apps.
4.- EGNOS User Support Services
   - Website
   - Documentation
   - Helpdesk
   - Time Service
5.- EGNOS Services (Perceived Performance)
   - Safety of Life (SoL)
   - EDAS
   - Open Service (OS)
6.- EGNOS Value
7.- EGNOS Value (by Market Segment)
   - Agriculture
   - Aviation
   - Maritime
   - Road
   - Rail
   - Surveying & mapping
   - Location-Based Services
   - Other
8.- EGNOS Market Development
The questionnaire has been filled in by 124 respondents in 2019, with 91 EGNOS Users and 33 Non-EGNOS Users.

**User Satisfaction Score Per Market Segment**

- **Agriculture**: 7.9 (2019: 7.7)
- **Maritime**: 9.2 (2019: 7.1)
- **Aviation**: 8.6 (2019: 8.8)
- **Rail**: 5.0 (2019: 7.7)
- **Road**: 9.7 (2019: 9.5)
- **LBS (Location Based-Services)**: 9.6 (2019: 8.3)

3 respondents marked “other” Market Segment and 1 did not indicate it.

(*) All scores are graded out of 10 points and are based on 91 EGNOS Users’ answers.

**User Satisfaction Survey 2020**

- **Global Satisfaction Score**: 8.5
- **Global Satisfaction Score (2019)**: 8.6
- **Performance**:
  - EGNOS SoL accuracy: 9.2 (2019: 9.3)
  - EGNOS SoL availability: 8.6 (2019: 9.3)
  - EGNOS SoL continuity: 8.4 (2019: 8.8)
  - EGNOS SoL coverage: 8.6 (2019: 8.9)
  - EGNOS OS accuracy: 8.6 (2019: 8.0)
  - EGNOS OS availability: 8.4 (2019: 8.8)
  - EGNOS OS coverage: 9.0 (2019: 8.1)

**EGNOS Time Service**

- 7 respondents are using EGNOS Time Service (2019: 9)

18% could be interested in using this service. (2019: 18%)

**EGNOS Services**

- **30 (33%) EGNOS Users** (*)
- **24 (26%) EGNOS Users** (*)
- **9 (10%) EGNOS Users** (*)

(*) Each respondent can use more than one service.

Your SATISFACTION is our reason for being!
# Recommendations derived from your feedback...

<table>
<thead>
<tr>
<th>ARCHITECTURE/ EVOLUTIONS</th>
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<tbody>
<tr>
<td>- Multi-constellation support in EGNOS.</td>
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<th>GENERAL SUPPORT</th>
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<tr>
<td>- Perform regular webinars to support EGNOS dissemination/awareness activities.</td>
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<td>- Awareness campaign about EGNOS V3 benefits.</td>
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<th>EGNOS DOCUMENTATION</th>
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<tr>
<td>- Include hyperlinks in the &quot;Table of contents&quot; of the SDD PDFs published in the EUSW.</td>
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<th>EGNOS HELPDESK</th>
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<td>- Awareness campaign to Helpdesk users interested on EDAS connector once is available on EUSW.</td>
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Recommendations derived from your feedback...

- Ensure information in the website can be accessed easier avoiding the need of navigating through the menu.

- Analyse feasibility of regular subscription newsletter providing information about main updates / changes done and coming for the next period in the website (e.g. news, contents, documentation...).

- Analyse feasibility of providing EGNOS availability from a position/date (not only from a RIMS) introduced by the user.

- Improve Quality Checks or information for the LPV procedures map.

- In the EDAS DGNSS coverage map include a sentence indicating users can click on a point of the map to see the expected performance.

- Increase the number of PoCs displayed on the EWA Portal (some organizations have up to 6 different PoCs).

- Include the meaning of “TBC“ at the EGNOS SIS availability forecast calendar.

- Develop European guidance material on LPV to green airfields.
Recommendations derived from your feedback...

EGNOS SoL PERFORMANCE

- Extend EGNOS SoL service area (in particular, the East Coast of Romania, Northern Norway and Iceland are mentioned).

EGNOS SoL RAIL

- Define a Safety-critical service for Rail with integrity in the position domain.

EGNOS SoL AVIATION

- Support ANSPs to design and publish SBAS-based procedures.
- Analyse the possibility of signing EWAS with country/local authorities instead of ANSPs.
- Increase the awareness of Economical and Operational Benefits of implementing EGNOS LPV procedures and enabling EGNOS Capable aircrafts towards a larger number of procedures available in the EU.
- Increase the number of procedures and the support to operators to implement EGNOS based procedures.
- ADS-B regulation and requirements awareness in relation to EGNOS.
<table>
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<th>EGNOS OS PERFORMANCE</th>
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<tr>
<td>Improve EGNOS OS and EDAS DGNSS accuracy and avoid accuracy variations in short periods of time.</td>
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<tr>
<td>Generate guidelines for different Open Service Market Segments.</td>
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<tr>
<td>Make field tests to obtain results about EGNOS OS repeatability and disseminate them among agricultural users.</td>
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<td>Increase the number of RIMS in Europe or implement VRS to avoid regions with no DGNSS coverage.</td>
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<td>Develop a multiplatform application/library that could be offered to EDAS users to easily integrate EDAS SISNeT corrections in their systems.</td>
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THANK YOU FOR YOUR ATTENTION!

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