



**Galileo Reference
Centre (GRC)**
Zwarteweg 53
2201 AA Noordwijk
Netherlands








The European GNSS Agency:
Linking space to user needs

The GSA's mission is to achieve the highest return on European GNSS investment in terms of benefits to users and economic growth and competitiveness. As Europe's link between space technology and user needs, we are committed to keeping the end-user at the centre of Galileo and EGNOS.

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**The Galileo Reference
Centre (GRC)**

Europe's GNSS Performance
Monitoring Hub



About the Galileo Reference Centre

Located in Noordwijk, the Netherlands, the Galileo Reference Centre (GRC) is a cornerstone of the Galileo service provision. From Initial Services to full operational capability and beyond, it provides the European GNSS Agency (GSA) with an independent system to evaluate the quality of the signals in space. In doing so, it helps the GSA ensure the delivery of high-quality navigation services so users can better rely on and benefit from Galileo.

The European GNSS Agency is responsible for the management of the GRC, including its development and operations.

THE MISSION OF THE GRC IS TO:

- Generate navigation performance evaluation products on a routine basis
- Perform dedicated campaign-based analyses
- Report on all findings
- Integrate contributions from EU Member States, Norway and Switzerland

WHO'S WHO:

- **Galileo:** Europe's Global Navigation Satellite System (GNSS), operated and maintained by the Galileo Service Operator, under contract with the GSA.
- **Galileo Service Operator (GSOp):** responsible for ensuring that the Galileo core infrastructure is operated in accordance with the Galileo Services performance requirements.
- **Galileo Reference Centre (GRC):** the Galileo service facility for independent monitoring of Galileo's performance and report on its findings.

A core facility + Member States

The GRC is comprised of both a core facility and contributions from EU Member States, Norway and Switzerland. From its core facility in Noordwijk, the GRC is charged with:

- Generating performance evaluation products and reports using data collected by itself and through cooperation with Member States
- Performing dedicated campaign-based analyses to support investigations of service performance and service degradations
- Making use of the GRC's own data, products and expertise

In addition, the GRC benefits from and contributes to maintaining the long-term competences and expertise at the Member State level. In accomplishing this, the GRC actively integrates contributions from the EU Member States, Norway and Switzerland to support both its daily operations and specific campaigns. This leverages the broad satellite navigation expertise available in European institutions for the benefit of Galileo users.

THE GALILEO SERVICE PROVISION:

- **The GSA** (Prague)
- **Galileo Security Monitoring Centre (GSMC)** (France & the UK)
- **European GNSS Service Centre (GSC)** (Spain)
- **Galileo Reference Centre (GRC)** (The Netherlands)

The GRC and the GSOp

The GRC is fully independent of the system and the GSOp with respect to both the technical solutions and operations.

The GRC is not only instrumental in monitoring the performance of the system and service operator, it also serves as the door through which Member States can contribute to these tasks.

THE GRC AND THE END USER

The GRC helps ensure that Galileo users are provided with very high-quality signals for use by an array of new navigation applications.

THE GRC AND THE WORLD

The European Commission has nominated the GRC as the European Monitoring and Analysis Centre for Galileo, part of a joint project of the United Nations that includes contributions from the United States (GPS), Russia (Glonass) and China (Beidou).

