The GNSS Regulation entrusts the European Commission with the role of programme manager.

Political oversight
- Council and European Parliament

Programme management
- European GNSS Programme Committee
- European Commission

Execution
- European Space Agency
  - Development contracts
  - Deployment contracts
- European GNSS Agency
  - Assistance tasks to EC
  - Tasks delegated by EC
  - Market preparation
  - Security accreditation, GSMC

Independent advisors
- GSMC: Galileo Security Monitoring Centre
Galileo is implemented in a step-wise approach

Galileo System Testbed v1
Validation of critical algorithms
2003

GIOVE A/B
2 test satellites
2005/2008

In-Orbit Validation
4 fully operational satellites and ground segment
2012

Initial Operational Capability
Early services for OS, SAR
Pilot project for PRS and demonstrator for CS
2014

Full Operational Capability
Full services, 30 satellites
2018
Early services will be provided from 2014 with a gradual transition towards full services as more satellites become available.

<table>
<thead>
<tr>
<th>Service</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td></td>
<td></td>
<td>Early service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRS</td>
<td></td>
<td>Pilot project</td>
<td>Early service</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>Demonstrator</td>
<td>Early service</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAR</td>
<td></td>
<td></td>
<td>Stable signals</td>
<td>Early service</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Early services for OS and SAR will be provided from 2014

<table>
<thead>
<tr>
<th>Service Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Service (OS)</td>
<td>Freely accessible service for positioning and timing</td>
</tr>
<tr>
<td>Public Regulated Service (PRS)</td>
<td>Encrypted service designed for greater robustness and higher availability</td>
</tr>
<tr>
<td>Search and Rescue Service (SAR)</td>
<td>Assists locating people in distress and confirms that help is on the way</td>
</tr>
<tr>
<td>Commercial Service (CS)</td>
<td>Delivers authentication and high accuracy services for commercial applications</td>
</tr>
</tbody>
</table>

The SoL service is currently being re-profiled

| Safety of Life Service (SoL)        | Provides vital integrity information for life-critical applications         |
First 2 operational satellites launched 21 October 2011 (in addition to the two test satellites launched in 2005 and 2008)

New satellites transmitted E1 signals 10 December 2011, and E5, E5a and E5b signals 14 December
★ (existing E1, E5, E6 signals from GIOVE-A since December 2005)

The launch of the next two Galileo satellites, completing the IOV quartet, is scheduled for October 2012.

All industrial contracts necessary to ensure early Galileo services in 2014 have been signed

To accelerate Galileo’s deployment and to further contain costs, the following contracts were signed on 2 February 2012:
★ Additional order for 8 satellites
★ Adaptation of Ariane-5 for Galileo (4 sats/launch)
★ Booking of one Ariane-5
‘It’s there, use it’
The European Commission is the EGNOS programme manager

- **ESA GNSS Evolution Programme**
  - R&D and technology

- **ESA**
  - Design agent and procurement of infrastructure evolutions

- **ESSP**
  - Service provision and operations maintenance

- **SES-ASTRA GEO transponder**

- **Artemis**
  - GEO transponder

- **TAS (FR) Product Development Industry Prime**

- **TAS (FR) Product Support Services Industry Prime**

- **inmarsat**
  - 3 GEO transp.

- **BT**
  - MCCs

- **MCCs**

- **Sites**

**GEO**: Geostationary Earth Orbit  
**MCC**: Mission Control Centre
EGNOS services will be delivered on a long-term basis (> 20 years)

<table>
<thead>
<tr>
<th>Service</th>
<th>Accuracy</th>
<th>Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Service (OS)</td>
<td>~1m, free</td>
<td>Available since October 2009</td>
</tr>
<tr>
<td>Safety of Life Service (SoL)</td>
<td>~1m, compliant to aviation standards</td>
<td>Available since March 2011</td>
</tr>
<tr>
<td>EGNOS Data Access Service (EDAS)</td>
<td>&lt;1m, corrections provided by terrestrial networks</td>
<td>Experimental service since 2008</td>
</tr>
</tbody>
</table>
EGNOS is fully operational

★ EGNOS open service is operational since October 2009

★ Its Safety of Life service has been declared operational in March 2011

★ In May 2011, Pau Pyrénées airport (France) became Europe’s first airport to use the EGNOS Safety of Life service to guide in aircraft for landing

★ Since December 2011, the EGNOS-based LPV procedures at Alderney airport (Channel Islands) are the first in Europe able to being used for revenue services in commercial flights

★ Around 100 EGNOS approach procedures for aircraft landings already published in Europe

★ New EGNOS payload was launched July 2012 (hosted on SES-5 satellite)

LPV: Localizer Performance with Vertical guidance
EGNOS services will further improve over time

2012
★ Declare EGNOS coverage extension for 11 EU countries*
★ Provide early EGNOS Data Access Service (EDAS)

Medium term
★ Implement LPV200 service level
★ Extend coverage to South Africa

Long term
★ Make use of E5a/E5b frequencies
★ Implement augmentation of Galileo and potentially other GNSS

LPV: Localizer Performance with Vertical guidance
* CZ, EE, HU, IE, LV, LT, PT, RO, SK, ES, UK