



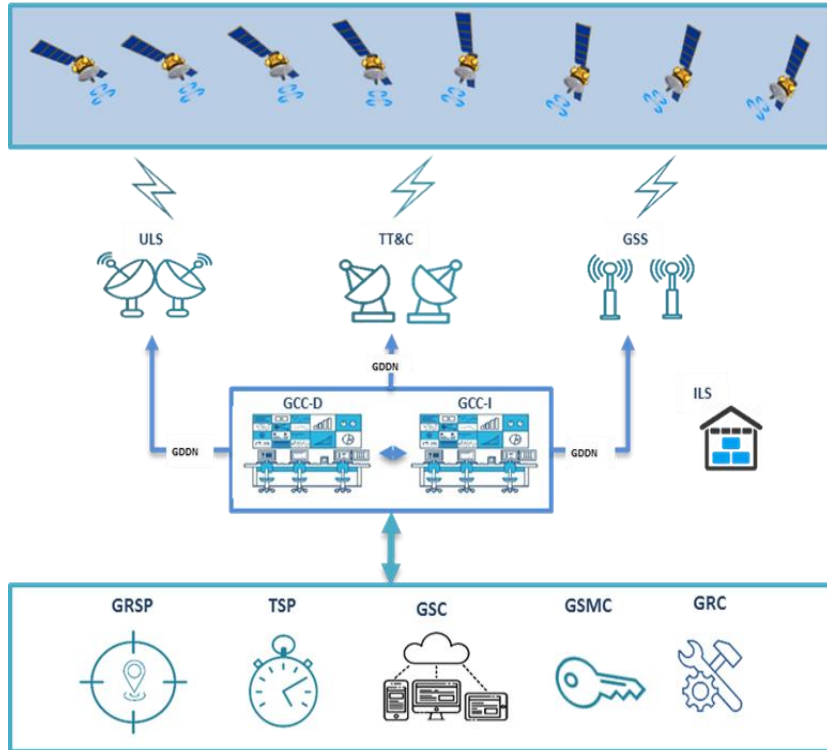
1ST GALILEO USER ASSEMBLY
28-29 NOVEMBER 2017 **MADRID**

Galileo Service Operations

Manuela Rossi, Pierluigi Fedele
GSC On-site Manager, Service Delivery Manager



1. Galileo System at FOC



A satellite constellation of 30 MEO (Medium-Earth Orbit)

3 European Operational Centres

- Ground Mission Segment (GMS)
- Ground Control Segment (GCS)
- GNSS Service Centre (GSC)

Network & Infrastructures

- 16 sites with 2 GSSs antennas (Galileo Sensor Station)
- 5 sites with 4 ULS antennas (Up Link Station)
- 6 TT&C (Telemetry, Tracking & Command)
- Galileo ILS Centre (GILC)
- Galileo Time Service Provision (TSP) facility
- Geodetic Reference Service Provision (GRSP) facility
- Galileo Data Dissemination Network (GDDN)

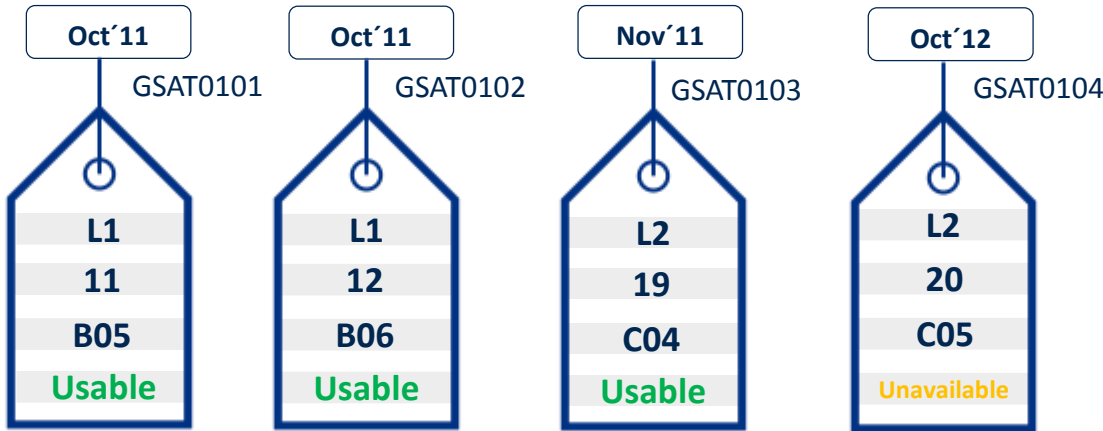
Galileo Monitoring Centres

- 2 Galileo Security Monitoring Centre (GSMC)
- Galileo Reference Centre (GRC)

2.1 Flight Operations Achievements (Nov 2017)

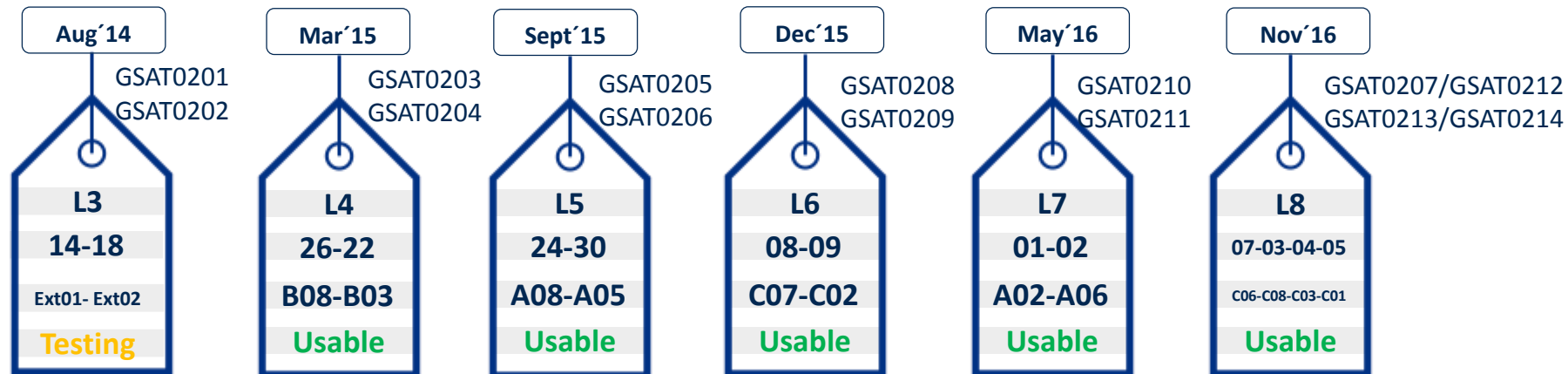


IOV



- 18 Satellites In Orbit Constellation
- 4 more SVs to be launched - L9 planned on 12th of December

FOC



2.2 Ground Operations Achievements (Nov 2017)

- **Dual Redundant GCCs**
- **GMS - Ground Mission segment infrastructure:**

- 14 sites with 2 GSSs per site
- 5 sites with 2 ULSs antennas per site



- **GCS - Ground operations segment infrastructure:**

- 5 TT&C
- 1 TT&C under deployment



- **GSC- Ground segment infrastructure:**

- Web Portal
- Real-Time/ Non RT interface with Core System (GMS)



- **Dual redundant GDDN Links**

Table of Content

1. Galileo System Overview at FOC
2. Galileo Achievements (Nov 2017)
3. GSOp Framework
4. GSOp Focus on Service Delivery

3.1 GSOp Framework – Operational Concept



GCC-I

- Ground Mission Segment (GMS) Prime
- GCS Backup
- CSF OPS



GCC-D

- Ground Control Segment (GCS) Prime
- GMS Backup
- ILS OPS



GSC

- GNSS Service Centre
- GSC OPS
- User Services



SPO HQ

- Service MNG
- Plan, Perf. Monitoring & Reporting
- Problem & Incident MNG

Enhanced Split-GCCs

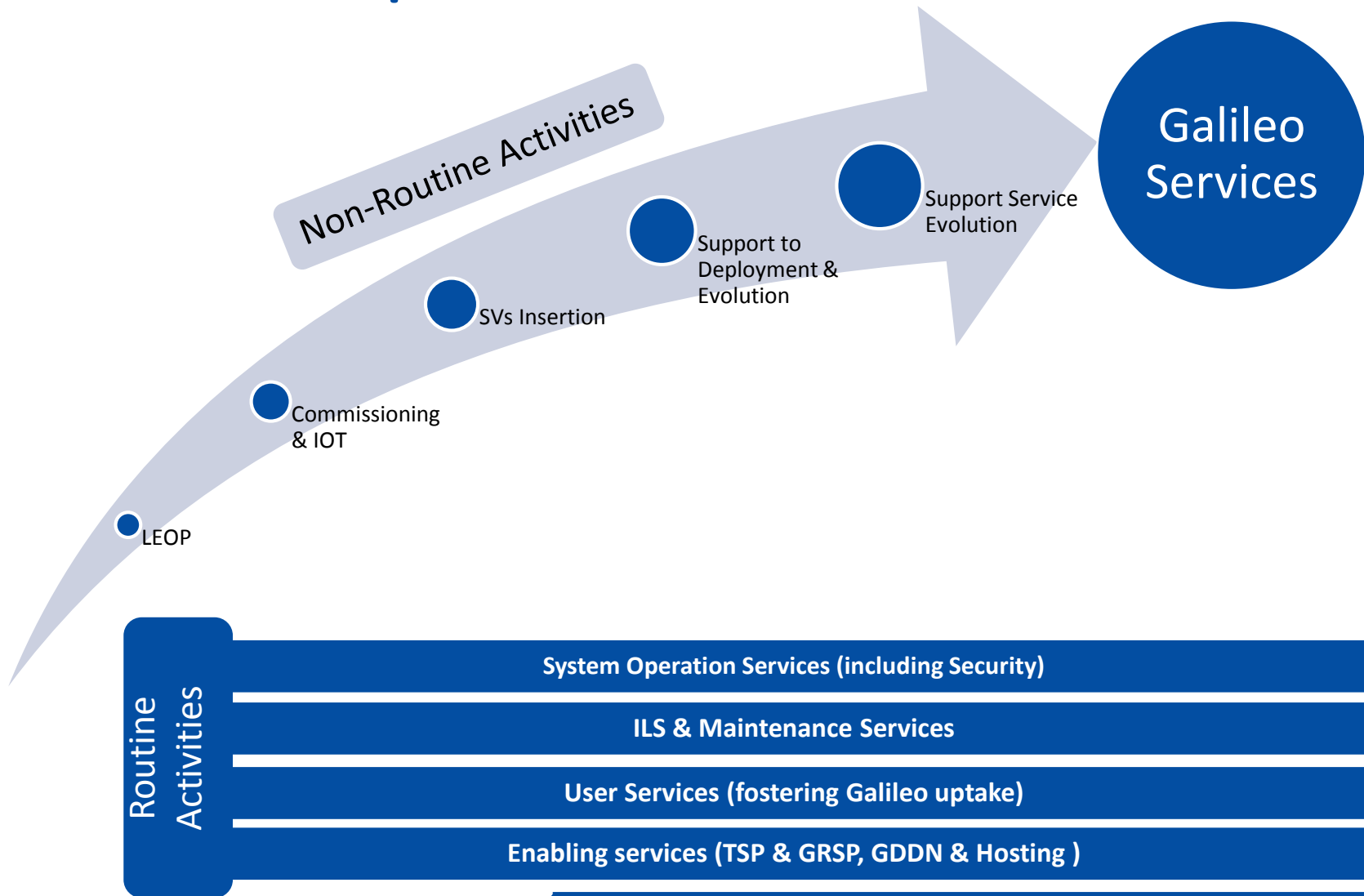
“System Level Operational Processes & Procedures”

3.2 GSOp Framework - Service Management Approach

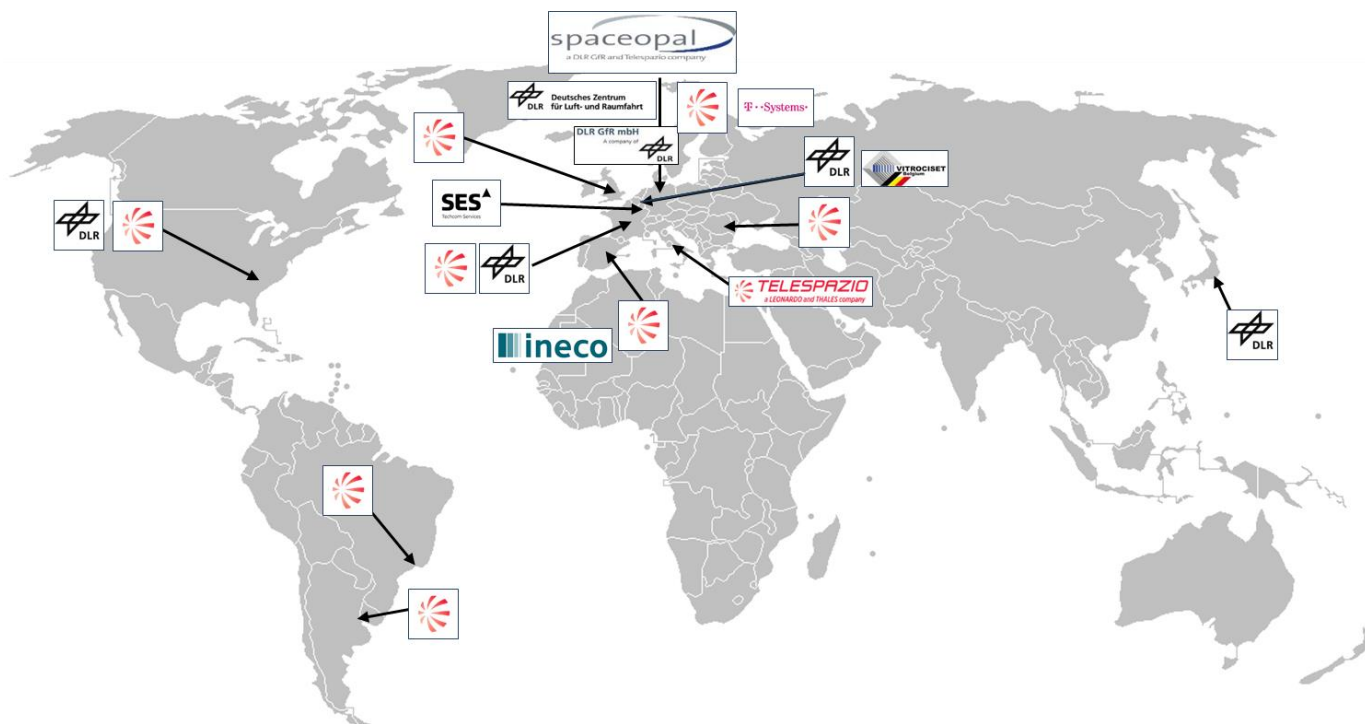
- Spaceopal/GSOp taken up its responsibility enabling the Galileo services provision to users around the globe
- Service Contract → Service-oriented approach to guarantee Service Quality and Service Continuity
- Best Practice / ITIL Standard Based Service Management Concept



3.3 GSOp Framework - Service areas



3.4. GSOp Framework – Team

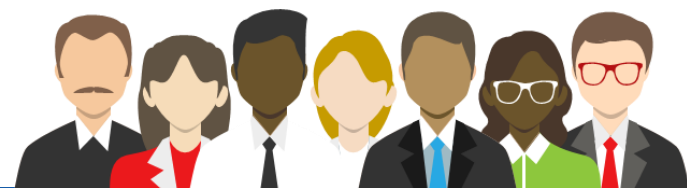


- CTMs and SHs Affiliates **worldwide** distribution



Specialized know
how, assets and
privileged links

- More than 200 people from several European countries covering different **skills**



4. GSOp Focus on Service Delivery

- GSOp is fully focused in Service Delivery
- Emphasis on Service Performance Improvement

User Request MNG via Helpdesk - Average time to reply (days)



- Taking advantages from past experience
- Leveraging on the competences and synergies among the different teams across the different sites



IST GALILEO USER ASSEMBLY

28-29 NOVEMBER 2017 MADRID

Thank you

