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- EGNOS (European Geostationary Navigation Overlay System), a regional complement to GPS, is now operational.
- Galileo, the future European Global satellite Navigation System is in its development phase, with the first two satellites - out of 30 - due for launch in October. Full deployment is expected by 2018 or 2019.

Let us reflect for a moment on the governance schemes for their exploitation.

#### **EGNOS**

- EGNOS was developed by ESA (with some funding from the EU) and has been transferred to the European Union in 2009.
- It is operated by a technical operator (ESSP) contracted by the European Commission.
- ESA acts as a development agency under contract from the EC.

#### **EGNOS**

Question: which entity has responsibility for the provision of EGNOS Services on an operational basis?

Formally, it is the European Commission, which is certainly not equipped for such responsibility.

An operational EGNOS Service Provider entity must be identified and take over this responsibility for the long term.

#### **EGNOS**

Various possibilities can be considered:

- The GNSS Agency (GSA),
- A new specifically designed EU agency,
- · Eurocontrol.

#### **EGNOS**

- A decision on which agency to take over EGNOS and manage it on a long term basis has to be taken soon, i.e. in late 2011 or early 2012.
- There would be many advantages to select Eurocontrol as it is already an operational agency operating within a delegation of tasks from the EU.

#### **EGNOS**

- Selecting the GSA (or a new EU agency to be set up) to manage EGNOS and act as Service Provider would entail building up an entirely new infrastructure with the necessary expertise and 24/365 operational capability.
- This would take time and be costly.

#### **Galileo**

- Galileo, once operational, will also need to be placed under the responsibility of an operational entity which will manage the system on a long-term basis.
- The EU is the owner of the infrastructure and the European Commission has full programme responsibility.
- The European Space Agency has delegation from the EC as overall system architect and acts as its procurement agent.

#### **Galileo**

But for Galileo, the situation is quite different from EGNOS:

- 1. There is ample time to build up the necessary expertise in the future operational entity.
- 2. ESA needs to execute fully its responsibility as system architect and system integrator which alone can guarantee the Galileo performance.

#### **Galileo**

 There is no need to hurry and transfer the responsibility to another EU entity before the Galileo system is sufficiently on track and its performance proven.

#### **Galileo**

 If the GSA were to become the entity with responsibility for Galileo on the long-term, under the supervision of the EC, a serious plan for building up its capability is needed.

#### **Galileo**

This plan should include:

- Specific training for the GSA staff,
- Building a dedicated infrastructure capable of handling 24/365 operational tasks,
- Definition of specific procedures for security-related issues under the supervision of the Council,
- Structuring of relations with the Galileo user communities,
- Organization of relations with the entities responsible for other GNSS systems worldwide.

#### **Galileo**

- In short, building up the future Galileo operational entity is a serious challenge for the EC.
- It require serious attention and a dedicated development plan approved by the Council.
- Many lessons could be learned from the history of Eumetsat, the equivalent body set up in the 1980s for the European meteorological satellites.

In conclusion,

it is hoped that, if organized properly, the transition of the Galileo programme from the present development phase to its operational phase at the end of the decade will not suffer from the same hasty and ill-advised approach that Galileo experienced in the early 2000s.

#### Thank you for your attention