Galileo Services inputs to the interim evaluation of the Galileo and EGNOS programmes and the GSA

To:	European Commission, DG Internal Market, Industry, Entrepreneurship and SMEs – Unit J2 – Legal and Institutional Aspects
Date:	29/05/2017
Subject:	Galileo Services to EC stakeholders consultation on the interim evaluation of the Galileo and EGNOS programmes and the GSA

Disclaimer: This paper is a working document prepared to provide preliminary inputs and support discussions with the European Commission in the frame of the EGNSS mid-term evaluation process. It has not yet been approved by all the Galileo Services Members, and therefore cannot be considered as reflecting the official position of Galileo Services.

Executive summary

Galileo Services is pleased with the way the Galileo programme has been handled. The European Commission needs to keep the pace and get the system deployed on time. The GSA has initiated a set of actions to maximise the penetration of the overall EGNSS portfolio of services in target market segments, which is also much appreciated.

But it is **now time to focus on developing the GNSS downstream industry** in **Europe** to **create value**. In the following we have tried to address many aspects of the EGNSS programmes. The main message is as stated.

Regarding the infrastructure Galileo Services has members that are specialised in this field. We assume they have been consulted separately. We are therefore not comprehensive in that sense.

We have not expanded much on the applications either. Comprehensive material was prepared in June 2016 for the dialogue between the EC and the European Space industry entitled "Brainstorming on Future Space Strategy". It is available on Galileo Services website at the following link: http://www.galileo-services.org/news_events/position_papers.html

Galileo Programme - Service Provision

The main challenges include **full constellation deployment** on time and the **successful completion of the ground segments**.

EGNOS Programme – Service Provision

Reduction of EGNOS v2 obsolescence should be favoured in order to ensure a continuity of services in the geographic areas already covered by v2.4.2 during the transition period between v 2.4.2 and v3.

Governance

The main challenge the GSA will face after July 2017 is to **ensure EU return on infrastructure investment**: i.e. success of downstream industry players, job creation in EU.

European GNSS downstream industry competitiveness

More focus on European downstream industry has now to be the priority to meet the programmes socio-economic expectations. In this regard a downstream industrial policy must be implemented. It must define:

- Clear and quantitative **objectives**,
- Clear **support actions**,
- Key **performance indicators** with regular performance assessment.

Market uptake

General measures Member States and the European Commission can work on together to improve the market uptake in specific areas include:

- To provide the industry with **confidence that Galileo operations** will be **maintained** and **expanded** with a clear commitment to **meeting the schedule for future launches**, successive services deployment (SOL, CS…) and continuing to fund operations.
- To guarantee the required level of **awareness** of all the actors in order to act in a **coordinated** and **widespread manner**.
- Many of the value-added applications are developed by SMEs and start-ups. Member States should therefore **strengthen** their **economic value** and **competitiveness** by creating opportunities and the **appropriate environment** for **SMEs**.

Budget

With the launch of Galileo initial services it is important to invest upfront money in the short term to ensure the adoption of Galileo and return on infrastructure investments.

Funding at a strategic level - Required investment:

- **€2-3 billion** to be allocated to the GNSS downstream industry **during the next MFF (2021-2027).** Galileo Services is ready to discuss with the EU the content and milestones of such budget
- Since next MFF will not start until 2021, the EU/GSA should **enlarge** its downstream **funds by at least 100M€/year** for the next 3 years (2018-2020).

1. Galileo programme: service provision

What are the key challenges and main risks to reach the 2020 objective? Are there any additional actions to help keep the schedule?

The main challenges include full constellation deployment on time and the successful completion of the ground segment in association with evolving stringent security requirements. This is key to ensure the wide adoption of Galileo not only in Europe but worldwide and European downstream industry competitiveness.

2. EGNOS programme: service provision

What do you see as priorities to ensure that the EU-28 coverage is reached as soon as possible? What trade-off might need to be considered?

Reduction of EGNOS v2 obsolescence should be favoured in order to ensure a continuity of services in the geographic areas already covered by v2.4.2 during the transition period between v 2.4.2 and v3. If coverage of Bulgaria and East Romania cannot be ensured by v2.4.2 it will be the case with v3. Now if the priority is to cover the South-East region of EU28, then the Kiev RIMS should be implemented in priority.

3. Governance

What are the main challenges that the GSA will face after July 2017? How can these be overcome in the short term and long term?

Thanks to intense and successful GSA activities in the past years, Galileo is now almost adopted. **The focus must now be on EU return on investment**, i.e. the success of EU downstream industry players and job creation in Europe.

But also:

- To guide appropriately the programme exploitation towards FOC declaration in 2020 without delays.
- To perform the appropriate monitoring and tracking of the Galileo Service operational tasks with regards to the signed contractual commitments
- To make the Commercial Service a reality as soon as possible

Means to achieve it: there should be a **close coordination and collaboration** between GSA, downstream stakeholders, Galileo and EGNOS services operators and other EU and non-EU Institutions.

Do you believe it is important to maintain a separation between the definition of requirements (security and mission) and their implementation, including through budgetary and regulatory oversight?

The separation between the definition of requirements and their implementation is always a good practice. It is also important that the definition of requirements is done without forcing a solution choice unnecessarily.

The **definition of requirements** has to be done by **downstream players** and **technology agnostics**. Securing resources for this mission definition process with the downstream players is important, such as what was done with the GALA and GEMINUS projects for Galileo (e.g. 30 to 40 M€).

4. European GNSS downstream industry competitiveness

Ensuring the **market uptake** of Galileo and EGNOS is **important but not sufficient**. More **focus on the European GNSS downstream industry** has now to be the priority to meet the programmes socio-economic expectations.

Faced with a high competition from US and Chinese firms, it is crucial that an **effective and long-term strategy is put in place during the Galileo early services exploitation phase** (2016-2020). Without such strategy the EU industry will miss the window of opportunity to benefit from the current GNSS market boom.

In this regard a downstream industrial policy must be implemented. Such policy must define: clear and quantitative objectives, clear support actions, key performance indicators.

- **<u>Clear and quantitative objectives</u>** in terms of European industry position in the market with targets such as:
    - Market share
    - Revenue
    - Job creation
    - Strategic expectations

- **<u>Clear support actions</u>** from European institutions with associated milestones to reach these objectives:
    - Technical support
    - Public procurement
    - Marketing
    - Certification
    - Manufacturing capabilities
    - Regulation
    - Demonstrators
    - Awareness
    - Pilot projects
    - Standardisation
    - R&D programme
    - Support to the European industry to enter external markets

* **Key performance indicators** to assess the achievements of these objectives for each action launched by EU Institutions:
  * European industry market share evolution
  * Jobs created in the EU
  * Increase of EU GNSS industry revenue

5. Market uptake

How can the Member States (MS) work together with the European Commission (EC) to improve the market uptake in specific areas (e.g. aviation)?

General measures MS and the EC can work on together to improve the market uptake in specific areas:

* To provide the industry with **confidence that Galileo operations** will be **maintained** and **expanded** with a clear commitment to **meeting the schedule for future launches,** successive services deployment (SOL, CS…) and continuing to fund operations. Every high-level message which gives confidence in the long-term future of the programme can support investment decisions.

* To guarantee the required level of **awareness** of all the actors in order to **act** in a **coordinated** and **widespread manner**.

* To **fund** in a **consistent** way the **development**, **procurement** and **implementation** of new **products** and **applications** taking advantage of signals from a variety of constellations, trying to maximise EGNSS presence. To ensure such consistency at EU and national levels, **GSA** should have a **federation/coordination/support** role for all EU institutions but also for MS.

* The development of value-added applications is mostly driven by SMEs and start-ups. Consequently, one of the priorities of the MS in coordination with EC should be to **strengthen** its **economic value** and **competitiveness** by **creating opportunities** and the **appropriate environment** for **SMEs**. Large companies should however not be forgotten, considering the scale of their business leading to potential larger impacts on employment in Europe.

6. Budget

* Financial tools (H2020 and FE) used by the EU to support the development of applications and services based on Galileo and EGNOS are of **critical importance**
  * Not only for a **successful European GNSS market uptake** but also for
  * The **European GNSS downstream to win shares** of the huge and continuously growing global GNSS downstream market and create jobs all over Europe.

* With the **launch of Galileo initial services** it is important to **invest upfront money** in the short term to ensure the adoption of Galileo and return on infrastructure investments

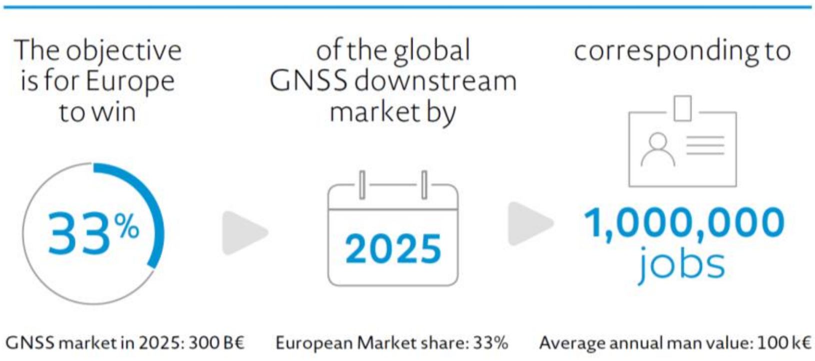
Funding at a strategic level

Required investment:

€2-3 billion to be allocated to the GNSS downstream industry **during the next MFF (2021-2027).** GS is ready to discuss with EU the content and milestones of such budget.

Since next MFF will not start until 2021, GS recommends that EU /GSA **enlarge** its **downstream funds by at least 100M€/year** for the next 3 years **(2018-2020).**

Such funding is critical for market-uptake activities identified in section 4.



7. Closing remarks

More details on essential actions to the European GNSS market take-up and the development of a competitive GNSS downstream industry in Europe can be found in previous communications from Galileo Services:

- “A Space Strategy for Europe – Input from industry for a successful European GNSS market uptake”, Position Paper, July 2016
- “Europe must succeed in the Global Navigation Market Race”, Position Paper, September 2015
- “Is Europe ready to make business on Galileo”, The Parliament Magazine, 7 March 2016
- “Satellite Navigation Applications Realizing the Ambitions of EU2020”, Position Paper, 2011