

# ***THE FUTURE OF EUROPEAN FLAGSHIP PROGRAMMES IN SPACE***

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## OBJECTIVES AND OVERVIEW

The purpose of this ESPI project is to:

- Assess how the current EU role in space can be enhanced from a policy and governance perspective
- Investigate the possibility and opportunity of the EU to initiate new flagship programmes
- Better frame and understand the action of the EU in space

Main topics covered by the study:

1. Overview of the institutional framework for EU policy action in space
2. History of the formation of the two current flagship programmes
3. Analysis of how to optimise the benefits of Copernicus and Galileo
4. Analysis of how to create an innovative ecosystem for operational services
5. Identification of potential new flagship programmes
6. Comparative assessment of the potential candidates
7. Reflections on future involvement in space through flagship programmes



## CURRENT FLAGSHIP PROGRAMMES: GALILEO AND COPERNICUS

		<b>Rivalry</b>	
		rivalrous	non-rivalrous
<b>Access</b>	excludable	<b>Private Goods</b>	<b>Club Goods</b>
	non-excludable	<b>Common Resources</b>	<b>Public Goods</b>

- Club goods offered mostly free of cost
- De facto public goods
- Priority: high return on public investment
  - Optimising Benefits
  - Creating Innovation Ecosystems

## GALILEO

- Civil programme with dual use applications.
- ‘Strong soft power tool’, with motivations of independence, autonomy and geopolitics.
- 5 different services tailored to different user needs.

### Findings:

- Challenges: being addressed, GSA in an excellent position to promote and strengthen Galileo both in the short and long term.
- Opportunity: create ambitious European standards for the use and integration of Galileo in society and the economy,
- Long term global governance of GNSS constellations, coordination? Opportunity for European space diplomacy!

## COPERNICUS

- Strong environmental roots, but wide focus with divergent expected benefits for Europe.
- Full and open data access, six validated thematic services.

### Challenges:

- User uptake beyond institutional use and exposure among targeted users
- Missing: holistic data approaches, societal and political incorporation of scientific finding
- User requirements gathering and prioritisation
- Long term: SME involvement in EO innovation and Europe's position in new concepts

### Potential Solutions:

- Compensate the high degree of decentralisation
- European structure like the NGA?

## A NEW FLAGSHIP PROGRAMME IN SPACE?

### ***Is the flagship model the most appropriate framework for future EU space activities?***

- Financial and administrative difficulties shed doubts on the suitability of the current schemes
- Alternative approaches for EC's future space activities ?
- New approaches connected to structural changes in governance

### ***What are the elements defining flagship programmes?***

- Indicators that relate to tangible benefits for European citizens, companies and institutions
- Indicators that relate to strategic and political goals of the EU

## A NEW FLAGSHIP PROGRAMME IN SPACE?

### **Economic and Social Benefits**

Bring benefits to a large number of users in society and the economy.

Support diverse segments and regions of European society and the economy.

Become a tool in spurring economic growth in the long run.

Contribute to making the European scientific research and engineering communities more productive and efficient, and establishing new networks.

Enable the EU to become more competent in addressing a range of policy needs.

### **Strategic and Political Benefits**

Give Europe a strong or leading role in the domain and offer a cutting-edge advantage.

Serve geopolitical objectives: autonomy, non-dependence and strengthen EU international presence.

Advance Europe's diplomatic goals and support the foreign policy action of the EU.

Drive advances and innovation in science, technology, engineering and programme management.

Create a strong European brand that could stimulate a European sense of identity and citizenship.

Stimulate European integration.

## DEBATING POTENTIAL CANDIDATES....

### Human Spaceflight



### Access to Space



### Space Security



- The three candidates constitute key domains towards the creation of an EU “European Space Programme” (see art. 189 of the Lisbon Treaty).
- They were already indicated by the EU as interesting areas for Europe in which to take a leading role.
- In all three cases there is room for added value generated by EU involvement that intergovernmental approaches could not bring.
- Rationales for EU involvement and implementation approaches very specific in each of these domains



## THE WAY FORWARD...

- Comparative assessment of the three options based on:
  - Economic and social indicators
  - Strategic and political benefits
  - Feasibility considerations (political, financial and operational)
- No definitive answer regarding the best flagship candidate
  - Any specific selection will ultimately come down to A) the relative weight attributed to the different socioeconomic, strategic and political benefits; and B) the challenges related to EC involvement in terms of political, financial and operational feasibility.
- How to support the selection process in an optimal manner?
  - Establishment of a Committee on Future Flagships comparing and contrasting possible scenarios
  - The work of a new flagship committee could be based on wide-scope hearings with the EC, EEAS EU Parliament, industry and even the general public.
    - Identify how different stakeholders assess each given option and distribution of preferences
    - Prepare the distribution of tasks and responsibilities during the implementation
    - Create a strong link with society by increasing outreach and societal support



*Thank you for your attention*

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