



SPACE MARKET UPTAKE IN EUROPE

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What are the issues at stake?

So far, nearly EUR 6 billion have been allocated to finance the two EU flagship space programmes and EUR 11 billion have been earmarked for 2014-2020

Investment justified by the need to provide Europe with an independent space satellite infrastructure. The development of satellite-based services and products is also expected to contribute to Europe growth strategy

A return on the investment is possible only if substantial socio-economic benefits are achieved through the development of businesses in the downstream sector

Understanding the EU policy challenge for promoting the use of space data in the public and private sectors



How was the study conducted?

Secondary data collection

- Market studies
- Case studies
- Data and statistics on space data use in European industries

Primary data collection

- Semi-structured interviews with 30 different stakeholders, including many end-users

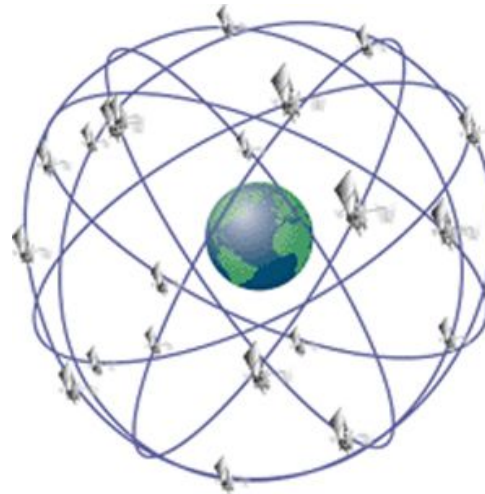
Policy analysis

- Policy and regulatory instruments
- Analysis of existing programmes and initiatives



What are the EU space flagship programmes?

- Galileo is the European navigation satellite system providing global positioning services. It is equivalent to the US GPS, but operates under civilian control.
- It is integrated with EGNOS that improves accuracy and reliability
- Consisted of a constellation of 30 satellites associated with ground infrastructure



- Copernicus is an Earth Observation System designed to provide geo-spatial information in support of public policies
- Provides information in 6 domains (atmosphere, marine environment and land monitoring, climate change, emergency management and civil security)



What is the downstream space market?

DATA



SPACE DATA

- Satellite imagery and data
- GNSS
- Satellite communication systems

OTHERS

- Aerial imagery
- Ground-based data



DOWNSTREAM SERVICES

Ad Hoc maps
(e.g. maps of ground displacement)

Applications
(e.g. apps for smartphone)

Devices
(e.g. GPS units)

USERS



GOVERNMENT

- Defence
- Public administration (from national to local level)



BUSINESSES & CONSUMERS

BENEFITS

- Environment protection
- Resource management
- Logistics and operations
- Strategic decision making
- Disaster response
- ...



What is the current state of the market?

GNSS

Market expected to grow by 8.3% annually till 2019

Location based services have the highest growth potential

The European share went from 20% in 2009 to 25.8% 2012

Value added applications driven by SMEs

EO

Public organisations are the most relevant client (65% of revenues)

Demand for commercial services addresses niche markets.

Services for the agriculture and the insurance sectors are expected to be developed faster

Fast changing market due to the emergence of new business models

In Europe a dispersed and fragmented structure with a predominance of micro and SMEs



Constraints to the use of satellite data in Europe

Type of barrier	Barrier	Galileo	Copernicus
Policy/ strategy issues	Lack of an EU space industrial policy	High	High
	Insufficient and delayed support actions for the downstream sector	Critical	High
Market issues	Fragmentation of EU space markets	High	High
	Insufficient public and private demand	Low	High
	Dependency of the downstream market from non-EU technologies	High	High
Governance	Non-systematic involvement of industry representatives	Medium	High
	Complex governance framework	Nil	High
	Insufficient collaboration amongst Member States	Nil	Medium
Technical issues	Other possible implementation delays	Critical	Low
	Weak data and product distribution system	Nil	Critical
	Interoperability	Nil	Medium
	Differences in space data access across EU	Nil	Medium
Lack of skills	Shortage of technical skills to manage space data, resistance to change	Low	Medium



What are the most critical issues?

Galileo

Possible implementation delays in view of the progress of other space faring nations
Insufficient and delayed support actions for the downstream sector

Copernicus

Weak data and product distribution system
Complex governance framework
Insufficient public and private demand

- Dependency of the downstream market from non-EU technologies (e.g. US IT giants)
- Fragmentation of EU space market as compared to the US
- Non-systematic involvement of industry representatives



What has been the EU response?

Type of support	Description	Issues at stake
Support to space research	<ul style="list-style-type: none"> The space component of Horizon 2020 sets aside EUR 1,7 million for 7 years to support European level space research 	<ul style="list-style-type: none"> H2020 structure and timeframe are set to facilitate applications from academic and institutional players Assistance to market development is missing Share of applications that reach the commercial stage is limited
Regulation	<ul style="list-style-type: none"> Space-specific regulations (data policy, export control and spectrum) Non space-specific regulations General business enabling conditions 	<ul style="list-style-type: none"> The need to protect national security interests increases dependency from national procurement systems Differences in national procurement systems hamper the establishment of a single European space market The use of non-space specific regulations is underexplored, but controversial when perceived as an additional administrative burden
Awareness raising	<ul style="list-style-type: none"> Encourage use of space data in public systems Encourage use of space data in European businesses Raise awareness in European citizens 	<ul style="list-style-type: none"> Member countries have their own programmes for promoting the use of space data in public administration and progress is uneven Dissemination activities targeting businesses for GNSS appear to be better structured



What possible lines of action for the EU?

Policy level

- Enhanced coordinating role for the EU
- EU space industrial policy that looks at the entire value chain

Supply side

- Improve data access and data distribution system
- Combined role of R&D and support to business development programmes

Demand side

- Use of soft measures to promote the use of space data in public administrations
- Tackle resistance to change