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EU Secure Space-based Connectivity System
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EU Secure Space-based Connectivity System

‘Europe must launch a third major space project: a connectivity project through a constellation in low orbit making it possible to put an end to coverage dead zones in Europe.’

Ensure European strategic autonomy, resilience and technological sovereignty

Strengthen Europe’s ability to be a global leader

Fuel an innovative and competitive European industrial ecosystem



Support a Secure EU

SECURE GOVERNMENTAL SERVICES POSSIBLE APPLICATIONS



CONNECTING KEY INFRASTRUCTURES

Governmental & Institutional
secure communications
(Embassies, EUROPOL, ...)

—

Management
of Infrastructures
(air, rail, road,
traffic management)

—

Galileo (augmentation),
Copernicus (data relay)

—

Command and control
of smart grids and M2M
(energy, finance, health,
data centres...)



CRISIS MANAGEMENT AND EXTERNAL ACTIONS

Civil protection

—

CFSP- CSDP

—

Humanitarian aid

—

Telemedicine

—

Maritime emergencies
(search and rescue)



SURVEILLANCE

Border and remote
areas surveillance

—

Remote Piloted
Aircraft systems

—

Maritime surveillance

—

Arctic region coverage

—

Complement to
military missions

—

Space surveillance



MASS-MARKET

5G / 6G integration

—

Edge computing
(edge in the sky)

—

Autonomous driving

—

e-health

—

Smart working, education

—

In-Flight, maritime connectivity

—

Smart agriculture

—

IoT

The System Will Look Like This

- 10,000 satellites
- 1000km altitude orbits inclined at 90°
- Ku and Q bands 100 spot beams per satellite
- High capacity inter-satellite links (no need for ground infrastructure outside the EU)
- Quantum optical links for secure communications
- 1Gb/s to users

**AT THIS STAGE IT'S
JUST TOO EARLY TO KNOW
WHAT THE SYSTEM WILL
LOOK LIKE!**

A Multi-orbital Architecture, Built on EU Programmes: GOVSATCOM and EuroQCI



Add Value Globally (Infrastructure & Services)



Support and enable disruptive technologies

- **5G/6G integration:** 5G backhaul, Edge delivery, 5G on the move
- **Quantum encryption**
- **Cloud, HPC, AI:** Synergies with European initiatives (GAIA-X...)
- **Edge computing, IoT:** smart mobility, smart agriculture...



Secure by design

- Strong encryption (Quantum), cyber resilience
- Proactive and reactive defences against cyber and RF threats
- Operational cybersecurity (Space Ops)



Reliable global access

- Access guarantees, autonomy of use
- Increased **robustness and redundancy** for existing national capacities
- Global geographical coverage, including Arctic



EU industrial leadership and autonomy

Mitigate risk and effects of reliance on non-EU megaconstellations:

- Bolster EU satcom service provider capacities
- Keep EU industrial ecosystem competitive against mega-constellation vertical integration
- Provide competitive EU satcom solutions to avoid business transfer from EU ISP to US megaconstellation providers

Added Value for EU (synergies with existing EU missions)

Copernicus

- Data relay for real time missions
- Piggybacked sensors

Galileo

- GNSS signal augmentation
- Quantum key distribution (PRS, system security)
- Avoid dependency on commercial networks

EGNOS

- EGNOS payload hosted on connectivity GEO sats

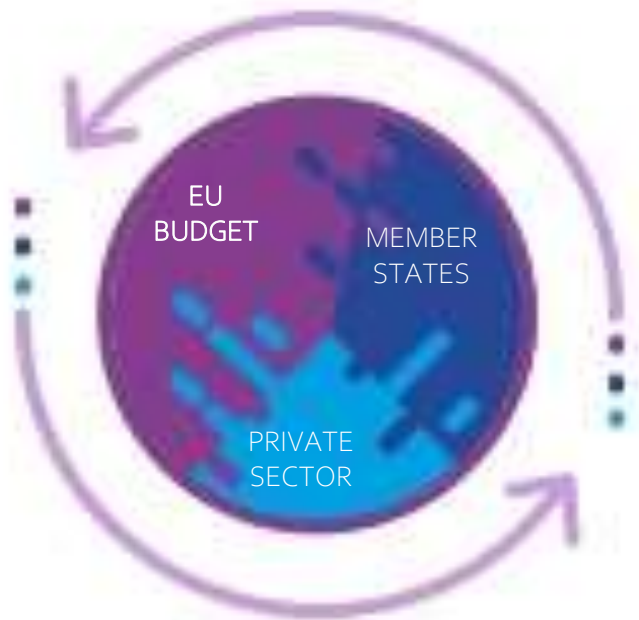
SST/STM

- Space sensors

Innovative Financing

Next Generation EU:

intelligent blending of EU and Member State funds with private sector investments



EU BUDGET

EUSP

Digital Europe

CEF

Horizon Europe

European Defence
Fund

MEMBER STATE FUNDING

possibly
national recovery
and resilience plans

national space
agencies

PRIVATE SECTOR INVESTMENTS

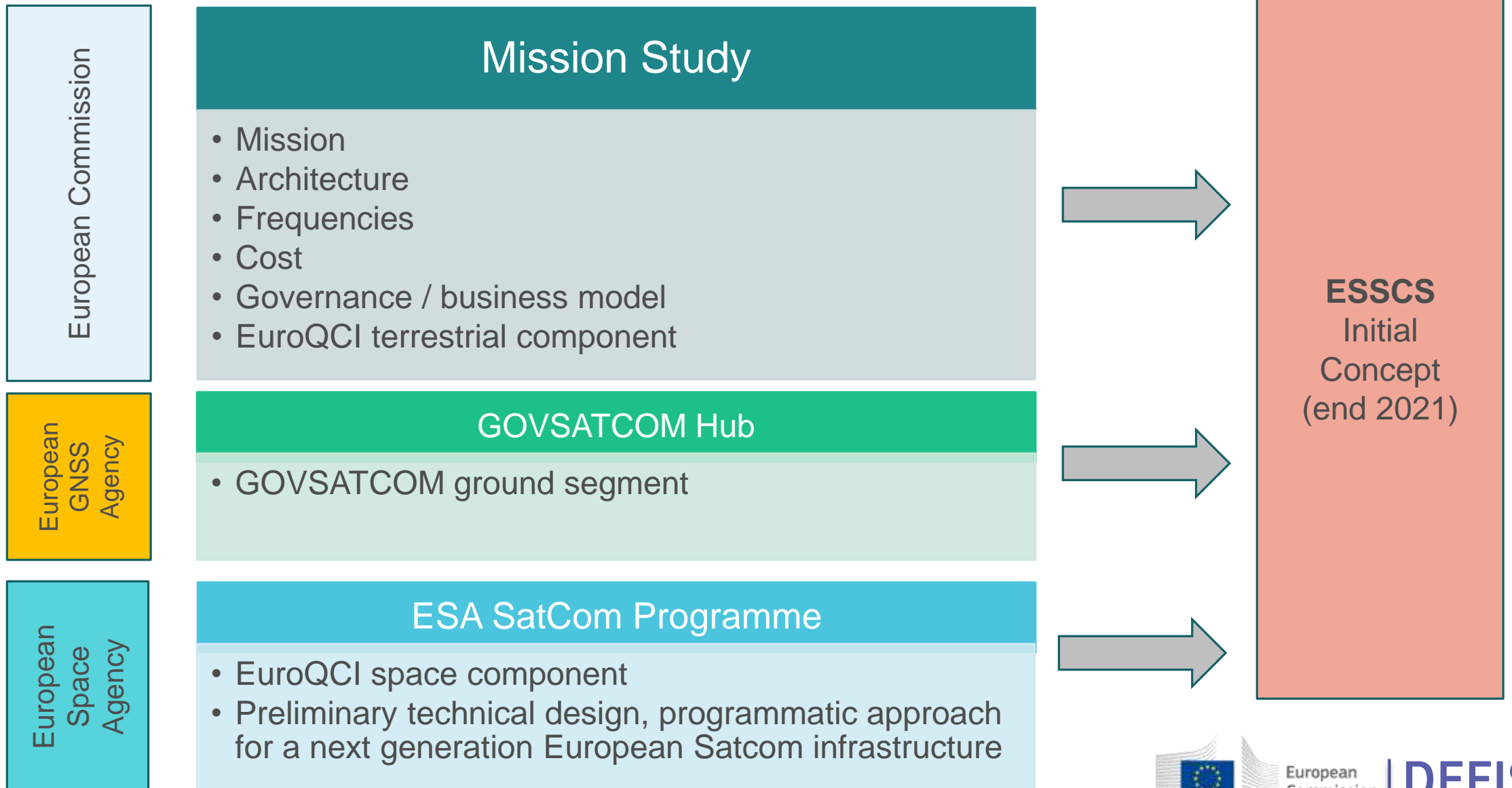
mass-market:

Invest EU strategic
investments

other private funding
streams

in-kind contributions

Ongoing Studies





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Watch this EU Space!

