



HORIZON 2020

SPACE

DG GROW - Internal Market, Industry Entrepreneurship and SMEs
Space Policy and Research (GROW/I1)
Mats Ljungqvist (mats.ljungqvist@ec.europa.eu)

Peraspera workshop, 28 November 2016

Multiannual Financial Framework 2014-2020

~ 12.000 M€



~ 1.400 M€



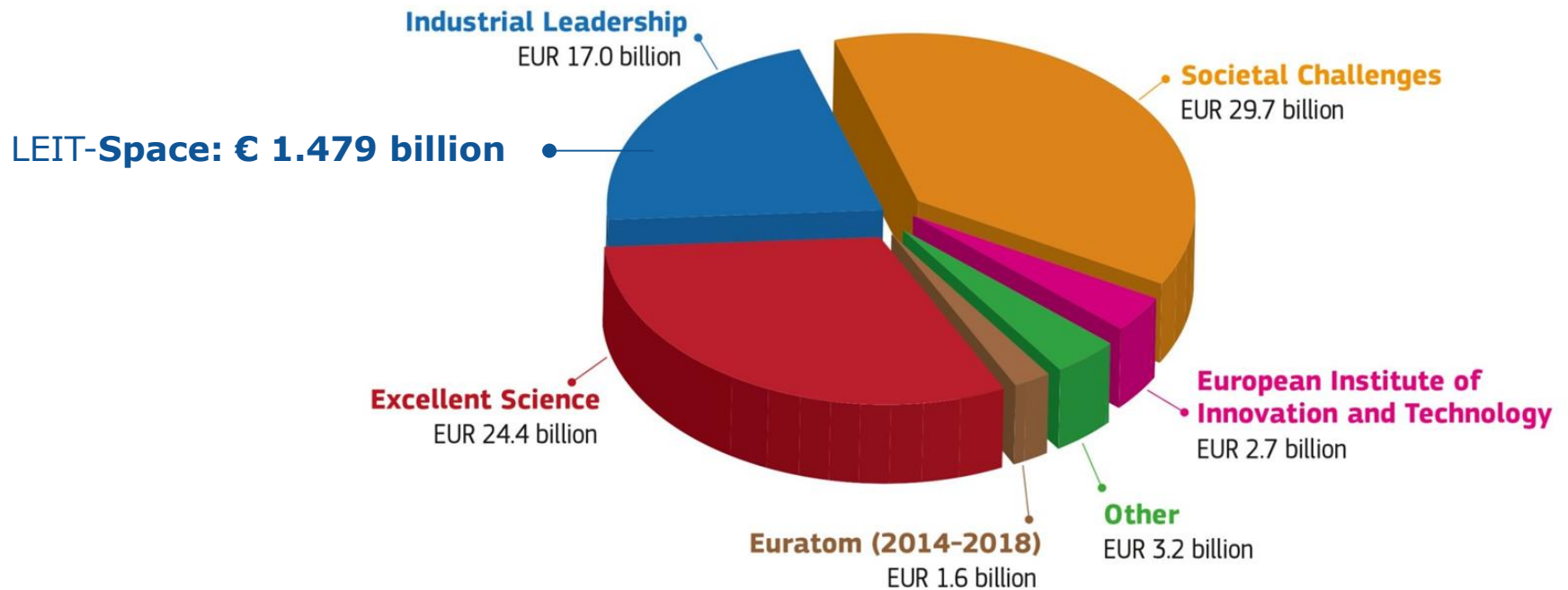
~ 3.800 M€



~ 6.300 M€

Space in H2020

HORIZON 2020 BUDGET (in current prices): € 79 billion



Horizon 2020 Space WP 2017 structure



EGNSS

Galileo & EGNOS applications and infrastructure

Calls for proposals:

- EGNSS applications

Other actions:

- Evolution of EGNSS infrastructure, mission and services

EO

Earth Observation applications and services

Calls for proposals:

- EO downstream applications
- EO "big data" shift
- Preparation for a European capacity to monitor CO2 anthropogenic emissions

COMPET

Competitiveness of the European Space sector: Technology and Science (incl. Space Weather)

Calls for proposals:

- Critical space technologies
- Strategic research clusters
- EO & SatCom technologies
- Science and Exploration
- **Space Weather**
- Space Portal
- Technology transfer

Other actions:

- ESA Engineering support
- Horizon prize on low-cost access to space

SST

Space Surveillance and Tracking support framework

Other actions:

- Contribution to the SST support framework
- Improving the performance of SST at European level

Fast Track to Innovation 'pilot'

SME Instrument



Preparation of the work programme 2018-2020



Timetable towards the adoption of the WP 2018-2020

Year	Timetable proposed by DG-RTD
2016	▪ Stakeholder consultation/Advisory groups (Q1/Q2)
	▪ Consultation Member States (Q2/Q3)
	▪ Strategic Programming Document, incl. scoping papers (Q3)
	▪ Start of drafting of WPs (Q4)
2017	▪ Consultation of PC configurations on WPs drafts (Q1-Q3)
	▪ Adoption of the WP 2018-20 (Q4) (should incorporate the results of the Horizon 2020 Interim evaluation)
2018	▪ Adoption of financing decision for 2019 (Q2) [minor modifications of WP]
2019	▪ Adoption of financing decision for 2020 (Q2) [definition of WP 2020]



Timetable towards the adoption of the WP 2018-2020

Strategic Programming 2018-2020

Mid-Oct: Final draft scoping papers at PC configurations

24 Nov: Overarching document (incl. scoping papers) at Strategic PC configuration

From the Space scoping paper:

".....rely on a roadmap-based approach.... Examples of multi-annual research agendas implementing common roadmaps are the two established Strategic Research Clusters in Space Robotics and Electric Propulsion which should be supported in the programming period."



Reinforcing links with other parts of the WP

➤ **Earth observation:**

- Research infrastructures
- Societal Challenges:
 - SC2: Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the Bioeconomy
 - SC5: Climate action, environment, resource efficiency and raw materials

➤ **Satellite navigation:**

- SC4: Smart, Green and Integrated Transport

➤ **Technologies:**

- ICT (e.g. ECSEL JTI, Photonics, **Robotics**, 5G)
- NMBP (e.g. FoF)

➤ **Contribution to "Focus areas"**

➤ **Exploit opportunities in the "Excellent Science" pillar**

Brokerage event - 5 December 2016: Registration open!

Robotics Brokerage Day 2016

Monday, 5 December 2016

BRUSSELS-EXPO

www.eu-robotics.net/sparc



Brought to you by



<https://eu-robotics.net/sparc/newsroom/press/brokerage-event-2016.html?changelang=2>



A Space Strategy designed to deliver on 4 strategic priorities:

- **Maximise the benefits of space for society and the EU economy**
- **Foster a globally competitive and innovative European space sector**
- **Reinforce Europe's autonomy in accessing and using space in a secure and safe environment**
- **Strengthen Europe's role as a global actor and promote international cooperation**



European
Commission

Stakeholder Consultation Workshop



Stakeholder consultation workshop – 26, 27, 28 September



Session 1: Earth observation

- Panel 1.1: Widening the use of Copernicus data and information
- Panel 1.2: Market uptake
- Panel 1.3: Copernicus evolution

Session 2: Space technologies

- Panel 2.1: Generic space technologies
- Panel 2.2: Mission-oriented technologies

Session 3: IOD/IOV and Access to space

- Panel 3.1: IOD/IOV
- Panel 3.2: Access to space

Session 4: Space science and Space environment

- Panel 4.1: Exploitation of scientific space data and scientific instrumentation
- Panel 3.2: Space environment – space weather and space debris

Session 5: EGNSS – focus on applications and market uptake

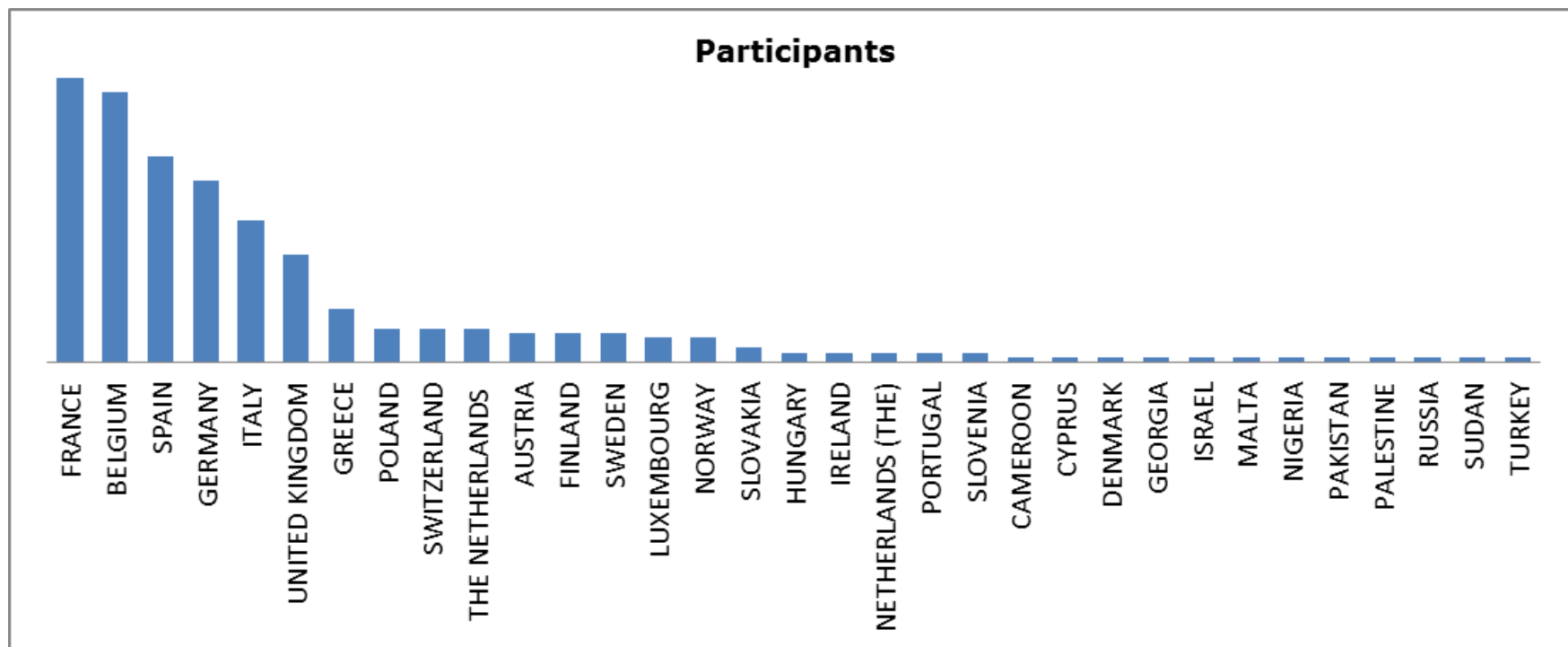
- Panel 5.1: Transport, Location-based services, Professional markets and other applications
- Panel 5.2: New instruments, new areas

Session 6: EGNSS – infrastructures, mission and services

- Panel 6.1: Science, Technology and Infrastructures
- Panel 6.2: Mission and services

Stakeholder consultation workshop – 26, 27, 28 September

- Close to 300 participants (~150 participants per day)
- About 100 panellists
- Presentations are available on the website: http://ec.europa.eu/growth/sectors/space_en





H2020 Space WP 2018-2020: Emerging priorities



Emerging priorities for WP 2018-2020

In line with the Space Strategy: 4 main areas of activity

- **Supporting EU programmes Copernicus and EGNSS (Galileo/EGNOS);**
 - ✓ Applications, market uptake, evolution of technology and services
- **Strengthening the competitiveness of the European space sector;**
 - ✓ Generic and mission oriented technology (low-mid TRL), non-dependence, IOD/IOV, 2 Strategic Research Clusters (**robotics**, electric propulsion)
 - ✓ Access to finance for SMEs
- **Supporting Europe's autonomy in accessing and using space in a secure and safe environment;**
 - ✓ Independent access-to-space including low-cost access-to-space for small satellites
 - ✓ SST – Space Surveillance and Tracking, space debris, space weather, other threats
- **Strengthening Europe's role as a global actor**
 - ✓ International cooperation, space science and exploration



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