

THE EUROPEAN SPACE AGENCY

UNITED SPACE IN EUROPE

Space as an Arena for Innovation, Integration and Investment

United Nations/United Arab Emirates High Level Forum: Space as a Driver for Socio-Economic Sustainable Development Dubai, November 2017

Piero Messina, ESA

European Space Agence

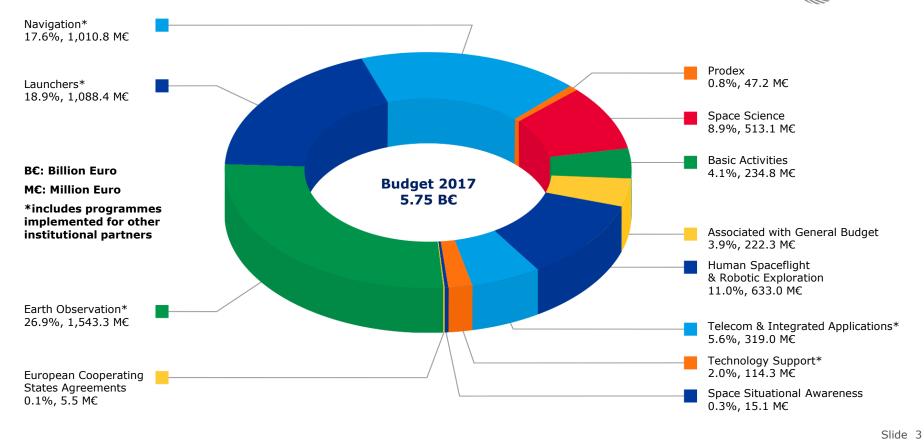
ESA facts and figures



- Over 50 years of experience
- 22 Member States
- Eight sites/facilities in Europe, about 2300 staff
- 5.75 billion Euro budget (2017)
- Over 80 satellites designed, tested and operated in flight



ESA budget for 2017: 5.75 B€ (by domain)



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Space 4.0: a new era of space



Space 4.0 represents the evolution of the space sector into a new era:

- From being the preserve of the governments of a few spacefaring nations, to an increased number of diverse space actors around the world;
- With the emergence of private companies, participation with academia, industry and citizens, digitalisation and global interaction;
- Analogous to, and is intertwined with, Industry 4.0, which is considered as the unfolding fourth industrial revolution of manufacturing and services.



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European integration in ESA

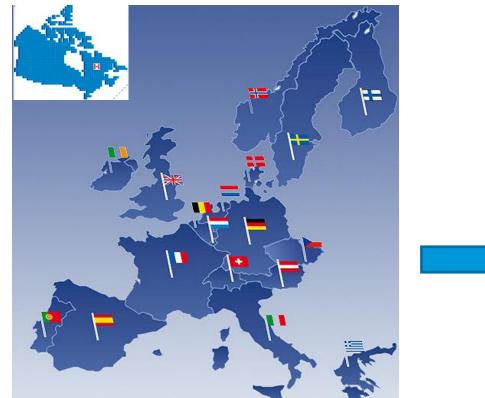


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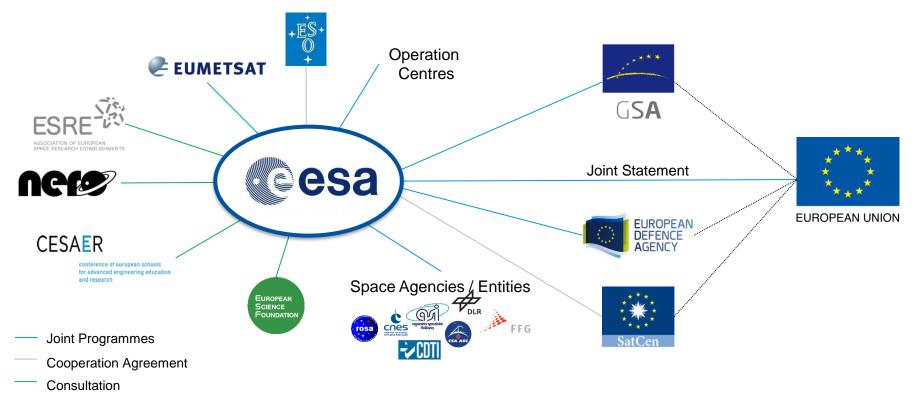
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sustainable moon surface operations

Exploration Human & robotic Logistics Public and private Moon Science Cosmology /astronomy Fundamental research Transportation Resource management Communication Technology



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Thank you

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