

Mechanisms for regional and international cooperation: The example of ESA

UN/China/APSCO Space Law
Workshop, Beijing, China

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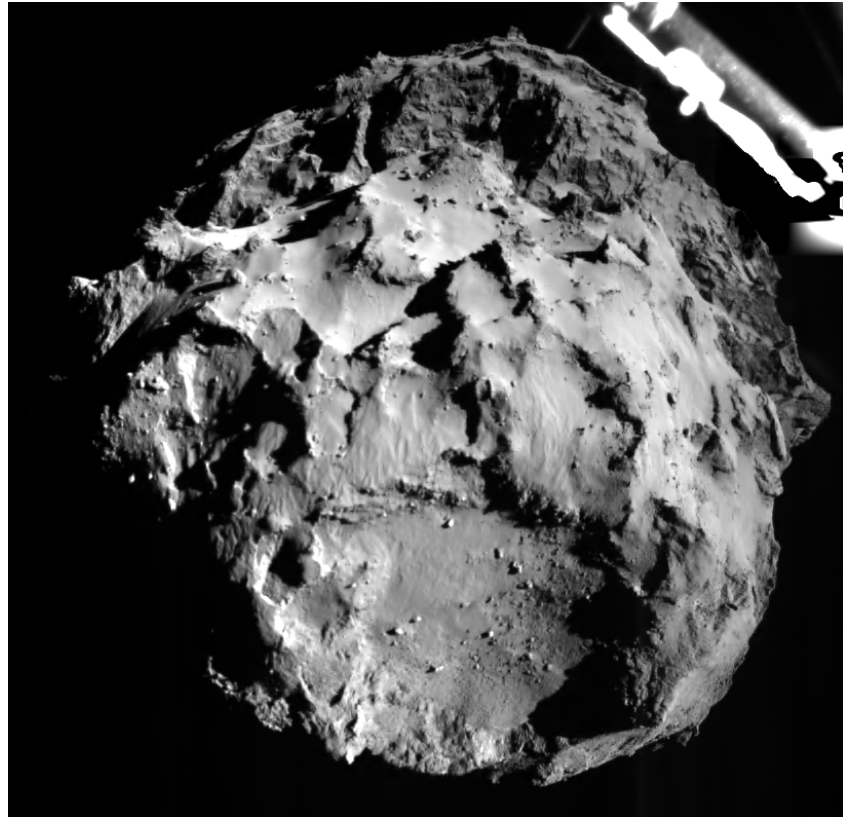


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Outer Space Treaty & Cooperation

- ‘Obligation’ to cooperate:
 - Preamble
 - Article I
 - Article III
 - Article IX



European Space Agency - ESA

- Regional, intergovernmental cooperation
- History:
- 1964
 - European Space Research Organisation (ESRO) & European Launcher Development Organisation (ELDO)
- 1975
 - Convention for the Establishment of a European Space Agency (in force 1980)
 - Then 11 member states

Purpose of ESA

“To provide for and promote, for exclusively peaceful purposes, cooperation among European states in space research and technology and their space applications”



- Article 2 of the
ESA Convention

What and how?

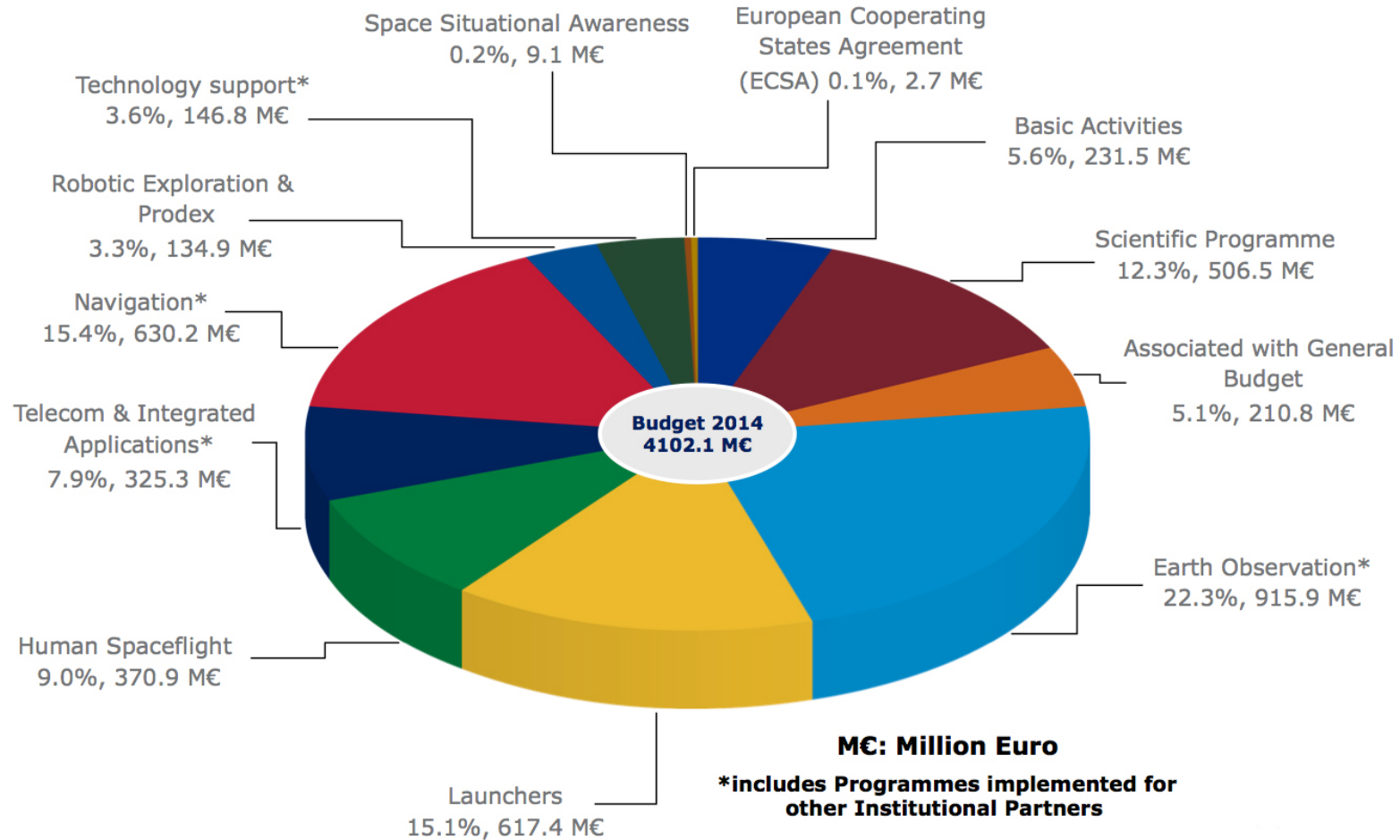
- Pool material & technical resources of member states at **national** level
- Integrate national space programmes as much as possible at **European** level
- Strengthen European space efforts for exclusively peaceful purposes at **global** level
- By means of:
 - European space policy (EU)
 - Activities & programmes (ESA & member states)
 - Industrial policy (ESA & member states)

Member States

- Austria, Belgium, Czech Rep., Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Norway, Netherlands, Poland, Portugal, Romania, Spain, Sweden, Switzerland, UK
- Canada: cooperating state
- Cooperation agreements: Estonia, Slovenia, Hungary, Cyprus, Latvia, Lithuania, Malta, Slovakia
- Negotiating: Bulgaria

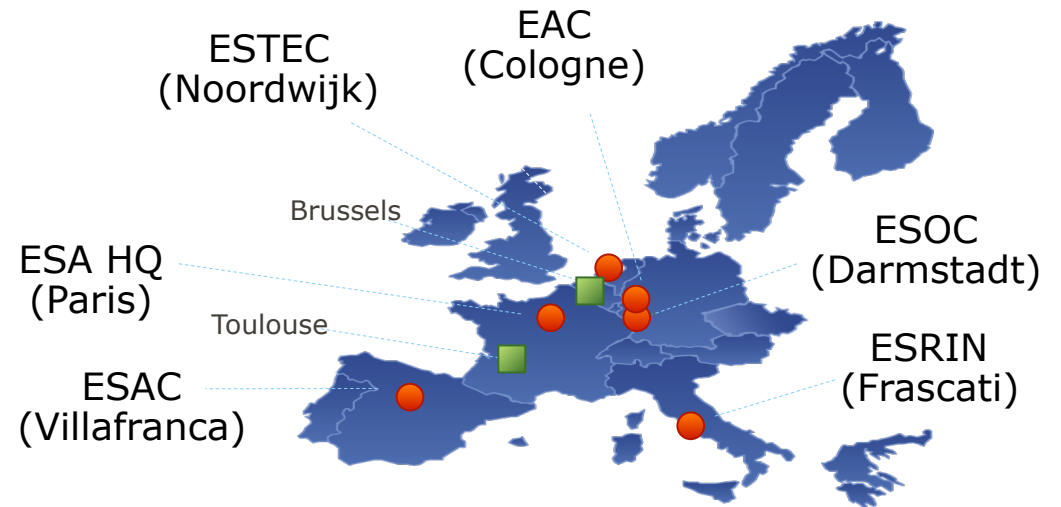


Budget 2014



ESA Establishments

- Establishments & Centres
- Offices



Institutional structure

- Two main organs:
 - Council of member states
 - Director General, assisted by staff



Council of member states

- **Governing body of ESA**
 - 1 state, 1 vote, regardless of size / contribution
 - Meetings at ministerial / delegate level
 - Ministerial Council: key decisions on new / continuing programs & budget, every 3 years
- **Creates subordinate bodies:**
 - Financial and administrative
 - Industrial policy and procurement
 - International relations
 - Security and Technology transfer
 - One per programmatic area: Programme Boards

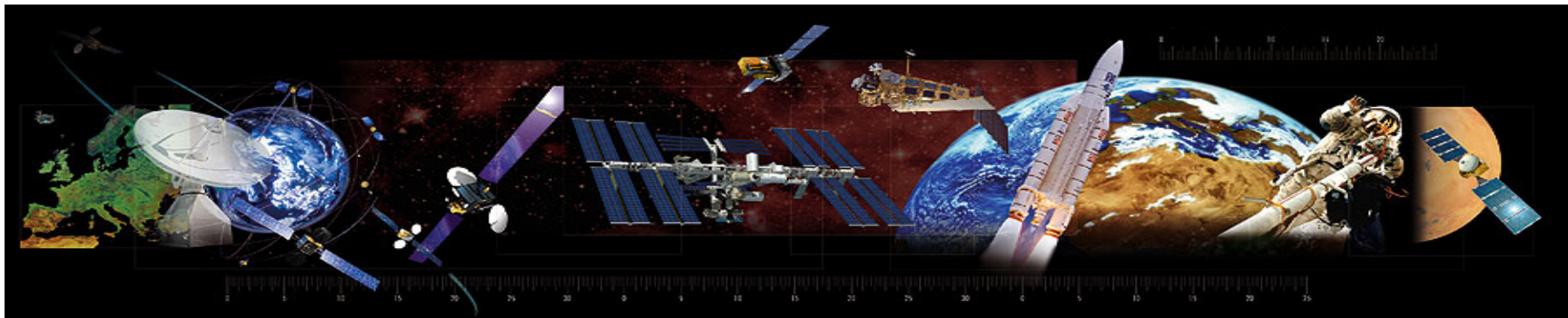
ESA Director General

- Appointed by Council by 2/3 majority of member states
 - J.J. Dordain (2003)
- CEO & legal representative of the Agency
- Responsible exclusively to the Agency – not to any member state



ESA Directorates

- Technical & Quality Management
- Human Spaceflight & Operations
- Industry, Procurement & Legal Services
- Launchers
- Earth Observation
- Galileo & Navigation-related Activities
- Science & Robotic Exploration
- Telecommunications & Integrated Applications



ESA programmes: mandatory

- All Member States participate (on GNP basis) in activities related to Space Science & a common set of programmes
 - Council approves programmes, determines level of resources
 - Members contribute per pre-set scale
- e.g. science, budget, facilities, education

ESA programmes: optional

- Members choose level of participation
- Practical nature
 - Council accepts programmes
 - Members may opt out, contribute à la carte
- About 80% of ESA budget = optional
- e.g. human spaceflight, EO, navigation, launchers, telecom

Industrial policy

- Generally
 - Promoting cost-effectiveness
 - Improving world-wide competitive industry
 - Using existing industrial potential Europe
 - Preference for European industry
 - Equitable member state participation
 - Exploit advantages competitive bidding
- Fair return principle
 - \leftrightarrow EU principle of free competition

Space: a key asset for Europe

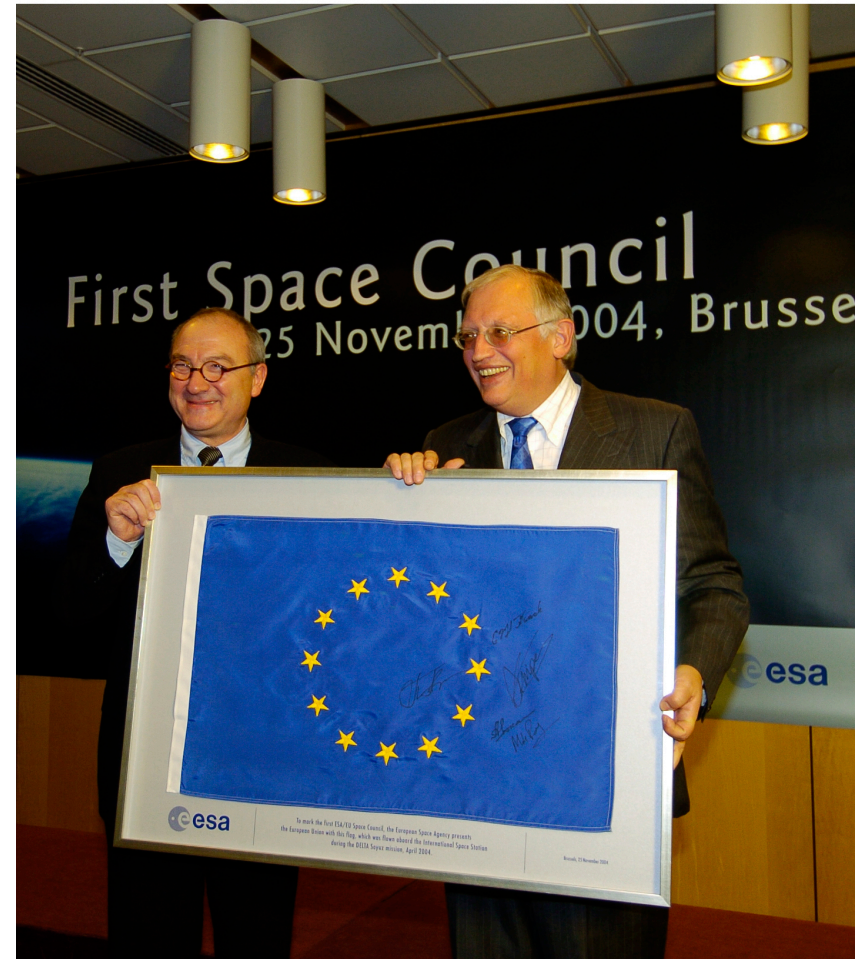
- Principles subscribed by ESA & EU:
 - Social, economic, strategic interests
 - Space is an 'enabling tool':
 - Response to critical challenges (climate change, global security,...)
 - Growth & employment
 - Technologies for knowledge-based society
 - Security interests
 - Understanding of planet, Universe
 - European identity, cohesion, inspiration
- EU space competence since 2007 (Lisbon)

ESA, EU & space treaties

- ESA declared acceptance of 3 treaties:
 - Rescue agreement, Liability Convention, Registration Agreement
- EU has not (RIO argument)
- All EU members ratified OST, except 3:
 - Latvia, Malta (RA, LIAB), Slovenia (RA, LIAB (Lithuania ratified in 2014)
- Only 6 EU member states have space law
 - SE, UK, BE, NL, FR, AT
 - NO (ESA member/non EU) the oldest one

ESA-EU Cooperation

- Since 2000
- Space Councils since 2004
- Space Policy 2007
- Distinct roles:
 - EU: regulatory
 - ESA: technical
- Now also coop. with
 - EDA
 - EMSA
 - EUROCONTROL
 - EP



Next Ministerial Conference

- 2 Dec 2014, Luxembourg
- Topics on the agenda:
 - Launchers
 - ISS
 - ESA-EU
 - Announcement new DG?

ESA and EU – Issues

- EU as owner of space assets could be held liable for damage under the space treaties
 - EU needs to declare acceptance of UN treaties
- Some member states have not ratified UN treaties but may participate in space activity through EU
 - States need to be encouraged to ratify treaties
- Most member states have not enacted national space legislation, although space activity exists
 - States need to be encouraged to enact NSL
 - Harmonization by EU not allowed (Art.189 TFEU)
- ESA-EU evolution
 - ESA space agency of EU, or EU member of ESA?

Conclusion: a useful model?

- Yes
 - ESA allowed Europe to become a strong actor in the global playing field
 - Small states developed space capability
 - Possibility of joint positions, e.g. in COPUOS
- But
 - Need to take into account different space capabilities / politics / needs, ambitions / legal systems

Questions?

Thank you!

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