



Promoting Cooperative Solutions for Space Sustainability

THE COMPLEXITY OF THE EUROPEAN SPACE GOVERNANCE DOES IT WORK?

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Promoting Cooperative Solutions for Space Sustainability

**The Secure World Foundation (SWF)
is a private operating foundation
dedicated to the secure
and sustainable
use of space
for the benefit of Earth
and all its peoples**



Promoting Cooperative Solutions for Space Sustainability

What Does the Foundation do?

Engages with academics, policy makers, scientists and advocates in the space and international affairs communities to support steps that strengthen global space security.

Promotes the development of cooperative and effective uses of space for the protection of the Earth's environment and human security.

Acts as a research body, convener and facilitator to advocate for key space security and other space related topics and to examine their influence on governance and international development.



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Key Governance Focus Areas

Space Sustainability

- Protection of continued utility of space resources

Human security

- Development and disaster assistance
- Environmental and climate change
- Countering degradation of land, air, water, and ice

Planetary threats

- Mitigating the threat of collision from a Near-Earth Object (NEO) through the establishment of effective governance for response



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Basic Facts

- Non-profit operating foundation founded in 2004
- Funding comes from a private endowment
- Offices in Colorado, Washington DC and Brussels
- Dedicated to ensuring the long-term sustainability of the space
- Strong role in policy development in both the international and domestic policy communities

- Space a key assets for Europe
- Lisbon Treaty
- Europe's current situation
- European Space Actors (EU/ ESA/ MS, other space actors)
- European space governance / Does it work?
- EU & ESA cooperation
- Europe & international cooperation
- Europe credible partner
- Conclusion/recommendation



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travel the Universe without running out of air.*

European Space Governance FOR DUMMIES



A Reference for the Rest of Us!



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Space: a key asset for Europe

- Social, economic, strategic
- 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

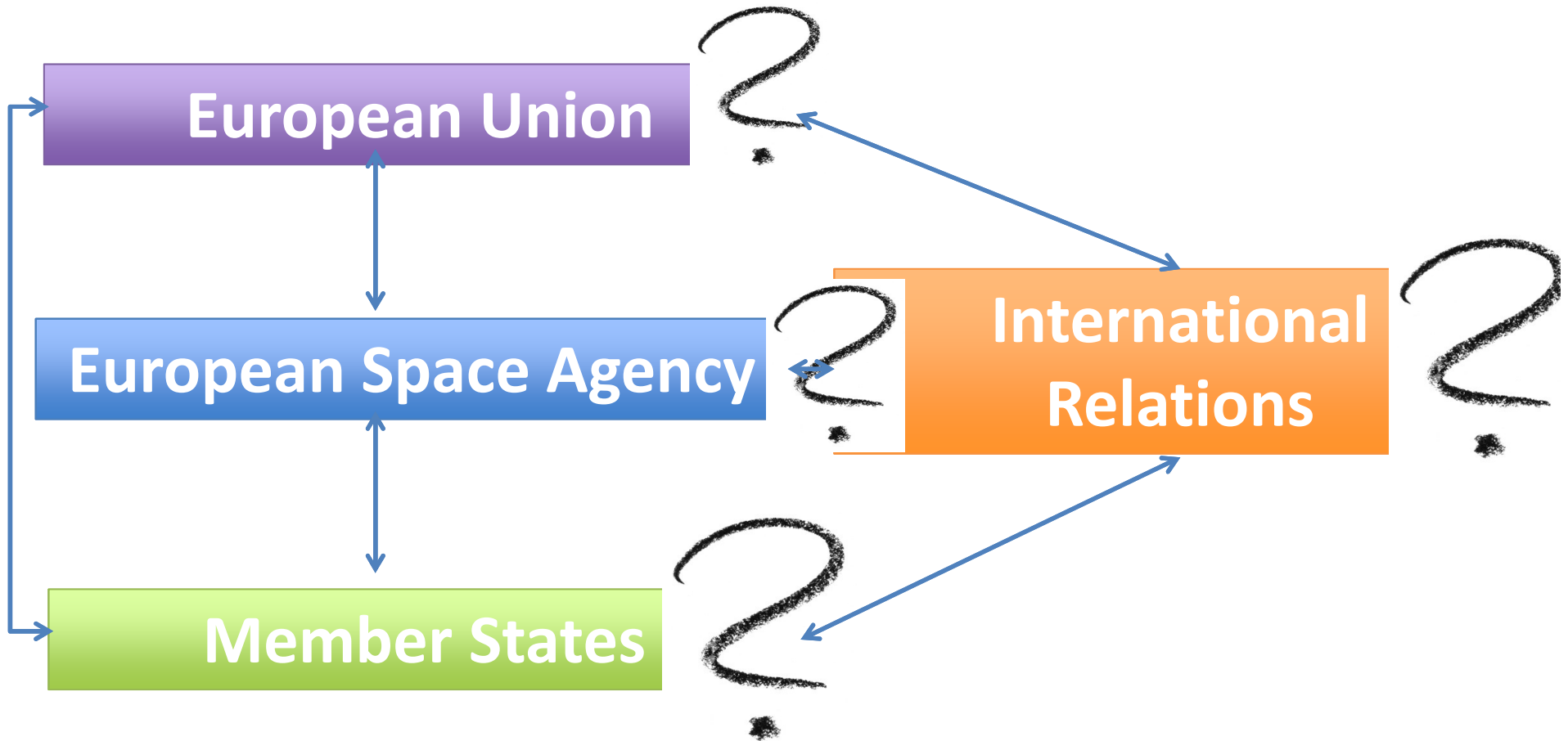


Lisbon Treaty

- Lisbon-Treaty (December 2009) provides EU with a **shared (with MS) competence for space**
- Lisbon-Treaty **does not restrict the competence of Member States and therefore of ESA** with regard to space, hence, **does not place the European Union into an overall coordination role**
- Lisbon-Treaty calls for general discussion/decision on the **sharing/division of work and responsibilities between EU, ESA and Member States**

1. “To promote scientific and technical progress, industrial competitiveness and the implementation of its policies, the Union shall draw up a **European space policy**. To this end, it may promote joint initiatives, support research and technological development and coordinate the efforts needed for the exploration and exploitation of space”
2. “To contribute to attaining the objectives referred to in paragraph 1, the European Parliament and the Council [...], shall establish the necessary measures, which may take the form of a **European space programme**, excluding any harmonisation of the laws and regulations of the Member States”
3. “The Union shall establish any appropriate relations with **ESA**”

What is the current situation?



EU: Applications and Legislation

- The European Union (EU) is a political and economic union of 27 Member States
- Has become competent in space since the Lisbon Treaty
- EU flagship programmes **Galileo** and **GMES**



Implications

The EU has been given a mandate to:

- Draw up a space policy
- Set up EU space programmes

Priorities:

- EGNOS/Galileo
- GMES
- SSA
- Exploration
- Space industrial policy, R&D, innovation
- Strengthen partnerships outside Europe (US, Russia, China, Africa)

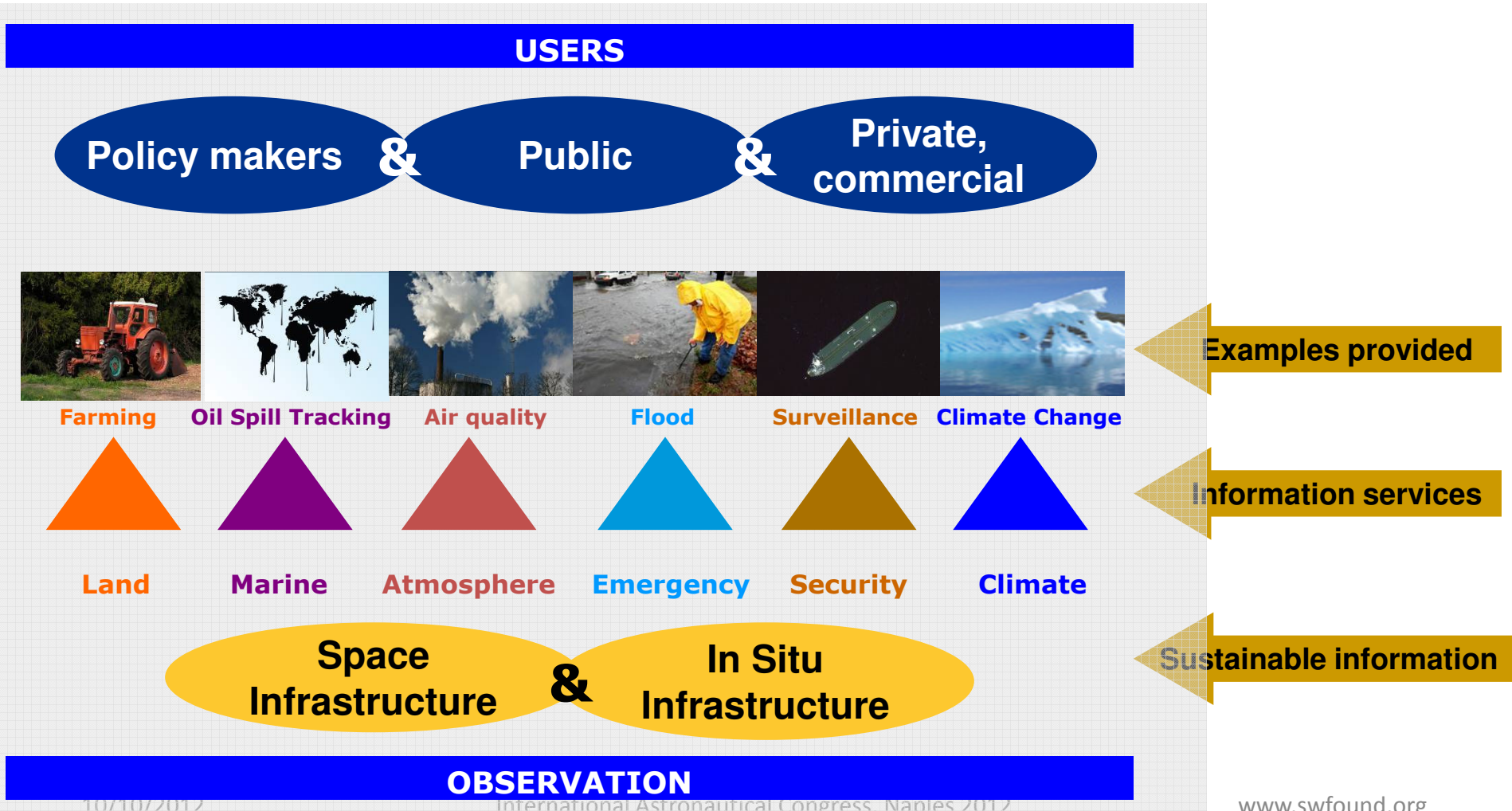




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European Union (3/5)

GMES



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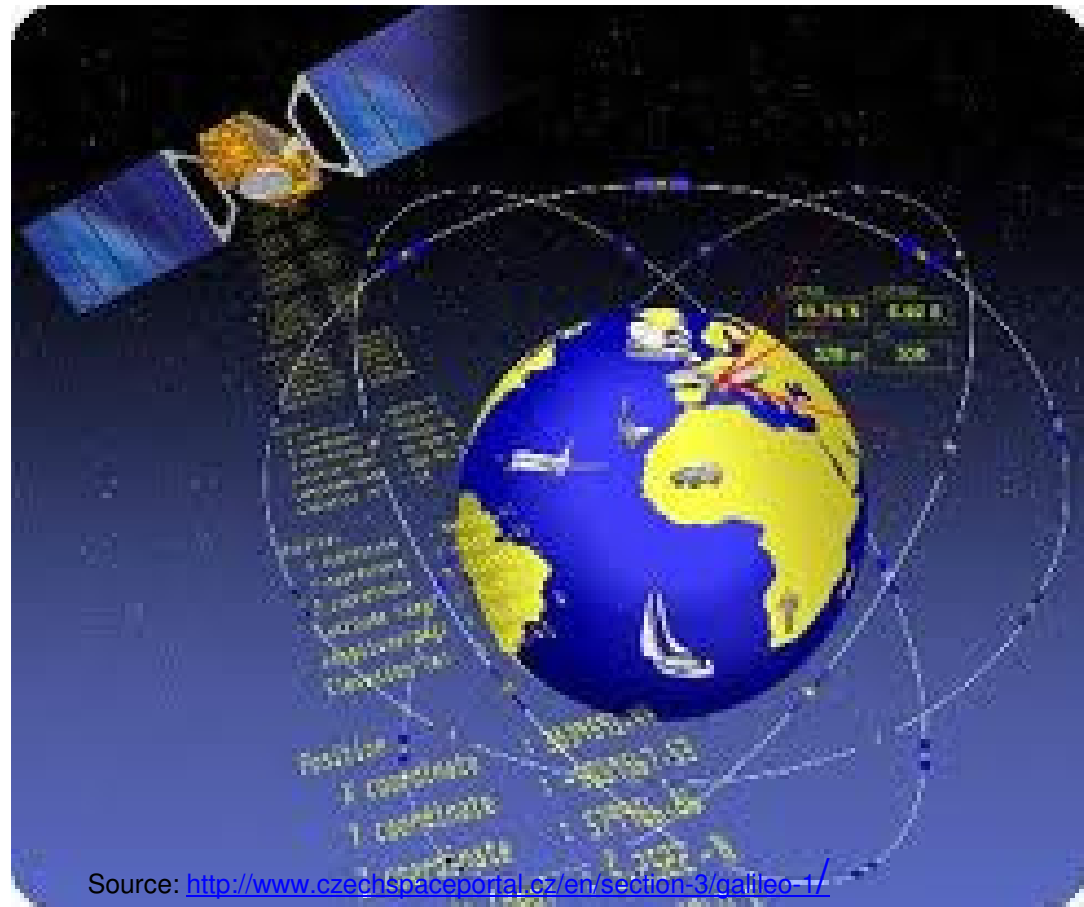
International Astronautical Congress, Naples 2012

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Source: Reinhard Schulte-Braucks, "[Brussels Space Policy round Table The Future of GMES](#)"

GALILEO

- Europe Global Navigation Satellite System (GNSS),
- First two satellites, 20 October 2011
- Next two satellites will be launched 12 October 2012
- 30 Satellites in total





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European Union (5/5)

- **European Commission, European Parliament, Council of European Union, External Action Service**
- **European Union Agencies:**
 - Agencies developing space applications and services: European GNSS Supervisory Authority (GSA), EU Satellite Center (EUSC), European Defense Agency (EDA)
 - End-users agencies: European Aviation Safety Agency (EASA), the European Environmental Agency (EEA), the European Maritime Safety Agency (EMSA)



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European Space Agency (1/2)

ESA: Foundations



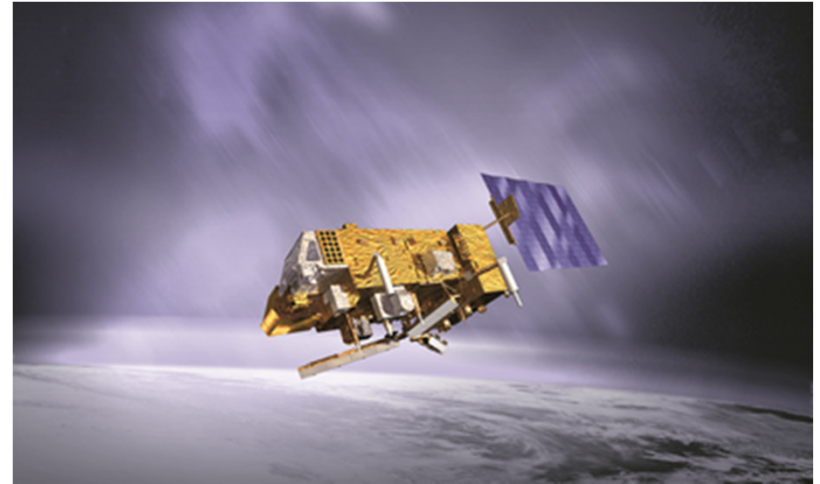
- 1975 (10 founding members) – Today, 19 member countries / Poland , the 20th member
- **Science and Technology**
- **Launchers and Exploration/Human Space Flight**
- **Development of activities related to Galileo and GMES, technical implementation of EU programmes (e.g. procurement)**
- **Has no regulatory power**
- **Has helped build a broad European space competence**

European Space Agency (2/2)

Ariane 5



MetOp-A & B / Weather Monitoring



International Space Station



MS: Applications and Foundations, Legislation

- Supportive **R&D** and **payloads**
- Many differences in **capacity, funding**
- Besides governmental actors (Space Agencies, ministries), national parliaments (i.e. citizens) also have **influence**
- **Industry**





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EUMETSAT - Another space actors in Europe

The European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT)

- Not an EU Agency, an intergovernmental organization funded in 1986
- 26 Member States
- Delivers weather and climate-related satellite data, images and products 24 hours a day, 365 days a year
- The data are provided to the National Meteorological Services of the Members, as well as other international users



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European Space Governance

Does it work?



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- A group of independent states
- A group of highly capable and experienced states in space
- Advantages to set up global standards and regulations

Management

- Highly experienced in multilateral negotiation
- Not representing particular interest but “common” interest

Source: Kazuto SUZUKI, Princeton University, ["Space Security: Is Europe a Credible Diplomatic Actor?"](#)

Lack of coherence

- Differences of opinion, interest and strategy
- Different financial circumstances and perception of space

Slow response

- It takes time to achieve the consensus
- Political turf war between Commission and MS

Source: Kazuto SUZUKI, Princeton University, ["Space Security: Is Europe a Credible Diplomatic Actor?"](#)

Does it work? – YES/NO...BUT (1/2)

- European space policy should be developed and implemented by all three actors EU, ESA and MS, but with clear division of roles and responsibilities

**Science & technology,
launchers &
Exploration/Human Space
Flight**

**R&D & payloads,
space-related
legislation**



**Applications &
legislation**



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Does it work? – YES/NO...BUT (2/2)



EU & ESA Cooperation (1/4)

- Joint development of a **European space policy** (call for such a policy in Lisbon-Treaty and also in ESA-Convention)
- **European Space Policy** to be implemented by all three actors EU, ESA and MS
- **Clear division of responsibilities** in order to achieve objectives of policy ???
- **Avoidance of unnecessary duplication**





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EU & ESA Cooperation (2/4)

- 2000: European strategy for space - High level joint taskforce
- 2003: White Paper European space policy - Raise awareness strategic importance of space
- 2004: Framework Agreement - Recognise complementary strengths
- 2004: 1st 'Space Council': EU Council /ESA Ministerial Council - Distinct roles in space despite contradictory basic principles ('Juste retour' – fair competition)
- 2007: 4th 'Space Council' Adoption of the European Space Policy
- 2008: 5th 'Space Council' Priority areas: reaffirms Galileo /GMES, + new ones: space & climate change, contribution of space to Lisbon strategy, space & security, space exploration



EU & ESA Cooperation (3/4)

- 2009: 6th 'Space Council' mainly addressed GMES & contribution of space to innovation/competitiveness
- 2010: 7th 'Space Council', resolution on 'Global challenges: taking full benefit of European space systems'
- 2011: Commission Communication: 'Towards a space strategy for the EU that benefits its citizens'



Source: EC, DG Enterprise and Industry/ Space governance



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EU & ESA Cooperation (4/4)

Main differences between EU & ESA

EU: regulatory & general in character

ESA: technical / operational & space-focused

Fields of EU-ESA cooperation

- Galileo
- GMES
- Security
- Exploration

Europe & International Cooperation (1/2)

- International cooperation is contributing to **Europe's space policy objectives** :
 - Useful cooperation
 - ISS, exploration
- Space is contributing to **Europe's foreign policy objectives**:
 - Political cooperation
 - Climate change, humanitarian aid, sustainable development , security





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Europe & International Cooperation (2/2)

Europe's international performance:

- Europe is an international actor **under construction**
- Europe's performance in space **depends on the area** (civilian/military space)

Europe's international identity:

- Is Europe a normative, a civilian, a civilizing or simply a weak power?
- Specific European identity in space cooperation?



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Is Europe a Credible Partner?

United States

- Competitor for taking the moral authority and leadership
- Commitment to International CoC means US cannot act alone in this domain

Russia

- Russia's commitment to "Treaty on the Prevention of Weapons in Outer Space and the Threat of Force Against Outer Space Objects" – Europe is not a partner
- Strategic trade-offs: manned space tech and energy

China

- Committed PPWT – Europe's rival
- Seeking credible international partner – Europe's friend

Japan

- Too much obsession in the relationship with the US
- Potential partner in many respects including space security



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Is Europe a Credible Partner for Emerging Nations?

Africa

- Europe has opened the door for space use in Africa
- Shared infrastructure and providing services

India

- Technological independence and strategic use of space partnership
- Europe can be a good customer

South East Asia

- SE Asia constitute a big market for Europe

Latin America

- Not a lot of commitment – the experience with Africa might be
- helpful to contribute further relationship

Source: Kazuto SUZUKI, Princeton University, ["Space Security: Is Europe a Credible Diplomatic Actor?"](#)

Conclusion/ Recommendations

- EU should support **space activities**:
 - Image
 - Tackle societal challenges
 - BUT credibility and willingness is NEEDED
- Promotion and fostering of a common **European Space Policy**
- Need to recognize all actors & **work together**
- EU must establish better **relations with ESA**
- **Integration of ESA into EU?**
- Increased **global competition**
- **Europe must be united** vis-à-vis other space powers





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Thank you for your Attention!



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