

ANALYSING EU SPACE POLICY

It combines space programs and projects across different levels of governance:

- Supranational (EU)
- International (European Space Agency)
- National. (United Kingdom)

The aim of my research is to scrutinize the effectiveness of the current EU policy in promoting market competition and innovation.

Argument: These levels of governance enter into conflict when trying to shape policy.

RELEVANCE

ELEMENTS

WHY EU SPACE POLICY?

- The space sector provides over 230,000 jobs in the EU, and it is worth between €46-54 billion to the EU economy.
- Situational awareness, response to complex crises (natural disasters)
- Delivery of services (health, energy, transport, communication, weather forecasting)
- European 2020 Strategy; Europe's growth strategy for a smart, sustainable and inclusive economy.
- National Security

ELEMENTS

*In general terms the policy consists in providing support for a global satellite monitoring system for **environment and security**, as well as for a navigation satellite system under **European civil control**.*

We will talk about them later in more detail.....

WHO IS THE PILOT?

"Space activities in Europe are carried out by multiple actors at different levels: (1) **the overall European level with the EU**; (2) the intergovernmental organizations, e.g. **ESA**; and (3) **the Member States level** with the national space actors."

-European Space Policy Institute

The **European Union (EU)** as the central political authority at European level has begun to get more and more involved in space. In 2009 EU competence in space was established by **Article 189** on the **Treaty on the Functioning of the European Union, Treaty of Lisbon**.

ART 189
TFEU

EU

ESA

NATIONAL

THE SPACE COMPETENCE

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.

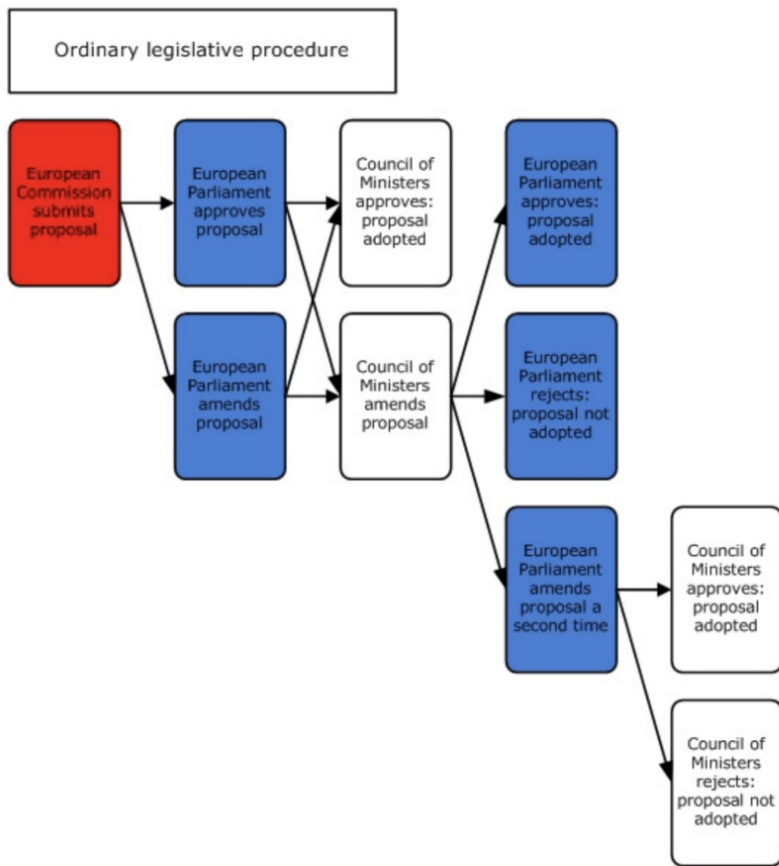
2. To contribute to attaining the objectives referred to in paragraph 1, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall establish the necessary measures, which may take the form of a European space programme, excluding any harmonisation of the laws and regulations of the Member States.

3. The Union shall establish any appropriate relations with the European Space Agency.

Article 189 TFEU

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**, acting in accordance with the **ordinary legislative procedure**, 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 the European Space Agency.
4. This Article shall be without prejudice to the other provisions of this Title.

ORDINARY LEGISLATIVE PROCEDURE



The Commission: Manager of the EU space initiatives and has overall responsibility for defining the priorities and long-term evolution of the Space Programme and supervises its implementation.

The European Parliament: Part of the legislative branch of the European Union. Together with the Council, adopts European legislation, normally on a proposal from the European Commission.

The Council of Ministers: The Council represents the executive governments of the EU's member states and is based in the Europa building in Brussels.

INTERNATIONAL PERSPECTIVE

Inter-national means between or among nations: an international organization is a system where states cooperate to common goals.

The difference between supranational and international organizations is that the authority of international organizations don't go beyond the authority of the state.

EUROPEAN SPACE AGENCY

ESA is an international & intergovernmental organisation of 22 member states (of which 20 are EU members) dedicated to the exploration of space. Member states participate to varying degrees in the mandatory (25% of total expenditures in 2008) and optional space programmes (75% of total expenditures in 2008)

THE PURPOSE OF THE AGENCY

"to provide for and to promote, for exclusively peaceful purposes, cooperation among European States in space research and technology and their space applications, with a view to their being used for scientific purposes and for operational space applications systems,

(a) by elaborating and **implementing** a long-term **European space policy**, by recommending space objectives to the Member States, and by concerting the policies of the Member States with respect to other national and international organizations and institutions;

(b) by elaborating and implementing **activities and programmes in the space field**;

(c) by **coordinating the European space programme and national programmes**, and by integrating the latter progressively and as completely as possible into the European space programme, in particular as regards the development of applications satellites;

(d) by elaborating and **implementing the industrial policy** appropriate to its programme and by recommending a coherent industrial policy to the Member States"

Article 189 TFEU

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, acting in accordance with the ordinary legislative procedure, 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 the **European Space Agency**.
4. This Article shall be without prejudice to the other provisions of this Title.

ESA/ EC FRAMEWORK AGREEMENT

The legal basis for the EU/ESA cooperation is provided by the Framework Agreement (May 2004).

European Commission and ESA coordinate their actions through the Joint Secretariat, a small team of EC's administrators and ESA executive.

The Member States of the two organisations meet at ministerial level in the **Space Council**.

GLOBAL MONITORING FOR ENVIRONMENT & SECURITY: GMES / COPERNICUS

Copernicus services address six main thematic areas:

- **Emergency Management Service**
April 2012.
- **Land Monitoring**
April 2012.
- **Marine Environment Monitoring**
May 2015.
- **Atmosphere Monitoring**
July 2015.
- **Security**
- **Climate Change**



Relevant Legislation:

- **Regulation No. 911/2010:**
(GMES) and its initial operations
- **Regulation No.377/2014:**
Establishing the Copernicus Programme and repealing Regulation (EU) No 911/2010

GLOBAL NAVIGATIONAL SATELLITE SYSTEM: GNSS/GALILEO & EGNOS

- **Regulation No. 876/2002/EC:** Setting up the Galileo Joint Undertaking.
- **Regulation No. 1321/2004/ EC, No. 15:** Establishment of structures for the management of the European satellite programmes.
- **Regulation No 683/20No 1321/200408:** further implementation of the European satellite navigation programmes.
- **Regulation No. 1104/2011/EC:** Rules for access to the public regulated service provided by the global navigation satellite system



NATIONAL PERSPECTIVE

Perhaps the most important to evaluate given that its able to showcase the effects of the ESA/EU collaboration in the national sphere. Given the sovereignty and national interests each nation poses, EU members are free to have their own unique national space programmes with the legal basis found in Article 189:

- 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, acting in accordance with the ordinary legislative procedure, 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 the European Space Agency.*
- 4. This Article shall be without prejudice to the other provisions of this Title.*



COOPERATION?

EU intervention in space, together with those of its Member States and the European Space Agency, needs to aim at strengthening the European space industry's competitiveness at a global level through stable synergies in regulations and clear roles.

This research highlights the importance of maintaining Europe's technological edge through consistent collaboration with the European Space Agency and Member States by avoiding unnecessary institutional frictions and harmonising neglected areas of trade such as space services and applications.

ESA & EU

THE
NUMBERS

CONCLUSION

THE ESA & THE EU

The Commission has delegated the development and deployment of the space infrastructure.

ESA is responsible for the deployment of Galileo infrastructure.

ESA also manages part of Copernicus operations, while some Copernicus satellites operations are managed by the **European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT)** and Copernicus services are delegated to the **European Environment Agency (EEA)**, the **European Maritime Safety Agency (EMSA)**, the **European Border and Coast Guard Agency (FRONTEX)**, the **European Centre for Medium Range Weather Forecasts (ECMWF)**, **Mercator Ocean**, the **EU Satellite Centre** and the **Commission's Joint Research Centre**.

NOT ENOUGH SPACE FOR BOTH ?

The delineation of respective competences and tasks between the two centers of “space power” is not always clear-cut.

- In defining priorities for research and development
- Especially for optional programs

The **ESA Director-General** and **ESA Council** will inevitably enter the area of policy making, which may at first glance seem to be the **Commission's** domain.

If the **Commission** were to insist on enforcing its competition regime in the space sector, it would substantially and comprehensively interfere with the structure of **ESA** and its space programs.



Competitive Update

NASA

\$19.5 Billion

esa

\$7.08 Billion

RKA

\$3.04 Billion

EU

\$2.93 Billion

CNSA

\$1.30 Billion

FINAL THOUGHTS & MOVING FORWARD



It is clear however, that after understanding the development of European space policy and these particular programmes, improvements towards policy are needed to foster market competition across Europe

The next step is to conduct a market research evaluating the space manufacturing industry. All findings and relevant analysis will be addressed in the form of an academic journal, highlighting the areas for improvement regarding a stable regulatory framework.

A further review will be given on BREXIT concerning the United Kingdom's relationship with the European space market. It will highlight the relevant areas of the British economy that will be affected by its independence from European satellite technology.



I.
Basics
&
Fundamentals

II.
Legislators
&
Operators

III.
Observations
&
Conclusions

EUROPEAN SPACE POLICY