

Regulating space data management. Quo vadis?

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Facts

- Space data has become a vital issue for our life.
- Usage of space data increases every year
- Number of industries dependent on space data increases:
 - Space industry
 - ‚Earth‘ industries
- New challenges develop
 - cyber threats
 - warlike situations
 - artificial intelligence
- The space data are of transboundary nature
- No consistent regulatory framework exist ?



Start from ,Why'

- (Access to) data should be managed and protected
- It should be ensured that the data remains secure and is used in a responsible and ethical way
- Use of data should be enhanced (by public administration)
- Access and protection of data is a part of the fundamental rights system

Charter of Fundamental Rights of the EU:

- the right for private life,
- the protection of personal data,
- the right to intellectual property,
- the freedom of arts and science
- the freedom to conduct business.



Questions

Space law questions:

- Do Space Data Management constitute part of the space law ?
- How much space law in space data management?
- Do Space Treaties apply to the space data management ?
- Do soft law measures adopted by the United Nations fulfill the purpose for which they were designed ? (e.g. UN Resolution on Remote Sensing)

General law questions:

- Do we need special **space** data law regime ?
- Can we search existing ,earth law' regulations to apply ?
- Can we create horizontal regulation including **space** data management ?

What is the key of SDM regulation?

**Data protection /
cybersecurity / human
rights: right to privacy**

**Intellectual property
rights [copyright]**

**Access to data:
“The value of data lies in
its use and re-use”**

Liability for damage

Space law ?

**Other fields of
law ?**

International level

- Space Treaties
- UN Resolution on Remote Sensing
- ITU guidelines & principles
- Paris Convention for the protection of IP 1883
- Berne Convention for the protection of Literary and Artistic Works - 1886
- WIPO Copyright Treaty 1996
- TRIPS Agreement 1994

Regional level [EU]:

- GDPR (personal data)
- Open data Directive
- Non-personal data flow Directive



National laws:

- Germany
- USA
- Canada

Industrial practices & standards:

- [e.g.] GEOSS – set of data management principles: *discoverability, accessibility, usability, preservation, curation.*
- **ISO standards**

Hazy space law ? [I: principles and obligations]

- Art. I OST
- The exploration and use of outer space, including the Moon and other celestial bodies, shall be carried **out for the benefit and in the interests of** all countries, irrespective of their degree of economic or scientific development, and shall be the province of all mankind.
- Art. XI OST
- In order to promote international cooperation in the peaceful exploration and use of outer space, **States Parties to the Treaty conducting activities in outer space**, including the Moon and other celestial bodies, **agree to inform the Secretary-General of the United Nations as well as the public and the international scientific community, to the greatest extent feasible and practicable, of the nature, conduct, locations and results of such activities**. On receiving the said information, the Secretary-General of the United Nations should be prepared to disseminate it immediately and effectively.

- Are these provisions applicable to space data management ?
- Is this obligation still binding ?

Hazy space law ? [II: authorization & liability regime]

- Art.VI OST
- States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the Moon and other celestial bodies, whether such activities are carried on by governmental agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty.
- The activities of non-governmental entities in outer space, including the Moon and other celestial bodies, shall require authorization and continuing supervision by the appropriate State Party to the Treaty.
- Art.VII OST
- Each State Party to the Treaty (...: launching state), is internationally liable for damage to another State Party to the Treaty or to its natural or juridical persons by such object or its component parts on the Earth, in air space or in outer space, including the Moon and other celestial bodies.

- Are these provisions applicable to space data management ?
- Does the damage caused by space objects mean also the damage caused by the data generated by the satellite?

European ,space' versus horizontal approach

Space approach

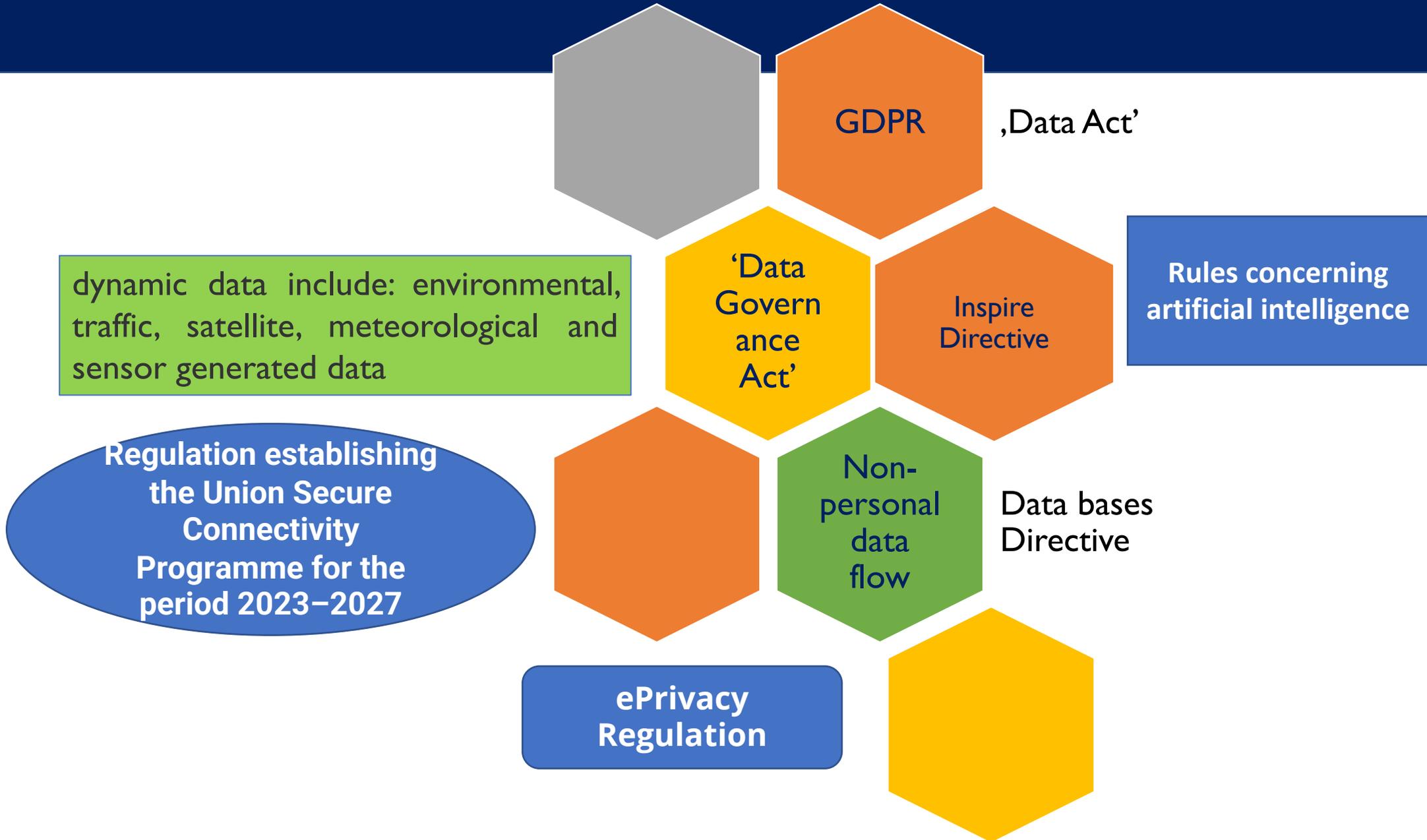
- possibility of adopting the framework of SDM on the European level ?
- the competence of the EU to establish the legal framework
- type of the instrument suitable for that purpose.

Under Article 189 TFEU, the EU is empowered:

(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 harmonization of the laws and regulations of the Member States.**

European ,space' versus horizontal approach



European ,space' versus horizontal approach to data governance

Data Governance Act

- creating trust in data sharing, making it safer and easier as well ensuring it is in line with data protection legislation.
enabling **data collected in some public sector areas** to be better used.
- creating common **European data spaces** for important areas: **health, environment, energy, agriculture, mobility, finance, manufacturing, public administration and skills**.
- establishing new rules for **data marketplaces** sharing **data for the benefit of society** (data altruism).
- creating an alternative to big data platforms that have access to a mass of data.

Data Act

- removing issues standing in the way of **reusing industrial data**.
- clarifying who can use such data and under which conditions.
ensuring access to the data generated by entities using connected devices - and the right to share such data with third parties.
protecting micro-enterprises and small and medium-sized enterprises from unfair terms in data-sharing contracts imposed by stronger companies.
- **preventing competitors from retro-engineering services**
- strengthening provisions to protect trade secrets.
- increasing safeguards against unlawful access to non-personal data held in the EU.
defining access to privately held data by public sector bodies (if necessary in emergencies or natural disasters).

Institutional aspects of space data management

- creating an independent body entrusted with the competence within SDM

or

- vesting in specific powers to the existing institutions
- EUSPA ?
- COPUOUS ?
- ICAO ,-like' ?



European Data
Protection Board
(EDPB)



ENISA, the EU Agency
for cybersecurity

Conclusions

- Weak chances for adopting an international comprehensive framework
- Focusing on the consistency of the national regulation within the EU or applying the Data Governance Act / Data Act, etc.....
- Working on technical standards and good practices
- Proposing declarative document [by ESA/ EU] regulating basic principles: *'Space Data Management Accords'* to the international community ?

Open questions

It is not the philosophers with their theories, nor the lawyers with their formulas, but the engineers with their inventions that make law, and especially the progress of law

Albert de la Lapardelle

<https://www.mentimeter.com/app/presentation/alg9dyfchrqjwvuydwqwpv3vd6wrv2nf>

Your opinion:

- Is SDM part of space law ?
should we?
- **Struggle for an international treaty on:**
 - dedicated space law regime ?
 - horizontal framework ?
- **Focus on European regime:**
 - Space-related regime
 - Include SDM in European Strategy for Data
- Working on good practices
- We need just guidelines and good lawyers ?