Beyond SDI – Evolution Towards the Green Deal Data Space

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Anticipate

Integrate

Impact

JRC mission

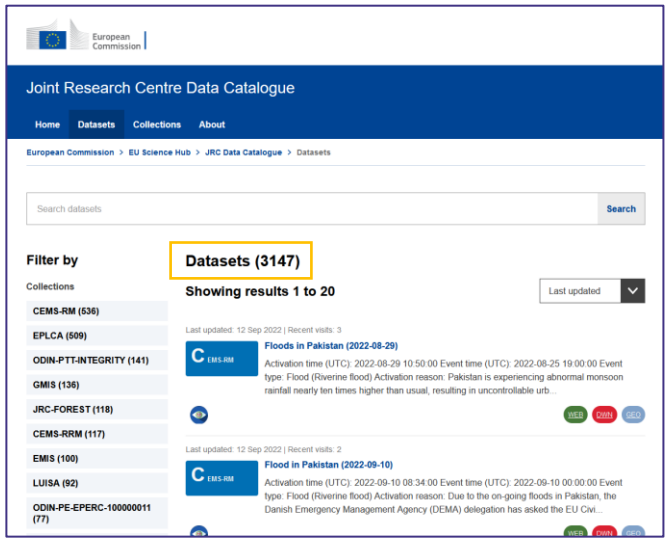
As the science and knowledge service of the European Commission our mission is to support EU policies with independent evidence throughout the whole policy cycle.

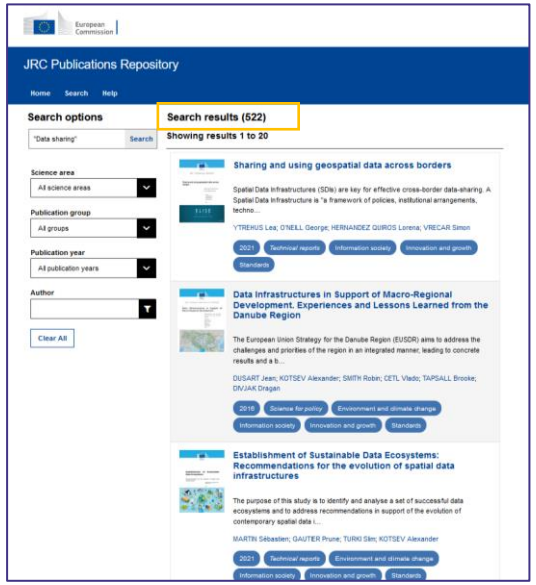
We are **independent**, **policy neutral** + work for **30 EC policy departments**.

European Commission

Data sharing @ JRC?

- JRC is a **provider** and **consumer** of data
- Own **data assets**
  - Science for policy mandate
  - 3000+ datasets
  - 500+ publications on data sharing
  - Own Big Data infrastructure (BDAP)
  - Corporate data-sharing culture incl. dedicated DG data strategy
  - Prominent role in standardisation initiatives
  - Coordinating Member State working groups (incl. INSPIRE)





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- Directive entered into force in 2007
  - Technical and governance framework
  - Data: 90000+ datasets documented through metadata
  - exposed through services, some are harmonised
- Community
  - 7000+ data providers
  - Close collaboration with open source communities, SDO and academia
- JRC is the technical coordinator

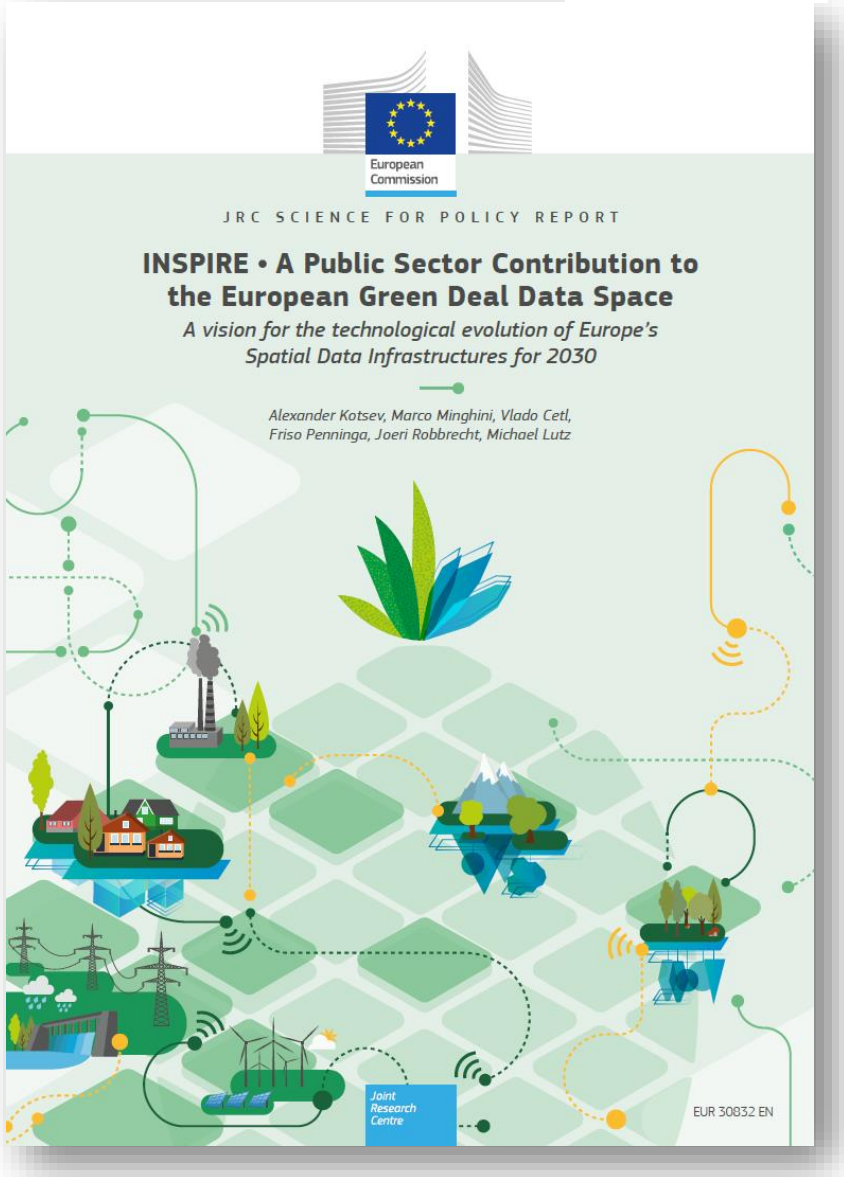
JRC Science for Policy Report

- Content roughly divided in 2 parts:
  - intro to INSPIRE
  - implementation state of play
  - lessons learnt

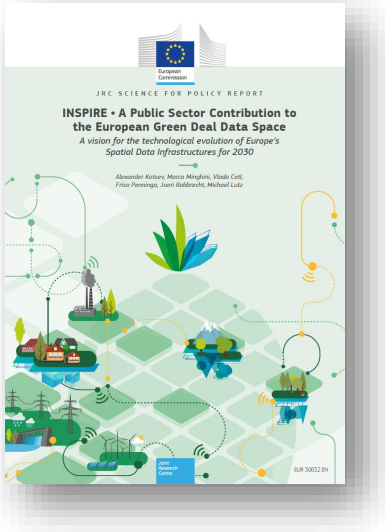
PAST

  - policy context
  - technology trends
  - vision & actions

FUTURE



INSPIRE – the benefits



- Change of mind set towards open data and data sharing
- Improved efficiencies on the national level
- Enabler of open source technology
- Impact on standardisation
- A health community

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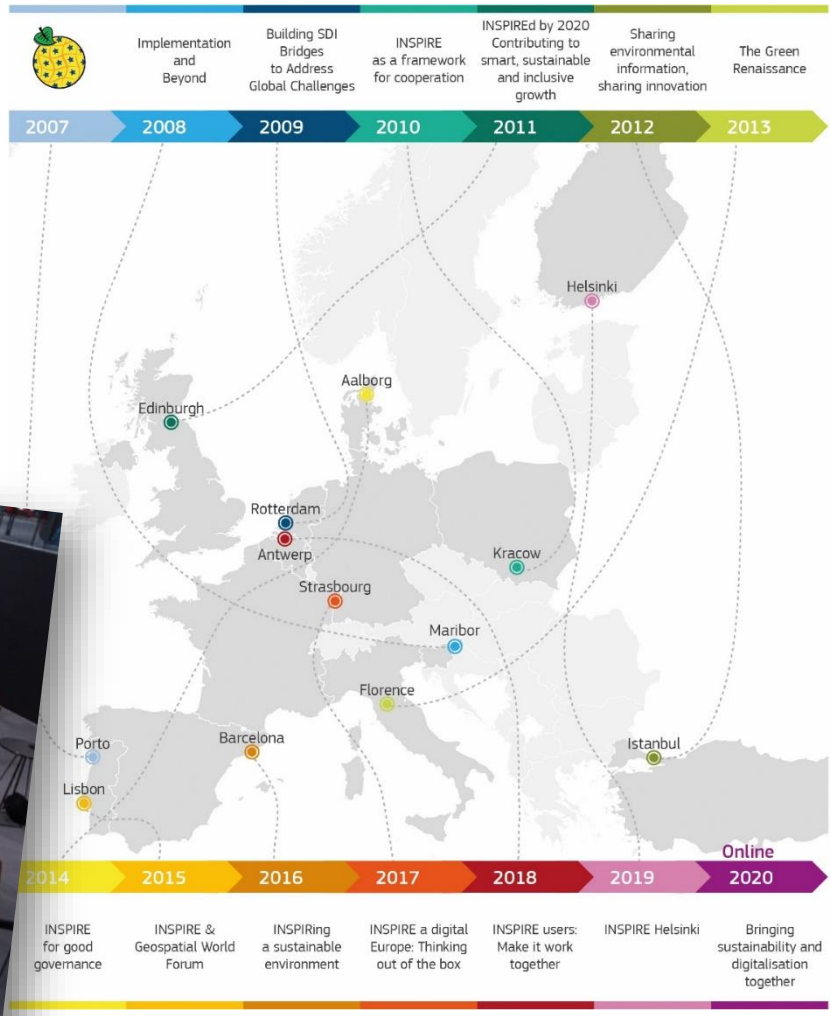
A technical infrastructure is only as good as the social infrastructure underpinning it



INSPIRE - where we fall short

- Provider/public sector centrism
- Hardcoding of technical aspects in legislation
- Overly complex specifications
- Strong influence of specific standards
- Custom extensions
- Parallel implementations
- No evidence of who is using what and why

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Our vision

- Data sharing is not a goal in itself. To remain fit for purpose, INSPIRE should support data-driven decision-making and innovation.
- To be sustainable, INSPIRE should 'blend in' with the broader ecosystem of spatial and non-spatial data, infrastructures, technologies and policies.
- This will mean opening up to a broader community of implementers and users and to a wider range of applications and use cases.
- Making the INSPIRE framework more flexible and agile will significantly lower the entry level to the sharing and utilisation of data.
- Technical approaches need to be simplified by reusing well-adopted standards and technologies.

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Actions

- Legal

1. Avoid overspecification in legislation
2. Use a simple licensing framework

- Organisational

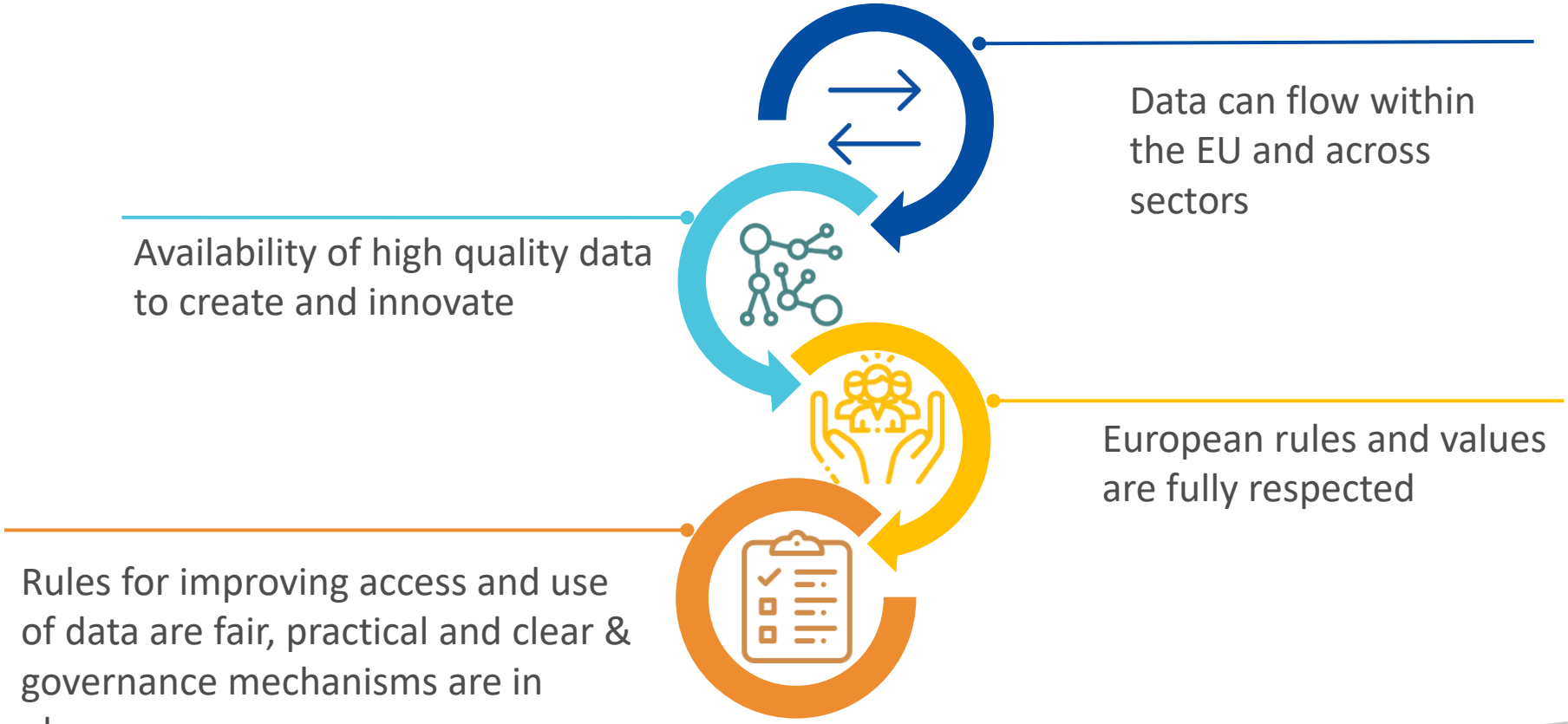
1. Embrace co-design by default
2. Rethink the existing governance structures
3. Adopt an ecosystem approach

- Technological

1. Continue to improve the discoverability and accessibility of data
2. Ensure neutrality and embrace well-adopted standards and technologies
3. Avoid custom extensions
4. Embrace well-documented, standard-based APIs
5. Optimise data for search engines
6. Leverage on the developments of federated European cloud infrastructure

Policy context - European strategy for data

Creating a common European data space, a single market for data



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The European Common Data Space

The European single market for the exchange, provision and use of data.
A network of stakeholders, tech, rules, and agreements.
All who provide or use data are part of the data space

Sectoral data spaces

Green Deal

Agriculture

Energy

Mobility

Public sector

Finance

Health

Skills

Manuf.

Data applications and services

Applications and services using use data from and share data to the dataspace, and abide by its agreements.

Stakeholder single market interaction

All stakeholders sharing, using and exchanging data are de facto part of the data space. Building on the underlying interoperability, standards and aligned rules.

Sectoral data spaces

Standards and common practices within sectors

General data space governance

Generic data governance, interoperability and standards

Networked Technology

Federated cloud services

GEONOVUM

Horizontal legal framework

1. Data Governance Act

- Build trust in data sharing.
- Data altruism, data intermediation.
- Data interoperability.

2. Digital Markets Act

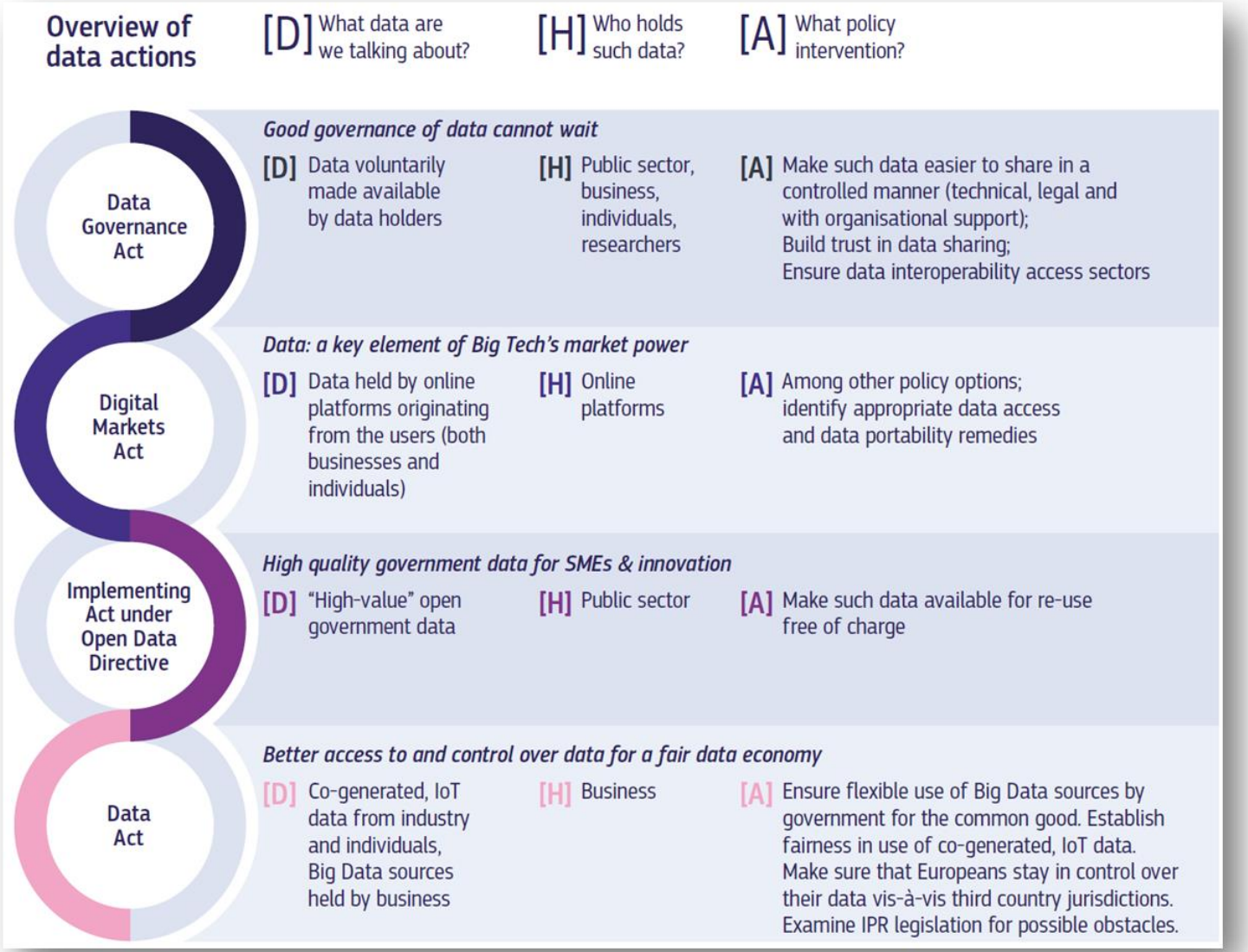
- Data portability.
- Regulate practices of ‘gatekeepers’.

3. Implementing Act - Open Data Directive

- Increase data availability and access.
- Reduce heterogeneity in licensing.

4. Data Act

- Increase data availability to foster innovation / Incentivize data generation.
- Fair access to and use of data.
- Data sovereignty.



Source: adapted from European Commission:

What role for Geospatial in Data spaces?

- Options

  A) A geospatial data space

  B) Contribution to domain-specific data spaces

  - *Geospatial value proposition*
    - Build on existing assets, data, community and practices
    - Interoperability based on location
    - Powerful analytical and visualisation capabilities

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Discussion – governance

- Data governance should become more inclusive
  - From FAIR to CARE (Collective Benefit, Authority to Control, Responsibility, Ethics)
  - Level playing field for smaller actors
  - New actors should participate
    - Prominent role of data altruism and data intermediaries
    - Communities of users and early adopters

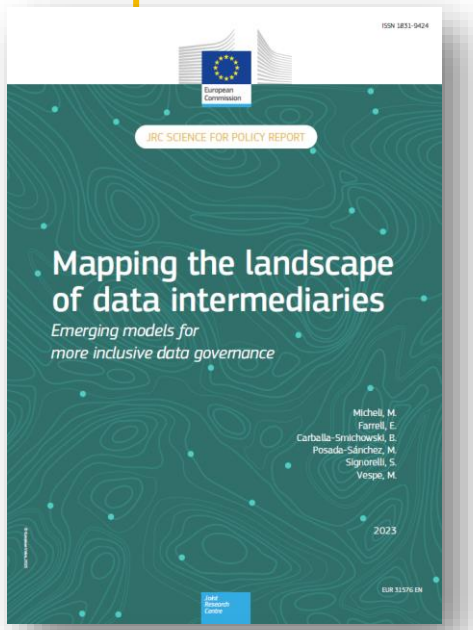
Discussion – technical

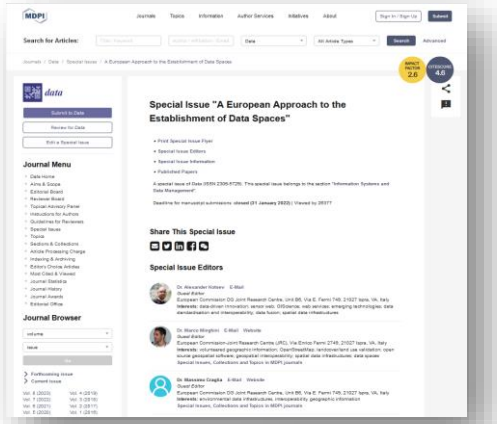
- New KPIs
  - Beyond dataset counting
  - Measure utility & impact
  - Unused data is a cost
- From data sharing to data visiting
  - Potential for use of PET
- What role for Generative AI?

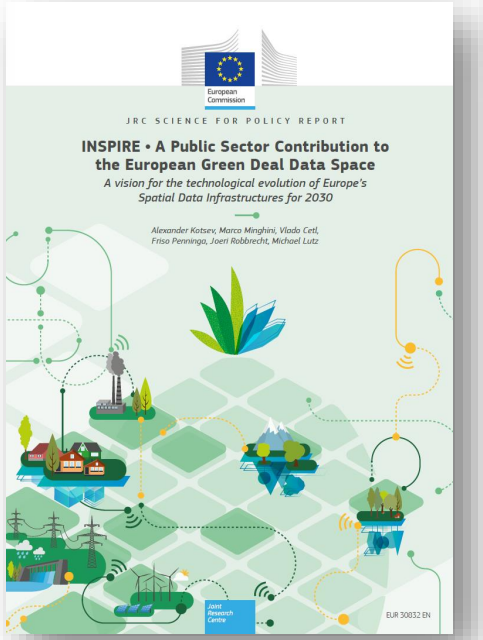
A few expectations from the workshop

- Towards a shared vision for the way forward, principles, development pathways
- Community of practice on (geospatial) data ecosystems
- Joint statement/position paper?

Some recent works







Thank you