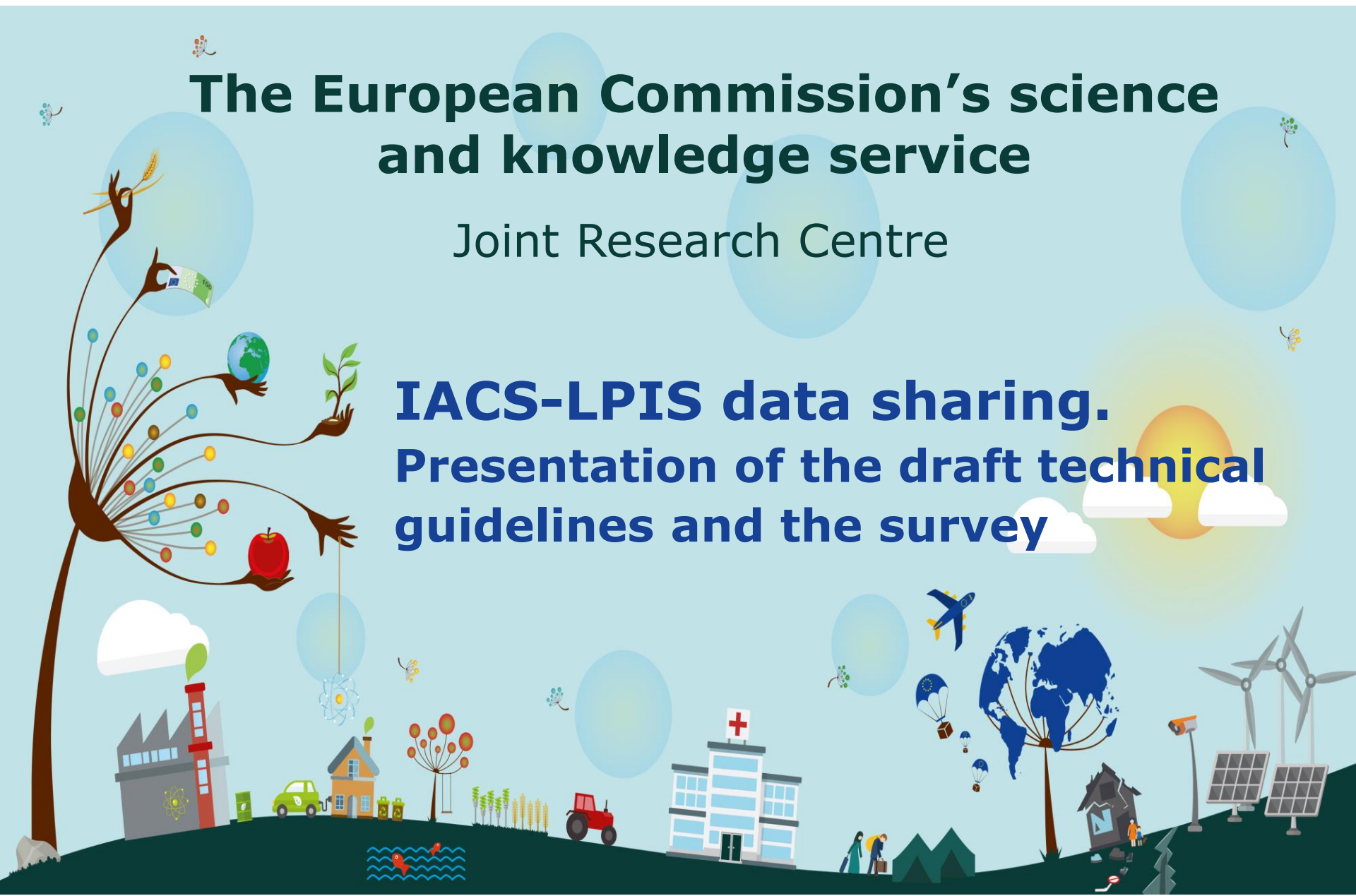


The European Commission's science and knowledge service

Joint Research Centre

**IACS-LPIS data sharing.
Presentation of the draft technical
guidelines and the survey**



Outline

- Technical baseline for data sharing
- Status of the technical guidelines
- Results of the survey
- Action plan

Technical baseline for IACS spatial data sharing (1)

Data sharing is the ability to access and use the same data resource by multiple applications or user, which may happen

- Directly (client controlled architecture)
- Through intermediate clients, such as geoportals (server controlled architecture)

Rules of INSPIRE apply

- Data discovery is implemented by discovery services and discovery metadata
- Scope of discovery metadata:
 - Datasets
 - Services
- Governance rules
 - Data remain at the sources
 - Agreements on shared elements of the infrastructure (code lists, registers)

Reuse good practices of the IACS/LPIS community

- Metadata used for LPIS QA
- Good practices of the MS that already share data (survey)

Implementation feasibility

- Stepwise
 - Discovery first
 - Data (view, download services and eventual data harmonisation) at later stage
- Consider costs and benefits (metadata and data pilots)

Technical baseline for IACS spatial data sharing (3)

- Scope of discovery metadata on data:
datasets
- Dataset: identifiable collection of data that share common properties (specification)
- Spatial datasets of IACS:
 - LPIS
 - GSAA
- No need for metadata
 - at the level of feature types (layers), such as
 - Reference parcel
 - EFA
 - Agricultural area
 - or at their instances and subtypes
 - an individual RP, or an EFA type (buffer strip)

Technical Guidelines on IACS Data sharing

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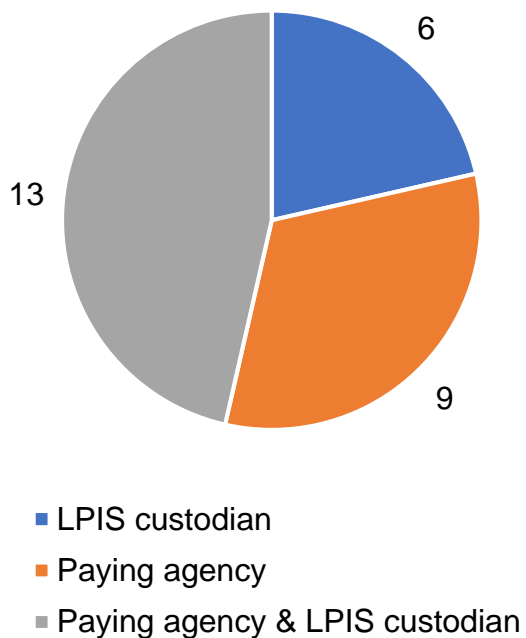
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Survey

Current status of Part 1

- Explanatory parts on
 - Data discovery architectures
 - INSPIRE compliant metadata
- Open questions
 - Which architecture scenarios are acceptable for the IACS/LPIS communities?
 - Are discovery services established at PA/LPIS custodians strictly necessary?
 - How harmonized metadata values could help the pan-European discovery of IACS spatial data?
 - How metadata elements of LPIS QA can be reused ?

Survey on data discovery



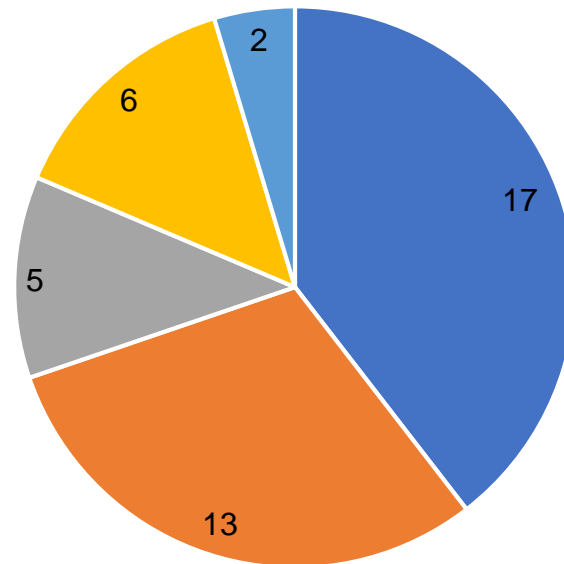
Participation

- 28 organisations
- 21 member states

Discovery architecture

State of the art of data sharing

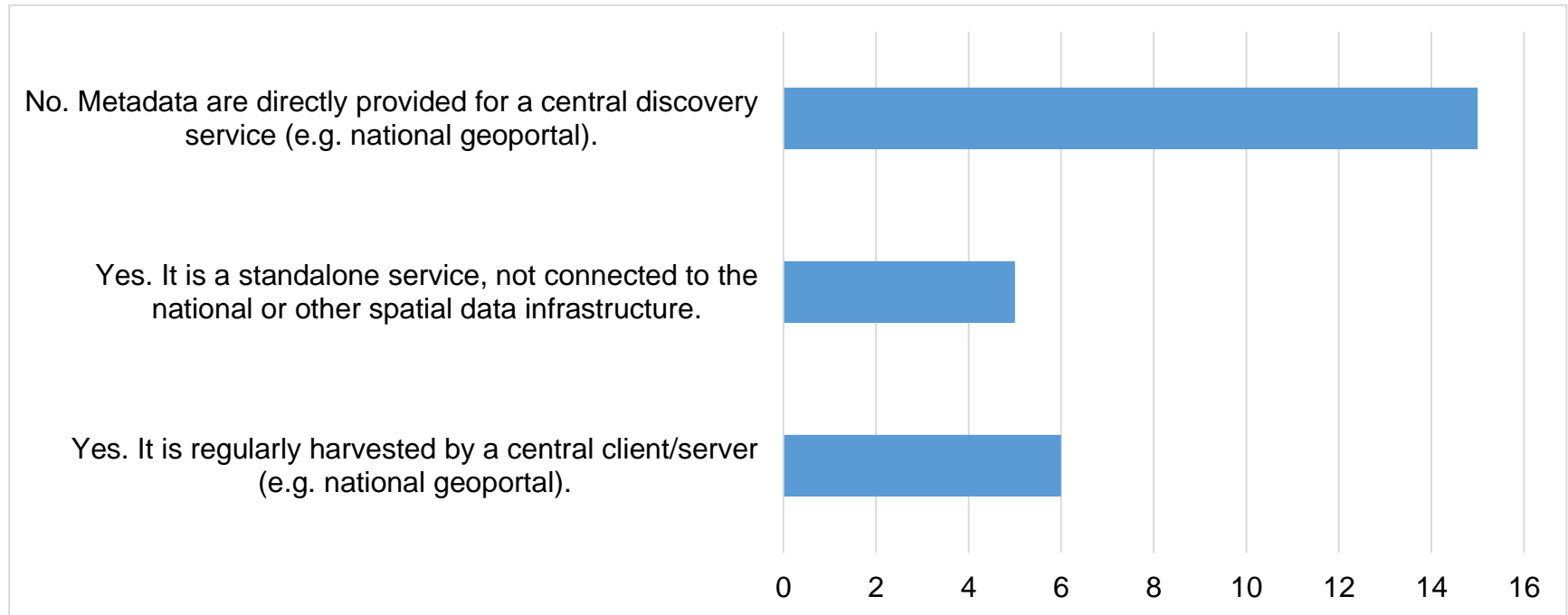
Which channels do you use for IACS spatial data sharing?
(More answers were possible.)



- National geoportal
- Services/systems installed at our organization
- European INSPIRE geoportal
- Other (regional geoportal)
- Currently we do not share data

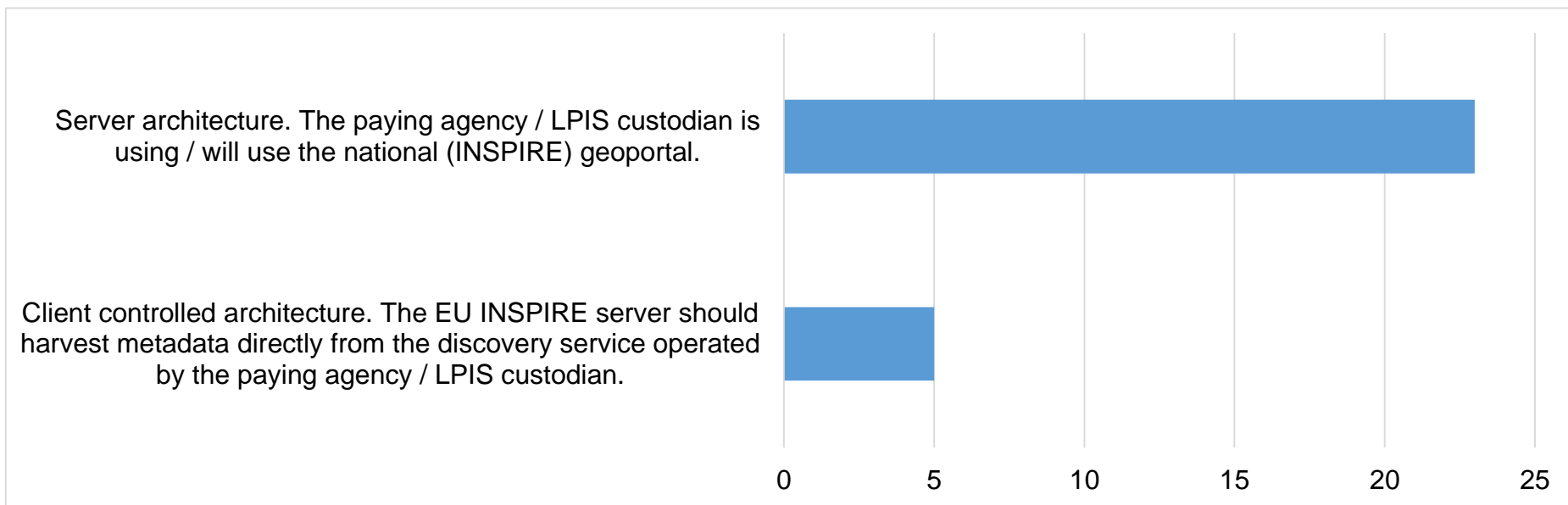
State of the art of the discovery services

Does the paying agency or the LPIS custodian operate a discovery service?

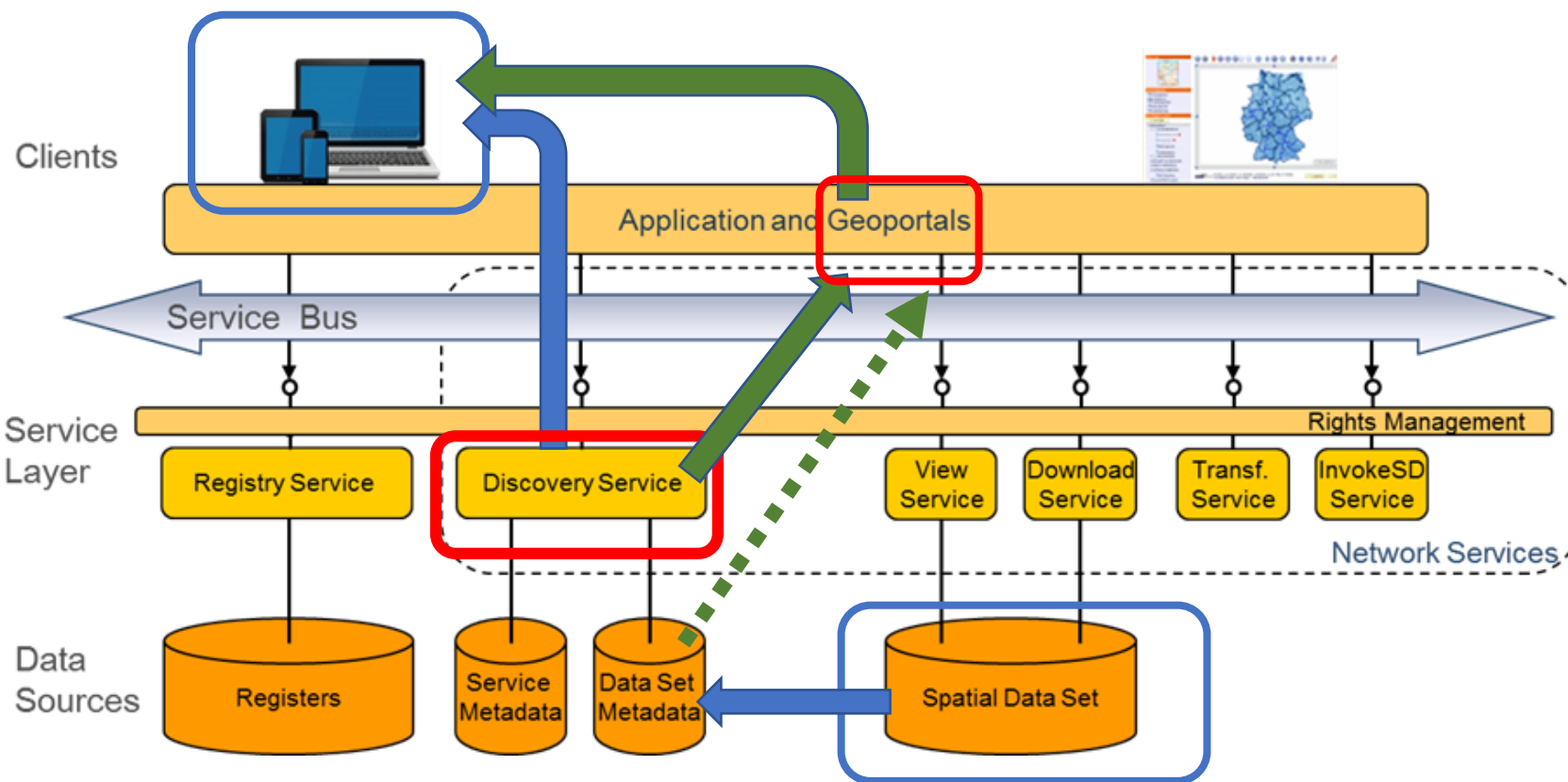


Architecture “whish list”

Which architecture are you following / would follow for sharing spatial data in IACS under INSPIRE?



Conclusion: 2 ½ architectures for INSPIRE collaboration (1)



Source: INSPIRE technical architecture overview

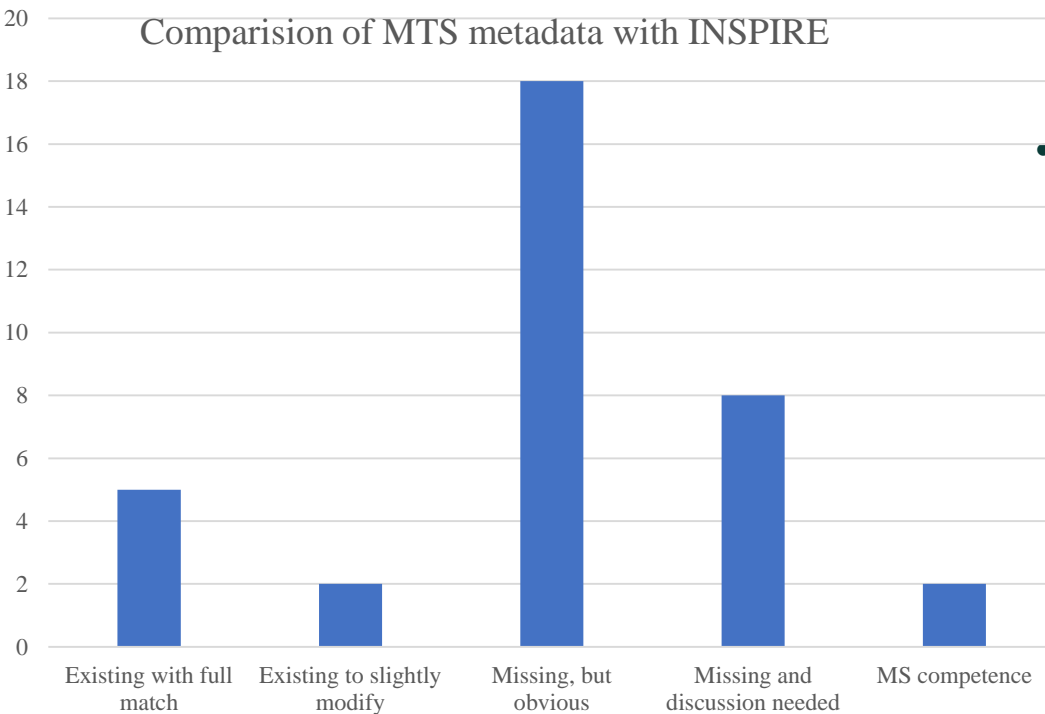
Conclusion: 2 ½ architectures for INSPIRE collaboration (2)

Two (and a half) scenarios of data discovery

- Client controlled
- Server controlled
 - Also with direct metadata supply (no network services towards the national INSPIRE portal)

Metadata values

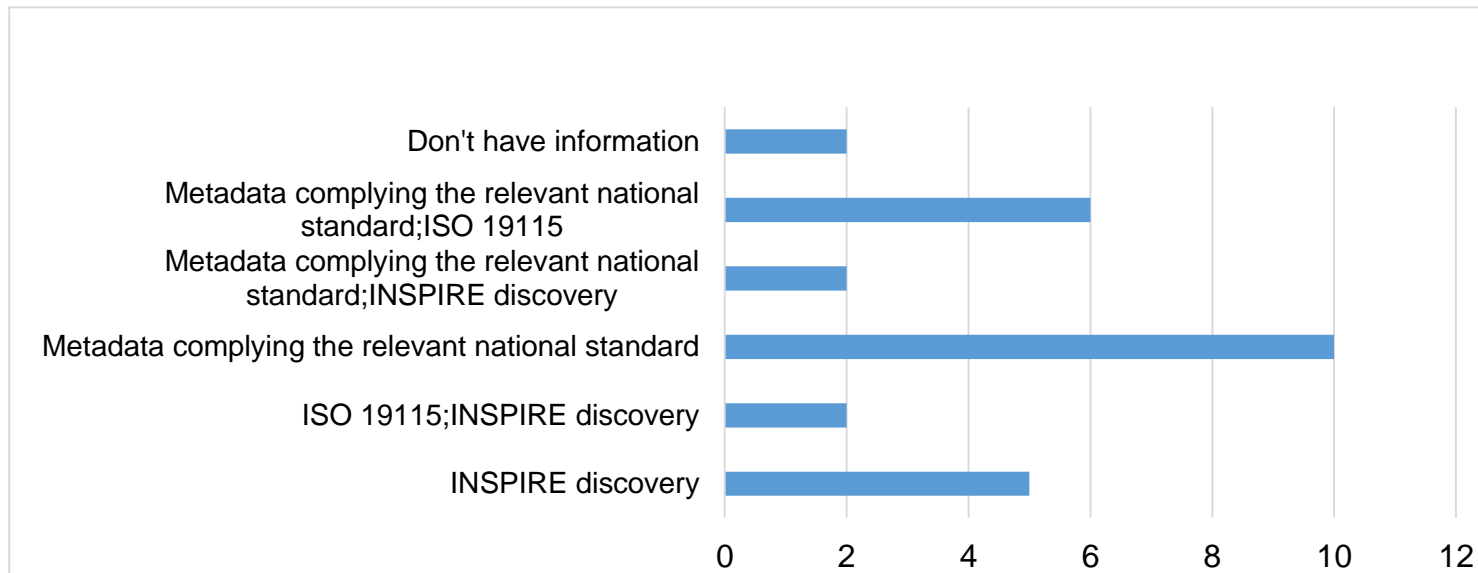
Rational: harmonising metadata values



- The majority of the 33 metadata elements (23) are already existing or are obvious
- Discussions are needed to agree on common values
 - Resource type
 - Unique identifier
 - Keyword value
 - Controlled vocabularies
 - Lineage
 - Specification
 - Coordinate reference systems
 - Topological consistency

Metadata standards in use

What metadata standard do you use for data discovery?
(More answers are possible when the metadata profile complies to more standards.)



- INSPIRE – 9 organisations
- ISO 19115 - 8 organisations
- How much national standards comply to ISO 19115 and/or INSPIRE?

Metadata values

- Many metadata values in INSPIRE belong to code list
- Code list: controlled (list) of possible values that a variable (attribute) can take
- Two governance methods:
 - Centrally controlled
 - Extensible
- In case of extensible code lists
 - The PA/LPIS custodian can add as many values as they retain appropriate
 - Never the less values harmonised across Europe would increase discovery of IACS/LPIS datasets and would strengthen the LPIS brand

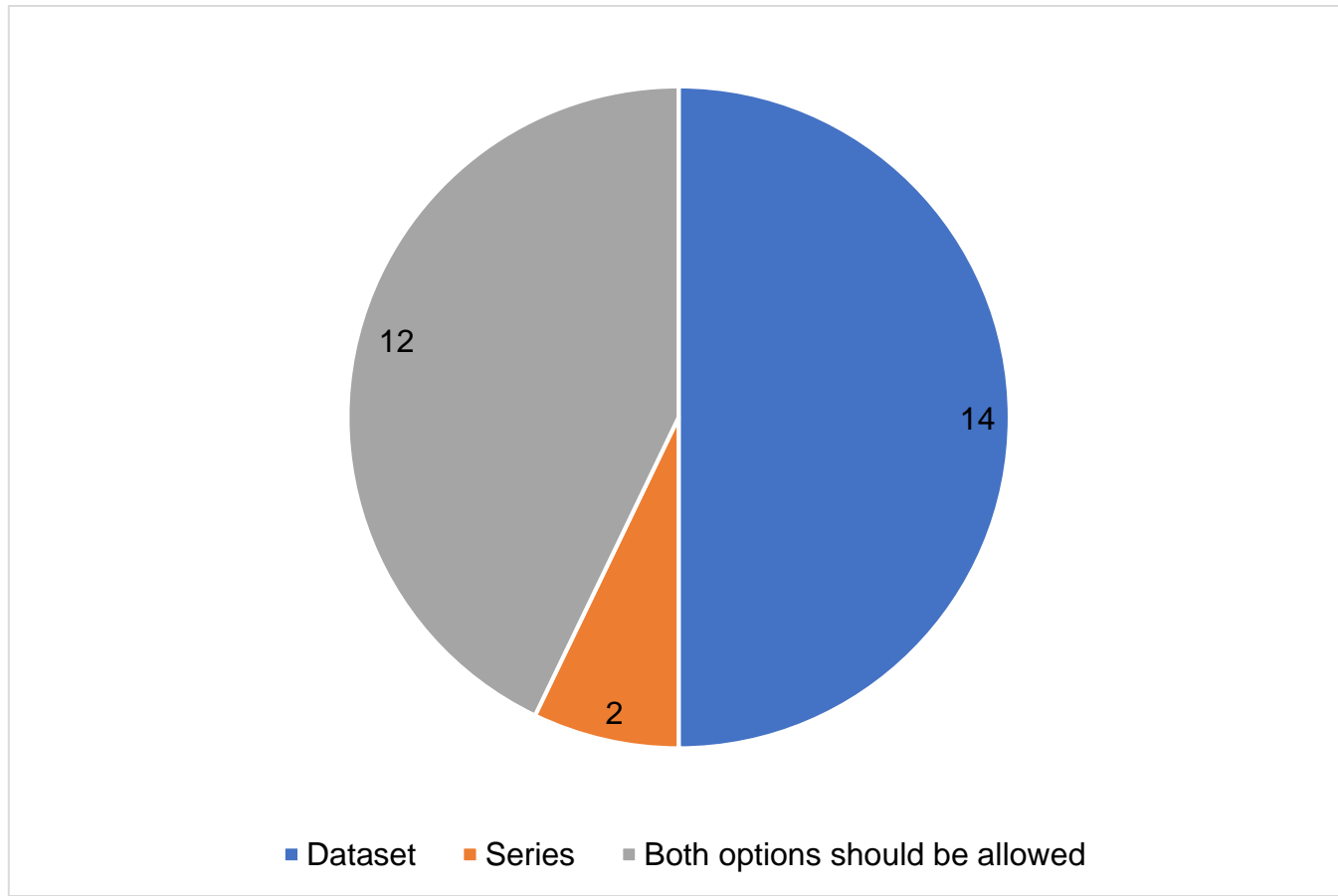
Example of metadata element and the related discussion

Metadata element name	Resource type
Reference	Part B 1.3
Definition	Scope to which metadata applies
ISO 19115 number and name	6. hierarchyLevel
ISO/TS 19139 path	hierarchyLevel
INSPIRE obligation / condition	Mandatory
INSPIRE multiplicity	[1]
Data type (and ISO 19115 no.)	MD_ScopeCode
Domain	CodeList (see annex B.5.25 of ISO 19115)
Example	dataset
Comment	<p>For LPIS the value dataset is recommended.</p> <p>Even though the different editions of the LPIS datasets could be collected in a dataset series, this solution is acceptable only when the various editions share the same properties, comprising conformance, type of orthoimagery input, etc..</p>

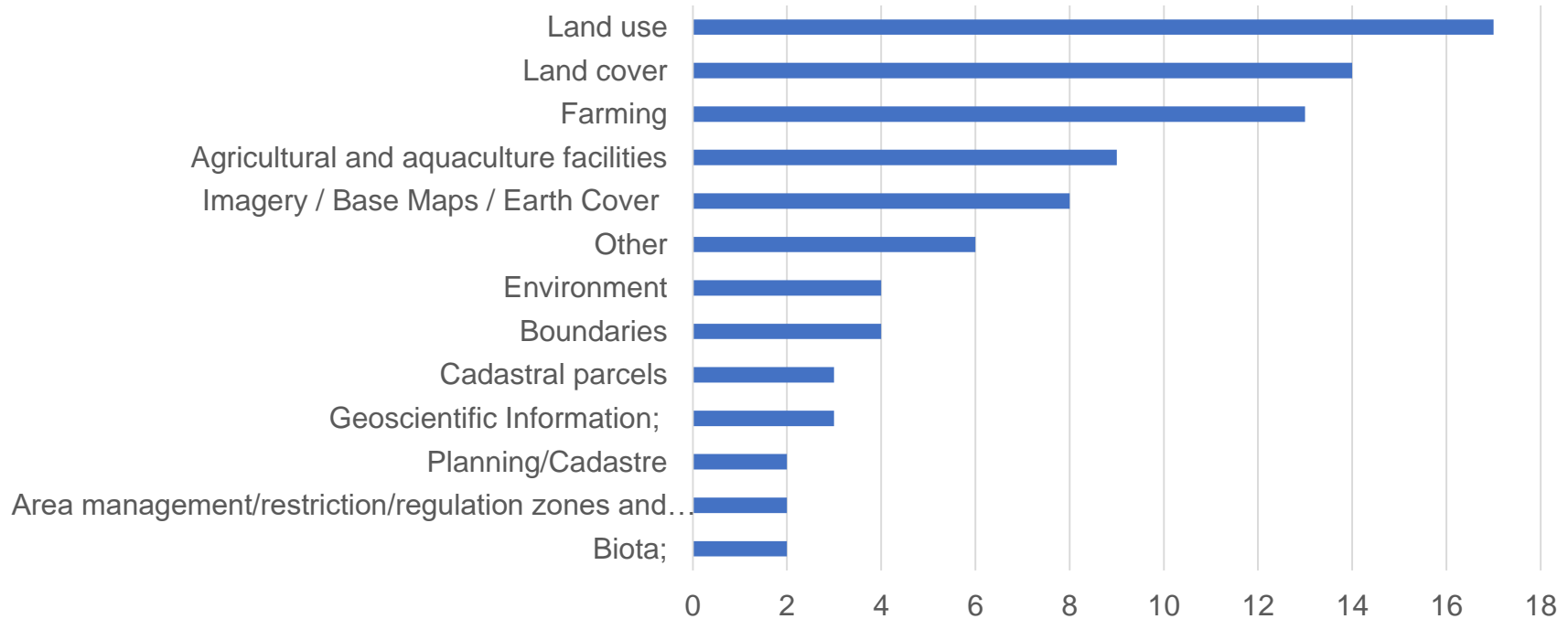
Values of scope

Which value describe the best the scope of the metadata?

- Both options should be possible



Topic category values



- 3 “winner” values

- Land use
- Land cover
- Farming

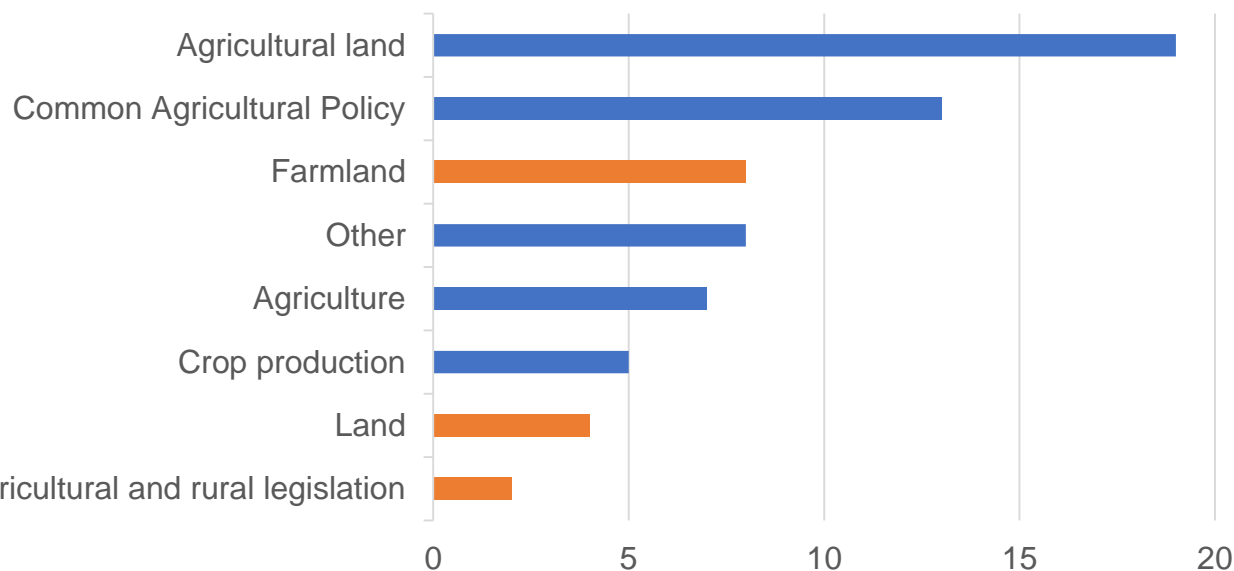
- Preliminary answer to “Which INSPIRE theme”

- TG requirement to use these three?

- additional ones at the discretion of the metadata provider

Values from controlled vocabularies

Which values of **GEMET** and **AGROVOC** describe the best the IACS spatial data?

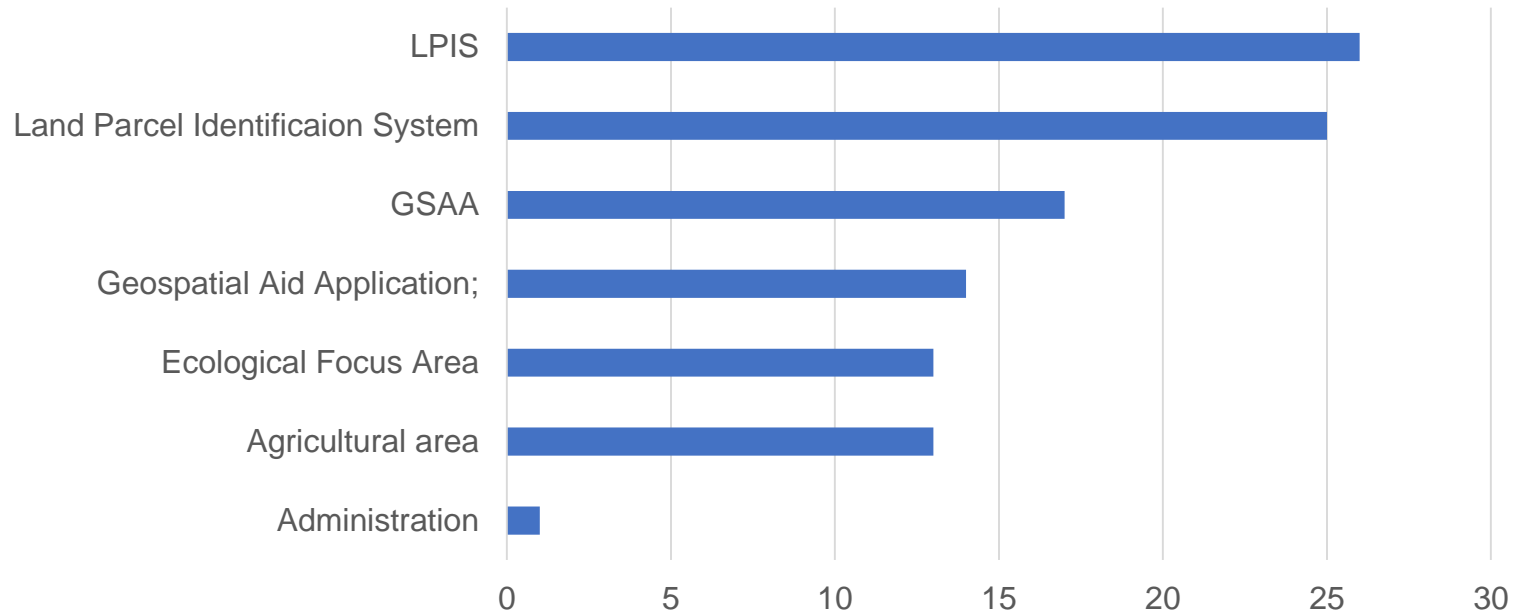


Reply other: categories of R (EU) 1306/2013

- Issue: such controlled vocabulary (register) does not exist
- Solution:
 - Contact the owners of vocabularies for extension (EEA, FAO)
 - Register own vocabulary
 - Use as free keywords

Free keyword values

Which other (free) keywords are relevant?



- LPIS is the “brand” – introduce its use as TG requirement?
- All other keywords (even beyond this list) can be used

Conclusion on metadata

- There is a good convergence between the views of the member states
- The popular values could be proposed as TG requirements (i.e. no legal binding, however this is a bit more than a recommendation.)
- For sake of consistency the TG will be opened for the INSPIRE community for comments
- The TG should be updated based on the outcome of this survey, the eventual comments and the forthcoming metadata pilot

Actions

Actions at EU level

- Prepare a pilot to quantify eventual difficulties and resources needed for creating the metadata elements
- Ask feedback from the IACS and the INSPIRE community
- Update the Technical Guidelines
- Plan second part of the work on data access and interoperability (the final aim of data sharing is this)

At MS level

- Discuss with national INSPIRE contact point the collaboration
- Inquiry which metadata tools are available in your country and what help you can receive for metadata production
- Prepare metadata (after the final version of the TG)

Thank you for your attention

Any questions?



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