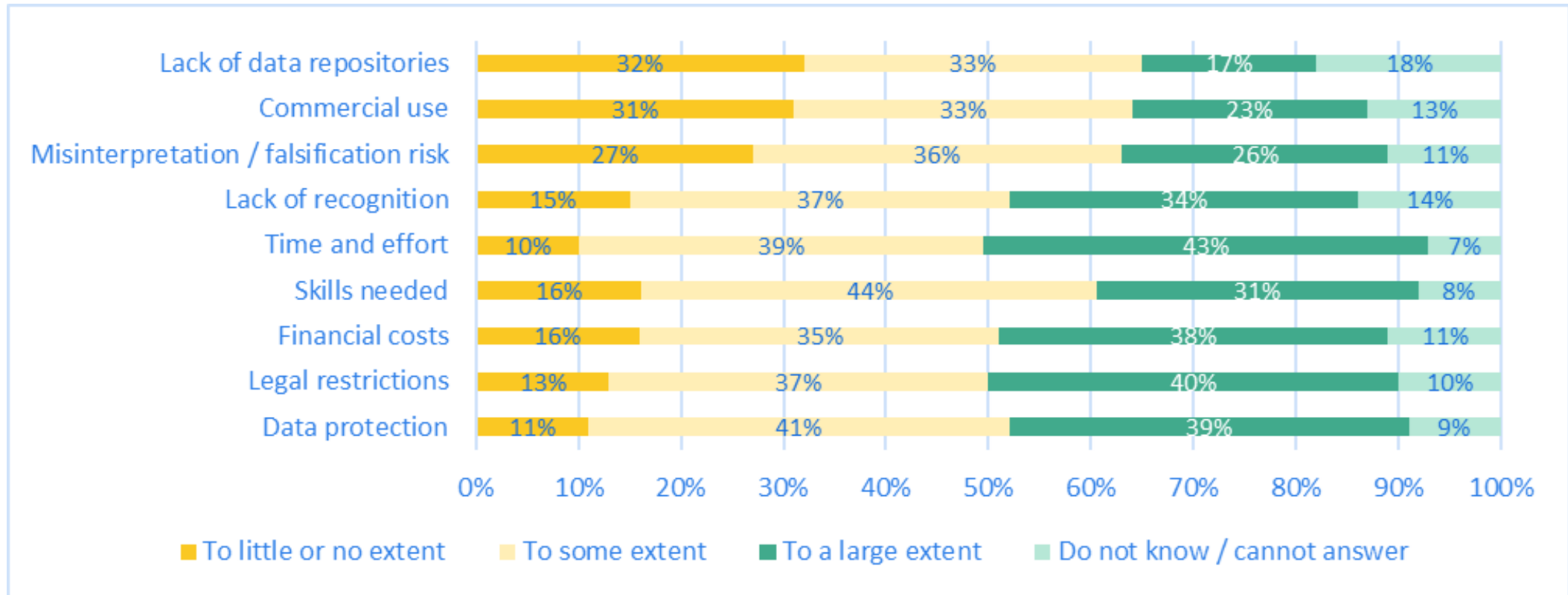


# Open science: a paradigm shift in scientific research

- The **open science** paradigm affects the whole research cycle and all its stakeholders.
- It involves using digital technologies to **unblock information flows** in scientific system.
- It implies sharing knowledge and tools **within** and **between disciplines**, and **society** at large
  - as **early** as possible in the research process
  - as **openly** as possible
  - as “**FAIRly**” as possible

# Barriers

- **Time, effort & financial costs** required for RDM and data sharing are seen as a challenge
- **Data protection and legal restrictions** are also seen as big obstacles
- **Lack of recognition** also seen as a major barrier

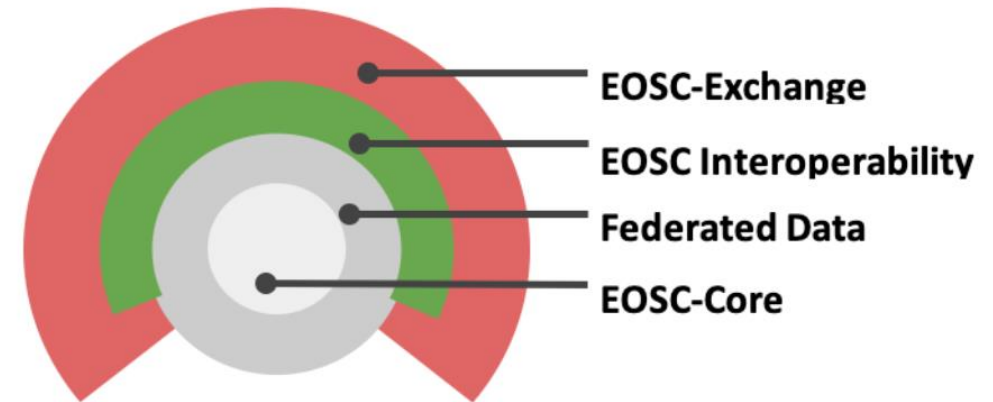


Source: European Research data landscape study 2022 commissioned by the European Commission  
Elaboration by the study performers based on unweighted researchers' survey data. N=9,898 (selected at least one option).

# European Open Science Cloud



- A federation\* of research infrastructures to enable open sharing of scientific results and FAIR research management practices
- Vision: a “**web of FAIR data and services for science**”



\* Identifiers, rules for participation, authentication/authorisation infrastructures, APIs, interoperability framework, search engines, EOSC ‘exchange’, helpdesk...

# Open Research Europe

- Open access to scientific publications, research data, software & other research outputs
- Early and open sharing of research
- Participation in open peer-review
- A vision for a top-quality, trusted pan-European open access publishing service, collectively driven, owned & supported by European research funders and research institutions with no author-facing fees



# Coalition on Advancing Research Assessment



Assessment of research, researchers, and research organisations **recognises the diverse outputs, practices and activities** that maximise the quality of research and resulting impacts.

This requires basing assessments primarily on **qualitative judgement**, supported by **responsible use of quantitative indicators**.

## Signatories agree to:

- Base actions on common **Principles** (from scoping report)
- Implement **10 Commitments** for change, incl. **timeframe** for implementation
- Organise and operate a **Coalition**

# Open Science mainstreaming across Horizon Europe

- **Mandated** (including OA and RDM in line with FAIR) and **recommended** open science practices (including FAIRification of data)
- **Evaluation** of open science under ‘excellence’ and ‘quality of implementation’ award criteria
- **Embedding** open science practices like FAIR data sharing and management and interconnection to EOSC policies and infrastructures in relevant call topics across the programme
- **Flagging** of relevant call topics: ‘EOSC and FAIR data’ and ‘societal engagement’
- **Guidance** on open science practices & reproducibility within the Horizon Europe Programme Guide
- Projects **reporting** on open science practices