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Mapping the use of open data, software and infrastructure in transport research

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Key findings

Open data will benefit science, sharing is still limited

Sharing depends on field of science

Share of open access articles increased

How to make TRC work?

Clear definition of transport research data

High quality metadata (DCAT)

FAIR data (LERU)

Infrastructure for Big Data (OpenAIRE)

Governance

Ethical issues

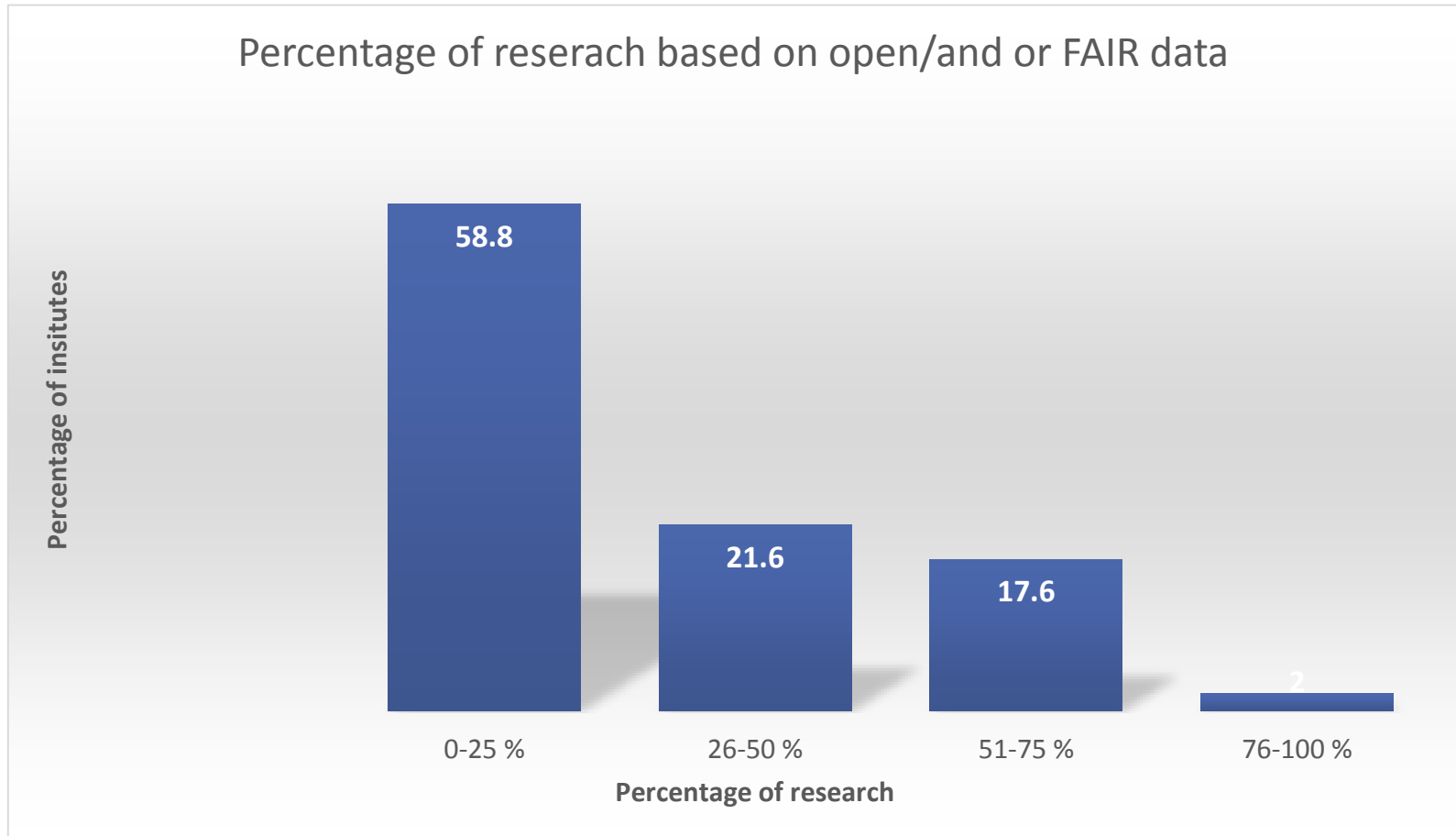
Open and FAIR data

Open data: data that can be freely used, modified, and shared by anyone for any purpose

FAIR data: Findable, Accessible, Interoperable and Reusable

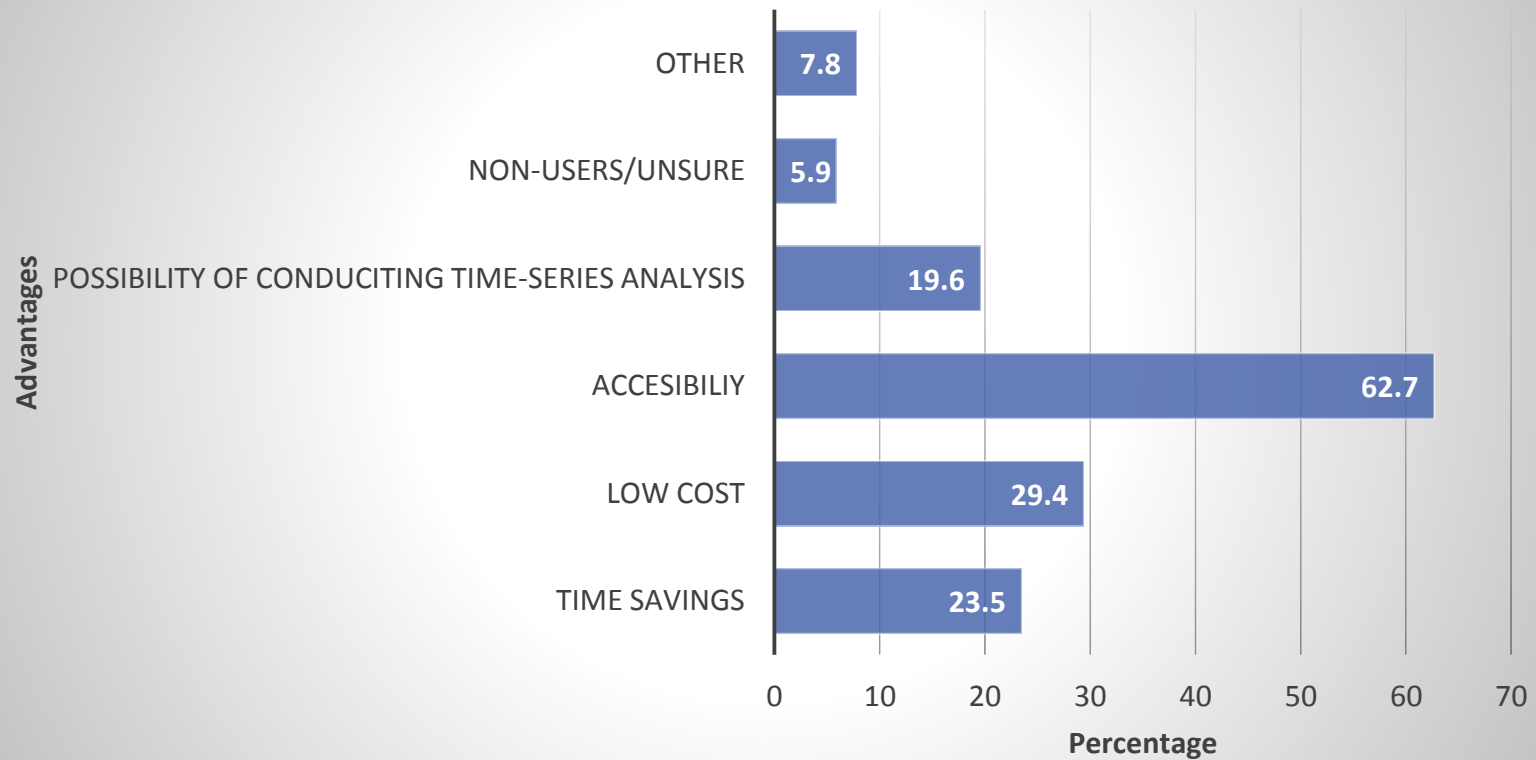
EUROSTAT, OECD library, EU ODP

Research based on open and/or FAIR data (n=51)

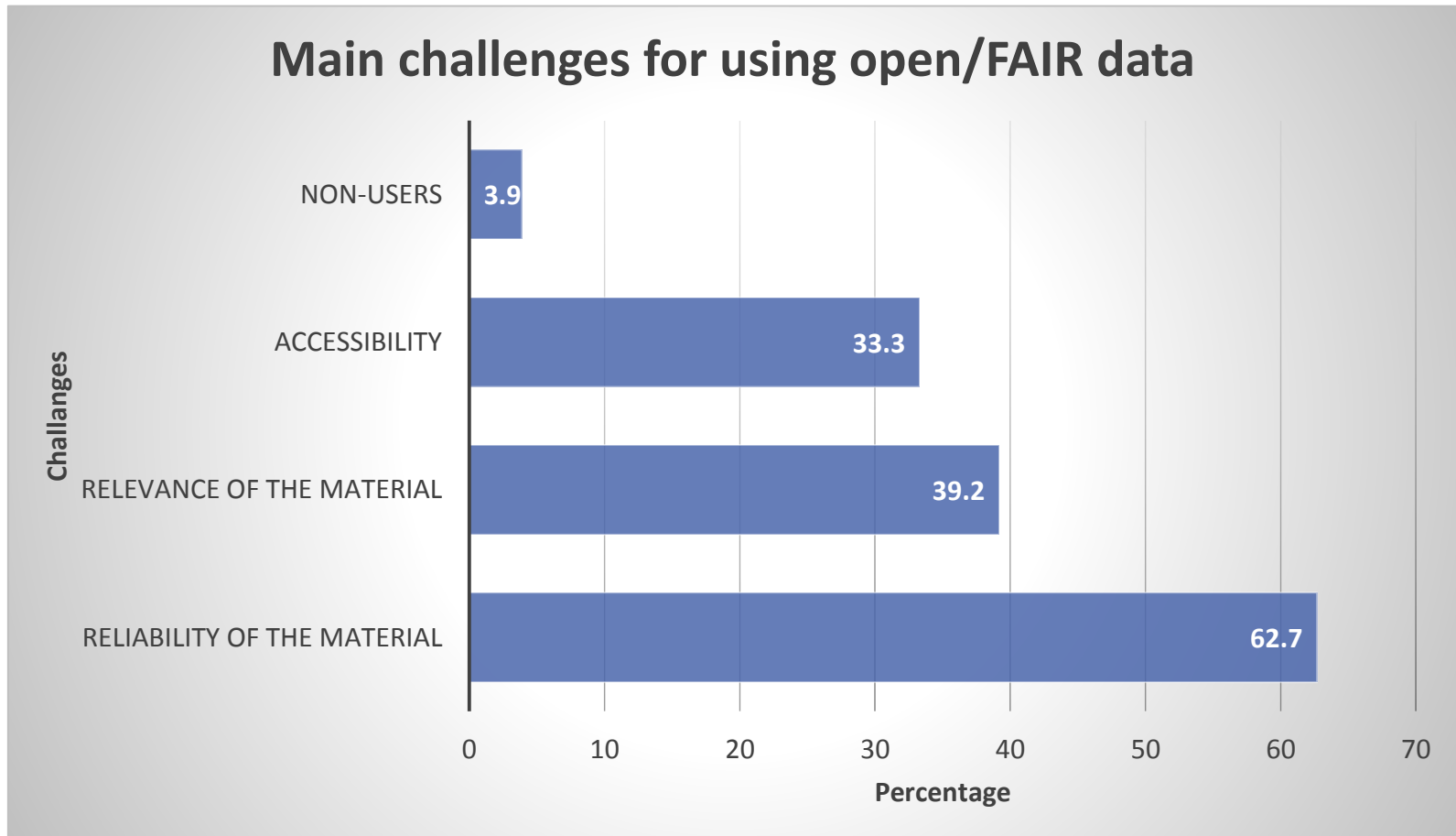


Advantages (n=51)

Main advantages for using open/FAIR data

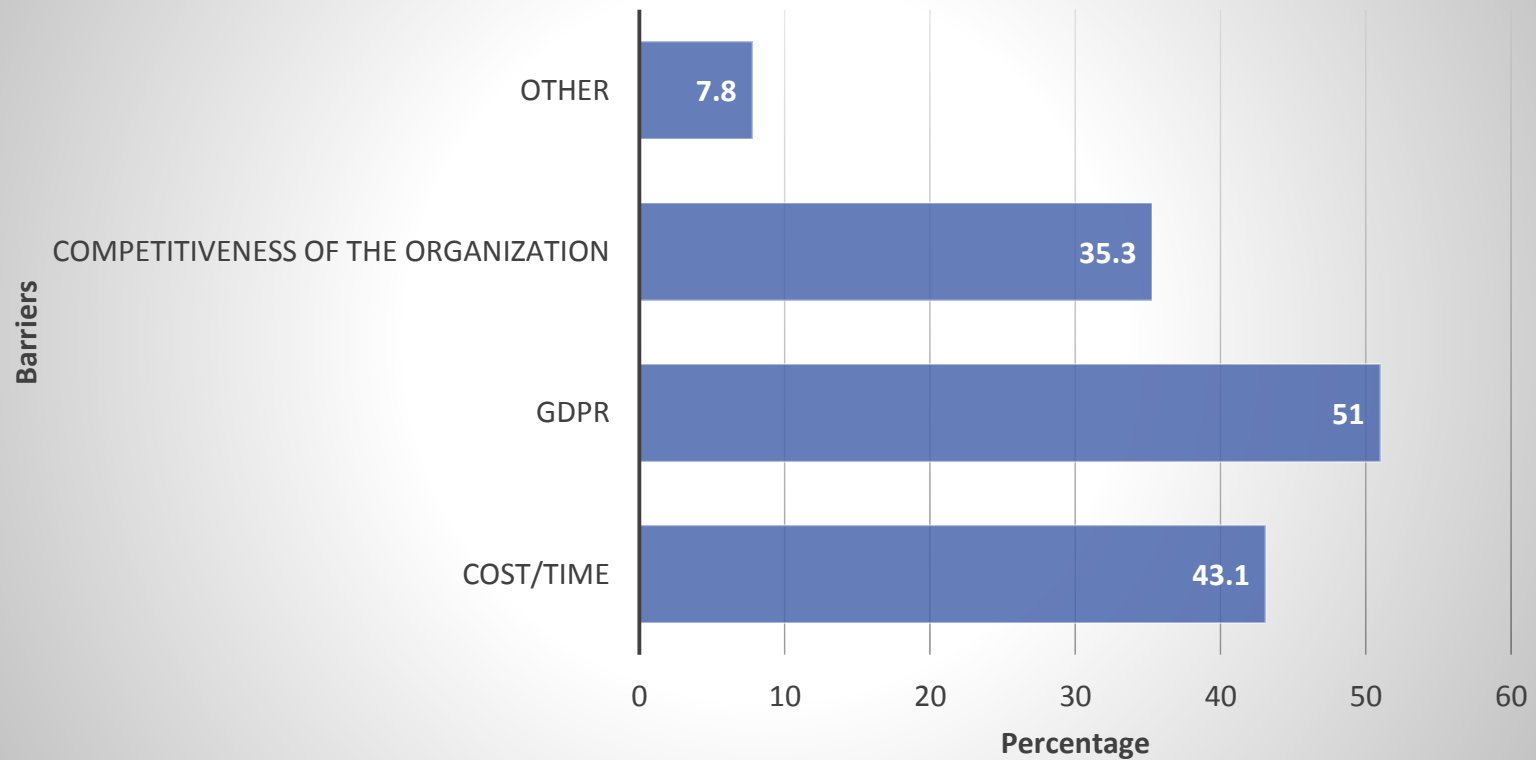


Challenges (n=51)



Barriers for production (n=51)

Main barriers for producing open/FAIR data



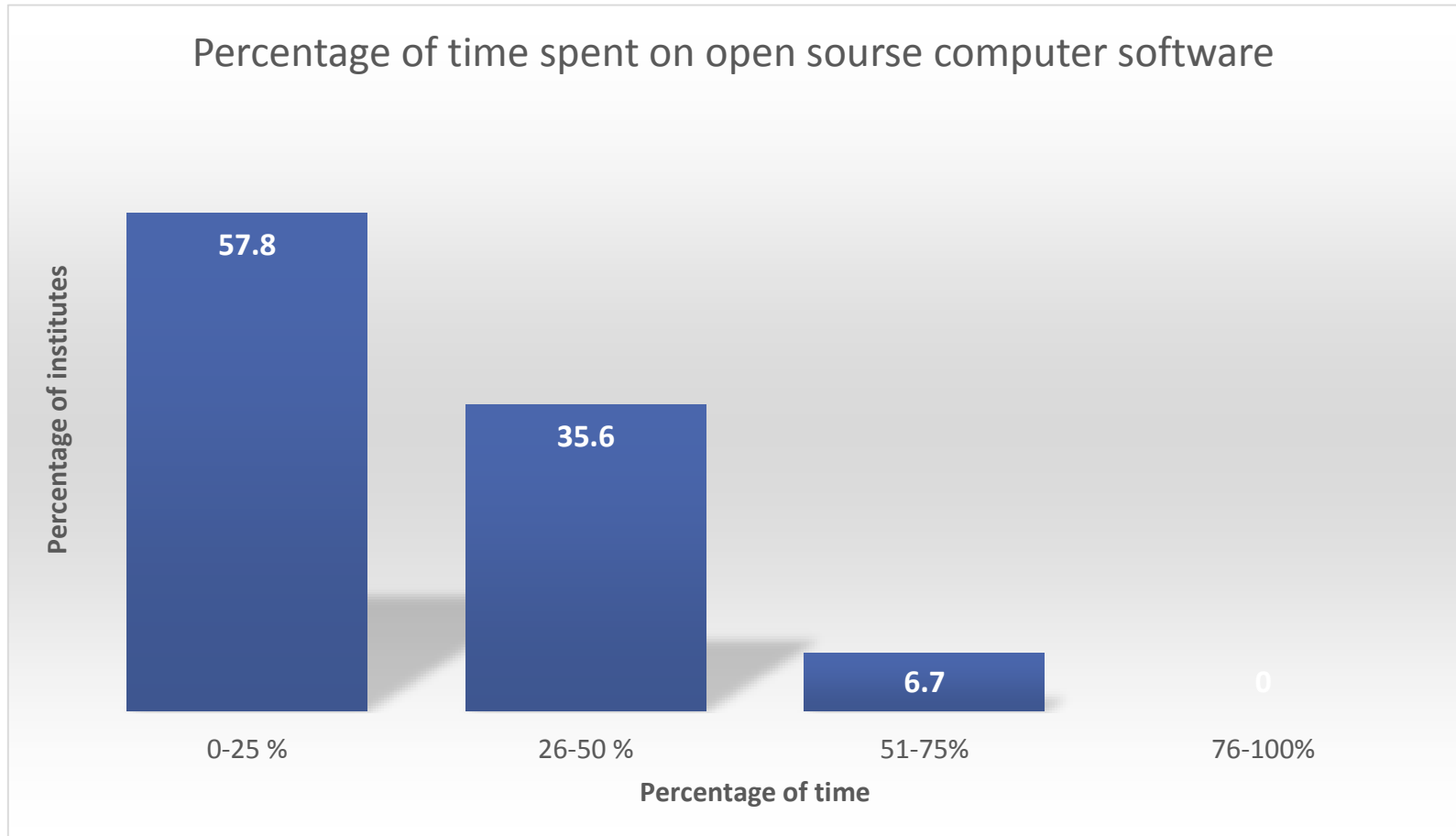
Open software/source

Open source: information sources that can be used, modified and shared by everyone and are publicly available

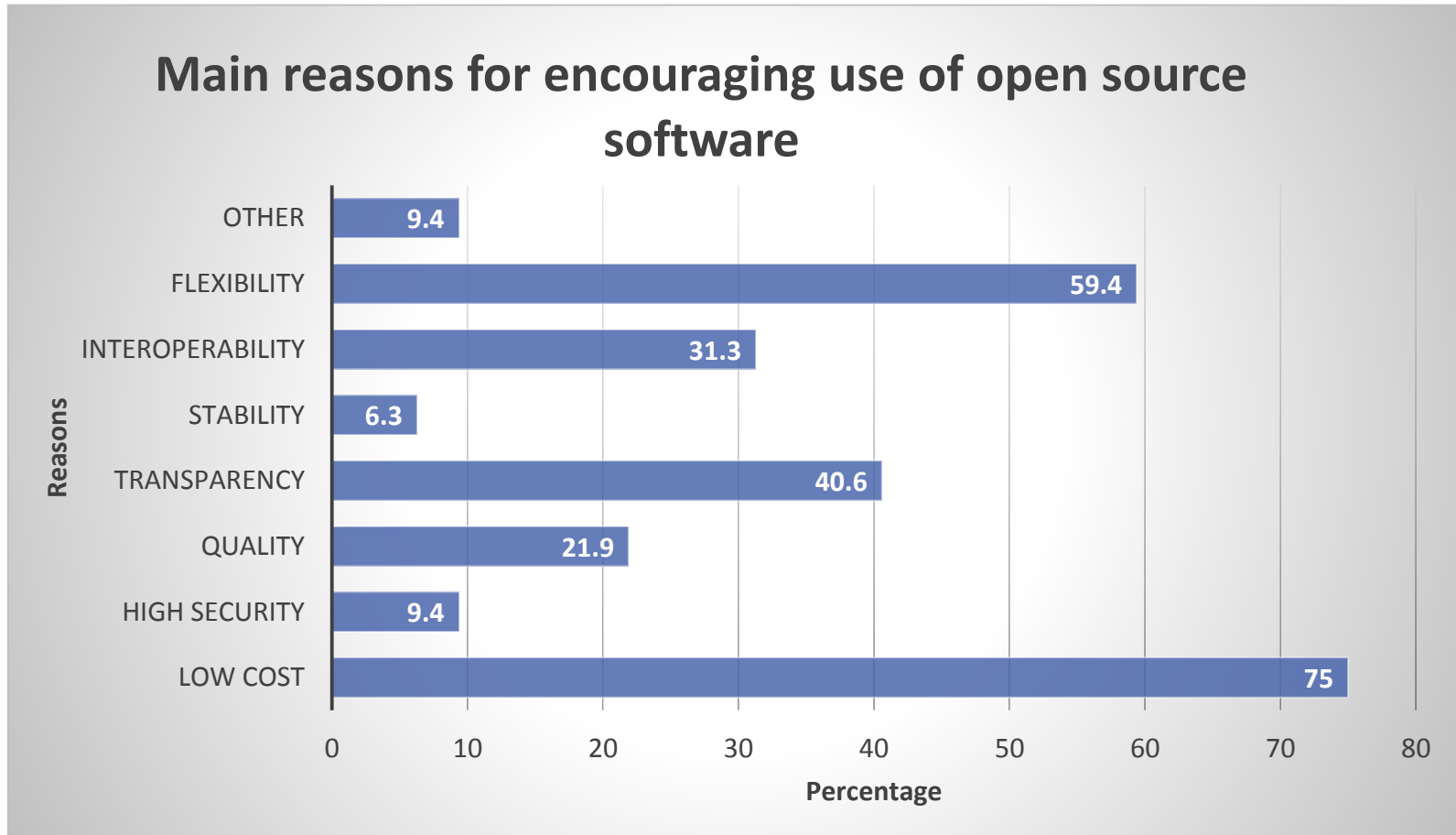
Open source software: software with a source code that anyone can inspect, modify and enhance

Figshare, Github, GitLab

Open software use (n=45)

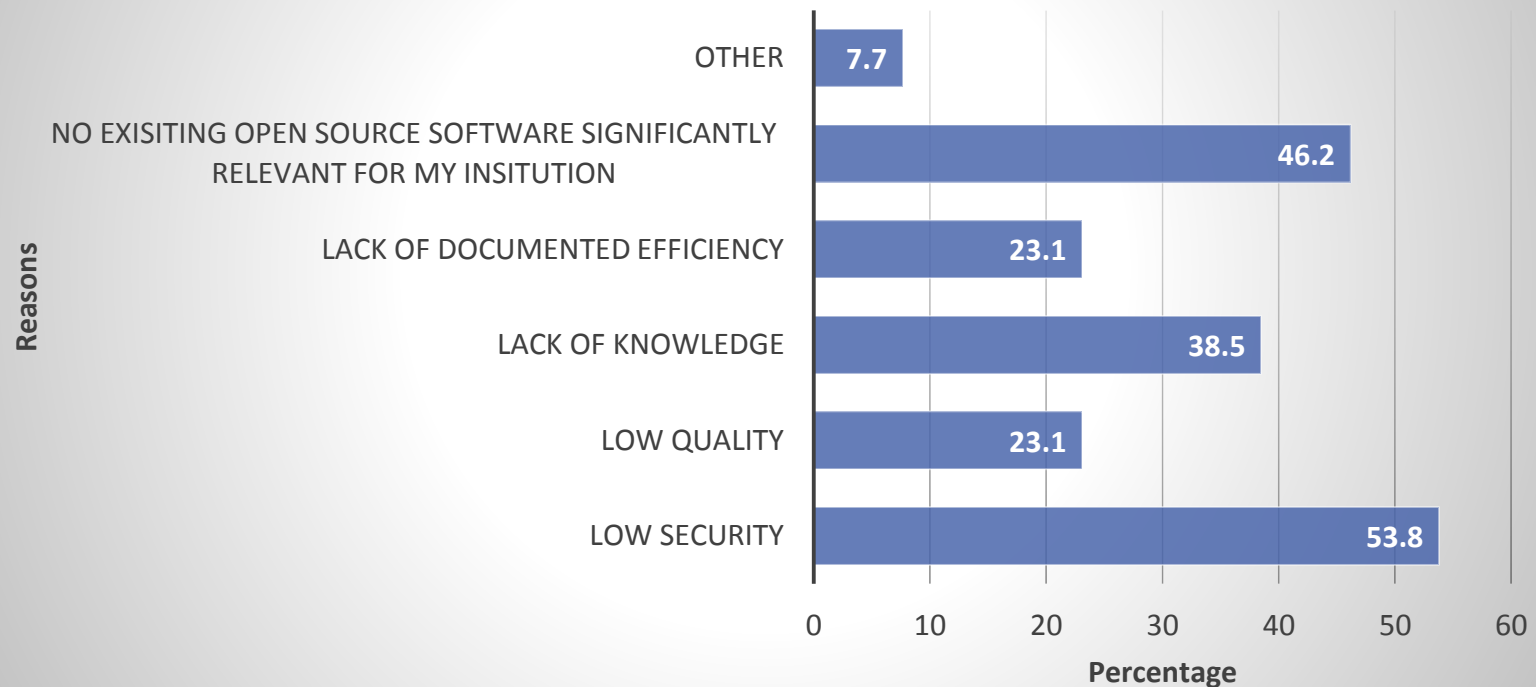


Reasons for using open software (n=32)

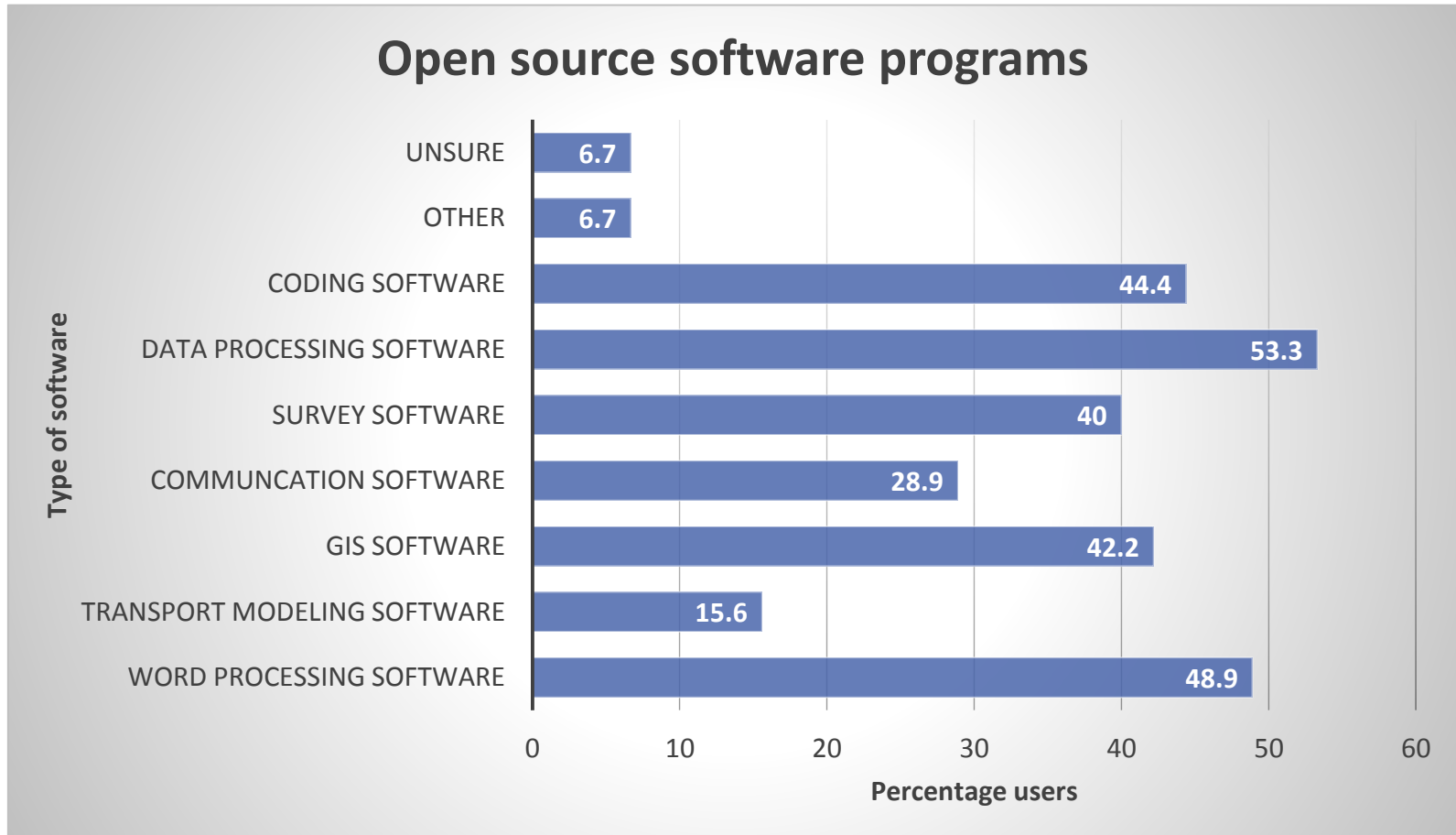


Reasons for not using open software (n=13)

Main reasons for not encouraging use of open source software



Programs used (n=45)



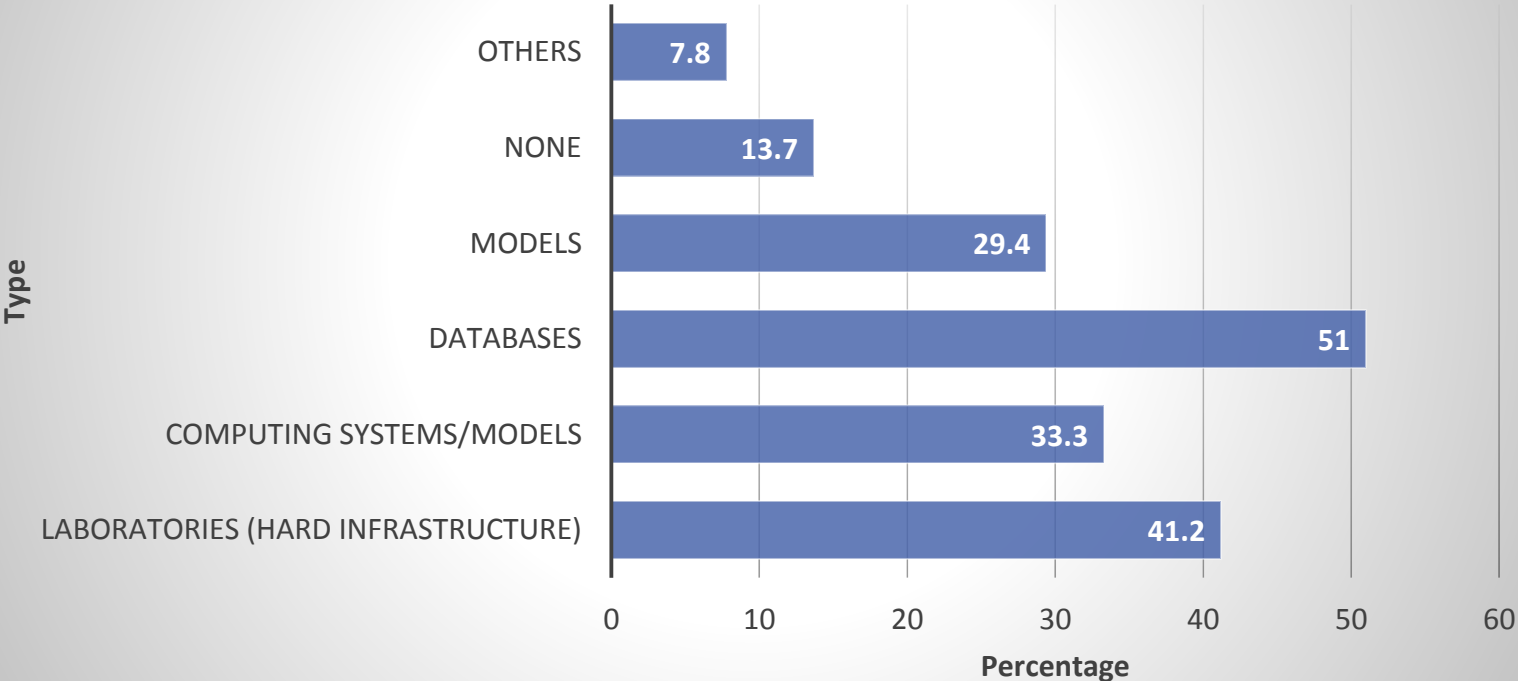
Infrastructure

Facilities, resources
and related service
that is used
collaboratively

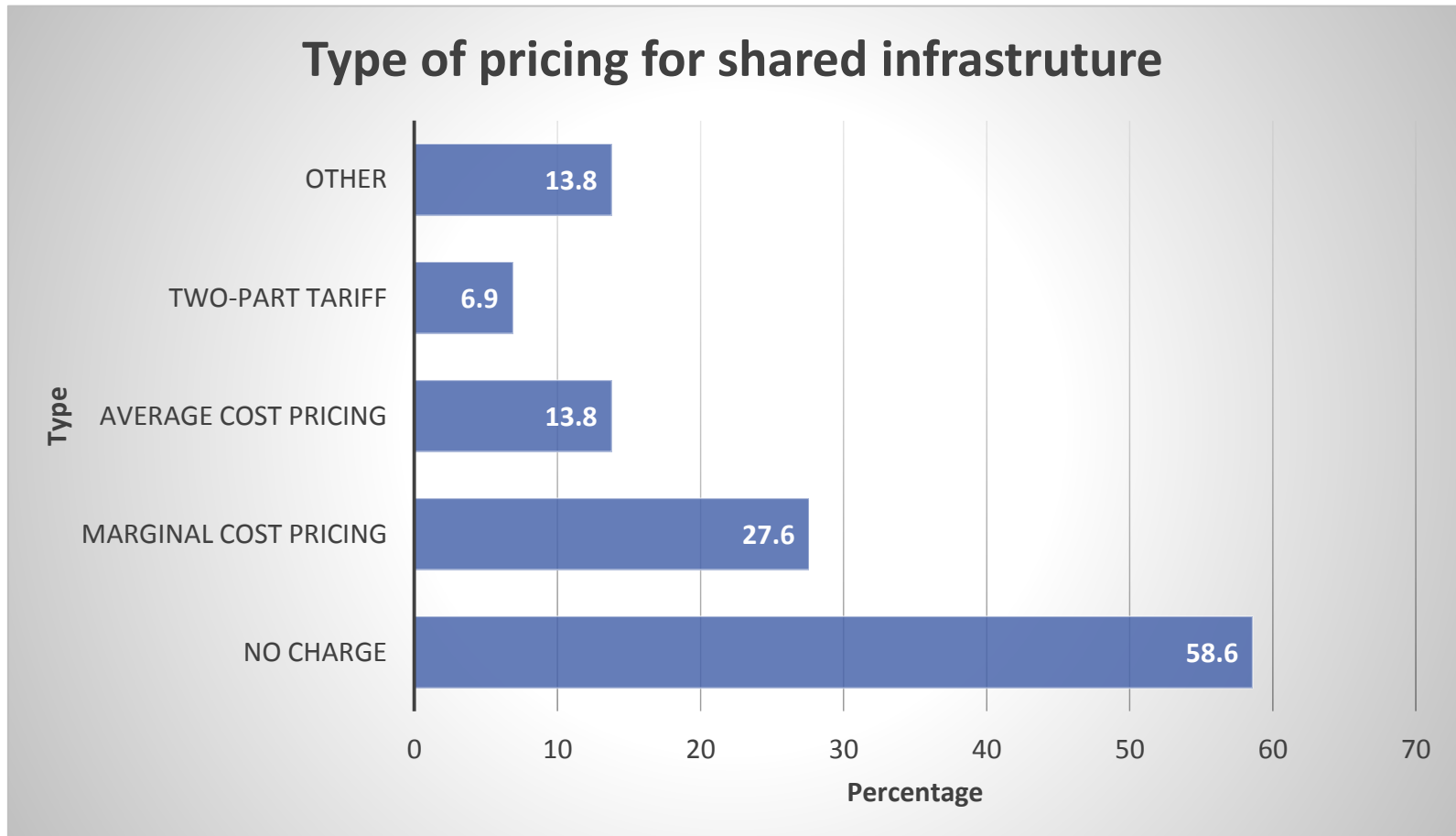
Laboratories, archives, databases

Type of infrastructure (n=46)

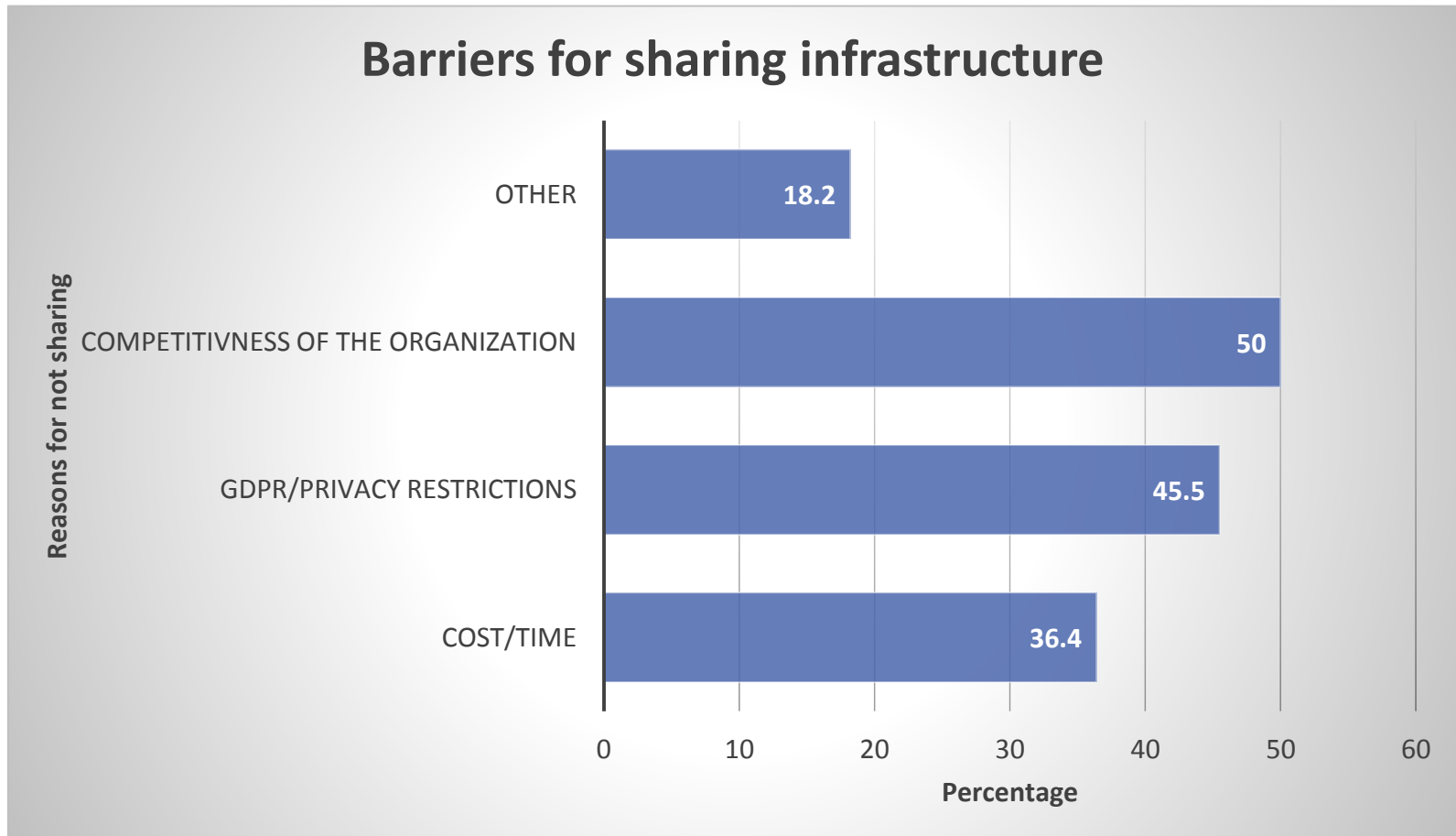
Types of open research infrastructure the organization have



Pricing (n=26)



Barriers for sharing (n=22)



Differences between research areas

Key area	Open Data	Open Software	Open Infrastructure
Transport planning	35 %	6 %	85 %
Technological	22 %	9 %	73 %
Other	9 %	6 %	82 %

Interface to the European Open Science Cloud

Transport vocabulary in
csv format for text mining

List of
organizations/institutes
dedicated to transport
research

List of
projects/calls/programmes
related to transport
(TRIMIS and cordis)

List of repositories related
to transport research such
as RE3data.org

Governance
and
operational
business
models

Norway

Belgium

Greece