

# EOSC Landscaping and Czech Landscape Findings

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The Czech Landscaping report is available:

<https://doi.org/10.5281/zenodo.3891370>

# EOSC Landscaping

- Pan-European landscaping of EOSC Landscaping Working Group.
- 5 projects funded from INFRAEOSC 05b
  - Different projects mapping different countries of Europe.
  - Czech Republic overviewed under EOSC SYNERGY project.

# **EOSC SYNERGY Landscaping**

- An overview of the policies, practices, roadmaps and strategies around funding, procuring, providing, accessing and sharing of services and resources in the EOSC scope.
- Conducted in
  - Czech Republic,
  - Poland,
  - Portugal,
  - Slovak Republic,
  - Spain,
  - Netherlands,
  - United Kingdom.
- Different approaches / initial positions.
  - Survey / desk research / ...

# Landscaping in the Czech Republic

The Czech Landscaping report is available:  
<https://doi.org/10.5281/zenodo.3891370>

# Aim and Scope of the landscape analysis in the Czech Republic

- An overview of the policies, practices, roadmaps and strategies around funding, procuring, providing, accessing and sharing of services and resources in the EOSC scope in the Czech Republic.
- Focuses on
  - research infrastructures,
  - funders and
  - e-infrastructures.
- Based on online survey and desk research.

# Technical Realization

- Survey using the SurveyMonkey survey platform.
- Based on
  - the subset of questions implementing Pillar survey
    - Bodlos, Anita; Hönegger, Lisa; Kaczmirek, Lars; Beckmann, Volker; Breton, Vincent; Romier, Geneviève; Van Wezel, Jos; Streit, Achim; Stevanovic, Uros; Galeazzi, Fulvio; Tanlongo, Federica; Van Nieuwerburgh, Inge, 2019, "EOSC Pillar "National Initiatives" Survey (SUF edition)", <https://doi.org/10.11587/VOSVGK>, AUSSDA, V1
  - together with our additional questions on national and international cooperation.

# Respondents

- Individual link was sent to 48 research infrastructures in the Czech Republic
  - According to the [Roadmap of Large Infrastructures for Research, Experimental Development and Innovation of the Czech Republic for the years 2016–2022](#),
  - including the national e-infrastructure e-INFRA CZ,
  - individual e-mail letters addressed to the official responsible person of the infrastructure.
  - Completion rate was 48 %,
    - the tables and graphs in the survey are according to 23 respondents answering at least 1 question.
- We also conducted a desk survey of 11 research funding organizations in the Czech Republic.

# Information Sources

- The landscape analysis on Research Infrastructures (RI) and e-Infrastructures identified the following main categories in the Czech Republic:
  1. *e-INFRA CZ*: The national e-INFRA CZ is a specific category “per se” as it is the one that represents the Czech Republic in all the EOSC-related “foundation” organizations and initiatives.
  2. *providers & customers*: RIs that serve both as capacity and service providers and consumers of their own thematic as well as general (future) EOSC services.
  3. *customers*: RIs who are “pure” service consumers, not adding any reasonable capacity and expecting others (their home institutions, e-INFRA CZ, free of charge capacity providers from abroad etc.) to cover their capacity needs.



# National Policies and Frameworks for Open Science Support and Collaboration

The Czech Landscaping report is available:  
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# Formal regulations or publicly available policies (1/3)

- The national Open Access policy is handled by the Governmental Office for Science, Research, and Innovations (The Office).
  - On February 28, 2014, Recommendations for Open Access issued by the Working Committee for Open Access chaired by professor Haňka were approved by the Office.
    - The Committee recommends to adopt a Czech National Open Access Strategy in correspondence to the [European Commission Recommendation on access to and preservation of scientific information](#).

# Formal regulations or publicly available policies (2/3)



- According to these policies:
  1. Research organizations should:
    - cooperate on formulating and adopting national OA policy,
    - support an implementation of institutional repositories to archive research outputs and open data,
    - define responsibilities for researchers in terms of Open Access publishing.
  2. Funding agencies should require open access to research output supported by the public budget.

# Formal regulations or publicly available policies (3/3)



- On June 14, 2017, the Czech National Strategy for Open Access to Research Information for 2017–2020 has been approved by the Government of the Czech Republic.
  - The resolution commits the Deputy Prime Minister for Science, Research, and Innovation to work out an *Action Plan* for the Czech National Strategy for Open Access to Research Information.
- On 29 April 2019, the Czech Government approved an *Action Plan* for the Implementation of the National Strategy of the Czech Republic's Open Access to Scientific Information for 2017–2020.
- However, these activities deal primary with Open Access to the published material, just touching (if at all) the problem of Open and FAIR data.

# Community

- OpenAIRE.
  - The Czech National Open Access Desk of the OpenAIRE project (NOAD-CZ) is supporting Open Science activities in the Czech Republic.
- Initiative of Open Access of Association of Libraries of Czech Universities: <https://openaccess.cz/en/>
  - Newly established working group of „Open Access/Open Science Managers“ under this initiative.
- The National Information Centre for European Research is also active in dissemination of knowledge and support of Open Science: <https://www.tc.cz/en/offers/national-information-centre-for-european-research>
- Creative Commons Czech Republic: <https://www.creativecommons.cz/>
- CzechELib – National Centre for Electronic Information Resources
  - Responsible for dealing with academic publishers.
  - Focuses on the national approach towards transformation for the Gold Open Access Model.

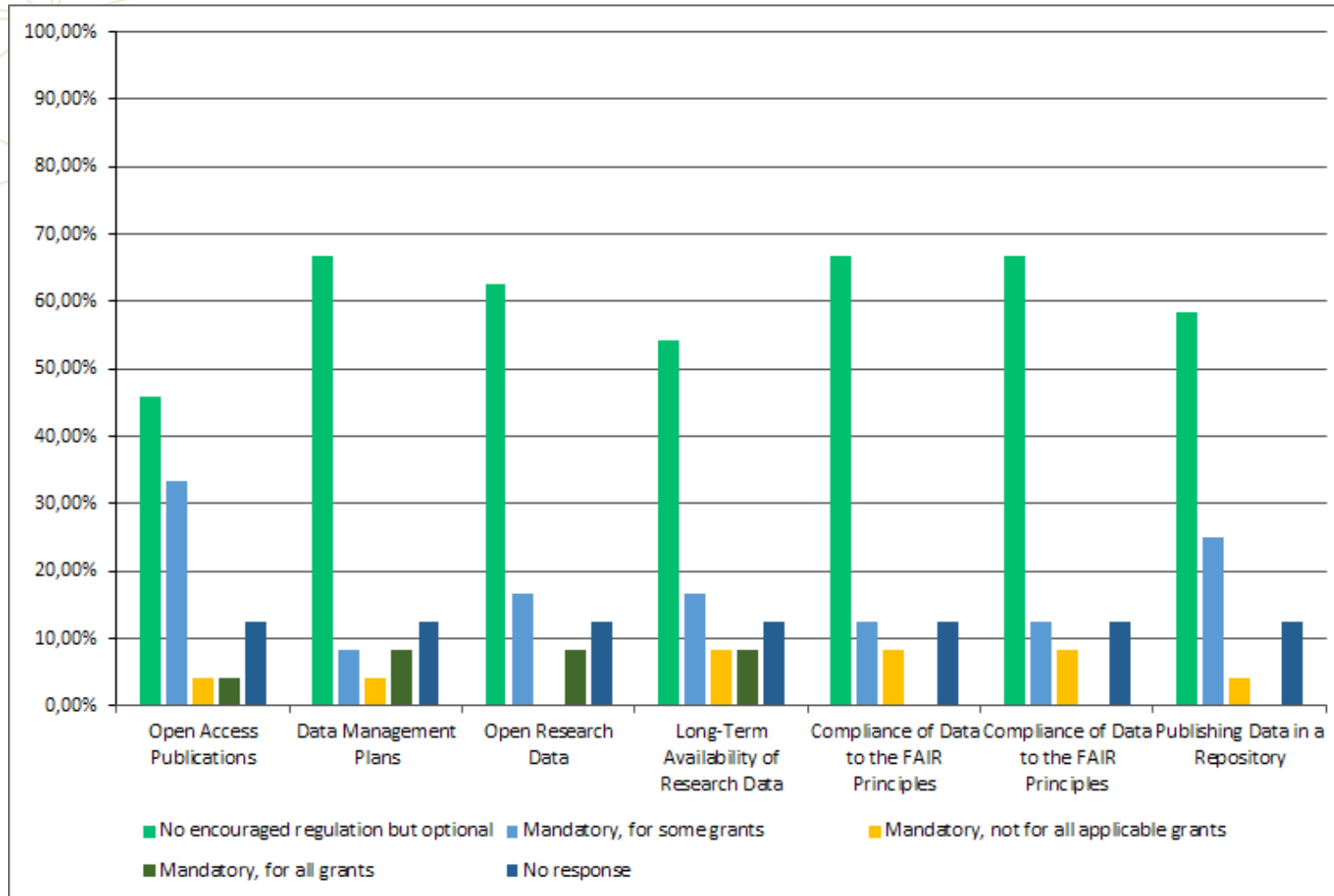
# Funders' Open Access Policy

- Worldwide, funders significantly contribute to the implementation of OA principles.
  - E.g. Wellcome Trust in Great Britain, or National Institutes of Health in the USA.
- Such support is missing in the Czech Republic.
  - For example, GA ČR has signed the Berlin Declaration in 2008, however it does not explicitly require recipients to provide open access to their publications.
- EU requirements are the key motivator.
  - Horizon2020 requirements.
  - Implementation of Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the reuse of public sector information into Czech legal environment can change the course in our country?

# RIs Survey Findings Policies

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# Organisations' rules for funding



- It is not common to require Open Science-enabled handling of publications and data.
- Some of them consider these requirements of low-priority in their research area (humanities).
  - The research not requiring hard data as the foundations of their research...



# Commission Recommendation (EU) 2018/790 on Access to and Preservation of Scientific Information (1/3)



- Sums up the current policy of European Commission towards Open Access to scientific information.
  - By scientific information the recommendation means both publications and data.
- Most of the participants mentioned they are prepared to follow FAIR principles and, naturally, follow requirements of projects, such as EU H2020 requirements.
  - Many of them, however, do not have any mandatory policy,
  - do not provide data openly on the web,
    - provide them mainly to the institution members or upon a request.

# Commission Recommendation (EU) 2018/790 on Access to and Preservation of Scientific Information (2/3)



- Multiple participants follow common practice of publishing scientific publications in topical repositories with metadata.
  - Few of them have policies for publishing and managing research data.
  - Some participants are concerned of legal issues connected with publishing/archiving publications in institutional/topical repositories.
- The participants also expect national and European policies to adopt.

# Commission Recommendation (EU) 2018/790 on Access to and Preservation of Scientific Information (3/3)

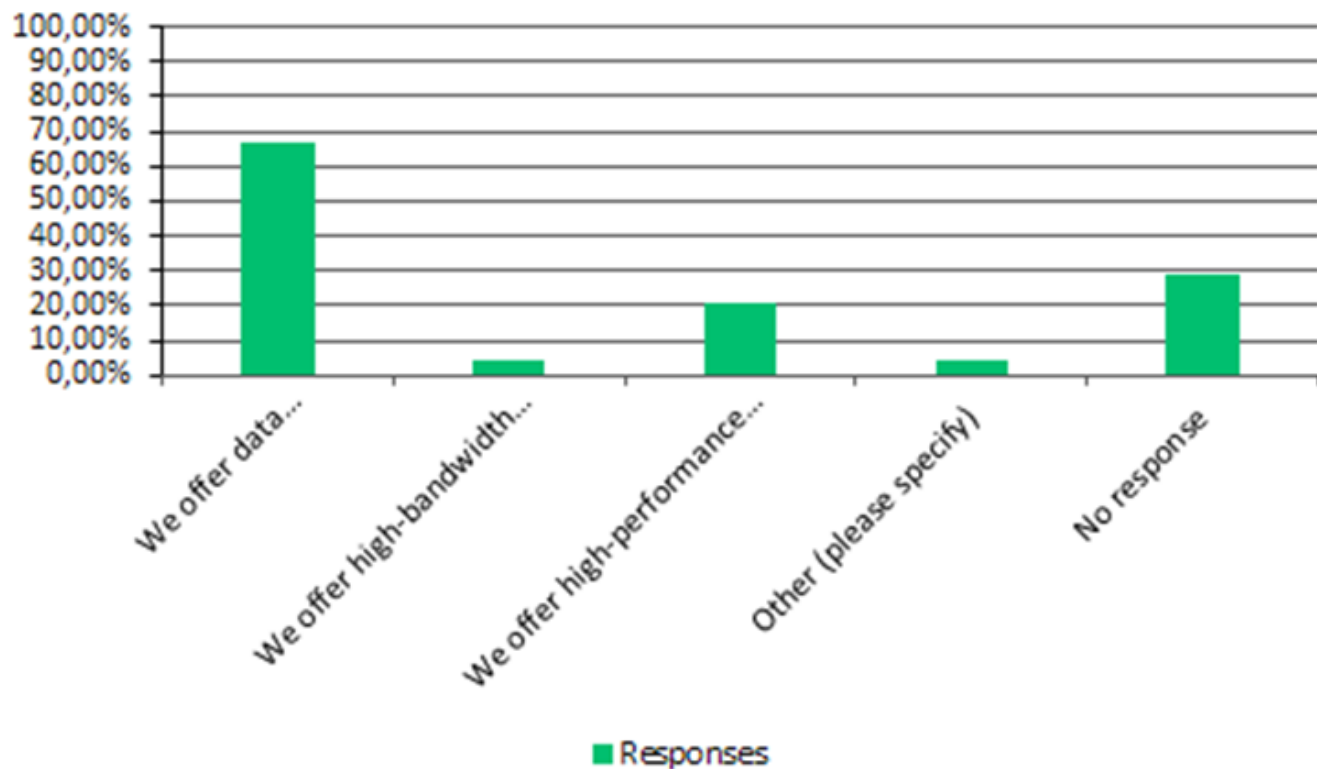


- “The infrastructure aims at fulfilling the compliance of data to the FAIR Principles. However, the data are openly available only to the Institute staff, to the university students supervised by the Institute staff, and to the external collaborators (Czech as well as foreign) solving joint projects with the Infrastructure. The data access for other interested entities is granted based on a request that must be properly justified and then needs to be approved by the Infrastructure management.”
- “There are no rules for Open Access to the scientific information now. The only rules are given for European projects where it is mandatory to publish the results in open access journals.”
- “We publish data in peer-reviewed journals in the biology field. The data are then made public according to their requirements. Furthermore we send the data into publicly available repositories. We also share the publications on our web.”

# RIs Survey Findings Services

The Czech Landscaping report is available:  
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# Services provided to the research community

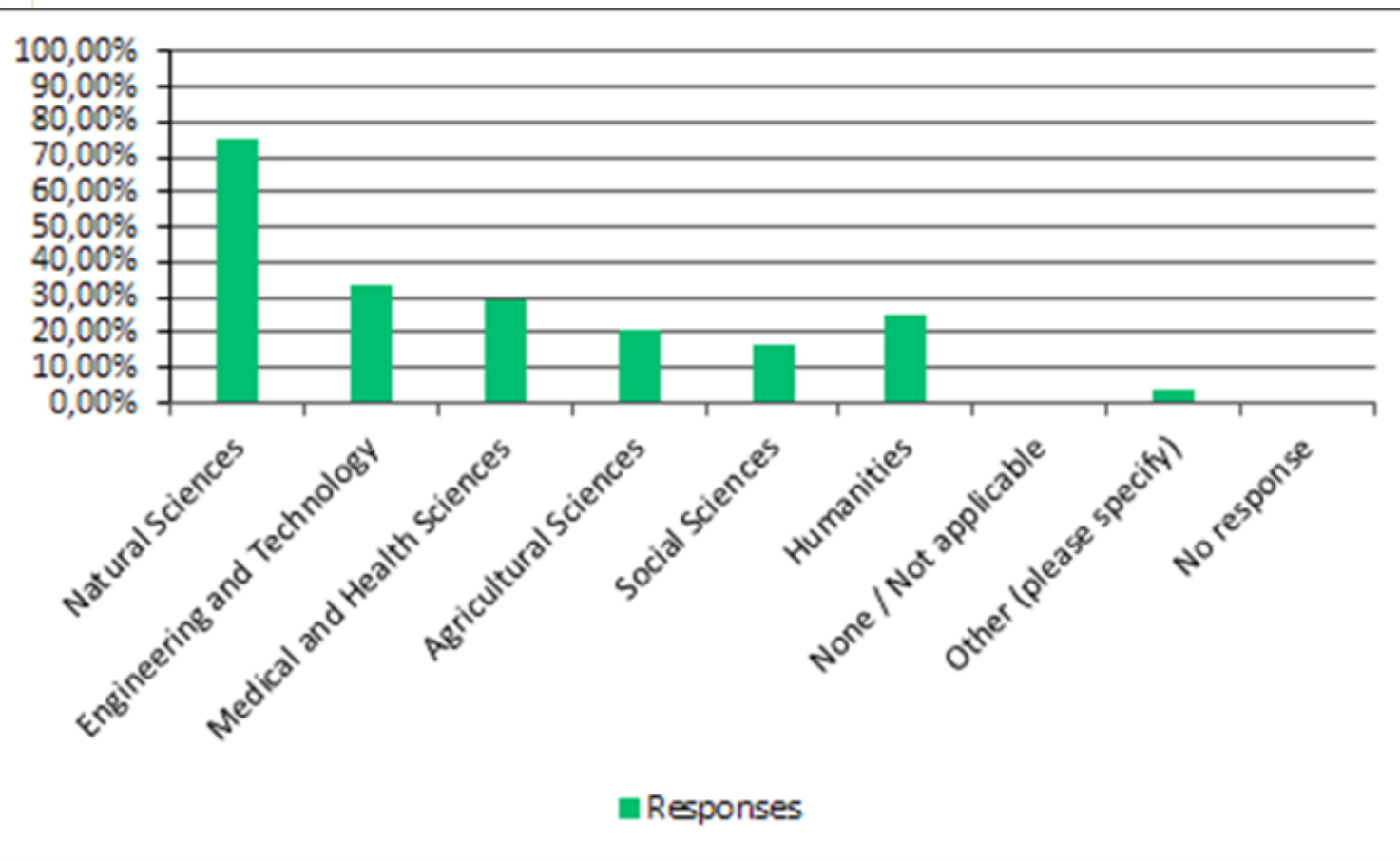


	Responses
We offer data infrastructures which store and manage research data (e.g. archive and disseminate data).	66,67%
We offer high-bandwidth networks which transport research data.	4,17%
We offer high-performance computing which can be used to process research data.	20,83%
Other (please specify)	4,17%
No response	29,17%

# Services of the participants considered to be possibly useful to be part of EOSC

- “The use of ENREGAT infrastructure in pilot scale.”
- “storage for sensitive data - omics and images mainly; possibly computational power for machine learning in future will increase”
- “high throughput computing, data storage”

# Type of scientific disciplines the services are provided for



- The majority of participants provide services for Natural Sciences.
- Other disciplines are less supported (STEM disciplines are preferred to humanities).
- One of the participants stated they are supporting all the research disciplines:
  - "Being a domain neutral e-infrastructure provider we serve users and communities of all scientific communities (and including use in education)."

# RIs Survey Findings Funding/Revenues

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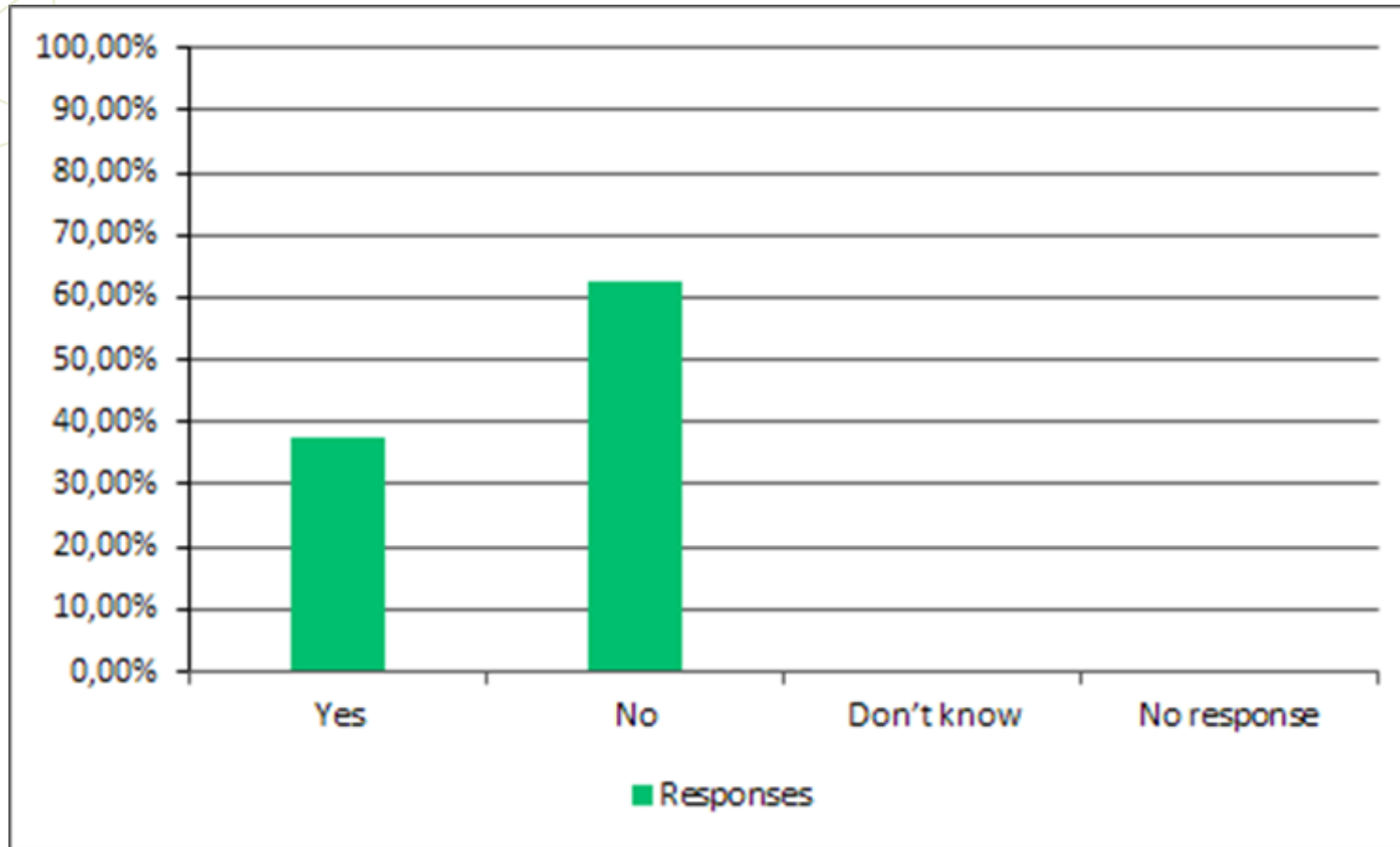
# Funders of the organizations



	Responses
Research institution(s)	54,17%
University	33,33%
State/ministry	83,33%
Region/town	4,17%
Research communities	4,17%
European funds	83,33%
Industry / small and medium-sized enterprises (SMEs)	12,50%
Funding agencies / funding bodies	70,83%
Other (please specify)	0,00%
No response	0,00%

- There are different providers of the recurrent funding to the participants' organisations, but the majority of respondents are getting funds from the government sources and European funds.
- Many of them are also getting funding from funding agencies and bodies or research institutions. Other funding sources are uncommon.

# Own revenues other than funding

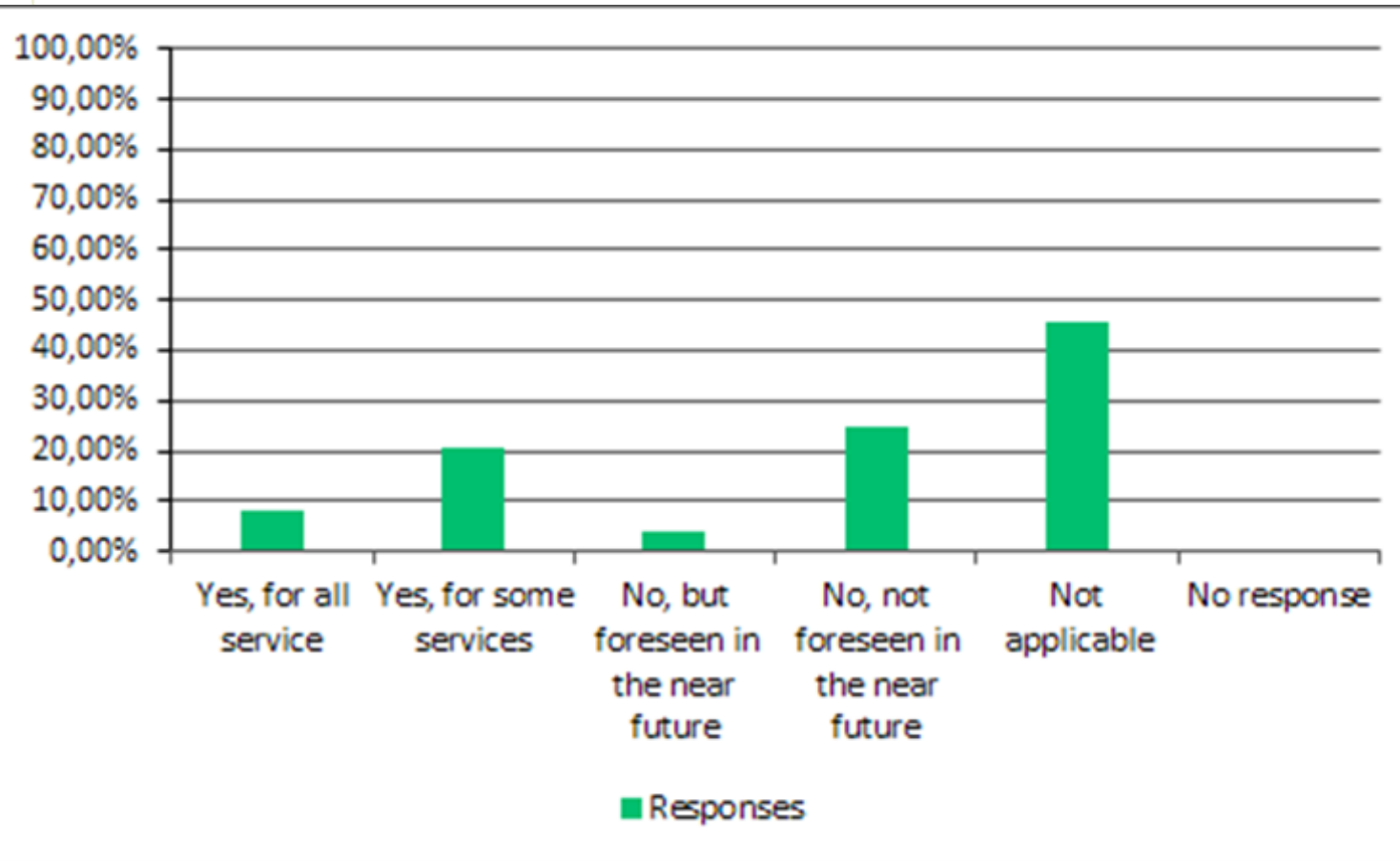


- The sources of “alternative” revenues differ, for example:
  - “Our infrastructure can acquire revenues from services which are provided within commercial research carried out by private enterprises.”
  - “We store samples and data sets for a long time and if these are provided to researchers for their research the biobank can ask for a refund of the storing costs.”

# RIs Survey Findings Service Level Agreements (SLAs)

The Czech Landscaping report is available:  
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# Offering of Service Level Agreements on digital services



- The vast majority of the respondents do not think they can apply SLAs on themselves.
- Some requirements on the services are given by the law requirements:
  - “Part of the operation is based on conditions set by legislation and related legal arrangements. Contracts are concluded with the organisations authorised to carry out archaeological research on the conditions for the use of the system.”
- Issues with establishing SLAs:
  - “Only commercial partners/customers are actually prepared to seriously discuss and pay for the SLAs.”

# RIs Survey Findings Access to Services

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# Restricting access to services



	Responses
Not applicable	4,17%
No access restrictions	37,50%
Users or communities approved by the funding body (e.g. due to regional or research topic restrictions)	12,50%
Users selected by competition	16,67%
Members of certain communities or organisations (e.g. virtual organisations)	33,33%
National users	8,33%
Other (please specify)	12,50%
No response	0,00%

- Some organisations restrict access to its services to defined groups of users, however, roughly 40% of them do not apply any restrictions. Some restrict commercial use or consider requests case-by-case.

# Barriers of expanding services to further users groups

- “Policies based on manager realms. They are implemented by POSIX permissions.”
- “The main barriers are the data storage capacity for research data”
- “We have kind strict safety rules from our institute, so it is difficult to send data outside our internal network.”
- “All of the data are freely open via open access.”
- “Data is private and accessible only to collaboration members.”
- “Access is limited to collaboration members.”
- “No policies are applied within the infrastructure.”
- “Personal capacities and financial resources”
- “Unnecessarily broad interpretation of copyright in relation to the research outputs. Data on archaeological heritage and the results of primary field research should be exempt from copyright protection as part of cultural heritage.”
- “Policies: data is owned by collaborations and only members can do a full analysis to publish papers. Subsets of processed data are made public.”
- “The mission is limited to the academic sector.”
- “Service offered to collaborating institutions.”
- “In most cases, the use by commercial companies or general citizens (not researchers) is not allowed.; Funder's defined policies are the primary source of restrictions.; The insufficient capacity is the real barrier for expansion.”

# RIs Survey Findings Services Fees

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# Charging users/clients for services



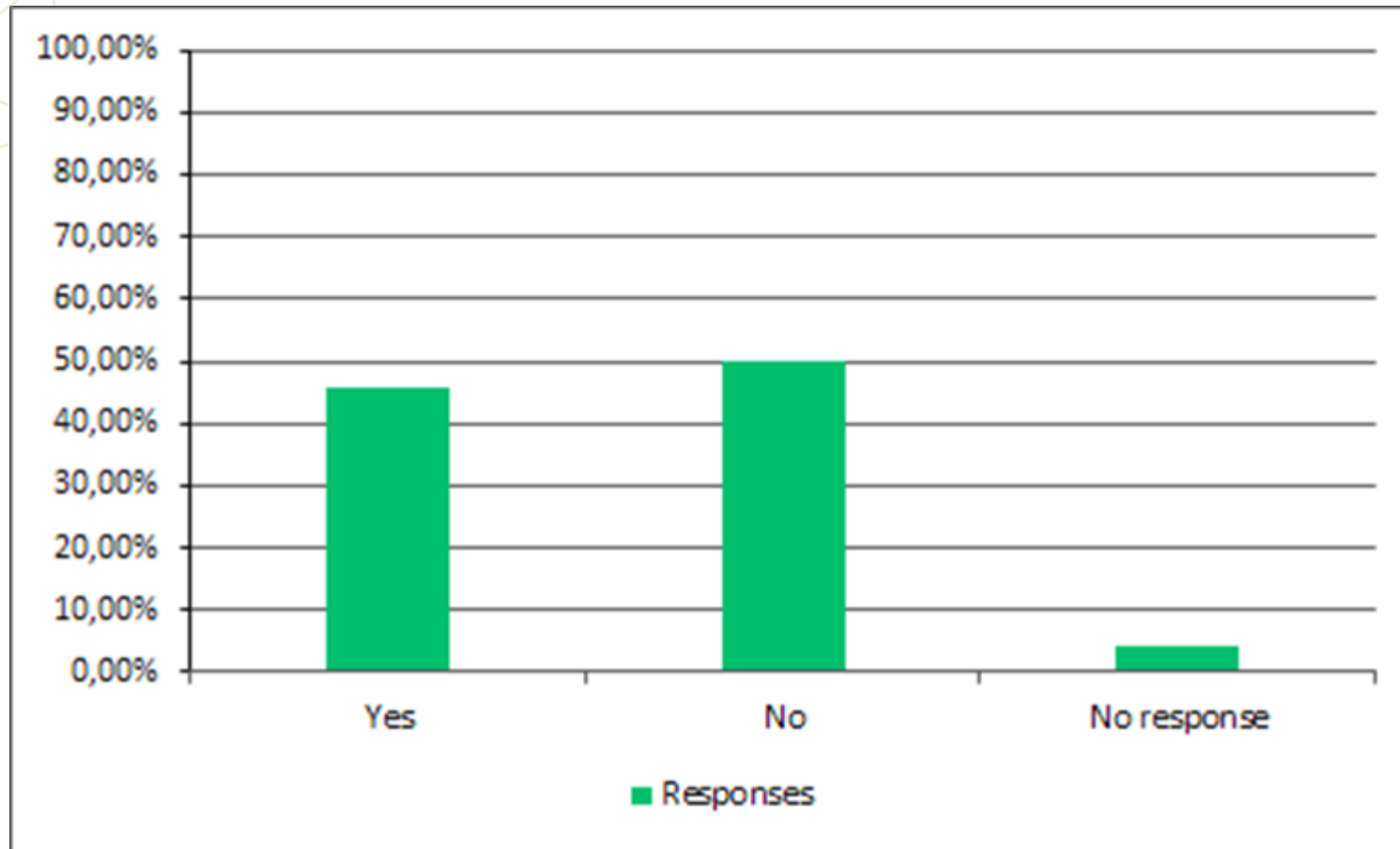
	Responses
Yes, for all services	16,67%
Yes, for digital services only	4,17%
Yes, for non-digital services only (use of special hardware devices, for example)	8,33%
No	66,67%
No response	4,17%

- “The services are free of charge at the entry point, but we are providing some services to specific customers through contracts that include payment for the service. But in general, users don't directly pay for using the services provided.”

# RIs Survey Findings Services Policies

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# Public availability of access policy



- Slightly less than one half of the survey participants have publicly available access policy.
  - Only a few participants are planning to publish the access policy in near future (less than two years), roughly 30 % of participants are planning to publish the access policy in the future.

# Services processing personal data

## Personal data

	Responses
Yes	20,83%
No	75,00%
No response	4,17%

## Special categories of personal data according to Art. 9 GDPR

	Responses
Yes	16,67%
No	75,00%
No response	8,33%

# RI Survey Findings Services Federation / Authentication

The Czech Landscaping report is available:  
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# Need of support to federate services to EOSC



	Responses
Yes	41,67%
No	4,17%
Don't know	45,83%
No response	8,33%

- Almost half of the participants expect they will need implementation support outside of their organisations to federate their service to EOSC. There were several ideas on the needed support:
  - “It would be great to have the possibility to share our raw data”
  - “Services are already included in EGI. Permanent support from outside is needed to be able to be a part of the EGI grid.”
  - “We are already connected. Continuous support to implement new technologies is required.”
  - “We interpret the answer as implying that federating the services will incur additional costs that must be covered somehow.”

# Authentication model of services



	Responses
Member of a national federation	16,67%
Using EGI (Checkin)	8,33%
Using EUDAT (B2ACCESS)	8,33%
Local authentication (etc/passwd)	33,33%
Other (please specify)	29,17%
No response	29,17%

- Only a minority uses federated services of EGI (Checkin) or EUDAT (B2ACCESS).
- Other solutions includes
  - LDAP,
  - Kerberos,
  - x509 certificates,
  - SSO Shibboleth,
  - VOMS (Virtual Organization Membership Service) servers, or
  - local authentication with tokens; MFA.

# Plans for services authentication through an Identity Provider (IdP)



	Responses
No	4,17%
Yes, in less than 1 year	0,00%
Yes, in 1 to 2 years	12,50%
Yes, in more than 2 years	12,50%
Don't know	29,17%
Not applicable	33,33%
No response	8,33%

- It seems the majority of the participants are satisfied with their current authentication model.
  - Less than 30% of them are planning to authenticate their services using an Identity Provider (IdP).



# RIs Survey Findings FAIR Services

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# Availability of search for research data



	Responses
This feature is fully implemented.	29,17%
This feature is in the implementation phase.	12,50%
We are working on or have a theoretical concept for this feature.	20,83%
We have not considered this feature yet.	8,33%
Not applicable	20,83%
No response	8,33%

- “We provide metadata - laboratory logbook search and a search in the database. However, not fulltext search is available, neither envisaged within < 3 years.”
- “The organization has its own system for data and metadata management. The system is mainly used for collaboration with the partners internally. No data are opened for access using the system now. The system has a feature for data search.”
- “We have this search feature but it is not applicable for the clinical trial data due to personal protection and privacy issues.”

# FAIR policies



	Usual policy
Open Access Publications	No or not mandatory
Research data management (RDM)	Usually no or not formal nor complex
Open research data	Usually no or not formal nor complex
Long-term availability of research data	Usually yes, sometimes informal
Compliance of data to the FAIR principles	Often yes, usually informal or needing enhancements
Publication of data in a repository	Roughly one half yes
Publication of data in a certified repository	Usually no
Other (please, specify)	For example policies on data capturing

# Certifications/audits of repositories



	Yes	No, but in preparation	No	No response
Core Trust Seal (CTS)	4,17%	4,17%	54,17%	37,50%
Data Seal of Approval (DSA)	4,17%	0,00%	58,33%	37,50%
World Data System (WDS)	0,00%	0,00%	62,50%	37,50%
ISO 16363 certification	0,00%	4,17%	58,33%	37,50%
Nestor Seal	0,00%	0,00%	62,50%	37,50%
Digital Repository Audit Method Based on Risk Assessment (DRAMBORA)	0,00%	0,00%	62,50%	37,50%
Trustworthy Repositories Audit & Certification (TRAC)	0,00%	0,00%	62,50%	37,50%

# Machine-readable data catalogue



	Responses
This feature is fully implemented.	29,17%
This feature is in the implementation phase.	4,17%
We are working on or have a theoretical concept for this feature.	16,67%
We have not considered this feature yet.	8,33%
Not applicable	4,17%
No response	37,50%

- “It is different in each biobank. Usually, they have a database with GUI. A connector is a tool in a pilot phase working with structured data gathered from biobank database...”
- “Difficult of say, it depends on the type of data, for some kind data yes, for some no”
- “all of the study datasets have their own data dictionary”
- “All metadata on research data and data stored in the database are available via open API”
- “Accessible only to project members.”

# Researchers unique identifiers



	Responses
Not applicable	8,33%
No	20,83%
Yes, ORCID	16,67%
Yes, ResearcherID	12,50%
Yes, other (please specify)	16,67%
No response	37,50%

- The technical details differ depending on the specific needs or special requirements such as pseudonymization of data; for example:
  - “IDs internally used are replaced by new pseudonyms relevant only for the data set”
  - “All of the data are supplemented with relevant persistent identifiers for cataloguing of books and articles, in particular ID’s of Czech National authorities set (complementary with VIAF or Wikidata etc.), ISSN, ISBN, Czech National Bibliography ID etc.”
  - “Internal [institutional] accounts connected with email accounts.”

# RIs Survey Findings Repositories Parameters

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# Number of datasets accessible online

- Some respondents were not sure how to divide data to the dataset:
  - “The database contains approx. 20.000 experimental discharges, each containing up to 1.500 signals. Depending on the matter of interest, the datasets can be considered either as the individual discharges or as a subset of selected signals across different discharges.”
  - “Our data consists of 2 main (so called contemporary bibliography and retrospective bibliography) and 3 minor datasets, mostly in MARC21 or MARC21 for authorities format. ‘Contemporary’ bibliography can be further divided into the specific logical datasets, but the metadata scheme is the same. Retrospective bibliography in RETROBI system (digitised card catalogue) has its own proprietary data format which is quite similar to MARC21 standard.”
- The particular number of datasets differed significantly among the participants from units, tens and hundreds of datasets to tens of thousands to much higher numbers, for example:
  - “1 type, but it is lots of data, roughly 700 000 parameters, or 120 datasets plus big dataset as control”
  - “Ten of thousands of datasets varying in volume from single files to thousands of files and including metadata descriptions.”
  - “ $10^6$ ”



# Users' concerns about data sharing (1/2)

- **Lack of control over the usage of data**
  - “Yes, mainly consistency of the data interpretation.”
  - “They agree after publication”
  - “Not applicable.”
  - “not concerned, we guarantee only customers will access the data”
  - “no”
  - “Moderately (varies a lot)”
  - “Yes, but not so important.”
  - “data must be secured”
- **The effort of preparing the data for publication**
  - “Yes, time demanding for the scientific staff, additional resources needed among the scientific as well as technical staff.”
  - “It is the main reason for generating data”
  - “a lot”
  - “a little concerned”
  - “no”
  - “Very”
  - “Yes, very important.”
  - “data must be secured”
- **Doubts about the depositor's benefit of sharing data**
  - “Depending on the depositor.”
  - “No problems”
  - “not concerned, we guarantee only customers will access the data”
  - “no”
  - “Moderately”
  - “Yes, important.”
  - “data must be secured”
- **The competitive disadvantage when sharing**
  - “Yes, related to the data not fully exploited by the staff and collaborators yet.”
  - “After publication”
  - “Not a problem”
  - “not concerned, we guarantee only customers will access the data”
  - “partly”
  - “Moderately”
  - “Yes, important.”
  - “data must be secured”

# Users' concerns about data sharing (2/2)

- **Data protection**
  - “Data shall not be made available to un-reliable entities and states.”
  - “After publication”
  - “No problem.”
  - “a little concerned”
  - “partly”
  - “Low”
  - “We do not accept personal data.”
  - “data must be secured”
- **Intellectual property (e.g. copyright)**
  - “Yes, related to the new developments and securing the protection of public investments.”
  - “It must be said, who and from which deposit data are taken...”
  - “Not a problem”
  - “a little concerned”
  - “no”
  - “Moderately”
  - “Yes, copyrights at data are sometimes unclear.”
  - “data must be secured”
- **Other (please, specify)**
  - “Sharing datasets obtained from several infrastructures, that includes a mix of policies and different physical locations of the data, difficult to manage without a dedicated effort.”

# RIs Survey Findings Services for EO SC

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# Transnational organisation/federation offering Service Level Agreements



	Responses
Yes	33,33%
No	37,50%
Don't know	16,67%
No response	12,50%

- **Agreements are, for example:**
  - “CzBI infrastructure is not bound by an SLA of a transnational organization, however some of its partners/facilities are part of the Euro-Biolmaging organization, which does offer SLA.”
  - “We are a member of ECRIN-ERIC. Joint project is covered by a contract, but not by SLAs.”
  - “EuroNanoLab”
  - “<http://plus.aginfra.eu/>”

# Experience with the international service tenders



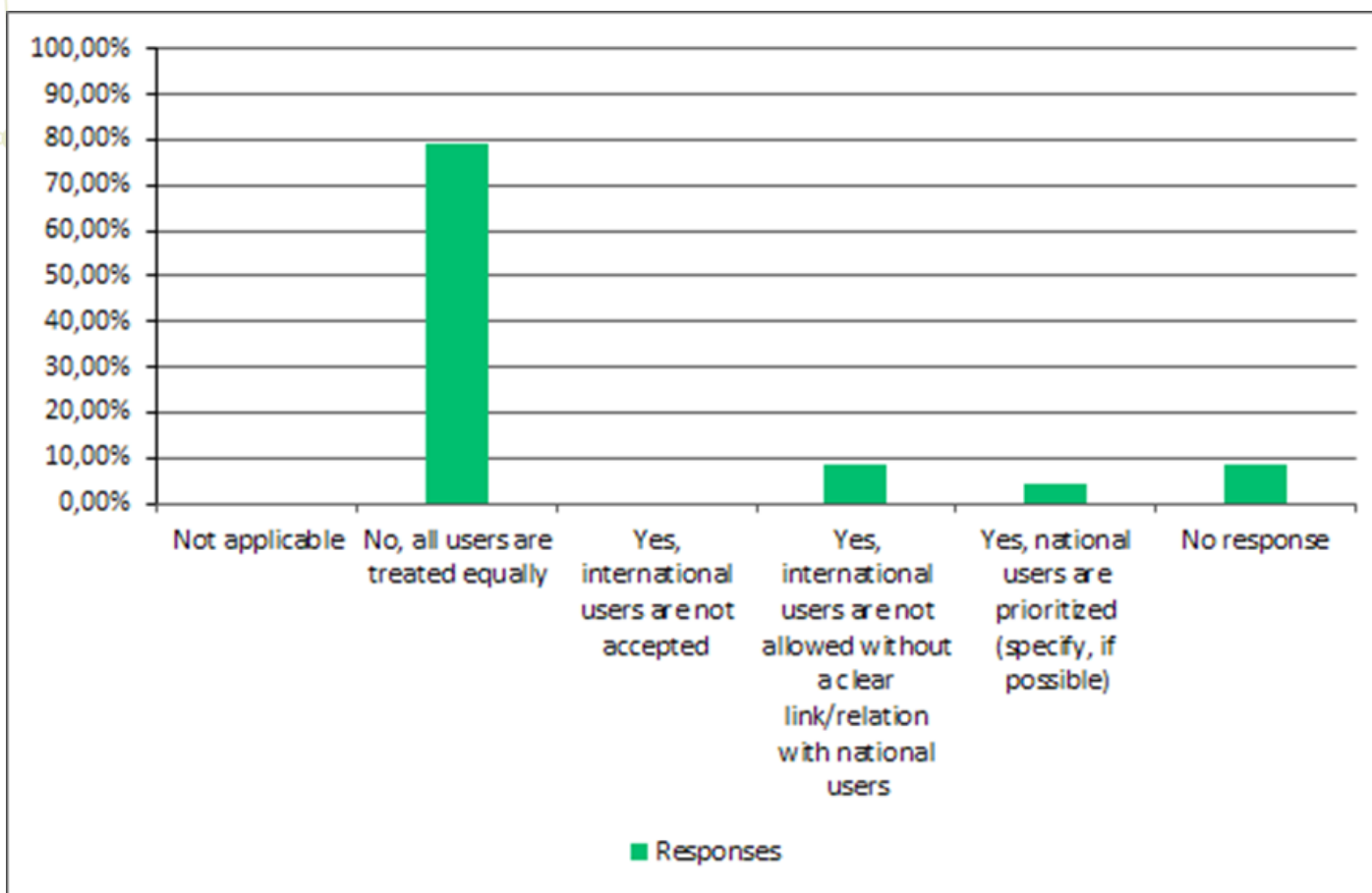
	Responses
Yes	12,50%
No	70,83%
No response	16,67%

- We asked our respondents on experience with the international service tenders, e.g. cloud service provisioning.
  - The vast majority of them have no experience.

# International and EOSC Related Involvement

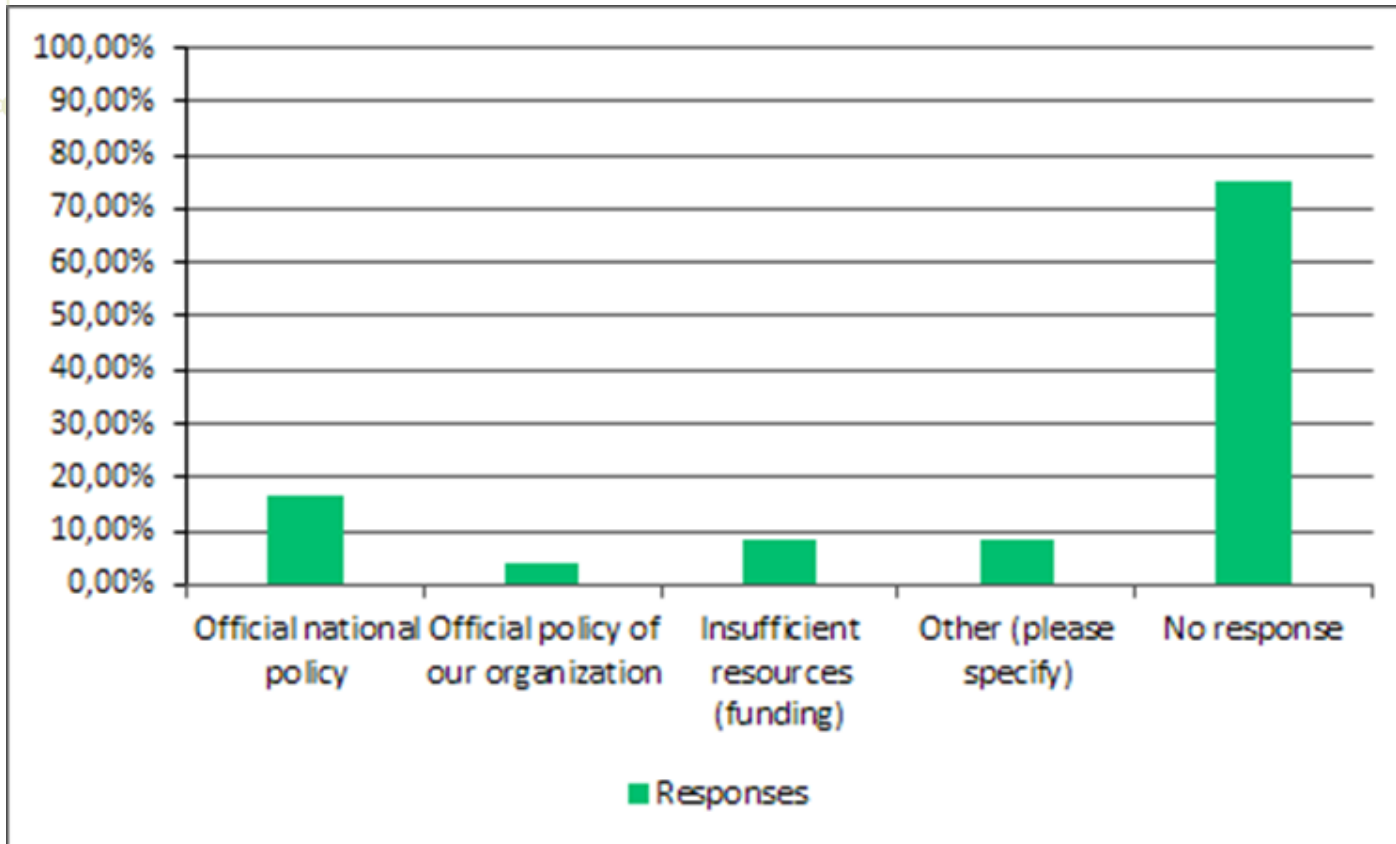
- We asked on direct or indirect relationship to some large-scale European research infrastructure (e.g. ESFRI one).
  - They facilitates integrating their data and services into EOSC.
- The majority of respondents are either not aware of any such participation or are not involved.
  - However, the majority of national RIs is connected to their international counterparts.
- We interpret this higher number of “No” answers as a rather low awareness of the EOSC related activities of their corresponding RIs.
- In the “standard” EOSC-related European e-infrastructures (EGI, EUDAT, PRACE) is e-INFRA CZ the only national e-infrastructure participating and representing the Czech Republic in all of them.

# Services differentiation between national and international users



- The vast majority provide their services equally to all the users.
- However, some providers apply some limitations, for example:
  - “National users can have also local access. International users have only access via grid”
  - “Foreign users may be a subject to an additional access approval.”

# Major reasons for limiting international users



- Main reasons for limiting international users are national or institutional policies.
- Less common are insufficient resources (funding).



# Expected/wanted EOSC help



	Responses
Providing funding to cover the cost of international users	16,67%
Removing policy differences (at national levels)	25,00%
Providing more trusted environment (e.g. identity vetting)	37,50%
Other (please specify)	12,50%
No response	45,83%

- The most expected is a more trusted environment and removal of differentiation of (national level) policies.
- Other reasons were, for example:
  - “help with data archiving/storing - provide hardware, metadata gathering and sharing - GUIs”
  - “Provide funding for implementing the FAIR data principles”
  - “Provide access to additional hardware resources and funds to integrate them to the organization's own resources.”
  - “We look forward to EOSC to help with homogenising the e-infrastructures' related policies”

# Funders Survey Findings Funding Rules

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# What the organization funds



	Responses
Human resources	90,91%
Hardware	72,73%
Software	72,73%
Capital expenditure (capex) at large	81,82%
Operational expenditure (opex) at large	100,00%
Project based resources	36,36%
Other (please specify)	0,00%
No response	0,00%

- Most of them fund all types of common costs,
- project based resources
  - for example:
    - “local office” – material and services related to project management
  - are funded by only one third of them.

# Rules for granting funds for e-infrastructures or research infrastructures



	Responses
Discipline of the infrastructure's users	90,91%
Geographical location of the infrastructure's users	0,00%
Selection by a competitive process	0,00%
Affiliation of the infrastructure's users	9,09%
Not applicable	0,00%
Other (please specify)	0,00%
No response	0,00%

- The vast majority of them have rules on discipline of the infrastructure's users,
- less than 10% of them apply selection by a competitive process.

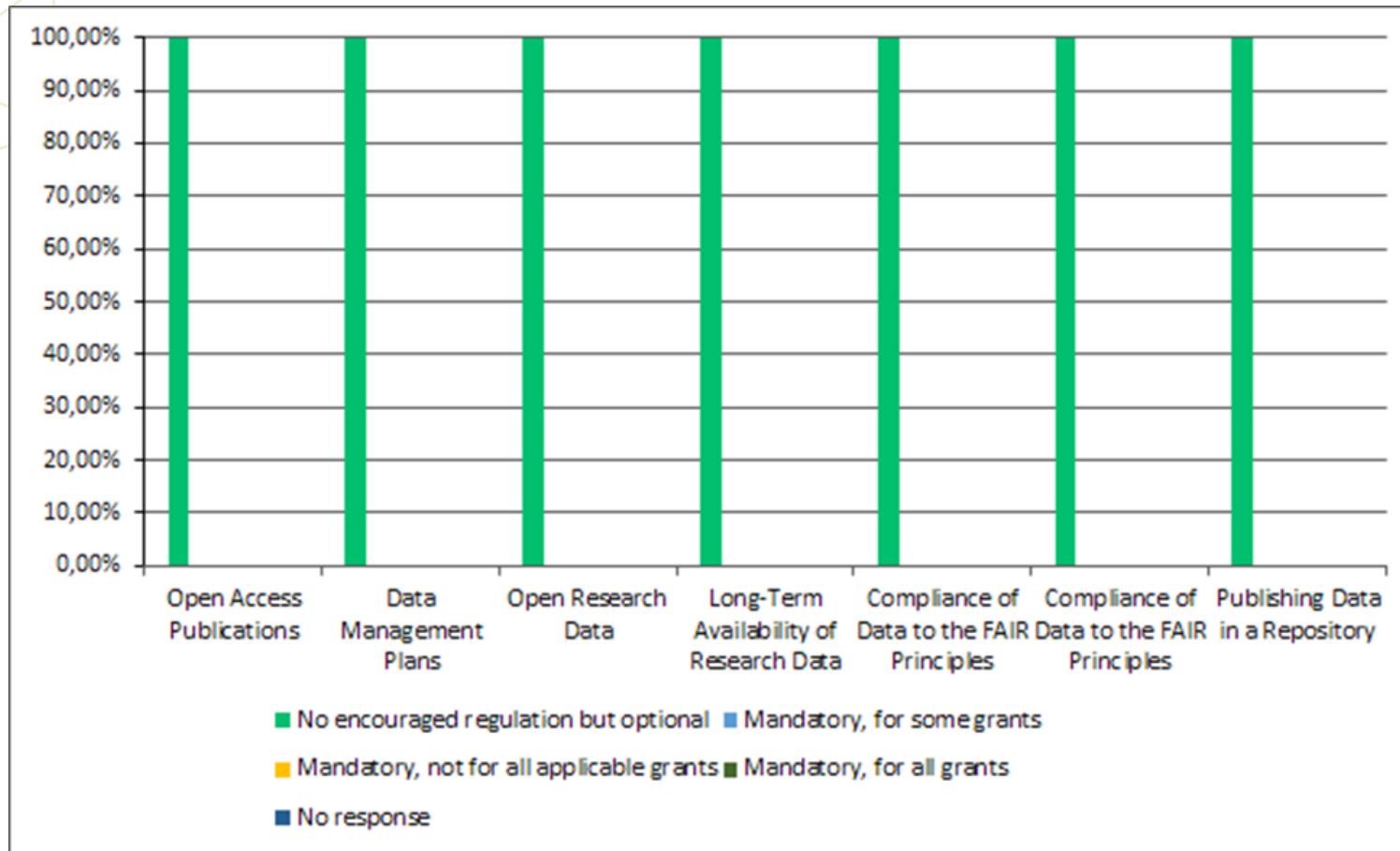
# Maintenance of a roadmap of the funded infrastructures



	Responses
No	90,91%
Yes, aligned to a European roadmap.	0,00%
Yes, aligned to a national roadmap.	9,09%
Yes, we maintain a roadmap according to our own specifications.	0,00%
No response	0,00%

- Only one funding organization is aligning its roadmap to the national roadmap.

# Funders' rules for funding



- All of them apply only optional regulations in all the asked areas of Open Science.

# Funders Survey Findings Conclusions

The Czech Landscaping report is available:  
<https://doi.org/10.5281/zenodo.3891370>

# Report Availability

- The Czech Landscaping report is available via DOI: <https://doi.org/10.5281/zenodo.3891370>
  - Provide quantitative or semi-qualitative answers to the characteristics of the services and resources provided,
    - including their FAIRification,
    - DMPs and
    - data management in general.
  - It also covers other important aspects like
    - the services for EOSC,
    - the current status and challenges of the transnational offer of and access to their services, as well as
    - problems and opportunities for the harmonization of national policies on joint procurement or coordinated service provisioning.



# The main Survey Findings (1/2)

- There are some national formal regulation/policies of OA/OS
  - however, these activities deal primary with Open Access to publications, not data,
    - funders / RIs usually do not require OS-enabled handling of publications/data,
  - the actions are *in fact* behind the schedule,
  - actions are more “community based”.
- RIs are usually EU / government / funding agencies funded.
  - Small portion of industry / region on town funding.
- SLAs are usually not applied / considered to be applicable.
- Many of services is provided free of charge.
- Almost half of the participants expect they will need implementation support outside of their organizations to federate their service to EOSC.
  - Financial to cover the additional costs?

# The main Survey Findings (2/2)

- There are usually not or not mandatory FAIR policies,
  - lack of really FAIR handling of data,
  - lack of certified repositories for storing data;
  - significant grow of data volumes expected in following years.
- The vast majority of RIs have no experience with the international service tenders (e.g. cloud service provisioning).
- There is rather low awareness of RIs of the EOSC related activities of their international counterparts.
- International users are usually handled equally to the national ones.
- The most expected/wanted help from EOSC is a more trusted environment and removal of differentiation of (national level) policies.

# Thank you for your attention. Questions?

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