FAIR incentives and expected impact in the Nordics, Baltics and EOSC

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Ambitions of FAIR incentives task

- Encourage researchers to comply with FAIR data practices in their research
- Demonstrate the perceived benefits and existing incentives in place for FAIR compliance
- Ultimate goal is to reach policy harmonisation in the region

Approach used in gathering input

EOSC NORDIC

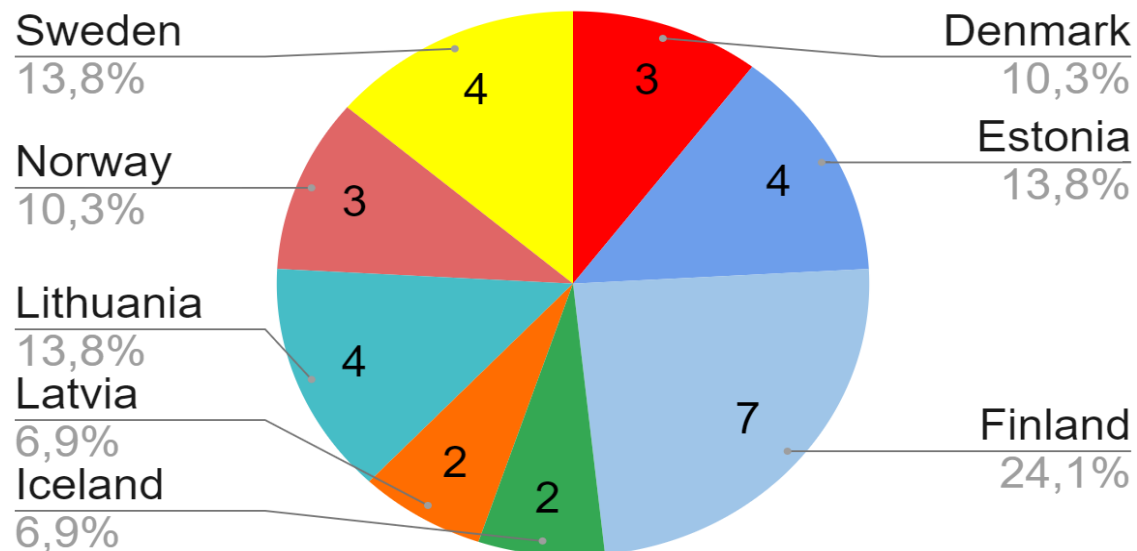Mapping exercise of already established FAIR policy incentives and any gaps impeding FAIR adoption
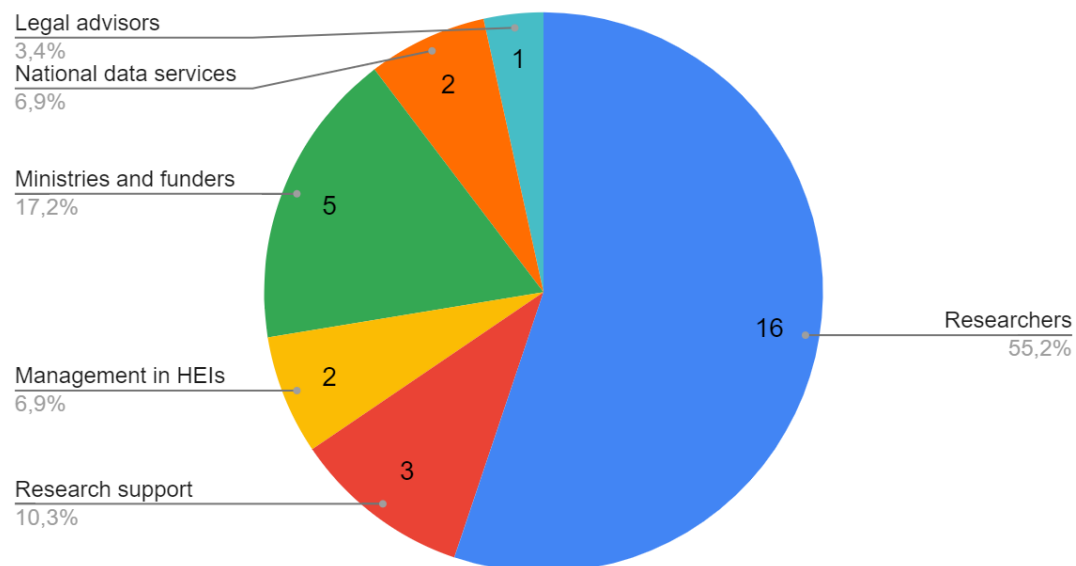
Literature review

Qualitative study approach using semi-structured interviews. N= 29

Six stakeholder groups: researchers, research support, university management, RFOs & ministries of education and research, national data service providers, legal advisor

Respondents by country

- Denmark 10,3% — 3
- Estonia 13,8% — 4
- Finland 24,1% — 7
- Iceland 6,9% — 2
- Latvia 6,9% — 2
- Lithuania 13,8% — 4
- Norway 10,3% — 3
- Sweden 13,8% — 4
- Denmark — 3

Respondents by stakeholder group

- Legal advisors 3,4% — 1
- National data services 6,9% — 2
- Ministries and funders 17,2% — 5
- Management in HEIs 6,9% — 2
- Research support 10,3% — 3
- Researchers 55,2% — 16

Researchers by OECD Field of Science

- 6.2 Languages and Literature 13,3% — 2
- 1.3 Physical sciences 13,3% — 2
- 1.4 Chemical sciences 13,3% — 2
- 5.8 Media and communications 6,7% — 1
- 5.4 Sociology 6,7% — 1
- 5.2 Economics and Business 6,7% — 1
- 1.6 Biological sciences 6,7% — 1
- 1.5 Earth and related Environm… 33,3% — 5

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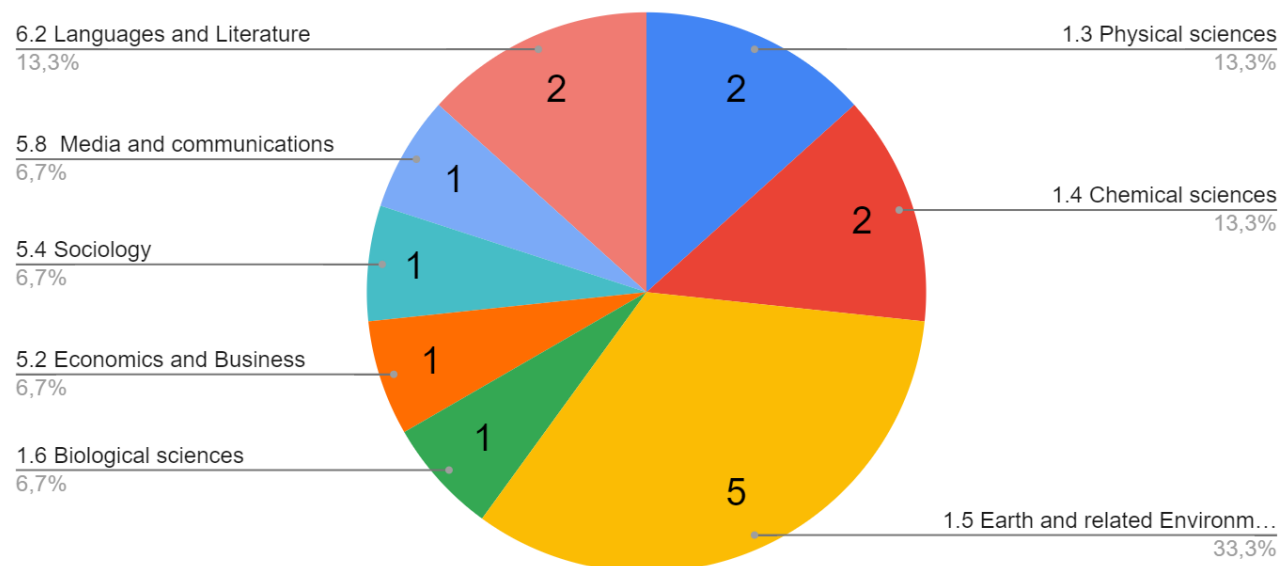
A call for a Cultural Change

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Policy	Make it required
Incentives	Make it rewarding
Communities	Make it normative
User interface/Experience	Make it easy
Infrastructure	Make it possible
Awareness-raising	Make it understandable

Stakeholder-specific action points presented for all levels

Finding of the qualitative study

Source: Strategy for Cultural Change, Nosek (2019)
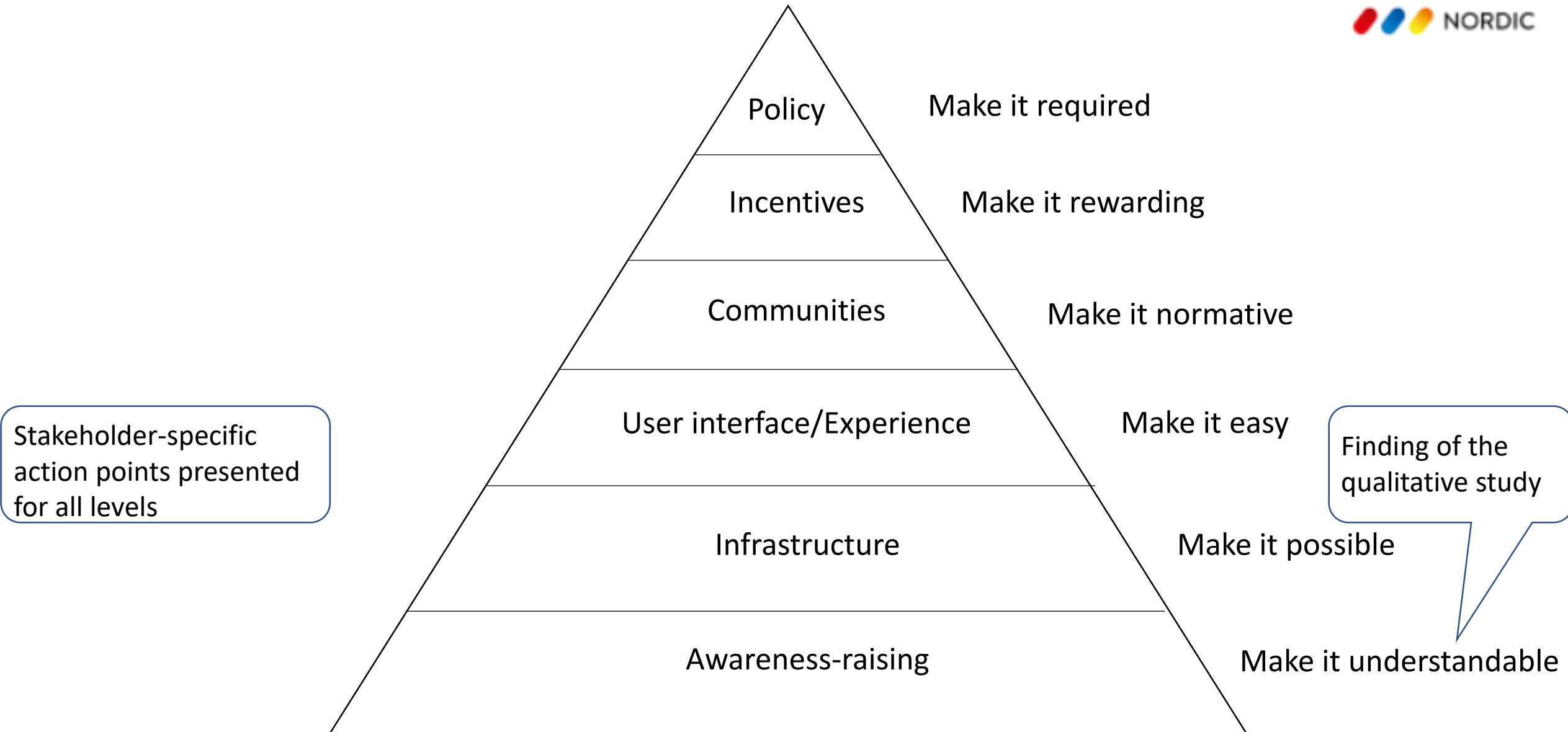
Action points – Research Funding Orga[nisations]

Assign proper funding covering FAIR data management and needed resources.
Consider setting aside a dedicated pot of funding for publishing FAIR data.
Assure proper funding of the changes.

Follow EU-level developments.
Require FAIR compliance and a DMP.
Monitor the amount of data and data publications produced/published by the beneficiary using a PID.

Assign proper funding for FAIR DM.
Promote using Machine Actionable DMPs and DMP tools.

Promote a general "cultural change".
Require FAIRness of data as a condition to receive research grants.

Provide easy-to-use DMP templates and guidance.
Evaluate and **give feedback** about data management planning.
Allow merits for DM experience in funding evaluations.
Monitor FAIR compliance.
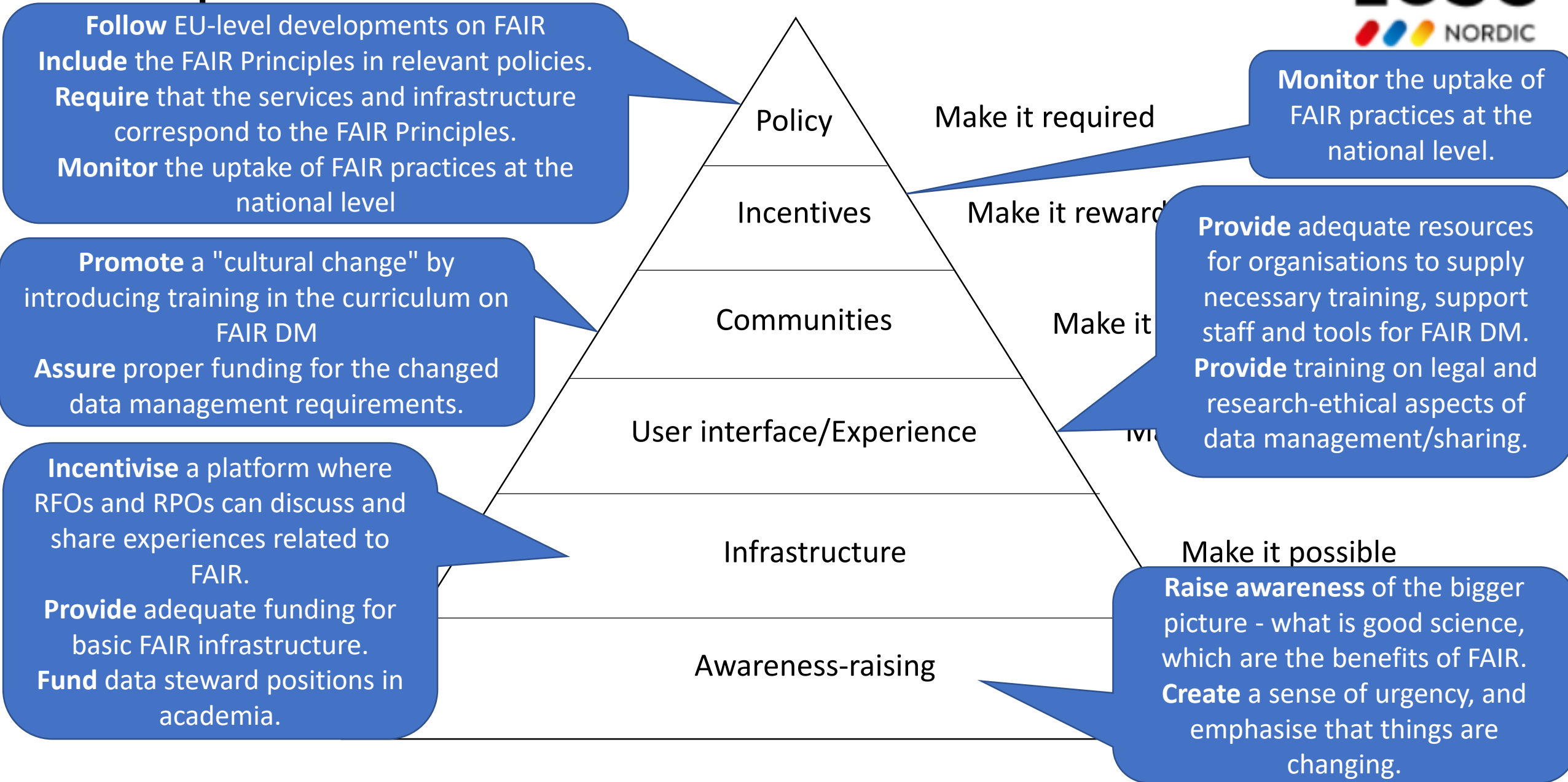
Recommend and **promote** data repositories.
Structure DMP templates in consultation with the research community.
Demand DMPs for all applications to help make FAIR data by design and make the DMP part of the assessment.

Policy

Make i[t ...]

Incentives

Make it rewardi[ng]

Communities

Make i[t ...]

User interface/Experience

Make it easy

Infrastructure

Awareness-raising

Action points – Ministries of education & research

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Follow EU-level developments on FAIR
Include the FAIR Principles in relevant policies.
Require that the services and infrastructure correspond to the FAIR Principles.
Monitor the uptake of FAIR practices at the national level

Promote a "cultural change" by introducing training in the curriculum on FAIR DM
Assure proper funding for the changed data management requirements.

Incentivise a platform where RFOs and RPOs can discuss and share experiences related to FAIR.
Provide adequate funding for basic FAIR infrastructure.
Fund data steward positions in academia.

Policy   Make it required

Incentives   Make it reward

Communities   Make it

User interface/Experience

Infrastructure   Make it possible

Awareness-raising

Monitor the uptake of FAIR practices at the national level.

Provide adequate resources for organisations to supply necessary training, support staff and tools for FAIR DM.
Provide training on legal and research-ethical aspects of data management/sharing.

Raise awareness of the bigger picture - what is good science, which are the benefits of FAIR.
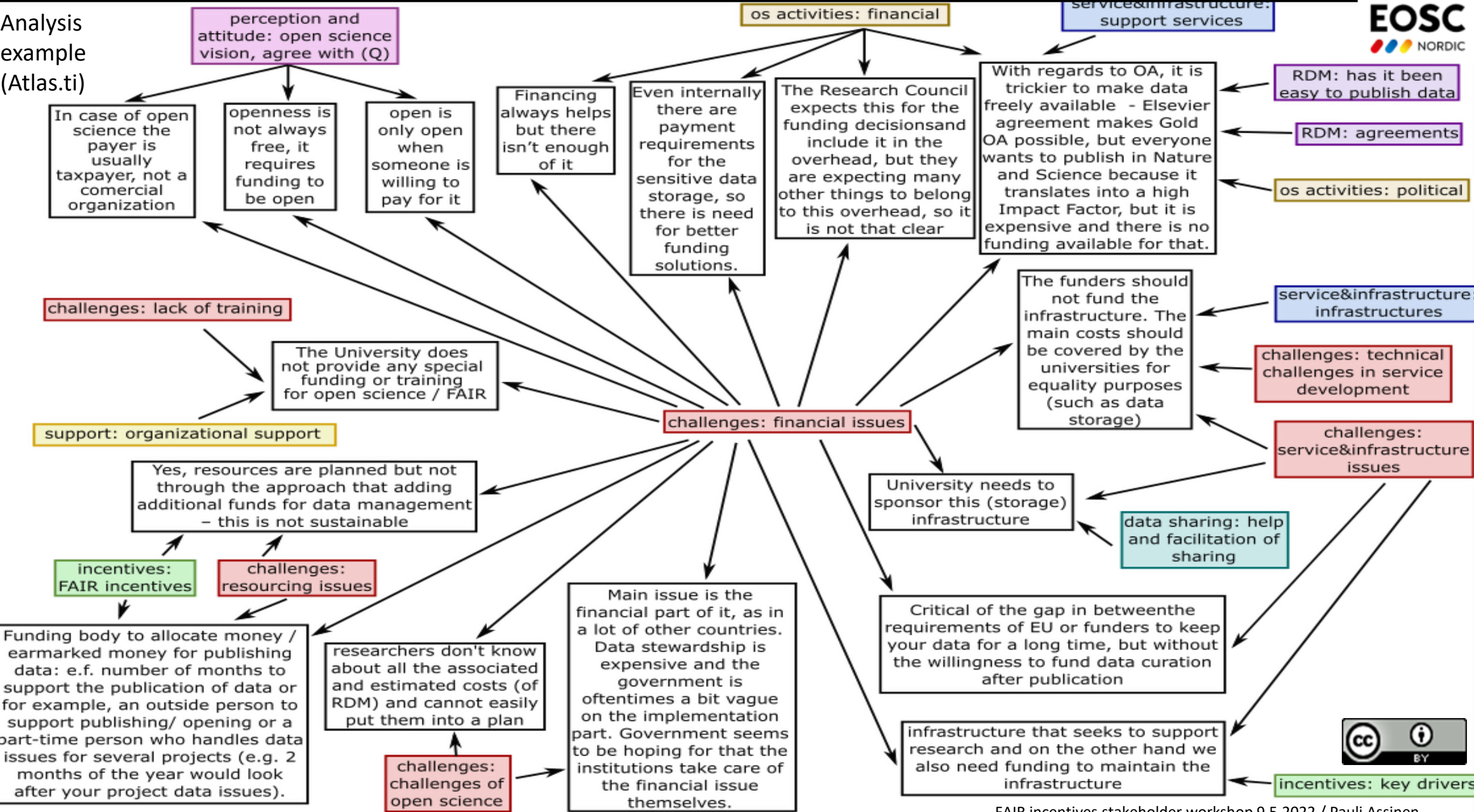**Create** a sense of urgency, and emphasise that things are changing.

Seven FAIR incentives themes

1. Offer additional resources for data curation and sharing (money and time)
2. Have a sustainable infrastructure in place for sharing and publishing data
3. Improve research support services and offer training
4. Develop data sharing metrics and a system based on merits
5. Develop clear requirements for data sharing and FAIR compliance
6. Foster a cultural change towards FAIR research
7. Communicate best practices

Analysis example (Atlas.ti)

perception and attitude: open science vision, agree with (Q)

os activities: financial

service&infrastructure: support services

In case of open science the payer is usually taxpayer, not a comercial organization

openness is not always free, it requires funding to be open

open is only open when someone is willing to pay for it

Financing always helps but there isn't enough of it

Even internally there are payment requirements for the sensitive data storage, so there is need for better funding solutions.

The Research Council expects this for the funding decisionsand include it in the overhead, but they are expecting many other things to belong to this overhead, so it is not that clear

With regards to OA, it is trickier to make data freely available - Elsevier agreement makes Gold OA possible, but everyone wants to publish in Nature and Science because it translates into a high Impact Factor, but it is expensive and there is no funding available for that.

RDM: has it been easy to publish data

RDM: agreements

os activities: political

challenges: lack of training

The University does not provide any special funding or training for open science / FAIR

support: organizational support

The funders should not fund the infrastructure. The main costs should be covered by the universities for equality purposes (such as data storage)

service&infrastructure: infrastructures

challenges: technical challenges in service development

challenges: financial issues

University needs to sponsor this (storage) infrastructure

challenges: service&infrastructure issues

Yes, resources are planned but not through the approach that adding additional funds for data management – this is not sustainable

incentives: FAIR incentives

challenges: resourcing issues

Funding body to allocate money / earmarked money for publishing data: e.f. number of months to support the publication of data or for example, an outside person to support publishing/ opening or a part-time person who handles data issues for several projects (e.g. 2 months of the year would look after your project data issues).

researchers don't know about all the associated and estimated costs (of RDM) and cannot easily put them into a plan

challenges: challenges of open science

Main issue is the financial part of it, as in a lot of other countries. Data stewardship is expensive and the government is oftentimes a bit vague on the implementation part. Government seems to be hoping for that the institutions take care of the financial issue themselves.

data sharing: help and facilitation of sharing

Critical of the gap in betweenthe requirements of EU or funders to keep your data for a long time, but without the willingness to fund data curation after publication

infrastructure that seeks to support research and on the other hand we also need funding to maintain the infrastructure

incentives: key drivers

Expected impact of increased FAIR uptake

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Organisational FAIR data policies

Increase in motivation to conduct qualitative, transparent research

Increase in scientific impact

Machine-actionable DMPs

Easy and seamless information workflow between systems (RPOs–service providers–RFOs)

Supporting FAIR adoption in everyday research work

Enhances communication between the researcher and support staff. Facilitates planning and risk management

Properly funded RDM

Improved effectiveness of research

Increased awareness of FAIR data managememt and skills development

Trustworthiness of research outputs

Monitoring mechanisms for FAIR research

Enables following up on how publicly funded research is being used

Has a positive effect on compliance levels

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