

Yes	yes	yes
Yes	yes	yes
yes	yes	Yes





Yes	Yes - but we need to have a way to plan to improve incrementally as the bar is raised.	Yes
Yes	yes	Yes, step by step works best
Yes absolutely !!!	Yes	yes





Yes but starting point should not be too low i.e baseline FAIRness	yes	At least I would not like to exclude valuable data	
Yes	Keep the barrier low and raise over time, be realistic and pragmatic	Dont' understand the question	
yes	yes	Progressively raising the level taking into account the lessons learned on the way	





Yes	Yes		yes
yes	Yes but with clear goal and deadlines		yes, but it will take time.
yes	Yes, but measure progress against longer goals		Yes





Yes	Yes	Yes, an incremental approach is the most inclusive way forward		
going beyond the minimum requirements is a must even now.	yes, with support and capacity building embedded in the strategy.	yes, but the starting point should not be too low		
yes	You need to know in advance where the plateau/ceiling is, you can't keep raising the bar	Raise the bar over time as expectations are defined and resources provided to met them. No data left behind!		





Probably yes, but because not everyone is able to implement all requirements it should not lead to exclusion of participants

depends. there should be a clear plan with a timeline, when things should be happening. otherwise i see a risk that the bar is getting stuck quite low.

training is what can help to define a threshold. Training and rising in a continuos way can be a good strategy.

Practical tools, like the great Data Stewardship Wizard, are the best bet for adoption.

Yes, only slowly moving towards this ultimate goal

Gradual enhancement of requirements for FAIR, with simultaneous support for all stakeholders, should be indeed the best solution. However, it must not be overlooked that some disciplines and/or national members will need more support and more time

Maybe - depends on what the "end" goal is

No, a high bar is ok and then working towards it is fine

yes





N/a

Depends a bit on what raising the bar means: more compliance to fair metrics, more open contents, more data stewards, etc.?

No - but there should be levels of integration. Certainly support on getting data to be FAIR is the right start, but as they become more FAIR they can be given access to more functionality

yes

We must ask this question to researchers (data producers and users); have you?

Yes, but with clear goals at every step.

Is being open and inclusive not a prerequisite for FAIR? Or is it the other way around? And raising the bar for whom? The entire community? That I think is not feasible.

As FAIR and open and inclusive as practically possible, better to raise the bar on what and how much FAIR applies to?

Yes, be ambitious and showcase those that are really embracing openness and inclusivity as this is where we need to be





Yes A very low entry point but with a guaranteed commitment to level up within a fixed timeframe

Minimum criteria is necessary, progression should be encouraged, process should be clear though

The FAIR threshold should enable the content to at least be useful to EOSC

what exactly do you mean by "threshold"? I think that guidelines towards FAIR should aim high from the beginning.

Yes, but with support (training) to help people keep up

Yes but in a quiet limited time to be sure to attained it





yes			

Not really, I understand the top down requirement to raise the bar but it means enlarging the gaps of knwoledge among stakeholder.





How can we make sure that the EOSC infrastructure includes long term digital preservation?

Not clear what 'EOSC infrastructure' means here

Involve established repositories which are already dedicated to >10y data curation. Funding has to be secured.

Have (certified) trusted digital repositories strongly linked to the eosc

Make sure we can measure and display aspects of preservation

Ensure that governments consistently financially commit to preserving their research output

Not all (meta)data will be preserved. It should be clear (in metadata and backed up by evidence) what level of care (or not) every digital object is receiving.

Work closely with repositories - it's fundamental for best practices and capacity

we need preservations policies and strategies first

What is the EOSC Infrastructure?



How can we make sure that the EOSC infrastructure includes long term digital preservation?

Have strong ties to digital archives

By making agreements with countries to make sure this is guaranteed over time. Financial etc.

Providing funding promoting standards such as oais working on collaborative solutions including preservation metadata designing policies and plans in institutions

LT preservation of data is the task of the repositories. Repositories have to be empowered to take that up

Make sure that long-term data preservation repositories have a voice in EOSC

collaboration and alignment of policies among all actors involved (funders, research performing organisations/universities, infrastructures, ...) to make sure data is preserved and accessible over time. this will feed into the EOSC development

More collaboration is needed with the existing Digital Preservation Community, it now seems two different worlds despite quite a lot of efford to bring them together.

This is NOT an easy question to answer, and you will need a plan that will incorporate this in the governance structure. I almost think it is NOT a fair question. This should be with sustainability.

Consider the outputs of the ARCHIVER project (https://www.archiver-project.eu/)



How can we make sure that the EOSC infrastructure includes long term digital preservation?

Long term financing, active curation, automation.

Giving a clear path for it. Some data should be long time preserved anyway, so a minimal implementation should be implemented.

need to agree who is responsible for the preservation of the data and then how the EOSC infrastructure works with this/support this if it is relevant to do so

awareness, roles and responsibilities clarity, work with repositories

It's require quite a lot long term money...

Depends... preservation and curation are different to me.

Adopting open common formats is a good start, but also ensuring services for access remain current, although this has a cost.

We need users/national repositories to define which datasets should be kept for a long time. Policies for preservation.

make the use of trusted repositories mandatory

Work together with repositories and governments to ensure finance.



How can we make sure that the EOSC infrastructure includes long term digital preservation?

Funding ends, staff move on, no continued central management. Issues for all data infratructures everywhere.

Implement requirements for depositing data in FAIR enabling and also trustworthy repositories, and develop more guidelines and do more research into long-term preservation, together with the appropriate stakeholders (repositories, researchers, users)

- Dedicated budget - Strongly recommend (over time: demand) use of certified trustworthy repositories - Recommend & reward actual reuse, so people experience that "preservation" is essential.- Discourage development of new certification flavours.

Setting good preservation requirements for data repositories and being transparent on whether they meet them

incentive policies and long-term funding

Closer cooperation with repositories to enable policies realization (which were agreed before that of course)

Have a strong focus om FAIR over time. Also make FAIRenabling and certified repositories findable

Develop strategies to sustain repositories beyond project funding

what is long-term? For how long exactly? What data to archive for how long? We need regulations first.



How can we make sure that the EOSC infrastructure includes long term digital preservation?

Funding, knowledge,

Consistent long-term funding and a clear career path for the people doing it

Secure long-term funding for services

Budget

who decides what data should be preserved for long time?

Funding is the key. But remember that not all data deserve to be preserved LT. It is important to decide first on the data that should be preserved. Who is responsible for that?

Funding for preservation, clear guidelines what data should be saved long term and how to do it (meta data, raw data, photos, videos... Data can be very heterogeneous in some disciplines), connect repositories so data can be connected across them



Defining and implementing Interoperability

What are the biggest challenges for the coming years to achieve the FAIR ecosystem?

incentives for them.

to get the researchers / re-users involved

Policies, skills, metrics

Make sure everything is well embedded in the various stakeholder communities

Make sense of all these reports and view points from all the EOSC projects

include a critical amount of researchers

semantic interoperability, define FAIR for s/w and services

budget

Coordination at different levels of maturity and progress.



What are the biggest challenges for the coming years to achieve the FAIR ecosystem?

To get "critical mass" for support.

digital skills, machine-actionability, automation

Clarity of core messages is key to avoid confusion misinterpretation and losd of interest. The landscape is very dynamic and it is easy to get lost and off track. Also clear rules of participation and governance

Truly reaching and engaging individual researchers and make it likely they will want to improve their FAIR skills (making it easy, rewarding, etc.)

Understanding the terminology of what an ecosystem really is. The lack of tools and services to develop a modular base approach toward the FAIR ecosystem and our infrastructure.

Inclusiveness-end user/beneciary e.g. patients/publics

Fair should be a low level service, like we have storage, database and so on. So a wide applicable model should be defined and implemented in most of repositories at a basic level.

researchers should be incentivised and rewarded for making their research outcomes FAIR, they should receive proper training and support

Endorsement and allocation of resources by organisations such as university. And giving researchers the practical aspects of FAIR to start practising FAIR.



What are the biggest challenges for the coming years to achieve the FAIR ecosystem?

Selling the benefits of increasing FAIRness of data to users/researchers/data producers.

culture change in the scientific communities so that researchers perceive FAIR as default and not as an extra burden

If we build it and no-one comes... Or: how to turn the intended users into actual users? With more/less/better services, guidance, good practices, workflows, demands...

Motivate researchers / cultural change

Acceptance among scientific community / critical mass

Engaging researchers. Budget. Connection with publications.

Defining and implementing the carrots and sticks for researchers to adopt FAIR practices

Alignment, between project results, between organisations, between communities. Semantic interoperability

To find new money or, more likely, to redistribute money from "research" to data management.



What are the biggest challenges for the coming years to achieve the FAIR ecosystem?

Culture

Secure long-term funding for services

Understanding that machine actionability should not be achieved at any cost. There are (practical) limits.

competition between EOSC players & funding

Scalability - long term curation requires support of data, services and software. Finance - infrastructure and human costs will increase, esp with software dentification - Getting ppl to work out what data to preserve and for how long Flexibility

Including all types of data from all disciplines, making data machine actionable, helping reusers find the data they can reuse, sticking to metadata standards for eg collecting and analyzing data for multiple studies to be connected etc Having practical solutions to foster participation from the research community, tools well-adapted to the data generated in a specific field, automated workflows

Lack of synchronization. Strong policies have to be universally (at European level at the minimum) applicable, with no exceptions. CUltural change will be inevitable, I wouldn't worry about that.

Researcher engagement - developing tools/approaches that fit with workflows and add value



What are the biggest challenges for the coming years to achieve the FAIR ecosystem?

Appraisal, because not all data need to be at the highest level of FAIRness.

plethora of metadata standards, repositories, etc.

To motivate people to share their (hard work collected) data

The current research reward and appraisal system - including the current academic publishing model - is broken. It does not currently allow researchers to prioritise sustainable data handling practices and skills.

Get researchers on board, easy, intuitive systems/infrastructure to make research data FAIR, rewards for researchers, national policies in line with FAIR/Open Science Ensure that data will be reused by other researchers but in some disciplines also by non-academic organisation for creation of evidence-based policies (climate change, health...). Create incentives and facility to enable creation of good quality data

Incorporating the specificities of what FAIR means in different disciplines into our overall understanding of FAIR (i.e. combining bottom-up and top-down knowledge of FAIR)

building an equitable FAIR ecosystmen where all can contribute and access research data - and not one where we become dependent on publishers or large commercial vendors where many are excluded from participation

Encouraging research organisations that is valuable. It will require funding and for these organisations to value the staff involved in this work. It will also need incentives and career paths for those staff.



What are the biggest challenges for the coming years to achieve the FAIR ecosystem?

Include acknowledged repositories/services to go the "FAIR" way, but if they won't join this path, it is difficult to get around them as it means to get around significant repositories

User-friendly tools and reliable services. For example, the Data Stewardship Wizard is great. On the other hand, EOSC for all its investments still doesn't offer a free stable PID minting service for researchers. Believe me, I tried...

that stakeholders have different challenges and have different starting points

researchers awareness and understanding of FAIR

researcher motivation through clear policies, appropriate incentives, standardised practices to allow research data management

Practical recomms to researchers

