Motivation and mandate

Getting service providers on board the EOSC Portal

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EOSC NORDIC

Main goals of WP3

Goal 1

Identify existing Nordic generic and thematic service providers and support their integration and the discovery of their services via the EOSC portal and other relevant catalogues.

Goal 2

Foster the organizational, semantic and technical interoperability of service providers and propose solutions for improving the interoperability approach within EOSC.

WP3 Developments Goal 1

- Tools to assess the maturity of services and models that can be used to help improve the maturity of services.
- Interoperability guidelines.

Deliverables aiming at Goal 1

- D3.1 EOSC Service compliance checklist and maturity model.
- D3.2 First report on mapping of EOSC prospective service providers and candidate services
- D3.3 Service Interoperability Framework.
- D3.5 Second report on mapping of EOSC prospective service providers and candidate services.

D3.1 EOSC Service compliance checklist and maturity model.

Compliance checklist & maturity model

The two goals for creating the compliance checklist and the associated maturity model were to:

- Create a shared understanding of what an EOSC Service is in the Nordic and Baltic region.
- Create an easy-to-use method for evaluating existing and future services for EOSC compliance.

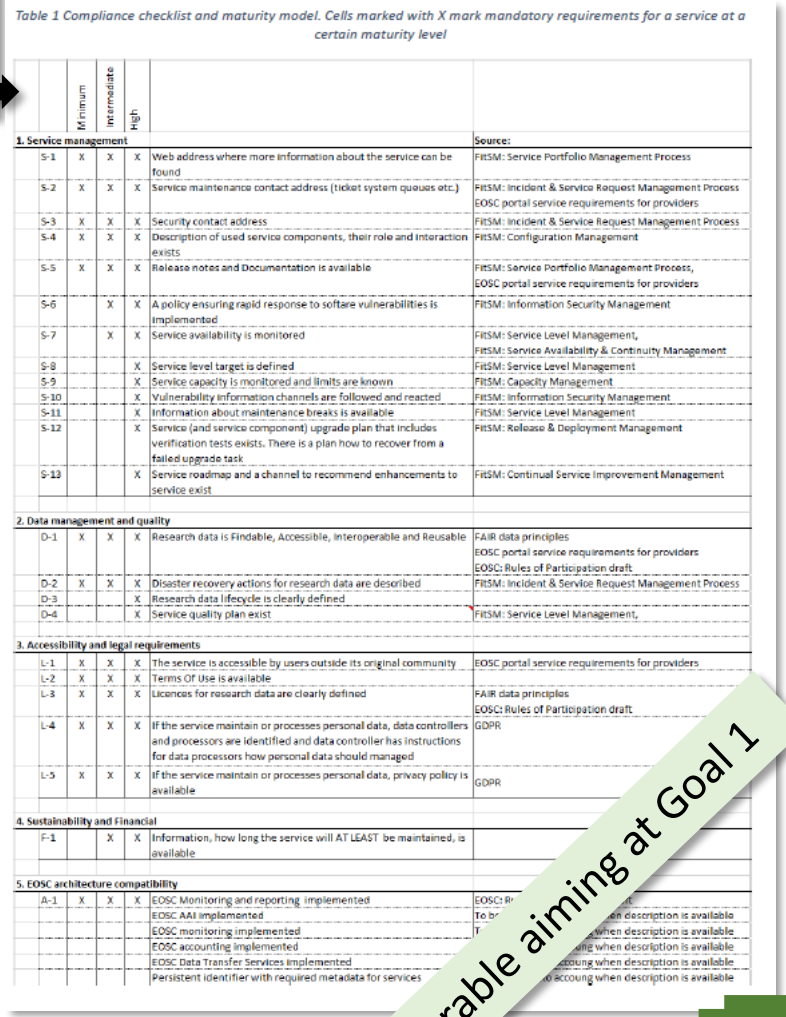

Table 1 Compliance checklist and maturity model. Cells marked with X mark mandatory requirements for a service at a certain maturity level

		Minimum	Intermediate	High		
1. Service management						Source:
	S-1	X	X	X	Web address where more information about the service can be found	FitSM: Service Portfolio Management Process
	S-2	X	X	X	Service maintenance contact address (ticket system queues etc.)	FitSM: Incident & Service Request Management Process EOSC portal service requirements for providers
	S-3	X	X	X	Security contact address	FitSM: Incident & Service Request Management Process
	S-4	X	X	X	Description of used service components, their role and interaction exists	FitSM: Configuration Management
	S-5	X	X	X	Release notes and Documentation is available	FitSM: Service Portfolio Management Process, EOSC portal service requirements for providers
	S-6		X	X	A policy ensuring rapid response to softare vulnerabilities is implemented	FitSM: Information Security Management
	S-7		X	X	Service availability is monitored	FitSM: Service Level Management, FitSM: Service Availability & Continuity Management
	S-8			X	Service level target is defined	FitSM: Service Level Management
	S-9			X	Service capacity is monitored and limits are known	FitSM: Capacity Management
	S-10			X	Vulnerability information channels are followed and reacted	FitSM: Information Security Management
	S-11			X	Information about maintenance breaks is available	FitSM: Service Level Management
	S-12			X	Service (and service component) upgrade plan that includes verification tests exists. There is a plan how to recover from a failed upgrade task	FitSM: Release & Deployment Management
	S-13			X	Service roadmap and a channel to recommend enhancements to service exist	FitSM: Continual Service Improvement Management
2. Data management and quality						
	D-1	X	X	X	Research data is Findable, Accessible, Interoperable and Reusable	FAIR data principles EOSC portal service requirements for providers EOSC: Rules of Participation draft
	D-2	X	X	X	Disaster recovery actions for research data are described	FitSM: Incident & Service Request Management Process
	D-3			X	Research data lifecycle is clearly defined	
	D-4			X	Service quality plan exist	FitSM: Service Level Management,
3. Accessibility and legal requirements						
	L-1	X	X	X	The service is accessible by users outside its original community	EOSC portal service requirements for providers
	L-2	X	X	X	Terms Of Use is available	
	L-3	X	X	X	Licences for research data are clearly defined	FAIR data principles EOSC: Rules of Participation draft
	L-4	X	X	X	If the service maintain or processes personal data, data controllers and processors are identified and data controller has instructions for data processors how personal data should managed	GDPR
	L-5	X	X	X	If the service maintain or processes personal data, privacy policy is available	GDPR
4. Sustainability and Financial						
	F-1		X	X	Information, how long the service will AT LEAST be maintained, is available	
5. EOSC architecture compatibility						
	A-1	X	X	X	EOSC Monitoring and reporting implemented	EOSC: R…
					EOSC AAI implemented	To b… …n description is available
					EOSC monitoring implemented	T… …when description is available
					EOSC accounting implemented	…ting when description is available
					EOSC Data Transfer Services implemented	…ccoung when description is available
					Persistent identifier with required metadata for services	…o accoung when description is available

Deliverable aiming at Goal 1

D3.2 First report on mapping of EOSC prospective service providers and candidate services

- Created an
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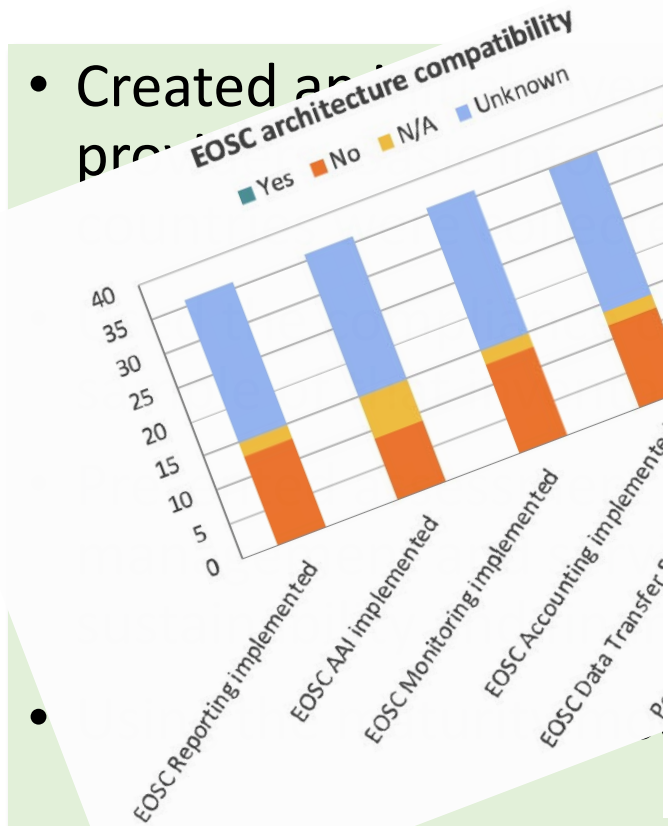

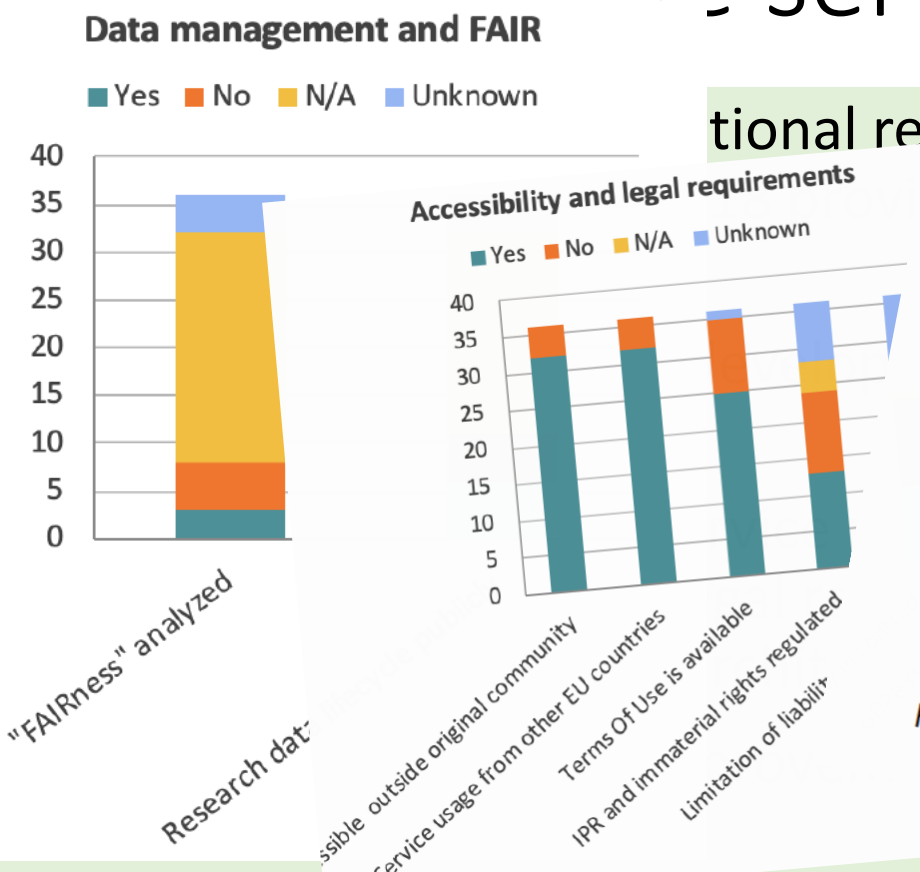

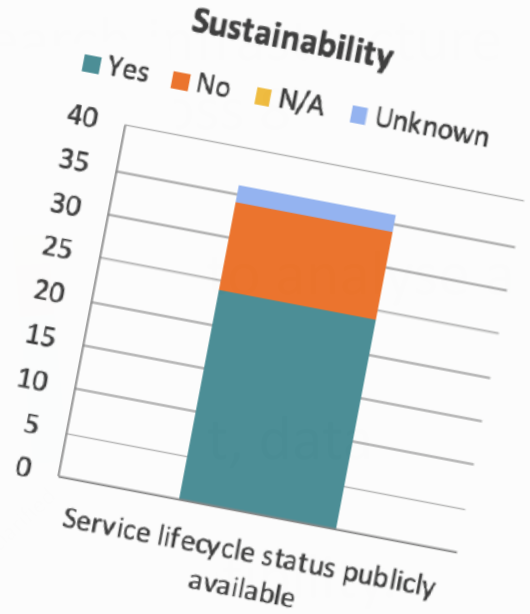

Figure 7: Sustainability results

Deliverable ai

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D3.3 Service Inter… Framework.

- Improving th…
- It l… …ean
- …of serv…
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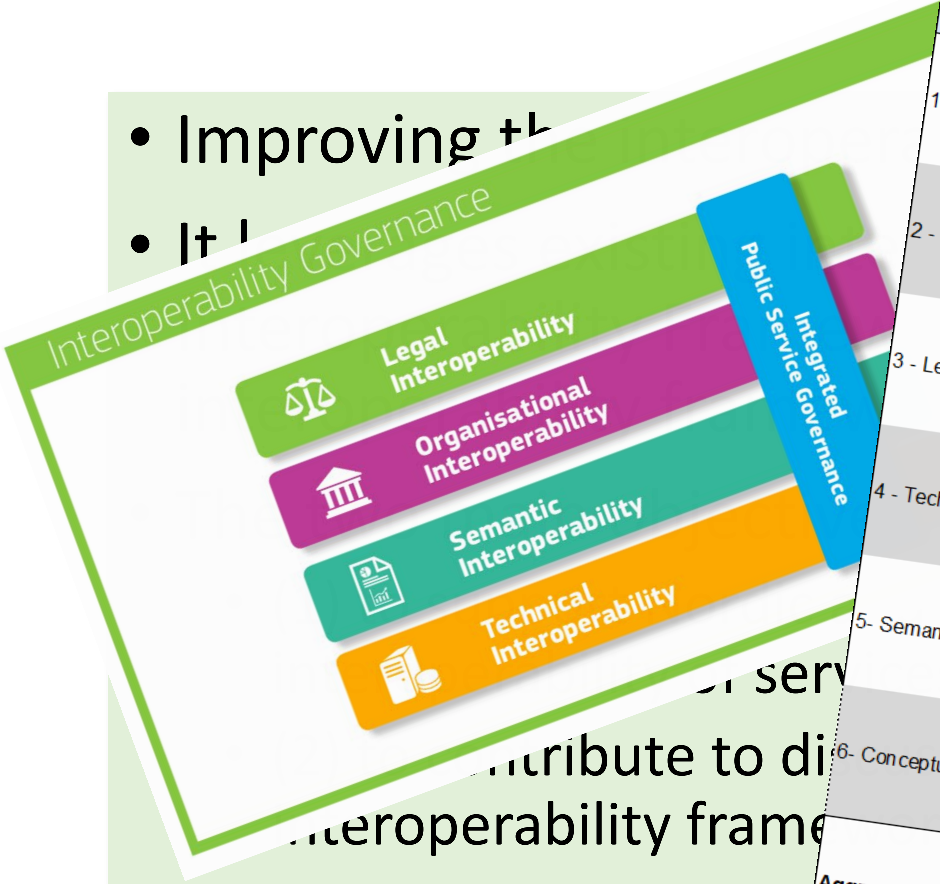
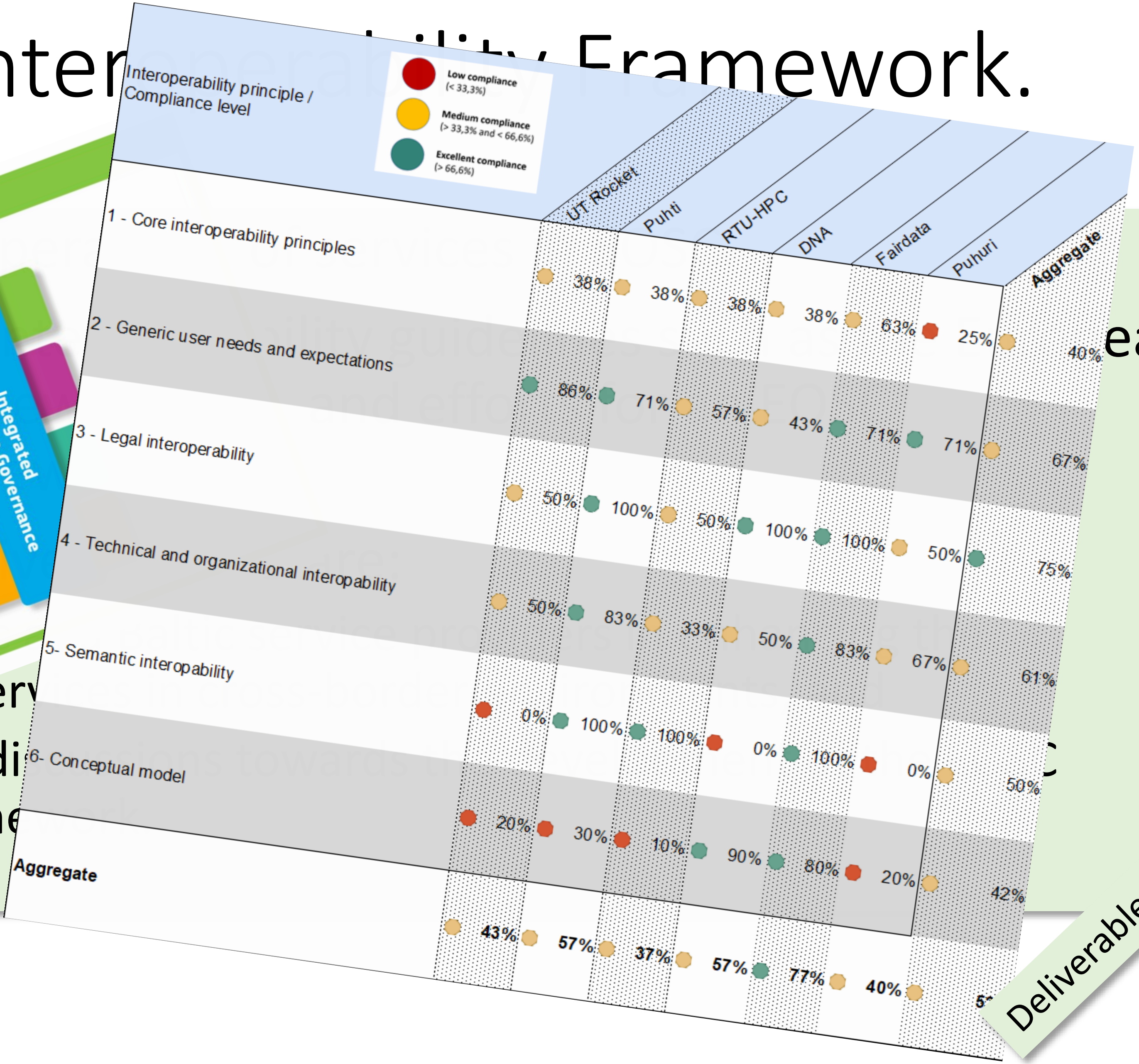
- …nteroperability frame…



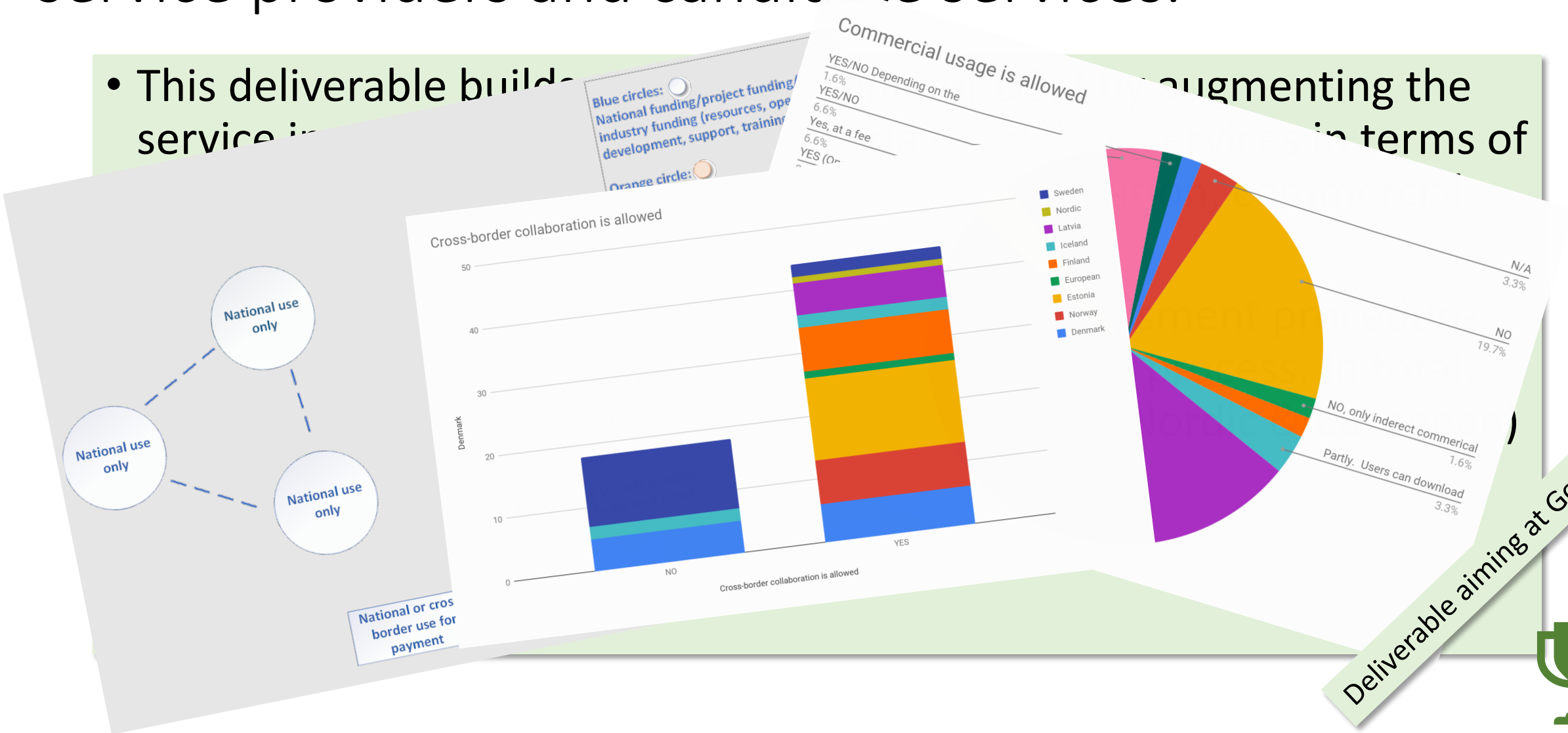


Interoperability principle / Compliance level	UT Rocket	Puhti	RTU-HPC	DNA	Fairdata	Puhuri	Aggregate
1 - Core interoperability principles	38%	38%	38%	38%	63%	25%	40%
2 - Generic user needs and expectations	86%	71%	57%	43%	71%	71%	67%
3 - Legal interoperability	50%	100%	50%	100%	100%	50%	75%
4 - Technical and organizational interopability	50%	83%	33%	50%	83%	67%	61%
5- Semantic interopability	0%	100%	100%	0%	100%	0%	50%
6- Conceptual model	20%	30%	10%	90%	80%	20%	42%
Aggregate	43%	57%	37%	57%	77%	40%	[illegible]

Deliverable aiming at Goal 1

D3.5 Second report on mapping of EOSC prospective service providers and candidate services.

- This deliverable builds [illegible] augmenting the service [illegible] terms of



Deliverable aiming at Goal 1

Conclusions

- Identification and assessment of the **drivers and inhibitors** for cross-border consumption observed seems highly relevant and can be investigated further.

- Services' main drivers consist of national interest and laws/regulations and financial input. This makes harmonisation more difficult.

policy makers, funders etc.

Lessons learned

Value

What value can the mapping of services bring to the service providers?

Structural hindrance

Relates to the way in which parts of a service are arranged that make it more difficult to do something or for something to develop.

Structural drivers

Relates to the way in which driving forces impact a service that facilitates development locally, nationally or internationally.

Lessons learned - Value

Advantage the service provider achieves by listing their service on the portal.

- Increased exposure of the service to potential user communities, increased service consumption and increased network ability.
- Improvement. Even if you don't integrate a service, you will still learn something if you handle data; maturity model, DMP, interoperability model, FAIR. An "exercise" on where you are in your service.

- Very few of the mapped services have been identified as catering to a substantial amount of cross-border consumption.
- Some services have the potential of achieving cross-border consumption, while others do not have the potential of achieving cross-border consumption.

- LUMI, which has its major funding from the EU and also from the participating countries. From a top-down perspective - LUMI is an example of ensuring a cross-border set up efficiently. The cost models and technical availability were solved between the countries in an efficient way.

Lessons learned- Structural hindrance

- National by design
  - Developed to cater for needs at their home institution or at the national level.
- No international mandate for the service
  - Developed and maintained locally by National Research & Educational Networks (NRENS) or individual universities or research projects
  - National interest tends to lead to a national design of the service
  - Cost- and resource issue for the national services to add on a cross-border use, since there is no cost coverage
- Bound to the local language
  - Conduct their collaboration through their local language
  - User documentation, legal terms and even change management processes also tend to be in the local language.
- Funding and staffing can be local

Lessons learned- Structural drivers (1/3)

- Economies of scale
  - Free for academic use is a complicated issue, and is determined by different legal, national, institutional and funding rules. Services for free is due to national (or institutional) interest to have them freely available.
    Adds extra issues regarding cost/VAT and national regulation for cross-border consumption.
- Supporting specialised research
  - Some specialised research fields that have special relevance for Nordic researchers may require specialised and advanced (expensive) services.
    Cost of financing such services might be prohibitive unless it is executed at the Nordic level.

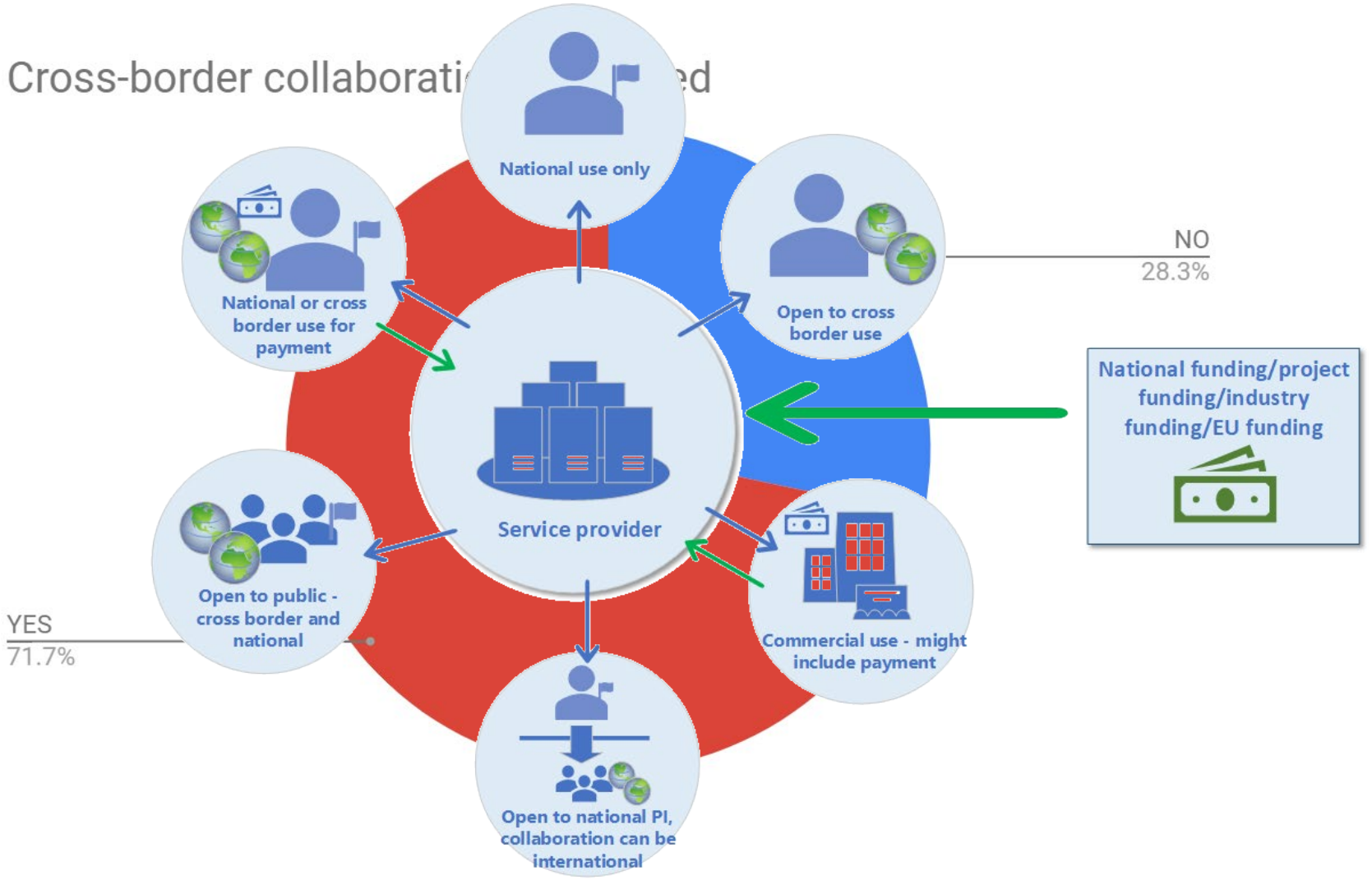
Lessons learned- Structural drivers (2/3)

- Supporting popular cross-border services
  - Increased political support of cross-border services with high visibility can have a high probability of valuable outcomes and a low risk of failure. In such cases a cross-border service may be decided upon through a top-down effort.
    Positive examples LUMI and MAX IV.

Lessons learned- Structural drivers (3/3)

- Harmonization of services
  - There is no clear path for the services on how to work out harmonization and synchronization of the services so that users can expect equal service, terms of use, interface, support and language.
  - Harmonizing services can be an objective with best practices for resource providers aiming to facilitate convergence within the EU for service provisioning, hence making it easier for users.

Usage and cross-border – the complexity



Next steps?

Only a few services in the mapped Nordic-Baltic inventory currently allow cross-border usage.

- However, count of such services is slowly increasing due to rising demand for cross-border consumption.
- There are examples of cross-border collaboration, however they are mainly financed cross-border with a specific target.

Next steps?

- Identification and assessment of the drivers and inhibitors for cross-border consumption observed seems highly relevant and can be investigated further.
- The services' main drivers consist of national interest and laws/regulations and financial input. This makes harmonization more difficult.

Next steps?

A possible objective for EOSC in the future would be to assist the services to mature further.

- Assistance can consist of guides on best practices.
- Lower uncertainty about the future of the services when EOSC handles assessment regularly of services.
- Discussions on how to improve the services.
- This would also enhance the EOSC network and the onboarding process of services.

WP3 - wrap up

- Final report coming soon…
- Thank you!