



Integration of health initiatives with tools and services under the European Open Science Cloud (LETHE, FEMaLe and HealthyCloud)

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TLP: WHITE Public

- **Welcome and overview of EOSC services and their potential for use in health initiatives**
Ville Tenhunen, Data Solutions Architect, EGI Foundation
- **Concrete case: integration of LETHE project with EOSC**
Francesco Mureddu, Senior Director, The Lisbon Council
- **Concrete case: integration of HealthyCloud project with EOSC**
Juan Gonzalez–Garcia, Unit Manager at Aragon Health Sciences Institute, IACS
- **Prospective case: potential for the use of EOSC in the FEMaLe project**
Ulrik Bak Kirk, Project Coordinator, Aarhus Universitet
- **Structured question & discussion**
Francesco Mureddu, Senior Director, The Lisbon Council



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Overview of EOSC services and their potential for use in health initiatives

The European Health Data Space

- supports individuals to take control of their own health data
- supports the use of health data for better healthcare delivery, better research, innovation and policy making and
- enables the EU to make full use of the potential offered by a safe and secure exchange, use and reuse of health data

The European Health Data Space is a health specific ecosystem comprised of rules, common standards and practices, infrastructures and a governance framework.

More info: https://health.ec.europa.eu/ehealth-digital-health-and-care/european-health-data-space_en

Regulatory basis:

- General Data Protection Regulation (GDPR), Data Governance Act, Data act, Network and Information Systems Directive; user rights and increased digital access to and control of their electronic personal health data, agreements and documents (DPA, DPIA, JDCA etc.), rules for primary and secondary use etc.

Note:

- all health data is not personal data or sensitive data

Challenge:

- even if we have a common European regulation we have also lot of national interpretations and practises

More: <https://gdpr.eu/>

Regulatory basis

Taking into account the state of the art, the costs of implementation and the nature, scope, context and purposes of processing as well as the risk of varying likelihood and severity for the rights and freedoms of natural persons, **the controller and the processor shall implement appropriate technical and organisational measures** to ensure a level of security appropriate to the risk, including inter alia as appropriate:

- the **pseudonymisation and encryption** of personal data;
- the ability to ensure the ongoing **confidentiality, integrity, availability and resilience** of processing systems and services;
- the ability to **restore the availability** and access to personal data in a timely manner in the event of a physical or technical incident;
- a process for **regularly testing, assessing and evaluating** the effectiveness of technical and organisational measures for ensuring the security of the processing

Full text: <https://gdpr.eu/article-32-security-of-processing/>

In infrastructures:

- monitoring and alerts (IDS etc.)
- hardening servers and other infrastructure
- networks sequencing and monitoring (FWs etc.)
- backups, log management and audit trails
- access control (MFA)

But also in software and tools:

- encryption
- de-identification tools (anonymization/pseudonymization)
- consent management
- service management (role of the ISMS)

All research data faces following use cases

- Need to share and collaborate with data with other researchers
- Need to process data locally or in trustworthy federation
- FAIR principles for the research data management
- Scientific value of the data
- Data science procedures etc.

Domain related services such as...

- AMBER-based Portal Server for NMR structures (AMPS-NMR), DisVis web portal (visualisation of interaction space between two molecules), HADDOCK2.4 web portal (integrative modelling of biomolecular complexes), PhenoMeNal (large-Scale computing for medical metabolomics) etc.
- 27 domain services in total

Also generic services are possible to use or configure...

- AMNESIA (de-identification)
- Identifiers.org (PIDs)
- European Galaxy Server data intensive research
- EGI FedCloud, Check-In, Notebooks etc.

More: <https://marketplace.eosc-portal.eu/>



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Thank you!

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