Implementation of the EOSC initiative in the Czech Republic
1. Research Infrastructures Policy-Making and Public Funding

- **National Law-Based Research Infrastructures**
  - Initiative to finance research infrastructures set up under a country’s national law, mostly *research infrastructures based in Czechia*, but also *facilities located abroad*
    - Operation and investment costs, membership fees for international cooperation
    - In-kind deliveries (technologies, maintenance, services) to international facilities

- **EU and International Law-Based Research Infrastructures**
  - Initiative to finance research infrastructures established under the EU and international law as *European Research Infrastructure Consortia (ERIC)* and *international R&D organisations*
    - Payments of mandatory membership fees
    - Contributions to optional programmes and projects

- **National Centre for Electronic Information Resources in R&D**
  - Initiative to finance the *Czech national licence centre* to purchase and provide access to electronic information resources in R&D, such as electronic journals and books, and specialised R&D databases

- **National Infrastructure for Scientific Data**
  - Initiative to finance the development of the *Czech national data infrastructure*, implement the concept and federate it within the European Open Science Cloud
2. Stakeholders Engagement and Coordination Mechanism

- **Coordination Committee for the EOSC Implementation in Czechia**
  - Since 2021, a high-level coordination platform driven by the Ministry of Education, Youth and Sports, as the public authority responsible for R&D policy-making and public funding, including research infrastructures
  - Composed of leading Czech R&D stakeholders
    - Ministry of Education, Youth and Sports (lead policy-maker and funder)
    - e-INFRA CZ (Czech national e-infrastructure)
    - National Library of Technology (open science policy coordinator)
    - Czech Rectors Conference (higher education institutions)
    - Czech Academy of Sciences (public research sector)
    - Czech Science Foundation, Technology Agency (grant agencies)
    - Council for Research, Development and Innovation (advisory board)

- **Architecture of the European Open Science Cloud Implementation**
  - High-level policy orientations on the EOSC implementation in Czechia
  - A five-pager from mid-2021 setting out essential principles of EOSC-CZ
  - Co-created by policy-makers, e-infrastructure operators and R&D actors
  - Linking architecture design, implementation plan and funding instruments
3. Implementation Architecture and Support Structure

- **EOSC-CZ Secretariat**
  - Operated by the e-INFRA CZ Czech national e-infrastructure consortium
  - Composed of three e-infrastructure pillars, mutually complementing each other
    - **CESNET** – NREN network, computational grids, data storage, ICT environment
    - **CERIT Scientific Cloud** – cutting-edge experimental computing and data storage
    - **IT4Innovations** – high performance computing, data analysis, artificial intelligence

- **Working Groups**
  - Inclusive platforms with fluid membership open to any interested stakeholder
  - **Cross-cutting areas** – horizontal data infrastructure challenges
    - (1) Architecture, (2) Metadata, (3) Core services, (4) Education and training
  - **Thematic clusters** – specific needs of individual R&D disciplinary domains
    - (1) Physical sciences, (2) Material sciences and technology
    - (3) Data management for artificial intelligence and machine learning
    - (4) Environmental sciences, (5) Biological and medical sciences and food
    - (6) Social sciences, (7) Arts and humanities
    - (8) Sensitive data
4. **Czech National Data Infrastructure Architecture**

- **National Metadata Directory**
  - Coordinated through the Working Group on Metadata
  - Key component, guaranteeing findability and interoperability of data
  - Centrally managed component directly interacting with all other components

- **National Repository Platform**
  - Coordinated through the Working Groups on Architecture and Core Services
  - Capacity building and providing basic/common data infrastructure services
  - Defines standards and interfaces for the technical interoperability

- **Thematic Repositories**
  - Coordinated through Thematic Working Groups
  - Support of already existing and ongoing activities (research infrastructures)
  - Definition of new science-disciplinary data needs and their facilitation

- **Education and Training**
  - Coordinated through the Working Group on Education and Training
  - Human resources development for the FAIR data management
5. Implementation Plan and Funding Scenarios

- **Operational Programme Johannes Amos Comenius**
  - EU Cohesion Policy Funds for the public research sector in 2021–2027
  - Series of complementary calls for research and national data infrastructures
  - Budget allocation for upgrades of research infrastructures $\approx$ EUR 240 million
  - Budget allocation for the EOSC implementation $\approx$ EUR 120 million

- **First Call** – already launched in 2022
  - Support structure of the EOSC-CZ Secretariat
  - Development and capacity building of the National Metadata Directory
  - Coordination and providing of education and training for the FAIR data management

- **Second Call** – under preparation, to be launched in 2023
  - Development and capacity building of the National Repository Platform

- **Third Call** – under preparation, to be launched in 2024
  - Capacity building of the thematic clusters data repositories

- **Fourth Call** – under initial consideration with possible launch in 2025
  - Activities directed at uptake and upskilling
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Europe as a Task: Rethink, Rebuild, Repower
THANK YOU VERY MUCH FOR YOUR ATTENTION!

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