# Implementation of the EOSC initiative in the Czech Republic



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#### 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



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#### **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



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#### **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 ~ EUR 240 million
- Budget allocation for the EOSC implementation ≈ 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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### THANK YOU VERY MUCH FOR YOUR ATTENTION!

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