Global collaboration platform for Data Science

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Integrated Service for Data Science

CERN site services

Users **collaborate on data** using an increasing number of applications.

Concurrent editing

Application & Collaboration Hub

Web-based Analysis

Sync & Share Collaborative Editing ... Data Science Environments

Ready-to-go environment "one click away"

Data available on **all devices**: mobile, laptops, desktops

CERNBox

User Data 3PB

Big Data Repository 300PB

Data easily **sharable** with individuals and groups

EOS Open Source Storage
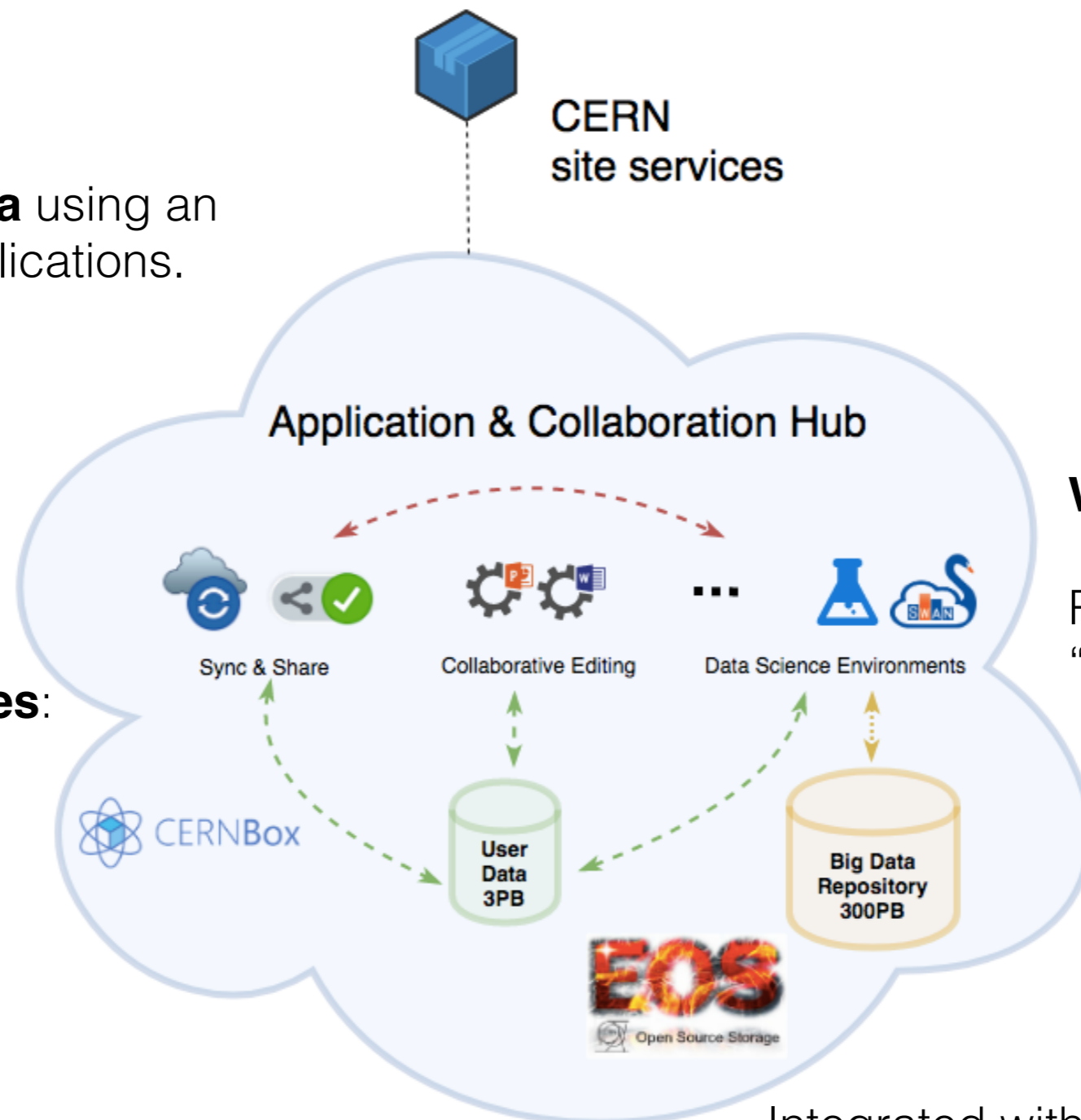
Integrated with **entire data repository**

Federated Analysis Platform

Advancing state of the art

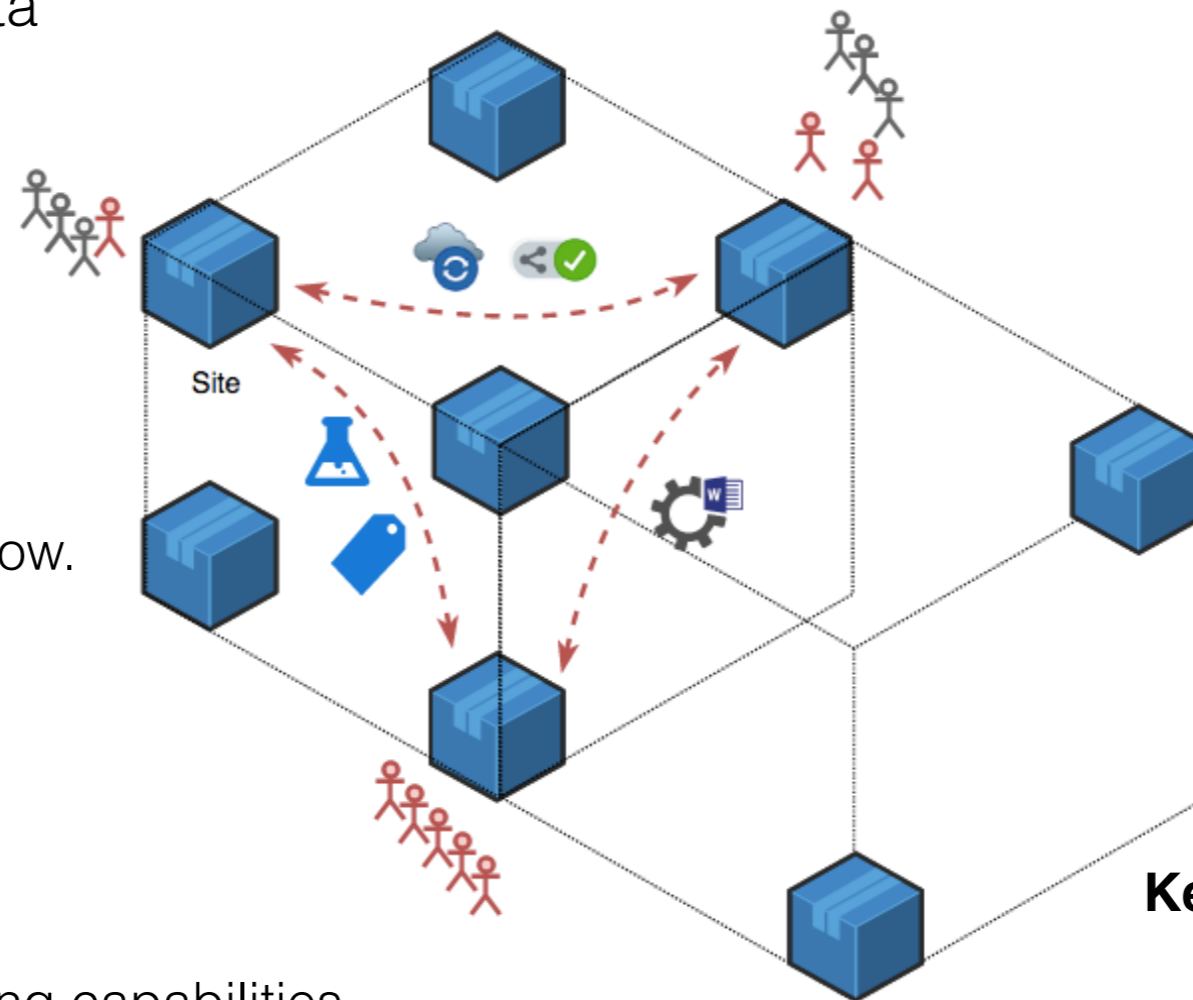**One-click** to create user groups,
share projects and data

Full metadata awareness
in the research workflow.

Domestic and remote users
in the same collaborative workflow.

Site

Application&data workflow.

Integrate distributed computing capabilities
with data sharing systems.

Keep the data at the source
if required (size or policy).

No need to export data to reach functionality.

The Project: CS³ Mesh

- 12 partners to **create initial infrastructure**

  - connect existing, sustainable services

  - 200K+ existing users

- Deliver a **Global CS3 Collaboration Service** for European research, education and public institutions.

- **Provide a Community Collaboration Platform** on technology, applications, use-cases, software and operations in Europe, Australia and beyond.

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Status
Grant agreement signed

Start date   End date
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**EU contribution
€ 5 858 571,25**

Coordinated by:
EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH
🇨🇭 Switzerland

Partners

Coordinator

🏛 **EUROPEAN ORGANIZATION FOR NUCLEAR RESEARCH**

Address	Activity type
Route De Meyrin Cern 1211 Geneva 23	Research Organisations

🇨🇭 Switzerland — **WLCG T0**

DANMARKS TEKNISKE UNIVERSITET
🇩🇰 Denmark — **UNI**

SURFSARA BV
🇳🇱 Netherlands — **WLCG T1**

INSTYTUT CHEMII BIOORGANICZNEJ POLSKIEJ AKADEMII NAUK
🇵🇱 Poland — **HPC**

CESNET ZAJMOVE SDRUZENI PRAVNICKYCH OSOB
🇨🇿 Czechia — **NREN**

AARNET PTY LTD
🇦🇺 Australia — **NREN**

SWITCH
🇨🇭 Switzerland — **NREN**

WESTFAELISCHE WILHELMS-UNIVERSITAET MUENSTER
🇩🇪 Germany — **UNI**

AILLERON SA
🇵🇱 Poland — **TECH ENTERPRISE**

CUBBIT SRL
🇮🇹 Italy — **TECH STARTUP**

JRC -JOINT RESEARCH CENTRE- EUROPEAN COMMISSION
🇧🇪 Belgium — **EC**

FUNDACION ESADE
🇪🇸 Spain — **BUSINESS SCHOOL**

Collaborative Workflows

Integrate existing experience and technology

Share, access, synchronize

Metadata&tagging, Open Data (OpenAIRE, Zenodo,…)

Data Science: Jupyter Notebooks (SWAN,…)

Concurrent editing

On-demand data transfers (Direct, FTS, DTN, Rucio …)

Interoperability

- Add thin layer on top of existing services

- Use existing fabric

- Use existing standards

  - Introduce new APIs only if needed

- ScienceBox

- Close collaboration with industry

  - Integrate into upstream products

CS³ Community Service

cs3community.org