Workshop on Cloud Services for Synchronisation and Sharing

A Summary

by Pedro Ferreira

8th edition!

24 - 27 Jan 2022

- 2014 - Genève
- 2016 - Zürich
- 2017 - Amsterdam
- 2018 - Kraków
- 2019 - Roma
- 2020 - København
- 2021 - **Virtual**
- 2022 - **Virtual**

What is it about?

- **Sync & Share Cloud Storage, on-premises, FOSS**
  - Sites and Services: *DESY Sync & Share, CERNBox, BNLBox...*
  - Storage Technology: *EOS, GPFS, CEPH, dCache, ...*
  - EFSS Companies: *ownCloud, Nextcloud, Seafile...*

What is it about?

- **Integrated Services**
  - Collaborative Tools: *OnlyOffice, Collabora, ...*
  - Research Services: *Jupyter, Open Data Repositories, FAIR metadata ...*
- **Projects and Federations**
  - *European Open Science Cloud, ScienceMesh, HIFIS ...*

What is it about?

- New: **Decentralized Web and Storage**
  - IPFS, Solid, ...
  - web3, Fediverse...
- **Thematic workshops**
  - Interoperability protocols and APIs
  - ScienceMesh

Attendance

- **280+** registered participants (~310 previous year)
- **~120** different organizations
  - Universities, International Organizations, NRENs, Computing Centers, SMEs, Enterprises, European Commission...

Starting point
create initial infrastructure
nextcloud
A safe home
for all your
ADVANCED FEDERATED CLOUD TECHNOLOGY
MOVE YOUR DIGITISED ASSESTS
FAST, SAFE AND RELIABLE

2021 - 2022

- Needed to go **full virtual** (Zoom)
- Collaborative **tools** (Zoom, gather.town, Indico)

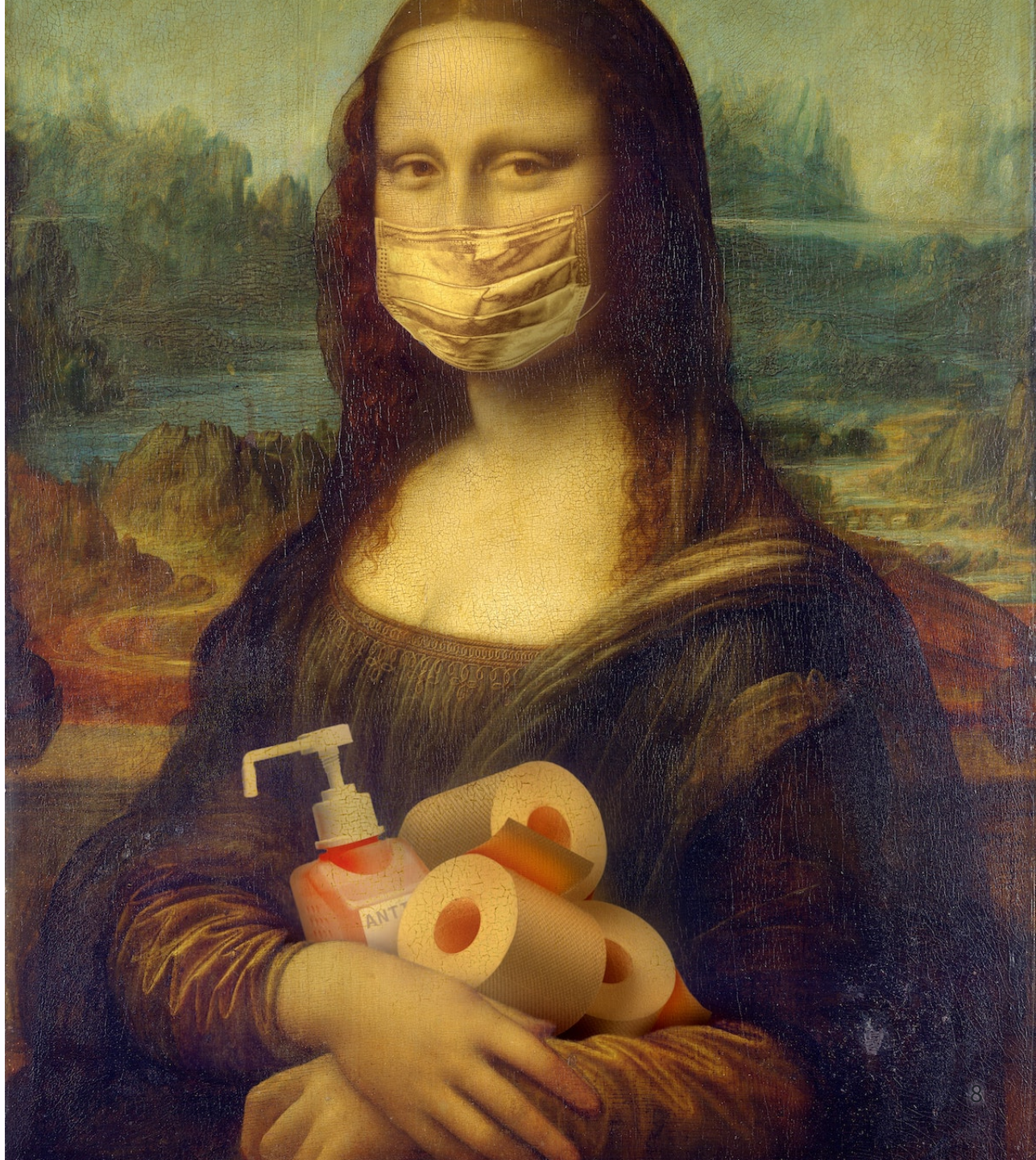
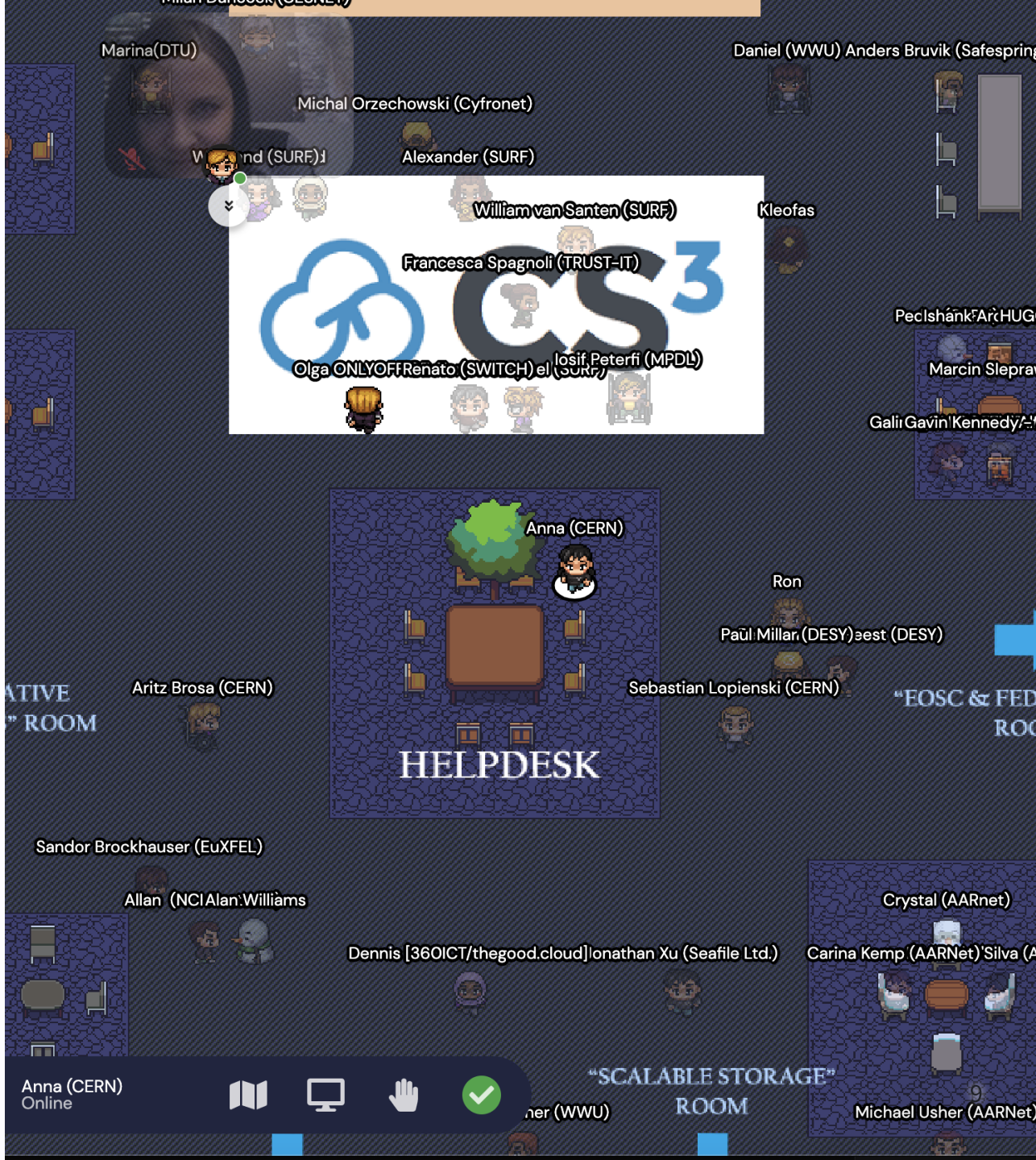


Photo by Yaroslav Danylchenko from Pexels

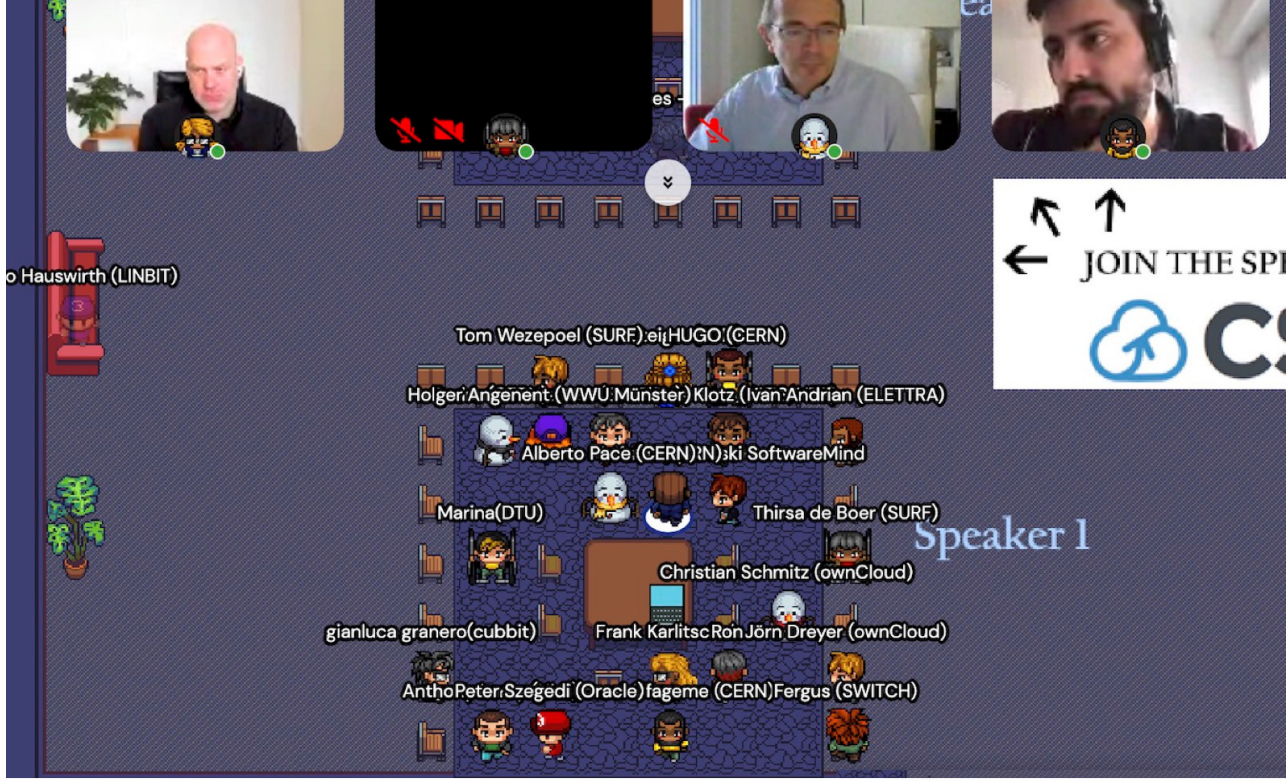
gather.town

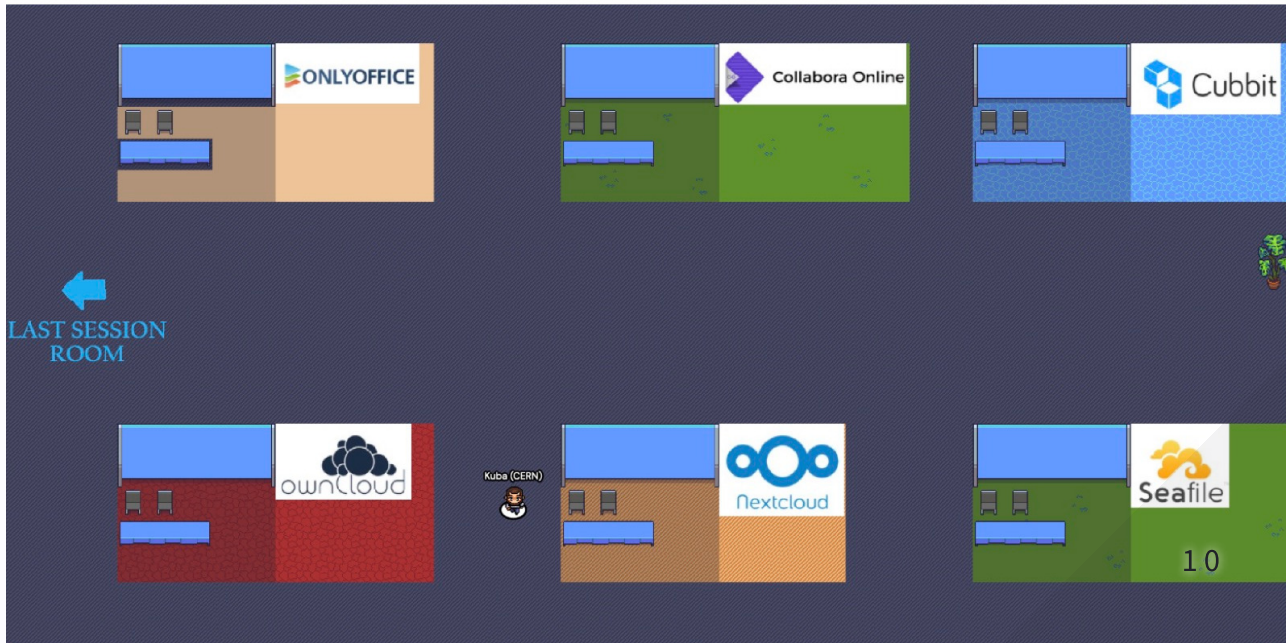
- **8-bit-RPG-like** interface 👾
- Game-like **controls** (arrow keys)
- "Line of sight" **video chats**



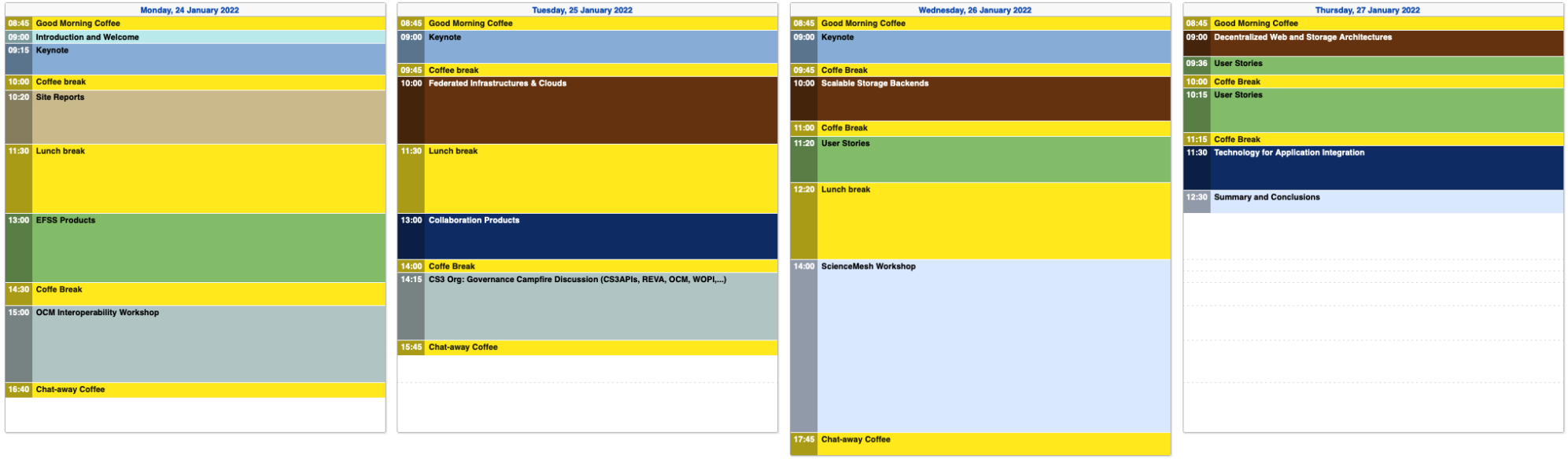
This time

- More or less same layout
- Rooms for discussions + exhibitor **booths**
- Usage visibly **lower** than previous year...
- Maybe "Zoom fatigue"?





Schedule



Monday, 24 January 2022

08:45	Good Morning Coffee
09:00	Introduction and Welcome
09:15	Keynote
10:00	Coffee break
10:20	Site Reports
11:30	Lunch break
13:00	EFSS Products
14:30	Coffe Break
15:00	OCM Interoperability Workshop
16:40	Chat-away Coffee

Tuesday, 25 January 2022

08:45	Good Morning Coffee
09:00	Keynote
09:45	Coffee break
10:00	Federated Infrastructures & Clouds
11:30	Lunch break
13:00	Collaboration Products
14:00	Coffe Break
14:15	CS3 Org: Governance Campfire Discussion (CS3APIs, REVA, OCM, WOPI,...)
15:45	Chat-away Coffee

Wednesday, 26 January 2022

08:45	Good Morning Coffee
09:00	Keynote
09:45	Coffe Break
10:00	Scalable Storage Backends
11:00	Coffe Break
11:20	User Stories
12:20	Lunch break
14:00	ScienceMesh Workshop
17:45	Chat-away Coffee

Thursday, 27 January 2022

08:45	Good Morning Coffee
09:00	Decentralized Web and Storage Architectures
09:36	User Stories
10:00	Coffe Break
10:15	User Stories
11:15	Coffe Break
11:30	Technology for Application Integration
12:30	Summary and Conclusions

Highlights

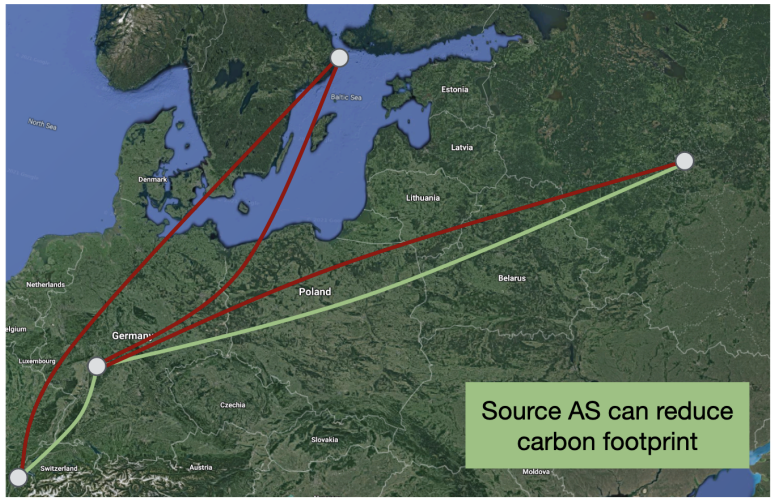
Keynote: IPFS: Interplanetary filesystem

Yiannis Psaras (ProtocolLabs)

Keynote: SCION: Experiencing a new Internet Architecture

Adrian Perrig (ETHZ)

Carbon-intensity difference between paths (1/2)



Path between Swisscom (Geneva) and Extreme Ltd (Moscow)

BGP Path:
Geneva - Stockholm - Frankfurt - Moscow

Greenest SCION Path:
Geneva - Frankfurt - Moscow

Emission savings
Absolute: 0.13 g/GB
Relative: 93%

ETH zürich SCION

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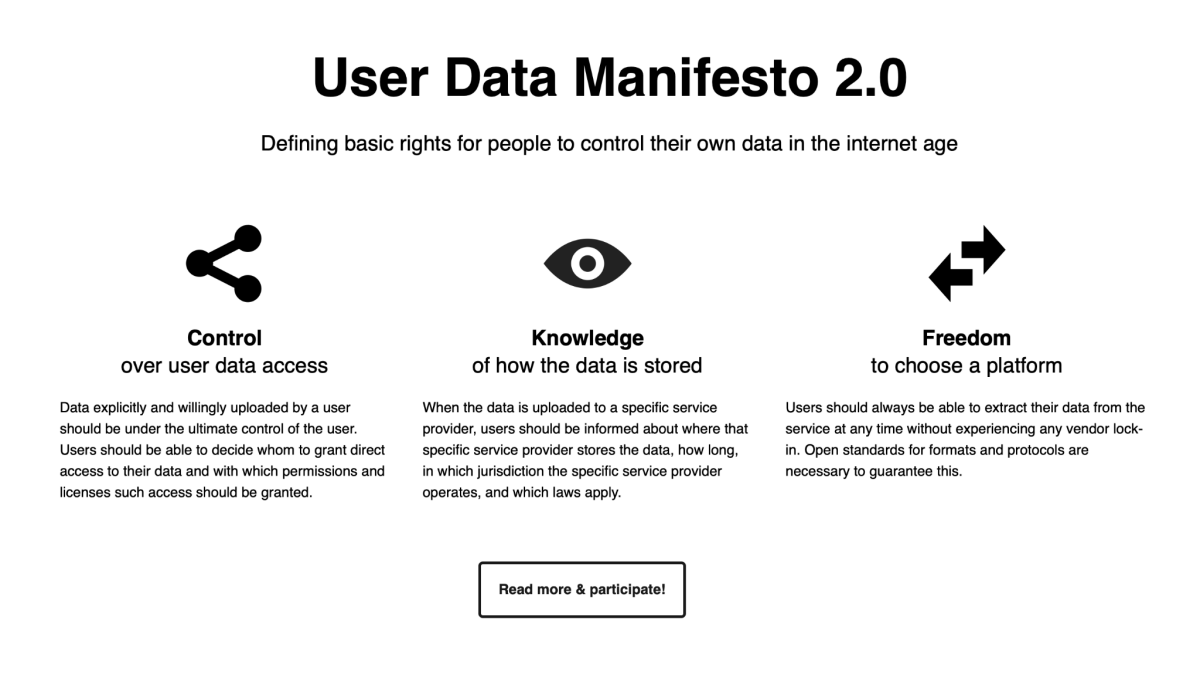
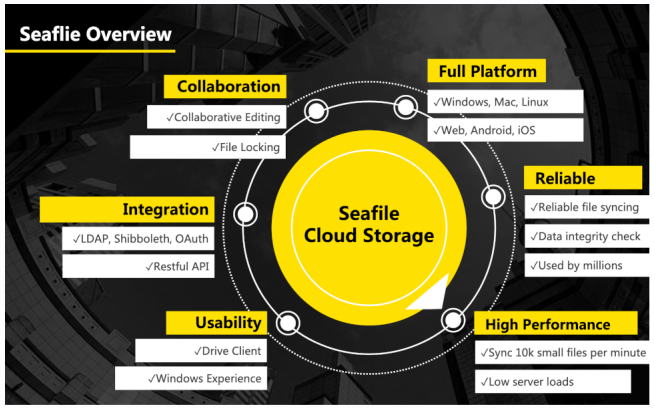
Keynote: Digital Market: a level playing field for EU Tech sector

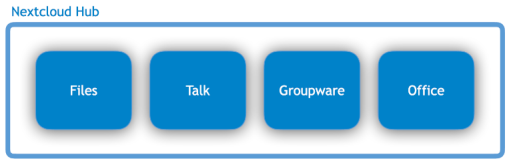
Frank Karlitschek (Nextcloud)



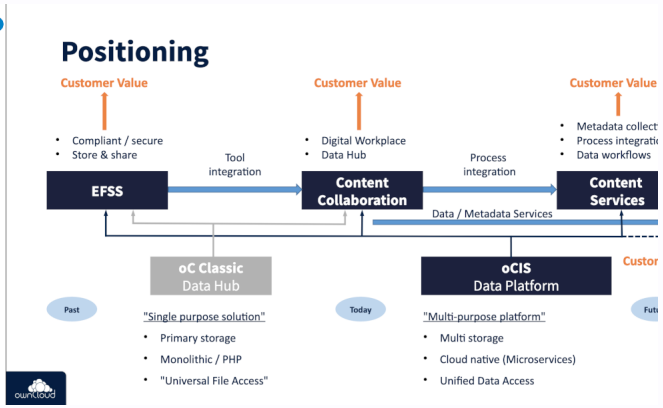
EFSS Platforms

ownCloud, Nextcloud, Seafile



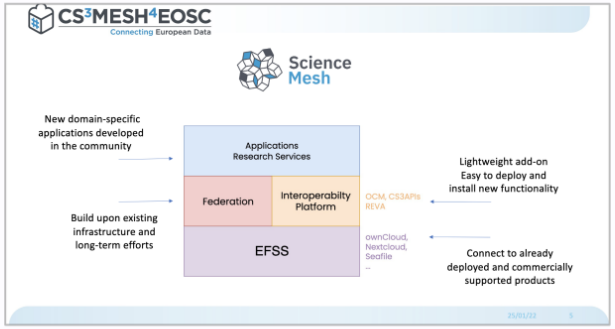


Productivity, Security, On Premises, Open Source

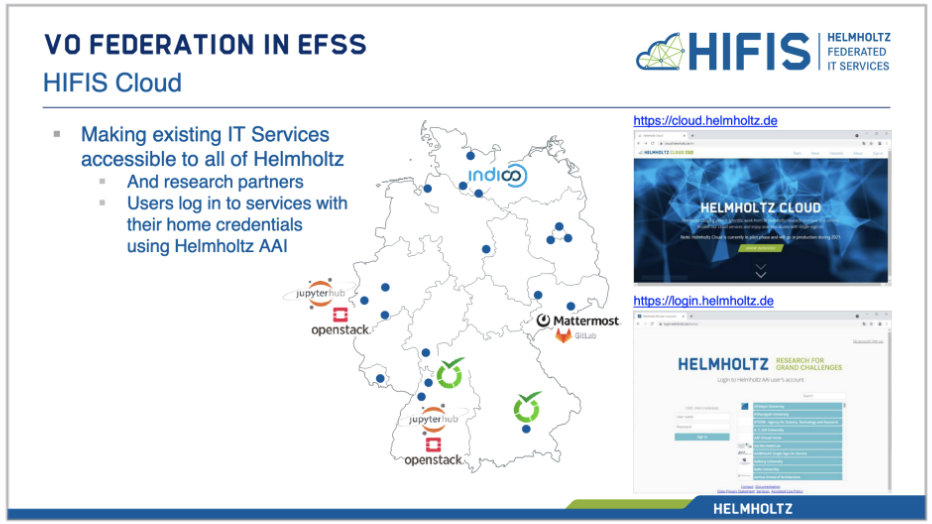


Federated Infrastructures and Clouds

P. Szegedi - Update from the European Comission on Future Evolution of Digital Landscape in Europe

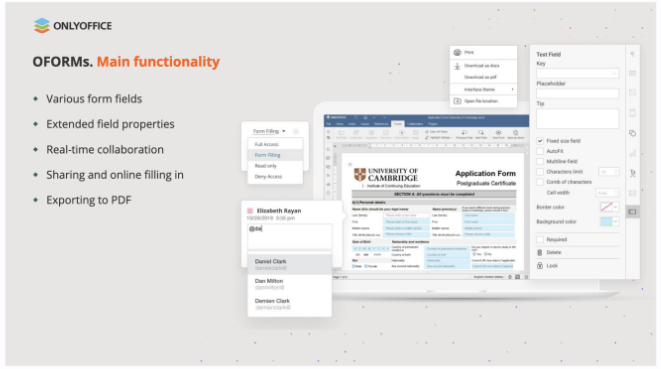


P. Ferreira - ScienceMesh: An Interoperable Federation of EFFS services for European Open Science Cloud



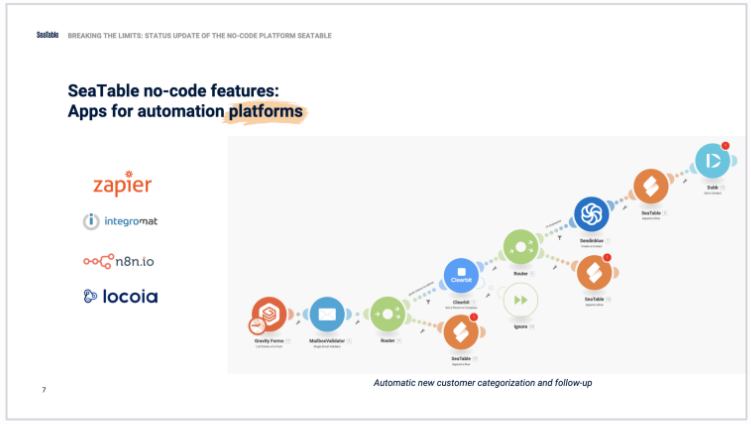
A. Klotz - HIFIS: VO Federation for EFSS

Collaboration Products



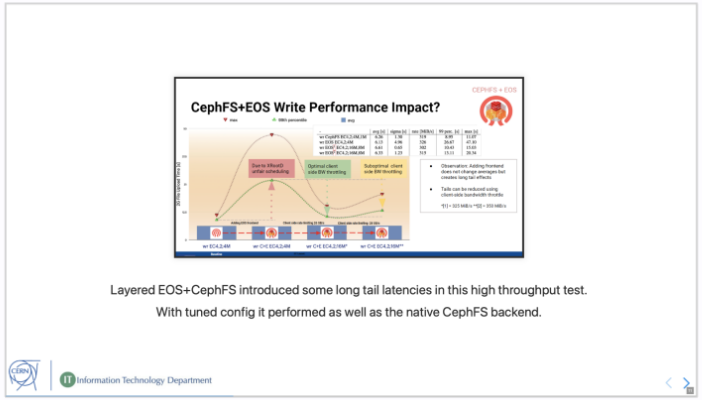
G. Goduhina - Introducing ONLYOFFICE Forms

M. Meeks - Collabora Online: easy to deploy and manage document collaboration

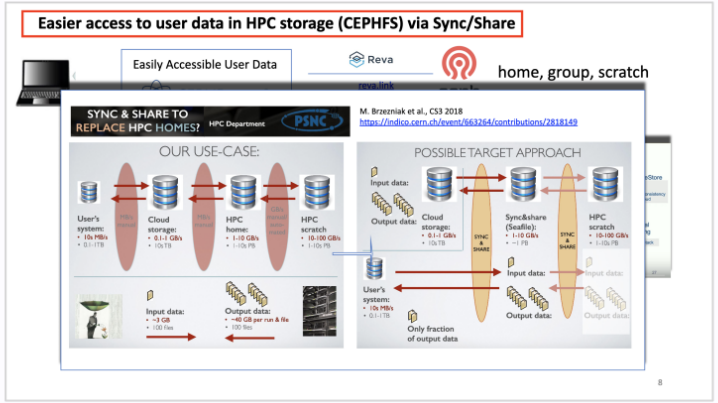


C. Dyllick-Brenzinger - Breaking the limits: short status update of the online spreadsheet solution SeaTable

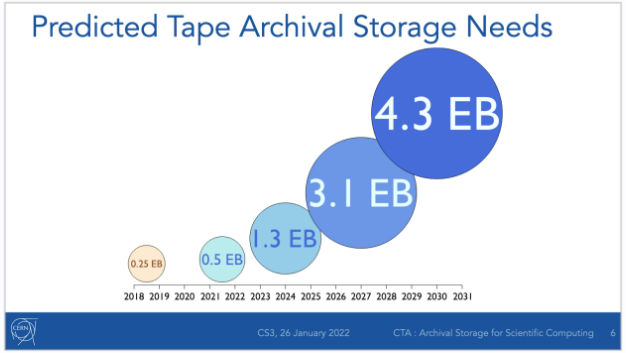
Scalable Storage Backends



R. Valverde - Converging Storage Layers with Virtual CephFS Drives for EOS/CERNBox

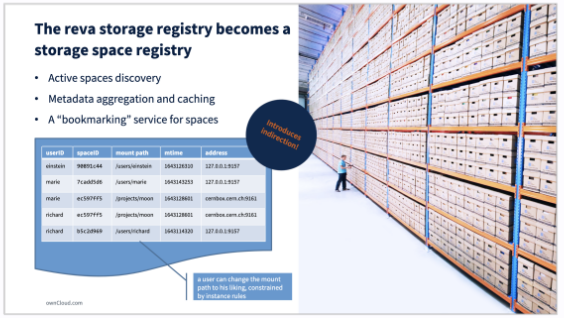


D. van der Ster, T. Mouratidis - Sync and Share Access to HPC Resources at CERN

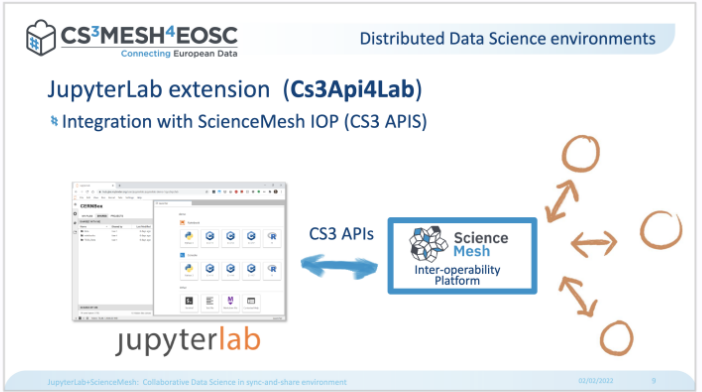


M . Davis - The CERN Tape Archive (CTA): Archival Storage for Scientific Computing

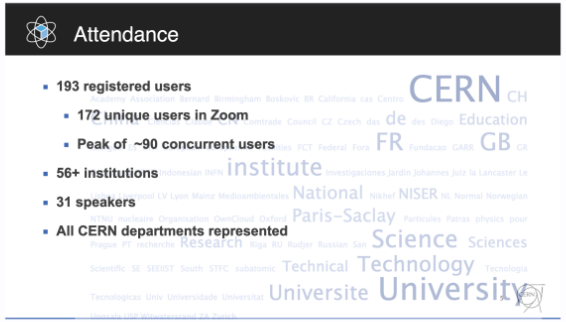
User Stories



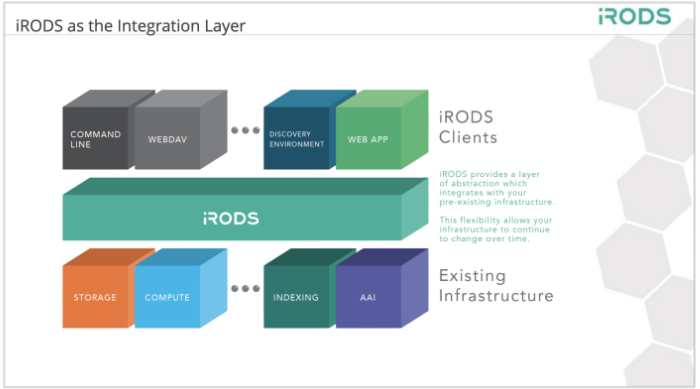
J.Dreyer - Infinite scale is a design principle



M. Sieprawski - JupyterLab+ScienceMesh: Collaborative Data Science



H. Labrador - CERNBox User Forum

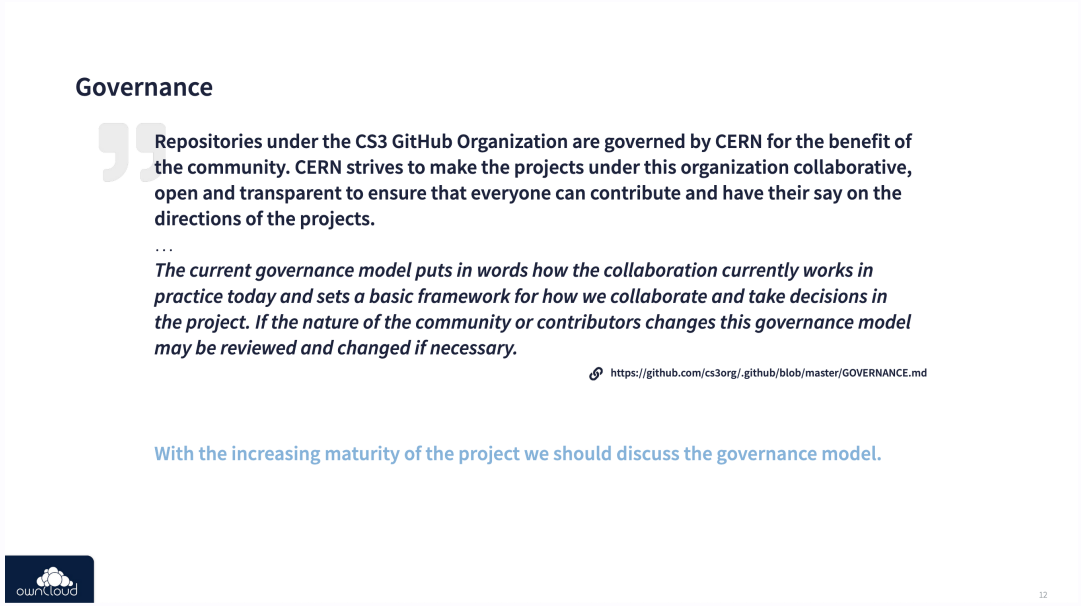


T. Russell - iRODS Research Community Requirements Drive Expanded Scale Data Management Features

Thematic Sessions

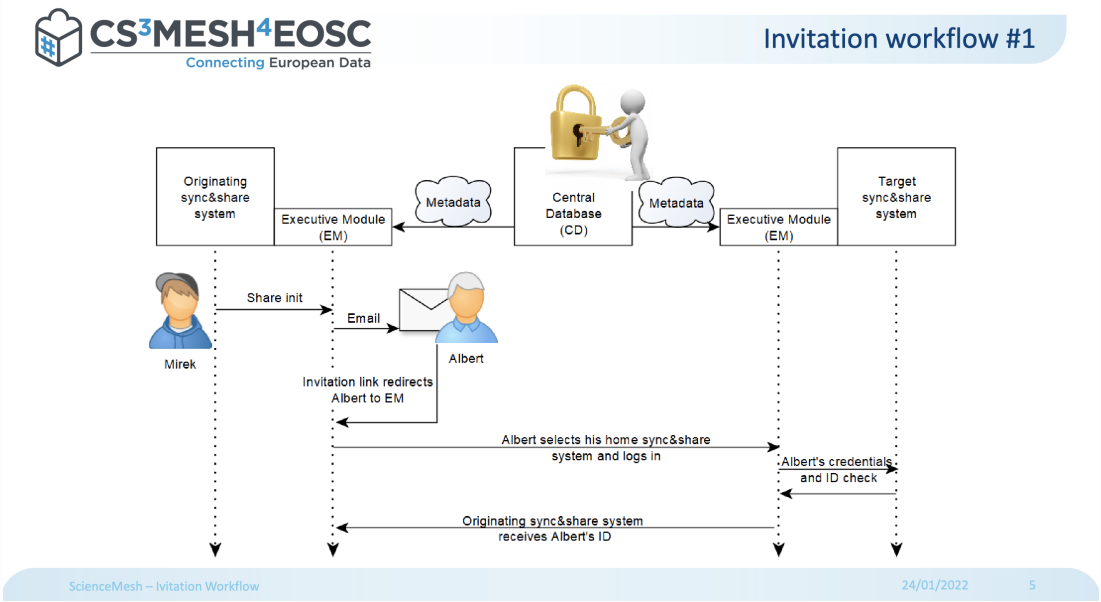
CS3 Org: Governance Campfire Discussion

- Governance of software products and standards - e.g. CS3APIs, REVA, OCM,...
- Request from industry for a more active role in governance.



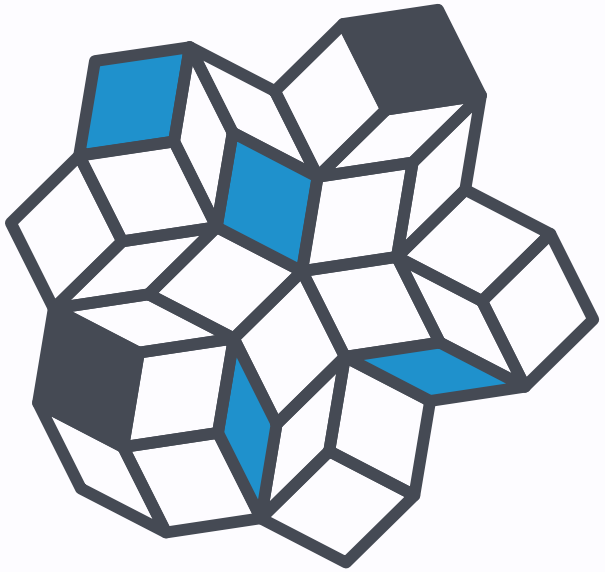
OCM Workshop

- *OpenCloudMesh* - sharing of files between EFSS systems
- Extensions done in the context of ScienceMesh



https://indico.cern.ch/event/1075584/contributions/4662258/

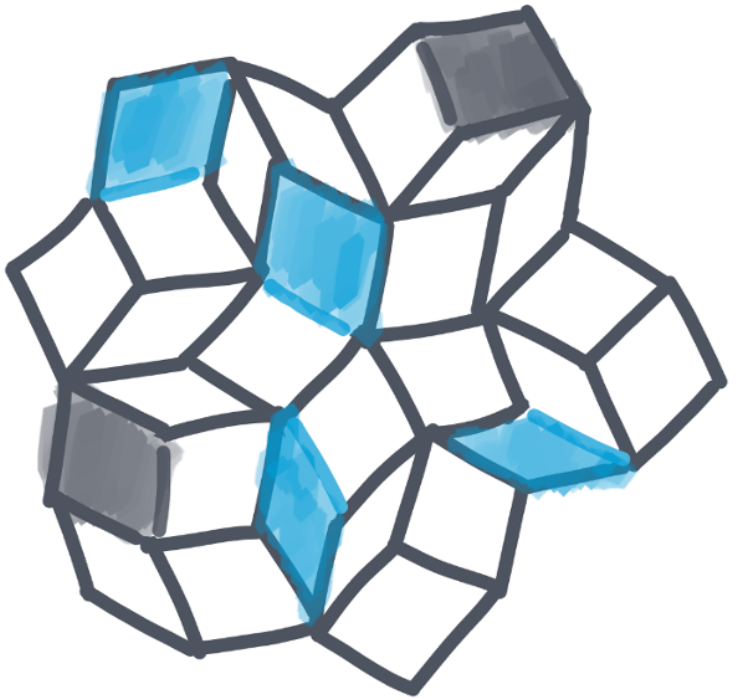
ScienceMesh Workshop



Science Mesh

ScienceMesh Workshop

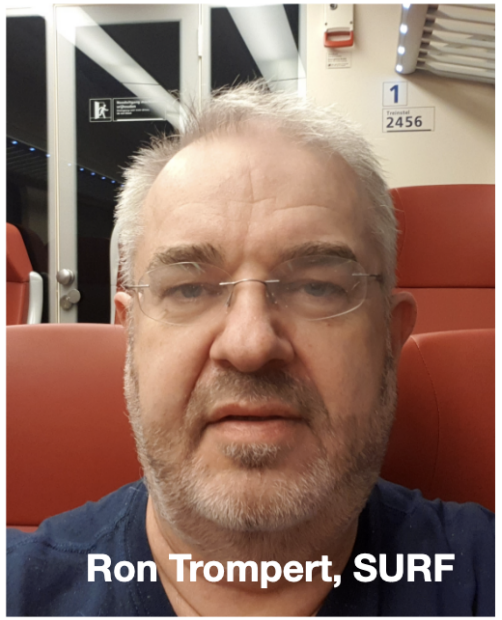
- Two parts:
  - "Status updates"
  - Presentations by EOSC Task Forces and Research Initiatives representatives



ScienceMesh Workshop

- Progress validated by community
- New synergies and prospective parters/communities

CS3 2022 Organizing & Programme Committee



It's all online!

https://indico.cern.ch/e/cs3/2022

Thank you!

Questions?