





*platform for exchange between developers, users, sites
and people interested in storage technology*

disk - tape - cloud - sync & share - devops

Welcome to the 6th EOS workshop



in the virtual world 7.-10.3. 2022



Andreas-Joachim Peters
CERN IT Storage Group

New IT Department Head since Sep. 21

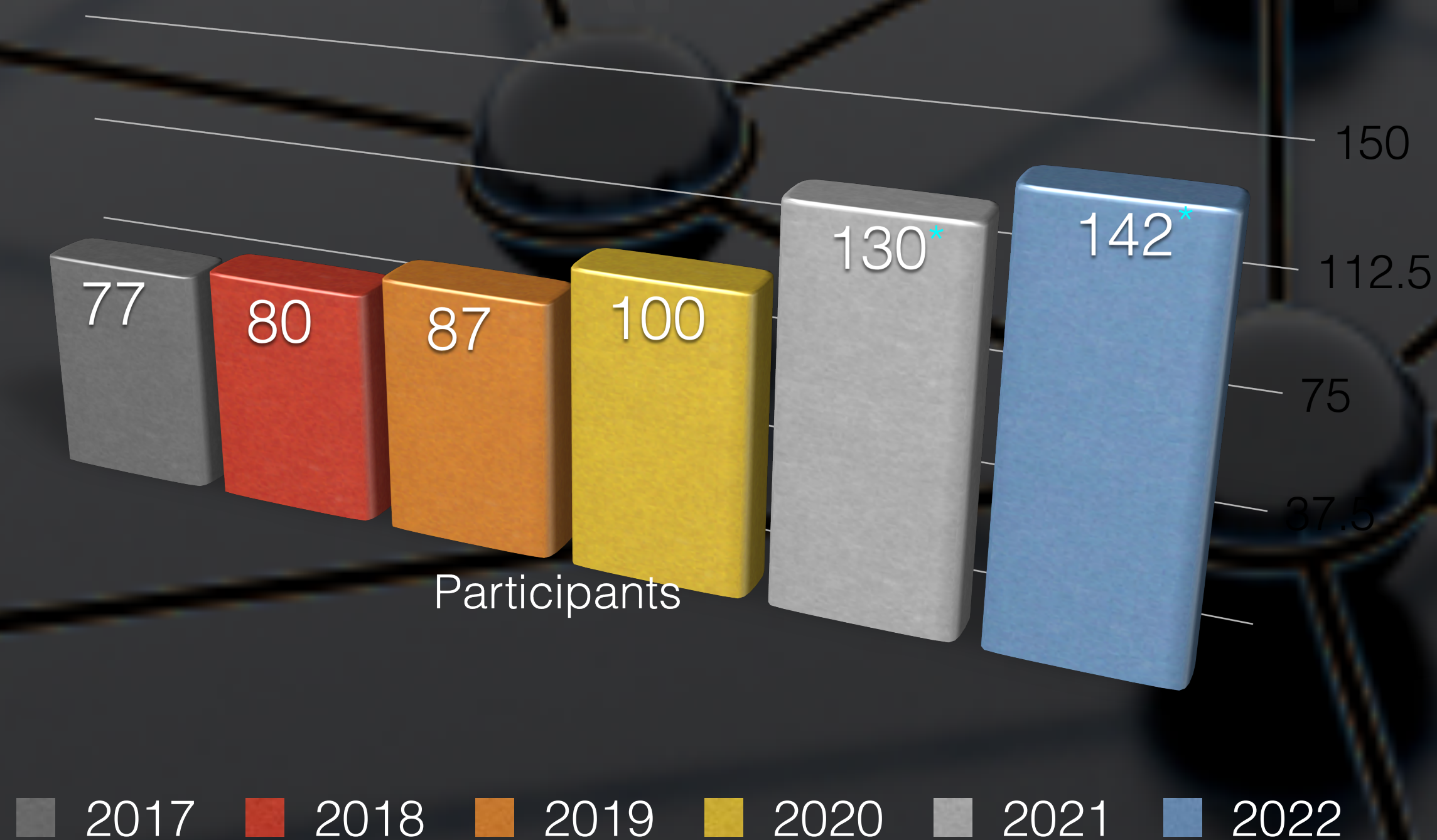
**AND IF
YOU DON'T
KNOW
NOW YOU
KNOW**



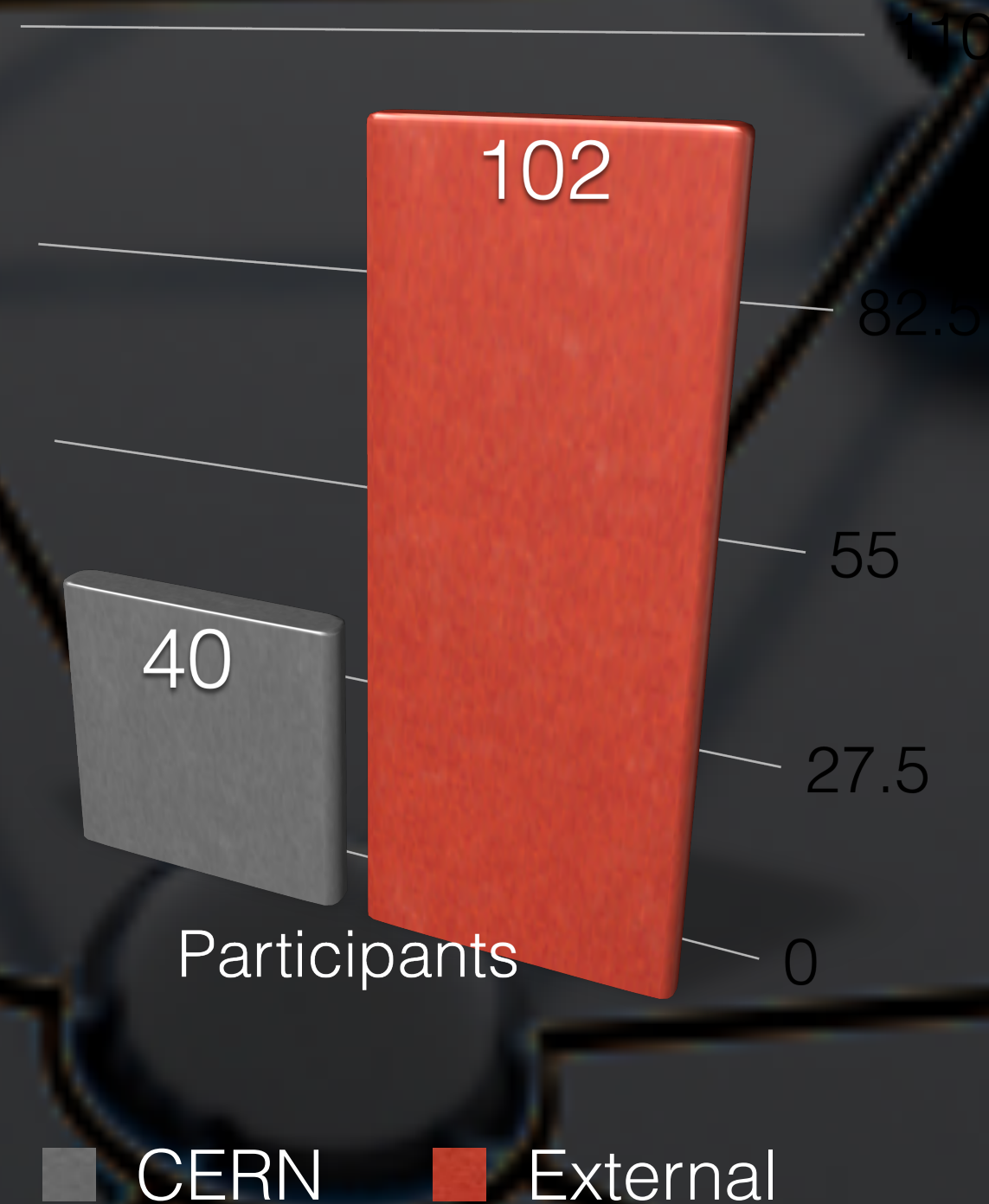
Enrica Porcari

Who is registered ...

Who is registered ...



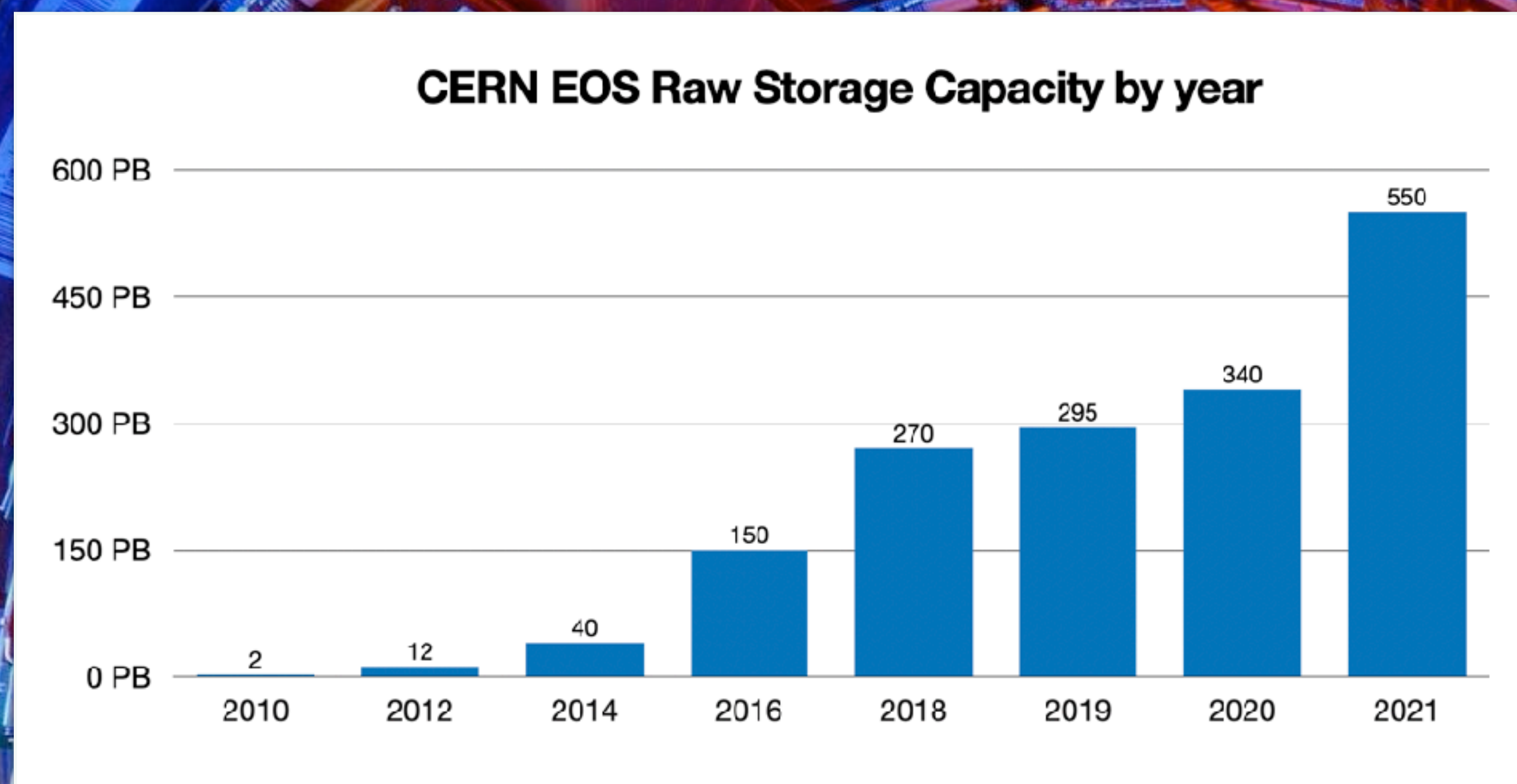
*before start of the workshop



A big thank you for your participation!

Scope of '22 workshop

- **Where are we today with EOS** for disks and tape storage, how does the EOS 5 version look like, what is the **direction** of the project?
- **Where and how** do people use it?
- **What** does EOS, XRootD, CTA and CERNBox offer to you?



Organisational Information

Workshop hosted in ZOOM and in the IT Auditorium

Monday : 9am-12pm 3:45pm-6pm

Tuesday : 9am-12pm 4pm-6:30pm

Wednesday

: 9am-12pm 4pm-6pm

Thursday

: 9:am-11am

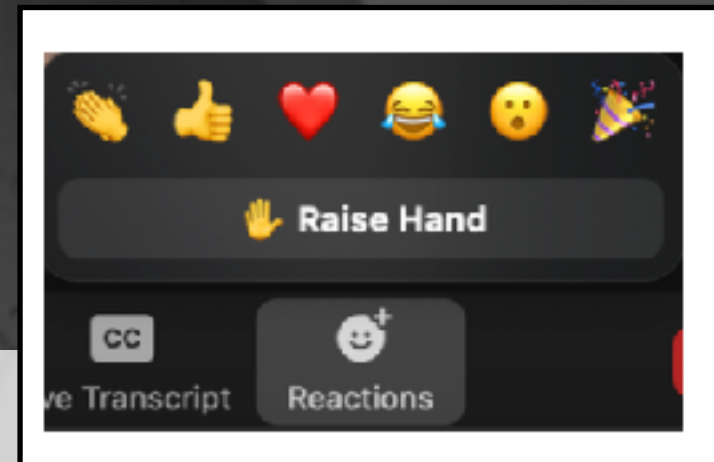
Zoom Link EOS WS



<https://mattermost.web.cern.ch/it-dep/channels/eos-workshop-2022>

ZOOM Code of Conduct

- Please mute your microphone and disable video if you are not presenting
- Each speaker should **leave the last 5 minutes** of his timeslot available **for questions**
- If you want to ask a question after the presentation **raise your hand** and wait that the session convener invites you to talk - you find the **raise hand** button under the *Reactions* menu - after you have finished use **lower hand** under the *Reactions* menu
- You may also ask questions via the **ZOOM chat** or on the **Mattermost** channel
- **Thursday morning** ends with an open exchange sessions, which are foreseen for free discussions and communication - if there was not enough time for asking or answering questions initially, you can bring it forward during these sessions
- **Thursday afternoon** you might arrange some interactive session with the CERN team





Project History



timeline

architecture
document

EOSATLAS

EOSCMS

EOSALICE

EOSLHCB

EOSPUBLIC

EOSUSER

EOSMEDIA

EOSALICEDAQ

EOSCTAATLASPPS

EOSALICEO2

2020

EOSHOME

EOSPROJECT

2021

EOS V5

2022

2009

2010

2011

2012

2013

2014

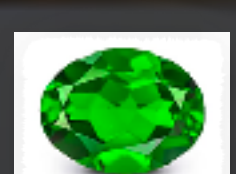
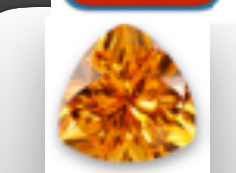
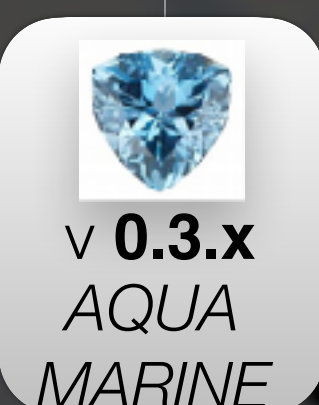
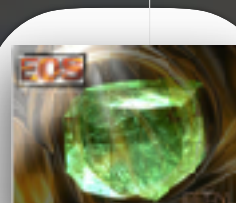
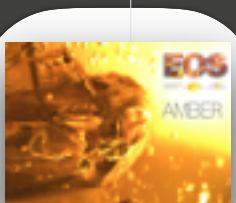
2015

2016

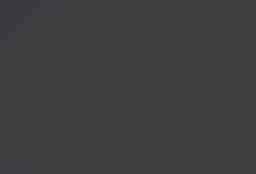
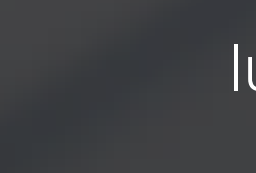
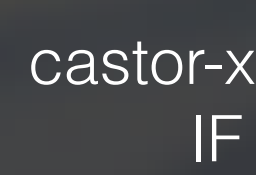
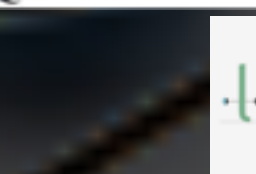
2017

2018

2019



v5.0
2021
DIOPSIDE





Headlines 2021

- EOS Releases
 - 29 x Citrine
 - 3 x Diopside
 - C8 Stream




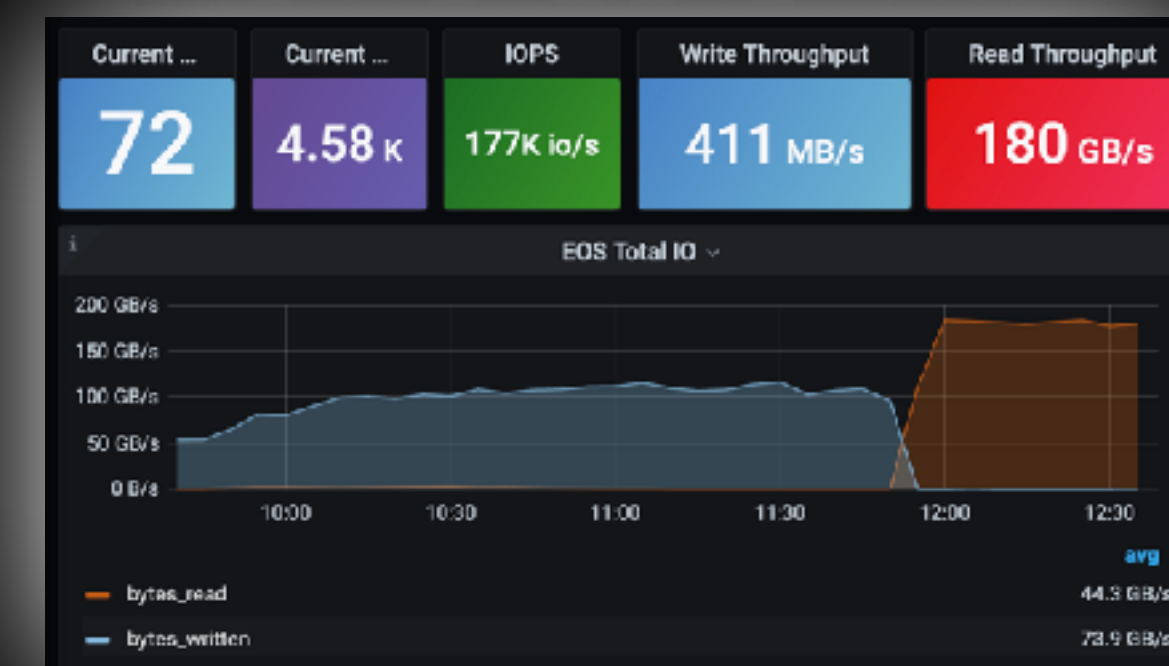
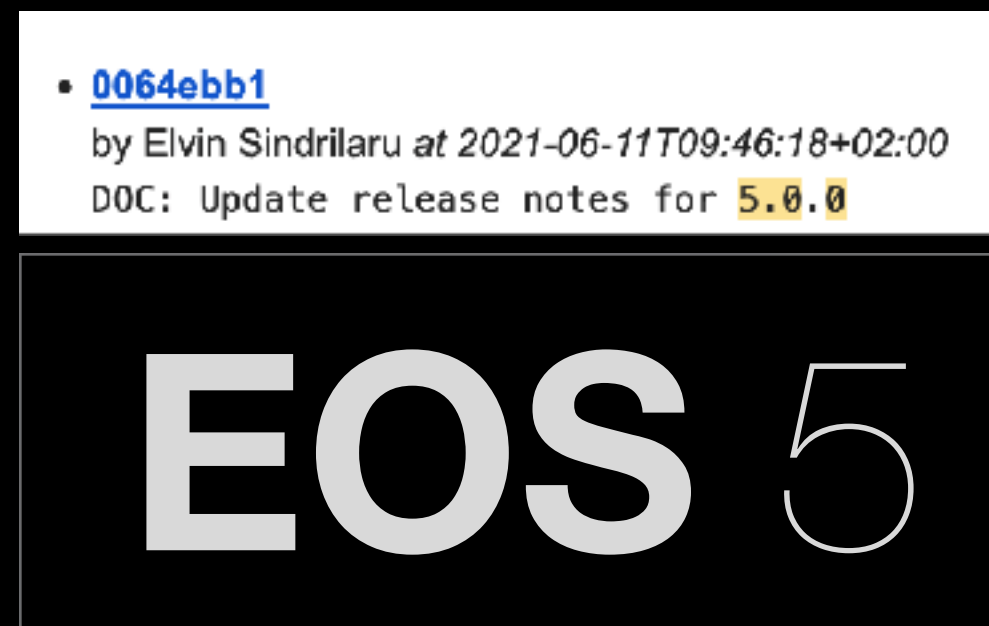
- Production
 - HTTP(S) Protocol
 - Erasure Coding @ TBit/s



TPC

- Completion & Consolidation

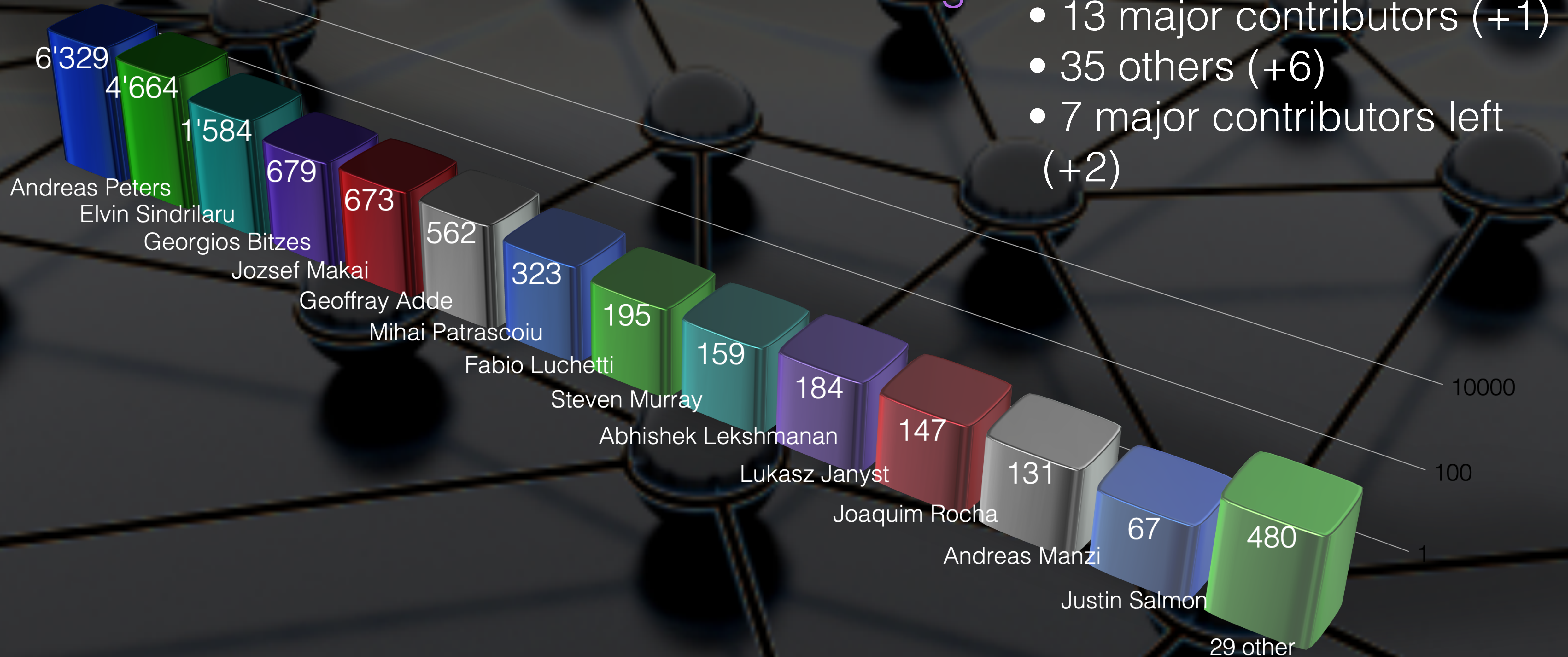
- FSCK - integrity
- GRPC -  EOSaaS



EOSALICEO2
EOS@CERNBOX
Availability **99.9999%**

Contributors to EOS

#commits since begin



- 13 major contributors (+1)
- 35 others (+6)
- 7 major contributors left (+2)

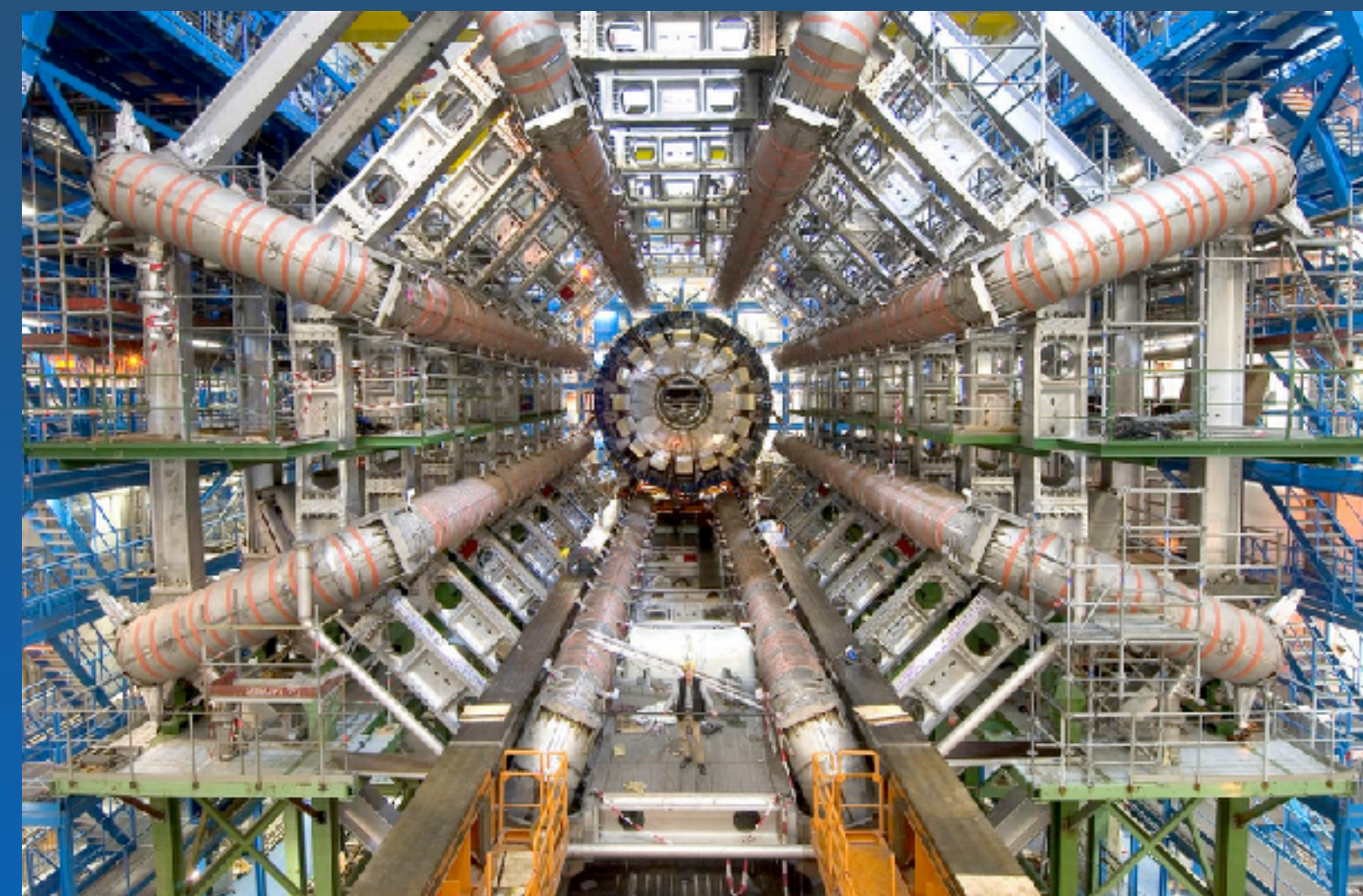
vivid pool of developers



In recognition of the great work done
by our team member who left end of 2021

Fabio Luchetti

Fellow & Mr. CI/Kubernetes



@ATLAS



EOS Core Development Team

Andreas J. Peters

project leader & core developer

Elvin Alin Sindrilaru

core developer & operations

Cedric Caffy

core developer & operations

Abhishek Lekshmanan

core developer & operations

Jaroslav Guenther

starting with developments + operations

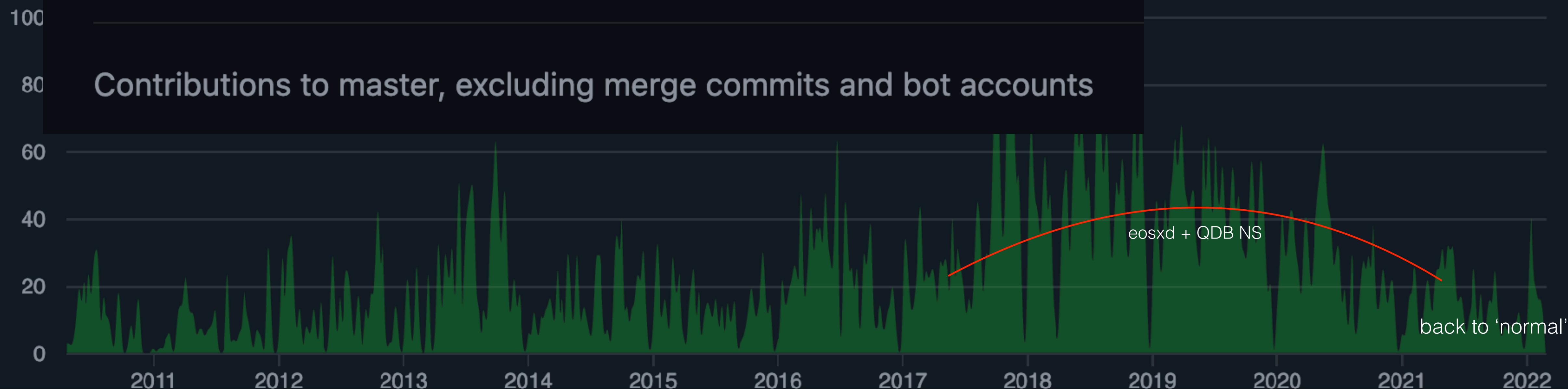


Development Activity 2021

- **2018-20** were years with very **high development activity** due to the architectural changes coming with QuarkDB and eosxd FUSE implementation
- **2021** activity got **back to 'normal'**

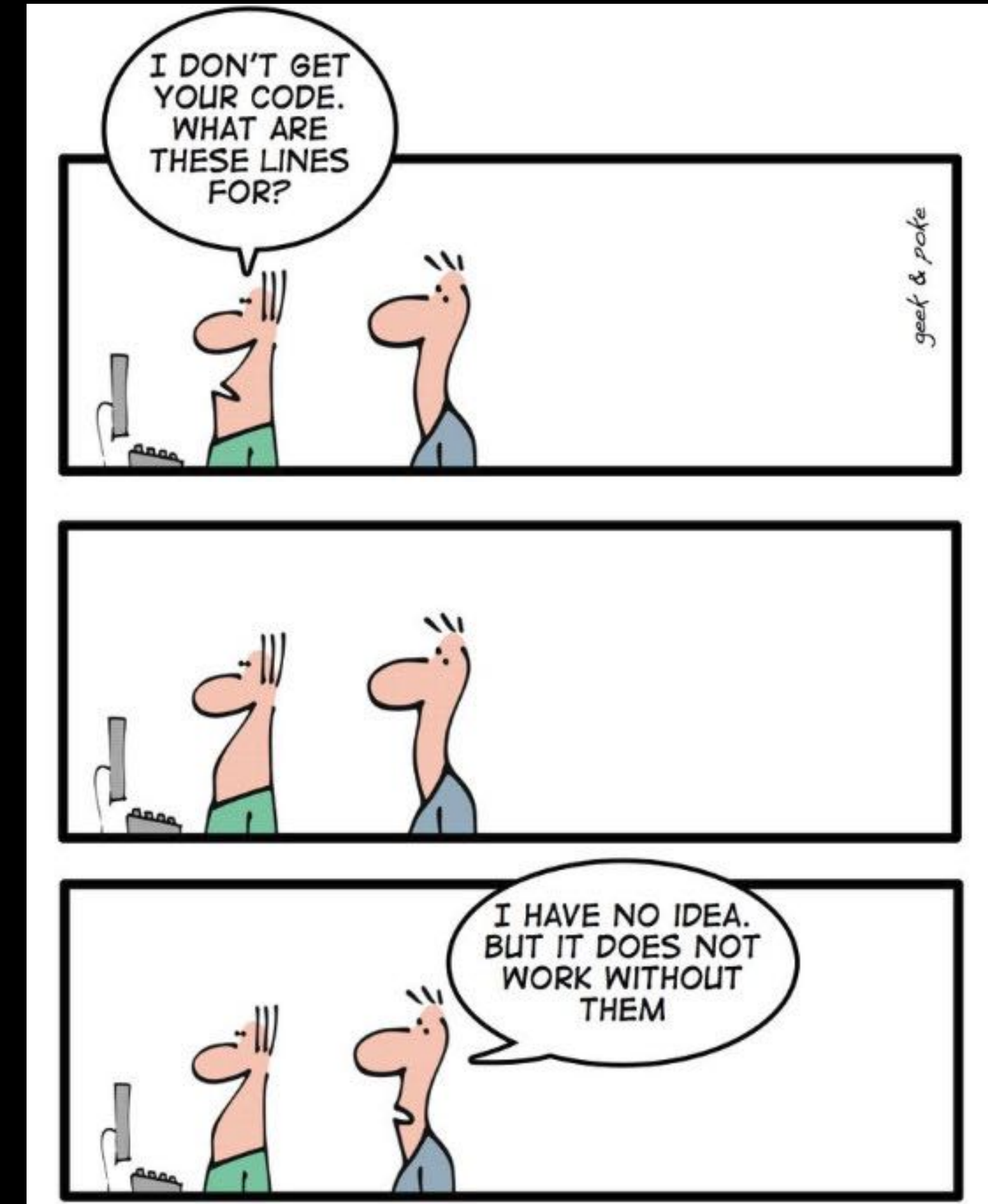
Apr 25, 2010 – Mar 2, 2022

Contributions to master, excluding merge commits and bot accounts



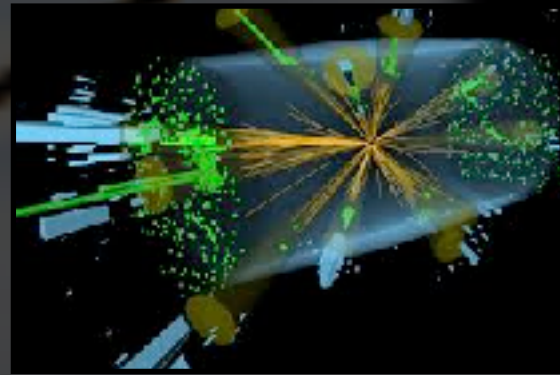
Development Activity last year

Wednesday, 14 April, 2021 20:35:06



EOS Development 2021-2022

EOS in 2022

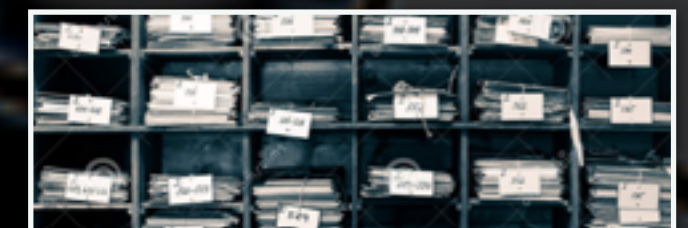
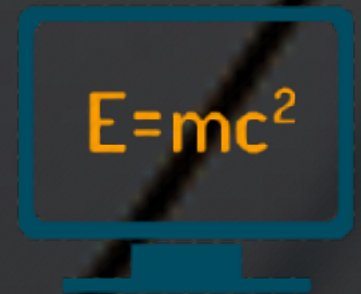
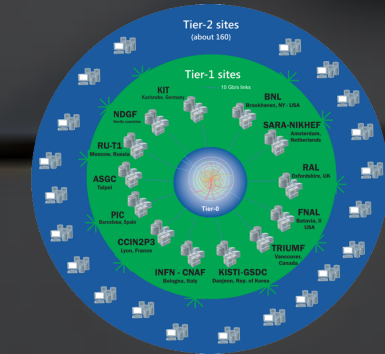


• Disk & Cloud Storage

- **Run 3** Tier-0 Platform
- **Data Analysis**
- **CERNBox** Home & Project Spaces
- collaborations: cloudstore **AARNet**, Joint Research Centre **JRC** , **Comtrade**, **XRootD**
- **WLCG**: Tier 2 & Universities
- **Online Systems** (O2)

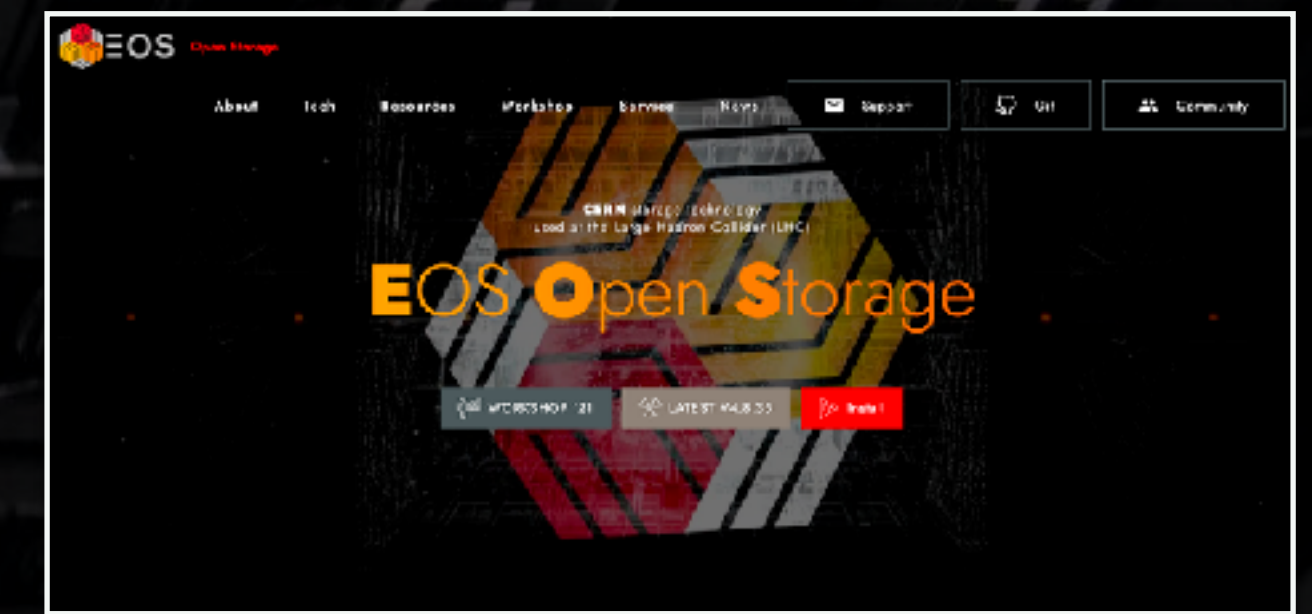
• Tape Storage

- **Cern Tape Archive** - new community
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Web Page <https://eos.cern.ch>



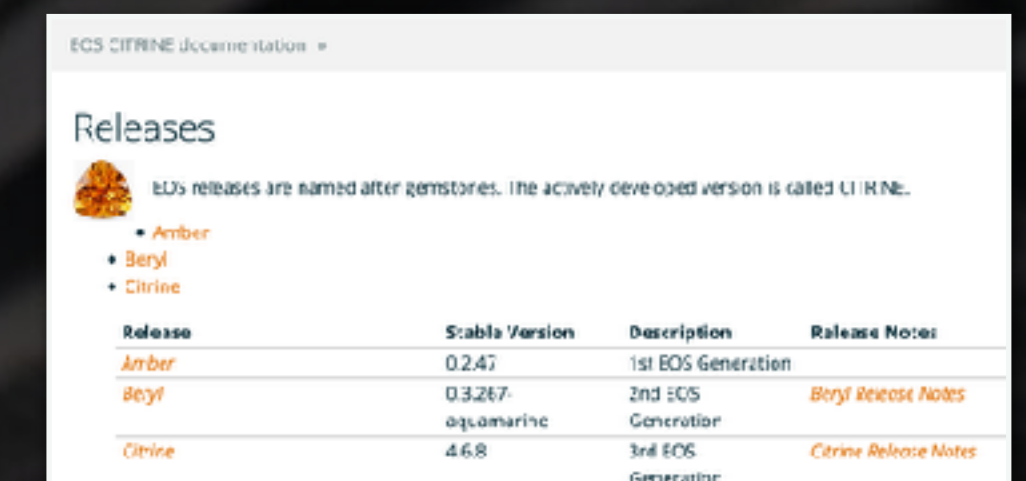
GIT Repository <https://gitlab.cern.ch/dss/eos>



Community Forum <https://eos-community.web.cern.ch/>
email: eos-community@cern.ch



Documentation <http://eos-docs.web.cern.ch/eos-docs/>



Support email: eos-support@cern.ch





Enjoy the workshop!

Our Collaborations



Australia's Academic
Research Network



Group of technology
companies



EUROPEAN COMMISSION
Joint Resource Centre



Open Source Storage
Framework

