

DESY Site Report

News from the lab

Andreas Haupt (for the DESY IT divisions)
Fall HEPiX 2022



Lab news

Working from home

Nothing's gonna be the same ...

- DESY finally established an official employment agreement on mobile work
 - Permission to work up to 50% from home in case job is suitable
 - Employees need to apply for it, must be approved by supervisor
- Challenges to (re-)establish “DESY spirit”
 - Some colleagues want even more remote work, others for 100% in office
 - (Casual) communication inside team and between teams



SDMC construction

CTA Science Data Management Centre

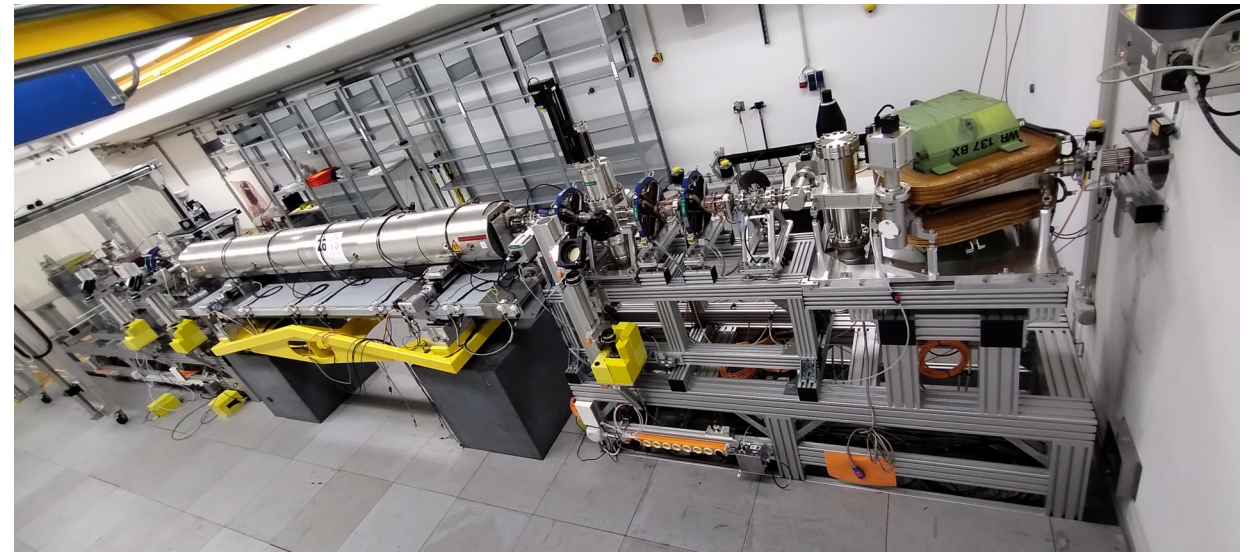
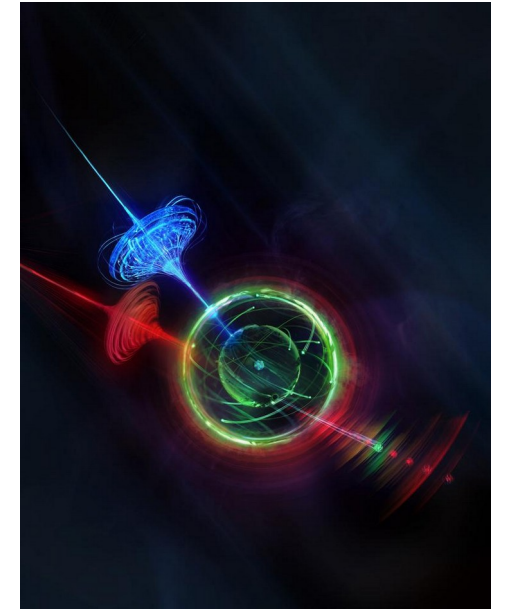
- Construction work ongoing
 - ... although delayed by a few months
 - hopefully finished by Q1 2024
- Big parts of the campus part of the construction site
 - reaching colleague's offices and the canteen is challenging these days ...



New FEL world records

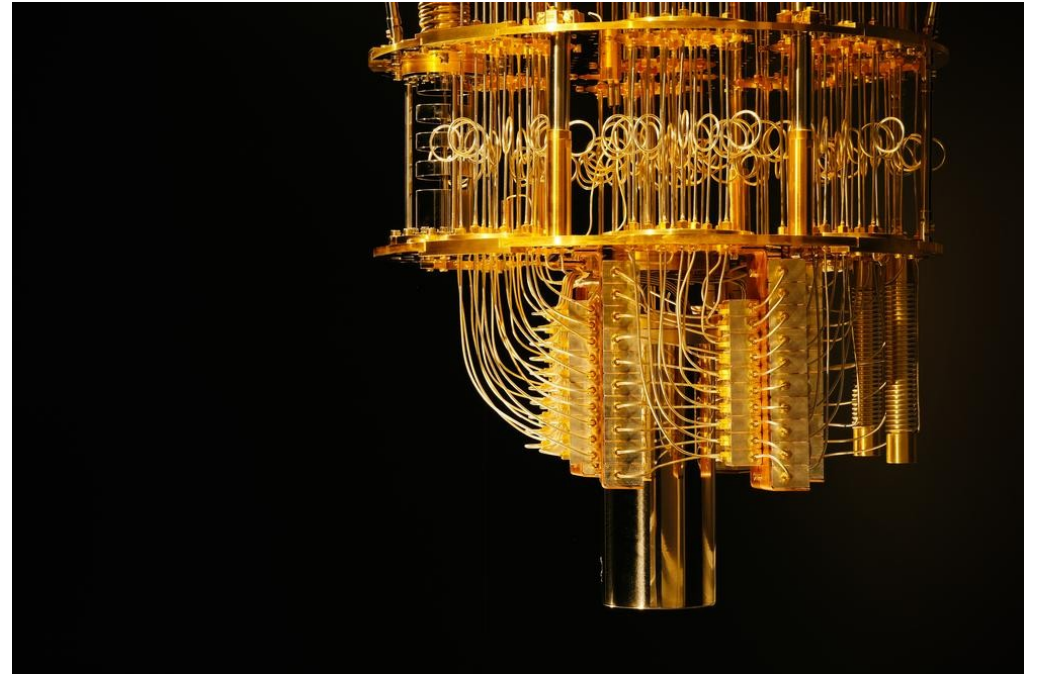
- XFEL
 - Best pump–probe time resolution reported so far at X-ray free-electron laser facilities
 - Goal is to record “molecular movies”

- PITZ (Photo Injector Teststand in Zeuthen)
 - 20th anniversary celebrated this year
 - First high-power Terahertz FEL worldwide working according to the so-called SASE principle



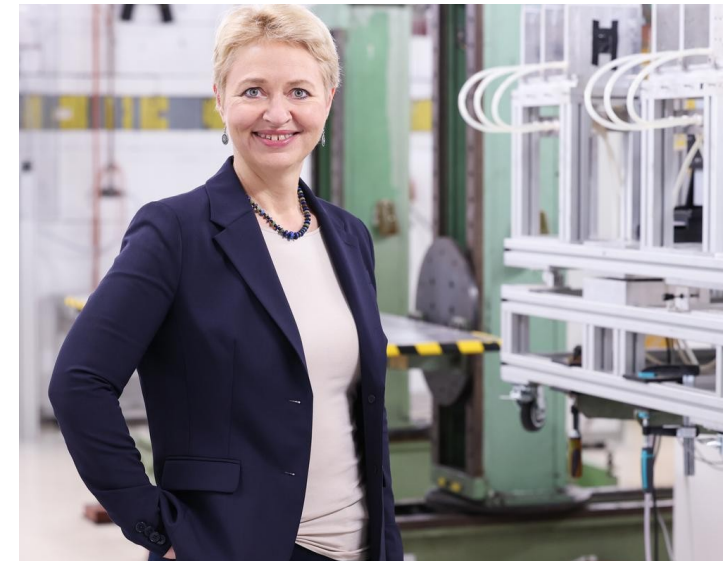
IBM Quantum Network

- New group in Zeuthen
 - Centre for Quantum Technologies and Applications (CQTA)
- DESY joined the IBM Quantum Network as Hub
 - Access to IBM's quantum computers via licenses
 - Access can also be provided to external users from industry or other research institutes



People

- DESY's former general director Volker Sörgel recently passed away
 - Major role in early 1990s when Zeuthen's Institute for High-Energy Physics became a second DESY site
- Beate Heinemann new director of DESY's “Particle physics” division
 - Successor of Joachim Mnich
 - First woman in directorate since DESY's founding in 1959!
- Candidate search for new head of IT department almost finished
 - Volker Gülzow retires soon
 - Successor hopefully starts beginning next year



Computing news

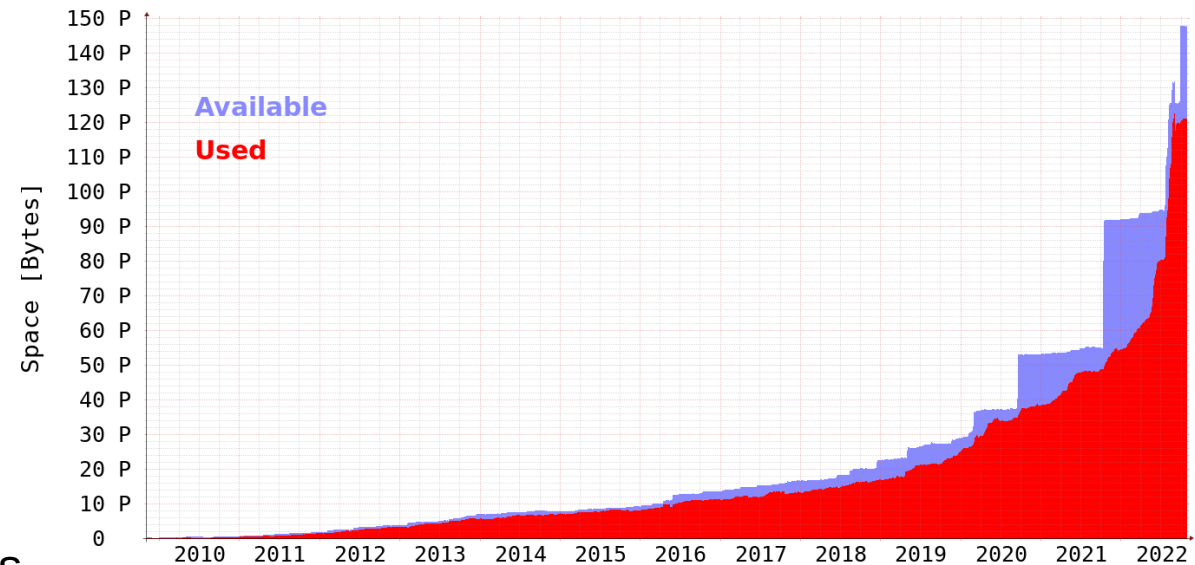
European energy crisis

- Huge impact expected due to high energy costs next year(s)
 - Due to energy consumption mix on campus, Zeuthen computing probably much more affected than Hamburg
- Some preparations in progress at the moment
 - Better monitoring of power consumption
 - Automatic (batch) node shutdowns / starts
 - Enable stricter (temporary) power management on servers?
- See also talk by Yves during this HEPiX



update

- Growth to 120PiB overall
 - Rethink pool hardware due to rack-space concerns
- Observed retirement of Grid-FTP, consider switching off these doors
 - NFS popularity increases
- Put QoS (as of 7.2) into production for EuXFEL (replacing quasi-permanent pins) and M (selective archival), possibly for Belle II as well
- Developing services making use of storage events to register files to NextCloud when not written directly through NextCloud, and to convert raw-data for small on-site experiments
- Continue to see major scaling issues with Photon Science PostgreSQL database, surpassing 1.25 billion files and 2.5 TB.



CERN Tape Archive & dCache

- All necessary features for dCache support to be part of central CTA release
 - including import of old OSM tapes
- Certain parts developed by DESY tape and dCache development team to be adapted for CTA in general
- Started large scale test with EuXFEL data, to be repeated once release with all features is available
- Hope to replace OSM in 2023

ATLASSIAN Tools @ DESY

ATLASSIAN pushing customers towards their Cloud offerings and ending the Server products

- DESY has a policy that prioritizes on-premise over public cloud use
- the on-premises DataCenter product line is very expensive and does not offer all new developments and features of the cloud products
 - and we did not get a dependable commitment on the future lifetime of DC
- a joint task force inside the Helmholtz Association has tried to find a mutually acceptable solution with ATLASSIAN for continued use in our institutions
- unfortunately, this effort has not been fruitful

* taskforce members: AWI, DESY, DLR, GEOMAR, UFZ

DESY (and Helmholtz) future plans and actions *'find alternatives and migrate before 02/2024'*

- Bitbucket, Bamboo and partially Jira have been/are being replaced by a DESY operated gitlab service
- Jira project management will migrate towards a new centrally provided product (not an IT/DV-groups project)
- Confluence contents will be migrated to an alternative solution – multiple alternatives are being looked at, with XWiki being a strong contender
 - Users demand highly automated migration
 - similar ease of use – this has helped drive documentation efforts at DESY enormously in the last years
- exceptions for very few groups with special use cases are being considered for limited time

Linux & Windows

- CentOS 8 successor: went for Alma Linux 8
 - „Works as expected” :-)
 - Work on next EL ongoing: Alma Linux 9
 - see also BoF session
- Deployed Bitlocker Encryption on Windows laptops
 - Works very well, but a very small number of problematic devices make troubles
 - Plans for further deployment on desktops (and similar product on Linux desktops) stalled.



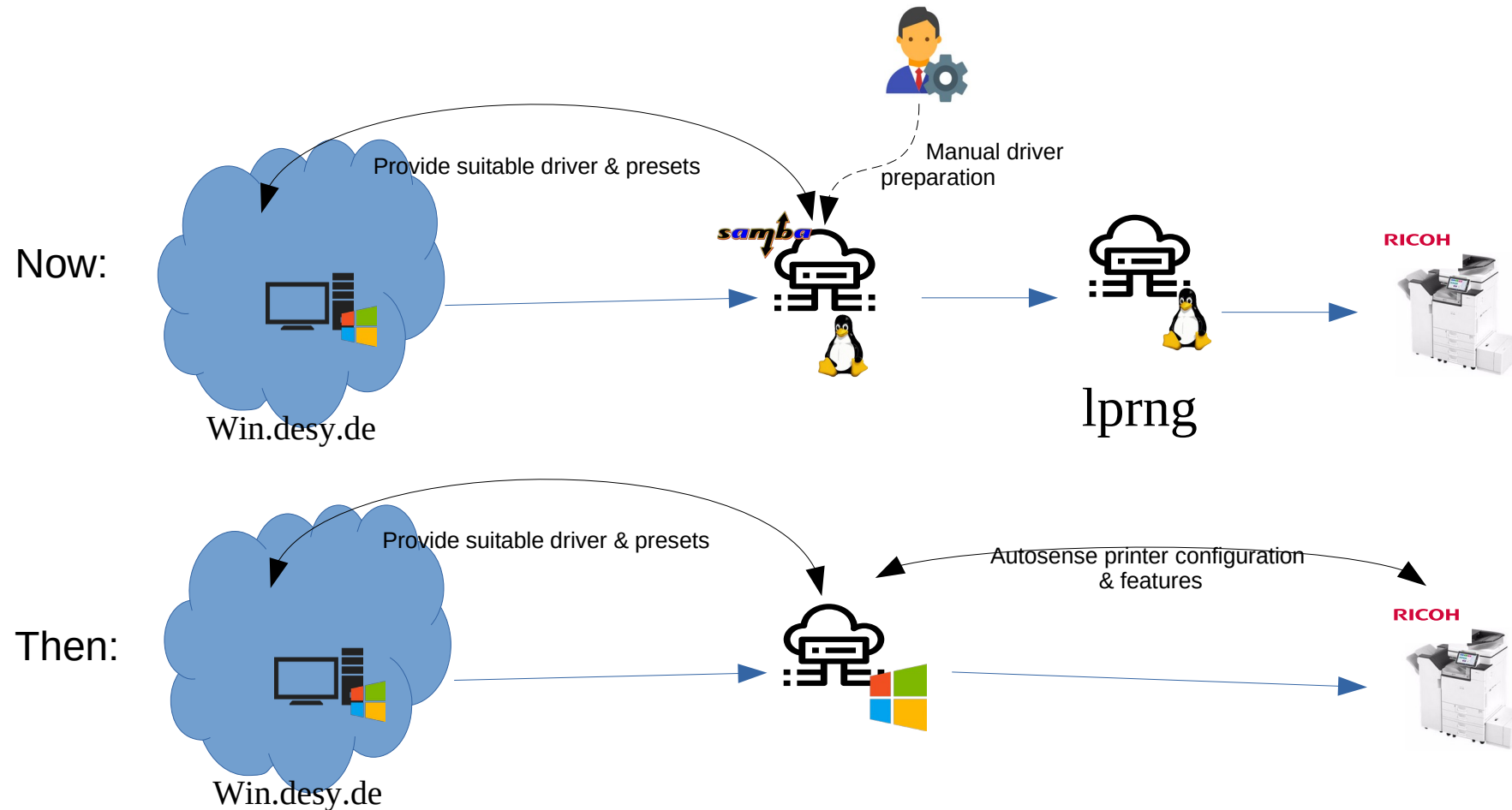
Windows printing changes

Migration from SAMBA to native Windows frontend

- Used SAMBA as frontend to support native Windows point-n-print functionality successfully for over 20 years
- Newer implementations of Windows printdriver technology (V4) not supported yet (and maybe will not be supported at all)
- Pkg-awareness not supported and not on the roadmap
- Multifunctional printers are complex and the lack of autosensing the printer from the server is causing huge manual preparation work on the driver issuing server
- Number of queues (>1.000 for ~ 450 printers) is somehow a limit for administrative tasks (printing and driver delivery works very fast and reliable)
- New setup tested and needs some attention on the printer hardware side as the general correction of jobs on the LPRng server in the current setup will not be part of the chain anymore
- Scripted (powershell) setup of the new server based on snmp generated data about current printers
- Transition by departments begins by the end of the year

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Service news

- DESY Mail system upgraded from version 8.8 to 9.0
 - provides modernized UI
 - tests with Nextcloud integration ongoing
- SPAM filtering was outsourced to DFN (German NREN)
 - SPAM detection still needs tuning
- Redmine service for CTA hosted by DESY (Zeuthen) now
 - runs on recently established Kubernetes cluster
- SVN service finally switched off
- (Altair) Grid Engine will finally be switched off by end of this year in Zeuthen
 - interactive batch moves to HTCondor



DESY talks this week

- Summary of the European HTC week – Christoph Beyer (Tuesday)
- Saving Energy at DESY – Yves Kemp (Wednesday)
- Using dCache Storage Events in NextCloud and On-Site Experiments – Christian Voss (Thursday)

