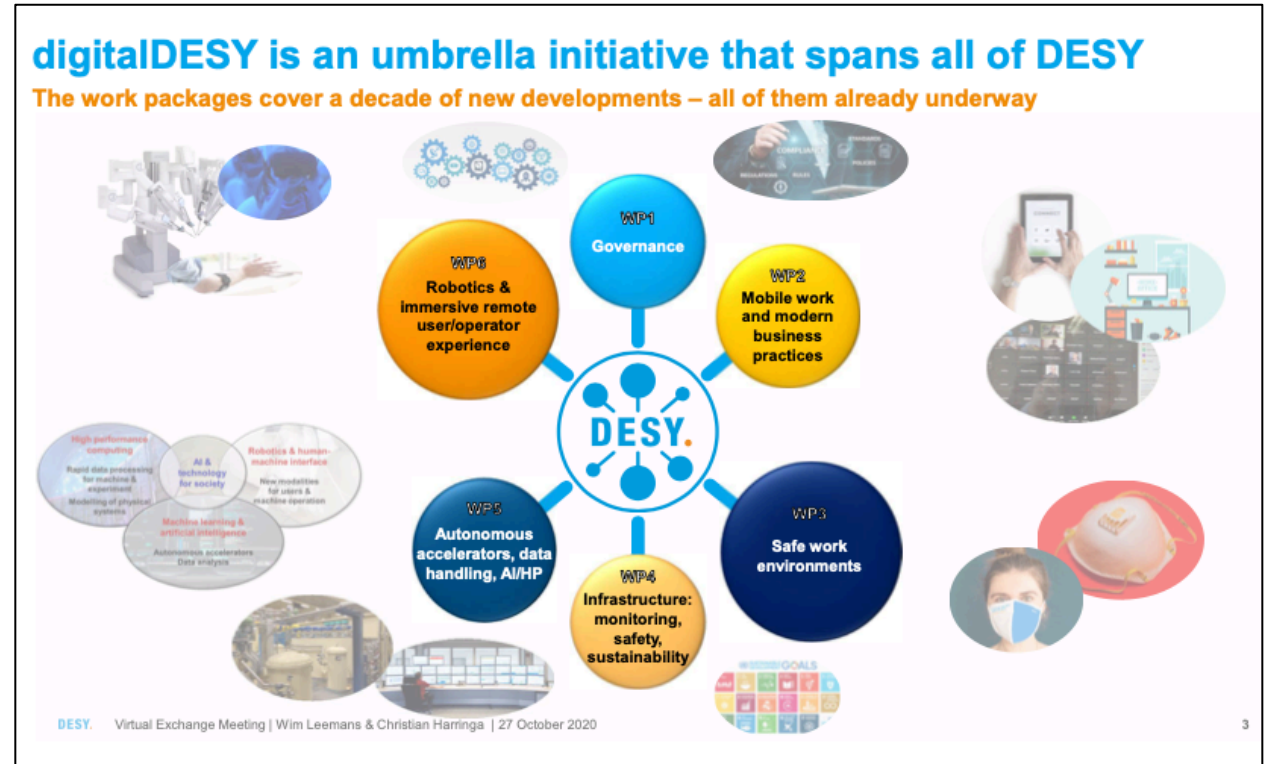


Status DESY and AP

Christian Stegmann
4th APC meeting
10.11.2020

- Overall DESY is running smoothly
- **PETRA IV** is more and more developing into the highest priority project
- **DigitalDESY** is a cluster of very different projects ranging from robotics to quantum computing to prepare DESY for the post-corona future
- Joachim Mnich appointed as CERN Director for Research and Computing starting on January 1st.
 - Succession arrangements under discussion



Laboratory for Quantum Computing Applications

in Zeuthen

- Proposal by Karl Jansen and Cigdem Issever, both particle physics, for **quantum computing applications** at DESY
→ received financial means of up to **15 M€** as part of the Brandenburg Zukunftsinvestitionsfonds-Einrichtungsgesetz (ZifoG)
- Boundary conditions not known yet
- The cornerstones of the concept are
 - **Research:** privileged access to quantum computers, development of quantum computing methods and application, support to develop a suitable formulation of a given problem for a quantum computer, quantum sensors
 - **Implementation:** connect to universities in Berlin and Brandenburg, strengthening dahme_innovation and closely connect with TH Wildau, part of the DESY KI initiative and scientific computing organization

- An initiative of local communities, TH Wildau, DESY, Fraunhofer and other organizations and companies to strengthen the science and technology region Zeuthen-Wildau-Königs Wusterhausen



- www.dahme-innovation.de now online
- Partnership with local university TH Wildau
 - Under discussion: radiation biology initiative
 - **New:** potential cooperation in Quantum Computing
- **TH Wildau**
 - Wildauer Netzwerk - Künstliche Intelligenz (<https://www.th-wildau.de/wildauer-netzwerk-kuenstliche-intelligenz/>)
- **Robert Koch Institute**
 - New department in Wildau related to AI in epidemiology/modelling to start early next year (~100 employees)



Diversity at DESY Zeuthen

Round table on diversity

Bimonthly open forum for all DESY employees to exchange information on diversity issues

- **Exchange of** good practice on diversity and inclusion in the workplace
- **Implementation of** small activities and events
- **Recommendations** to support DESY's commitment to diversity at the workplace

Next meeting:

Tuesday, 3 November 2020 from 12:00-13:00



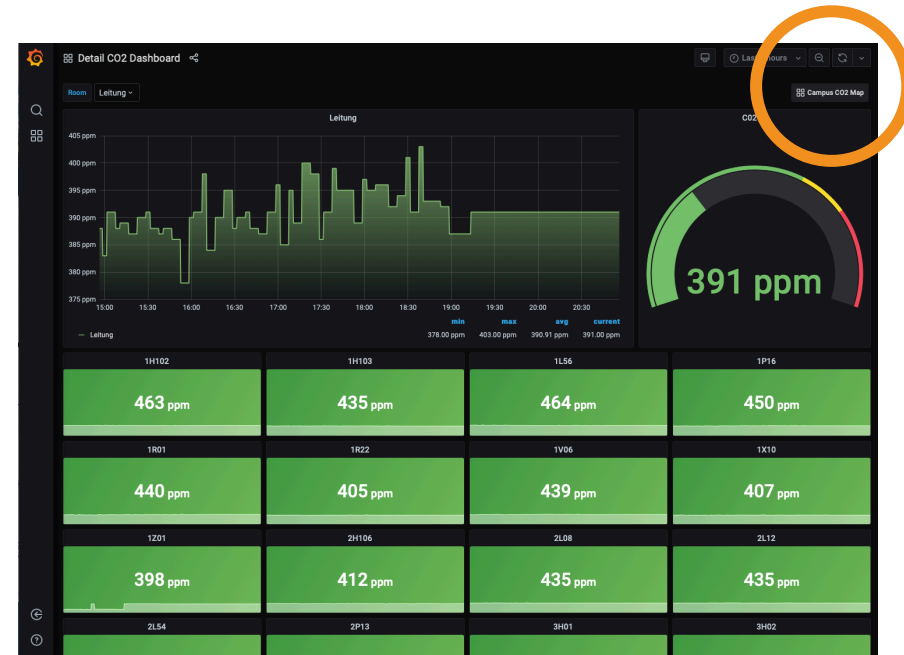
Please contact Summer Blot or Lia Lang if you want to join

Or check the Diversity Roundtable Mattermost channel

Corona

No infections on campus known so far...

- New tightened **rules** at DESY
 - If possible more working from home
 - Strengthen contact with and among group members (formation of tandems, regular online meetings, social chat channels, ...)
- Mobile air filters will come this or the next week.



Helmholtz FIS Roadmap

- **Cat A**

- Funding through HGF invest

- **Cat B**

- Special BMBF/State funding

- **Cat C**

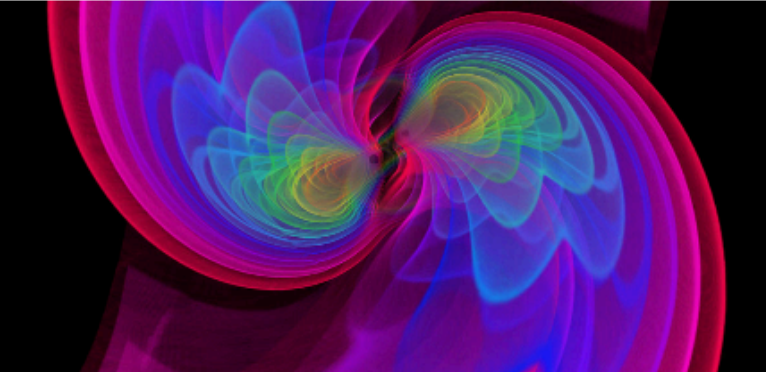
- ESFRI / international projects

Category	Facility	Participating Centers	Implementation
A	Distributed Detector Lab (already submitted)	DESY + KIT, GSI	2022-2025
	Grid-KA TIER I Center	KIT	2024-2027
	HBS-P	FZJ+ HZG	2025-2028
B	PETRA IV	DESY , HZG	2023-2027
	BESSY III	HZB	2026-2031
	DALI	HZDR	2023-2029
	AC/DC	HZDR+ FZJ, GSI	2024-2027
C	DARWIN	KIT	2025-2030
	IceCube-Gen2	DESY , KIT	2025-2033
	Einstein Telescope	DESY , KIT, HZDR	2028-2036
	GCOS	KIT	2028-2037

Helmholtz FIS Roadmap

HELMHOLTZ RESEARCH FOR GRAND CHALLENGES

HELMHOLTZ RESEARCH INFRASTRUCTURES
PROPOSAL FOR A LARGE INVESTMENT (> EUR 15 MILLION)



The Einstein Telescope
A 3rd-Generation Gravitational Wave Observatory

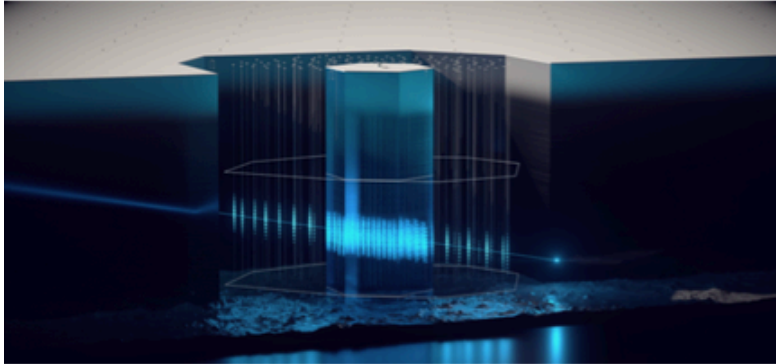
The Einstein Telescope will be the European 3rd Generation Gravitational Wave Observatory, designed to observe the whole Universe. Thanks to the unprecedented sensitivity of ET, Europe will take the lead in the newborn multi-messenger astronomy.

October 29, 2020

- **IceCube-Gen2**
 - in preparation of large investment application in 2022 together with KIT
- **Einstein Telescope**
 - in preparation of the national roadmap application together with partners from Helmholtz, MPG, and universities
- **DESY priorities**
 1. PETRA IV
 2. IceCube-Gen2
 3. ET

HELMHOLTZ RESEARCH FOR GRAND CHALLENGES

HELMHOLTZ RESEARCH INFRASTRUCTURES
PROPOSAL FOR A LARGE INVESTMENT (> EUR 15 MILLION)



The IceCube-Gen2 Neutrino Observatory
The Window to the Extreme Universe

The IceCube-Gen2 observatory will elevate neutrino astronomy from the discovery realm to the precision era, including a survey of sources in the neutrino sky. The contributions planned by DESY and KIT build on their leading role in the project.

October 30, 2020

Multimessenger Astronomy of the High-Energy Universe

