

# DESY Status Report

**MXCuBE development at P11**

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# Hello (World)!

## About myself:

- Started at P11 since May 2022.
- PhD in physics/material science with a background in beamline user support and software development
- Last 5 years has been a postdoc/beamline scientist at SAXS beamline P12 EMBL Hamburg
- Looking forward to become a valuable part of the community.

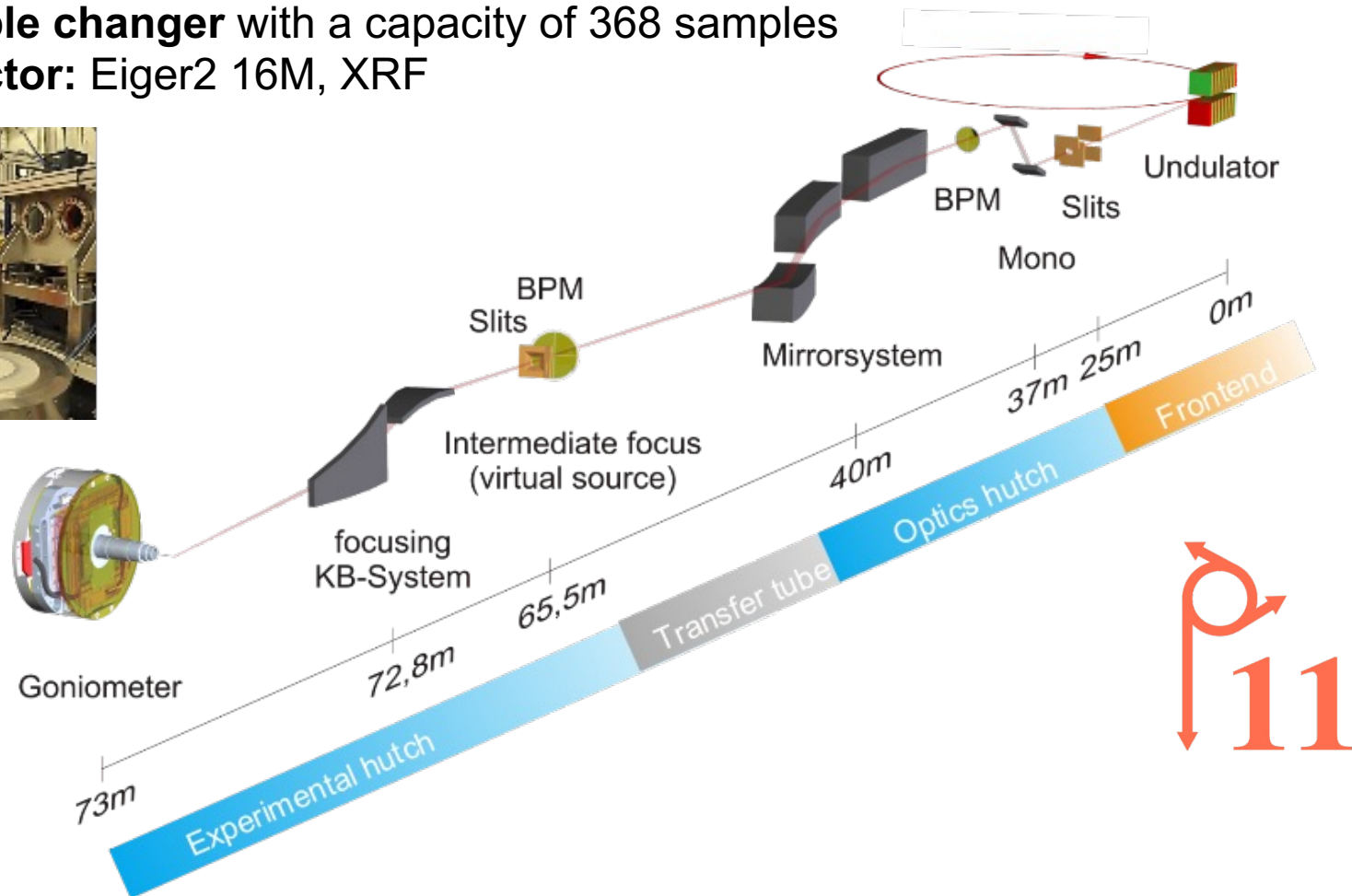
# P11 beamline

**Energy range:** 5.5 - 28 keV

**Beam size:** from  $9 \times 4$  to  $200 \times 200 \mu\text{m}^2$  (h\*v)

**Sample changer** with a capacity of 368 samples

**Detector:** Eiger2 16M, XRF



# MXCuBE at P11

The screenshot displays the MXCuBE software interface. At the top, there is a menu bar (File, Queue, View, Graphics, Help) and a 'Collect' button. Below the menu, there are control panels for 'Sample centring' (Omega, Phi, Kappa, Zoom) and 'Sample video' (a live video feed of a sample). A central 'Sample tree' shows a hierarchy of samples, with 'Puck 1' and 'emulate-1-9' selected. To the right, there are panels for 'Standard Collection' (Acquisition parameters like Oscillation start, Number of images, Exposure time, Kappa, Phi, Energy, Resolution, Transmission) and 'Data location' (Folder path). On the far right, there are system status panels for 'Energy' (Current, Wavelength, Set to), 'Transmission' (Current, Set to), 'Resolution' (Current, Set to), 'Door interlock' (unknown, Unlock), 'Collimator' (Up, Down), 'Det. Cover' (Closed, Open, Close), 'BS1' (Open, Close), and 'Fast Shutter' (Closed, Open, Close). At the bottom, there is a status bar showing the user 'p11user@p11', system state (Ready), and a log window with the message '[2022-03-14 14:35:27] ISPyB proposal: p11user - operator on P11'.

- MXCuBE installation (started 2020) completed for main parts during winter shutdown 2021
- Implementation carried out by external expert Bixente Rey
- Continuation to work with MXCuBE implementation at P11

# Acknowledgments

## ***P11 team:***

*Johanna Hakanpää*

*Guillaume Pompidor*

*Helena Taberman*

*Spyros Chatziefthymiou*

*Bernhard Kistner*

*Eva Crosas*

*Clemente Borges*

*Jialing Song*

## ***DESY colleagues:***

- *Photon Science Experiment Controls (FS-EC): André Rothkirch, Thorsten Kracht*
- *FS-PETRA-D: Oliver Seeck*

***EMBL, our friendly neighbours and brothers in arms in MX***

***P11 User community***