Lab space for special diagnostics

MSK lab organization

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DESY

Overview

- Which job's are we talking about?
- Available labs & current situation
- Problems
- Summary & ideas

The jobs we are talking about

Applications that need a laser

- Laser based synchronization
  - Link-stabilization-units (LSU)
  - BAM's (optical frontend)
  - Laser-to-Laser
  - CW-Link development
  - Laser-to-RF
  - Supporting developments
- EOD (electro-optical detection)
  - RF synchronization

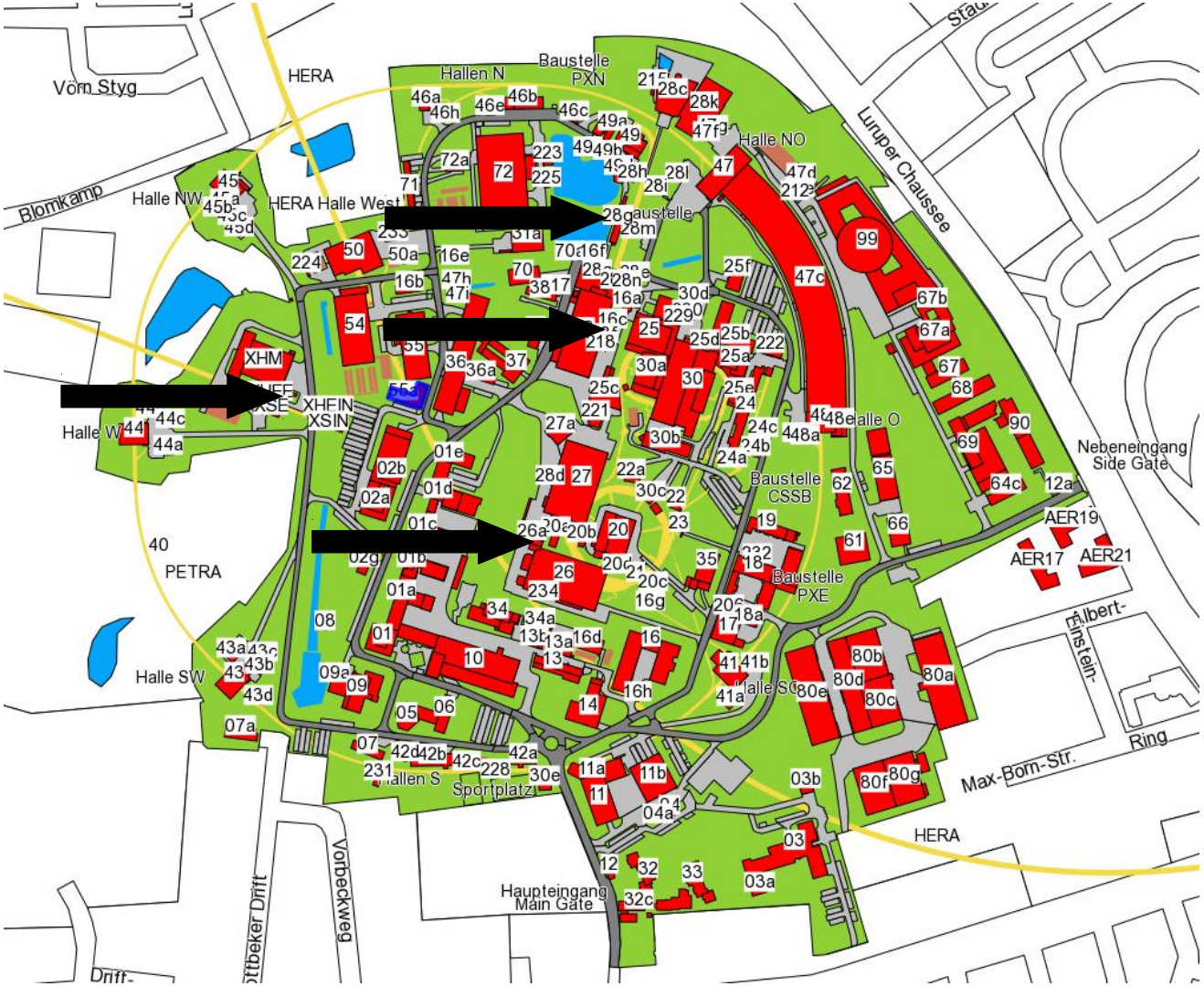
No laser applications

- BCM (bunch compression monitor)
  - Detector development
  - Readout electronic optimization
  - IR-Spectrometer
- SRM (Synchrotron radiation monitor)
- EBPM
  - No need for lab space at all

Available Labs & current situation

- Laser lab in 26a
  - General timing by Lab-MO
  - LSU
  - L2L
  - LDD tests
  - µTCA test-stand
  - Supporting developments
  - One big advantage is the large construction area outside the lab
- Laser lab OCAS (optical clock & attosecond synchronization)
  - Timing connection to FLASH-MO
  - CW-link development
  - L2RF construction & development
  - Board construction & soldering
- Container 28F
  - Timing connection to FLASH-MO
  - EO
  - BCM
  - NWA measurements
- XTIN UG1R17
  - Under construction

Lab locations



Problems

- In general messy workspaces
- 26a
  - Only possible place for fiber-installation
  - Belongs to FLA
    - Until now, nobody knows anything about its future
    - Evtl. Space for development
  - Crowded
  - Bad climatization (ΔT > 0.5K in 30 min)
    - Jumpy depending on curtain-movement (room separator)
    - Bad for long term stuff
- OCAS
  - Poisoned with EMI
  - Climatization not optimal (ΔT > 0,4K in 30 min)
- Container 28F
  - No thermal isolation at all
  - No laser lab (EO is in-fiber.)
- XFEL UG1R17
  - Same size as 26a, but:
    - Smaller construction area
    - LSU-, BAM-, EO-, L2L-, L2RF-assembly for XFEL

Summary & ideas

- 4 Labs with different conditions for 14 main-projects with different requirements
- Needs organization for efficient usage & assembly of XFEL components

- Ideas
  - Separated, independent workplaces inside the labs
  - Organization via wiki
  - Daily clean-up duties for each workspace user
  - Individually regulated time-slots for each workspace
  - Not regularly used experiments should always be built back as much as possible, not to block space

The end

Thanks for your attention, have a nice discussion