ELBEX status

Ruth, for the ELBEX team

LUXE steering board 28.05.25



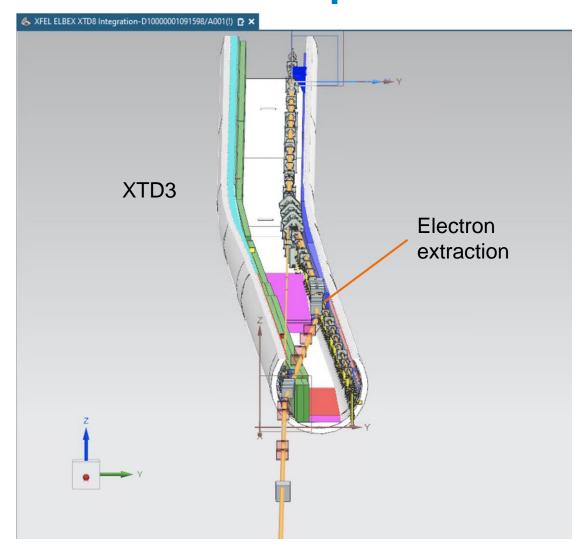


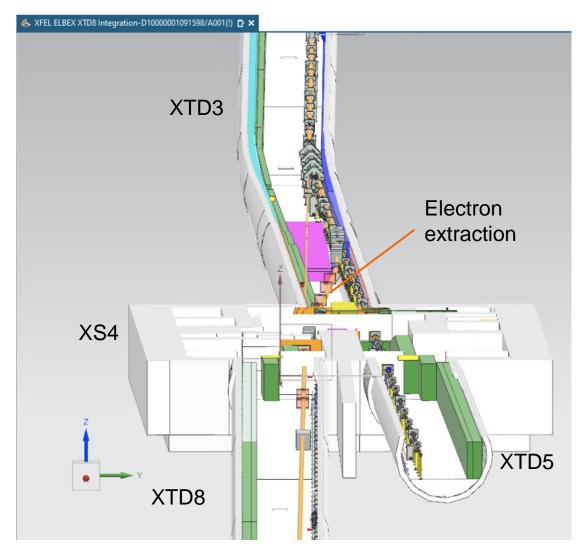


General news

- Follow-up meeting at EuXFEL on XTD8 (May 12): concept of fusion experiment expected after summer
- To start the permit update process, need safety concept of entire XTD8 tunnel
 - → keep preparing such that we can move quickly if fusion project goes ahead
- Discussions on requirements for main ELBEX facility dump (40 GeV, 50 bunches at 10Hz, bent towards tunnel floor by permanent magnet)
 - → design and Fluka simulations starting at INFN Padova
- First concept of double-bend extraction beamline (W. Decking), to be refined
- Discussion on LUXE geometry in XTD8 for simulation:
 - LXsim: start with existing LUXE geometry in tunnel
 - Laser diagnostics in the tunnel?
 - Front-end electronics in the tunnel?
- Meeting with EU commission PO (May 27): Potential of new ELBEX location received positively, no GA
 amendment needed right now

Extraction concept in the XTD3 Tunnel





First concept of double-bend ELBEX extraction beamline, to be optimized

DESY.