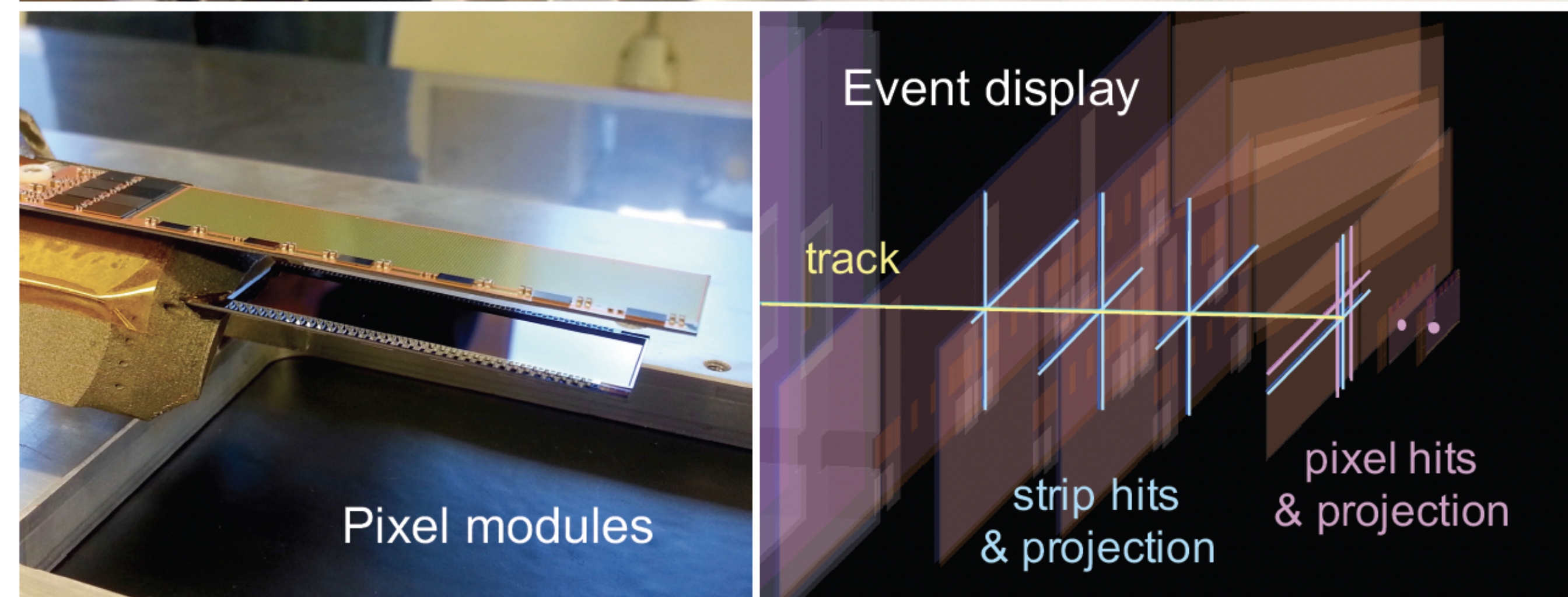
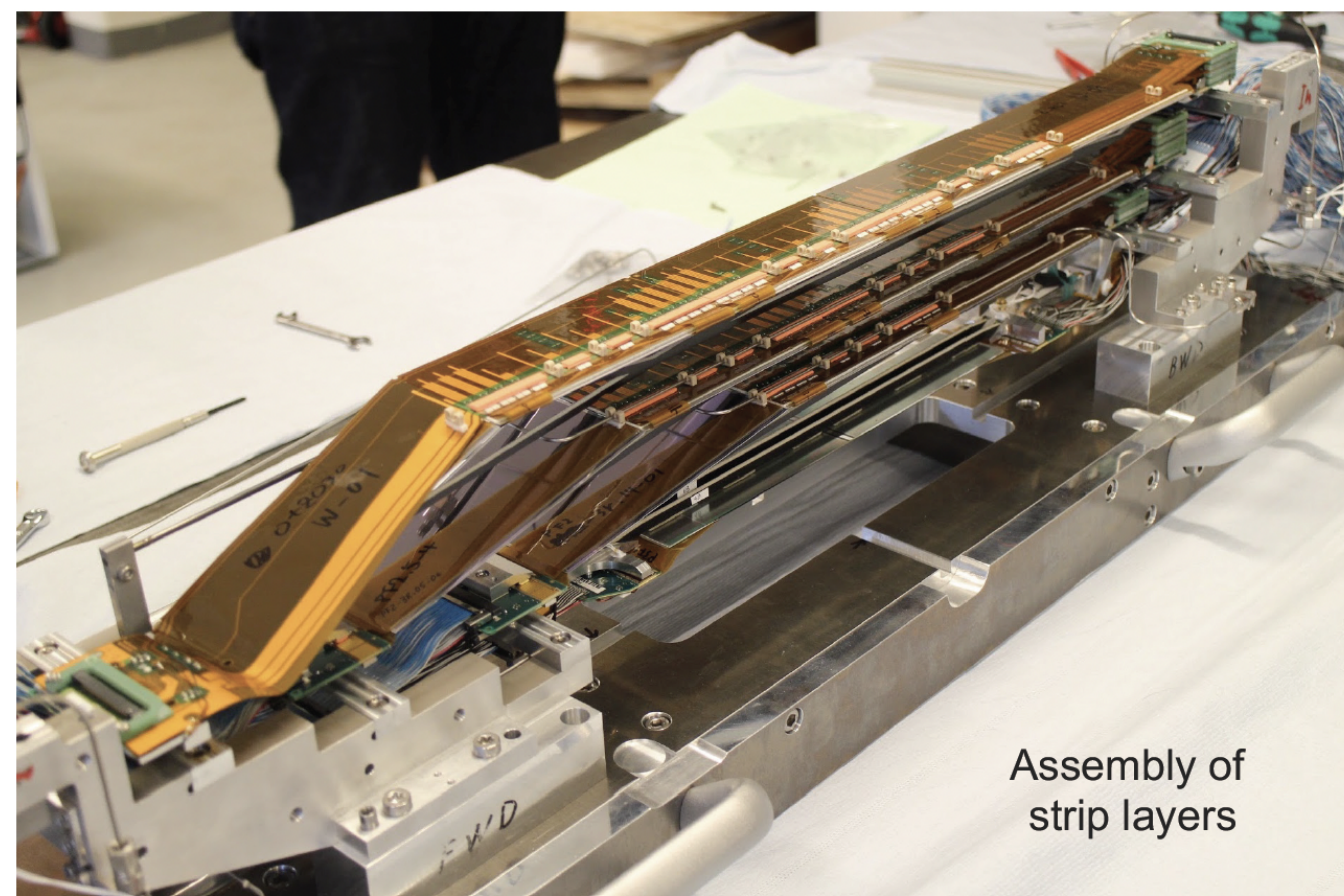


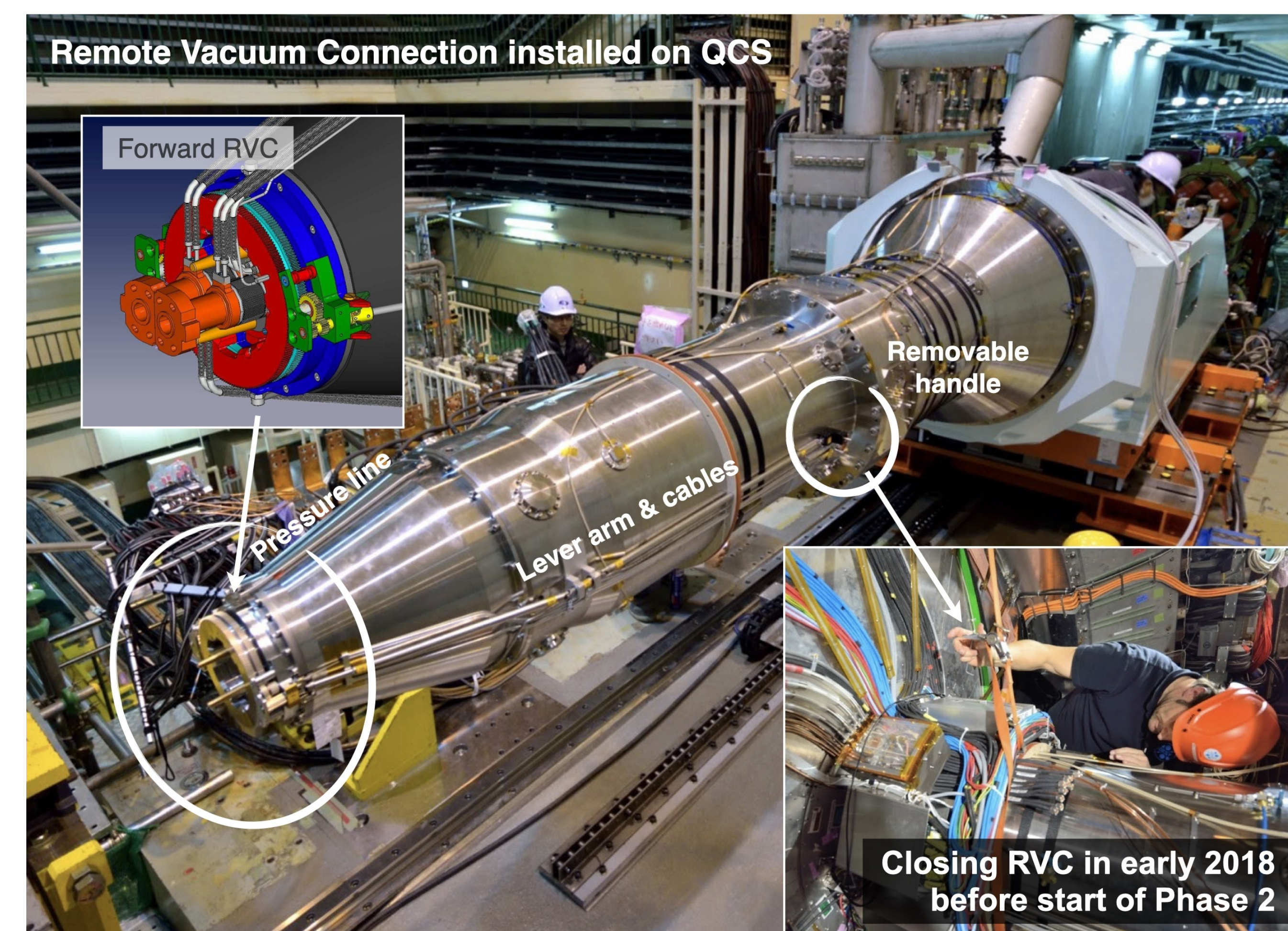
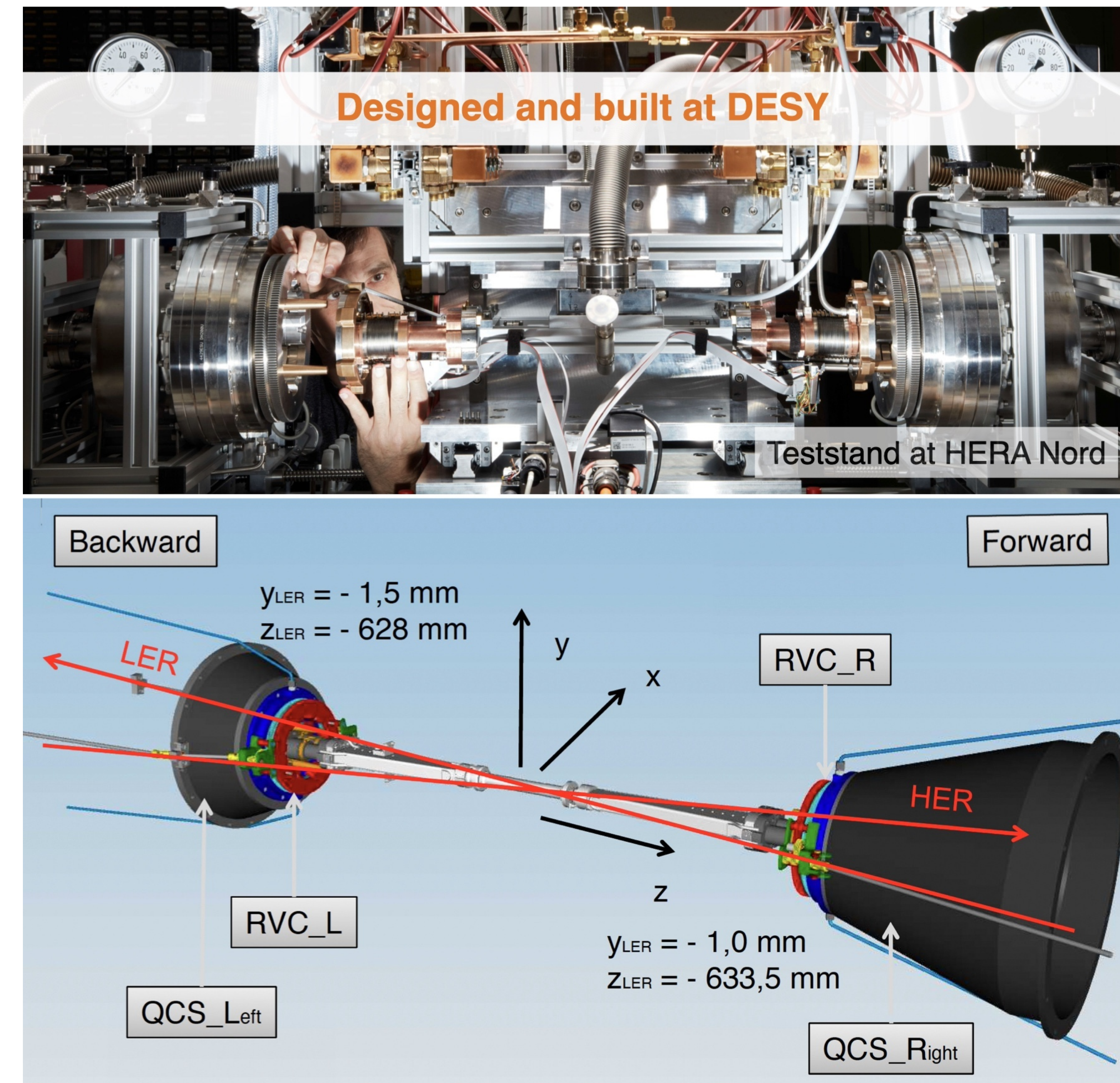
Test beam for Vertex Detector

Several test beam campaigns for Belle II Vertex Detector (VXD) were carried out at the electron-positron synchrotron DESY II accelerator during the development. The first pixel + strip combined test beam took place in 2016 for a complete sector of 4 strip layers and 2 pixel layers with final sensors and readout chips.



Remote Vacuum Connection

Remote Vacuum Connection (RVC) is a complex, remote actuated vacuum coupling joint between the beam pipe inside the Vertex Detector and the rest of the accelerator, where the space extremely limited. The RVC was proposed by DESY in 2012, and the entire developments and testing were undertaken on DESY campus.



Thermal management

CO₂ cooling is employed to keep the vertex detector and surrounding drift chamber at desired operating temperature below 25 °C for sensors and below 50 °C for readout chips. A real-sized mockup was constructed at DESY to carry out detailed studies.

