

Development, construction, operation and maintenance of particle detectors for experiments at CERN.

196 FTE

Services	R&D Projects	Joint Projects
Infrastructure for experiments and Detector R&D: <ul style="list-style-type: none"> • Gas systems • Detector cooling systems • DAQ and control systems • Magnet control and safety systems • Magnetic field measurements • Thin-Film & Glass Lab • Silicon facility • Wire-bonding & QART Lab • Micro-Pattern Technologies • Irradiation facilities • Specialized labs (optics, etc.) • Scintillator lab Engineering office	<ul style="list-style-type: none"> • Radiation tolerant silicon detectors (RD-50) • CMOS Pixel detectors • Gaseous detectors (RD-51) • Scintillating fibre detectors • Novel on-detector cooling • Lightweight mechanics for tracking detectors 	<ul style="list-style-type: none"> • Upgrades of the LHC experiments • Maintenance and Operation of experiments at CERN (LHC and non-LHC, such as NA62 and CLOUD) • Neutrino Platform experiments, SHiP detector study

EP-DT: current IT needs

Basic requirements:

- OS support (Windows, Linux)
- CERNBox, EOS, AFS, Gitlab, JIRA, Indico, ...
- SWAN, OpenStack, Web services, DBoD, ...
- Support for Hardware, Network, Procurement, ...

Special requirements:

- CAD sw
 - Advanced FEA simulations
 - PCB design sw (Altium, ...)
 - LabView
 - [WinCC OA](#), [JCOP](#), [UNICOS](#) (BE-ICS support)
 - PLC programming sw (TIA Portal, ...)
 - [NXCALS and PyTimber](#) (BE-CSS support)
 - TN server administration (BE-CSS support)
 - E-log instances ([PSI](#), [ELisA](#))
 - Data AcQuisition sw ([DAQling](#), [EUDAQ](#))
- } [EO sw list](#)



EP-DT: future

EP-DT computing requirements will likely be stable in the next years.

Proposed discussion points:

- Sections and working groups instantiate their own E-logs. A common solution would be desirable.
- R&D projects in EP-DT (and more) re-invent DAQ software for their small-sized test setups. Join efforts to offer a generic and centrally-supported solution?

