EN Engineering Department

Configuration Management & ECRs

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PSB-LIU Scope

- The changes made to the PSB or its transfer lines as a result of the LIU project.

Configuration Management

- Provides a clear and coherent picture of the status of a project/machine at a given point in time.
  - Ensuring that the physical layout of the accelerators is accurately recorded.
  - Changes to the machines and transfer lines (impacting components on the beam line) are documented and approved.
  - Ensuring that the layout of the accelerators is kept up-to-date, by tracking changes.

Layout Database

- Defines accelerator and transfer line layouts.
  - Equipment types and details
  - Functional positions
  - Links to other information (drawings, photos, databases, GIS, etc.)
- Currently covers the LHC, SPS, and some PS Complex machines
- PSB and the transfer lines exist in the layout database
- Plan to create multiple versions for the PSB LIU Project to show the layout as it will be at the LINAC4 connection, and at the 2GeV conversion.
  - Initially, the PSB ring and BI transfer line will be versioned.

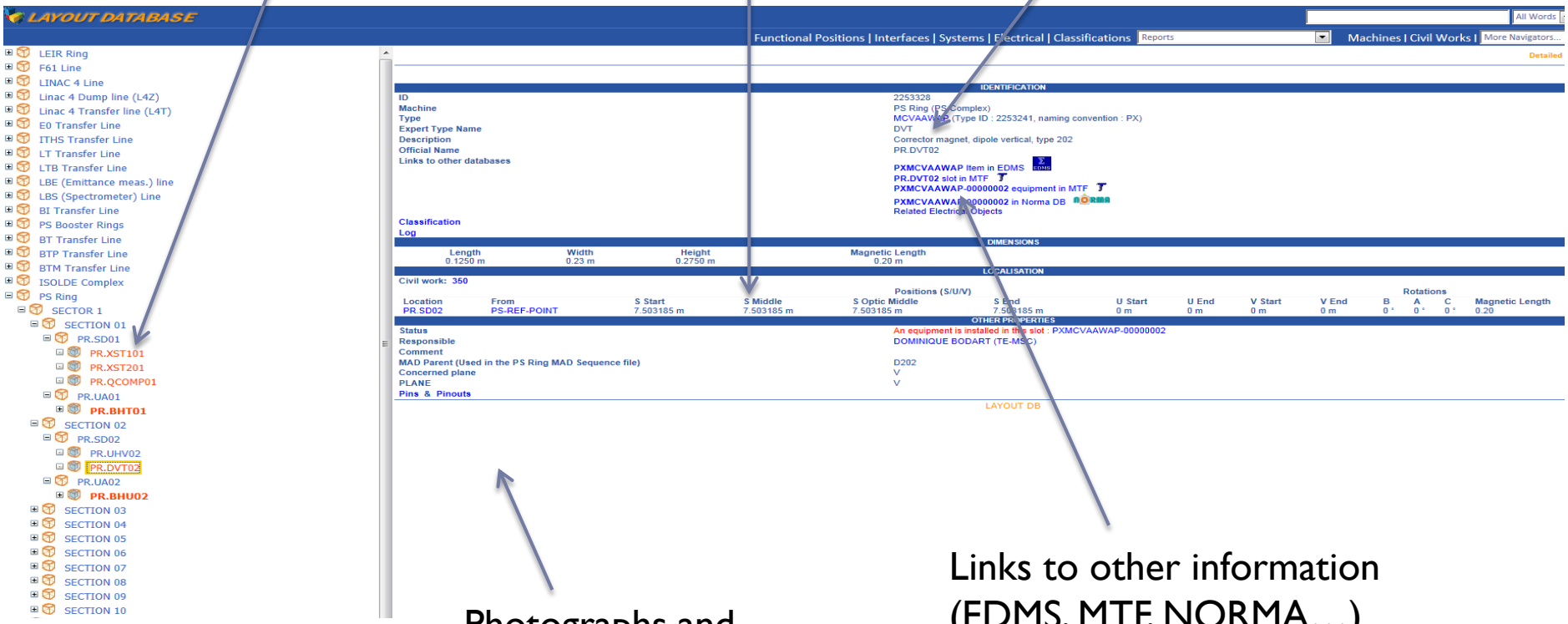
Layout Database

https://layout.web.cern.ch/layout/

Navigator

Slot Position

Equipment Type & Description

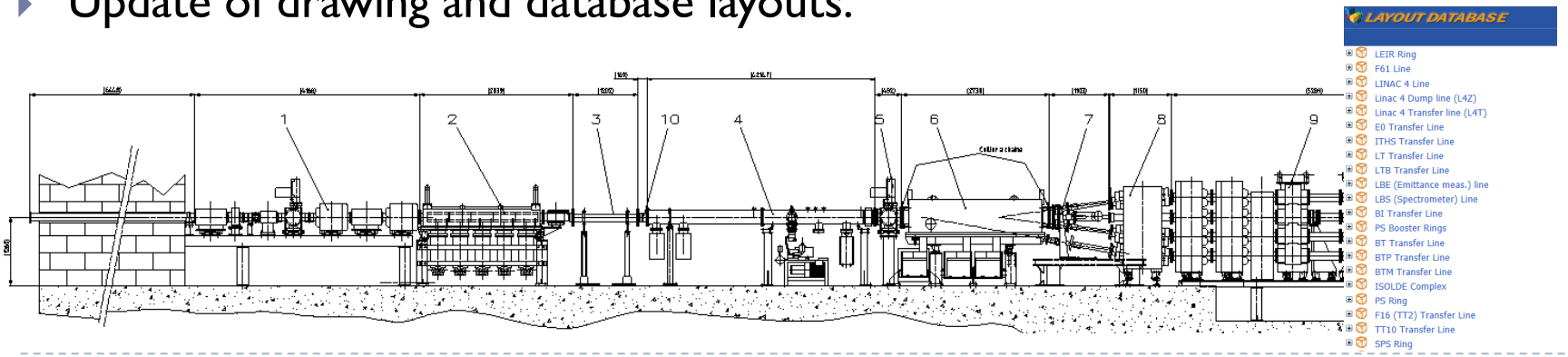


Photographs and links to drawings

Links to other information (EDMS, MTF, NORMA…)

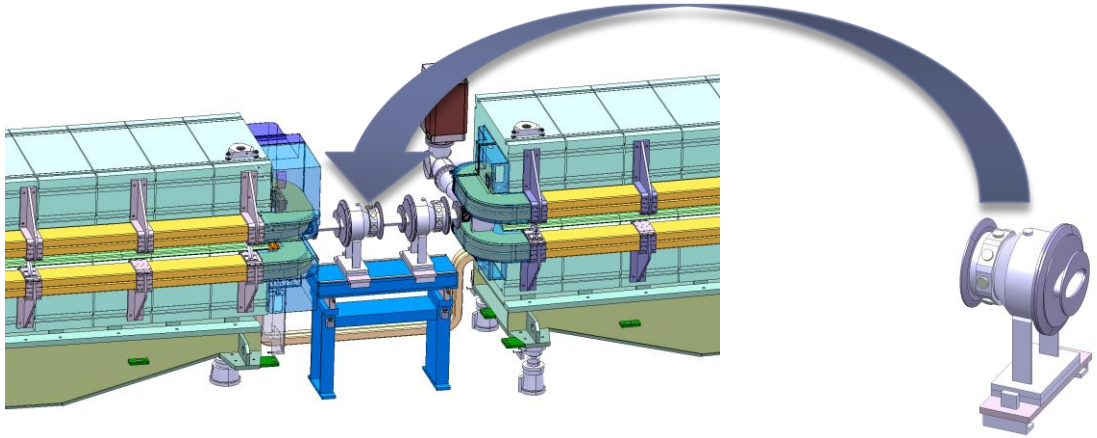
Purpose of ECRs

- To control and manage changes affecting machine layouts, or the function of equipment that 'sees' the beam.
- Allow all persons concerned the opportunity to comment about the impact of changes on surrounding equipment or general planning.
  Prior to the change taking place.
- Identify all stakeholders affected by the change.
- Provide traceability
- Assist in the organisation, planning, and coordination of the change
- Update of drawing and database layouts.



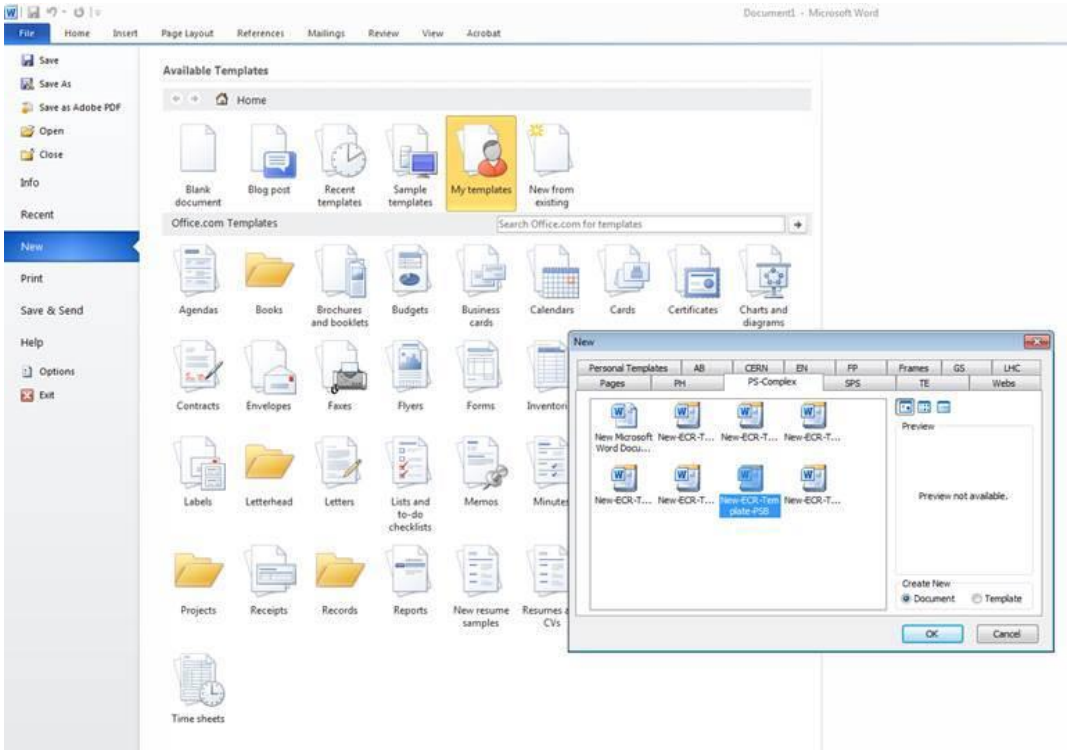
Usage of ECRs

- Replacement of equipment with an identical item, and repair activities do not necessarily need to be handled using ECRs
- Changes related to equipment not on the beam line (e.g. civil works, general infrastructure etc.) do not have to be managed using ECRs, but they can be.
- Large scale changes can be handled using a single ECR if all of the changes are planned to be practically carried out during a single machine stop.

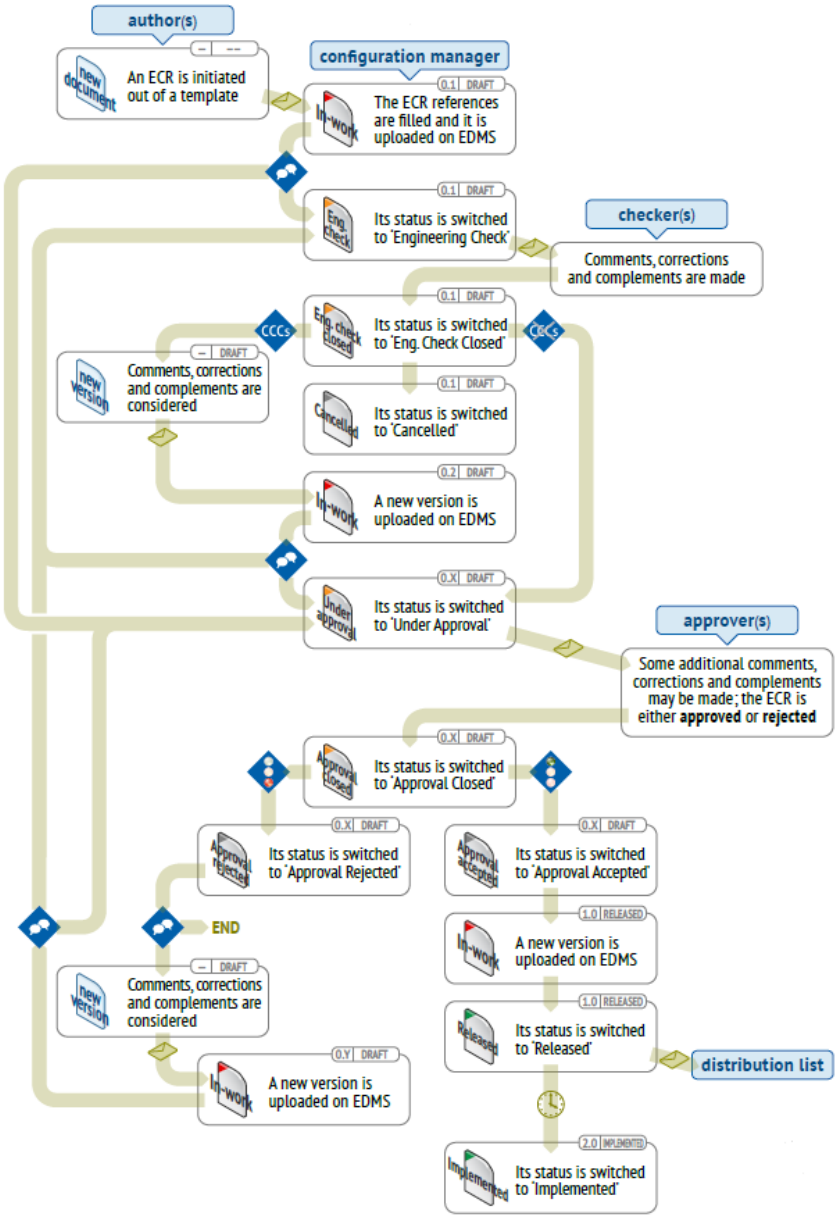


ECR Template

- A new template has been issued to standardise ECRs across CERN.
- MS Word – 'New', 'My templates', select the relevant tab, 'ECR Template'
- A guide to the ECR process is available – EDMS 1271880 (released)



ECR Process



- <u>All</u> pre-filled ECRs should be sent to the team in charge of Configuration Management (EN-MEF-DC) ecr-configuration@cern.ch
- The Configuration Manager will then discuss the ECR with the Author and Technical Co-ordinator
  - Ensure the ECR template is as complete as possible
  - Ensure that all stakeholders are identified.
- The Configuration Manager handles the full ECR document lifecycle.

ECR Process

- PSB-LIU ECRs will be distributed to all of the project members affected, or potentially affected, by the proposed change.
- Associated e-group:
  - ecr-psb@cern.ch
- Any further questions:
  - Consult EDMS 1271880
  - ecr-configuration@cern.ch