## MEDSI2025 - 13th International Conference on Mechanical Engineering Design of Synchrotron Radiation Equipment and Instrumentation



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The European Spallation Source (ESS) has made the strategic engineering choice of developing an integrated 3D model as the Single-Point-of-Truth (SPT) for engineering design, integration, manufacturing and installation. The design and integration tools along with the associated methodologies play a crucial role in the development and maintenance of ESS. This talk gives an overview of the incorporated CAD tools, ways of working, and methodologies in handling design engineering, focusing on their impact on system traceability and lifecycle management. In this framework the Facility Breakdown Structure (FBS) is presented as structured 3D representations that allow for seamless collaboration among design engineers, integration engineers and technical coordination teams. Tools and methods will be presented, with collaboration examples in CA-TIA V6 (handling large assemblies, revisions control, integration).

CAD and PLM solutions at ESS

## **Footnotes**

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