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Achieving a global technical vision through integration processes of a large-scale project like HL-LHC

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The integration of large-scale projects, such as the High-Luminosity Large Hadron Collider (HL-LHC), serves as a critical link between technical teams and operational objectives, enabling a global technical vision necessary for effective project management. In fact, the Integration & (De-)Installation task of HL-LHC oversees the validation of technical choices in terms of technical objectives, (de-)installation plans and their optimization.

This paper, using the case of the HL-LHC upgrade project, explores how integration activities and related tasks contribute to a complete understanding of complex projects. We highlight how the integration team gains a global technical perspective that guides decision-making and facilitates the management of key project milestones. Specific examples are discussed, including the management of minor civil engineering works and the role and importance of logistics, in particular space and transport management. By influencing these key aspects, the integration process ensures coordination among diverse project teams and enables successful large-scale project implementation and smooth transition from design to long-term operation.

Footnotes

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