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Bridging Science and Engineering: Lessons for Next-Generation Research Facilities

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The successful delivery of large-scale scientific infrastructure relies on the seamless integration of advanced research objectives with structured engineering practices. In science-based facilities, this intersection often presents challenges, as scientific exploration encounters the rigor and discipline of established engineering workflows. This presentation examines key lessons drawn from industrial engineering environments and their application to greenfield scientific projects. Emphasis is placed on the importance of clearly defined processes, cross-disciplinary communication, and adaptability to complex, evolving requirements. By aligning engineering excellence with scientific ambition, new opportunities emerge to enhance the efficiency, scalability, and impact of next-generation research facilities.

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