TR21146

BIM Innovation and Collaboration for Success in Large Cross-Country Rail Projects

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Learning Objectives

- Understand the possibilities for what can be achieved with BIM for infrastructure
- Learn how to increase collaboration among your team members
- Learn how to advocate for BIM in your next major project
  Learn how to plan for BIM implementation

Description

This panel will discuss the achievements and challenges of the successful Intercity rail project in Norway. The panel will include Building Information Modeling (BIM) experts from the fields of design, construction, and government who will all share their perspectives on this highly collaborative, fast-paced project. Intercity is a 230 km rail project with both new and existing right of ways passing through dozens of municipalities and multiple other jurisdictions. In each jurisdiction, there are different stakeholders and variable legal considerations for cultural, historic, environmental, social, and esthetic standards, all of which were addressed via InfraWorks 360 software representations. The project has been split into sections, each being designed by a different company or partnership, so collaboration between sections and the Rail administration has been key to their success. This session features InfraWorks 360.
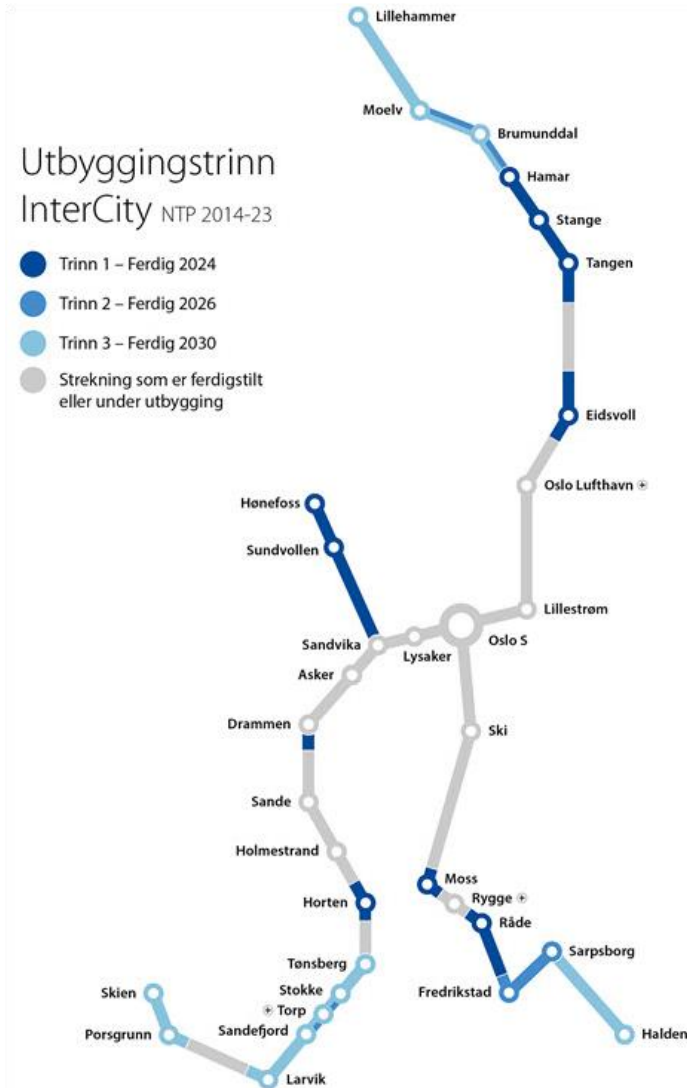
Your AU Experts

Panel participants:

Kristin Lysebo, Norwegian Railway Department, BIM manager
Marit Loland Tveit, Ramboll, BIM Manager
Marius Sekse, COWI, BIM Strategist and Landscape Architect
Gunnar Fjogstad Hansen, COWI, BIM Coordinator and Landscape engineer
Philip Hon, Sweco, BIM Strategist
Atle Høidalen, Sweco, BIM Coordinator
Lucy Kuhns, Autodesk, Technical Support Specialist Infrastructure
Nathan Moore, Autodesk, Technical Support Specialist Infrastructure
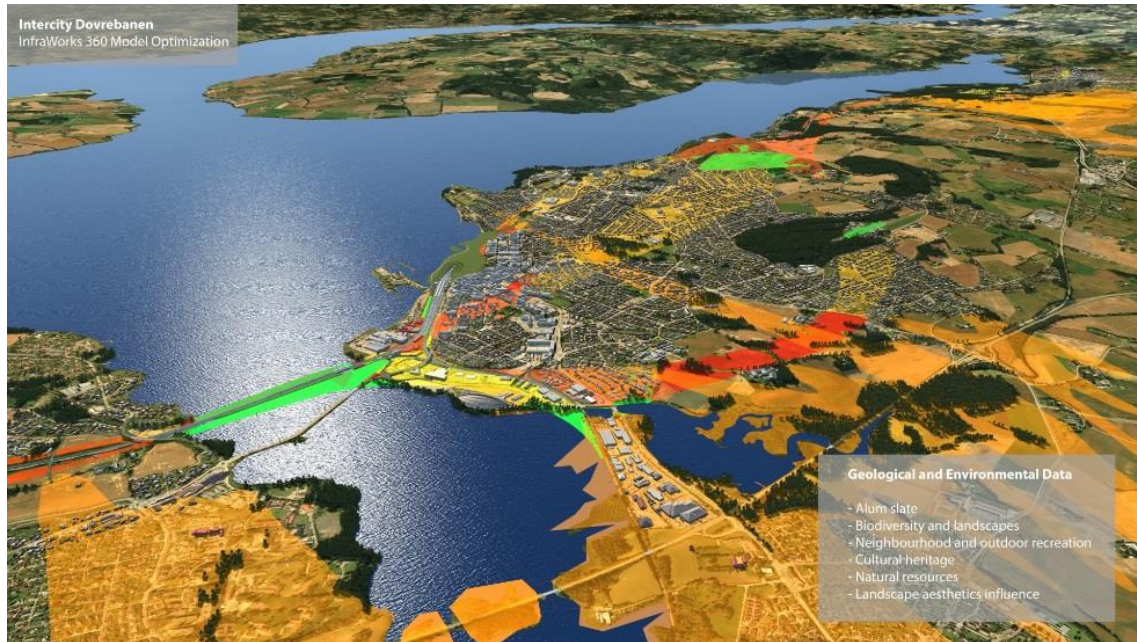
Introduction to the InterCity rail project

The Intercity project connects 21 cities in eastern Norway from Lillehammer in the north to Halden and Skein in the south. The project has been divided into seven subprojects where the first is to be completed in 2024.The whole project is planned to be ready at 2030.

The project requirements are set by the Norwegian railway administration and the project shall be designed according to their BIM handbook and recommended BIM methodologies. The coordination models and single discipline models are to be delivered in 3D for all disciplines, adapted to the necessary level of detail for each phase of the project, the models shall be updated continuously during the design phase and is required to be actively used in all communications with stakeholders in the project.

The models shall be developed in line with the required level of detail during the project and used in all different phases - conceptual design, detailed design and during construction phase. The model will end up as an "as built model" by end of construction

The panel will discuss how the project members planned for BIM, it will discuss the challenges around communication and collaboration and how they used Infraworks in an innovative way to be successful, and it will discuss challenges around digitalization and the massive amount of data that is handled in this large project.