

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

Per-Erik Åstrand

Technical Specialist AEC, Northern Europe

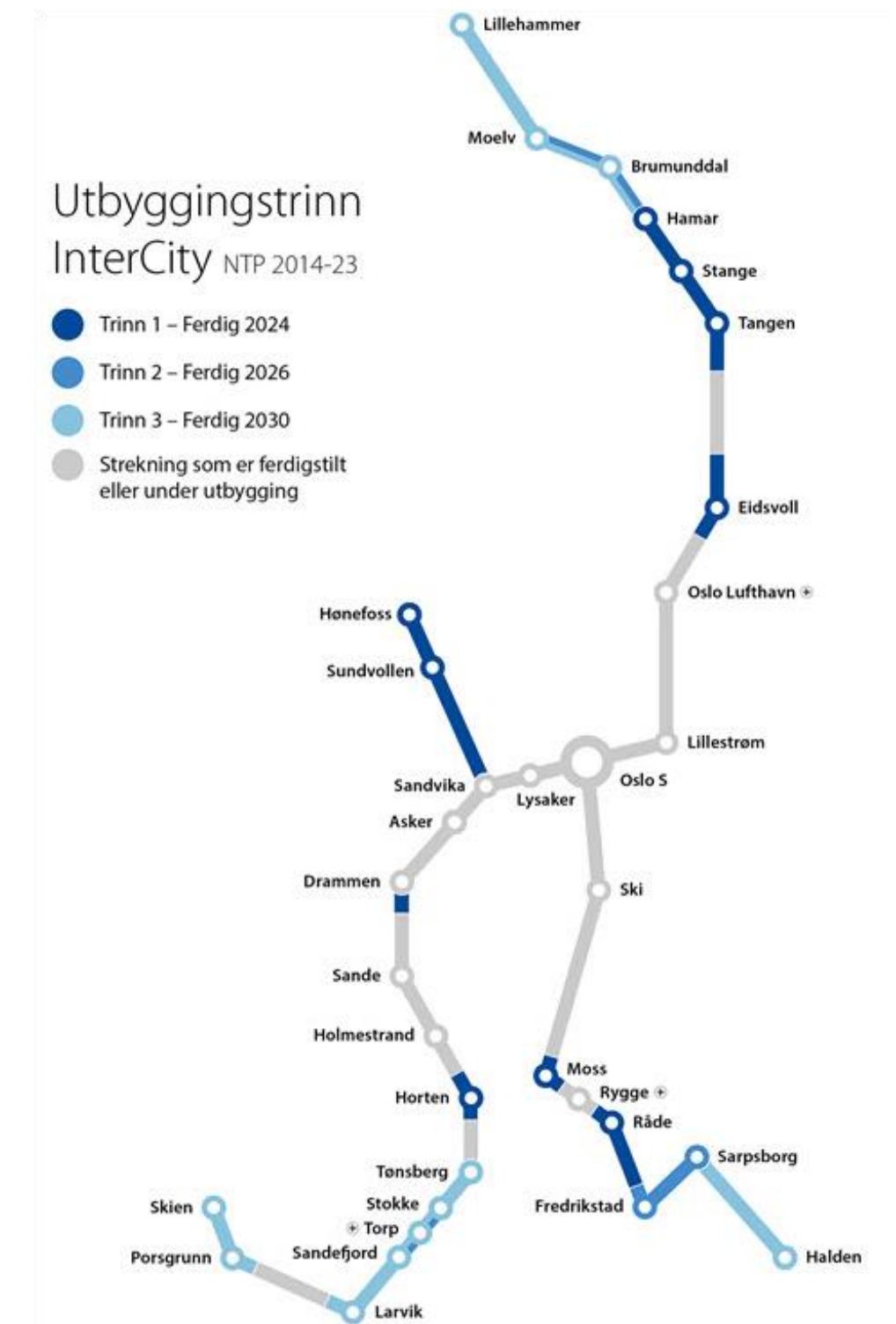
Twitter: @per_astrand

Introduction to the panel

- **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
- **Nathan Moore**, Autodesk, Technical Support Specialist

Introduction to the InterCity rail project

- 230 km rail network connecting 21 cities in eastern Norway
- The project is divided into 7 subprojects
- Infraworks 360 used as a platform for model based workflow for three of the subprojects
- Project to be completed 2030, first subproject 2024



Main challenges


- **Communication and collaboration** - Large complex project, many stakeholders with strong public and local community interest in the project and many companies involved. Railway crosses both urban and rural areas including roads, bridges, tunnels, buildings, culverts etc.
- **Digitalisation** - The large geografic area, the complexity and massive amount of data exchange between different platforms and services throughout the project lifecycle, from data of existing conditions to design and data in the field.

Highlighted project requirements:

- 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 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

Project BIM strategies

- Consultants established project specific BIM-strategies to meet the government requirements and demands




DIGITAL DATAFLYT


OPDRAGSGIVER
Jernbaneverket

PROSJEKTNAVN
InterCity Haug - Halden

DATO / REVISION: 12.oktober 2015 / 1.3
DOKUMENTKODE: PR-332




REV.	DATE	BESKRIVELSE	UTARBEIDET AV	KONTROLLERT AV	Godkjent av
1.0	27.07.15	Første utgåve av manualen	GRH	MASE	HLA



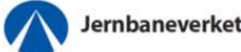
BIM-STRATEGI INTERCITY

PROSJEKTNUMMER:
1350008918
IC - SØRLI - LILLEHAMMER



GJELDENDE
13/11/2015

RAMBØLL NORGE AS / SWECO NORGE AS



Dovrebanen,
Sør - Lillehammer
Kommunedelplan

-Strategi

Akseptert
 Akseptert, m/kommentarer
 Ikke akseptert (kommentert)
Revider og send inn på nytt
 Kun for informasjon
 Sign:

Dato	Utarb. av	Kontr. av	Godkj. av
10.02.2016	NOPHH	MLT	KGJ

Sider:	Entreprise	Dovrebanen, SHL Hovedplan/ Kommunedelplan
7		

HOVEDPLAN/ KOMMUNEDELPLAN

BIM-Veileder

Prosjekt:	965000	Dokumentnummer:	Revisjon:
Parsell:	56,57,58,59	ICP-56-A-25900	00E
		Drift dokumentnummer:	Drift rev.:

