AUTODESK Construction Cloud | Metro

Creating A Connected Experience for the Expansion of Copenhagen's Metro with Autodesk Build

Copenhagen's Metro (*Metroselskabet I/S*) with as little as two minutes between driverless trains has been voted the best Metro globally. The Metro carries about 360,000 passengers daily, delivering a safe and sustainable way to move around the city. With several expansion projects running over the next few years, Copenhagen Metro is standardising and digitalising their construction processes with Autodesk Build within Autodesk Construction Cloud™ to collaborate better internally and externally.

Metro

Customer Snapshot

FIRM SIZE:	<500
FIRM TYPE:	OWNER
REVENUE:	N/A
FOCUS AREA:	INFRASTRUCTURE
HQ:	COPENHAGEN, DENMARK

PHASE:

DESIGN · PLAN · BUILD · OPERATE

CAPABILITIES:

- Document Management
- Project Management
- Field Collaboration

OUTCOME:

Schedule

Quality

Delivering More Efficient Ways of Working

As one of Denmark's most densely populated areas, establishing stations thirty to forty metres underground in Copenhagen is not an easy task. Since its opening in 2002, the Metro has been expanding at pace. In 2019, the M3 Cityringen opened, consisting of 17 new stations in central Copenhagen. The network is expanding to Nordhavn and Sydhavn in the coming years, with five additional metro stations constructed in Sydhavn.

The Metro's current ways of working are fragmented and inefficient. The team uses 2D drawings that are printed and manually marked up with changes or issues. In addition, they use Excel spreadsheets to manage certain workflows, which inhibits collaboration on shared documents with internal and external project team members.

"Our manual design and construction processes are time-consuming and inefficient," says Joe Rasmussen, Project Manager for Copenhagen Metro. "We decided we wanted to invest in construction technology to overhaul our ways of working and provide increased transparency to our project partners and improve how we collaborate with the supply chain."

Copenhagen Metro decided to invest in Autodesk Build to digitalise their current ways of working. They also plan to grow and automate document management in the future.

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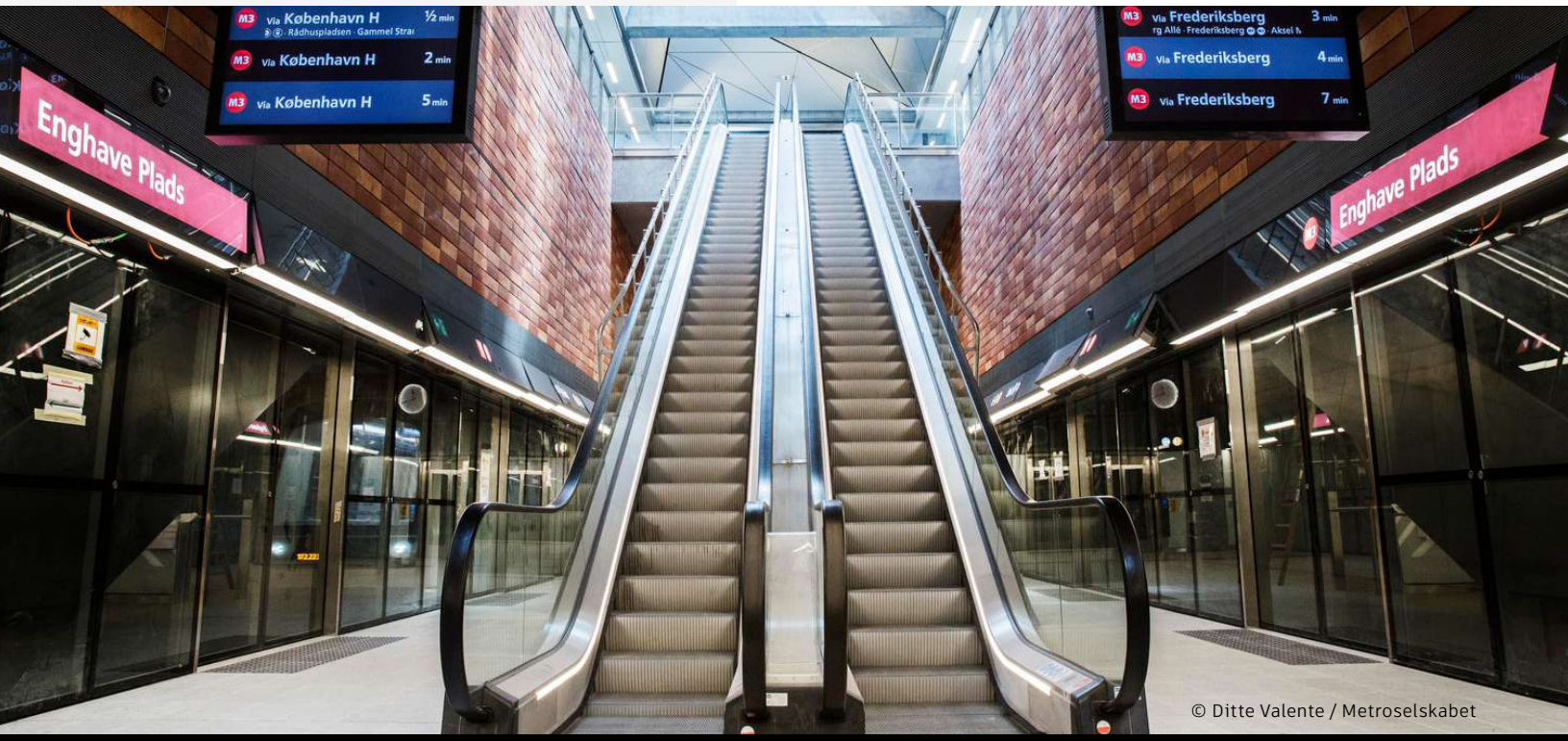

A Phased Introduction and Improved Transparency

For Copenhagen Metro, using an iterative approach to transforming their construction processes will help minimise disruption to current projects while allowing project team members to learn from each other.

"To get started, we will roll out Autodesk Build on a phase-by-phase basis to workflows on the M4 expansion project to create efficiencies with digital workflows," says Joe. "Not only will this speed up our current working methods, but it will allow us to provide more transparency to all project collaborators, including the Municipality of Copenhagen and the Danish government who oversee our activity."

> "We see Autodesk Build as a key component in automating some of our repetitive workflows which will save time and reduce risk as sometimes these processes are open to human error."
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> **-Joe Rasmussen**
> Project Manager,
> Copenhagen Metro

Investing Now for the Future

The long-term plan for Copenhagen Metro is to use Autodesk Build as their common data environment on all new construction projects. This will save time for their project teams, improve communication through more collaborative working practices, and improve connectivity on site. Creating a more sustainable and efficient business fit for the future is a priority for the team.

"We see Autodesk Build as a key component in automating some of our repetitive workflows which will save time and reduce risk as sometimes these processes are open to human error," says Joe.

A common data environment will also benefit Copenhagen Metro for long-term asset management. Capturing important project information related to the construction of these stations and the metro line means that the team can create predictive maintenance schedules in the future. And for the people of Copenhagen, a connected construction journey will deliver a more connected city for the future.