

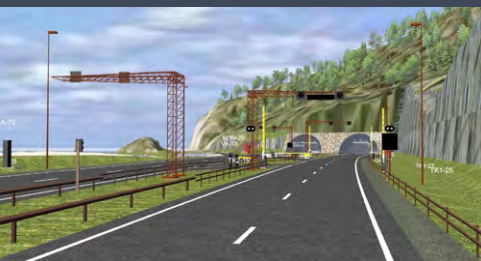


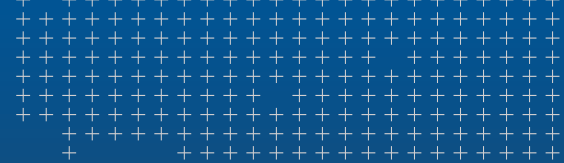
CIVIL CONSTRUCTION CONTINUUM CONFERENCE

13. - 14. NOVEMBER 2017
TIVOLI HOTEL, COPENHAGEN

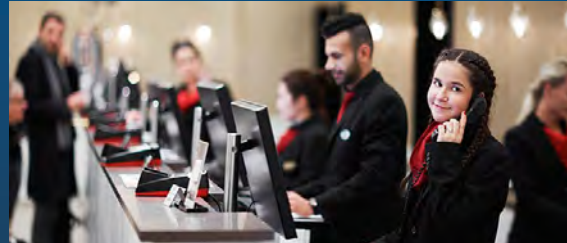
BIM FOR INFRASTRUCTURE

Business Center - HCE | Connect | Novapoint | SketchUp | Tekla | TILOS | Quantm...





WELCOME TO COPENHAGEN



Whether you are a designer, contractor or owner of infrastructure projects; this is the ultimate conference for you.

BIM for Infrastructure is the overall theme of the conference – a theme that is decisive for **gaining success** in civil construction projects going forward!

Why? Model-based design and collaboration across project disciplines and players have become the industry norm in civil design and construction. BIM Level 3 is now becoming the new standard to gain genuine efficiency and competitiveness. Some countries even set BIM Level 3 as a national requirement for civil projects.

By attending the conference you will find out how leading companies use BIM Level 3 in practice already – and gain substantial benefits from it. Experience how Trimble’s unparalleled tools portfolio, Novapoint, Quadri, TILOS, Quantm, Tekla and more, are used to optimize project efficiency by using model-based design and construction. Find out how leading consultants, contractors and owners share and leverage the data-flow to collaborate with confidence – gaining outstanding benefits in planning and design as well as in construction and maintenance.

Take a good look at the comprehensive conference program. We are confident you will find topics and presentations that will be of great interest and inspiration for you.

Looking forward to seeing you in Copenhagen 13. - 14. November 2017!



CONFERENCE DETAILS

Conference opens: 13. November 2017 at 10.00
Conference closes: 14. November 2017 at 16.30

LOCATION

Trimble's rate at the Tivoli Hotel is 1200DK/night for a single room based on availability. Please check the appropriate box in the registration form if you want to take advantage of this rate.

Tivoli Hotel Copenhagen, Arni Magnussons Gade 2
DK-1577 København V, Tel. +45 4487 0000

CONFERENCE FEE AND REGISTRATION DATES

Registration before 8th of September 2017 - 650€
Registration after the 8th of September 2017 - 750€

The conference fee covers lunch both days and the conference dinner with entertainment on the evening of November 13th.

Day one includes 9 plenary sessions.

Day two has 4 parallel sessions:

- A sessions have a management focus
- B sessions have a contractor focus
- C and D sessions have a designer focus

Registration closes on the 20th of October or when the conference is full.
Limited to 350 participants.


* No refunds will be given for cancellations after the 8th of September.
Cancellations before the 8th of September will be given a 50% refund.
To be eligible to participate the conference fee must be paid within the 20th of October.
Change of participant name can occur up to the 27th of October without additional cost.

REGISTRATION Register for the event at civil.trimble.com/CCCC17

MONDAY 13

▶ PLENARY SESSIONS DAY 1

- 09.30 - 10.00** **Registration - Coffee & Tea**
- 10.00 - 10.05** **Welcome to the Civil Construction Continuum**
- 10.05 - 10.25** **The complete Trimble software solutions for Civil**
P1 Collaboration in real world BIM models. With many national governments in Europe setting BIM level 3 goals for all government projects it is important that we all are ready to meet their requirements.
Ryan Kunisch, General Manager for Engineering and Construction Software Division, Trimble
- 10.25 - 10.45** **Moving the industry forward with demanding clients and new technology**
P2 A demanding owner and an example from a real world project using mixed reality (Microsoft Hololens).
- 10.45 - 11.05** **The Grandfather's Bridge in Helsinki was a full-blown BIM project from the bidding to project delivery**
P3 The Grandfather's Bridge project, striving to achieve paperless design and construction, created new practices for transferring BIM data from one project party to another.
Aki Kopra, Development Manager, Kreate Oy
- 11.05 - 11.30** **Coffee break** 

- 11.30 - 12.00** **Intelligent construction equipment**
P4 Construction machines are becoming increasingly digitized, all connected through the cloud, receiving, consuming and producing digital data.
Peter Strand, Regional Sales Manager, Trimble
- 12.00 - 12.30** **The benefits of close collaboration between all stakeholders; National Road 6, Taavetti-Lappeenranta - Alliance project**
P5 The Finnish application of Integrated Project Delivery (IPD) called Alliancing is a delivery form where the client, the contractor and the designer only have joint and common goals. National highway 6 in Finland is the third national infrastructure project to be realized using this model. The model as such emphasizes collaboration and for the designer a well-functioning software is key to enable all parties to work together toward the common goals. Several different Trimble software were used, from design to construction, with the aim of also finding the right information for operation and maintenance.
Peter Molin, Director, Infrastructure and Transport, Rambøll Finland
- 12.30 - 13.30** **Lunch** 

13.30 - 14.00

P6

**E6 Kolomoen - Arnkvern, Norway:
a demanding client requiring BIM level 3**

In this project the client requires BIM level 3 and the minimum use of 2D drawings. This sets the standard for the designer and contractor to find new ways of creating and sharing constructible models.

Torbjørn Tveiten, BIM Manager, ViaNova Plan and Traffic and a representative from Rambøll/BetonmastHæhre

14.00 - 14.30

P7

**BIM strategy - present and future at ÅF
- Swedish Consulting Engineering company**

How we deliver BIM in different phases of an infrastructure projects. From early phases to design, build and maintain. Experience from the Design-Built project Strängnäs-Härad and the use of Trimble Quadri to deliver BIM.

*Karl Erik Jonasson,
BIM Manager and System architect, ÅF*

14.30- 15.00

Coffee and exhibition



15.00 - 15.30

P8

**Transport network is part of the foundation for
a complete Infrastructure BIM solution**

The transport network is a fundamental element in asset management. To achieve true life cycle for transportation the network is an important building block not only for maintenance but also during the design and construction. Trimble is actively involved in developing solutions for network management for national transportation authorities.

Idar Kirkhorn, Business Area Manager, Trimble and Mats Bayard, CEO, Triona

15.30 - 16.00

P9

Delivering complete digital design within 2020

Our goal is to be able to offer our clients paperless deliveries by 2020.

Gjermund Dahl, BIM Manager, Norconsult

16.00 - 17.00

Exhibitors hour

19.30 - 20.00

Aperitif

20.00 -

Conference dinner and entertainment

≡ TUESDAY 14

▶ PARALELL SESSIONS DAY 2

08.30 - 8.50 **Evolution of BIM - Share with Confidence**
Where is our industry and where should we be going.
Collaboration across phases and between domains.
Idar Kirkhorn, Business Area Manager, Trimble

09.00 - 09.35

A1 **Open BIM strategy at the Swedish Transport Administration**
The Swedish Transport Administration (Trafikverket) will require exchange of data based on open standards.
Mikael Malmkvist, Trafikverket

B1 **Business Center - HCE, The contractor's toolbox**
Business Center – HCE helps validate and integrate data globally for use on Machine Control and Surveying systems. Learn more about workflows to create the constructible model, increase onsite production including calculating material volumes and their most effective use.
Stefan Argiriu, Trimble

A - Project management and BIM collaboration
B - BIM Scheduling & Construction
C and D - BIM Planning and Design

C1 **Modelling Highways and Railways - the constructible and integrated BIM model**
Alignment design, road modelling, rail modelling, connecting models to each other using dynamic alignments, quantities and data flow to construction.
Patrick Mc Gloin and Daniel Sosna, Trimble

D1 **Utility Design for Water and Sewer - the constructible and integrated BIM model**
In this session we look at the workflow from design, through construction until delivery of an as built model. We look further into the use of Novapoint Water and Sewer at the construction site. The utility model is used for machine control and is updated with changes in the field. The result is presented in an as built model, which is delivered back to the client.
Pedram Tahmoury, Trimble and Anders Magnander, Skanska

09.45 - 10.20

A2 Collaboration across borders using Trimble Quadri - a BIM server; E18 Rugtvedt - Dørdal

E18 Rugtvedt - Dørdal is a Design Build project where the contractor requires a BIM design and build process. COWI used its world wide design resources with model based collaboration across borders.

Magnus Jacob Christensen, COWI Denmark

B2 Introduction to linear planning with graphical time/location

In this session, you will learn the advantage of linear scheduling against traditional planning with Gantt charts or Network diagrams. Save costs in the planning phase by avoiding clashes in the project by adding location constraints to the CPM network. Visualize your whole project and its interdependencies on one single output: The time distance diagram with the information: What When and Where.

Hubert Geier, Trimble

C2 Quadri an open BIM server. Collaboration across domains and solutions

Integrated design of road and railway. Supplementing the common BIM model from a range of other sources (LandXML, IFC, Civil 3D...). Sharing the result and analysing the proposal against all information in the model: foundations, ducts, deflection walls...

Chris Dheere, Vianova Systems Benelux

D2 Road and Rail Drainage Design - Interactive collaboration between the drainage and road engineer

The collaboration between the Road and Drainage engineer is essential in all projects. In this session we show you the benefits by combining Novapoint Road, Novapoint Water and Sewer and the Quadri BIM server to build a constructible road drainage-system.

Inge Tørnes and Jonas Wenner, Trimble

10.20 - 10.50

Coffee and exhibition



≡ TUESDAY 14

▶ PARALELL SESSIONS DAY 2

10.50 - 11.25

A3 A BIM level 3 platform - Trimble Novapoint Base, Connect and Quadri server

Your ecosystem for sharing data between domains, phases, software solutions and all the way to machines on site.

Heidi Berg and Erling Tronsmoen, Trimble

B3 Monitoring Compaction in VisionLink

Find out how to increase the effectiveness of your compaction crews by using the CCS900 compaction system in the field. The recorded data from this can then be viewed, stored and analyzed in VisionLink to enable project sign off.

Norbert Mattivi, Trimble

C3 3D Roundabout and Intersection design - the constructible model

3D Intersection design in detail. Ready for construction.

Patrick Mc Gloin, Trimble

A - Project management and BIM collaboration
B - BIM Scheduling & Construction
C and D - BIM Planning and Design

D3 Scheduling tunnel projects effectively

Based on one of the largest current tunnel projects in the world you will learn how to create a complex schedule converting data from an excel based calculation schema into a CPM schedule.

The resulting schedule is fully resource and cost loaded and can be visualized as a time distance diagram.

Hubert Geier, Trimble



11.35 - 12.10

- A4 Create a model of the existing situation with data from many sources as a basis for design**
How to create a real world model of the existing situation with the integrated tools in Novapoint Base. Create the model in combination with import from different sources (LandXML, IFC, LAS, SHAPE, etc) as a basis for infrastructure design.
Solveig Fiskaa, Trimble
- B4 Work flow from BIM model to site - Setting out data for road, rail and structures**
How to extract machine control data and setting out data from the common BIM model to the connected site.
Heidi Berg, Trimble
- C4 Modelling 3D reinforcement using Tekla Structures on a complicated Tunnel project**
This year the construction of Mustad Concrete Tunnel, a particularly geometrical complicated construction, will be finalized. Much of the reinforcement in this structure is modelled as


3D reinforcement using Tekla Structures. This proved to be a very efficient method and was greatly beneficial for the quality assurance processes. Join this session to learn more about our new methods and experiences with 3D reinforcement modelling. In particular, we will present our new approach for parameterized automatic reinforcement.
Simon Sólbjørg, Dr. Ing Aas Jakobsen

- D4 Modelling of rock- and soil layers**
Creating a real world model of the subsurfaces. Managing soundings, creating rock- and subsurface layers from different information sources. Use of subsurface layers in design.
Jan Ludvigsson, Trimble

12.10 - 13.15

Lunch





13.15 - 14.00

A5 Application of Trimble Novapoint and Quadri for the Follo Line Rail Project, Norway

This session will focus on the workflow used by Condotte using Trimble Novapoint and Quadri including geology registration, rock support, data management and information exchange with the construction site.

Roberto Redaelli and Paolo Sattamino, Harpaceas

B5 Mass Haul in Action

The practical benefits of using Trimble solutions to optimize and schedule the mass haul on the Hamilton Bypass.

Dwayne Rosie, Trimble

C5 Modelling of Bridges connected to the road/ rail geometry with Trimble solutions - mini course

By combining the structure modelling functionality in Novapoint Bridge with the modelling functionality in Tekla Structures, you achieve a very efficient work process for 3D modelling of cast in place structures for infrastructure projects. Join this session to learn how to combine

these two tools to do a very efficient modelling of a highway crossing bridge, including modelling of the 3D reinforcement.

Jan Erik Hoel, Trimble

D5 Modelling of cable channels and ditches for road and rail - mini course

Complement your BIM model with cable channels and cable ditches. Quantities and setting out data. Street lighting and manholes.

Inge Tørnes, Trimble



1410 - 14.55

A6 Novapoint Base and Quadri for experienced users. Tips and Tricks - mini course

Tips and tricks in Novapoint Base and how to improve your work process.
Solveig Fiskaa, Trimble

B6 Using the BIM model to manage communication between stakeholders and phases

Use of the presentation features in Novapoint Base makes it easy to identify what is new, what is old, what will be removed or what is only a draft.
Cuong Nguyen and Steinar G. Rasmussen, SWECO

C6 Complementing the BIM model with SketchUp & 3D Warehouse - mini course

How to model in SketchUp and compliment your BIM model.
Mats Fensholt and Mike Tadros, Trimble

D6 Route planning for road and rail with Trimble Quantm

Time-effective route analysis and cost estimating for road and rail. This session will give an introduction to the use of Quantum, an early stage planning tool that is integrated with the Trimble Continuum.
Daniel Sosna, Trimble

14.55 - 15.25

Coffee and exhibition



15.25 - 16.00

A7 Use of 3D Point Clouds in design and during construction

How 3D Point Clouds are created and processed for use in Trimble Business Center - HCE and Novapoint Base.
Jan Erik Domaas, TerraTec

B7 Sharing and managing files through a project - Trimble Connect

Trimble Connect is a useful tool for file management and communication between designer and contractor/surveyor. In this session we walk through the process of setting up Trimble Connect and the workflow from Novapoint via Trimble Connect to Business Center.
Jonas Wenner, Trimble and Peter Gustafsson, SITECH Sweden

C7 Terrain shaping - designing terrain inside the BIM model

The new dynamic Terrain shaping tool allows you to create surfaces, breaklines and borders on the fly right inside the Quadri model. We take a look at how we shape the terrain along roads, around constructions and general landscaping.
Stefan Petersson, Trimble

D7 Railway design in practice

Project experiences from VR Track Oy (Finish construction and engineering company) working with The Swedish Transport Administration. The session will be based on the Gävle rail project presentation with regard to different aspects of design and requirements.
Petri Louhi, Civil Point Finland

16.10 - 16.30

PLENARY

Summary



► For further information please visit civil.trimble.com/CCCC17 or contact:

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