



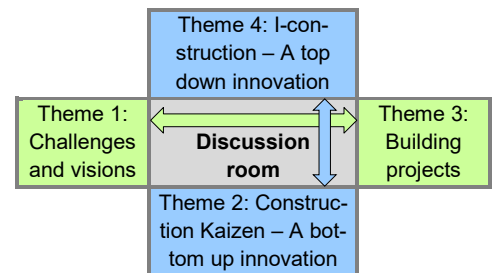
Program for Japan-DK-seminar, Copenhagen, September 13, 2019 Construction Kaizen and i-Construction

The construction sectors in Japan and Denmark/EU are fighting for better productivity, technology, workers and technicians to fulfil the growing demands for more, cheaper, better and sustainable buildings and infrastructures. The global visions in the 17 UN sustainable goals as well as new technology push the development in construction. However, are we really working for it, and have we seen essential improvements on building projects?

No, say a Danish study in Construction Supply Chain Management (CSCM), Lean and Toyota Production System (TPS) and indicates, that there may be a missing link, where Kaizen and a better pull-push-balance could be an opportunity. At a meeting in New York in January Professor Kazuyoshi Tateyama, Ritsumeikan University, Japan and Senior Researcher Niels Haldor Bertelsen, SBI/Aalborg University discussed how to meet this challenges. September 13, 2019 Professor K. Tateyama and a small Japanese delegation visit Copenhagen, and we have therefor planed to continue our search for solutions together with Danish stakeholders at this Japan-DK-Seminar.

To focus our discussions we have divided the seminar in the following themes, and we hope that they can form an encouraging discussion room at the seminar:

- Theme 1: Challenges, visions and focus areas for construction development in Japan and Denmark/EU to improve productivity and other goals.
- Theme 2: Construction Kaizen, motivation and continuous improvement as a bottom up innovation strategy to improve pull from construction workers.
- Theme 3: A site visit - Building projects realises visions, innovation and document the impact on productivity, quality and other goals.
- Theme 4: i-Construction, new technology, Virtual Design and Construction, automation, drones and robots as a top down innovation strategy that push construction.



Meeting time

Friday, September 13, 2019, at 08:00-17:00 in locations A, B and C.

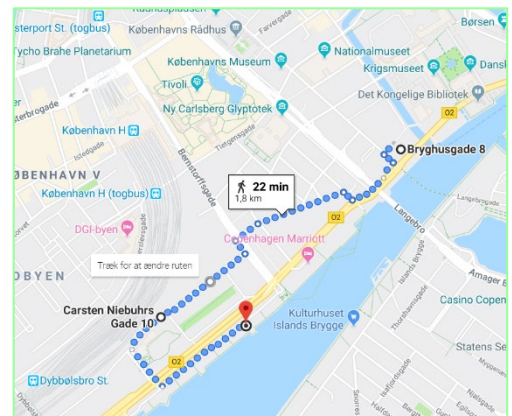
Meeting locations

The seminar is locations in the following addresses in the center of Copenhagen:

- A. 08:00-12:30 - Closed session: BLOXHUB, Bryghuspladsen 8, Entrance C, 3rd floor, 1473 Copenhagen K. – Theme 1 and 2.
<https://bloxhub.org/>
- B. 12:30-14:00 - Closed session: Aarsleff construction site 'Postgrunden', Carsten Niebuhrs Gade 10, 1577 Copenhagen V. – Theme 3
<https://www.aarsleff.com/?ul=1> & <http://postgrunden.dk/> in Danish
- C. 14:00-17:00 - Open session: IDA-house, The Danish Society of Engineers, Kalvebod Brygge 31-33, 1780 Copenhagen V. – Theme 4
<https://ida.dk/om-ida> in Danish.

Parking: BLOXHUB or IDA-house.

Walking: From A to B is 1,2 km or 15 min, and from B to C is 0,7 km or 8 min.



Program at location A at 8:00 - 12:30 – A closed session

08:00 Check-in, breakfast and networking

Theme 1. Challenges and visions for construction

08:30 Welcome and introduction to the seminar

- Welcome to BLOXHUB and Copenhagen
- Introduction and the seminar program
- Challenges and visions in Denmark
- Challenges and visions in Japan
- Discussions of challenges, visions and focus areas for development in Japan and Denmark.

09:30 Reflections and break.

Theme 2: Construction Kaizen as a bottom-up-pull

09:50 Introduction to theme 2

- Kaizen in Toyota as a join practical exercise
- Examples from a construction company in DK
- Utilization of video data on construction sites in Japan
- Reflection and break
- Continuous improvements training by organizations
- Education in motivation and inter professionalism
- Reflection and conclusion of Construction Kaizen as a bottom-up-pull

12:00 Networking and walk and talk to 'Postgrunden'.

Program at location B at 12:30 - 14:00

12:30 Theme 3. Building project 'Postgrunden' by Aarsleff A/S – A closed session

- Arrival at the entrance Carsten Niebuhrs Gade 10
- Sandwich and view the construction site at the terrace
- Vision, VDC, methods, cooperation and management
- Discussion of the building project and how to document improvements and the impact from innovation

14:00 Coffee, networking and walk and talk to IDA-house.

Program at location C at 14:00 - 17:00 – An open session

14:00 Check in, coffee and networking at IDA-house

Theme 4. i-Construction and new technology

14:30 Welcome to IDA-house

- Introduction and the seminar program
- VDC, BIM, ICT and i-Construction in DK
- From i-Construction to FM and Commissioning
- Robots and Construction Site Automation in DK
- Break
- Utilization and challenge of new technology in Japan
- 3D-printed construction and example from North Cph.
- Discussion: Development of i-Construction.

17:00 Closing, sandwich and networking.

