

SEC 2017 – Stavanger messe,
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Utfordringer i næringene

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HELSE STAVANGER HF

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BESLUTNINGSGRUNNLAG FOR VALG AV INDUSTRIALISERINGSGRAD

Offshore næringen har over tid vist en fenomenal evne til å finne løsninger på tilsynelatende uoverkommelige utfordringer. Og det på en konkurransedyktig måte.

Eksempel: Hebron GBS i St. John's, med toppside på 65 000 tonn, har 10 000 tonn mekanisk utrustning i ett 110 m høyt skaft. Deck mating når isforholdene tillater det.

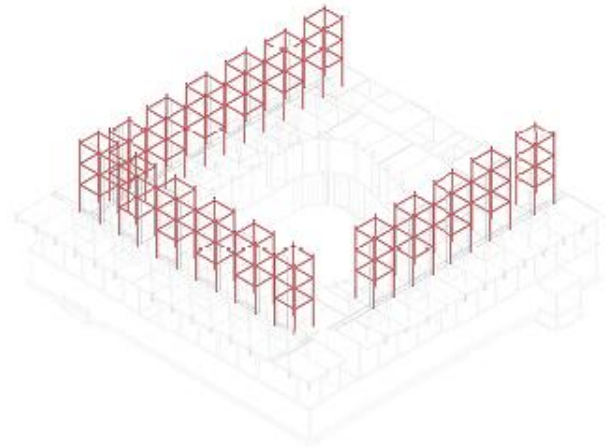
Mål:

Målet med dette innlegget er å gi et signal om at vi tror denne evnen, eller kulturen, i forhold til å løse utfordringer er noe vi mener en bygge bransje i rask utvikling mot nye metoder og løsninger vil være avhengig av.

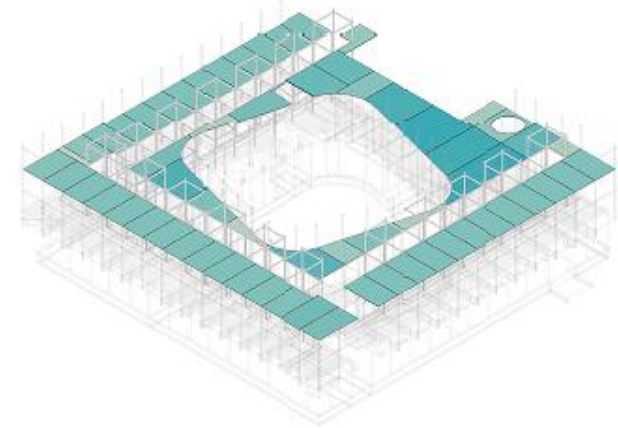
Nøkkelområder

1. Industrialisert planlegging, produksjon og bygging
2. Mekanisk utrustning i vertikale og horisontale moduler
3. Off site produksjon av moduler og elementer
4. On site sammenstilling av moduler og prefabrikkerte elementer
5. Digitaliserte arbeidsprosesser
6. Nye samarbeidsformer – kunde – design - produksjon

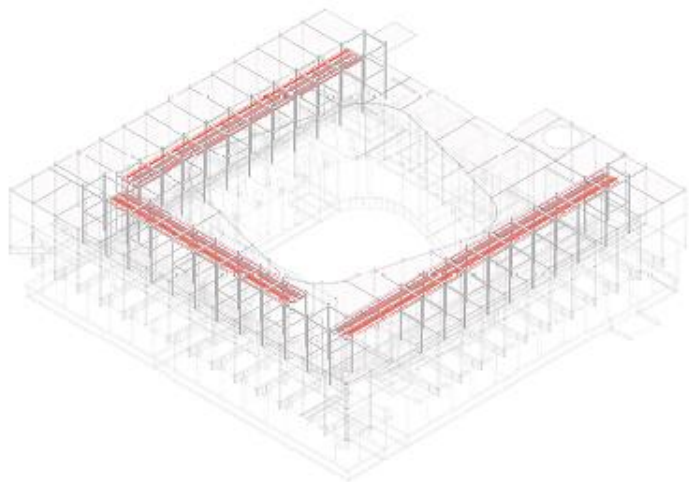
1. Industrialisert planlegging, produksjon og bygging



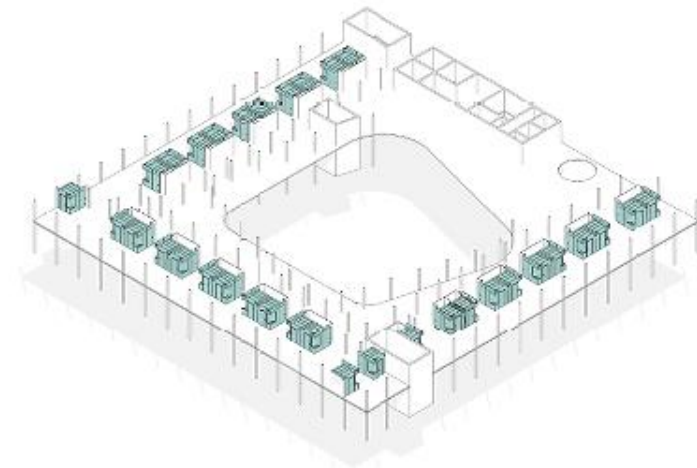
Riser Tower



Pre-cast Formwork

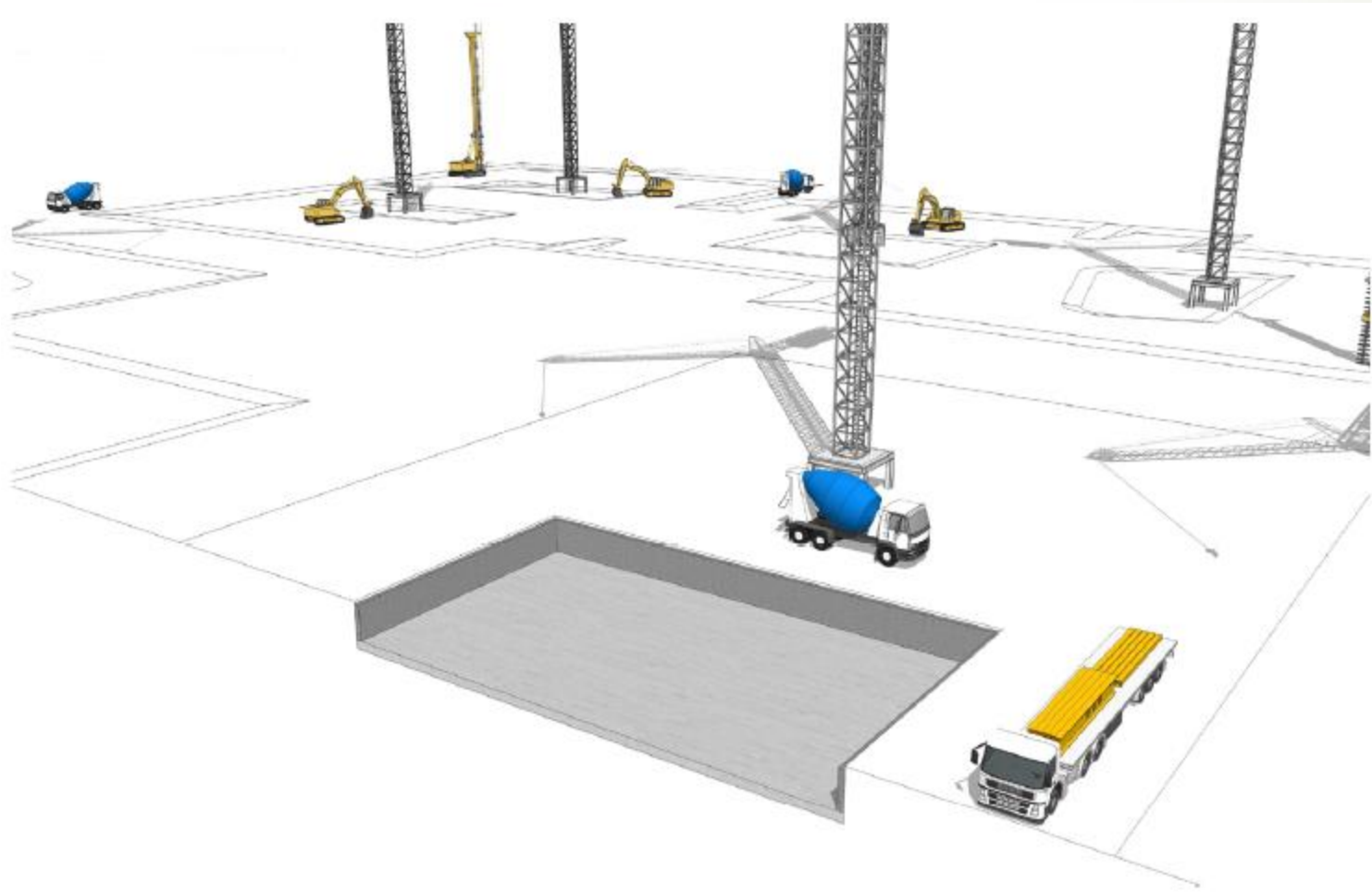


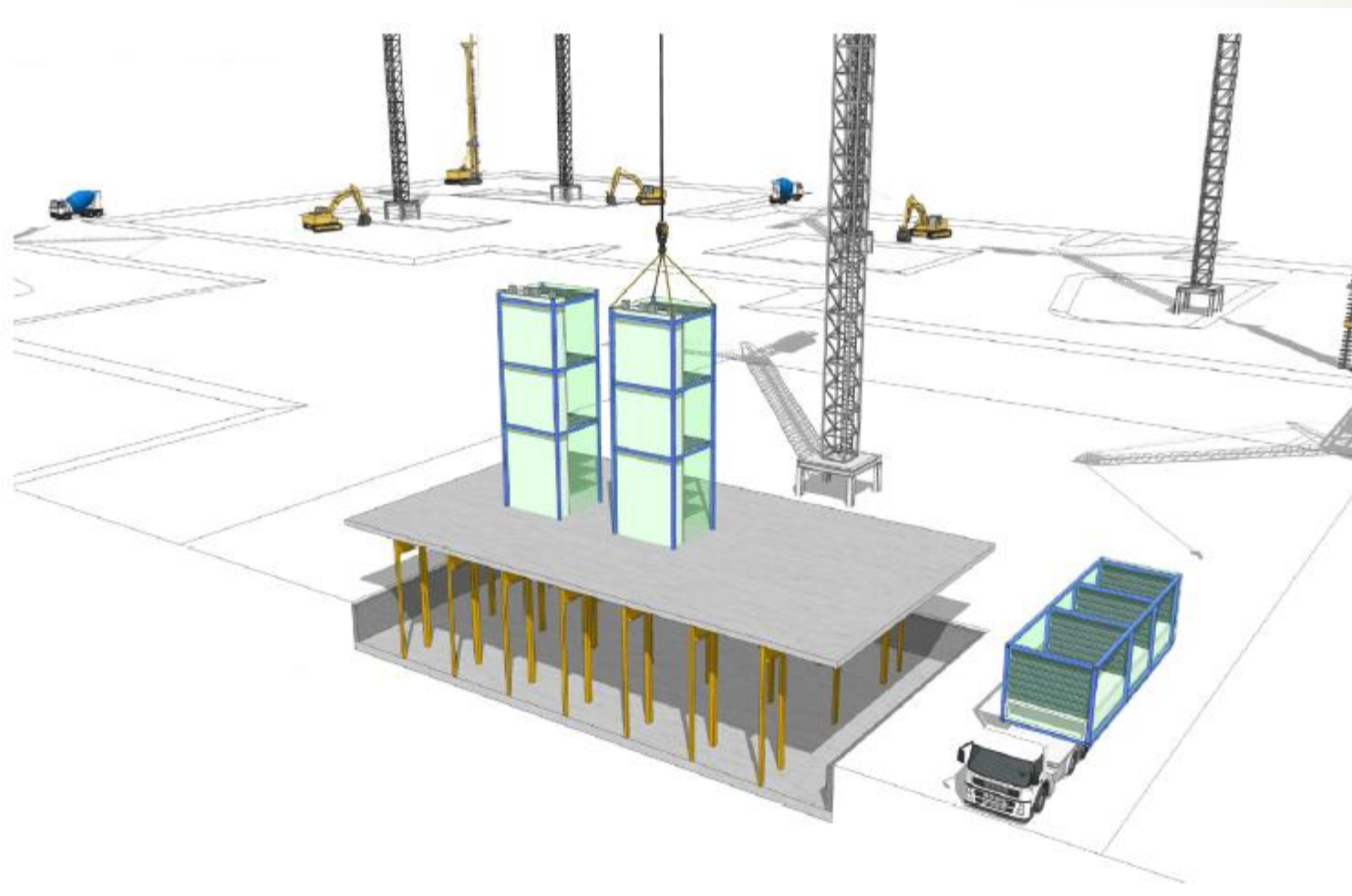
Corridor

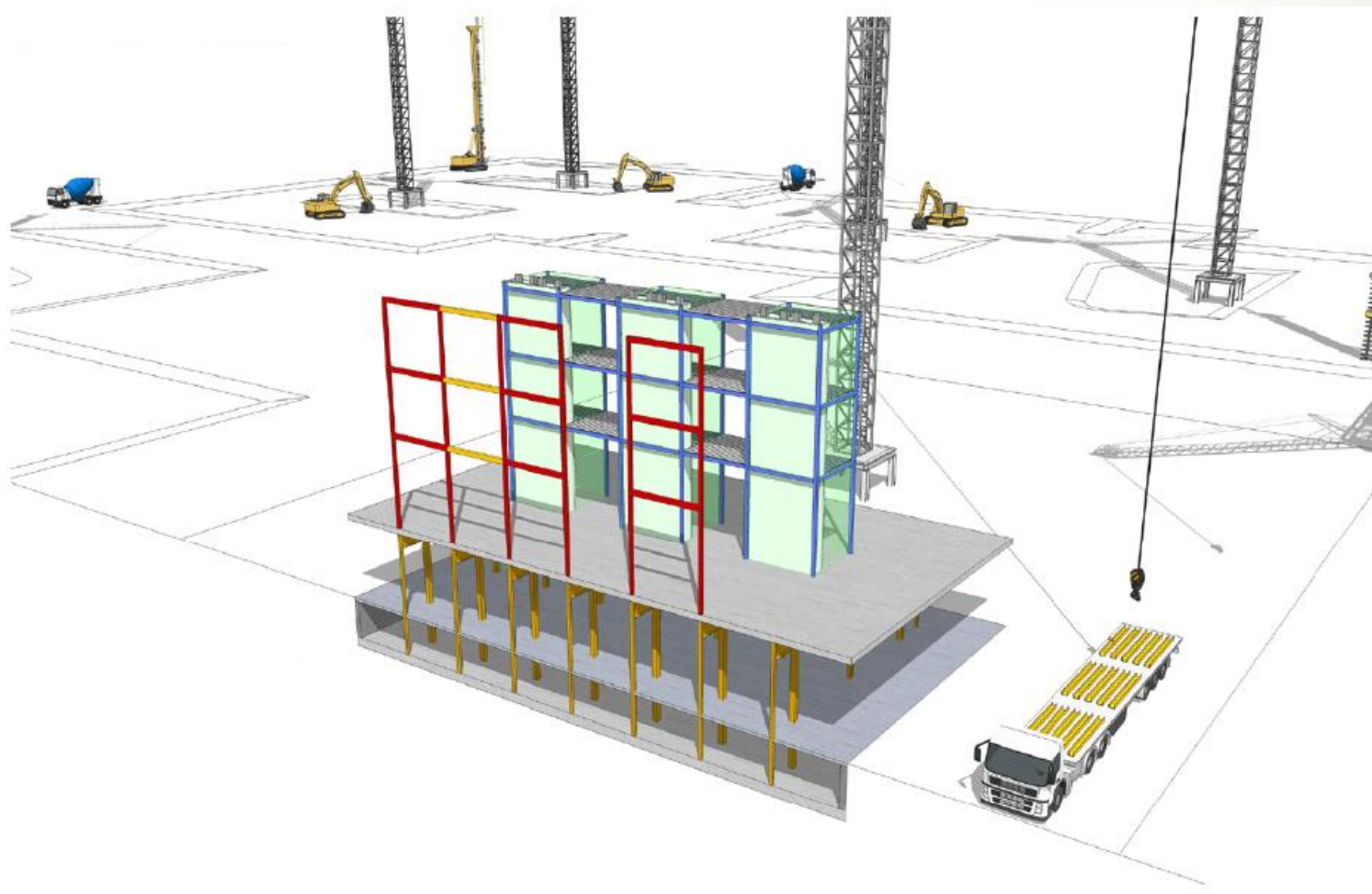


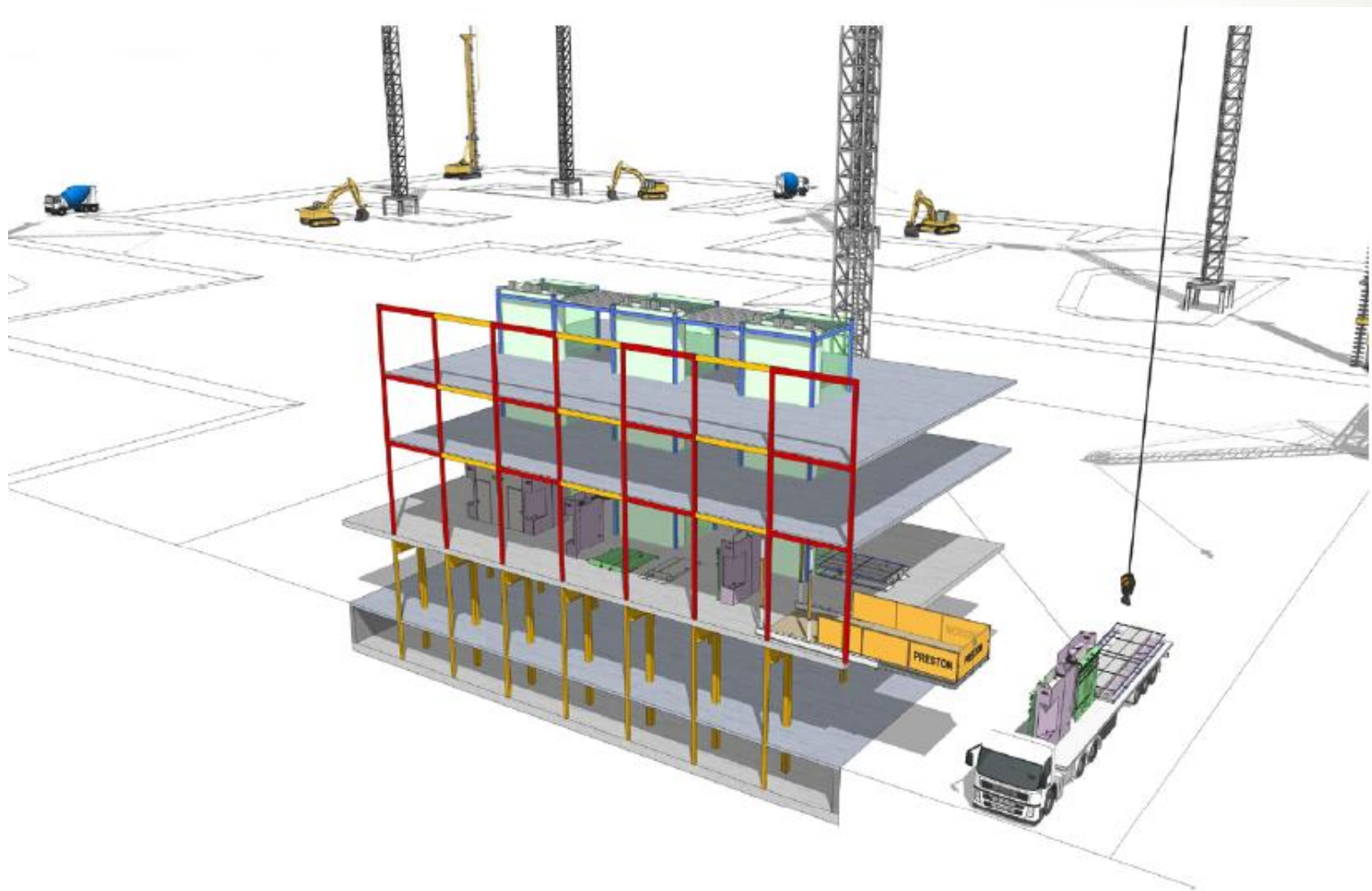
Bathrooms

4.1 Produksjon på byggeprosess



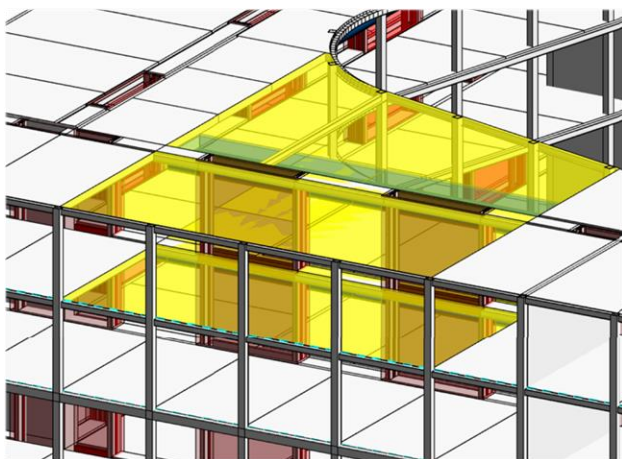




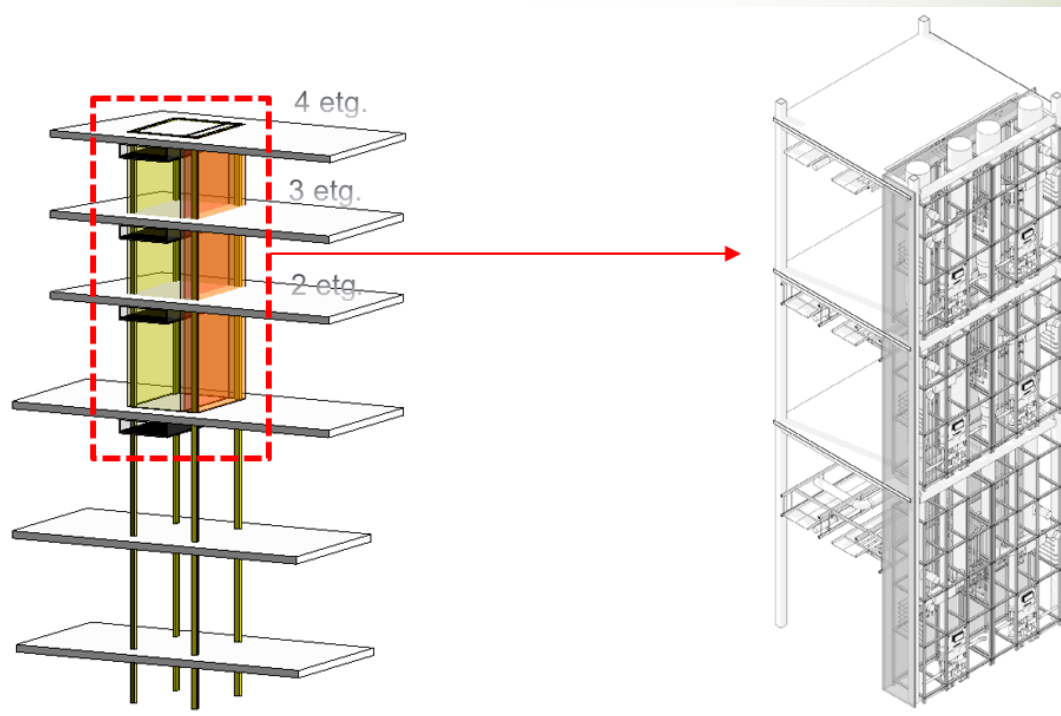


2. Mekanisk utrustning i vertikale og horisontale moduler

4. Aktuelle moduler - Byggeprosess



Sengebygg – Bæresystem i stål, dekke-elementer

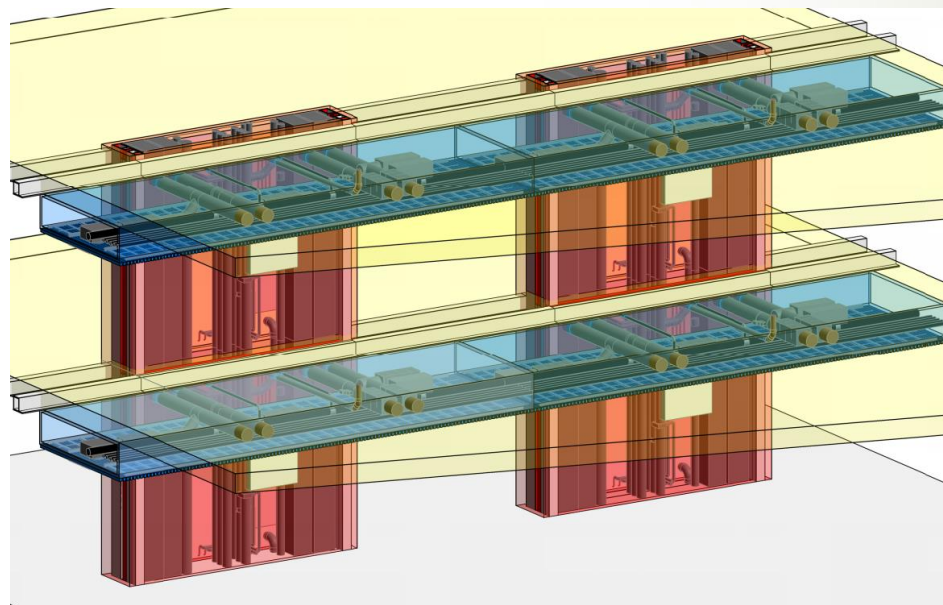


Forslått sjakt rom – ramme modul

2.3 Tverrfaglige prefabrikkerte moduler

V-Modul

H-Modul

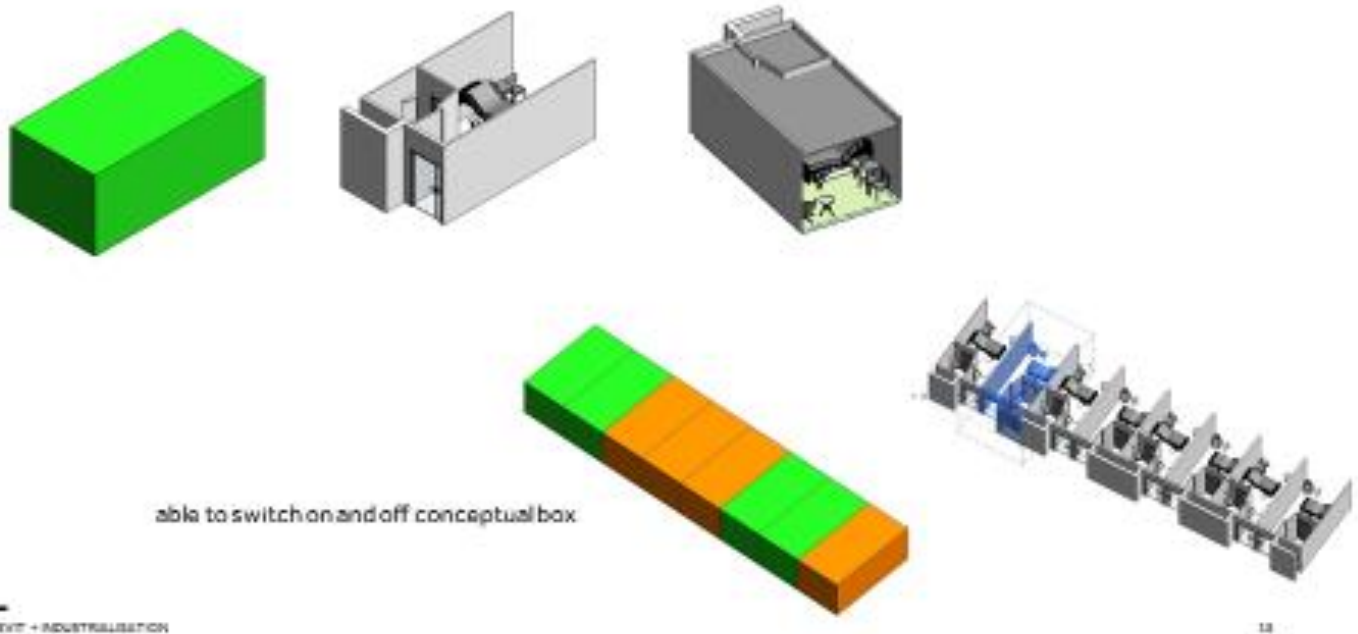


3. Off site produksjon av moduler og elementer



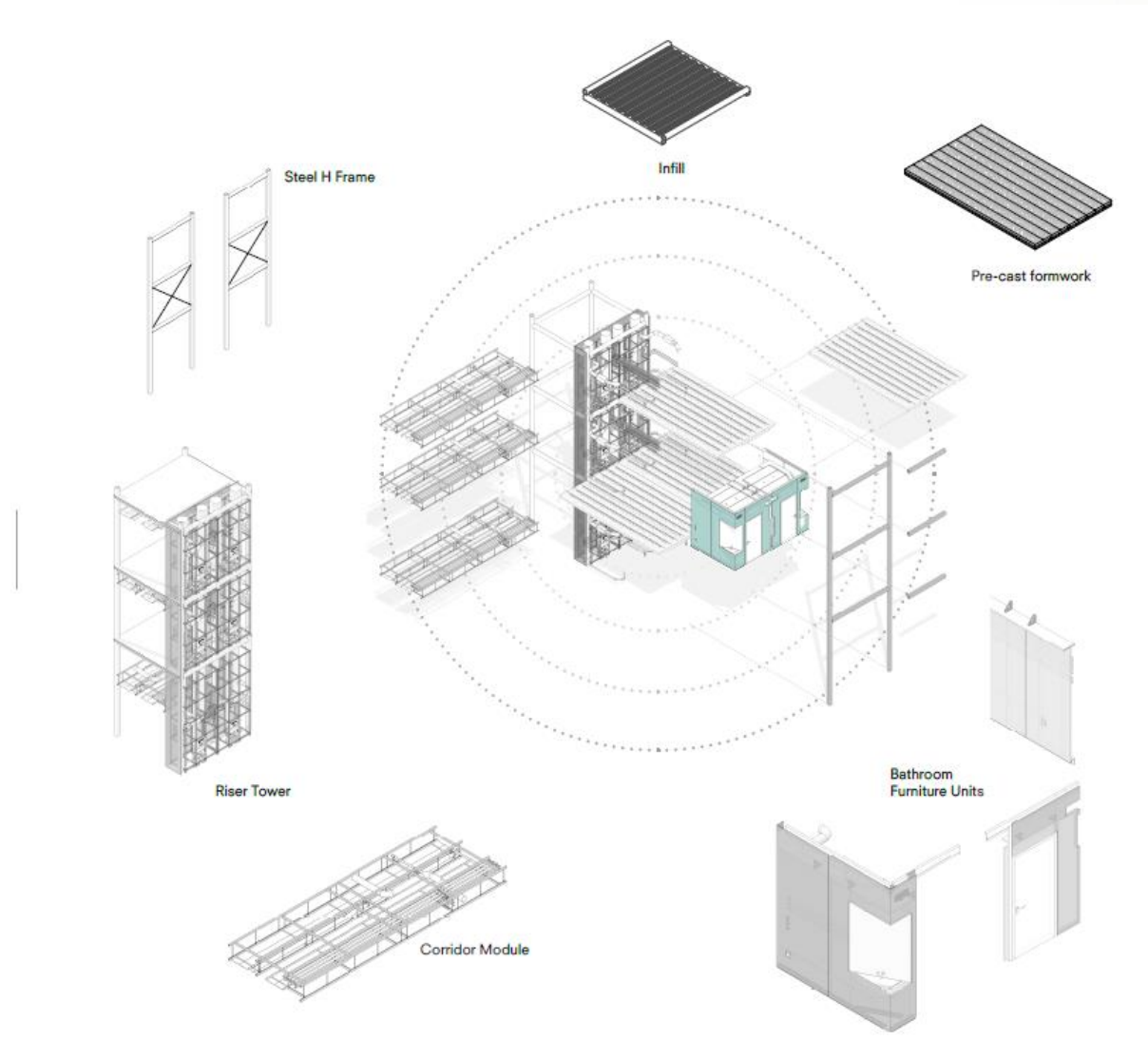
01 PROCESS OF DEVELOPEMENT - REPETITIVE DESIGN additional side note for concept phase

Potential development of group object - conceptual lego block that evolves as the design evolves, a volume representation of the design module at concept phase.

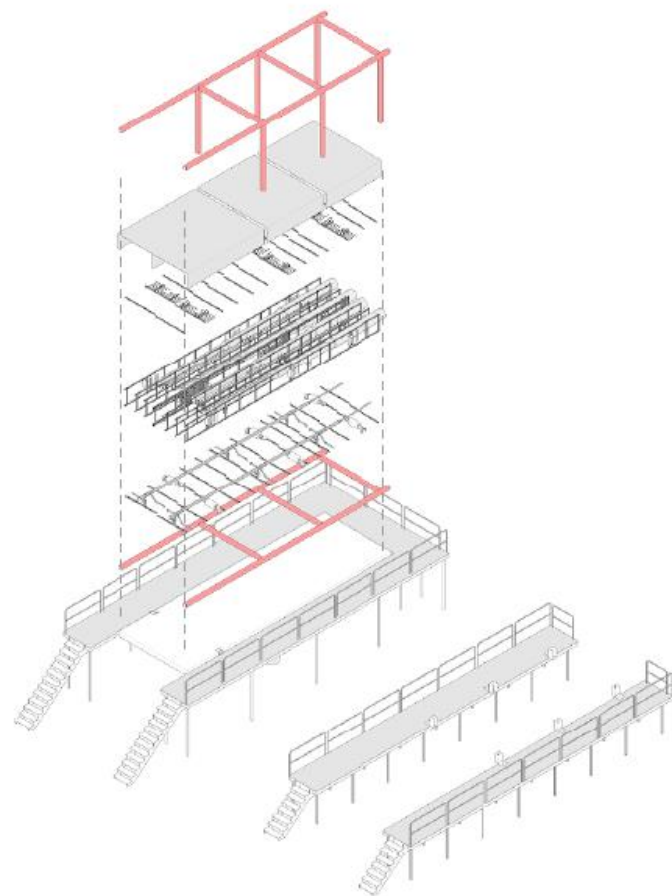


able to switch on and off conceptual box

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NEXT - INDUSTRIALISATION

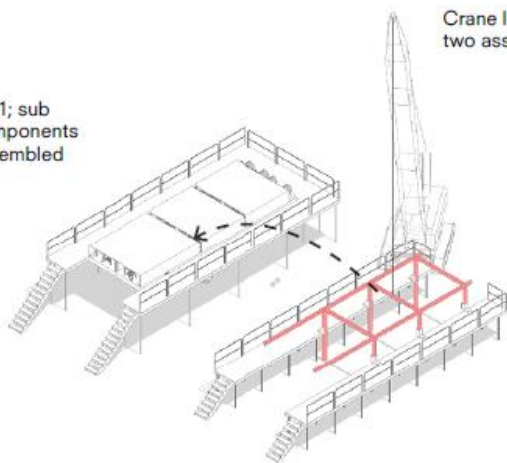


4. On site sammenstilling av moduler og prefabrikkerte elementer



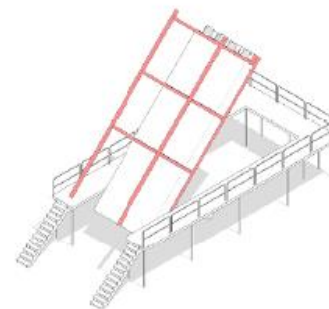
Simple temporary platforms could be created to facilitate the safe and controlled assembly of sub-components

Jig 1; sub components assembled

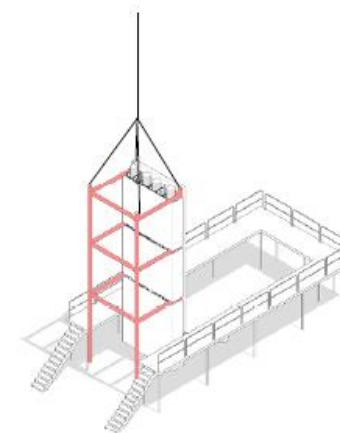


Crane lift combines the two assemblies

Jig 2; steel frame assembled

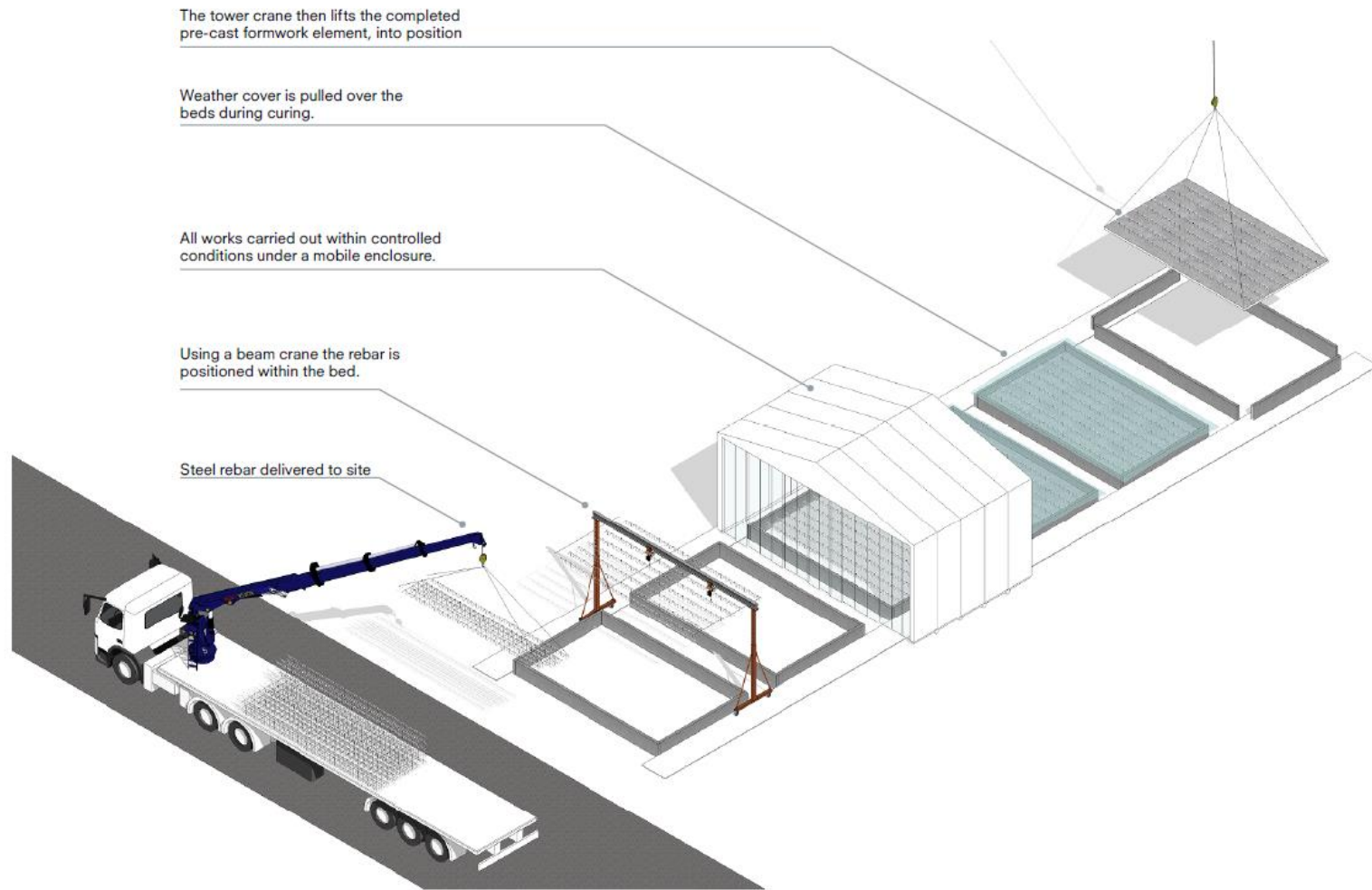


Tower is "stood up" within jig

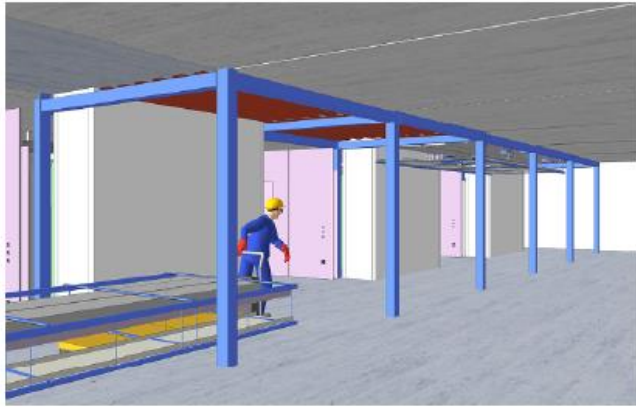


Location of assembly allows direct lift to final location on site

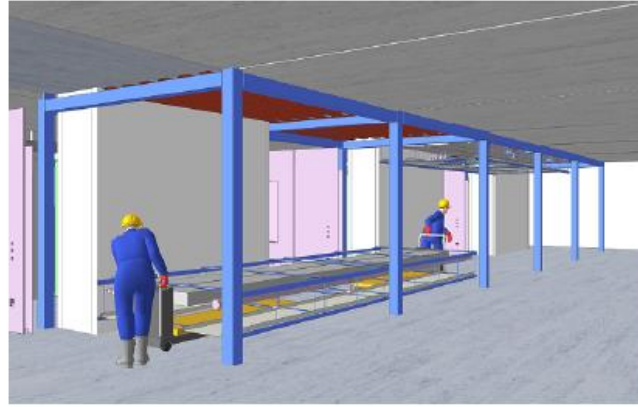
Mulig montasjerigg for vertikale og horisontale moduler for teknisk infrastruktur



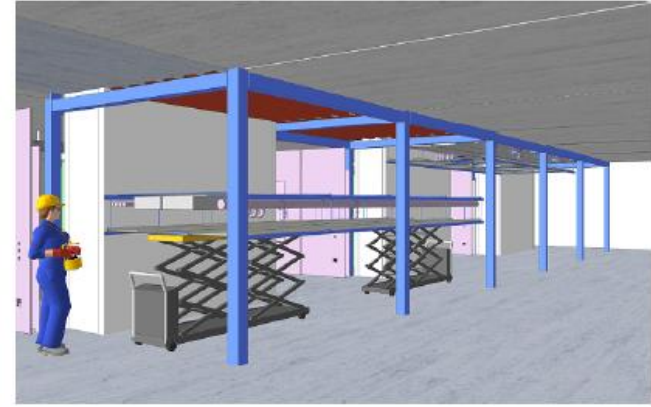
Mulig produksjon av dekke elementer på byggeplass



Units can be moved across floor plate



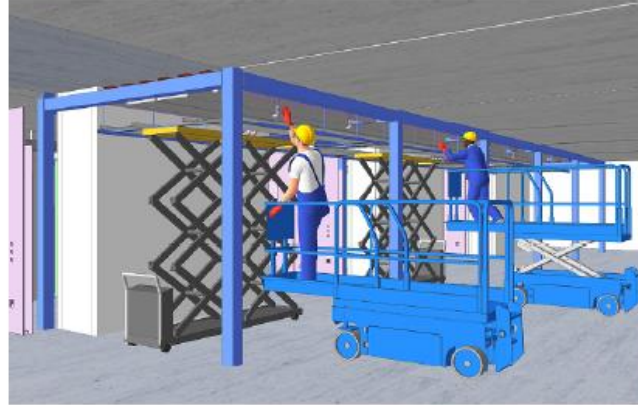
Units can be positioned with relative ease



Scissor Lifts can be used to raise module



Units can be safely raised



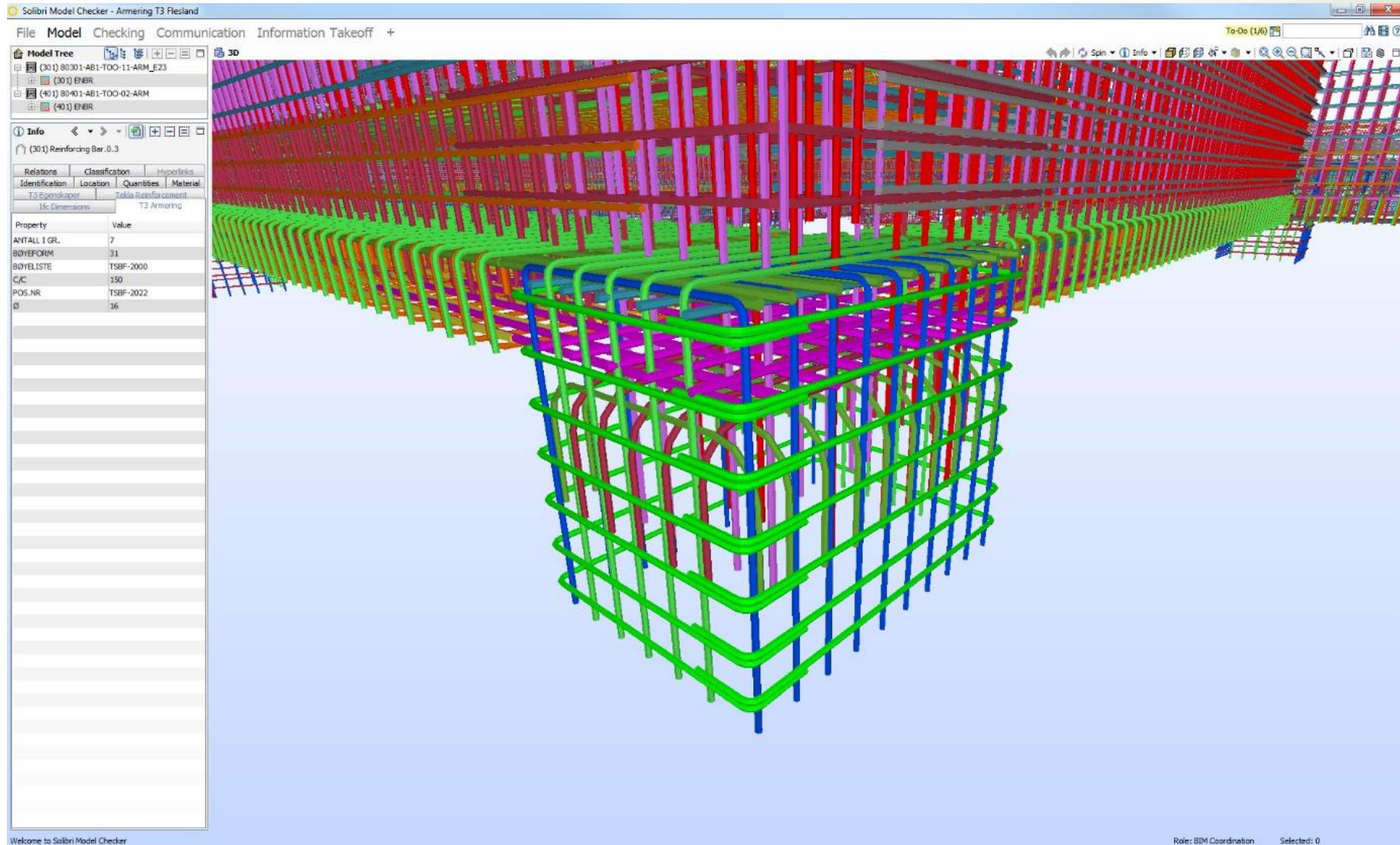
Units can be safely secured to known fixture points



Once secure, support can be removed and the process repeated

Montasje av himlingskomponenter

5. Digitaliserte arbeidsprosesser



Mulig produksjon av armering

6. Nye samarbeidsformer – kunde – design - produksjon

THE TIMES



EDITOR Lindsay Cook

FRIDAY MAY 12 1995



New Eighth Wonder candidate

THE final phase of Europe's largest gas project was launched yesterday by Norske Shell, with the towing into the North Sea of the Troll platform, the world's tallest concrete structure (Carl Mortished writes).

The million-tonne structure, is designed to survive in near-hurricane conditions for 50 years. Shell discovered the Troll field in 1979, but the £3 billion project was not started until 1986. Construction of the facility, by Aker, the Norwegian contractor, began in 1992 and the first gas is expected to flow next April.

The huge reserves of the Troll field will supply 10 per cent of Europe's gas over the next 50 years via pipelines across the North Sea. Contracts have been signed to supply gas to France, Germany, Belgium, The Netherlands, Spain and Austria.

Hans Meijer, director of exploration and production for Norske Shell, said the project was on schedule and on budget. "Many people claim to have built the Eighth Wonder of the world," he said. "I believe that today Shell has joined that queue."

four days to pull Shell's 472-metre concrete and steel platform from Stavanger, Norway, to the Troll field 80 km northwest of Bergen where it will be submerged 300 metres

Shell gloom, page 28