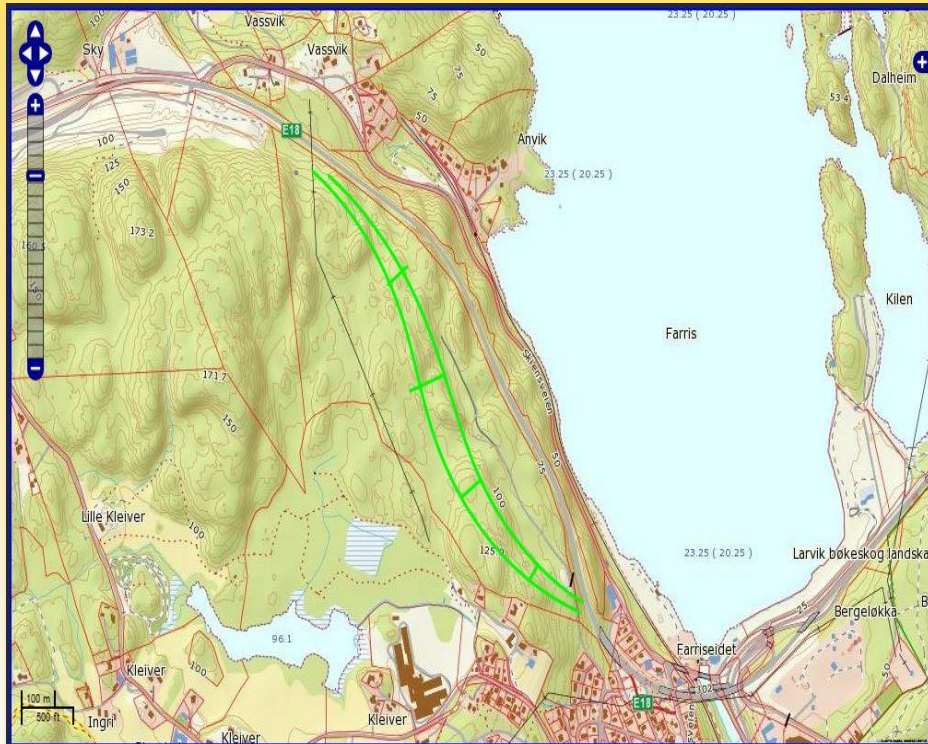






Vad trenger vi til en modell?

Veilinje



Kontur



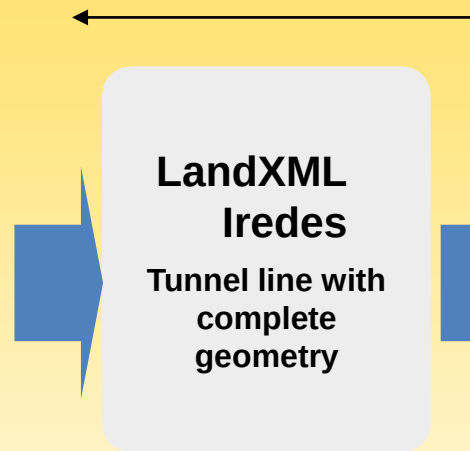
Øverføring av 3D-modell

Tunnel geometry model, designed in 3D and exported as LandXML/Iredes files is used in Bever Team directly, and exported to tunnel machinery

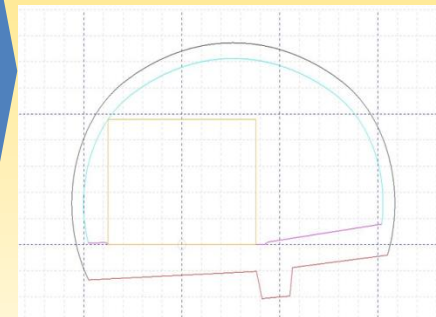


3D model

Novapoint / Gemini (NORGE)

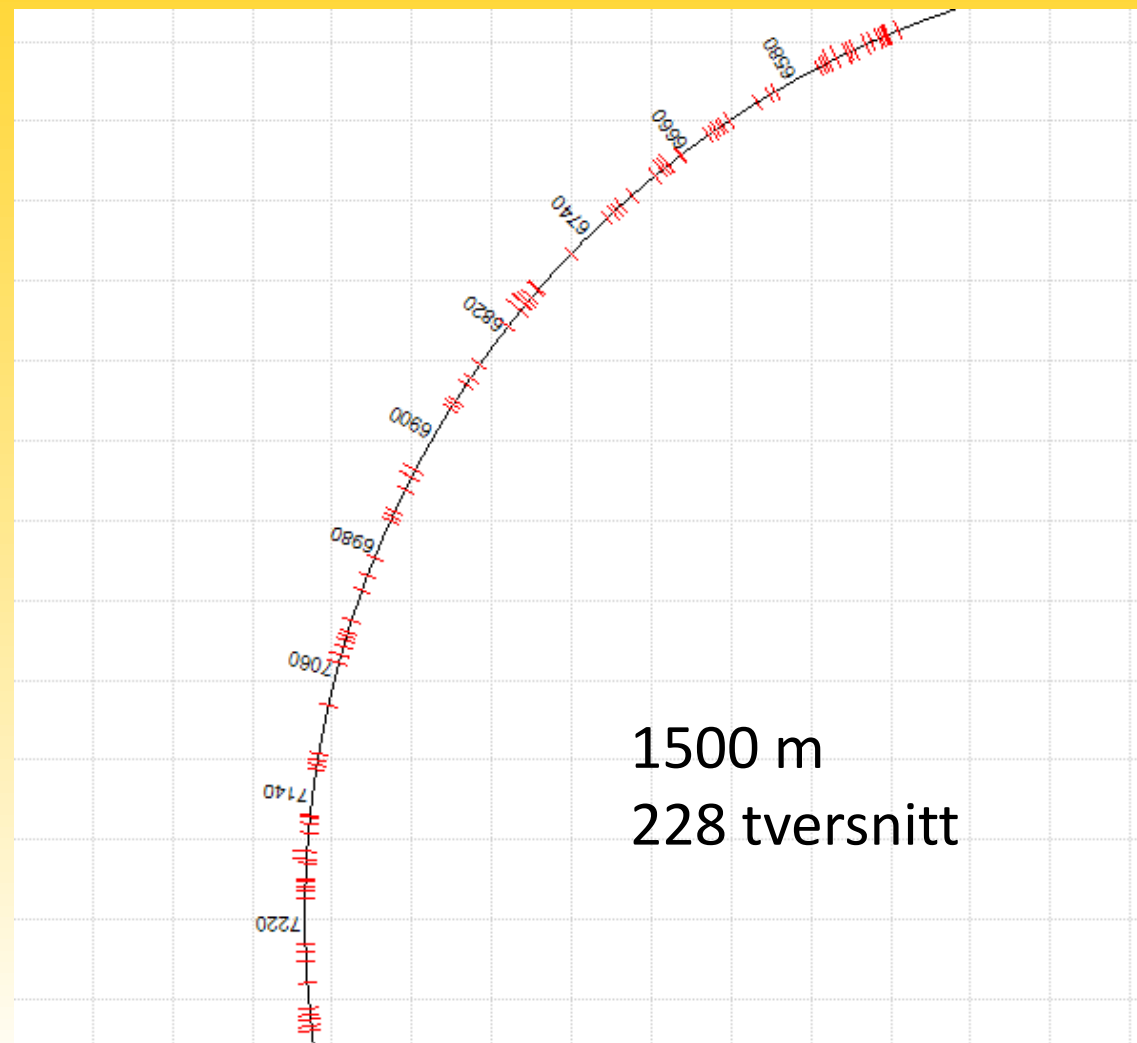
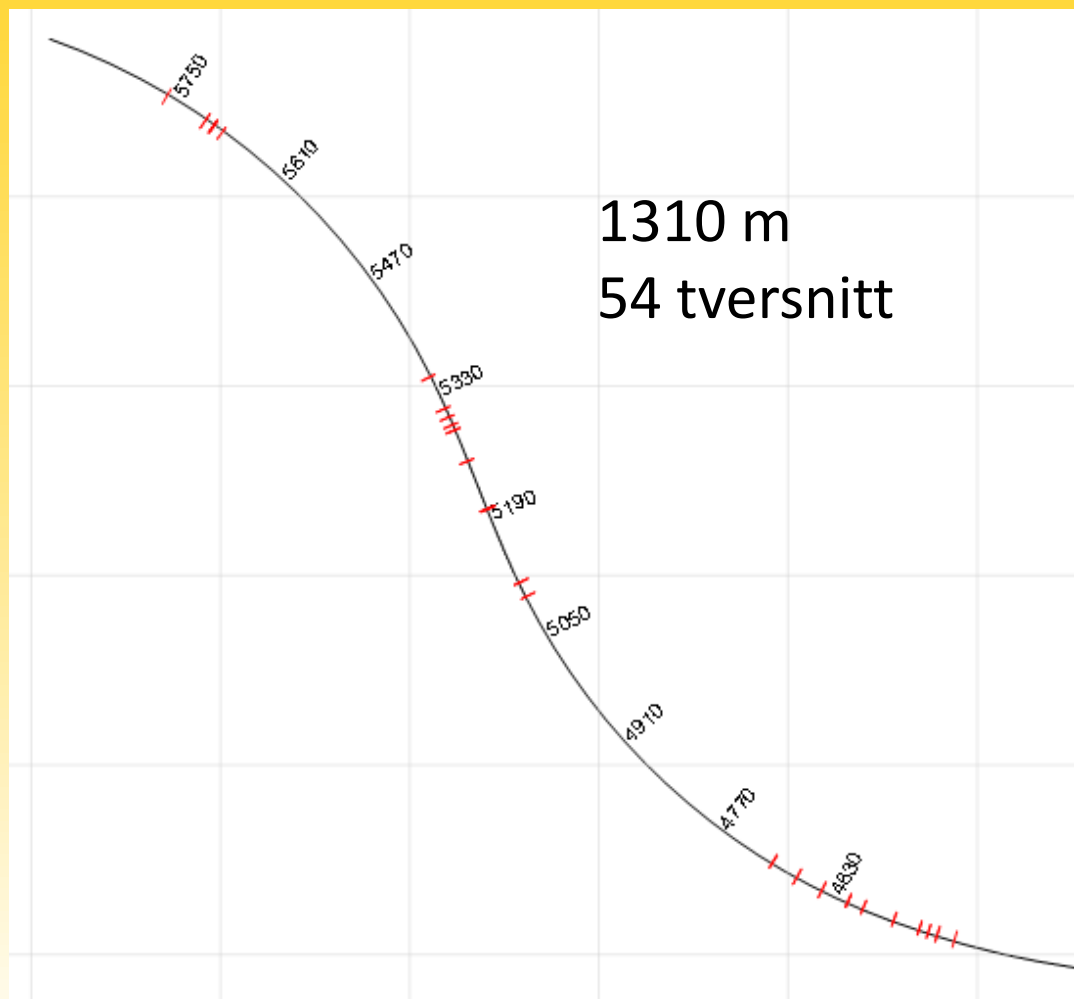


Bever Control a.s
Bever Team Online

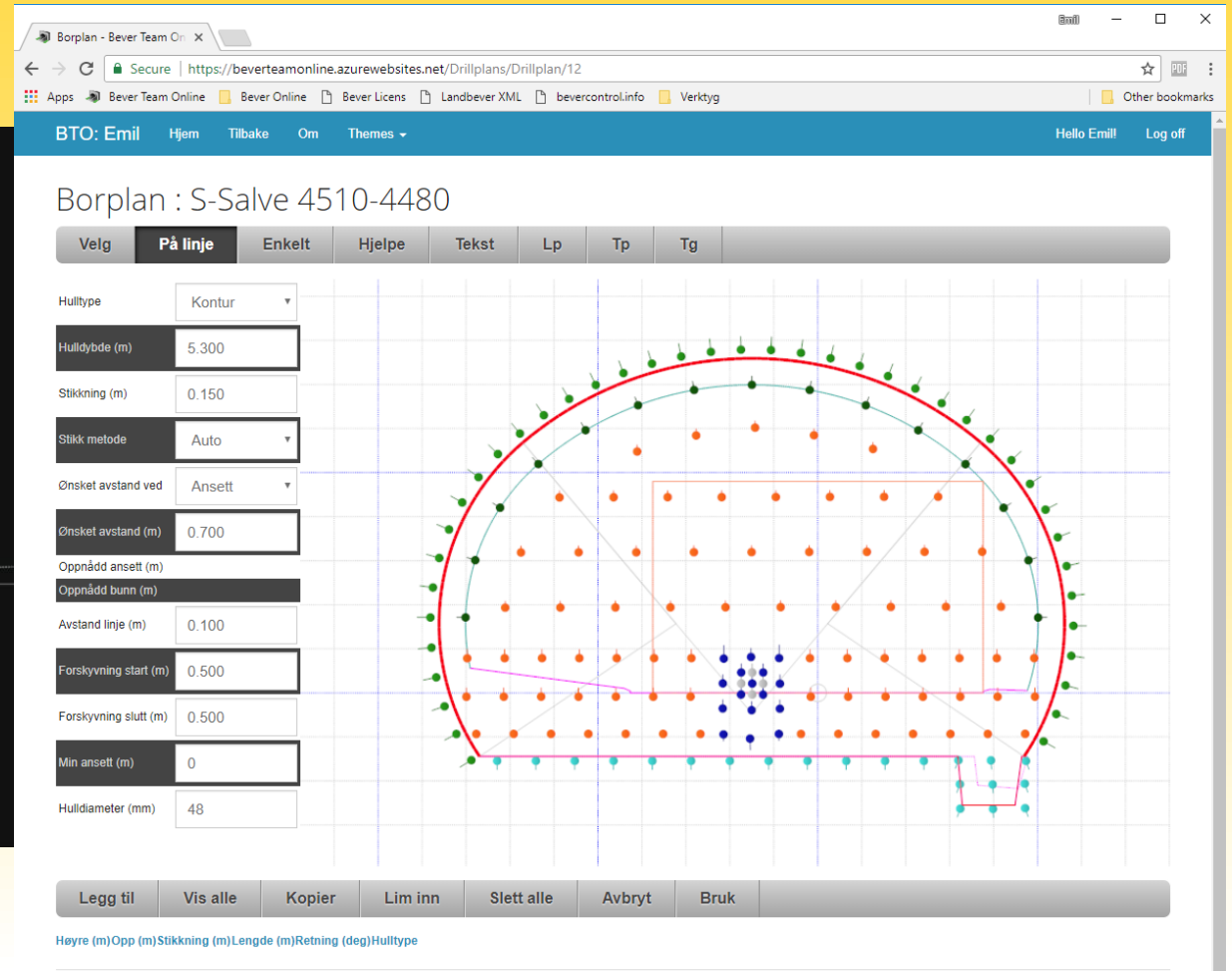
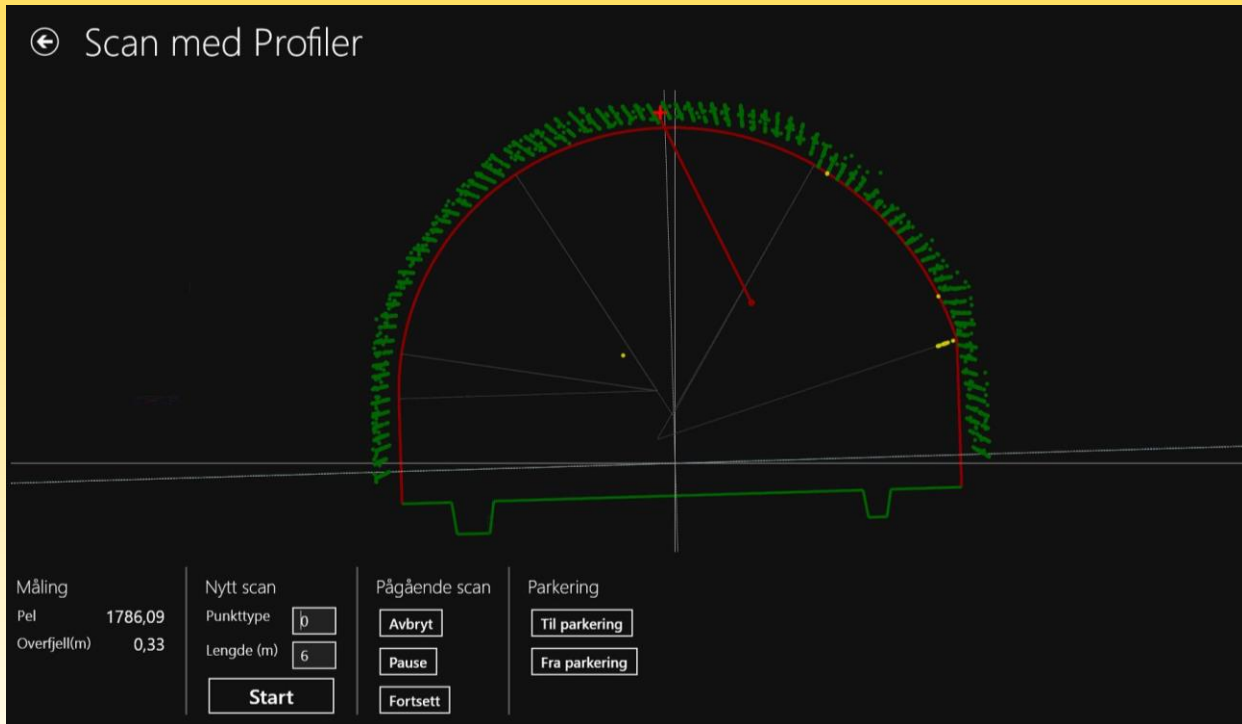


Bever Field Controller

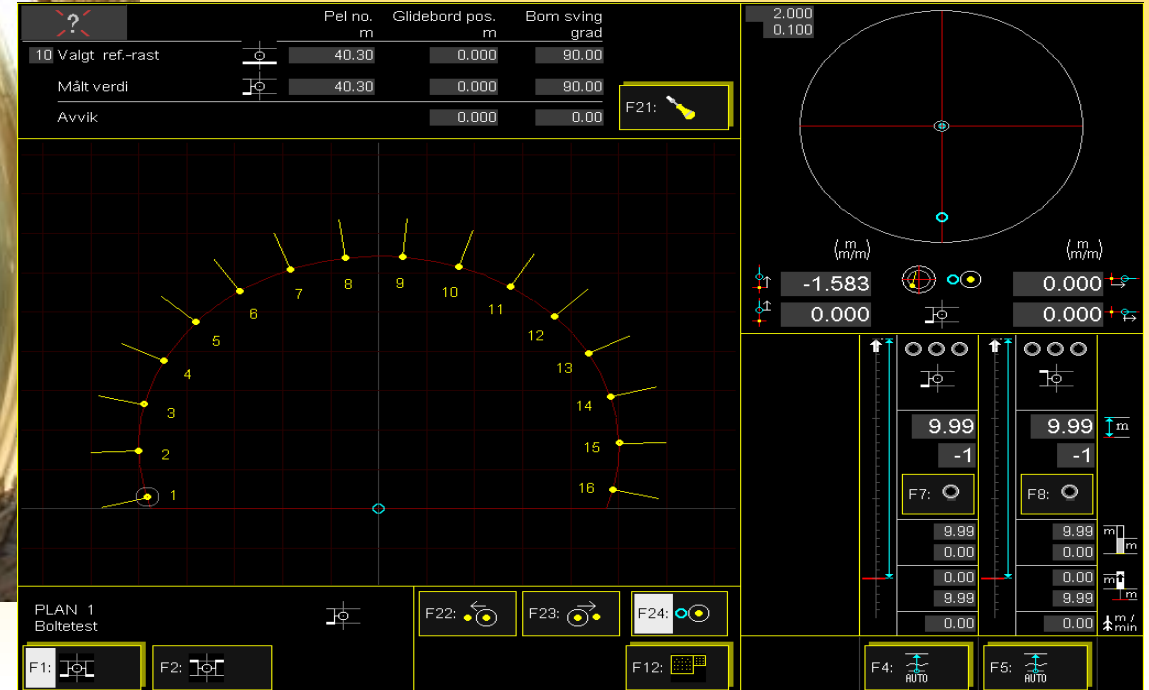




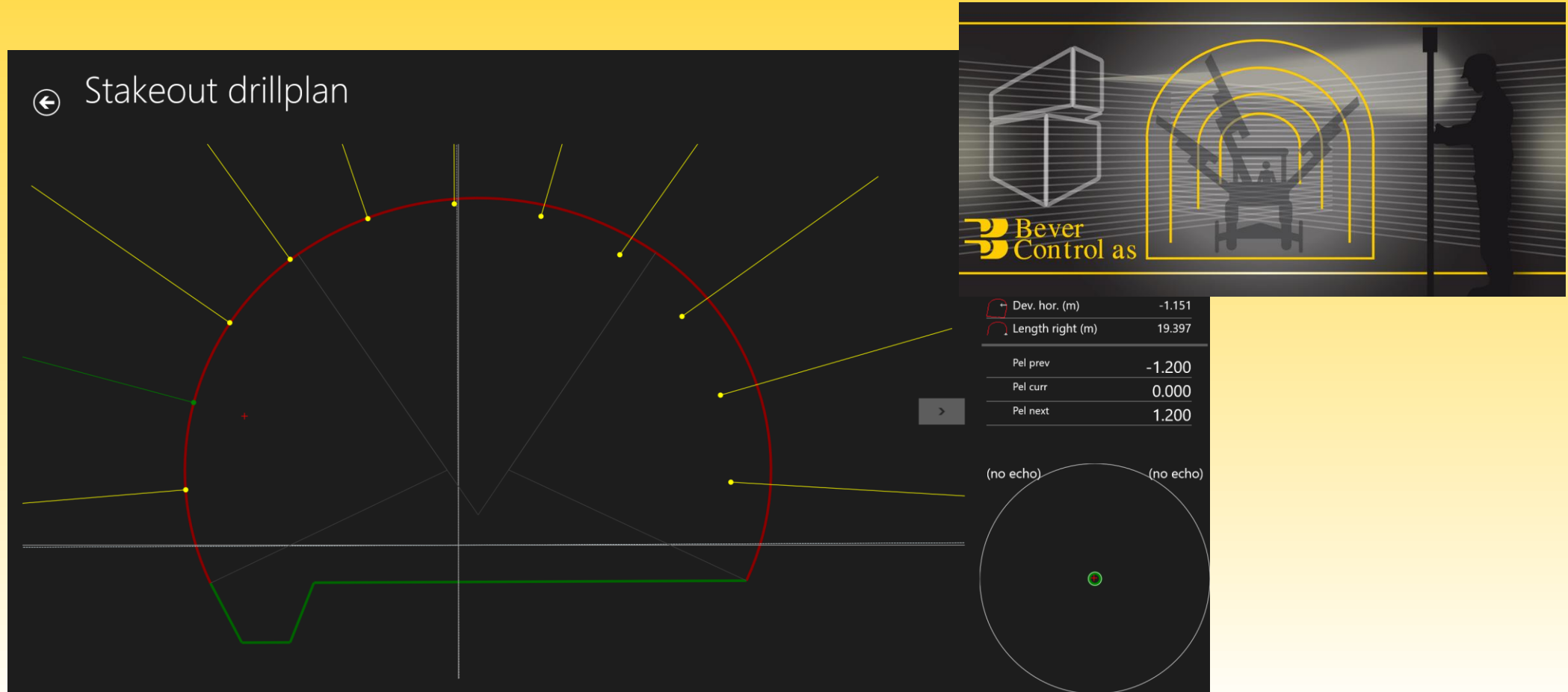
Bruk av modellen



Teknisk bolt



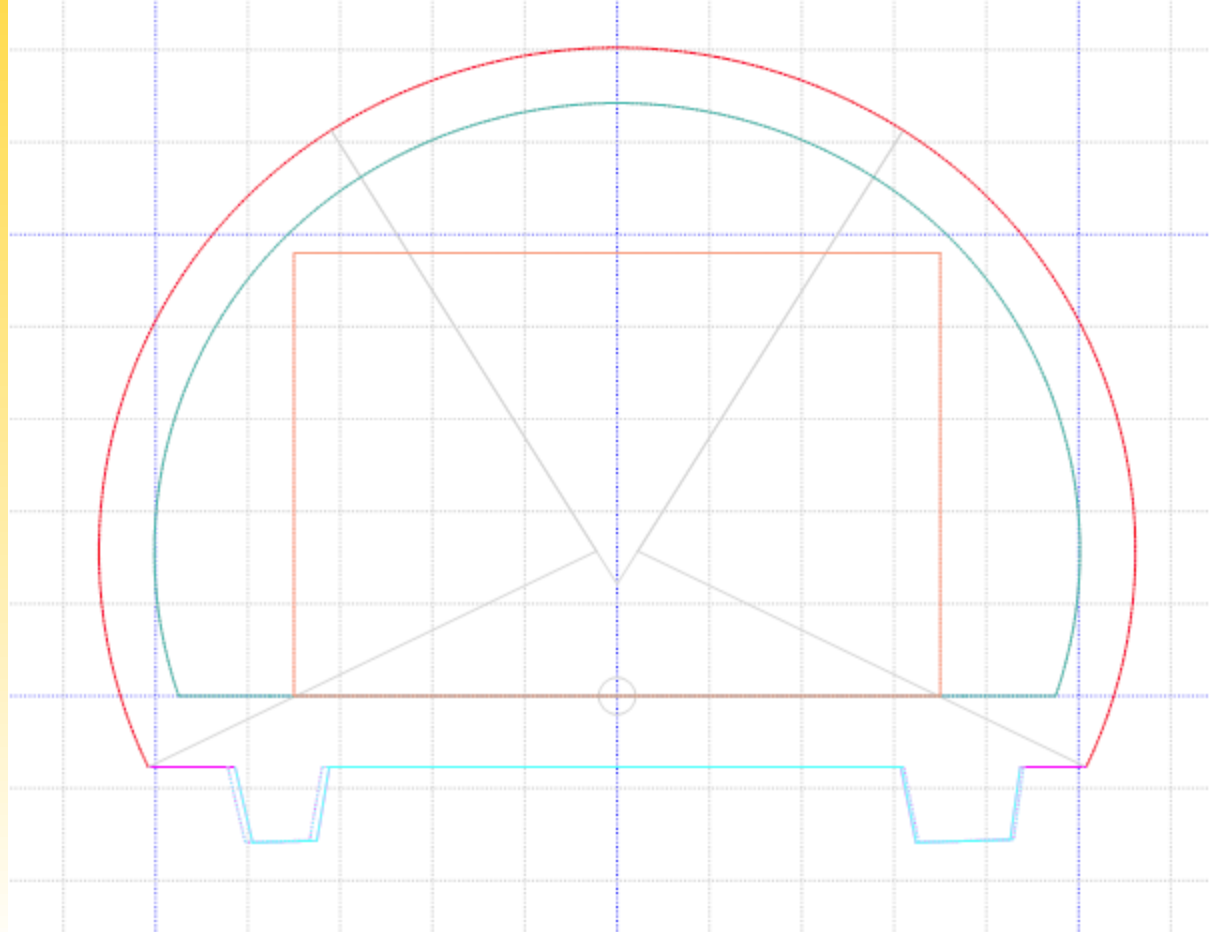
Bever Field Controller



Målebokprogram til tunnel



Nya typer av geometrimodeller



- Separate leveranser
- Veilinjje!

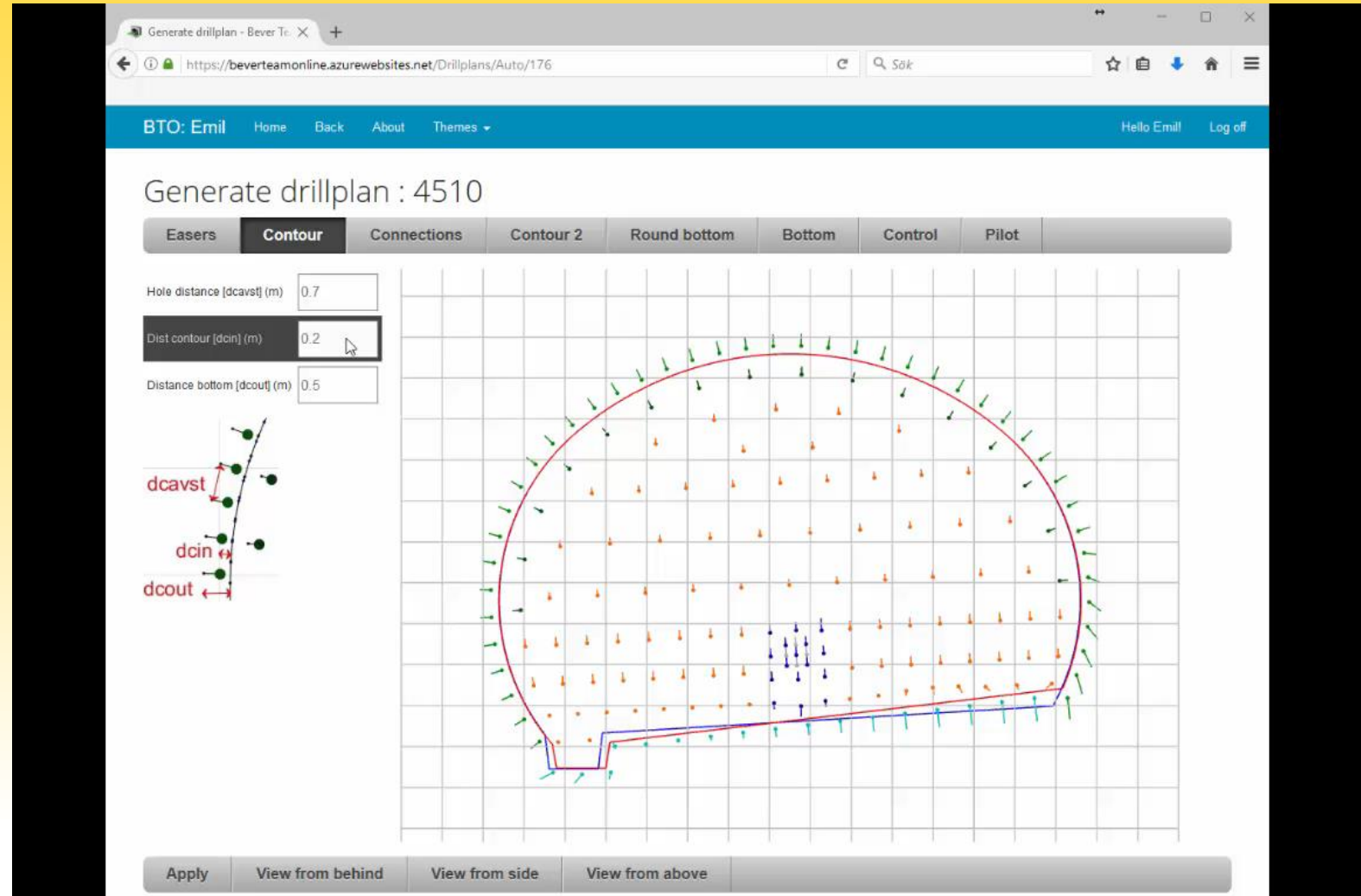
Utfordringer

Byggherre \ Entreprenør \ Konsulent \
Produsenter (*utstyr/programvare*)

- *Vanskelige geometrier* (*muligheter til*)
- *Generering av borrhplan på stoff*
Godkjenning? / godkjent parameterset
- *Revidering*, *leveranse*
- *Sammensatt modell*, *åpne format*

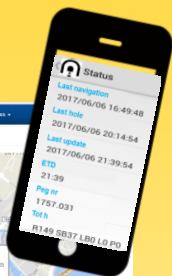


Generating / ending borplan



Entreprenør

Rigg status



Prosjektör



Stikker



Sprengningstekniker

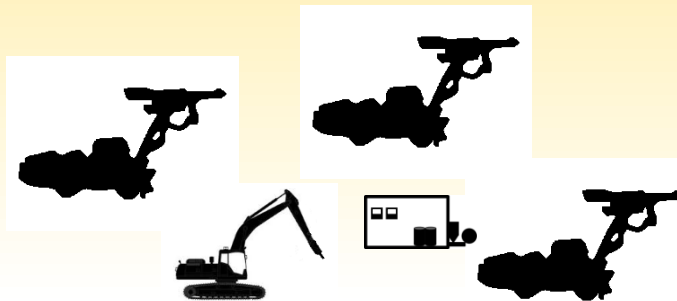


Injeksjonsspesialist



Prosjekt ledelse

Tunnel utstyr



Jumbo
Grouting Rig
Excavator
Loader
Scaler
Road header
Shotcrete robot

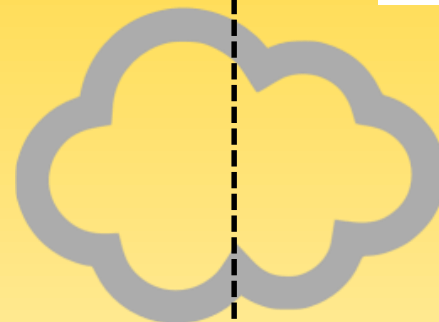
**Bever
Control a.s**

Byggherre

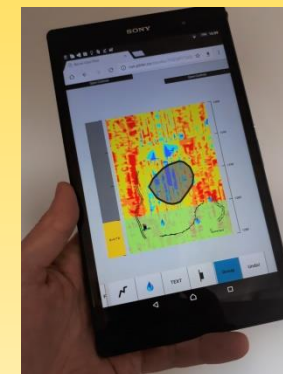


Daglig inspeksjon og planlegging:

- Fremdrift
- Fjellsikring
- Vann- og frostsikring



Cloud software



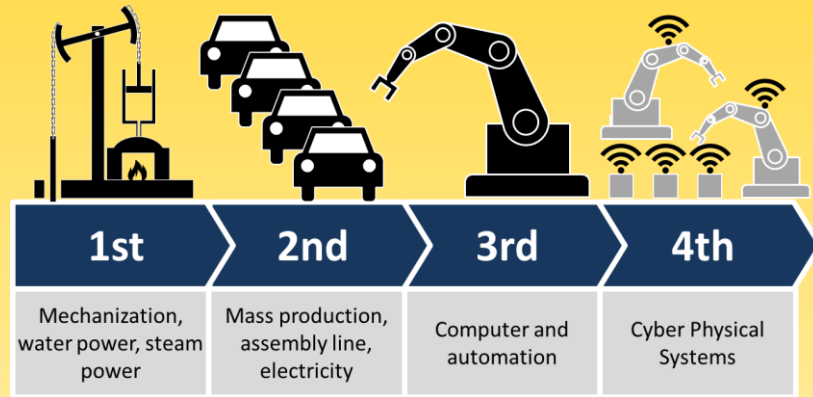
Kartering

Platforms



Windows
IOS
Android...

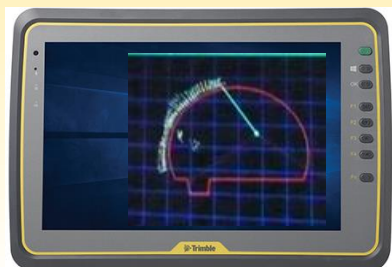
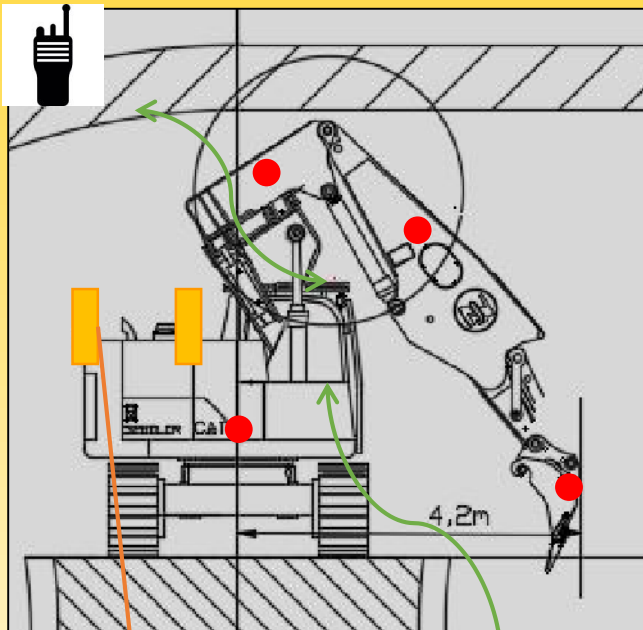
Industry 4.0



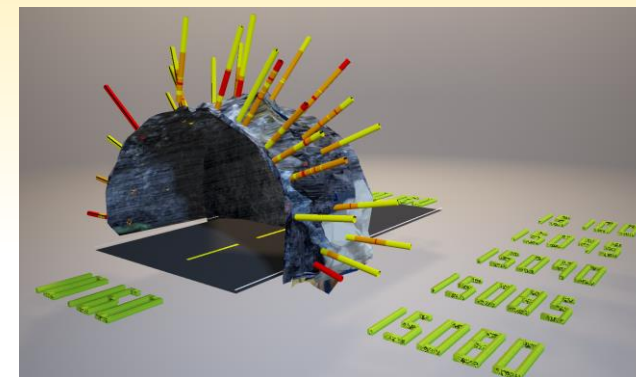
“Automation and continuous exchange of data”

Exchange between:	In D&B tunnelling, i.e.
Machines	Jumbo, grouting rig, shotcrete robot, scanner ...
Users	Operators, foremen, blast manager geologist, contractor, client
Manufacturers	Heavy machinery manufacturers, machine control suppliers ...
Service providers	IT Communication providers, software houses...

Fremtiden



- Utstyr navigert
- Mulighet til andre typer av modeller
- Fotogrammetri
- Nye måter til positionering





Spørsmål?

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+47 904 001 17