



Utilizing 3D-platform in infrastructure process – case Hangonsilta

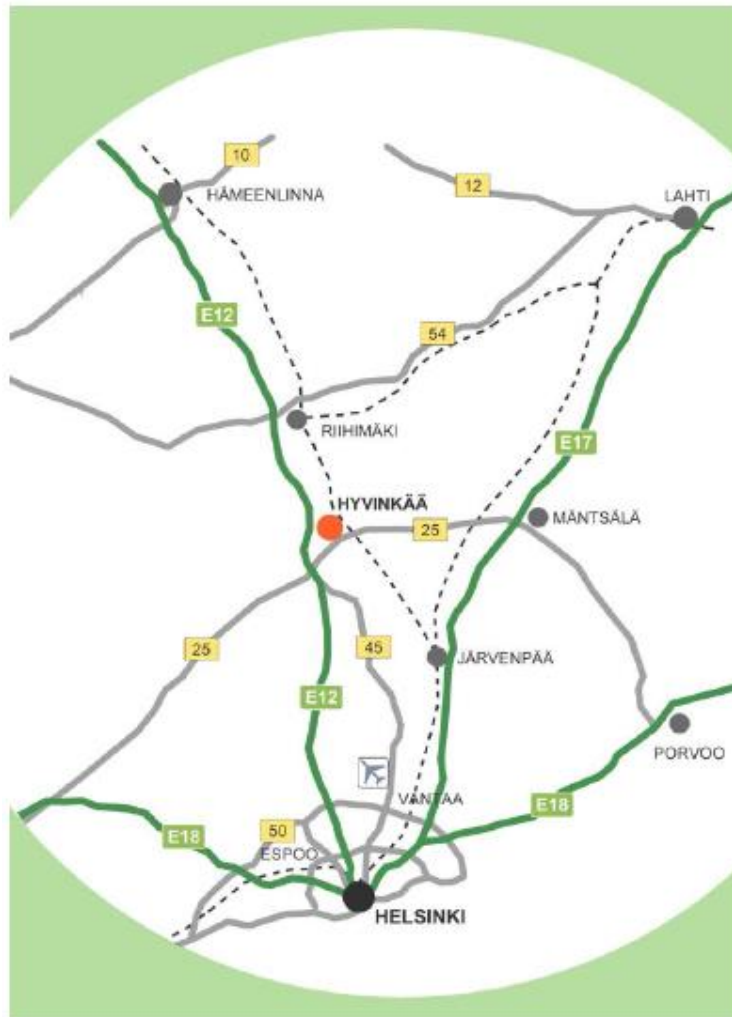
15.6.2017

Technical director Jouni Mattsson



HYVINKÄÄLLÄ
ON HYVÄ HUOMEN.

Hyvinkää



HYVINKÄÄ

The northern centre
of the Helsinki Region

46 500 inhabitants
19 300 working places

International
industries, logistics,
trade and retail
**KONE, Konecranes,
Saint-Gobain,
Onninen, Ahlsell etc.**

Hangonsilta

From an old railway yard to a modern housing area

Old railway yard nearby city center – activities ended in the 80's

Most important development area in city center – 25 hectares

Land acquisition delayed implementation – city bought area in the 2000's

Homes for 2000 people, business premises, public and private services

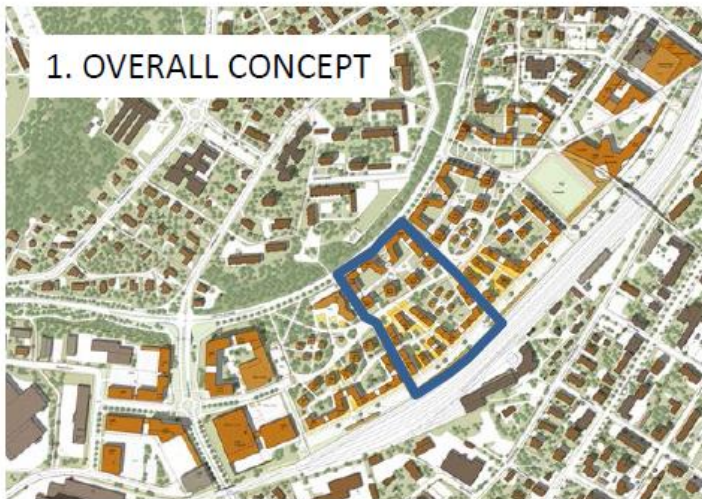




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Planning

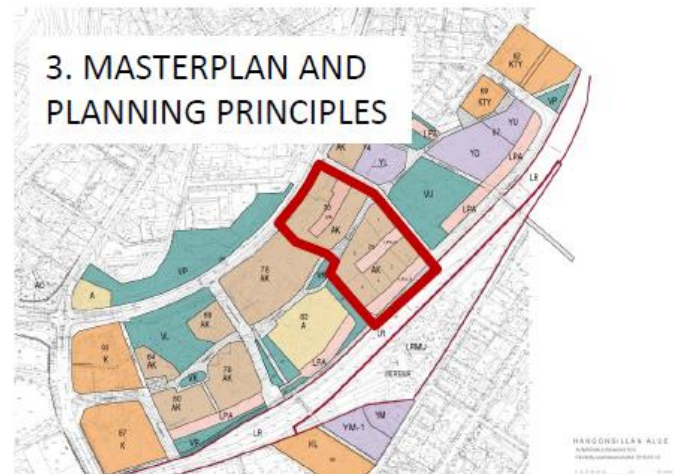
1. OVERALL CONCEPT



2. BLOCK CONCEPT



3. MASTERPLAN AND
PLANNING PRINCIPLES



4. PARTNERSHIP COMPETITION AND
PLANNING AGREEMENTS



4. COMBINED BLOCK DESIGN
5. DETAILED PLAN PROPOSAL

Why 3D modeling?

1. contaminated soil and strict environmental code
2. simultaneous planning of land use, public areas and buildings
3. Cost savings
4. future infrastructure management

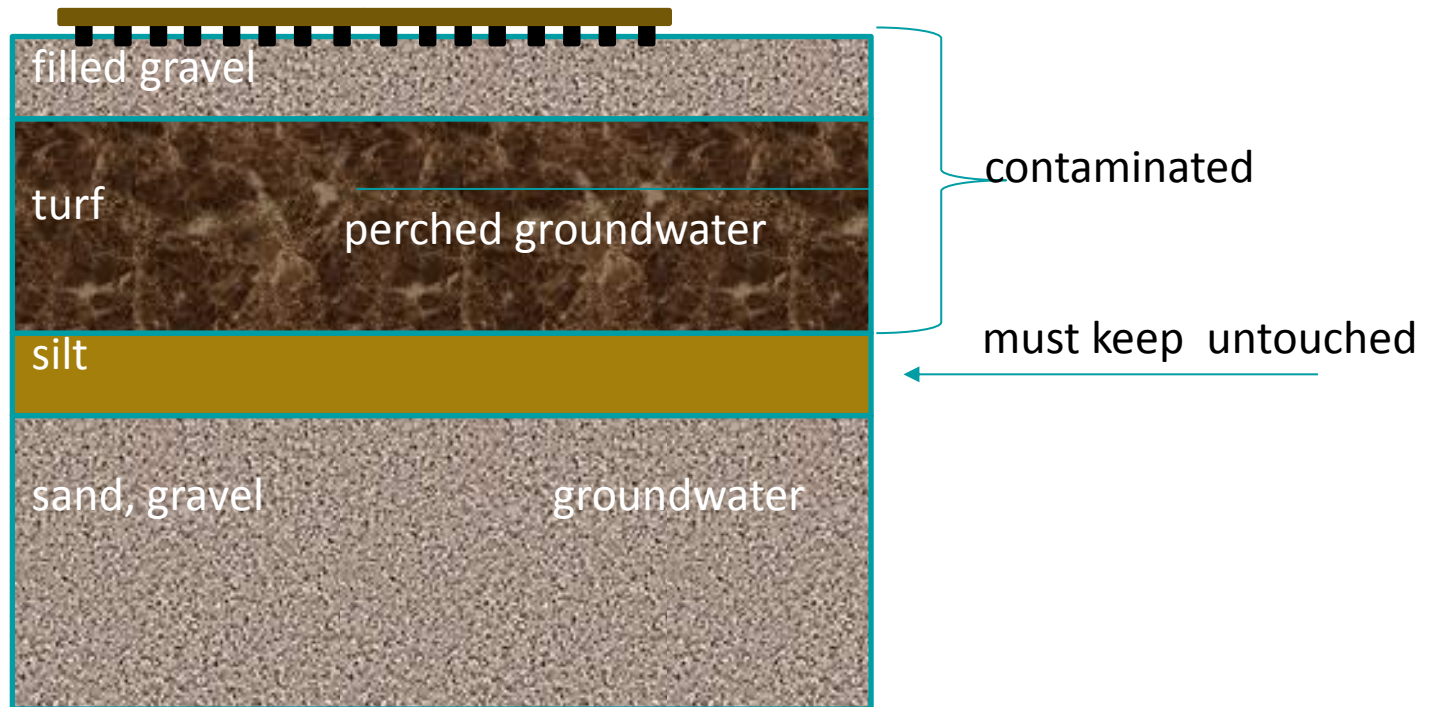


Contaminated areas in the railway yard²



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Soil





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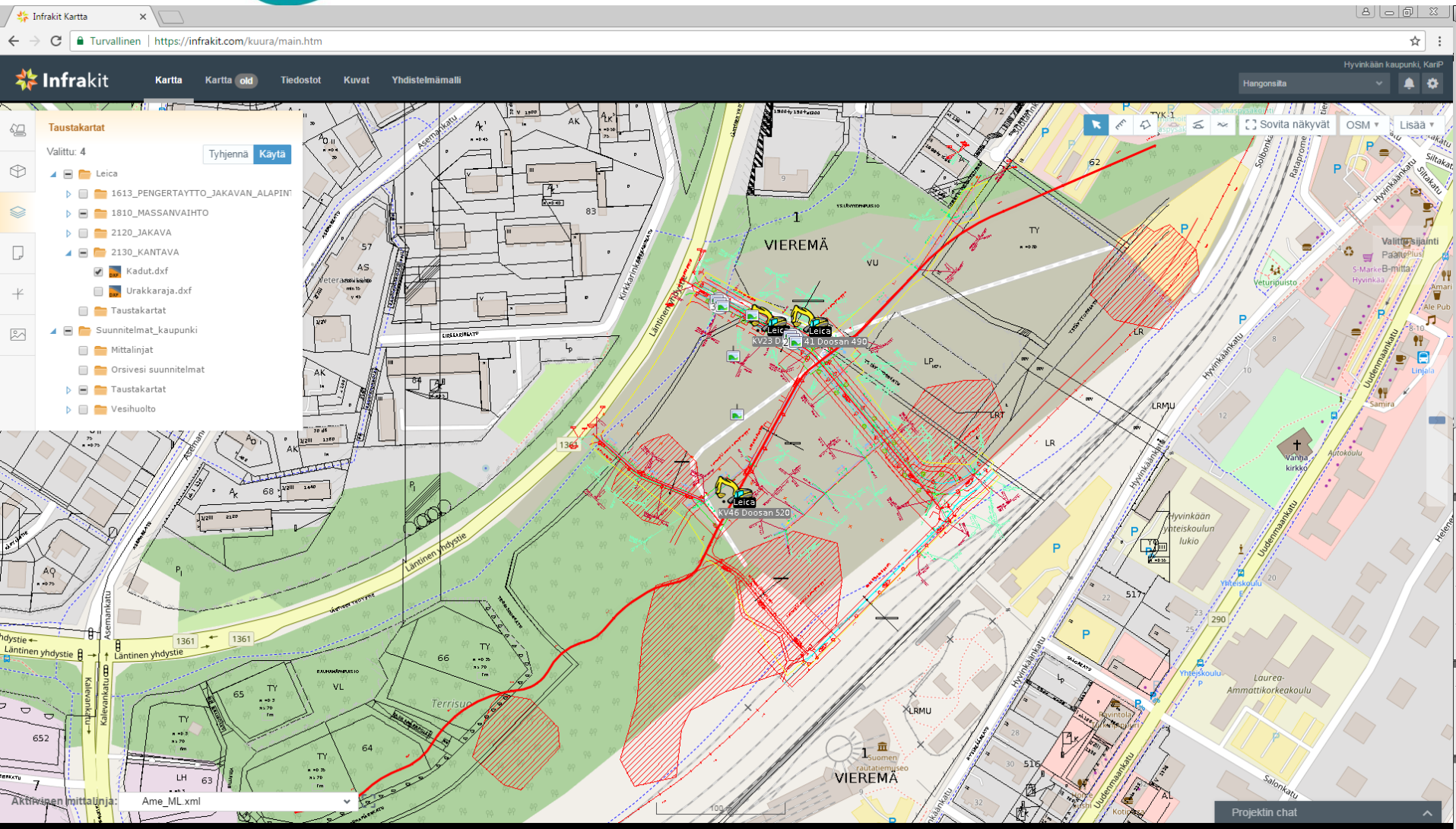
Construction

Pre construction 28.4.2017





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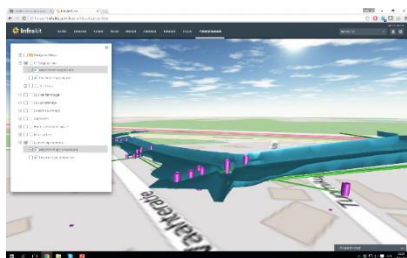




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Designer

- Combination model
- Design changes
- As-built model



Control

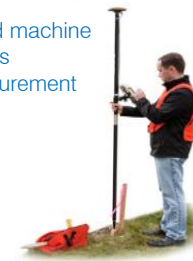
- Fast tests of every sample
- Information storage and delivery



Construction

Land surveyor

- Surveying and machine control models
- As-built measurement
- Mapping



- ❖ Cloud platform for site management
- ❖ Available 24/7 anywhere
- ❖ Brand independent



Project owner

- Quality control
- Design checking
- Transparency

- Real-time view
- Work planning
- Management of mass haul



Site foreman



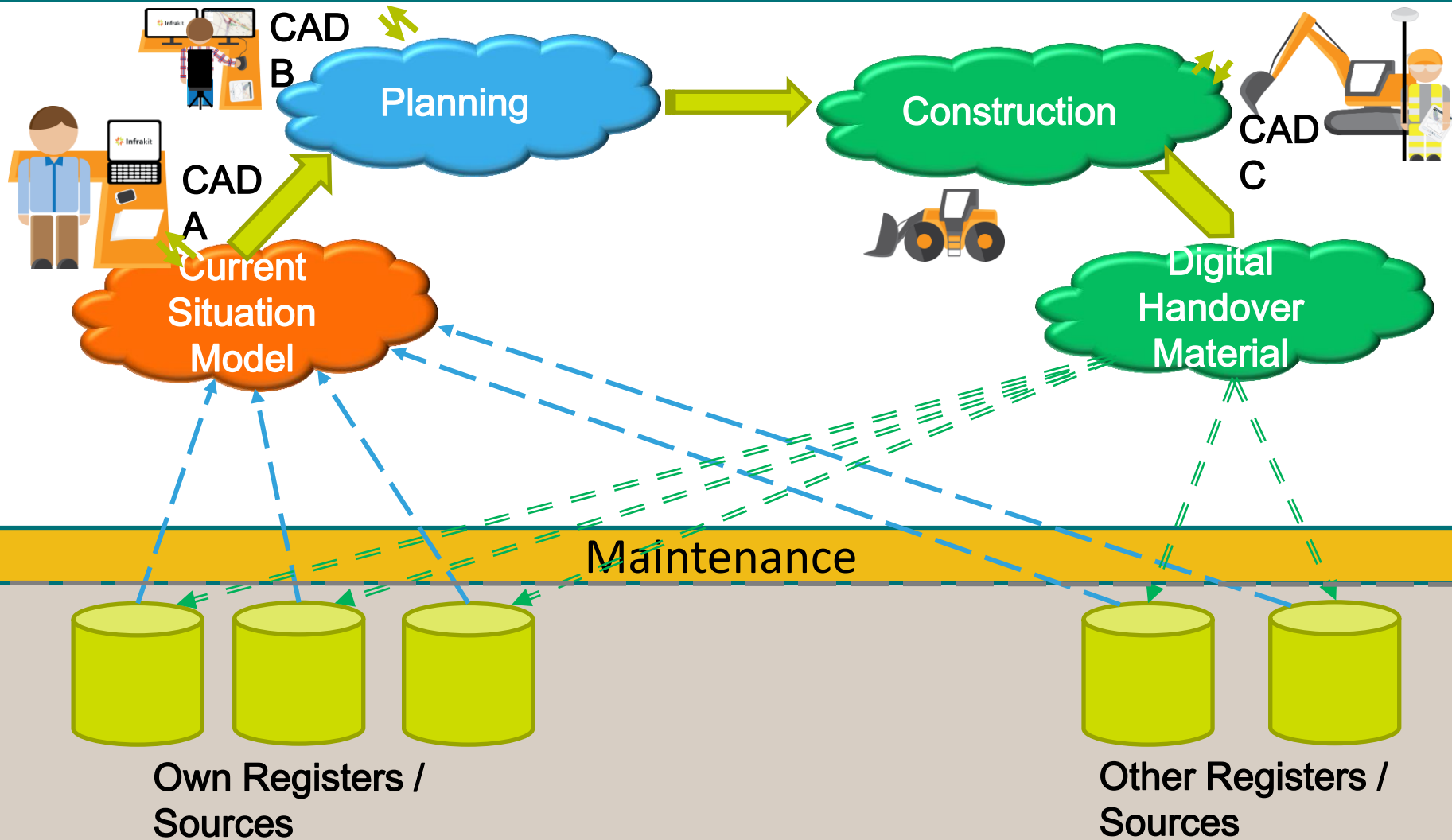
Work machinery

- Syncing models and as-built
- Machine work time and efficiency



Big circle

Publishing





Thank You