

**SITOWISE**

# Orientation day

**Aalto University Master's  
Programme in Geoengineering**

**28.8.2024**



# Sitowise

Sitowise is a Nordic expert in the built environment with a strong focus on digitality.

We design smart cities and spaces for living where daily life finds a sustainable foundation.

We operate in three business areas: buildings, infrastructure and digital solutions.



# Vast combination of expertise for the development of a built environment



## Buildings

- Structural engineering
- MEP expert services
- Electrical design
- Architectural design
- Lighting
- Building automation
- Fire protection engineering
- Acoustics
- Project management
- Construction contracting
- Condition assessments and surveys



## Infrastructure

- Road and street design
- Railway design
- Land use and urban development
- Landscape architecture
- Geotechnical planning
- Rock and tunnel planning
- Bridges and other structures
- Water services
- Transport and traffic
- Construction contracting services
- Urban design
- Environment and sustainable development



## Digital solutions

- Customer-oriented software development
- Software products
- Data management and visualisation
- Geographic data
- Expert services and strategic consultation
- Data Engineering & Data Science
- Service design

# Sitowise - The Smart City Company

more than  
**2,100**  
specialists

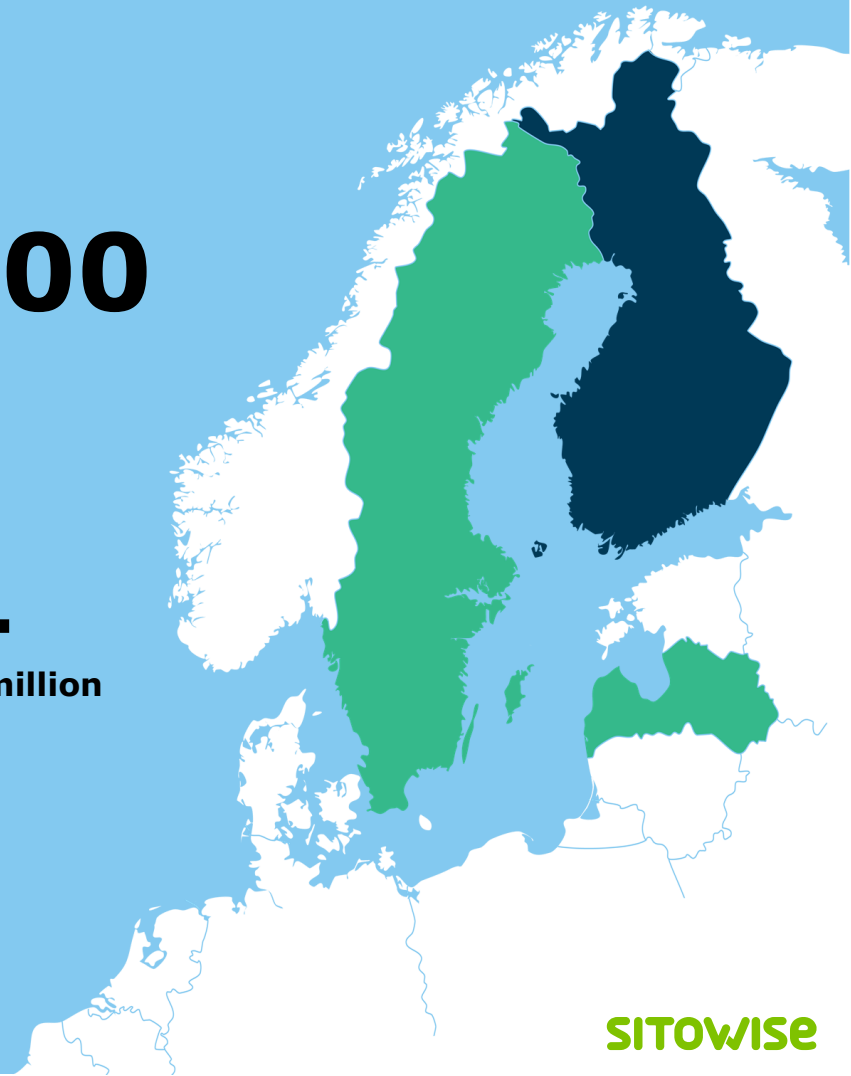
**32**  
Customer satisfaction  
NPS score

**3**  
countries

**28**  
offices

more than  
**100,000**  
projects

**211**  
Net sales, EUR million





OUR VISION

**The most  
responsible  
partner in  
developing a  
prosperous  
environment**



**SITOWISE**

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# Geotechnical Engineering

Orientation day

IIKKA KRONQVIST

28.8.2024

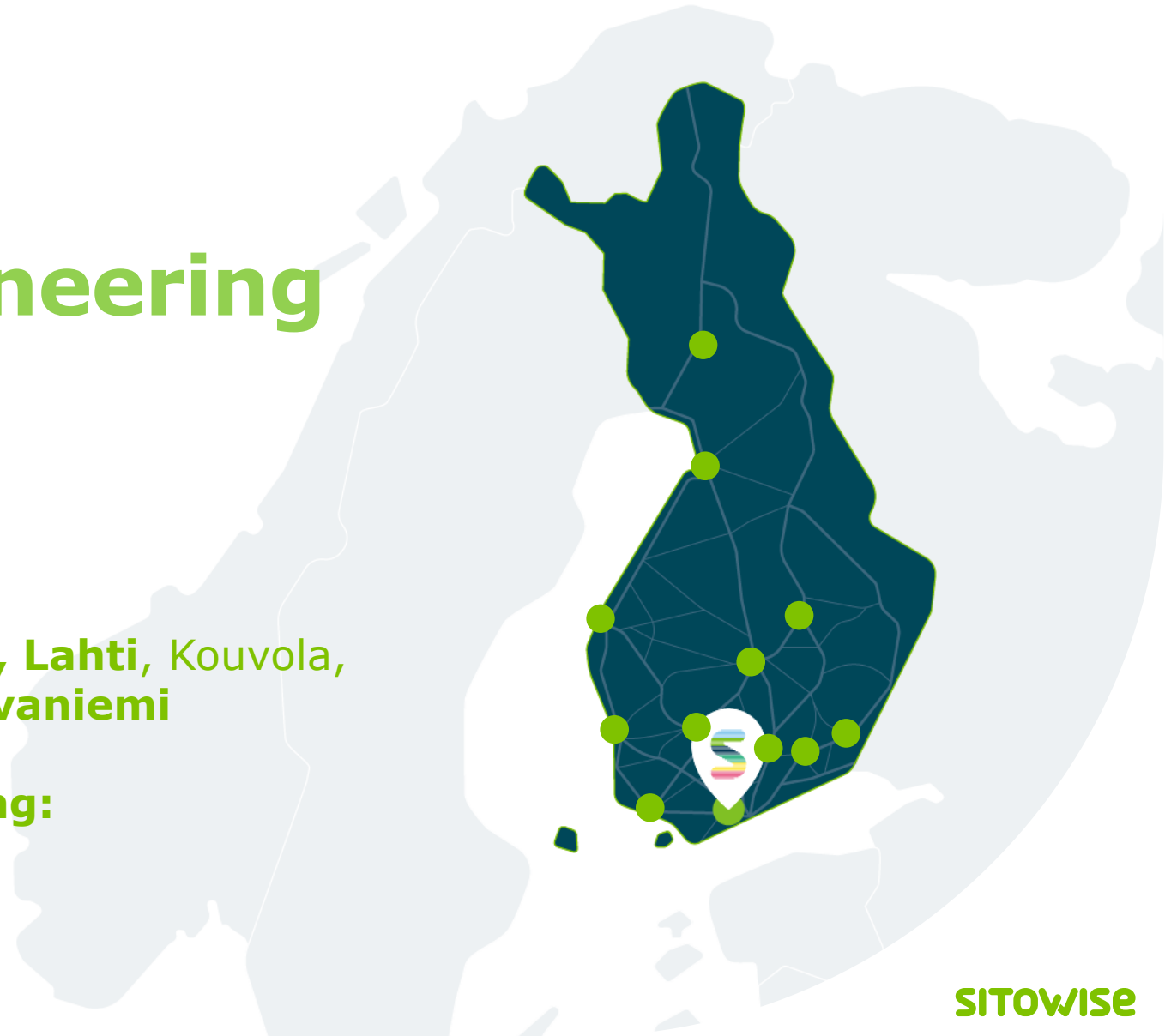
# Iikka Kronqvist

- Educational Background
  - Aalto University 2014-2021. Bachelor, M.Sc Geoengineering
- Career
  - 2018 Sounding and Laboratory assistant, Geotek Oy
  - 2019-2021 Junior designer, Geo Buildings, Sitowise Oy
  - 2021 Master's Thesis: *Small strain shear modulus of intact clay and stabilized clay: Malmi area*
  - 2021- Geotechnical Designer, Geo Buildings, Sitowise Oy

# Geotechnical Engineering in Sitowise

**Espoo, Turku, Pori, Vaasa, Tampere, Lahti, Kouvola,  
Kotka, Jyväskylä, Kuopio, Oulu, Rovaniemi**

**Experts in Geotechnical Engineering:  
Geo Infra 41 ppl.  
Geo Buildings 14 ppl.**





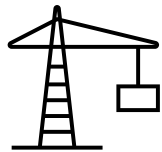
# Geo Building: What we do..

Apartment buildings  
Commercial buildings  
Offices

Regional projects

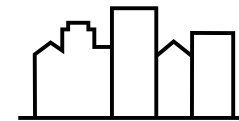
Shopping and city centers

Public projects, e.g. schools, hospitals



Industrial plants  
Regional structures of industry

Foundation reinforcement projects



**Also: Inspection and supervision task**



Kaikukatu 6, Helsinki (Sörnäinen)



Itäkeskuksen Hybridihanke Punos

## Typical for Geo Buildings projects

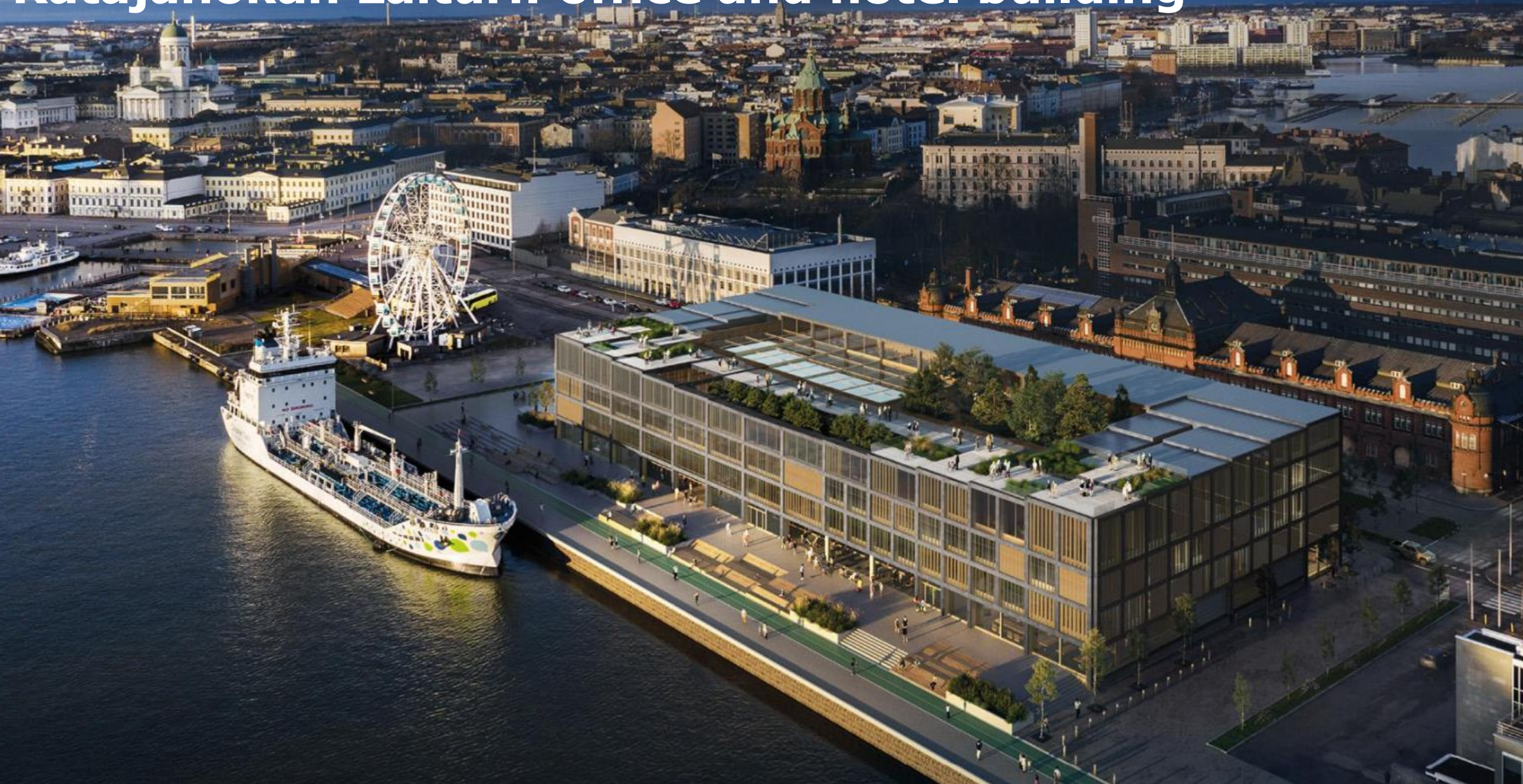
Urban environment

Compact sites and high rise

Most projects in the capital area and Tampere, but also projects located all around Finland



# Katajanokan Laituri: office and hotel building



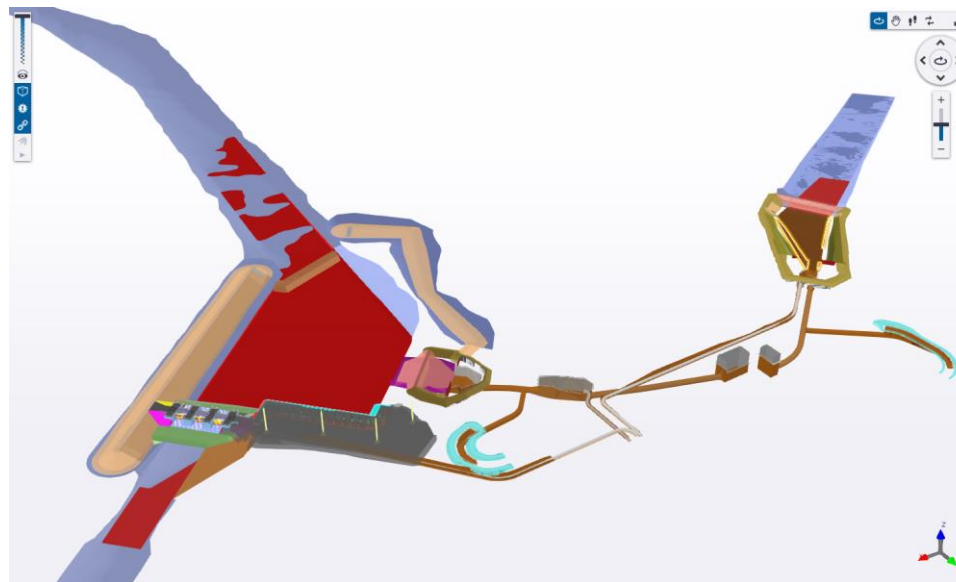






# GEO INFRA

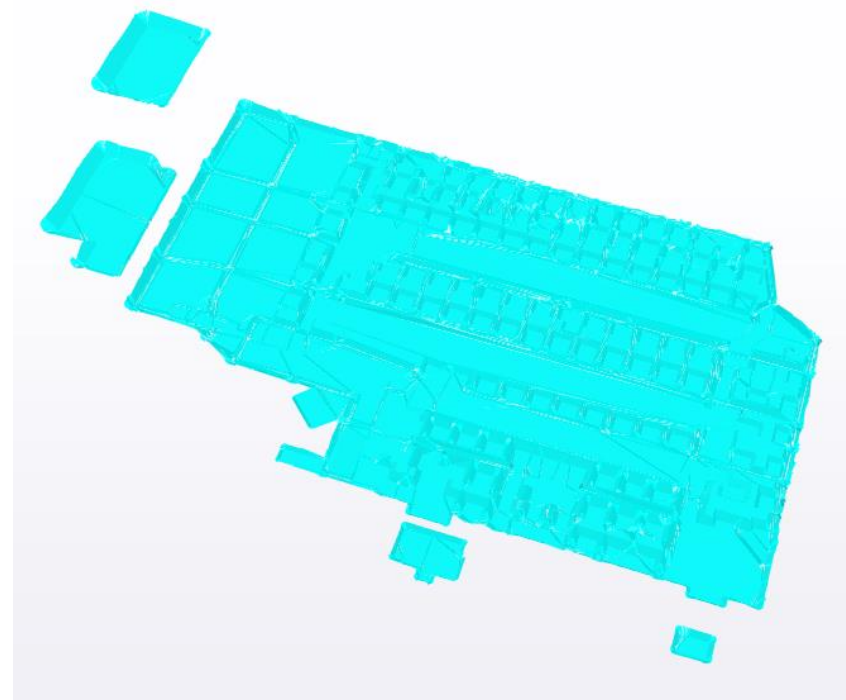
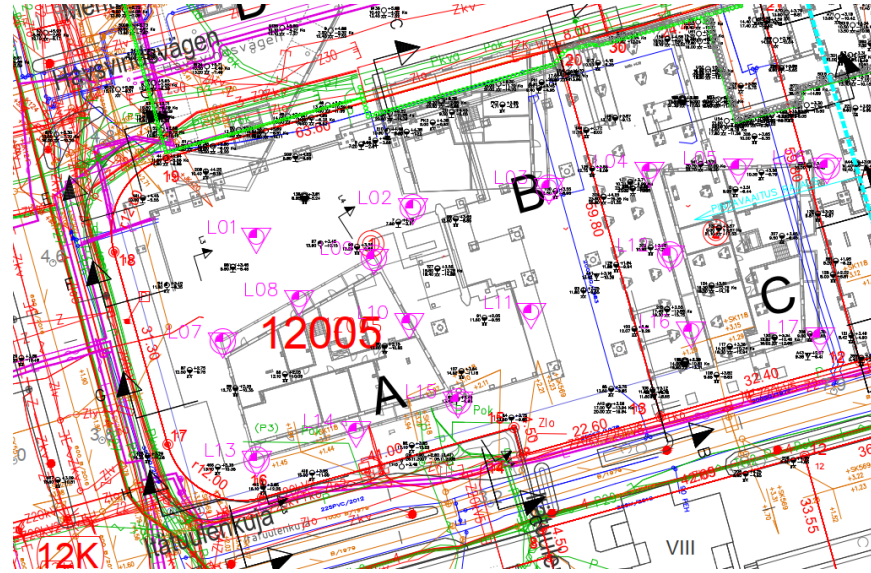
- Projects covering multiple fields of engineering at Sitowise: roads, railways, streets, urban areas, bridges..
- All stages of design from preliminary city planning to construction





# Typical tasks

- Finding all existing data
- Planning the ground investigations
- Ground investigation drawings
- Foundation method statement
- Rainwater plan
- Designing and 3D-modelling
  - Crane foundations
  - Excavations
  - Ground improvements
  - Surface leveling
  - Drainage
- Meetings
- Site visits







SITOWISE





Vantaanjoen silta





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# Rock Engineering

Orientation day

**NINA TANSEKANEN**

28.8.2024

# Nina Tanskanen

- Education
  - Bachelor of Science 2020, Aalto University (Energy and Environmental Engineering)
  - Master of Science 2023, Aalto University (Geoengineering)
- Career
  - 2018 Trainee, Kalliorakennus-Yhtiöt
  - 2019 Junior designer, Geotechnical division, City of Helsinki
  - 2020-2023 Junior designer, Underground spaces and tunnels, Sitowise
  - 2023- Designer, Underground spaces and tunnels, Sitowise

# Rock engineering and tunnelling in Sitowise



# Our rock engineering design services



- Rock engineering design of underground spaces and tunnels as well as demanding open pit excavations
- Rock resource and feasibility studies
- Condition assessments and renovation design of existing structures
- Geological mapping
- Groundwater management design
- Schedule and cost estimates of rock engineering projects



# The tunnelling department

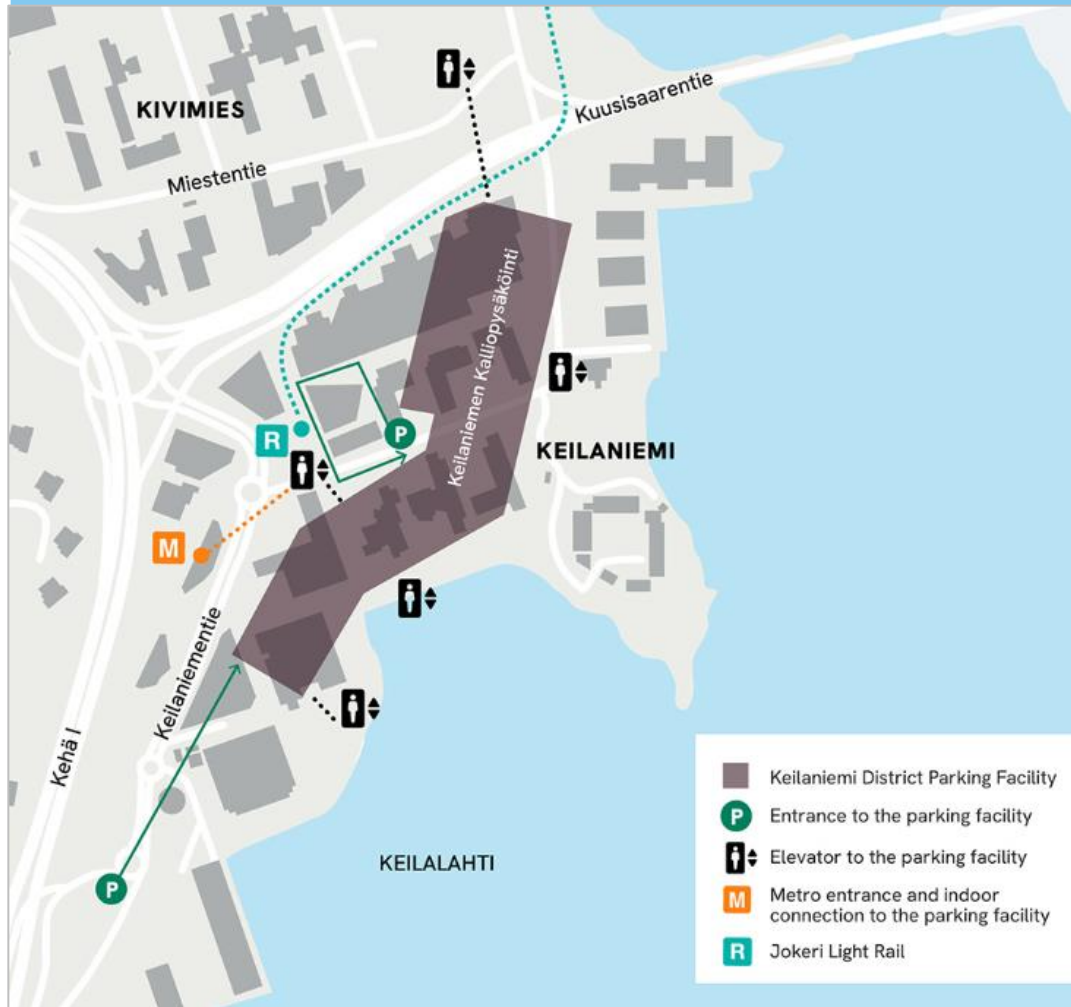
Team of 14:

- Rock engineering designers
- Geologists
- Design assistant
- Architect
- Project managers





# Examples of our projects: Keilaniemi underground parking facility



<https://sarcsigge.fi/projects/keilaniemenranta-urban-planning/>

# Examples of our projects: Keilaniemi underground parking facility

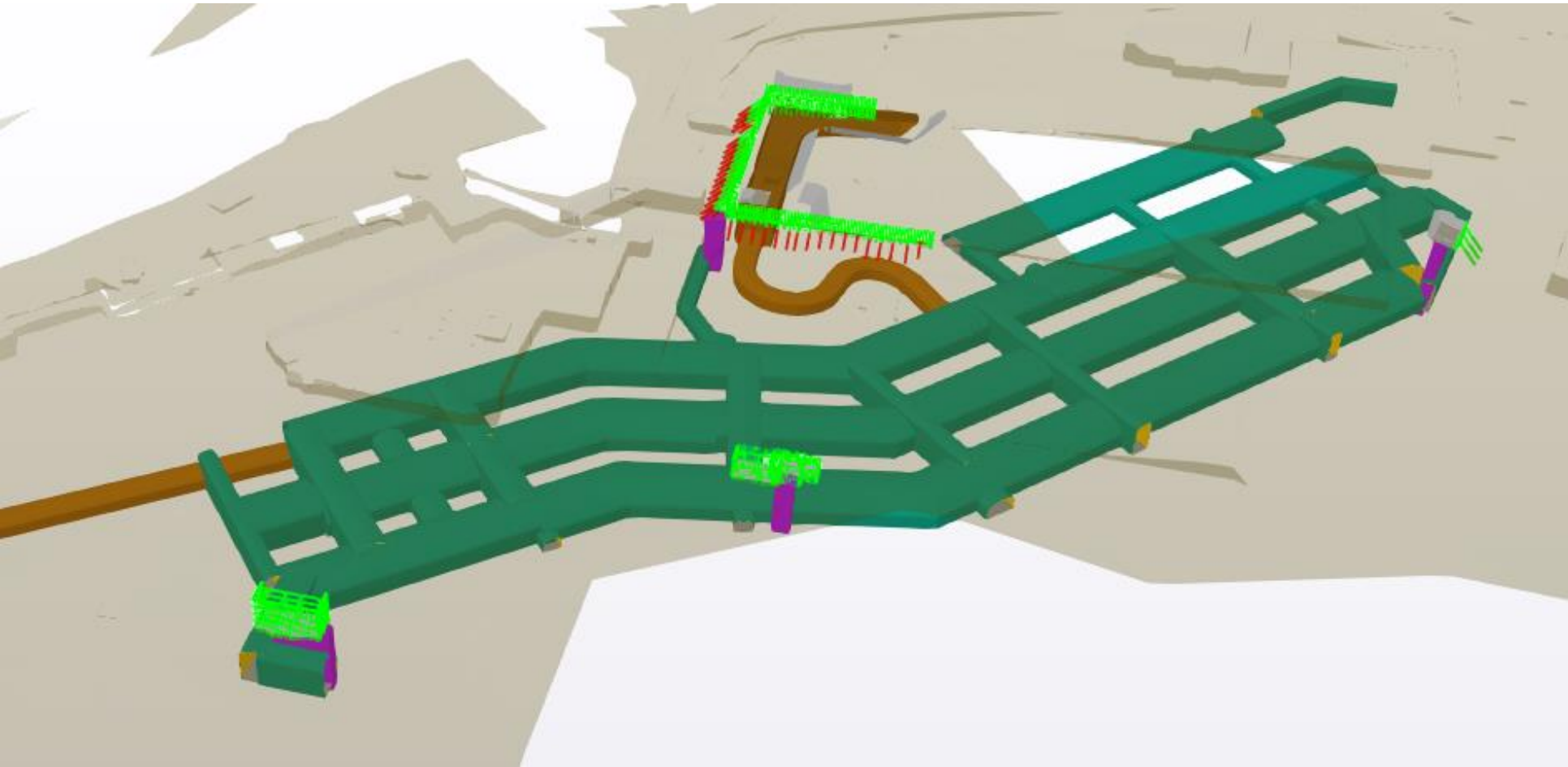
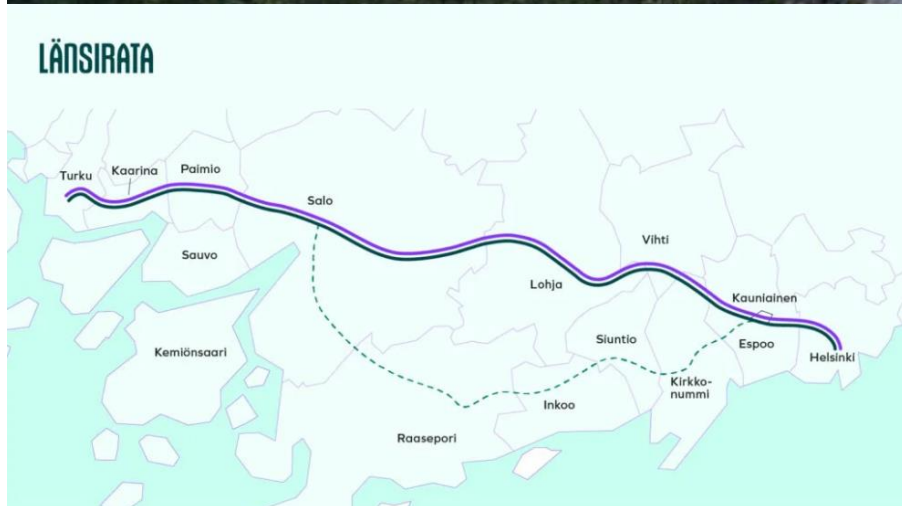


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# Examples of our projects: West Railway between Espoo and Salo





# Examples of our projects: Lyyra





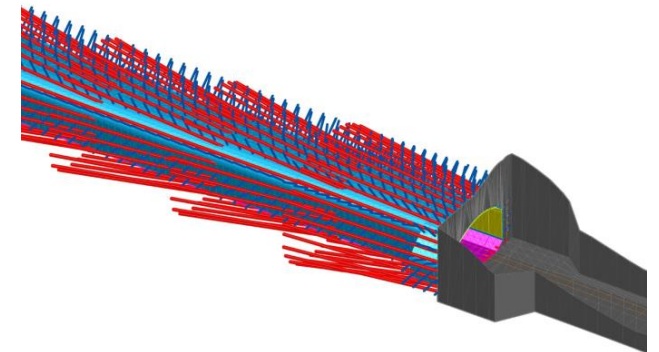
# Examples of our projects: Kalasatama





# Typical tasks in my everyday work

- Design
  - Grouting, reinforcements, excavation, layouts
  - Calculations and modelling, digging up initial data, drafting designs, BIM...
- Meetings
  - Coordination between other design disciplines or parties in a project
  - Teamwork
- Site visits and in situ design
- Expert assessments and studies
- Life Cycle Assessments



# Advantages of the job



Site visits, not just a desk job



Versatile projects and tasks, every project is different



Problem solving



Opportunity to take part in every design stage, from rough visions to construction



Always keep learning





**SITOWISE**

# NextGen

Stepping stone to your career



# What is **NextGen?**

**NextGen is Sitowise's trainee program  
- a stepping stone to your own career!**

**NextGen is made for those who are  
enthusiastic about their field of  
expertise and want to design the most  
sustainable future.**





# We promise



Your training is flexible according to your studies



You get the opportunity to network in your field



You receive an appropriate salary for your work



You get training in working life skills



You work on real projects as part of a team



You learn from pioneers in the field



You get your own instructor for the training period





Join us!

YOU CAN APPLY  
ALL YEAR ROUND

[SITOWISE.COM/NEXTGEN](https://sitowise.com/nextgen)

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# SITOWISE

The Smart City Company