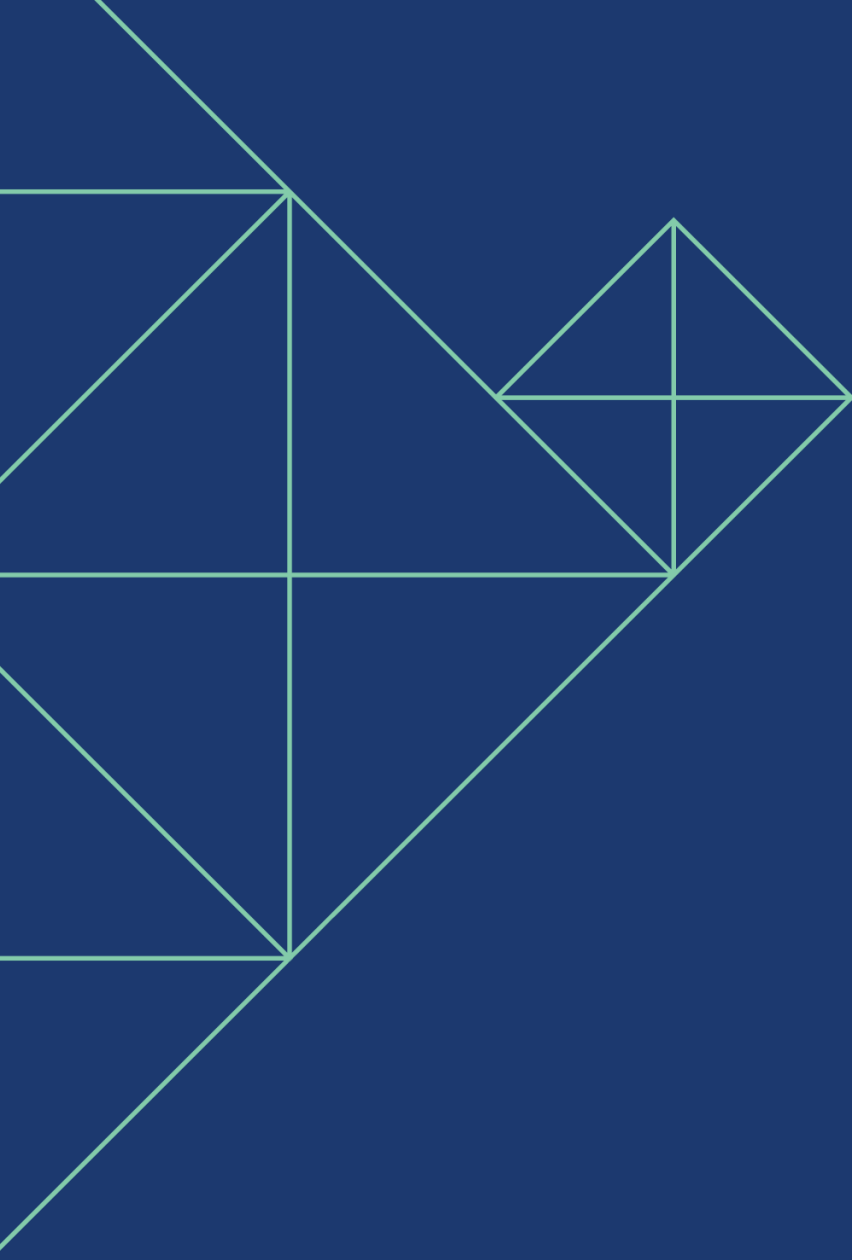


A large blue triangle on the left side of the image, containing a green geometric pattern of interconnected lines forming various shapes like squares and diamonds.

Home of  
engineering  
& expertise



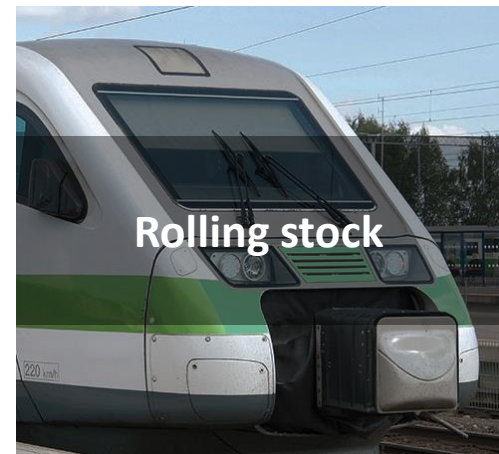
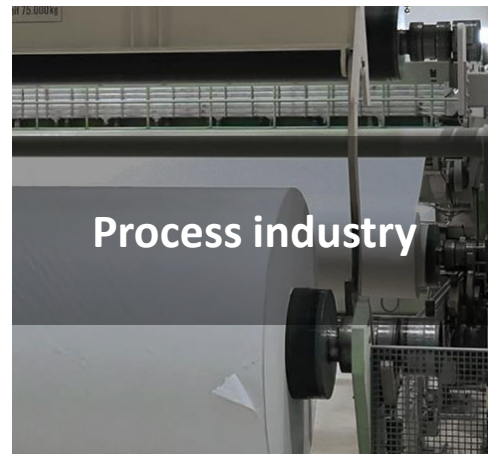
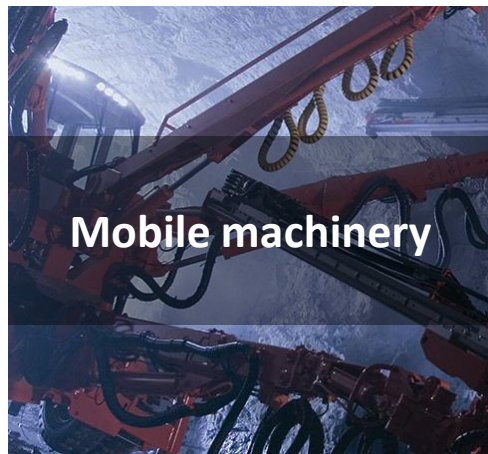
# Nuclear Energy Ecosystems - Open Business Day 2022

Veikko Puumala

4.5.2022



# We serve you in these industries





# Comatec Group

We are a growing engineering company providing and developing design, project management and expert services.

We are particularly known for our ability to implement challenging assignments for the technology industry and mechanical engineering. Our solutions are always based on tried, up-to-date technology.



600+  
Experts

300+  
Customer accounts

50+  
Design software  
applications

1000+  
Projects and  
assignments  
each year

1  
Mission:  
Help the customer

35+  
Years of experience

10  
Group companies

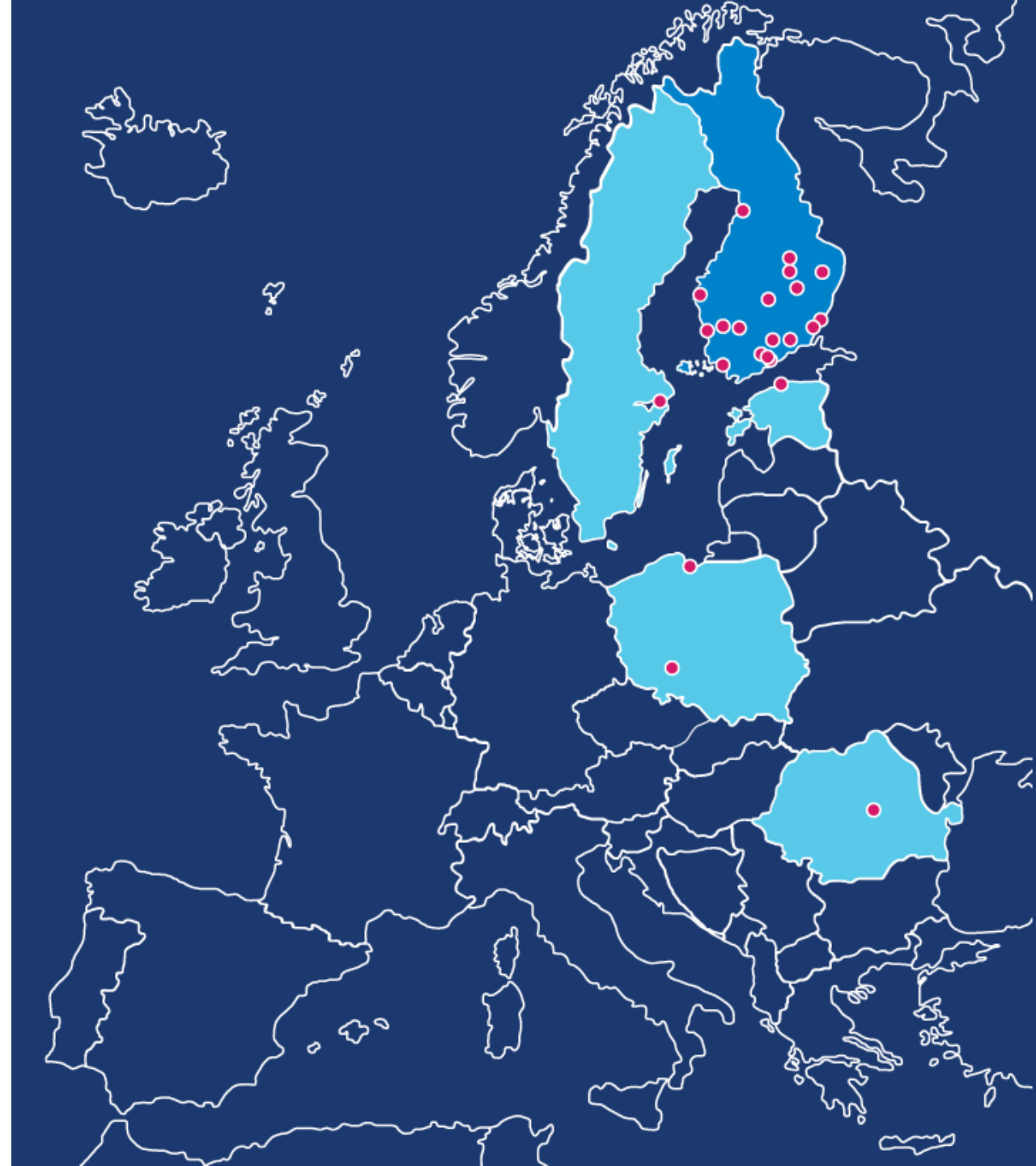
41 M€  
Turnover  
(2021)

Over  
20  
Offices



# Where you can find us

We have 20 offices in Finland, Estonia, Poland, Romania and Sweden.



# Our customers

We are known and proud of

- Long-term customer relationships
- Profound knowledge of the industries
- A wide portfolio of services
- Flexible service





# Comatec's Fusion Activities

- Engineering design & FEM analysis for the Divertor Test Platform (ITER)
- Divertor diagnostics cassette design (ITER)
- Divertor RH connector and cable loom design (ITER)
- Optioneering (DEMO)
- Post Weld Heat Treatment Tool Concept Design (DEMO)
- Remote Maintenance Concept Design (DEMO)
- FinnFusion collaboration

# Comatec Mobility System Solutions



Cabin & HVAC



Optimised steel  
structures



Safety critical  
software



Electric vehicles

**Mobile machinery and commercial vehicle – developing the complete product**





# Mobile machinery and commercial vehicles

- Engineering and design of a complete product
- Procurement
- Production support and supervision
- Testing and commissioning
- Documentation
- Project management



***Broad expertise for full service engineering of machinery and vehicles***



# Cabin and HVAC

- Industrial design
- Mechanical engineering
- Technical calculation and simulation
- Electrical design
- HVAC & software



***All cabin design services from Comatec***

# Optimised steel structures

- Mechanical engineering
- Technical calculation and simulation
- Material selection
- Industrial design
- Production processes and methods



***Mechanics, technical calculation and analyses***



# Safety critical software

- Safety critical software
- Development processes
- Functional safety
- Requirements of standards



***Automation and software design of Comatec Mobility is combined with our extensive experience in mobile machinery and commercial vehicles***





# Electric vehicles

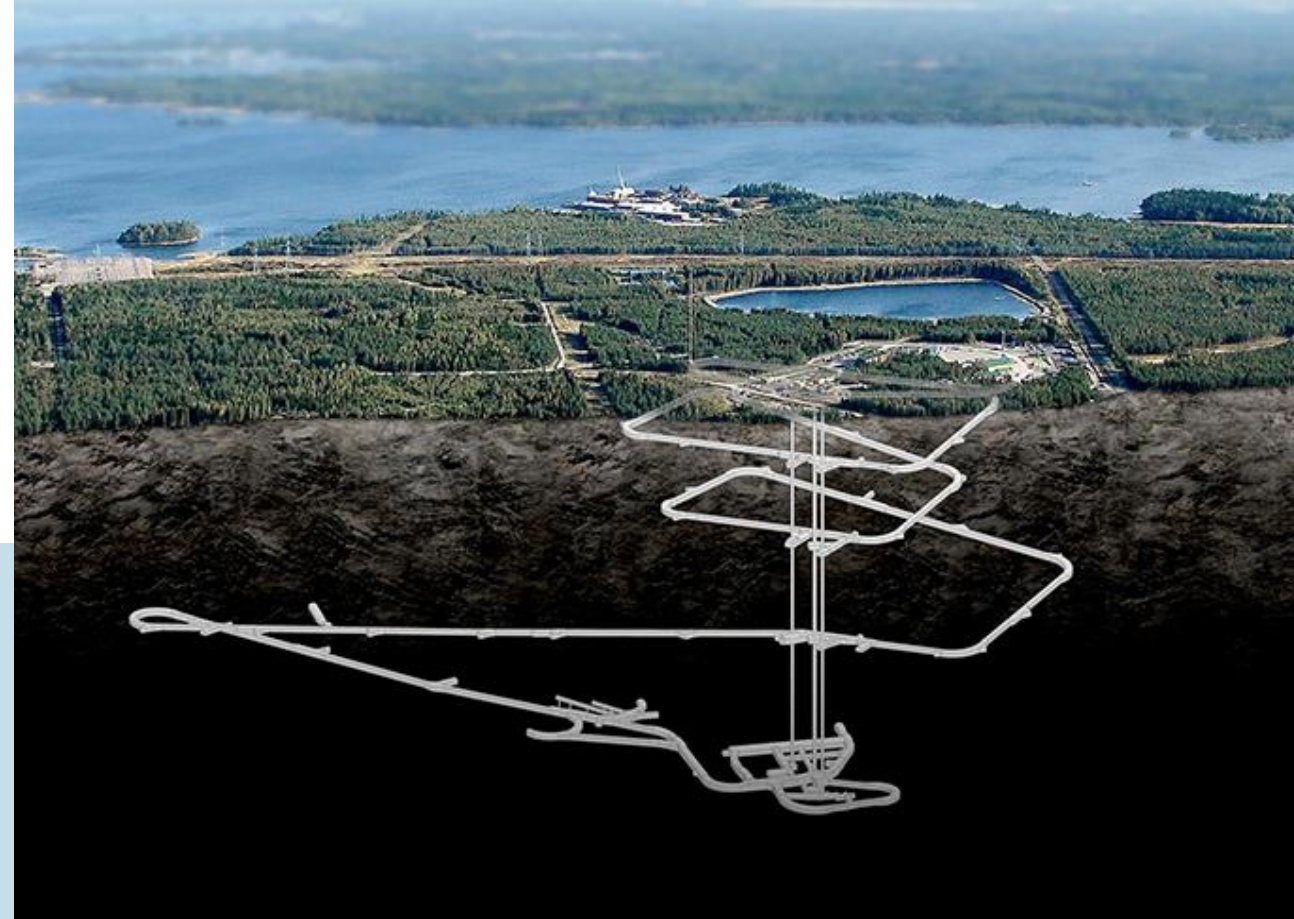
- System specifications
- Electrical design
- Software
- Heat management and simulation
- Safety and compliance
- Layout and mechanical structures



***Comatec Mobility designs the system as part of the whole machine and specifies optimal component requirements for the application***

# Posiva references

## Bentonite buffer block installation device



*“Cooperation with Comatec has been very successful. For instance, we have created a fully new solution in which the bentonite buffer blocks are transported to the installation site in a special transport container.”*

*Keijo Haapala, Posiva*

**Posiva**

# Canister transfer and installation vehicle

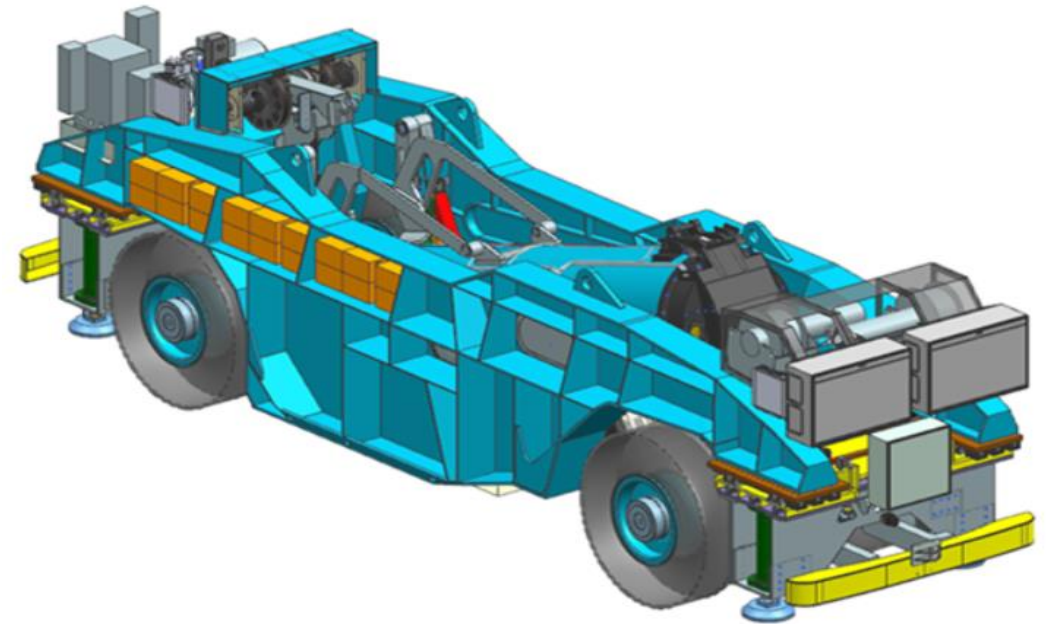
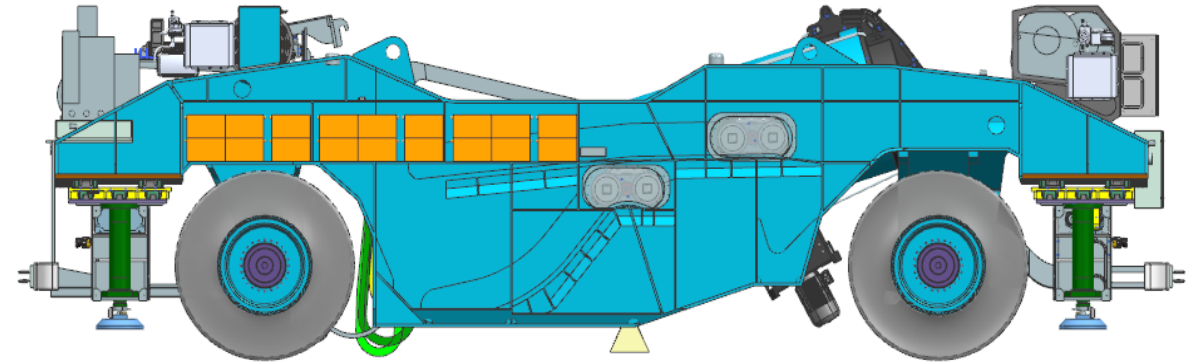
The canister transfer and installation vehicle (KSAA) is the only safety-classified system (SC3) in the underground deposition process. Its task is to transport and install the copper canisters containing spent nuclear fuel into the deposition hole.

The canisters are transported inside a 150-mm steel radiation shield cylinder. In addition, the interior of the cylinder has a PE plastic layer that absorbs neutron radiation.

The machine's own weight is 90 t, but with a canister on board, its weight reaches up to 120 t.

*Comatec has designed the electric driveline, battery pack and battery management system, according to customer's performance requirements and Comatec's simulation models.*

*Comatec implements the whole project: engineering, procurement and manufacturing coordination on behalf of the customer.*



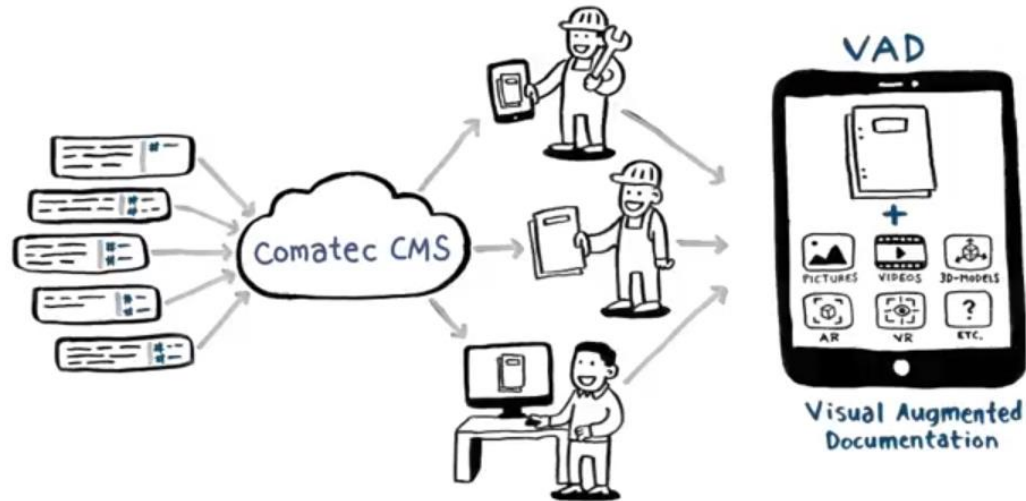
Canister transfer and installation vehicle



# VAD – Visual Augmented Documentation

A cost effective method to extend the traditional documentation to XR-environment

VAD - More than a manual



<https://www.youtube.com/watch?v=RvgV6WAtkwI>



[www.comatec.fi](http://www.comatec.fi)

All the information  
you need, when  
you need it.

- Comatec's Technical  
Documentation Team





# Visually Augmented Documentation



# DEMO Remote Maintenance Concept design

