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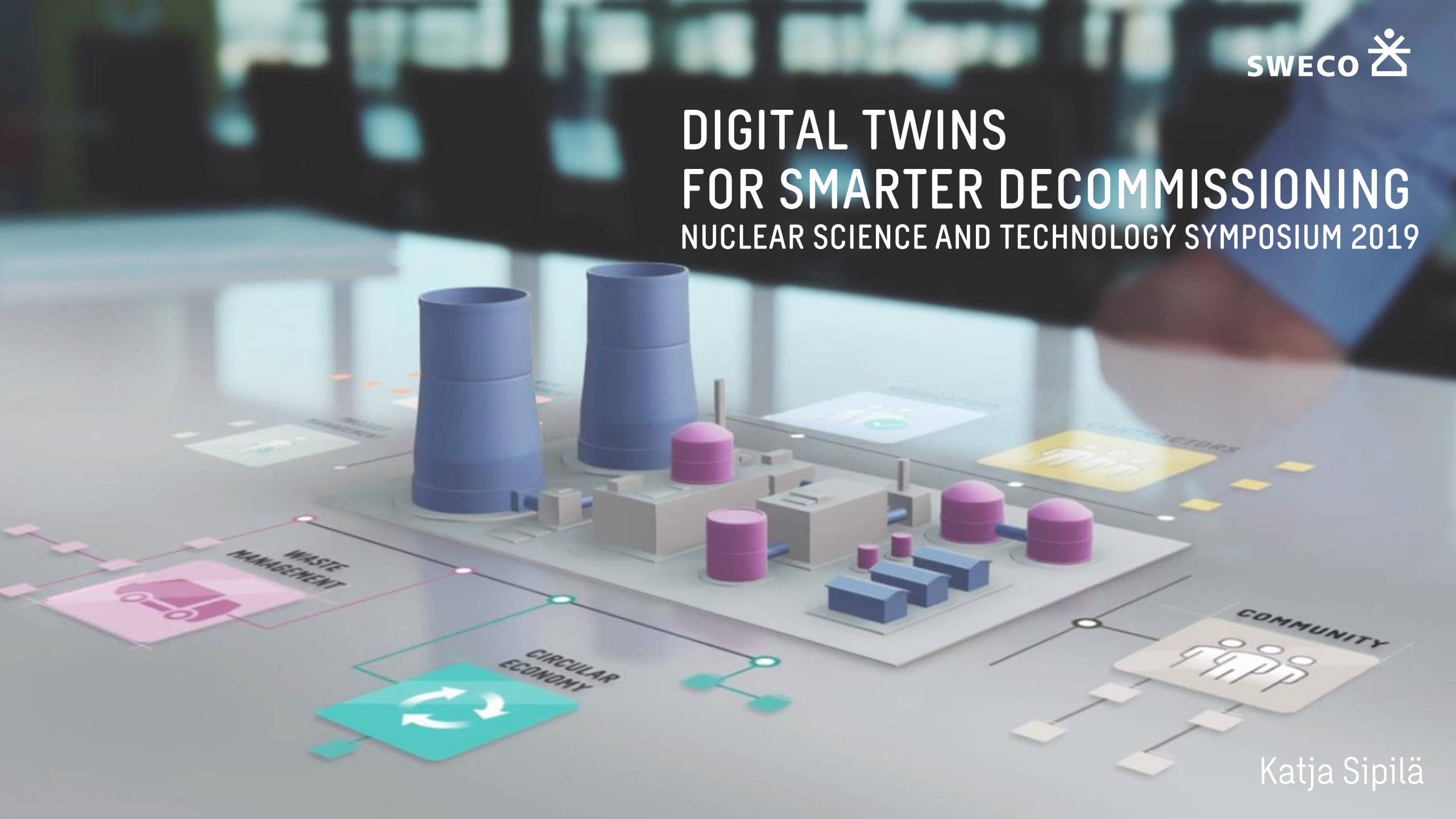
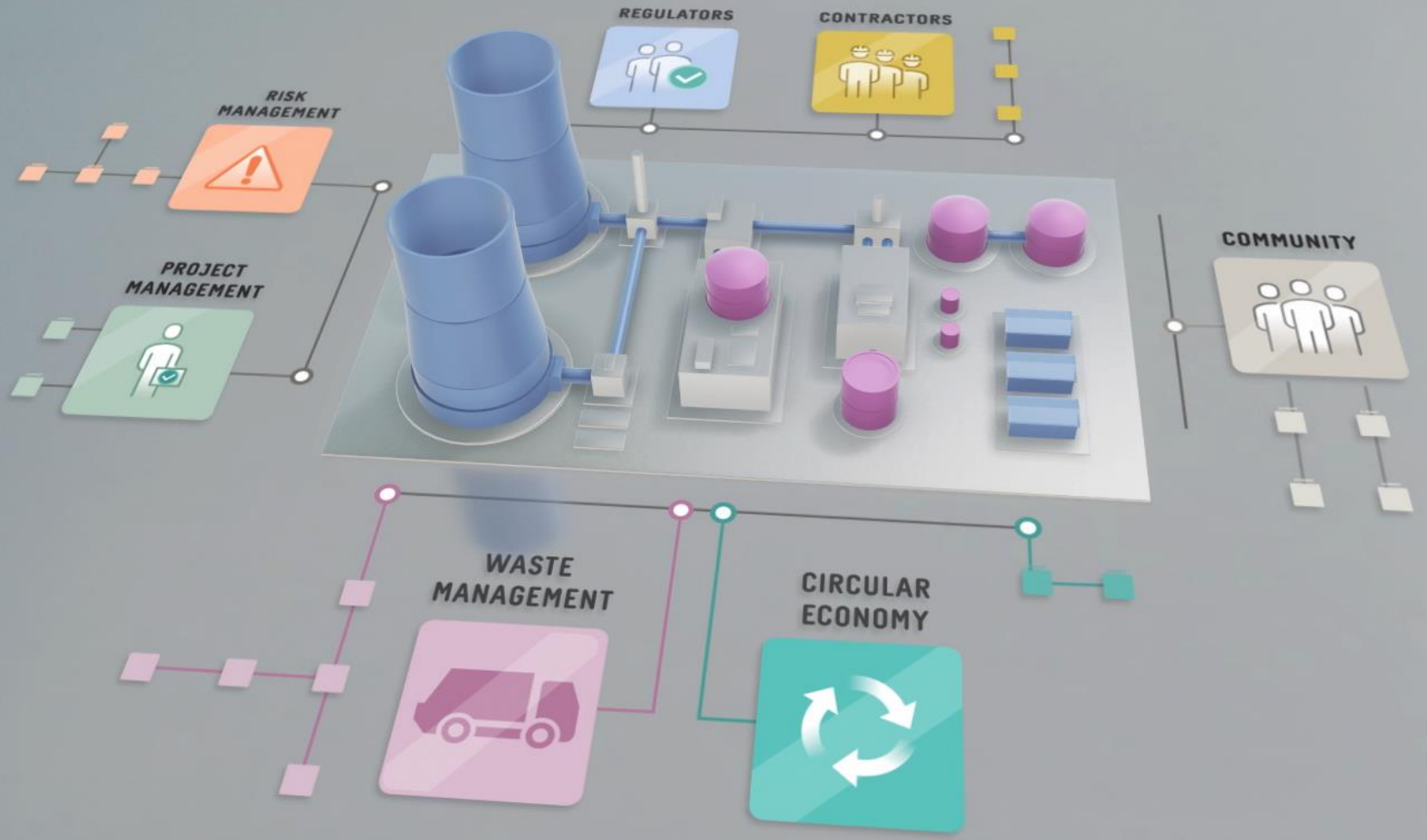
DIGITAL TWINS FOR SMARTER DECOMMISSIONING

NUCLEAR SCIENCE AND TECHNOLOGY SYMPOSIUM 2019



Katja Sipilä

SMART SOLUTION FOR NUCLEAR DECOMMISSIONING



WHAT?

Complete digital twin platform solution for nuclear decommissioning from planning to execution in a more transparent, safe and efficient way. Planning, costing, verification, simulation and tracking of decommissioning in 3D, AR and VR.

HOW?

Solution utilizes fast laser scanning technology to create a point cloud of the plant. The point cloud is then turned into a digital twin and enriched with data.

WHY?

- Optimize planning, costing, verification, simulation, execution and tracking of decommissioning using 3D/BIM and AR/VR
- Up to date and visual information that is easy to understand and use for training, risk management and safety planning
- Enables maximizing of deconstruction waste recycling, turning recyclable deconstruction waste also into value

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PROJECT MANAGEMENT

RISK MANAGEMENT

REGULATORS

CONTRACTORS

COMMUNITY

CIRCULAR ECONOMY

WASTE MANAGEMENT

DIGITAL TWINS & BEYOND FOR NUCLEAR DECOMMISSIONING

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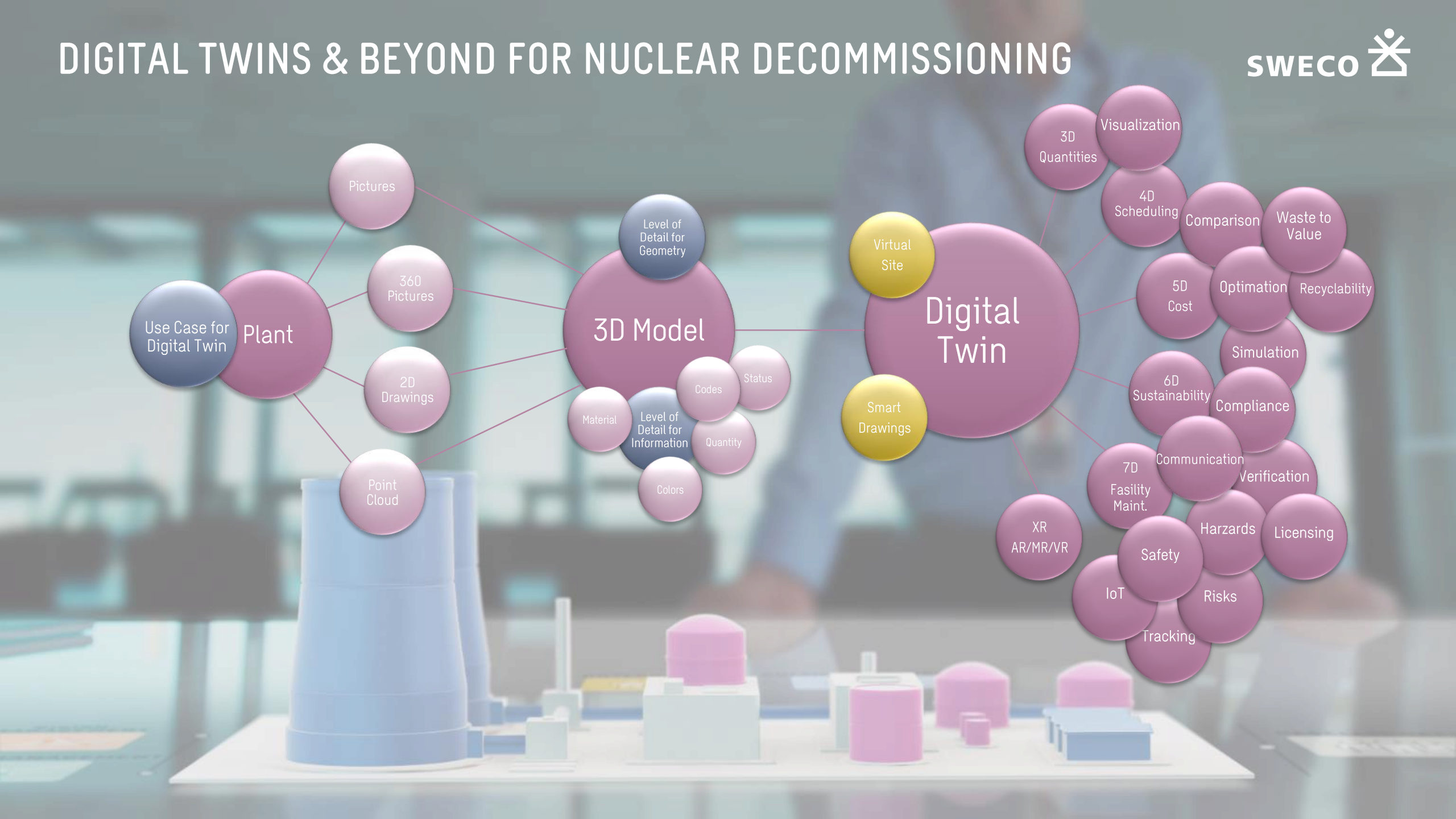

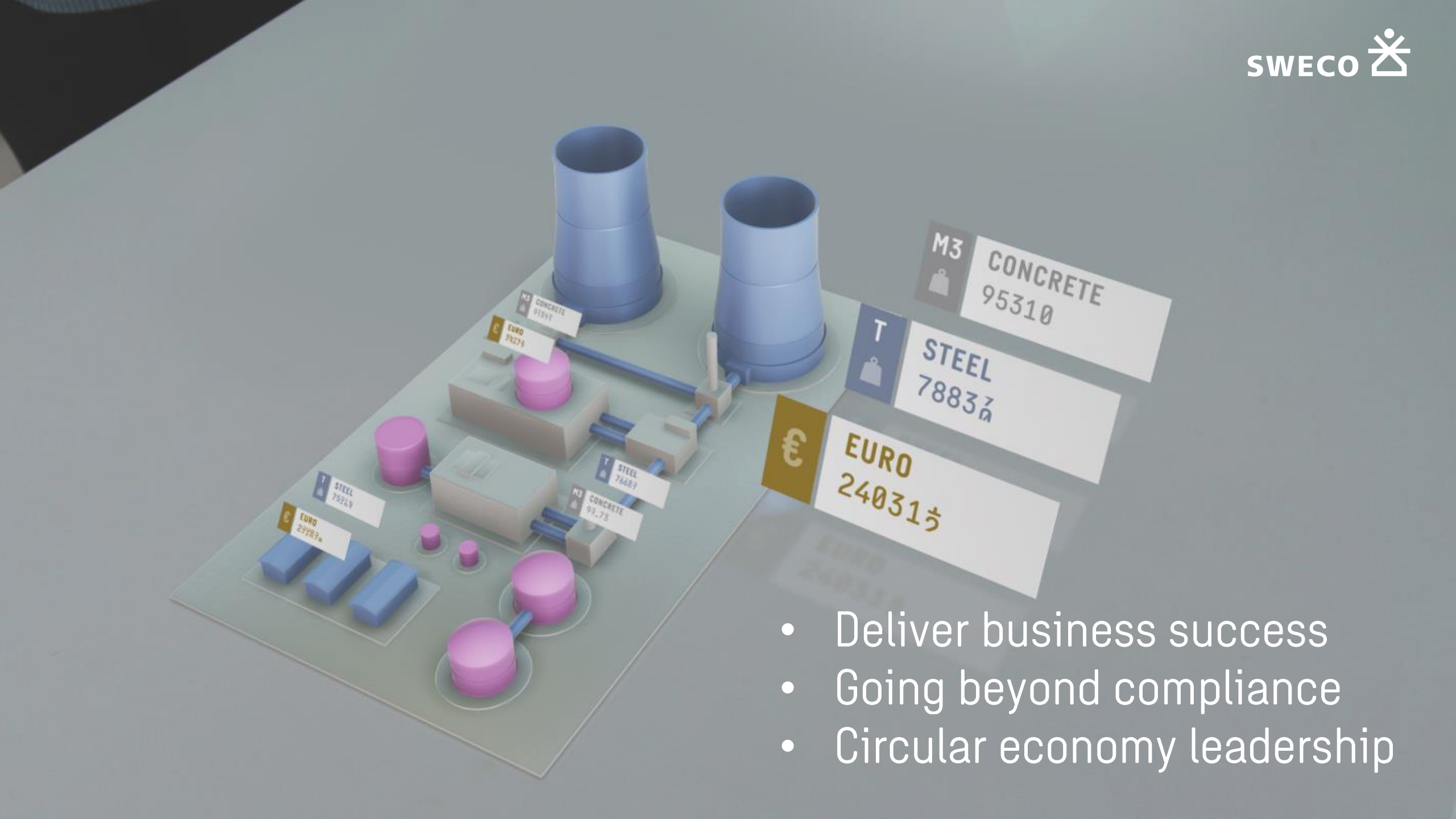

- Deliver business success
- Going beyond compliance
- Circular economy leadership

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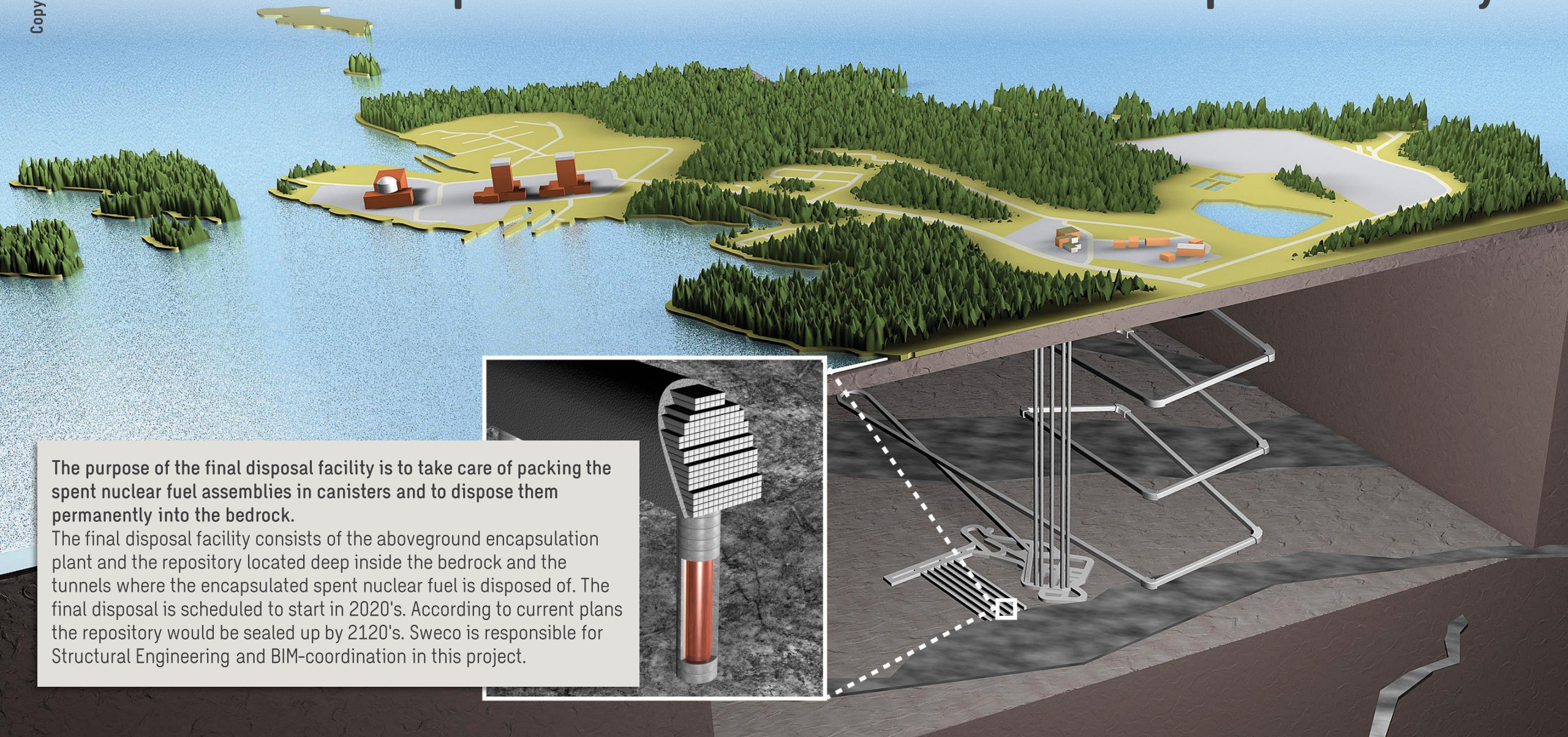
Sweco´s BIM expertise is used in Posiva final disposal facility



The purpose of the final disposal facility is to take care of packing the spent nuclear fuel assemblies in canisters and to dispose them permanently into the bedrock.
The final disposal facility consists of the aboveground encapsulation plant and the repository located deep inside the bedrock and the tunnels where the encapsulated spent nuclear fuel is disposed of. The final disposal is scheduled to start in 2020's. According to current plans the repository would be sealed up by 2120's. Sweco is responsible for Structural Engineering and BIM-coordination in this project.

Thank you!

https://www.sweco.fi/en/decommissioning

Katja Sipilä
Manager - Decommissioning
katja.sipila@sweco.fi