

# BatNet Grønn Plattform → Katapult

Factory Friday  
21.03.2025



BatNet

BatNet works to secure  
Norway's place in the global  
battery value chain and  
accelerate the green transition  
in the Norwegian technology  
industry.



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The slow pace of digitalisation affects  
Norway's ability to compete  
internationally.

Challenges are related to culture,  
adaptability, finances, expertise and  
technology.



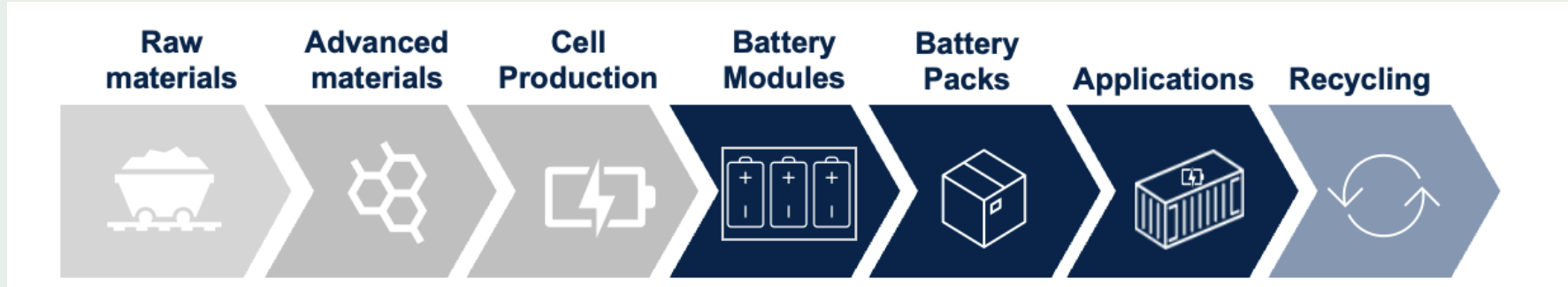
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Industrial digitalization is essential to make Norwegian players in the battery value chain competitive.

We must develop specially adapted products for niche markets, such as the maritime market, which accounts for 1-3 GWh/year.



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BatNet is composed of leading players in research, technology development and industry.

We combine expertise to learn from each other and exploit several aspects of industrial digitalization.

The project will result in digital models for optimal product development and production, next-generation battery packs, and a full-scale catapult system for automatic product assembly.

At the same time, we develop expertise for faster digital transformation of established industry.



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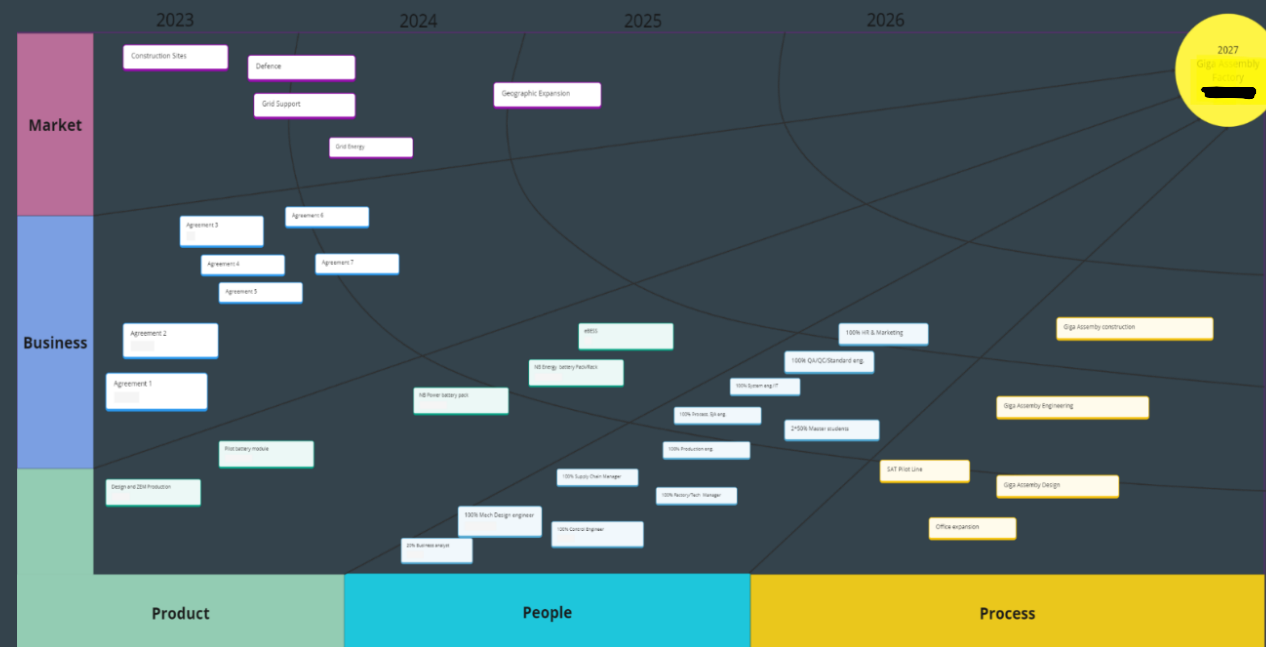
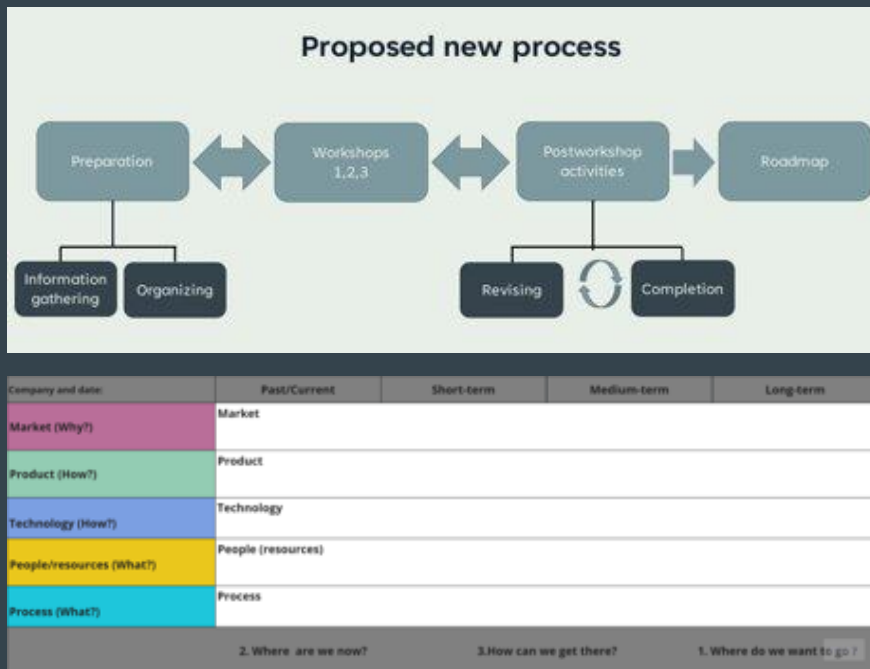
# Results – so far



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# Roadmap Industrial Digitalization



Hollistic Roadmap – Sintef, USN Systems Engineering and USN Business School are working to compare methodology and results.

# Endringsledelse

- #1 Tillit og kunnskapsutvikling i hele økosystemet er kritisk
- #2 Greenfields er våre superkrefter i rask omstilling
- #3 Skyggesider i omstilling...om ikke alle er med



Kongsberg Technology Cluster

ISN Universitetet i Sørøst-Norge

## THE HUMAN FACTOR

KURS  
Utviklingsprosesser i organisasjoner

Forelesere:  
KRISTIN WOLL  
SØREN MADSEN

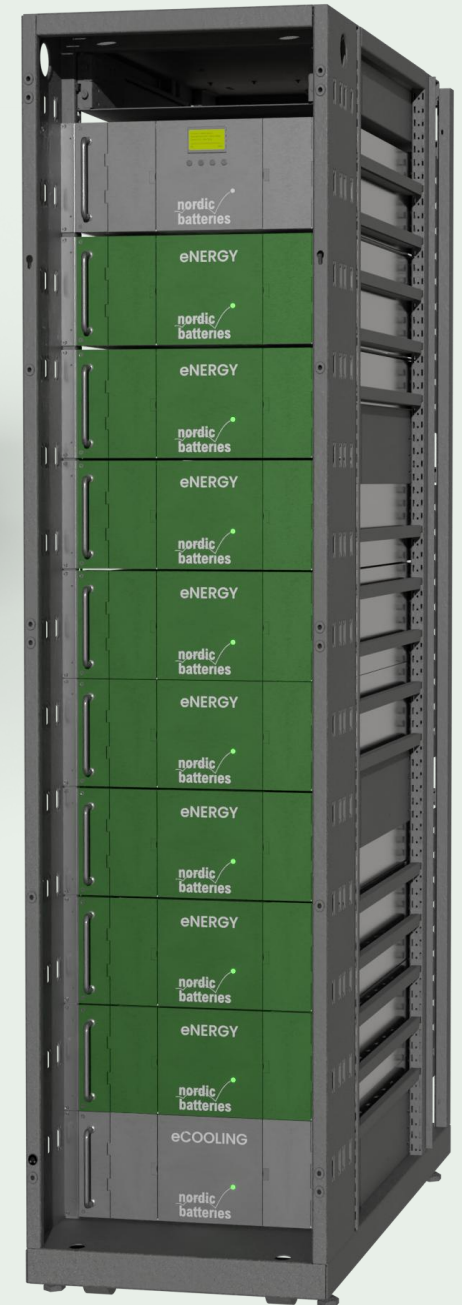
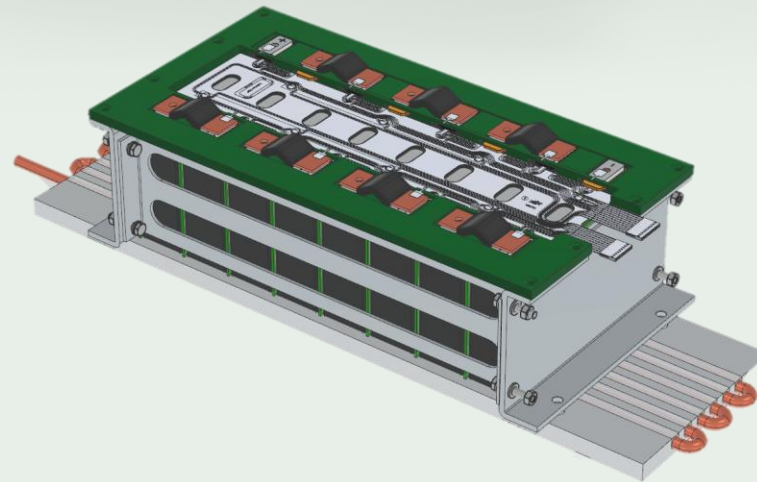
Dato:  
24 - 26 OKTOBER, 2023  
Fra 09:00 til 16:00 på Krona

Systems Catapult

A circular inset image showing two workers in white hard hats and safety vests working in a factory setting.

# Energy module

- Stackable modules
- Prismatic cells
- LFP cell chemistry
- Proprietary Design
- Own BMS
- Liquid or air cooling
- Assembly of modules starting 2024



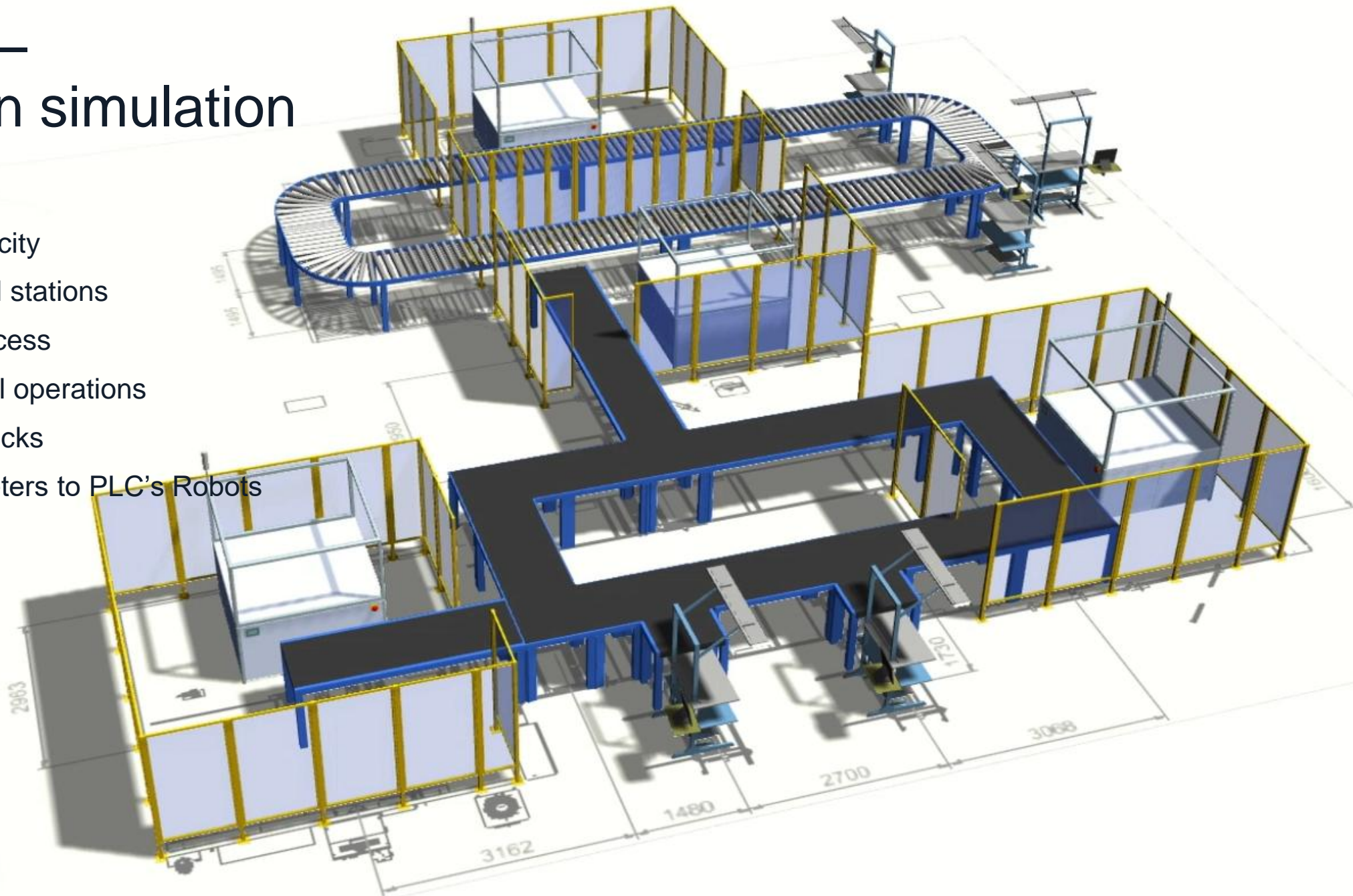
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# PlantSim – Production simulation



Simulate:

- Production capacity
- Need for manual stations
- Verify Bill of Process
- Optimize manual operations
- Identify bottle necks
- Transfer parameters to PLC's Robots



# PlantSim – Logistics simulation

Simulating and planning:

- Production capacity
- Use of manual stations
- Tuning of Bill of Process
- Identify bottle necks



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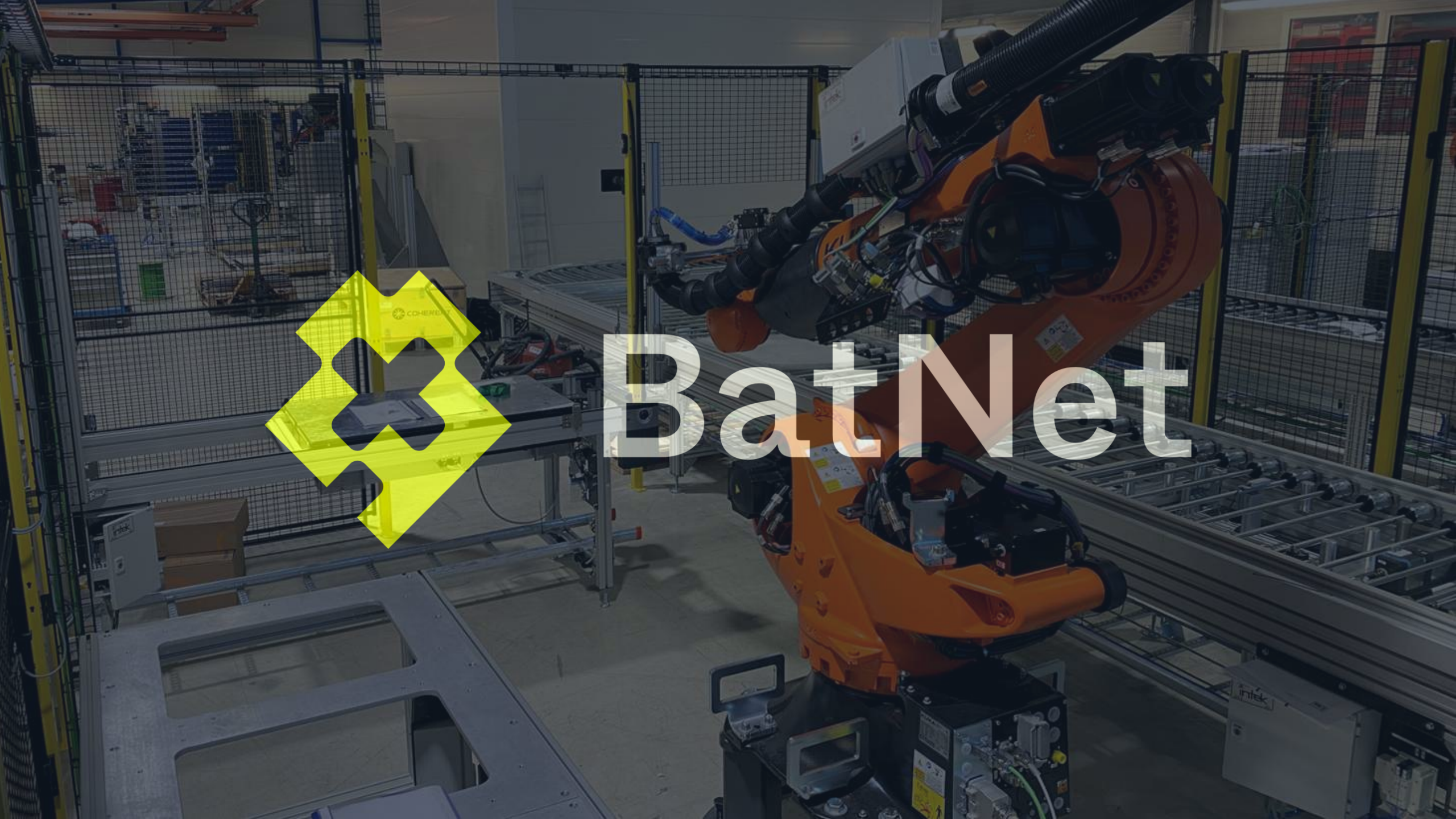
"BatNet is not just a project;  
It's a commitment to shaping our  
technological future"

*Dr. Omid Razbani*  
*Associate Professor in Systems Engineering*  
*USN*





# BatNet





# KONGSBERG

Complicated  
Demanding  
Customer requirements

TechnipFMC



KONGSBERG



GKN AEROSPACE

SIEMENS ENERGY

data:respons

part of AKKODIS

semcon

APPLIED HYDROGEN



DASSAULT SYSTEMES

TECHNIA

ADDNODE GROUP

Fagskolen i Viken



Microsoft

ISN Universitetet i Sørøst-Norge



SIEMENS

uptip INDUSTRY ANALYTICS

k.tech



CLEVR

nordic batteries

Altium

kiwa

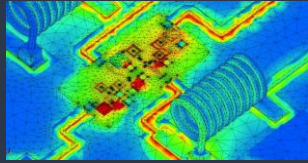
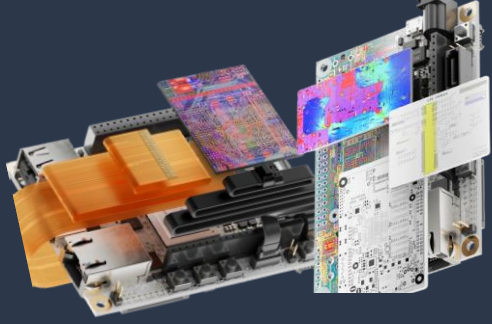


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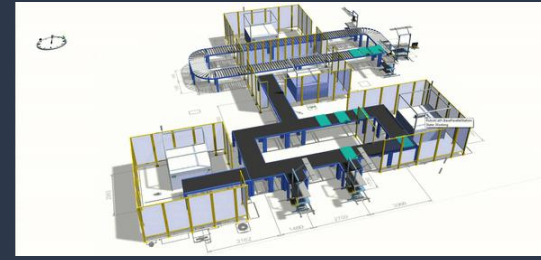
SINTEF



PCB Connect



Development



Digitalization

Simulation

ERP, PLM, PDM, MOM, MES

Production & Automation

Design & Engineering

IOT, Data & Cloud

Software  
Firmware

Electronics

Mechanics

Materials

Design

Integration



Testing

Verification

Standards & Regulations

Stakeholders

KONGSBERG

Krevende

Kompliserte

Requirements  
Processes  
Customers

Products  
Systems  
Components

We have Expertise,  
Knowledge, Equipment  
and Facilities for YOU

