

The background of the slide is a faded industrial scene. It features a large orange robotic arm, likely a KUKA model, positioned in the foreground. The arm is surrounded by various industrial components, including metal frames, pipes, and electrical control boxes. In the background, there are more industrial structures and a safety fence. The overall tone is professional and technical.

# BatNet Green Platform

Summer gathering for the Norwegian Battery Industry

June 16<sup>th</sup> 2025

Lars Lyshaug - Project Manager



**BatNet**

The slow pace of digitalization affects the ability of Norwegian industry to compete internationally.

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



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BatNet's mission has been 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 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.

Simultaneously, we develop expertise for faster digital transformation of established industry.



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So, How did we do?



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# Project team and deliverables



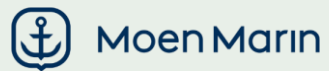
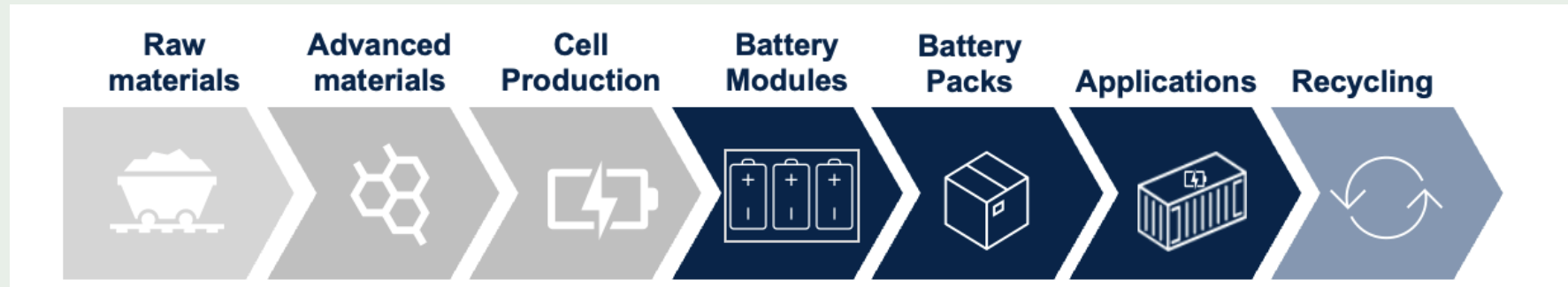
BatNet

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

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



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# Highlights of results



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# Masterteam

## Digital twin



## Product Lifecycle Management



## Change Management



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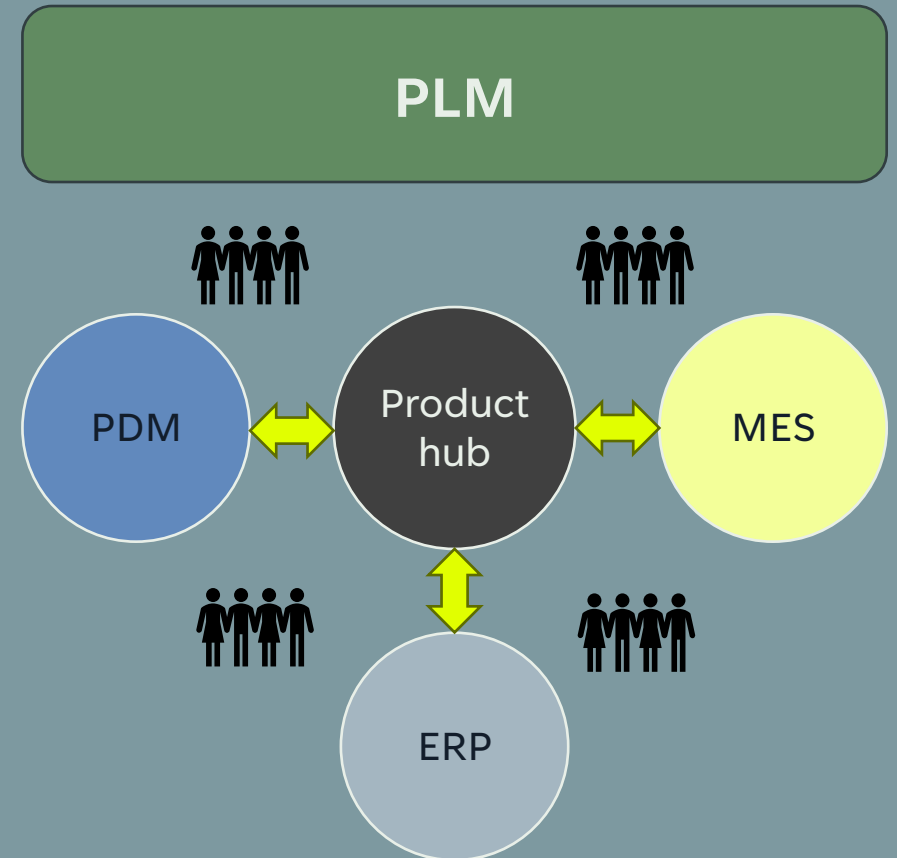
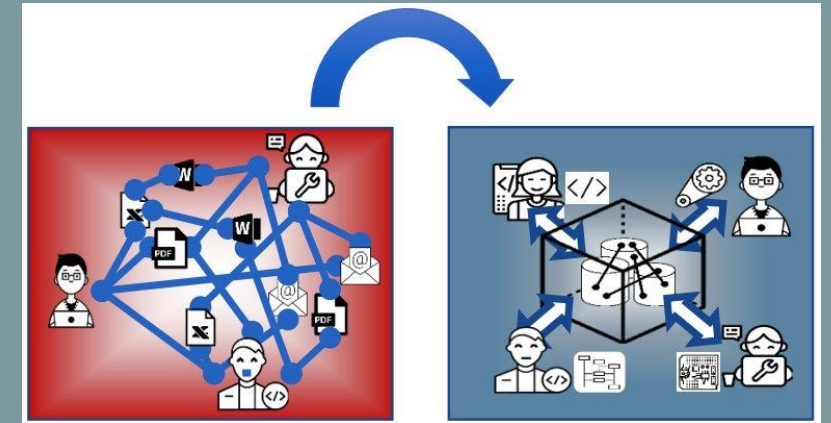
# Masterteam

## KDA

- Configuration management in a "model-based world" - Sintef
- Interconnection MES/ERP/PDM - Sintef
- Digital Networking Vertically and Horizontally – Sintef
- Parameters that affect the cost/benefit of digital transformation from traditional Systems Engineering to Model-Based Systems Engineering - USN

## TechnipFMC

- Consequences and costs of changes in engineering - Sintef
- Lack of learning from own experiences - Sintef
- "Technical debt" in PLM structure and processes - Sintef



# Change management

Technology is an enabler for accelerated productivity.

What are the pitfalls when implementing new technology in organisations?

How to manage change?





## 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



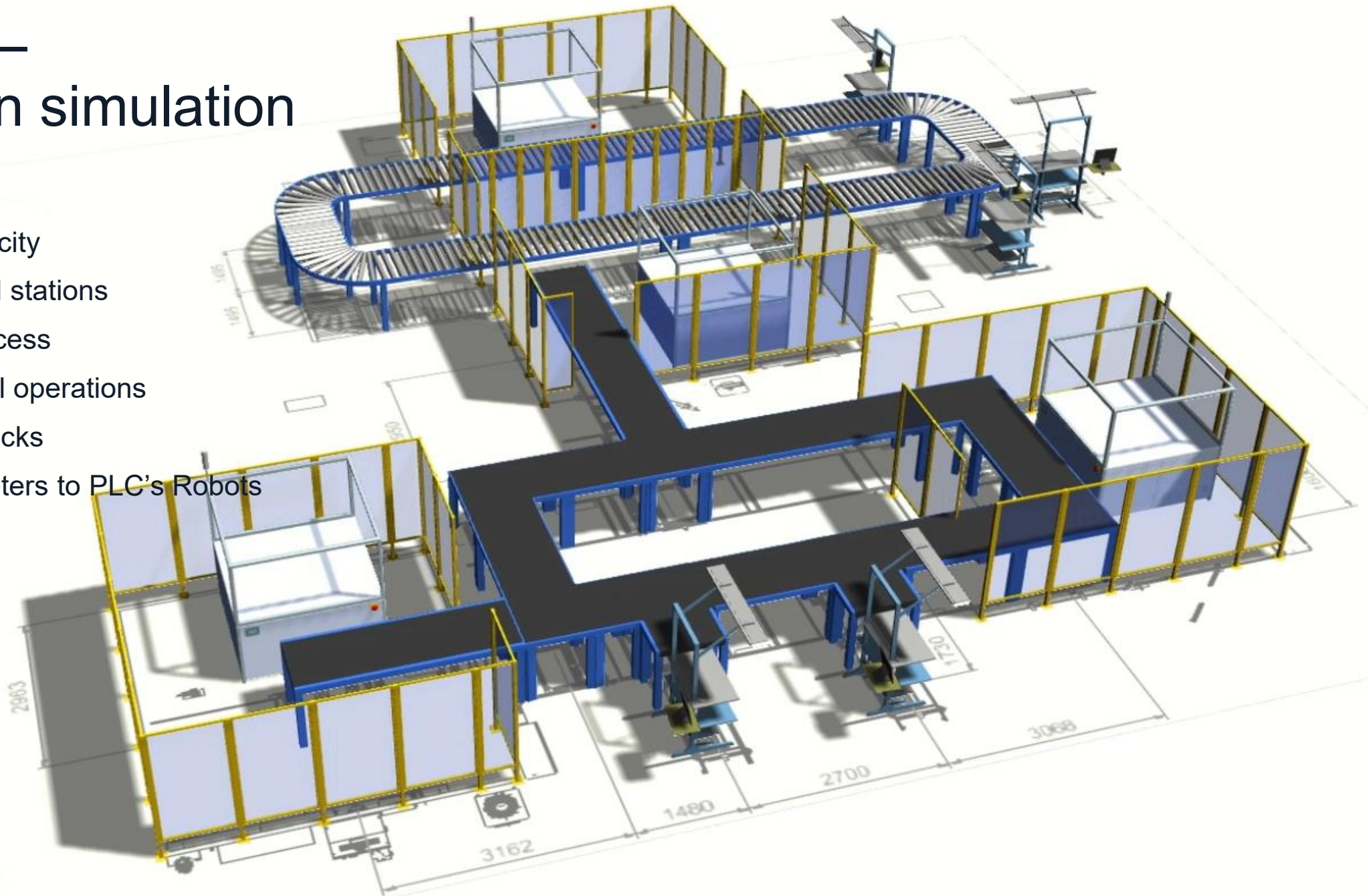


# PlantSim – Production simulation



Simulate:

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













# The road ahead



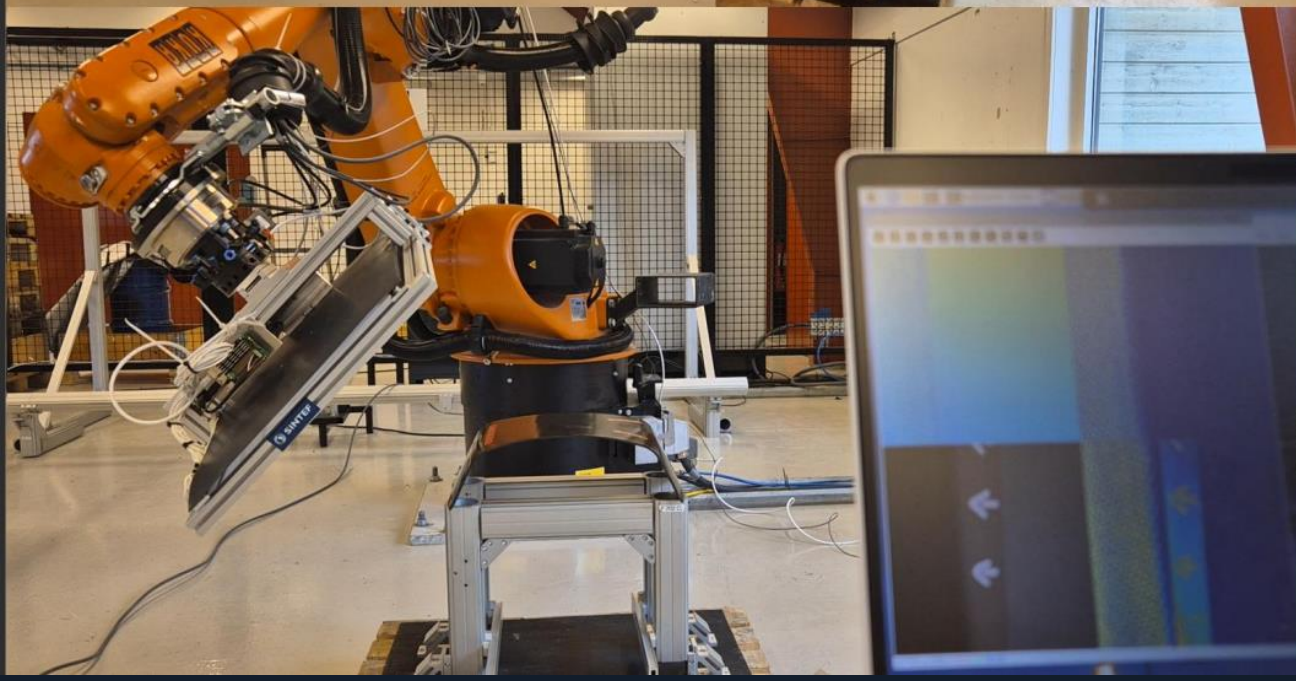
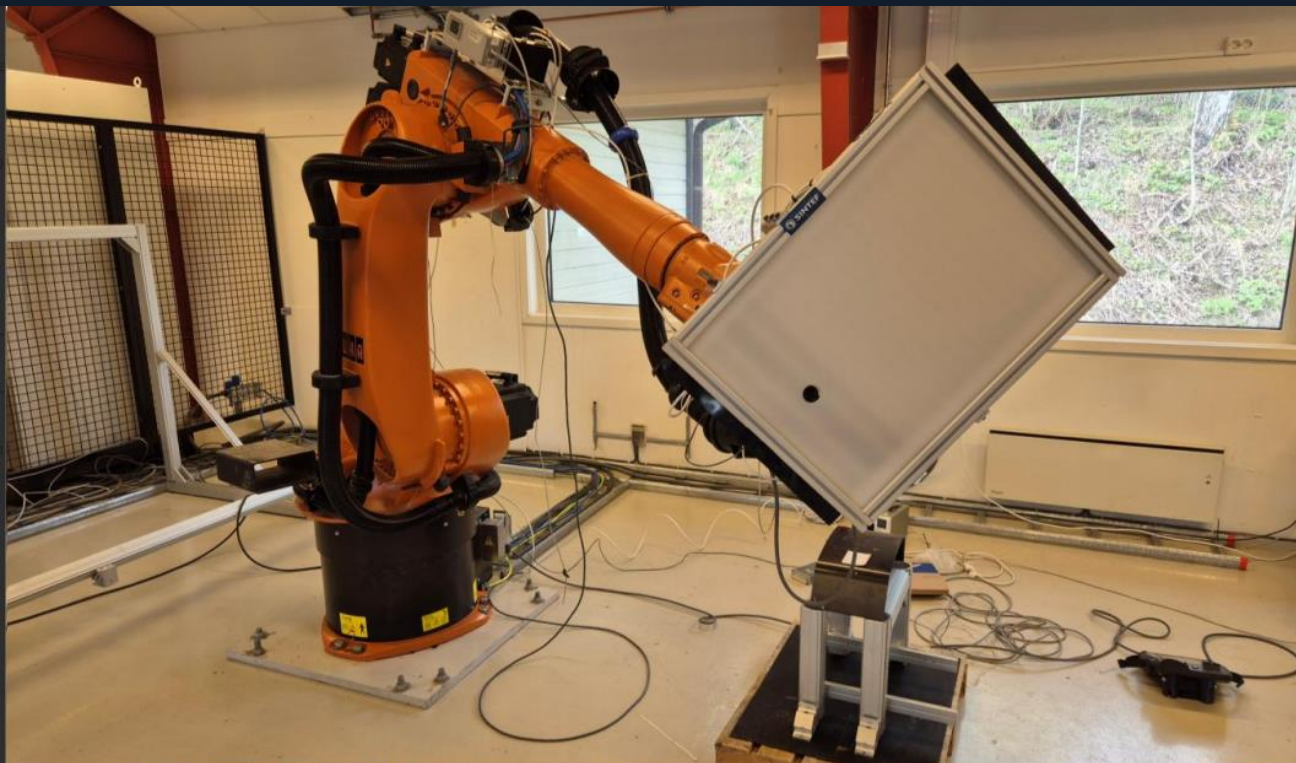
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"BatNet is not just a project;  
It's a commitment to shaping our  
technological future"

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

# Automated Visual Quality control of advanced composites



Labtest på Raufoss 8. og 9. mai

Curious? Wanna visit?  
Just get in touch!



[lars@k-i.no](mailto:lars@k-i.no)

90140286



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