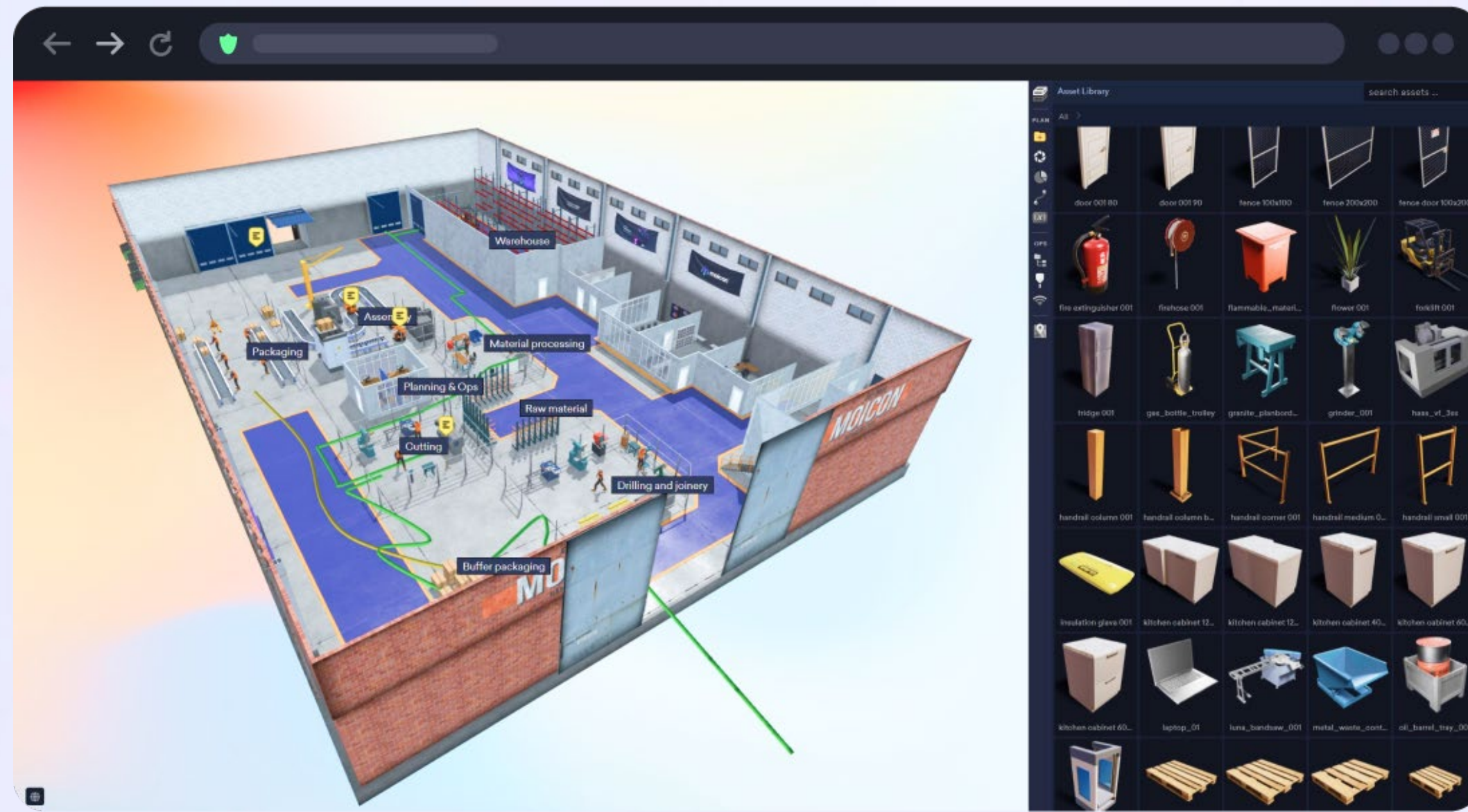




# Your Digital Twin for Manufacturing





# About Moicon

- Leveraging 3D visualizations to support Manufacturing operations.
- Founded in 2017.
- Highlights the benefits of organizing Manufacturing data in easy-to-read breakdowns visualized in a simulated web environment.
- Moicon is a combination of visualizations experts coming from the gaming industry and professionals coming from the Manufacturing scene.
- Certified Partner of Autodesk.
- Accessible for all. Moicon is web-based and opens directly in your favourite web-browser.



**Torbjørn Grimstad**  
CEO



**Inge Engelstad**  
Sales Manager



**Erin Sipple**  
Customer Success Manager



**Radoslaw Wachol**  
Tech Ops Lead



**Damian Zaleski**  
3D/UX/UI Designer



**Vitaly Sakharuk**  
Fullstack Developer

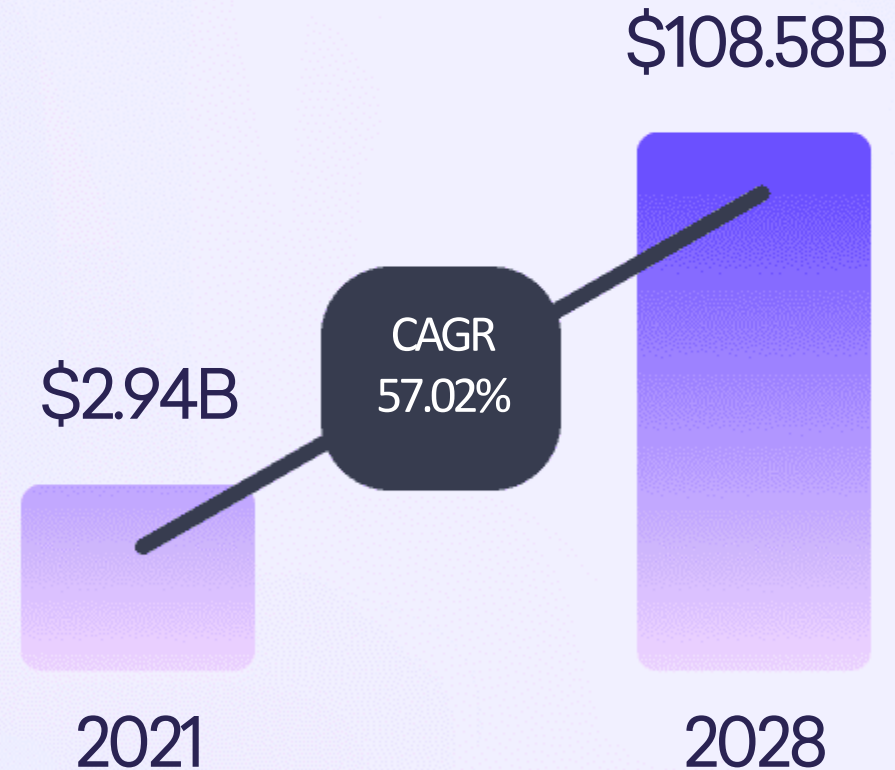


**Alexander Goldringer**  
Web Developer





## Global Digital Twin Market



## What is a Digital Twin?

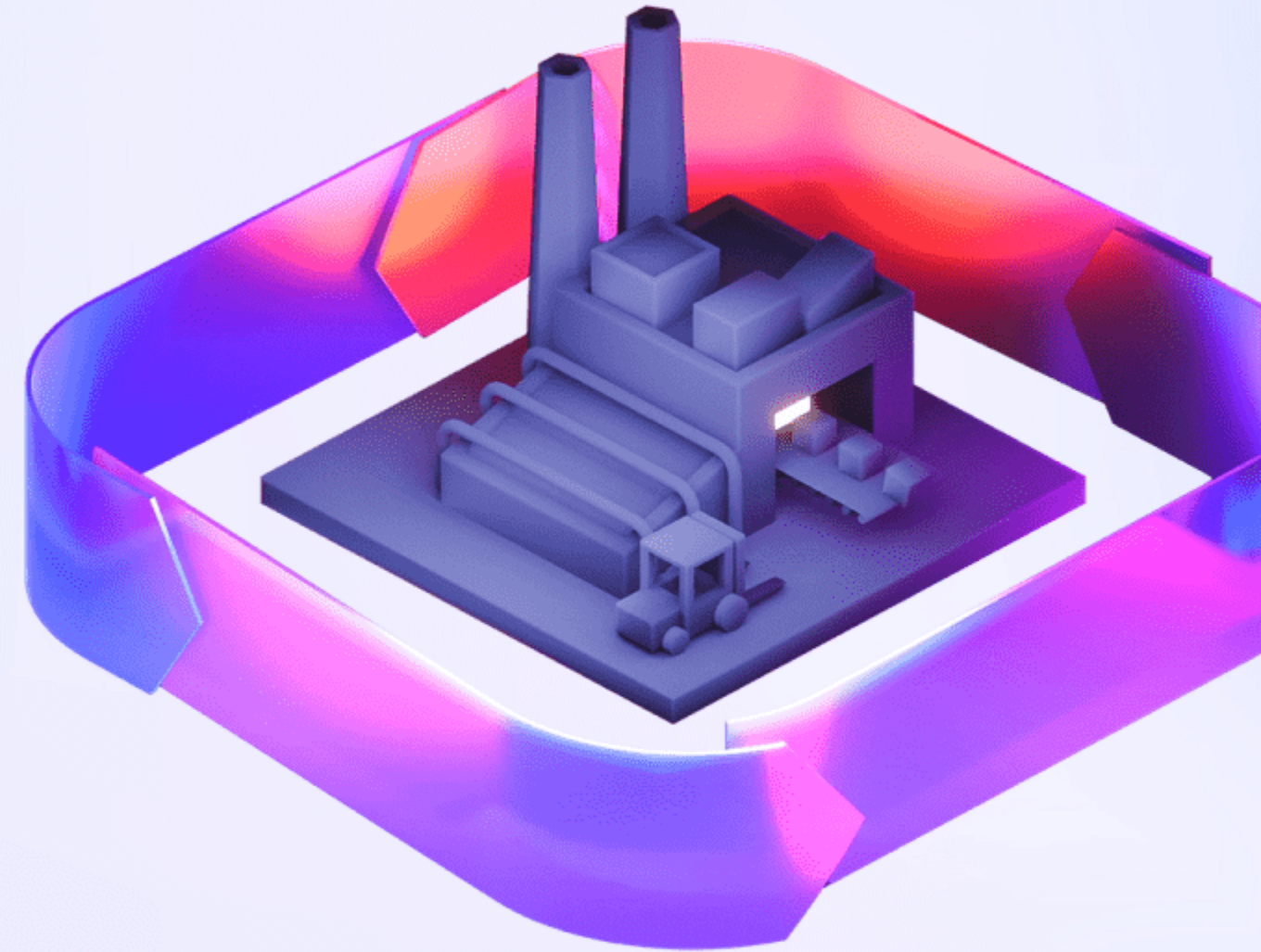
“A Digital Twin is a digital representation of a real-world entity” - Gartner

“By 2025, 40% of physical-experiences businesses will improve financial results and outperform competitors by extending into digital twins” - Gartner Top Strategic Predictions for 2021 and Beyond



# Moicon's Mission

“Provide manufacturers with valuable insight to increase performance and decrease costs”







# Manufacturing Challenges

Some common challenges

- How can I plan and test different layouts and flow of activities to see what works and what doesn't to eliminate losses in my production?
- How can I analyze my processes to identify my production bottleneck, and how can I further use this to optimize my material flow?
- How can I more easily detect time traps or waste in my production?
- How can I contextualize and visualize real-time data collected from my factory?
- How can I leverage data visualization as decision support to target energy saving activities in my facilities?

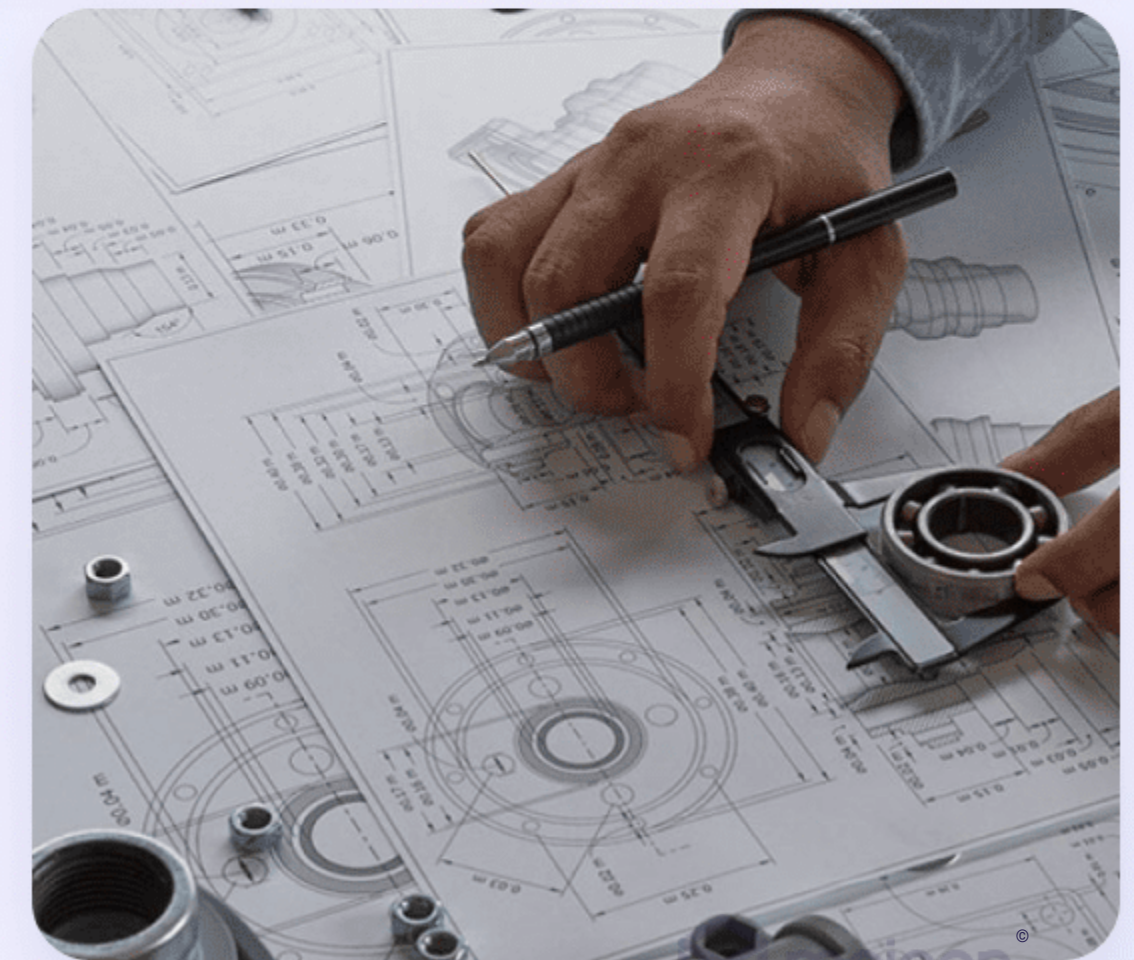
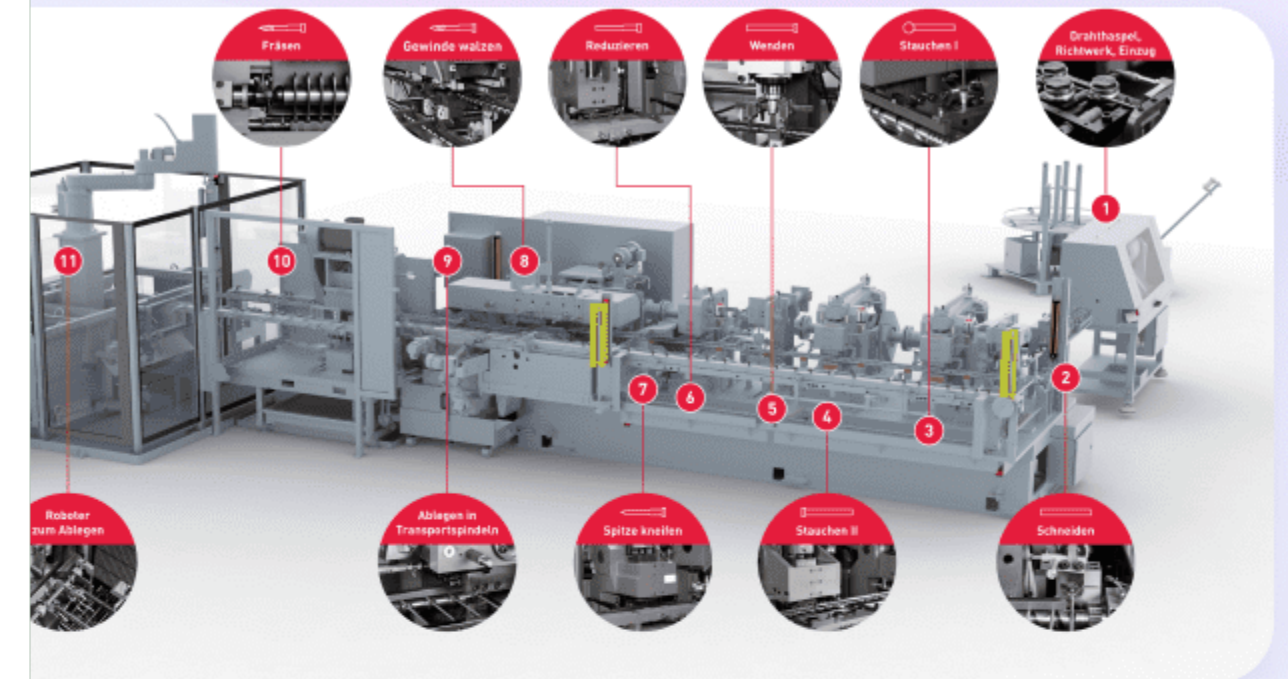




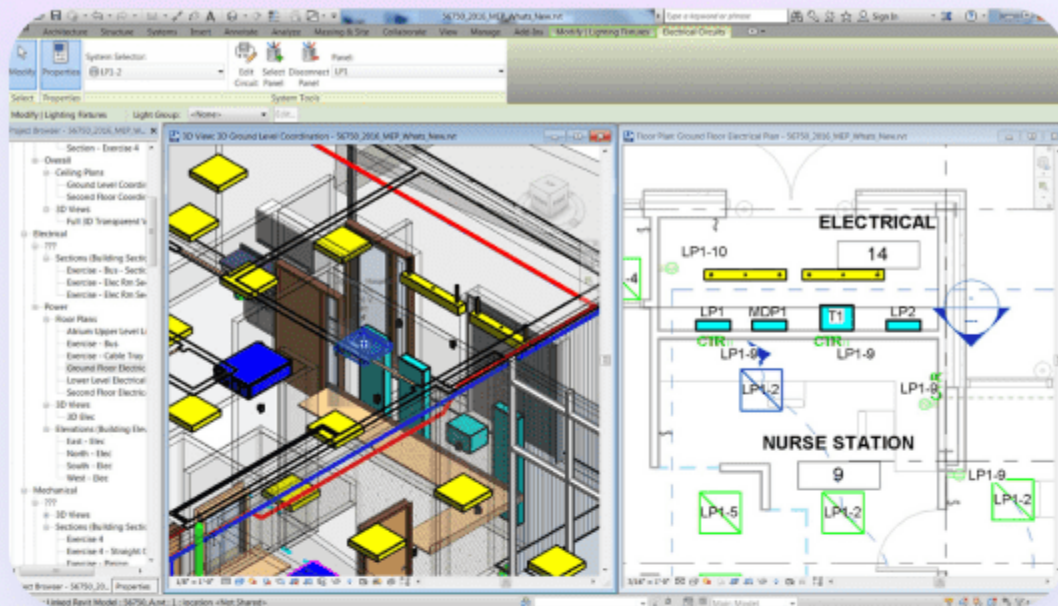
# The Problem

## Factory planning

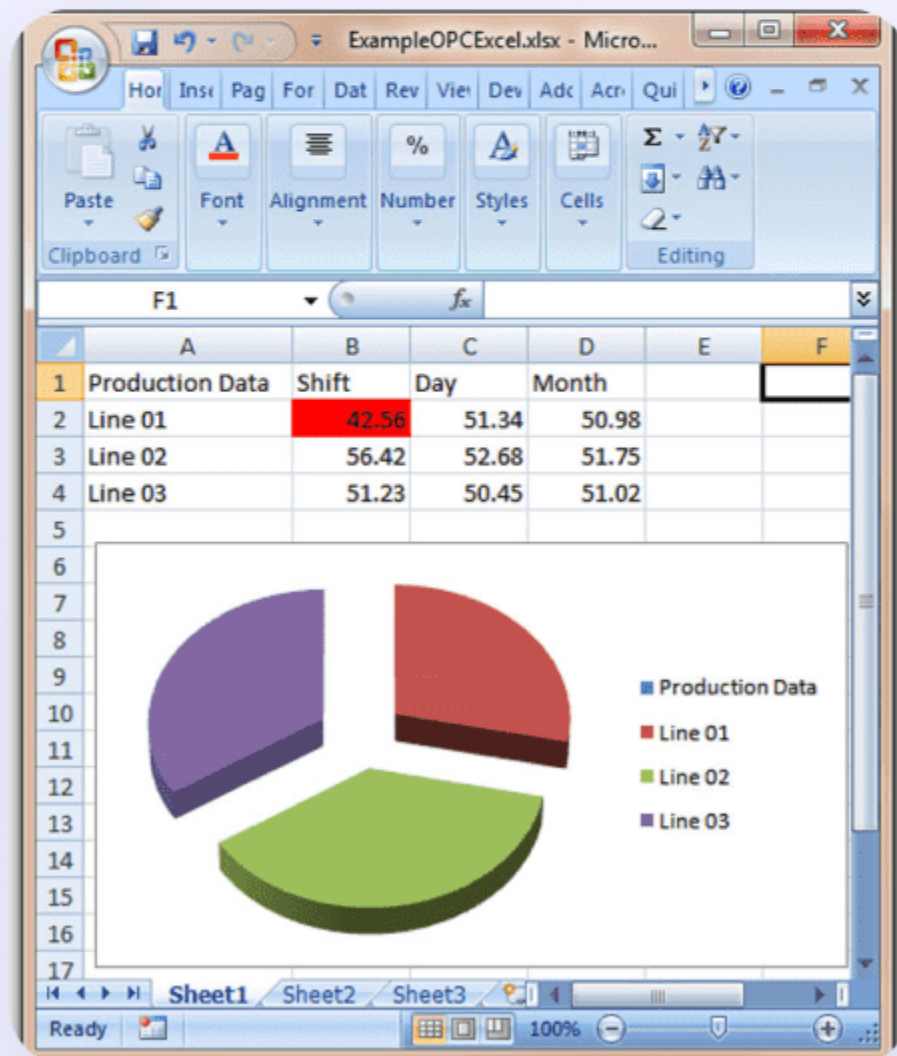
- Factory changes are often tested physically directly onto the factory floor to verify new workflows and layouts.
- Lack of accessible layout and measurements data makes it challenging to plan the optimal factory layout before physical implementation.
- Costly dependencies to 3rd party to achieve desired planning outcome: E.g. architects, equipment suppliers, consultants.
- Optimally arrange machines & equipment of different sizes within a given total factory space and apply process analysis and material flow analysis on top to get the full picture of your new and optimized changes before implementation.







Problem illustration 1



Problem illustration 2

# The Problem

## Factory Operations

- Contextualize the right view or 'lens' onto your factory operations to drive business value for your specific role and use case.
- Cross-exchanging information in a manufacturer's operations between products, processes, and people, within different value chain functions.
- Harmonize the siloed systems and operations from machines, equipment and sensors to drive significant operational efficiencies.
- Maintaining asset uptime and consistent performance, monitoring and analyzing metrics including utilization, availability, and quality.
- No Single Source Of Truth (SSOT) available to stakeholder



# Where a Digital Twin Can Help

## Planning

- Optimize space with proper planning of your current equipment to reduce the total cost of operation and maintenance.
- Simulate “what if” scenarios for a complete production line
- Support equipment investment decisions
- ‘Walk through’ of a 3D virtual representation of your facility with a toolbox (measuring, specifications, performance, placement).

## Operations

- Harmonize the siloed discord across manufacturing operations by proving unified data visualization views.
- Contextualized information can drastically improve KPIs or an operator’s assets uptime.
- Identifying the greatest business value and pressing needs for the organization and clearly visualize its KPI’s.
- In-context monitoring; Zoom in to see what a specific process is doing, or zoom out to see how it affects the process overall.





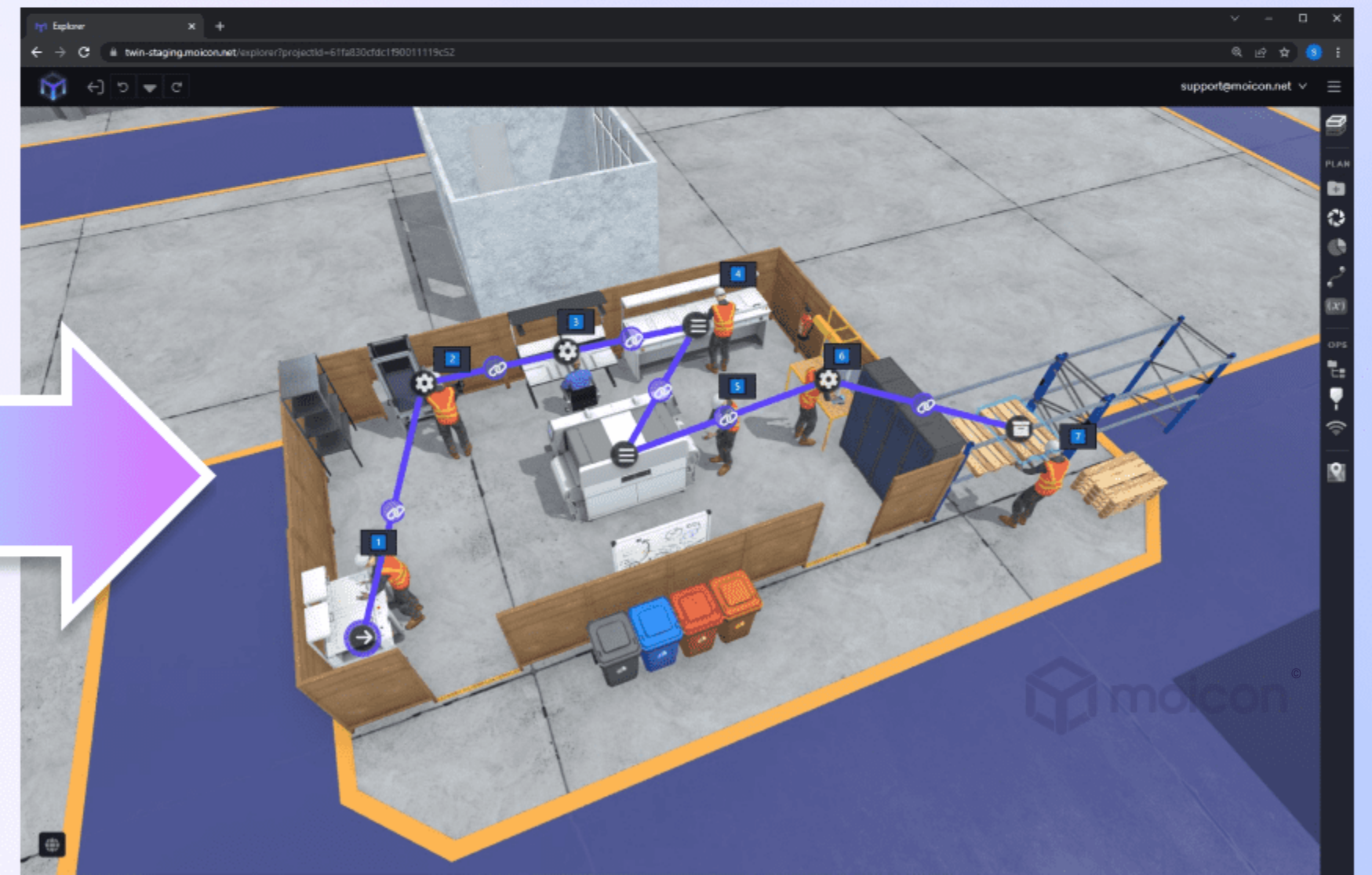
# Where a Digital Twin Can Help

## Planning

Current



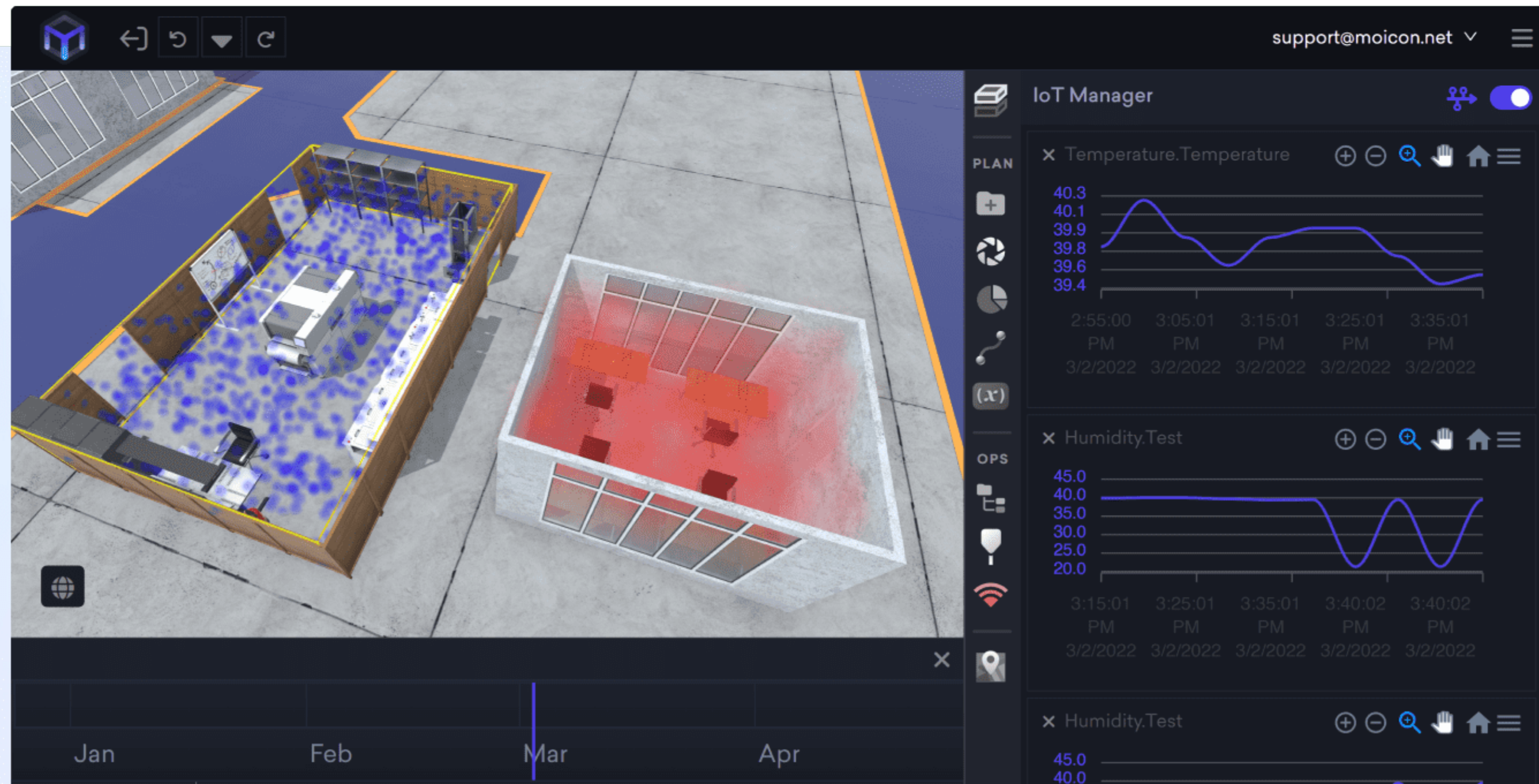
Desired





# Where a Digital Twin Can Help

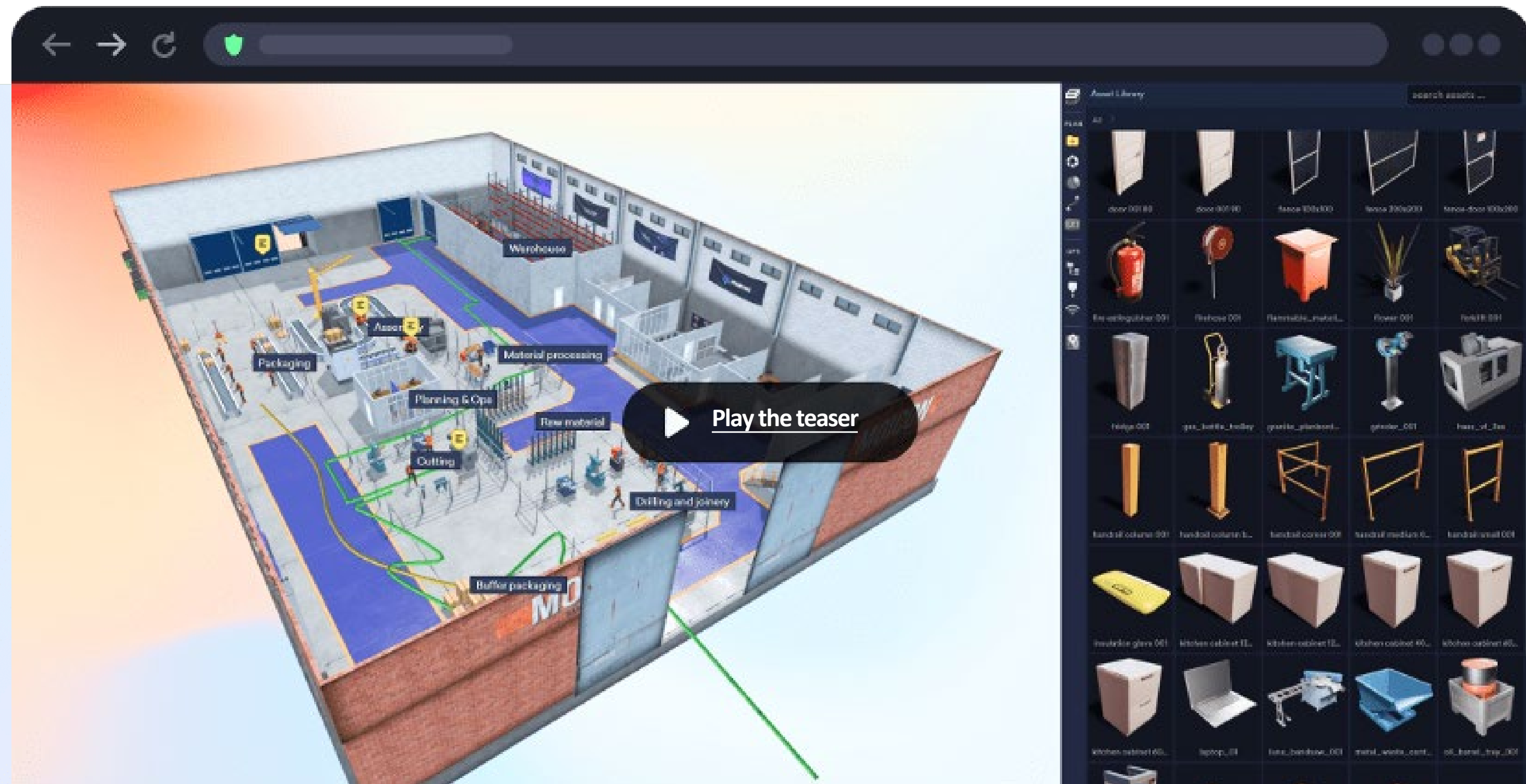
## Operations



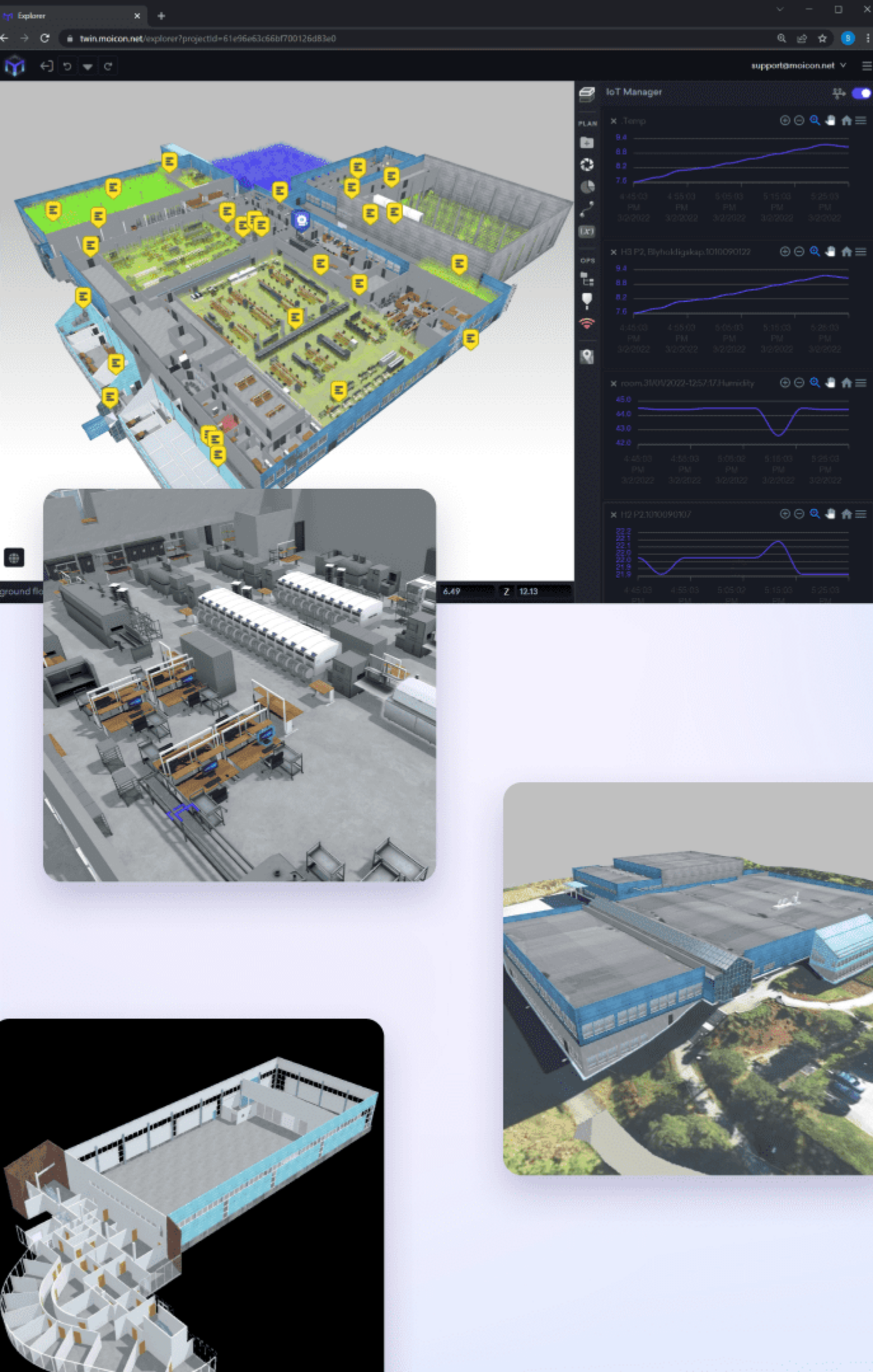


# Where a Digital Twin Can Help

Video: Moicon Digital Twin







hapro. Electronics

# Customer Case

## The challenge

Displaying real operations with IoT and sensors to make their factory operations truly transparent to their operators for better decision making.

## The approach

Hapro uploaded and connected their 3D model of their factory with their IoT sensors data.

## The Moicon delivery

Hapro leveraged Moicon to create intuitive visualizations that their whole team can reference. Moicon enabled them to break their silos into contextualized data visualizations.

## The customer value

Moicon helped Hapro visualize their data & ignite innovation - providing a dashboard for improved productivity and increased knowledge, ultimately resulting in Hapro winning a €20 million bid.





# Customer Case

## The challenge

With a wide array of products and frequent changes in customer orders, Isiflo needed an agile tool to plan and optimize their factories.

## The Moicon delivery

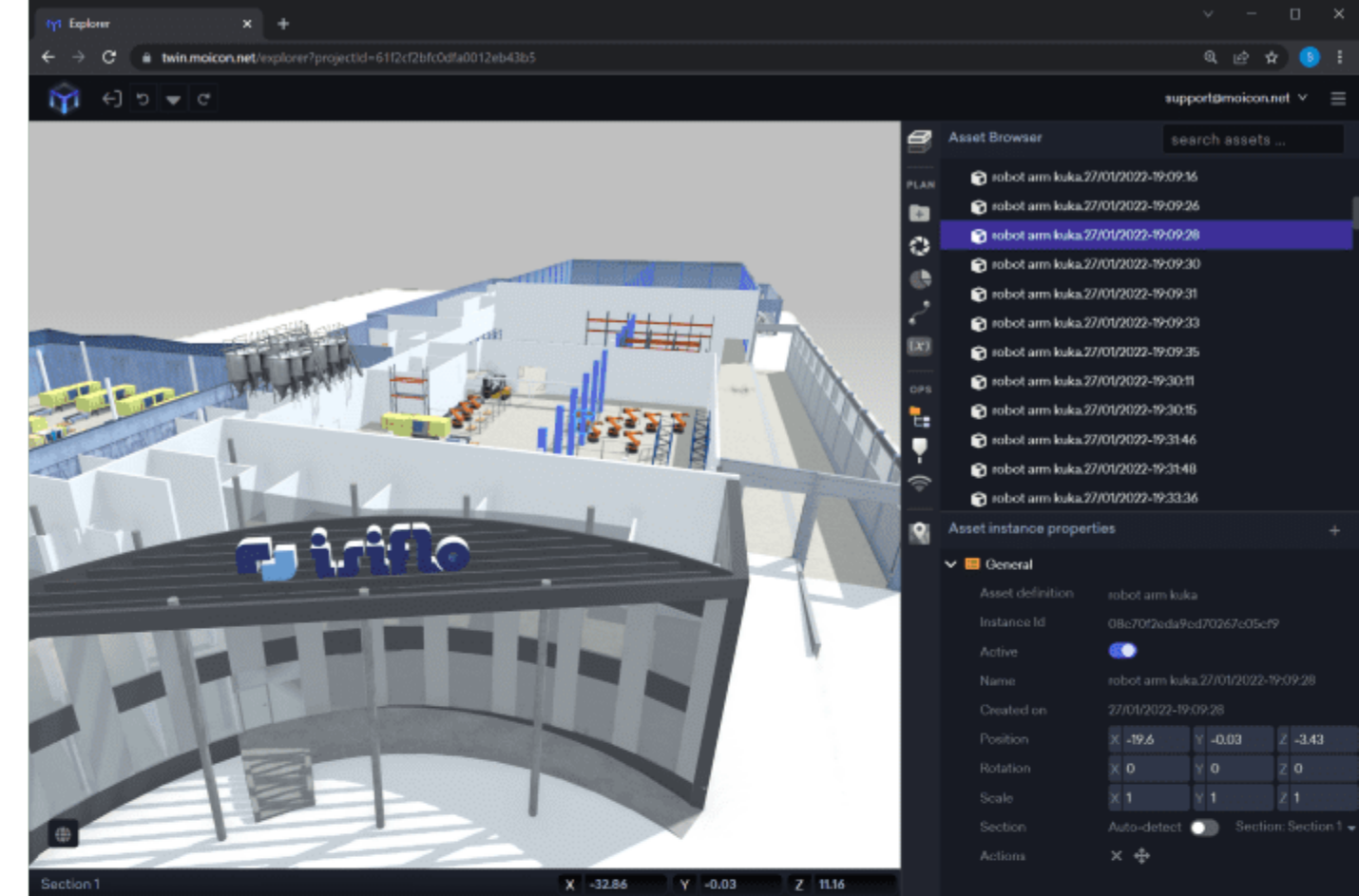
Isiflo leveraged Moicon to create “what if” experiments in their virtual factory, testing different layouts and flow of activities to see what works and what doesn’t.

## The approach

Isiflo uploaded a 3D model of their factory plus their machines, assets and equipment into the Moicon Digital Twin Platform.

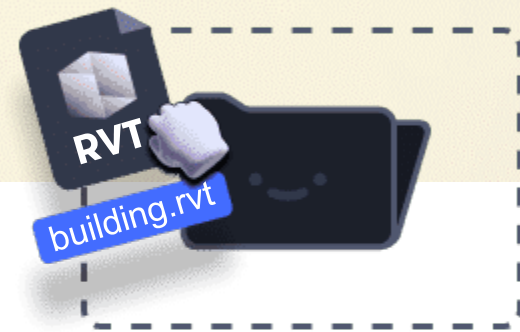
## The customer value

With confidence, Isiflo now configures new layouts without the expensive (and historically risky) step of interrupting production to make a change.



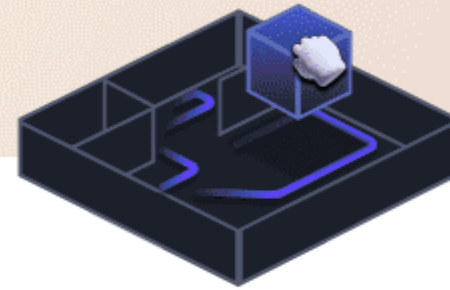


# How it works?



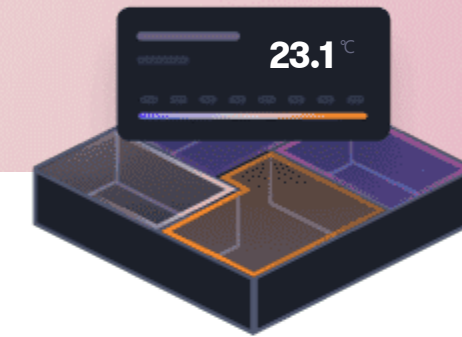
## 1. Upload your existing 3D model or order one from us

Upload your 3D model. Moicon supports over 60 different file formats, including Revit, Solidworks, Inventor, Rhino, 3ds Max and 56 more!



## 2. Plan, Simulate and Manage Space

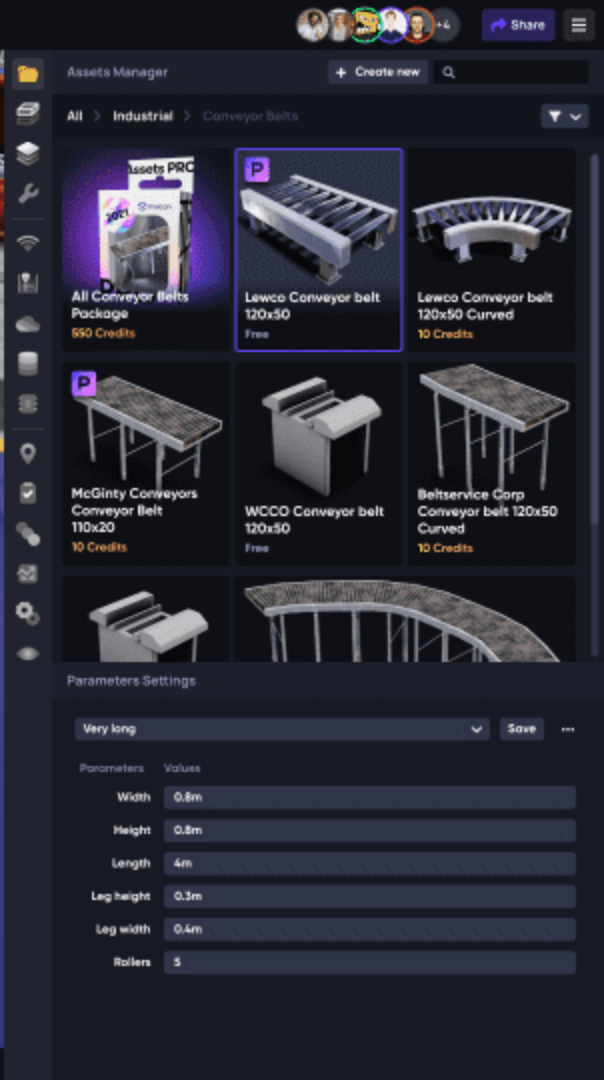
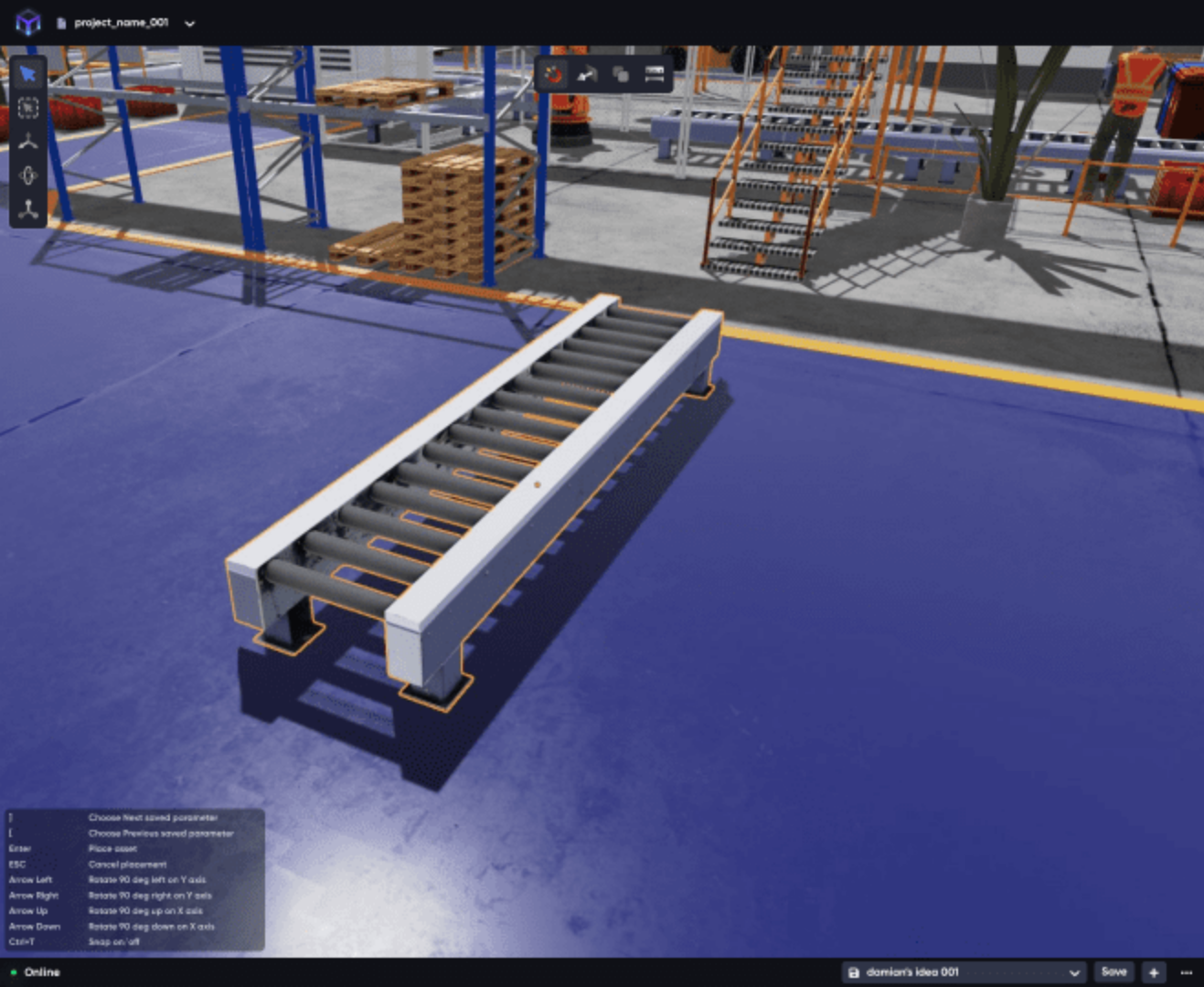
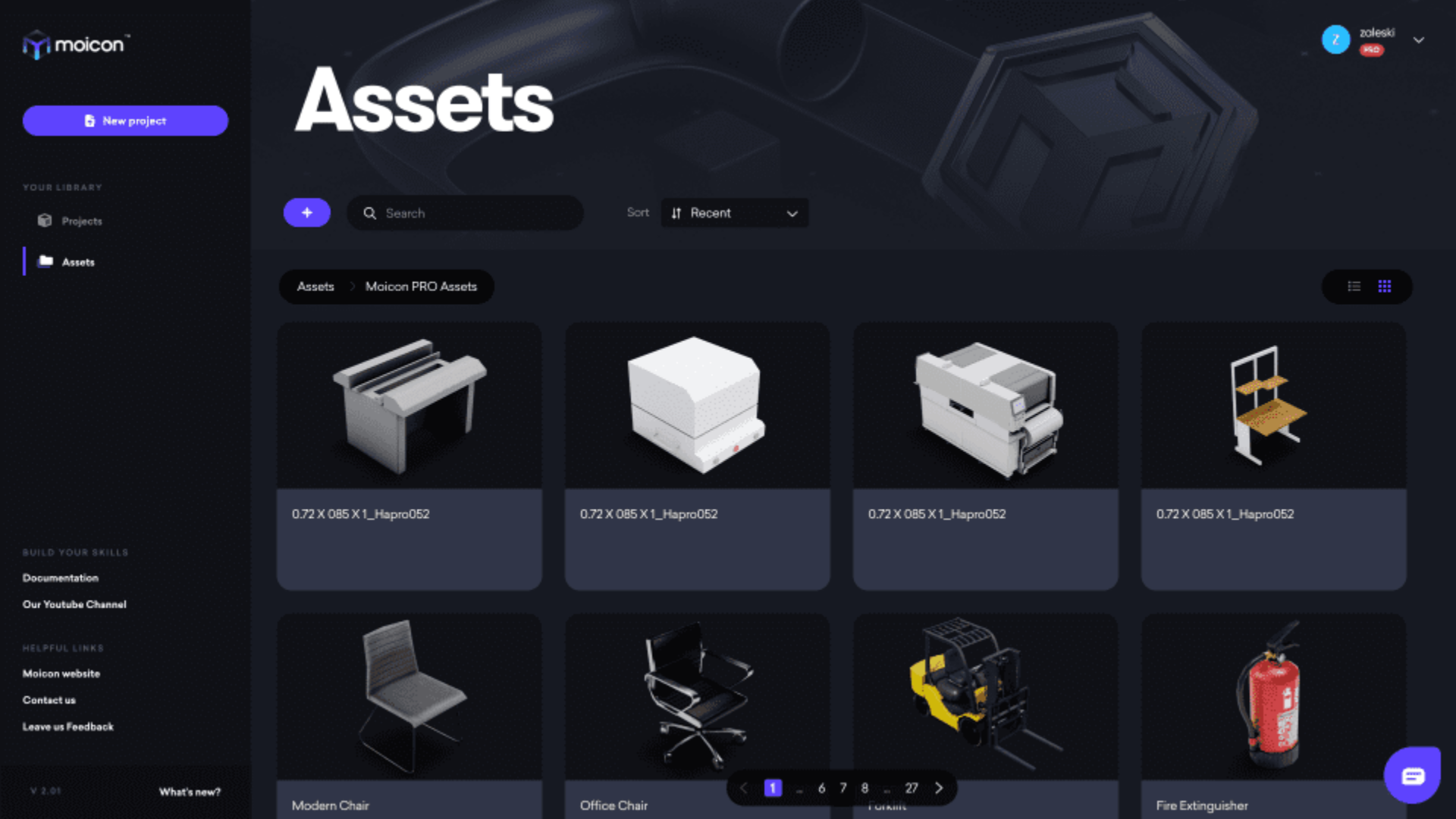
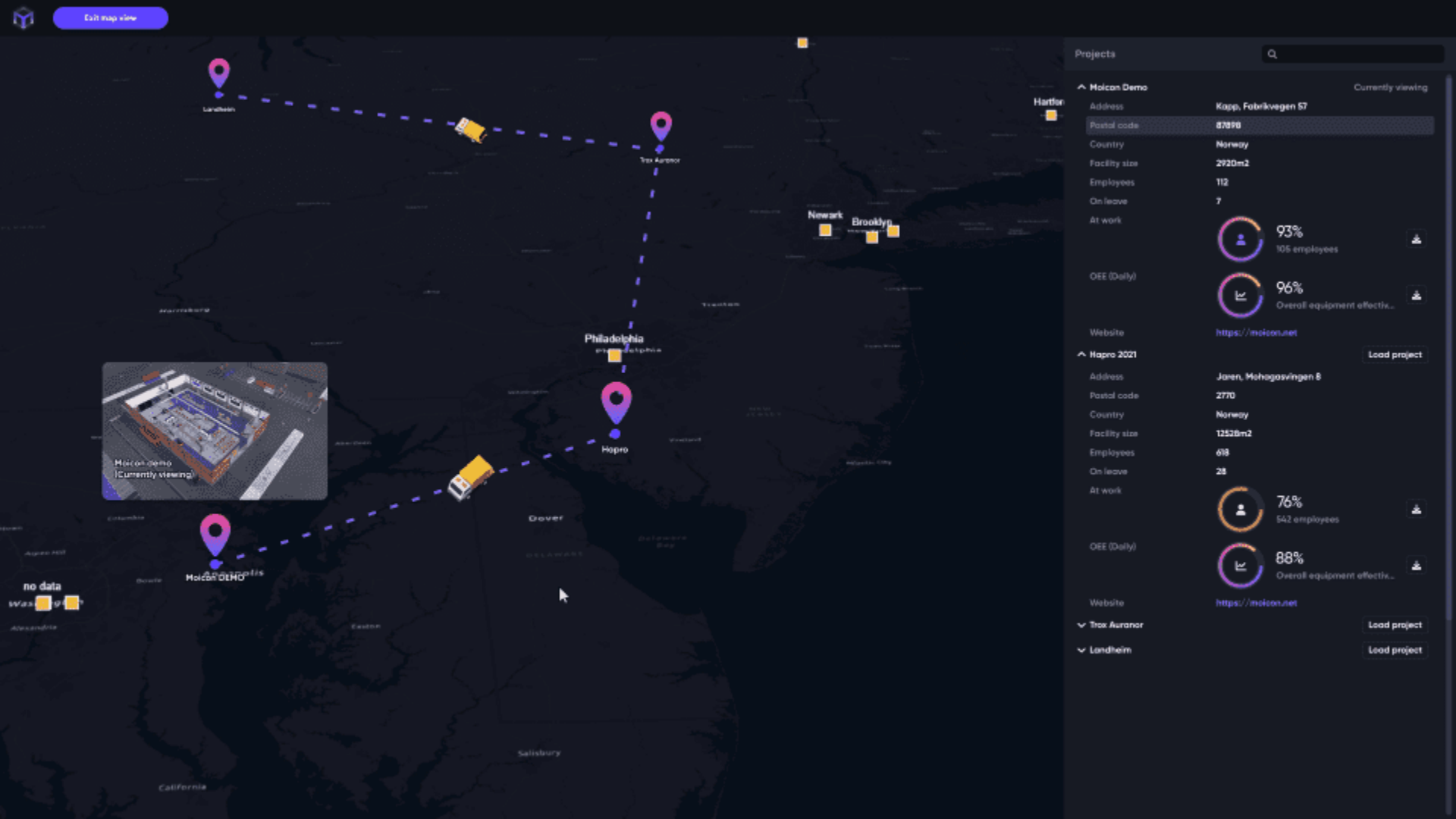
Run “what if” experiments in your virtual factory and uncover the optimum balance to specify exactly the requirements before shopping for new equipment



## 3. Operate, Monitor and Visualize Data

Boost your ROI and increase factory efficiency. Visualize all data in one centralized place for broader view

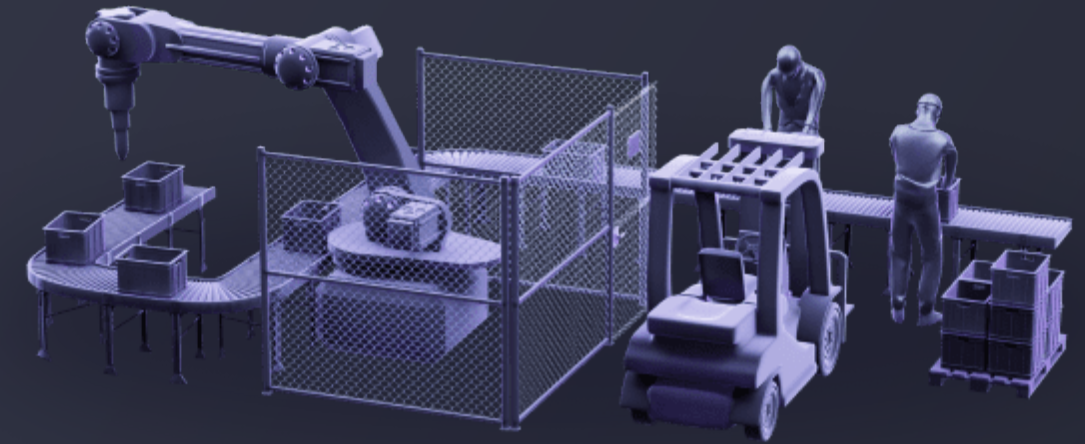
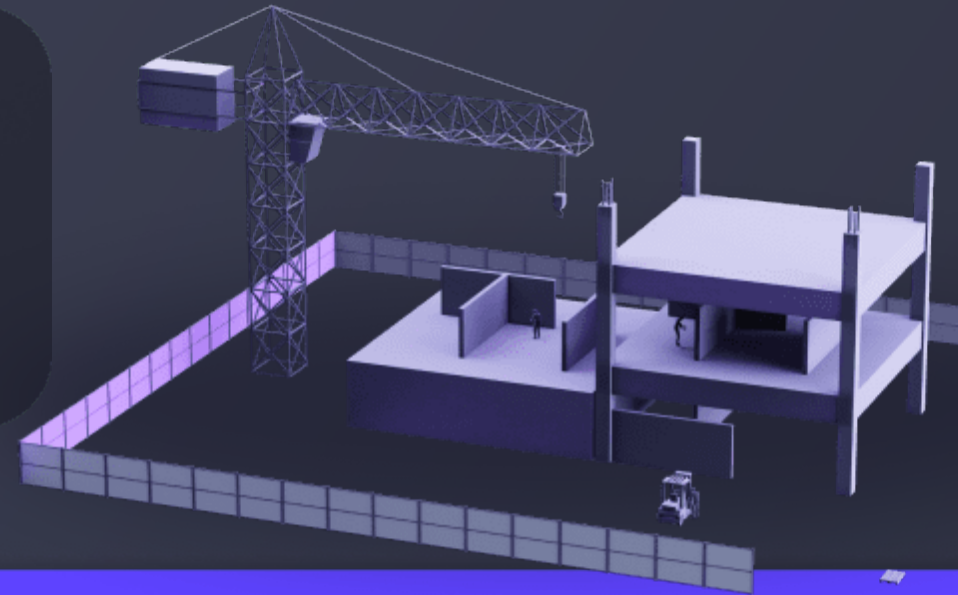








# Factory Lifecycle



## Factory Planning

## Factory Operation

### Plan Simulate & Manage Space



Configuration Tools



Modifying Tools



Assets Library



Floor Plan Printing



Sections

### Process Planning Process Simulation



Process Analysis



Material Flow



Gemba Walk

### Operations & Maintenance



Maintenance



Issues reporting



Kinematics



BIM, Docs & Files



IoT



Markups & Labelling

### Renovation & Improvements



Re-use Planning features for  
Operational renovation  
improvements



# Moicon<sup>®</sup> Platform Highlights



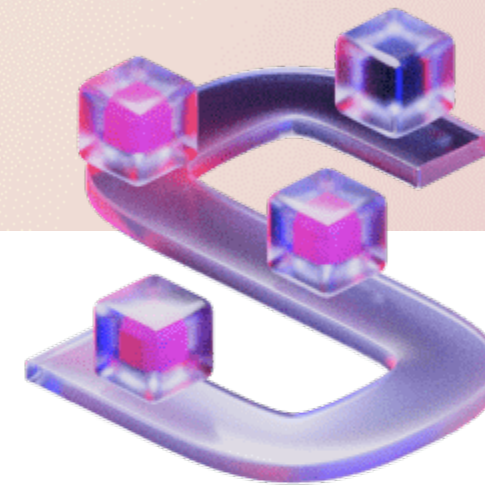
## No Installation

Easy access through your web browser. No installation needed to display your factory's digital twin.



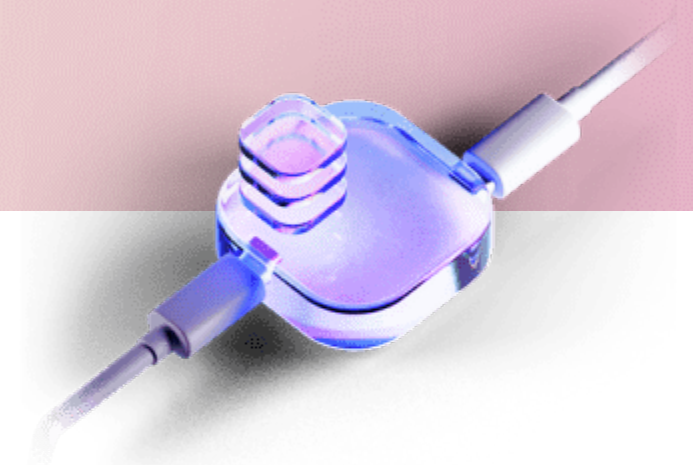
## Easy to Use

Intuitive and easy-to-use 3D visualization, based on renowned gamification techniques.



## Powerful Manufacturing Toolbox

Handles large and complex 3D models, robots and equipment. Provides an unprecedented toolbox designed specifically for factory planning and operation.



## Connected

Integration of equipment data and IoT sensor data. Can integrate with a wide range of sources, including live facility data, sensors and ERP systems.



hapro. Electronics

**isiflo**

LØNDHEIM  
MANUFACTURING  
TECHNOLOGY  
NORWEGIAN  
CATAPULT  
CENTRE

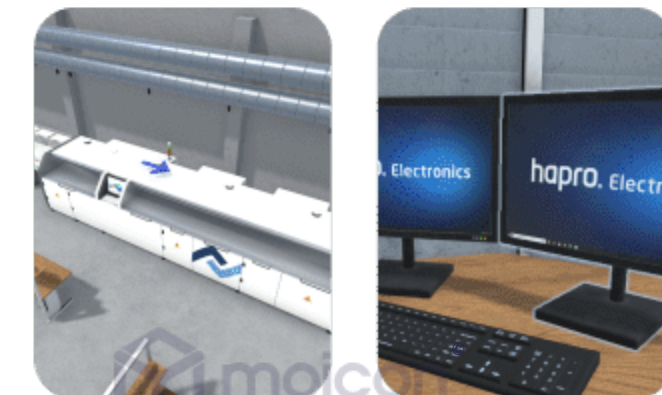
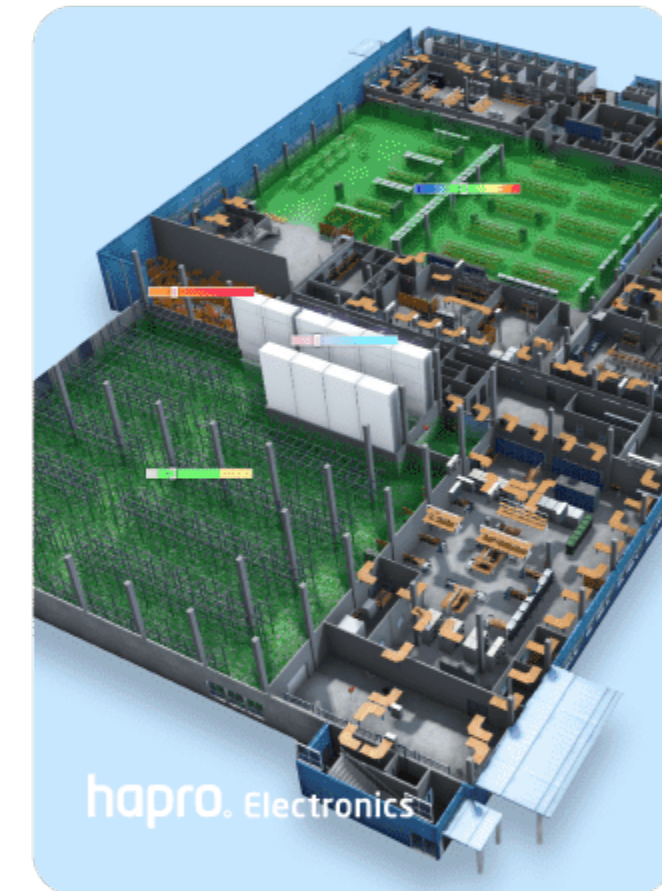
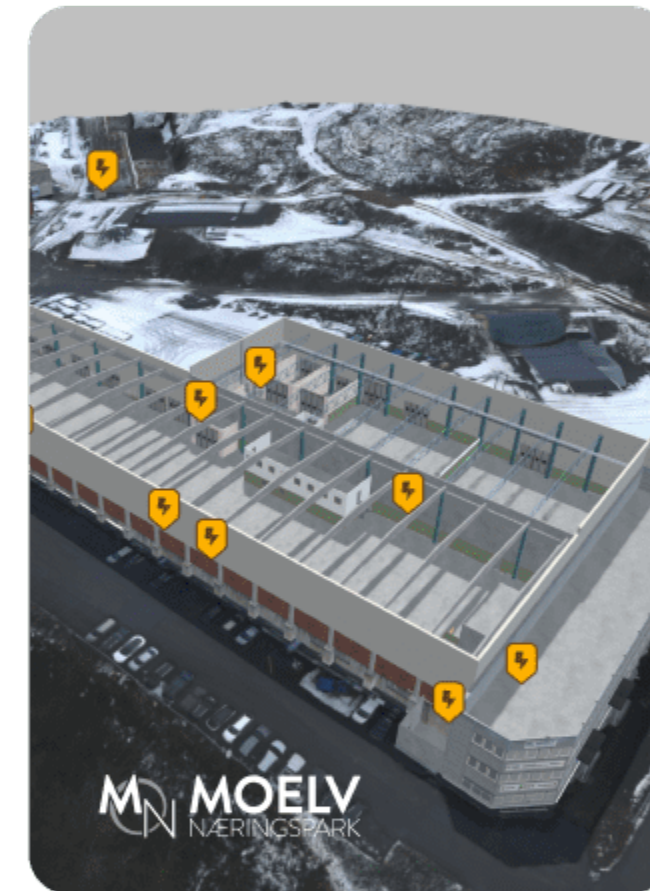
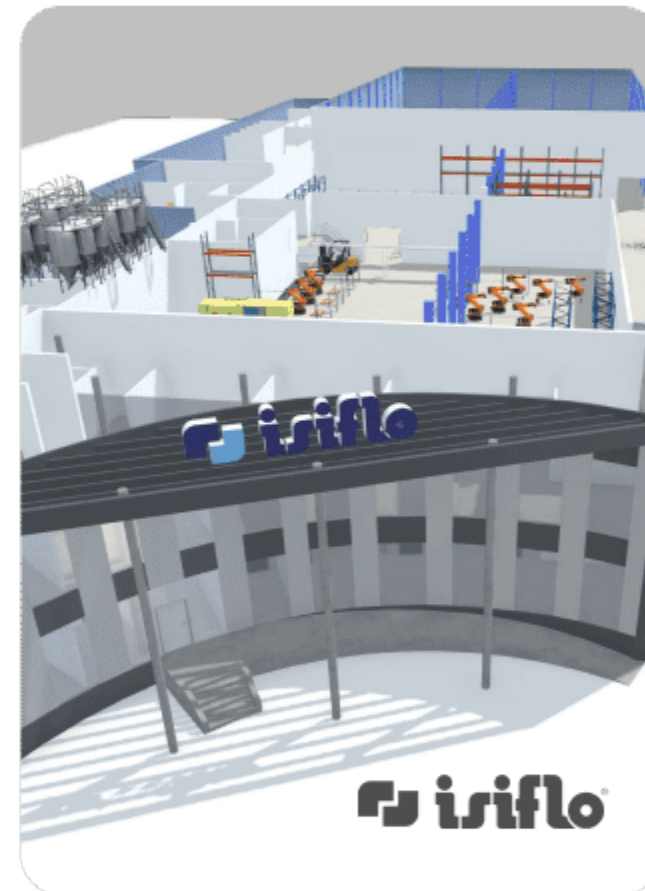
**Nammo**

FOSSMV.no HOLMEN CRISP AS  
Mølle og bakeri på Toten siden 1854

SKOGPLANTER  
Innlandet

MOELV  
NÆRINGS-PARK

# We've worked with many. Are you next?







Srinath Jonnalagadda  
VP | DESIGN & MANUFACTURING



They are a small  
company out of  
Norway with really big  
ideas



<https://forge.autodesk.com/customer-stories/moicon>





# We'd love to collaborate!

To get more information about our cloud-based Digital Twin for manufacturing, don't hesitate to get in touch.



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CEO

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**Erin Sipple**

Customer Success Manager

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**Inge Engelstad**

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