



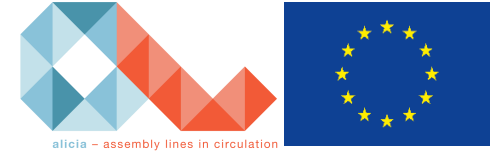
# ALICIA – Assembly Lines in Circulation

Towards a Holistic Framework to Enable the Reuse of  
Assembly Resources

alicia – assembly lines in circulation



# Project Partners and Overview



Who is involved in the project?



**YAGHMA**

**Netcompany**



## ALICIA Project Overview

Call reference: HORIZON-CL4-2022-TWIN-TRANSITION-01

Grant amount: 5,859,526.00 EUR

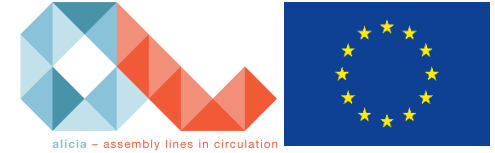
Project duration: 36 months

Project timeline: 01/2023 – 12/2025

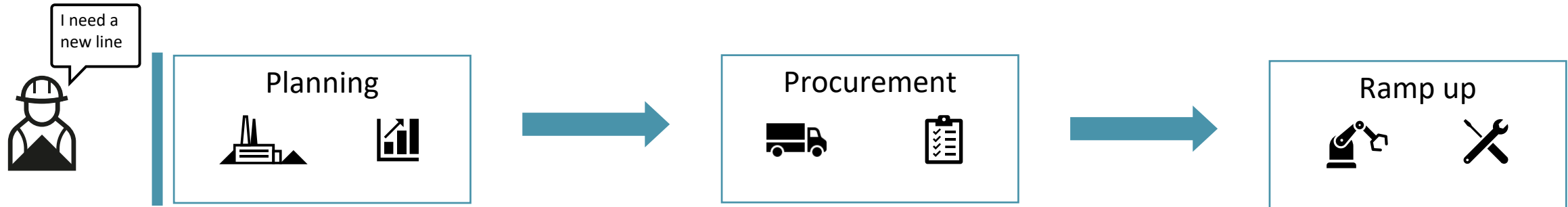
Partners: 12 (7 countries)



# Planning, procuring, and ramping up new assembly lines has to be done in volatile environments



Current challenges for traditional assembly line planning



## Increased economic pressure

European Parliament

### EU-US trade: how tariffs could impact Europe

What will happen if the US imposes extra tariffs on EU products? Find out the facts about EU-US trade and what the EU could do in case of a trade war.

Published: 13-02-2025



<https://www.europarl.europa.eu/topics/en/article/20250210STO26801/eu-us-trade-how-tariffs-could-impact-europe>

## Supply chain issues

### GLOBAL SUPPLY CHAIN WOES DEEPEN AFTER SUEZ CANAL BLOCKAGE

In March, the six-day-long Suez Canal blockage caused further delays, piling on the pressure for global supply chains.



<https://lot.dhl.com/global-supply-chain-woes-deepen-after-suez-canal-blockage/>

## Quality problems

### Northvolt loses billion-euro contract from BMW

BMW has canceled a €2 billion battery cell deal with Swedish manufacturer Northvolt, citing quality issues and schedule delays.

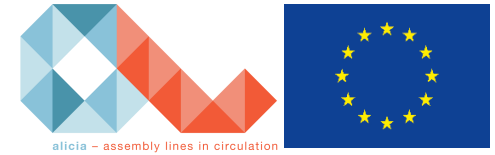
<https://www.vdi-nachrichten.com/technik/automobil/northvolt-verliert-milliardenauftrag-von-bmw/>

### Problems at the main plant: Golf production has been halted since Friday afternoon

VW sent several employees off work earlier than planned on Friday. Golf production at its main plant is suspended. What is known about the reasons?

<https://www.waz-online.de/lokales/wolfsburg/probleme-im-stammwerk-golf-produktion-steht-ab-freitagnachmittag-still-BULFSJU375CEHIKR53D2EILSNE.html>

# How do we aim to address these challenges?



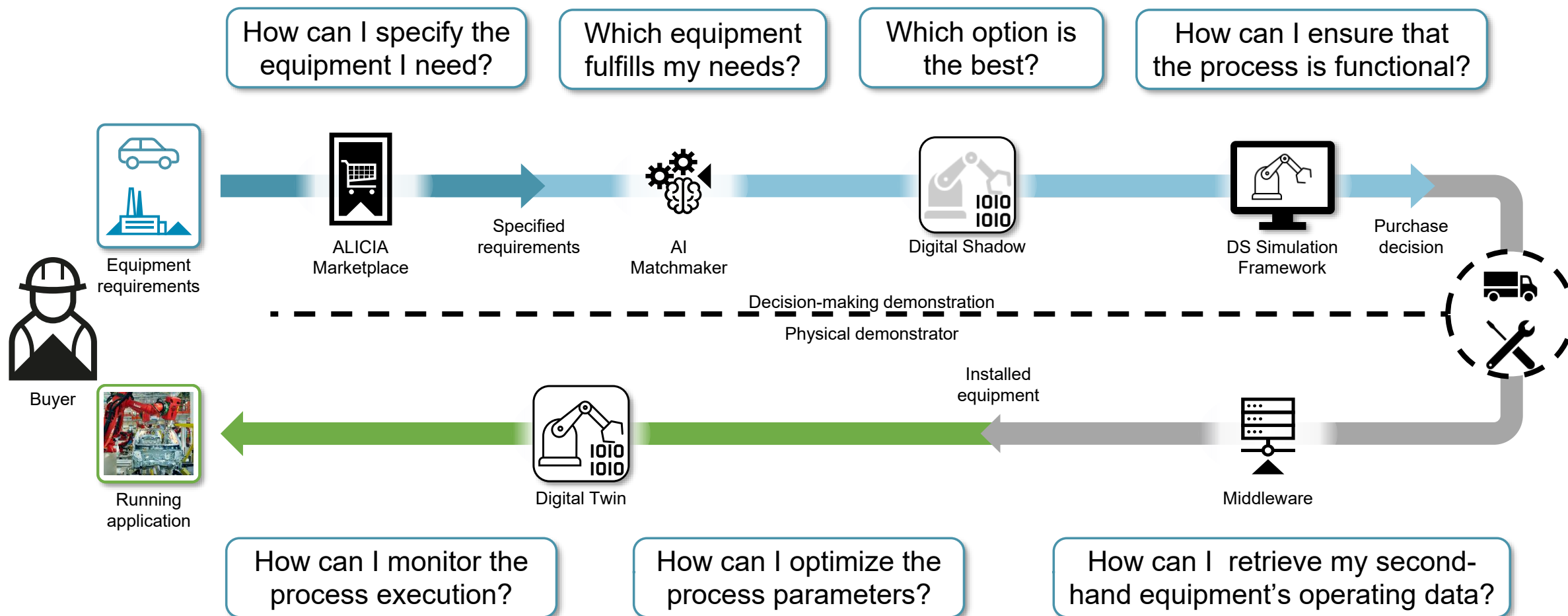
An introduction to ALICIA



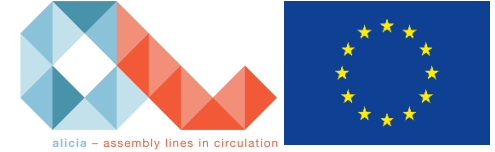
# User Journey – Factor owner



## Proof-of-concept



# What are the value drivers in ALICIA?



## Services from the project



### ALICIA Marketplace

- Supports buying and selling of **single pieces of equipment** up to **entire production lines** and related parts
- Establishes the **connection** between **buyers and sellers**
- Additionally, equipment listed in external marketplaces (such as auction platforms) can be integrated



### Internal and external asset management

- Factory- or enterprise-wide **management of production equipment**
- Service for integration of users' **existing asset data(bases)**
- Access to **external equipment** through marketplace



### Equipment selection

- Supports the generation of **custom-tailored production lines**
- AI matchmaking for **identifying equipment** listed on the internal or external marketplace
- Digital Shadow service to **simulate and evaluate the solution** proposed by the AI matchmaking engine

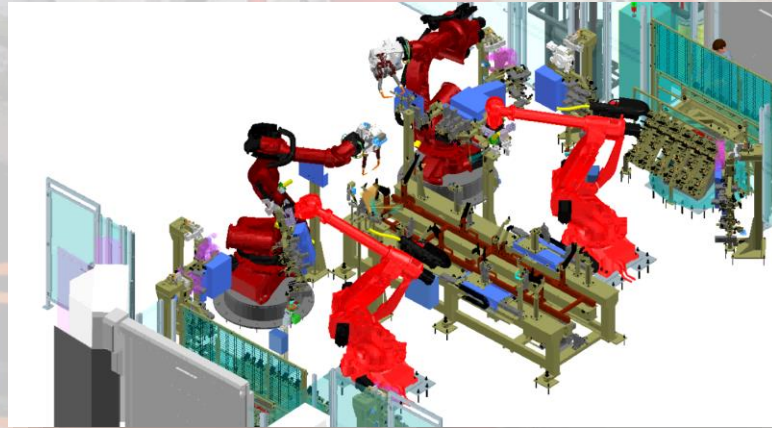


### Live monitoring

- Plug & Produce middleware to enable the **integration of legacy equipment**
- Line parameter monitoring & optimization to support the operation of lines and **improve production KPIs**
- Enable **state assessment** of the machines



# ALICIA in action: The use case at COMAU



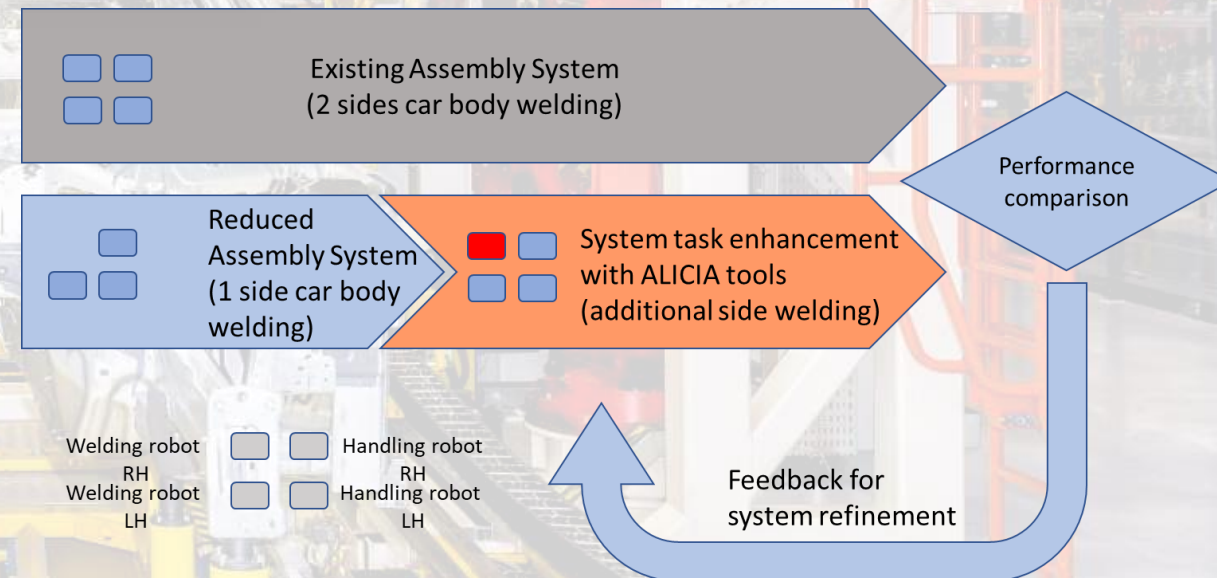
In the mobility segment, retooling projects show an increasing trend in the next 5 years – up to 25% in terms of total investments



Usecase:  
STELLANTIS TYCHY - Poland

## ALICIA VALUE TO COMAU

- Development of advanced methodologies to support systems retooling
- Enhancement of Brownfield Health Assessment tools for improving plant retooling/refurbishment
- New standard framework for capturing customers' requirements in terms of plant retooling
- New business models for retooling





# Thank you for your attention!

Get in touch with us and meet us at our booth:



Website:



LinkedIn:



assembly lines in circulation

