

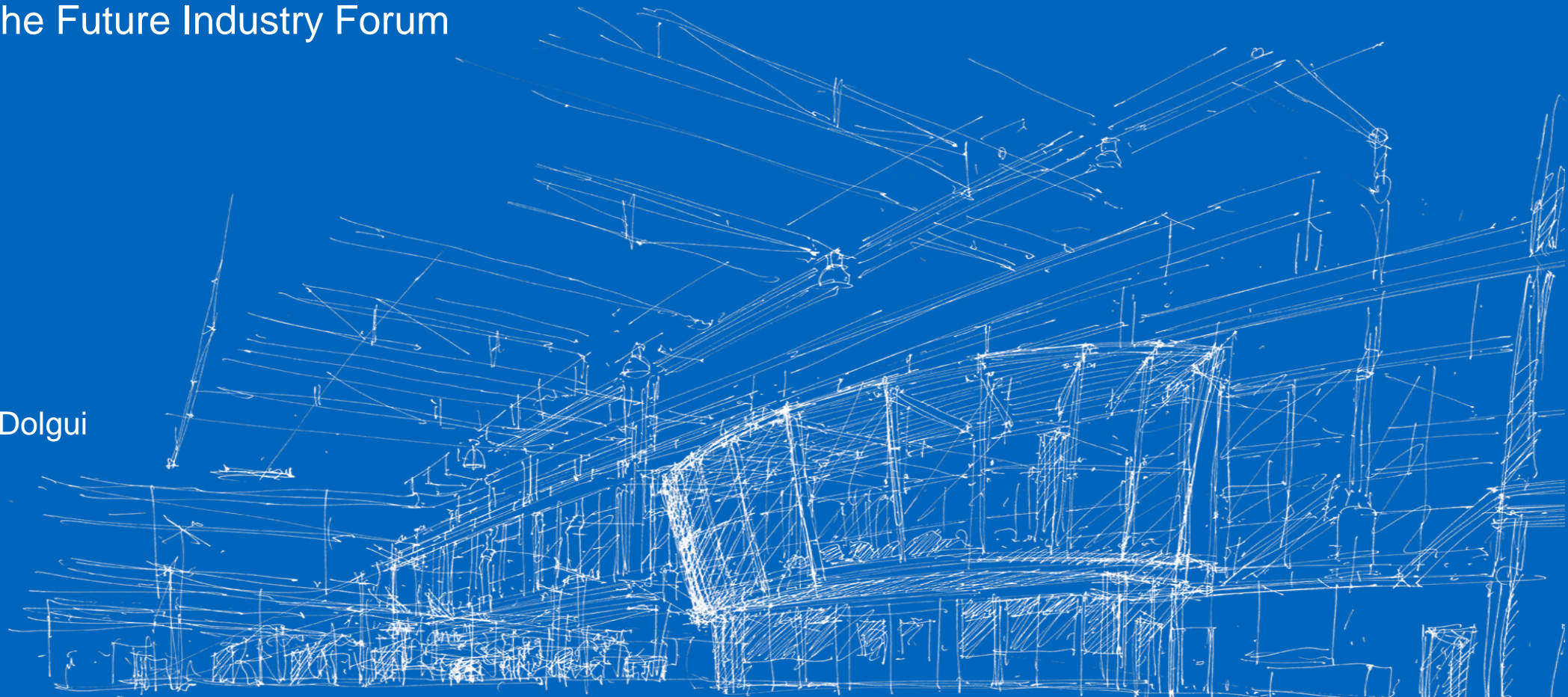
ASSISTANT – Learning and robust decision support systems for agile manufacturing environments

Here.We.Go - The Future Industry Forum

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10/17/2023



Leitstand des iwbs, TUM.

The ASSISTANT project consists of twelve partners from seven different countries across Europe.

Project presentation



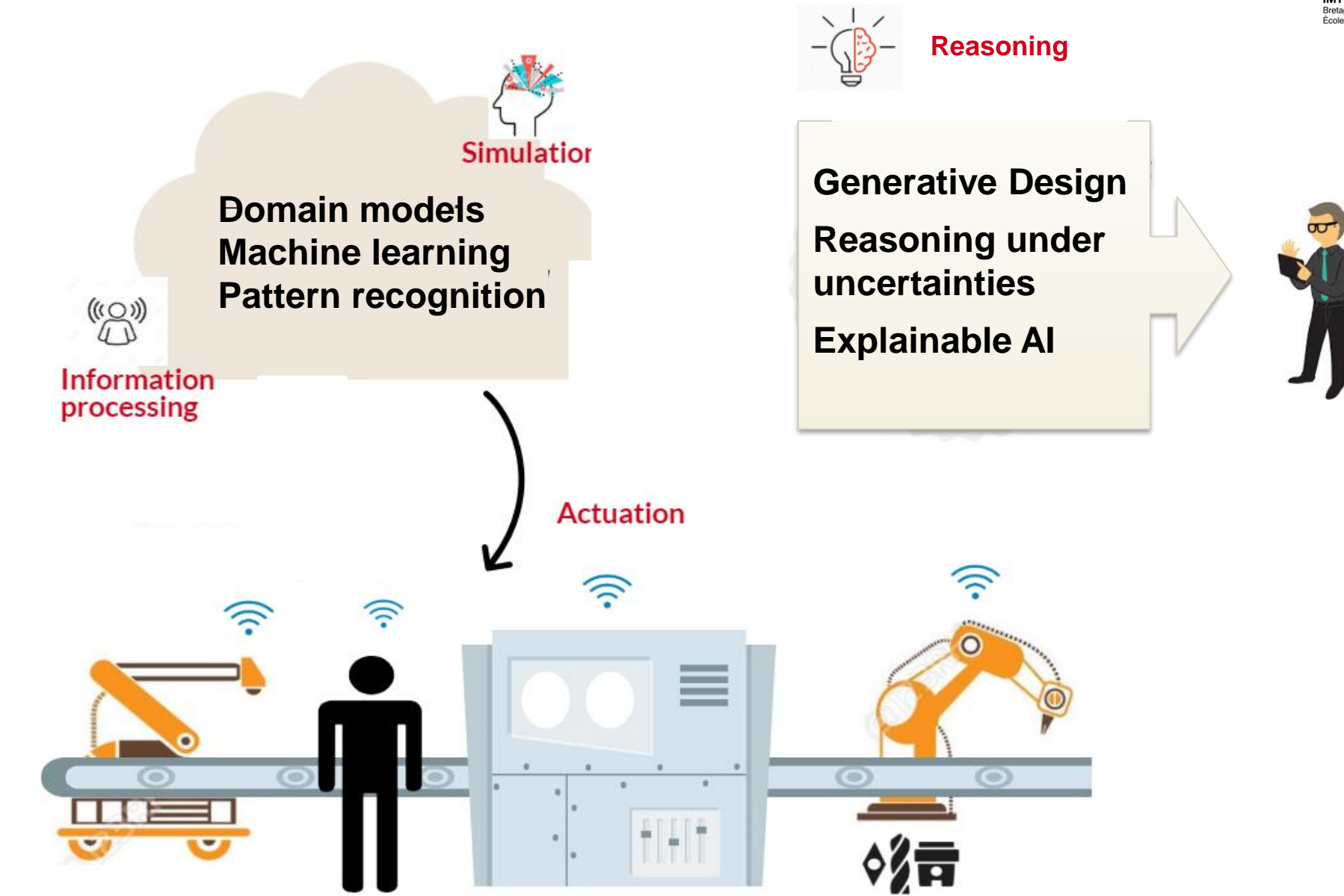
Project details

- Project duration: 11/01/2020 – 10/31/2023
- Project budget: 5.997.106 €
- Person months: 580 PM
- Program: EU – HORIZON 2020
- Coordinated by Institute Mines-Télécom



Project consortium





The ASSISTANT project aims for creating AI-based digital twins to support production planning and control.

Project presentation



Goal statement and working hypotheses



ASSISTANT aims at providing a set of **AI-based digital twins** that help process engineers to operate mixed-model assembly lines based on data collected from IoT devices.



The tools will help planners to **design** assembly lines, **plan** the production, **operate** the line, and **improve** processes.



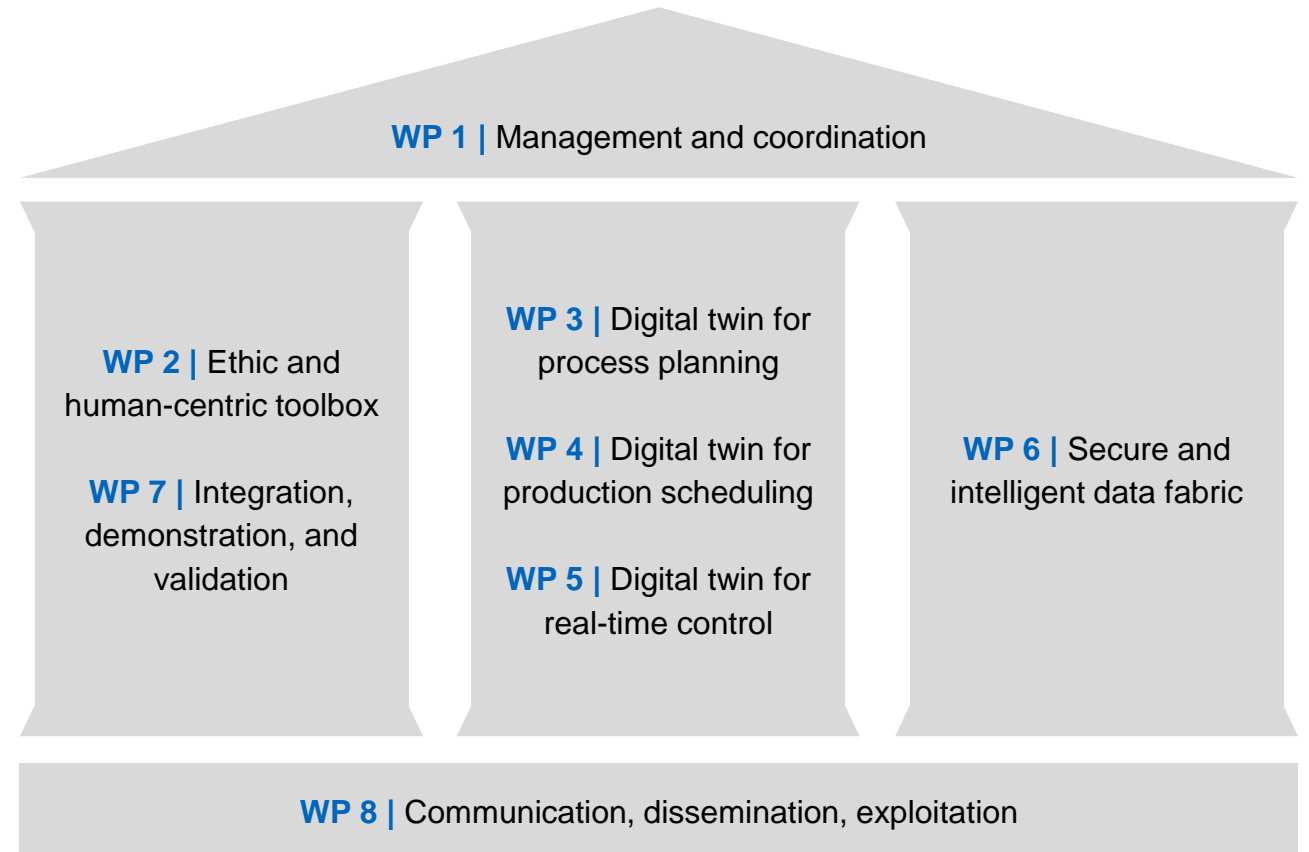
ASSISTANT results in **cost-efficient decision-making** while ensuring product quality, safety, and well-being of workers.



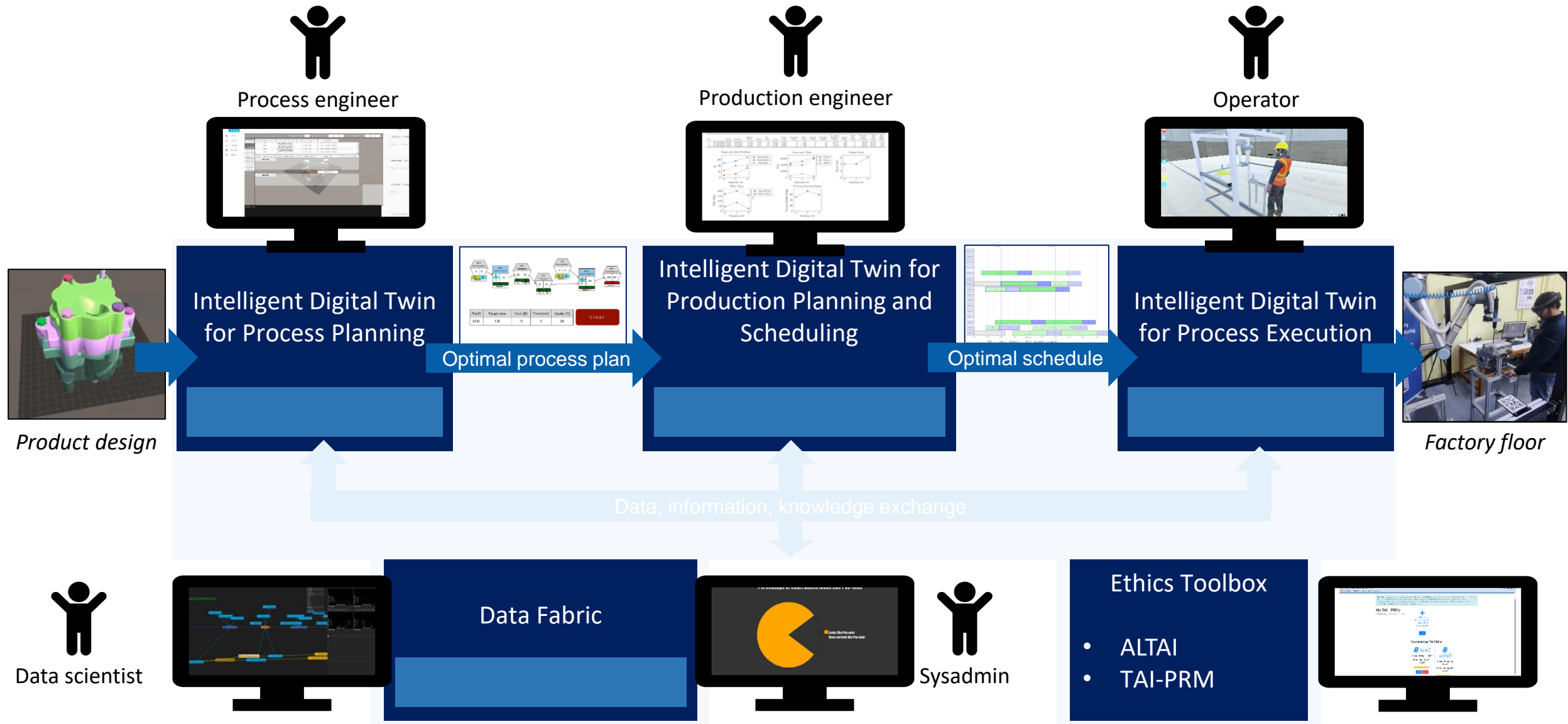
The decisions-making is **data-driven, agile, autonomous, collaborative, and explainable**.



Work packages



The ASSISTANT Solution



Several follow-up cooperations resulted from the ASSISTANT project already.

Project presentation



Last steps in ASSISTANT



Updating the **user manuals** for the software developed, including the

- ethical framework,
- digital twins, and
- secure and intelligent data fabric



Focus on the **integration** of the digital twins and the technical work packages



Focus on the **validation** of the developed AI-based digital twins and tools in the *Flanders Make* demonstrator and in the use cases of *Stellantis*, *Atlas Copco*, and *Siemens Energy*



Follow-up cooperations

ACCURATE | 01/12/2023 – 12/31/2026, new European project

The ACCURATE vision is to realize Manufacturing as a Service (MAAS) framework, data space and ecosystem, powered by multi-level digital twin models to enable a collaborative, human-centred Decision-Support System for robust planning, resilient operation and responsive value networks and industrial systems recovery.

ReplyNet European project (ITN), in preparation with TUM Business School, on Forging a Resilient Future: Embracing BANI (Brittle, Anxious, Non-linear, Incomprehensible –the world after COVID-19) igniting a Paradigm Shift in Supply Network Resilience.

ALICIA project to create and demonstrate a Circular Manufacturing Ecosystem (CME) for production resources, such as robotic arms or conveyor belts.