SAP Connect Day for Supply Chain Netherlands

Building Blocks of the Future

Bart Smetsers

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Agenda

01 SAP Logistics Management

Our brand-new logistics solution

02 Artificial intelligence with SAP

The AI foundation & Real-life AI usecases

03 Agentic AI Orchestration

How does End-to-end AI Orchestration look?

SAP Logistics Management

SAP Logistics Management

Announced in October at SAP Connect Las Vegas

SAP launches new logistics management solution

SAP is announcing SAP Logistics Management, a new cloud-native solution designed to complement operations of large distribution centers with capabilities to support smaller, local, and regional warehouses. This will help establish multi-tier distribution networks that strengthen resilience and increase delivery speed.

Fully connected to SAP Cloud ERP Private and SAP Business Network for Logistics, the solution entory, shipments, and partner coordination. Unlike standalone tools, it extends ERP rectly to satellite warehouses, drastically reducing manual tasks and ensuring cross networks.

Dominik Mark Metzger · Following
President, Chief Product Officer - SAP Supply Chain Management
5d · Edited ·

Super excited about this one: A new chapter begins for supply chain leaders!

Today, we are introducing SAP #SupplyChainOrchestration to sense, predict and act on disruptions across supply chains with AI agents – before your business gets severely hit. Our new solution integrates data from SAP Business Network and SAP Business Data Cloud, providing a comprehensive view across EVERY tier of the supply chain. It learns and it adapts to ensure you'll never be blindsided again. This isn't just a product, this is a different way of running supply chains.

Plus, we are launching:

🌐 SAP Business Network now powered by SAP BTP, bringing seamless Business Suite integration, embedded AI, and ERP-native supplier discovery.

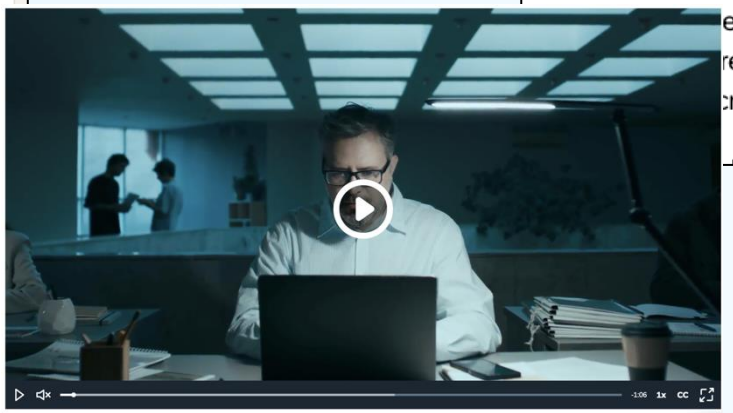
💎 A new generation of role-based AI Assistants for supply chain professionals. Designed to partner with human workers, they manage AI agents and embed automation into SAP Business Suite, SAP Cloud E workflows.

📦 SAP Logistics Management, a cloud-native s distribution centers with smaller, local warehouse directly to satellite warehouses - reducing manua consistency across the board in an AI- and Mobil

🧠 And we've evolved SAP Integrated Business F unified scenario simulations, and a harmonized d smarter, faster and more decision centric.

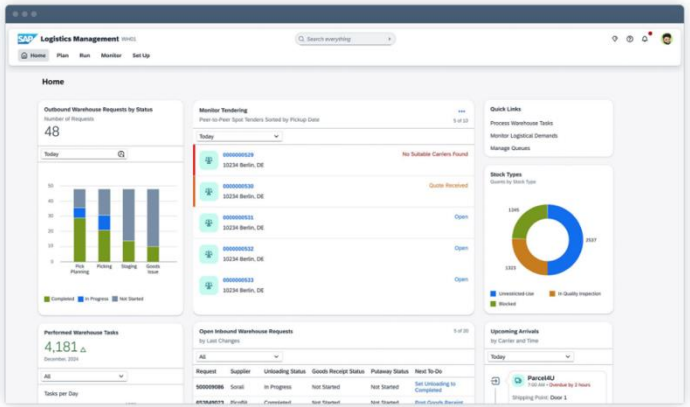
Together, these innovations reflect our vision for chain, built on applications, Business AI, and the

Explore all our #SAPSupplyChainManagement a from #SAPConnect in our blog here: https://lnk



What is SAP Logistics Management ?

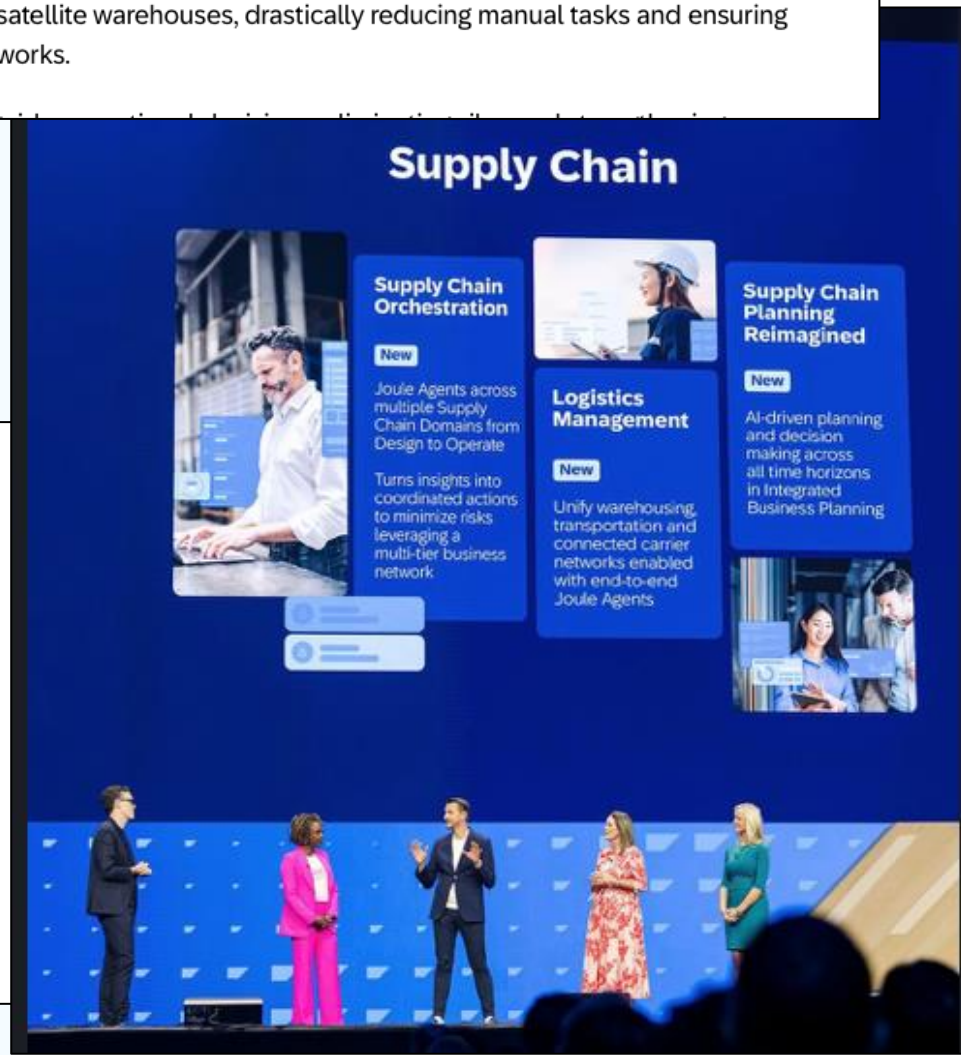
SAP Logistics Management is a cloud-based logistics solution that combines warehousing and transportation management solutions to streamline your operations with network-centric collaboration.



Orchestrate logistics with a connected ecosystem, linking warehouses with supply-chain partners through a unified platform.

The solution includes:

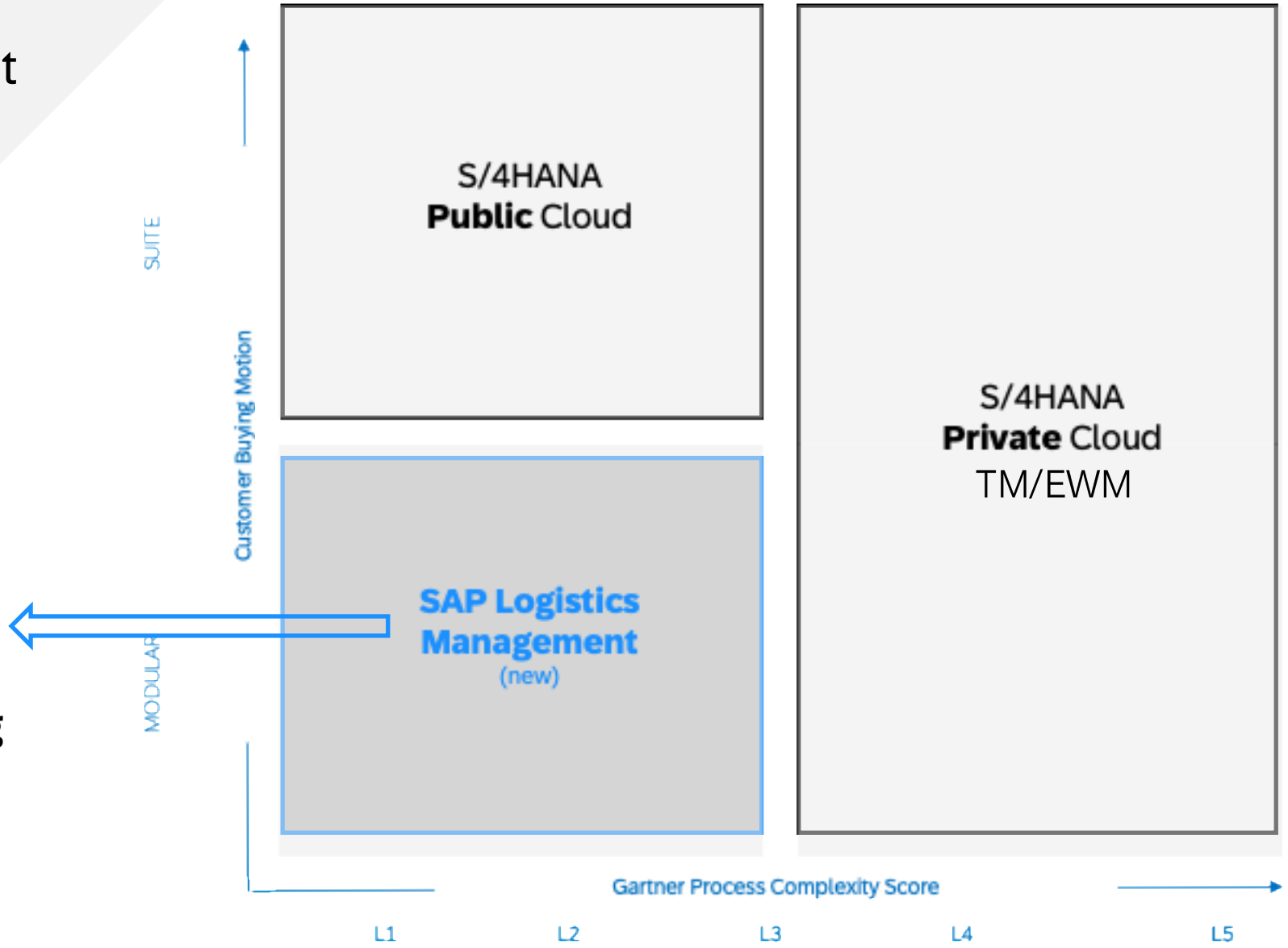
- Warehouse execution
- Transportation dispatching
- Network collaboration
- An AI logistics assistant



WHY did we build it?

SAP Logistics Management

- New solution to **manage smaller, local and satellite operations**
- One logistics suite **combining transportation, warehousing and business networks for logistics**



What we built

Simply pick, pack and ship leveraging

Warehouse Logistics

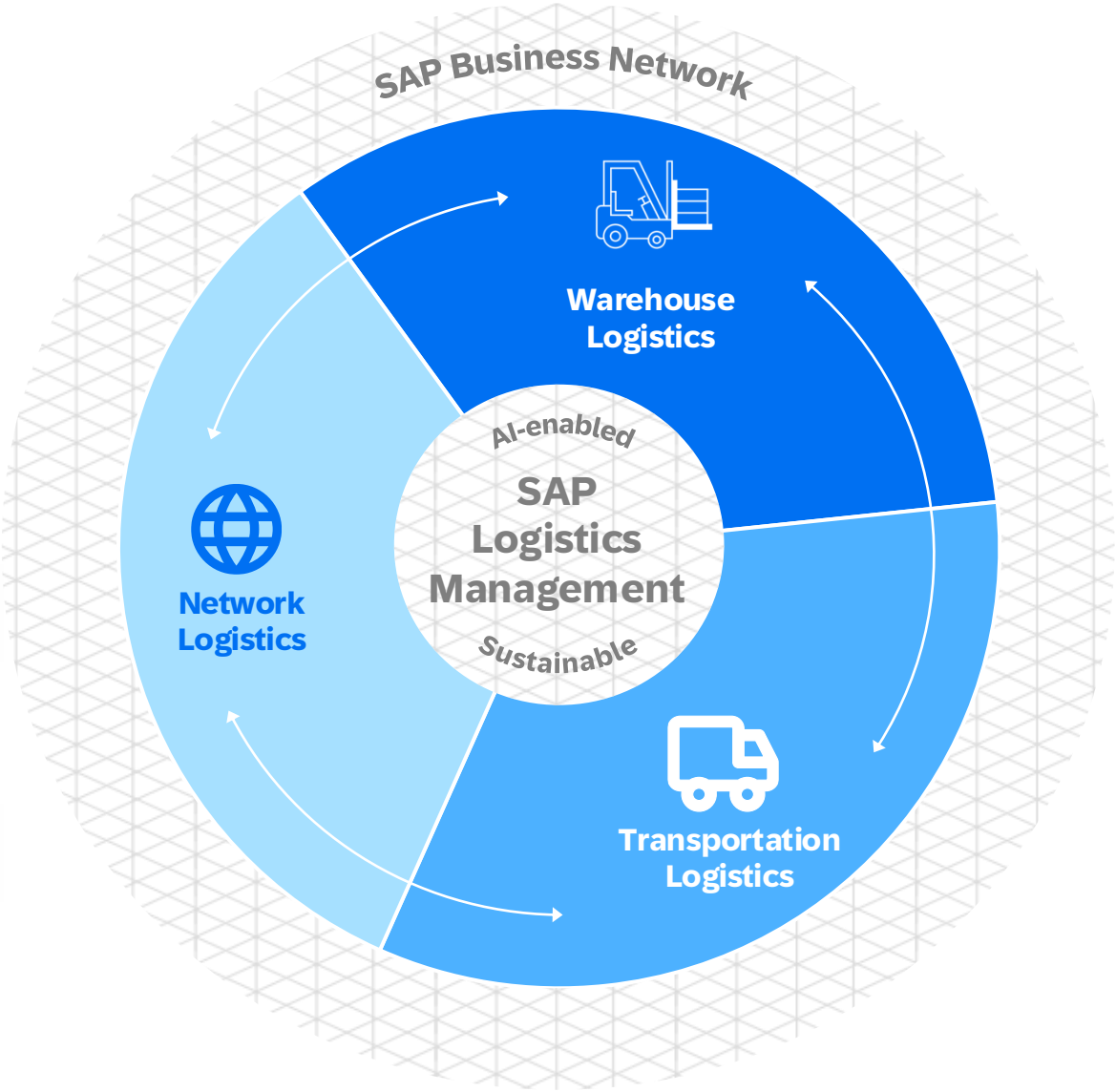
- Receive and store
- Order fulfillment
- Pick-pack-ship workflows
- Mobile Warehouse Execution

Transportation Logistics

- Simple routing, freight planning
- Carrier selection, Tendering, Subcontracting

Network Logistics

- Freight collaboration
- Shipment status visibility



Why we built it – Product Paradigm

Building a network-centric logistics solution infused with AI

Rapid Implementation

- ✓ Go-live in weeks
- ✓ Pre-defined processes

Business Agility

- ✓ Grow as you go
- ✓ Adapt instantly

User Experience

- ✓ Modern UI
- ✓ Reduced training effort

Constant Innovation

- ✓ Bi-weekly delivery
- ✓ Leverage BTP services

Artificial intelligence with SAP

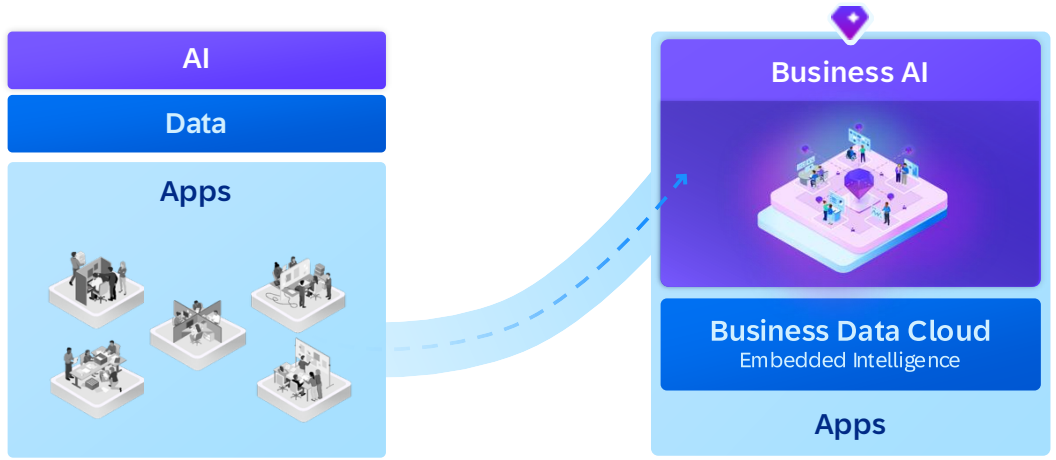
The Transition to Business AI in the Supply Chain

From

Traditional business processes supported by apps

To

Reimagined UX and business processes run by AI assistants



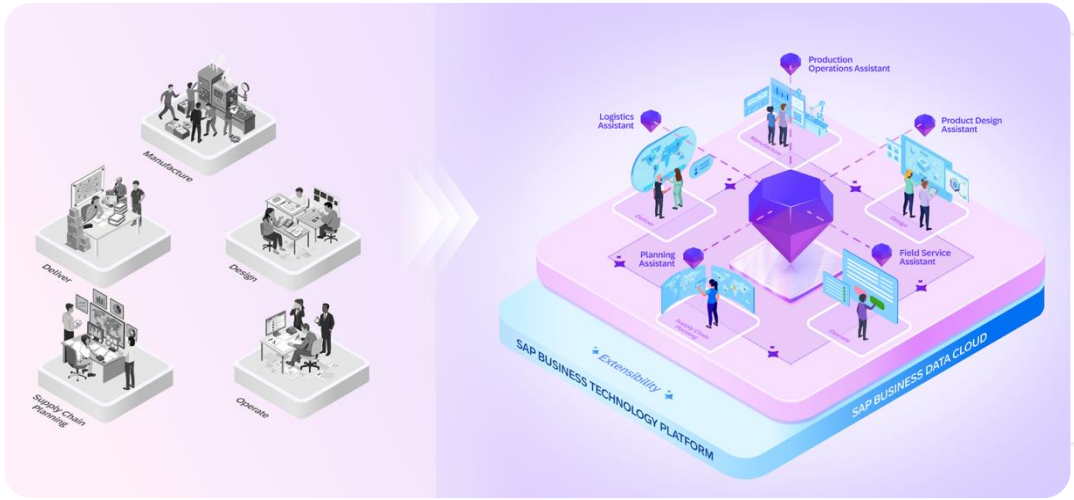
But how do we get there ?

From

Siloed operations and point solutions

To

Orchestrated Supply Chains powered by intelligent agents



Joule automates workflows by orchestrating role-based assistants across business processes

Embedded and extensible AI Assistants in every business process

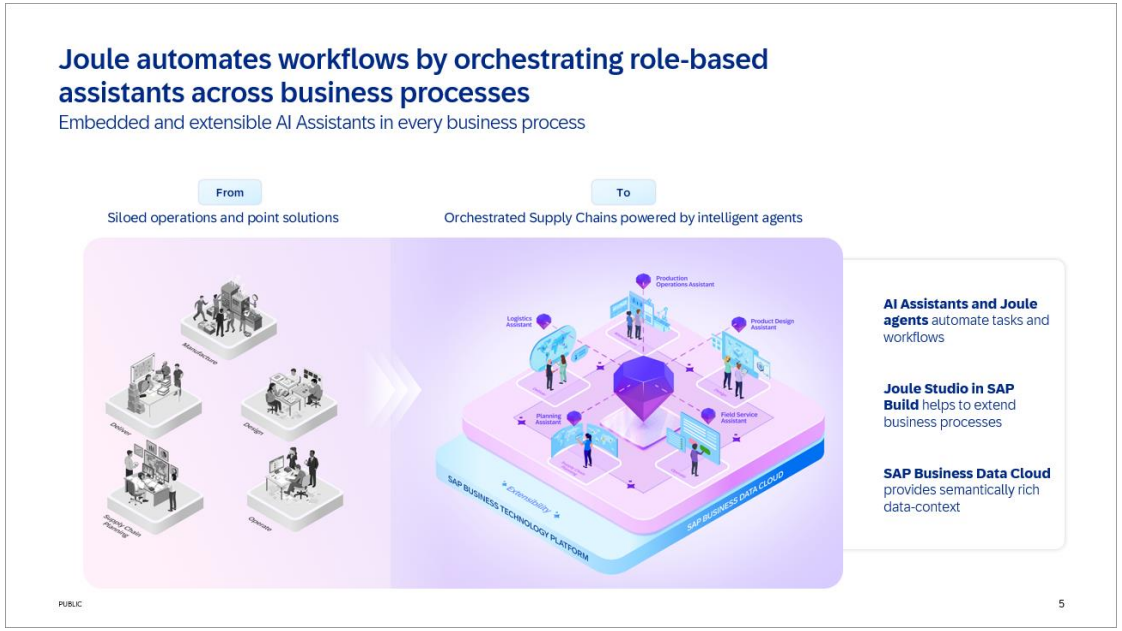
AI Assistants and Joule agents automate tasks and workflows

Joule Studio in SAP Build helps to extend business processes

SAP Business Data Cloud provides semantically rich data-context

How to get from PowerPoint to Showing & Using ?

Seeing is believing ! Using is Understanding !



Some real Examples, please !

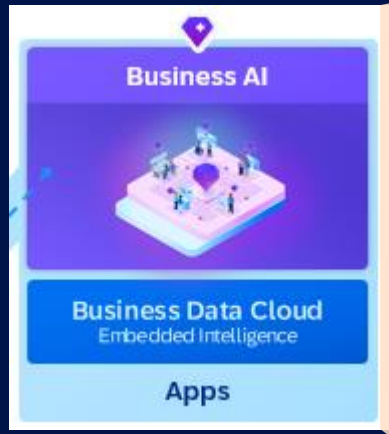
We can talk a lot about slides, but ....

What are other SAP Customers doing ?

The Innovation Cycle is drastically being reduced ... many customers are defining their own Value Cases

Autonomous Supply Chain

- Not only generative AI / neural logic
- BTP is the Clean Core AI Decision Making Platform

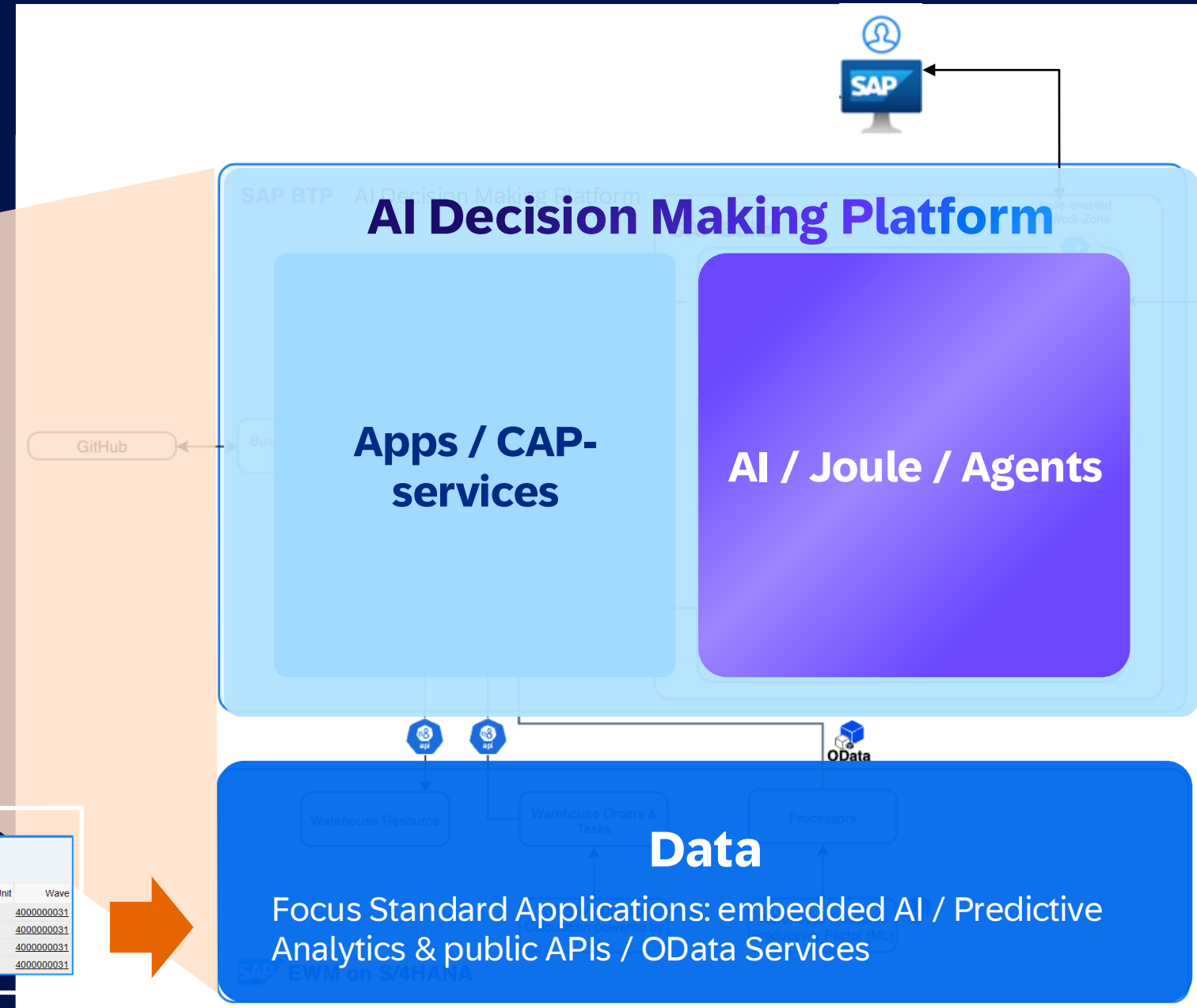


S/4 HANA 2022

Planned Workload Duration Calculation

Planned Workload

Wrkld ID	Step	Desc. External Step	Obj.-Typ	Description	Step	Description	Whse Task	Whse Order	Acty Area	Duration	Time Unit	Wave
687	OB01	Pick	E	Warehouse Order for Warehouse Task	PICK	Remove from Stock		2000001060	T010	7	MIN	4000000031
688	OB02	Pack	A	Warehouse Task	PAC	Pack	1000001364		T830	6	MIN	4000000031
688	ODC4	Load	A	Warehouse Task	LOAD	Load	1000001364			0	MIN	4000000031
688	OST1	Prepare for Loading	A	Warehouse Task	STAG	Stage	1000001364			0	MIN	4000000031



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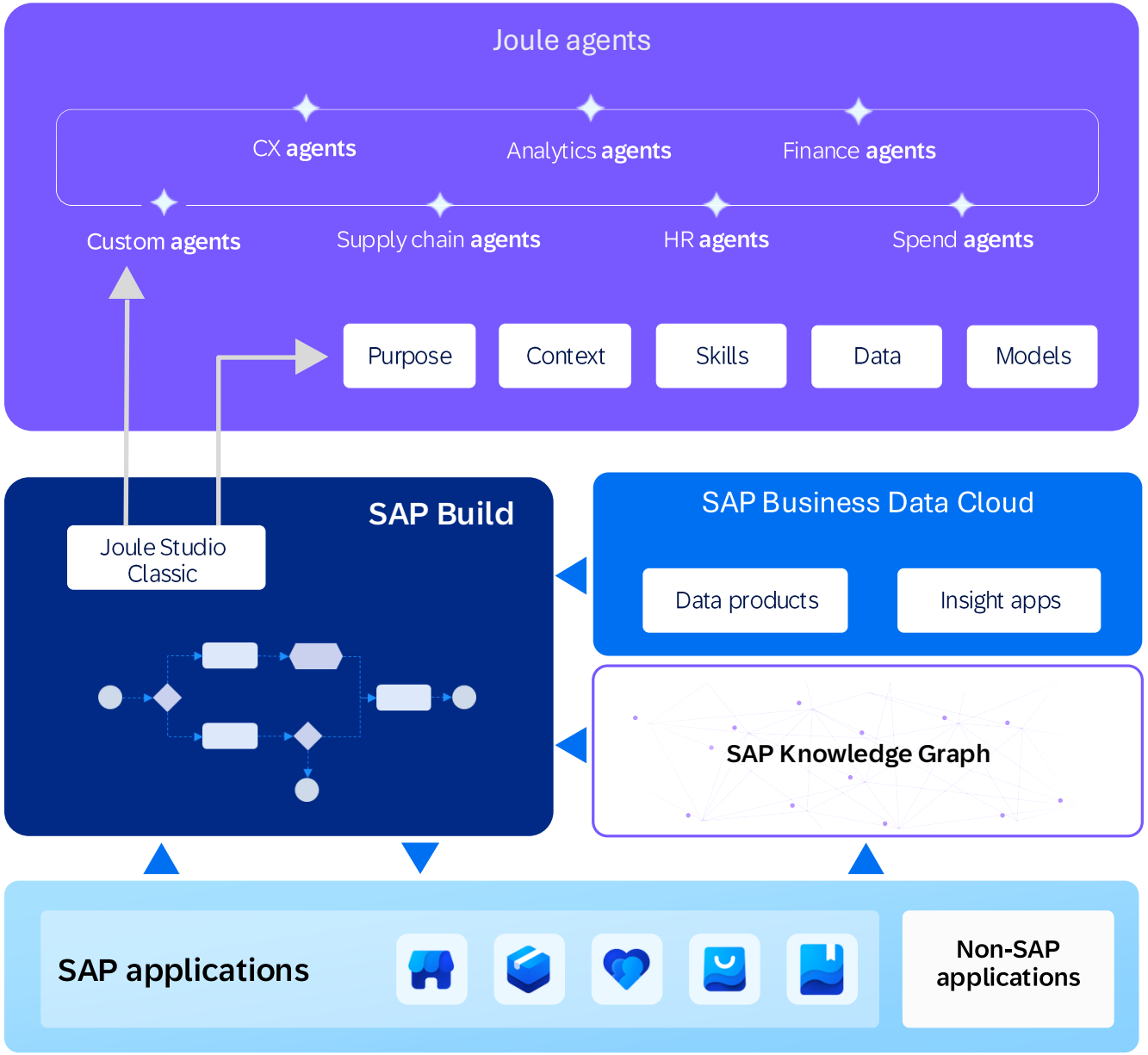
Joule Studio Classic in SAP Build

Build Joule skills and custom AI agents for specific business needs with drag and drop simplicity.

These capabilities extend Joule copilot and enhance efficiency.



Joule Studio Classic

in SAP Build

Joule Skills

Extend Joule with custom Joule skills

Custom AI agents

Build your own AI agents

What are **Joule Skills**?

Attributes

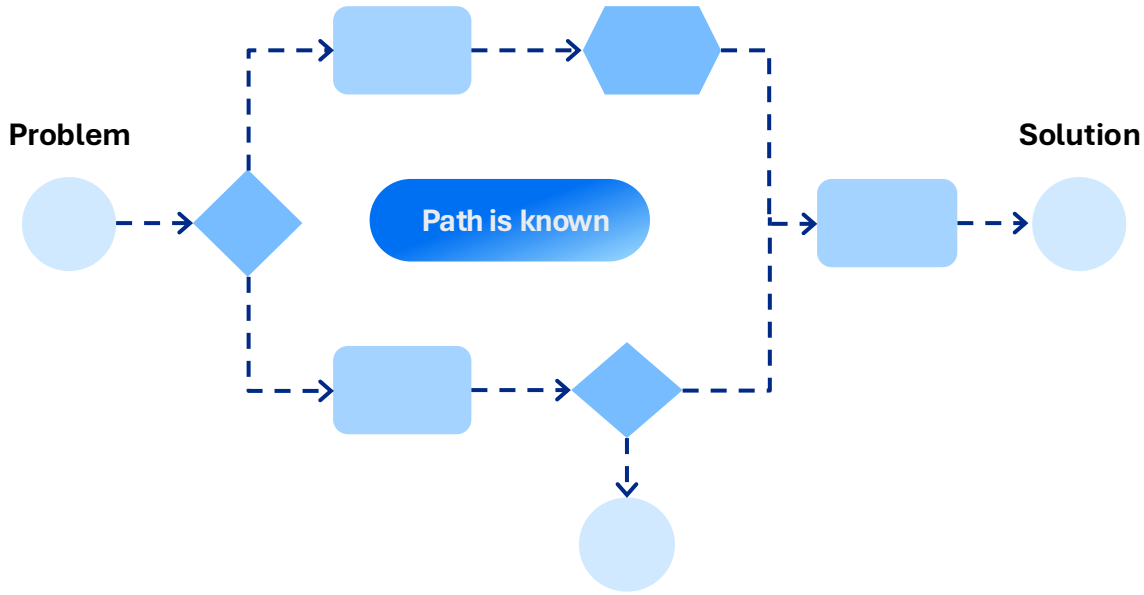
- Orchestrated through Joule
- Intent & context-based triggers
- Pre-defined execution flow

APIs Automations

Examples

- Retrieve supply chain risks
- Get weather conditions
- Raise transport request for a shipment
- Create a service now ticket

Joule Skills execute rule-based, repetitive tasks



What are **AI agents**?

Attributes

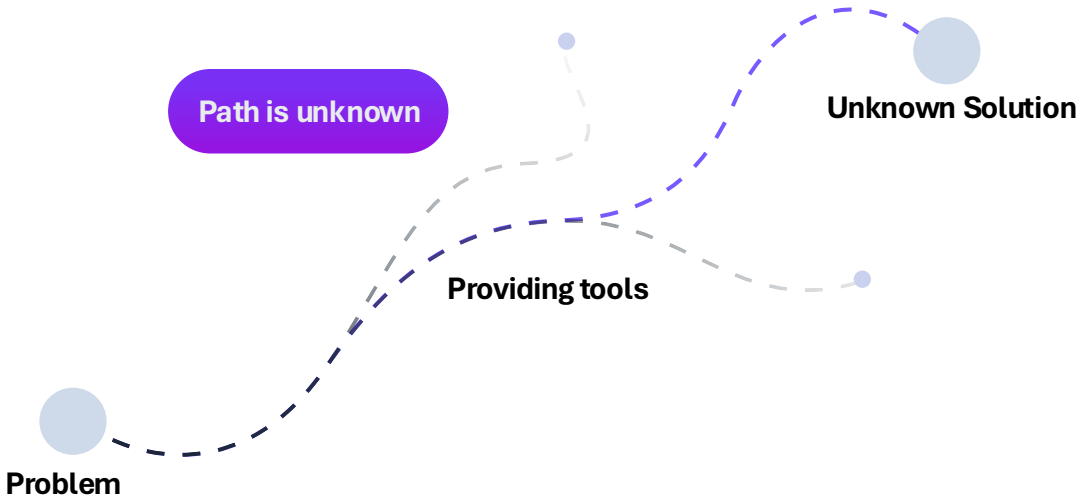
- Planning
- Reasoning
- Autonomy
- Agent-agent communication

LLMs | Tools

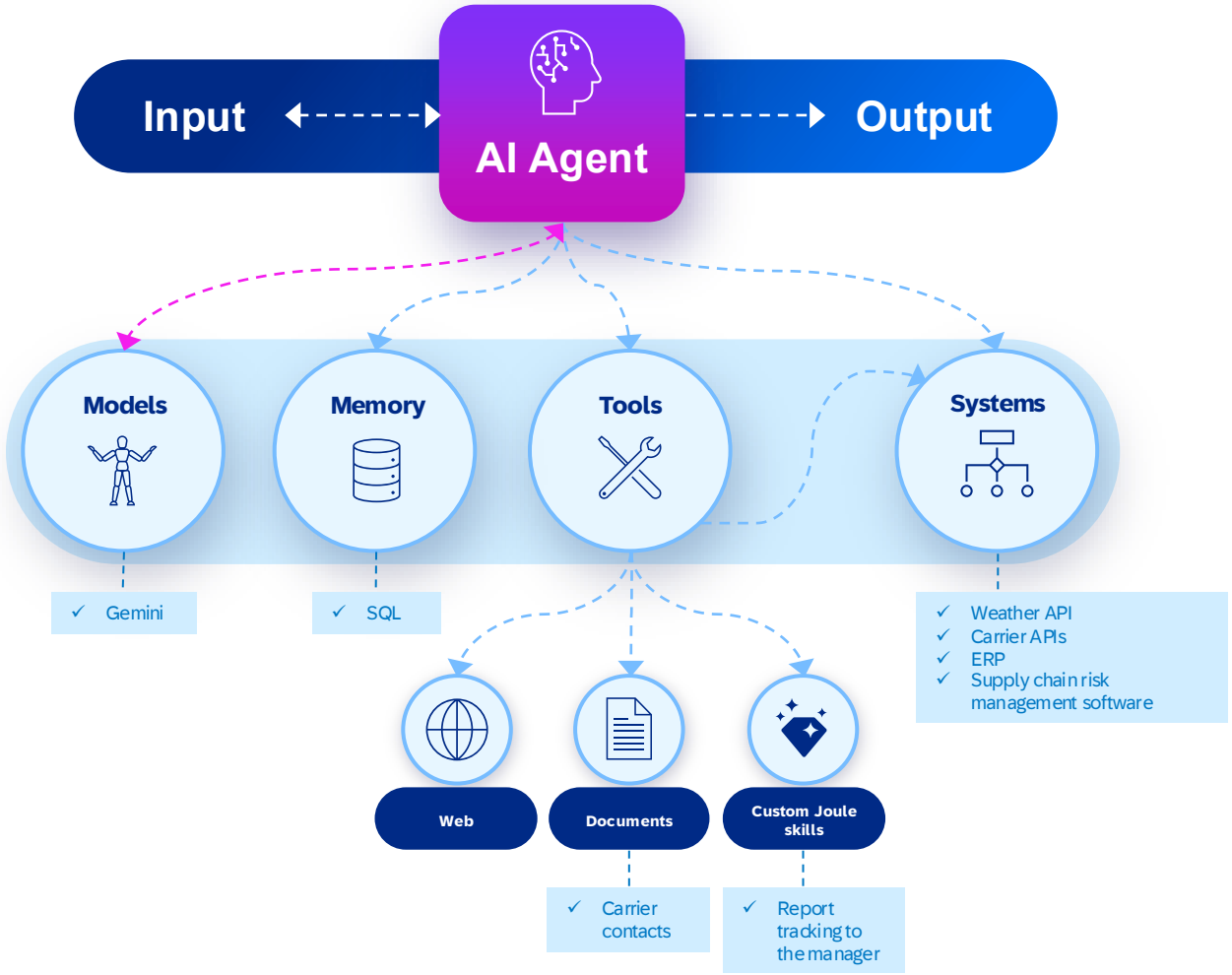
Examples

- Optimize shipment logistics
- Manage talent acquisition
- Negotiate procurement deals

AI agents can execute complex business scenarios by iteratively reasoning and interacting with their environment to achieve a goal.



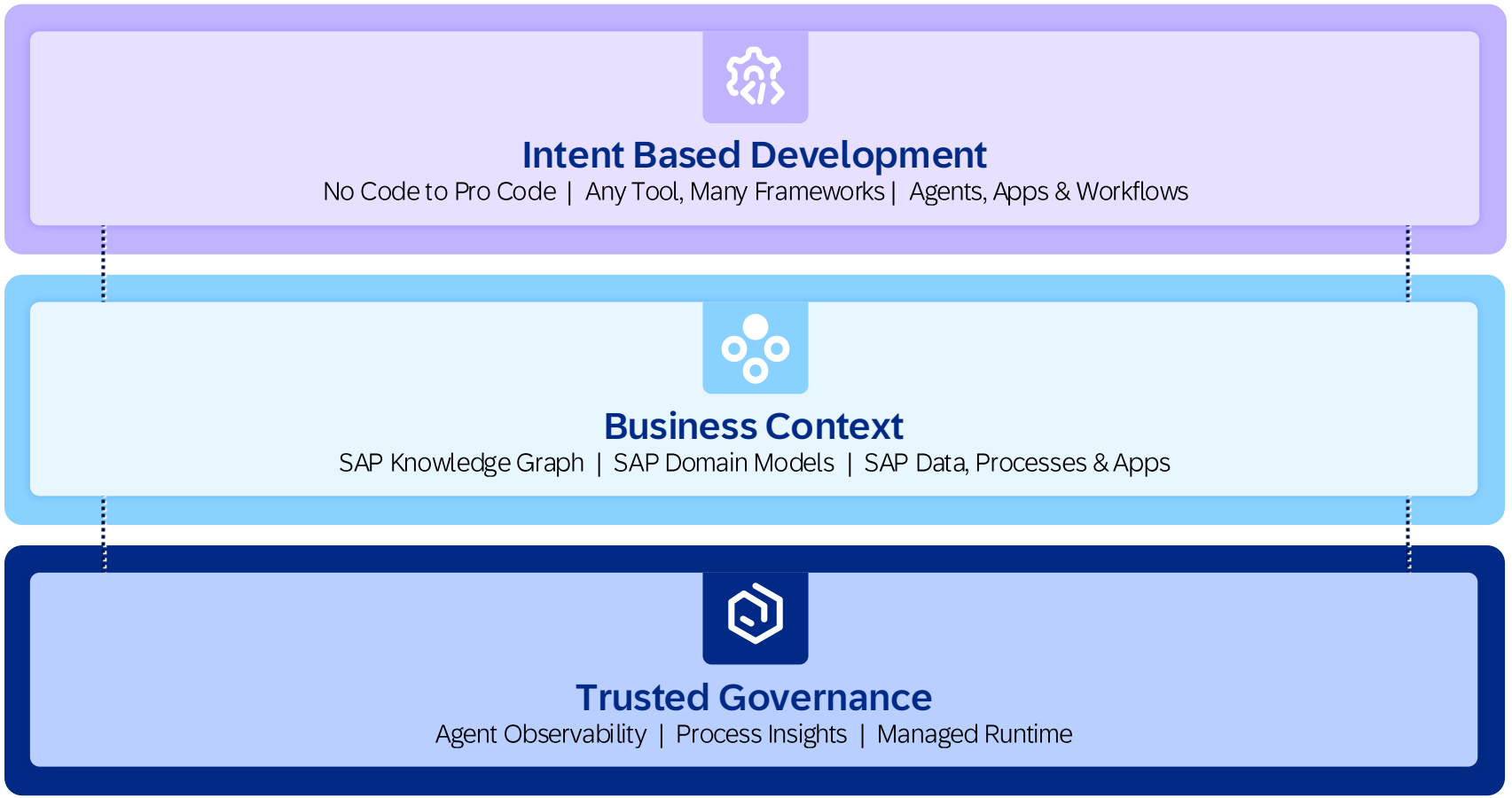
Logistics planning with AI Agents



- Assign carrier contracts for agent to check pricing and SLAs
- Use a custom Joule Skill to track shipment and share update
- Connect to third-party systems for carrier availability, weather conditions, and more

Joule Studio

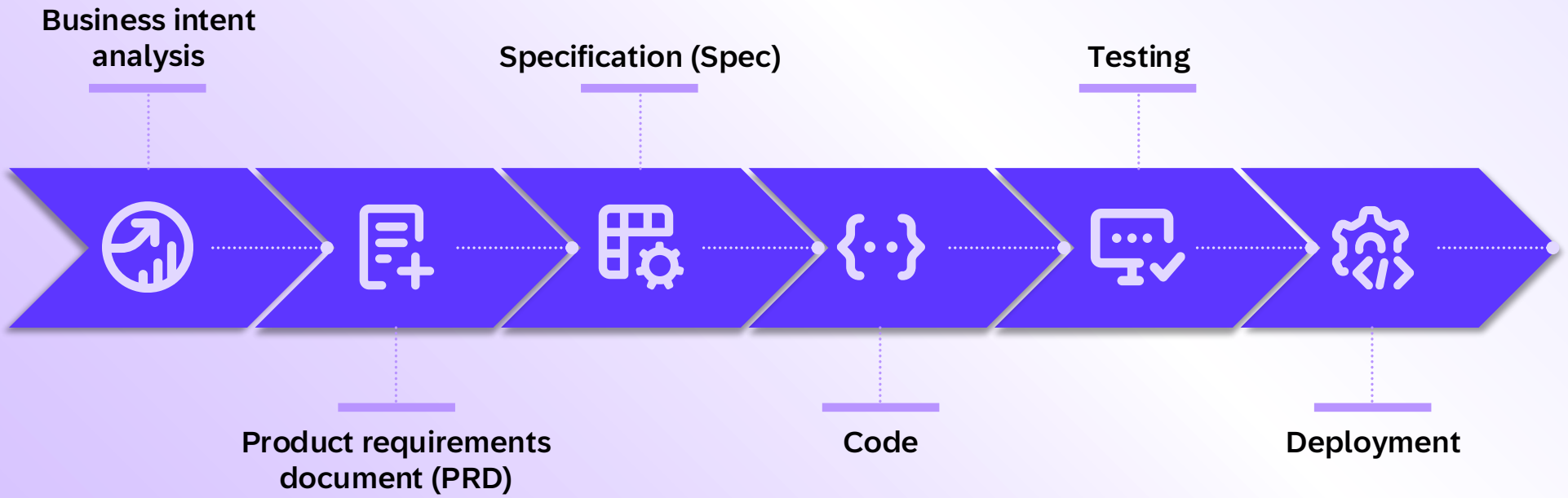
Build Trusted Custom Agentic Solutions



INTERNAL – SAP Only

Intent-based development in Joule Studio

Turn intent into enterprise-ready solutions



AI in Logistics Offering | AI Agent/Role, Capabilities & Industry Segmentation

Agent: Workload & Resource Manager

- Monitor the workload execution
- Perform Picking & Packing Resource Simulation and Optimization
- Allocate resources to the most needed Picking Areas to avoid shipping delays

Agent: Warehouse Exceptions Manager

- Monitor Handling Units at the clearing station
- Analyze exception situations for specific Handling Units
- Resolve Exceptions for Handling Units
- Troubleshooting in the context of MFS

WIP

Assistant: Warehouse Inbound Manager

- **Agent**: Product Masterdata Analyzer
- Monitor the Inbound Receiving & Put-away Workload execution
- Perform Put-away Resource Simulation and Optimization to see putaway completion times.
- Reassign resources more optimally depending on Workload in the different Inbound Staging Areas.

WIP

Assistant: Production Staging Manager

- Monitor the Production Staging workload for the different Manufacturing Orders in the warehouse.
- Proactively monitor whether Components & Raw Materials will be on time for the required Operation Start Time.
- Perform Resource Simulation and Optimization.
- Reassign resources more optimally depending on Workload in the different Picking Areas.

WIP

Assistant: Transportation Execution Manager

- Monitor the Transportation / Freight Order Execution
- Monitor Transportation Order Delays and the impact on sub-sequent Orders or Customer delivery times.
- Simulate the resolution of Transportation Order scheduling conflicts
- Reschedule Transportation Orders

AI in Logistics Offering | AI Agent/Role, Capabilities & Industry Segmentation

AI Capability
Inbound Delivery Creation

- Extract Document Information leveraging AI to create Inbound Deliveries
- Mobile Applications
- Multiple format support: PDF, JPEG, etc.
- Native integration with Smart Phone camera or upload files

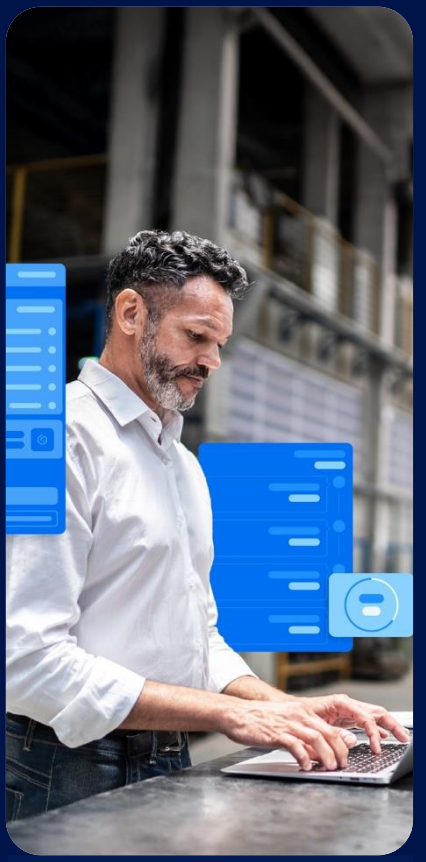
AI Capability
Generic Appointment Creation

- Joule-Enabled Creation of Generic Appointments in BN4L-DAS for non-onboarded Carriers
- Joule to display details of booked slots
- Integration with other Slot Booking process handled in BN4L-DAS

Agent:
Warehouse Master Data Analyzer

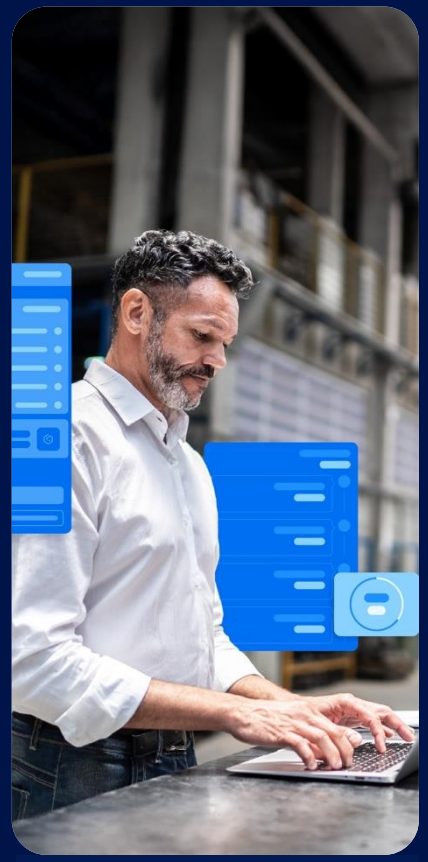
- Check the consistency of Warehouse Product Master Data (e.g. PACI, Fix Bin Assignment, Dimensions, etc.)
- Analyze the Products that are going to be received in a specific time window.
- Joule-Enabled validation of the results

Warehouse Workload & Resource Planner



Warehouse Workload & Resource Planner

Clean Core AI Agent | Warehouse Operations Manager 1



Warehouse Operations Manager

Maturity level 4 — Improvement focus: Orchestration

Maturity level 3 — Improvement focus: Automation

Joule agents

Agent: Warehouse Workload & Resource Manager

Joule Skills Library

Workload Overview Picking & Packing Areas

Simulate Optimized Resource Allocation

Re-assign Resources

Clean Core CAPabilities

Workload & Resource Planning

Level 4 | AI Autonomous Outbound Process for Consumer Products

Automated Release Case Picking Waves

Show

Workload & Resource Planner

Show

Staging Area Manager

Agent: Warehouse Operations Manager

Agent: TM Execution Manager

Transport Re-scheduler

Show

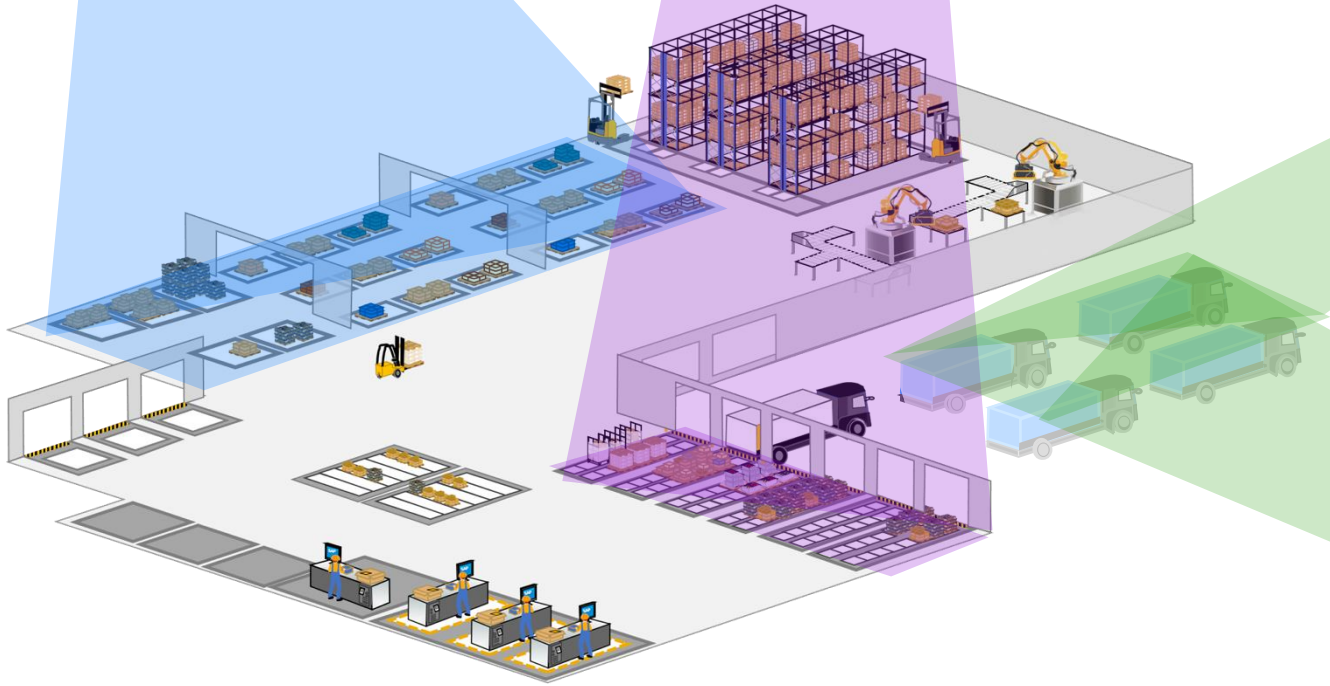
Yard Manager WIP

Level 4

Autonomous & Optimized

- Fully integrated Agent orchestration technology
- Ecosystem collaboration and logistics visibility in the context of business operations
- Cross-functional planning, optimization, and synchronization

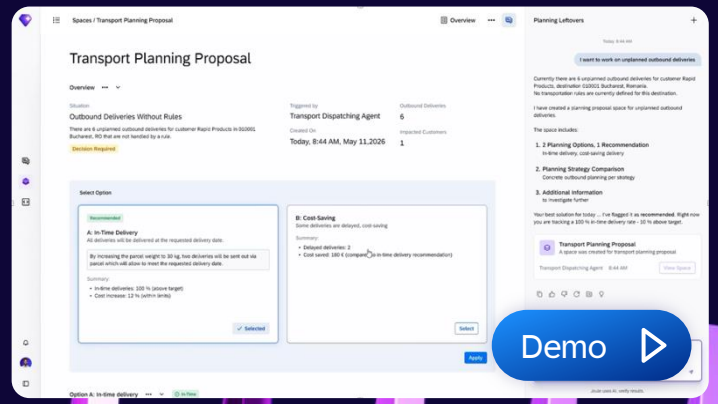
Improvement focus: **Orchestration**



Logistics

Assistant Hero Demo

Logistics Assistant



Individual Agent Demos

- Logistics Issue Resolution Agent
- Fixed Bin Maintenance Agent
- Warehouse Workload Optimization Agent
- Material Reservation Processing Agent
- Internal Stock Replenishment Agent
- Inventory Supervisor Agent
- Batch Optimization Agent
- Logistics Configuration Agent
- Consignment Order ASN Processing Agent
- Transportation Dispatching Agent
- Outbound Task Orchestration Agent
- Warehouse Outbound Optimization Agent

Lab Preview

Logistics Clerk

Rupert Koines

Logistics Assistant

Turn intelligence into autonomous optimization and execution

Works with:

PuC PCE LGM

From autonomously stocked picking bins to optimally planned shipments – coordinated agents orchestrate warehouse and transport execution for speed and scalability

Our multiple agents work together and empower Logistics teams to oversee warehouse transportation planning and execution throughout the day, ensuring seamless on-time fulfilment performance of logistical demands.

	Autonomous Transportation Planning	Automated Fixed Bin Replenishment	Smart Task Bundle Optimization and Workflow
NEED	Optimize load utilization and reduce the number of trucks	Keep picking locations stocked before they run out	Minimize outbound lead times through efficient picking execution
AGENT	**Transportation Dispatching Agent** Select best shipping method and consolidate freight	**Internal Stock Replenishment Agent** Continuously monitors fixed bin stock levels and triggers replenishment	**Outbound Task Orchestration Agent** Creates and distribute optimized bundles with efficient grouping and manageable size

PuC: SAP S/4HANA Cloud, Public Edition; PCE: SAP S/4HANA Cloud, Private Edition; LGM: SAP Logistics Management

Logistics Assistant

Lab Preview

Logistics Clerk
Rupert Koines

Logistics Assistant

Smooth Logistics execution end to end

Works with:
PuC | PCE | LGM

From always stocked picking bins to planned shipments – coordinated agents orchestrate warehouse and transport execution end to end

Our multiple agents work together and empower Logistics Clerks to manage warehouse execution and outbound transportation planning throughout the day, ensuring seamless in-time execution and fulfilment of logistical demands.

	Automated Transportation Planning	Always-ready Fixed Bins	Create and Distribute Smart Task Bundles
NEED	Optimize load utilization and reduce the number of trucks	Keep picking locations stocked before they run out	Minimize outbound lead times through efficient picking execution
AGENT	**Transport Dispatching Agent** Select best shipping method and consolidate freight	**Internal Stock Replenishment Agent** Continuously monitors fixed bin stock levels and triggers replenishment	**Outbound Task Orchestration Agent** Creates and distribute optimized bundles with efficient grouping and manageable size

**PuC: SAP S/4HANA Cloud, Public Edition; PCE: SAP S/4HANA Cloud, Private Edition; LGM: SAP Logistics Management*

Thank you!

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