# CAMUNDA

# Camunda 8.7: Agentic Orchestration for the Enterprise

Operationalize AI across people, systems, and devices with new AI agents and task automation capabilities

# The Technology Disruption of our Decade

**Just like the internet and mobile phones,
AI will have a profound impact on how organizations**...

- Serve and interact with customers

- Design and deliver products

- Collaborate with partners and suppliers

- Enable and empower employees

# AI: Big Opportunities, Real Challenges

## 83%
of executive leaders are driving AI strategy at their companies — **but the majority face significant challenges…**

## 85%
struggle to scale and operationalize AI

## 90%
indicate orchestrating AI is critical to ensuring compliance with regulations

# Why AI needs process orchestration

Quick AI and automation wins come at the expense of creating **disjointed solutions** that **can't scale** and **limit value**.
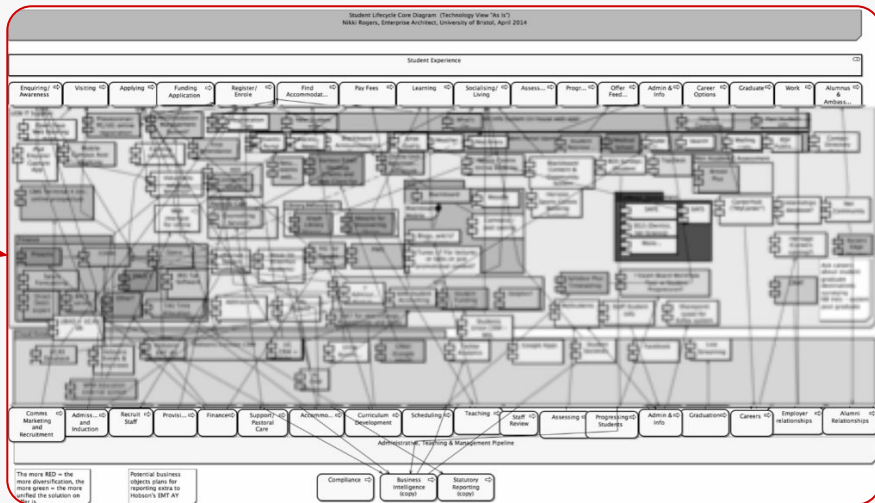
Customer Journey

ERP · CRM · Legacy · RPA · AI



Student Lifecycle Core Diagram (Technology View "As Is")
Nikki Rogers, Enterprise Architect, University of Bristol, April 2014

**X** Limited or no process visibility

**X** Business-IT misalignment

**X** Growing technical debt

**X** Reduced ROI on investments

**X** Compliance challenges

# What is Agentic Orchestration?

Paradigm that leverages large language models (LLMs) to **dynamically determine tasks, sequence, routing** etc..

**Deterministic Process Orchestration** **+** **Non-Deterministic Process Orchestration** **=** **Agentic Orchestration**

Orchestration **logic is determined by modeled flow logic,** conditions, branches or classic decision models

Hybrid approach to process orchestration that incorporates both deterministic and non-deterministic elements.
**This is the future of process orchestration.**

# Process Orchestration Foundation

**Gartner** recognizes end-to-end **orchestration** as foundational to the future of automation

According to **Gartner**, business orchestration and automation technologies (BOAT) **"enable enterprises to automate and orchestrate end-to-end business processes** while connecting multiple enterprise systems of records via any applicable integration method."



**The Future of Automation Is Autonomous**
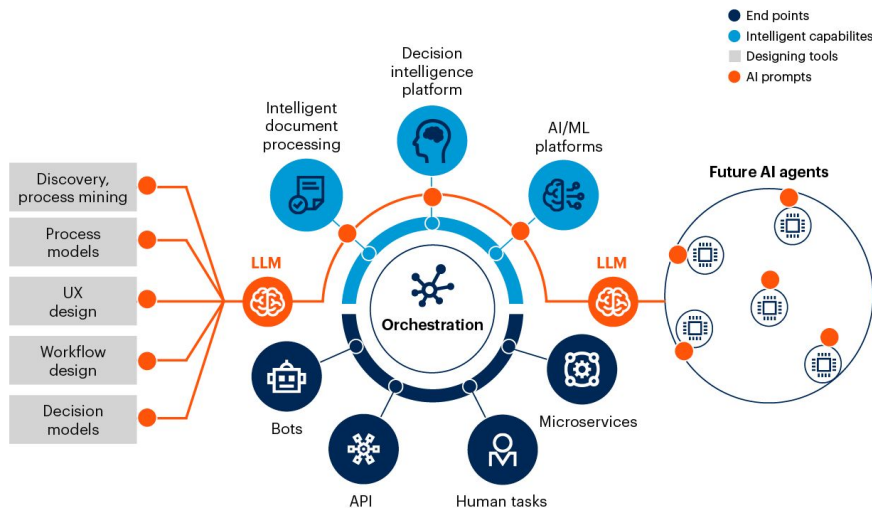
Source: Gartner
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Gartner

# Composable Architecture

*The Process Architecture that delivers value today and ensures you are ready for tomorrow.*

**Engagement Layer**
(Customers & Employees)

| Multimodal, Omnichannel, Mobile | Digital Twin, Personalized, Proactive, Predictive, Relevant |
|---|---|

**Execution Layer**
(Process Orchestration and Automation, **PO&A**)

**Agentic Orchestration** (end-to-end)

**Automation**

| Decisions (DMN) | RPA Bots | IDP | Task Agents | Human in the Loop | Forms | Business Application Integrations |
|---|---|---|---|---|---|---|

**Integration** (APIs, Documents, Data)

**PO&A via Camunda**

**Platform layer**

| Legacy Applications | Systems of Record | Real-time Data | Data Warehouse | APIs & Microservices |
|---|---|---|---|---|
| | SAP  salesforce  servicenow | ◆ CONFLUENT | ❄ snowflake  databricks | {REST·API}  Java |

| On prem | Cloud |
|---|---|
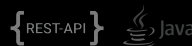
## Agentic Orchestration & Automation Platform

✦ AI enabled

### Design & Implement

Developers & business users collaborate to design processes, decisions, and forms.

**✦ Modeler**
Design BPMN process models and DMN decision tables, assisted by with AI Copilots.

**✦ Integrated AI Agents**
Model, deploy & manage AI agents alongside process models.

**✦ Forms**
Drag & drop UI builder to capture data and guide user interactions across your processes.

**✦ IDP**
Ingest, digitize, & process documents with AI to increase productivity and improve experiences.

**■ RPA**
Integrated RPA helps bridge the gap between legacy & AI for applications lacking API connectivity.

**✦ Connectors & Marketplace**
Integrate and operationalize connectivity all systems and LLMs.

### Test & Deploy

Developers & testers ensure the end-to-end process is working as intended.

**■ Rapid Process Testing**
Simulate processes without affecting production systems and deploy with confidence.

**■ CI/CD Integration**
Accelerate time-to-market by integrating with your SDLC ecosystem.

### Automate

Enterprise-grade automation. Built for today's business complexity, loved by developers.

**■ Zeebe Workflow & Decision Engine**
Cloud-native event streaming for unparalleled scale and resilience.

**✦ Workers**
AI agents, connectors, RPA, document handling, IDP, and custom workers.

**■ Operate**
Manage and troubleshoot processes with one model for management.

**■ Tasklist**
Web app for tasks that must be handled by knowledge workers.

### Improve

Teams have the insights to fix the highest ROI problems for business processes.

**✦ Optimize**
Monitor KPIs and analyze performance with one model for visualization.

### Manage

End-to-end governance of your Camunda installation.

**■ Console**
Manage clusters and API keys, review audit logs, and perform one-click upgrades.

**■ Identity**
Manage applications, APIs, users, and roles.
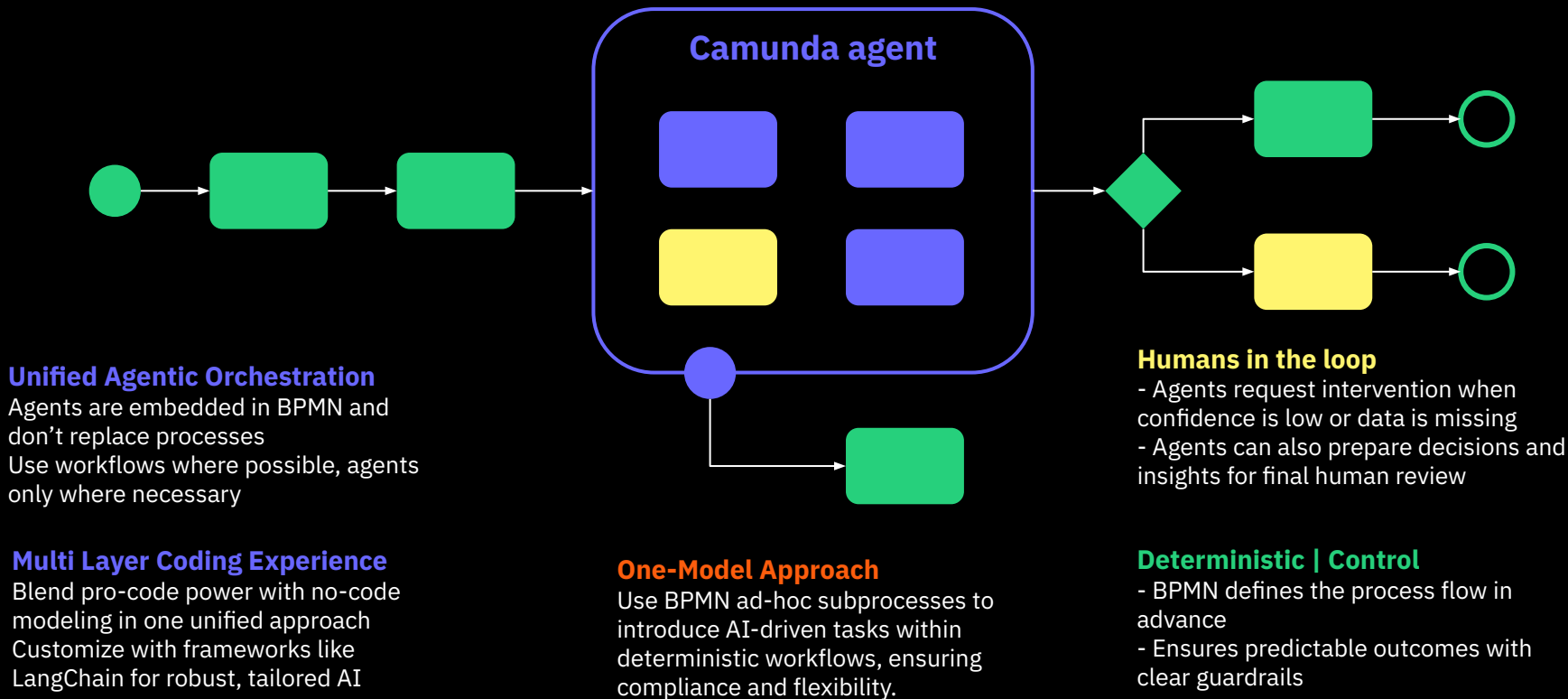
**■ Enterprise SSO**
Enterprise Single Sign-On for consistent authentication and secure user access across your entire organization.
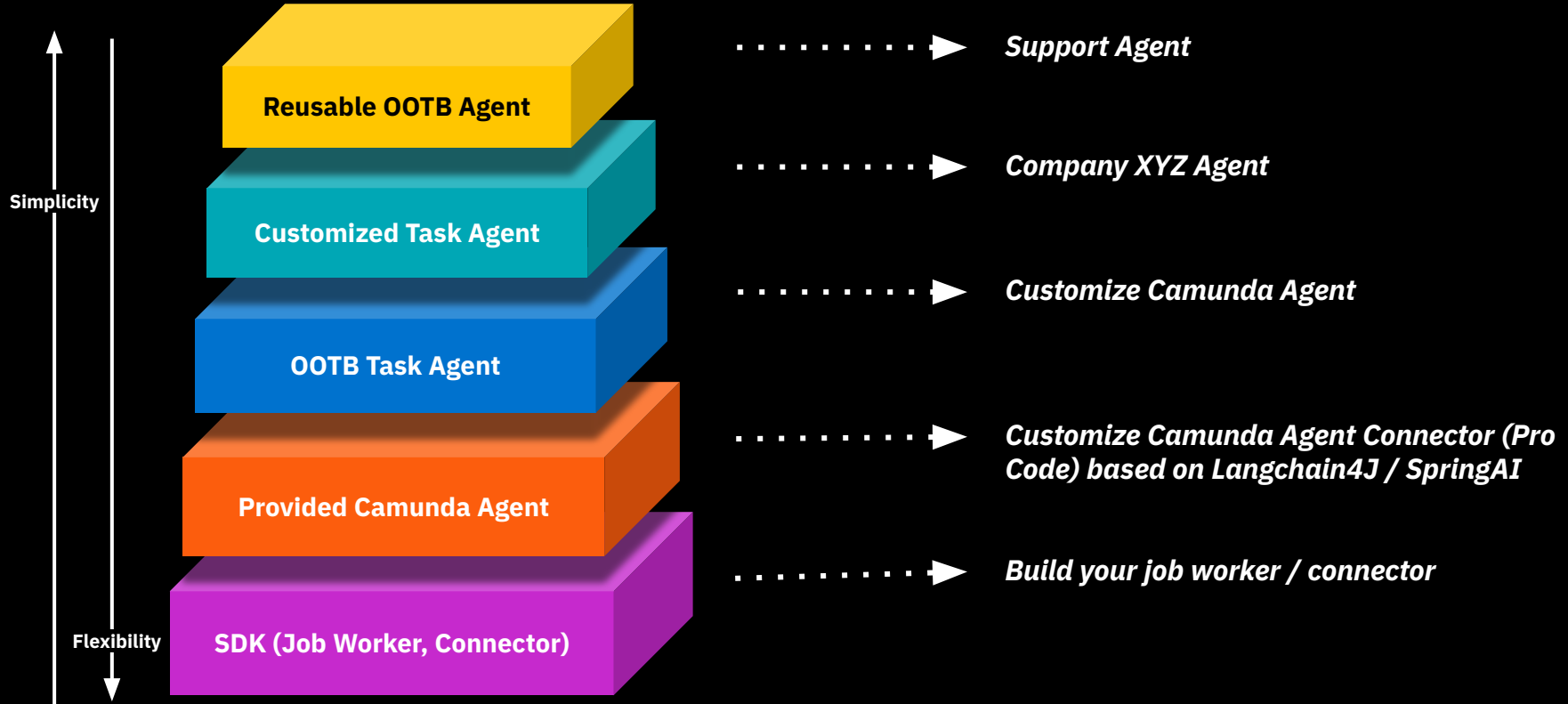
### Extend

Complete library of SDKs and APIs to integrate and extend process applications.
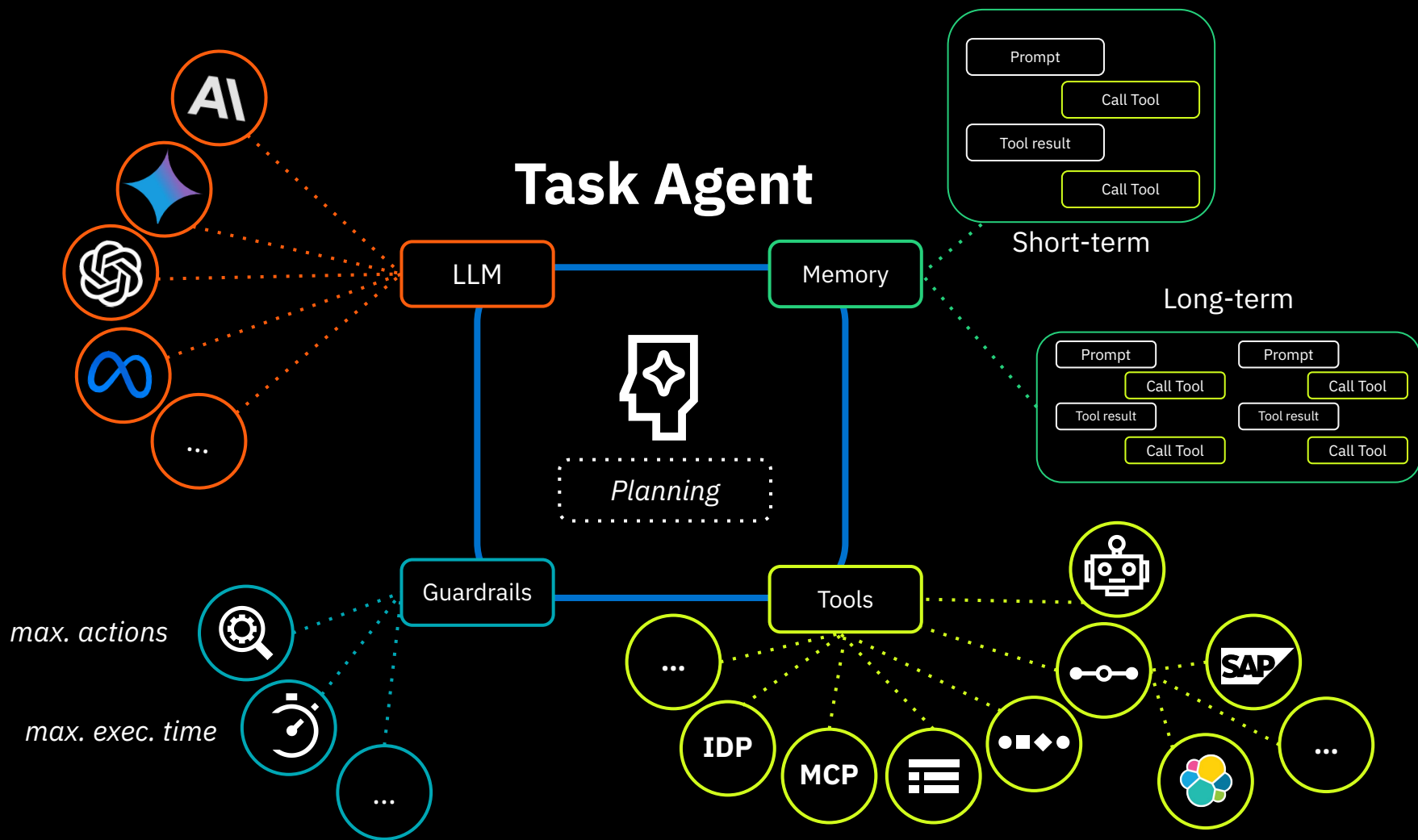
# Our Approach to **Agentic Orchestration**

*Blend deterministic and non-deterministic process execution to balance control with flexibility*
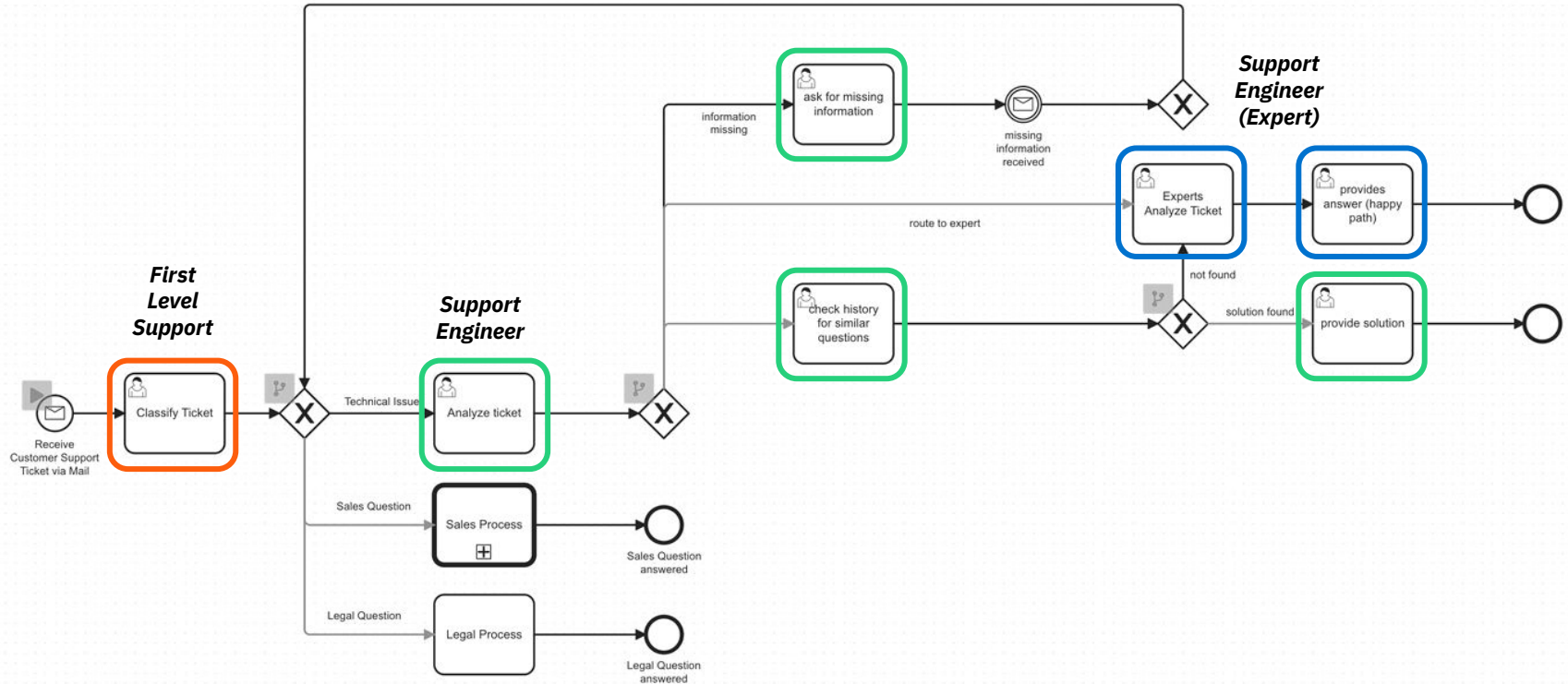


**Unified Agentic Orchestration**
Agents are embedded in BPMN and don't replace processes
Use workflows where possible, agents only where necessary

**Multi Layer Coding Experience**
Blend pro-code power with no-code modeling in one unified approach
Customize with frameworks like LangChain for robust, tailored AI

**One-Model Approach**
Use BPMN ad-hoc subprocesses to introduce AI-driven tasks within deterministic workflows, ensuring compliance and flexibility.

**Humans in the loop**
- Agents request intervention when confidence is low or data is missing
- Agents can also prepare decisions and insights for final human review

**Deterministic | Control**
- BPMN defines the process flow in advance
- Ensures predictable outcomes with clear guardrails

# Agent Multi Layer Coding Experience

**Simplicity**

**Flexibility**

Reusable OOTB Agent

Customized Task Agent

OOTB Task Agent

Provided Camunda Agent

SDK (Job Worker, Connector)

*Support Agent*

*Company XYZ Agent*

*Customize Camunda Agent*

*Customize Camunda Agent Connector (Pro Code) based on Langchain4J / SpringAI*

*Build your job worker / connector*

# Task Agent

LLM

Memory

**Short-term**

Prompt

Call Tool

Tool result

Call Tool

**Long-term**

Prompt

Prompt

Call Tool

Call Tool

Tool result

Tool result

Call Tool

Call Tool

*Planning*

Guardrails

max. actions

max. exec. time

...

Tools

IDP

MCP

...

SAP

...

# From Theory to **Practice**

# Customer Support
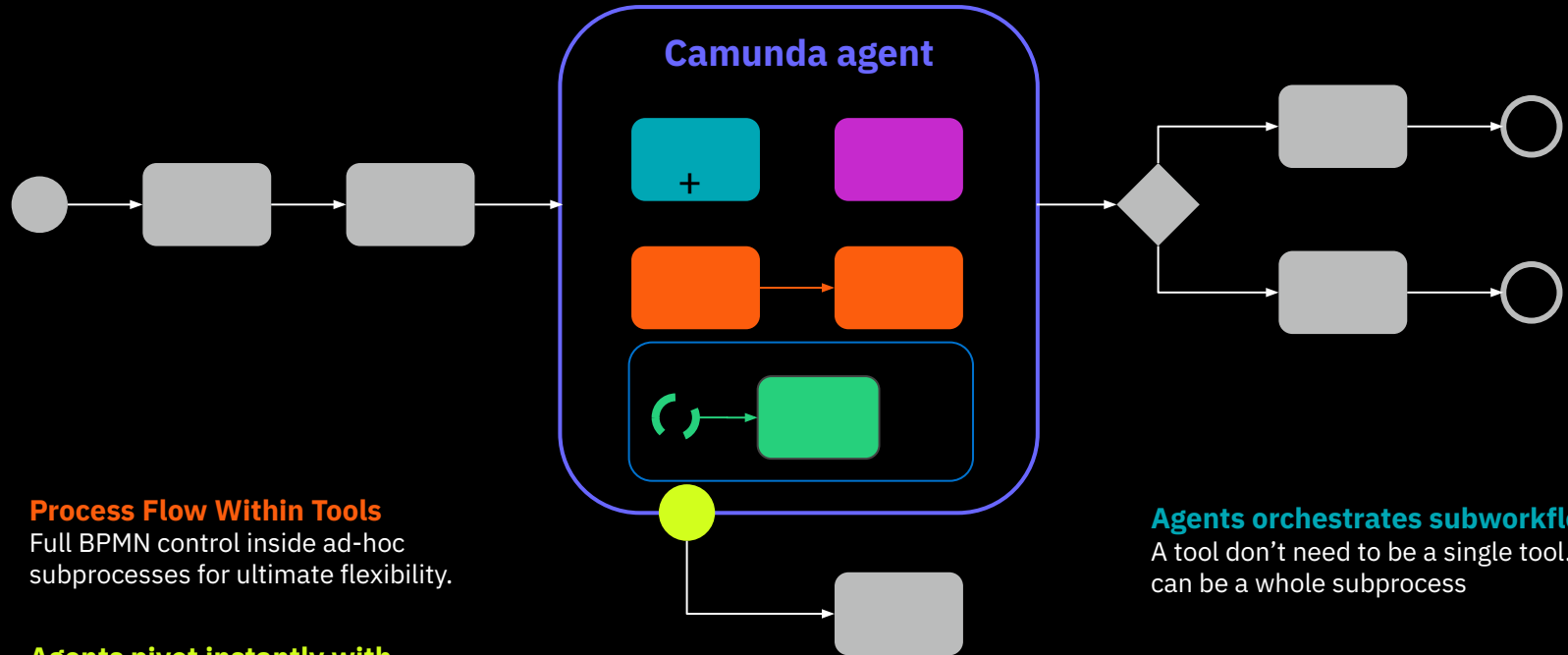## Today

# Customer Support
## Potential Agent Use Cases
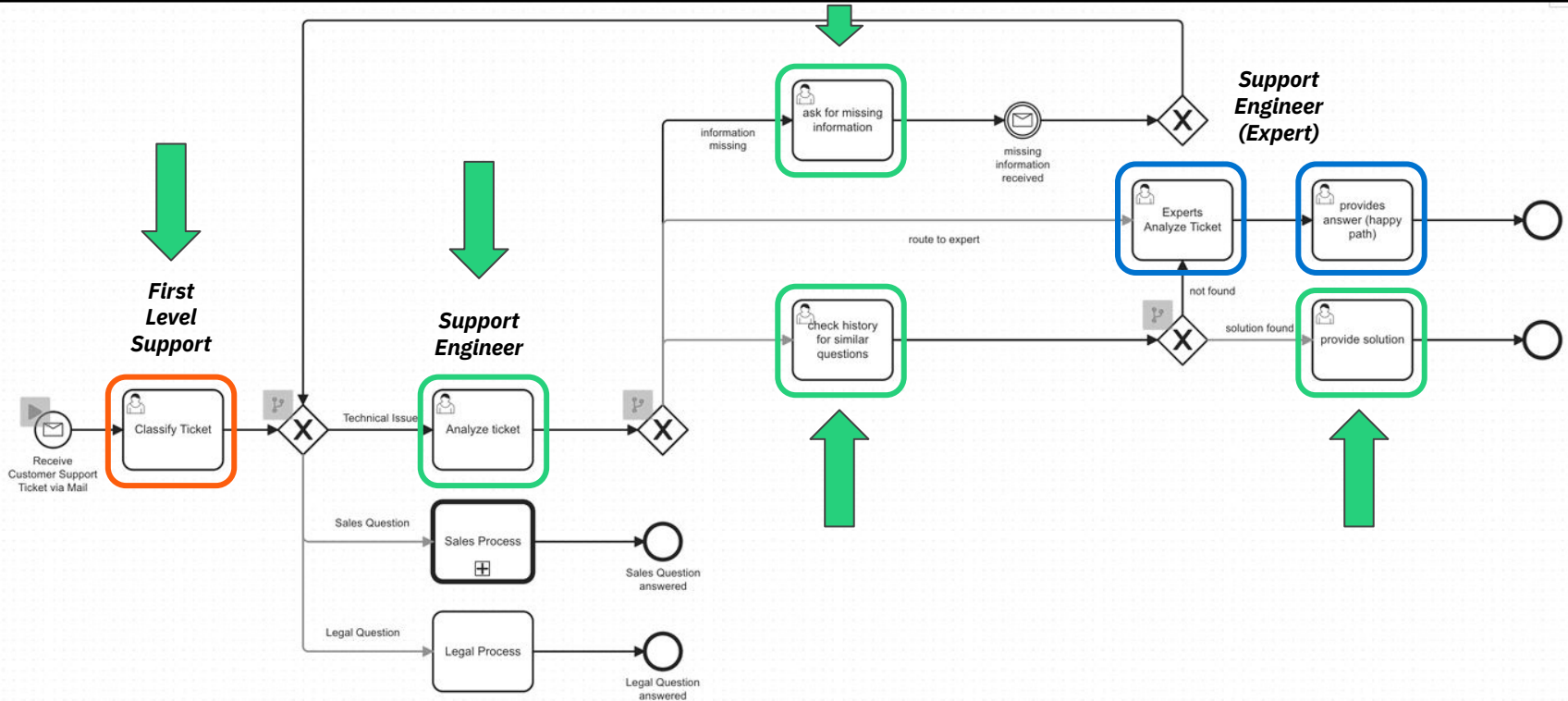
# How it could look
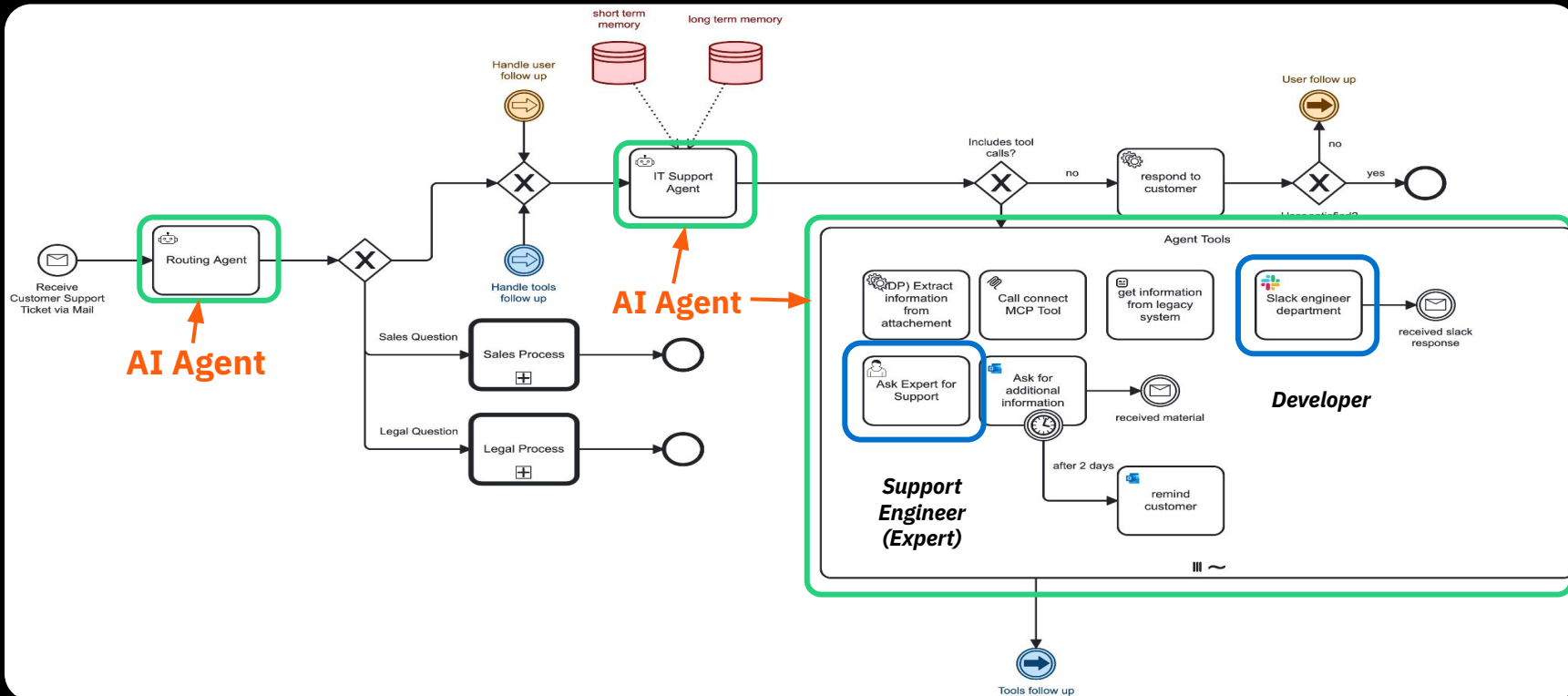
There is even **more**

# Mixing Agents with Workflow patterns



**Process Flow Within Tools**
Full BPMN control inside ad-hoc subprocesses for ultimate flexibility.

**Agents pivot instantly with external messages and timers.**
During execution, agents can be influenced by events like external messages or timers, enabling on-the-fly adjustments.

**Event-Driven Agent Reconfiguration**
Subworkflows handle new data, guiding the next AI steps.

**Agents orchestrates subworkflow**
A tool don't need to be a single tool. It can be a whole subprocess

**Multi-Agent Orchestration**
Agents orchestrate other agents for streamlined, scalable solutions.

# Intelligent Document Processing:
# Turn Unstructured Documents into Actionable Data

**1**

## AI-powered accuracy and efficiency gains

Transform unstructured documents into structured data to enable AI-driven automation—reducing manual effort and errors.

**2**

## Native integration with Camunda

Seamlessly integrate document extraction into your Camunda processes. No complex setup—just plug and play to enhance automation.

**3**

## Future-Proof Scalability

Adapt to growing document volumes and evolving technology with a scalable, composable solution. Process data efficiently today while staying prepared for tomorrow's business needs.
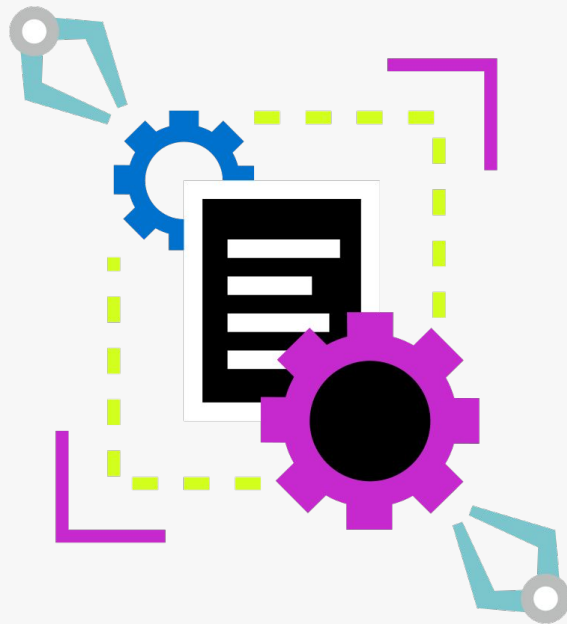
# Bridge the Gap between Legacy and Modern Technology with Camunda RPA

**1** **Integrate with legacy systems**

By bridging legacy systems with AI through process orchestration, businesses can unlock valuable data that would otherwise remain trapped, allowing them to fully operationalize AI across all people, systems (even legacy), and devices.
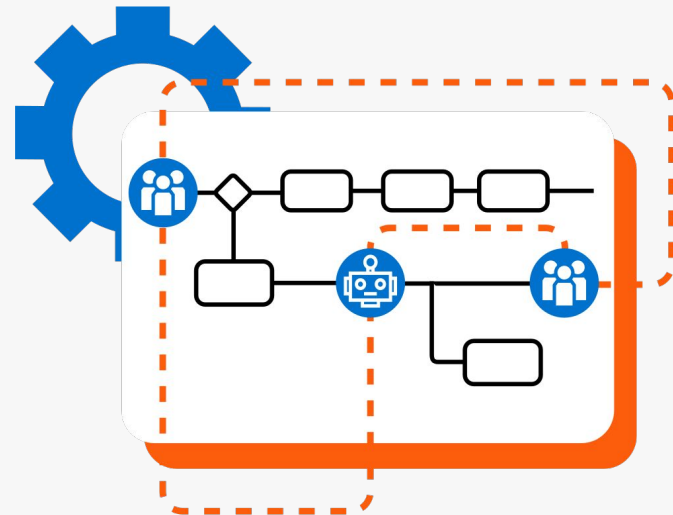
**2** **Adapt to changing requirements**

With Camunda RPA, you can change and adapt over time as needed. Build the RPA bots you need now and replace them with API calls or new technologies without modifying your processes.
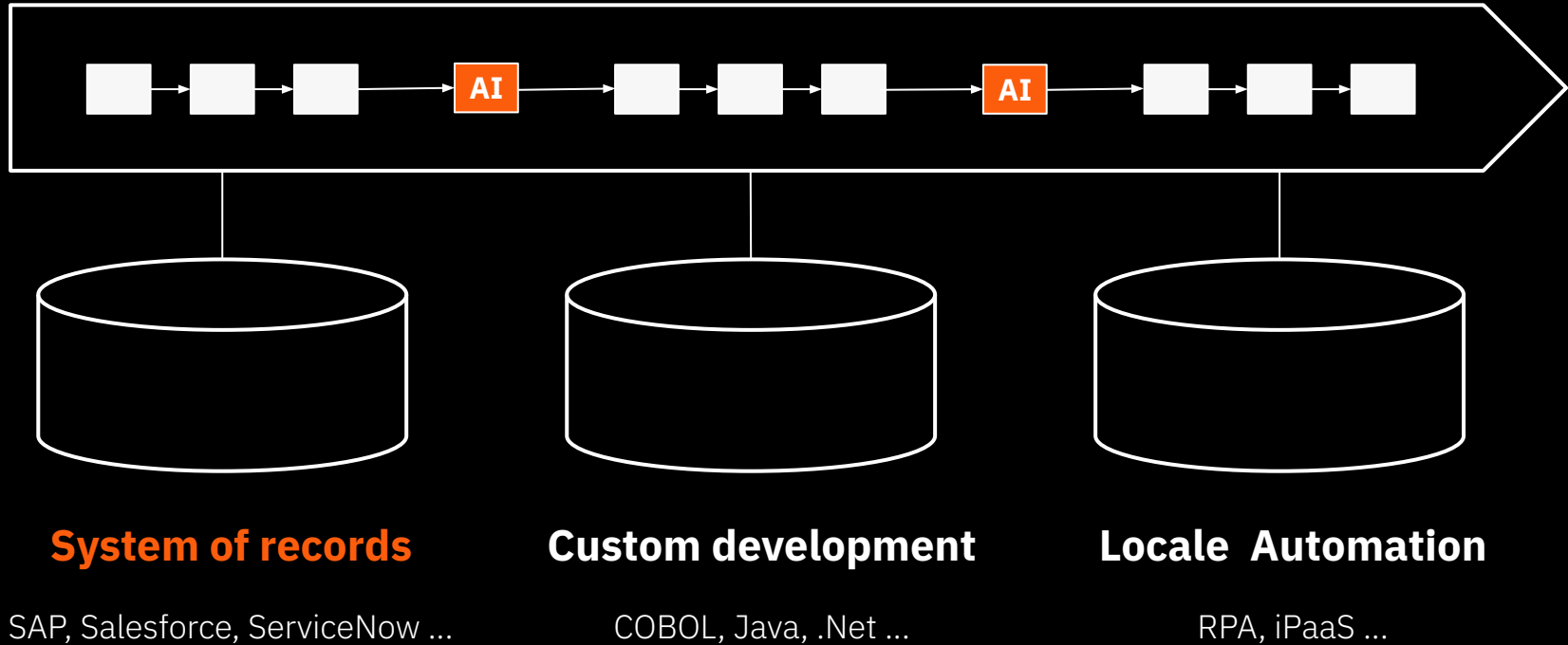
**3** **Seamlessly integrate into your process**

Camunda provides an all-in-one solution where RPA can be seamlessly integrated within the process. This approach reduces the need for multiple tools by creating RPA bots with our integrated tool lowering operational complexity and costs.

# Agentic Orchestration
## Across All Endpoints



**System of records**

SAP, Salesforce, ServiceNow ...

**Custom development**

COBOL, Java, .Net ...

**Locale  Automation**

RPA, iPaaS ...

# Camunda
# Business Application Integrations

## Integration with "Systems of Record"

Integrations to leading "System of Record" vendors **where data lives and work happens.**

## Reduced integration efforts

Integration with "Systems of Record" is challenging due to: **IT Governance** and **Authorization Management.**

## Meet the users where they are

**Developers** with Connectors to read/write data and interact on events. **End users** with functional integrations of e.g. Camunda Tasks to SAP Task Center.

➤ **Camunda SAP Integration**
(Available)

➤ **Camunda ServiceNow Integration**
(General Availability with Camunda 8.8)

➤ **Camunda Salesforce Integration**
(Connector Integration Available)

**Technology Partnerships**

SAP Silver Partner    servicenow.

# Camunda SAP Integration

## Features (GA Release 8.7)

- Use Element Templates to build business friendly connectors

- Retrieve and write data from/to any SAP System (via OData and RFC)

- Start Camunda Process from any SAP System via API

- Build one user Multi-Page Flow

- Generic BTP Process Launcher

- Render Camunda Forms in SAP Fiori Design System

**SAP** Certified
Built with SAP Business Technology Platform
SAP Silver Partner

## Benefits

- SAP Certified

- No additional licence cost

- Compliant with SAP Clean Core strategy

- Based on existing SAP Infrastructure

- Composable artefacts

- API First / Core Data API

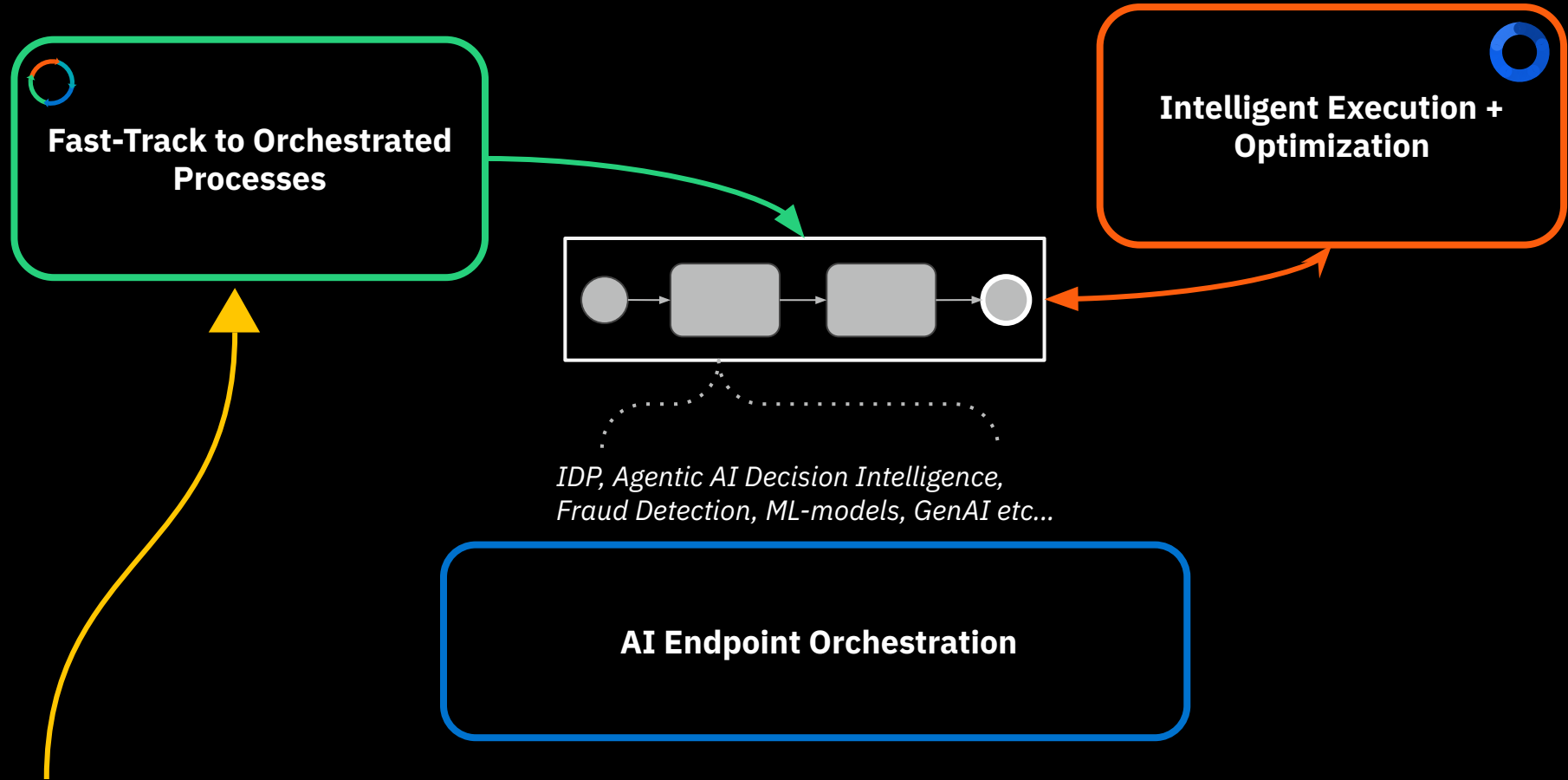- Retains SAP and BTP governance

## Deliverables

- CSAP - CLI Setup Scripts (NPM Repository)

- SAP OData Connector

- SAP RFC Connector

- SAP BTP Plugin

# AI-Enhanced Process Orchestration

**Fast-Track to Orchestrated Processes**

**Intelligent Execution + Optimization**

*IDP, Agentic AI Decision Intelligence, Fraud Detection, ML-models, GenAI etc...*

**AI Endpoint Orchestration**

# Fast-Track to Orchestrated Processes

| Design | Implementation | Test + Deploy |
|---|---|---|

**BPMN Copilot**

| NEW | NEW | LATER | | NEW |
|---|---|---|---|---|
| **BPMN Suggestions** | **BPMN Chat** | **AI-Powered Connector Generation** | **AI Form Generator** | **AI-Powered Process Documentation** |

| NEW | SOON | LATER | LATER |
|---|---|---|---|
| **AI-Driven Collaboration** | **FEEL Co-Pilot** | **Job Worker / Connector Boilerplate** | **Generate Test Data & Tests** |

# BPMN Copilot

Scale process automation efforts with **more people** making **better** BPMN diagrams, **faster.**
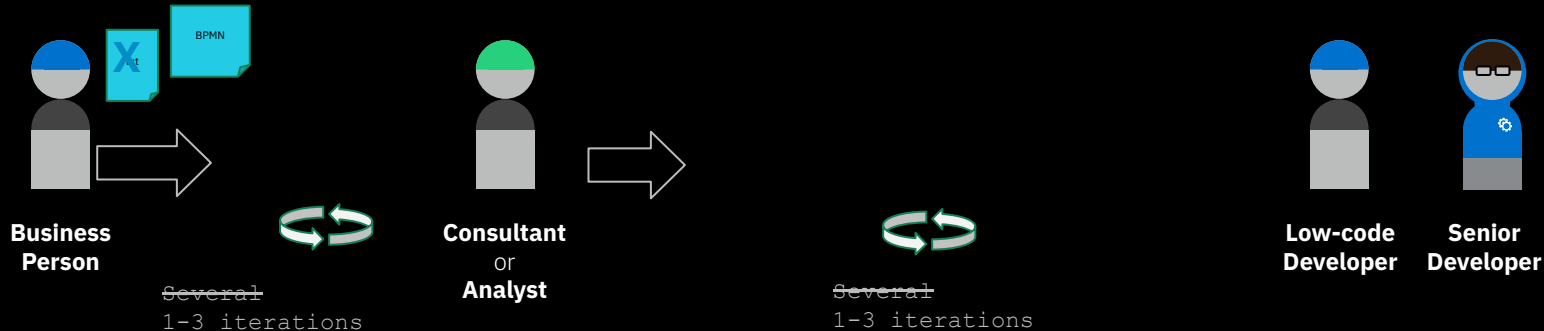
| Design | Implementation | Test + Deploy |
|---|---|---|

Provides ~~text or describes in a meeting their process~~ **complete BPMN with desired behavior**

~~They convert text or/and meeting content into a~~ **Reviews** BPMN against org standards

~~Rewrites BPMN file and~~ adds **implementation**

**Business Person**

~~Several~~ 1-3 iterations

**Consultant** or **Analyst**

~~Several~~ 1-3 iterations

**Low-code Developer**

**Senior Developer**

Collaboration Impact:  Business takes more ownership of design and implementation planning. IT focuses on pro-code and enabling the business.
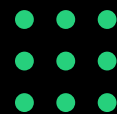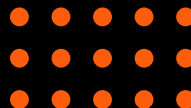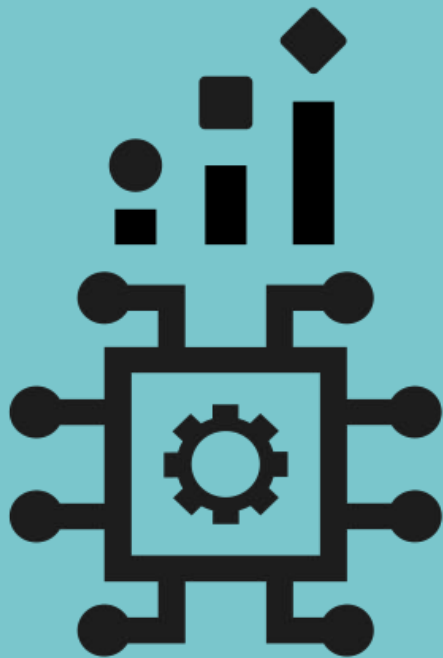
# THANK YOU

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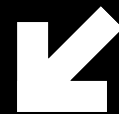
🌐   camunda.com

# Build Your First AI Agent in Camunda

Follow this step-by-step guide to start developing agentic process orchestration with Camunda today.

# See you next time!

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