

Business AI Intro

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July 04, 2024

AI in business needs to be:

Relevant | **Reliable** | **Responsible**



Responsible AI

We care deeply about the impact of AI on the well-being of people, the health of our customers' businesses, and SAP's impact on society and economies.

AI Safety & Ethics

Our core ethical principles and value

Ensuring fair and unbiased outcomes

AI Security

SAP Cloud and BTP security

Meeting AI security challenges

Data Protection

AI Compliance

Assurance for AI solutions

Model Training

Regulatory Compliance

AI Ethics Advisory Panel

SAP's AI Ethics Policy

AI Ethics Steering Committee



Committed to protecting your data in AI



Data usage and sharing

Where permitted, we may use your data to help innovate and improve our products, but your data is not used to train third-party models.

Data security

We employ advanced data security measures to protect your personal data at all times.

Development of AI software

The same rigorous standards that govern all SAP product development extend to AI.

Detailed information on security and data protection is available on the [Trust Center](#).



How do we build SAP Business AI?



Generative AI Hub

SAP AI Core

SAP AI Launchpad

SAP AI Services

Joule

SAP HANA

PAL

Vector Engine

Our business AI is embedded across the portfolio

Relevant

Reliable

Responsible

Joule

The AI copilot that truly understands your business

Embedded AI capabilities

SAP Cloud ERP

SAP Supply Chain Management

SAP ERP
Human Capital Management

Spend Management
and SAP Business Network

SAP Customer Relationship Management

SAP Business Technology Platform

Customized AI

AI Foundation

on SAP Business Technology Platform

AI ecosystem partnerships and investments



Breakthrough innovations

for the next wave of real-world results

AI Research Partners



AI Research Areas

Multi-Modal Foundation Models

Self-supervised learning on business data

Generative interaction with business data

Mobile AI

Code Generation

Improvements for dev tools

API gen to create connectors automatically

Trustworthy Artificial Intelligence

Human-aligned machine learning

Robust and interpretable machine learning

Economic impact of AI in industries



AI-related patents granted
699+ worldwide patents

Get started with SAP Business AI

www.sap.com/ai

Get started with SAP Business AI

SAP Business AI White Paper

Our vision and approach for SAP Business AI

SAP Global AI Ethics Policy

Our guidelines for development of responsible AI



SAP White Paper | PUBLIC

SAP Business AI

Reinventing How Businesses Run

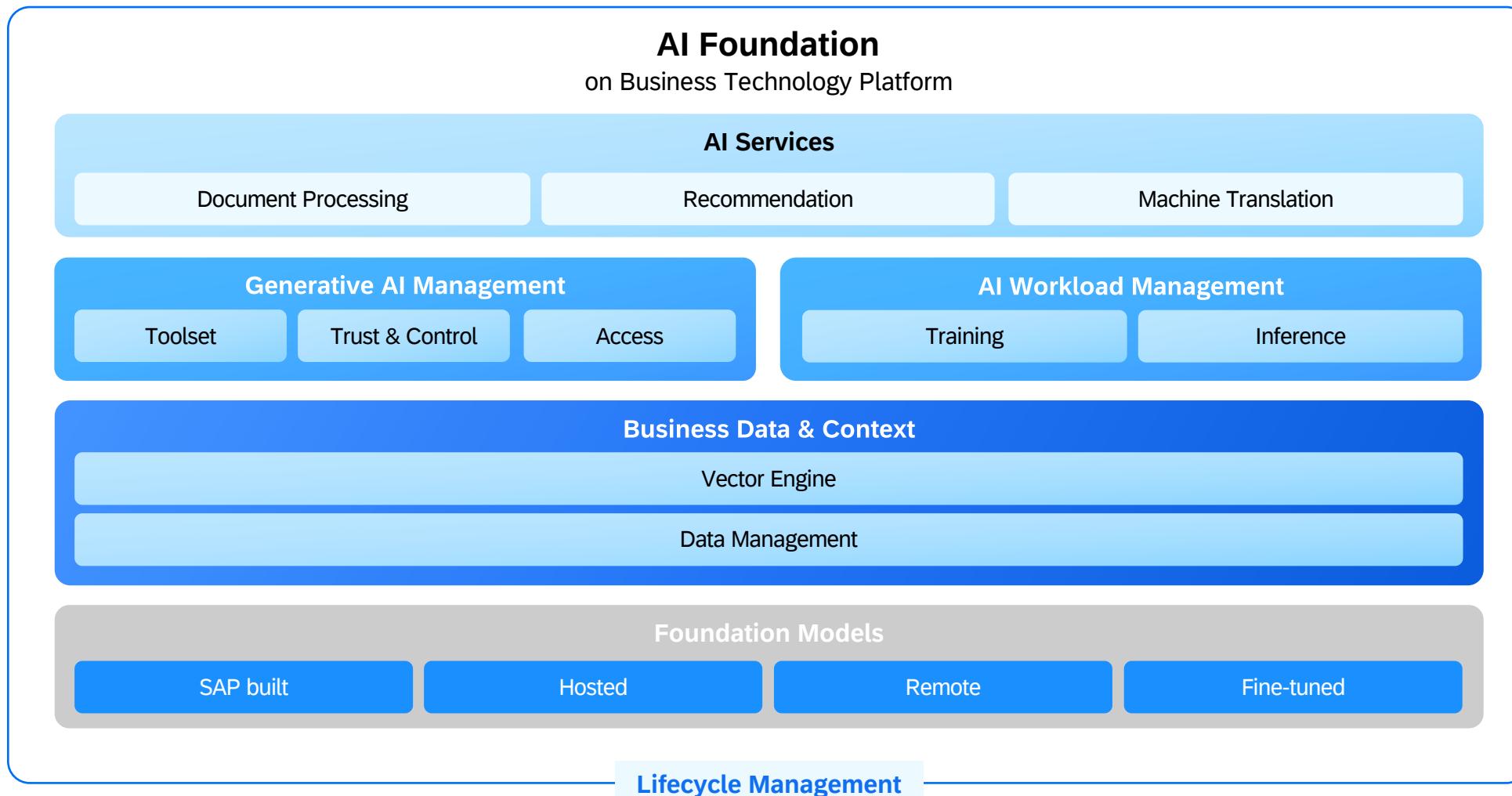
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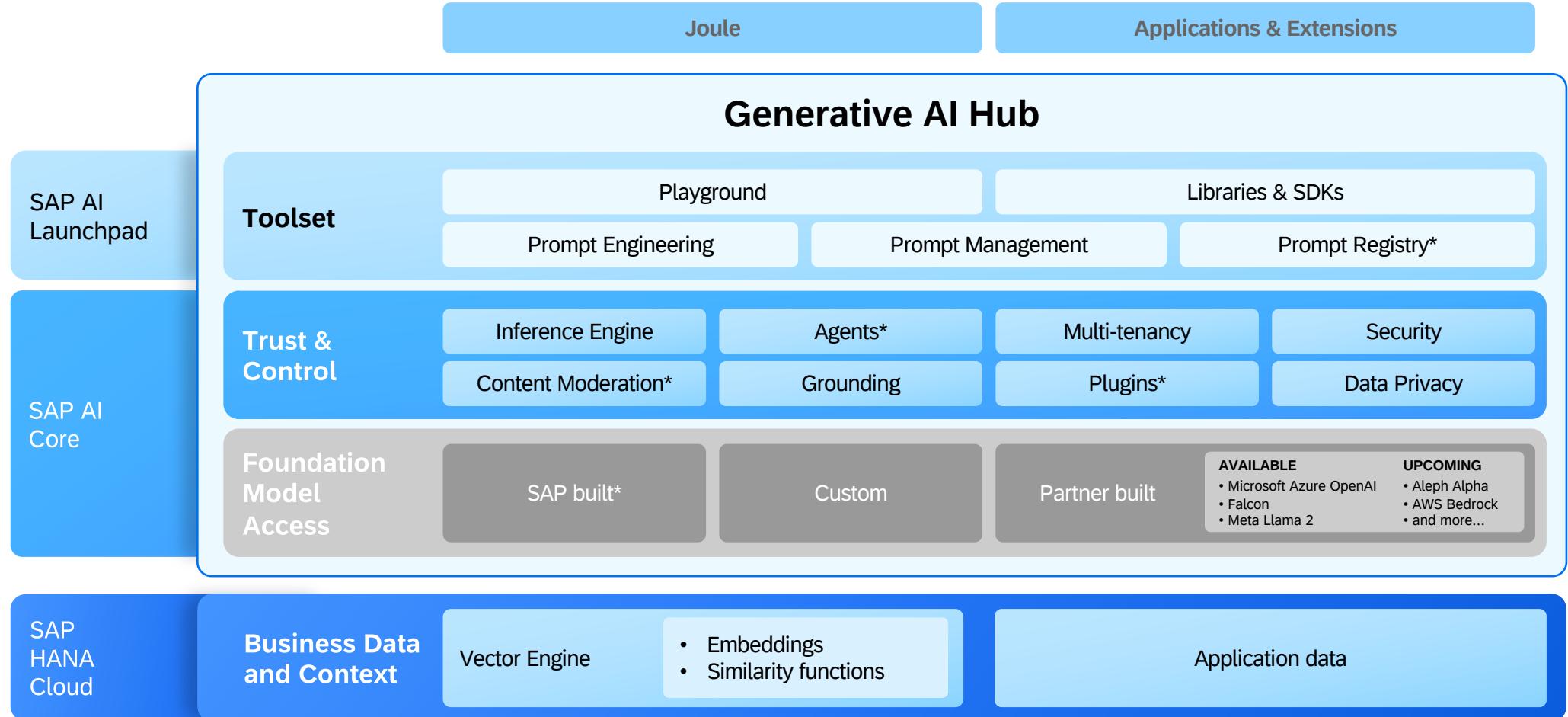
Generative AI Hub

SAP AI Core
SAP AI Launchpad

AI Foundation: complete set of services for AI developers on SAP BTP

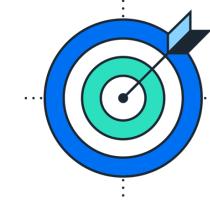


Generative AI Hub: integrate AI into applications, seamlessly

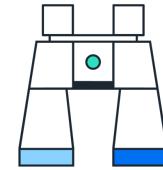


Prompt Engineering

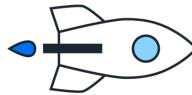
Prompt Engineering



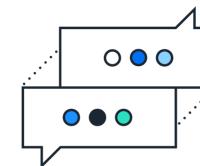
Make prompt as specific as possible



More complex prompts you can find here:
<https://www.promptingguide.ai/techniques>



Be creative and try different
prompts/wording



Feed output again and ask for
feedback

Prompt Engineering Techniques



Chain-of-Thought

“Let’s think step by step”
“first do this then do that”
“if this do that”



Zero-shot prompting

“Translate this sentence from German to English: Ich wohne in Hamburg!”

Few-shot prompting

“Ich heiße Nora. – My name is Nora.
Ich wohne in Hamburg! – ?”

Prompt Engineering

Set the scene

You are working at a big tech company and you are part of the Community team.

Give examples

You are tasked with analyzing how the Community reacted to a new software release.

Clear instructions

1. First read all the feedback
2. Then classify it into positive and negative feedback
3. Examples: "bad usability. very confusing user interface." - negative
4. Then count how many positive and how many negative ones there are
5. Then summarize in bullet points the most important pain points of the Community

Iterate

Depending on output, give feedback, ask what else it needs to help you with

How can you help me when writing blog posts?

As an AI language model, I can help you write a blog post by providing you with ideas, generating outlines, and creating content based on your chosen topic. Here's how you can leverage me for writing a blog post:

1. Topic Ideation
2. Creating an Outline
3. Writing Content
4. Editing and Proofreading
5. SEO Optimization

By leveraging my capabilities, you can efficiently produce well-structured, engaging, and optimized blog content.

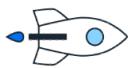
Prompt Engineering



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Prompt Engineering



Chain-of-Thought

"Let's think step by step"
"first do this then do that"
"if this do that"



Zero-shot prompting

"Translate this sentence from German to
English: Wir sind in Las Vegas!"

Few-shot prompting

"Ich heiße Nora. – My name is Nora.
Wir sind in Las Vegas! – ?"

Prompt Engineering

Make prompt as specific as possible

Be creative and try different prompts/wording

More complex prompts you can find here:
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Feed output again and ask for feedback

Chain-of-Thought Prompts:

- "Let's think step by step"
- "first do this then do that"
- "if this do that"

Zero-shot prompting

"Translate this sentence from German to English:
Wir sind in Las Vegas!"

Few-shot prompting (give examples/shots)

"Ich heiße Nora. – My name is Nora.
Wir sind in Las Vegas! – ?"

Examples

Summaries, text classification

Outline (blog post/video transcript/PPT)

Brainstorming

Examples

Refactor code based on give guidelines

Proof reading

Interview questions

SAP AI Services

AI Services, models pre-trained on business-relevant data

AI Foundation

on Business Technology Platform

AI Services

Document Processing



Document Information Extraction

Automate and scale your business document processing for any document type.

Base & Premium Editions

Recommendation



Personalized Recommendation

Get accurate recommendations based on users' browsing history and/or item description.

Data Attribute Recommendation

Perform classification and regression tasks.

Machine Translation

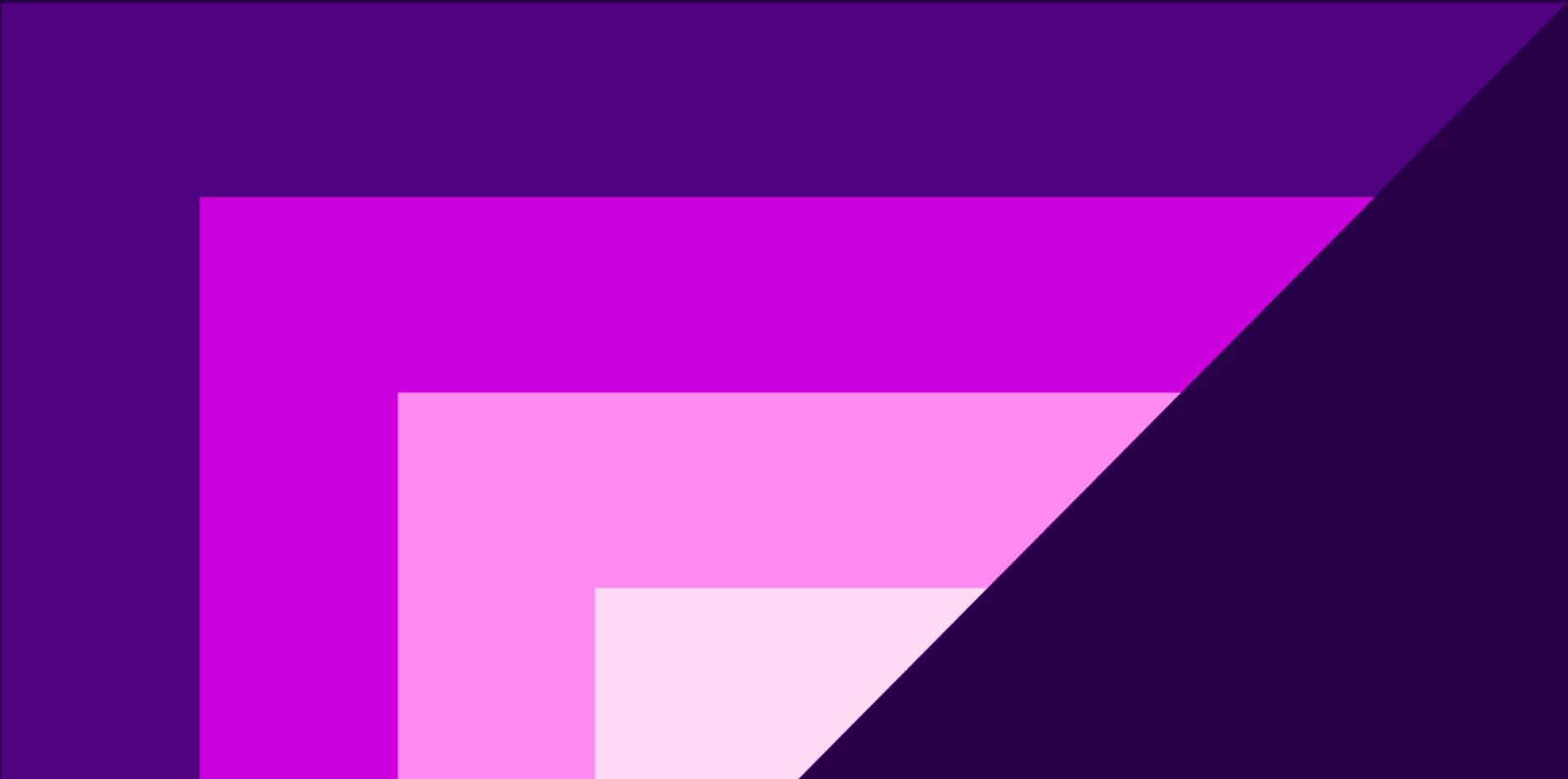


SAP Translation Hub

Translate UI texts and documents and get UI text suggestions during development.

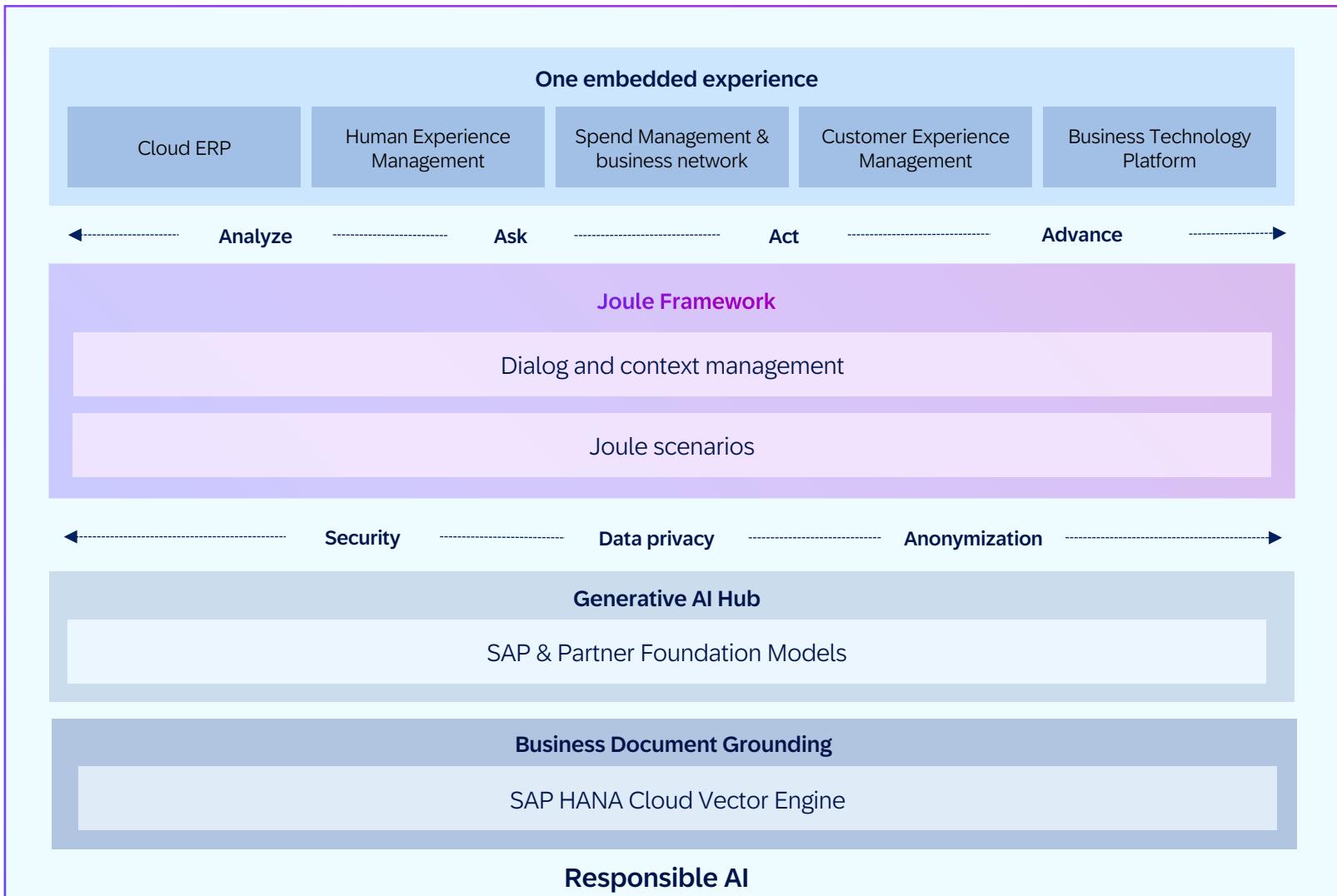
Lifecycle Management

Joule



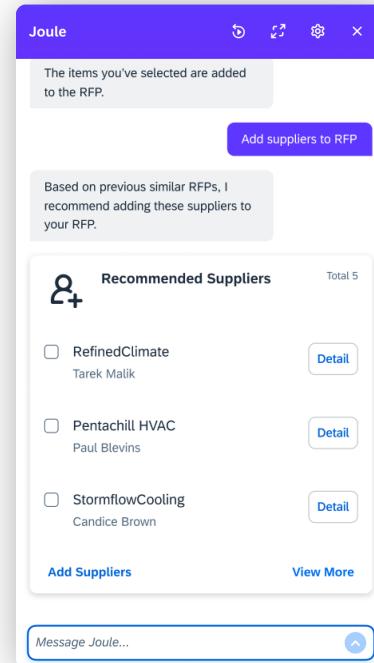
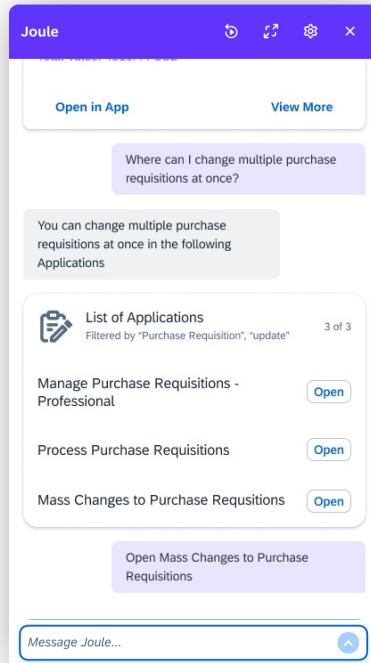
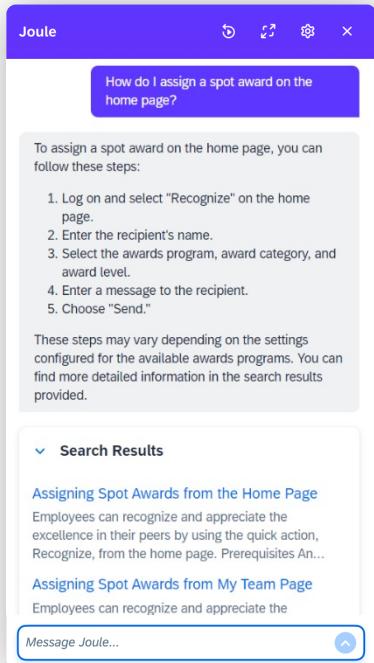


Functional View



Up to 80% faster work

Unique integration with your SAP applications makes every user a power user



Tell me how...

Expert advice on using
SAP applications

Show me where...

Quick links to applications
for the next task

Do this task...

Automation that gets
work done without the UI

Human-centric governance

Joule advances the AI governance you have in place

Built-in responsible AI

Safeguards against inappropriate use, bias, and hate speech

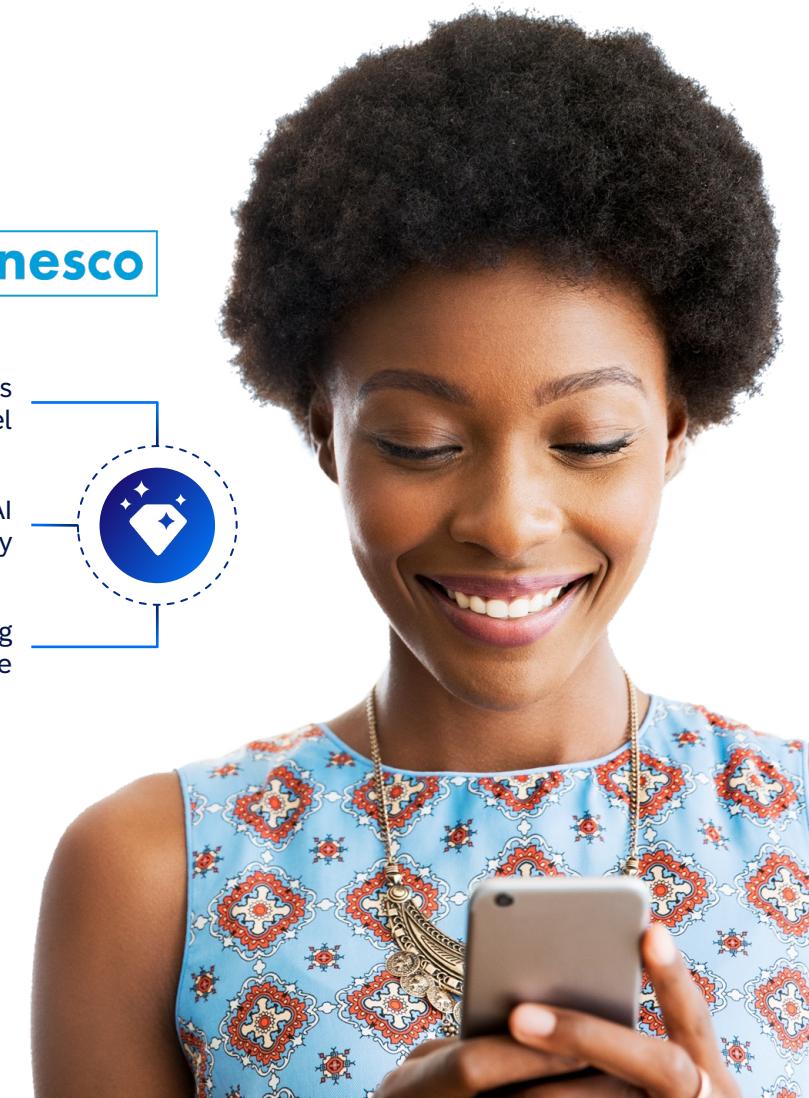
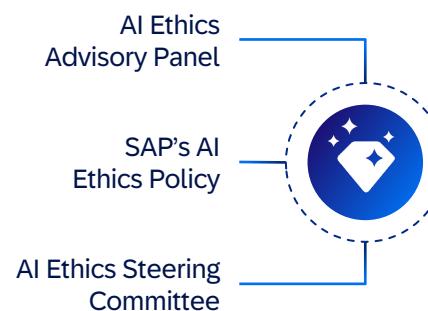


UNESCO AI ethics principles

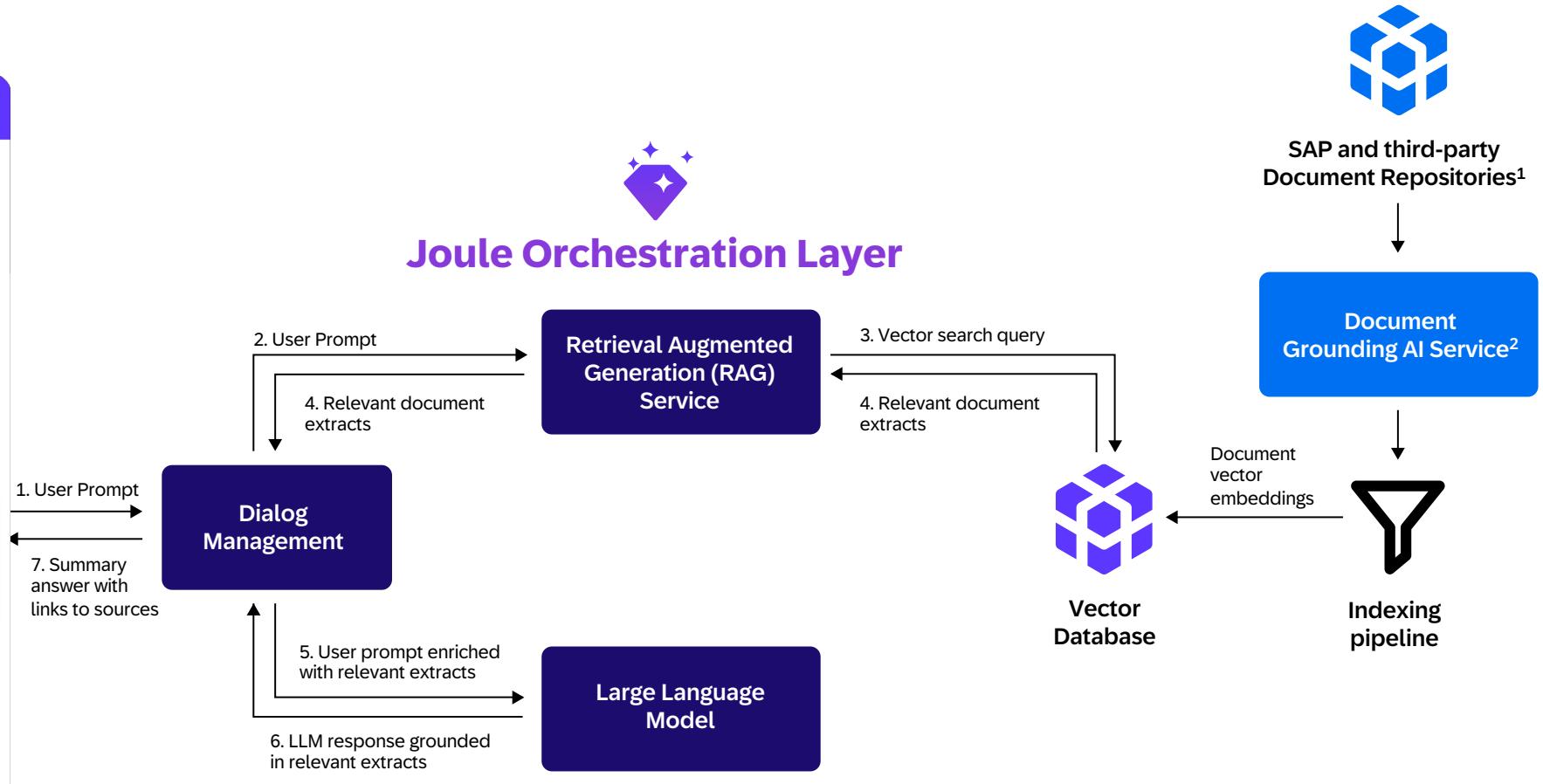
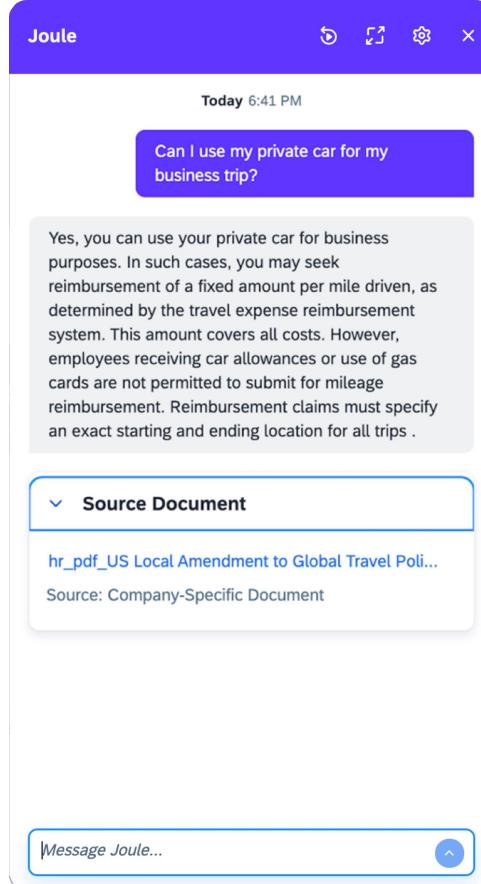
Advances alignment with global AI principles

Human-first automation

Maximizes transformation while empowering and elevating employees



Joule's document grounding



1. Support for PDF and Word documents stored in Microsoft SharePoint available now. Additional repositories and file formats planned for future releases.
2. Premium Business AI service that consumes AI Units based on number and size of documents. See [SAP AI Services List](#) for pricing details.

Joule

“Bare Joule” will already be covered by the “regular” Joule

Joule UX

- Natively integrated, out-of-the-Box CoPilot
- Consistent UX across applications

Joule Context

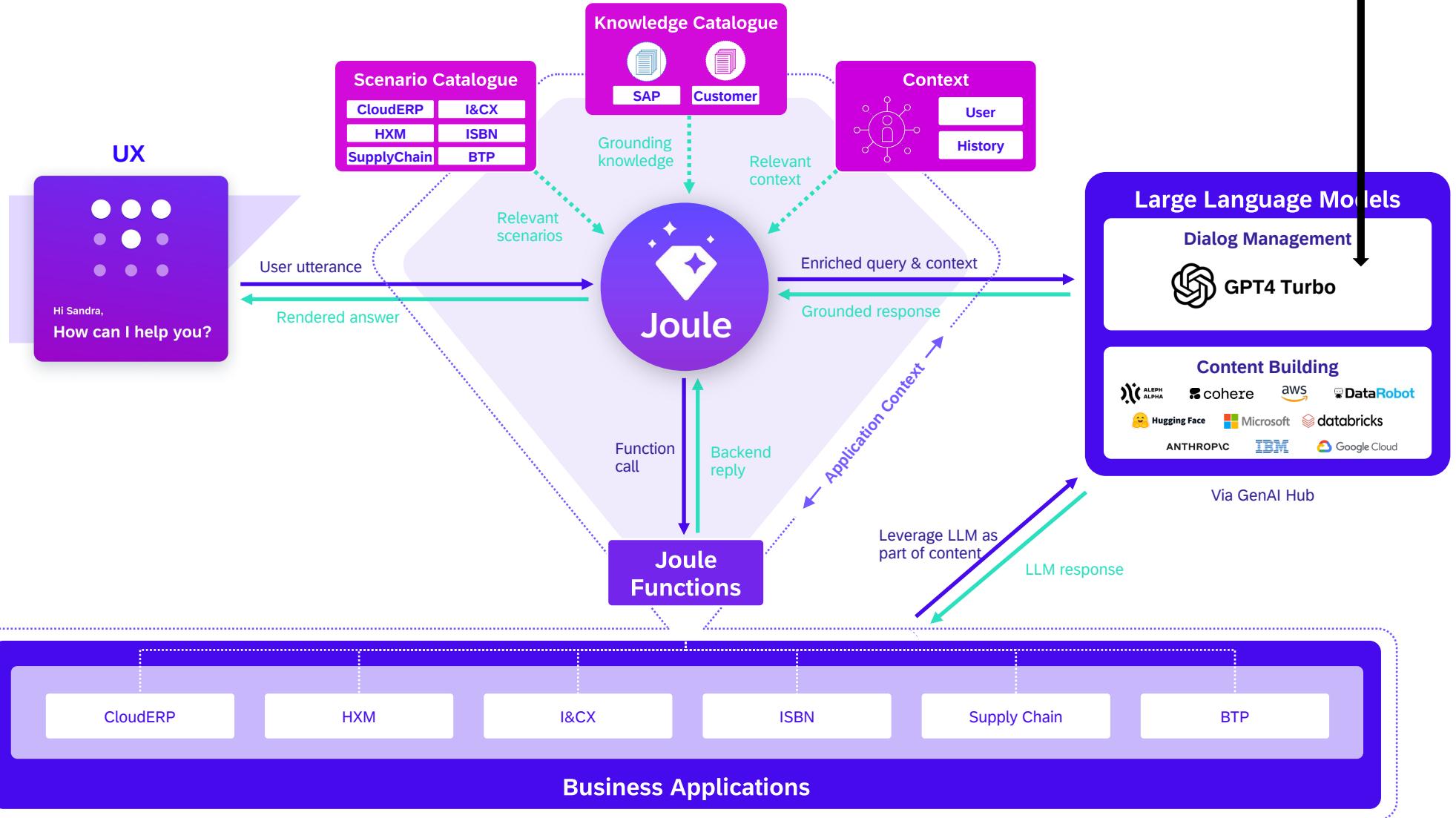
- Semantic filtering of available scenarios & knowledge based on user input
- Context is dynamically assembled upon user, application & history

Joule LLM Access

- Best-of-breed partner LLMs
- Access via GenAI Hub to ensure secure, private & safe interactions

Joule Functions

- Seamless & secure integration to SAP apps via business connector
- Nested dependencies of functions to model complex dialog flows



Brand – Talking about AI

Do:

- Refer to Joule as a “**copilot**” in messaging.
 - For **transparency**, it is important to provide **context** and ensure the user/audience knows when AI is used.
 - Use terms like “**generative**,” “**generative AI**,” or “**generated**” in messaging when **GenAI** is used
 - Terms like “**AI-generated**” are also acceptable in messaging to refer to results from all types of AI technologies (NLP, ML, **GenAI**, etc.)
 - Use terms like “**innovative**” or “**advanced**” when talking about our AI capabilities and results.
- Other acceptable terms for messaging, **depending on the context**:
- advanced analytics
 - predictive analytics
 - data-driven insights
 - pattern recognition
 - algorithmic processing
 - statistical modeling
 - personalized recommendations
 - etc.

Don’t:

- Use “**intelligence**” or “**intelligent**” in messaging when describing Joule or SAP Business AI.
- Use terms like “**understanding**” in messaging. AI can uncover patterns and make predictions, but it does not comprehend the information.
- Use terms like “**unbiased**”.
- Use terms like “**unleash**” or “**unleashed**,” as it implies AI taking control
- Use terms like “**unmatched**,” “**guaranteed**,” “**ultimate**,” or “**unprecedented**” when describing our AI capabilities as they over-promise.
- Use “**powered by**” or “**the power of Business AI**” or “**the power of Joule**”

What's already possible

Recent release highlights

ERP and finance

SAP S/4HANA Cloud Private Edition

- ✓ Joule: Availability (EAC)

SAP S/4HANA Cloud Public Edition

- ✓ Joule availability (EAC)
- ✓ Role-based transactional content: Shipping Specialist (beta)

SAP S/4HANA Cloud for Projects

- ✓ Intelligent Matching of Employees to Projects (Beta)

SAP Sustainability Footprint Management

- ✓ Intelligent emission factor mapping
- ✓ ESG Report Generation (beta)

SAP Enterprise Service Management

- ✓ Next Generation Shared Services Automation

Supply chain

SAP S/4HANA Cloud Private Edition

- ✓ Transportation Management – Intelligent Goods Receipt Analysis (Pilot)

SAP Digital Manufacturing

- ✓ Visual Inspection

SAP Product Lifecycle Management

- ✓ Joule for product innovation management

Human resources

SAP SuccessFactors

- ✓ Joule availability
- ✓ Assisted Q&A in Joule (HR Policy)
- ✓ Job Description Generation
- ✓ Assisted Interview Questions with MS Teams
- ✓ Learning in Viva with Co-Pilot
- ✓ AI person insights for compensation discussions
- ✓ Generative AI for performance goals
- ✓ Generative AI for development goals
- ✓ Assisted Writing

Procurement

SAP Ariba

- ✓ Category Management market segmentation
- ✓ Category Management cost structure
- ✓ Category Management market dynamics

SAP Business Network

- ✓ Enhanced Responses to Discovery Postings
- ✓ Enhance Product Information on the Network Catalog

SAP Concur

- ✓ Faster Itemization of Hotel Receipts
- ✓ Request Assistant: Cost estimates

SAP Fieldglass

- ✓ AI-enhanced SOW description generation
- ✓ AI-enhanced job description generation
- ✓ AI-enhanced translation of job Description

Sales and marketing

SAP CX AI Toolkit

- ✓ Intelligent Customer Profile
- ✓ Intelligent Q&A
- ✓ Smart Scheduling
- ✓ Record Summarization
- ✓ AI Product Tagging
- ✓ AI Product Descriptions
- ✓ Visual Search
- ✓ AI Tools

SAP Service Cloud, Version 2

- ✓ Email Draft Recommender
- ✓ Account Synopsis for Sales
- ✓ Case Summary

SAP Sales Cloud, Version 2

- ✓ Email Draft Recommender
- ✓ Account Synopsis for Sales
- ✓ Lead Booster
- ✓ Survey Trend Summary

SAP Emarsys

- ✓ AI Subject Line Generator

SAP Field Service Management

- ✓ Intelligent Filtering
- ✓ Equipment Insights

Industries

Discrete Industries:

- ✓ SAP Intelligent Product Recommendation for configurable products

IT and platform

SAP Analytics Cloud

- ✓ Just Ask Search

SAP AI Core & Launchpad

- ✓ Generative AI Hub

Document Information Extraction

- ✓ Premium Edition

SAP BTP Cockpit

- ✓ Joule availability (Beta)

SAP HANA Cloud

- ✓ Vector Engine

SAP Build Code

- ✓ Code Generation (Joule)

SAP Automation Pilot

- ✓ Content Generation Assistant (Beta)

SAP LeanIX

- ✓ Inventory AI prompt
- ✓ AI-assisted text
- ✓ AI-generated context
- ✓ AI-supported translations

SAP Enable Now

- ✓ Cross/Training and Adoption - LLM Authoring Support for SAP Enable Now

SAP Globalization

- ✓ Regulatory Change Manager

Selected highlights

All releases are not necessarily GA. SAP reserves the right to release for testing in environments like EAC, beta, RTC, POC etc.

100+ SAP Business AI scenarios* to be available by end of 2024

Q3 2024

ERP and finance

SAP S/4HANA Cloud Public Edition

- Communication Intelligence
- SAP Signavio

 - Performance Indicator Recommender
 - Process Recommender

Supply chain

SAP Asset Performance Management

- Visual Inspection

SAP Integrated Business Planning

- Joule: Availability

Procurement

SAP Ariba

- Ariba – Scope 3 Emissions data capture

SAP Concur

- Travel & Expense Policy Search from Request Assistant

SAP Business Network

- Invoice error summarization

Sales and marketing

SAP CX AI Toolkit (GA)

- Additional Language Support for AI Outputs
- Custom Data Source for Intelligent Q&A
- Case records as data source in Intelligent Q&A
- AI Tools Builder Support Nested Level Relationships for V2 and C4C
- Image Generation for Commerce Cloud
- Embedded Sales/Service V2

SAP Sales Cloud, Version 2

- Post Visit Brief

SAP Service Cloud, Version 2

- Case Entity Extraction
- Email Summary
- Next Best Actions-Suggest Collaborators

SAP Enterprise Service Management

- Entity Extraction – Invoice, Payment Advice, Case, Dispute Management Scenario
- Email summary

Industries

Discrete Industries:

- SAP Returnable Packaging Management: Generative AI-powered Receipt of Account Statements in PDF Format

Consumer Products:

- Revenue Growth Planning - Copy Promotion

Utilities:

- Explanation of EDIFACT-coded error message in MaCo

Life Sciences:

- AI-enabled Configuration Wizard for SAP Cell and Gene Therapy Orchestration

Public Sector:

- Navigational Assistance to Public Sector Management Applications through the Joule Co-Pilot

Sports & Entertainment:

- AI Scout in Sports One

IT and platform

SAP Build Code

- Release Joule in VSCode marketplace
- Joule for HANA applications
- Joule for Mobile applications
- Introducing an AI-powered search to guide users through development tasks

Document Information Extraction

- Expedite the Processing Time for Time-Critical Documents

SAP Integration Suite

- Content recommendation in Business Accelerator Hub
- Generation of Integrations

SAP Build Process Automation

- Generative AI for Process Automations
- Document Information Extraction (DOX) Premium Adoption

SAP Automation Pilot

- Content Generation Assistant

SAP Analytics Cloud

- Just Ask Search - Full SAP Datasphere support

SAP HANA Cloud

- Support for vector indexing
- New vector clustering and segmented automated machine learning modeling

SAP ABAP

- ABAP BO Generator

Q4 2024

ERP and finance

SAP S/4HANA Joule Public Cloud

- Automated BOP Setup

SAP S/4HANA Cloud Private Edition

- Next Generation Shared Services Automation with GenAI (Pending EAC from Public Cloud) (Cross-port)

Supply chain

SAP S/4HANA Cloud Private Edition

- Transportation Management – Intelligent Goods Receipt Analysis

SAP Integrated Business Planning:

- Explanation of planning results

Procurement

SAP Ariba

- Supplier ESG Scorecard Creation
- Catalog bundle recommendations
- Invoice capture with DOX Premium

SAP Concur

- Travel Personalization

SAP Fieldglass

- SOW Capture with DOX Premium

Human resources

SAP SuccessFactors

- Assisted Opportunity Marketplace Assignment Generation (User driven)
- Assisted 360 Reviews & Insights
- Assisted Writing with Recognition Messages, for People Profile, Onboarding, Dynamic Teams, Objectives, Key Results, and Talent Intelligence Hub and with Content Translation
- AI-assisted Person Insights – Compensation Discussion in new People Profile

Industries

Discrete Industries:

- Intelligent Inbound Cargo Registration

Commodity Management:

- Generative AI Enabled Deal Capture

Life Sciences:

- Generative AI Assisted Batch Release
- ICSM Digital Study Assistance

Public Sector:

- Intelligent Error Handling in Position Budget and Control

Sales and marketing

CX AI Toolkit

- Shopping Assistant: Ask the Product, Semantic Search and Intent based Search for consumers in Commerce Cloud
- Custom AI Tools for lists of records
- Role Specific insights
- Automated Agents and record updates in Sales/Service Cloud

SAP Sales Cloud, Version 2

- Joule Integration
- Sales Quote Generation from a Request Email
- Automatic suggestion of Questions in Surveys
- Contact Summary
- Order Insights

SAP Service Cloud, Version 2

- Customer Hub Summary
- Joule Integration
- Sentiment Trend Analysis
- Next Best Actions – Propose Next Interaction

SAP Emarsys

- AI Product Finder
- GenAI Report Generator
- GenAI Segments

SAP Field Service Management

- GenAI for the Admin Role
- GenAI for the Technician Role
- Joule Integration

SAP Enterprise Service Management

- Joule Integration

IT and platform

SAP Analytics Cloud

- Just Ask Search – Leverage SAP HANA cloud vector engine to enhance processing time

SAP BTP Cockpit

- Joule availability

SAP ABAP

- ABAP AI SDK

SAP LeanIX

- Inventory Builder



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All roadmap items are subject to change.

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More details: <https://roadmaps.sap.com>