Exploring the Landscape of SAP Business AI: Strategy, Use Cases, and Architecture
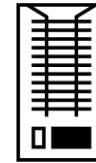
Mikal Netteberg, SAP

SAPinsider
2023

A New Revolution…

New technology **excites…**
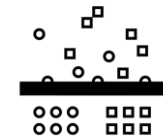But correctly applied technology **revolutionizes**
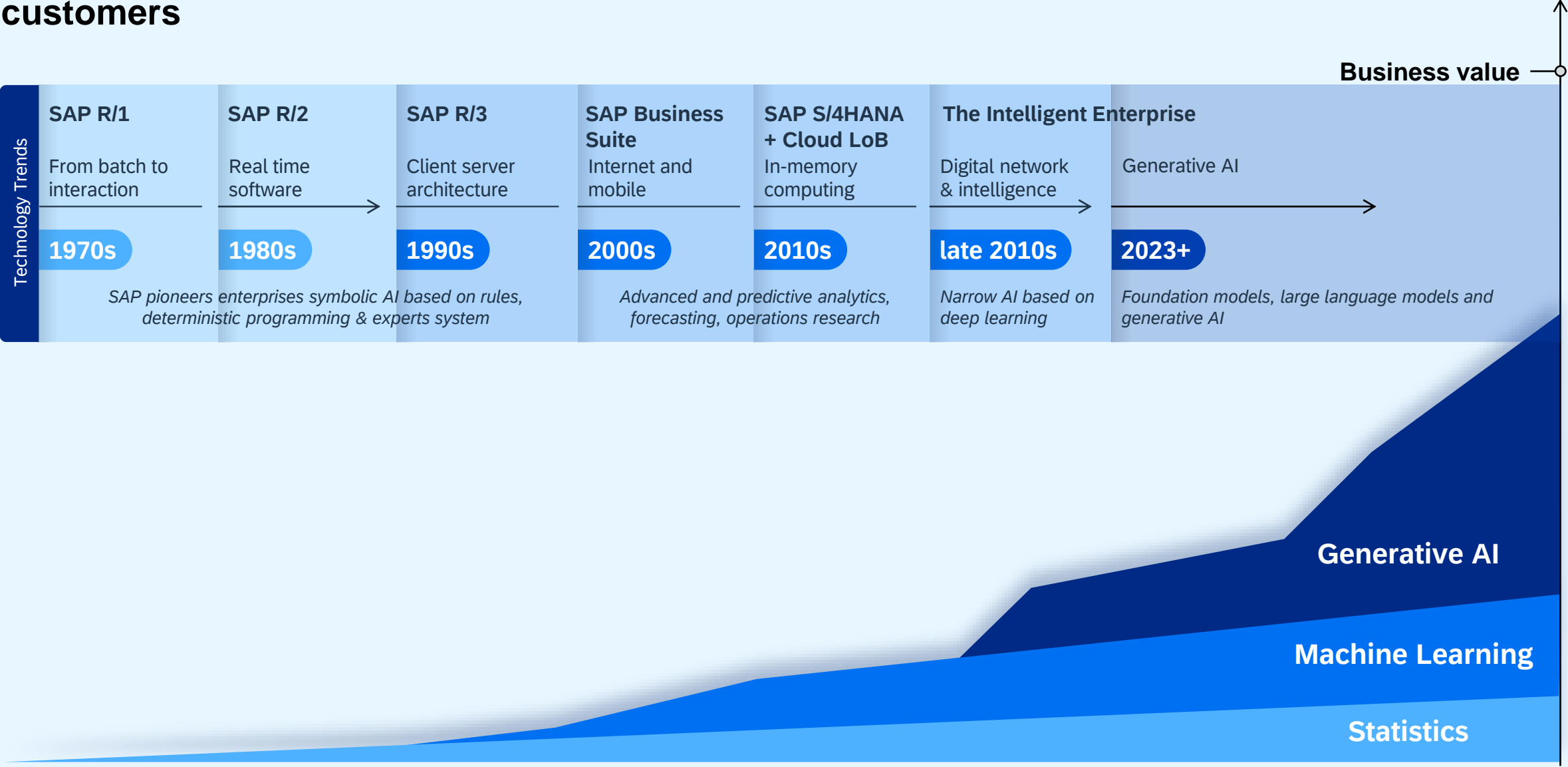
Computing (1950)

Internet (1970s)

Deep Learning (2012)

PC (1980)

Web Browser (1990)

Generative Models (2023)

Recent technology advancements mark a paradigm shift in how SAP will deliver value to customers

Business value

Technology Trends

SAP R/1	**SAP R/2**	**SAP R/3**	**SAP Business Suite**	**SAP S/4HANA + Cloud LoB**	**The Intelligent Enterprise**	Generative AI
From batch to interaction	Real time software	Client server architecture	Internet and mobile	In-memory computing	Digital network & intelligence	
1970s	**1980s**	**1990s**	**2000s**	**2010s**	**late 2010s**	**2023+**

SAP pioneers enterprises symbolic AI based on rules, deterministic programming & experts system

Advanced and predictive analytics, forecasting, operations research

Narrow AI based on deep learning

Foundation models, large language models and generative AI

Generative AI

Machine Learning

Statistics

SAP AI momentum

24.000+ customers

>$1B investment via venture capital

$6.1B in annual total R&D investment

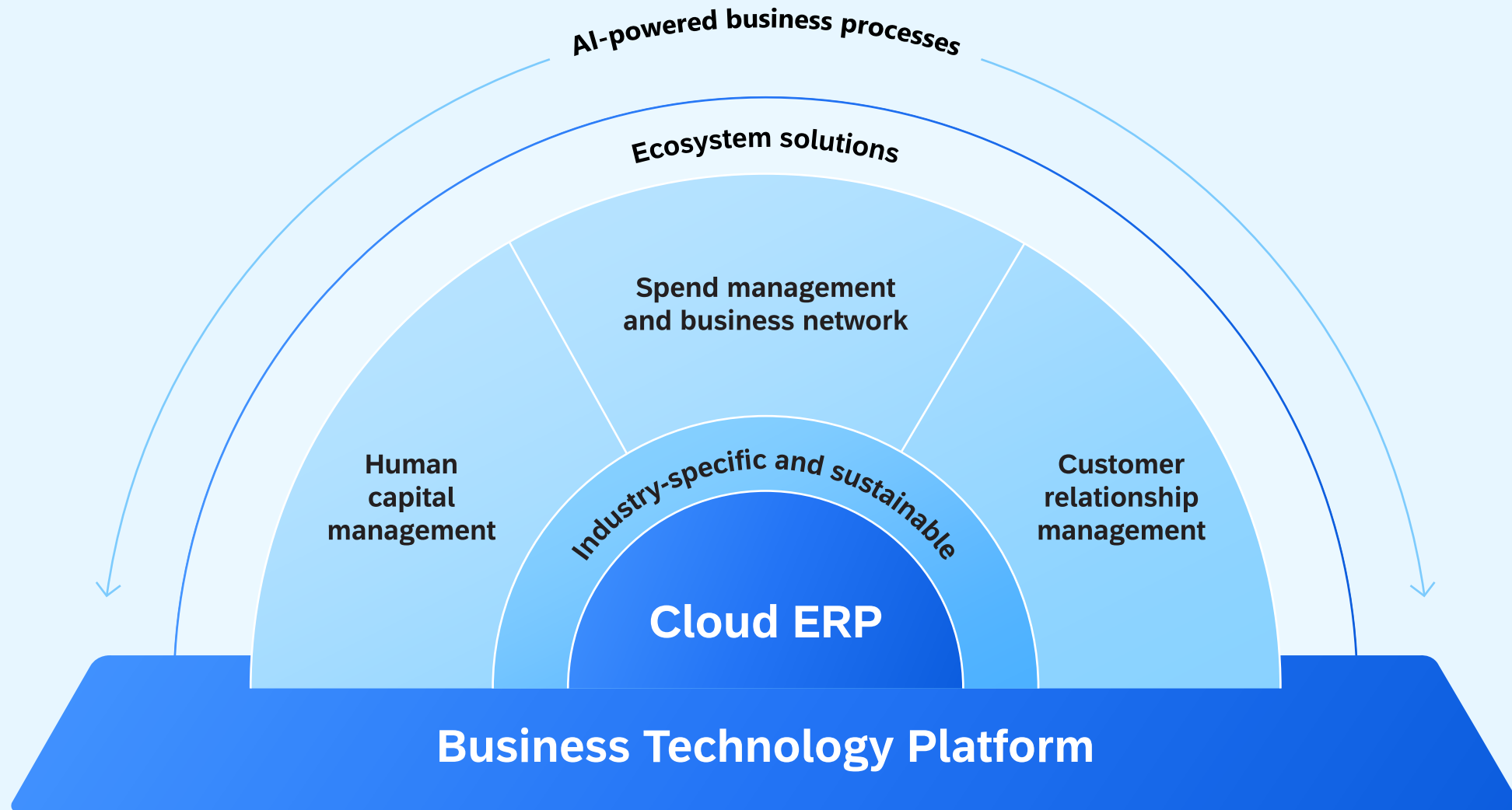**3** direct investments in Generative AI leaders

ALEPH ALPHA   ANTHROP\C   cohere

The Future with **SAP Business AI**

The most important business insights delivered with perfect clarity
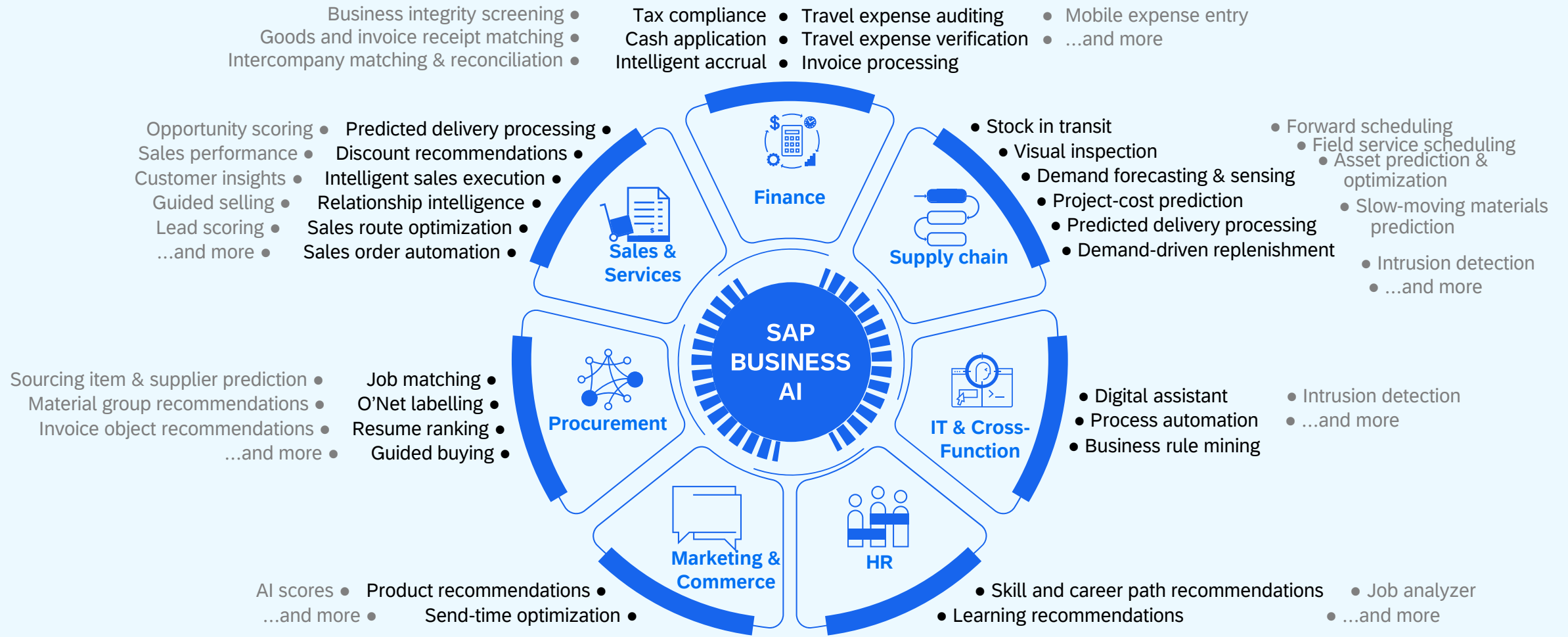
Employee productivity is augmented delivering improved outcomes

Entirely new processes are generated to transform business performance

SAP Portfolio

AI-powered business processes

Ecosystem solutions

Spend management and business network

Human capital management

Industry-specific and sustainable

Customer relationship management

Cloud ERP

Business Technology Platform

Most comprehensive AI capabilities for every function

Business integrity screening ●
Goods and invoice receipt matching ●
Intercompany matching & reconciliation ●

Tax compliance ● Travel expense auditing ● Mobile expense entry
Cash application ● Travel expense verification ● ...and more
Intelligent accrual ● Invoice processing

Opportunity scoring ● Predicted delivery processing ●
Sales performance ● Discount recommendations ●
Customer insights ● Intelligent sales execution ●
Guided selling ● Relationship intelligence ●
Lead scoring ● Sales route optimization ●
...and more ● Sales order automation ●

● Stock in transit
● Visual inspection
● Demand forecasting & sensing
● Project-cost prediction
● Predicted delivery processing
● Demand-driven replenishment

● Forward scheduling
● Field service scheduling
● Asset prediction & optimization
● Slow-moving materials prediction
● Intrusion detection
● ...and more

Finance

Sales & Services

Supply chain

SAP BUSINESS AI

Procurement

IT & Cross-Function

Sourcing item & supplier prediction ●
Material group recommendations ●
Invoice object recommendations ●
...and more ●

Job matching ●
O'Net labelling ●
Resume ranking ●
Guided buying ●

● Digital assistant
● Process automation
● Business rule mining

● Intrusion detection
● ...and more

Marketing & Commerce

HR

AI scores ● Product recommendations ●
...and more ● Send-time optimization ●

● Skill and career path recommendations
● Learning recommendations

● Job analyzer
● ...and more

SAP Business AI approach

Relevant | Reliable | Responsible

AI-powered insights and assistance

Embedded AI capabilities

| Cloud ERP | Human capital management | Spend management & business network | Customer relationship management | Business Technology Platform |

AI foundation
on Business Technology Platform

AI ecosystem partnerships and investments

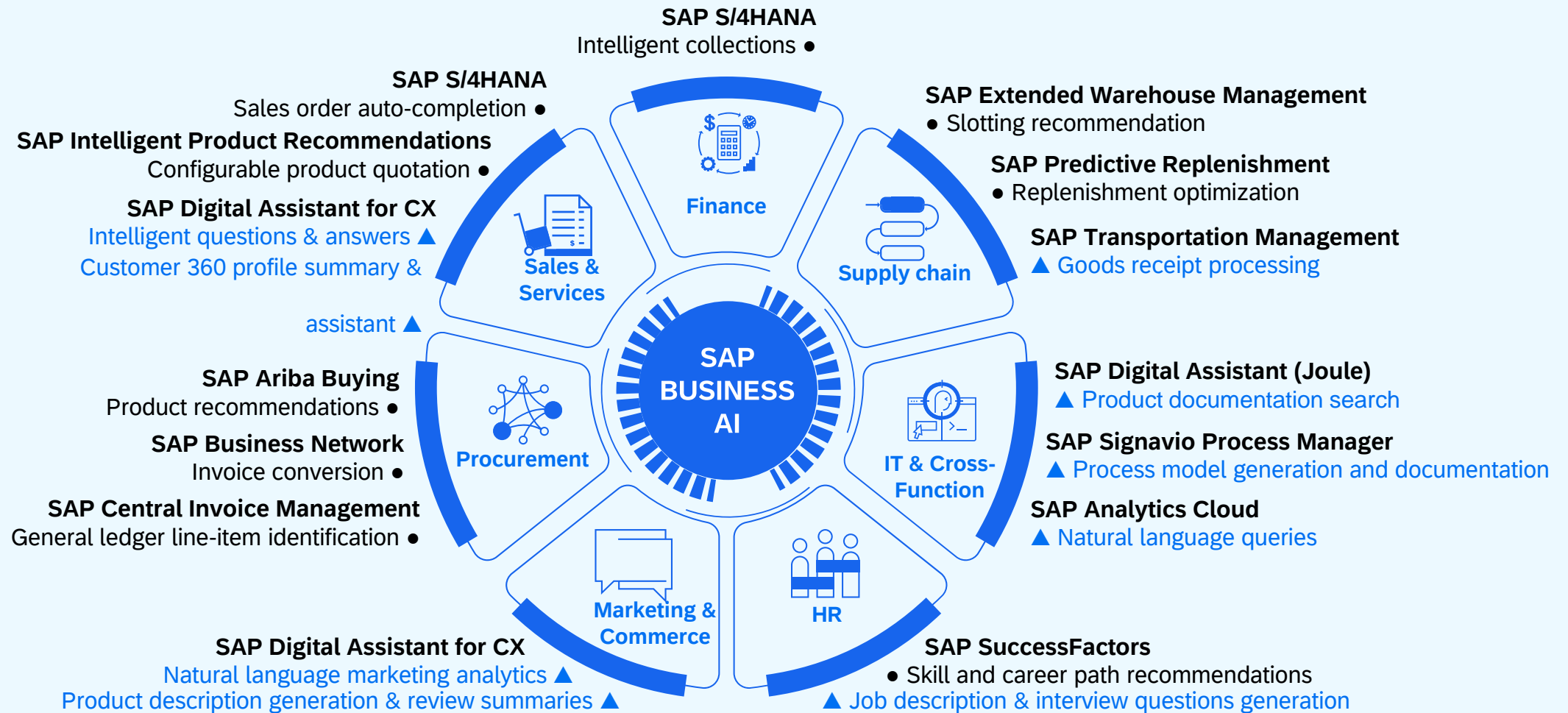ALEPH ALPHA   ANTHROP\C   aws   cohere   databricks   DataRobot   Google Cloud   Hugging Face   IBM   Microsoft

New built-in AI capabilities for your business

SAP S/4HANA
Intelligent collections ●

SAP S/4HANA
Sales order auto-completion ●

SAP Intelligent Product Recommendations
Configurable product quotation ●

SAP Digital Assistant for CX
Intelligent questions & answers ▲
Customer 360 profile summary &
assistant ▲

SAP Ariba Buying
Product recommendations ●

SAP Business Network
Invoice conversion ●

SAP Central Invoice Management
General ledger line-item identification ●

SAP Extended Warehouse Management
● Slotting recommendation

SAP Predictive Replenishment
● Replenishment optimization

SAP Transportation Management
▲ Goods receipt processing

SAP Digital Assistant (Joule)
▲ Product documentation search

SAP Signavio Process Manager
▲ Process model generation and documentation

SAP Analytics Cloud
▲ Natural language queries

SAP SuccessFactors
● Skill and career path recommendations
▲ Job description & interview questions generation

SAP Digital Assistant for CX
Natural language marketing analytics ▲
Product description generation & review summaries ▲

Finance

Sales & Services

Supply chain

Procurement

IT & Cross-Function

Marketing & Commerce

HR

SAP BUSINESS AI

▲ Generative AI scenario | Status: Announced at SAP Sapphire 2023

AI-powered insights and assistance

Joule

Use natural language to interact with your SAP applications in one out of the box unified experience

Get relevant responses, tailored to the context of your role and business process

Leverage the power of generative AI while maintaining data privacy and control
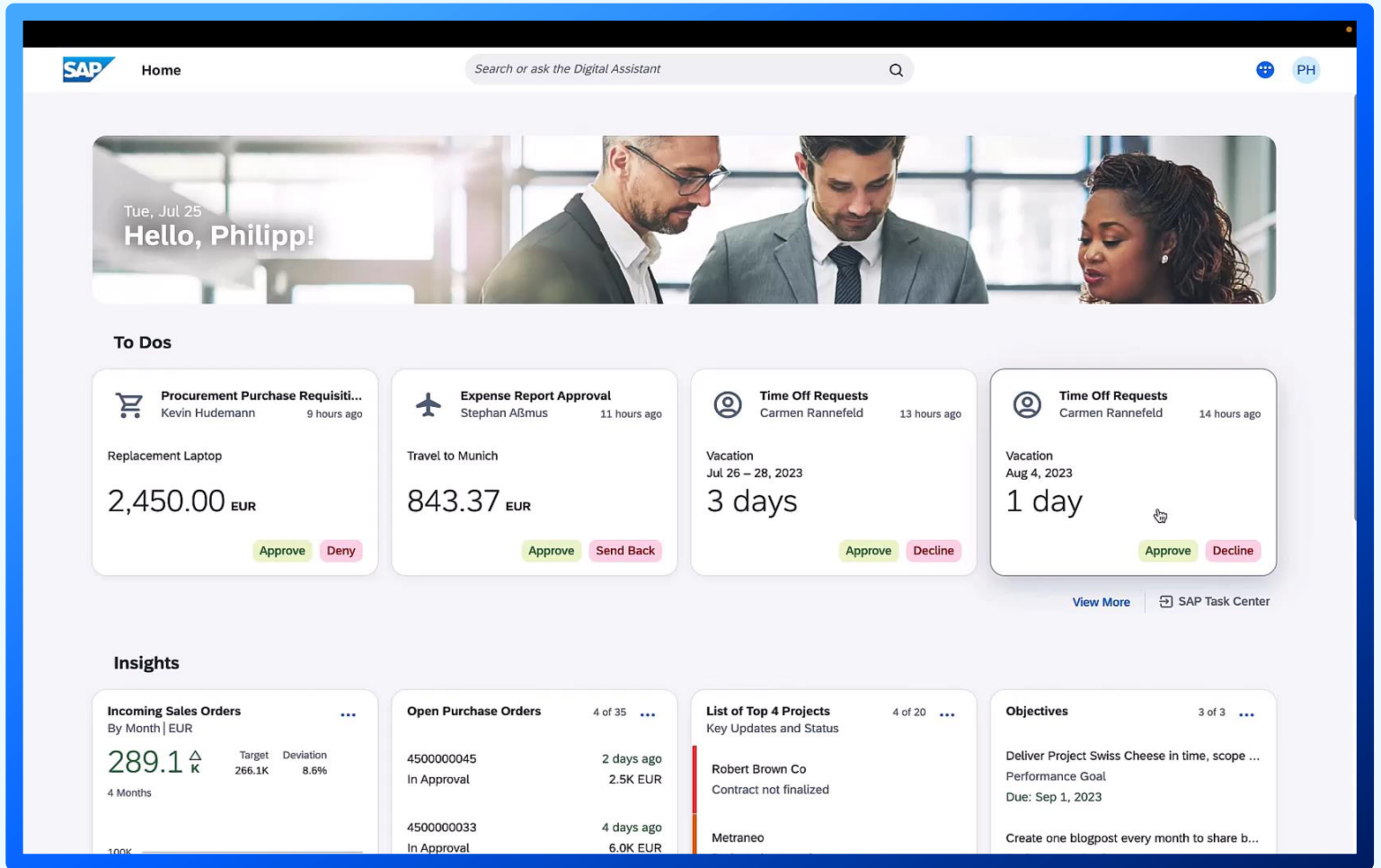
SAP Digital Assistant

Note: Planned availability in SAP business applications at different times, starting with SuccessFactors and SAP Start in Q4 2023.

SAP Business AI for Cloud ERP

Generative AI Writing Assistant

Reduce financial risk through intelligent invoice matching

Increase efficiency and reduce errors in finance

Reduce Days Sales Outstanding (DSO)

Improve scale and speed of shared services team

60%
Reduction of manual receivable matching effort
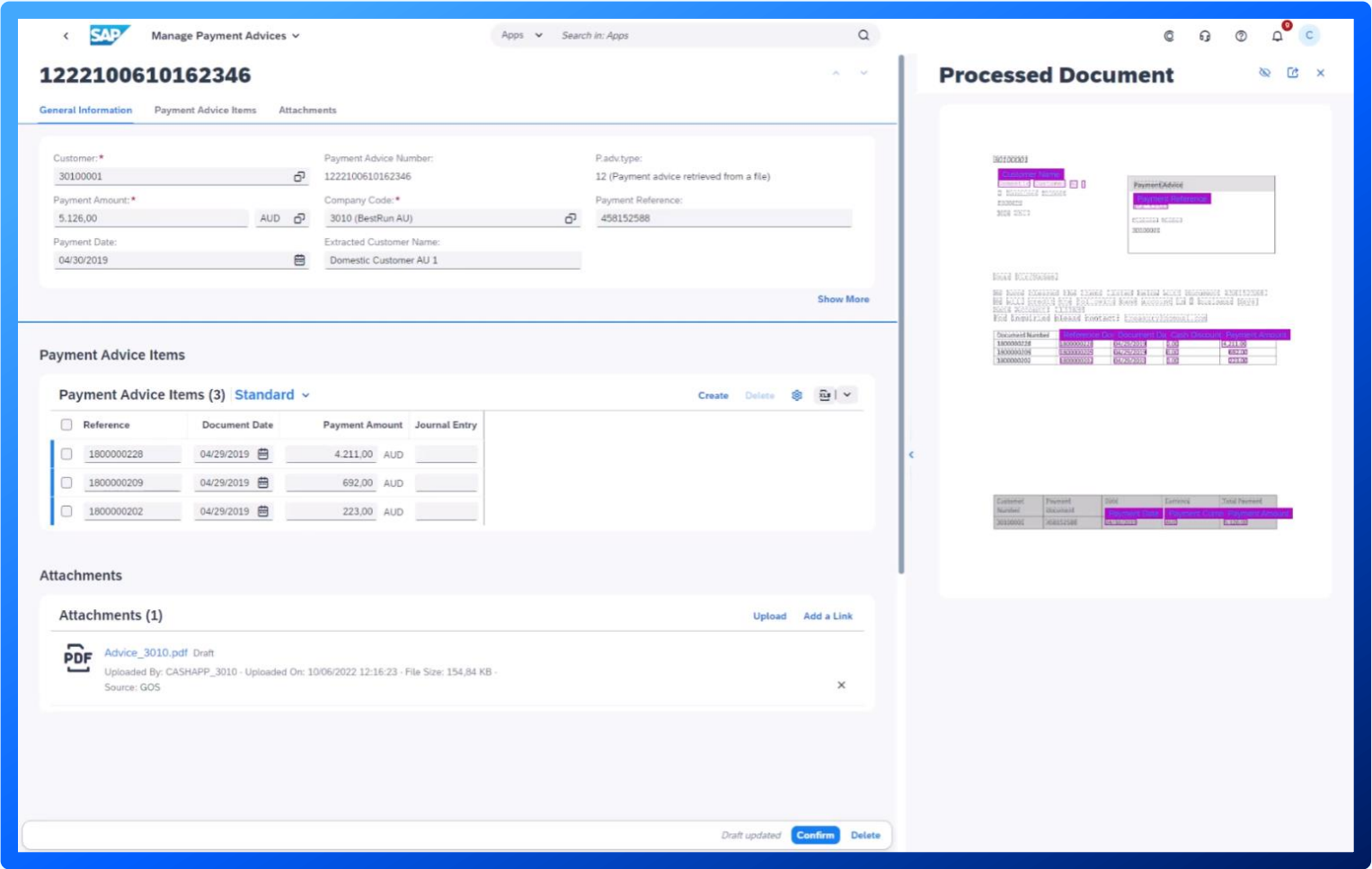
SAP Cash Application

Automate visual inspections on the shopfloor

Reduce manual effort in the quality control process

Improve operator productivity
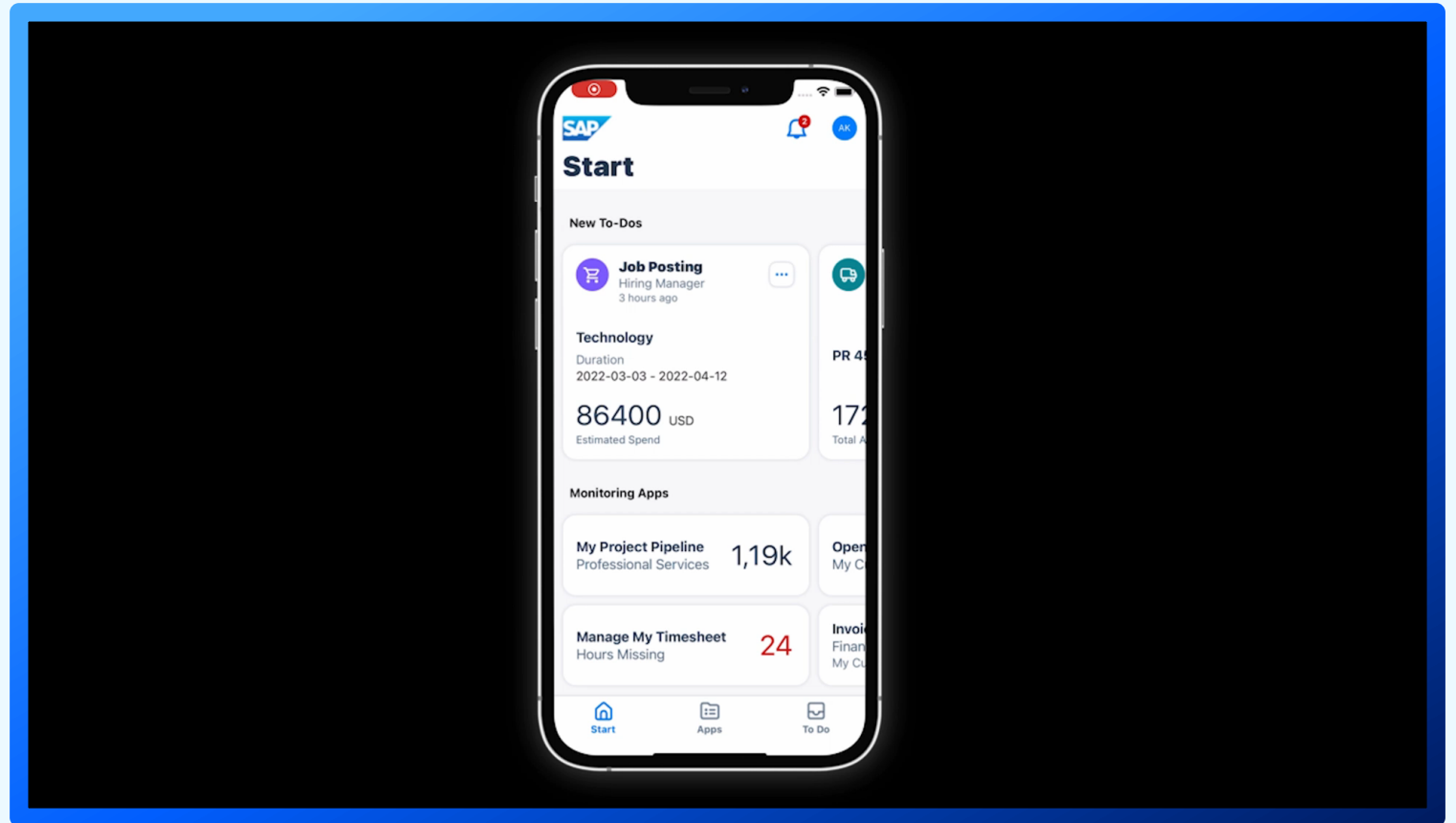
Increase customer satisfaction

Visual Inspection – SAP Digital Manufacturing

Expedite freight verification and documentation

50%

reduction in delivery note processing time

SAP Transportation Management

Note: Planned availability in Q2 2024

SAP Business AI on Business Technology Platform

Use AI to transform every aspect of your business

Accelerate application development with pretrained AI models

Analyze your data faster and easier using natural language

Increase efficiency by leveraging AI to automate and improve business processes

>2.7M
documents automatically evaluated and classified

Hamburg

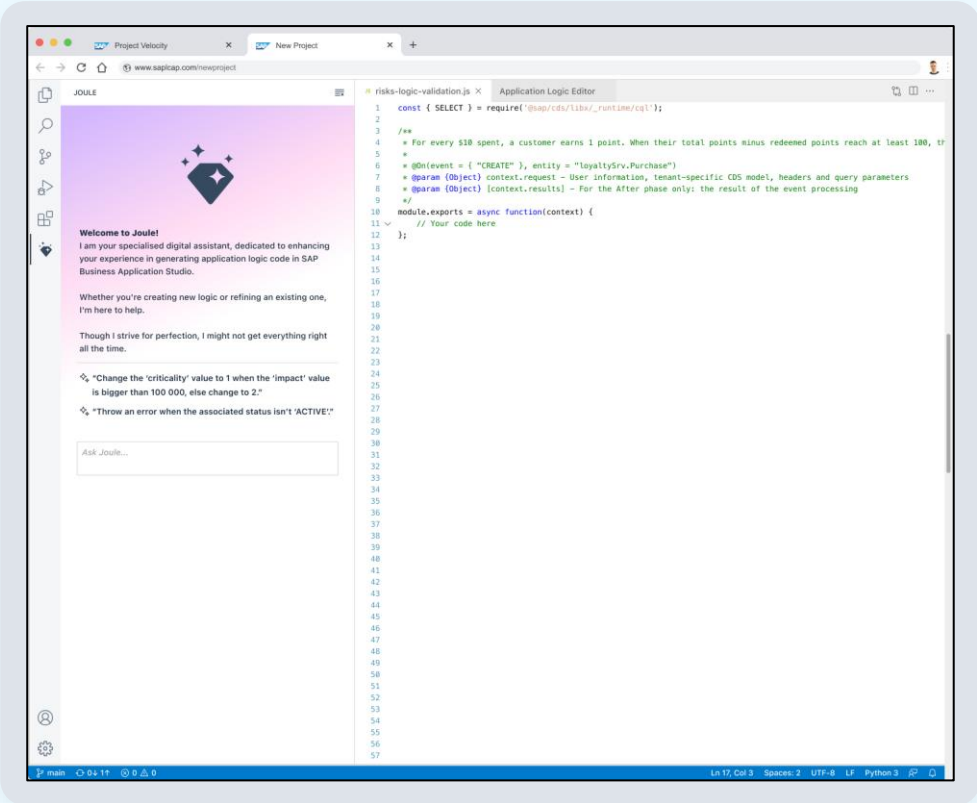**Additional AI capabilities available today**

AI Business Services

Forecasting

Model training and deployment

Integration

And more...

Outlook: AI based code generation for CAP applications

Up to 30%
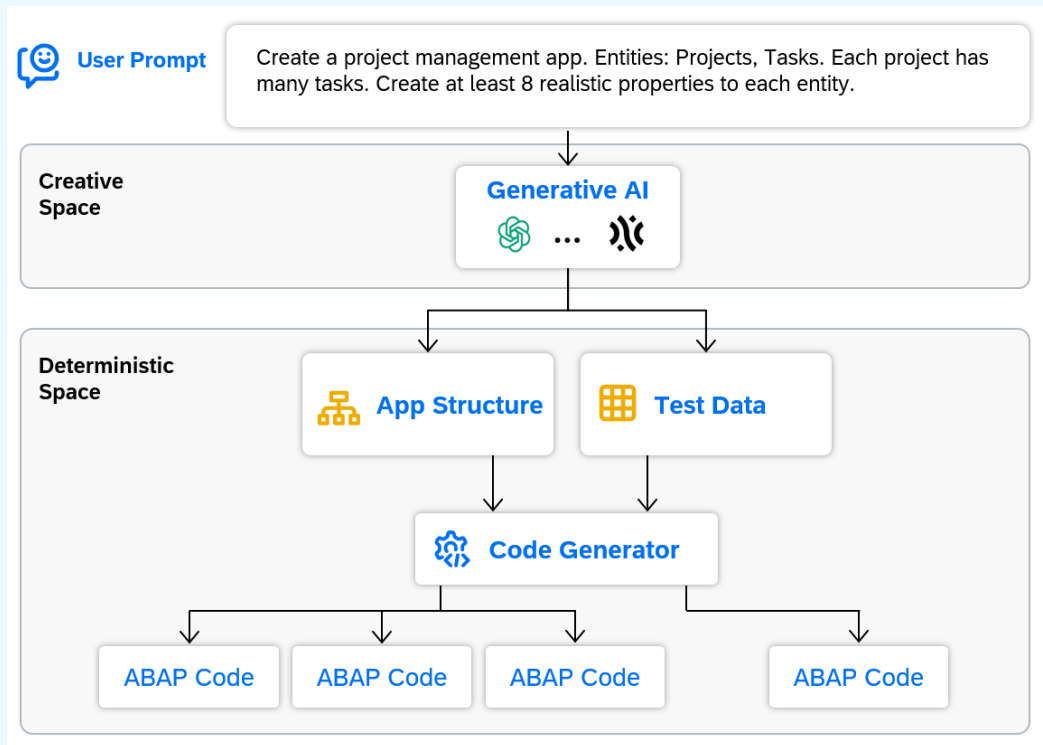**time reduction to generate data models and services**

Improve
Developer experience

Empower
Users to answer their business questions

Outlook: AI based code generation for SAP BTP, ABAP environment

User Prompt — Create a project management app. Entities: Projects, Tasks. Each project has many tasks. Create at least 8 realistic properties to each entity.

Creative Space

Generative AI

Deterministic Space

App Structure | Test Data

Code Generator

ABAP Code | ABAP Code | ABAP Code | ABAP Code

Accelerate
Creation of ABAP Cloud apps including test cases and data

Support
Transformation of classic ABAP code into ABAP Cloud

Empower
Developers to infuse AI into business scenarios

Customers already benefit from artificial intelligence capabilities as part of SAP's Cloud applications and will now be able to unlock new premium features

SAP
BUSINESS
AI

Premium AI

| RISE Premium Plus | & / Or | AI Unit Add-on (to RISE or GROW) |

- Unlock premium AI capabilities applicable to your preferred scenarios across your SAP Cloud applications (see **Roadmap Explorer** for upcoming capabilities)

Basic AI

Included in SAP Cloud Applications

- Access AI capabilities as part of your existing SAP Cloud applications

BTP AI Services

BTP Cloud Platform Enterprise Agreement

- Build custom AI solutions and integrate them to your SAP landscape

Ecosystem AI

SAP Store

- Procure best-of-breed AI solutions from SAP's ecosystem

Thank you…

SAPinsider

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SAPinsider comprises the largest and fastest growing SAP membership group worldwide, with more than 750,000 global members.