

Conversational AI: Giving Voice to the Enterprise

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PUBLIC



SAP Leonardo Digital Innovation System

SAP Leonardo

Digital innovation system

Rapid **Business Case Technology** Solution Ideation **Design Thinking Prototyping** Development **Blueprint** & Vision Services **SAP Leonardo Capabilities Analytics** Internet of Things Machine Learning **Big Data** Microservices | Open APIs | Flexible Runtimes | Integration **SAP Cloud Platform** amazon webservices Google Cloud Platform Microsoft Azure **Multi-Cloud Infrastructure** SAP Data Center

Conversational AI Ecosystem

Natural language processing (NLP) US\$11B capabilities will enable a huge market

Global market size 2019¹

is the new platform monthly active users on the Big 4

Messaging 3 billion

messaging platforms²

Almost 20% of companies use virtual digital assistants today, and over 65% are actively evaluating or considering them for the next 2 to 3 years.

Q: What is the state of your organization in using virtual digital assistants for client or employee interactions?

% of respondents



^{1: &}quot;Technavio Expects the Global Natural Language Processing Market to Exceed USD 11 Billion by 2019," Business Wire,

^{2:&}quot;The Chatbots Explainer," Business Insider Intelligence, July 2016.

Conversational Al at SAP

What, Why, and How: Conversational AI and SAP

What



Deep natural language understanding

- Using voice and chat to interact with business software and get the job done
- SAP CoPilot digital assistant serving as the main user interface

Why



Simplified, natural user experience

- Computers learn how users work, not vice versa
- Faster task execution
- Less frustration

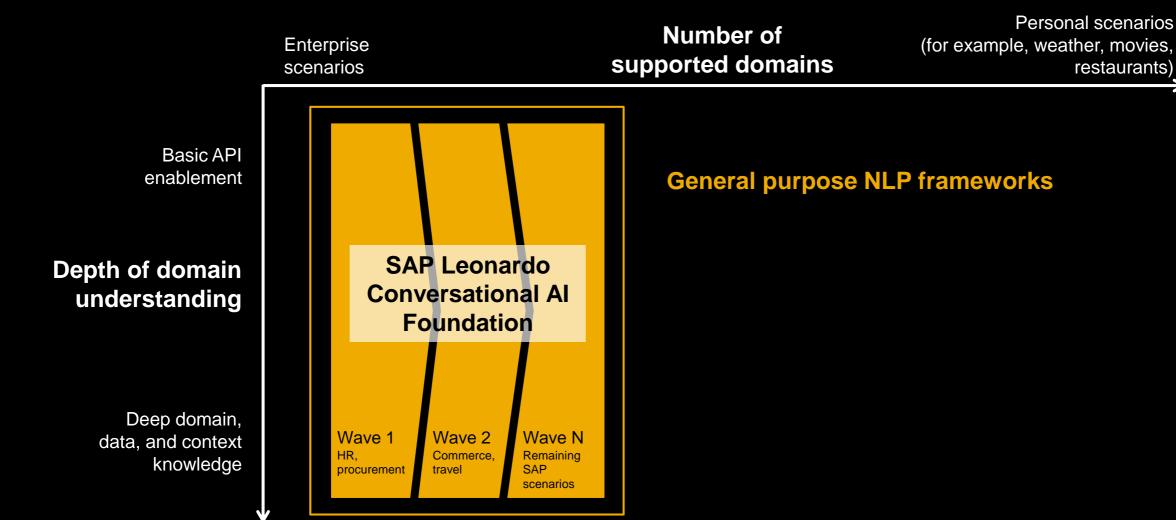
How



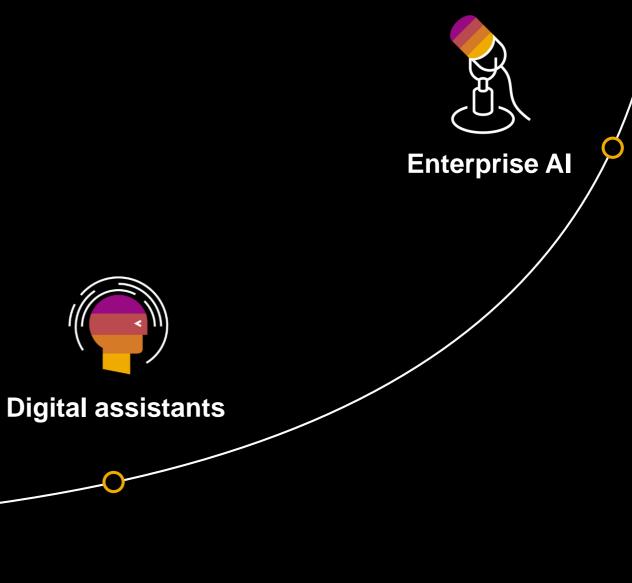
Development of Conversational Applications

- Across all 12 lines of business (LoBs) and 25 industries
- Private beta to build own conversational apps

SAP's unique edge to conversational Al



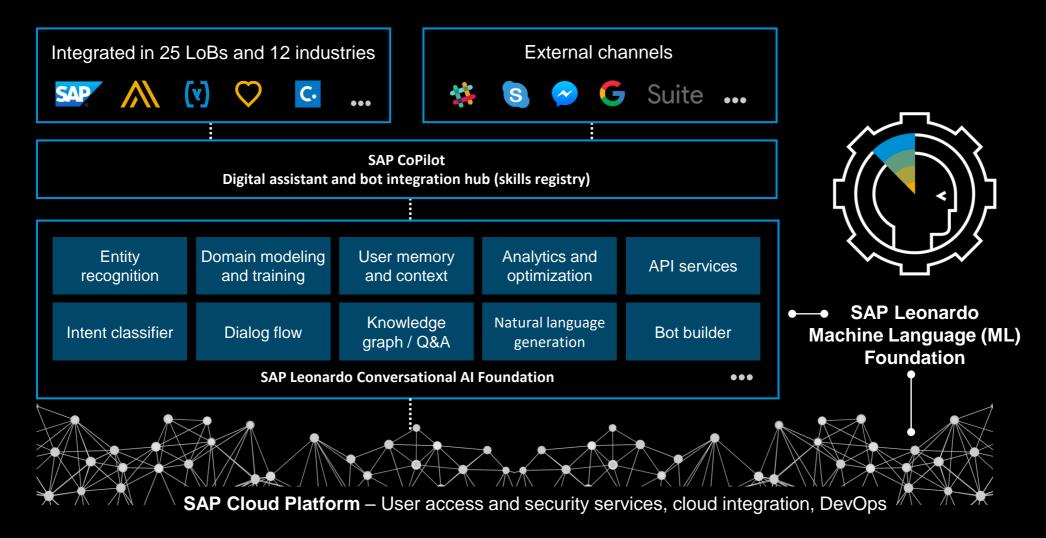
Journey towards enterprise Al





We're here today

SAP Leonardo Conversational AI Foundation: the engine for the next computing paradigm



High-level productization road map: from conversational AI to enterprise AI

Enterprise Al

Autonomous business systems

Smart bots/robotic process automation

Learning business processes from humans

Question answering system

Knowledge retrieval from SAP and custom content, service automation, ticket intelligence

Conversational AI foundation

Integrated bot builder, runtime, deployment, dialog flow management, analytics, ML foundation training

Intent and entity matching

Enabling the digital support experience provided by SAP and SAP Copilot with AI-based natural language understanding

Industry Value and Use Cases

Industry value: conversational customer service

Customer experience factors

Increased adoption of Al assistants

 Billions of queries per week.

Cost of poor customer service

- Direct loss of business
- Unhappy customers.
- Customer churn

Business model factors

Companies find technology reduces ticket volumes.

- Reduced ticket volumes through knowledge base
- Reduced volumes through selfservice
- Chatbots combine these 2.

Cheaper alternative

 Cost to call centers >> Cost of digital assistants

Potential use cases

Beneficiary	Use case	User stories
Customer	Everyday actions (reset password, pay my bill, where's my order?)	Conversational AI intent matching can identify customer inputs and return the correct intent for an automatic workflow to start.
Call center manager	Automatic answering of customer questions prior to human involvement	Conversational AI Q&A engine can attempt to answer customers' questions and preserve agents' time for more complex issues.

Industry value: conversational finance

Efficiency factors

Already in usage

- Mortgage advice chatbot to rate applicant's financial status
- Banking digital assistants to help with simple banking needs like bill pay

The financial industry sees chatbots as an opportunity.

- CAI as an opportunity by the FSI in industry
- Very powerful in combination with mobile banking

Top-line growth

Chatbots can provide affordable advice to consumers.

- It is costly to hire a qualified financial advisor
- Makes a top-tier service available for the masses

Chatbots can improve and increase access to advice.

24/7 service instead of 9:00 a.m. to 5:00 p.m.

Potential use cases

Beneficiary	Use case	User stories
Customer	Customers can reach out for service every time they want.	A customer wants to have good service, but also fast service 24/7.
Financial institute	Cost savings in combination with improved service for customer	Financial institute wants to provide good service to its customers, but without increasing its costs.

Industry value: conversational employee self-service (ESS)

Efficiency factors

ESS has already reduced costs, but...

 Employees still waste time in their company's portal to execute certain actions.

Conversational as next step for productivity increase

- Employees still waste their work time doing admin tasks.
- This could be improved with a quick chatbot.

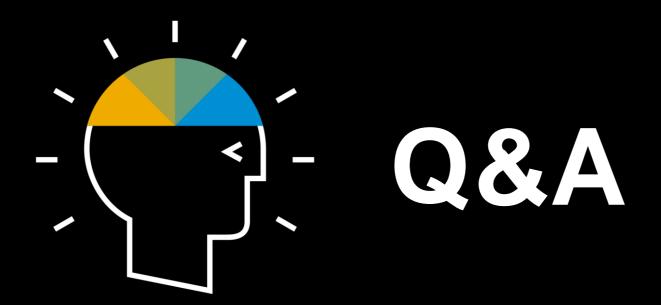
Time-wasting activities – SAP employee

ESS activities

- Leave request: 2:06 min
- Open payroll: 00:40 min
- Change own SAP contribution: 01:15 min

Potential use cases

Beneficiary	Use case	User stories
Employee	Employee can access self-service tools more easily and take action faster, due to easy commands.	As an employee, I want to focus on my role-specific task and not waste time on admin tasks.
Employer	Cost is reduced on help desks, due to more accessible self-service. Employee productivity is increasing, due to saved time.	As an employer, I want my staff to be as productive as possible.



Thank you.

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