SAP Innovation Awards 2021
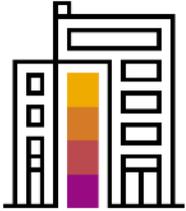
SAP Innovation Awards 2021 Entry Pitch Deck

Pioneering the Use of Digital Assistants and Intelligent Bots to Improve Operational Efficiency and Customer Experience

Villeroy & Boch Group

PUBLIC

THE BEST RUN **SAP**

Company Information

Headquarters   Mettlach, Germany

Industry   Consumer products

Web site   www.villeroyboch-group.com/en

Bringing sophistication and style to people's lives since 1748, Villeroy & Boch Group has grown into a leading international lifestyle brand. One of Europe's longest-established companies, we now sell our premium bathroom ceramics and tableware to homes and hotels in 125 countries and operate 14 production sites worldwide.

Deeply rooted in European culture, we've been able to preserve our identity while moving with the times. We've always been pioneers in our approach to developing innovative products that meet the highest quality standards. Now, we're focusing that spirit of discovery on achieving process excellence.

By harnessing the latest intelligent robotic process automation and artificial intelligence (AI) technologies, we've embarked on a journey to develop automation bots to carry out routine, low-value tasks and make ERP processes intelligent. This is enabling improvements in operational efficiency and helping free our staff to spend time on more-fulfilling and higher-value activities.

Automating Complete Processes with Intelligent Decisions

Villeroy & Boch Group

"

With SAP Intelligent RPA and SAP AI Business Services, we're deploying software bots that automate routine tasks and trigger processes autonomously. This accelerates processes, saves employees time, and enables them to focus on more-strategic activities.

Dr. Daniel Neuhäuser,
Head of ERP Core Solutions,
Villeroy & Boch Group

Challenge

To optimize productivity, we need our processes to be as efficient as possible. To this end, we wanted to reduce time spent on repetitive tasks involving different systems and unstructured data while minimizing impacts on SAP ERP.

Solution

Using SAP Intelligent Robotic Process Automation (SAP Intelligent RPA) services, we created supervised digital assistants (attended bots) to extend ERP processes without changing the underlying system. We then integrated Document Classification, one of the SAP AI Business Services, to create an intelligent bot that classifies and processes e-mail attachments.

Outcome

Automation of routine tasks frees up employees to focus on nonroutine activities that help maximize business value and improve customer experiences. Meanwhile, the fact that SAP ERP is unaffected if there is an error with a bot means we can go into production earlier, enabling us to get and act on user feedback early on.
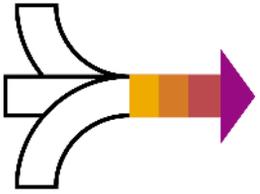
10 Digital assistants, carrying out simple automated tasks in accounts, purchasing, and customer services

1st SAP customer worldwide to go live with an intelligent bot that uses both SAP Intelligent RPA and SAP AI Business Services

6,000 Documents checked, classified, and processed each year using one AI bot

Business Challenges and Objectives

To keep pace with the demands of our dynamic business, we need to do everything to help our staff work as productively as possible. We therefore felt it was a pressing requirement to relieve staff of any routine tasks that can be achieved using automation technology.

However, when creating automated solutions, we didn't want to make any changes to our core SAP ERP application as this would increase development time and require additional development skills. We also wanted to put users at the heart of the development process for automation projects so that we can make adjustments based on users' feedback to help ensure our solutions fully meet their needs.

Jointly with SAP, we began a pioneering development journey toward hyperautomation that would involve the creation of two different types of bots using SAP Intelligent RPA:

"Classic" RPA bots: Digital assistants (both attended and unattended, autonomous bots) that follow predefined workflows based on set business rules.

Intelligent hyperautomated bots: AI-enabled bots that enhance classic RPA bots by integrating with various SAP AI Business Services (including Document Classification, Document Information Extraction, and Invoice Object Recommendation). These bots can carry out more complex tasks such as classifying and interpreting information using machine-learning based analysis and triggering appropriate next steps.
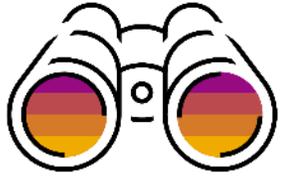
Project or Use Case Details

We subscribed to the services through the SAP Store site and created digital assistants largely on our own, with some coaching support by SAP experts. The business submits proposals based on so-called bot briefing cards outlining the use case and associated benefits. We then select those where cross-system automation is required or where there is a high level of repetitive manual interaction with SAP ERP. Our classic, "attended" (supervised by a member of staff) bots carry out simple, frequently occurring tasks such as responding to standard e-mail inquiries, making general ledger postings, and up-dating purchasing information records in our accounts, purchasing, and customer services departments.

The next stage in our RPA journey involved the creation of our first "intelligent" bot because some decisions cannot be taken by simple bots. This bot checks the attachments in e-mails sent to our accounts department that cannot be automatically processed. It uses AI functionality provided by the Document Classification service to "learn" whether the attachments are invoices, auto-confirmations, or delivery notes. Based on the document type, the bot then processes the attachment appropriately. We were the first SAP customer worldwide to go live with an intelligent bot that uses both SAP Intelligent RPA and Document Classification, part of SAP AI Business Services.

SAP Intelligent RPA enables us to automate processes without needing to make changes in SAP ERP, which would require specialist development skills. We can get bots productive quickly, incorporating feedback from users to help ensure we fulfill their precise needs. As a result, automated workflows enable them to save effort on routine administrative tasks and spend more time creating business value.
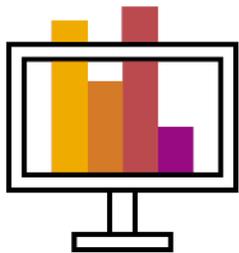
Benefits and Outcomes

Business or Social

Greater operational efficiency, with accelerated workflows due to increased automation across accounts, purchasing, and customer services processes

Increased business value, with staff free to address more-strategic tasks and more-efficient ways of working

Enhanced customer experiences, with service staff able to be more responsive and spend more time helping with nonroutine enquiries

Increased accuracy and compliance, with bots documenting more information, including log files

Fast ROI

IT

Cost-efficient development and deployment of new services without any adaptations required within SAP ERP

Intuitive bot-building experience, with less need for specialist ERP development and integration skills

Fast trials and agile development approach, with early involvement of key users

Straightforward incorporation of machine-learning functionality to enable the development of autonomous, intelligent bots

Human Empowerment

Less time spent on tedious and repetitive tasks, with our employees focusing on more-fulfilling, value-added activities
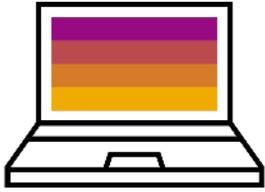
Ability for our business users to more easily request automation projects and take an active role in the specification and testing of automation bots, helping ensure the technology meets their needs
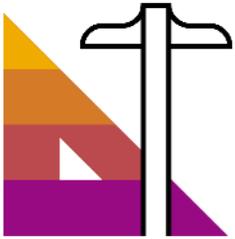
Architecture

Architecture for Hyper automation of Cross-Solution Processes
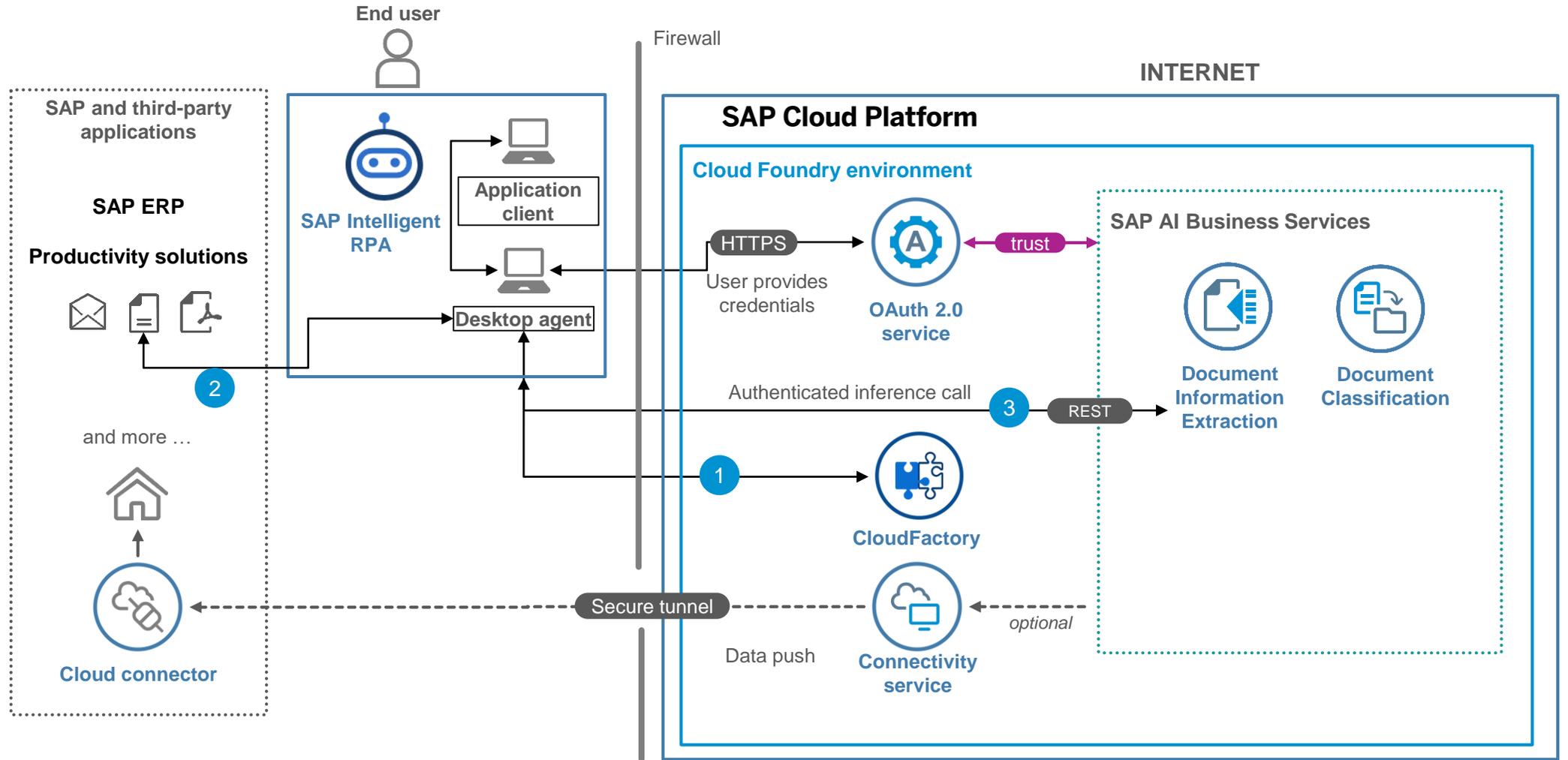
Deployment

Deployment status   Live

Date   See below   **Number of users**   20

SAP technologies used:

	SAP product	Deployment status (live or proof of concept [POC])	Contribution to project
1	SAP Intelligent RPA	Live (2019)	Development of automation bots and integration with finance, procurement, and customer service functionality of SAP ERP
2	SAP AI Business Services	Live (2020)	Document Classification: Machine-learning functionality that enables bots to classify documents & Document Information Extraction: an Intelligent bot that extracts and processes data from unstructured documents in the POC phase
3	SAP Conversational AI	POC	Chatbot should handle user questions and interaction with SAP ERP via SAP Intelligent RPA. Interaction with Microsoft Teams

If you have used one or more of the services or support offerings from SAP Services and Support during the implementation or deployment phase, please indicate which one(s) below with an ☒

☐ SAP MaxAttention™   ☐ SAP ActiveAttention™   ☐ SAP Advanced Deployment

☐ SAP Value Assurance   ☐ SAP Model Company   ☐ Others:
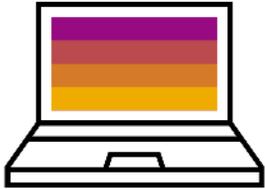
☐ SAP Innovation Services   ☐ SAP Innovative Business Solutions

The following **advanced technologies** were part of the project.

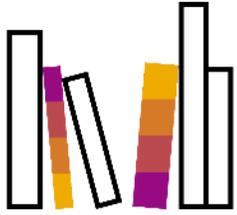| Technology or use case	Product used*	Contribution to project and how product used integrates with SAP products
1 Machine learning or artificial intelligence **Robotic process automation**, conversational AI, AI-based knowledge graph	SAP Intelligent RPA, SAP AI Business Services, SAP Conversational AI	A combination of advanced technologies from SAP constitutes the technical framework of this project to automate manual, repetitive processes across solutions and integrate them with SAP ERP. With this project, we are at the forefront of using AI to optimize business processes.
2 Intelligent data management Multi-cloud, data virtualization and governance, smart data tiering, persistent memory, data privacy		
3 Advanced and augmented analytics • Real-time and streaming analytics, spatial analytics • Natural language query and generation • AutoML to identify trends, patterns, outliers • Predictive analytics (time series analysis and forecasting, regression, classification)		
4 Data and analytics solutions in the cloud • Unified data and analytics cloud platforms by SAP • Modern/self-service data to analytics		

*If this is not an SAP product, explain how it integrates with SAP products.

Advanced Technologies (2 of 2)

The following **advanced technologies** were part of the project.

Technology or use case	Product used*	Contribution to project and how product used integrates with SAP products
5 Advanced cloud integration • API economy (monetization and API marketplaces) • AI-based or crowdsourced integration • High throughput, low-latency digital integration hub		
6 Industry cloud platform		
7 Blockchain		
8 Internet of Things		
9 3D printing		

*If this is not an SAP product, explain how it integrates with SAP products.

Additional Information

Our journey with SAP Intelligent RPA is ongoing. We continue to deploy classic RPA bots to automate simple tasks to improve process efficiency across the company. As well as using attended bots that are supervised by a member of staff, we are exploring the use of unattended bots on a virtual machine. This would speed up processing, accelerating workflows and freeing up employees to focus on other tasks.

In addition, we are looking at deploying another intelligent bot that integrates with Document Classification in the purchasing department to streamline procurement workflows. Meanwhile, testing is under way for intelligent bots that use functionality Document Information Extraction from SAP AI Business Services. This bot would support the automatic extraction of data relevant for accounting from unstructured documents.

Lastly, we also plan to leverage SAP Conversational AI to build a chatbot. The bot would be accessed through Microsoft Teams to handle user questions and interaction with SAP ERP via SAP Intelligent RPA.

To summarize, we are not short of ideas on how to expand and enhance our AI-based automation and integration framework. This is enabling us to optimize business processes, which is truly exciting for both IT and the business.

Follow us

THE BEST RUN SAP