



SAP
Innovation
Awards 2019



SAP Innovation Awards 2019 Entry Pitch Deck

Making Enterprises More Intelligent
Piller Blowers & Compressors GmbH

THE BEST RUN



Making Enterprises More Intelligent



<https://youtu.be/cYru4F8Ydlk>

Making Enterprises More Intelligent

Piller Blowers & Compressors GmbH



“Quote”

“This project is the next logical step in our digitalization strategy. We are breaking down the barriers between our products and the new possibilities provided by the cloud. This is the best and future-oriented way: We are creating the framework for more security, convenience and completely new business models.”

Thomas Henzler, CIO

Challenge

PILLER Blowers are in operation all over the world – continuously and reliably. For the global player from Lower Saxony, however, this is not enough. They want to provide even better service to their customers: with predictive maintenance, minimum downtimes for production-critical machines and the possibility of new and attractive billing models such as pay-per-use. To achieve this, PILLER gives its customers the opportunity to monitor their machines themselves and optimize their production, thus becoming an Intelligent Enterprise themselves.

Solution

To achieve its goals, PILLER strategically relies on the SAP portfolio. Now that SAP S/4HANA and the SAP Sales and Service Cloud have been introduced, the company is upgrading its blowers and compressors with intelligent sensors. These are integrated into the corporate infrastructure via the SAP Cloud Platform and are available there to all systems for potential new services.

Outcome

With this solution, PILLER's customer service can save up to 60% of time for identifying service incidents and has to re-qualify up to 80% less tickets. Thus, PILLER minimizes downtimes of the production critical machinery. Customers receive the relevant data in a comprehensive report and can intervene directly if required. Attractive pay-per-use and prepaid models are also being planned for the future.

60% saving time in identifying service incidents

80 % less re-qualification of tickets due to definite detection

10 % cost reduction due to availability of all relevant data without queries



Partner Information

Sycor GmbH

Sycor accompanied the implementation of the IoT project at PILLER and provided expertise in the area of the SAP Cloud Platform.



With this new technology, PILLER is taking a significant step towards a digital future. Efficiency is being rethought - the concepts behind it are modern and with a clear focus on the customer's benefit. The cooperation with PILLER was consistently positive. PILLER has an unparalleled innovative spirit and structures that favor innovation. Together we developed ingenious solutions to display the machines in a 360° view.



Business Challenge & Objectives

PILLER

- Measurability of added value
- Acceptance and willingness of customers to pay for the additional value
- Investment-costs vs. benefits of added value
- Ensuring data security in the cloud
- System complexity of PILLER's own IT solution

End user

- Handing over sensitive data to a supplier
- Data security / system is connected to the Internet and thus
- Investment is more expensive and more sensitive to malfunctions
- Doubts regarding intervention in the system by the supplier (AI-based control)

- Integration of change management to create understanding for new market requirements and business models (pay-per-use)
- Creation of drafts for ROI determination (less downtime, cheaper/on demand maintenance etc.). leading to a competitive advantage
- Selection of a partner with a solution in Germany and an integrated overall portfolio
- Transparent monitoring of the collected data and their use
- New technology reduces the total cost of the solution significantly
- Reduction of complexity through standardization



Project / Use Case Details

The first release of the solution is implemented. In order to test new ideas and possibilities quickly and independently in the sense of Design Thinking, a real replica of an evaporation plant in our Chinese subsidiary is used.

The business case currently being worked on as part of a PoC is the mapping of a blower as a digital twin in the Service Cloud Platform.

Data is collected using the sensors and analyzed in real time using the SAP Cloud Platform. Based on this data, a decision is made if a critical incident has occurred. In this case, a ticket is created in the service cloud and a mail with possible solutions is sent to the operator of the installation.

At the same time, based on the ticket in the SAP Service Cloud, transactions in the digital core, SAP S/4, are triggered at PILLER, e.g. time sheets, returns, invoices. Reports and customer documents are digitally captured on tablets and made available to the service technician via SAP Service Cloud APP.



Benefits and Outcomes

Business / Social

- Reduction of downtimes and damage
- Possibility of new billing models
- Reduction of process throughput and service times
- Development of a global knowledge database for later preventive AI applications
- Reduction of erroneous inputs and process breaks
- Automated and thus accelerated ticket creation and processing / control (AI)
- More efficient allocation of service resources
- Reduction of environmental pollution by avoiding paper flooding
- Consistent documentation of operating states
- Enabling demand-oriented maintenance

IT

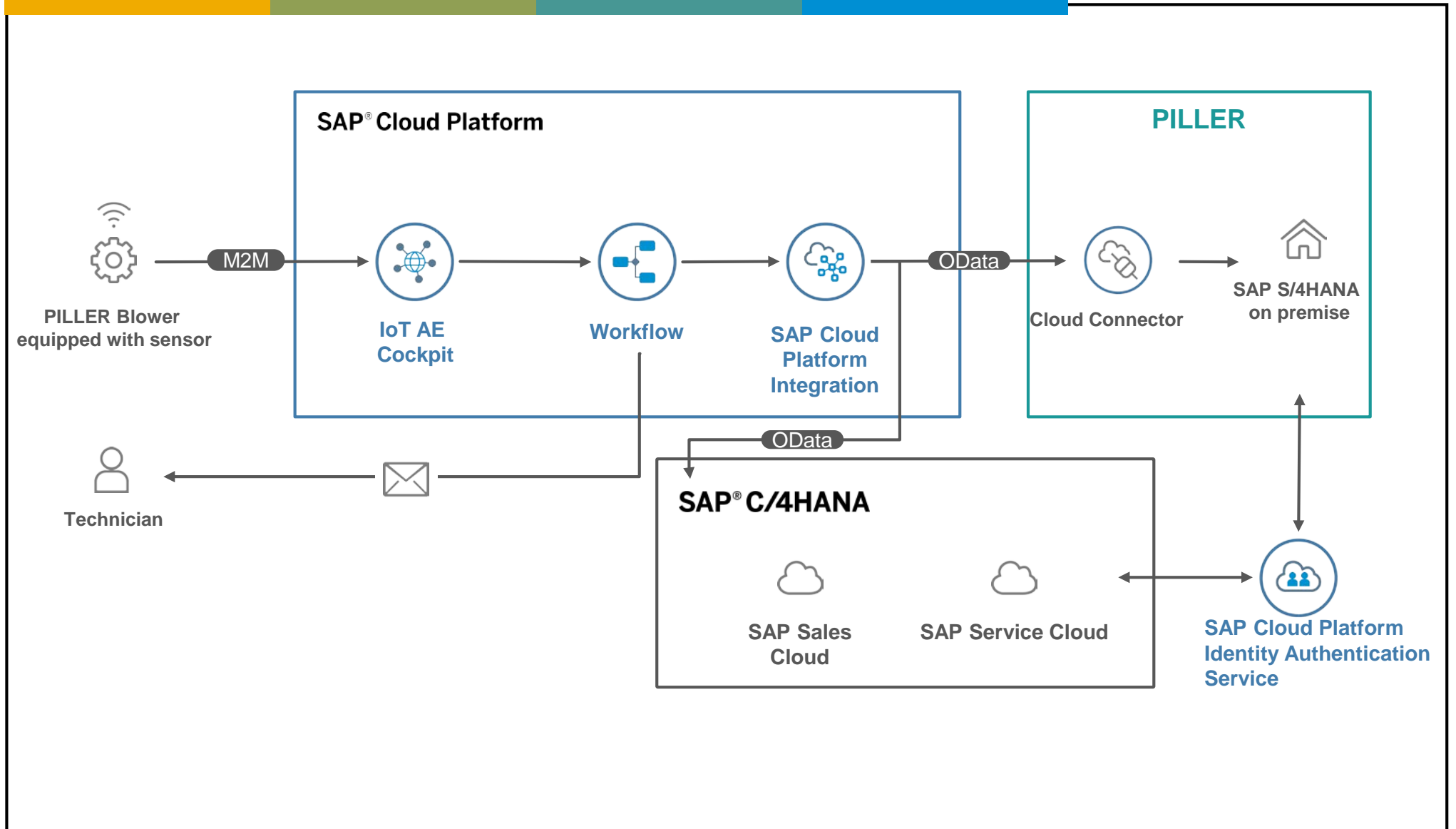
- Consistent implementation of a platform concept
- Easy integration into existing solutions
- Low administration costs / Intuitive operation in modern device-independent interfaces
- Consistent data
- Expandable for future requirements
- Standard solution creates a higher potential pool of consultants and thus independence from the service provider
- Modernization of process structures
- Secure cloud solution (GDPR conform)

Human Empowerment

- More transparency and automated communication between the end user and PILLER as the machine manufacturer leads to improved efficiency. For example, administrative expenses are reduced – for our customers and employees.
- Reduction of unscheduled and unexpected downtimes leads to a reduction of stress and enables concentration on the essentials.
- Reduction of "blunt" multiple entries



Architecture





Deployment

Date of Deployment or POC: 01.12.2018

Number of live users: 150

SAP Technologies Used:

SAP Sales & Service Cloud	Live
SAP Cloud Platform Integration	Live
SAP Leonardo: IoT AE, Cloud Platform Workflow, SCP Fiori Edition Standard	Live & POC
SAP S/4HANA Enterprise Management OnPremise	Live

Server Processor: unknown

Linux Distribution: unknown



Emerging Technologies and Use Cases

The following Emerging Technologies and use-cases are part of the project and describe the contribution

	Technology or Use Case	Yes/No	Contribution to Project
1.	Machine Learning / Artificial Intelligence	Yes	<ul style="list-style-type: none">• Early detection of malfunctions and submission of solutions
2.	IoT	Yes	<ul style="list-style-type: none">• Digital twin of the machine with fully integrated SAP Service Cloud connection
5.	API Economy / Integrate the Intelligent Enterprise	Yes	<ul style="list-style-type: none">• Linking machine and customer• Creation of Service Tickets in the Service Cloud
6.	Cloud Native / Event Based Architectures	Yes	<ul style="list-style-type: none">• Threshold values of the machines are processed and verified in the SAP Cloud Platform.
7.	Extending the digital core with SAP CP / ABAP in SAP CP	Yes	<ul style="list-style-type: none">• Fiori standard Edition to provide a customer service management Portal
8.	SAP Leonardo Application (extending SAP application, using Industry Innovation Kits or result of Design Thinking workshop)	Yes	<ul style="list-style-type: none">• IoT AE for machine communication