



SAP Innovation Awards 2019 Entry Pitch Deck

Speed up the process, a timesaving order-picking solution

Gasunie

THE BEST RUN



gasunie
crossing borders in energy

Speed up the process, a time saving order-picking solution



<https://www.youtube.com/watch?v=wW-MGOpuy-w>



Speed up the process, a timesaving order-picking solution

Gasunie

“Quote”

“This solution will motivate our planners and drillers to do their work more efficiently. The fact that it saves time will take away a lot of frustration they experience in the current process.”

Marijn Dresden,
Manager Special
Assignments Gasunie



Challenge

Save time in the order-picking process with an easy solution to get equipment and materials from the warehouse and to simplify their return.

Solution

An iPad application built with SAP Cloud Platform, Machine Learning (Image and Text recognition) and the iOS SDK.

Outcome

A faster, much simpler administration process for order-picking by using innovative technologies to prove the added value for Gasunie technical engineers.

Up to 80% faster order picking



Realtime, accurate, stock level insight



Clear geographical view of all projects





Partner Information

SAP Netherlands Co-innovator



“With our SAP Mobile Innovation Lab we bring innovations to our customers doorstep. Together with Gasunie we explored intelligent technologies to serve the field workers in their daily activities. Rapid prototyping within only 5 days shows the power of co-innovation.”

Twan van den Broek, Customer Innovation Architect SAP Netherlands





Business Challenge & Objectives

Gasunie Special Assignments wants to perform projects in an efficient way and solve calamities as fast as possible. The current order-picking process is time consuming and can lead to inaccurate stock levels in the warehouse. By simplifying the order-picking process Gasunie wants to:

1. Save time that can be spend on value added activities
2. Have real-time, accurate, availability information on equipment and materials
3. Ban the paper picking list

Gasunie invests in innovation to find process disrupters to stay ahead of the game. Business and IT collaborated on a prototype to explore next-gen technologies to support their field technicians. It was important to connect to the existing digital field engineer program to have a consistent user experience.

With the prototype it must be possible to validate image and text recognition as practical use for field technicians in their process of picking materials and equipment, availability checks and returning materials and equipment.





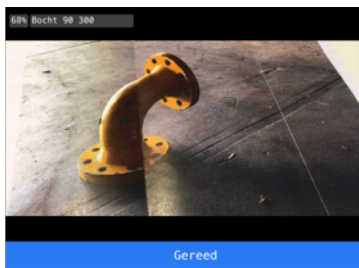
Project / Use Case Details

Gasunie sought a way to both simplify and speed up the process of picking and returning materials and equipment. At the same time, the company wanted to reduce the amount of paperwork and update the equipment's status in the system.

Picking items for a job in the field takes a lot of time, and the same goes for returning everything to the warehouse. After a hard day's work in the field, technicians are weary but still have to spend a long time putting various-sized pipes and other materials back both physically and within the SAP system.

By using pictures of Gasunie materials we trained a Machine Learning model. Technicians can now use their iPad's camera to 'scan' an equipment label for availability or automatically recognize the material using the Machine Learning model.

Gasunie and SAP Netherlands worked together in an SAP Leonardo Rapid Prototyping approach. The results from a 1 day Design Thinking workshop were input for the SAP Leonardo NOW tour, 5 days in a Mobile Innovation Lab on customer location.





Benefits and Outcomes

Business / Social

Reduced time for picking and returning equipment and materials from hours to minutes.

Manage equipment and materials more efficiently.

Warehouse with accurate stock levels.



IT

Text recognition to scan equipment labels to check availability.

Image recognition to automatically determine the material.

Real-time insight into where an item is, even if it's booked and used on a project in the field. The user can also see when it will be available or if it needs maintenance.

Tight integration to SAP backend system.



Human Empowerment

Integration within existing Digital Field Worker program.

Saving a lot of time in administrative process.

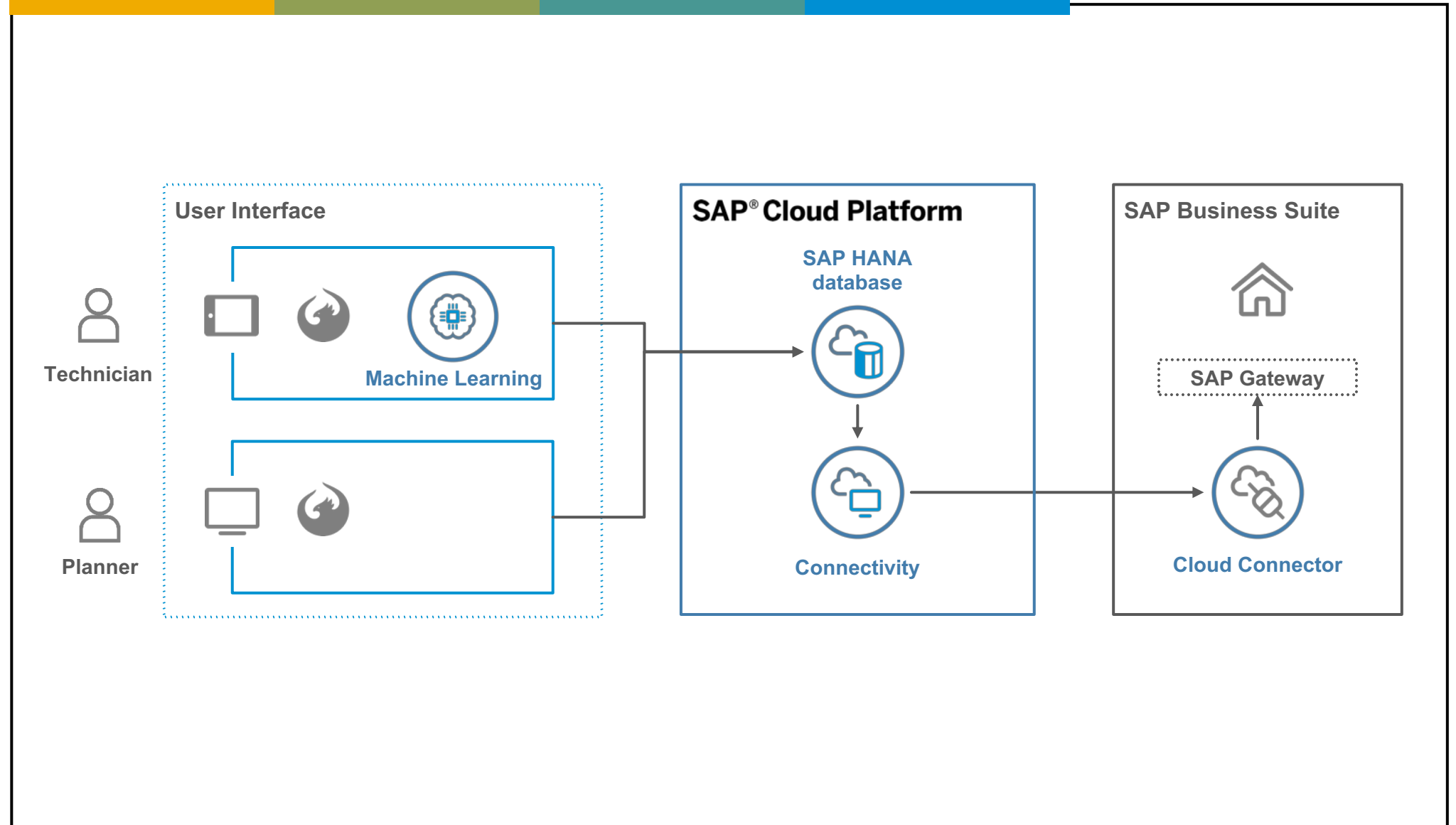
Paper picklist not required anymore.

More responsibilities for engineers themselves.





Architecture





Deployment

Date of Deployment or POC: 1 June 2018

Number of live users: 30 for first use case, up to 400 for next use cases

SAP Technologies Used:

SAP Cloud Platform	PoC
SAP Leonardo	PoC
SAP HANA	PoC
SAP ERP	Live

Server Processor: SAP Cloud Platform Neo

Linux Distribution: SAP Cloud Platform Neo





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	ML image recognition ML text recognition
2.	IoT	No	
3.	3D printing	No	
4.	Blockchain	No	
5.	API Economy / Integrate the Intelligent Enterprise	Yes	SAP CP consumes services from SAP backend
6.	Cloud Native / Event Based Architectures	No	
7.	Extending the digital core with SAP CP / ABAP in SAP CP	Yes	SAP CP solution to extend SAP backend application
8.	SAP Leonardo Application (extending SAP application, using Industry Innovation Kits or result of Design Thinking workshop)	Yes	Design Thinking workshop with all parties involved to define the design challenge and possible solution.



From hours to minutes

Picking and returning materials and equipment

