

Unternehmensübergreifende Integration für Kollaboratives Asset Management

oder: Geschichten über Geschirrspüler und Füllstandsmesser

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Agenda



SAP and SAP Research



Jochen's Dishwasher



Endress+Hauser's Radar Level Meter



Image courtesy of Endress+Hauser.

SAP

Vision: *Help the World Run Better and Improve People's Lives.*

190,000+

customers

60,000+

SAP employees worldwide

1,200+

service partners worldwide

120

countries

40+

years of business process experience

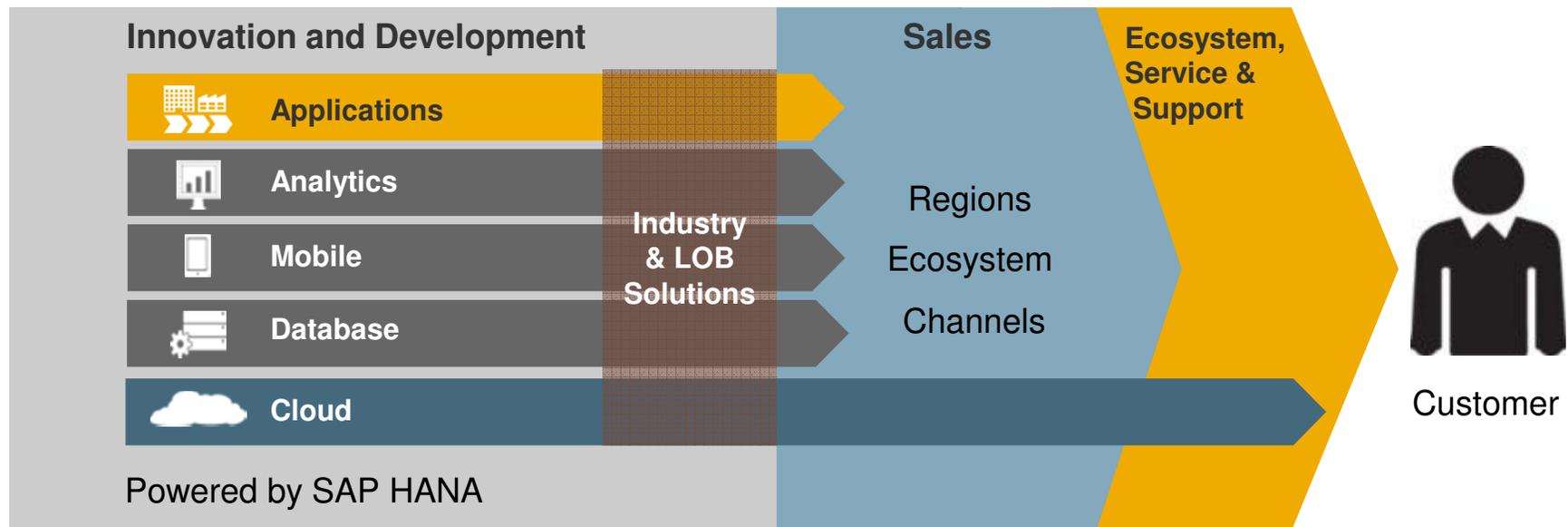
24

industries



SAP

Mission: *Help Every Customer Become a Best-Run Business.*



Leverage the true power of SAP: transform key technologies into solutions for industries and lines of business

SAP Research

A Global Team

- The **global technology research and innovation unit** within SAP.
- **21 research locations** worldwide with **700 employees**.
- **11 programs** in **Applied Research, Advanced Development & Global Business Incubator**.
- A network of more than **800 partners** from **industry and academia**



Jochen's Dishwasher

A True Story

Three months ago a strange noise appeared.
Three weeks ago my dishwasher stopped working.
My wife was in despair. I had a new job – dish washing.



Jochen's Dishwasher

A True Story

Do I still have warranty? If so, where?
I spent 30min+ searching for the receipt.

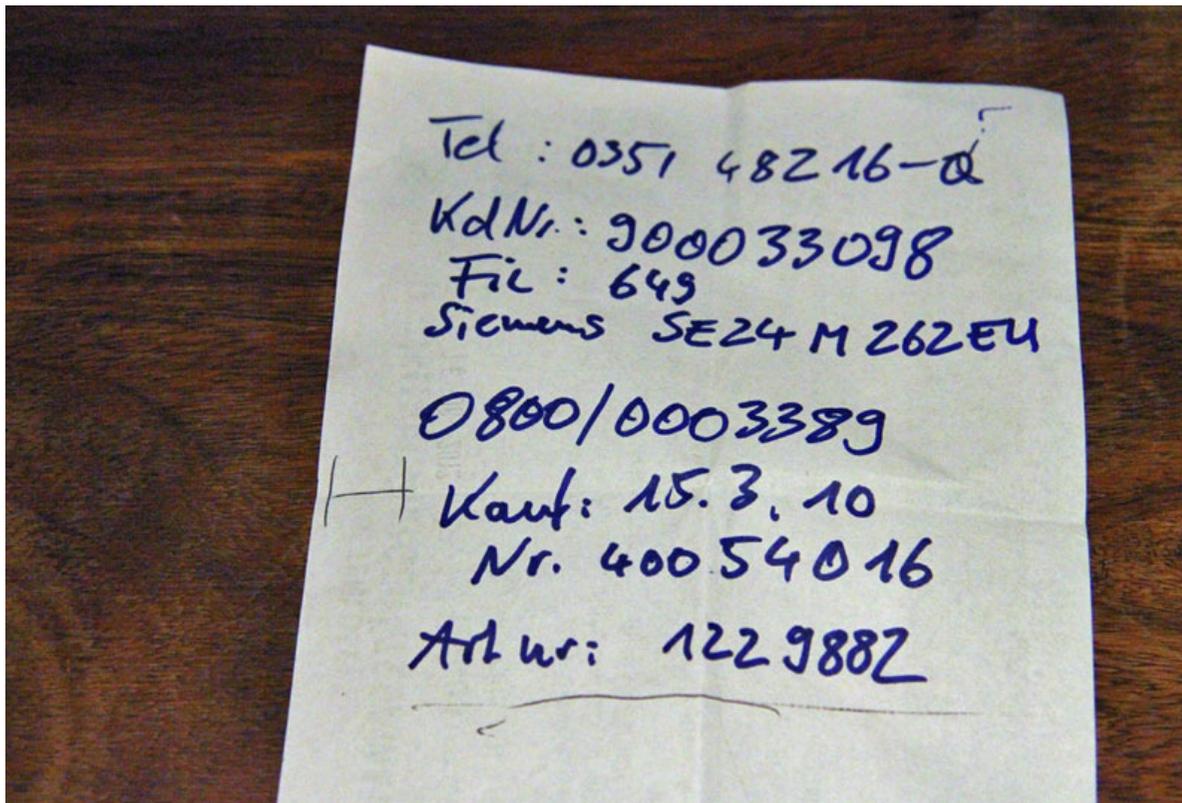


Jochen's Dishwasher

A True Story

Where is the support phone number?

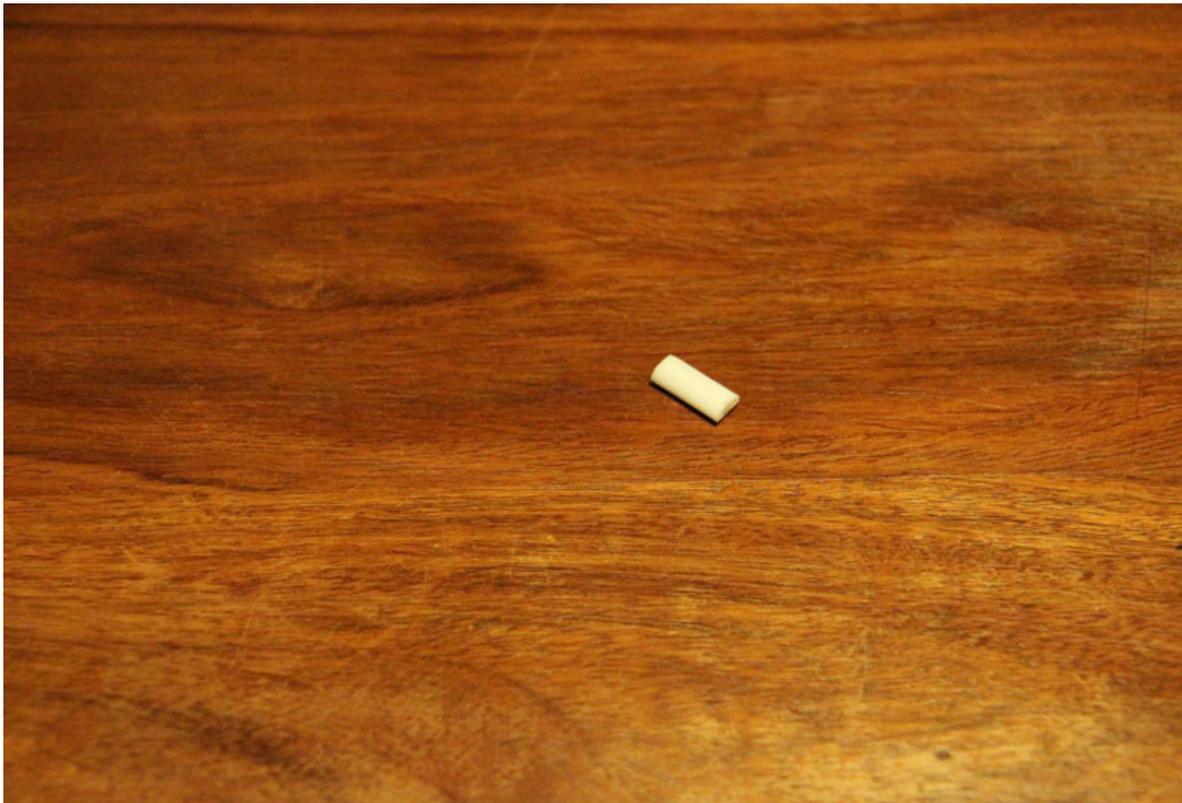
„Hello! The warranty contract number please!“ Is it ...? No! Is it...? No! 10min+



Jochen's Dishwasher

A True Story

The culprit: 1cm piece of a porcelain cup handle. Stuck in the pump.
I could have fixed it myself, given the right information.



Jochen's Dishwasher

A True Story

But I didn't because I hadn't the right information.

I called a service. Technician fixed it in <1min. 100 EUR.



Jochen's Dishwasher

A True Story

But I didn't pay the 100 EUR. Mediamarkt / Siemens did.
Spot the business case! 😊



Jochen's Dishwasher

A True Story

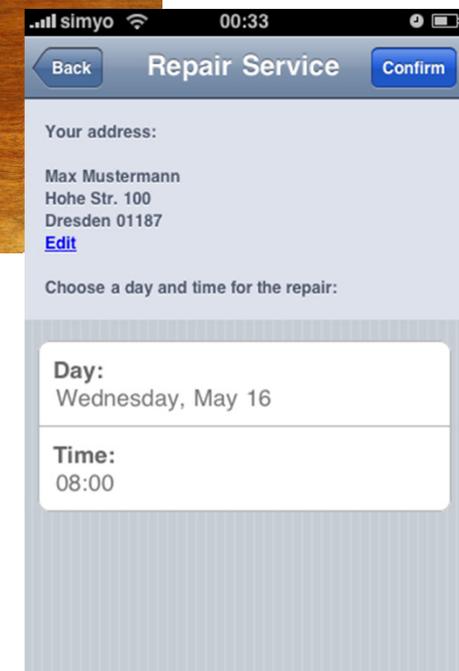
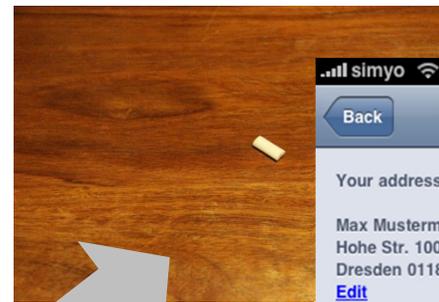
How to save these 100 EUR for Mediamarkt / Siemens?



Jochen's Dishwasher

How things should be.

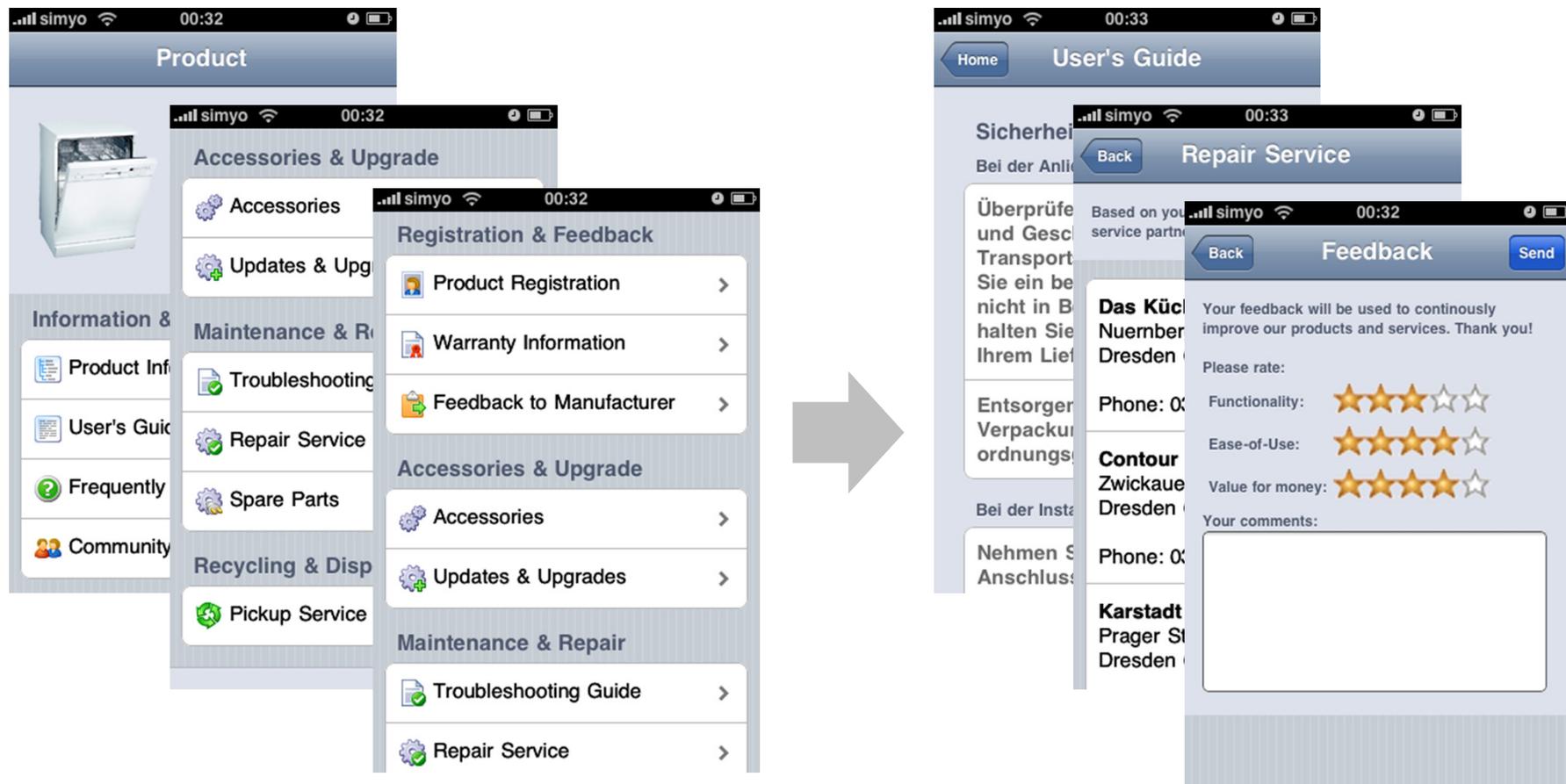
1. Scan a QRCode (or NFC tag) to identify make, model, and serial number.
2. A mobile app offers a list of information and services for the dishwasher.
3. The app guides to the solution: Help yourself (save money) or use service (\$\$\$).



Jochen's Dishwasher

How things should be.

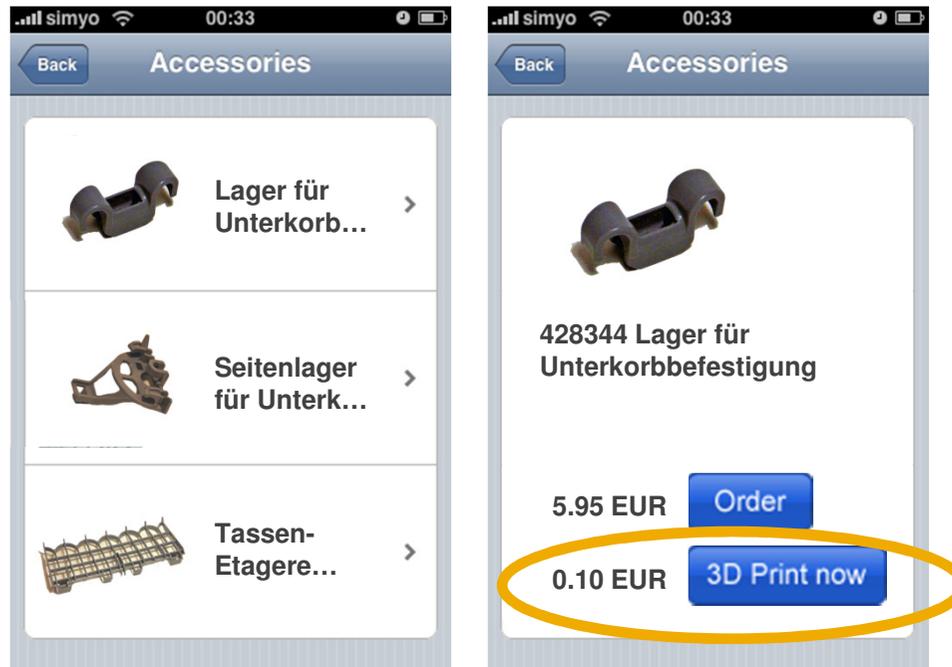
Easily offer value-added services, from user's guide to feedback to manufacturer.



Jochen's Dishwasher

How things should be.

Or how about 3D printing a spare part on demand?



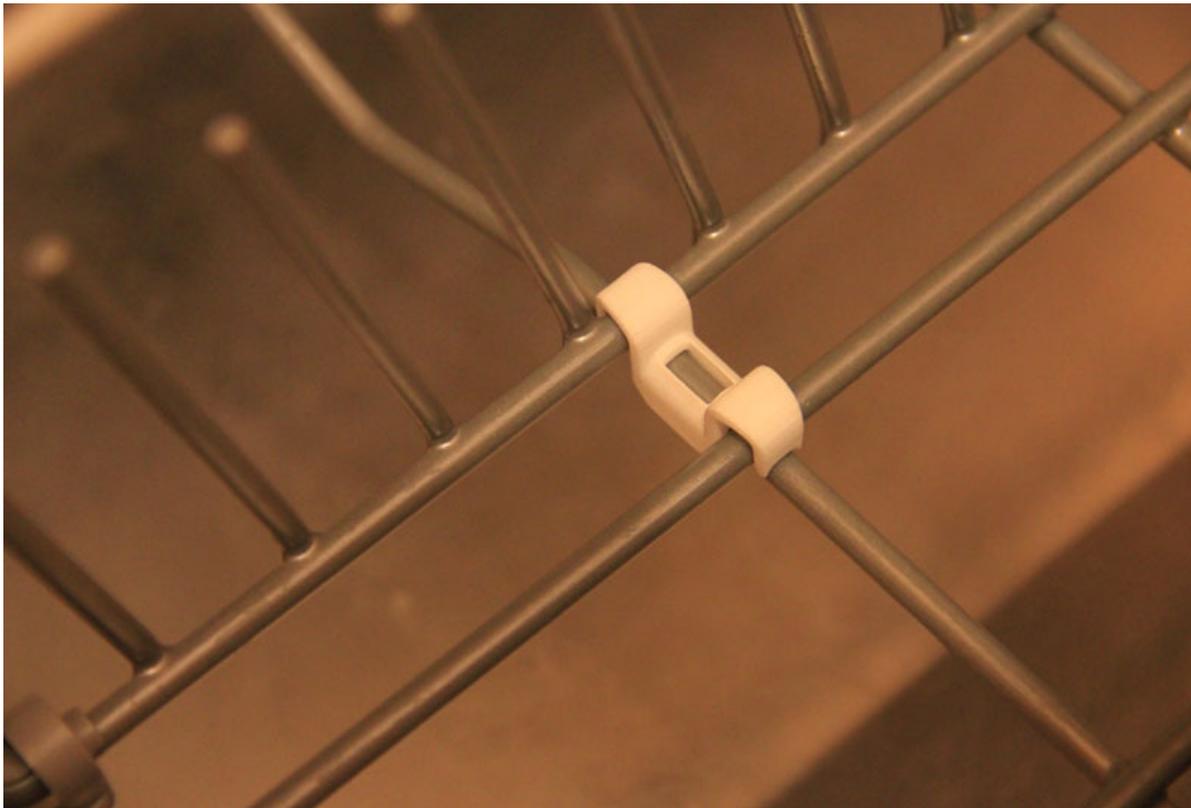
In 7+ years?!

Jochen's Dishwasher

How things should be.

This also is an information management problem.

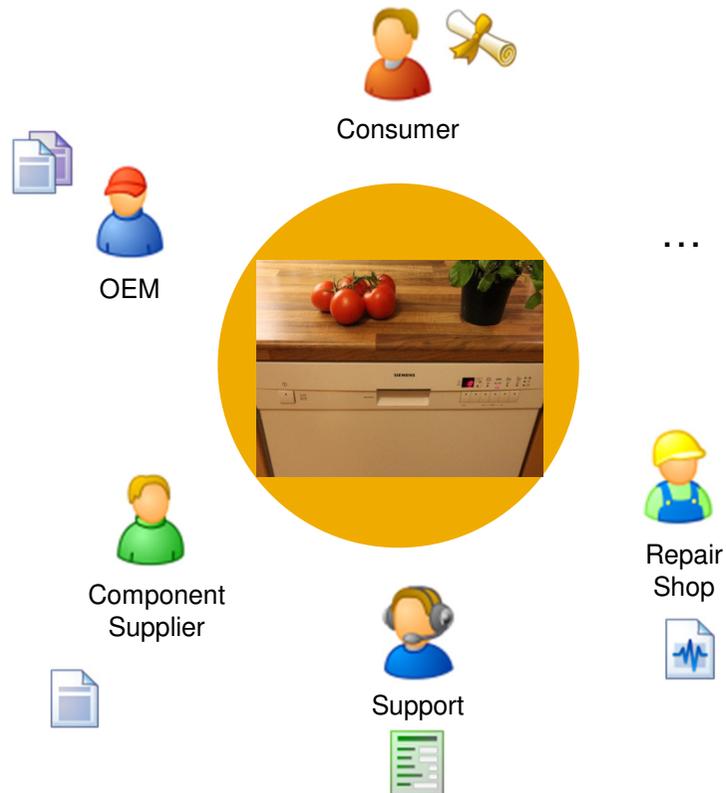
How does the CAD drawing get from the OEM to the 3D printer – securely?



Jochen's Dishwasher

How things should be.

„We need to talk!“ Enterprises must collaborate, exchange information.
Consumer, OEM, supplier, support, repair shop, insurance company...



Industrial Asset Information Management

What's the problem?

Find the differences to Jochen's dishwasher! Not many.
The problem? Organizational boundaries!

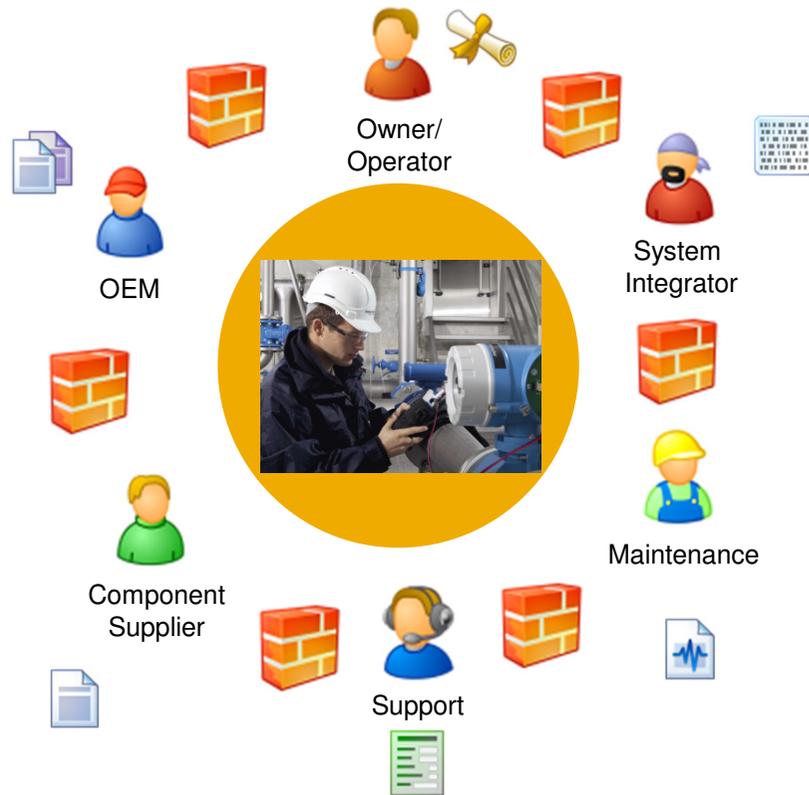


Image courtesy of Endress+Hauser.

Industrial Asset Information Management

An Example

Let's assume we are responsible for maintenance in a large chemical factory.
...and have a problem with a radar level meter.*



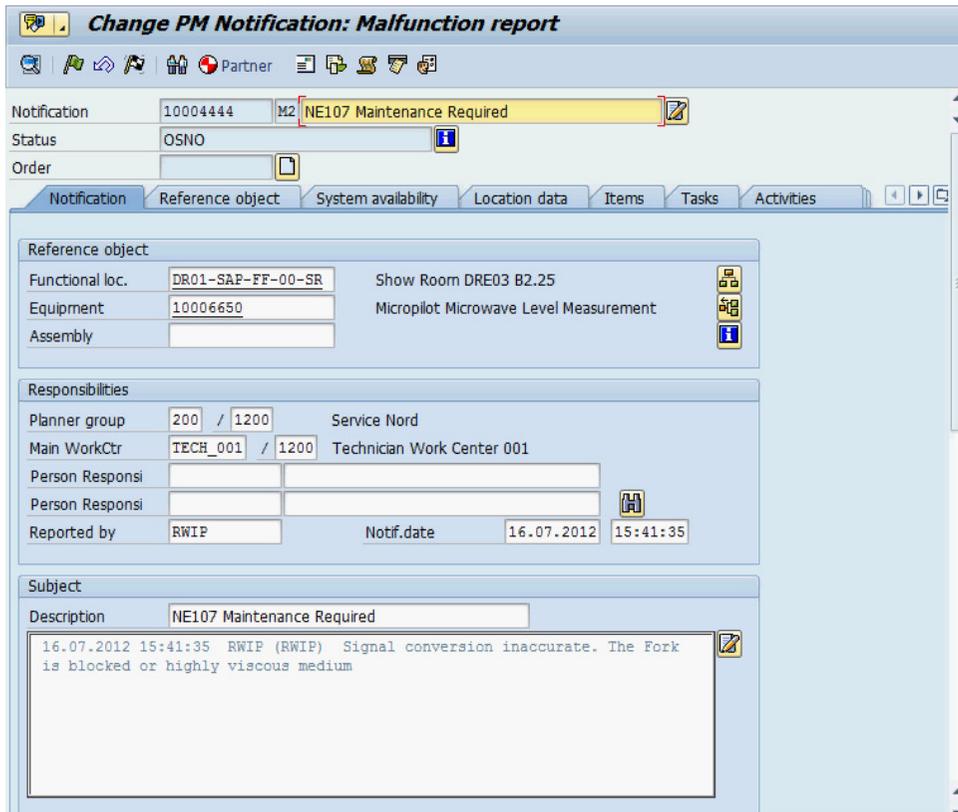
*which won't happen with a device of Endress+Hauser. ☺

Industrial Asset Information Management

An Example

To solve the problem we need:

...info from the ERP system about the asset and its maintenance history.



The screenshot displays the SAP PM Notification Change interface for a malfunction report. The title bar reads "Change PM Notification: Malfunction report". The notification number is 10004444, and the subject is "NE107 Maintenance Required". The status is "OSNO". The reference object is "DR01-SAP-FF-00-SR" (Show Room DRE03 B2.25) with equipment "10006650" (Micropilot Microwave Level Measurement). The planner group is "200 / 1200" (Service Nord) and the main work center is "TECH_001 / 1200" (Technician Work Center 001). The notification was reported by "RWIP" on "16.07.2012" at "15:41:35". The description of the malfunction is: "16.07.2012 15:41:35 RWIP (RWIP) Signal conversion inaccurate. The Fork is blocked or highly viscous medium".

Reference object	
Functional loc.	DR01-SAP-FF-00-SR Show Room DRE03 B2.25
Equipment	10006650 Micropilot Microwave Level Measurement
Assembly	

Responsibilities	
Planner group	200 / 1200 Service Nord
Main WorkCtr	TECH_001 / 1200 Technician Work Center 001
Person Responsi	
Person Responsi	
Reported by	RWIP
Notif.date	16.07.2012 15:41:35

Subject	
Description	NE107 Maintenance Required
16.07.2012 15:41:35 RWIP (RWIP) Signal conversion inaccurate. The Fork is blocked or highly viscous medium	

Industrial Asset Information Management

An Example

...info from the asset supplier like repair manuals and software updates.

The screenshot displays the Endress+Hauser portal interface. The browser address bar shows 'https://portal.en...'. The page header includes 'People for Process Automation' and the Endress+Hauser logo. A navigation menu at the top lists 'Start', 'Planung', 'Beschaffung', 'Installation, Inbetriebnahme, Betrieb', 'Produktstatus', 'Ersatzteile', 'Download Area', and 'Statusbericht'. The main content area is divided into several sections:

- Navigation / Analyse:** Includes a tree view on the left with 'BPI Lifecycle Manage' and 'E-H Demo model'.
- Asset Details:** A central panel showing 'TAG / KKS: LT-001', 'Bestellcode: FMR240-AZV1GGJCA5A', 'Gerätetyp: Mikrowellenmessung', and 'Hersteller: Endress+Hauser'. It also features a 'BPI Lifecycle Management' button and 'Offene Aktivitäten'.
- Product Information:** A detailed view of the 'Microplot M FMR240' instrument, including fields for 'Seriennummer', 'Bestellcode', 'Bestellnummer', 'Kurzname', 'Vorlage', 'Gerätetyp', 'Hersteller', 'Herstellungsdatum', 'Software Version', and 'Anmerkungen'. It also includes dropdown menus for 'Umgebungsbedingungen', 'Kritikalität', and 'Instandsetzungsrisiko'.
- Product Status:** A section at the bottom indicating 'Standortinformationen' and 'Produktstatus: Verfügbar'.

Screenshot courtesy of Endress+Hauser.

Industrial Asset Information Management

An Example

Often we do paper work.

Or manually search several IT systems.



Industrial Asset Information Management

An Example

Or we spend our morning on the phone with the asset supplier.



Industrial Asset Information Management

The Vision

Picture this AIM 😊: Transparent and secure access to asset information from various data sources distributed across different organizations.



Image courtesy of Endress+Hauser.

Industrial Asset Information Management

The Future

The smart asset will directly send a malfunction notification to your ERP system.
Or tell itself when a part has been exchanged.



Industrial Asset Information Management

The Future

Do you want to get all info on your smart phone? Just scan the asset!
(Remember Jochen's dishwasher? 😊)



Industrial Asset Information Management

The Future

You will see all asset-related information regardless of their source!

The screenshot displays the SAP Asset Information Management (AIM) Worklist interface. At the top, the SAP logo and 'Asset Information Management' are visible, along with the user name 'Luiz Alberto Borges (d058753)' and 'Settings'. The main heading is 'Worklist' with a search bar. Below this is a table with columns for 'Manufacturer Name', 'Manufacturer Part Number', and 'Serial Number'. The first row shows 'Endress + Hauser', 'FMR240-A2V1GGJCA5A', and 'D300AA0108D'. A 'Details' button is next to the first row. Below the table, there is a 'Details' section with a warning icon and the text 'Attention! Firmware update available.' It includes fields for 'Description:', 'City:', and 'Street:'. To the right of the details, there is a 'Release Notes' popup window showing a list of release notes for various device models and versions. Below the details, there is an 'Attached Documents' section with a table of document names and their corresponding actions.

Manufacturer Name	Manufacturer Part Number	Serial Number	
Endress + Hauser	FMR240-A2V1GGJCA5A	D300AA0108D	Details

Details

⚠ Attention! Firmware update available.

Description:

City:

Street:

Attached Documents

Document Name				
BA227FEN_0508.PDF				View
BA227FDE_0508.PDF				View
Ba291fpl.pdf				View
BA291FRU.pdf	Continuous and con-contact level ...	BA	E+H Portal	View
BA291FES_0806.pdf	Continuous and con-contact level ...	BA	E+H Portal	View
BA291FEN.pdf	Continuous and con-contact level ...	BA	E+H Portal	View
BA291FDE.pdf	Continuous and con-contact level ...	BA	E+H Portal	View

Release Notes

V01.07.00:.....* Micropilot M FMR24x – Improvement in antenna signal measurement precision and stability
.....* Proline DP PDM Update – Implemented new GSD file
.....* Syntax corrections in devices files of several devices

V01.06.00:.....* TMT162 Rev1 V1.00.xx – Support for PDM V5.2
.....* TMT84 Rev1 V1.00.xx – Support for PDM V5.2
.....* Promass83 Rev7 V3.04.xx – Warning due limit violation fixed
.....* Promass83 Rev8 V3.06.xx – Warning due limit violation fixed

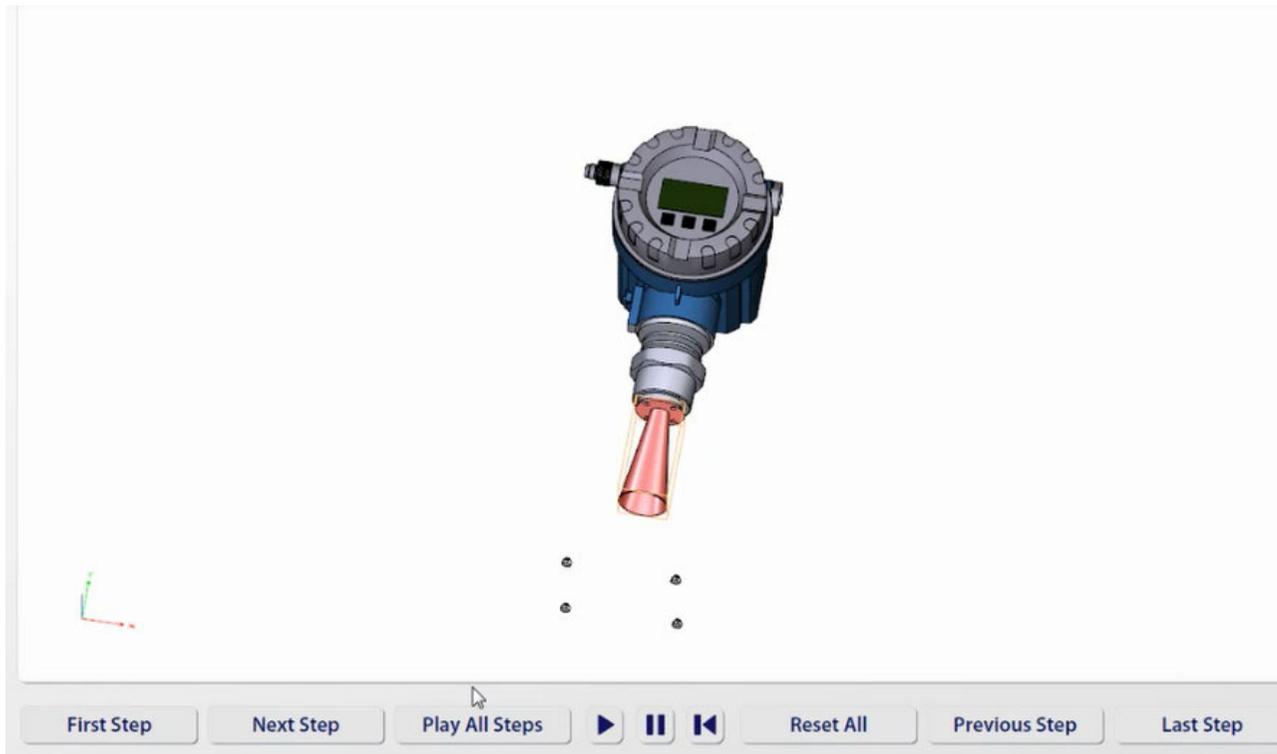
V01.05.00 (PA)
V01.07.00 (PA)

Industrial Asset Information Management

The Future

Boring?

How about an animated repair instruction in a 3D PDF file?



3D model courtesy of Endress+Hauser. Visual work instructions powered by SAP Visual Enterprise.

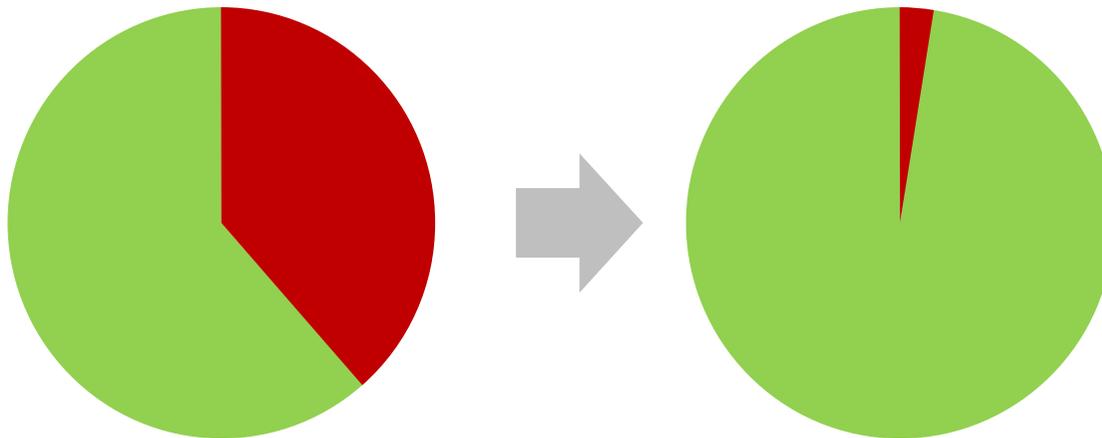
Industrial Asset Information Management

Why?

Less time for information search means more time for problem solving.

Less time for fixing means less downtime and more time for production.

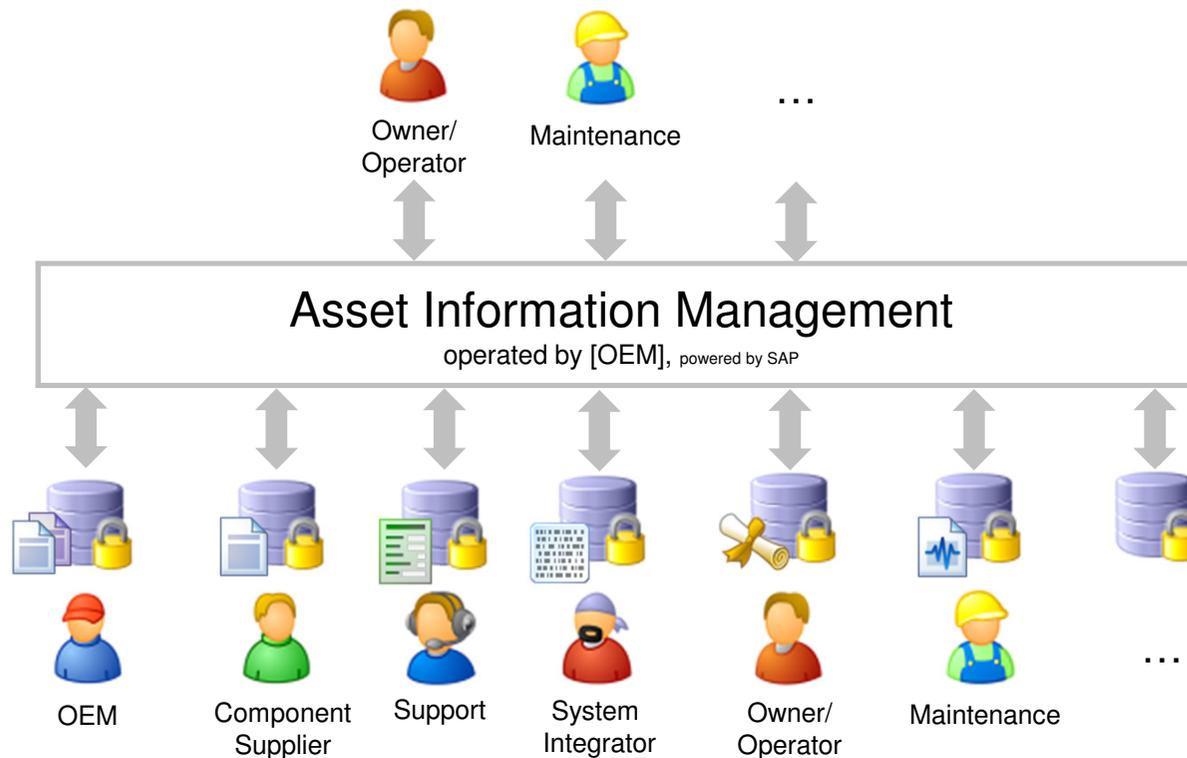
Less effort for data management means lower costs.



Industrial Asset Information Management

How does this work?

All data stays where it is. With its owner! No copy&paste, no redundancies.
A cloud-based platform maintains links pointing to the original data sources.
This central „white-label“ platform carries the logo of the OEM.



Industrial Asset Information Management

Don't fire your support staff!

Not everything can or should be automated.

Leave the complex problems to humans and the tedious work to AIM!



Thank You!

PS: We're looking for pilot customers. Apply now for your pilot license!



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