

SAP as the heart of an intelligent enterprise

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steel trade
and services

moris.eu

Moris – Who we are ...



- We are a family-owned company founded in 1994
- Moris is located in Chorzów in the South of Poland
- Our main business divisions are:
 - Supply of rails
 - Innovative **Rails Welding** Plant – Rails up to 360 m
 - Automatic **Rails cutting** and punching production lines
 - **Transportation** by own trucks and own trains
 - Distribution of steel products
 - Wide range of steel bars, sections and plates
 - **Two warehouses**
 - Standard regal warehouse
 - Fully automatic high rack warehouse
 - Company own **transportation** by trucks

2018 - Company analysis in the context of the steel business

- Change of the customer needs
 - Growing demand of steel in general
 - Growing number of orders but in smaller quantities
 - Request for Just in time deliveries - availability
 - Demand for prefabricated material – components
 - Access to new technologies, tools and applications
 - Request for electronic data interchange between companies
 - Reduction of repetitive activities - automatization
- Our organisation has reached some limits
 - 2018 revenues ~ 220 Million €.
 - ~ 110 Employees in sum
 - ~ 10 Employees in sales
 - 1 IT Employee 😊

Transformation of Moris

- Improvement of availability of products, transport and warehouse performance
 - Fully automatic high rack warehouse for 6,5m products
 - 6000 cassettes
 - 5 ton per cassette
 - 30k tons capacity
 - Performance of 75 cassettes and 375 tons per hour
 - Deliveries on rails
 - Investment in new trucks, locomotives and railcars



Transformation of Moris

- Tailormade components with focus on end-users
 - An automated high-performing cutting service center connected to the automatic high rack warehouse
 - Integration of industrial robots into the process
- Reaching out to new customer segments
 - Change to a new modern image by the rebranding of the company
 - New channel of distribution - First steel e-Commerce in Poland
 - Focus on SEO
- Digital transformation with focus on:
 - Full integration of all tools and processes in one autoamted system
 - Intuitive, automatized and autonomous solutions
 - Reduction of repetitive activities by iRPA Bots
 - Friendly and ergonomic system environment supporting the users in everyday tasks
 - Business partners-oriented improvements and integration with customers and vendors systems

Why SAP S4HANA ?

Building of an automatic cassette warehouse

Optimization of production planning processes and integration with transportation planning module

Planning the availability of railway resources

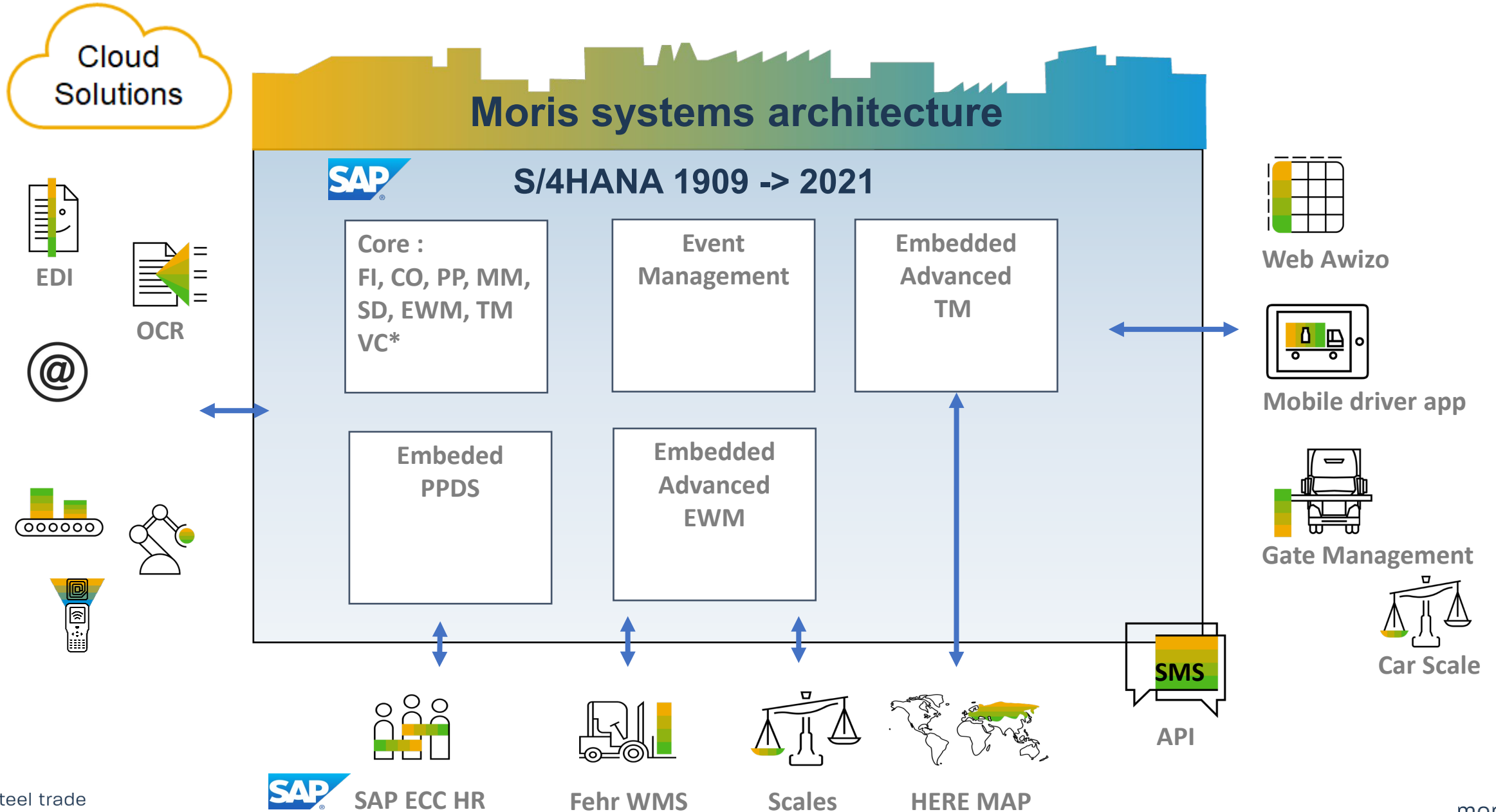


Extending the range of services

Improving sales service processes

Integration of warehouse service processes and transportation planning

Core Solutions – internal processes integration

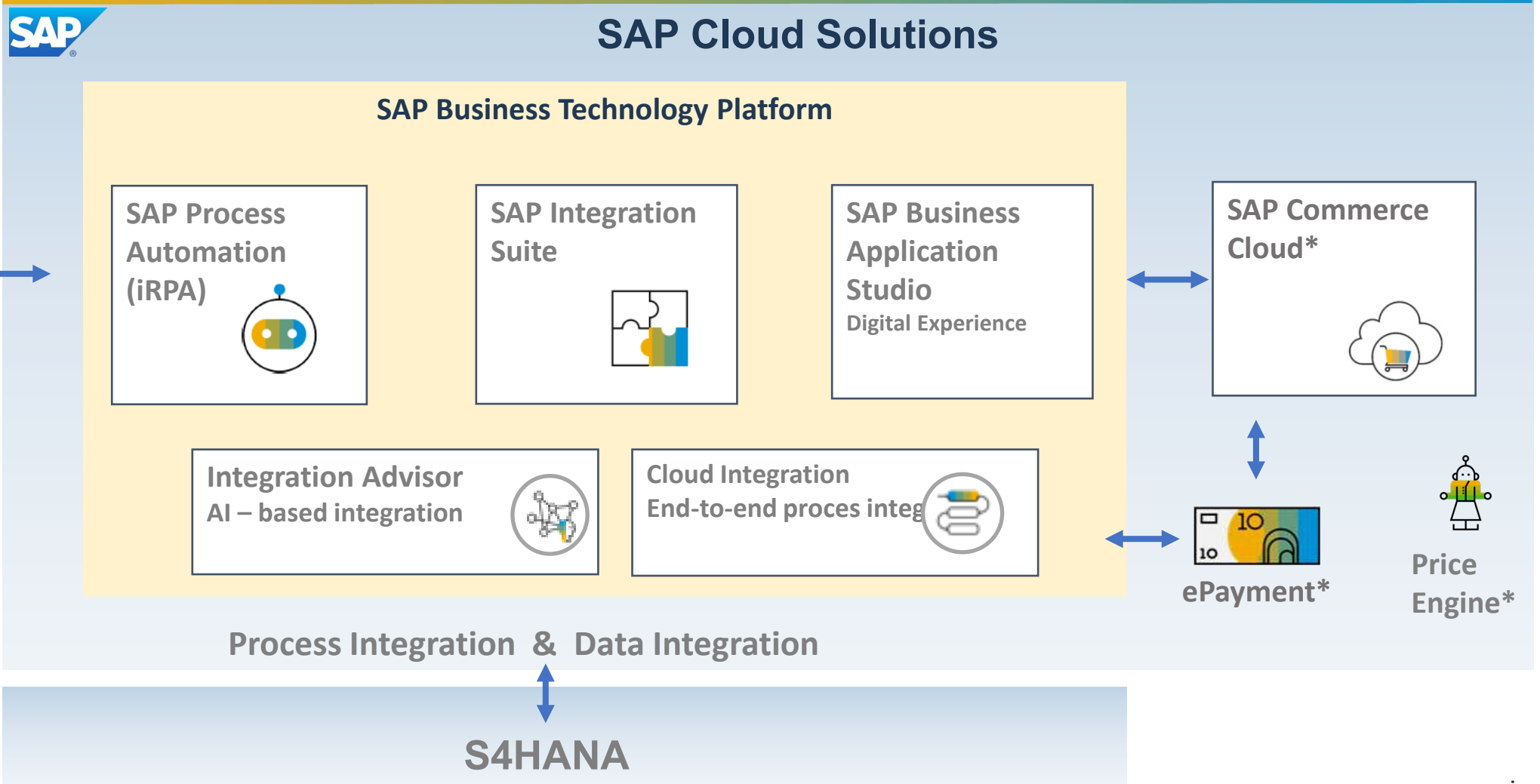


Core Solutions – external processes integration



Cloud Solutions

Moris systems architecture



Example: How it works in the sales process

An example of process automation based on **SAP Fiori landscape**

the full process flows across a few logistics modules in one centralized system

Sales
S/4

Transportation
S/4 TM

Picking
S/4 EWM

Check-in
S/4 TM

Loading
S/4 EWM

Check-out
S/4 TM

Centralization of all necessary information on one ergonomic sales cockpit based on Fiori Landscape

The screenshot displays the SAP Fiori Landscape interface, which is a central hub for sales and logistics information. It features several key components:

- Home Dashboard:** A grid of tiles providing quick access to various functions such as "Kokpit handlowca" (Sales Cockpit), "Create Sales Orders", "Monitor zleceń klienta" (Monitor customer orders), "Open Orders SD", and "Zapasy" (Inventory).
- Material List:** A table showing a list of materials with columns for description, quantity, unit, and price. The table includes data for various channels and materials, such as "UPH Channel 240 S235JR 6.2" and "UPH Channel 320 S235JR 12".
- Standard Order Overview:** A detailed view of a specific order, including a process flow diagram showing stages like "Order Processing", "Delivery Processing", "Transportation", and "Invoicing". It also displays key order details like "Net Value: PLN 1.963,00" and "Requested Delivery Date: 06.09.2022".
- Item Overview Table:** A table listing items with columns for item number, material, description, quantity, unit, price, and other relevant data. It includes items like "11 2007951" and "22 2009425".

Sales
S/4

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S/4 TM

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S/4 EWM

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S/4 EWM

Check-out
S/4 TM

Transport planning
via SAP TM cockpit

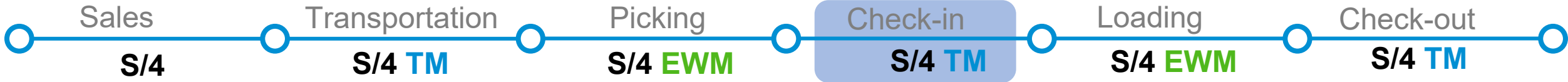
The screenshot displays the SAP Transportation Cockpit interface. The top section shows 'Freight Unit Stages (40)' with a table listing various units with columns for Original Order, Execution Date, Loading status, Postal Code/City, Gross Weight, Distance, and Freight Unit. Below this, a Gantt chart shows truck assignments for dates from Wednesday, Sep 7, 22, to Thursday, Sep 8, 22. The chart includes columns for resource, license plate, and time slots.

Planning of loading
slots

The screenshot shows the SAP Wagon Usage interface. The top part is a calendar view for the period 01.09.2022 - 30.09.2022, displaying wagon usage across weeks 37, 38, and 39. The bottom part is a detailed view of wagon assignments, showing columns for Partners, Document no, Stops, and a calendar grid with usage bars for various dates.

railcars usage

The screenshot displays the SAP Gantt Chart interface. The top part shows a map view of a route with various locations marked. The bottom part is a table of freight unit details with columns for Dist., Len., N., Freight Ur, and other metrics. The table lists multiple units with their respective distances and weights.



Car recognition, truck position control on the scale and weigh checking, car and driver data verification.

Online visualisation of car status on the shipping and receiving cockpit

TruckFlow

Rozpoznaj pojazd 00:55 29 września 2021 Test Euvic

Zaawizowane transporty

Odswież

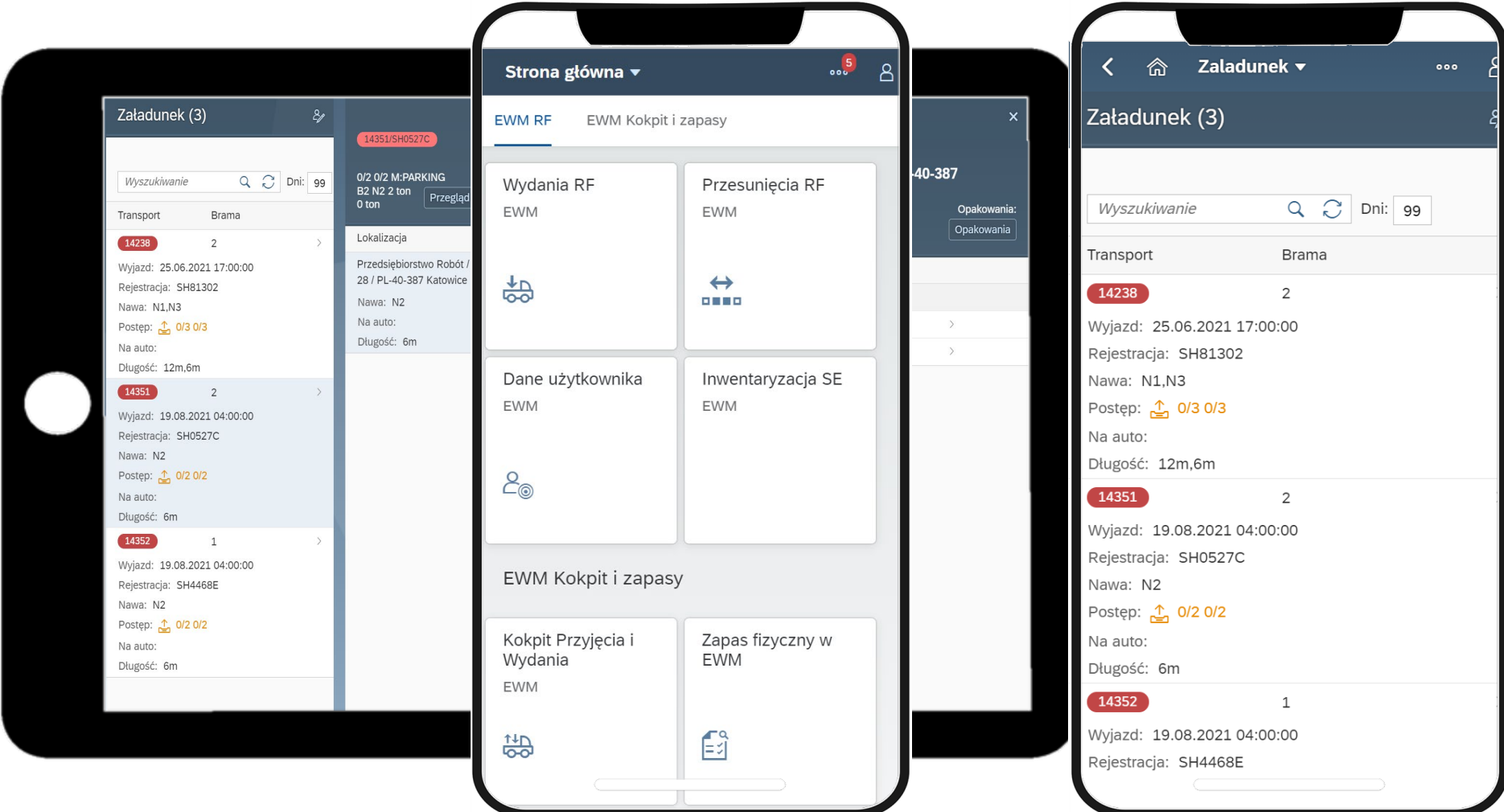
Typ	Nr transportu	Data	Nr samochodu	Mag.	Data wjazdu	Data wyjazd	P	w.wjazd	w.wyjazd	w.SAP	Zostało	W środku	Akcje
B		24-09-2021 09:29	SH81301		24-09-2021 09:29		P13	14,72		0		Tak	OP KW
B		24-09-2021 11:11	ST1478P		24-09-2021 11:11		P5	14,7		0		Tak	OP KW
B		27-09-2021 09:36	SH85351		27-09-2021 09:36		P9	14,34		0		Tak	OP KW
B		28-09-2021 16:31	SH81314		28-09-2021 16:31		L3	14,72		0		Tak	OP KW
W	4840	12-01-2021 09:30	SK864PE	1						0,98		Nie	OP B
W	4908	15-01-2021 09:00	GDA5F93	1						2,471		Nie	OP B
W	4974	13-01-2021 17:00	nil64351	1						0,158		Nie	OP B
W	5373	18-01-2021 19:00	KR3Y412	1						0,216		Nie	OP B
W	5500	20-01-2021 19:30	nil64351	1						1,018		Nie	OP B
W	6531	28-01-2021 16:00	01	1						12,956		Nie	OP B
W	6964	03-02-2021 18:30	KE374YO	1						0,635		Nie	OP B
W	7508	08-02-2021 18:00	sm91247	1						0,04		Nie	OP B
W	8345	23-02-2021 18:00	JE977	1						1,156		Nie	OP B

Wyświetl 50



Communication with the driver via SMS, loading parcels with the use of **bar code scanners** and confirmation of goods release after loading

EWM -> MM / TM integration



Sales
S/4

Transportation
S/4 TM

Picking
S/4 EWM

Check-in
S/4 TM

Loading
S/4 EWM

Check-out
S/4 TM

The screenshot displays the TruckFlow software interface. At the top, there are navigation buttons: "Inny z ważeniem", "Rozpoznaj pojazd", a balance indicator "0,00", and a user profile "Test Euvic" with the date "12 września 2022". The main header is "Zaawizowane transporty" with an "Odśwież" button. Below this is a table of transport orders with columns for Typ, Nr transportu, Data, Nr samochodu, Kierowca, Odbiorca/Dostawca, Mag., Data wjazdu, Data wyjazd, P, w.wjazd, w.wyjazd, w.SAP, Zostało, W środku, and Akcje. A detailed view of a specific order is shown below, including a search bar, a tree view, and a large data table with columns for various attributes like T, S., A., L., K., Data awizacji, P., Op., Z., K., Rzecz. data przyb., Rzecz. czas prz., B., Nawy, Bez., Wsk. realizac linii %, Typ, F., Z., L., Pu., Wyc., Nr rejestr. pojazdu, Kie., S., Wag., Wa., Wa., W., K., Lic. lini, Lic. lini zreali., CD, N1, N2, N3, N4, A4, A5, R., P., P., L., L., Dż. The interface also includes a sidebar with "Wyszukiwanie" and "Magazyn" options, and a bottom section for "Ustawienia".

Check-out on the
main gate

and
Truck status
visualisation on the
warehouse cockpit

Measurable effects of automation

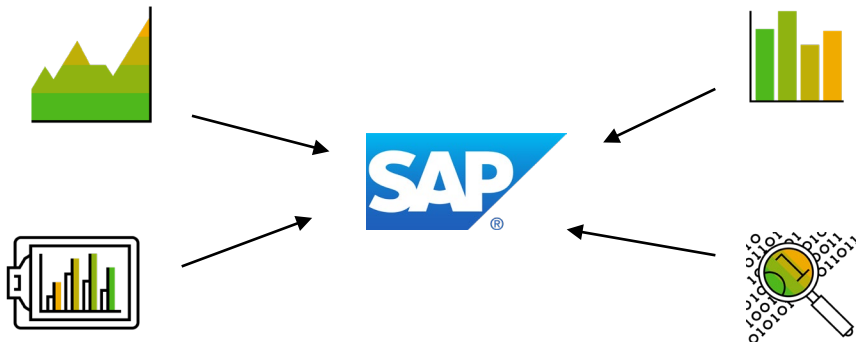
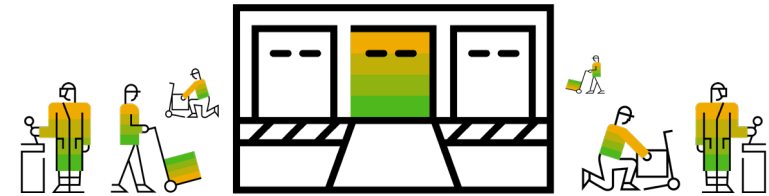


Unloading of 20 railway wagons – 1000 tons in 3 days

VS

Unloading of 30 railway wagons – 1.600 tons in 8 h

Keeping of the existing human resources
in warehouse handling while tripling the volume
and efficiency of the warehouse



Transfer of railway and production resource planning
processes from external sources to the SAP system

Measurable effects of automation

Automatic transfer steel certificates into the system by **iRPA / SAP Process Automation**



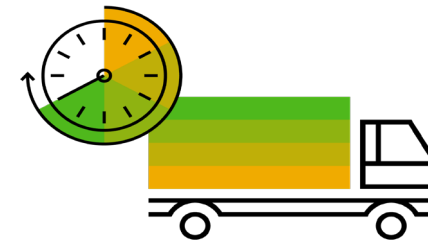
EDI integration with vendors and customers **via BTP (SAP Integration Suite)**



Resignation from **paper printouts** in the warehouse during picking and loading of goods, all **process based on barcodes scanners**



The launch of the **loading/unloading reservation time slots windows** allowed for the **improvement of the check-in process** and the shortening of the time spent by the car on the premises of the plant from a few hours to less than one



Thank you for your attention



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