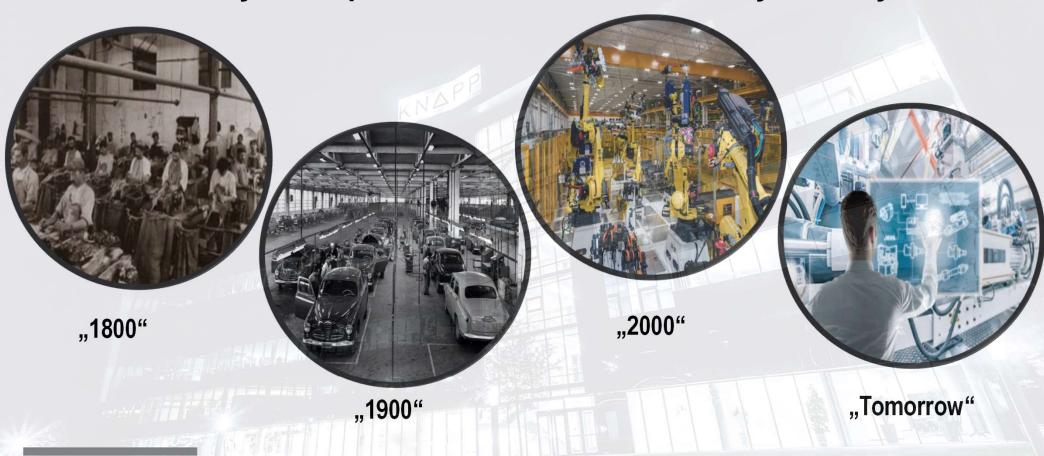


Factory concept evolution since 19th century to today



KNAPP

KNAPP evolution from 1952 to today



Günter KnappFounder 1952

Knapp very 1st product



Knapp OSR Evo System

Today



1953

KNAPP at a Glance #valuechaintechpartner





€ 2,000 Mio turnover in 22-23



















Core sectors













Certifications



Quality Management ISO 9001

Occupational Health and Safety ISO 45001

> Environmental Management ISO 14001

Information Security ISO 27001

Anniversaries



70 years KNAPPAG

25 years KNAPP Systemintegration

25 years KNAPP Sudamérica

10 years KNAPP IT Solutions

10 years KNAPP Benelux B.V.



2021 Rank	Company	Headquarters
		op 5
		evenues over \$1,350 million)
1.	Dematic (KION SCS)	Atlanta, GA (USA)
2.	Vanderlande	Veghel, Netherlands
3.	KNAPP	Graz, Austria
4.	SSI Schaefer	Neunkirchen, Germany
5.	Intelligrated	Mason, Ohio (USA)
	Rank	6-10
	(Warehouse Automation Reven	ues \$1,350 million - \$500 million)
6.	Daifuku	Osaka, Japan
7.	Witron	Parkstein, Germany
8.	MHS Global	Louisville, Kentucky
9.	TGW Logistics	Marchtrenk, Austria
10.	Swisslog	Buchs, Switzerland
	Rank	11-20
	(Warehouse Automation Reve	nues \$500 million - \$91 million)
11.	Bastian Solutions	Carmel, IN (USA)
12.	Symbotic	Wilmington, MA (USA)
13.	Körber	Hamburg, Germany
14.	Murata Machinery	Kyoto, Japan
15.	Fortna	Atlanta, GA (USA)
16.	Fives Group	Paris, France
17.	System Logistics	Fiorano Modenese, Italy
18.	Savoye	Dijon, France
19.	Gebhardt	Sinsheim, Germany
20.	Kardex Mlog	Neuenstadt am Kocher, Germany

Forbes

Top 20 Warehouse Automation Suppliers

"KNAPP was the world's third largest warehouse automation provider. KNAPP AG is a privately-held company with more than 6,000 employees. KNAPP offers integrated warehouse systems and logistics software solutions."

KNAPP ranked nr. 3 of the Forbes 2022
TOP 20 Warehouse Automation Suppliers





Solutions



Zero-defect solutions (ivii) assembly without errors, quality assurance



Open Shuttle

flexible, autonomous transport

Tugger train loading automatic, manual



Quality assurance

Storage



Transportation

Picking



OSR Shuttle ™ Evo, Miniload, Pallet High Bay

store, sequence, transport

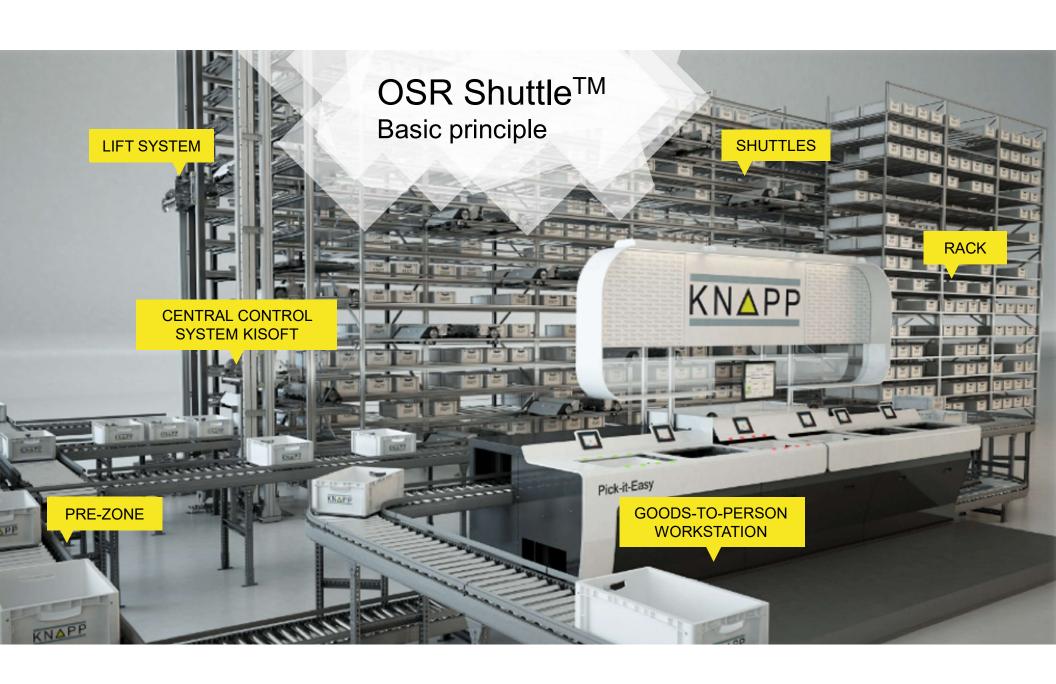
INDU-Store small parts warehouse



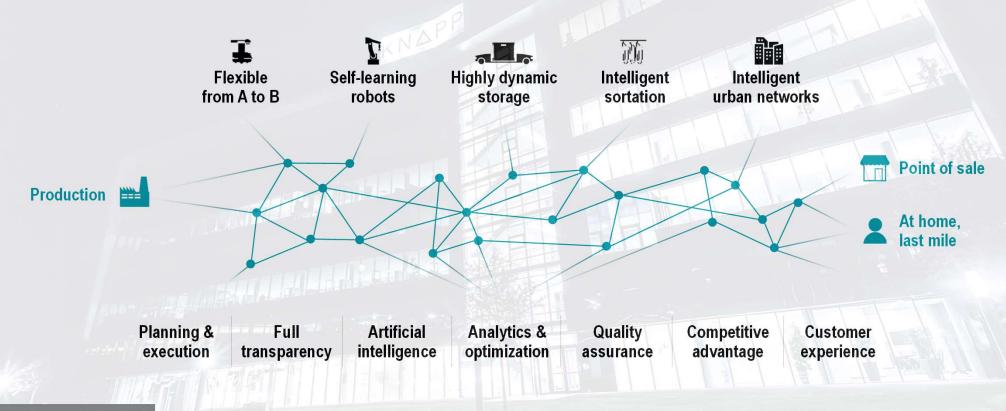
Pick-it-Easy picking work stations, robot







What does your value chain need?

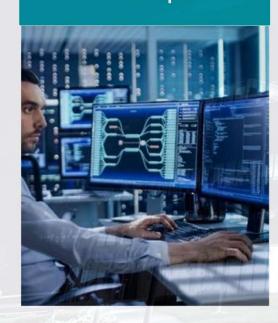






Process Challenges

Increasing number of interconnected processes

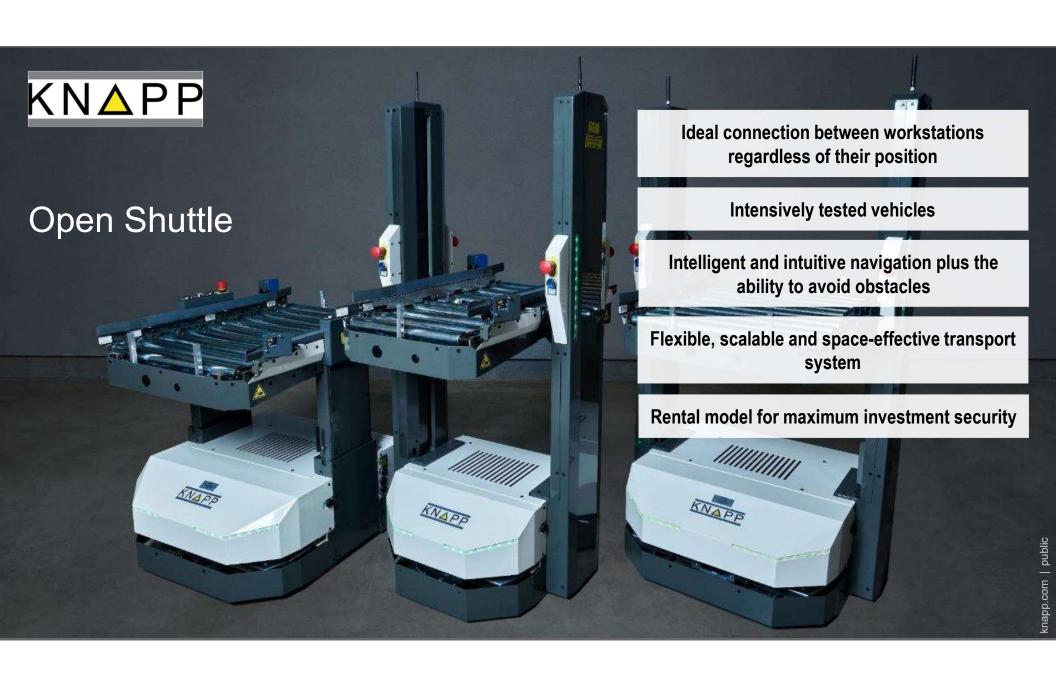


Constantly changing processes



Automation of special processes









Open Shuttle is a flexible automation solution



- Cost-efficient solution and different purchase and rental models
- Scalable system
- Transport paths remain free

Solutions

Configurable by the user



- Simple layout control
- Simple simulation environment
- Cooperation between human and machine
- DIY installation

One vehicle for multiple applications



- Pallet classification and obstacle detection in the standard design
- Short delivery times
- VDA 5050 controller and agent
- Maximum freedom of movement in minimum space



The simulation allows the user to test new use cases, changed layouts and processes in advance.

Transport order management for manual and automated vehicles

Vehicle control system independent of the manufacturer

Intelligent optimization of transport paths and traffic volume

Easily configurable, scalable and changeable by the user

KiSoft FCS





Digmesa Polyform AG

Core business: Producing flow sensors

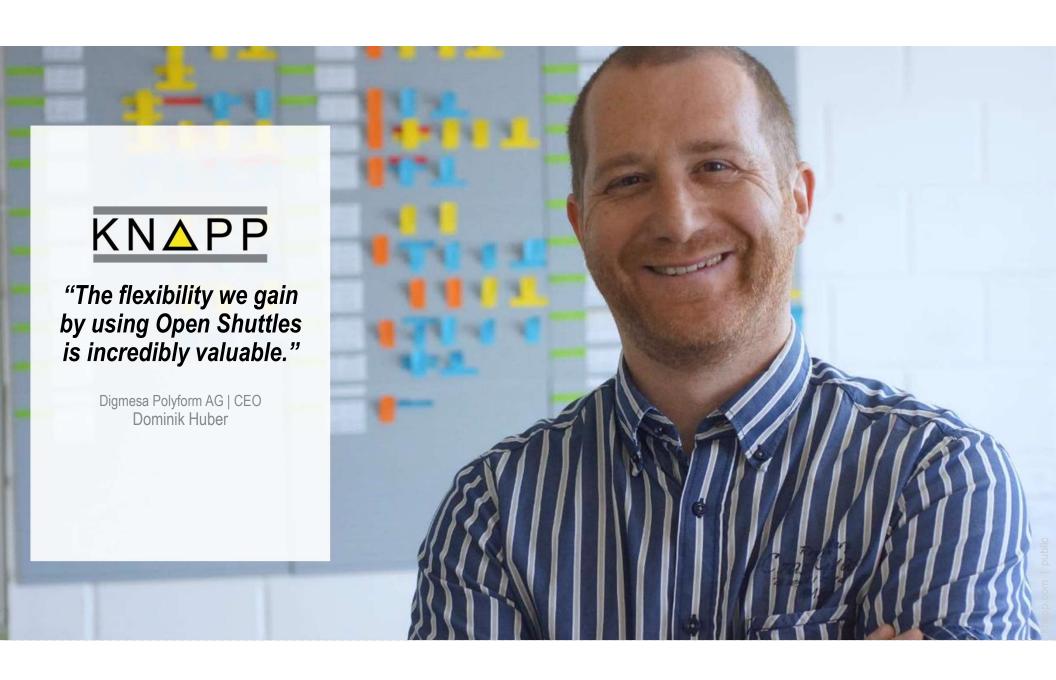
Annual revenue: € 18,5 M

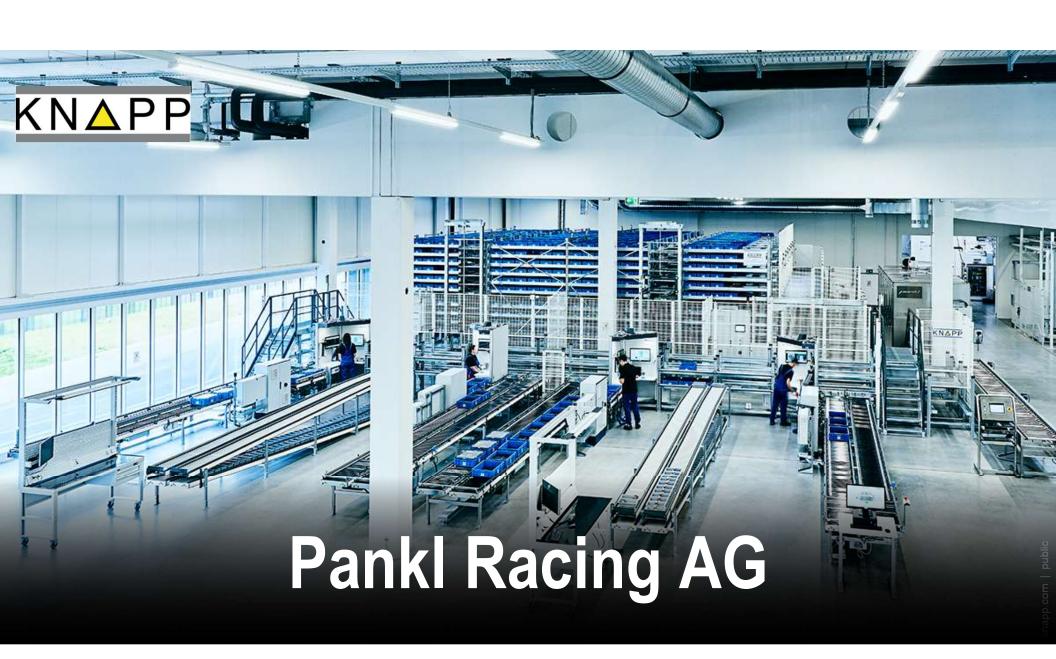
• Employees: 70

- Open Shuttles connect injection molding machines with component warehouse
- Transport and sorting of completed injection molded parts and empty containers

Ispach, Switzerland







Pankl Racing AG

 Core business: Producing high-quality drivetrains for motor racing, luxury automobiles and aviation industry

Annual revenue: € 285 M

Employees: 2.140

- Small parts warehouse for storage and assembly of motorcycle drivetrains
- Assembly at ivii smartdesks: ivii smartdesk is equipped with a real-time feedback system that monitors drivetrain assembly to implement a zero-error strategy and a full traceability in the assembly process





KNAPP

"From the original raw piece to the finished item, Pankl reaches a new level with these production solutions involving the integral connection of all manufacturing processes, quality data, operating data and assembly data. We reach a high level of transparency and traceability and, therefore, a high efficiency in processing. We have certainly created a best-practice application for integrating production in a network."

> Pankl Racing AG | COO Christoph Prattes



