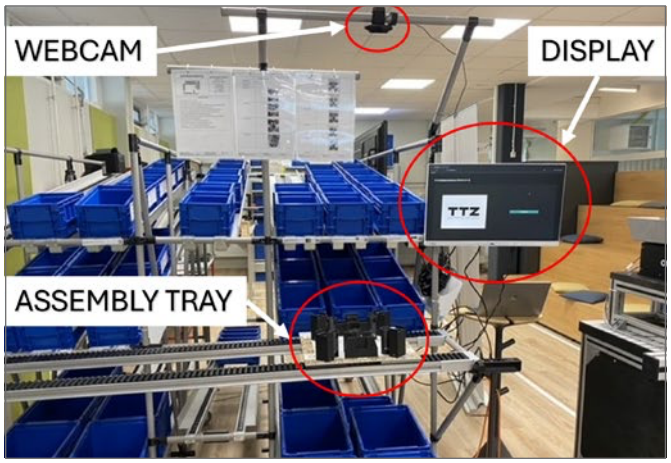
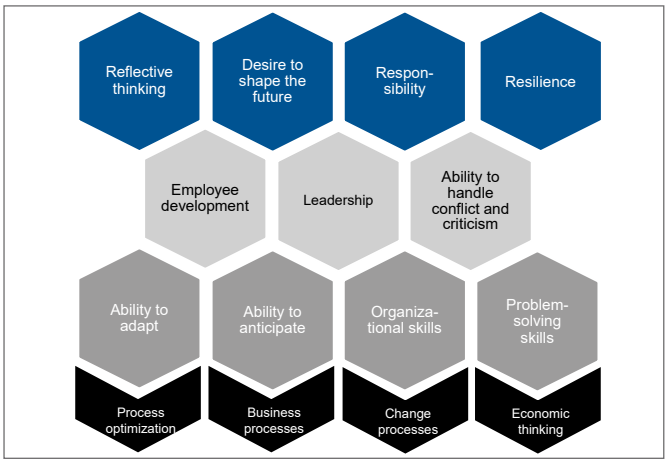
Content



Technologies for Assisting Manual Order Picking

While traditional order picking processes still rely heavily on manual skills, combining computer vision with voice control creates new opportunities to increase efficiency.

Continue reading on page 6



Proactive Skill Development in Logistics Management

Barriers at both individual and organizational levels in production planning and control can disrupt the smooth flow of logistics. Innovative and practical training concepts help to overcome these challenges, particularly in increasingly digitalized work environments.

Continue reading on page 22

ARTIFICAL INTELLIGENCE

6 K. Siddiqui, J. Kressel, J. Grinninger
Technologies for Assisting Manual Order Picking

102 A. Groche, D. Augenstein
Field Meets Code

CHANGE MANAGEMENT

22 M. Heins, L. Vogt
Proactive Skill Development in Logistics Management

58 C. S. Zoller, J. Langer, B. Grzechca, W. Rempel
Bridging Automated and Traditional Approaches in Material Transport

66 B. März, N. Ackerhans
Design Thinking

AGILITY

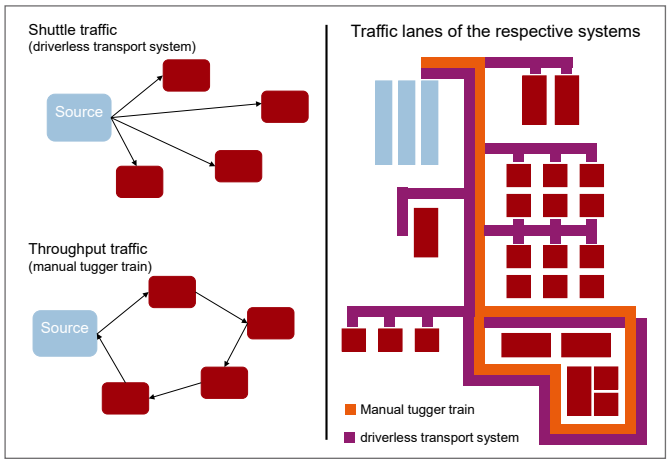
30 A. Wiebusch, N. Wilkowski
Smart Business Models in Intralogistics

36 A. Baur, J. Hauser, D. Uckelmann
Increasing Resilience in Logistics with IT

SUSTAINABILITY

42 N. Bode, L. Nagel, O. Ozen, M. Weigold
Machine Learning to Promote Sustainability

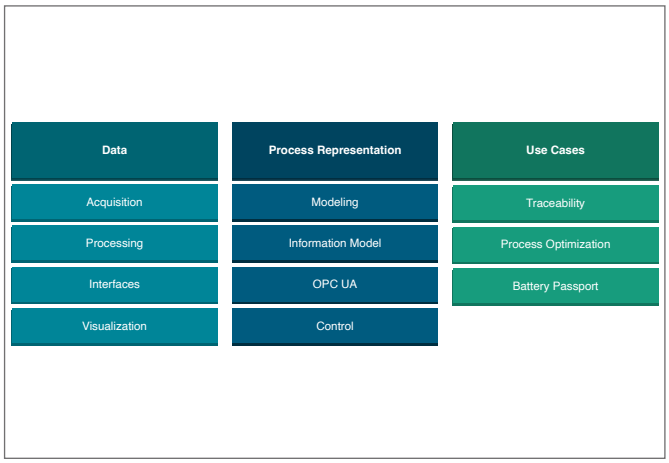
50 L. Keefer, D. Koch, A.-K. Briem, S. Geng
Sustainability Information Across the Supply Chain



Bridging Automated and Traditional Approaches in Material Transport

Driverless transport systems provide clear cost advantages and reduce personnel requirements, yet many companies continue to rely on proven manual tugger train systems. Long-term competitiveness, however, depends on the strategic selection of appropriate technologies.

Continue reading on page 58



Developing Data Standards in Battery Cell Manufacturing

Cell production increasingly relies on digital solutions and adaptive production systems, which in turn require seamless data exchange based on domain-specific OPC UA standards.

Continue reading on page 94

REQUIREMENTS ANALYSIS

74 C. Koch, L. Schulte, R. Wöstmann, J. Deuse
Enabler for the Digital Twin

84 I. Hausladen, A. Hasanat
Requirements Analysis for Predictive Analytics in Supply Chain Management

94 D. Roth, T. Hülsmann, F. Tidde
Developing Data Standards in Battery Cell Manufacturing

SERVICE

3 **Editorial**

112 **Preview of Industry 4.0 Science 5/2025**

112 **Imprint**

EVENTS

19 **Low Code Day**

20 **IT-Unternehmertag**

65 **Expo - Osaka / Japan**

94 **Rethink! IT-Security | Cloud-Security**

111 **Expo - Osaka / Japan**

114 **AI & Data Summit | Quantum Summit**