

Autonomous cars



RANDOL WHITE
SAN FRANCISCO

📍 SOMA

NEW 11PM

HONKING WAYMOS HARASS SF NEIGHBORHOOD

Robots are important!

But smart software is what truly drives efficiency across your warehouse.

Autonomous cars in Deadlock



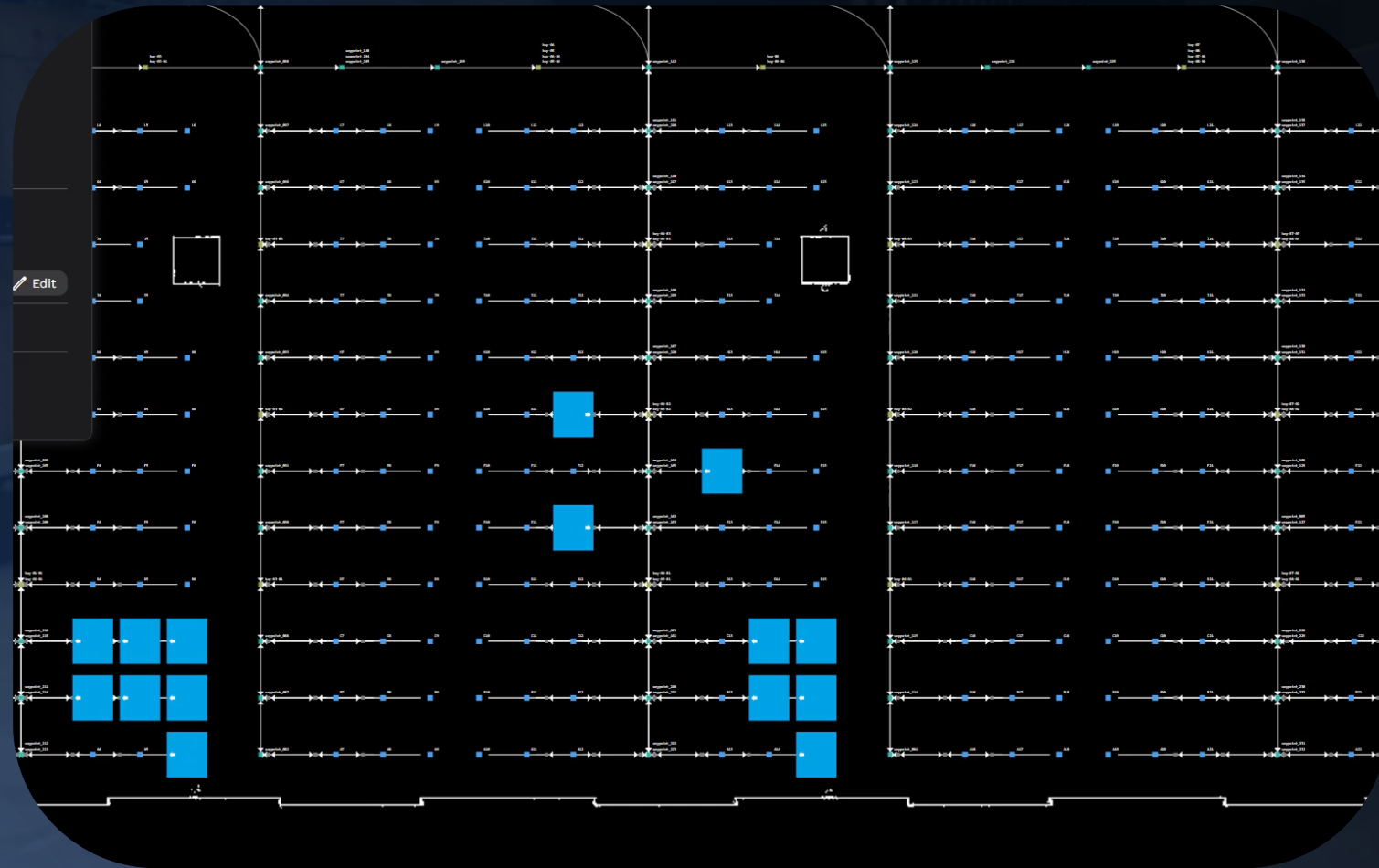
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- LIDAR
 - Sensors
 - Swarm
 - Swarm Control
 - Cameras
 - 3D-vision
 - Etc.
-

Solution or product

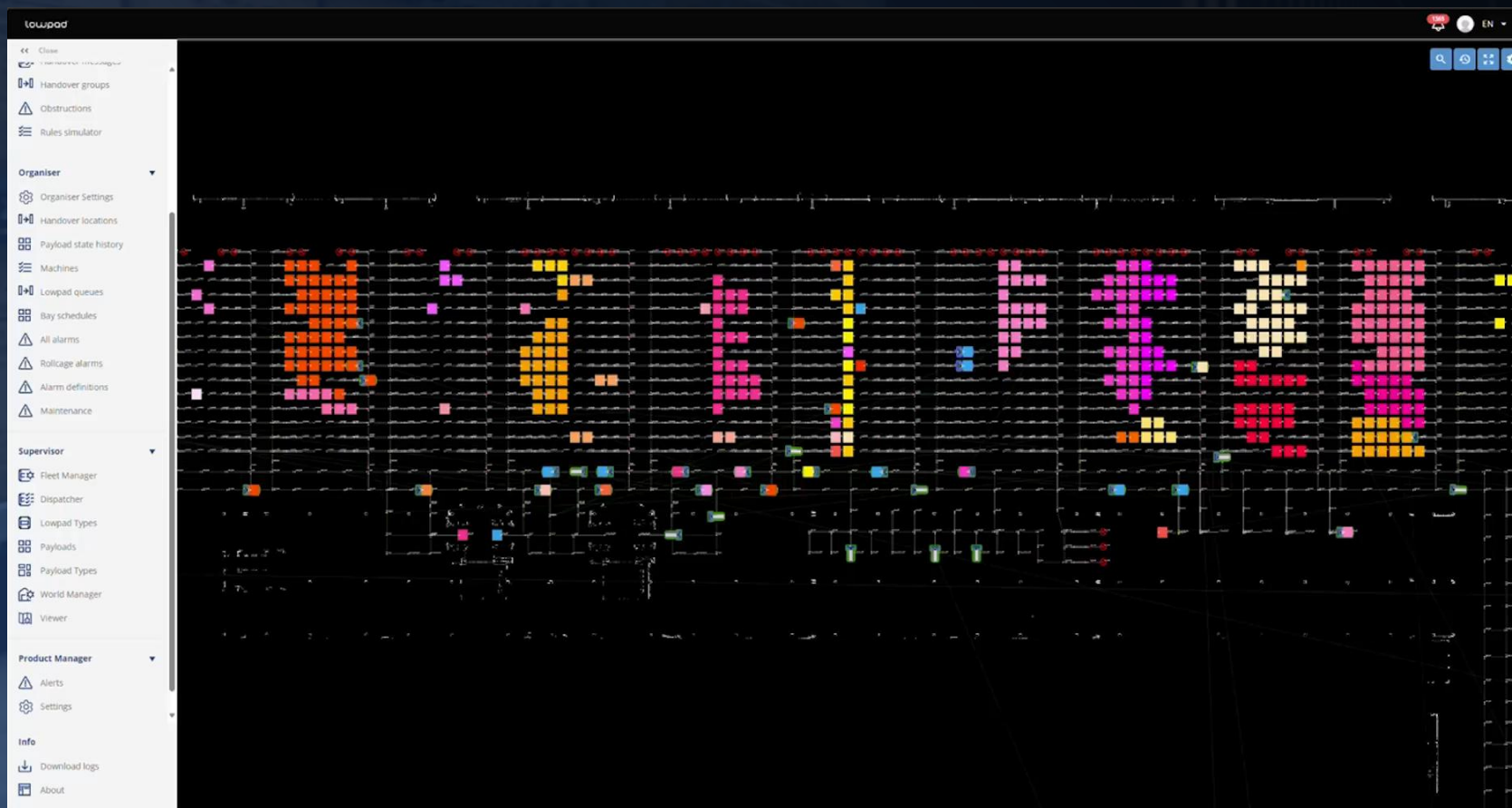


- GXO Albert Heijn
The Netherlands
- 36 Lowpads S
- Outbound
- 625 rolcontainers per hr
- 24 hr / 7 day
- High density traffic

Lowpad Fleetmanager – Deadlock Avoidance



Lowpad Fleetmanager



- Holistic management
- 91 AMRs
- Centralised intelligence
- Across processes
- Real-time decision-making
- Human-machine collaboration

Lowpad - Cross traffic interaction



Flexibility in the process

Lowpad Fleetmanager
interaction with RTLS system

Recognises other vehicles:

- Forklifts
- Reach trucks
- Low order pick trucks
- Tugger trains
- **Result:**
Continuous process flow

When software and hardware truly integrate, that's when you unlock flow!

Praxisfall: Home Bargains UK



Application	Marshalling
Industry	Retail
Lowpad	91 x Lowpad S
Handover	36 locations incl. 21 fully automated
Load carriers	16,200 roll cages/day
WMS software	AS400



lowpad[®]

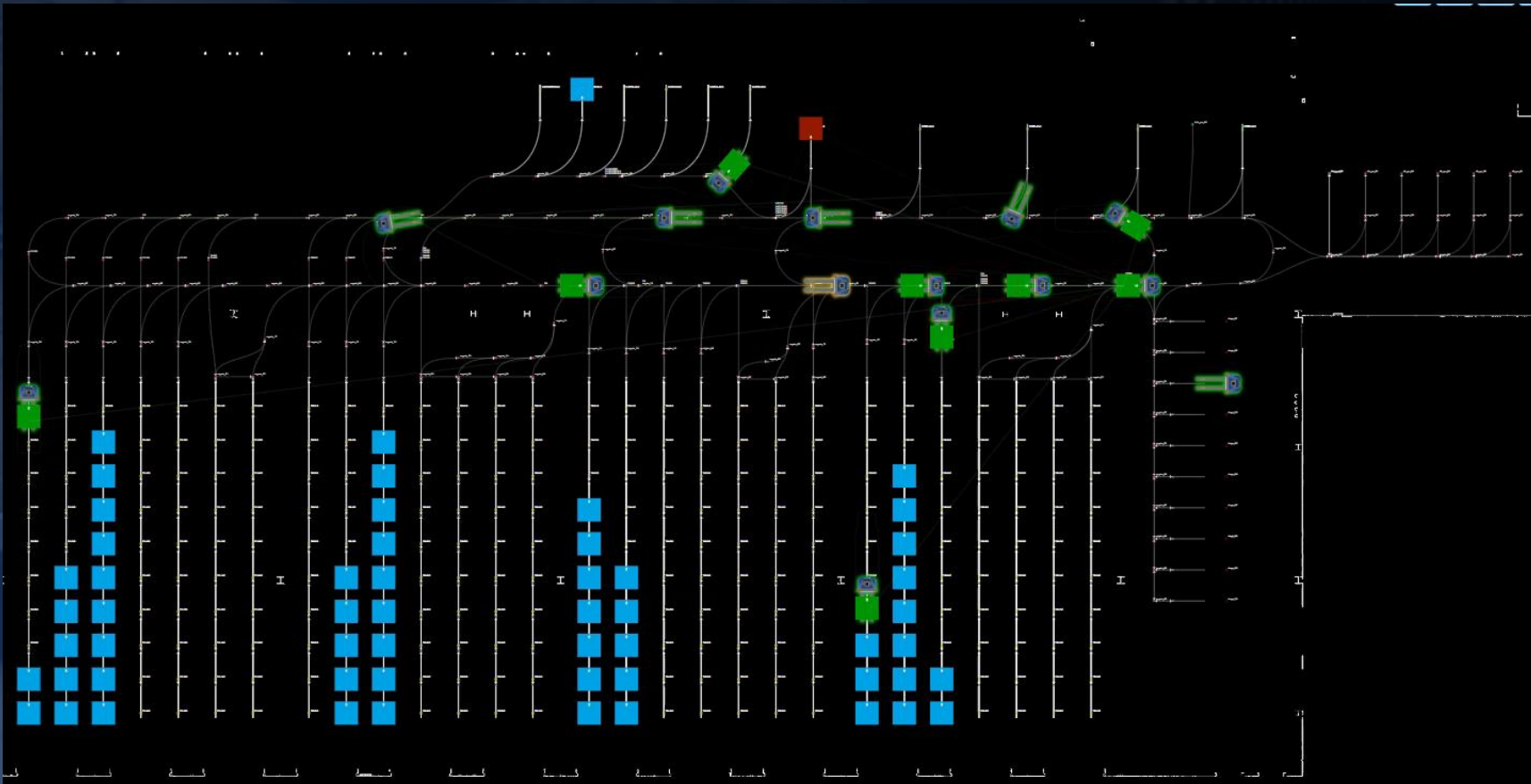
Home Bargains, United Kingdom

Lowpad Fleetmanager

- **Inbound Manager** → optimal inbound flow
- **Battery Manager** → maximum uptime & battery life
- **Priority Level** → urgent tasks handled first
- **AMR Availability** → always optimal capacity
- **Distance** → shortest routes, faster throughput
- **Battery Level** → no downtime, higher reliability
- **Upcoming Jobs** → anticipates tasks, stable processes
- **Every 3m new job** → flexible process flow, continuous flow

- **Result: higher efficiency, greater throughput, lower costs**

Lowpad Fleetmanager - Inbound



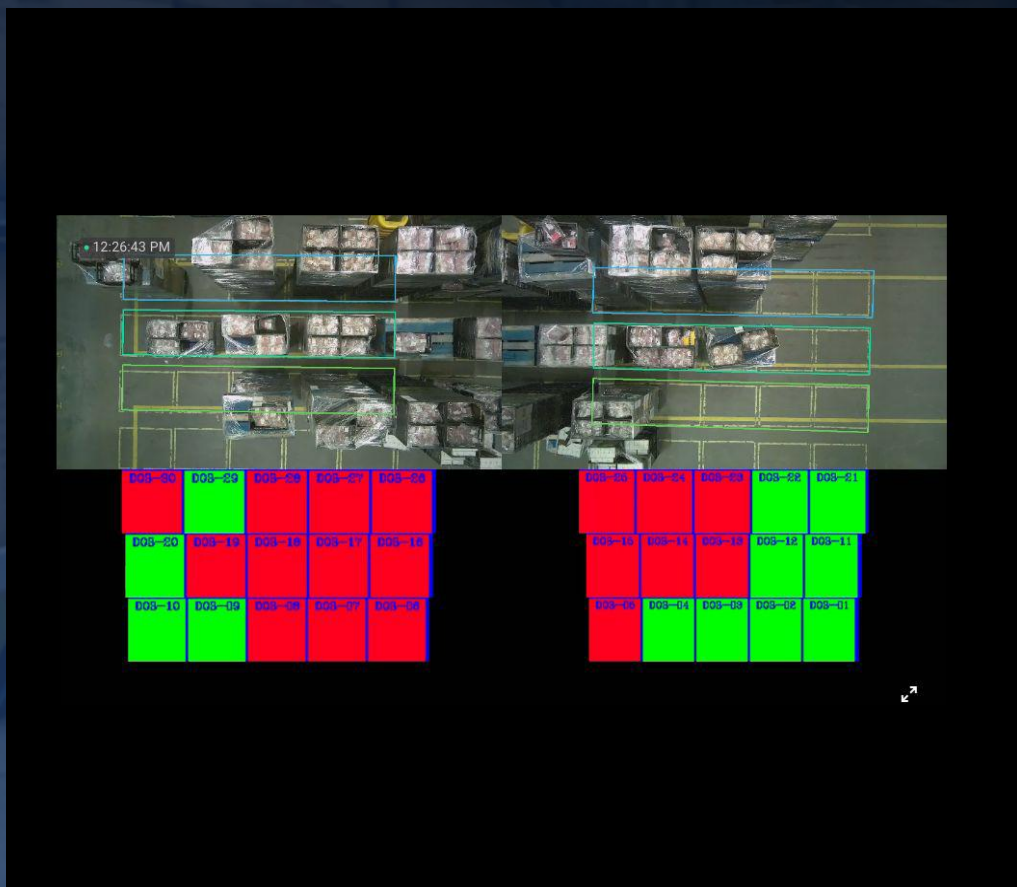
Lowpad Fleetmanager

- Inbound automation F

Advantages

- Continuous flow
- Process transparency
- Error prevention

Lowpad Pallet detection on dock



Lowpad Fleetmanager

- Pallet detection

Advantages

- Automated inbound
 - Higher dock rotation
 - Improved safety
-

Double Stack detection



Lowpad Fleetmanager

- Camera on Lowpad F
- Double stack detection

Advantages

- No manual checks by employees
 - Data & insights into goods flows
 - Improved safety
 - Higher efficiency
 - Greater flexibility
-

Lowpad F Palletmover



Lowpad Fleetmanager

- Pallet detection
- Inbound
- Outbound

Pallets:

Euro and Closed pallets

Mix off Pallet types

Lowpad - Dynamic Zone Picking (DZP)

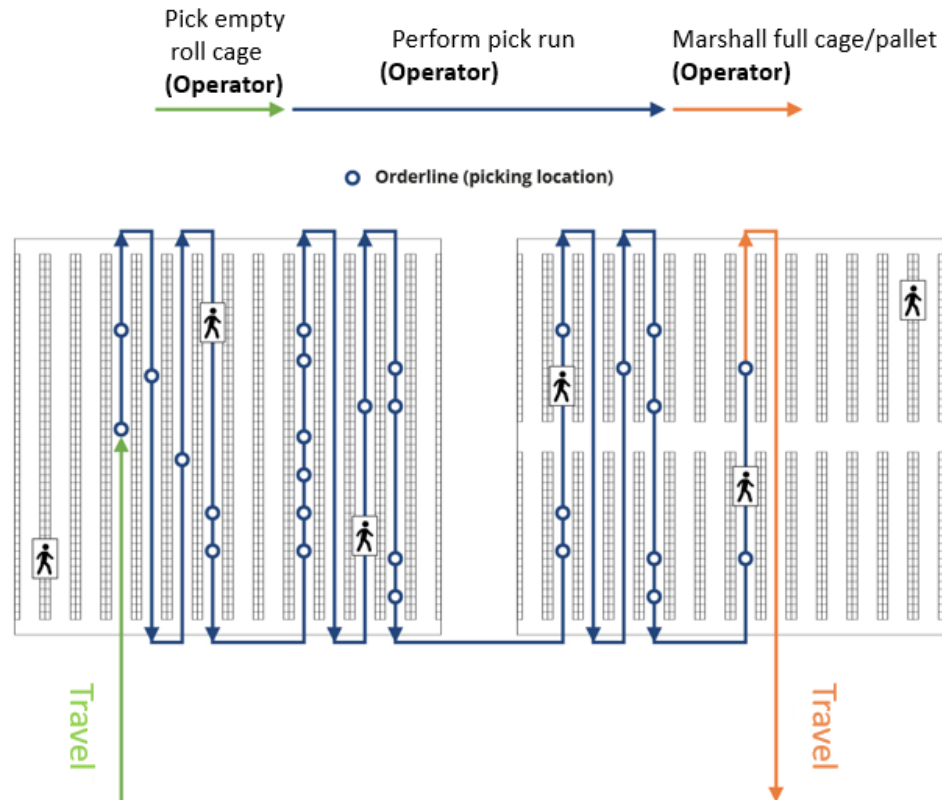


Lowpad Case Pick System



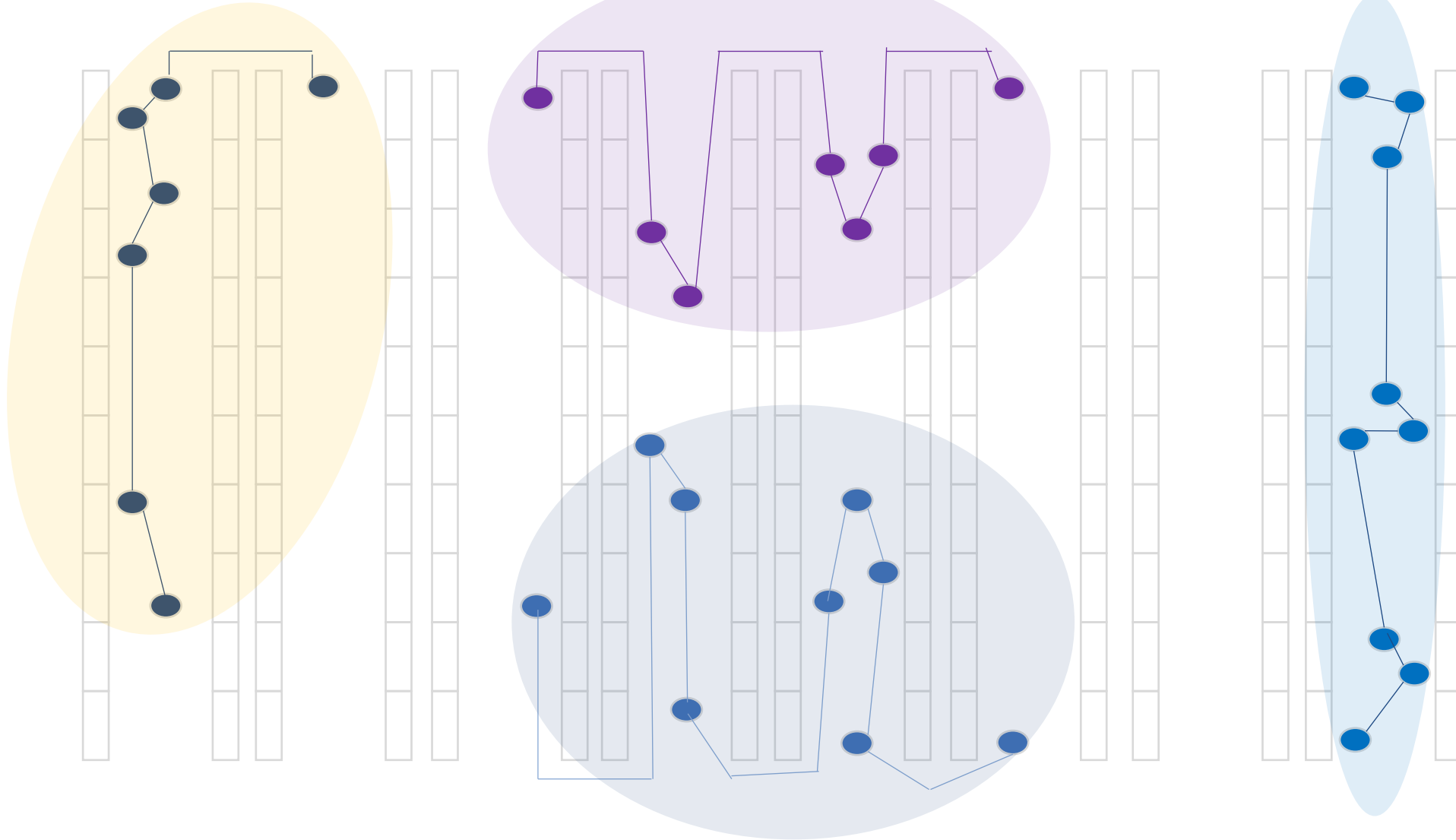
- Case Pick System
- Handling roll cages and pallets
- picking efficiency
- Brownfield integration

Lowpad - Dynamic Zone Picking (DZP)

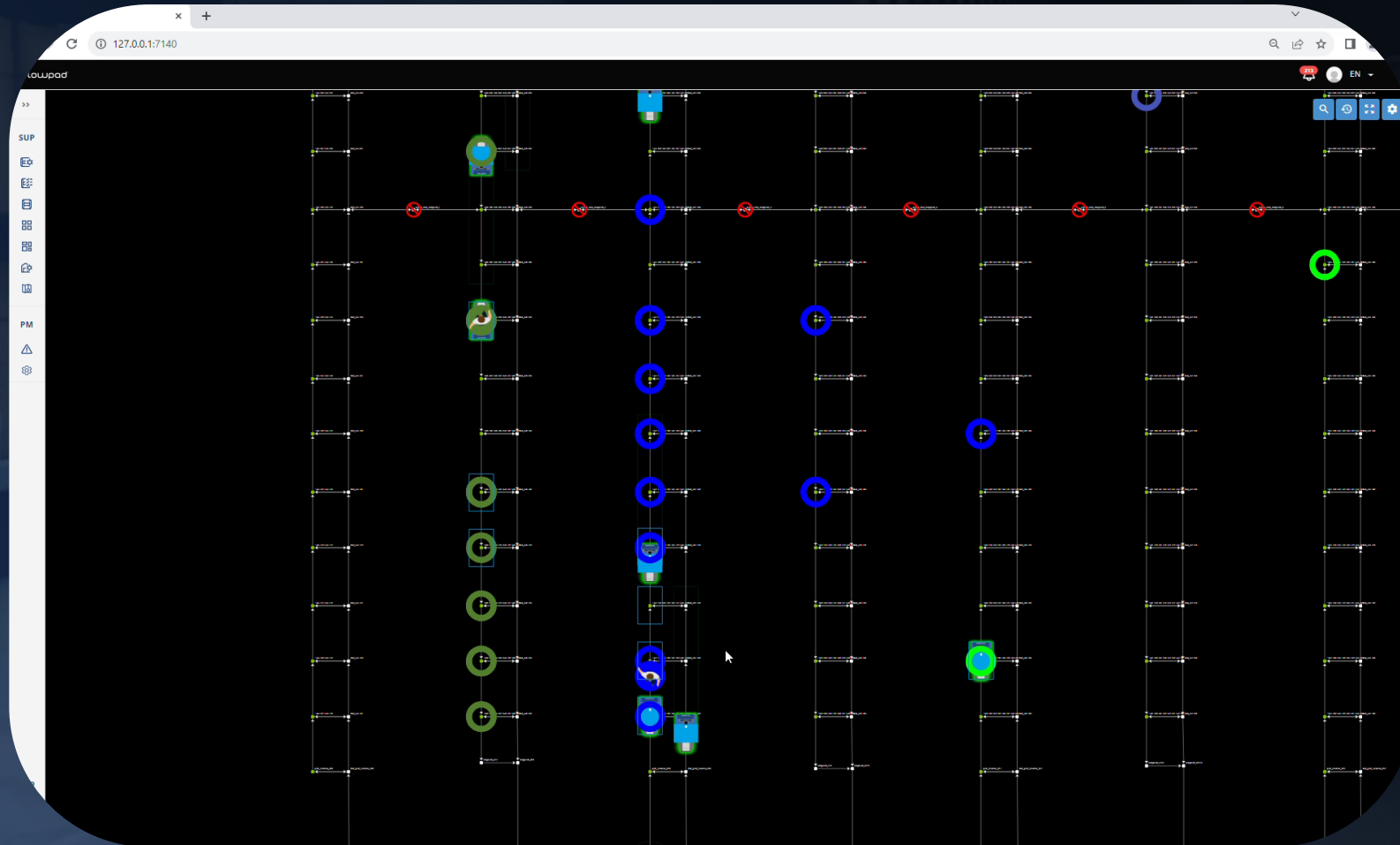


- Case Pick System
- Handling roll cages and pallets
- 40% picking efficiency
- Brownfield integration

Concept of DZP



Lowpad Fleetmanager - Target Locking



Lowpad Fleetmanager

Lowpad - DZP Results 2025!

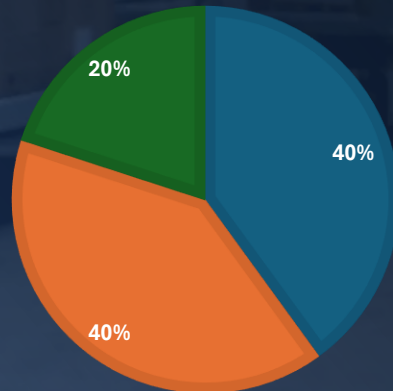
How much time does DZP solution save
in case picking operations?
(in %)

Lowpad - DZP Results 2025!

40% productivity Increase!

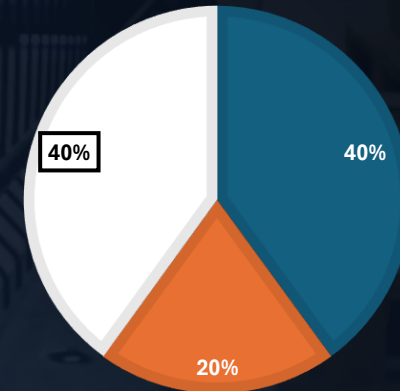
TIME SPENT BY PICKER CURRENTLY

■ pick ■ move to next pick ■ pre & post pick



TIME SPENT BY PICKER WITH DZP

■ pick ■ move to next pick ■ time saved



- Time spent <40% = productivity increase (picks/person/hour)

Process advantages of holistic control

- Maximum floor use → compact, high-density layout
 - Flexible scalability → easy to add robots
 - Reliable operation → less labor planning
 - Insights & KPIs → continuous improvement
 - Measurable efficiency → every movement adds value
-

Vielen Dank für Ihre Aufmerksamkeit
Thank you for your attention

Questions?
Meet us at the Lowpad Booth: Hall 1 M20



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Reshaping intralogistics

Ready to move with us?

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