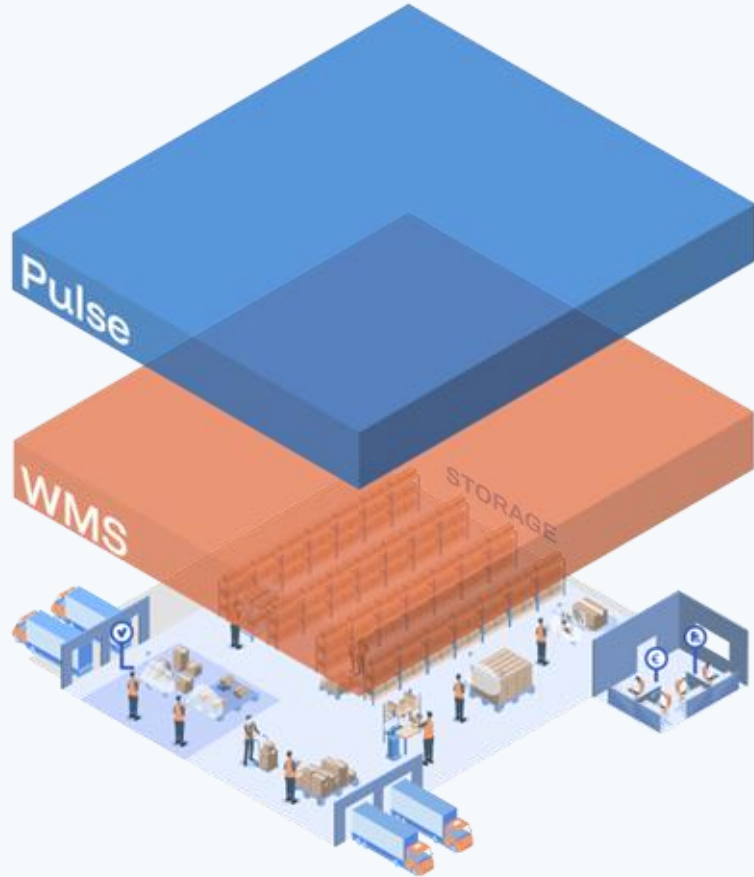


AI in Warehousing: From Hype to Hard ROI

How smart algorithms cut walking, boost picks, and deliver measurable returns.



AI layer
on top of your WMS.

- 15 AI experts & Full-stack engineers
- Bringing AI innovations to logistics
- 70 different companies across 28 countries
- Ghent, Belgium



About

AI in Warehousing: Hype vs Reality

Five use cases how we created ROI

THE HYPE

"AI will revolutionize everything"

"Replace all warehouse workers"

"Fully autonomous warehouses soon"

"One system to rule them all"

THE REALITY

AI optimizes specific, high-impact tasks

Empowers workers, doesn't replace them

Proven ROI in weeks, not years

Works alongside your existing WMS



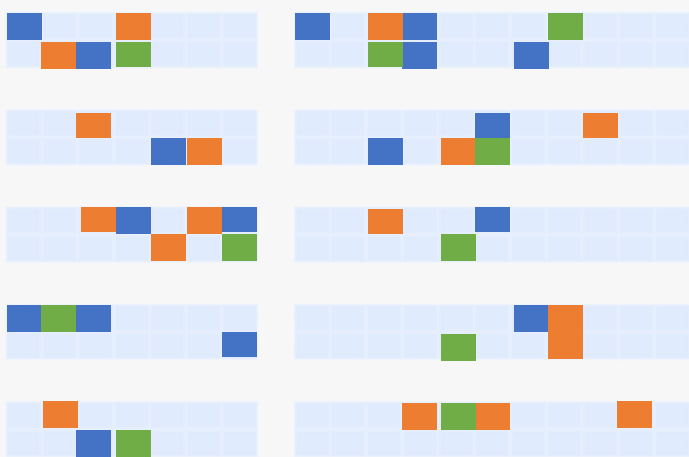
- Operators walk too much when SKU count goes up.
- Multiorder picking is underutilized

- AI clustering software
- Optimizes the density of your picking routes
- Optimizes your batches

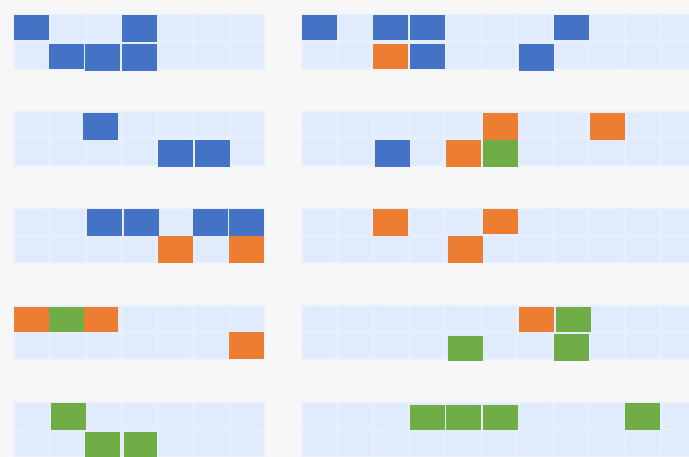
Walk distance reduction

- Order clustering: **20-35%**
- Picking productivity gain **15%**

WMS



Pulse



05 Use case 2 - AI Picking at 3PL' s

Problem

- Classic pick snake is suboptimal.
- Operators walk too much in the warehouse

Solution

- Use more logic to minimize walking distance

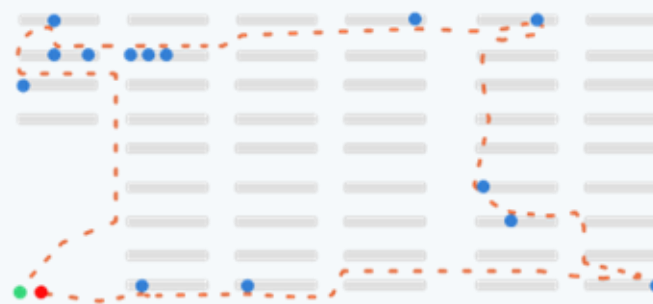
ROI

- Walk distance reduction **10-20%**
- **Picking productivity** increase by **5-10%**

■ **WMS**
Picks: 53 | 4 min 22 sec | 254.3 m

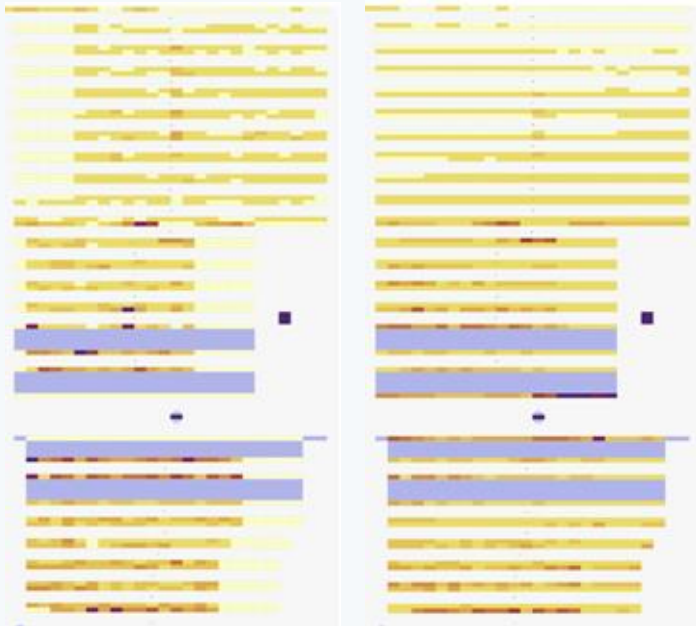


 **Pulse** -42%
Picks: 53 | 3 min 20 sec | 148.9 m



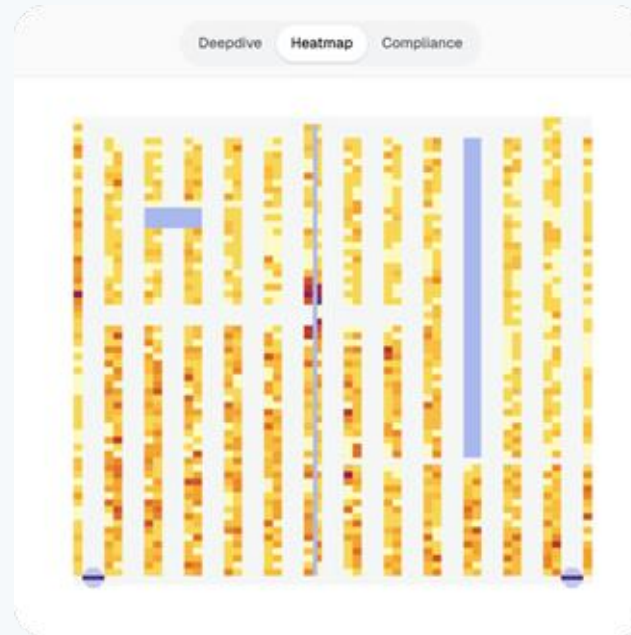
Problem

- SKUs are suboptimal placed in the warehouse which triggers extra walking
- Order correlation not considered



Solution

- AI Slotting: the right warehouse location for every SKU



ROI

- 18% walk **distance reduction**
- 8% improved warehouse **capacity utilization**

07 Use case 4 - Cartonization in retail

Problem

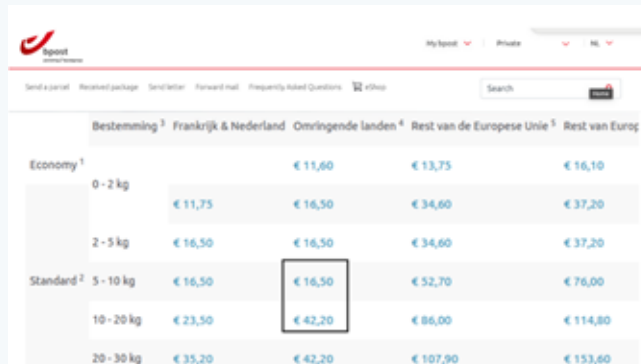
- Counterintuitive carrier rates
- Shipping too much air
- Shipping too much carton

Solution

- AI driven packing software
- Considering all packing restrictions
- Allocating the right price

ROI

- 20% walk **lower shipping cost**
- 15% less items damage
- 50% faster **new-hire onboarding**
- 30% less **carton used**

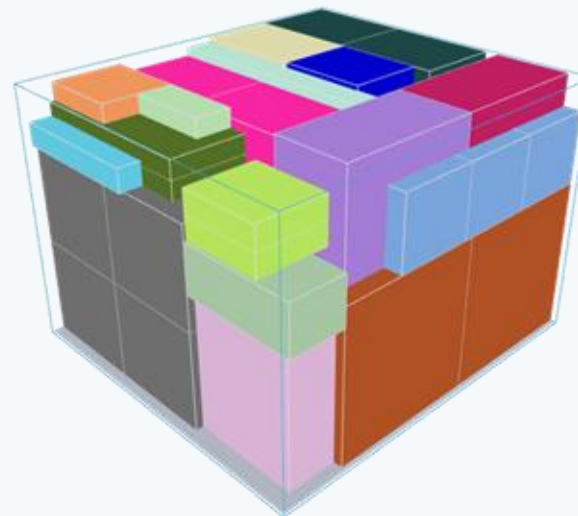
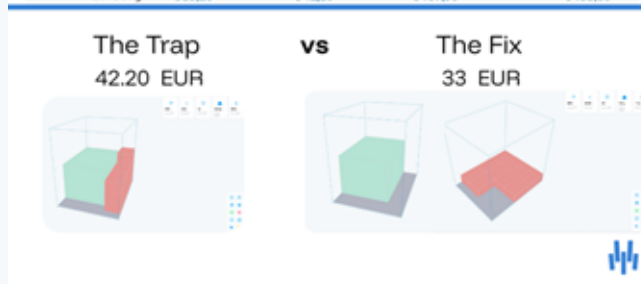


Bestemming	Frankrijk & Nederland	Omliggende landen	Rest van de Europese Unie	Rest van Europa
Economy				
0 - 2 kg	€ 11,60	€ 13,75	€ 16,10	
	€ 11,75	€ 16,50	€ 34,60	€ 37,20
2 - 5 kg	€ 16,50	€ 16,50	€ 34,60	€ 37,20
Standard				
5 - 10 kg	€ 16,50	€ 16,50	€ 52,70	€ 76,00
10 - 20 kg	€ 23,50	€ 42,20	€ 86,00	€ 114,80
20 - 30 kg	€ 35,20	€ 42,20	€ 107,90	€ 153,60

The Trap
42.20 EUR

vs

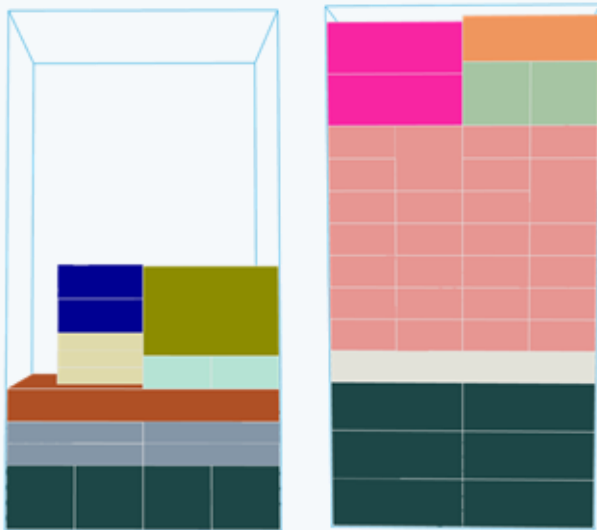
The Fix
33 EUR



08 Use case 5 - Pick to Pallet in fruit and vegetables distribution

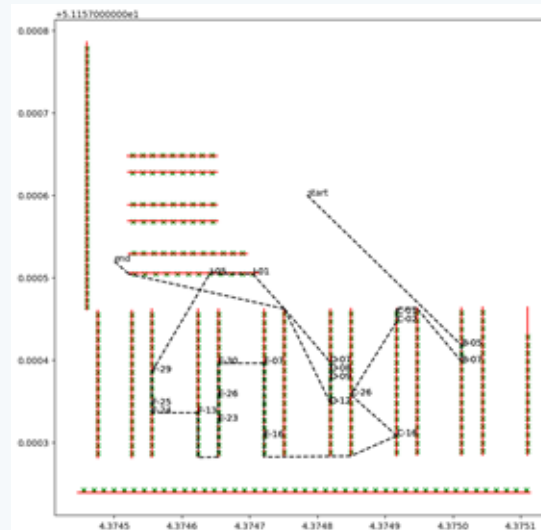
Problem

- Complex pallet building
- Suboptimal routing because of building sequence – suboptimal building sequence because of routing
- High onboarding time



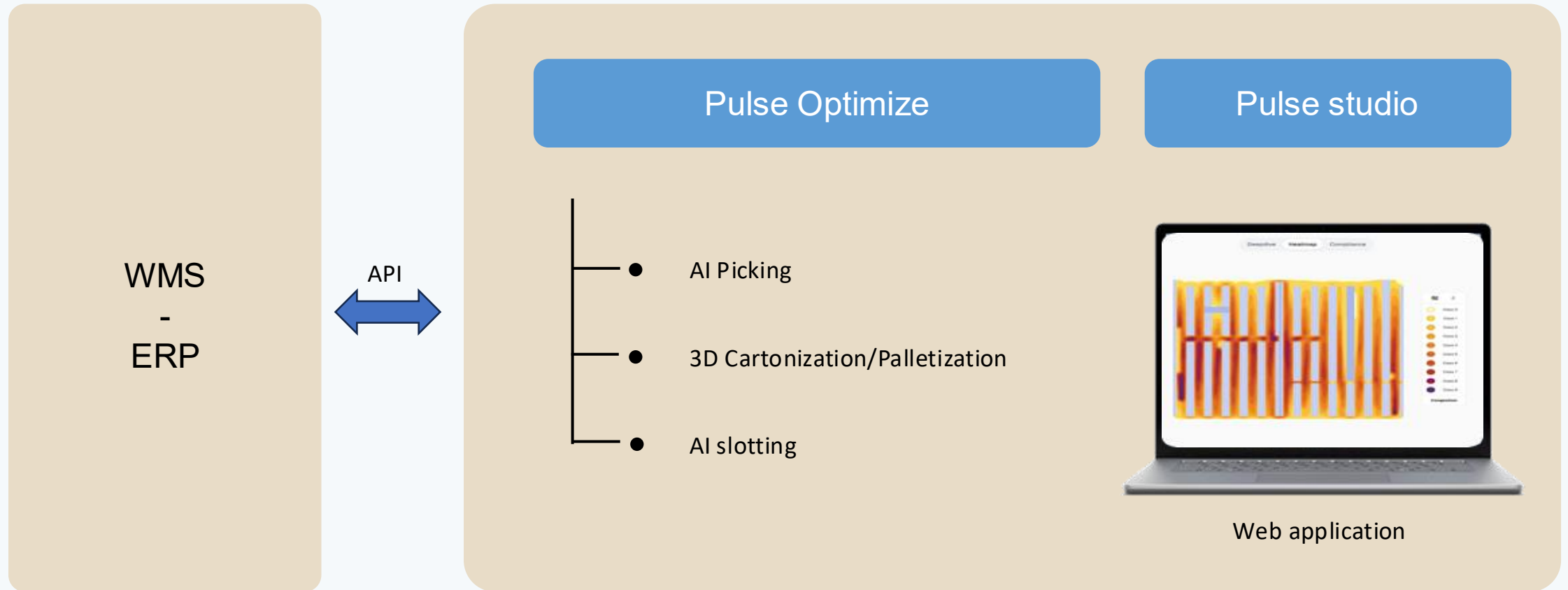
Solution

- Combining AI picking and packing
- Trade off in route against building pallet



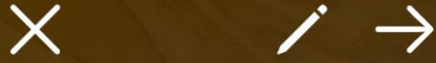
ROI

- 5-10% productivity gain
- 50% faster **new-hire onboarding**
- Fewer **product damage**
- Consolidated way of working



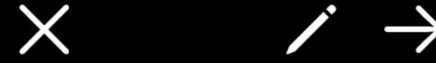
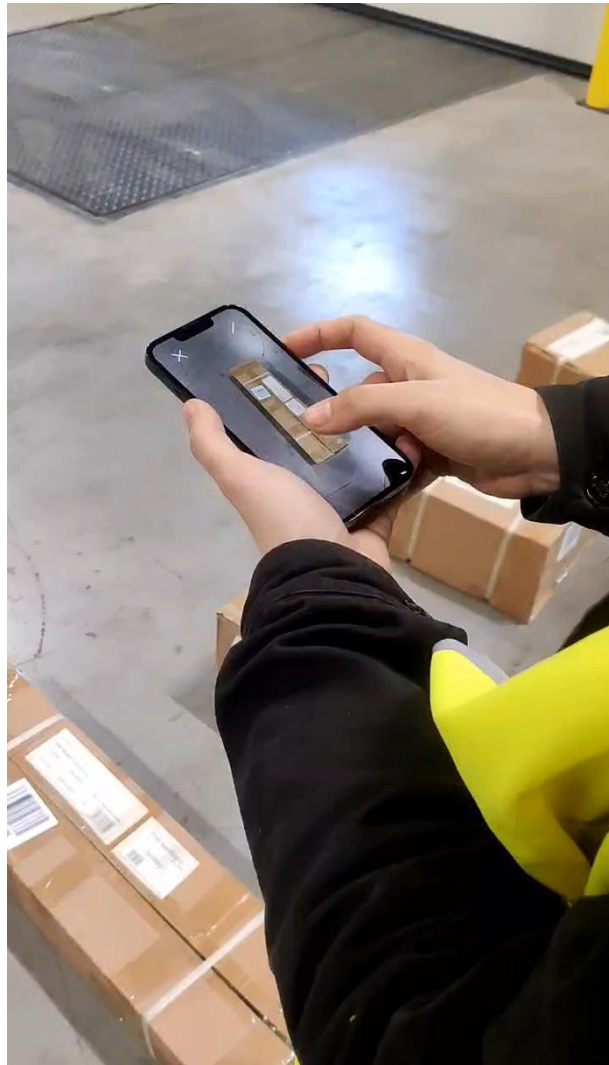
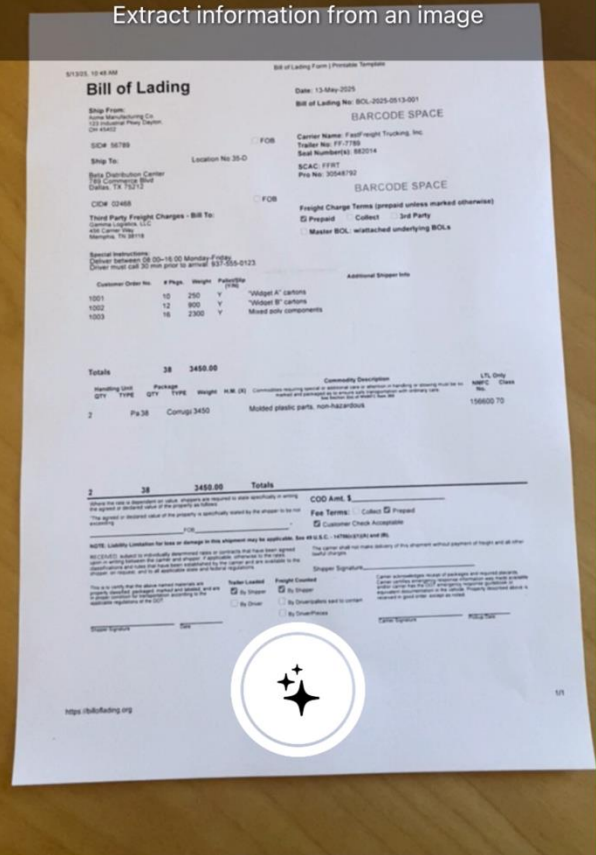
11

Bonus use case: AI Vision & Mobile Dimensioning



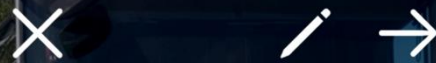
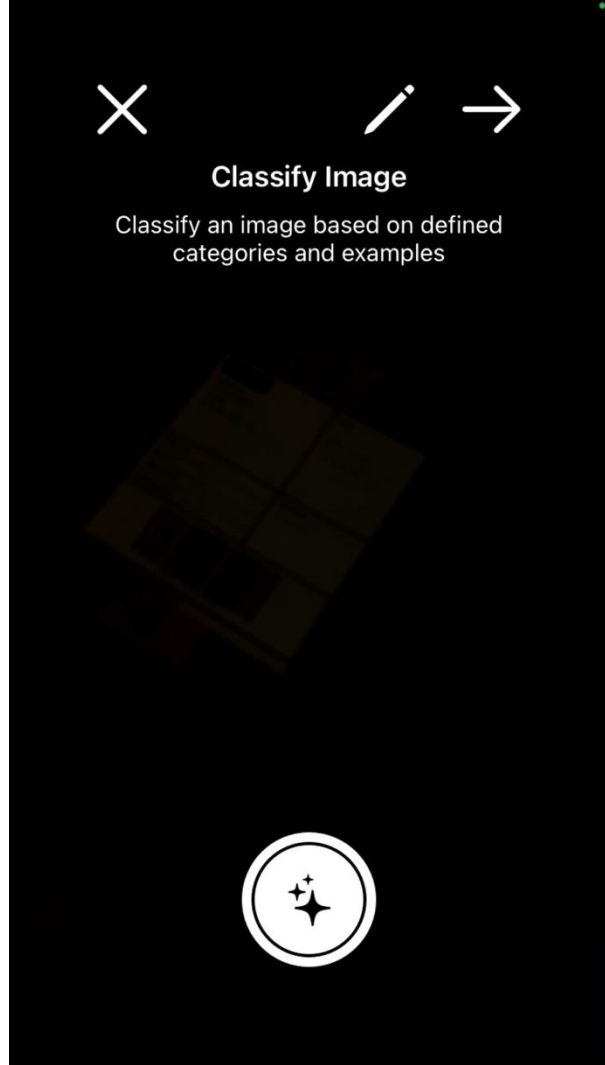
Extract

Extract information from an image



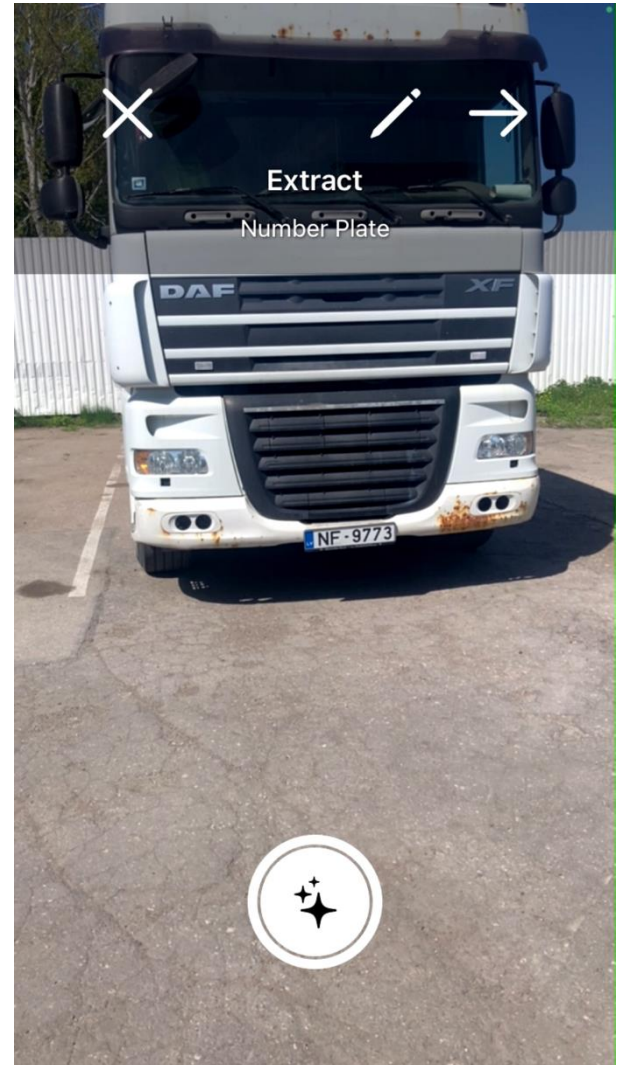
Classify Image

Classify an image based on defined categories and examples



Extract

Number Plate



G ÖÖfh P M PÖÖ MÑ POÑ R MÖÖNB

Question why you're walking first.

THE TAKEAWAY

Every use case today started the same way.

Someone walking too far. Shipping too much air. Building pallets the hard way.

AI didn't fix it by replacing them. We fixed it by asking a better question first: should this even be happening this way?

THE REMINDER

"Automation applied to an inefficient operation will magnify the inefficiency."

Bill Gates, 1999

Ready to See Your ROI?

Let's Talk

hp.stockman@optioryx.com

optioryx.com

pilot project - see results on your own data in days.

