

PRIME VISION

Channel Management

Inwaso - spring 2024

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Confidential Information

WHO WE ARE

Prime Vision is designing and developing best-in-class solutions that help time-conscious companies **around the globe** with the **automation of sorting processes**.

We are pioneers, driven by the fast-changing digital world, bringing together **Computer Vision** and **Robotics** technologies that not only help facilitate postal and parcel services and e-commerce businesses but the digital world in general.

Innovation is a key component that is embedded in every department of our company; it is undeniably a part of our DNA. We are ambitious because the world, and therefore our clients, demands progressive solutions.

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FACTS AND FIGURES

800 million
transactions per day
prime**vision**

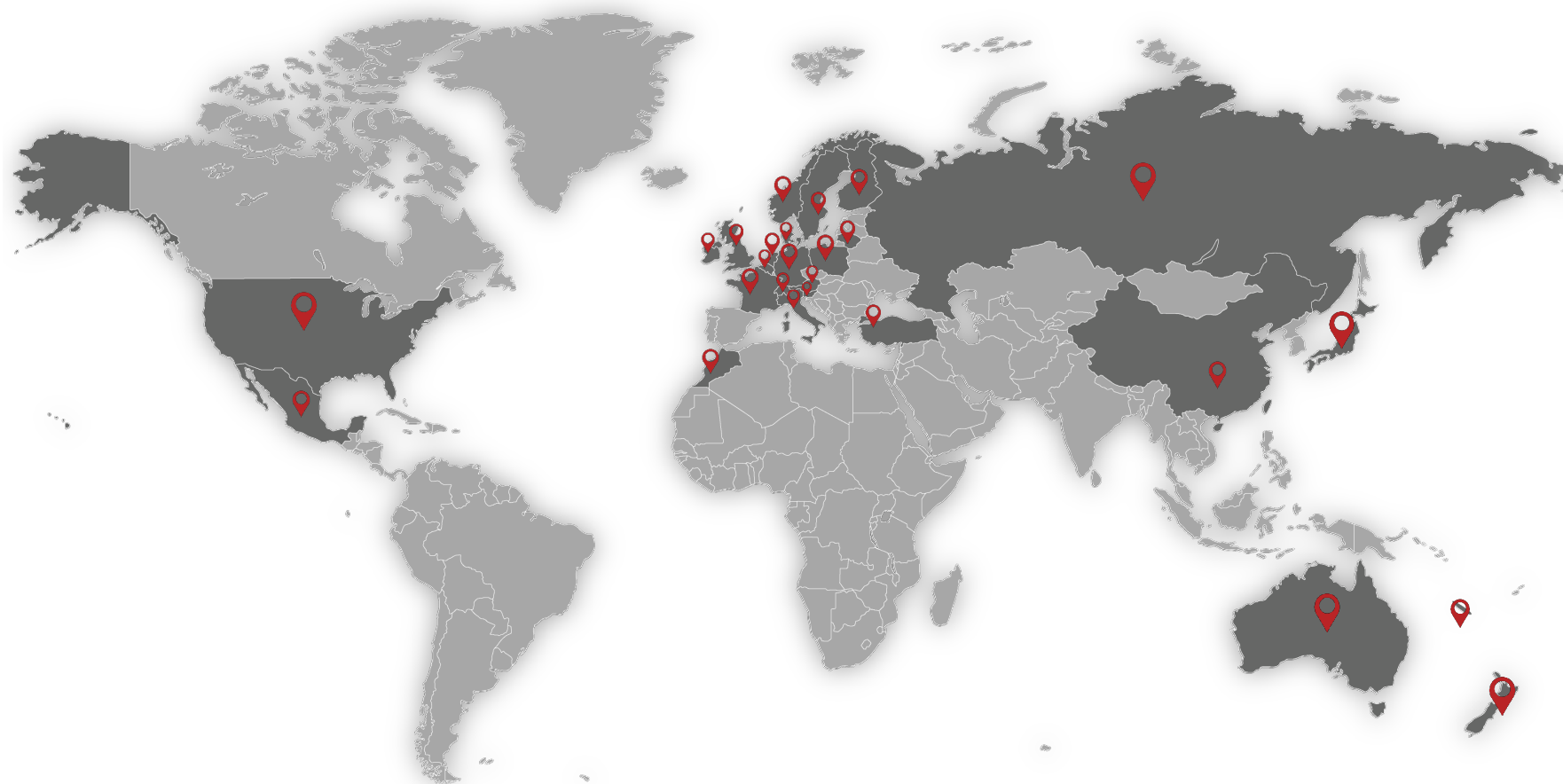
90%
academic education
prime**vision**

180+
employees
prime**vision**

35+
R&D

25
countries

WORLD-WIDE REFERENCES



AUSTRALIA
POST **postnord**

posti **Post**

POST **KLM**

FedEx
Ground **postnl**

MARKS &
SPENCER **Deutsche Post DHL**
Group

Ahold **UKMail**

dpd **npo**

VANDERLANDE **JP**
POST

SICK **next**

BEUMERGROUP **SWISS POST**

UNITED STATES
POSTAL SERVICE

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OUR PORTFOLIO

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smart vision. smart flow

WHAT WE DO - EXPERTISE(S)

SIGHT



COMPUTER VISION AND AI SOLUTIONS

State of the art recognition, identification, interpretation and tracking.

INTELLIGENCE



DECISION SYSTEM SOLUTIONS

Connecting infrastructure and handling decisions to recognized, identified and tracked items.

MOVEMENT



ROBOTICS AND PROJECTION SORTING

Sorting parcels using mobile robots and Flow Projectors for a flexible and future proof sorting centre.

PROTECTION & CARE



CONTINUITY OF BUSINESS-CRITICAL PROCESSES

A full suite of planned and response support options for every client and system around the globe. Ensuring maximum uptime and performance of your core operational processes.

SIGHT



Smart Scene Understanding
Scene Understanding



Barcode Vision
Barcode Reader



Quality Vision
IQ card/ barcodes



Customs Vision
International Label Reader



Text Vision, Address Vision
OCR/Optical Character Recognition



Indicia Vision
Indicia Recognition



Hazmat Vision
Dangerous Goods detection

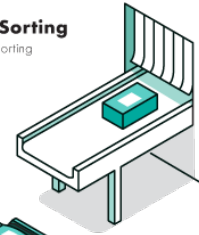
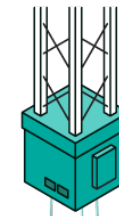
MOVEMENT



Flow Projector
Projection Sorting



Robotic Sorting
Autonomous Sorting



INTELLIGENCE



Smart Station
Manual camera workstation



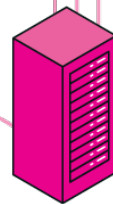
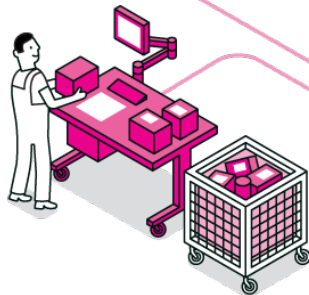
Smart Data Manager
Import, manage and distribute address data and sort plans



Smart Analytics
In-depth insights into all sorting processes



Smart Store
Parcel image database



Smart Integration Management
Coding and Sorting workflow integration



Prime OT Cloud
Hosting



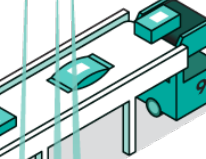
Prime OT Security
Security



Prime Connect
Integration



Smart Coding
Video Coding



PROTECTION & CARE



Prime Care
24/7 Support



Prime Protect
Preventive Maintenance

SIGHT PORTFOLIO

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smart vision, smart flow



SIGHT PORTFOLIO

Computer Vision and AI Solutions

State of the art recognition, identification and interpretation.

SIGHT



Barcode Vision



Text Vision, Address Vision



Quality Vision



Indicia Vision



Customs Vision



Hazmat Vision



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COMPUTER VISION SOLUTIONS



POST & PARCEL
Video Coding Solutions



POST & PARCEL
OCR Solutions



AIRPORT INDUSTRY
Luggage Labels Recognition



RETAIL
Groceries Recognition



PARCEL
Dangerous goods recognition



QUALITY
Quality Vision Solutions



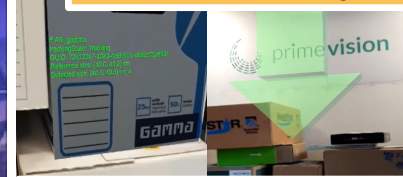
MEDIA
Subtitle reading



GOVERNMENT
License Plate Recognition



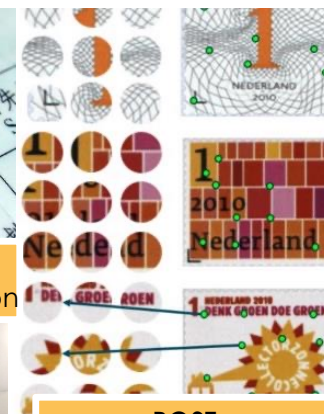
POST & PARCEL
Customs labels recognition



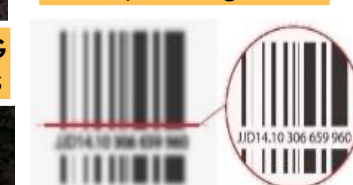
ECOMMERCE, WAREHOUSING
Augmented Reality Solutions



RETAIL
Label Recognition



POST
Stamp Recognition



PARCEL, ECOMMERCE
Barcode No-Read Solution

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Sample Use Case: Increase the Number of Barcode Reads

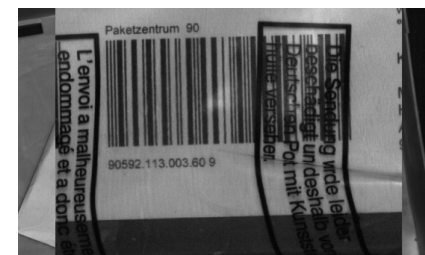
- Reduce Manual Handling

OCR

Minimize handling costs and improve customer experience by improving the read rate of addresses, labels and (bar)codes

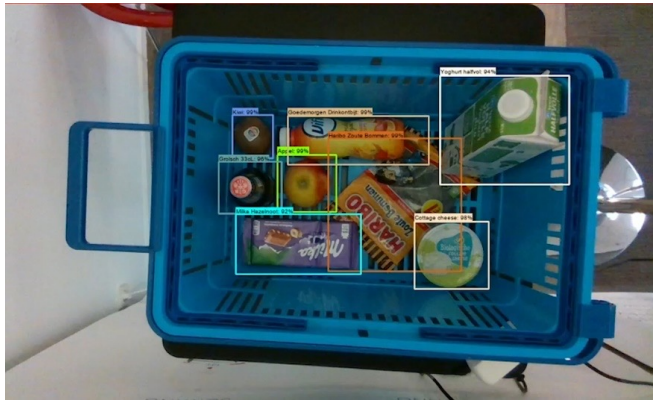
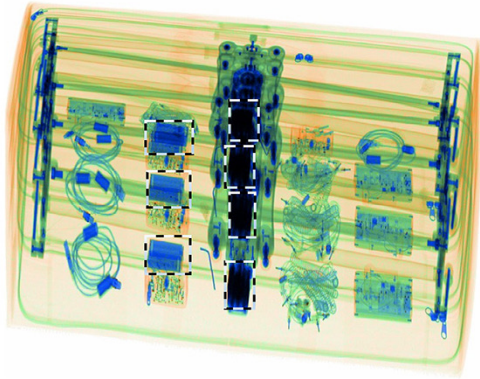
For barcodes:

- Overall, the Prime Vision solution can read up to 70% of the previously Barcode No-Reads, taking the average automation rate from of 95% to 98.5%
- The more barcodes read, the higher number of parcels remain in the pipeline to be sorted automatically resulting in less manual intervention and faster processing; which ultimately decreases costs
- The higher rate of successful reads considerably reduces the pressure on potential bottlenecks

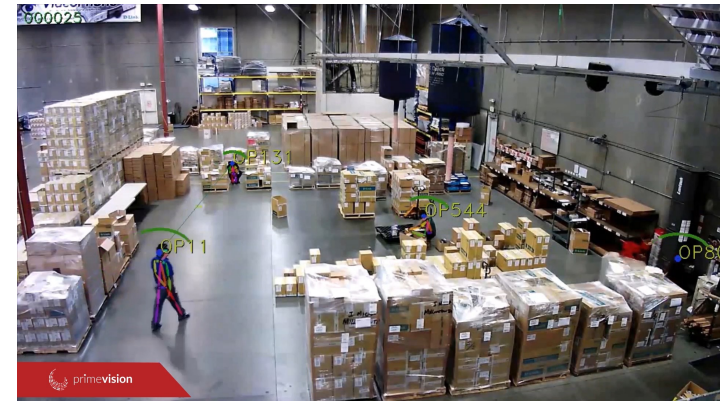
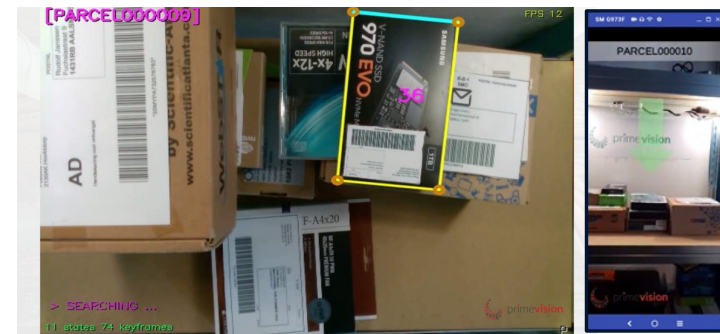


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MORE THAN OCR AND ADDRESS READING SYSTEMS



Object Recognition & Fingerprinting



MOVEMENT PORTFOLIO

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smart vision, smart flow



Robotic Sorting

HOW?

Automatic Moving Robots move efficiently within a sorting area, using the latest technologies in computer vision and robot fleet management



WHAT?

Robotic sorting makes automatic processing of goods easier and leads to dynamic and flexible production capacity.

WHY?

It makes automatic sorting efficient, more dynamic and future proof. The sorting solution can be deployed in any sortation location within a few days.

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ROBOTIC SORTING



Benefits:

- Increased productivity and throughput of parcels
- Flexible and easily scalable solution
- Short implementation time
- Staff shortages are no longer a problem
- Handle higher volumes with less people
- Low investment compared to traditional fixed sorting centers

Robotic Sorting gives you the ability to change any sorting center into a smart and flexible sorting center. Instead of fixed chutes, future sorting centers makes use of intelligent robots autonomously making sorting decisions for parcels.

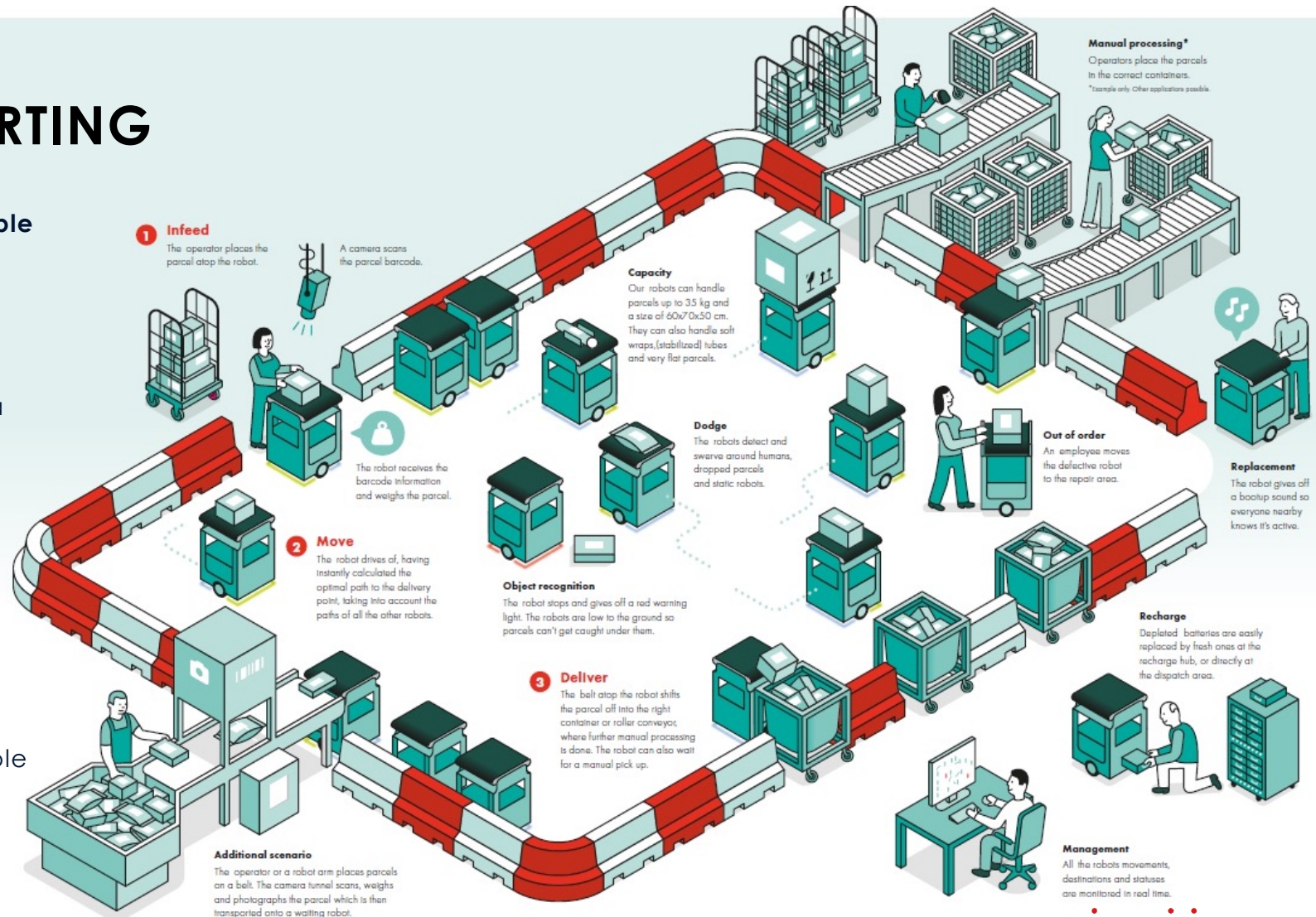
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ROBOTIC SORTING

To create a **flexible** and **scalable** sorting solution, Prime Vision introduced Robotic Sorting.

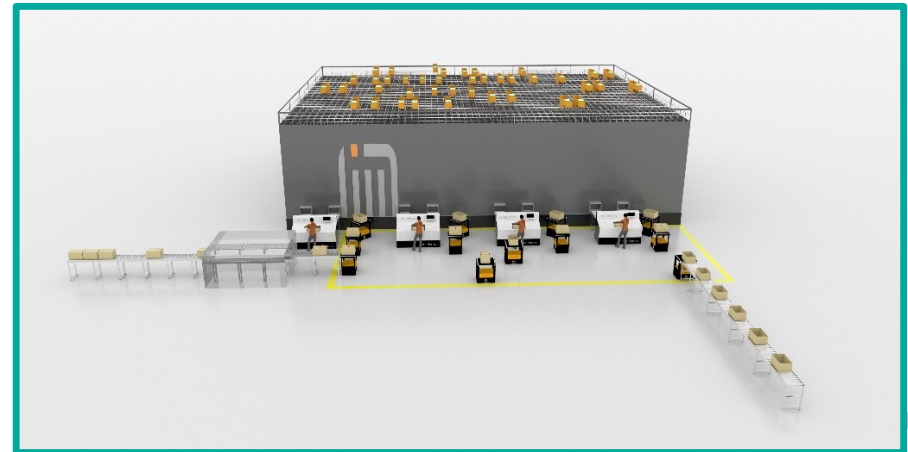
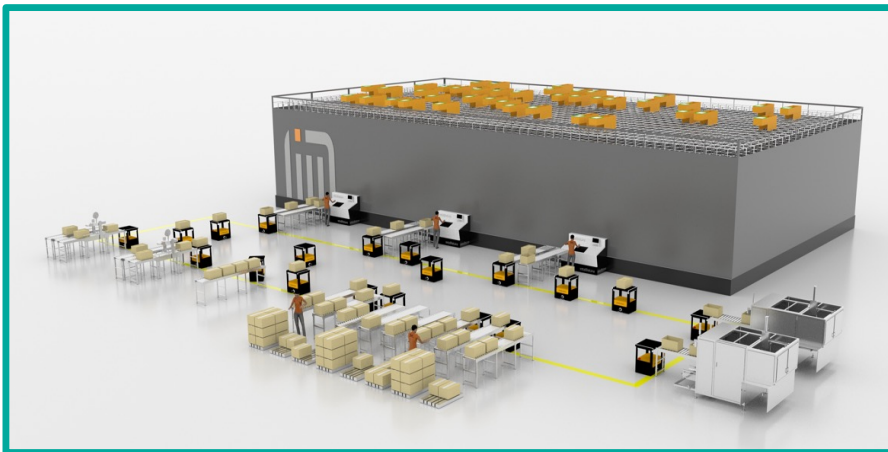
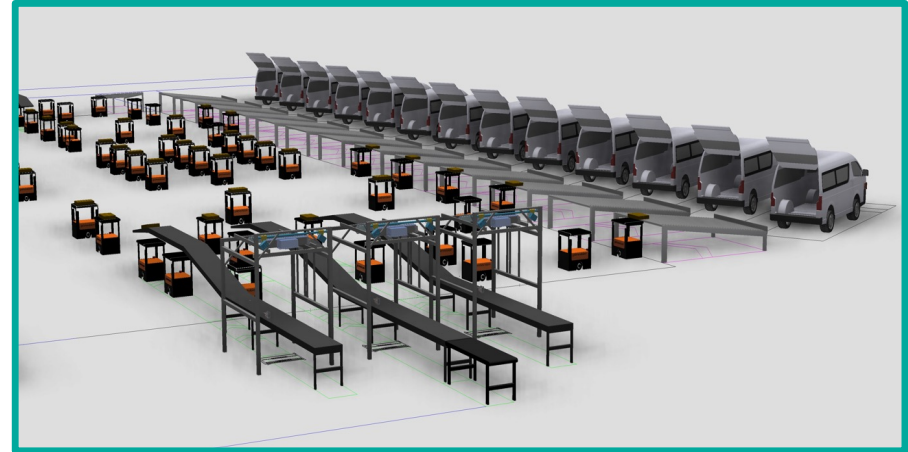
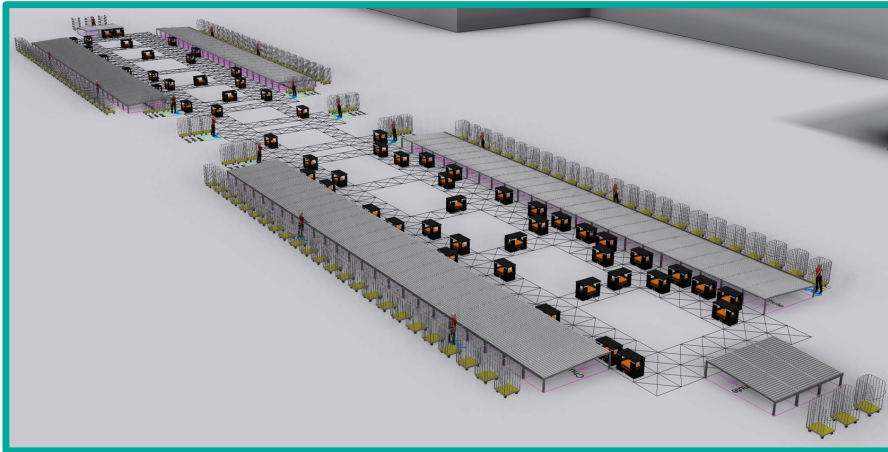
Aimed at sorting parcels with a fleet of autonomous mobile robots called '**Robins**'.

The basic concept of Robotic Sorting with **AMR's** is that the Robins find their own, optimal way from infeed area to multiple sorting destinations in a dedicated area.



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USE CASES



FLOW PROJECTOR

HOW?

The unit projects the sorting instructions onto each parcel so that every operator knows what to do at-a-glance



WHAT?

The flow projector makes manual processing of goods faster and easier which leads to higher production capacity and faster delivery

WHY?

This makes manual processing faster, more flexible and less expensive

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Flow Projector benefits

- More sorting directions
- No training
- Error-free sorting with both hands and without the use of hand scan devices
- Flexible last-mile planning
- Fast implementation and easy installation
- Manual sorting efficiency increases by up to 40%

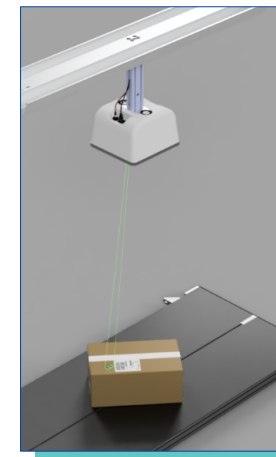
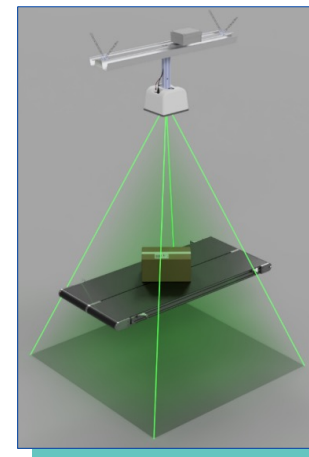
How the Flow Projector works

- 1 The Flow Projector reads a parcels barcode
- 2 The Flow Projector projects the destination number on the parcel
- 3 The Flow Projector keeps tracking the parcel to display the number
- 4 The operator takes the parcel and knows directly where to place it
- 5 The operator now makes less sorting errors while sorting faster



Key features

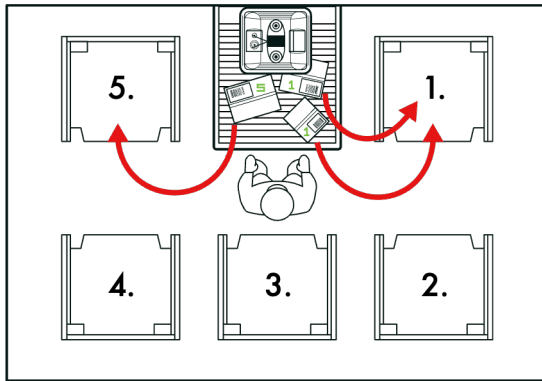
- Various types of barcode reading (1D, 2D)
- Smooth projection of processing instructions on multiple (moving) parcels
- Projected data consists of any combination of characters to allow complex applications (e.g. sequencing)
- Data is projected by using a (human-eye-friendly) green laser beam



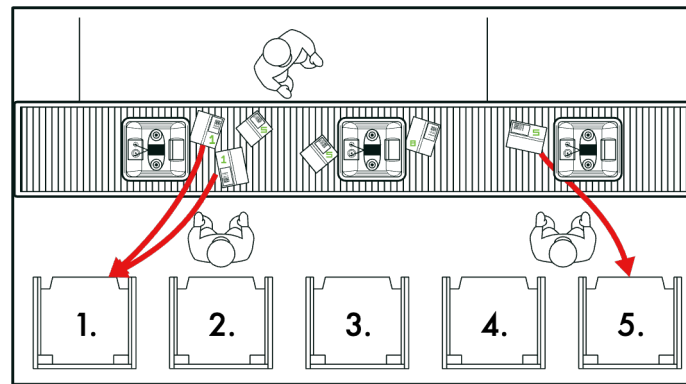
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CONFIGURATIONS

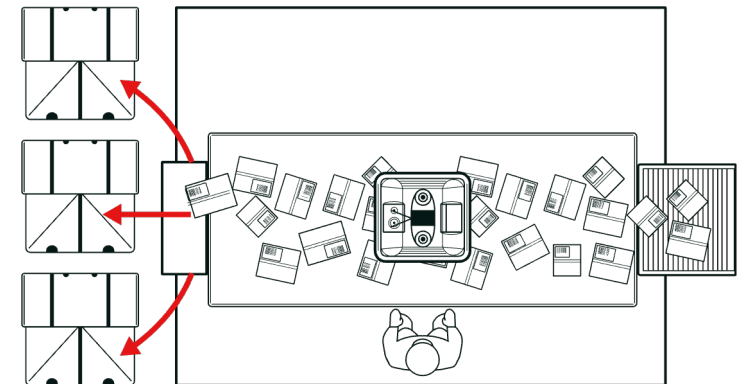
End-of-Chute



Moving Belt



Ranking Configuration



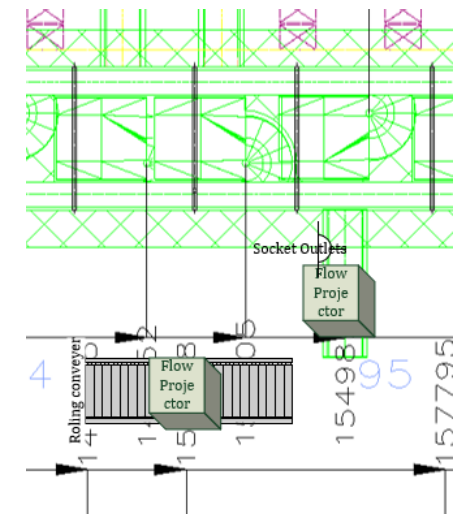
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REFERENCE CASE: FLOW PROJECTOR

The Finnish postal operator is one of our largest customers for the Flow Projector (FP). This operator started with a successful POC in the beginning of 2022 resulting in an investment in this **unique** Prime Vision **technology**.

The project comprises of 41 FPs, to be installed **at two locations** in Finland. These FPs enable our customer to optimize its manual sorting operation by **increasing** operators' **efficiency**, **throughput** and making the manual sorting **easier**.

At these locations, the FPs are at the end-of-chute to sort a diverse number of parcels into max. **25 roll container** (destinations). Full and seamless integration with customer back office and WMS systems has been accomplished.



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