



**Automate any  
pick & place task**  
by giving eyes to your robot

# Pioneering and leading in plug & play 3D vision

## for robotic pick and place applications in manufacturing

2010

Robotics software development

Google NASA itec H. ESSERS BOSCH ABB ENGIE



2016

Pioneer in Plug & Play 3D Vision for robots



2019

Focus on applications in manufacturing – 500 sales in 40 countries in 3 years



# Find us all over the world

Growing partnerships



Direct & indirect sales

50 resellers

Offices in Belgium, Korea, US

China office opening in Q3 2020





**First things first:  
What's the problem we see?**

# Labour challenge:

## A growing problem in manufacturing

- ✕ Labor wages rising in developing countries

China Wage Levels Equal To Or  
Surpass Parts Of Europe

- ✕ Not enough people to fill positions in Western countries

ECONOMY

**The U.S. labor shortage is reaching a critical point**

**4.600.000**  
manufacturing  
vacancies in next  
decade



**50%**  
remains unfilled



**2.300.000**  
**vacancies** in  
manufacturing are  
expected to stay  
unfilled

# Automation challenge:

Moving parts from bins to feed the machines

38%

of factory labor force  
time spent on this  
daunting task<sup>1</sup>



<sup>1</sup> Source: The RobotReport  
<https://www.therobotreport.com/fully-automated-bin-picking-finally-here/>

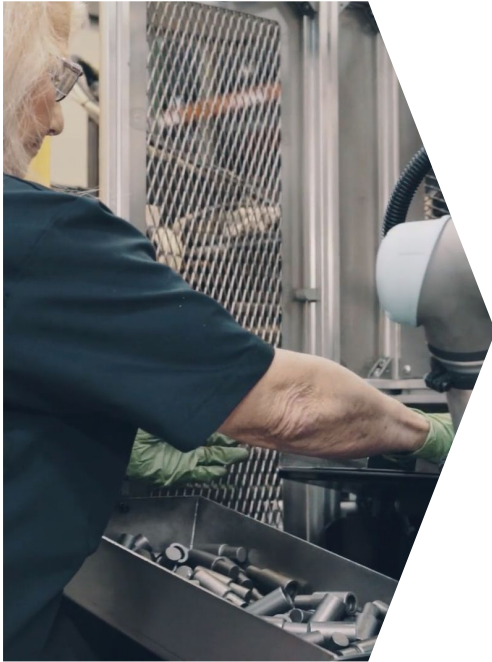




**Our solution:  
Giving eyes to robots**

# Giving eyes to robots

Enabling easy automation of complex tasks





# A plug and play system

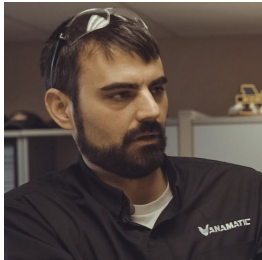
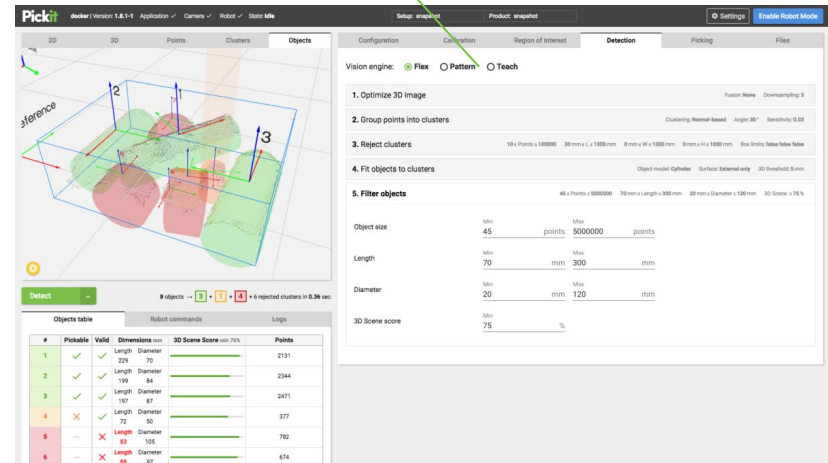
Enabling everybody to automate complex tasks



# Powerful Software

- ✓ Teach your part in one minute
- ✓ Detect your part in one second
- ✓ First pick on the first day

NO CODING, EASY SETTINGS



*“From the beginning, this machine we’ve built can handle any part. Basically, you’re switching programs instead of switching an actual physical set-up. Once you get the program done, it’s done. All you have to do is feed parts onto the camera, and there’s your set-up.”*

*Adam Wiltsie, Plant manager, Vanamatic*

# A capable camera range

- ✓ Elegant solution
- ✓ Industrial grade
- ✓ Robust to changing light conditions
- ✓ High accuracy

Pickit L



150 x 150 x 50 mm

Pickit M



50 x 50 x 10 mm

Min object size\*

Preferred

Pickit M-HD



10 x 10 x 5 mm

\*In some cases it is possible to detect smaller/larger objects



# 96% customer happiness score

BUILT-IN SUPPORT



Built-in support



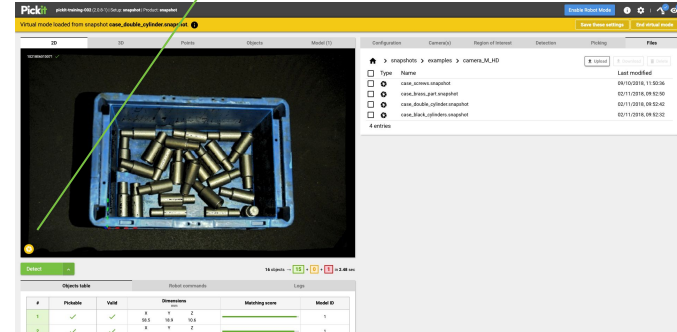
Global support



Knowledge base




Local support



*"I've actually dealt with Pickit support and I didn't know how it would go with time differences, but I'd send a question and the next day I'd have an email: try this, try that, let us know how it works."*

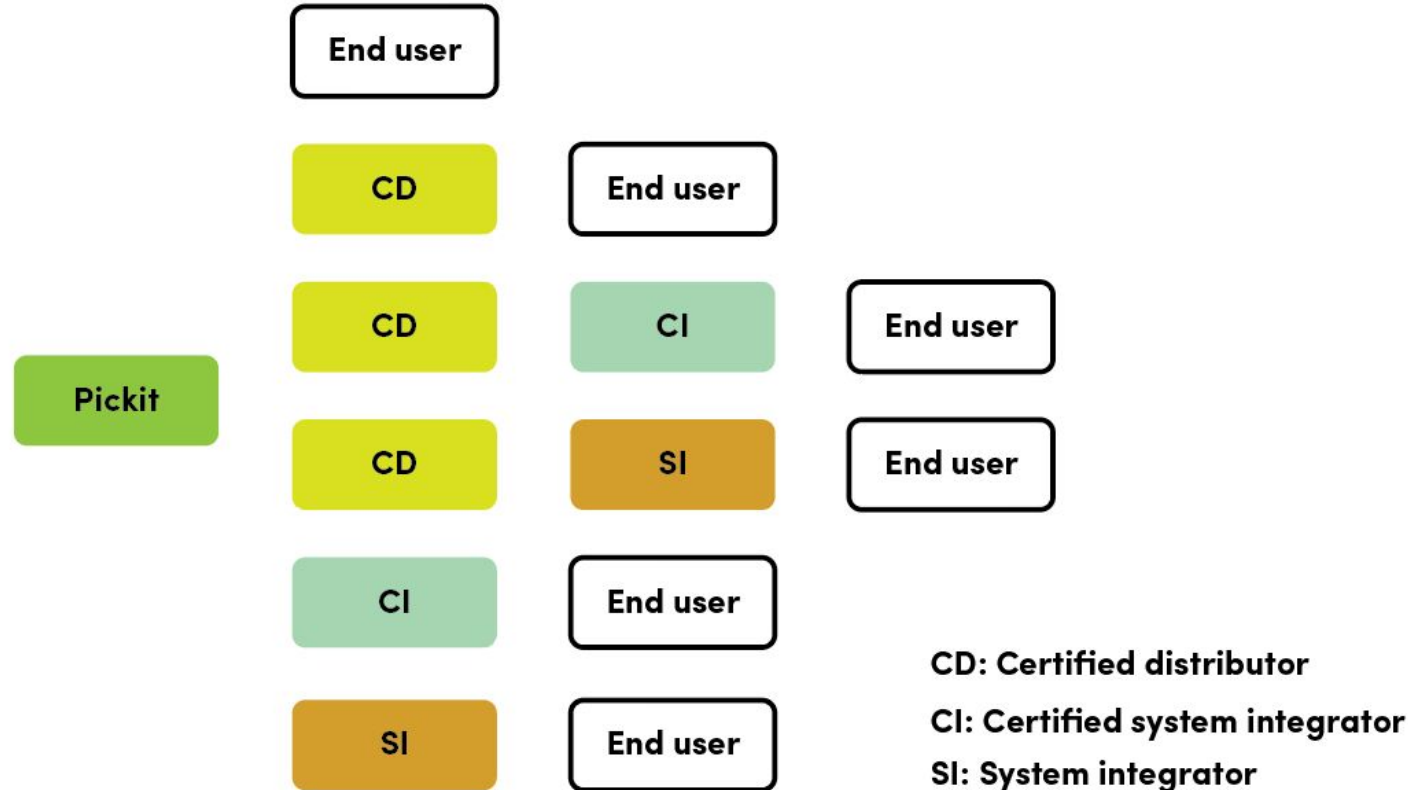
*Doug Sanford, Controls engineer, 21st century plastics*



HOW TO TACKLE LABOR  
SHORTAGE AND  
STRONG COMPETITION  
WITH AUTOMATED  
BIN PICKING

The image shows two men in a warehouse or industrial setting. The man on the right is wearing a green cap, safety glasses, and a dark blue shirt. He is looking towards the left. The man on the left is partially visible, wearing safety glasses and a dark blue shirt. In the background, there are yellow industrial racks or shelving units. A yellow automated bin picking machine is visible on the right side of the image, with a hand reaching into it. The text is overlaid on a white rectangular background in the center of the image.

# Six ways of reaching our customers

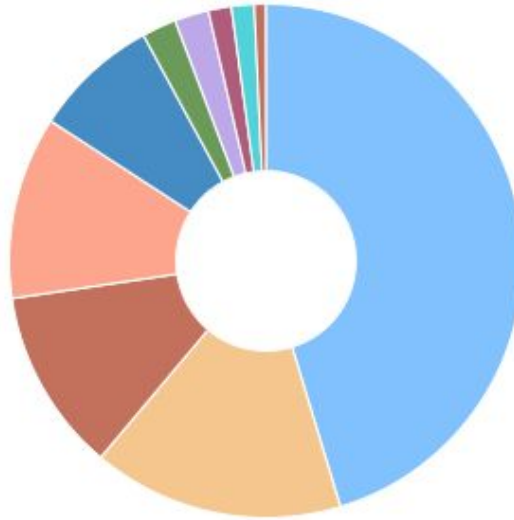




# 50/50 cobot/robot sales

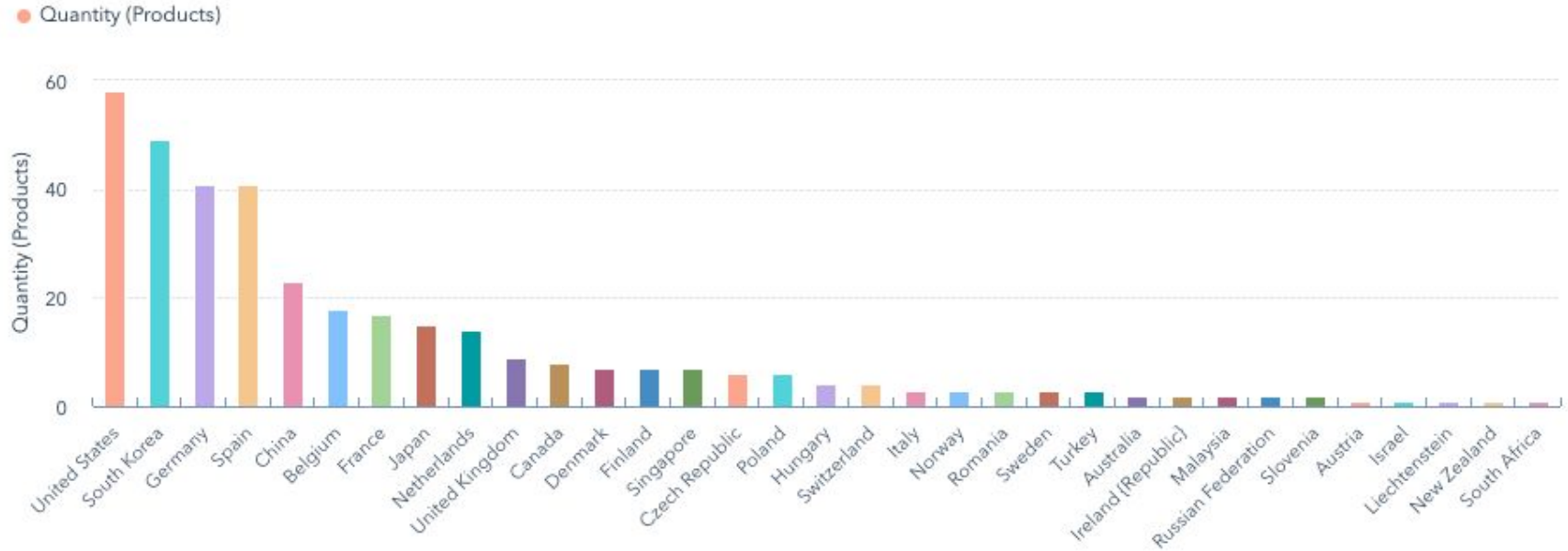
Well aligned with Universal Robots

● Universal Robots ● Fanuc ● ABB ● KUKA ● Yaskawa ● Aubo ● Neuromeka ● Franka ● Hanwha ● Kawasaki



# 5 Focus regions

US, Korea, Germany, EU, China



# 500 sales worldwide





[illegible]

# Typical applications

- ✓ Proven track record with use cases
- ✓ Fast set up
- ✓ No or minimum support afterwards
- ✓ Works out-of-the-box



# 5 groups of typical applications

Random pattern + cylinders



Random pattern + rings/disks



Random pattern + “right”  
3D shapes



Semi-structured  
pattern + any shape



Depalletizing  
full layers +  
any shape



# From easy to difficult

Semi-structured  
pattern + any  
shape



Random  
pattern +  
cylinders



Depalletizing  
full layers +  
any shape



Random  
pattern +  
rings/disks



Random  
pattern +  
“right” 3D shapes



Random  
pattern + “complex”  
3D shapes



Easy

Difficult

# 50% of qualified leads are “easy wins”

Incoming qualified leads

Depalletizing

10.0%

Semi-structured

20.0%

Random + "complex" 3D

25.0%

Random + cylinders

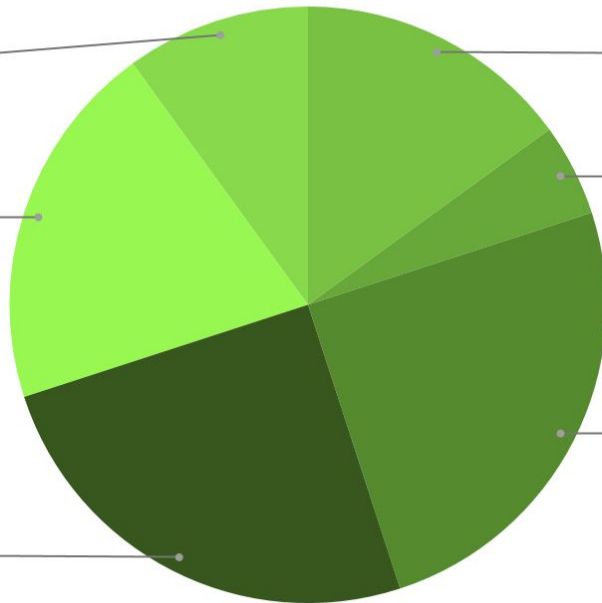
15.0%

Random + rings/disks

5.0%

Random + "right" 3D shapes

25.0%





# 1. Random pattern + cylinders

Look for axisymmetric








# 1. Random pattern + cylinders

Look for axisymmetric



# Typical parts for group 1

-  Billets, shafts, shocks
-  Vibration silencers, dampings
-  Engine mounts
-  Plastic and metal tubes
-  Plastic bottles, cosmetics plastic packaging

# Typical parts for group 1



# Typical parts for group 1





## 2. Random pattern + rings/disks

Any rings, except thin (<5 mm) edges



# Typical parts for group 2



Bearings



Brake discs, rotor



Covers, caps



Wheels



Gears



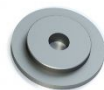
Fittings



Turbine parts

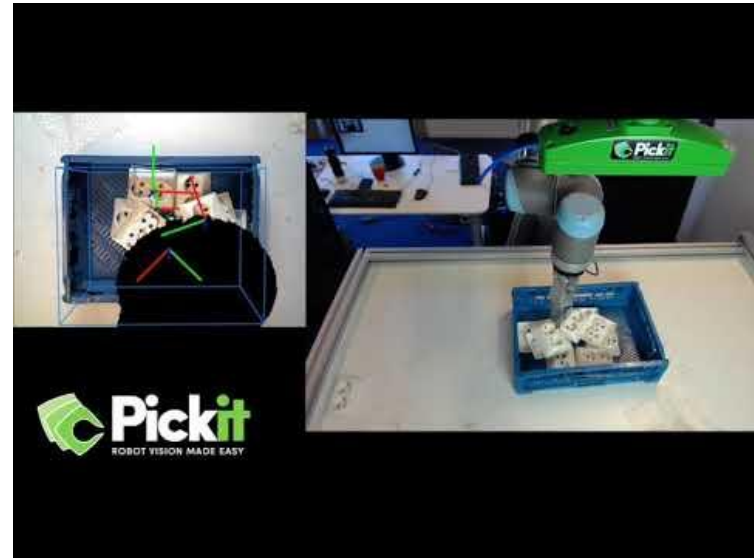
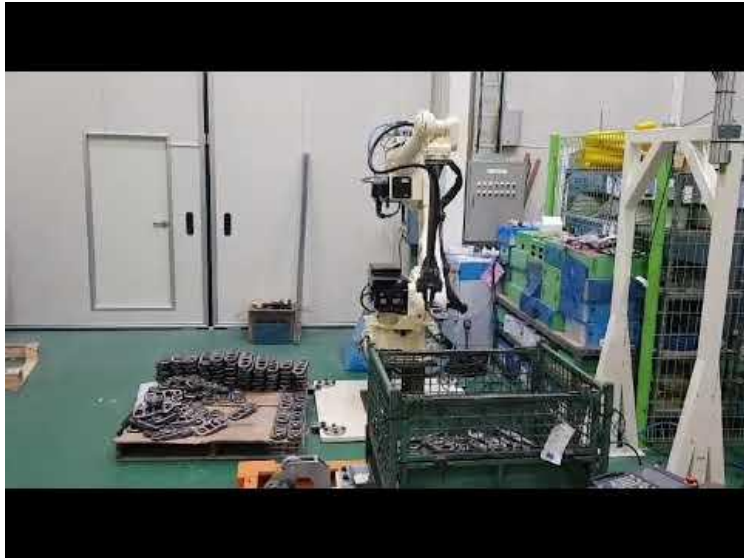


Inserts



### 3. Random pattern + “right” 3D shapes

Look for 2-sided parts that tend to lay flat in the bin



# Typical parts for group 3



Connectors



Casted, forged parts (heavy ones)



Plastic molded parts







## 4. Semi-structured pattern + any shape

Any shapes, except thin (<5 mm) edges





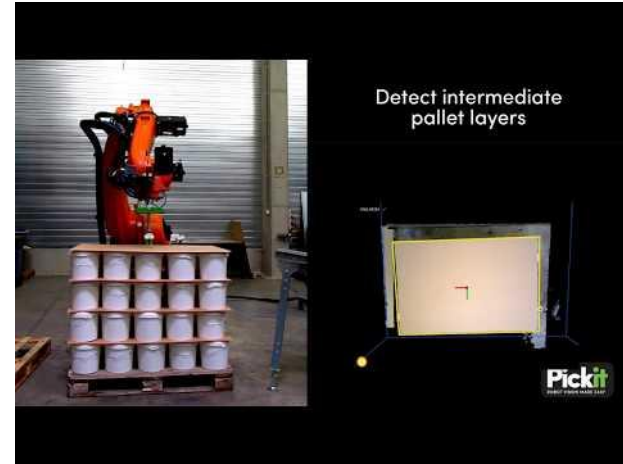






# 5. Depalletizing full layers + any shapes

One layer – one shape



# Typical parts for group 5



Bags



Boxes



Buckets



Barrels



# No-go zones for new users

Transparent



Mirror-shiny



Very small

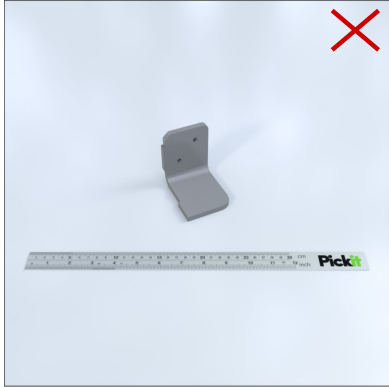


Deformable



# No-go zones for new users

Part orientation via  
tiny details/holes



Mixed pallets/bins



Entangled



Thin edges





# The sales process

A proven track record

1. Leads
2. Qualifying
  - a. Sales qualification
  - b. Technical qualification
3. Proving
  - a. Videos
  - b. Proof of concepts
  - c. Visits
4. Negotiating
5. Winning 🧐

# Advanced applications

