



# Vision Picking in Coca Cola HBC



Zagreb, October 2022



# Topics Included



## Market challenges

Warehouse challenges in today Warehouse Business

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## What is Vision Picking

Overview of the Vision Picking Solution

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## Expected benefits and preparation activities

First usage of the smart glasses and expected benefits

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## Devices and setup

Overview of the Frontline Command Center and how to work with it

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## Frontline Command Center

How to work with the Vision picking solution

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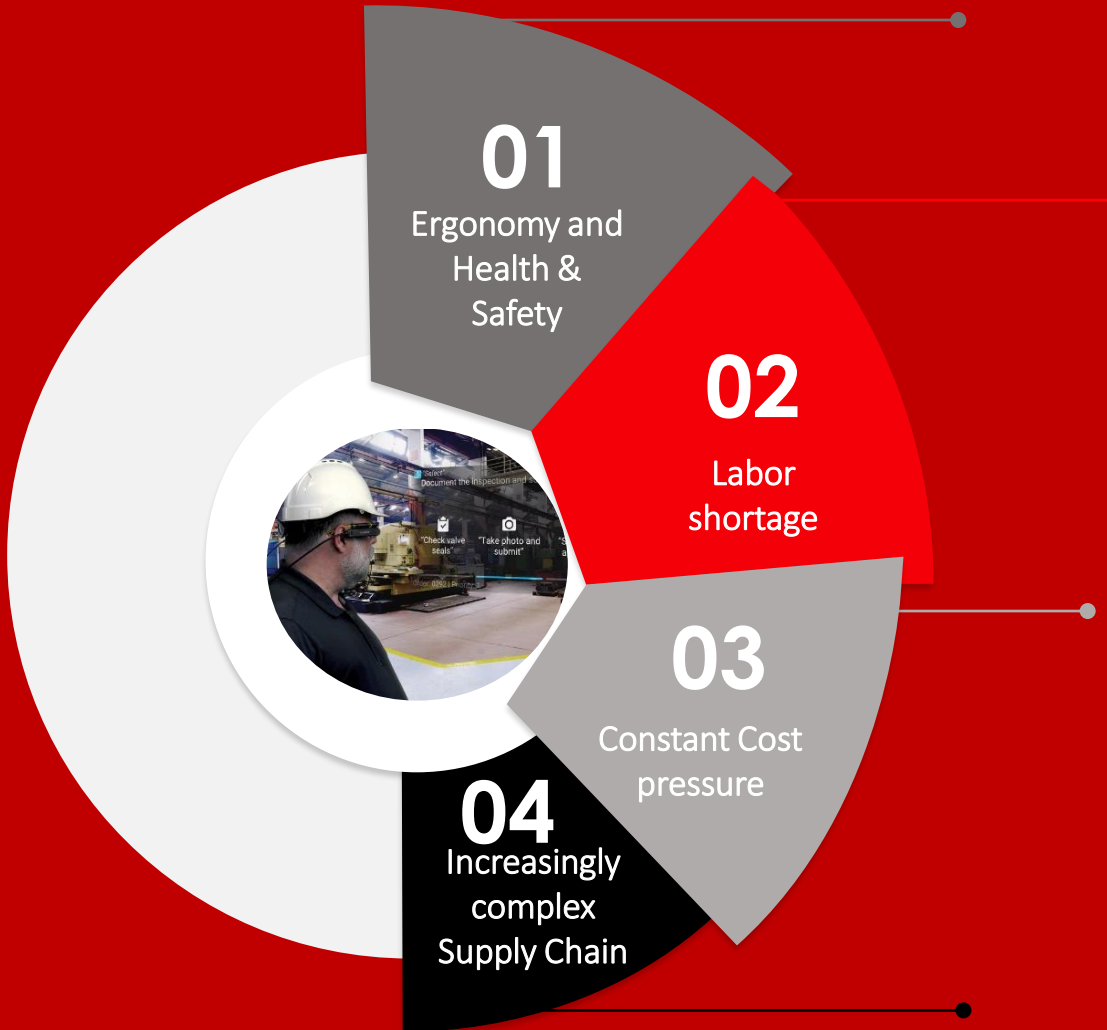


## Productivity improvement

Overview of the improvement

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# Main challenges for Warehouse Business in today's environment



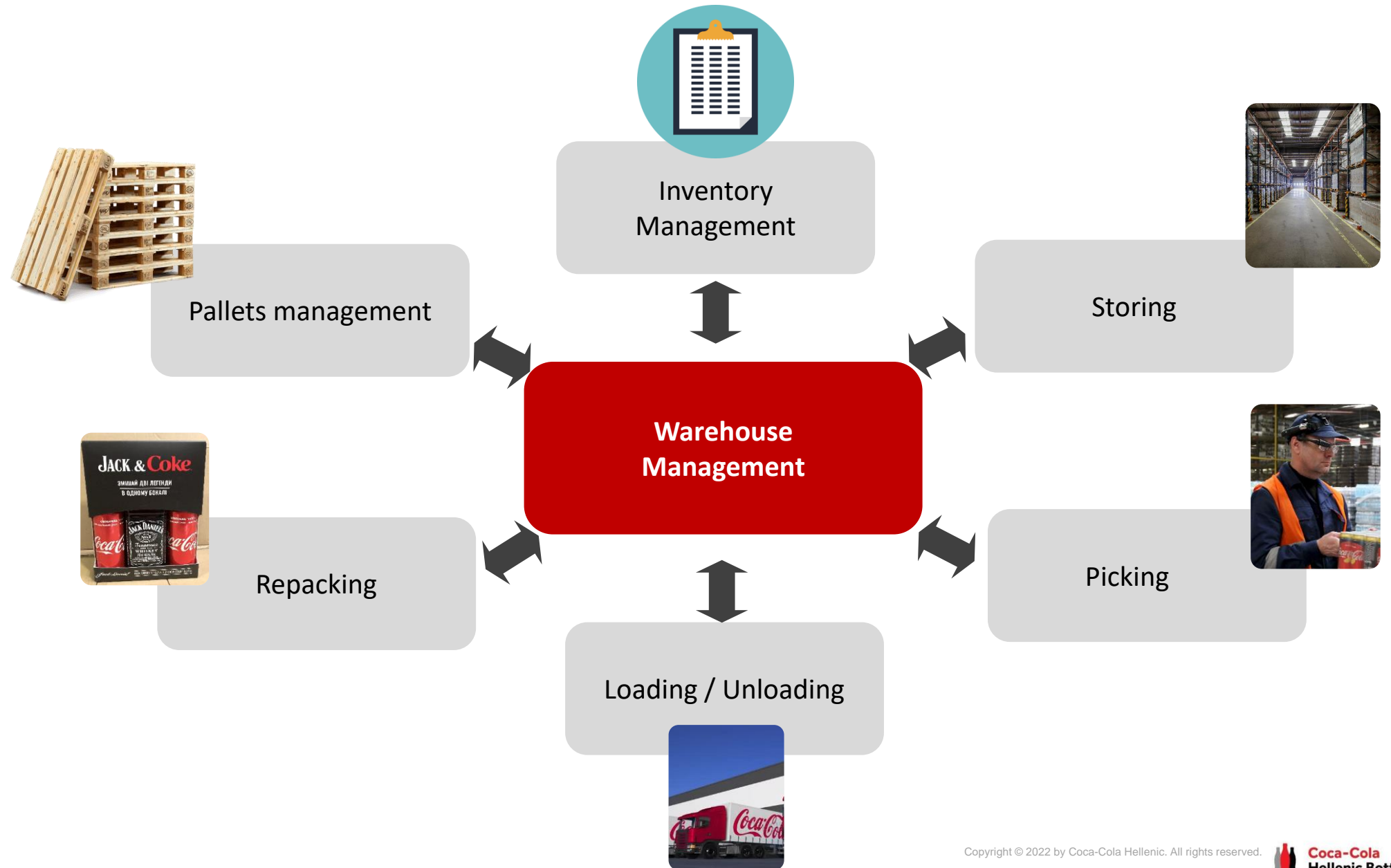
- Repetitive physical work
- Different product weight
- 50% of a picker's time is spent in movement

- Overall lack of workforce
- Higer salary demands
- Lack of skilled and experienced workforce

- Volatile macroeconomic environment
- Pandemic, lockdowns, utilities increase, labor shortages, lack of capacities
- Balance between off and on season periods (cost vs volume)
- High seasonality in Croatia

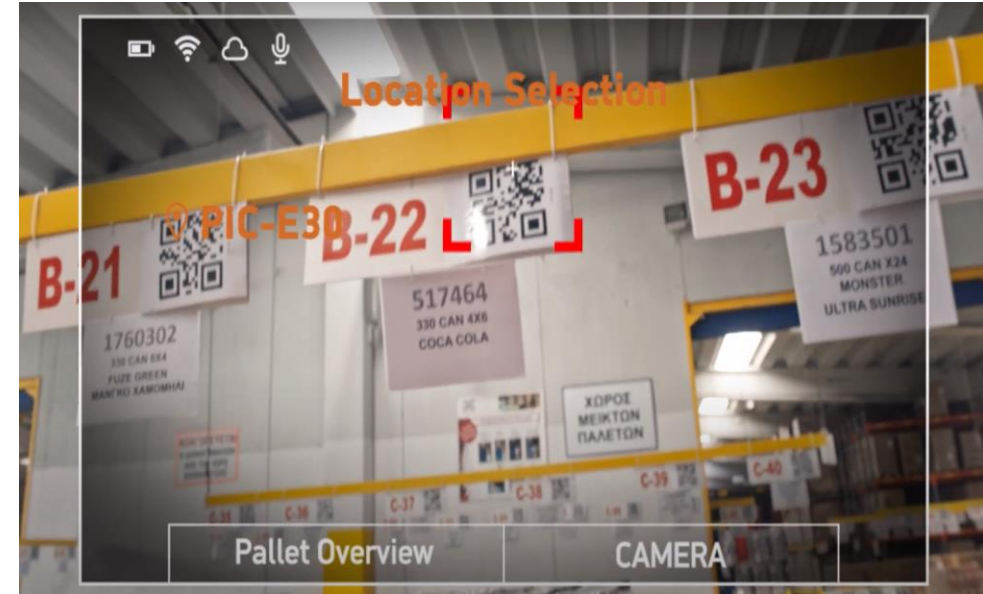
- Year on Year growing number of SKU'S
- Demanding customers
- Value added activities (picking, repacking, different palletization....)
- Balance between demand and supply

# Warehouse processes in CCHBC



## What is Vision Picking?

- Utilization of augmented reality for more efficient creation of mixed pallets
- Usage of smart glasses to get information about the required composition of mixed pallet together with location of the next required item.
- Confirmation of picked item by scanning the QR code placed at the storage shelf.
- After completion, delivery documents are printed immediately without need of further administration.



# Vision Picking Initial assumptions – Sarajevo & Zagreb

## Objectives

- Present and future demand from the market is IC MIX and RGM (24/7 orientation)
- SKU No. 2019. on 2018. + 26 %
- The specific technology is combining both Vision guide and Voice commands providing speed, accuracy and **increasing H&S** (free hands vs. Paper picking Zagreb and Mobile picking Sarajevo)



## Business benefits

- Improve picking productivity – 11% Zagreb and 10 % Sarajevo (Vs 2019)
- Improve picking accuracy – appr 0.14% (Vs 2019)
- Reduce Market returns due to wrong picking e.g. CRO codes in SLO and opposite

## BU effort required & timing

- Timing:
  - Sarajevo **Jan-Mar**
  - Zagreb **Mar-May**
- Moving from Paper to Vision solution requires appropriate Infrastructure (Wi-fi coverage etc.) & Change management preparation
- First deployment in Sarajevo and use the experience and learnings in Inas

## KBIs

- Picking efficiency +10% & accuracy +0,14 %
- Market returns WH reason (reduce)
- GFK
- H&S

## Attention points

- Change management preparation in DC Zagreb

- >> SAP customization, training, testing, Go Live and Stabilization support
- >> IT – project management cost
- >> Hardware cost: devices + accessories
- >> Travel costs for KU training;



- Licenses (types per warehouse):
- Frontline workplace (pickers)
  - Supervisor license

## Preparation activities



3PL/unions alignment

Preliminary alignment with the 3PL and unions in relation to the usage of the new Vision picking technology.



Health & Safety and GDPR

The users have to address all Health and Safety group and local requirement. GDPR compliance activities have to be followed.



Picking area preparation

- Review the coverage of the wi-fi connection in the warehouse and update if needed.
- The QR codes have to be prepared, printed and matte laminated and placed on the respective bins in the warehouse. The optimal size is 10x10cm.
- Prepare/create storage bins
- Review picking sequence



Order of the smart glasses

The smart glasses and the accessories have to be purchased upfront before the KU training.



Implementation plan

Prepared plan how many pickers will start work using the smart glasses solution and when all pickers will be involved in the Vision picking process.



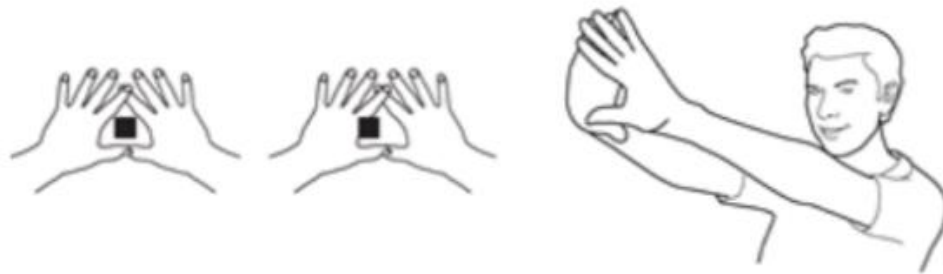
Translation of the training material from English to local language

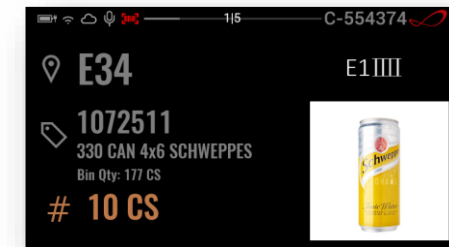
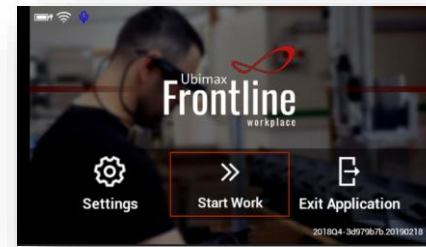
The Key users have to translate the training material from English to local language, for the purpose of the End user training.



Eye dominance is the tendency to prefer visual input from one eye to the other. Most people are right-eye dominant; however in a small portion of the population neither eye is dominant. It is best to use your dominant eye when viewing the display To determine which eye is dominant:

1. Form a triangle with your hands placed together at arms length.
2. With both eyes open, focus on any distant object centered in the triangle.
3. Maintaining focus on the object centered in the triangle, close your right eye. If the object is still in the triangle, you are left eye dominant.
4. Maintaining focus on the object centered in the triangle, close your left eye. If the object is still in the triangle, you are right eye dominant.
5. If the object is in the triangle with either eye then you are dominant eye neutral.
6. Repeat test to confirm.





The overall solution consists of two parts Software and Hardware

### **Software**

- Vision picking solution is developed by the German company Ubimax.
- The xPick (Vision Picking) solution is based on Server Platform (Frontline Command Center) and Client Platform (Frontline Workplace).
- It is an innovative "pick-by-vision" solution which supports manual order picking, in-coming, outgoing and sorting of goods as well as inventory management.
- xPick allows for hands-free execution of these processes.

### **Hardware**

- The selected hardware for Coca-Cola Hellenic's use case includes: Realware HMT-1 and Vuzix M300 XL
- Integration with SAP – Atos consultants.



### RealWear HMT-1

Assisted reality smartglass with monocular display, Bluetooth 4.1LE, WiFi. Camera: 16MP. With microphone, headphones and additional microphone available as extra accessory. Weight: 370gram. OS: Android 6.0. IP66 (dust proof & waterproof) and MILSPEC 810G (2 meter drop test onto concrete). HMT-1-Z1 (Article ID HM008001) for FMC1/D1 & ATEX Zone 1 (potentially explosive environments in oil & gas, etc.). Rugged device optimized for heavy industry and outdoor environments. Easy mounting and use in combination with own glasses or helmet and pretty stable. A good option when moving between different temperature zones that include a frozen zone of -20 degrees Celsius.



### Vuzix M300XL

Assisted reality smartglass with monocular display, Bluetooth (4.1/2.1+EDR), WiFi (802.11b/g/n/ac, 2.4 and 5 GHz), and additional sensors. Camera: 12MP and autofocus. With noise cancelling microphone and ear speaker. OS: Android 6. Successor to the M100, optimized for industrial use cases. Contains a second battery that can be worn on the other side of the head, balancing the weight.



# Vision Picking Application - Flow

## Application Flow



# Vision Picking Application – Force Replenishment



Voice command “Open exceptions”

Voice command “Force Replenishment”

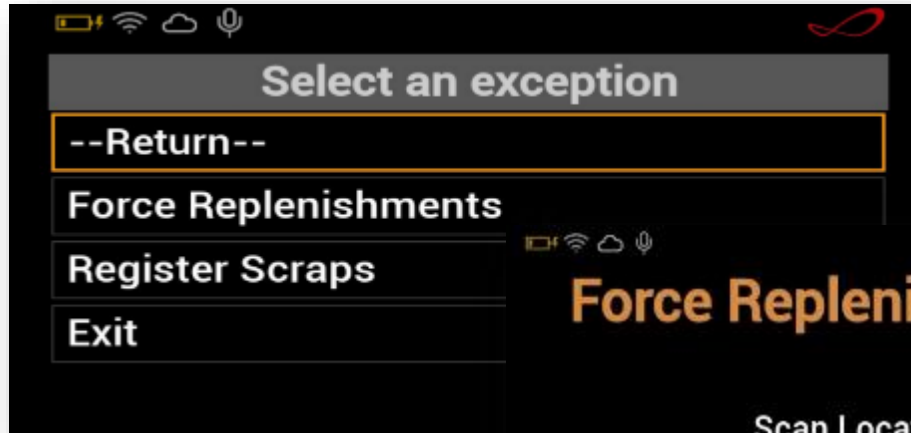
**Display Transfer Order: Item List**

Warehouse No. 072 TO Number 9920437 Confirmation  Creation Date 18.04.2019

Source Stor.Bin 110 001 FD-14 Main area - FG  
Destination Bin 210 001 PIC-D02 Picking FG

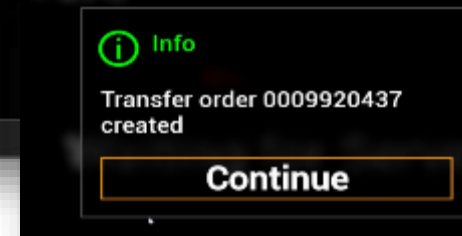
**Result**

Item	Material	C.	C.	Typ	Stor. bin	From qty	AUn	Ret.	Source storage unit	SUT	Diff. qty
1	504103			110	FD-14		15	CS		E2	

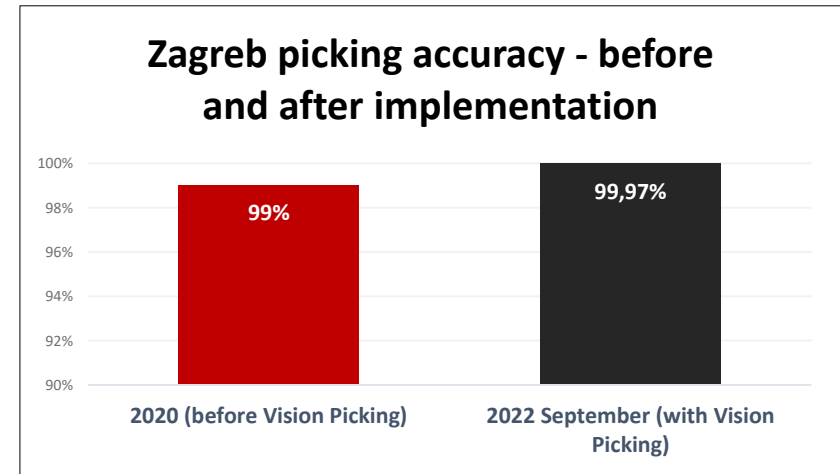
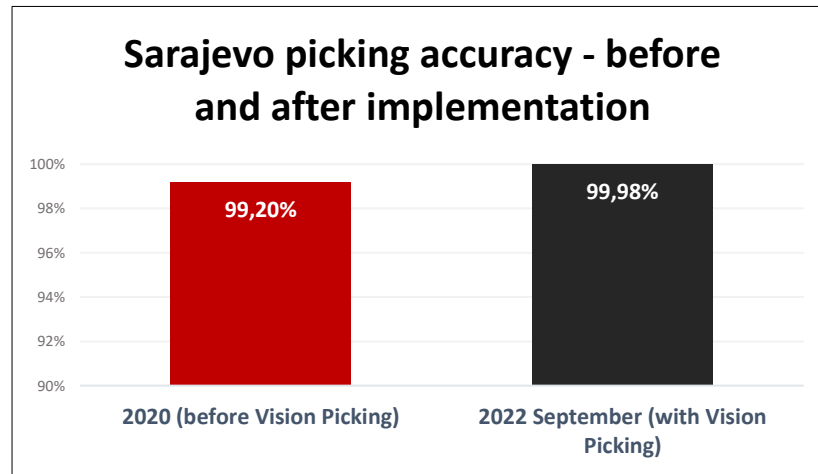
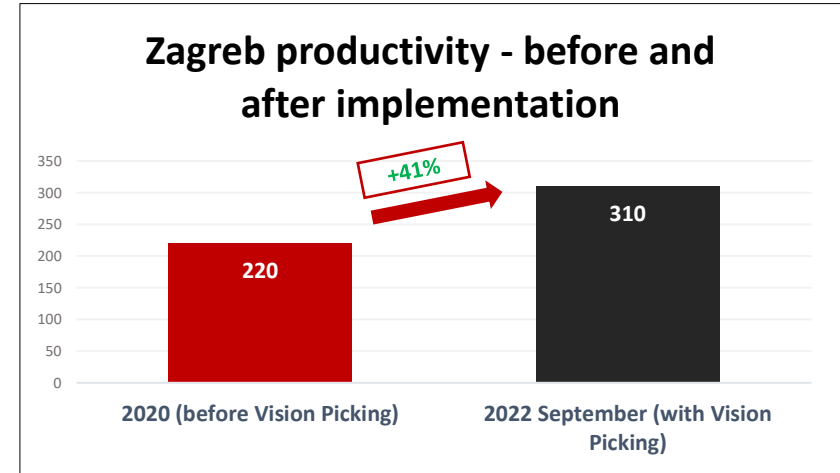
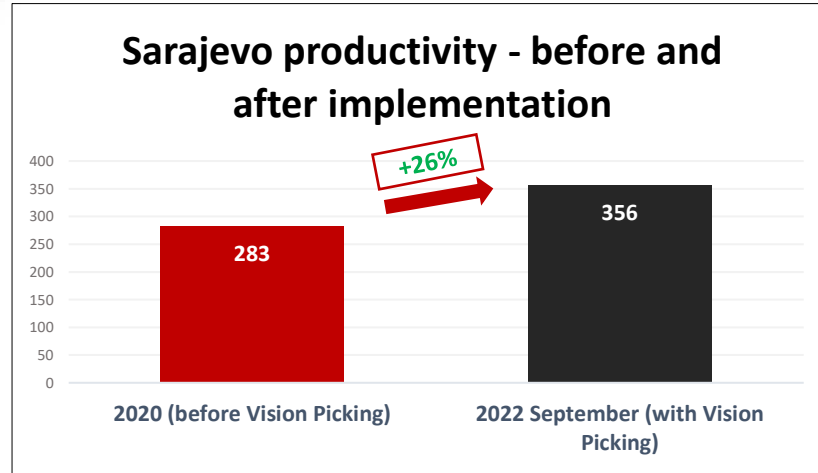


Voice command “Camera”

Voice command “Continue”



# Vision Picking Productivity MTD 2022



**THANK  
YOU!**