



m▲ntis

Logistics Vision Suite + VVR

 ogisticsVision
Suite

 **VVR**
Vision + Voice + RFID

VVR the Challenge



The demand for warehouses is to
boost labor effectiveness and
productivity,
To reduce at the same time quality
defects and rework to improve
workflow standardization,
To enhance workforce collaboration
and enhance safety.
To be innovative and competitive
while keeping automation
costs under control

What is VVR



Vision



Voice



RFID



POWERED BY POSSIBILITIES.



What is VVR



VVR is the **only real-life Vision Picking** solution that revolutionizes



Piece Picking/Pick-to-Cart

Put-Wall

Case Picking

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VVR

Be ahead of competition

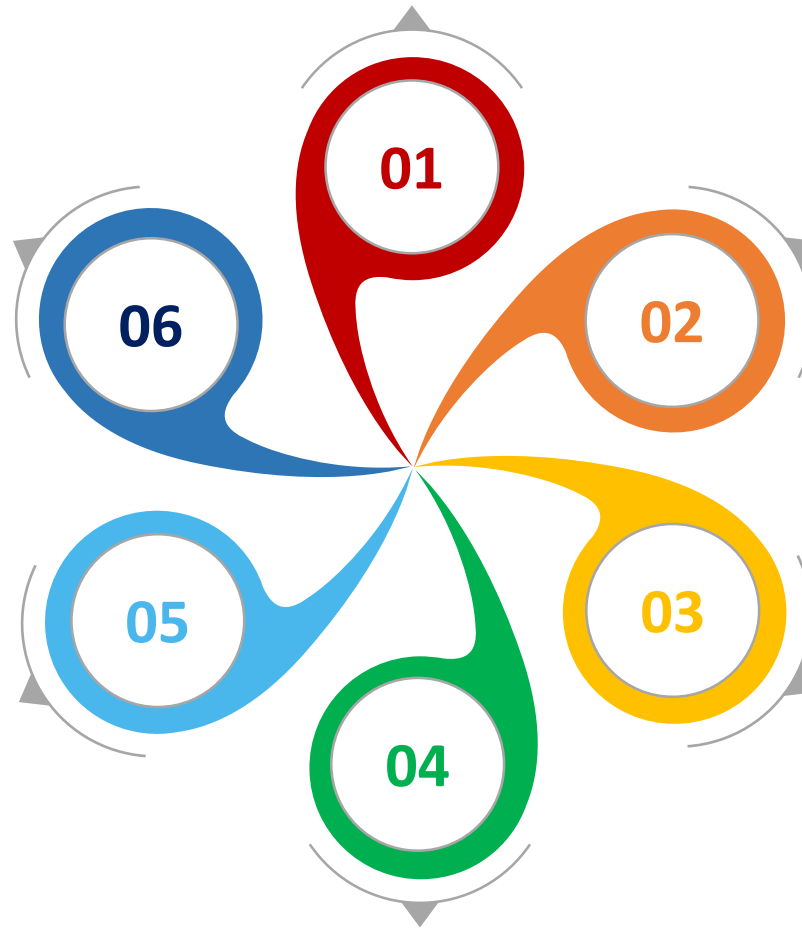
Hands Free Free the hands of your employees

Happy employees

Ease of use, employee only need to use
their senses
Information displayed is richer

Parallel Tasking

No pausing for next task



Short learning curve

An image is a thousand words. That easy!

Competitive pricing

Cheaper than other automations while giving
more flexibility to your DC and employees

Less errors than
any other automations

Less errors

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VVR Specs

- ⇒ Utilization of Smart Glasses
- ⇒ Native integration with LVS picking operations
- ⇒ Easy configuration methodology
- ⇒ Hand-free picking operations
- ⇒ Multimodal Picking
 - Graphical presentation of information
 - voice recognition
- ⇒ Pick-to-Cart visualization
- ⇒ Extended use of task assignments per user
- ⇒ Extended use of confirmation devices and methods
 - Device embedded camera
 - External wearable Bluetooth barcode scanner
 - Bluetooth wristband RFID Tag reader
 - Smart Watch

VVR vs RF Terminals

Innovative solution – Similar price
Similar cost to RF terminals



Be innovative

Errors Reduction

Up to 10% because of less movements and confirmation

-10%

Productivity

Up to 40% productivity Increase

+40%

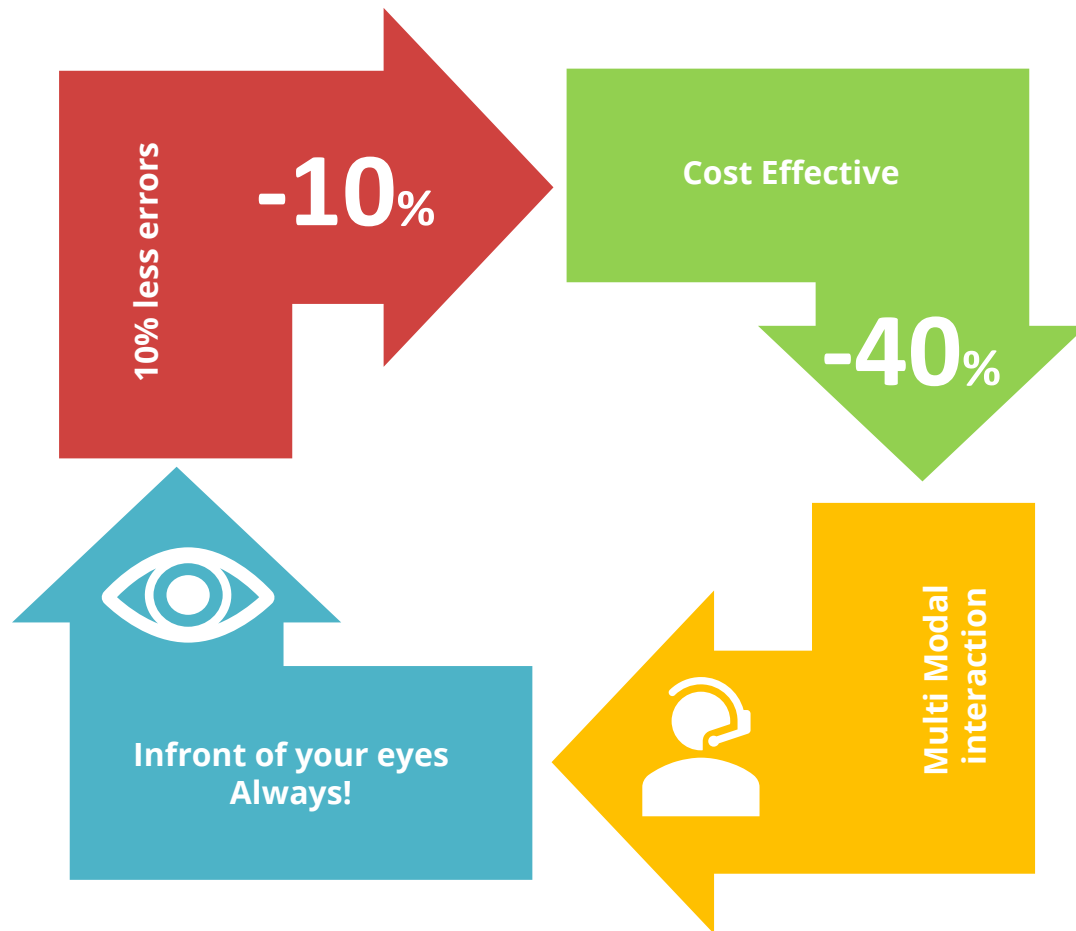
Hands Free Operations

Free the hands of your employees



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The best of two worlds



Errors Reduction

Confirmation of your picking can reduce errors **up to 10%**
Achieved by RFID readers

Cost Effective

You can reach **up to 40% less** cost in smart glasses

True Multi Modal

Visual and auditory interaction to enhance picking experience and performance with your hands always free

Richer information Infront of your eyes

Pickers don't need to replay audio information.
Information is **always** there to see!

VVR vs Light directed

Sight is now faster than light

less damages / less maintenance

- Wearable devices are better protected by default

richer information

with pictures of SKUs in display.

flexible to expand

because of no H/W installation

up to 50%
cheaper

than light directed.

no installation time

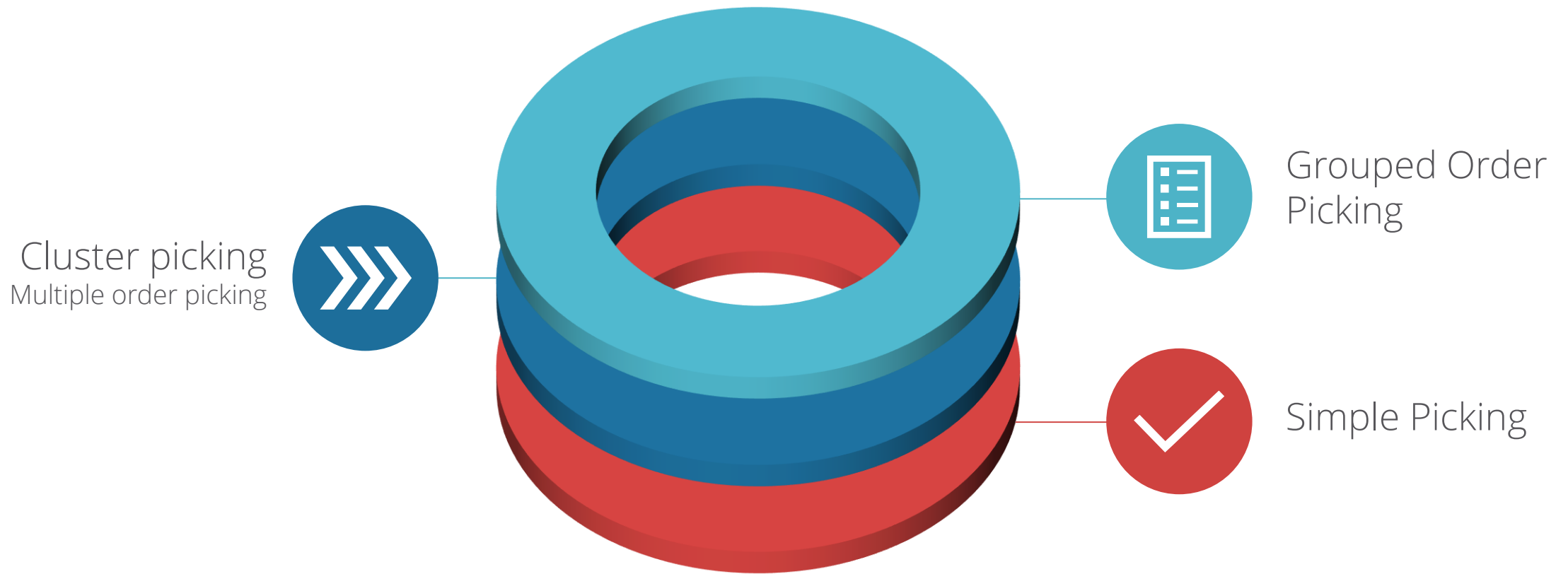
vs long HW installation
of light directed systems

up to 8% productivity
increase

vs confirmation buttons

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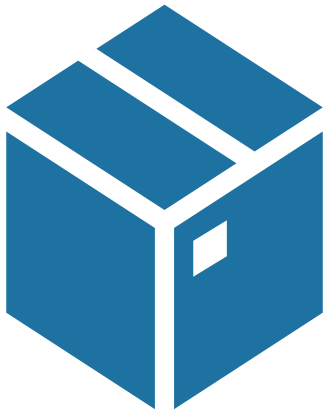
VVR Picking Methods



VVR is ideal for



Dense Piece picking for increased variation of SKUs, applied mostly for retail and e-commerce



Case picking with high number of order lines with relatively small quantities



VVR for Piece Picking



VVR Pick to Cart

Specs



One SKU + one stock attribute value per location to ensure productivity



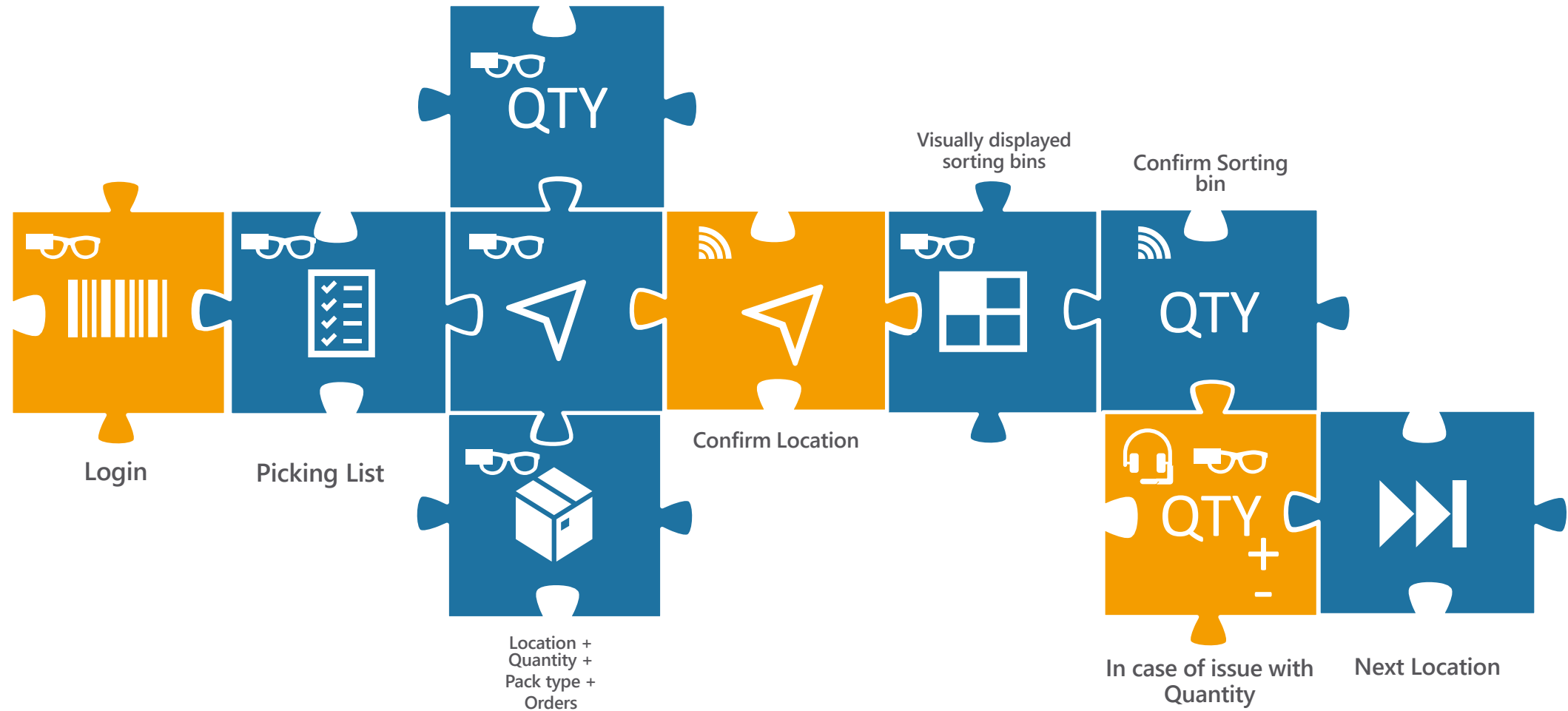
Preconfigured carts with bins labeled by RFID tags



- RFID reader confirms location
- Voice confirms picking
- Vision drives sorting to the cart bins
- RFID reader confirms sorting

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VVR Pick to Cart Flow



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VVR Case Picking



VVR pick cases, boxes, cartons

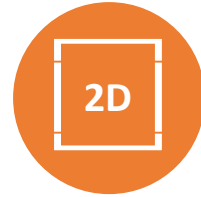
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VVR Case Picking

specs



One SKU + one stock attribute value per location to ensure productivity



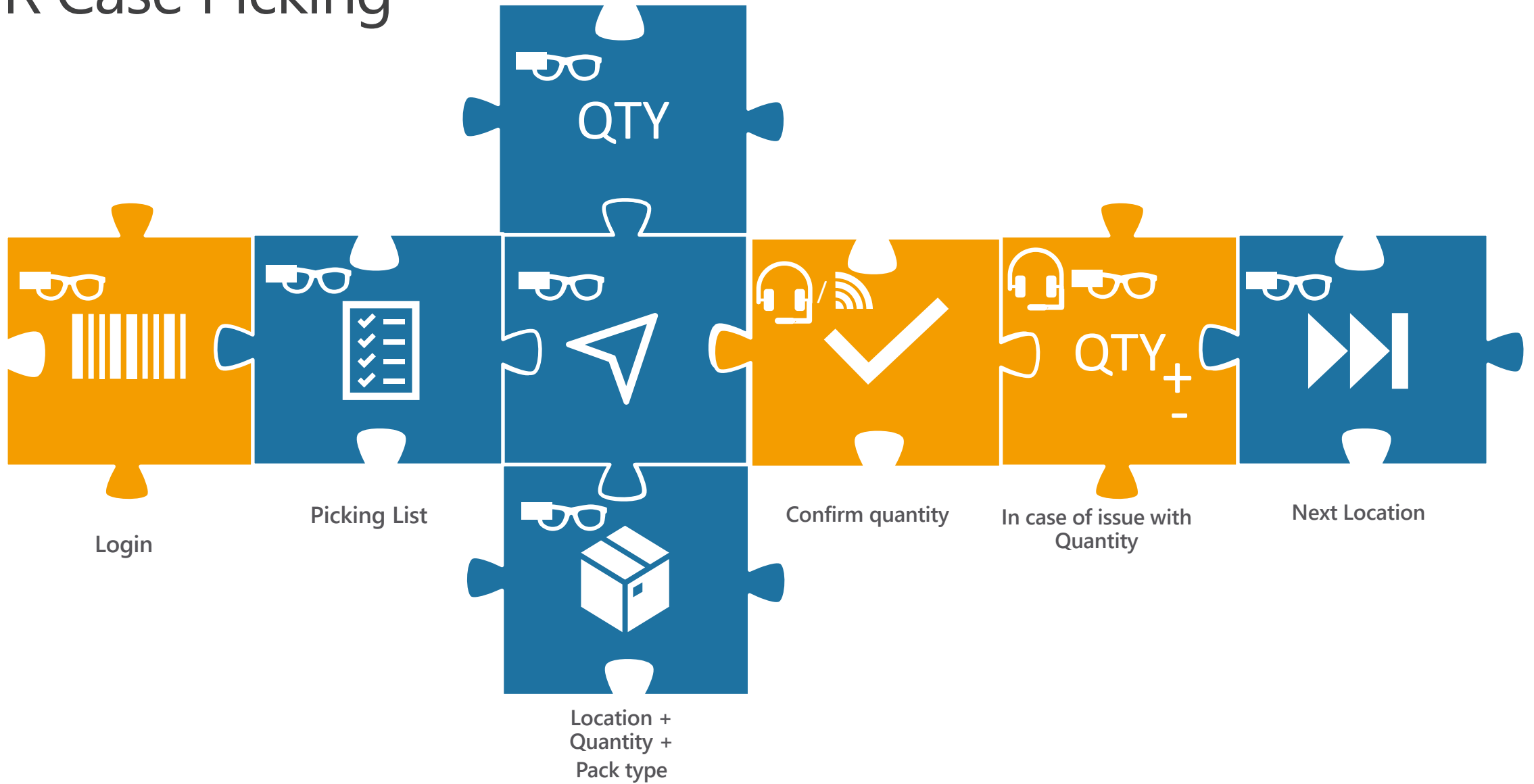
Location tagging:

- 2D barcode
- RFID labels



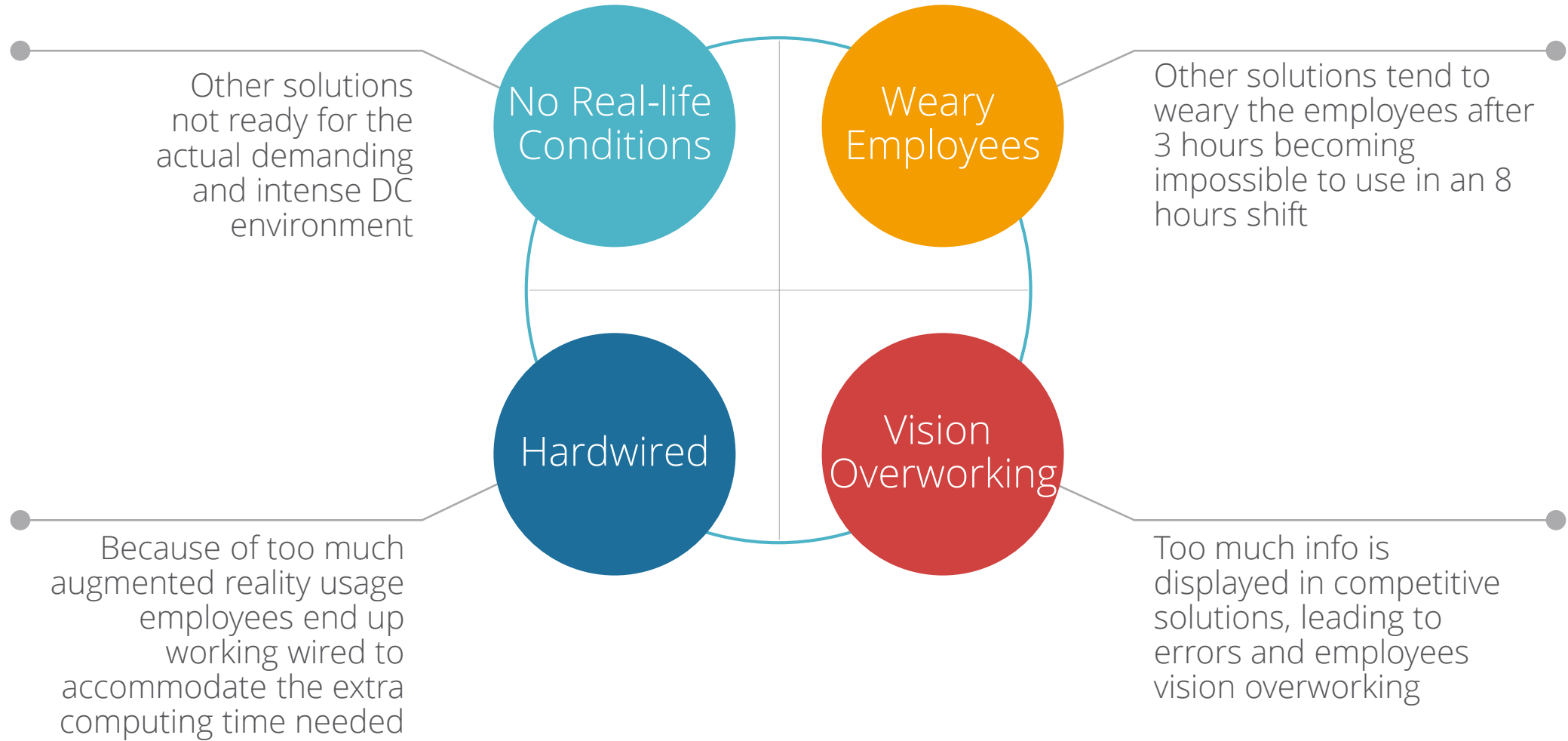
- Vision drives picking
- RFID reader confirms location
- Voice confirms picking

VVR Case Picking



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VVR position in the market



VVR is the only real-life Vision Picking solution that exists in the market

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VVR Comparison Matrix

	 VVR	 Pick to Light	 Pick to Voice	 RF terminals
Hands free	✓	✓	✓	✗
True multimodal	✓	✗	✗	✗
Cost effectiveness	✓	✗	✗	✓
Less Errors	✓	✓	✓	✗
Productivity	✓	✓	✓	✗
Go live time	✓	✗	✓	✗
Flexibility to expand	✓	✗	✓	✓
Less Damages / Less Maintenance	✓	✗	✓	✗
Safety	✓	✓	✓	✗
Information richness	✓	✗	✗	✓
Short learning curve	✓	✓	✗	✗
User Friendly	✓	✓	✗	✗

VVR Benefits

1

Hands Free
Operations



2

Happy Users



3

Increased
Productivity

40%

Over RF Terminals

4

Improved
Effectiveness

15%

Over Pick to Voice

5

Supreme Accuracy

99.99%

6

Faster Location
Validation



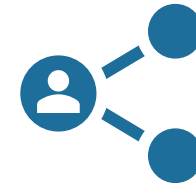
7

Competitive pricing



8

Parallel Tasking



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A large, glowing blue DNA double helix structure is shown, winding across the frame from the bottom left towards the top right. It is set against a dark blue, slightly textured background.

We created the new DNA of WMS

www.mantis.group

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