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We **Optimize** Your Supply Chain

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WES: Flexibilidad y escalabilidad operativa

Haciendo más con menos

Matteo Caporrella, Consultor de soluciones automatizadas – Ciudad de México, 21 Marzo, 2018

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Presentation Goals

Should I look into WES?



1. What is WES?

What's Warehouse Execution Software

2. Fact from Fiction

What did you hear vs. what is true

3. Case Study: System Directed Picking

How are others already using WES?

What is WES?

Warehouse Execution Software



What is true?

He escuchado que...



1. **WES is replacing Warehouse Management Systems (WMS)**
2. **WES is only for automated facilities**
3. **WES is only for greenfield implementations.**

1. WES ENHANCES WMS

He escuchado que...

¡FAKE NEWS!

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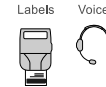
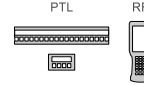
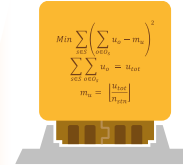
Inventory Management

Enterprise Resource Planning

Sales Order Management

Procure to Pay

Transportation Management



Real-time Alignment

- Wave Planning
- Wave-less
- Hybrid Plans
- Batching
- Move Logic
- Task Interleaving
- Dynamic Slotting
- Cubing

Workflow Execution

- Replenishment
- Stocking
- Pick & Put
- QC/ Audit
- Pack/VAS
- Palletize
- Loading

Automation Control

- Merge
- Route & Sort
- Buffering
- Sequencing
- Print-&-Apply
- Weigh-in-Motion
- Conveyor Controls
- HMI

Planning

Optimizing

¿Why does it matter? Orchestration!



THE WAREHOUSE TECH MARKET MAP

WAREHOUSE & INVENTORY MANAGEMENT SOFTWARE



OUTSOURCED WAREHOUSING & FULFILLMENT



ASSET TRACKING



WAREHOUSE ROBOTICS



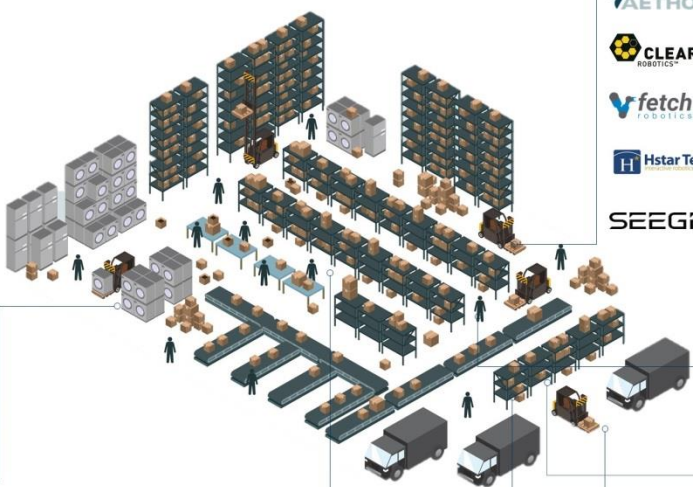
WORKER WEARABLES



PACKING



ON-DEMAND WAREHOUSE SPACE

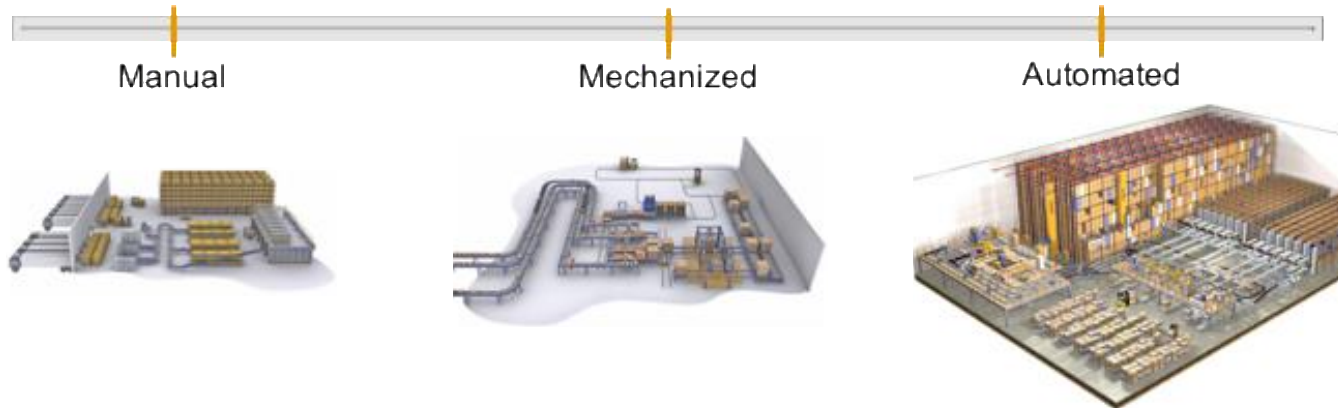


2. WES is **ALSO** for automation

He escuchado que...

¡FAKE NEWS!

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- Manual pick solutions
- RapidPut subsystem
- Mid-automation sort and route solutions
- AMCAP, GTP Subsystems
- High automation, fully integrated execution modules

¿Real life example?

Move Logic for Workload Balancing



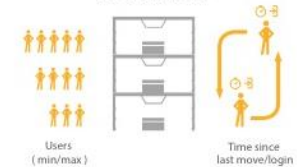
User & Floor Attributes



User Attributes



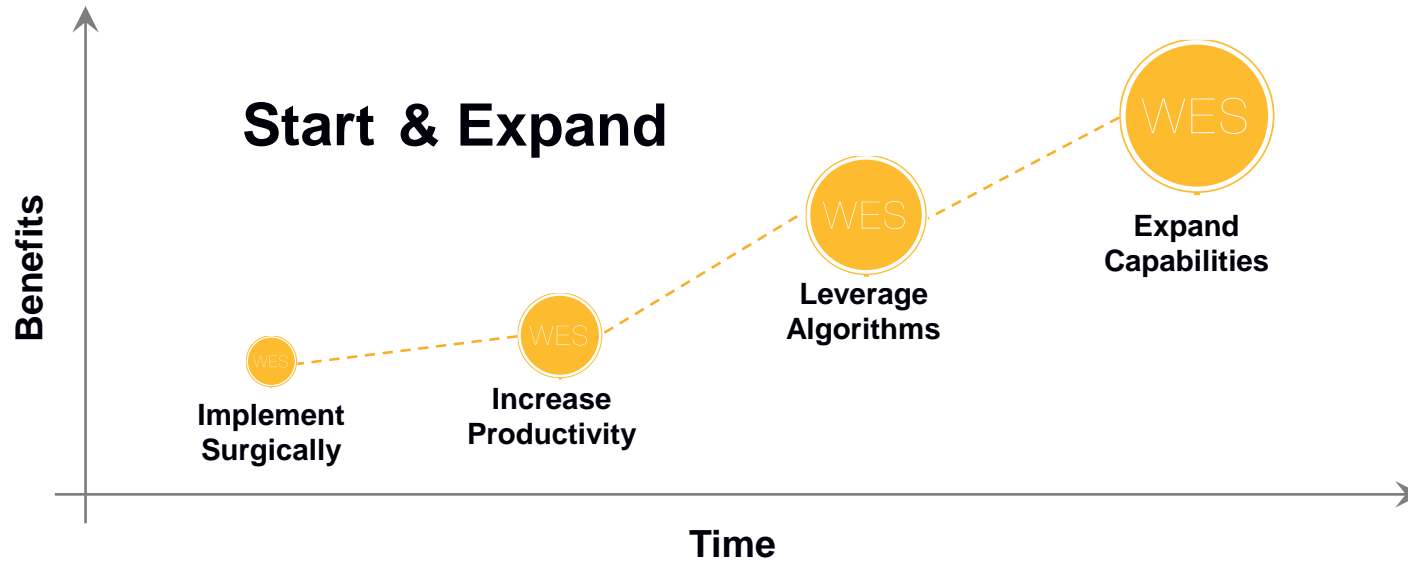
Floor Attributes



3. WES is **ALSO** for greenfields

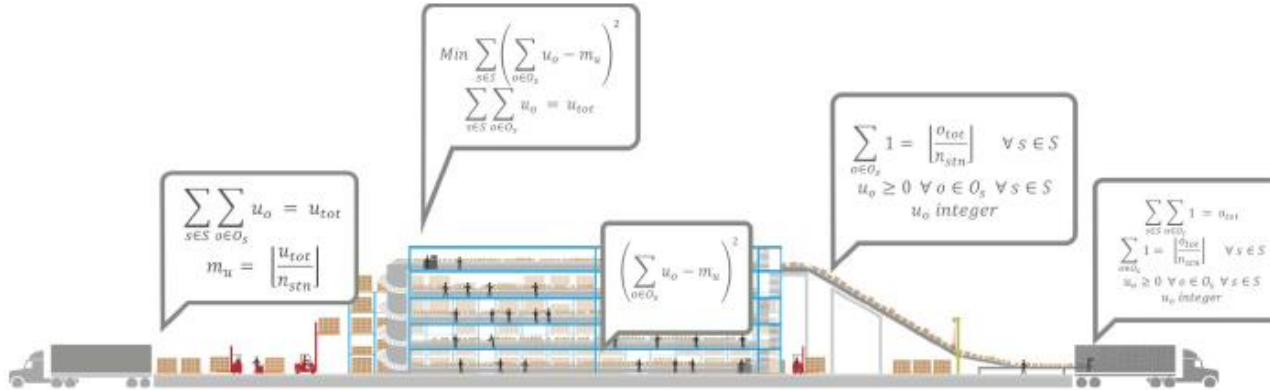
He escuchado que...

¡FAKE NEWS!



When?
Any time!

3. WES is only for greenfields



- Brownfields** → Get more out of what you have and lower costs with sharper execution.
- Greenfields** → Get more capacity and flexibility with right software and equipment design.
- All** → Create certainty, momentum and alignment within your four walls.

What is true?

He escuchado que...


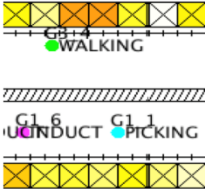


1. WES **enhances** Warehouse Management Systems (WMS)
2. WES **optimizes all resources**, not just automation.
3. WES is best for both **existing and new** implementations.

¡REAL NEWS!

Case Study

System Directed Picking

Customer	Challenge																												
<ul style="list-style-type: none"> - Wholesale grocery and non-food products to retailers, convenience stores and restaurants. - \$46B revenue - Varying order profiles from as small as convenience stores' to large retail stores'. 	<ul style="list-style-type: none"> - Improve pickers' productivity - Reduce picking staff - Reduce order turn-around time - Maintain pick accuracy <p style="text-align: center;">  - Make people & technology successful </p>																												
<p style="text-align: center;">Time-based Simulation</p>  <ul style="list-style-type: none"> - Order profile to simulate pickers' decisions over time. - Labor time standards to simulate how pickers spend time. 	<table border="1"> <thead> <tr> <th>Metrics</th> <th>Before RW</th> <th>RW PTL Pick & Pass</th> <th>Race-track</th> </tr> </thead> <tbody> <tr> <td># of Pickers</td> <td></td> <td>62</td> <td>55</td> </tr> <tr> <td>Pick Rate</td> <td>350 UPH</td> <td>421 UPH 20%</td> <td>510 UPH 46%</td> </tr> <tr> <td>Picker Idle %</td> <td></td> <td>17%</td> <td>0%</td> </tr> <tr> <td>Empty Backtrack %</td> <td></td> <td>2%</td> <td>0%</td> </tr> <tr> <td>Time to Finish Picks</td> <td></td> <td>10.3 Hrs</td> <td>7.9 Hrs</td> </tr> <tr> <td>Total Labor Hours</td> <td></td> <td>457</td> <td>375 21%</td> </tr> </tbody> </table>	Metrics	Before RW	RW PTL Pick & Pass	Race-track	# of Pickers		62	55	Pick Rate	350 UPH	421 UPH 20%	510 UPH 46%	Picker Idle %		17%	0%	Empty Backtrack %		2%	0%	Time to Finish Picks		10.3 Hrs	7.9 Hrs	Total Labor Hours		457	375 21%
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OE Model	Results																												

¿Y en México? ¿Por qué ahora?



1. Volumes > **2% Retail***, **12-16% eCommerce****

- Growing Middle Class
- Mobile & Internet Access (mCommerce)
- Improving Infrastructure
- Foreign Investments
- Amazon
- El Buen Fin, Hot Sale México
- NAFTA (?)

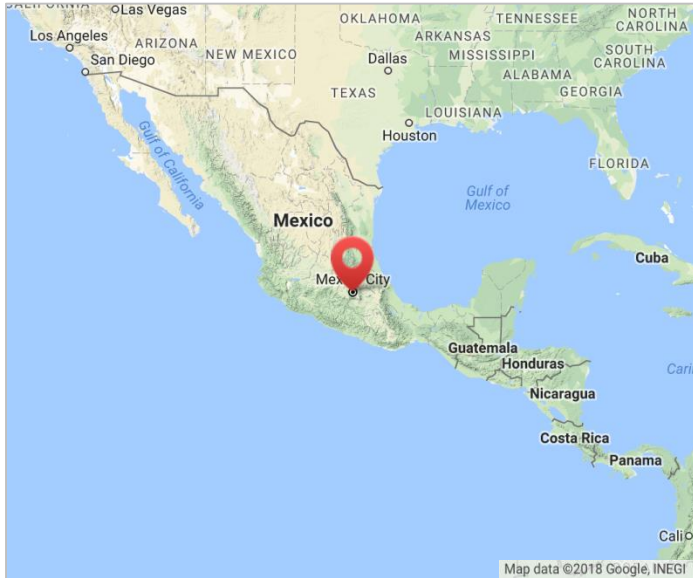
2. Costs

- Growing wages
- Labor availability (competitors, education levels, etc.)
- Labor quality (seasonal, temps, etc.)

* Mexico - Economic Forecasts - 2018-2020 Outlook, by Trading Economics

** Digital Market Outlook, eCommerce in Mexico, by Statista

¿Y en México? ¿Cómo nos ayuda?



1. Become the **leader** in México.
2. Compete **globally**.
3. Enhance your **brand**.

For More Information
Get in Touch



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Visítenos en el stand 1128
para continuar platicando

