Proving The Business Case for Intralogistics

How can fulfillment centres ensure throughput meets demand?

An automated response

- Reduced lead times
- Increased accuracy
- Improved scalability

...and expensive.

A simulation takes all the guesswork out of the planning process – enabling the most accurate calculations and fast results. A digital twin is used as the starting point for a factory or centre-wide digital simulation.

Capture, learn, adapt

Fulfilment centres are already using real-time data to become a more responsive, agile and integrated system.

- Physical
  1. Connected
  2. Capture & record
  3. Analyse & learn
  4. Adjust, learn, optimise

- Digital

Dynamic digital simulations

A digital twin is the digital representation of real-life actions and can be used to analyse the effects of a changed working environment or new technology. Digital twin insights can be used to optimise the warehouse, order picking, and automated storage and retrieval systems.

1. Connected

- Equipment is connected to a cloud-based system, allowing data to be shared across the process.

2. Capture & record

- Data is generated across the distribution centre which can be used for planning, analytics and optimisation.

3. Analyse & learn

- Digitalisation helps to avoid fragmented information and create a virtual map of centre operations, such as equipment, machines, equipment and personnel.

4. Adjust, learn, optimise

- Digital simulations use the same type of sensor information as a digital twin, but the information is validated, for anything from an equipment upgrade to the revision of plannable installations.

To be both scalable and efficient, digitalisation ensures agility and a responsive, agile and integrated system.

Is labour the sustainable answer?

With no time available for training, it’s quite easy to add additional staff to cope with increased demand. However, hiring temporary staff is expensive, especially if an agency is involved.

Paying overtime or offering bonuses might buy compliance but it is likely to add more effort and to hire more people.

To cope with seasonal and peak trends, it may be a default option to add temporary staff, but this would quickly become a drain on budget.

Capture, learn, adapt

 capturing of information.

...while automation and personnel, must be considered.

...range of variables, such as inventory and equipment.

...and expensive.

...the effects of automation, robotics and other new technologies.

...and efficient.

...and predictable.

...and responsive.

...and integrated.

...and effective.

...and adaptive.

...and scalable.

...and flexible.

...and cost-effective.

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