

# ECR

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## Start of Block: DISTRIBUTION NETWORK

The aim of this study is to identify and compare the approaches retail organisations take to assure pick accuracy within their warehouse processes. Using 6 core dimensions it will identify the main factors which impact on pick accuracy to allow the Supply Chain Research Group (SCRG), part of the University of Warwick, and ECR to assess which approaches are more effective. This will provide a benchmark of performance and insights for retailers to help improve pick accuracy performance, hence reducing potential loss of sales in store due to stock inaccuracies.

Participation in this study is entirely voluntary and you can withdraw at any time, without giving a reason, by closing your browser. Please be aware that at the time of submission the data may be indirectly traceable back to you. However as part of the analysis process your data will be input to an aggregated data-set where it will be anonymised (your organisation name will be removed) and will not ultimately be traceable back to you or to your company. As a result, it will not be possible to withdraw your data once it has been submitted.

Your data will be used in anonymised form as benchmark data for the total retail population in Europe. This data will be used to compile a report that ECR will publish. The results will also be used for academic research and the publication of journal papers.

By completing the survey, you are consenting for the data to be used in this research. Warwick University will act as the data controllers for this study. We are committed to protecting the rights of individuals in line with data protection legislation. The University of Warwick will keep the information for 10 years after the study has finished.

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I have read the statement on the reasons for the research and I consent to Warwick University using my data to:-

- Compile a data-set to benchmark performance across the European Retail Network
- To inform a report on pick accuracy, to be published by ECR
- For the purposes of academic research and publication of journal articles



I understand that once I have submitted answers to the survey, I will not be able to withdraw my data from the study

I consent to these limitations on my rights to withdraw from the study

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The survey is in two parts. The first part asks questions about your network AS A WHOLE, the second part asks you to answer on behalf of the LARGEST warehouse within your network that deals with AMBIENT FOOD AND DRINK products.

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Please enter your organisation's name

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Please enter your location

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Please indicate the management level of your current position

- Junior Manager
  - Middle Manager
  - Senior management
  - Executive
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### **General Distribution Network Aspects**

Please provide information on the following aspects of your network for ALL products

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How many Distribution Centres do you have in your network?

- Number of National DCs \_\_\_\_\_
  - Number of Regional DCs \_\_\_\_\_
  - Other \_\_\_\_\_
- 

Please rank the importance of the following strategies for your distribution network

- \_\_\_\_\_ Focus on the costs per case
  - \_\_\_\_\_ Focus on pick accuracy to ensure in-store record accuracy
  - \_\_\_\_\_ Focus on providing timely deliveries to stores
  - \_\_\_\_\_ Focus on employee safety and well being
  - \_\_\_\_\_ Focus on reducing inventory holding
- 

Please confirm the overall pick accuracy performance for the network in 2019 (as a percentage)

\_\_\_\_\_

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How satisfied are you with this performance?

- Extremely satisfied
  - Somewhat satisfied
  - Neither satisfied nor dissatisfied
  - Somewhat dissatisfied
  - Extremely dissatisfied
- 

What was the average spend per case to assure pick accuracy in 2019? (Please also confirm the currency)

\_\_\_\_\_

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Who receives pick accuracy information? Pick all that apply

- Information is used at a local level, within each warehouse
  - Information is reviewed, and acted on, by a central team
  - Information is reviewed by the executive team
- 

What are your aspirations as an organisation for pick accuracy performance?

- Implementing strategies to Improve pick accuracy
  - Ensuring that rates remain stable
  - It's not a focus for the business
- 

The remainder of this survey focuses on the processes and performance of a specific warehouse in your network. Please complete this for the LARGEST warehouse ( i.e. most volume throughput) in your network that deals with AMBIENT FOOD AND DRINK products

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Page Break

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End of Block: DISTRIBUTION NETWORK

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Start of Block: Warehouse Operations

Warehouse Operations - For your LARGEST ambient warehouse

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Please confirm who operates this warehouse

- Company operated
- Third party operated

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Please confirm the distribution type

- National distribution centre
- Regional distribution centre
- Other - please specify \_\_\_\_\_

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Please confirm the AVERAGE figures for the warehouse (for 2019)

- The number of cases picked per week  
\_\_\_\_\_
- The number of different lines or SKUs handled (i.e. the range of products)  
\_\_\_\_\_
- The number of retail stores serviced  
\_\_\_\_\_



Please confirm the AVERAGE percentage split for 2019 for these different types of workers

Permanent workers : \_\_\_\_\_

Agency workers : \_\_\_\_\_

Temporary workers : \_\_\_\_\_

Other - please specify : \_\_\_\_\_

Total : \_\_\_\_\_

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In what format are products delivered by suppliers? Please confirm the percentage split by category

Full pallets of one SKU/line only : \_\_\_\_\_

Part pallets of one SKU/line only : \_\_\_\_\_

Full pallets of mixed SKUs/lines : \_\_\_\_\_

Part pallets of mixed SKUs/lines : \_\_\_\_\_

Total : \_\_\_\_\_

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Which of these storage strategies does the warehouse utilise? (Please pick all that apply)

- Pallets stored near to pick face
  - Similar products located in different pick faces
  - Pick face and products located based on volume and frequency of pick
  - Pick face and products located based on promotion
-

How frequently are SKUs stock checked?

- Every SKU is checked quarterly (using a Perpetual Inventory approach)
  - Every SKU is checked every six months (using a Perpetual Inventory approach)
  - Every SKU is checked yearly (using a Perpetual Inventory approach)
  - SKUs are checked annually as part of a wall-to-wall check
  - SKUs are checked as and when issues with accuracy are found
  - Other - please specify \_\_\_\_\_
- 

What order picking strategy is used?

- Discrete order picking
  - Cluster picking
  - Batch picking
  - Zone picking
  - Wave picking
- 

What is the main picking method?

- Pick by line
  - Pick by store
-

For both picking methods, what handling method do you use?

- Pick into SINGLE roll cages
  - Pick into MULTIPLE roll cages
  - Pick onto SINGLE pallets
  - Pick onto MULTIPLE pallets
  - Other - please specify \_\_\_\_\_
- 

How are operator/associate/colleagues undertaking picking activities targeted?

- On productivity (speed of pick) only
  - On productivity AND pick accuracy
  - Other, please specify \_\_\_\_\_
- 

Please indicate the strategy used when the picker identifies a shortage (i.e. where there isn't enough stock to fulfil the ordered quantity)

- Operator logs shortage on system and moves onto next pick location
  - Operator requested to return to pick face at end of pick cycle to pick outstanding stock (after it has been replenished)
  - Supervisor/controller investigates shortages before the order is despatched to store and corrects the shortage where possible
  - Other - please specify \_\_\_\_\_
-



Is pick accuracy verified at the point of pick? ( e.g. a check by the picker)

Yes

No

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If Yes, please state how

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End of Block: Warehouse Operations

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Start of Block: Technology

Technology

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For the focus distribution centre, please indicate which technologies are in use (pick all that apply)

- Manual receipt
  - Automatic receiving including weight check
  - Automatic breakdown of pallet
  - Automatic handling system for put-away of pallet/case
  - Automatic replenishment of pick face
  - Manual put-away (using material handling equipment)
  - Manual replenishment of pick face (using material handling equipment)
-

Please select the following options to best describe the picking technology used (pick all that apply)

- Paper pick lists
  - Pick by label
  - Pick by voice
  - Barcode scanning
  - RFID
  - Pick to light
  - Put to light
  - Vision picking
- 

Do you use a warehouse management system to generate pick lists?

- Yes
  - No
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Are you able to track real-time pick accuracy rates?

- Yes
- No

**End of Block: Technology**

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**Start of Block: People**

People

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Please indicate the typical turnover of your operators/associates during the last 3 years

- < 2%
  - 2%
  - 5% < 10%
  - 10% < 20%
  - >20%
- 

Which of these are applicable (tick all that apply)?

- All the new staff are given an induction
  - All the new staff are given off-line training on key processes
  - All new staff are paired with experience staff for a period before being allowed to undertake processes on their own
  - All staff are given re-fresher training at periodic intervals
  - Staff are given re-fresher training based on their performance
-

Which of these statements are applicable (choose ONE option)?

- Staff are not given bonuses at all
  - Staff are given a bonus based on meeting productivity targets alone
  - Staff are given a bonus based on meeting productivity and pick accuracy targets combined
  - Click to write Choice 5
  - Staff are given a bonus on other criteria, please specify
- 

Please choose which of these statements are applicable (pick ALL that apply):

- Staff have feedback of their individual productivity performance at end of the shift/day
- Staff have feedback of their individual pick accuracy performance at the end of the shift/day
- Staff have real-time visual feedback of their individual productivity performance
- Staff have real-time, visual feedback of their individual pick accuracy performance
- Staff do not have feedback on their individual productivity performance
- Staff do not have feedback on their individual pick accuracy performance

End of Block: People

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Start of Block: Auditing for pick-accuracy

Auditing for pick-accuracy

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Who is responsible for undertaking the audit to check pick accuracy?

- Internal warehouse team
  - Internal central team
  - External contractor
  - Other \_\_\_\_\_
- 

What was the AVERAGE percentage of cases/ boxes audited per week in 2019?

\_\_\_\_\_

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On what basis was this sample size calculated or chosen? (Please choose ONE answer only)

- Based on resources available for auditing
  - Based on statistical sample size
  - Based on management discretion and experience
  - Based on bench-marked best practice
  - Based on accepted strategy for the organisation
  - Not known
-

How are batches chosen for audit? Please tick all that apply

- Randomly, generated by the system
  - Randomly, picked by auditor
  - Based on pre-generated audit list
  - Targeted, based on known problems in a particular store
  - Ensuring that each store has had an order audited on a frequent basis
- 

How is the audit carried out?

- The auditor manually counts products and cases against a list
  - The auditor scans each case and checks each against a visible list
  - The auditor scans each case while the system automatically compiles the results
  - Other - please specify
- 

Are the types of errors logged?

- Yes
  - No
- 

If Y, rank the following errors in order of occurrence?

- \_\_\_\_\_ Over-pick (too many cases picked)
- \_\_\_\_\_ Under-pick (shortages)
- \_\_\_\_\_ Consolidation errors ( the correct quantity of cases picked put placed in wrong cage/pallet)
- \_\_\_\_\_ Barcode error
- \_\_\_\_\_ Incorrect product picked

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Where picking errors have been identified, what actions are taken? (Please pick ALL that apply)

- Pick errors are not corrected and there is no feedback to supervisors or operators
  - Pick errors are not corrected but feedback is given to supervisors and management at the end of the shift/day
  - Operators are informed within the shift and pick errors are corrected before shipments go out
  - Pick errors are not corrected but operators are informed as part of a performance management programme
  - Other - please specify \_\_\_\_\_
- 

Is there a direct mechanism to compensate stores for losses?

- Yes
  - No
- 

If Yes, please indicate the rate of compensation to stores as a % of sales

- 
- 0.05%
- 0.1% < 0.5%
- 0.5 % < 1%
- >1 % - please specify \_\_\_\_\_

**End of Block: Auditing for pick-accuracy**

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**Start of Block: Continuous Improvement**

## Continuous Improvement

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Do you have a formal continuous improvement programme or team in place?

- Yes
  - No
- 

Who is involved in the CI programme? Pick all that apply

- A specialist, central CI team
  - A specialist, local CI team (e.g. based within the warehouse)
  - The warehouse management team
  - The warehouse supervision team
  - The operators/associates
- 

How are pick errors investigated?

- Root causes of errors tend not to be investigated
  - Root causes of issues are investigated periodically by a specialist team
  - Root causes are investigated by the supervision team as and when errors occur
  - Root causes are investigated by the supervision team and operators as and when errors occur
-



How effective has the CI process been in removing root causes of pick errors?

- Not effective at all
- Slightly effective
- Moderately effective
- Very effective
- Extremely effective

End of Block: Continuous Improvement

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Start of Block: Metrics

Metrics

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Please choose the option which matches pick accuracy is measured

- The number of CORRECT order lines / the total number of order lines checked
  - The number of WRONG order lines / the total number of order lines checked
  - The number of CORRECT cases (boxes) / the total number of cases (boxes) checked
  - The number of WRONG cases (boxes) / the total number of cases (boxes) checked
  - Other - please specify \_\_\_\_\_
- 

What was the AVERAGE percentage of pick accuracy for the focus warehouse in 2019?

\_\_\_\_\_

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What was the target?

\_\_\_\_\_

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What was the GROSS difference in stock accuracy for 2019 as a % of cases despatched (i.e. the overall stock adjustment both positive and negative within the year)

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How do you rate this warehouse's performance for pick accuracy?

- Excellent
- Good
- Average
- Poor
- Terrible

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What is important in your warehouse in terms of performance measurement? Pick all that apply

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Time

- Order lead time
- Receiving time
- Order picking time
- Delivery lead time

## Quality

- On-time delivery
  - Customer satisfaction
  - Order fill rate
  - Physical inventory accuracy
  - Picking accuracy
  - Perfect orders
- 

## Cost

- Inventory cost
  - Order processing cost
  - Costs/ hour or costs/ case
  - Labour cost
- 

## Productivity

- Labour productivity
  - Throughput
  - Picking productivity
-

## Safety

- Number of accidents
  - Number of near misses
  - Mean time between reported accidents
- 

## People

- Staff absenteeism
- Staff turnover
- Staff engagement
- Staff training

**End of Block: Metrics**

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