

**NEW  
REPORT**

# ROBOTS REPORT 2018

## ResearchFARM

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Key questions  
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**The intersection of  
technology innovations  
and food retail evolution**

*Robots, drones, self driving cars, IOT*

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## INTRODUCTION: THE INTERSECTION OF TECHNOLOGY INNOVATIONS AND FOOD RETAIL EVOLUTION

According to Amazon robotics is key and the only vehicle to future expansion, as growth will remain at breakneck speed and there is simply not enough human labour available.

But with the rise of robotics there will be a concomitant rise in complexity and a host of other problematic issues.

There are a number of other technology disruptions that will change our retail future in coming years beyond recognition. This will range from AI and machine learning to drones to IOT/Voice and other profiled technologies.

With the vibrant pace at which technology is developing, technology companies, retailers, brand manufacturers, service providers and startups are being forced to adapt and explore new avenues in order to stay relevant with consumers.

This report offers a 360 degree view of how future retailing will take shape, how consumer behaviour will evolve and what the shopper journey of the future will look like.



## FEATURES

- A comprehensive guide into technology trends of the future
- Extensive analysis on some of the most innovative and disruptive technologies developed by established and upcoming companies
- Impact and predictions of how every significant technological development will impact consumers, ranges, operations and the sector as a whole
- Extensive, step by step, and actionable recommendations of how retailers should react





## BENEFITS

- Understand how the technologies featured will change the behaviours of both retailers and consumers
- Become aware of the latest projects from the established tech giants like Amazon, powerhouse retailers as well as the disruptive technologies developed by startups.
- Gain insights into the opportunities and dangers posed by innovative technology, how shopper behaviour will change and how to respond to remain relevant with consumers.
- Get a clear picture of how retailing will look like in future and stay a step ahead of the competition



## KEY QUESTIONS ANSWERED 1/2

- Which breakout innovations will make their way felt in grocery retailing in 2018?
- What will be the impact of the described trends be on consumers, ranges, operations and the sector as a whole?

### Robots:

- Will robots become even more of a feature in the back end or will they finally also have their moment in customer facing environments (as they already do in Japan)?
- Are they the only solution to the problems of QC and to increased personalisation and customisation?
- Which online DC automation system promises more success? Will it be Amazon's based on kiva or Ocado/Swisslog's? What are the Amazon stats? What are Ocado's?
- As urban car parks become vacant will online grocery mini DCs move in and serve the trend to ultra convenience?
- What are the average cost implications and benefits of robotics – what are the limitations?


### Stores:

- What will the stores of the future look like? Is it all about Amazon Go and eradicating barriers to payment?
- Will the boom in urban roof top farming/hydroponics continue, with its significant implications for logistics and freshness?
- 

### Logistics:

- How will retailers and logistics companies tackle last mile and first mile problems in future? Will it all be about robot deliveries and driverless cars?

**Inbound logistics/order picking**



reduce waste, inefficiency/inaccuracy, reduce op costs, improve quality, better customer experience

control of stock, enables tighter delivery slots, better predictability

100 items picked by humans -> 3-4 hours, robot -> 30 min, new AMZ. warehouses designed to peak with 1m units per day, robotics is key, only vehicle to future expansion

## KEY QUESTIONS ANSWERED 2/2

- Will drones be used in rural settings and delivery robots about urban areas? How many companies will share access to these robots?
- When will deliveries to smartphone locations become widespread (transposing the Uber principle to goods delivery)? Does the first mover really need either a clear luxury USP or grocery ranges?
- Will drones be used between warehouses and in warehouses rather than in residential areas? Will drones work in combination with click & collect stations?
- How will Amazon drive the drone developments forward?

### Loyalty/chatbots/AI/Voice:

- What is the future of loyalty? How can retailers move away from assessing shopping behaviour at the transaction stage to the vital emotional need states before? How can they gain deeper insights into consumers' minds, feelings, motivations and what they love? How can they generate true loyalty?
- Will 2018 see the transformation of loyalty programmes due to IOT and voice?
- How far are Alexa and Co from holding a proper conversations, how much longer for improvements in machine learning and AI to create a step change in chatbots evolution?
- What role will artificial intelligence and sentient technology play? How will social media based loyalty programmes develop? Where will they fall short?



## COMPANIES FEATURED

Airbus, Amazon, Asda, Balyo, Best Buy, Carrefour, Ceconomy, Coop Italia, City Farm Systems, DHL, Fetch, Ford, Google, Inditex, JD.com, Just Eat, Lidl, Lowe, Lyft, Mercedes Benz, Mitsukoshi, Monoprix, Nestlé, Nissan, Ocado, Panasonic, Scallog, SCNF, Sentiance, SingPost, Skyworks Singapore, Spotify, Softbank, Starbucks, Starship Robots, Stockbot, Tally, Target, Tesco, Tory, Toyota, Uber, Volkswagen, Volvo, Walmart

## TECHNOLOGIES COVERED

AI, Alexa, assistance systems, click & collect towers, dash technology, electrification, drones, internet of things, kiva, platooning, machine learning, MHE, robotics, RFID, sentient devices, sensor fusion, self driving cars





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