



# Redefining fulfilment

As Ocado unveils its first international tech and logistics deal, **Luke Tugby** looks at how it is revolutionising grocery fulfilment



Ocado's Andover fulfilment centre is home to its state-of-the-art 'chessboard'

**A**ndover is a suburban town in Hampshire with a population of around 65,000 – a world away from the tech hubs of Silicon Valley, New York and London. But it is there that Ocado is aiming to redefine grocery fulfilment.

The retailer's third customer fulfilment centre is the first to feature the well-guarded Ocado Smart Platform (OSP) – the technology it plans to sell to retailers around the world.

Eighteen months after its initial self-imposed deadline elapsed, it has struck a deal to provide its online grocery "know-how and support services" to an unnamed European retailer.

The partnership was hailed as a vindication of Ocado's strategy and persistence, three-and-a-half years after it started working on the smart platform that will also be used in its fourth warehouse in Erith, south east London, opening next year.

## A chessboard of technology

Speaking to Retail Week prior to the unveiling of the overseas tie-up, Ocado chief technology officer Paul Clarke said the retailer's newest machinery is miles apart from the conveyor belt in its Hatfield and Dordon distribution centres.

"Imagine a chessboard," Clarke said. "On that chessboard you've got rooks – in fact, they are robots – that can travel in the X direction or the Y direction.

"It's like a three-dimensional cube, where the robots roam around on top of the chessboard and under every square of the board is a stack of totes [containing groceries], which they can pick up and move.

"The robots can bring the totes to machines situated at the side of the grid, which might

be a picking station that allows a human, or in future a robot, to pick groceries out of the bin and place them into a customer order."

Sound complicated? Try factoring in that the two chessboards in Andover are each the size of a football pitch, while its 'big sister' centre in Erith, where Morrisons will take space as part of its extended deal with Ocado, will have grids the size of three football pitches.

Then consider that the robots travelling at four metres per second are "spoken to" 10 times every second by a communication system.

Clarke likened the software to a "machine-learning-based air-traffic control system" that choreographs the most efficient routes, ensures the robots don't collide and optimises storage.

## Game-changer

While Morrisons will take space in Erith, Ocado's new European partner has opted, initially at least, to fulfil online orders from a manually operated warehouse.

Clarke insisted the OSP is a "game-changer" but suggested, prior to the unveiling of its maiden deal, that partners would not necessarily need to instantly build automated warehouses.

## Taking over the world would be a very, very long-haul opportunity

**George Mensah, Shore Capital**

"Scalability is important," Clarke explained. "It made sense for us to build the warehouse in Dordon – £230m [cost] for £1bn of sales capacity.

"In other countries where online grocery is still getting off the ground, where we plan to sell OSP, that is a big spend all in one go.

"You can build a warehouse, put in one or two grids, and start by only using a part of it. As your sales grow, you just add more."

## Grand ambitions

But will Clarke's ambition to "pepper the planet" with such automated warehouses for Ocado's OSP customers come to fruition?

JP Morgan analyst Borja Olcese believes the retailer is "a step ahead of its competition". He adds: "We believe the company is on track as it continues to improve the marginal economics of every new warehouse."

Shore Capital analyst George Mensah remains sceptical. "Clearly there is a strong software capability, but how many deals can they achieve and at what scale?" he asks.

Mensah believes the US may prove the most receptive market to Ocado's automated warehouse proposition, given the recent rise of software providers like Instacart. However, Amazon could pose a threat.

"Amazon are at the cutting edge of data provision and distribution – and they have the scale to worry Ocado," he says.

"Taking over the world would be a very, very long-haul opportunity. Ocado needs to prove that the economics of OSP are very sound."

Ocado may be redefining fulfilment in the UK, but after 15 tough years in its domestic market, it may face a similar slog to secure the multiple partners it craves. **RW**