

# Where next?



AS THE GROWTH OF E-COMMERCE CONTINUES TO RESHAPE THE RETAIL LANDSCAPE, **MARTIN ELLIOTT**, PRESIDENT OF AMHSA, LOOKS AT CONSUMER BUYING TRENDS AND THEIR IMPLICATIONS FOR THE LOGISTICS SECTOR.

Amazon offered a prize to the team that built the robot able to pick the highest number of orders – the winners designed a robot that successfully picked just 10 items



The rise of e-tail seems to be unstoppable. According to the Office for National Statistics,

online sales in March 2016 grew by almost 9%, despite the fact that overall retail spending fell by 0.1% on a year earlier, and by 1.3% on the previous month.

These figures make the recent trend report from DHL entitled 'Robotics in Logistics' even more interesting to read; the research predicts that – in the face of reductions in the available workforce due to falling population levels in the Western world – robots will increasingly be seen as the answer to the more labour-intensive warehouse operations typical in online retail.

E-commerce needs more labour per item sold than bricks-and-mortar retail due to the need to pick and pack individual customer orders rather than shipping goods in bulk for store replenishment. Automation can help to plug the labour hole, it is argued, through robotics that support or replace warehouse workers to increase productivity.

#### ADVANCES IN ENABLING TECHNOLOGIES

The DHL research team found that some 80% of warehouses are manually operated currently, while some 15% are mechanised to some degree with materials handling automation such as conveyors, goods-to-person order picking systems and sortation equipment. Only 5% of warehouses today are automated and even these are, in truth, highly mechanised environments that still employ personnel in key functions.

The report predicts that robots will increasingly be used in the logistics field for stationary picking (goods-to-robot), mobile picking (robot-to-goods), value-added activities, packing and home delivery. Due to some key advances in the enabling technologies for robotics – including low-cost sensors that have been developed for consumer electronics such as smartphones and video gaming, big data analytics, improved batteries and cloud computing – the cost of robotic automation has fallen dramatically and therefore the ROI equation is tipping the



balance in favour of investment.

#### FREE AMHSA SEMINAR

The role of robotics in logistics for the retail sector is one of the topics that will be debated at AMHSA's forthcoming seminar entitled 'Implications of the ever-changing retail world for materials handling'. Hosted by AMHSA member Craemer UK at its Telford headquarters on Thursday 9th June, this workshop is free to attend for anyone considering investing in automated handling systems.

After refreshments and tours of Craemer's factory from 9.15am, I will kick off at the podium with a brief review of the 'mega trends' in automated materials handling over the past few decades and an overview of the systems that are currently state-of-the-art. After this, Steve Baker of Gebhardt and Frederik Rickel of Craemer will bring delegates up to speed with the latest technologies for totes and pallets respectively, illustrating their presentations with case studies from the automotive seating and electrical system supplier, Lear, and the chocolate snacks manufacturer, Ritter Sport.

Then our keynote speaker will be an expert from the field of retail logistics who will outline the trends in consumer buying and consider their implications for retailers and automation suppliers. After a buffet lunch, a representative of AMHSA will address the vexed question of Black Friday: whether or not this pre-Christmas shopping spike has become a permanent feature of the UK retail calendar and how the flexibility of automated systems can be deployed to respond to such demand peaks.

Following a Q&A session in which delegates will have the opportunity to ask questions of AMHSA's panel of experts, the workshop will close around 3pm. I do hope that you will be able to join us – please visit the AMHSA website for final details of speakers and to register for this informative and free event.

#### PACE OF CHANGE

If you read through the DHL 'Robotics in Logistics' report, you might think that we are almost there in terms of making robotics in logistics a reality. After all, there are trials underway for ground-based 'last-mile' robots from Starship Technologies, collaborative robots ('cobots') such as Baxter from Rethink Robotics that are proving ideal for stationary handling operations, and even mobile robots appearing, such as those from start-up company Fetch Robotics.

However, the robotic challenge set by Amazon last year demonstrated just how much work is still to be done. The online retailer offered a \$20,000 prize to the team that built the robot able to pick the highest number of different items from the shelves Amazon uses in its warehouses. The winners – researchers from the Technical University of Berlin – designed a robot that successfully picked just 10 items.

What must be remembered, though, is that with the pace of change that is underway in the field of robotics, even the significant amount of ground still to be covered to make robots commonplace in UK warehouses may be achieved surprisingly quickly. ■

