

A SMARTER APPROACH TO SAFETY IN THE HIGH-TECH WAREHOUSE

AN INDUSTRY DEBATE HOSTED BY
LINDE MATERIAL HANDLING



INTRODUCTION

Safety considerations have always been uppermost in warehouses, particularly in the way forklift trucks are operated. Advanced technology in the form of vehicle design has succeeded in limiting the risks involved in lifting and moving bulky and heavy loads and automation is reducing human involvement in many warehousing locations.

But how might these developments affect human behaviours and attitudes to safety? Can technological innovation alone eliminate risk to humans?

Linde Material Handling brought together leading industry figures and experts in the sector to debate these and other issues around safe working in intralogistics environments.

The discussion, hosted by former BBC producer Dave Harries, explored what logistics providers and customers are doing to enhance safety and how they might plan for a shared human/automated working environment.



WITH THANKS TO OUR PANEL



Clare Bottle,
Chief Executive of
the UK Warehousing
Association.



Gavin Carslake,
Fleet Management &
Safety Sales Manager UK
& Ireland, Linde Material
Handling (UK).



Ian Harbour,
Associate Director,
Coca-Cola European
Partners.



Laura Nelson
Managing Director,
RTITB.



Dave Robertson,
Occupational Health &
Safety Manager,
Coca-Cola Europacific
Partners



Kenny Watson,
Senior Manager,
Intralogistics Sales,
Linde Material Handling
(UK)



PEOPLE EXPECT TO BE SAFE IN THE WORKPLACE

“To win the war for talent, companies are having to continue investing in safety,” – Clare Bottle.

Safety concerns in warehouses can be bracketed in three categories – falls, fires and forklifts – with flooding as an additional property-related risk, according to Clare Bottle.

She elaborated: “In terms of falls we have to think about the risks of people hurting themselves, goods falling or, in the worst case scenario, something like a racking collapse.”

But safety around forklifts has become a complex subject with the introduction of automated trucks with their own built-in safety features. The drive towards greater automation has been accelerated as logistics companies struggle to fill gaps in warehouse staffing.

Asked why industry investment in safety technology appeared to be holding up despite economic pressures, Clare had a straightforward explanation.

She said: “If you go back five or six years, some 32 per cent of forklift drivers were EU nationals. We’ve seen a decline in their numbers and that’s led to labour shortages and a ‘war for talent’.

“People expect to be safe in the workplace. That’s a fair expectation, so to win the ‘war for talent’ companies are having to continue investing in safety. Otherwise people will not want to work for them.”



SAFE LOGISTICS DEMANDS INNOVATIVE SOLUTIONS

“Historically, requests for safety solutions were unfortunately in response to an incident that had already occurred. More reassuringly, we are now starting to see customers taking a more proactive approach,” – Gavin Carslake

Gavin explained how Linde Material Handling’s vision is for zero accidents in the workplace.

“The focus has always been to mitigate the risks both of operator error and between machinery and personal interaction,” he said.

Solutions being offered range from the simple but effective seatbelt interlock and safety lighting to more advanced driver assistance solutions such as Linde Safety Guard. It uses ultra-wideband technology, operating beyond direct line of sight to offer pedestrian detection, truck-to-truck, speed zoning and truck-to-infrastructure.

“But safety products are not the only answer,” said Gavin. “Starting with a positive safety culture and building on that with preventative measures really demonstrates that safety is being taken seriously.

“Historically, customer requests for safety solutions were unfortunately in response to an incident that had already occurred. More reassuringly, we are starting to see customers taking a more proactive approach.”

His colleague, Kenny Watson, stressed that safety on automated trucks was critical to the success of operations and the integrity of the technology itself.

Where automated vehicles are being integrated into existing facilities, a risk assessment on that environment identifies the safety devices required to enable them to co-exist alongside people and other processes.

He explained: “The trucks themselves are all designed according to the European Machinery Directive for Unmanned Vehicles, with systems designed to anticipate, slow down or stop when coming across an obstacle.

“Automation won’t be a cure-all, though. There are some things that it will do really well, such as in environments where there is very little value-added other than the transport. A lot of organisations can’t find the headcount these days, so automation is really being used to close some of those gaps.

“Could I see a fully automated warehouse? I don’t think so because it still requires humans to do the things that humans are really good at.”



ERROR IS NORMAL. BLAME FIXES NOTHING

“Safety culture has to be driven from the top and that culture doesn’t stand still. It’s always evolving and you have to work hard at it,” – Dave Robertson

Building a safety culture at all levels is a journey that Coca-Cola embarked on some time ago. Dave Robertson describes it simply as: “allowing people to come to work to do a great job safely.”

Vehicles, pedestrians and loading bays and how they interact with forklift trucks are areas which have undergone significant changes in recent years, mostly through task-based risk assessments and improvements by front-line teams.

Dave explains: “We used to see a lot of injuries in our loading bays when drivers were required to open and close trailer curtains. One of our operators had an idea: why don’t we wear cricket helmets? They became almost mandatory as PPE and we’ve never had an injury since.

“We’ve also standardised our loading bays so that for visiting drivers, everything looks the same, including the safety culture and rules. We’ve also had requests for viewing panels through the cladding along the loading bays so that pedestrians can check if forklifts are present.”

The safety culture is constantly evolving, embracing Life Savers road shows around the country and a programme around Human Organisation Performance training, focusing on creating safe space for employees to speak up about situations which can lead to errors.

Dave added: “There are five principles: recognising that error is normal; ‘blame fixes nothing’; context drives behaviour; how we as leaders respond to behavioural matters; and learning and improving.

“Safety culture has to be driven from the top and that culture doesn’t stand still. It’s always evolving and you have to work hard at it.”



COACHING A CHANGE IN MINDSET AMONG LEADERS

“We’re actively developing a safer environment where the culture is more open, more about honesty with our workforce,” – Ian Harbour

Ian Harbour said Coca-Cola’s focus was on coaching the leaders in the business, having realised that the challenge was more with them than with forklift drivers and other operatives.

Traditionally, after conducting a safety investigation, managers would blame the driver rather than recognising that everyone can make mistakes.

Ian outlined a very different approach now being pursued at Coca-Cola: “We are coaching our leaders to judge how big an error was involved, how frequently did such errors occur and then to engage with the workforce to understand why it happened and how we could prevent it, rather than jumping into a blame culture.”

That new safety culture is already having a positive impact on morale and the company’s reputation.

Ian added: “Minor incidents are being reported more freely, more frequently, showing that the workforce are not so scared of the consequences. We are still in the early phases of this on some sites but we are seeing a far bigger increase in quality conversations and information from the workforce.

“We’re actively developing a safer environment where the culture is more open, more about honesty with our workforce. It’s still early but we are very encouraged by the signs we are seeing.”

Ian reiterated that the biggest challenge was around human behaviour, posing the key question: “How does senior leadership commit the time, the effort and the energy to coach frontline managers to make a difference and to listen to the workforce more.”



COMPLACENCY AROUND AUTOMATION CAN PUT SAFETY AT RISK

“We need a whole-industry commitment, from the largest companies to the SMEs, that safety is as important as operations,” – Laura Nelson

Laura Nelson warned against complacency and a presumption that if a warehouse function was automated then there was no need for specific product training.

“That’s something we’ve got to overcome because it’s not the case at all,” she said. “What needs to be considered when looking at project cost and investment is what training is needed to deliver it successfully and safely.”

Laura was addressing a fundamental question around automation. What are the extra demands and complexities associated with training people to work safely in automated or even autonomous warehouses?

She first highlighted the generational challenge around workers whose attitudes to technology were shaped by their age.

“An older generation might be suspicious of technology, thinking: ‘We’ve done without it. Why do we need it? Why do we have to do this?’ At the other end of the spectrum you have a generation which have grown up with technology and are very comfortable with it. The risk there is over-confidence and doing things which lead to an unsafe action.”

But machines and autonomous systems can sometimes go wrong, so guarding against such complacency will require a real change in attitude in terms of logistics training.

Laura added: “What we need to do now is look more at human factors and how to apply that knowledge. That’s a real switch of focus to application of knowledge and behaviour.

“We are in the infancy of automation but it’s gathering pace and we are certainly learning fast. We need a whole-industry commitment, from the largest companies to the SMEs, that safety is as important as operations.”



A SHARED COMMITMENT TO COLLABORATION

“It’s very much a collaborative process between Linde Material Handling and customers, developing the working environment to enable the safest and most productive use of the technology,” – Kenny Watson

Collaboration was a common theme among the panellists, reflecting a shared commitment to develop and test ideas and products between customers, suppliers, workforces, training providers and logistics industry experts.

For Kenny Watson, it’s fundamental to his role at Linde MH, helping customers to plan their investments in automation.

“It’s very much a collaborative process between Linde MH and customers, developing the working environment to enable the safest and most productive use of the technology,” he said.

From his perspective in Safety Sales, Gavin Carslake added: “The evolution of many of our safety products is in response to direct feedback from customers. We hold regular safety round-table meetings, with results fed back to the factory to enhance new products.”

Collaboration comes at many levels for Ian Harbour at Coca-Cola: “It’s about working with a supplier like Linde MH with whom we’ve completed a number of successful trials. It’s also with the people who are using the machines, and the same with the union reps and the health and safety rep. The people who drive the machines day in and day out, they’re the ones who tell us what’s successful and works well and how to tweak things to make them safer.”

Laura Nelson and her colleagues at RTITB are part of that dialogue too, as she explained: “We’ve collaborated with Coca-Cola, producing a training course for an automated storage retrieval system. That brought in knowledge from our business, from the operators of the system, people who had been delivering training on it, and the manufacturer.

“The people interacting with the system daily generally have the most insight to deal with the challenges when things don’t go as expected. ”

Clare Bottle endorsed all that has been said about collaboration while making a different point: “You can’t legislate to make people collaborate so regulation is not going to be the be-all and end-all and how we are going to solve safety issues in our sector.

“On safety itself, the regulatory environment is probably where it needs to be but there are bigger questions which regulators ought to attend to, such as the rise in digitalisation. Keeping people safe means keeping information about them safe as well.”

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