

Best Use of Technology Award

Safe and secure

Palletforce has used an innovative approach to an old problem to boost efficiency and – crucially – improve safety across its network

The pallet networks have grappled with the demands of servicing an ever-increasing volume of palletised freight heading to domestic and other locations outside the traditional B2B environment in recent years.

This ever-present and unresolved safety issue was spelt out in stark terms when driver Petru Pop was crushed to death by a 1.4-tonne pallet of tiles in November 2016. He was making a tail-lift delivery to a residential address in High Wycombe, Bucks, when the incident occurred.

The HSE's reticence to mandate a maximum weight limit for tail-lift deliveries this year despite qualified industry support – described by many as a fudge, albeit not totally unexpected – has left pallet networks acting unilaterally to address the risk to employees, especially drivers.

With the pallet network sector continuing to expand year-on-year despite its relative maturity, Palletforce triumphed in this year's MT Best Use of Technology category by taking steps to boost both efficiency at its central hub in Burton upon Trent, and overall safety across its network.

Super Forklift Trucks

It combined this, as one of the judges put it, in a move that "drives benefit through the entire business" with the seemingly simple desire to develop to the next level its ability to weigh pallets during nightly sorting at the hub while speeding up the process.

It recruited Positive Weighing Solutions (PWS) to develop what it has dubbed Super Forklift Trucks (SFTs), featuring the latest in weighing technology. PWS was chosen for the project by Palletforce IT director Dean Hughes to create a system that could be developed



further as required. The network also brought in resources to develop bespoke software as part of the 18-month project. This was developed by the same brains behind its main Alliance network system – Palletforce has for a long time now kept its IT in-house rather buying off the shelf as it sees it as a key differentiator within the ultra-competitive sector.

The resulting state-of-the-art imaging and scanning software fitted to the 77 predominantly LNG Toyota forklifts along with the physical kit allows each pallet to be captured, scanned and weighed instantly as it is loaded and unloaded to and from trailers.

Although MT has covered other approaches to weight management across the pallet network sector, Palletforce claims it is the only one capable of weighing every pallet that passes through its hub, essentially in real time. "This system provides accurate weights enabling safer loading of vehicles and safer handling of pallets on delivery," it said in its awards statement.

Palletforce CEO Michael Conroy provided more detail to MT when we met up. "The really

clever thing, and hence why we patented it, is that when you tell people about it they think forklift scale and scanner, so what? But it's the application of how it works together that sets it apart," he said.

Palletforce said its members now know the exact weight of their loaded vehicle and do not have to rely on customer manifests, which are often inaccurate. The SFTs also flag up pallets of more than 1,000kg so extra precautions can be taken.

"The benefits to Palletforce in the centre is that we know what we are handling per pallet. It makes it easier for a forklift truck driver, ensures no rollovers, and in the centre it has shaved off 15 minutes in and out time [to the hub], which is huge."

"Then the information goes back to the sender member and they have an accurate profile of the freight to speak to their customer about, to say if they are either under or over-declaring. Then it's up to them how they manage it commercially, but there's an opportunity for them to do so."



SAFE HANDS: Greg Ward, Bridgestone commercial sales director UK & Ireland, fourth right, presents the trophy to the Palletforce team led by sales and marketing director Dave Hollis third right

"On the outbound side the delivering member knows exactly what they've got to do," he added. "As soon as we scan a pallet it [the information] is available to everyone."

Conroy said that while there are challenges with any project involving multiple partners, as Palletforce wasn't starting from scratch the project – costed at £1.3m for the kit and software development – moved at pace and has been in place and delivering results since June 2017.

"It sounds dumb [in the smartphone sense] but it's not, it's a live, living system. It has a control unit on it [the forklift]. It is what the driver sees via a screen and it tells them instantly the weight, where it is going, and what deck it should be on. If it's 500kg but declared as 250kg it will say 'don't put it on the top deck,'" said Conroy.

"One of the things we have focused on is accurate manifesting and good loading. Because if you get it right at the beginning before you handle it several times, guess what? There's a chance it'll get there in the condition the customer wants to get it in," Conroy said.

Weighing things up

Palletforce does not have a maximum pallet weight limit for deliveries, and told MT that with the average pallet passing through its hub weighing 450kg, it is in a strong position with the new technology to responsibly manage this aspect regardless.

"It's not just weight that's the issue. It's bad manifesting and bad presentation, too. You can't eliminate risk, you can only de-risk things, which is what we've done," he said. "No one goes to work not to come home. So it's safety first in everything we do. Yes, we abide by the rules and regulations, but then we've asked ourselves how can we do things better? How can we make things safer? How do we reduce risk while supporting members?"

"This sector is moving approximately 26 million pallets through eight networks, that's



got to be approximately 500 forklift drivers per night and 2,500 vehicle movements. That's a high-risk environment and I defy anyone to say it's not. So you have to be on top of your game every night," Conroy said.

It is synonymous with the individual culture at the business too, which is enthusiastically espoused by Conroy. "Why do something if you don't make it better? Everything we have we have made better. I'm a big believer in tightening every nut and bolt half an inch. It makes a big difference."

It appears to have paid off. Palletforce has seen its membership bloom to 98 hauliers across 116 depots and with the opening of its enlarged hub facility a year ago, which can handle 30,000 pallets a night, the improved efficiency delivered by the SFTs and improved information is an essential part of the business's orange toolkit.

"We haven't finished yet. We want to do more and we will keep going. But I think the whole sector has upped its game," Conroy added.

With the Best Use of Technology triumph the network has reaped the benefits of its long-term planning, with more to come. "Everything has come to fruition, but it doesn't happen overnight," Conroy said. ■

GO TEAM

"This has been a big team project. It's about using technology to do something, and on the back of that, that then kicked into the network. All of the benefits went all the way through," said CEO Michael Conroy.

But, he added, some people had been key to its success, including unsung heroes such as Steve Davis and Mark Wilcox, the night manager and assistant. "They love this as they have seen the benefits."

"Other key people on the project were Dean [Hughes] and team; Kate Lovatt; J Duncan; Mark Tapper; the night team that run the business that never get any credit."

"They've been delighted with receiving the recognition of the award. It's a great morale booster. The team around us get real buzz from it and they all smile when they walk past the award," said Conroy.

PALLET SELFIE

Not one to rest on its laurels, Palletforce has introduced a new functionality to its forklift trucks, which – how could it not in this day and age – has been dubbed "pallet selfie".

Using scanning and imaging software fitted to the forklifts, an image of each pallet is automatically taken during the handling process to allow members at customers alike to see the condition throughout. Palletforce has claimed this function makes it the only pallet network able to weigh, photograph and scan every pallet it handles in this way building on its MT Awards success.

Palletforce IT director Dean Hughes said: "We made a commitment to our members that we would invest in technology and systems to lead the industry, and the introduction of the pallet selfie is another move that keeps us at the forefront of the competition."

"The market is hugely competitive and that's why Palletforce continues to invest in infrastructure and technology."

"Our members' customers already benefit from unrivalled tracking and tracing of their goods and now they will be the only pallet network customers to full transparency as well."