

Automated forklifts elevate firms' profit hopes

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Manually driven forklifts could become a thing of the past, replaced by automated guided vehicles

A forklift winds its way through the cavernous warehouse in search of a pallet, which it then ferries to a truck, crossing along its way other



forklifts and then the driver ... oh wait, there is no driver.

Amid social angst about computers and robots taking people's jobs "AGVs", or automated guided vehicles, represent a shift of new tech from factory production lines into the wider economy.

The pallet is a humble but essential element of the modern economy, a wooden platform that allows all sorts of goods to be easily transported around factories, warehouses and stores by hand-pulled jacks or motorised forklifts.

But their biggest advantage, standardisation, also makes them ripe for for automation.

Cost reduction is the obvious goal for the C-suite when it comes to automatisation, but it's not the only one.

Online commerce puts a premium on rapid delivery, and many logistics operations aim to run round the clock—but that only works if they can find the staff which, in some countries like the United States where the <u>labour market</u> is tight, can be difficult.

That's where AGVs come in.

Jean-Luc Thome, head of BA Systemes, a medium-sized French firm that makes AGVs, puts the growth rate at between 15 to 20 percent per year.

His is one of many smaller firms that are using automation to gain a foothold in the <u>forklift</u> market estimated to be worth more than \$16 billion per year, and which already has the attention of major players like Japan's Toyota and Germany's Jungheinrich.



Other firms take a different strategy: Offering companies the possibility of converting their existing forklifts at a lower cost than buying a new automated one.

That's the tack taken by Balyo, which is based in the Paris region.



Amazon has teamed up with French firm Baylo to help automatise some of its distribution centres

With kits to automatise forklifts for three popular brands it has seen revenue jump from 1 million euros (\$1.1 million) to 23 million euros over the past five years.



Earlier this year it scored a breakthrough when Amazon signed a sevenyear deal under which it could buy 300 million euros of Baylo equipment and take a stake of up to 29 percent.

The deal will expand the automatisation of Amazon facilities, which already use robots for some tasks as the <u>online retailer</u> strives to quickly fulfill customer orders.

Baylo's <u>chief executive</u> says the AGV market is enormous.

"Palettes are moved 200 billion times per year, and less than one percent are moved by robots," said Fabien Bardinet.

"If we are able to automatise 30 to 40 percent of that in a decade, we will have made considerable progress in terms of safety" in warehouses, and improved working conditions, he said.

A report by Research and Markets projected that the logistics automation market will grow from \$46 billion in 2018 to more than \$80 billion in 2023.

'Warehousing, it's dangerous'

For Baylo, one of the principal benefits of automatising forklifts is safety, for both people and goods.

"Warehousing, it's dangerous," said Bardinet, noting that in France alone there are roughly two dozen accidents per year tied to moving goods around.

AGVs can help improve safety as they are held to a higher standard, he said.





Navigating through some warehouses can be difficult

While society accepts some human mistakes, its tolerance for machines is zero.

"If one of our forklifts hits another, it's a big deal" at a client facility, said Bardinet.

But when a driver bumps his forklift against something, it is often treated as trivial.

"You only need to look at the marks on the walls of warehouses" to



realise such incidents are commonplace, he said.

Baylo's automated driving system, which uses a laser to scan its surroundings, ensures that forklifts stop whenever an obstacle appears on their route.

And "driven forklifts always have the priority", added Bardinet.

Baylo's sales jumped 42 percent last year and the company expects similar growth this year to surpass 200 million euros.

For its part, BA Systemes has seen its business grow by about 15 percent annually.

It has teamed up with Alstef, a French firm that uses cranes to stack pallets for automated storage and retrieval systems, to offer clients more complete solutions.

The firms helped the French central bank automatise its centre that serves cash transport firms.

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