

# CUTTING THE WASTE: THE QS NEWS GUIDE TO HOW A LOGISTICS CENTRE WORKS

Michael Ankers is frustrated. Although improving logistics can save money and time, he says, the industry is too slow to embrace it. "We have reports, we have recommendations, but what we really need to do more is to more effectively test these ideas in the market place," says Ankers,

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**Gary Sullivan,**  
managing director, Wilson James

chief executive of the Construction Products Association. The CPA and Strategic Forum for Construction published one such report ten months ago, entitled *Improving Construction Logistics*. It says better logistics could cut transport costs, speed up work and

reduce wasted materials. And logistics firm Wilson James has its own estimates: for example, if materials cost £20m on a project and better logistics cut waste by £1m, that means 5% savings. Gary Sullivan, managing director of Wilson James, says it's an exciting time: "It's getting quite sexy. I'm starting to feel like Kiefer Sutherland in 24."

Here are some of the ideas set to sex up your project: Logistics centres like the London Construction Consolidation Centre (LCCC) are set to spring up. Ian Lister, general manager of major and special projects at Wilson James, explains that the centre acts like a 'production buffer'. The LCCC currently serves four London projects totalling £550m and is an initiative by Wilson James,

Bovis Lend Lease and Stanhope that is also supported by Constructing Excellence and Transport for London. When trade contractors on those projects order materials they are delivered to the LCCC where they are stored. Materials for all the trades are then delivered in time for the day's work. "Potentially you can turn 50 vans into one," says Lister, adding that there are other benefits too:

- ✓ Less damaged materials so less waste
- ✓ Safe environment for bespoke products
- ✓ Less materials lying onsite means less injuries
- ✓ Improved delivery certainty boosts productivity
- ✓ Fewer deliveries means lower carbon dioxide emissions

So, here's our guide to the proven benefits of each stage of the process, which shows how existing technology is being used as well as some visions for the future.

## Can we use Radio Frequency ID tagging?

The industry should make better use of RFID tags widely used in other industries, to track materials and keep track of what needs to be ordered.

"These technologies are not new and will allow much more monitoring of what we need, not a million miles from the way they do in a supermarket," Ankers says. "The technology is out there, it's used in other sectors, but are we fully using it in our industry? I suspect we're not."

Brooks says barcoding would be a natural step before RFID, and adds that the benefits of RFID could extend to asset management.

"You could put a tag on an air handling unit that says the frequency of when the filters need to be changed," says Brooks. Then maintenance engineers can just scan the unit to find out if anything needs doing, rather than digging through paperwork.

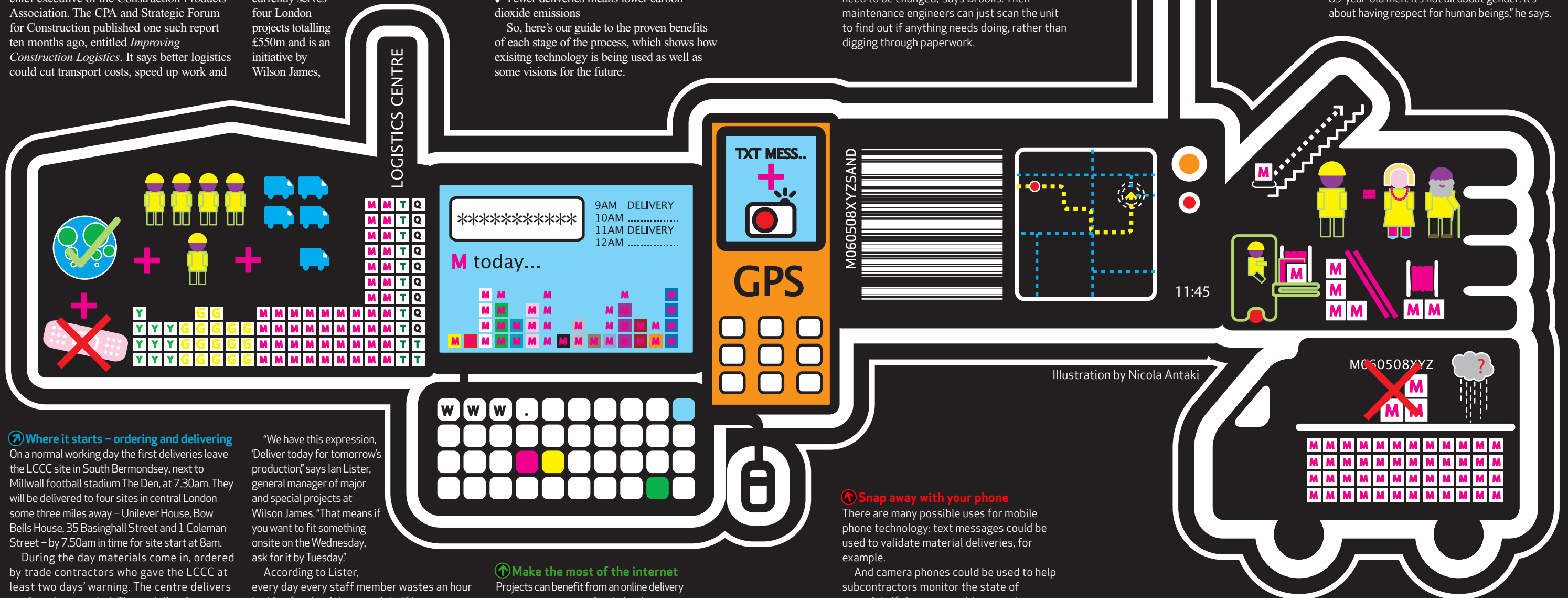
## Less injuries: manual handling machinery

Technology from other industries may help cut manual handling onsite injuries. These could include powered stair climbers used in the medical profession to carry people upstairs and downstairs safely, and using pallet trucks.

"The less you can handle materials, the less injuries you're going to get," says Lister. "There's nothing new about these, but you don't see them on construction sites much."

Sullivan says the industry could learn something from B&Q, which protects its staff while moving a great deal of building materials.

"They manage it using 16-year-old girls and 85-year-old men. It's not all about gender: it's about having respect for human beings," he says.



## Where it starts - ordering and delivering

On a normal working day the first deliveries leave the LCCC site in South Bermondsey, next to Millwall football stadium The Den, at 7.30am. They will be delivered to four sites in central London some three miles away - Unilever House, Bow Bells House, 35 Basinghall Street and 1 Coleman Street - by 7.50am in time for site start at 8am.

During the day materials come in, ordered by trade contractors who gave the LCCC at least two days' warning. The centre delivers to site when needed. These deliveries go out throughout the day, and can include anything from materials and plant to pre-fabricated rooms for social housing developments.

Each of the four sites has a scheduling meeting at around 12.30pm, when trade contractors tell the onsite logistics manager what they'll need for the next day's work. The LCCC gets this request by 1.30pm so it can start to prepare deliveries for the next couple of days, so the right products are sent to the right places at the right time.

"We have this expression, 'Deliver today for tomorrow's production,' says Ian Lister, general manager of major and special projects at Wilson James. "That means if you want to fit something onsite on the Wednesday, ask for it by Tuesday."

According to Lister, every day every staff member wastes an hour looking for the right materials. If better logistics frees up an hour a day each for 30 labourers, this means 150 more man-hours per week and ultimately a quicker project finish.

The LCCC also saves time onsite by providing space to pre-assemble items. These items can then be slotted in more easily when they do reach the work face.

And the centre monitors deliveries using GPS Cablink fleet management software and in-cab radios to make sure its deliveries are running smoothly.

## Make the most of the internet

Projects can benefit from an online delivery management system. A website shows contractors and suppliers the slots free for deliveries, meaning everyone can organise themselves better.

Early interaction with suppliers means those onsite can prepare the equipment they need to receive a delivery. At the start of a job firms get a password and basic training to get up to speed with the system.

"It's a much simpler process and certainly less labour intensive than managing the delivery side on a traditional project. Early engagement is certainly crucial," says John Brooks, Mace associate director.

## Snap away with your phone

There are many possible uses for mobile phone technology: text messages could be used to validate material deliveries, for example.

And camera phones could be used to help subcontractors monitor the state of materials if there are problems at the logistics centre.

The LCCC is currently using mobile phone SIM card technology in Global Positioning Systems, to monitor deliveries and work out the most efficient routes for its drivers.

"If material appears to be damaged, I could take a quick photograph of it, email it to you and you could say, 'No, turn it away' or 'Yes, it's okay,'" says Sullivan. "You don't need to go out and buy some whiz bang bit of kit. Just a phone."

## Saving cash with reverse logistics

Reverse logistics means that materials can be recalled to the centre and stored there if work is held up onsite.

It also means the client doesn't need to pay to dispose of things like pallets and cable drums, while the trade contractor can make cash selling them on: Sullivan says through the LCCC one trade contractor saved over £4,500 from 300 pallets it didn't

have to throw away.

Traditionally, if weather is extremely bad and nobody is onsite to receive a delivery, a supplier could travel a very long way only to take the materials back with them.

"They'd have no option but to take it back again," says Sullivan. "That's a cost and in today's world probably means that the trade contractor will have to pay for it again."