N° 7 – AUTUMN 2018

360° LOGISTIC

A NEW DIMENSION TO YOUR SUPPLY CHAIN

DECODING
Smart retail is challenging the supply chain

INNOVATION
Digital becomes part of logisticians' everyday lives

FM LOGISTIC

Ecological turn

Kite-drawn container ships

Peerless sailor and Vendée Globe* winner Yves Parlier is encouraging ship owners to embrace the green revolution and abandon fossil fuels. His project "Beyond the Sea" is a brand-new kite-drawn container ship concept inspired by kitesurfing. The hybrid propulsion system could deliver fuel savings of up to 20%, or 400 tonnes of fuel on a crossing between Asia and Europe. The idea is a source of inspiration for logisticians seeking to achieve excellence by building a more efficient, more effective, safer and more eco-friendly supply chain. Eventually, CMA CGM—a worldwide shipping group—plans to fit the system to part of its +450-strong fleet.

**A legendary round-the-world solo monohull yacht race, with no stop-overs or assistance. The race happens every four years, taking participants around the Antarctic rim with the Cape of Good Hope, Cape Leeuwin and Cape Horn to the port side.*

Why we're transforming our business

The past few years have seen major transformations across the manufacturing and retail sectors, mainly a consequence of the digital revolution. New market entrants, new technologies, and new consumption patterns are forcing longstanding, well-established players to rethink and reshape how they do business.

Logisticians, meanwhile, have spent years optimizing existing supply chain models. As people's lifestyles change, new and more agile business models emerge, technology progresses at an ever greater pace and organizations come to appreciate the importance of sustainable growth. The time has come to change course. Disruptive technologies like AGVs, robots, big data, blockchain and the Internet of Things (IoT) are finally reaching maturity, and their costs have fallen to a level that makes them affordable and viable. The challenges we face are many and varied—better understanding what our customers need, building the right network of partners, ensuring we have adequate in-house expertise and, ultimately, helping our customers make the right choices so they can adapt to the ever-changing world we live in.

At FM Logistic, we have no option but to transform our business and keep one step ahead of the game. That way, we can remain a trusted partner, create value over the long term and help all our customers maintain their competitive edge. Innovation lies at the very heart of our business model. It's a state of mind shared by each and every one of us.

PIERRE-ANTOINE JANOT
Group Business Solutions Director

4 #HIGHTECH

#DOORTODOOR 15

18 #EXPANSION

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DATA

Three words is all it takes!

#APP One in four people worldwide has no postal address or has problems with his address. British company What3words has developed a smart, multi-device geolocation app to get around that problem. The app divides the entire planet into 3x3-metre squares, and each square is assigned a unique string of three keywords.
UPS is already using the app to speed up deliveries and avoid address errors, while Mercedes has incorporated the technology into the onboard navigation system in its A-Class range.

2%

» Only 2% of Amazon's Alexa Voice Assistant users use it to shop online. It is most commonly used to listen to music (15% of users). «

Source: The Information, 2018

256,000

» That's how many transactions were registered per second on Singles' Day in 2017, three times the capacity of the Luzhniki Stadium where the 2018 FIFA World Cup final was held. «

Source: cnbc.com

4,600

» Typical Ford assembly line workers can raise their arms as many as 4,600 times a day, or around 10 times a minute. «

Source: eksobionics.com

TECHNOLOGY

Harnessing human intelligence in the cockpit of the future

#INNOVATION Researchers at the French Institute of Aeronautical and Space Engineering in Toulouse are developing a new type of cockpit better suited to how pilots' brains work by analyzing their ability to make the right manoeuvre at the right time. In critical situations, 30% of pilots fail to hear the many alarms sounding because their prefrontal cortex switches off. The researchers have therefore developed so-called Brain Computer Interfaces (BCIs)—a series of sensors that interact directly with the pilot and detect the slightest sign of fatigue or distraction. The system also features another innovation—earpieces that issue real-time alerts to boost pilots' reaction times by interacting directly with their brain activity. These new developments will help to cut the risk of human error and ensure pilots make the manoeuvres that make the most logical sense to the brain as opposed to those that are intuitive or quicker to execute.

OVERVIEW

WAREHOUSE

Almost superhuman warehouse workers

#EXOSKELETON US home improvement chain Lowe's has developed new bionic suits, known as "Exosuits", for its employees. The flexible carbon-fiber exoskeleton is designed to make it easier for workers to lift and carry heavy items, storing and releasing energy each time the wearer bends down and stands up, just like a bow. Unlike other technologies that might replace humans, the innovative exosuits help to improve warehouse workers' performance by enhancing precision while conferring better working conditions.

TRANSPORT

RoBoats: Unmanned urban boats

#MOBILITY **Self-service scooters, bikes and city cars are a familiar sight these days. But now the time has come for RoBoats**—unmanned smart boats. The idea is the brainchild of MIT and the Amsterdam Institute for Advanced Metropolitan Solutions and aims to provide a solution to congestion in flood-prone towns and cities. As climate change makes extreme weather more likely, the project team had the idea of transferring driverless car technology to boats. The onboard sensors scan the boat's surroundings and feed the data to a navigation system powered by artificial intelligence (AI). RoBoats are designed to carry passengers and goods and can also be combined to form temporary floating structures such as bridges. It took 60 hours to put together the 16 3D-printed parts that make up each boat. In the future, the team aims to develop taxi, delivery and night-time waste management services. These unmanned water-borne vessels offer a genuine alternative solution that could well become a new form of urban mobility.

SMART CITY

Is the town of the future already here?

#INITIATIVE Syd Kitson, a former American football player turned real estate developer, has gone out on a limb and begun building the town of the future—with connected, autonomous, low-carbon technologies such as driverless electric minibuses and cars and metal trees with solar panels in place of leaves. Babcock Ranch in Florida is a 100% solar-powered town, with a 75-megawatt solar power plant providing enough electricity to fuel 21,000 homes. The town features self-sufficient solar-powered homes, restaurants sourcing produce from their own sustainably farmed fields and its very own irrigation system. In short, it's a real-life testing ground where technology and sustainability are two sides of the same coin.

Phygital

How smart retail is challenging the supply chain

After e-commerce, cross-channel and omnichannel, retailers are now turning to "phygital" as a way to reconnect with customers, appeal to their senses and deliver a personal experience. This move raises new challenges that demand a rethink of the supply chain—a Supply Chain 4.0 model that caters to the new demands of so-called omniconsumers..

1 MILLION TRANSACTIONS

» On average, Walmart archives more than 1 million transactions every hour, adding to a database that measures 2.5 petabytes—167 times the volume of data held in the US Library of Congress. «

Source: Influencia, 2014

The big news at Retail's Big Show 2018 in New York was that, by 2024, US e-commerce revenue would rise to $600 billion—up from $453.5 billion* in 2017—and in the process outstrip physical retail revenue. While the advent of omnichannel has made the buying journey more fluid, the arrival of data, AI and virtual reality are transforming—even revolutionizing—retail. The industry is on the cusp of combining online and offline channels into one. Phygital is becoming the industry standard. Proof of that can be seen in how e-commerce giants and traditional physical retailers are coming together. Amazon has teamed up with Monoprix on food retail in France and has bought organic chain Whole Foods Market in the United States. Elsewhere, Walmart has joined forces with Google, Auchan has partnered with Alibaba in China and Carrefour is collaborating with Tencent, the Chinese firm behind WeChat. Why is this happening? Because by pooling their assets and uniting their strengths, these big firms are bringing the digital and physical worlds closer together. *"This is a fast-growing trend that's becoming the standard across the industry. And it's reshaping organizations everywhere"*, says Fabien Esnoult, Director of SprintProject, a market watch and pooled open innovation unit for the supply chain industry. *"In the future, there will be no dividing lines in retail"*, he predicts.

85%

» of brand interactions will take place without human contact in 2020. «

Source: Reachfive, 2018

IMMERSIVE RETAILTAINMENT TECHNOLOGIES

Retail outlets are changing to stay relevant. From interactive testing cabins to connected packaging, outlets are looking for ways to appeal to customers' senses and deliver unique experiences. In the United States, for instance, home improvement chain Lowe's provides customers with VR headsets so they can safely learn how to use a hedge trimmer, delivering a multi-sensory experience from the smell of morning dew to the tool's vibrations.
Another marked change has been the comeback of the concept of in-store service. At the most recent Retail's Big Show, Monoprix Chairman & CEO Régis Shultz predicted *"the end of the checkout"*. That may well happen, but in-store salespeople are once again becoming customer advisors and brand service ambassadors. By harnessing the power of data, retailers are reconnecting with what their customers like, want, and aspire to. Burberry's London store is leading the way on this front. Customers from around the world are welcomed by an advisor as they enter the store, who explains the brand's latest products and flagship collections likely to cater to their needs based on their buying history and most recent tweets. The salesperson and advisor can also tell them whether their favorite item is available and offer to deliver it to their hotel or wherever else they are staying on the same day.
Another major trend is how brands are harnessing the power of stores as places to stage and promote their products. According to a 2017 study published by Customer Experience Report, 86% of customers are prepared to pay up to 25% more for a better customer experience. Stores are becoming a place for sharing and experiences in their own right, playing host to speeches, meetings, exhibitions, concerts and much more. In 2017, Apple launched its *"Today at Apple"* workshops, holding an average of 16,000 sessions a day in which customers across the world can learn how to retouch photos, write code or use an iPad. While customer relationships and experiences are the main focus of the phygital revolution, it's also about winning over—even reconciling with—millennials, a generation that by 2025 will make up 75% of the working-age population. That's why retailers are reshaping their stores and transforming them, gradually, into places of entertainment, fun and engagement. Welcome to the era of *"retailtainment"*!

In association with Tencent, Carrefour uses a facial recognition system to allow WeChat users to pay for their purchases.

EXPERTS

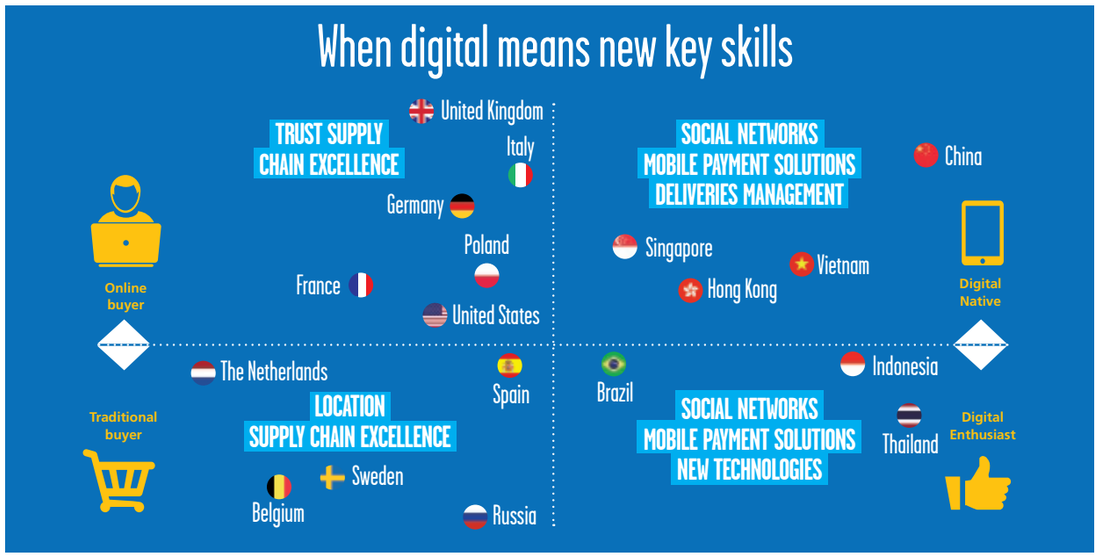
Fabien Esnoult, Director of SprintProject, a market watch and pooled open innovation unit for the supply chain industry.

Isabelle Badoc, Product Marketing Manager at Generix, collaborative supply chain SaaS solutions expert.

» We have to think again about what we do and how we do it—redesign our platforms, link up warehouse and store inventory, and get different information systems talking to one another. «
Fabien Esnoult

HOW THE SUPPLY CHAIN IS COPING WITH MICRO NICHES

Disruptive technologies such as AI, big data, robotics, IoT and automation are adding value to the customer experience and →



Source: PWC, Global Consumer Insights-Survey 2018

shaking up retail in the process. Today's *"omniconsumers"* are constantly seeking out new experiences and expect brands to deliver, accustomed as they have become to ubiquitous on-demand service from firms like Uber and Amazon. Chameleons at heart, they demand transparency and traceability, cherish the personal touch and respect brands that are genuinely ethical. *"The consumer landscape is now hypersegmented into a multitude of micro niches. The supply chain has to deal with this new paradigm",* explains Isabelle Badoc, Product Marketing Manager at Generix. New services are emerging to cater to this changing landscape, and logistics models will need to be rethought. *"We're seeing a real paradigm shift"* ,confirms Fabien Esnoult. *"Today's logistics models are a marked improvement on what we saw in the 1950s and 1960s. But technological progress is changing all that. We have to think again about what we do and how we do it—redesign our platforms, link up warehouse and store inventory, and get different information systems talking to one another. The challenge is to make Supply Chain 4.0 a reality so we can cater to retailers' changing needs."*

STORES ARE CHANGING...

As well as super-sized platforms, supply chain firms are also opening proximity hubs and making stores part and parcel of the logistics model. This is very much the idea behind the *"online to offline"* store concept developed by Auchan and Alibaba under their Sun Art Corp joint venture in China. *"Alibaba uses Auchan and RT-Mart physical stores to deliver food to Chinese customers living within a 3-km radius of the outlet in less than one hour",* explains Jean-Charles Meunier, Business Support Director at FM Logistic China. *"Orders are picked in-store, sorted, then collected by courier firms, which use scooters to deliver them to customers."* Alibaba is taking things one step further with its Hema store concept. The stores sell premium-grade imported food such as meat, shellfish and fresh produce. Customers can buy, sample and have meals cooked in-store in the restaurant corner or have their purchases delivered to their home in 30 minutes sharp. *"Sun Art Corp is also installing more and more automated 'Auchan minute' containers in China—five or six near each hypermarket—where busy customers can pop inside, choose from a restricted range of food products, scan them themselves, then pay using the WeChat mobile app",* adds Jean-Charles Meunier. The moral of the story is that retailers are no longer segmenting their offerings by product category but rather by store type. Consequently, the supply chain is fragmenting and the sector is reinventing itself.

...AND SUPPLY CHAIN IS GETTING SMARTER

"New technologies like AGVs, big data, blockchain, AI and machine learning are becoming more affordable as their cost falls. They offer a great opportunity to boost supply chain performance—especially when it comes to easing and accelerating logistics flows and honoring delivery promises to customers", says Isabelle Badoc. Many startups are carving out their own niches and devising innovative solutions across the value chain. And new trials are happening all the time, in areas like transport and storage location purchasing, after-sales, last-mile delivery, integrated management and end-to-end optimization. One example is startup Vekia, which is harnessing the power of algorithms to optimize logistics in the mass-market retail segment. The firm uses a range of parameters—such as weather, social media and cultural and sporting events—to produce sales forecasts, embracing data as an ally to optimize now-fragmented flows.

Digital technologies and automation are becoming commonplace across the supply chain architecture (see Innovation section on p.12) in an effort to boost response times, cut costs and enhance productivity. *"With AGVs and robots, order pickers will no longer have to walk miles in the warehouse",* says Isabelle Badoc. The evidence is already out there: For instance, Cdiscount has deployed France's very first picking robot in its warehouses. Developed by startup Exotec and known as Skypod, the robot can move horizontally and vertically, climbing up storage racks and transporting trays to order pickers. Loading docks are getting smarter, too, harnessing IoT technologies to optimize fill rates without human intervention. And, in some countries like China, fully automated platforms are already seeing the light of day. *"In the future, communication between information systems means that stores will be restocked from warehouses without human intervention. Systems and entities will simply talk to one another automatically. The possibilities are almost limitless, and we stand ready to explore them alongside retailers",* explains Jean-Charles Meunier.

In short, there's an entire ecosystem under construction—all with the aim of controlling costs, quality and deadlines and giving omniconsumers what they want.

Skypods robots climb up storage racks to bring products' trays to order pickers.

**Source: United States Department of Commerce, Statista 2018*

Peloton Cycle's store puts on a show

#SHOWROOM Welcome to Peloton Cycle's store in the heart of New York's Chelsea district. Peloton Cycle customers enjoy community-only services, such as the ability to watch races live via video link and access a relaxation area. There's nothing particularly disruptive in that. But step into the store and it's showtime. Inside, in the dark, a coach is pushing the brand's faithful followers hard as they cycle away on their connected bikes and a DJ plays music as a backdrop. The store is more than just an integrated fitness room-it's a sales platform that really works!

CASE STUDY

» Digitization of distribution centres and omnichannel supply chain go hand in hand. «

ÉRIC POULET
Head of Supply Chain Management, Leroy Merlin Russia

Leroy Merlin's move into the Russian market has been a real success story, with 20 new store-openings every year. What's the main challenge this poses in terms of logistics?

ÉRIC POULET
The sheer size of Russia has long been a challenge for us, but we now have excellent nationwide coverage. Our Russian business is growing at 20% and sales volumes are three times higher than in France. So the next challenge is to manage these growing volumes and optimize our flows.

How are you going about that?

E. P. We're moving into a higher gear by automating our distribution centres. We're building a brand-new, 140.000 m² warehouse to the north of Moscow, with consulting support from FM Logistic. The warehouse is set to open in late 2019. And we're switching to an omnichannel supply chain model, with a package-level cross-docking system at the new warehouse to supply all our retail channels—big and small stores, plus online sales. That means no more pallet-level cross-docking. And it means we'll be able to reduce postage-paid deliveries to stores, cut inventory levels and improve product availability.

What do you expect from your logistics partners?

E. P. We expect them to be responsive at all times, so we can deal with seasonal peaks, and to be committed to continuous improvement. On the innovation front, we're looking to improve our processes by working collaboratively—and that includes with FM Logistic. Our aim is to start trialing AGVs in our warehouses in the near future so our people can focus on activities that deliver more value. And we want to adopt AI technologies and algorithms to improve decision-making and governance.

How will digital become part and parcel of logisticians' everyday lives?

New digital tools like smart glasses and digital cockpits are shaking up the supply chain in a constant drive for better performance, agility and efficiency. The result is a more collaborative, transparent logistics model where employees get everyday support. Digital is more than just a pipe dream. It's happening right now.

EXPERT

Jérôme Verny Director of Mobis, the transport and logistics research institute at NEOMA Business School.

Digital technologies are entering the supply chain, and they're revolutionizing logistics platforms in the process. Smart glasses are the first major technology to make an appearance. *"They're currently being trialed in France, helping co-packing operators carry out day-to-day maintenance tasks",* explains Stéphane Mornay, Warehousing Support Director at FM Logistic. *"And if we have to bring in external support, the technology puts our people in direct contact with an expert centre."* External maintenance specialists can see exactly what the operator is doing, in real time, and provide just the right support. In time, the glasses could be used to enhance maintenance operations warehouse-wide, from buildings and equipment to fire safety and air-conditioning systems.

» Going digital serves two objectives—breaking down silos between entities and deploying crosscutting digital tools. Digital technologies are shaping the omnichannel supply chain of the future. «
Jérôme Verny

MAKING EVERYDAY TASKS EASIER AND SAFER

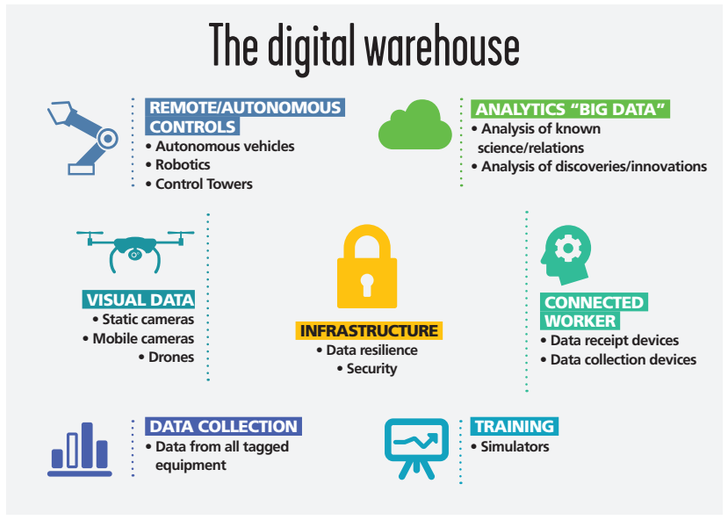
"In infrastructure and logistics, there's a real focus on finding new, easier ways to do previously time-consuming and complex tasks", stresses Stéphane Mornay. That's the idea behind Inventory Viewer, a new tool that carries out inventory tasks automatically instead of having a pair of operators do the work manually with a cherry-picker *(see 360, Issue #3, p.16)*. The system, designed in partnership with Hub One, is equipped with a series of cameras and image analysis software that reads pallet bar codes and is mounted on a telescopic forklift truck. The ground-breaking technology has been trialed and approved and is already proving a hit with staff, as it is ten times faster than the conventional cherry-picker method. And that's not all—it also makes the work a lot less arduous and significantly reduces operator fall risks. Along similar lines, FM Logistic is also exploring Dock Viewer technology. *"The system's cameras monitor docks, count pallets and calculate fill rates",* explains Stéphane Mornay. *"It helps us decide whether we need to reuse or free up a dock."*

-30%

» The new registration terminals cut the amount of time drivers spend on-site by 30%. «

REAL-TIME WAREHOUSE MANAGEMENT

The manager's cockpit is yet another example of digital technologies revolutionizing and simplifying how platforms operate. The system features a battery of operational warehouse management apps, with visual, easy-to-use, simple indicators. For instance, team leaders can monitor operations in real time from their tablet PC, checking how pallet preparation tasks are progressing. And if something unexpected happens—like a delayed truck or a need to bring in more operators—they can react quickly. More applications will appear in the future, such as alert and inventory functions, medium-term forecasting and connection with WMS systems. →



Source: 2017 Accenture.

→ *"In the past, it was about passive supervision. These days, the advent of digital technologies means we can give employees real-time support in their everyday work, as part of efforts to improve both working conditions and performance",* adds Stéphane Mornay.

SMART BUSINESS INTELLIGENCE PAYS DIVIDENDS

When FM Logistic expanded its site in Crépy-en-Valois, north of Paris, from 110,000 m² to 155,000 m², the expected number of trucks arriving daily jumped from 300 to 450. The company deployed a new flow optimization system, developed by Stackr, to help it better manage the increased volume and deal with incoming vehicle peaks. The principle behind the system is simple. Drivers register using self-service, multilingual, touch-screen terminals at the security post, then receive a text message authorizing them to enter the platform. The system then scans their vehicle license plate and they are guided interactively to the dock. *"e-Gestrack works alongside the WMS system to make transport operations safer, limit drivers' waiting time and boost security post registration and control capacities",* explains Samuel Leguet, Platform Director at FM Logistic's Crépy-en-Valois site. No matter what the operation involves, trucks now spend no longer than 1 hour 35 minutes on-site—down from 2 hours 10 minutes previously. The smart business intelligence solution is easing traffic flows, boosting productivity and making life easier for drivers while they wait.

WHAT DOES THE FUTURE HAVE IN STORE?

The digital revolution is disrupting every part of the value chain as new, cutting-edge technologies are deployed. *"Going digital serves two objectives—breaking down silos between entities and deploying crosscutting digital tools",* explains Jérôme Verny, Director of Mobis, the transport and logistics research institute at NEOMA Business School. *"Digital technologies are shaping the omnichannel supply chain of the future."* All this has been made possible by linking data and information systems. For instance, back in 2016, FM Logistic began supporting Stock Booking, a digital intermediation platform that allows users to find temporary storage space for their pallets in other users' warehouses. This type of collaborative logistics is boosting performance across the industry and pushing the cause of sharing and transparency. *"Digital tools are still in their infancy, but we're already seeing how they play a big role in improving the customer experience and streamlining supply chains",* adds Jérôme Verny. Everyday warehouse tasks are being transformed—from order picking right through to digital management practices. And as resources become more fluid, the whole way in which supply services are consumed is evolving. Whereas once manufacturers and retailers saw supply chain as a cost they had to cut, they now treat it as something that's vital to their competitiveness. What's more, other innovative technologies like AI, IoT, smart robots and blockchain are forcing logisticians to go above and beyond traditional service offers.

Inventory drones?

#EVOLUTION FM Logistic began testing Hardis Group's Eyesee inventory drone a few months ago. The system includes a pallet-scanning drone, a tablet PC, and two apps—an operator pilot app, and a separate back-office app. The drone can easily reach places that people find it harder to access, especially at height. "*At FM Logistic, we're currently using the drone alongside our Inventory Viewer system. In the future, it could well become our go-to inventory solution," says Stéphane Mornay, Warehousing Support Director at FM Logistic. "It has none of the drawbacks that come with using a forklift truck.*"

A DOOR-TO-DOOR SOLUTION TO SPEED UP OUR BUSINESS

Olga Vasileva, Head of Logistics Department, L'Étoile

› A DOOR-TO-DOOR SOLUTION

Our collaboration with FM Logistic goes back to 2016, when we entrusted them with the delivery of all the perfume, beauty and hygiene stores of our chain L'Étoile in Russia. Early success reinforced, in 2017, our choice of partner for a major international project. Indeed, both for import and for export, customs holds a central position in the supply chain, and must be a lever for performance and safety. That's why we were looking for a global solution including logistics, transport, customs procedures and distribution. As a result, FM Logistic offered us a door-to-door solution to optimize our administrative, financial and physical flows while rationalizing our costs and customs clearance lead-time. Today, this logistics organization is an asset to our competitiveness.

850

»» The brand's total number of stores across Russia, spread over 250 cities. ««

› 100% AGILE

Plus, the logistician's analysis of our flows allowed FM Logistic to design a tailor-made delivery solution from the L'Étoile warehouse in Russia to our points of sale. Its added value? Intermediate control of all freight passing through the country. Thanks to its multi-customer platforms located in Europe, FM Logistic inspects the products awaiting distribution in our territory-a significant competitive advantage over our competitors! FM Logistic has perfectly identified our needs, priorities and development perspectives. And that is without counting its capacity to adapt to the perpetual fluctuations of flows and demands of the sector.

› FUTURE PLANS

If we rely on the co-construction of our supply chain alongside the logistician, many projects mobilize our respective teams, for example, a marking test for perfumery and cosmetics, the improvement of our security system or the experimentation of multimodal deliveries. All these perspectives are in line with a logic of long-term partnership.

Pooling

The key to a smart supply chain

FM Logistic is harnessing the power of pooling to shape a better-performing, safer and more responsible supply chain. The supply chain expert is using big data, dynamic pooling, its CityLogin solution and more to maintain constant stakeholder satisfaction.

Pooled logistics and multi-customer platforms go hand in hand. As a pioneer in the field, FM Logistic focuses on building super-sized platforms of +100,000 m² to serve multiple customers. As well as cutting fixed costs and delivering greater flexibility on equipment, technologies and human resources, this model has major environmental benefits, too. First and foremost, having a sole platform helps the company keep water and energy use to a minimum, as well as boosting its ability to generate its own renewable electricity from solar, geothermal and biomass sources. *"Platforms account for 50% of the group's carbon footprint"*, explains Charlotte Migne, Group Sustainable Development Director at FM Logistic. *"What's more, a bigger building increases the profitability of renewable energy production, although the costs of generating this type of electricity are still too high."* Multi-customer platforms are also a reassuring sign of stability for local authorities, partner carriers and employees. *"Pooled platforms are a much more viable business model in the long term and, by extension, provide more stable employment"*, adds Charlotte Migne.

–20%

» On average, pooling transport cuts CO_2 emissions by 20%. «

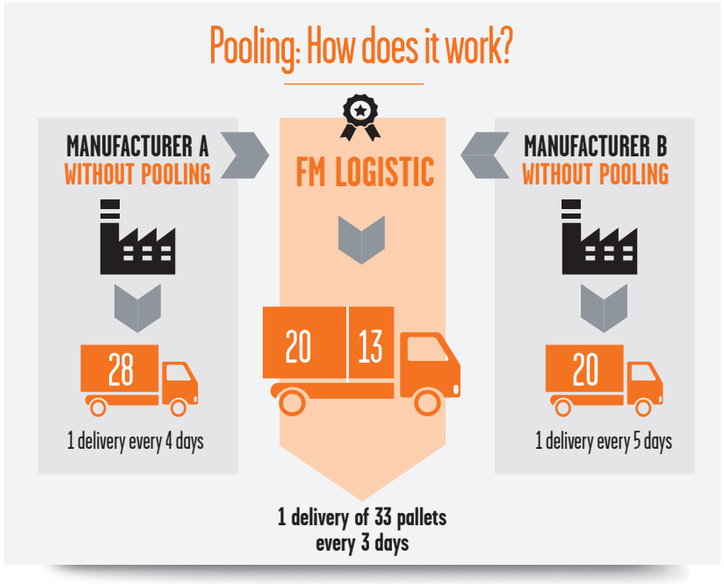
URBAN: THE NEW LINK IN A POOLED ECOSYSTEM

The first big change to come from the growth of local models and e-commerce deliveries has been the addition of city centres as a new destination point in the pooled supply chain. And it goes without saying that the smart urban model relies on a combination of several other links in the chain, such as central warehouses, local hubs, consolidated inventory, cross-docking and last-mile solutions. *"Because delivery vehicles have restricted access to city centres and parking spaces are at a premium, we decided it was high time to offer manufacturers, retailers and, of course, end customers a brand new, smart, efficient and sustainable urban logistics solution"*, says Anthony Chevrier. *"The CityLogin solution relies on a network of small, local platforms—measuring between 1,000 m² and 2,000 m² in size—on the outskirts of major cities. Here, logistics flows from super-sized platforms are consolidated, then the deliveries are taken the last mile into the city in hybrid or electric vans or even on tricycles or bikes."* Just two years since its launch, CityLogin has been introduced in around 15 major cities across Europe, including Rome, Paris, Madrid, Moscow and Warsaw. *"We have two goals in mind. The first is to do something about the heavy traffic, noise pollution and fine particulate emissions that plague our big cities. And the second is to do what we do best—deliver outstanding supply chain solutions"*, adds Charlotte Migne. In 2018, FM Logistic's efforts were rewarded when it scooped first prize in the Urban Logistics category at the Logistics Strategies for Sustainable Innovation awards.

POOLING: SMART IN EVERY SENSE OF THE WORD

"Pooling", as a full service, is another effective path toward a more responsible supply chain. *"Pooling transport cuts CO_2 emissions by 20%, delivers 30% cost savings to customers and improves product availability at retail outlets"*, explains Anthony Chevrier, Brazil Operations Director at FM Logistic. What's more, reducing the number of trucks on the road helps curb congestion.

Pooling first came to prominence in the 2000s. It involves grouping deliveries from multiple manufacturers with compatible products and destined for the same retail networks from a shared, multi-customer platform. Today the solution is enjoying a new lease on life and renewed dynamism thanks to the influence of big data. *"The aim is to take data that was previously scattered across different, unconsolidated databases and turn it into reliable information that we can use"*, explains Osman Demirdis, Supply Chain Project Manager at FM Logistic. *"Manually extracting and processing all the data you need for effective pooling can take two or three weeks. In the future, we'll be processing data from Google Cloud with a proprietary algorithm, so we can link addresses and tap into the real potential of pooling."* With dynamic pooling, logistics firms can pool transport flows from manufacturers in real time as the opportunity arises. And all this is possible because of big data, which means firms can devise the most optimal and dynamic configurations and pinpoint new, more flexible, more efficient—and more environmentally responsible—pooling opportunities at any moment in time.



BENEFITS OF POOLING

1

#SMALLER STORE INVENTORY

Pooling allows for more frequent deliveries, meaning retailers can cut the amount of space they need to hold inventory in store. More frequent deliveries are the very essence of just-in-time supply chain management.

2

#IMPROVED SERVICE LEVEL

Pooling improves demand-responsive logistics capabilities. As deliveries are between two and five times more frequent than under a conventional model, service levels improve and customers are guaranteed to have the right product at the right time, with no stock-outs.

3

#OPTIMAL, MORE RELIABLE TRANSPORT

Lastly, by optimizing truck filling rates, pooling ensures that, for carriers, loading operations are always on schedule. Because deliveries are more frequent, and without transhipment, transport quality is improved. Consequently, costs are under control and shared between manufacturers.

RUSSIA

FM Logistic expands its network in Russia

#EXPANSION Seen from above, FM Logistic's Russian warehouses very much track the country's major population centres.
Starting from the nerve centre of Moscow, the firm has sites in St Petersburg—Russia's number-one entry point for imports—plus several other big cities close to the country's western border. In 2013, FM Logistic began growing its presence in south-western Russia, in particular for its customer Decathlon. In 2017, it hired more staff and further expanded its network to support its regional partners. And in 2018, Rostov Oblast governor Vasiliy Golubev and Christophe Menivard, FM Logistic's General Director for Central and Eastern Europe, signed a deal to start construction work on a new platform in Rostov-on-Don. The new site, spanning 35,000 m², will meet the group's international quality standards and shows how FM Logistic is willing and able to support Russia's economic recovery. The site is scheduled for delivery in 2019.

+13%

»» Increase in revenue of FM Logistic's transport activities. At the end of the 2017-2018 fiscal year, the group recorded a turnover of 410 million euros against 360 million the previous year. ««

ITALY

All sights on Lombardy!

#INVESTMENT **FM Logistic will open a brand-new, 45.000-m² platform in Vellezzo Bellini, 20 km from Milan in Italy's Lombardy region, in late 2018. The multi-customer site will meet the firm's construction and quality standards and will have the potential for expansion to up to 75,000 m². The new platform will enhance the group's local coverage and provide a vital boost to its distribution capabilities throughout the region.**

IBERIAN PENINSULA

Making communities more employable

#RETURN-TO-WORK FM Logistic has struck a partnership deal to help train unemployed people in Illescas, a town south of Madrid, echoing its care and concern for economic and social development in the places where it operates. Facing professional reintegration, students following the Warehouse Organization & Management Programme will have the chance to complete a placement at the firm's platform in the town. Logistics is one of the area's most important sectors, with 3,000 businesses in the industry employing around 25,000 people.

INTERNATIONAL

2022: The goal for a sustainable supply chain

#CSR FM Logistic treats the world in which it operates with respect. That's why the group's clear goal is to develop a sustainable supply chain that makes the world a better place to live for everyone.
The firm is guided by three headline ambitions:

1- Taking care of its people

Ambition: To be recognized as a responsible, caring employer all over the world.
Goals for 2022: Cut workplace accident frequency and severity rates in every country of operation and achieve an 80% employee satisfaction rate.

2- Reducing its environmental footprint across its business

Ambitions: To have all its sites become carbon-neutral by 2030 and to reduce the environmental footprint of its transport operations.
Goals for 2022: Cut energy use by 10-20%, and reduce its warehouses' carbon footprint by 20%.

3- Developing a sustainable supply chain

Ambition: To offer sustainable solutions across the entire group.
Goals for 2022: Equip 100% of its customers with CSR indicators and have sustainable logistics solutions (urban logistics, passive buildings) account for 20% of revenue.

EUROPE

Future Moves: FM Logistic's talent springboard

#TRAINING **Two years ago, FM Logistic launched Future Moves, an international, customized training programme for young graduates. Participants spend 24 months traveling the globe with support from their mentors, to earn valuable experience, gain a sense of responsibility and improve their managerial and technical skills. Graduates spend the first year in their home country learning the ins and outs of the job, including an immersive 3-month period at the group's platforms. In year two, they embark on two three-month deployments, each in one of the 14 countries where the group operates. The programme is more than just a training course—it's an opportunity for participants to get their careers off to a flying start.**

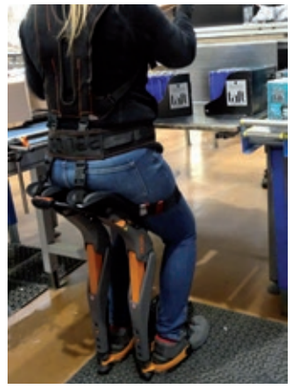
300

»» With its 300 vehicles, FM Logistic now delivers urban centres in more than 15 European cities. ««

FRANCE

Chairless Chair: The operator's friend

#INNOVATION FM Logistic France is trialing an ergoskeleton at its Château-Thierry site to prevent staff from suffering musculoskeletal injuries. Chairless Chair, developed by Noonee, is a robotic wearable seat that boosts the user's physical capabilities. It features a harness that holds the upper body in place, plus two leg supports. Wearers' movements become more agile and flexible. Because the innovative device was unsuited for use by order pickers, FM Logistic and the University of Technology of Compiègne (France) have designed a bespoke system using movement sensors. A prototype is expected in the coming months.



Inventing the logistics chain of the future

Innovation is at the heart of FM Logistic's operations: increasing operational productivity, reducing supply chain costs, becoming more flexible and improving service quality. Solutions emerge from our think tanks that push logistics forward: our HQE buildings, our hightech trucks that run on liquid natural gas and our latest ergonomic solutions developed to reduce working difficulty for operators, like the on-board scanner. It is because our staff are at the heart of our performance that we think it essential to provide them with the innovative tools and expertise necessary to design and set up the logistics processes of the future: optimised, more reliable, reactive and environmentally friendly.

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