



WDP

WAREHOUSES WITH BRAINS



WDP TREND REPORT



FOOD LOGISTICS: 4 TRENDS THAT ARE RESHAPING THE CHAIN



TOGETHER WITH **EXPERTS
AND COMPANY LEADERS**
WE LOOK AT THE MOST
IMPORTANT TRENDS IN THE
WORLD OF **PHARMA AND
MEDICAL HEALTHCARE
LOGISTICS ANNO 2021**,
AND WE TURN OUR ATTEN-
TION TO THE CHALLENGES
OF THE NEAR FUTURE.

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INTRODUCTION

Trends, tech, and towering expectations. A turbulent mix of these 3 factors has always kept the world of logistics on the move. But the speed at which the sector has changed in recent years is unprecedented. Year after year, we see how logistics companies are moving up a gear in their pursuit of greater efficiency, safety, and sustainability. As they rely more and more on data to streamline their processes and shorten their chains, their technologies are becoming greener.

In this changing logistics world, one sector seems to be evolving even faster than the rest of the pack: food logistics. The market for food delivery and home grocery shopping has grown explosively in the last few years. The way food gets to our plates, either at home or at our favourite restaurants, has changed completely. Driven by stricter food regulations, new smart technologies, and a consumer who keeps raising the bar, the logistics process is constantly changing along with it.

This trend report examines how the route from grower to consumer was redefined, and looks at the consequences of this for logistics premises.

A portrait of Joost Uwents, CEO of WDP. He is a middle-aged man with short brown hair, smiling at the camera. He is wearing a dark blue textured blazer over a light green button-down shirt. His arms are crossed over his chest. The background is a solid light blue. A semi-transparent green rectangular overlay is positioned on the left side of the image, partially covering his torso and arm. The text 'JOOST UWENTS' and 'CEO WDP' is printed in white, bold, sans-serif font over the green overlay.

JOOST UWENTS
CEO WDP

MEET THE EXPERTS

To map out these important trends, and their causes and consequences, we spoke with experts who know this fascinating world like no one else.

People who have seen with their own eyes how their industry has evolved in recent years, who know what today's priorities are, and who can give us a glimpse into the future.



WILCO JANSEN

SLIGRO | HEAD OF INTERNAL AND EXTERNAL COMMUNICATION

"Switching to renewable energy costs money, but that's just how it is. But everyone realises the investments eventually pay for themselves."



WILJAN DARIS

THE GREENERY | PURCHASING & COMMERCIAL MANAGER

"We have no other choice but to prioritise hygiene and safety."



TOM MALFROID

COLRUYT GROUP | COLLECT&GO SUPPLY CHAIN MANAGER

"We want to combine the three main temperature zones into one trip. We're redesigning our entire chain with this perspective in mind."



JOS MIERMAN

ETHECLO | BUSINESS PARTNER
- COLD CHAIN INTELLIGENCE

"If we can succeed in shipping chilled and frozen products together with ambient or even non-food products, we can have fewer trucks on the road. This kind of specialised transport is a real game changer."



JONATHAN WEBER

URBANTZ | CHIEF EXECUTIVE
OFFICER

"Optimised supplies based on as much data as possible, that's the road we need to take. It will allow our customers to increase their efficiency and bypass one of the biggest problems in last mile logistics: failed deliveries."



FRANCK TOUSSAINT

BIOLOG EUROPE | MANAGING
DIRECTOR

"Climate change will inevitably cause major food crises in the future. This will only place even more importance on the distribution of healthy food."



STEVEN VAN BELLEGHEM

EXPERT IN DIGITAL MARKETING,
TECHNOLOGY & CUSTOMER EXPERIENCE

"Efficiency has become the most important benefit to the consumer. This trend became even more pronounced during the corona-virus period."

MEET THE EXPERTS

THE 4 TRENDS

#1 TREND #1: FOOD SAFETY ABOVE ALL

In the world of food logistics, safety is right at the top of the priority list, even more so than in other branches of logistics. As it should be, because our food travels a long way to get from the field to our plate. This route is fraught with challenges: after all, a lot can go wrong with fragile fresh produce such as fruit, vegetables, fish, and meat along the way. Luckily, Europe has put a comprehensive set of hygiene standards and temperature regulations in place to prevent this from happening. However: strict compliance demands a great deal of investment and expertise.



TEMPERATURE: HOW DO WE STORE WHAT?

It is vitally important that the cold chain is not interrupted when it comes to products that have to be stored, transported and sold chilled. The chain only works if every link functions 100% effectively.

The term 'chilled' means a legal maximum temperature of 7°C in most cases, but there are plenty of exceptions that require an even lower temperature. For frozen products, the required temperature is no higher than -18°C. Food products that are required to be kept warm or reheated must maintain an internal temperature of at least 60°C.

An overview of the different European regulations is available [here](#), on the website of the Federal Public Service for Health, Food Chain Safety and Environment.

In Belgium, these temperature requirements are monitored by the Federal Agency for the Safety of the Food Chain (FAVV). In the Netherlands, this is the Netherlands Food and Consumer Product Safety Authority (NVWA). But the logistics companies themselves also contribute. They can use the 'Hazard Analysis and Critical Control Points' (HACCP) to detect and eliminate any risks in their chains.





WHAT IS HACCP?

‘Hazard Analysis and Critical Control Points’ (HACCP) is an international control system for food safety. It is applied in all parts of the food supply chain. Every organisation growing, preparing, or selling food can use the control system to check if any risks to health are present in the production or preparation processes. This structured method for preventing or eliminating hazards is based in 7 basic principles set out in the Codex Alimentarius by the World Health Organization (WHO).

1. Take stock of all potential hazards and identify actual hazards
2. Check which measures are required to control the hazard and identify the critical control points (CCPs)
3. Set the critical limits for each CCP
4. Determine how the CCPs are safeguarded
5. Establish the corrective actions for each CCP
6. Apply verification
7. Keep documentation and records

FROM FIELD TO FORK SAFELY

For this trend report, we visited The Greenery: this Dutch company works with more than 300 growers to supply large retailers with an extensive array of fruit and vegetables. It is made up of three departments: The Greenery Growers represents the growers, The Greenery Logistics offers logistics solutions for fresh food, and The Greenery Retail serves retail and online customers in Europe with specialised packaging. According to Purchasing and Commercial Manager Wiljan Daris, the bar for food safety is exceptionally high in the Benelux today.

“It goes without saying that all modern warehouses in the Belgian and Dutch food sector have advanced refrigeration and freezing installations nowadays. We want to offer our customer the very best quality, so we can’t take any risks. What’s more, the Federal Agency for the Safety of the Food Chain (FAVV) regularly audits us for correct functioning and maintenance of our refrigeration installations. It means we have no other choice but to make hygiene and safety a priority.”



FRANK TOUSSAINT
BIOLOG EUROPE | MANAGING
DIRECTOR

“Monitoring the temperature is not enough. We have to be able to correct it at any time, both in the warehouse and in the refrigerated vehicle.”

MIND THE GAP: THE GROWING INVESTMENT GAP

The government demands on businesses are constantly increasing. This hasn’t gone unnoticed by Franck Toussaint from BioLog Europa, an organisation that supports the development of logistics in biotech, pharma, and medical aids: “The risks involved in fresh and frozen food are huge, so it goes without saying that there should be strict rules. The sector makes huge efforts to comply with the legislation, using innovative management supply chain systems that measure and adjust the temperature at every stage. Monitoring the temperature, however, is not enough. We have to be able to correct it at any time, both in the warehouse and in the refrigerated vehicle.”

“The correct temperature is not the only important aspect of food safety, by the way. Factors such as light and humidity also play a very important role in storage at room temperature. And the rules are constantly being expanded. This is understandable, but companies are expected to come up with solutions by themselves. Not everyone can manage this overnight. Small companies need time to make the changes. There is a danger it will create a gap between large players who can invest in smart technologies, and small companies with a limited budget.”



FRANK TOUSSAINT
BIOLOG EUROPE | MANAGING
 DIRECTOR

“Each link in the chain is jointly responsible for the quality of the product. This has to be the case because the chain is 100% transparent, thanks to today’s traceability systems.”

SHARED RESPONSIBILITY

Food logistics is not a national business, it requires tight cooperation between large and smaller players from all over the world. There is a feeling of shared responsibility: each link in the chain is helping to look after the quality of the product. Everyone realises they have to work together as efficiently as possible, despite the regional differences in legislation and technologies used. This has to be the case because the chain is 100% transparent, thanks to today’s traceability systems.

RESPONSIBLE BUSINESS

“The strict regulations have brought about many changes”, confirms Tom Malfroid from Collect&Go, Colruyt’s shopping service. “It forces us to be innovative. What’s more, the technologies we are now using to work safely and hygienically also make our processes more sustainable and efficient. For example, transport to Colruyt shops and Collect&Go collection points no longer involves traditional refrigerated vans, but separate compartments that are cooled with liquid ice – a frozen yet liquid mix of water and ethanol. Sensors constantly measure the temperature in each of these passively cooled boxes. This data is read at both our central distribution centre and at the various Collect&Go points.”

“The Federal Agency for the Safety of the Food Chain (FAVV) regularly carries out audits and inspections. But at the same time, they see us as a responsible business. After all, just like the other large retailers, Colruyt works with its own quality department that keeps a close eye on things. So, the FAVV knows we do all we can to work in accordance with legislation and prevent contamination. If anything does go wrong, we can use the data from our customers’ Extra card to quickly find out who bought a certain product. This person is then immediately notified via e-mail.”

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TOM MALFROID

COLLECT&GO | COLLECT&GO
SUPPLY CHAIN MANAGER

“The technologies we use to work safely and hygienically also make our processes more sustainable and efficient.”

SMALLER COOLERS, GREATER PRECISION

Cooling compartments in which the products are kept at the correct temperature using liquid ice: that’s Etheiclo’s speciality. This young company has developed a new generation of cool boxes that can handle longer logistic routes and as such, offer greater quality assurance to producers and consumers.

“Etheiclo stands for ‘thermo-controlled logistics’”, says co-founder Jos Mierman. “The big advantage of our cool boxes is that transporters can combine different temperatures in one truck. Anyone who wishes to do so can continuously monitor the temperature in the box online. This is all music to the ears of those who deal with last mile delivery.”

As far as the current legislation and controls are concerned, Mierman can still see room for growth: “When it comes to last mile delivery, control could be much tighter. The rules in force today were drawn up when last mile delivery was still in its infancy. The applications involving different temperature zones, however, have changed over time.”

THE WAREHOUSE AS PANTRY

“When it comes to refrigerated storage, the food logistics sector has become a lot more professional”, says Wilco Jansen from wholesaler Sligro. “Because our customers – the hospitality sector – want to keep risks to an absolute minimum, they call upon our expertise. Not every hospitality company has enormous freezer capacity, so they see our warehouses as their pantry. This means the frequency of our deliveries has to increase. Our planners are faced with a huge challenge as it’s becoming more and more difficult to deliver in city centres. We will have to coordinate transport journeys even better. And our planning department already looks like the control tower at Schiphol or Zaventem.”



CONCLUSION

#1 **FOOD SAFETY
ABOVE ALL**

- Impeccable hygiene and meticulous cooling are top priorities
- A mix of government monitoring and self-monitoring ensures compliance with strict regulations
- The investments in refrigeration and deep-freeze technology are increasing all the time
- Every link in the supply chain shares responsibility
- The warehouse serves as a pantry

THE 4 TRENDS

#2 TREND #2: THE COLD CHAIN IS GAINING MOMENTUM

Safe food on your plate? It depends to a large extent on the quality of the cold chain during transport. And that's no mean feat, as it turns out. Customers are increasingly demanding, logistics processes are constantly under pressure, and the regulations for temperature control are getting stricter. As such, cold chains have transformed into a network of smart sensors and real-time data streams. Which opportunities does this bring, and what challenges are on the horizon?

GLOBAL ACCESS TO HEALTHY FOOD

“Climate change will inevitably cause major food crises in the future,” says Franck Toussaint from BioLog Europe. This will only place even more importance on refrigerated distribution of healthy food. International cooperation plays an important role here. All parties involved realise: ‘If there is no global answer, there is no answer’.”

“As such, the World Health Organization (WHO) is working hard to improve the cold chain in developing countries. Places that often have to deal with natural disasters or extreme heat – like Haiti or India – could benefit greatly from a better cold chain. Compact refrigerators powered by solar energy are a good example of how cold chain technology can make a life-saving difference.”

“If we look at our own infrastructure in Europe, we can see that the refrigeration and deep-freeze capacity has been given an enormous boost. The entire sector understands the necessity of making sure the lead time from field to refrigerator or freezer is as short as possible. The shorter the lead time, the better the quality of the product. The demand for specific refrigerated transport and storage is so high that almost everyone is investing in professional cold chain technology in order to claim a piece of the pie.”



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FRANK TOUSSAINT

BIOLOG EUROPE | MANAGING DIRECTOR

“If there is no global answer, there is no answer.”

The distribution of COVID vaccines has also boosted the cold chain infrastructure in Belgium and the Netherlands. Liège Airport, for example, made huge strides in 2021. They transformed the unused passenger terminal into a logistics centre with a CO2 refrigeration system and mobilised all refrigerated storage capacity in the immediate vicinity. “Yet we can see Wallonia still has some catching up to do,” says Toussaint. “The capacity is currently still too low to meet the demand.”



BIGGER DEMAND, SMALLER BOXES

The demand for refrigerated transport in the food sector is constantly growing. At the same time, refrigerated and frozen boxes are getting smaller and smaller. A paradox? Not really. Rather, the result of the eternal quest for maximum efficiency.

“As a retailer, we are always on the lookout for transport with the highest possible fill rate”, says Tom Malfroid from Collect&Go. “Frozen food normally represents the smallest segment of total transport. In order to organise this more efficiently, we now combine the three main temperature zones into one trip: refrigerated, deep-frozen and ambient or room temperature. We’re redesigning our entire chain with this perspective in mind.”

LIQUID ICE FLOWS INTO THE SUPPLY CHAIN

The Colruyt Research & Development department has developed innovative refrigeration and deep-freeze carts based on liquid ice: liquid ice containers (LIC). This passive cooling offers great logistical added value as well as important environmental benefits. What’s more, they guarantee a longer cooling time than refrigerated gel packs, for instance.

“The liquid ice containers have hit the mark in several areas”, says Malfroid. “They increase the efficiency in our supply chain and reduce our ecological footprint. Because the containers are custom-made, they contain very little air. It means no energy is lost. For the cold chain of our customer orders, we use passive cooling by way of cool boxes with cooling plates. We use sensors to continuously monitor the temperature. This cool box technology allows us to process both the customer orders for our collection points as well as our home delivery service afterwards.”

NEW COOLING CONCEPTS ARE HOT

Companies that focus on these new types of cooled packaging have enormous growth potential. “Our isothermal boxes stay cool for up to 36 hours, and are a safe, sustainable, and smart solution for refrigerated transport”, explains Jos Mierman, co-founder of Etheclo. “The refrigerated and deep-frozen products – in 18-litre or 30-litre boxes – can be arranged in the same transport journey, and that could keep a lot of trucks off the road. With their relatively long cooling time of 36 hours, they are perfectly suitable for long distances. The temperature is constantly measured, and can be viewed on a cloud platform: the etheclomonitor.”



The Etheclobox operates on the basis of cooling or freezing plates or dry ice and can be used for shipments of various types of food, from fish and meat, fruit and vegetables, to chocolate or wine. “We guarantee 36 hours of cooling and a freezing time of 12 hours at -18°C, without dry ice. With added dry ice, this can be even longer or colder. Different volumes are possible, so flexibility is key.

Right now, our focus is mainly on local transport, but the boxes are perfect for longer distances. The advantages are crystal clear: if we can succeed in shipping chilled and frozen products together with ambient or even non-food products, we can have fewer trucks on the road. Traditional refrigerated vehicles are also more difficult to reconcile with the various low-emission zones in cities, so we’re winning there too. What’s more, cooling at packaging level consumes a lot less energy than if you need to refrigerate a whole vehicle. This kind of specialised transport is a real game changer.”

BETTER, SMARTER AND MORE ECONOMICAL

Wiljan Daris from The Greenery confirms that the big technological changes in 2022 are not so much in the warehouse, but more on the road that leads to it. “It is a fact that more and more products are being added to the cold chain. Let’s take apples and pears as an example. We used to have to provide cold storage only. Now, we are obliged to ensure that the entire transport from the grower to the warehouse is accurately refrigerated, no matter how short the route. To guarantee freshness, we completely eliminate all external conditions. This is not a new trend, but it does mean that current innovation is mostly found within transport. What’s more, the logistics sector is slowly moving away from the traditional diesel-powered refrigeration installations in trucks. These are systematically being replaced by smart, electric refrigeration technology, which is more convenient, quieter, and more economical.”



DIRECTLY TO THE CONSUMER

Because of stricter food regulations for foods such as fruit, vegetables, and potatoes, the cold chain is becoming ever wider. But at the same time, it is also getting shorter. After all, companies like HelloFresh, that deliver meal boxes to the consumer, are trying to skip the traditional retailer altogether. They work directly with growers to keep the chain to the customer as short as possible.

“We can see this trend developing at The Greenery too”, says Daris. “We have responded to it, by developing consumer packaging ourselves, for instance. And we are watching the online supermarket segment with much interest. New players like Gorillas and Picnic deal directly with the consumer and represent a very interesting growth market. If their formula continues to be successful, there will be lots of changes afoot over the coming years. But for us, retail remains the most important channel.”

WANTED: EXTRA (GREEN) ENERGY

Maximum automation, meticulously managed cooling technology, and intelligent sensors have staked their claim in our warehouses. Real-time data on the storage temperatures of foods in the supply chain: it is no longer futuristic curiosity, but simply the norm. However, all these indispensable tools do throw up an extra challenge: the sky-high energy bill. How do you deal with this as a company, now that energy efficiency has claimed a prominent place in our society and industry?



WILCO JANSEN

SLIGRO | HEAD OF INTERNAL
AND EXTERNAL COMMUNICATION

“Switching to renewable energy costs money, but that’s just how it is. But everyone realises the investments eventually pay for themselves.”

“The higher demand for cooling and freezing, and the increasing level of automation makes the green energy transformation more urgent than ever”, says Wilco Jansen from wholesaler Sligro. “But the shift has clearly started. The energy supply of a warehouse today cannot be compared with that of, say, ten years ago. Everyone was already making huge investments to save energy. Nowadays, LED lighting, maximum thermal insulation, and infiltration of rainwater into the ground are standard across the board. We also work on heat recovery as much as possible: we use the heat released by our refrigeration and freezer installations to heat the building. And a new industrial construction without solar panels on the roof is simply unimaginable.”

But don’t all these green measures make you go into the red? “Indeed, switching to sustainable energy costs a lot of money. But everyone realises the investments eventually pay for themselves.” Our customers also have certain expectations when it comes to sustainability. These are also a consideration. We want to show our existing and potential customers that we pursue an environmentally friendly energy policy.

CONCLUSIONS

- The importance of refrigerated distribution continues to grow
- Logistics premises are focusing even more on cold storage
- Coronavirus vaccines gave infrastructure a boost
- Maximum efficiency: one transport, different temperatures
- The shift towards more sustainability has begun

#2 **THE COLD CHAIN IS
GAINING MOMENTUM**

THE 4 TRENDS

#3 TREND #3: HOME DELIVERY GOING THROUGH THE ROOF

In recent years, consumers have completely succumbed to the convenience of e-commerce. After all, why go out to buy something yourself if you can have it delivered to your home? Now we are working from home more often than at the office, the practical advantages of home delivery are more obvious than ever. The explosive growth of e-commerce has also caused quite a stir in the world of food logistics. The traditional route from grower via wholesaler to the supermarket is by no means the only option anymore.

Why not just skip a visit to the supermarket if you're trying to save time? Just order online and your shopping is waiting for you at a collection point like the Colruyt Group Collect&Go point, or even better: it is delivered to your doorstep. Online supermarkets like Gorillas, Picnic, and Rayon are the embodiment of this new form of grocery shopping, whereby the consumer's convenience is more important than the price.

"Time is the most valuable commodity", according to customer experience expert Steven Van Belleghem. "It is the main reason why e-commerce, and now grocery delivery too, has grown so explosively. Efficiency has become the most important benefit to the consumer. This trend had been around for some time, but it became even more pronounced during the coronavirus period."

ALL ABOUT SUPERFAST

"Asia set the tone for fast grocery delivery. In China and Japan, completely new logistics have emerged in recent years: superfast deliveries under 30 minutes are the norm. But Europe is catching up: new players such as Gorillas from Germany, which is also active in Belgium and the Netherlands, are even giving us a ten-minute promise."



To give you an idea of how fast things are moving: Gorillas was founded in Berlin in 2020 and has been active in two Belgian cities (Antwerp and Brussels) and ten Dutch cities since 2021. The company's value is currently estimated to be more than 2.6 billion euros. The shopping service works with a local retail partner in each of the countries.

This partner – supermarket chain Jumbo in Belgium and the Netherlands – supplies logistical hubs in the city centres with a limited range of products. There are 1500 products to choose from in Antwerp, and almost 3000 products in the larger cities. By comparison, that's only a tenth of a standard supermarket's offering. In these hubs, orders are prepared at lightning speed and handed over to a bicycle courier.

EXPRESS DELIVERY DRIVERS CREATE NEW DEMAND FOR PREMISES

The growth of so-called express deliveries has created a greater demand for a new type of premises: the small urban hub. These warehouses have a limited capacity when compared with traditional supermarkets and require little to no freezer storage as they are mainly intended for last-minute orders of fresh products. The hubs are located in the heart of the city, so that they are quick and easy to reach for the (cargo) bike couriers who deliver the orders.

With their negligible impact on inner city mobility, they are a great example of urban logistics of the future. A fuel-powered van that drives from door to door? Unimaginable for this new generation of express delivery couriers. And it is they who are currently achieving the last mile ambitions in Belgium and The Netherlands. And whereas large logistics companies often excel at promising plans, this new cohort delivers on its promise. Coolblue is already doing just that with their striking blue cargo bikes, but plenty of other parcel services could learn a lot from this sustainable form of urban logistics.

“The growth of express courier companies such as Gorillas is downright impressive”, Van Belleghem continues. “Although the start-up is still supported by international investment funds and is not profitable itself, its future seems assured. Bicycle deliveries work incredibly well in big cities.”

We are also seeing huge strides from companies such as Picnic in the Netherlands. For them, the speed of the delivery is not the most important aspect. Picnic delivers using small electric trolleys and does so daily at a specific time for each district.

“Picnic works a bit like the mobile supermarkets we used to have. It is how the company appeals to the community spirit”, says Van Belleghem. “Their approach is less aggressive than Gorillas’, but it works. In 2021, Bill Gates invested in the company to the tune of 600 million euros. Today, Picnic is perfectly profitable and therefore future-proof. The delivery sector must take a route that combines sustainability, mobility, and respect. Hopr in Belgium, which has copied Picnic and is active in Limburg, has understood this message too.”



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STEVEN VAN BELLEGHEM

EXPERT IN DIGITAL MARKETING,
TECHNOLOGY & CUSTOMER EXPERIENCE

“A combination of sustainability, mobility, and respect: the route the delivery sector must take.”

LARGE CHAINS ARE HANGING BACK

And what are the big supermarkets doing in the meantime? Ordering and collecting groceries yourself is perfectly possible at most supermarket chains. But when it comes to home delivery, they are cautiously hanging back. But won't they miss the gravy train that the hungry new players are catching?



“The Belgian supermarkets are not eager to make big investments in a home delivery service”, Van Belleghem observes. “They see the market as too small as for now and will only start to get on board once the delivery project can be profitable in and of itself. The risk is very obvious, of course: if they leave it too late, they will be pushed out by international players. Which is exactly what happened in non-food e-commerce, with the current dominance of Bol.com and Coolblue as a result.”

“There has clearly been a huge boost to ordering groceries during the coronavirus period”, says Tom Malfroid from Collect&Go. “We can present growth figures of more than 50%. This jump proves that the adaptation from physical shopping to online shopping has happened very quickly. In 2020, we made a two or three-year jump with Collect&Go. There might have been a peak time during the strict lockdowns, but we can say with certainty that we will never go back to the days before coronavirus.”

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TOM MALFROID

COLLECT&GO | COLLECT&GO
SUPPLY CHAIN MANAGER

“We want to capitalise on the delivery trend, but not at any cost.”

“We are growing fast, but at Colruyt we don't take unnecessary risks.”, Malfroid explains. We are currently focusing on growing our Collect&Go collection points, and we are further expanding our network of Collect&Go Drivers. Drivers are people from your neighbourhood, who deliver groceries in their own locality for a fee. These two services respond to market demands.

We are currently still in the process of working on home delivery methods besides Drivers, one which suits our organisation and our customers. Sustainability and efficiency are essential conditions for home delivery, and we will absolutely incorporate those values. We want to capitalise on the delivery trend, but not at any cost.”

CRUCIAL CONFLICT

Why is this step so difficult? “Delivery is much more complex than stocking shops”, Tom Malfroid continues. “There is a lot more involved and the peaks are more extreme. To prevent bottlenecks, it is vital that we create as much spread in the orders as possible. But this requires a major change in consumer behaviour. It is remarkable how few people do their online shopping on off-peak days, for example, even if it means they would receive their order quicker. Saturday remains the holy grail.”

“We would like people to book a time slot three days in advance for collecting their orders. They can still make changes until 9 o’clock on the morning before the day of collection. But most orders are placed the day before, and preferably in the evenings, which doesn’t make it easy to organise our supply chain efficiently. That is why reliable forecasting is essential for our two large distribution centres.



TOM MALFROID

COLLECT&GO | COLLECT&GO
SUPPLY CHAIN MANAGER

“To prevent bottlenecks, it is vital that we create as much spread in the orders as possible. But this requires a major change in consumer behaviour.”

“The consumer expects superfast delivery, but also the very best quality. Combining the two is a very big challenge. In our sector, thorough quality control is vital, even if it is at the expense of speed. E-commerce giants such as Amazon have created sky-high expectations for non-food. Competing with that in the food sector is a huge challenge. Our order pickers take the time to check products, even taste them and remove them from the chain if necessary. And they will continue to do so.”

“There is still substantial room for improvement”, says Jos Mierman from Ethe clo. The passive cool boxes his company has developed are a method for making the supply chain more efficient.

“Our boxes extend the cold chain all the way to the consumer’s front door. What’s more, they make it possible to combine ambient, refrigerated, and frozen products in one delivery. This is an enormous potential time saver for suppliers. The Ethe clo cool boxes also offer plenty of advantages for the consumer, as they receive everything in one go. The chance of a failed delivery is reduced.”



Franck Toussaint from BioLog Europe can also see that few companies are succeeding in a fast switchover to a b2c strategy. “It’s just that the food sector requires more precision and efficiency than other sectors”, he explains. “Everything that comes in to a warehouse also has to go out again quickly. The lead time is already incredibly short. If you translate that into an e-commerce context, where all the products have to be processed even faster, you are dealing with a truly gigantic challenge. What is most important: speed or quality?”



TOM MALFROID

COLLECT&GO | COLLECT&GO
SUPPLY CHAIN MANAGER

“In our sector, thorough quality control is vital, even if it is at the expense of speed.”

SWITCHING? NO EASY TASK

It seems that large chains are missing opportunities by not jumping onto the b2c market. But Wilco Jansen from Sligro says that the switch from b2b to b2c is not that obvious. “In food, the difference between the b2b market and the b2c market is huge”, he continues. “For b2b customers, we work with larger volumes and more fixed order and delivery frequencies. As a wholesaler, we can standardise much more. Supplying b2c customers directly requires a different approach. They purchase more in smaller quantities. It means more manual work is required for them.”

Wiljan Daris from fruit and vegetable sales organisation The Greenery also sees new models successfully entering the market. “The key word is efficiency. Online supermarkets and meal boxes such as Hello Fresh prove that they don’t need the traditional supply chain to reach the consumer. We also have to follow trends and look for ways to get closer to the end customer. But in our case, the retail channel remains very important strategically.”



GROCERIES BECOME EXPERIENCES

Should the traditional supermarket reinvent itself to counter the success of home shopping? In traditional retail, we can see how shops maximise the experience factor to make shopping in person more attractive. Should food shops take the same direction?

“As I said, time gain is an incredibly important factor”, says Steven Van Belleghem. “Those who want to continue to attract customers to physical shops, will have to prioritise efficiency and user convenience. I am thinking of fast checkouts and till-less supermarkets such as the Ago stores. But supermarkets should also take full advantage of the experience factor. Serve the customer small tasters, highlight the artisan character of your products, appeal to all the senses. Give advice and personal guidance on choosing the right product. These are all assets that online shops do not have.”



STEVEN VAN BELLEGHEM

EXPERT IN DIGITAL MARKETING,
TECHNOLOGY & CUSTOMER EXPERIENCE

“I think it will be another 10 to 15 years before autonomous vehicles start delivering parcels here. Just the regulations and safety issues of those robots will be an incredible challenge.”

THE NEXT STEP: DELIVERY ROBOTS?

The shift to the b2c market has really shaken up the food sector's logistics processes. Will we see any more breakthrough technological innovations in the near future? There is plenty of experimentation with delivery drones and robots, especially in the US. But these will not become commonplace on a large scale any time soon, according to Steven Van Belleghem.



“There are examples galore about robots and drones that deliver parcels in certain regions in the US. In China, we even see so-called flying cars pop up – a cross between a car and a drone. But I think it will be another 10 to 15 years before autonomous vehicles start delivering parcels here. Just the regulations and safety issues of those robots will be an incredible challenge. Add to that the factor of refrigerated transport, and you can understand that drone deliveries in food logistics are not going to happen overnight.”

CONCLUSIONS

- E-commerce creates a new business model
- The new supply chain omits retailers
- Large warehouses become small city hubs
- Deliveries must be quick, but also sustainable

#2 HOME DELIVERY GOING THROUGH THE ROOF

THE 4 TRENDS

#4 TREND #4: ANYTHING FOR THE ALGORITHM

If you really want to manage your supply chain in the most optimised way, you need data – lots of data. As a supplier, the more you know about your customers, the easier it is to serve them. And in food logistics, it's vital; there is no room for guesswork when fresh food products are involved.



“We know perfectly well when our customer’s pantry is empty”, says Wilco Jansen from wholesaler Sligro. “Because we deliver to our customers almost every day, we know each other inside and out. We collect so much data that algorithms can tell us exactly what our customers will need and when.”

This focus on data is not new, of course. Wholesalers like Sligro have been using digital technology to manage their chains for more than 20 years. “We have already been using online ordering for a very long time. The development we are now seeing in the b2c sector, where you can order what you need online 24/7, took place 15 years ago in our case. The current evolution is very familiar, only it is happening at a much higher tempo and with a lot more applications. We were working online even before the Internet was commonplace here: taking a scanner into the warehouse and digitally sending all the data, we were doing that 20, 25 years ago.”

FROM ROADWORKS TO WEATHER FORECAST

“We gather as much digital information as possible. For deliveries, we use route planners that are aware of traffic flows and any roadworks. And for our inventory, we look at the time of the year, the day of the week, peak times in the past, etc. Weather forecasts are important too.”

“If good weather is forecast, our hospitality customers have to be prepared for a rush on their outdoor seating with everyone wanting an ice cream. Whether or not the weather is actually going to be nice is less important here. People will come anyway, just based on the weather forecast.”



WILCO JANSEN

SLIGRO | HEAD OF INTERNAL
AND EXTERNAL COMMUNICATION

“The development we are now seeing in the b2c sector, where you can order what you need online 24/7, took place 15 years ago in our case.”

“Data and algorithms have become indispensable, but they don’t tell you everything, of course. You can’t just simply deduce the importance of a certain product from data. What if 2% of an order is delayed, but this 2% happens to be the very most important component? In that case, the impact is much bigger than our data might suggest.”

Jansen says companies that supply the consumer directly can learn a lot from the b2b market. “The flexibility in the way we deliver to our customers is something you don’t yet see in b2c. We encourage our customers to order quickly and wait a little longer for their delivery – if necessary, we tempt them with adjusted prices. If you know your customer well, such agreements are easier.”

WAREHOUSES ARE BUILT ON DATA

Data not only plays a central role in the supply chain, it also has a huge impact on the current logistics premises. Technological requirements are incomparable to those of ten years ago; energy supplies but also the processes themselves have been transformed. The chain became much more efficient, and lead times for the goods became shorter as a result. And it is precisely this lead time that helps shape the layout of a distribution centre.

“The speed at which goods come in and go out again is enormous”, says Jansen. “A warehouse with perfectly streamlined internal logistics simply saves a lot of time. It often means you need less storage volume. However, you do need more loading and unloading docks. This increase perfectly illustrates where the new focus lies: on lots of goods in and out, and less on storage.”



THE SEARCH FOR PREDICTABILITY

Organisations that rely on data strive for 100% predictability. But what if unexpected external factors throw a spanner in the works? It suddenly exposes the vulnerability of the entire supply chain. The Suez Canal blockage in March 2021 and the first big coronavirus lockdown the previous year made that abundantly clear. Hospitality being closed, in particular, saddled the entire food sector with a period of uncertainty that lasted months.

“The closure of our hospitality customers during the lockdown in 2020 was the biggest challenge we have ever faced”, says Wilco Jansen. “All of a sudden, our data was worthless. There was virtually no demand from the hospitality industry. We no longer had any point of reference. And when hospitality was allowed to open again, we were inundated: every customer wanted everything, and preferably yesterday. We had to do things the old-fashioned way again. A short hiatus of a week or two is easy to absorb, but starting up again after months of inactivity? That’s a completely different ball-game. Don’t forget that the link before us in the chain – the producers – had also come to a complete halt. Producing the same as before, from one day to the next, that’s simply impossible. A chicken has to grow, an egg has to be laid.”

What about the consumers? They started looking around because of all these supply chain problems. And they found that a short line to a local producer offers a number of practical benefits, and that small independent businesses could do with their support, more so than the large multinationals. The growing demand for refrigerated and deep-freeze transport won’t dampen this ‘buy local’ trend any time soon. But it does show that consumers are discerning – both in terms of what they buy and how it reaches them.



ERP EXPOSES THE SUPPLY CHAIN

Companies use so-called ERP software (Enterprise Resource Planning) to do everything they can to make the entire supply chain as transparent as possible. An ERP system connects programmes relating to all the company’s important activities – from purchasing, HR, marketing, and finances to production – and turns them into a concise whole. This software is essential for companies like The Greenery, but there is room for improvement.



WILCO JANSEN

SLIGRO | HEAD OF INTERNAL
AND EXTERNAL COMMUNICATION

“The closure of our hospitality customers during the lockdown in 2020 was the biggest challenge we have ever faced. All of a sudden, our data was worthless.”

“Food logistics is a sector with its own sensibilities and unpredictability”, says Wiljan Daris from The Greenery. “Our ERP control system already offers us plenty of insights into our inventory, the transport flows, and even up-to-date checkout information from our points of sale. But there is much greater potential in ERP software for our sector. We are dependent on production data, which is still difficult to predict a lot of the time.”

Daris sees major IT challenges for food logistics. “The integration of planning, schedules, and all manner of parallel data systems is still causing problems. We are on the right track, but the transition is still in full swing. As a company, you have to build a solid IT strategy to get the most out of the available systems. Logistics companies often involve their own people in these types of integrations, but they are not always project managers with an IT background. As a company, you have to attract specific profiles to build large IT projects.”

URBANTZ: SUSTAINABILITY OVER FAST DELIVERY

Technological innovation not only makes the chain more efficient and more transparent, it also creates more environmentally friendly transport. The Brussels company Urbantz, that develops software for the coordination of last mile delivery and has supermarket Carrefour in its customer portfolio, has made this combination its mission.

“We want to organise last mile delivery even better”, says Jonathan Weber, CEO at Urbantz. “We do this, for example, by allowing retailers to rank timeslots for the consumer when they check out. This encourages the consumer to make a sustainable choice: a slot for delivery by electric vehicle or one that is linked to another nearby delivery comes with an appealing incentive.”



JONATHAN WEBER

URBANTZ | CHIEF EXECUTIVE OFFICER

“Our customers can increase their efficiency and bypass one of the biggest problems in last mile logistics: failed deliveries.”

“The consumer expects every online order to appear at their door fast and free of charge – the Amazon effect, so to speak. But same day delivery has become untenable. If we were to carry on in the same vein, our delivery vans would literally get stuck in our city centres. Companies need an unrealistic number of micro-warehouses to keep their promises of fast delivery.”

“Optimised supply based on as much data as possible, that’s the road we need to take. It will allow our customers to increase their efficiency and bypass one of the biggest problems in last mile logistics: failed deliveries.” A parcel that cannot be delivered is a logistical catastrophe, especially when it is food. We must reduce this risk to zero. But beware: this is highly ambitious, and as such requires different planning methods from the supplier and a change of mentality from the customer. But it is perfectly feasible. Thanks to our systems, customers can have real-time communication with the courier and share important information that can prevent a failed delivery.”



“The e-commerce sector is not going to shrink any further, and the pressure on companies to organise transport and deliveries in an environmentally friendly manner will only increase. The switch is in full swing: consumers are more and more mindful of the ecological impact of their orders. Sustainability is starting to outweigh speed. And in the near future we will ask ourselves why we ever did it differently in the first place.”

CONCLUSIONS

#4 ANYTHING FOR THE ALGORITHM

- Data is the tool, 100% predictability is the goal
- However, the supply chain remains vulnerable
- Intelligent software is reinventing sustainable city logistics



CONCLUSION

Food distribution has always been a complex component of the logistics sector. Even when corona was just an exotic beer, the supply chain in the food sector was battling with specific vulnerabilities and challenges. Growers, wholesalers, and retailers try to remove the uncertain factors by introducing more technology, algorithms, and artificial intelligence into the chain. All solid investments, with a clear goal: 100% predictability of supply and demand.

In terms of investment, the food logistics sector has known what to do for some time. The ever stricter food safety regulations have forced logistics companies for years to rigorously monitor each link in the cold chain, and immediately make adjustments where needed. The technological requirements for specialised transport and logistics premises are no longer comparable with those from ten years ago.

All this new technology heralds an era of more efficiency, but also of more sustainability. Because even though a modern warehouse processes a lot more data, it consumes less – or at least cleaner – energy to do so. The entire chain is greener: from the solar panels on the vegetable grower's roof to the latest generation of cool boxes during transport, and to the electric cargo bikes picking up groceries ordered online from our city hubs and delivering them to our doors.

Bon appetit!



WDP

WAREHOUSES WITH BRAINS

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