THE YEARLY CYCLE LOGISTICS BAROMETER

Belgian Cycle Logistics Federation

2024 (Second edition)

BELGIAN CYCLE LOGISTICS FEDERATION

Acknowledgment

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We are especially grateful to the Belgian Federal Government Mobility and Transport for making this work possible through their financial support, thereby enabling the advancement of the Cycle Logistics sector.

Foreword

The Belgian Cycle Logistics Federation (BCLF) is a non-profit organisation that unites transport and logistics operators around a shared mission: to unlock the full potential of cycle logistics. Our goal is to reach the full potential of bike deliveries, to mitigate climate change, to create fair and quality jobs in the transport sector, to develop the local economy and to contribute to more livable and sustainable cities.

This report is the second edition of the Yearly Cycle Logistics Barometer. It builds on the insights from last year's study and provides an updated analysis of the sector's development in Belgium.

The study highlights the progress of cycle logistics, identifies key trends and challenges, and offers recommendations to further advance the sector. Through this ongoing analysis, it aims to provide valuable insights to stakeholders, policymakers, industry professionals, and anyone having a direct or indirect impact to collaboratively shape the future of sustainable urban delivery systems.

Executive summary

The logistics sector in Belgium is a key part of the economy, employing 225,000 workers, with road transport handling 85% of freight. The parcel market, in particular, has been growing steadily, with 381 million parcels delivered in 2023. However, this market faces significant challenges, including high **last-mile delivery costs, representing up to 41% of the total delivery cost**, environmental concerns including pollution and congestion, and rising consumer expectations for fast, affordable delivery. In response, local and international authorities are working on several initiatives, such as the 'Green Deal Logistics' and various regulatory frameworks, to address these challenges and improve the organisation of the sector.

The cycle logistics sector has experienced notable **growth, particularly between 2022 and 2023, with deliveries more than doubling to 3.1 million parcels**. This growth was primarily driven by Mixed Carriers, who saw substantial increases in volume and accounted for 80% of the sector's growth. Brussels led in cycle deliveries, with large and medium sized cities showing significant potential for further expansion. Overall, Cycle Logistics currently represents only **1,5 % of total parcel deliveries**, underscoring the immense untapped potential for growth in this sector. Although the workforce has expanded significantly—particularly among Mixed Carriers, whose employee numbers have tripled—gender diversity remains a challenge. However, the relatively low turnover rate suggests that the sector offers a positive and stable work environment. **In 2023, the cycle logistics sector is estimated to have reduced CO2 emissions by 3,078 tonnes and saved up to €11 million in congestion-related and societal costs.**

The logistics industry is increasingly adopting cycle logistics as part of its overall shift towards greener solutions, delivering a large variety of goods. **Mixed carriers and Transport Organizers are adding bikes to their fleets alongside electric vehicles and vans.** This trend, accelerated by the pandemic and stricter carbon regulations, offers faster, more eco-friendly delivery options in congested urban areas. However, companies face challenges such as the operational limitations of carrier cycles, brand perception, safety concerns, equipment durability, alignment with corporate strategy priorities, and managing operational costs and investments—all while staying competitive in the market.

Balancing sustainability with profitability remains a challenge, as customers desire greener solutions but are often unwilling to pay more for them.

To address the challenges facing cycle logistics, stakeholders—policymakers, manufacturers, actors in the ecosystem and professional carriers—should collaborate to promote sustainability, develop infrastructure, introduce financial incentives, innovate equipment and

more generally provide favourable conditions for accelerating the development of the sector. Professional carriers shall continue to lead the way in expanding bike delivery services, and citizens shall play a crucial role by advocating for eco-friendly delivery options right to their doorstep. Overall, the outlook for the sector of Cycle Logistics is positive, and by taking practical steps to remove hurdles, and foster collaboration across the sector, a more efficient and sustainable logistics system will be achieved, for the benefit of the society.

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Terminology

Carrier Cycles

A cycle can be referred to as a bi-, tri- or quadricycle. To include the widest range of cycles on the market, this paper uses the word 'cycle'. Moreover, the word "cargo bike" is also widely used and known. Nevertheless, European standards (CEN/TC 333/WG 9) consider "carrier cycles" as a generic term. Therefore, the paper uses the term "carrier cycles" which refers, among others, to cargo bikes.

Parcel Equivalent

There are different valid definitions of a parcel. According to the Belgian Postal Law, a parcel is a 0 to 31,5 kg logistics unit. For logistics carriers, the definition of parcels varies from logistics units of 0 to 10 kg, to logistics units of 0 to 150 kg. For clarity, this paper considers a parcel equivalent as one logistics unit, independently from its content or its weight, size or height.

Third Party Logistics (3PL)

In logistics, a 3PL provider is a company that offers outsourced logistics services to other businesses. These services can encompass a wide range of supply chain activities, including transportation, warehousing, inventory management, order processing, freight forwarding, customs brokerage. We have added the 3PL actors, as they play an important role in Cycle Logistics.

CO2 equivalent (CO2 eq.)

CO2 equivalent is a metric used to standardise the impact of various greenhouse gases (GHGs) by expressing their effects in terms of the global warming potential (GWP) of carbon dioxide (CO_2) over a specific time frame. It is typically used in corporate sustainability and reporting to evaluate the impact of an activity.

List of acronyms

BCLF: Belgian Cycle Logistics Federation

CIE : Cycling Industries Europe

ECF : European Cycling Federation

FTE : Full Time Equivalent

FUB : Fédération des Usagers de la Bicyclette

LCV: Light Commercial Vehicle

LEZ : Low Emission Zone

NPO : Non Profit Organisation

SUMP : Sustainable Urban Mobility Plan

SULP : Sustainable Urban Logistics Plan

3PL : Third Party Logistics

Introduction

Belgium's logistics sector is on the brink of a transformation. As urban congestion grows and consumer demands rise, the need for smarter, more sustainable delivery solutions has never been clearer. The last mile—whilst being the smallest part of the overall transport journey—represents a huge challenge, both in terms of cost and environmental impact. It is estimated that last-mile delivery accounts for more than 41 percent of the total transport cost[1]. In Europe, freight contributes over 30% of transport CO2 emissions, a share expected to grow as shipment volumes increase.[2] According to calculations by Comeos (the federation representing trade) , the social repercussions of this parcel volume in Belgium—such as noise, air pollution, and traffic congestion—amount to an annual cost of 188 million euros[3]. With cities facing worsening traffic and reduced road speeds—predicted to drop by 29% during peak hours by 2030[4]—efficiency improvements are more critical than ever. Meanwhile, Europe is committed to cutting transport sector emissions by 40% by 2030[5] and achieving carbon neutrality by 2050. The stage is set for innovative solutions to rise and tackle these challenges head-on, offering a greener, more efficient future for urban logistics.

Enter cycle logistics, a rapidly growing sector poised to offer a solution. As cities grapple with pollution and congestion, the use of cargo bikes is emerging as a sustainable alternative, dramatically reducing both environmental impact and improving operational efficiency. In fact, it's estimated that up to 33%[6] of all professional urban delivery trips could be made by bike, a significant shift in the logistics landscape. Demand for cycle logistics is expected to quadruple across the EU in the coming years, with the global market for cargo bikes projected to reach €2.4 billion by 2031[7]. This surge is not just driven by environmental concerns but by the need for faster, more flexible urban deliveries.

In this Barometer on Cycle Logistics, we delve into the rapidly evolving market, analysing the current status, trends, and the crucial role that newcomers—Mixed Carriers and Transport Organizers—are playing in shaping the future of urban logistics. These players are integrating bikes into their fleets alongside traditional vans and electric vehicles, adapting to the challenges of congestion, environmental regulations, and consumer demand for quicker,

[1] Daniela Coppola, (2024) Share of last-mile delivery costs out of total shipping costs in 2018 and 2023.
[2] European Council
[3] Evelyn De Wachter, Vincent Henrion, Rosanne Vanpée, Bruno Van Zeebroeck (2024) L'économie du vélo en Belgique et son influence sur la situation socioéconomique du pays - Rapport pour : Service Public Fédéral Mobilité et Transports - Transport & Mobility Leuven. p90.
[4] Els Struyf, Christa Sys, Eddy Van de Voorde, Thierry Vanelslander (2022), Calculating the cost of congestion to society: A case study application to Flanders, Research in Transportation Business & Management, Volume 44.
[5] European parliament (2023) Reducing carbon emissions: EU targets and policies.
[6] The actual potential is around 25% when considering only goods transportation within the city, and 50% for services . Bundled, 33% of the motorised trips for the professional transport (freight, delivery, services, business) in urban areas could be shifted to (carrier) cycles.
[7] The Dutch Cycling Embassy (2024). Final report - June 2024- The Cargo Bike in Dutch Zero Emission Zones for Logistic.

cleaner deliveries. Through this report, we will explore the powerful potential of cycle logistics to not only reduce emissions and alleviate congestion but also to revolutionise the future of urban deliveries. The opportunity is clear: by embracing innovation and collaboration, cycle logistics can help deliver a greener, more efficient, and more cost-effective future for cities across Belgium and beyond.

Cycle Logistics

Definition of Cycle Logistics

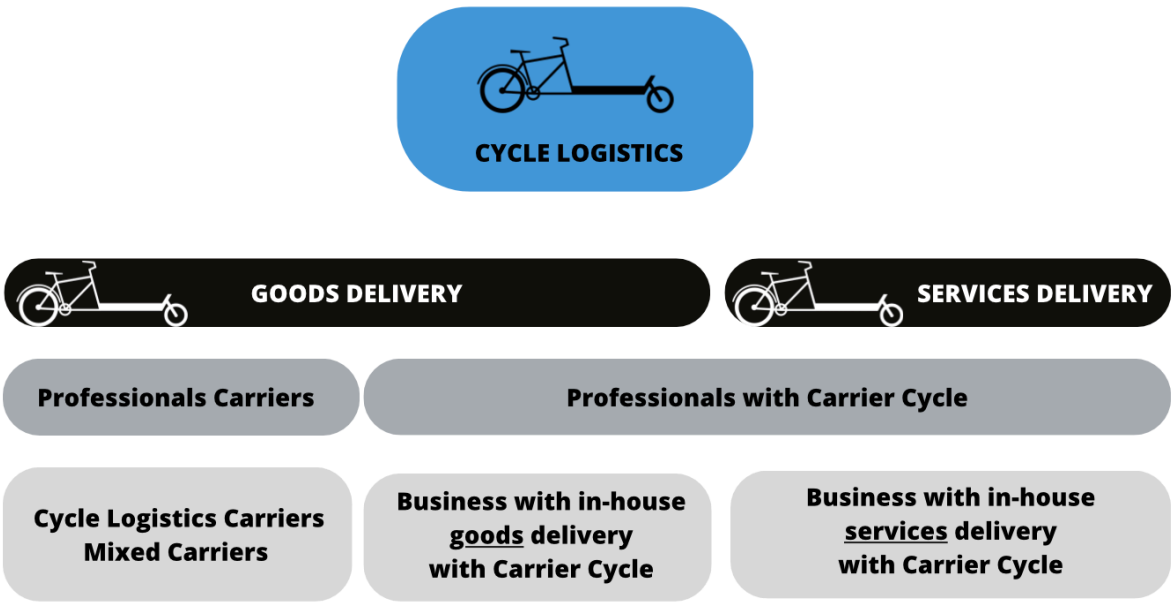
In the first edition of the Cycle Logistics Barometer 2023 we proposed a holistic approach to define the cycle logistics sector: **Cycle logistics is the professional transportation of goods or service by (carrier) cycles and the logistics services associated such as handling, storing and managing of flows.**

Market Segments

In 2023, we detailed extensively the market segments. There are two main categories:

- **Professional carriers**: transporters for third parties
- **Professionals with carrier cycles**: businesses delivering their own products or services

For more details, we would like to refer to the edition 2023 of the Barometer.



The BCLF is addressing the market segment of **Professional Carriers**. The market segment of Professionals with Carrier Cycles is a very fragmented market, and will be addressed by the BCLF in the future.

Types of Carriers

In the Professional Carriers market segment, we distinguish between the Cycle Logistics Carriers and the Mixed Carriers.

Cycle Logistics Carriers

The **Cycle Logistics Carriers** are organisations specialised in the transport of goods for third parties **using almost exclusively (carrier) cycles** in urban areas. These organisations have the (carrier) cycles in the DNA of their mission, and they typically share strong environmental and social values by offering fair and qualitative jobs. A majority of these organisations have a strong anchorage in the circular and the local economy. They operate in one or multiple cities and offer the service of transportation exclusively for the "last mile". We shall consider these organisations as the pioneers of the sector. They demonstrate that cycle logistics is a real sustainable solution for professional transport in cities.

Mixed Carriers

The **Mixed Carriers** are organisations specialised in the transport of goods for third parties using a mixed fleet of trucks, vans and (carrier) cycles. They generally operate on a national and international level and they process a very large volume of deliveries. Those carriers recognize the potential for integrating cycles into their urban delivery fleet to enhance sustainability and efficiency. Due to their significant scale and resources, Mixed Carriers have the capacity to make impactful shifts to cycle logistics. However, transitioning their complex supply chains poses challenges that we are exploring in this study.

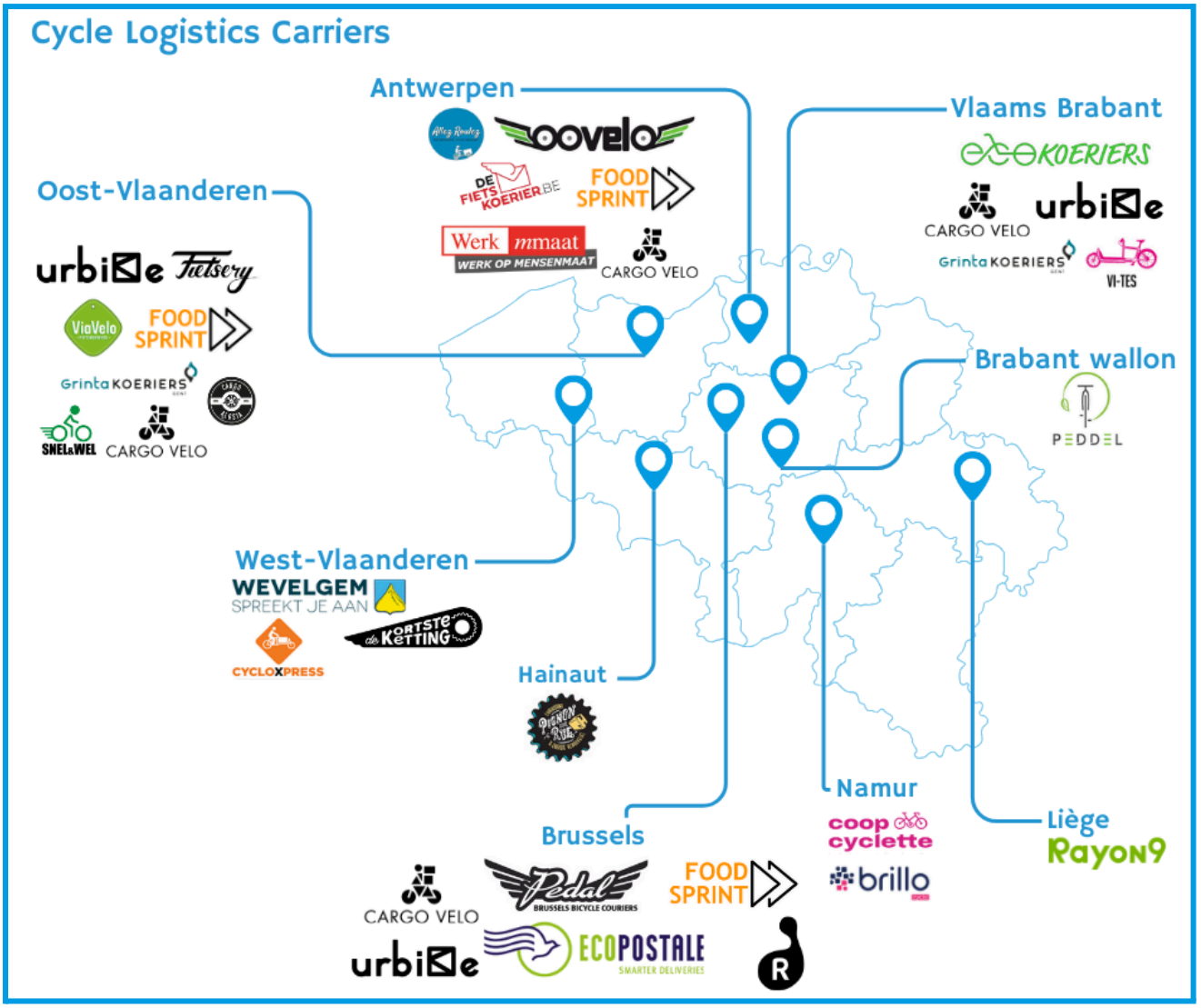
Transport Organizers (3PL)

In this edition of the Cycle Logistics Barometer, we are adding a third type of actor that plays an important role in the emerging sector of cycle logistics: **Transport Organizer**. These are typically large organisations which manage the logistics process on behalf of their customers. While these organisations are not doing the transport with their own fleet, they own the decision on the use of (carrier) cycles, via subcontractors. This is why we include them in our study.

The Cycle Logistics Sector in Belgium

In this section, we are depicting organisations belonging to the **market segment of Professional Carriers**.

The landscape of Professional Carriers, presented on this map, is further detailed per category.



Cycle Logistics Carriers in Belgium

The table below highlights the important Cycle Logistics Carriers operating in Belgium in 2023, to the best of our knowledge.

	Region	Detail
Allez rouler	Klein Brabant	Part of an NPO (Nektari).
Brillo	Charleroi	Partenariat avec Coursier Wallon To be completed
Cargo Alosta	Aalst	Small freelancer side activity.
Cargo Velo*	Antwerp, Brussels, Ghent, Leuven & Mechelen	SME started in 2012. Strong development with its activities in numerous cities
Coopcyclette	Namur	SME started in 2022, part of the social economy (cooperative).
Coursier Wallon	Namur & Charleroi	SME started in 2011, part of the social economy (cooperative) but closed activities at the end of 2023.
CycloXpress	Gistel & Oostende	Bike courier is partially active in the Oostende-Gistel region and active for almost 10 years.
De fietserij	Aalst	Part of a NPO (Stroom vzw) - social economy aiming at offering opportunities to (long term) unemployed.
De fietskoerier	Antwerp	Oldest bike messenger company in Belgium, started 22 years ago (SME).
De kortse ketting	Kortrijk	Started in 2020 as a small side activity with the intention to develop further, focusing on bicycle transportation in and around Kortrijk.
Ecokoeriers	Mechelen	Part of an NPO (ConnAct) - social economy whose goal is to put workers far from the job market back on it.
Ecopostale	International (Brussels)	SME started in 2010. Focuses on express deliveries. Sends worldwide via subcontracting. Urban logistics by (carrier) cycle.

	Region	Detail
Fietskoerier	Lier	Part of a NPO (Werkmmaat) - social economy aiming at offering opportunities to (long term) unemployed.
Foodsprint	Antwerp, Brussels & Ghent	SME started in 2021. Specialises in refrigerated food transport. **Acquired by BD Logistics in September 2024. Can now be considered as a Mixed Carriers.*
Grintakoeriers	Asse, Ghent Halle & Vilvoorde	Part of an NPO (IntroGroep) - social economy aiming at offering opportunities to (long term) unemployed.
Oovélo	Antwerp	SME started in 2015 and is active in high end customers activities.
PedalBXL	Brussels	SME that focuses on express services.
Peddel	Wallonian Brabant: (Waterloo, Braine-l'Alleud, Rhode, Nivelles, Rixensart, Genval et La Hulpe)	PEDDEL is a sustainable mobility project launched in 2020.
Pignon sur rue	Mouscron	Small side activity.
Rayon9	Liège	SME, part of the social economy (cooperative). Started in 2015 and pursues an organic development.
Recyclo	Brussels	Cooperative active in circular economy
Snel & Wel	Aalst, Ninove & Oudenaarde	Part of a NPO (Steunpunt Welzijn) - social economy.
Urbike	Brussels, Ghent & Leuven	SME, part of the social economy (cooperative). Started in 2018 and offering other services, related to cycle logistics activities (consulting, training, etc).
ViaVelo	Deinze	SME started in 2015 with a strong development process and social anchoring.
Vi-tes	Leuven	Historic courier activity started in 2008.

	Region	Detail
Wevelgemse fietskoerier	Wevelgem	Part of the city - social economy aiming at offering opportunities to (long term) unemployed.

Table 1: Cycle Logistics Carriers in Belgium

Mixed Carriers in Belgium

The table below highlights the important Mixed Carriers operating in Belgium in 2023.

Name	Region	Detail
Bpost	Belgium	Created in 1830[8], Bpost has the biggest number of carrier cycles and trailers in Belgium. They always used bicycles, began using e-bikes around 2010 and expanded to cargo bikes around 2020.
DHL	Antwerp	Opened their Belgian branch 1978[9] in Belgium and started with cycle logistics in 2016. Uses their personalised cubicycles in Antwerp. Tested other cities but stopped.
KGS	Brussels	Large logistics company founded in 2018 using carrier cycles among others in Brussels. They started to deliver by bike in 2022.
OnTime	Antwerp	Large logistics company using carrier cycles in Antwerp (principally in the port). Founded in 1997. They started to deliver by bike around 2010.
PostNL	Ghent	Started in Belgium in 1998 and they launched a pilot project with bicycles in 2023 in Ghent.
Urbeez	Belgium	Transporter exclusively operating with zero emission vehicles and therefore among others cycles. Started in 2019 and fully launched into bike delivery in 2020.

[8] Archive de la poste
[9] DHL

BD Logistics	Gent, Antwerp and Brussels	Specialises in last-mile delivery solutions and urban logistics and started with cycle logistics in Ghent around 2020 with cargo velo. They acquired Foodsprint in September 2024. Can now be considered as a Mixed Carriers.
Ziegler	Brussel[10]	Started in September 2021, with the implementation of their Cargobike project as part of their "Ziegler. Now Even Greener" programme.

Table 2: Mixed Carriers in Belgium in 2023 (non-exhaustive)

Transport Organizer (3PL)

The table below highlights the important Transport Organizers operating in Belgium in 2023.

Name	Region of cycling activities	Detail
SD Group	Brussels, Ghent and Leuven	Bicycle deliveries started in early 2020, beginning with OnTime and expanding with Urbike in Brussels and Ghent. They now also operate in Leuven.
DPD	Ghent	Focuses on parcel delivery and express shipping across Belgium. DPD works with Midori Group BV.
GLS	Deinze	GLS in Belgium manages business freight and parcels nationwide, shifting from mainly B2B to more B2C with rising e-commerce. They currently only use cargo bikes in Deinze in collaboration with ViaVelo.

Table 3: Transport Organizers in Cycle Logistics in Belgium in 2023 (non-exhaustive)

[10] https://www.zieglergroup.com/be/services/cargo-bike

Scope and Methodology

The Barometer 2024 covers the market segment of **Professional Carriers**, and its three types of carriers: *Cycle Logistics Carriers*, *Mixed Carriers*, and *Transport Organizers*. (see definitions in the previous section). Compared to the 2023 Barometer, which focused exclusively on the Cycle Logistics Carriers, our 2024 Barometer includes 2 additional actors, because of their very significant impact in the development of cycle logistics: **Mixed Carriers** and **Transport Organizers**.

To set the stage and estimate the market share of Cycle Logistics, we begin with a **market overview**, providing essential quantitative insights and trends on the evolution of urban logistics and parcel market.

Then, we used a two-part approach to gather input from the organisations operating in the sector:

1. **An online survey**, distributed to all three groups (Cycle Logistics Carriers, Mixed Carriers, Transport Organizers) and aimed to capture quantitative data on the organisation and delivery metrics. The key content of the online questionnaire is based on a Europe-wide sector survey, coordinated by Cycle Industries Europe.
2. **Interviews** (face-to-face/face-to-screen) with Mixed Carriers and Transport Organizers focused on gathering qualitative insights into their cycle logistics operations, operational challenges and strategic decisions.

Data collection took place between May 2024 and November 2024 targeting a sample of 29 representative companies of the industry : 19 Cycle Logistics Carriers, 6 Mixed Carriers and 4 Transport Organizers.

We analysed the quantitative data for delivery trends and performance metrics, while qualitative insights were coded and analysed thematically to identify patterns. This mixed-methods approach allowed us to obtain both numerical performance metrics and a deeper understanding of the operational dynamics across the sector.

Finally, our work led us to make **targeted recommendations** for each stakeholder group to address the challenges encountered by operators and to support the development of Cycle Logistics in Belgium.

Market Overview

Logistics in Belgium : an important yet little-known sector

The logistics sector is vital to Belgium's economy, employing over 225,000 people[11] and home to one of Europe's largest ports, located in Antwerp. Logistics activities are particularly important in Flanders, which alone accounts for 63.25% of the sector's workforce, compared to 22.17% in Wallonia and 14.58% in Brussels. Similarly, 64,72% of transport and logistics organisations are based in Flanders, 22,54% in Wallonia and 12,74% in Brussels. In Flanders, the sector's gross added value amounts to around 12 billion euros[12], representing 4.5% of the region's total.

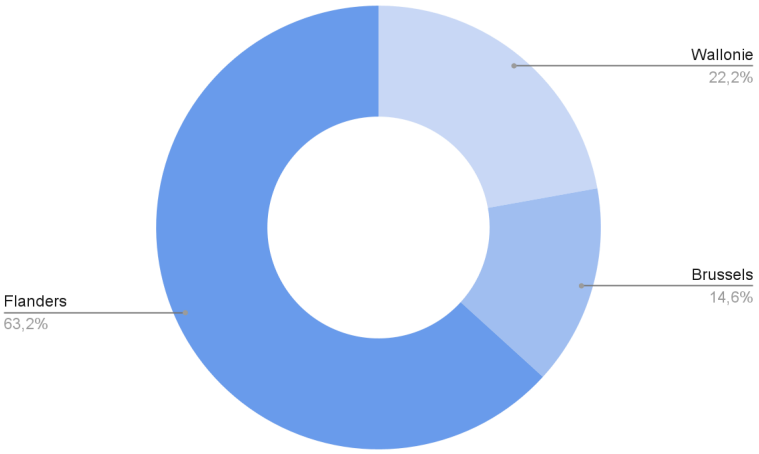


Figure 1 : (left) Number of Transport & Logistics workers (FOREM, 2021)

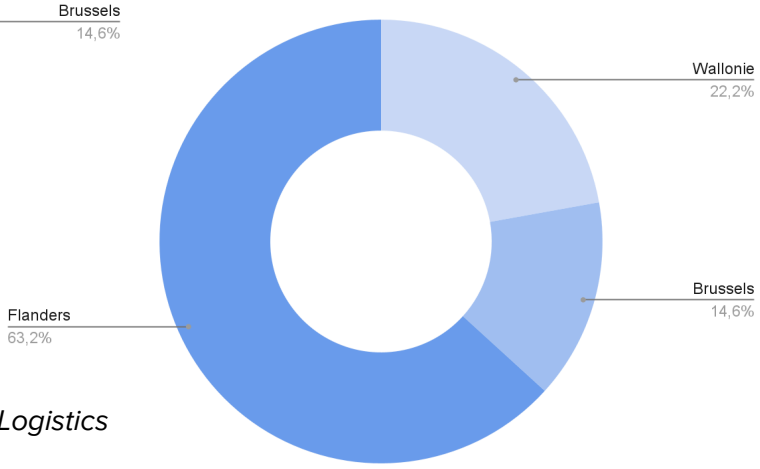


Figure 2 : (right) Number of Transport & Logistics organisations per region (FOREM, 2021)

The e-commerce boom fueled the rise of last-mile delivery services. However, despite its importance,the logistics industry is often little-known. Whilst users are acquainted with last-mile deliveries,they are often unfamiliar with the complexity of a system that keeps goods moving efficiently across the country and beyond. The sector covers various stages of goods transportation and handling, where a single unit might travel by ship at the start of its journey, by truck for national distribution, and by bicycle for the final miles of delivery. These difficulties are heightened because regional, national, and European data are not always comparable and may include or exclude different stages of the logistics chain.

[11] FOREM (2021). Transport & Logistics.
[12] Vlaanderen (2024). Toegevoegde waarde van logistieke sector.

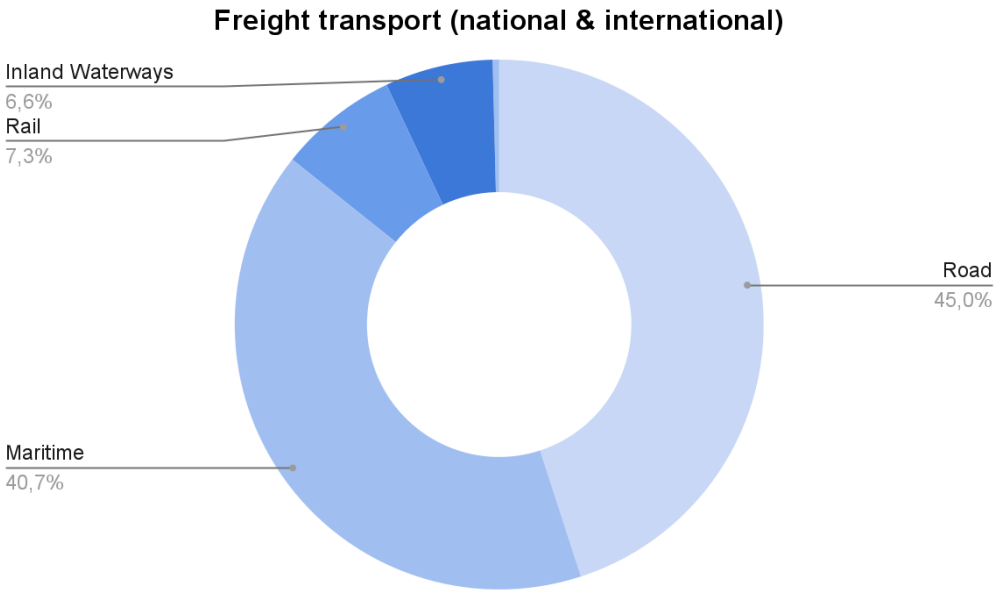


Figure 3 : Repartition of Air, Rail, Road, Maritime and Inland Waterways freight transport in Belgium (Eurostat, 2024)

This market overview focuses on activities related to **road freight transport**, either to or from Belgium. This segment is particularly important in Belgium : the modal split of road freight transport – measured in ton.kilometer – reached 45% in 2022[13]. **Nearly half of all goods in Belgium are transported by trucks or other road vehicles, a figure that is almost double the European average.** In comparison, the modal split in France is slightly above 30% whereas, in the Netherlands it is around 15% . The overall average in the European Union is 25% [14].

In 2022, it is estimated that between 222.181 kilo-tons[15] and 275.808 kilo-tons[16] of goods were transported on Belgian roads. Looking more closely at the numbers, about 32% of the total load was transported over short distances (between 0 and 50 km)[17]. In total, 89,304 motorised road freight vehicles were registered[18] across 10,806 companies, highlighting a highly fragmented sector made up of many small carriers. While these figures demonstrate once more the size of the sector, they produce little insights for comparison with urban and cycle logistics. For instance, the estimations of kilotons only include motorised vehicles whose load capacity is equal to or higher than 1 ton. As a result, it excludes lightweight urban logistics solutions such as N1 vehicles (category I)[19] and (carrier-)cycles.

[13] Eurostat (2024). Modal split of air, sea and inland freight transport.
[14] Ibidem.
[15] Eurostat (2024). National road transport by type of goods and type of transport (t, tkm) - annual data (from 2008 onwards).
[16] STATBEL. Direction générale Statistique - Statistics Belgium (2023), Enquête relative au transport routier.
[17] Eurostat (2024). National road freight transport by distance class and type of transport (tkm) - annual data.
[18] FEBETRA (2024). FEBETRA MEMORANDUM, Le secteur du transport et de la logistique belge.
[19] Light commercial vehicle with a maximum weight of 3.5 tons, primarily designed for transporting goods.

If we focus exclusively on domestic freight transport, the dominance of road transport becomes even more pronounced. Road transport—whether by truck or light commercial vehicle—accounts for 85.9% of ton-kilometres, compared to 4.3% for rail transport and 9.8% for inland waterways[20].

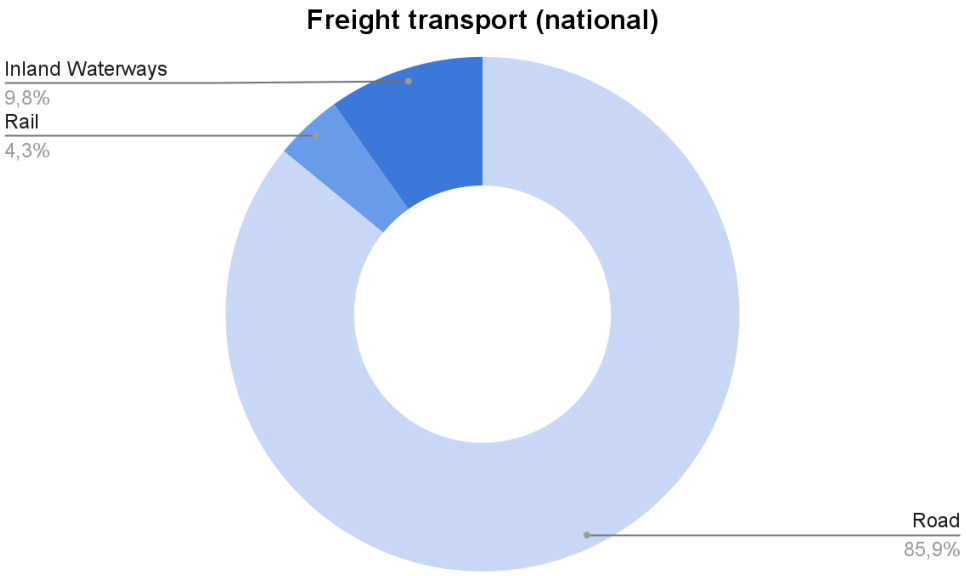


Figure 3 : Repartition of domestic Rail, Road and Inland Waterways freight transport in Belgium (Eurostat, 2024)

Urban logistics and parcel market

Due to their characteristics, carrier cycles are mainly used in urban contexts for last-mile operations. Therefore, we will further focus the analysis on **local logistics** and **the parcel market**. After two years of strong double-digit growth in 2020 and 2021 due to the the COVID-19 pandemic and the rise of e-commerce, the revenue growth of the parcel market growth slowed to +3.7% in 2022 and 6,4% in 2023[21].

The volume of parcel equivalents followed a similar trend, with 336 million parcels handled in 2020 and 370 million in 2021[22]. In 2022, for the first time in over 10 years, a decrease in volume was observed (-2.2%). In 2023, the volume resumed its upward trend, increasing by (+5.3%) to reach **381 million parcel equivalents[23]**.

This trend is also reflected in the activity reports of the main players. At Bpost, the number of parcel-equivalents processed increased by 8,5%, following a 13,9% decrease in 2022[24], while

[20] Federal Planning Bureau.
[21] BIPT (2023). Rapport Annuel 2023 ; BIPT (2024). Communication du Conseil de l'IBPT du 23 septembre 2024 concernant l'observatoire du marché des activités postales en Belgique pour 2023.
[22] BIPT (2022). Observatoire 2021.
[23] BIPT (2024). Communication du Conseil de l'IBPT du 23 septembre 2024 concernant l'observatoire du marché des activités postales en Belgique pour 2023.
[24] Bpost (2024). Annual Report 2023.

PostNL's volume remained stable[25]. While no national data were available for DPD and UPS, Mondial Relay experienced a small 1,4% increase in revenue in 2023[26]. This slow growth can be partly attributed to the current economic situation and the exceptional growth of 2020 and 2021.

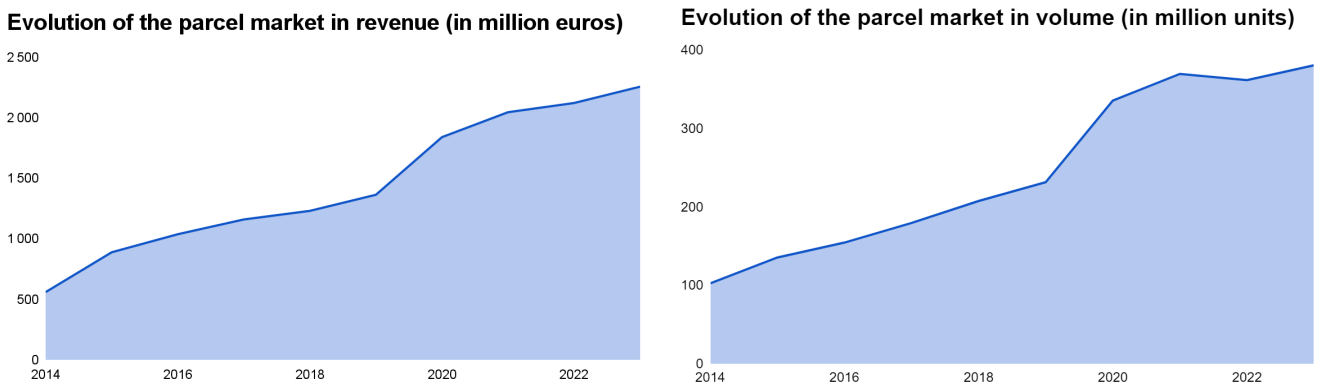


Figure 4 : Evolution of the parcel market in Belgium (BIPT, 2024)

Unlike the highly fragmented logistics sector, the parcel market is more concentrated. The four largest operators account for 78% of the market share (measured in revenue)[27]. Among the main parcel operators, Bpost captures the largest share of the market (50-60%), followed by UPS (10-20%), DPD, GLS and DHL Express (5-10% each)[28]. PostNL, FedEx, Mondial Relay and Colis Privé are also key players, but with a smaller market presence.. However, this picture of a highly concentrated sector needs to be nuanced as many smaller companies work as subcontractors for the major players . In conclusion, **the market seems artificially concentrated** whereas in reality it relies on more operators than may appear initially .

Urban logistics : important trends and challenges

Road congestion makes delivery especially problematic in urban areas. As mentioned above, the sector must cope with the **continuous increase in delivery volume** (the amount of goods to be delivered grew up to +6.4% in 2023), although this growth has somewhat slowed. The rise in parcel deliveries adds pressure to already saturated urban infrastructures. Belgian cities are particularly vulnerable to road congestion. In 2022, car drivers lost on average 68 hours in Brussels, 50 hours in Antwerp or 37 hours in Namur due to traffic congestion[29]. This makes the circulation and parking of delivery vehicles especially problematic in urban areas.

Within the logistics ecosystem, last-mile delivery activities represent a crucial link in supply chains. deliveries are particularly complex and costly due to the distribution of delivery flows — directly resulting from the number of different delivery points and the frequency of small

[25] Postnl (2024). Annual Report 2023.
[26] InPost (2024). Annual Report 2023.
[27] BIPT (2024). Communication du Conseil de l'IBPT du 23 septembre 2024 concernant l'observatoire du marché des activités postales en Belgique pour 2023.
[28] BIPT (2024). Communication du Conseil de l'IBPT du 23 septembre 2024 concernant l'observatoire du marché des activités postales en Belgique pour 2023.
[29] Inrix (2023). City Ranking List.

orders. Additionally, urban areas present various constraints, including access restrictions, road congestion, lack of adequate parking spaces and tight access schedules. Consequently, although the last mile amounts to a small portion of the total kilometres travelled by a parcel in a supply chain, **it can be very costly representing between 20%[30]to 41%[31] of the total delivery costs**.

Moreover, the **environmental impact** of urban freight transport is particularly significant. While the proportion of logistics vehicles in cities remains "*moderate*", their effect on air quality is substantial. For instance, in Brussels, trucks and vans account for only 10% of traffic but generate 30% of total traffic-related pollutant emissions[32].

Alongside growing environmental concerns, **regulatory constraints on traffic and parking** are prompting companies to adopt more sustainable and eco-friendly solutions. In line with Belgium's international commitments to combat climate change, public policies aim for carbon neutrality in the sector by 2050 and a drastic 55% reduction in emissions by 2030, imposing increasingly strict regulations on vehicle emissions. Low-emission zones (LEZs) are multiplying in major Belgian cities, restricting access for the most polluting vehicles. In addition, strict traffic, accessibility, and parking regulations, along with delivery restrictions during peak hours, force companies to plan their operations even more meticulously. These constraints can sometimes lead to delays and additional costs, impacting customer satisfaction as consumers increasingly expect faster and more flexible deliveries. These constraints encourage urban logistics actors to explore alternatives such as electric vehicles, carrier cycles, and multimodal transport solutions. They also require significant investments, specialised expertise, and the adaptation of existing infrastructure.

Finally, consumer expectations also play a crucial role in transforming urban logistics. With the rise of e-commerce, **customer expectations are also diversifying.** They expect: free delivery, increasingly short delivery times — often within 24 hours - status tracking, and strict delivery time slots. This demand puts additional pressure on companies' logistics to find innovative ways to meet these expectations without compromising the profitability or the sustainability of their operations. Consumer expectations regarding delivery prices are also pushing some operators to adopt **artificially low pricing**, thereby normalising free or loss-making deliveries. A standard e-commerce consumer is – on average – willing to pay a maximum fee of 5,00€ for small orders, 5,70€ for medium orders, and 7,60€ for large orders[33]. In comparison, the average cost of a delivery is estimated at more than 11,19€[34], suggesting that the costs are not covered by the customer.

[30] Ministère de la transition écologique et solidaire (2018). Étude prospective des enjeux de la livraison du dernier kilomètre.
[31] Capgemini Research Institute (2019). The last-mile delivery challenge.
[32] Bruxelles Mobilité (2017). Diagnostic de mobilité en Région bruxelloise.
[33] Sendcloud (2023). Tour d'horizon de la livraison E-commerce.
[34] Capgemini Research Institute (2019). The last-mile delivery challenge. *Note : the cost estimated in 2019 has been adjusted for inflation to make it comparable to the 2023 data.*.

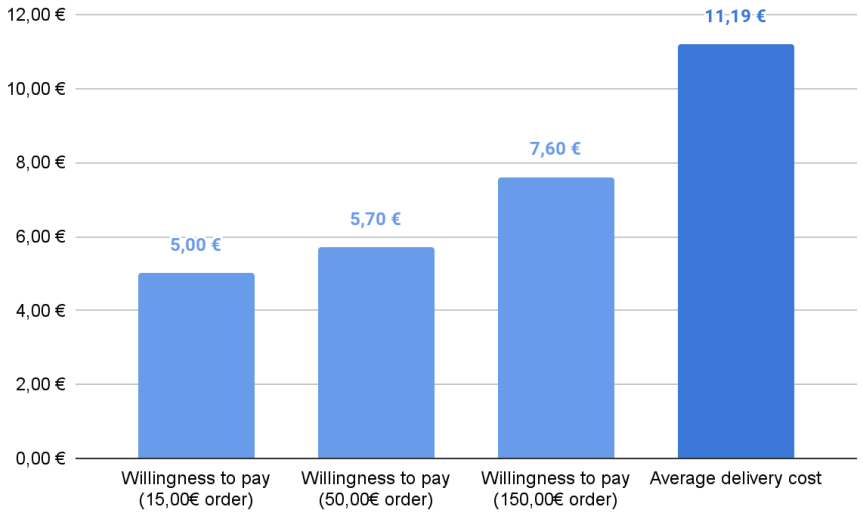


Figure 5 : Willingness to pay (Sendcloud, 2023) ; Average delivery cost (Capgemini Research Institute, 2018)

Cycle-logistics within urban logistics

Having been around for just over a decade – except for the early pioneers – cycle logistics is increasingly integrated into the urban delivery landscape of Belgian cities. Bike deliveries are now being carried out in the majority of large and medium-sized Belgian cities. According to a recent report on the bike economy in Belgium, cycle logistics accounts for over 7.000 FTEs (incl. carriers, platform economy, services)[35]. The net added value of the sector is experiencing strong growth (+253% in 7 years) and reached €23,3 million in 2022[36]. Given the novelty of the sector, this trend is expected to continue in the coming years. This growth could be further increased by the important potential of cycle logistics : **at least 33% of motorised trips for professional transport** (freight, delivery, services, business) **in urban areas could be shifted to (cargo-)bikes**[37].

Cycle logistics offers a relevant solution to urban logistics challenges. On the one hand, carrier cycles **help reduce the pressure on urban space usage** whilst maintaining a significant loading capacity (*up to 3 m^3 and 300 kg*) and a competitive travel speed. The external congestion costs associated with carrier cycles is 82% to 99% lower than those of LCVs, while their travel speed is 42% faster in urban areas, such as Brussels for example[38]. On the other hand, carrier cycles **significantly reduce nuisances, including noise and air pollution, as well as increasing road safety.** Carrier cycles have a net zero external cost when it comes to noise pollution[39], and it is estimated that they can reduce CO2 emissions by 98% compared to

[35] Transport & Mobility Leuven (2024). L'économie du vélo en Belgique et son influence sur la situation socio-économique du pays.
[36] ibidem.
[37] Wrighton, S., & Reiter, K. (2016). CycleLogistics–moving Europe forward!. Transportation research procedia, 12, 950-958.
[38] SPW (2024). La CéMathèque n°56 – CYCLOLOGISTIQUE PROFESSIONNELLE.
[39] Ibidem.

a diesel van, and by 96% compared to an electric van[40]. Moreover, the external accidents cost per kilometre is 76% lower for carrier cycles[41].

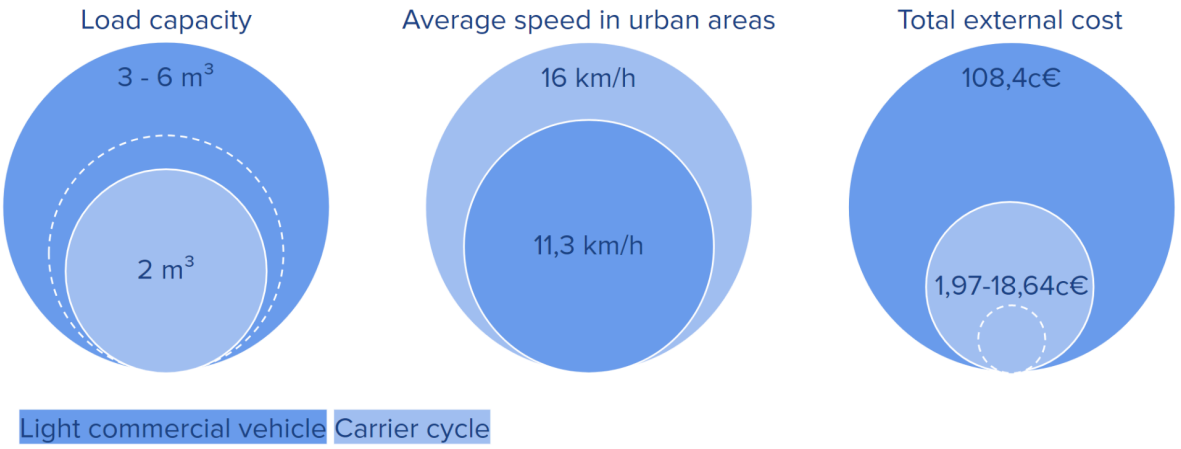


Figure 6 : Load capacity, average speed of light commercial vehicles and carrier cycles (Kale ai, 2023) – Total external cost (SPW, 2024)

Evolution of the regulatory framework

The regulatory framework for urban logistics is shaped by multiple decision-making levels. At **the European level, strategies** for sustainable development are established, pushing national and local authorities to implement ambitious policies aimed at reducing pollutant emissions.

The European Declaration for cycling adopted by the European Parliament exemplifies this approach. It sets goals to promote cycling as a sustainable, safe, and accessible mode of transportation across Europe. It encourages member states to integrate cycling into national and local transport and logistics policies, to improve infrastructure, and to support cycling thereby reducing carbon emissions and enhancing public health.

The European Green Deal also reflects this approach : as previously mentioned, the EU has set high environmental targets (reducing emissions by 55% by 2030 and achieving carbon neutrality by 2050). These targets translate into the obligation for cities with more than 100.000 inhabitants to implement **Sustainable Urban Mobility Plans** (SUMP), as well as introducing **Low Emission Zones** (LEZ).

There are currently three LEZ in Belgium (i.e. Antwerp, Brussels and Ghent), while four other cities have tested or considered implementing LEZs (i.e. Eupen, Mechelen, Namur and Willebroek). These initiatives complement existing urban access regulations (e.g., delivery hours, pedestrian zones, restricted areas), which are already well-established across the country.

[40] Kale ai (2023). Data-driven Evaluation of Cargo Bike Delivery Performance in Brussels.
[41] SPW (2024). La CéMathèque n°56 – CYCLOLOGISTIQUE PROFESSIONNELLE.

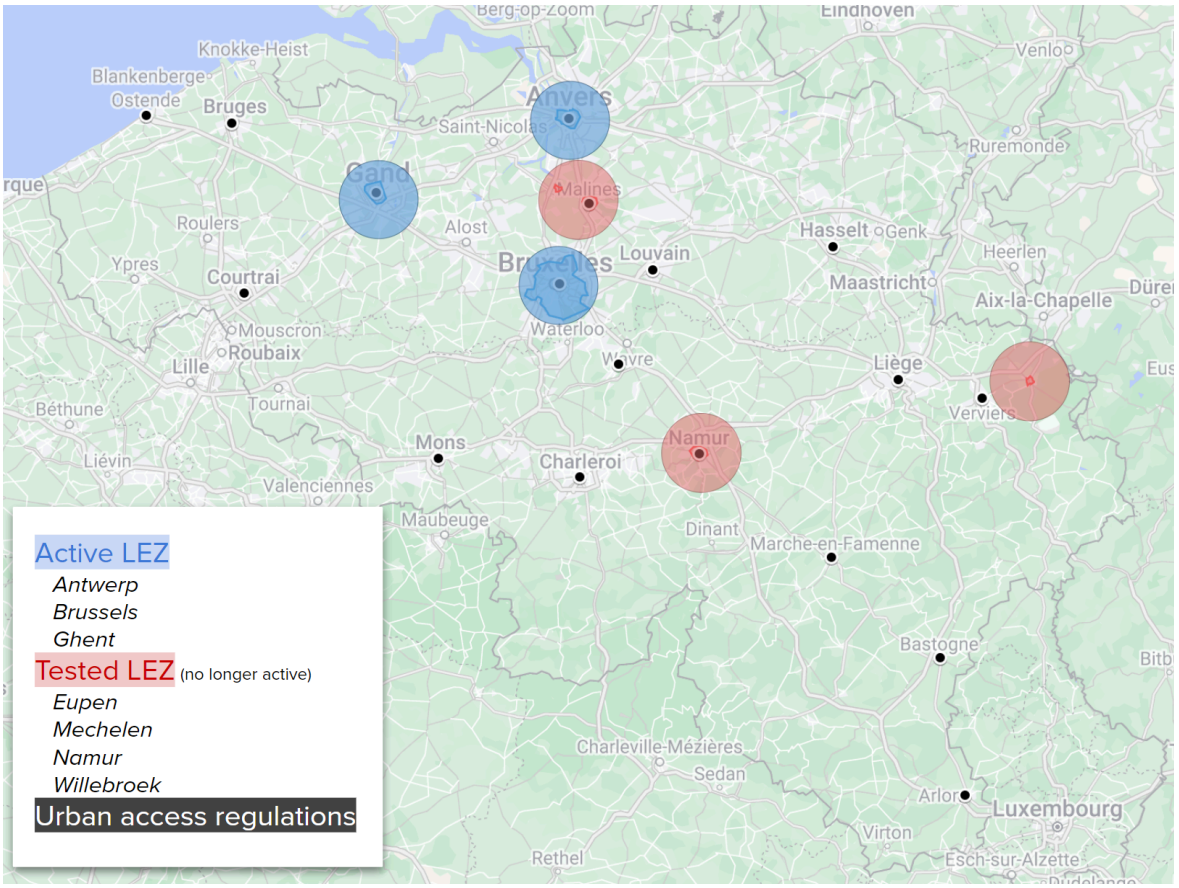


Figure 7 : LEZ and Urban access regulations in Belgium

At the national level, **the postal law** addresses job precariousness in the delivery sector by imposing a minimum hourly wage for both employees and self-employed workers, effective from October 2024 (ranging from €29.38 to €32.77, depending on the vehicle). It also sets a working time limit, starting from 2026, capping driving hours at 9 hours per day.

Additionally, other initiatives occur at local and regional levels. In Brussels and in Flanders, around 120 companies have signed the **Green Deal for sustainable urban logistics**. These stakeholders are committed to promoting sustainable logistics by reducing vehicle kilometres, using zero-emission vehicles, transforming delivery methods, and enhancing collaboration. Meanwhile, the Flemish government will take major steps towards emission-free urban logistics by introducing **zero-emission zones for city logistics** (ZES) in the central cities.

Finally, despite the lack of clear European nor national obligations, some cities have implemented **Sustainable Urban Logistics Plans** (SULP). In Antwerp, the city approved the guiding principles of its SULP and expects the plan to be completed in 2024. The plan aims to reduce transport flows, shift to more sustainable modes, clean the remaining fleet, connect flows and stakeholders, and ensure traffic safety. In Ghent, growing environmental concerns and traffic safety objectives have led to the reviewing of the local logistics plan. The new plan – valid from 2023 – aims to restructure logistics activities to reduce the number of movements and to encourage the use of the right vehicle in the right place at the right time. The aim is to

minimise nuisances while maintaining overall efficiency through technologies, collaborations, and the use of urban logistics spaces.

Key takeaways

The logistics sector in Belgium employs 225,000 workers.
Road transport is crucial, accounting for 85.9% of national freight transported by road.
The parcel market, where most cycle logistics operators are active, is growing steadily but less rapidly than in 2020–2021. In 2023:

- 381 million parcels were delivered, a 5.3% increase year on year.
- Revenue reached €2.257 billion, a 6.4% increase year on year.
- The sector copes with the continuous increase in delivery volume.

Key challenges in the parcel market include:

- **Economic:** High costs of last-mile delivery up 41% of total delivery cost.
- **Environmental:** trucks and LCV pollutant emissions account for 30% of traffic emissions. Road congestion makes delivery especially problematic in urban areas.
- **Commercial:** Consumer demands for low prices and express delivery is driving some operators to adopt unsustainably low pricing strategies.

How the cycle logistics sector can help address these challenges

- Cycle logistics offers a relevant solution to urban logistics challenges.
- 33% of the motorised trips for the professional transport (freight, delivery, services, business) in urban areas could be shifted to (cargo-)bikes.
- Carrier cycles have a net zero external cost when it comes to noise pollution.
- Carrier cycles reduce CO2 emissions by close to 98% compared to a diesel van.
- Carrier cycles increase road safety by significantly lowering the risk of accidents.

Authorities are also addressing these challenges through coordinated efforts at various government levels, including:

- Initiatives like the Green Deal Logistics.
- Sustainable Urban Mobility Plans (SUMPs) and Low-Emission Zones (LEZs).
- Regulations like the Postal Law.

Status and trends of Cycle Logistics Sector

Key figures of the sector

In this section, we present the key figures and trends of the Cycle Logistics sector in Belgium. Our online survey covered 63% of Cycle Logistics Carriers, 100% of Mixed Carriers, and 75% of Organisers provided input (12 out 19 Cycle Logistics Carriers, 6 out of 6 Mixed Carriers and 3 out of 4 Organisers provided data). Overall, 72% of all targeted respondents contributed with their input, providing a reliable overview of the sector that enables us to identify general trends from 2022 to 2023. For organisations which did not respond, we took a conservative estimation, based on data reported last year.

We focus on the trends, which are leading indicators for the cycle logistics sector. Whenever possible, we provide consolidated absolute figures to provide an accurate description of the sector.

In the following section, we will distinguish the results between the Cycle Logistics Carriers, the Mixed Carriers and the Transport Organizers.

Nature of deliveries

Our goal is to understand what types of deliveries are being handled by cycle logistics, regardless of the volume. We are only reporting the **primary deliveries**. Hence we asked our members and third party organisations to identify their primary and secondary types of deliveries. We have consolidated the responses without weighting them based on the volumes delivered by each participant.

The primary deliveries of Cycle Logistics Carriers are characterised by a wide range of services and purposes, each serving distinct market needs. The most prominent delivery types are **Courier Services**, which involve direct point-to-point deliveries without consolidation (on-demand transportation), and **B2B supply chain deliveries**, which cater to businesses such as shops, restaurants, and offices. Next in line are **pharmaceutical & medical deliveries**, where speed and reliability are critical, **parcels within the supply chain** (pre-labelled and packaged goods) and **B2C deliveries** (e-commerce delivery - directly to consumers from retailers), covering various consumer products.

The primary deliveries for Mixed Carriers are concentrated on **parcels within the supply chain** deliveries (e-commerce), **reverse logistics** (returns from e-commerce), **B2C deliveries from retail**, **postal** (letters and magazines) and **Courier Services**, followed by **B2B supply chain deliveries**

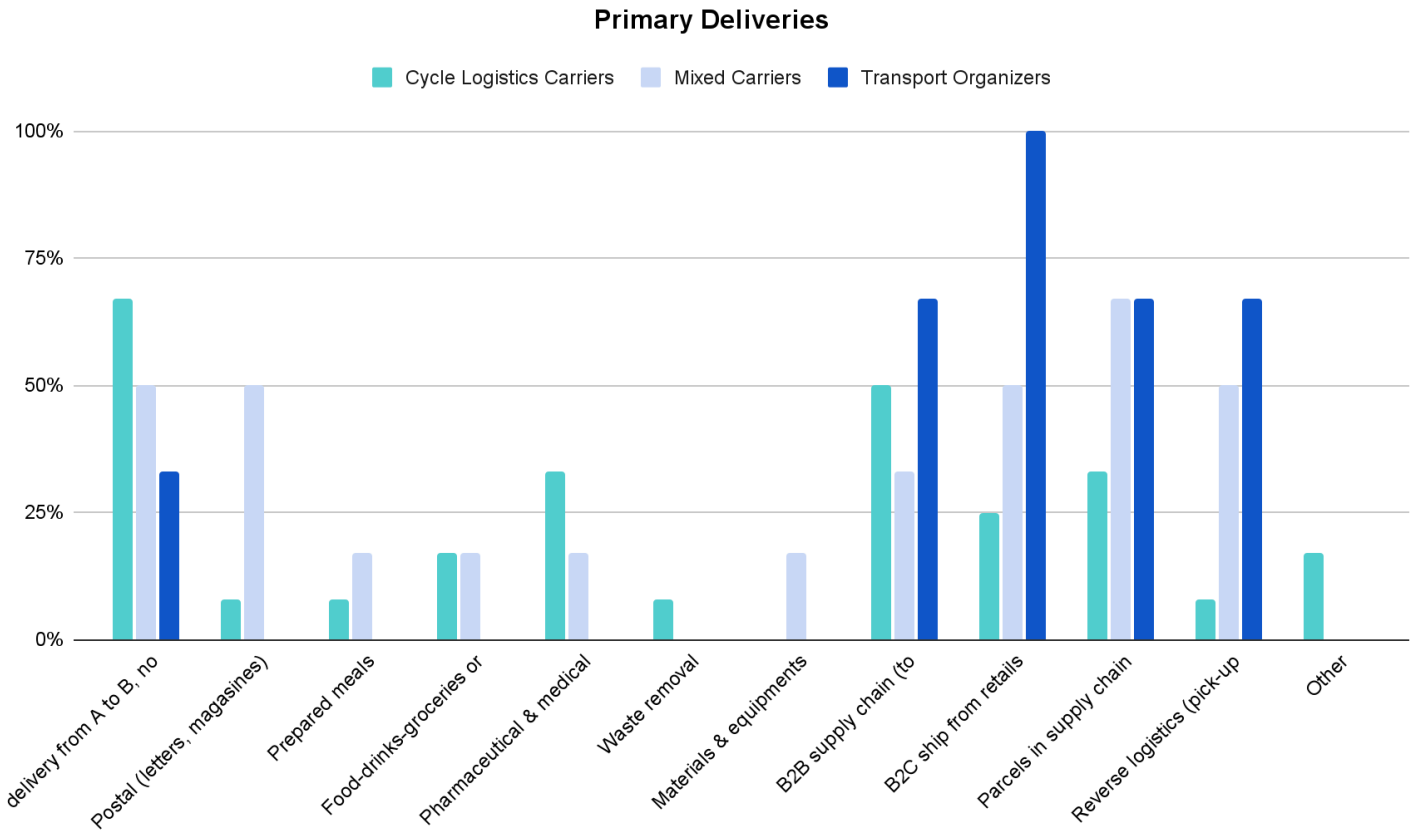


Figure 8 : Comparison primary deliveries in the cycle logistic sector in 2023.

Transport Organizers mainly handle large-scale deliveries like **B2C shipments and returns**, especially for consumer-facing businesses. They are working alongside other companies to offer these services. To a lesser extent, **B2B supply chain deliveries** are also considered a primary delivery.If we consider the **secondary deliveries**, it is interesting to note that the Cycle Logistics Carriers manage a greater variety of delivery types than the Mixed Carriers, adapting to a diverse range of market needs. They specialise in deliveries requiring proximity, speed, and expertise, such pharmaceutical shipments and waste removal. On the other hand, Mixed Carriers and Transport Organizers tend to transpose their existing delivery methods to the bike, rather than fully adapting to the varied and specialised demands of the local market.

Number of Parcels Delivered

Overall the number of parcel equivalents delivered by cycle logistics **more than doubled from 2022 to 2023** for both Cycle Logistics Carriers and Mixed Carriers. Notably, **Mixed Carriers** experienced a substantial growth, with delivery volumes multiplying **two to three times over the previous year**, while **Cycle Logistics Carriers saw a steady increase of 13%**. Overall the number of parcel equivalents delivered by cycle logistics **more than doubled from 2022 to**

2023. Interestingly, with such a steep increase, bike deliveries grew at a much faster rate than the broader parcel market, which rose by 5.3% in 2023[42].

In 2023, we estimate that the total volume of parcels delivered by bike reached **3.1 million**. We believe this is still a conservative estimate, as not all organisations with cycle logistics operations responded to our survey (see introductory remark on the sector's key figures).

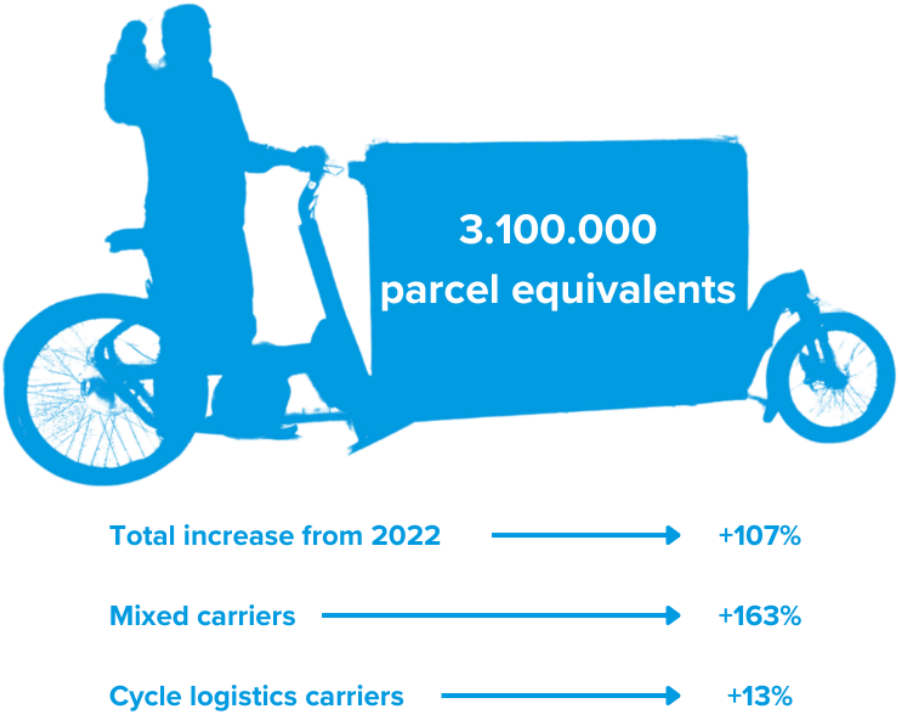


Figure 9 : Parcel equivalents evolution from 2022 to 2023

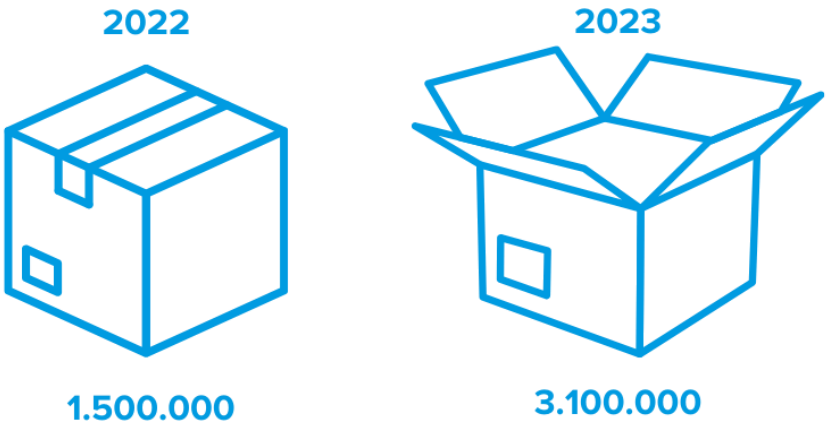


Figure 10 : Parcel equivalents evolution from 2022 to 2023.

[42] BIPT (2024). Communication du Conseil de l'IBPT du 23 septembre 2024 concernant l'observatoire du marché des activités postales en Belgique pour 2023.

Mixed Carriers handled 80% of the volume, while Cycle Logistics Carriers delivered a much smaller share, handling 1 in every 5 packages.

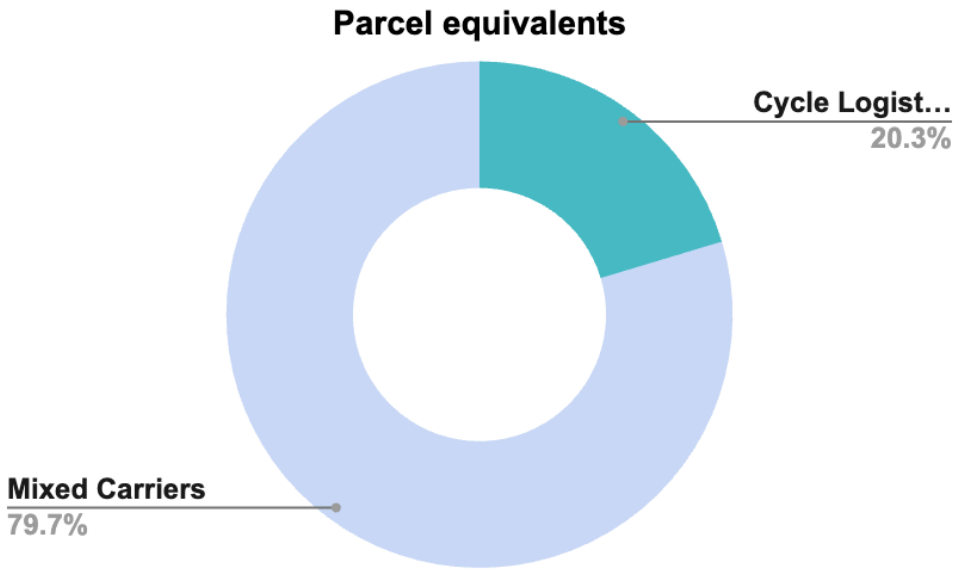


Figure 11 : Parcel equivalents share per carrier type - 2023.

The growth of Mixed Carriers is largely driven by the entry of new players into the market. While Cycle Logistics Carriers have also contributed to the sector's growth, their impact has been smaller. However, it's important to note that not all operators have experienced growth. Some have seen declines due to external factors such as losing a major client or other specific strategic decisions.

Putting these 2023 results in perspective of the market, we assess that **cycle logistics deliveries represent approximately 0,8% of the total market and 1.5% of the urban market of deliveries.** This is an indicative — non-scientific — estimate, if we assume that the 56% of the Belgian population living in urban regions[43] generate 56% of parcel delivery movements. If we consider that the potential of 25%[44] of Cycle Logistics for the transport of goods is equally applicable for the segment of Professional Carriers, it suggests that Cycle Logistics has a huge untapped market.

Cities

Brussels dominates the market, with approximately 60% of the total share of deliveries by bike. **Antwerp and Ghent follow in the top three, each accounting for around 10%.** The

[43] Lieve Vanderstraeten and Etienne Van Hecke (2019). Belgian Urban Regions.
[44] 25% is the potential of cycle logistics of all professional delivery trips for the transport of goods in cities, while 33% is the potential when including the professional delivery of services

remaining market is fragmented, with Leuven leading the group at around 2%, Mechelen, Wavre/Walloon Brabant, Roeselare, Ostend, Bruges and Deinze each represent between 1.5% and 2%. Other cities have a share of around or less than 1% of total deliveries in Belgium. These figures are estimates based on the total number of parcel equivalents delivered by cycle logistics.

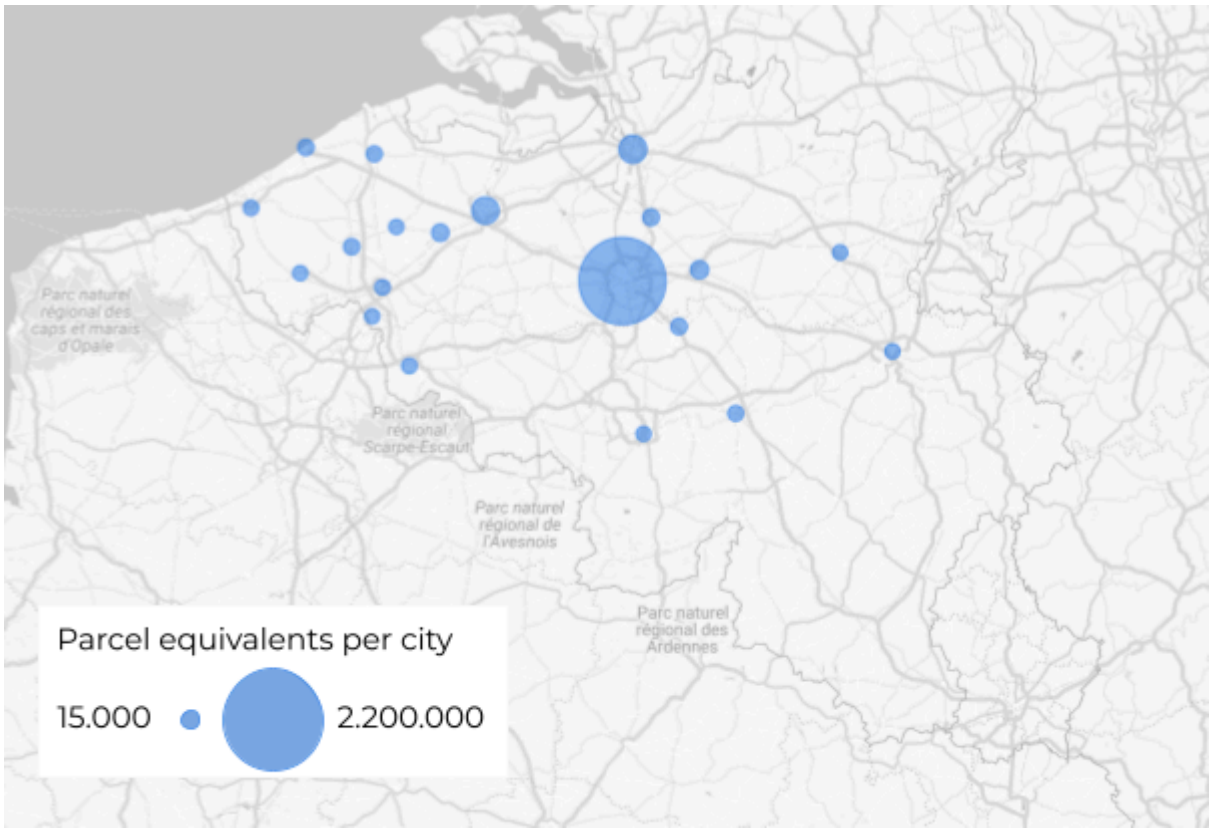


Figure 12 : Parcel equivalents delivered by bike, per city in 2023.

When adjusting the number of parcel equivalents delivered by bike based on each city's parcel market share[45] smaller cities like Veurne or Deinze stand out with respectively 5,60% and 3,20% of deliveries made by bike. In Brussels, it is estimated that 4,70% of parcel deliveries are made by bike. Interestingly, **several larger Belgian cities have relatively low percentages, revealing the significant potential for growth.** While these percentages are an approximation[46], they are indicators as to what degree Belgian cities are progressing towards the growth potential of 25% of urban goods deliveries being made by bike. Going forward, it will be interesting to assess whether this potential varies per city.

When focusing specifically on Cycle Logistics Carriers (excluding Mixed Carriers), our comparison covers 10 cities only although the overall ranking remains, (except the city of Deinze which moves up to the fourth rank with a share of 7%, largely due to the presence of

[45] Estimated by allocating a share of the total parcel market in proportion with the population of the city : percentage of parcels delivered by bike = [number of parcels delivered by bike / (percentage of population x total number of parcels delivered)].
[46] Approximations were needed to establish the number of bike deliveries and the total number of deliveries per city.

Viavelo).. Deinze highlights the potential of cycle logistics in medium-sized cities, where larger operators are often absent.

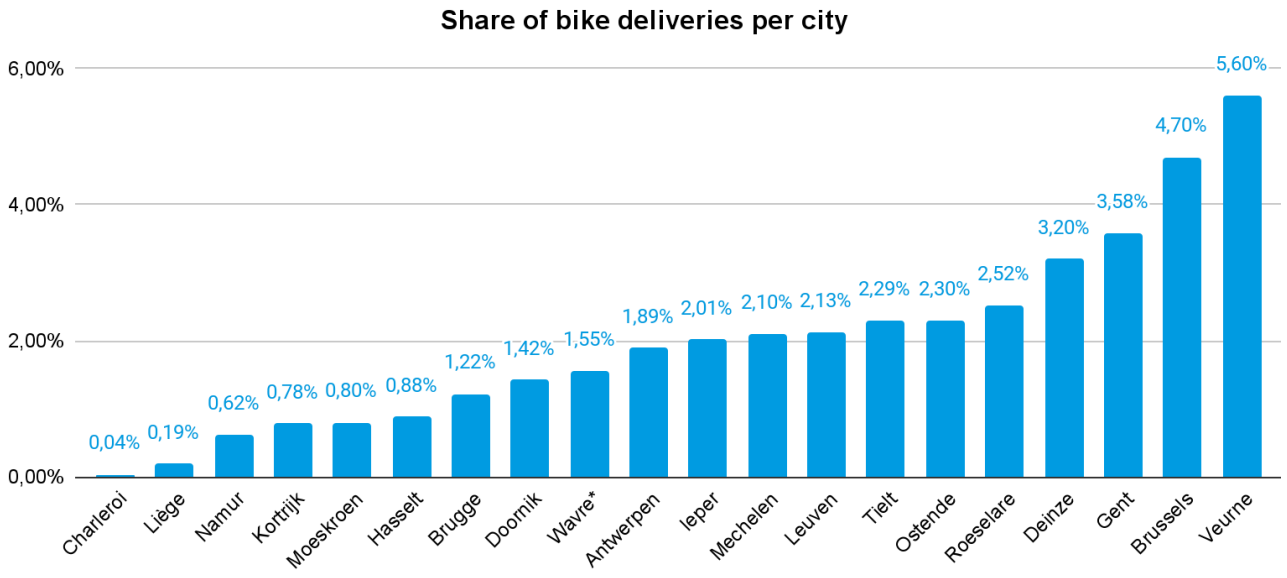


Figure 13 : Share of bike deliveries per city in 2023.

Regional perspective

From a regional perspective, the **Brussels region dominates the sector with over 60% of activities, followed by Flanders with about 35% in Flanders. Finally, Wallonia's share with only 5% is very small**.

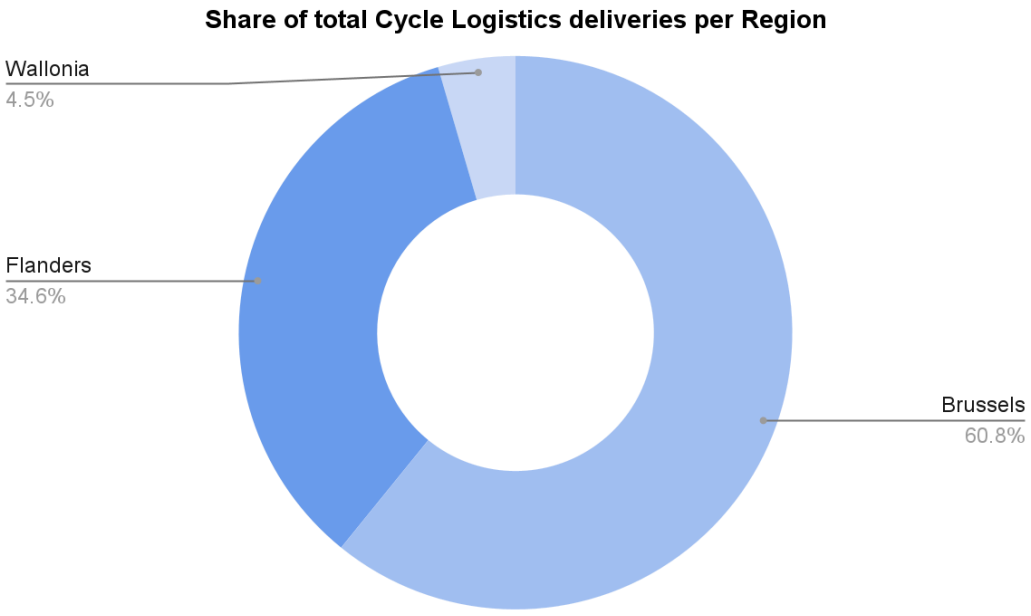


Figure 14 : Share of total bike deliveries per region in 2023.

The market concentration in **Brussels** can be attributed to several factors. First, Brussels is a predominantly urbanised region with high economic activity, leading to a greater volume of goods movement. Additionally, the city faces significant congestion and has implemented restrictions on motorised vehicle access (such as LEZ zones and pedestrian areas), prompting some players to seek alternative solutions like bike deliveries. Finally, cycling infrastructure have seen substantial developments in recent years, further supporting this shift.

Wallonia likely holds the most untapped potential in bike logistics. While it is home to 25% of Belgium's urban population, it accounts for only 4,5% of bike-based logistics activities. Notably, Coursier Wallon has ceased its operations in Namur and Charleroi. Several major cities, such as Liège and Tournai and Charleroi, are still far from reaching their full potential in this area, while Mons currently have no bike logistics activities at all.

Flanders has also yet to fully realise its potential in bike logistics. Despite representing about 60% of the urban population, it accounts for only 35% of bike logistics activities. While all major cities already have one or more operators, there are considerable growth opportunities in medium-sized cities.

Kilometres cycled

The number of kilometres cycled shows an upward trend, with **Cycle Logistics Carriers seeing an increase of almost 5%** reaching an impressive 730,000 km.

We focused solely on Cycle Logistic Carriers data for this calculation. Due to limited historical data, we couldn't identify a trend for Mixed Carriers, but it's reasonable to assume their total kilometres cycled have significantly increased, reflecting growth in parcel deliveries.Overall, **we estimate that the total number of kilometres reached 8.2 million**[47] of which 90% is due to Mixed Carriers[48].

Figure 15: Amount of km cycled in 2023

Workforce

Overall, based on responses from our survey, we observe a **significant increase in the workforce from 2022 to 2023.**

Cycle Logistics Carriers specifically grew by approximately 20%, reaching around 100 (new) employees. During the same period, Mixed Carriers saw an even higher increase, more than tripling their workforce to over 500 employees. This growth is due to large companies

[47] Which are more or less 10 round trips Earth-Moon : one-way is 384,000 km.
[48] Note that the total number of kilometres includes a substantial amount cycled by Bpost as part of their various delivery services (parcels, magazines, and the universal postal service). It is not possible to differentiate the kilometres cycled for each specific activity.

expanding their bike delivery services to handle bigger clients. For these companies, the total employee count also includes those offering mail deliveries by bike.

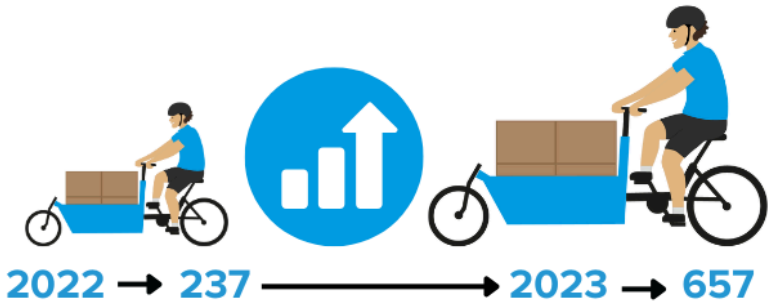


Figure 16 : Workforce evolution in Cycle Logistic sector in Belgium from 2022 to 2023.

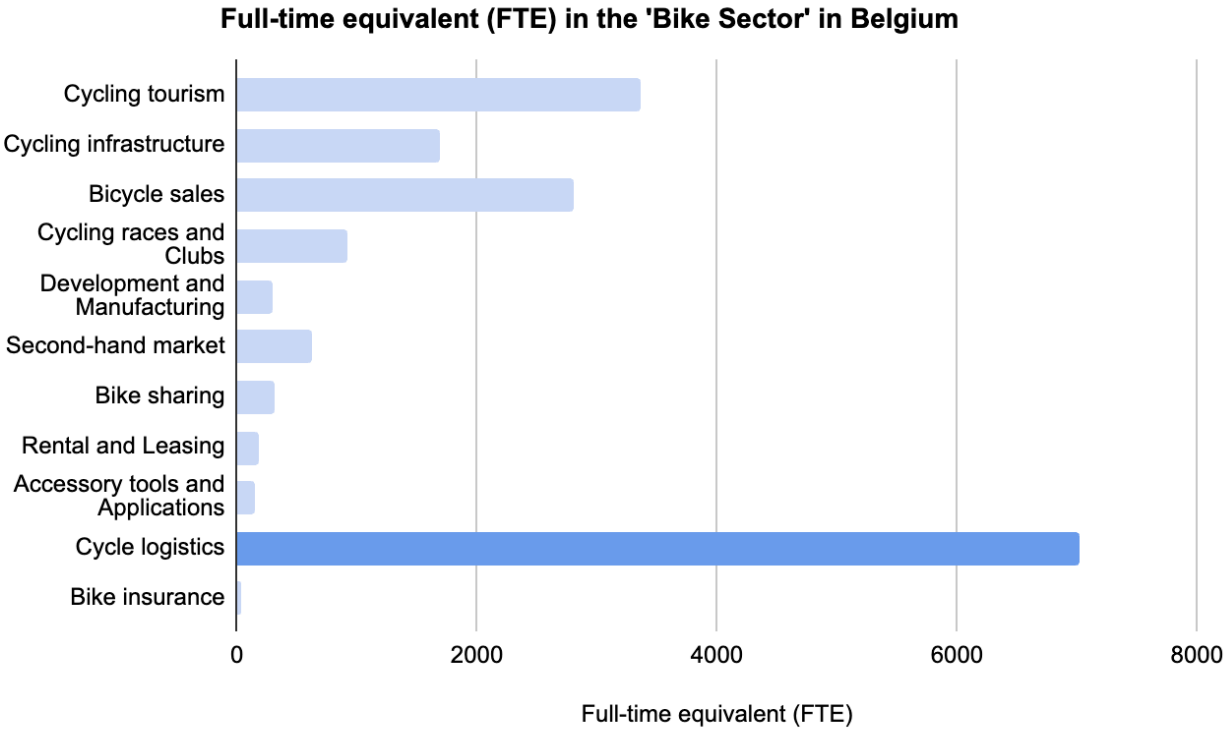


Figure 17 : FTE in the bike sector in Belgium 2022[49].

[49] Transport & Mobility Leuven (2024). L'économie du vélo en Belgique et son influence sur la situation socio-économique du pays.

According to our study, the total workforce in the cycle logistics sector amounts to approximately 700 employees. In comparison, the platform economy (e.g. UberEats, Deliveroo) has a total workforce of 7021 (see recent study conducted by Transport & Logistics Leuven[50]).

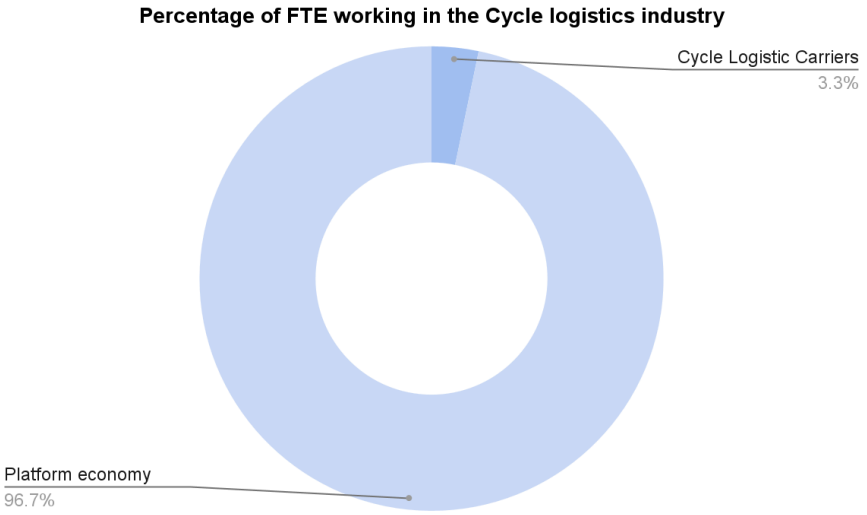


Figure 18 : Percentage of FTE working with Cycle logistics operators and Platform economy FTE (not part of our sample study) in 2022 .

Workforce Composition in Cycle Logistics

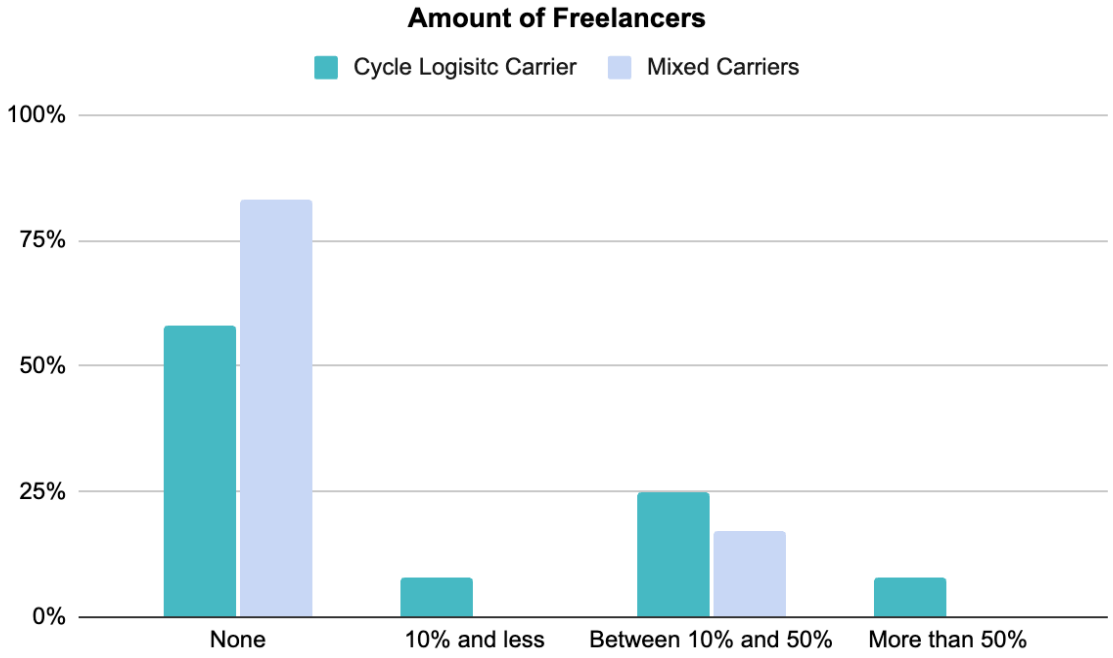


Figure 19 : Percentage of freelancers amongst Cycle Logistic Carriers & Mixed Carriers in 2023 .

[50] Transport & Mobility Leuven (2024). L'économie du vélo en Belgique et son influence sur la situation socio-économique du pays.

The Cycle Logistics sector is characterised by a workforce that is primarily on the payroll of the organisation. This is in line with the principle of offering fair and quality jobs as promoted by the BCLF. Approximately two-thirds of Cycle Logistics carriers do not employ freelance workers, or have less than 10% in their workforce. This trend is even more pronounced among Mixed Carriers, where the majority of actors (80%) do not use freelance contracts at all.

Freelance contracts are typically used to offer flexibility in the workforce, addressing fluctuating business needs. **Cycle Logistics carriers,** which are generally small to medium-sized organisations, **tend to rely more on freelance contracts compared to mixed carriers.**

Diversity

Diversity in the cycle logistics sector remains a significant challenge, with over 33% of businesses reporting no women in their teams. Additionally, 33% of respondents indicate that less than 10% of their workforce is female, while only 11% report having between 10% and 25% women. However, there is some progress, as almost 11% of businesses boast a 50/50 gender balance. Despite these improvements, **gender diversity in the cycle logistics industry remains significantly uneven.**

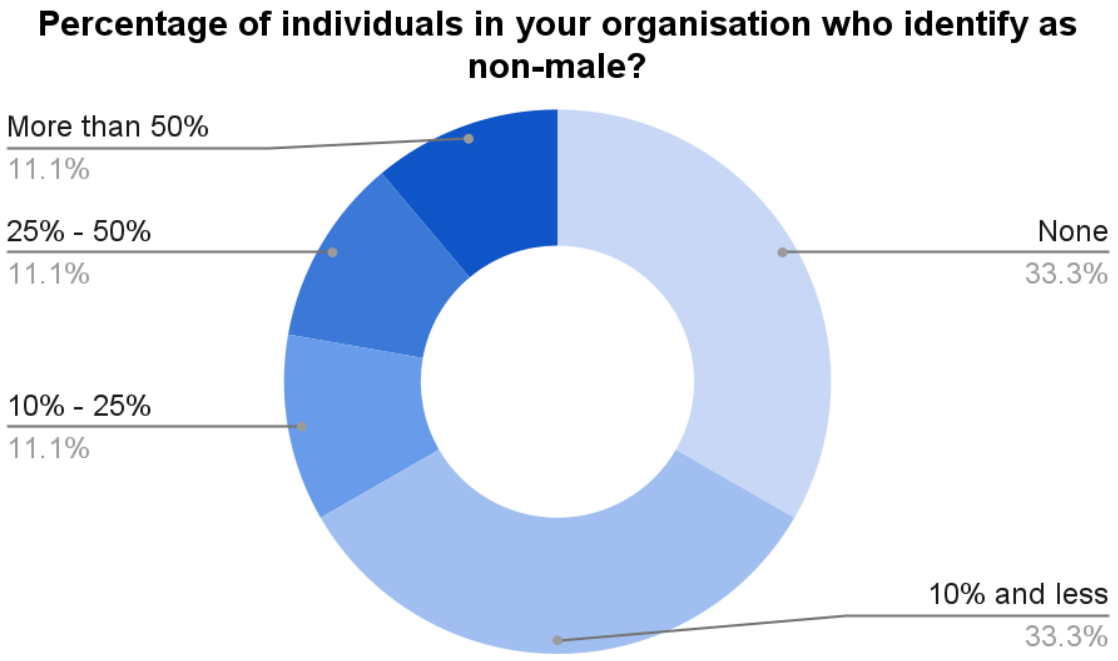


Figure 20 : Percentage of individuals in your organisation who identify as non-male in 2023.

Last year's survey revealed that 87.3% of cycle couriers are men, 9.1% are women, and 3.6% identify as another gender. **These figures align closely with the broader EU land transport**

sector, where men constitute 86% of workers and women 14%[51]. For the composition of the workforce by gender, the proportions of male and female employees have been relatively unchanged over the past decade[52].

In contrast, other transportation sectors show more promising statistics; for instance, nearly 1 in 5 employees in maritime transport are women, while women make up about 40% of the air transport workforce[53].

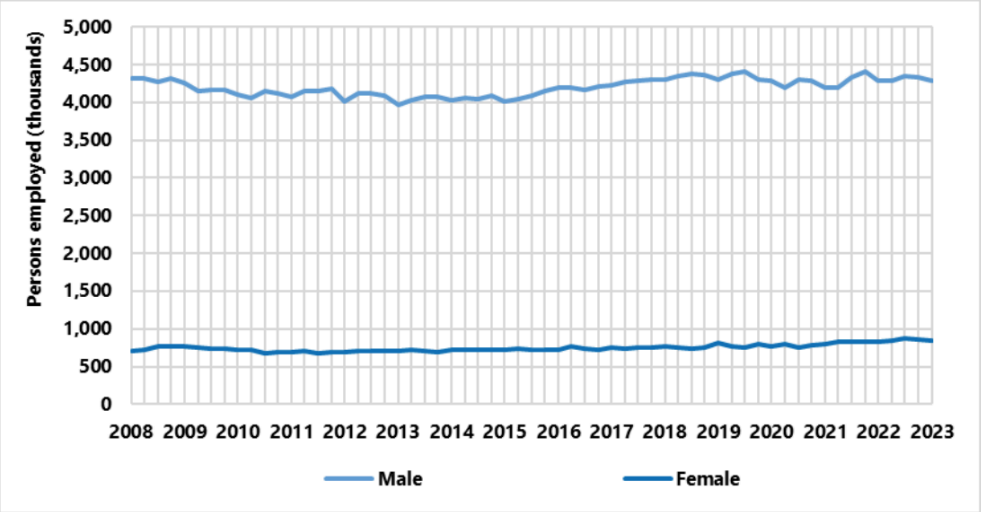


Figure 19 : Persons employed by gender in road transport from 2008 to 2023.

As shown in the above figure, the gender imbalance in cycle logistics mirrors the situation in land transport. To address this issue, organisations like CIE and ECF have launched the "Women in Cycling" movement, aiming to improve diversity and inclusion in the sector.

Attrition Rate

The cycle logistics industry shows low to moderate attrition. In 2023, 3 out of 4 organisations reported an attrition rate lower than 15%, indicating that a considerable share of the workforce remained stable, likely due to a favourable work environment.

Attrition rates among Cycle Logistics Carriers are reported to be generally low to moderate, with turnover ranging from 0% to 5% in many cases and up to 15% in others. In contrast, Mixed Carriers are experiencing significantly higher attrition rates, with almost half of their workforce having a high or very high attrition rate (attrition above 15% or 25%).

[51] Women in Transport – EU Platform for change
[52] Broughton, A. Tanis, J. and Brambilla M. (Ecorys), Voss, E. and Vitols K. (wmp consult) 2024, Research for TRAN Committee – Trends, challenges and opportunities in the EU transport labour market, European Parliament, Policy Department for Structural and Cohesion Policies, Brussels
[53] Women in Transport – EU Platform for change

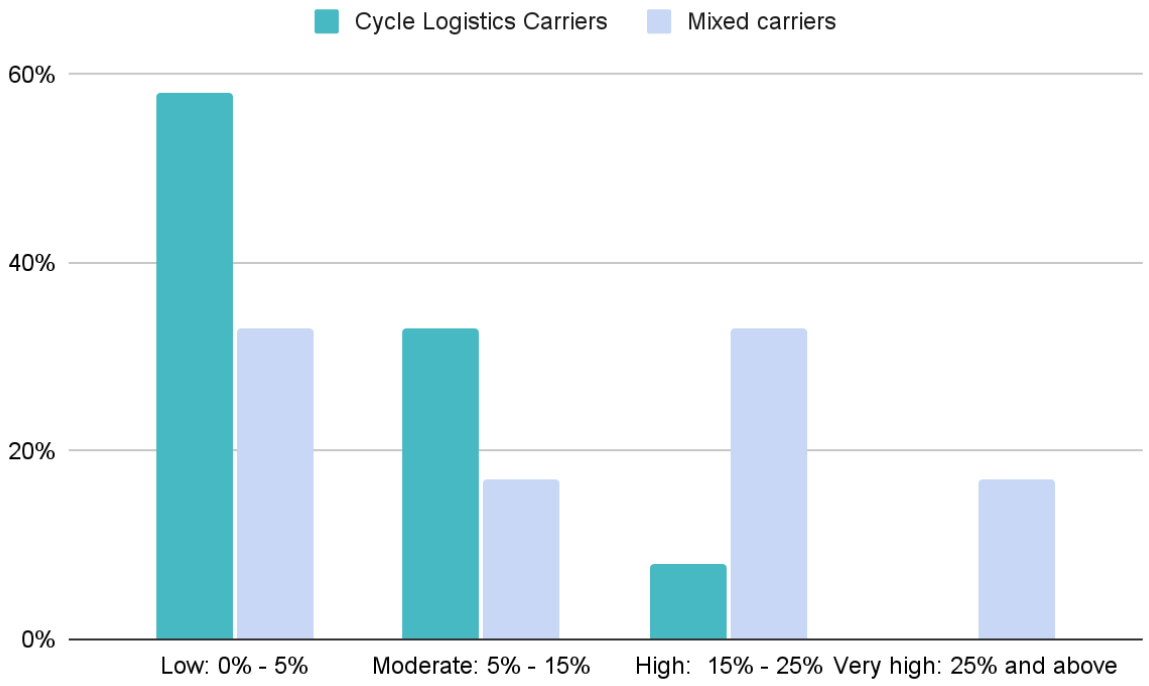


Figure 20 : Percentage of attrition for Cycle Logistics Carriers and Mixed Carrier in 2023.

The higher turnover rate among Mixed Carriers compared to Cycle Logistics Carriers can be attributed to the challenges these companies face in recruiting and retaining.new workers New entrants to the market often struggle to secure and maintain a stable workforce. Their ideal candidates are locally based, skilled couriers who have a good understanding of the city's layout without relying on GPS, possess strong language skills, and have a preference for social interaction. In contrast, the Cycle Logistics Carriers recruit more easily amongst (spontaneous) candidates, who demonstrate an engagement to their mission. The couriers are typically passionate cyclists who do not consider bike delivery as a temporary job.

Transport Organizers who typically outsource their transport services were not included in this analysis since they rely on personnel supplied by other companies.

Fleet

According to the survey, the Cycle Logistics sector operates more than 5,000 bikes. This figure is very largely dominated by Bpost which operates nationally and is responsible for delivering letters, magazines and parcels.

Cycle Logistics

In Belgium, the types of bikes utilised by cycle logistics professionals reflect a diverse range of preferences tailored to their operational needs. **The majority, accounting for almost 70%, use single-track cargo bikes with electric assistance, capable of carrying loads of up to 500[54] kg.** Following closely, 61% of couriers employ cargo trailers, which offer added versatility for transporting goods. Tied for third place are conventional two-wheeled bikes and non-electric single-track cargo bikes, both used by a significant number of couriers.

Mixed Carriers

Mixed Carriers, in particular, are increasingly opting for larger cargo bikes as they prioritise volume. With parcel volumes now surpassing traditional postal mail, these carriers use cargo bikes that can transport up to 750 kg and 3 m^3 of goods, some specifically designed to handle the challenges of Belgium's cobblestone streets. The bikes, ranging from two- to four-wheeled models, are often equipped with rain protection and branded with advertising. Their larger size means they occupy more space in traffic, sometimes leading to complaints from other road and bike lane users. Due to their bulk, these bikes are less manoeuvrable, posing additional challenges for couriers navigating busy urban environments.

This difference reflects their operational focus—Cycle Logistics Carriers use compact, electric cargo bikes for flexibility and manoeuvrability in urban areas, while Mixed Carriers opt for larger bikes to handle heavier loads, prioritising volume over agility in busy streets. They also have less variety in their fleet, working on one 'perfect' version for their needs.

[54] https://www.zieglergroup.com/be/services/cargo-bike/

Maintenance

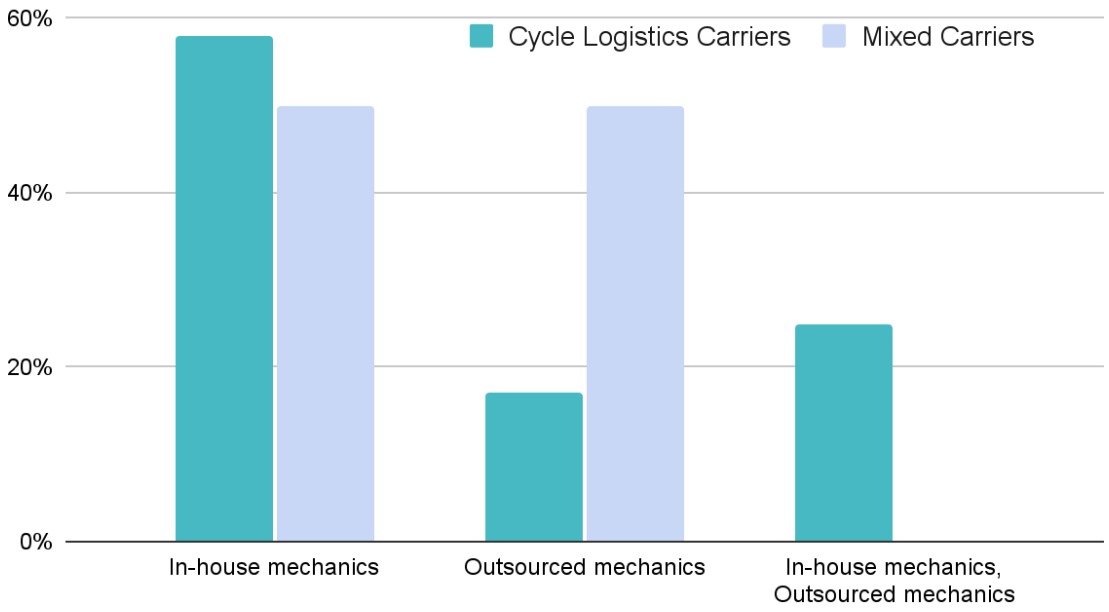


Figure 21 : Mechanics in-house and outsourced in 2023.

The figure displays data on the types of repair arrangements used by Cycle Logistics Carriers and Mixed Carriers. It highlights that the majority of Cycle Logistics Carriers (close to 60%) rely on in-house mechanics, indicating a preference for direct control over maintenance and repair work. Mixed carriers also favour in-house mechanics, though at a slightly lower percentage, around 50%.

Mixed Carriers significantly rely on outsourced mechanics (around 50%) compared to Cycle Logistics Carriers. The latter outsource less than 20% of their repair work. This trend suggests that Mixed Carriers may need specialised external expertise or additional support for their repairs. Notably, Mixed Carriers often use a specific type of bike that is custom-designed for their unique needs, making repairs more specialised and tailored to that particular model. In contrast, most Cycle Logistics Carriers utilise bikes readily available on the market, which allows for more standardised repair and maintenance procedures.

Both Cycle Logistics Carriers and Mixed Carriers maintain in-house mechanics to ensure that their fleets remain in top condition. Regular bike checks are a standard practice, reinforcing reliability and safety during operations.

Road safety

In 2023, accidents with major injuries were relatively rare in the cycle logistics industry, whereas minor injuries or material damage are more common. Notably, no respondent

reported an incident involving fatalities, reflecting the effectiveness of safety measures in place. Furthermore, less than 22% reported incidents with major injuries, which typically involve insurance claims, hospital visits, or significant days off work. Most incidents fell into the category of minor injuries or property damage only.

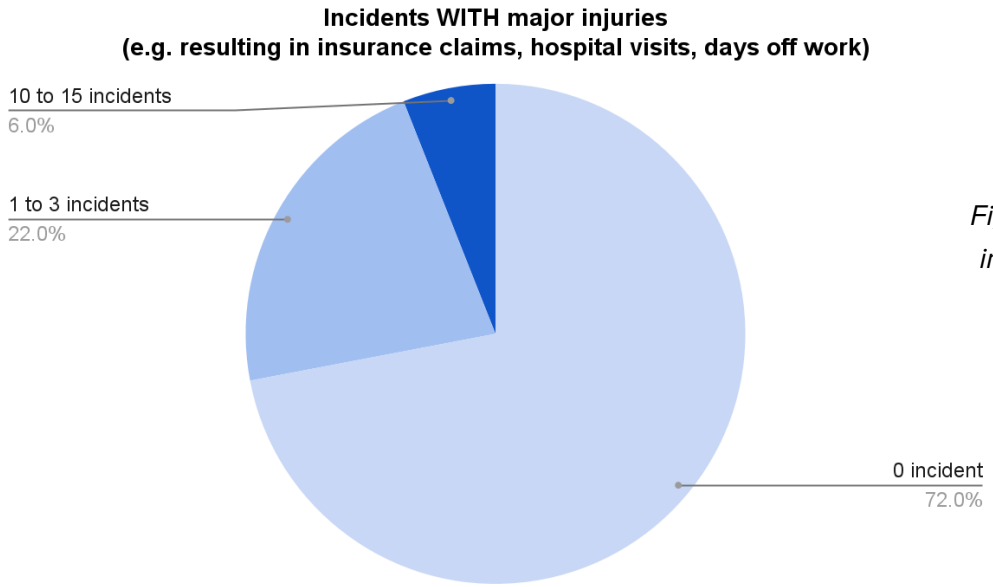


Figure 22: amount of incidents with major injuries in 2023

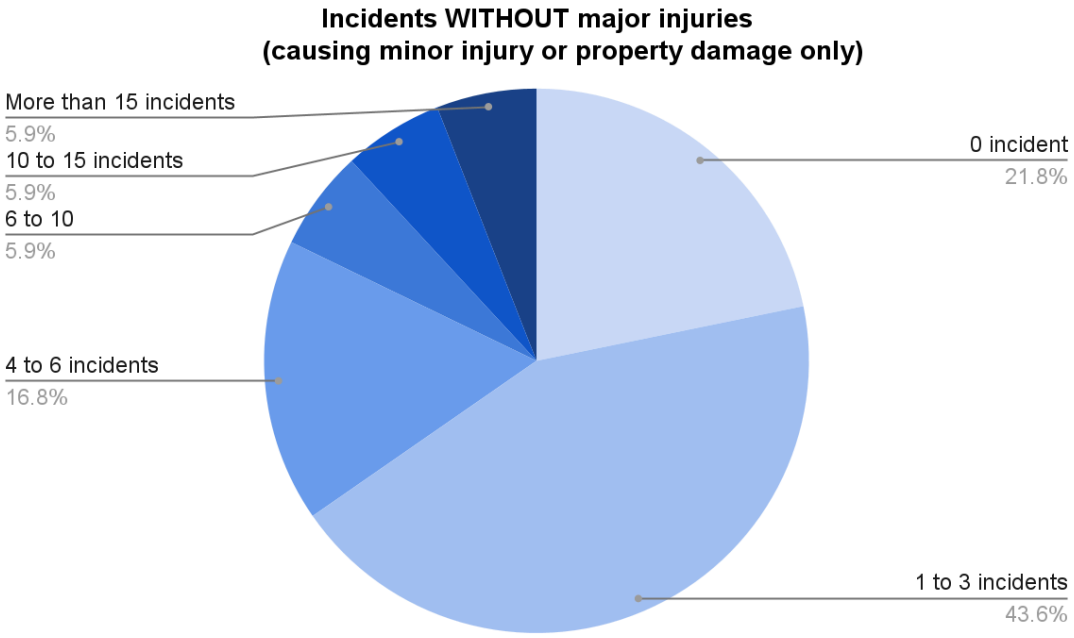


Figure 23 (right) Percentage of incidents without major injuries in 2023.

Mixed Carriers reported a higher frequency of accidents in this latter category, indicating potential differences in operational risks or safety practices across various types of logistics providers. One factor could be that Mixed Carriers often utilise larger bikes with greater capacities, allowing them to transport heavier loads. These bigger bikes, while beneficial for carrying more goods, can also present unique challenges in terms of handling and navigation, especially in crowded urban environments.

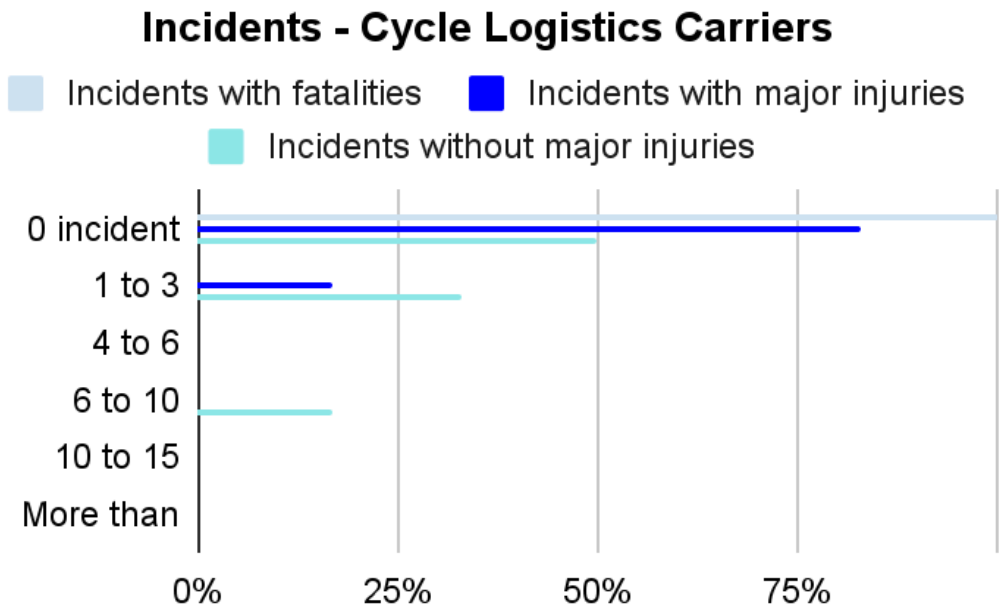


Figure 24: Incidents - Cycle Logistics Carriers in 2023

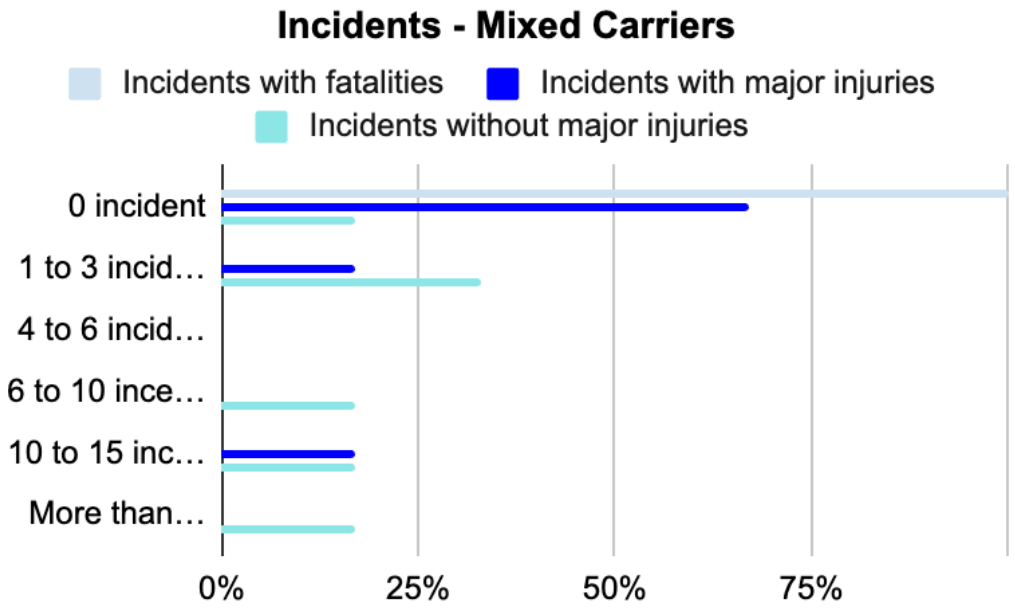


Figure 25 Percentage of Incidents - Mixed Carriers in 2023.

A recent qualitative study conducted by VIAS[55] on last-mile delivery road security, comparing van and bike deliveries and based on interviews with drivers and couriers, found that **perceived security is directly linked to working conditions and the state of road/cycling infrastructure.** Security concerns were significantly higher among van drivers, who reported difficulties navigating city streets, cohabiting with other road users, and parking near delivery addresses—all contributing to stress. In contrast, bike couriers in cycle logistics did not report the same security concerns but highlighted the need for improved cycling infrastructure to ensure safer routes.

[55] VIAS Institute (2024), Sécurité routière subjective lors des livraisons de colis et de repas chauds en Belgique. Rapport n2024-R-10FR.

Environmental & Societal Impact

As highlighted in several reports, **urban logistics generates negative externalities** such as pollutant emissions, contributions to congestion, accidents, noise and various external costs to society. In this context, cycle logistics plays an important role in helping to reduce these impacts.

Firstly, the modal shift of a fraction of deliveries to bikes **significantly reduces the emissions of carbon dioxide.** For example, a 10 km journey on an electric cargo bike generates 20 times fewer emissions than a trip in an electric LCV, and even 40 times fewer than a trip in a non-electric LCV[56]. Additionally, the distances travelled by bike are shorter for the same destination. As a result, it is estimated that the use of **cycle logistics has saved around 3.155 tons of CO2 equivalent in 2023** compared to a scenario where 90% of deliveries would have been made by non-electric LCVs and the remaining 10% by electric LCVs[57].

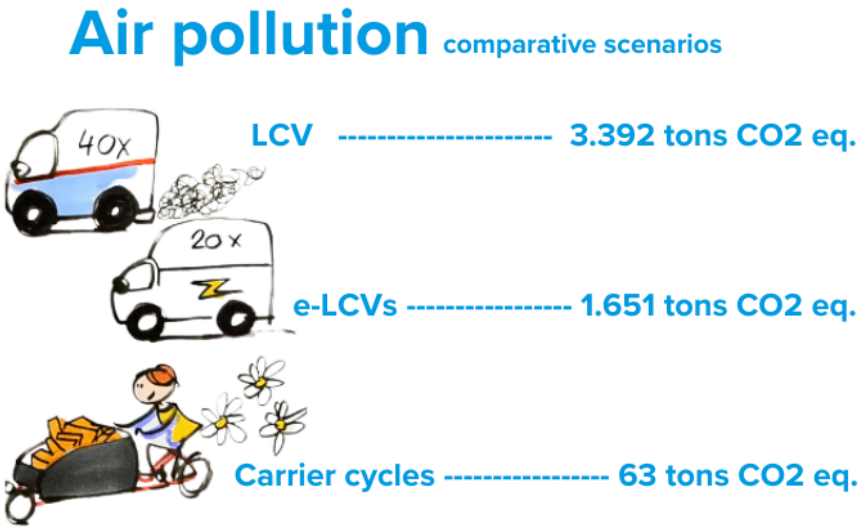


Figure 26: Emissions of CO2 eq. per vehicle type (2023).[58]

In addition to its impact on air pollution, the use of **cycle logistics also helps to reduce congestion and the associated societal costs**. On the one hand, it decreases the number of large vehicles on the road : in 2023, **5.000 bikes used for cycle deliveries in Belgium collectively covered a total of 8.200.000 km**. While this figure represents only a small fraction of Belgium's total vehicle fleet, it nonetheless contributes, on its scale, to reducing other congestion-causing behaviours such as frequent stops, manoeuvres, and double parking. Using the external cost of congestion per vehicle type, it is estimated that **the modal shift to cycle logistics resulted in savings of between €9,2 and €10,6 million in 2023**[59].

[56] Kale ai (2023). Data-driven Evaluation of Cargo Bike Delivery Performance in Brussels.
[57] Kale ai (2023). Data-driven Evaluation of Cargo Bike Delivery Performance in Brussels.
[58] Source: https://impactco2.fr/outils/comparateur/
[59] Based on figures from the Mobilise Research Centre – VUB.

Figure 27: external congestion cost (2023)

If we consider **the total external costs**,including climate change cost, air and sound pollution costs, production costs as well as the costs of accidents and congestion , **the savings allowed by the cycle logistics sector rose up to €9,9 to €11,3 million**[60] in 2023.

.

	Costs related to climate change	Costs related to air pollution	Costs related to sound pollution	Production costs	Costs related to accidents	Costs related to congestion
LCV	253.872 €	280.317 €	9.520 €	65.583 €	186.172 €	10.671.951 €
Carrier cycle	0 €	0 €	0 €	13.120 €	34.440 €	113.980 € to 1.480.920 €

Figure 28: External costs of deliveries for per vehicle category

Sector Outlook

Revenues

Most respondents (60%) indicated that they expect to grow their revenues from bike deliveries in 2024, compared to 2023. Notably, 20% anticipate strong growth, with revenue increases of more than 50%. One third of respondents expected revenues to remain stable, while only 1 player (a Mixed Carriers) foresees a decline in revenues.

[60] Based on figures from the Mobilise Research Centre – VUB.

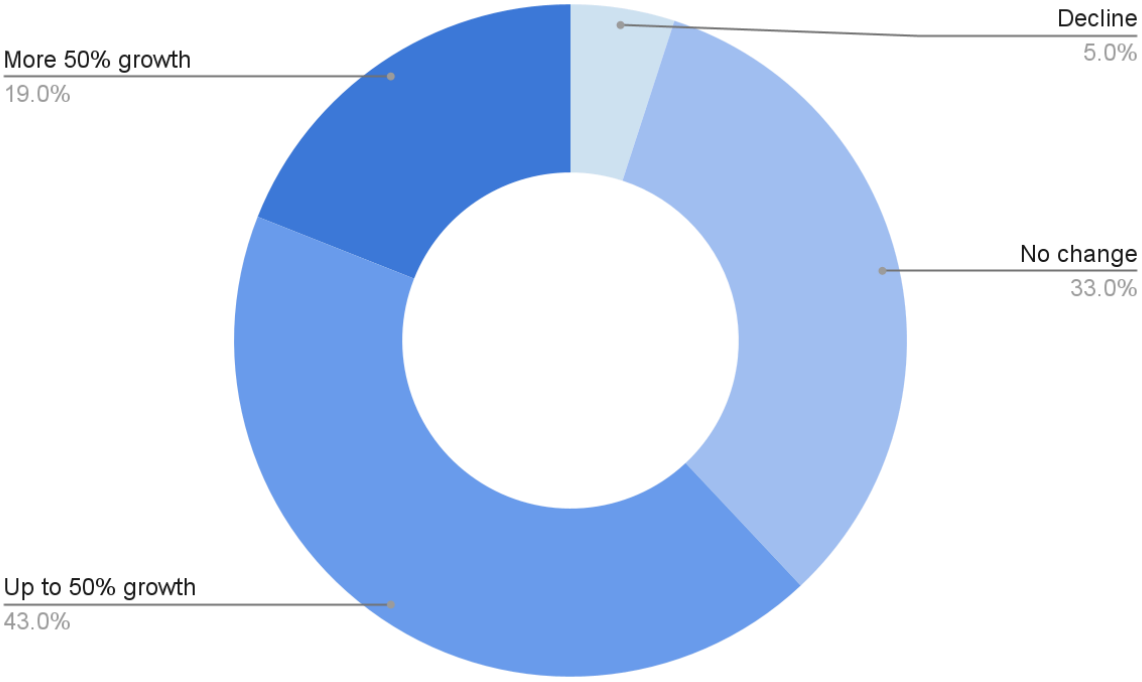


Figure 29: Revenues expectations for 2024

This overall trend aligns with observations from recent years, suggesting that the cycle logistics sector will continue to gain market share, although its potential remains largely untapped.

Employment

Looking forward to 2024, the employment forecast for the cycle logistics sector appears optimistic. **Most companies expect workforce growth, with the largest percentage anticipating growth of up to 50%.** A smaller, but notable, segment of companies even projects "strong growth" with increases of over 50% in their workforce. This trend is driven by various factors, including the emergence of new players in the market and evolving industry demands.

Additionally, the European Union's new regulations aimed at achieving CO2-free transport by 2050 are prompting companies to expand their operations and invest in sustainable practices. Many organisations are just beginning to adapt to these changes, reflecting a shift in the landscape as they respond to regulatory pressures and seize new opportunities for growth.

If the sector of cycle logistics was allowed to develop its full potential, it could create thousands of new jobs in Belgium

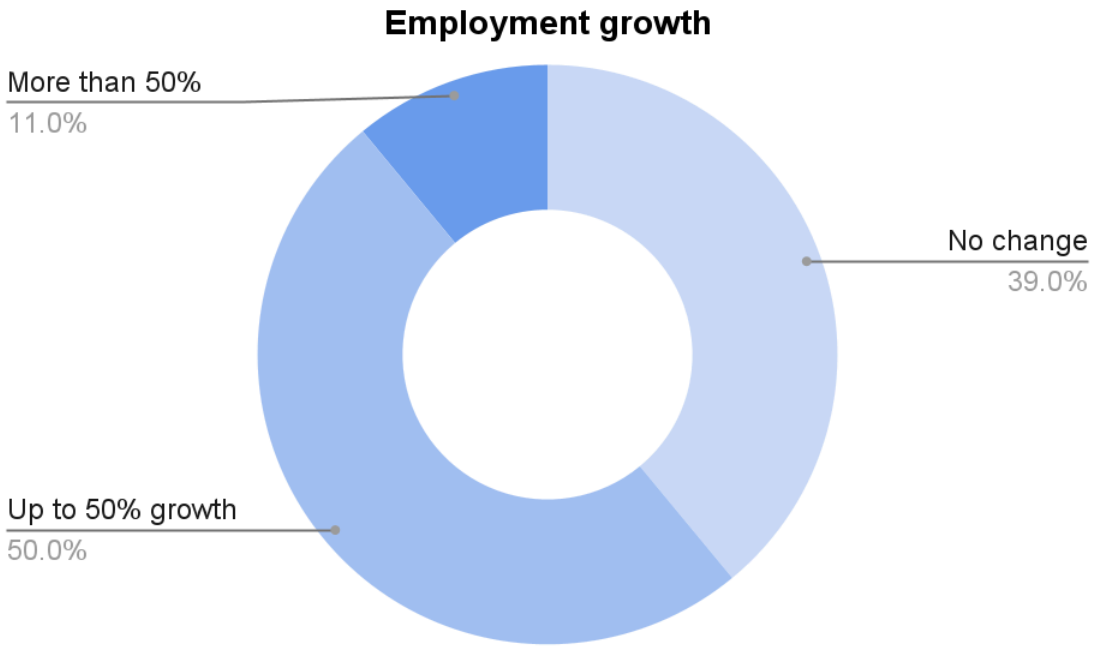
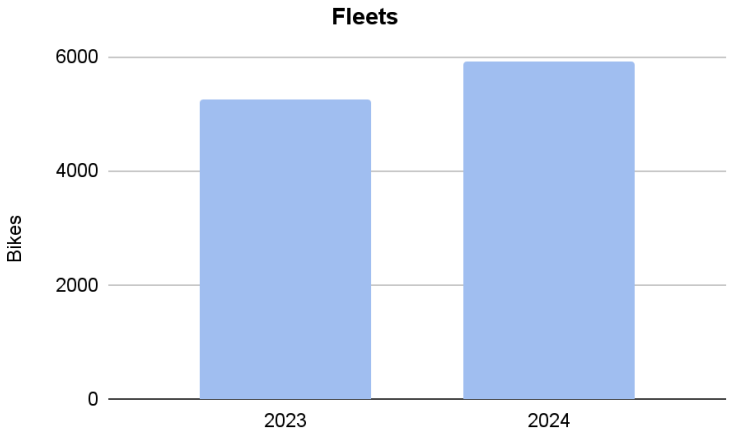


Figure 30 : Employment trend for 2024

Bikes



The number of bikes composing the fleets of cycle logistics operators is expected to increase by more than 10% from 2023 to 2024. This is primarily driven by Mixed Carriers expanding their fleets with additional cycle carriers to support the development of their operations. By 2024, the total number of bikes is expected to approach 6,000.

Figure 31 : Number of bikes from 2023 to 2024

Key takeaways

Growth in Deliveries:

- Deliveries in Belgium's cycle logistics sector more than doubled from 2022 to 2023, reaching 3.1 million parcels.
- The surge was primarily driven by the inclusion of new Mixed Carriers' data, which accounted for 80% of the growth.
- Mixed Carriers doubled and even tripled the volume of deliveries year on year.

Regional Distribution:

- Brussels topped the charts with 60% of all bike deliveries.
- Antwerp and Ghent: each accounted for 10% of deliveries.
- Flanders: captured 35% of all deliveries.
- Wallonia: is lagging behind with approximately 5%

Market Penetration:

- Cycle Logistics account for 0,8% of the overall transport market, and 1,5% of the urban market for Professional Carriers.
- High penetration rates are observed in cities like Deinze, Veurne, and Brussels.
- Cycle Logistics has the potential to cover 25% of all trips for professional transport of goods.

Workforce and Attrition:

- Workforce increased by 20% for Cycle Logistics Carriers (reaching 100 employees).
- Mixed Carriers tripled their workforce (over 500 employees).
- Total workforce for the sector is now approximately 700 workers.
- Generally, the workforce in the sector remained stable with a low to moderate attrition rate. The Cycle Logistics Carriers had low attrition but Mixed Carriers experienced in some cases a high attrition rate.

Gender Diversity:

- One-third of firms reported no female employees, reflecting EU-wide gender disparities.
- The sector needs to enhance workforce gender diversity.

Environmental and Cost Savings:

- Carrier cycles significantly reduced the emissions of carbon dioxide.
- Bike deliveries saved an estimated 3.155 tons of CO_2 in 2023

- Cost savings from reduced congestion were estimated at €9.2–€10.6 million.

Outlook and Opportunities for Growth:

- Cycle Logistics sector is poised to continue its growth in terms of revenues, workforce and fleet.
- The potential for growth remains untapped in large cities such as Brussels, Antwerpen, Gent , Charleroi, Liège, Brugge, Namur.
- The potential of Cycle Logistics also lies in medium-sized cities in Flanders and Wallonia.

© Museum of Tradesman's Delivery Bikes © An Van Gijsegem

Insights from Mixed Carriers and Transport Organizers

In this section, we focus on Mixed Carriers and Transport Organizers, who provide an external perspective as cycle logistics is not the core of their operations. Their role is crucial, as they significantly influence the sector's growth and development.

We wanted to gain insights into their motivations for adopting bike deliveries, the processes they followed to implement this transition, the challenges they faced, and their future visions for cycle logistics. Mixed Carriers and Transport Organizers who have a long history of specialising in the transport of goods on national and international levels, are increasingly (re)introducing bikes for urban deliveries to optimise their operations and to capitalise on the advantages of multimodal systems.

While traditional vehicles remain essential for managing larger volumes and oversized shipments, many operators now recognize that **a combination of bikes and vans represents an optimal solution for city logistics**. This growing trend toward multimodal delivery approaches reflects the industry's broader shift toward more sustainable and efficient logistics solutions.

Mixed Carriers and Transport Organizers are relatively new to the bike business. The surge in package deliveries during the covid crisis, coupled with new European and national regulations, has encouraged their interest in cycle logistics. Most of these companies must become carbon neutral by 2050. In pursuit of this goal, many are integrating electric vans in their fleet, as it requires minimal operational changes in their delivery flows, while reducing emissions. In addition, many players are also exploring cycle logistics and, assessing whether these options could further support their transition toward a sustainable and carbon-neutral future whilst being an efficient alternative to vans

The insights below are drawn from the qualitative face-to-face interviews conducted as part of our research.

Adoption of Cycle Logistics

The adoption of cycle logistics is rapidly gaining momentum in the Mixed Carriers and Transport Organizers. In this section, we explore why this solution is rapidly gaining momentum.

The top reasons cited by carriers include environmental benefits, enhanced brand image, and operational efficiency. We detail each of these motivations below.

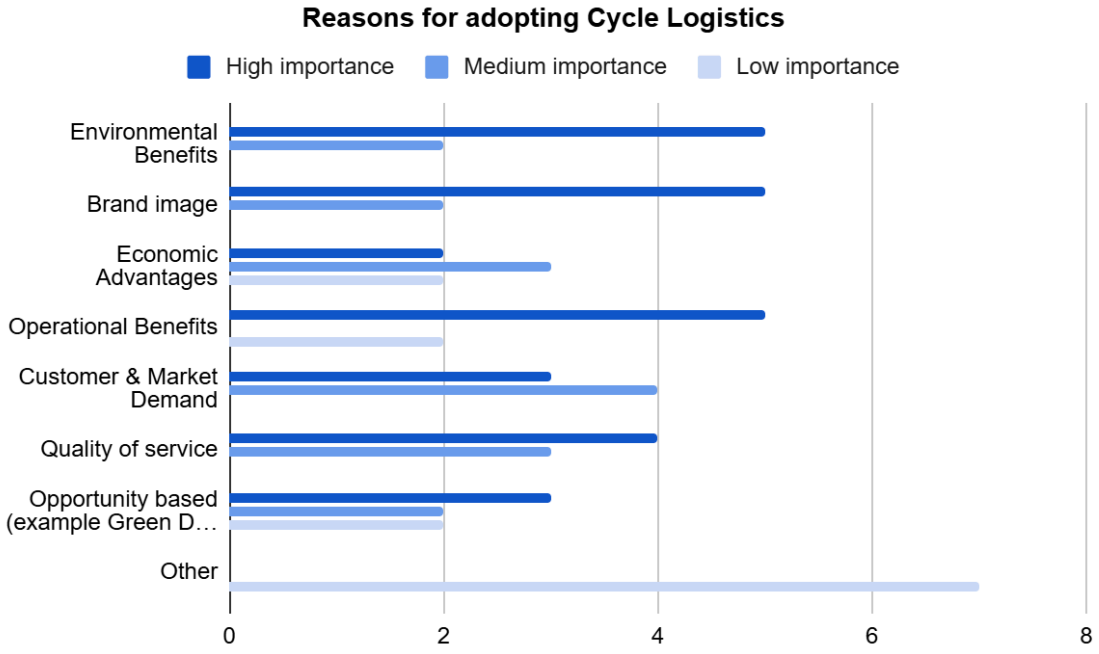


Figure 32 : The Reasons of Mixed Carriers and Transport Organizers for adopting Cycle Logistics

Carriers are placing greater emphasis on sustainability in their operations and are actively communicating these efforts externally (such as in the case of KGS Green or Bpost Ecozones). Many are also incorporating innovative solutions like solar-powered hubs and electric bikes to reduce their carbon footprint and improve delivery services, particularly in urban areas.

Bpost's new carbon-neutral distribution centre in Evere is now fully operational, featuring advanced sustainable technologies such as solar energy, heat pumps, energy-recreasing ventilation, LED lighting, loading facilities, and rainwater harvesting.

This shift has been especially advantageous for businesses established during the COVID-19 pandemic, a time marked by a surge in delivery demand and growing awareness of eco-friendly practices. By adopting cycle logistics, companies were able to meet customer expectations while significantly reducing their environmental impact.

Secondly, **Mixed Carriers and Transport Organizers recognize** that cycle logistics are often the best—and **sometimes the only**—solution for deliveries in **city centres**. This is largely due to access restrictions imposed by Low Emission Zones, pedestrian areas, and other mobility schemes. Bike couriers can navigate congested city centres and restricted zones more efficiently than traditional vehicles, **ensuring reliable deliveries even in pedestrian-only areas** and enabling faster delivery times, enabling quicker delivery times. Furthermore, the proximity of couriers to their bikes reduces the risk of theft and eliminates parking issues, as bikes can park directly in front of shops or homes without the risk of fines.

Thirdly, transitioning to cycle logistics offers **numerous customer service-related benefits,** such as an enhanced brand image, making it an attractive choice. Flexible, customer-focused models not only cater to diverse delivery needs but also serve as mobile advertising platforms with branded bikes. Switching to cycle logistics often **improves customer service with more personal and engaging delivery experiences.**

The fourth rank in importance for adopting cycle logistics is **the demand from clients (the sender of the packages),** driven by their eco standards. This is a positive signal for the sector, as the combination of client demand and the push for sustainability can accelerate the adoption of bike deliveries.

Challenges in adopting bike deliveries for Mixed Carriers and Transport Organizers

Our survey and discussions have revealed several key challenges these cycle logistics professionals face.

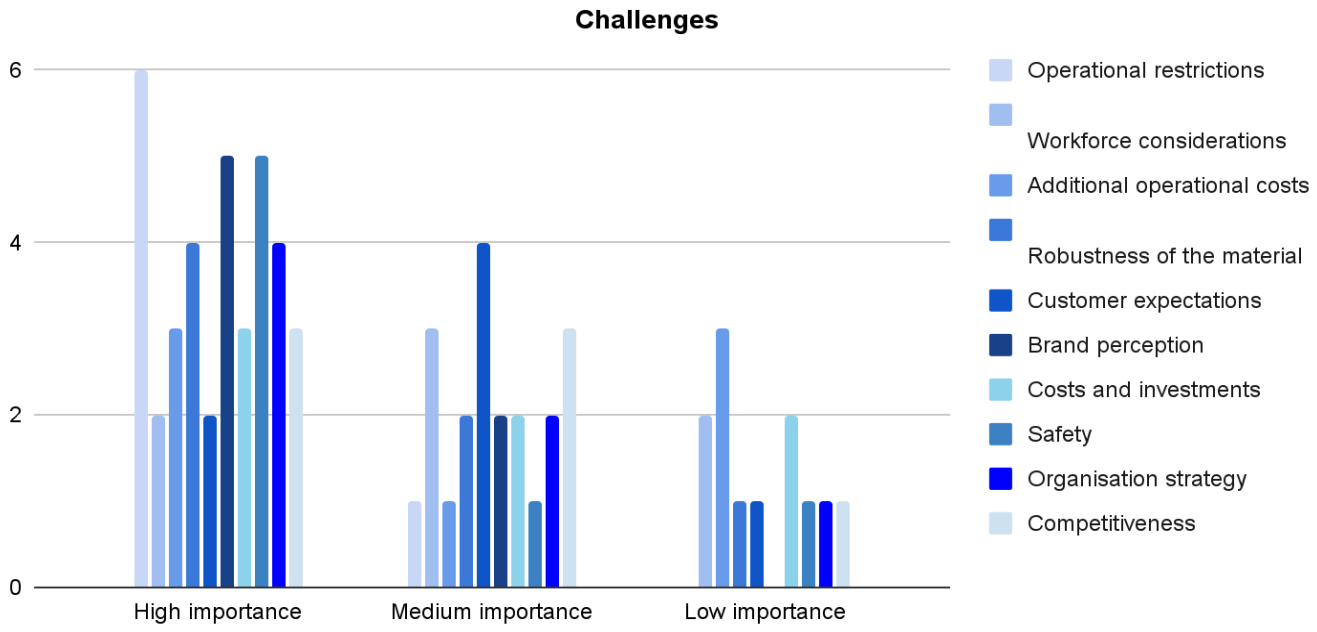


Figure 32 : The challenges by importance of Mixed Carriers and Transport Organizers

The most critical challenge, ranked as high importance, involves **operational restrictions**, particularly limitations related to payload capacity, range, and battery life. Although advancements in technology and materials are expanding capabilities, these challenges emphasise the need for delivery processes that align with the limitations of carrier cycles. The high cost and limited availability of quality equipment, as there are few bike manufacturing companies and leasing options available. This scarcity drives up costs and creates additional obstacles for sourcing replacement parts and arranging repairs. Many bikes also require custom designs to meet the specific operational needs of operators, which results in lengthy lead times before deployment.

The second major challenge involves **brand perception and Safety.** Many Mixed Carriers and Transport Organizers who are partly switching to cycle logistics after years of relying on vans face difficulties in reshaping their brand image and getting acceptance from their customers. It's challenging to position bike delivery as a reliable means of delivery, especially because of a lack of knowledge concerning cycle freight. Overcoming this perception is crucial for developing bike deliveries. Safety also becomes a concern, with new challenges such as navigating traffic, handling larger cargo bikes, and managing road space.

Robustness material is ranked third in terms of importance. Carrier bikes are used intensively, often operating in two shifts per day. These bikes need to resist specific local conditions, like the cobblestone streets, potholes, and irregular surfaces that cause shocks to the material while being heavily loaded. Such intensive use requires very regular repairs and preventive maintenance, which represent a significant cost to operators. This is why professional carrier cycles must be significantly more robust to achieve the reliability of cars and vans, which today require minimal maintenance.

The organisation's strategy is also considered one of the top three challenges. Established carriers have already set their global strategic priorities, such as fleet electrification or improving the fuel efficiency of long-haul transport, which often leaves little room to incorporate cycle logistics into their plans.

Ranked fifth in terms of importance are **additional operational costs, investments and the challenge to remain competitive in the market**. Mixed Carriers and Transport Organizers face additional costs for bike deliveries, primarily due to the need to break down larger loads for sorting and transferring goods to cycle logistics hubs, which involves intermediate handling. Moreover, specific investments are required for expanding the fleet with bikes, integrating IT systems with bike deliveries, and to set up city-centre hubs . Mixed Carriers and Transport Organizers must also manage complex logistics due to the limited cargo capacity of bikes. Bikes are suitable for smaller packages, but carriers still need vans for larger items, requiring careful coordination between transport modes. A steady supply of small packages is essential for frequent, feasible bike deliveries. To sustain demand it is essential for Mixed Carriers to conclude partnerships with local businesses and e-commerce platforms. Additionally, finding affordable, well-located urban hubs is challenging. These spaces need to be close enough for

efficient deliveries and returns, but high rents and limited availability make planning difficult. **Labour costs** add another layer of difficulty for companies, which often have to rely on full-time, in-house staff, leading to increased expenses. Mixed Carriers and Transport Organizers struggle to find individuals who provide their own bikes or work as self-employed couriers, invoicing their hours like van drivers do. Consequently, Transport Organizers need to cooperate with cycle logistics companies and often are unable to engage with independent suppliers.

Finally, **both types of companies face challenges in balancing sustainability goals with profitability.** While customers increasingly expect eco-friendly delivery options, their willingness to pay higher costs remains limited. E-commerce platforms have created a "free delivery" mindset and customers have come to expect to pay little or or very low prices for their deliveries . This in turn puts pressure on the transporters' margins. Companies must therefore be willing to invest in green logistics, despite the financial challenges. With bike delivery still a niche market, it's rare for Transport Organizers to handle more than 15 percent of their volume by bike, making it difficult to scale these sustainable practices.

Comparison Mixed Carriers and Transport Organizers in neighbouring countries

In **France**, most logistics companies primarily use subcontracting for cyclo-logistics. La Poste is a key exception, managing both in-house and subcontracted bike deliveries. Amazon enforces bike use among subcontractors, while companies like GLS, DHL, and DB Schenker heavily rely on subcontracted services. DPD, Chronopost, CEVA and ColisPrivé have limited bike operations[61]. Colisactiv supports most of this eco-friendly shift by awarding a premium for each package delivered by bicycle, which is shared between the delivery operator and their client[62].

[61] Information collected with Romain BARBÉ from the Fédération des Usagers de la Bicyclette (FUB)·
[62] https://colisactiv.fr/

The Netherlands continues to lead in cyclo-logistics, with major companies such as POSTNL and DHL heavily investing in internal bike-based delivery networks. This commitment reflects the nation's deep-rooted cycling culture and well-established urban infrastructures, positioning the country as a global benchmark for sustainable logistics practices. According to figures from the Dutch Cycling Embassy, the use of cargo bikes in logistics is projected to surpass 9,500 by 2025[63], underlining the growth and importance of bike logistics in the Dutch market. However, the sector is not without its challenges. In September 2024, Cycloon (owned by Bol.com), the largest bike delivery company in the Netherlands, announced a significant reorganisation. That means the company will close all 16 bicycle courier branches and the central parcel sorting centre. In the process, 440 employees will lose their jobs.

Germany also shows investment in cyclo-logistics, with major players like Deutsche Post (DHL being the parcel division of it[64]) operating large in-house bike fleets and other logistics companies incorporating bikes into their delivery systems. In Germany, the dominant logistics and parcel delivery companies, including Hermes, DPD, UPS, GLS, DHL, and Amazon, play a major role in both domestic and international parcel services, with each adopting different strategies for integrating sustainable delivery solutions such as bike-based logistics[65]. Some system providers are increasing their cargo bike shares for urban deliveries, whereas others are still struggling with a downturn in parcel volumes during the last years. The latter are currently hesitating to invest in their fleet or new products.

As mentioned earlier, **Belgium** takes a more integrated approach. Major players such as the Belgian Post, POST NL, Ziegler, DHL, and BD Logistics all have their own bike fleets.

Key takeaways

Adoption Drivers:

- Mixed Carriers and Transport Organizers are increasingly adopting bikes for urban deliveries as part of multimodal systems, combining bikes and vans.
- This shift is driven by sustainability goals, regulatory pressures, and operational efficiency.

Benefits of Cycle Logistics:

- **Environmental Benefits**: Reduces carbon footprint and enhances brand image through eco-friendly practices.
- **Operational Efficiency**: Bikes are more efficient for navigating congested city centers, low-emission zones, and pedestrian areas.

[63] The Dutch Cycling Embassy (2024). Final report - June 2024- The Cargo Bike in Dutch Zero Emission Zones for Logistic.
[64] DHL.
[65] Information collected with Tom Assmann, Vorsitzender, Radlogistik Verband Deutschland e.V.

- **Customer Service**: Provides a more personal delivery experience and serves as mobile advertising through branded bikes.
- **Client Demand**: Increased demand from clients for sustainable delivery options.

Challenges:

- **Operational Limits**: Restricted payload, range, and battery life; high equipment costs; custom designs causing delays.
- **Perception & Safety**: Acceptance issues and traffic risks.
- **Durability**: Intensive use demands frequent maintenance.
- **Strategic Fit**: Hard to align with existing priorities.
- **Costs & Logistics**: High expenses, limited capacity, and urban rent challenges.
- **Profitability vs. Sustainability**: Eco-demand vs. unwillingness to pay more.

Regional Insights:

France:

- Heavy reliance on subcontracting for bike deliveries.
- Subcontractors encouraged with premiums for eco-friendly bike deliveries.

Netherlands:

- Leading in bike logistics due to strong cycling culture and infrastructure.
- Rapid growth projected, but recent reorganisations show challenges.

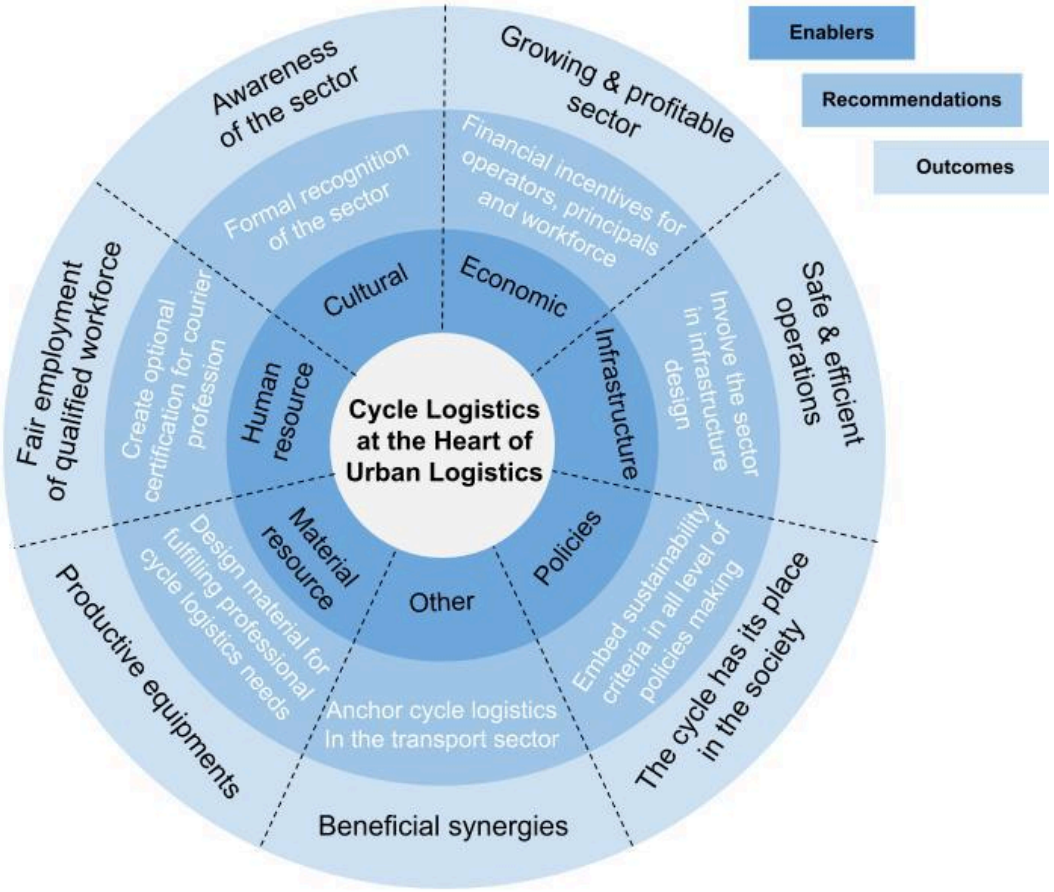
Germany:

- Significant investment in bike fleets, but some hesitation due to declining parcel volumes.
- Mixed adoption of bike logistics among major operators.

Recommendations for the Future of Cycle Logistics

Recommendations

In the first edition of the Barometer (2023), we introduced the Cycle Logistics Wheel, which visualises the different categories of enablers, recommendations, and outcomes in the sector.



In this year's Barometer, we present tailored recommendations for each stakeholder. This compilation aims to be exhaustive, without assigning a specific order of importance. We draw inspiration from the Flywheel concept, where each positive step helps build others, creating momentum that pushes the sector forward. Each recommendation is designed to have a positive effect.

The recommendations are based on the BCLF accumulated knowledge and the feedback gathered from stakeholders in the cycle logistics sector. These proposals are addressed to policy makers, manufacturers, professional carriers, and citizens to tackle the challenges faced by cycle logistics. By taking decisions and actions in their areas of responsibility and

collaborating, these groups can create the conditions to accelerate the development cycle logistics.

1) Policy Makers

Prioritise green logistics through urban planning

Policy makers should continue to advocate for urban designs that prioritise sustainable transport, such as Cycle Logistics. This includes creating dedicated cycling infrastructures that safely accommodate both citizens and professionals using carrier cycles. We recommend wide, physically separated bike lanes to ensure safety and usability.

Implementing urban vehicle access restrictions (e.g., Low Emission Zones or designated delivery time slots) encourage operators to adopt more sustainable delivery methods. This, in turn, supports the growth of cycle logistics. However, fragmented and inconsistent regulatory frameworks across cities hinder logistics operators from achieving large-scale deployment, leading to uncertainty and loss of efficiency. Therefore, we recommend that policy makers strive for coherent and unified plans across the country.

Support sustainable logistics with financial incentives

Public authorities should provide financial support for pilot projects to encourage innovation. These pilot projects would test and demonstrate new green logistics solutions, such as the use of cargo bikes. It is essential to ensure that pilot projects are carried forward in actual operations. Incentives for the purchase of cycle logistics equipment is also a positive form of financial support.

Enable space for hub development

Public authorities could facilitate access to urban logistics warehouses and micro-hubs in strategic locations, based on population density and the needs of carriers, to reduce costs and improve accessibility for cycle logistics.

In addition to investing directly in hubs, public authorities could consider freeing up underutilised public spaces for temporary occupancy and for the development of logistics hubs. These initiatives would reduce the cost of hub operations for smaller logistics providers and support the growth of green logistics solutions by ensuring access to affordable, strategically located delivery points.

Create economic incentives for bike-based deliveries

To encourage bike-based deliveries, authorities could provide economic incentives that make it more attractive for companies to adopt this method. Since investing in new equipment and

changing processes can be costly, especially with low profit margins, subsidies or financial support programs can help cover these extra costs.

We recommend that these incentives be temporary to avoid creating long-term dependence with, for example, a decreasing level of intervention as the volume of business increases. They could support companies in the early stages of development, helping them build momentum towards becoming economically sustainable. The Colis Activ' program[66] in France is a great example of this approach.

These incentives would also help companies meet EU regulations for green logistics, making the shift to sustainable transport easier and more beneficial for businesses.

Support employment in the sector

As the shift to bike deliveries increases, the sector is creating new jobs and requires more manpower. Since it is human-centric, personnel costs make up a significant portion of its operational expenses. Reducing these employment costs will help operators offer competitive prices while staying profitable. Such incentives would accelerate the shift to sustainable logistics and would help create thousands of jobs.

There is a need to establish vocational training programs for the cycle logistics sector as operators will need to hire more staff for various roles (such as cycle logistics operations managers, couriers, dispatchers, fleet management, cycle mechanics and hub management). These programs will create a pool of skilled candidates for open positions and reduce employers' training costs, minimising the need for extensive in-house training. In addition, vocational training courses help to raise the level of service quality in the sector, and therefore its reputation and attractiveness.

Regulate the market

Social dumping is a major issue in the last-mile delivery market. Social dumping occurs when companies exploit cheap labour, often by outsourcing work to freelancers. This leads to worker exploitation, unfair competition, and a race to the bottom in delivery pricing. While the market should evolve according to economic principles, it's essential to establish fair standards and labour practices that ensure all companies operate on a level playing field.

Belgium's postal law, sets an example for the rest of Europe as to how to implement better controls and improve regulations. The law aims to improve working conditions and promote fair competition in the parcel delivery sector. It mandates a minimum wage for workers, whether they use vans or carrier cycles. However, implementation of regulation is a key. Indeed, lack of proper implementation creates unnecessary burdens on operators.

[66] https://colisactiv.fr/

Measure logistics flows

There is a lack of available data on delivery activities. Such data is crucial to understand the evolving reality of the transport sector. Additional data is crucial, to help formulate policies and adapt regulations, to assess the results of actions taken and to plan effectively for the required changes. Such data should cover the type of vehicles, the volumes transported, the routes followed, the geographic distribution of delivery points, the seasonal and daily fluctuations, the incidents encountered.

Lead by example

Public commitment to sustainability is key to motivating private sector investments in eco-friendly solutions. Local and national authorities can set an example by adopting sustainable delivery methods for both their internal and external services needs, including logistics, supplies, and cleaning.

2) Manufacturers

Enhance equipment durability and innovation

Manufacturers should focus on improving the durability and reduce the Total Cost of Ownership (TCO) of e-bikes used in cycle logistics. Cargo bike systems often struggle under heavy-duty use and rough terrain. In addition to equipment reliability, operational restrictions (such as limitations in range, battery life, and load capacity) are major challenges.

Invest in battery technology and spare parts accessibility

Manufacturers could prioritise investments in battery technology to improve range and reliability. Additionally, ensuring better access to spare parts and efficient maintenance services is critical to minimising downtime and operational costs for cycle logistics providers.

Collaborate on industry-wide innovation

Manufacturers could collaborate with other industry players and stakeholders, including policy makers, to address the broader issues of infrastructure and economic pressures. Developing industry-wide solutions for competitive pricing, standardisation of bike components, and system durability will help to scale up the use of cargo bikes for logistics.

Support standardisation of carrier cycles

We promote the standards for light and heavy weight carrier cycles, enabling regulators to use these standards in defining the traffic laws. Standardising carrier cycles is crucial for the industry because it drives operational efficiency, safety and reliability, compatibility, industry

growth and adoption, sustainability goals and regulatory compliance. Standardised cycles enable local regulators to define rules around size, speed, and carrier cycle weight.

3) Professional Carriers

Expand into new territories and take initiative

Cycle logistics operators are pioneers working towards a more sustainable society, demonstrating innovation in urban logistics. While they benefit from support and collaboration with policymakers and stakeholders, they could take the lead in expanding services and exploring new territories. Operators could focus on growing last-mile delivery services in large cities with favourable conditions, such as Low Emission Zones, restricted access areas, and strong cycling infrastructure. Additionally, medium-sized cities offer opportunities for gradual development of cycle deliveries integrated into the local economy.

Professional carriers have a mission to raise awareness by promoting their activities, participating in studies to enhance the performance of cyclo-logistics, and investing in R&D to contribute to innovation in the sector.

Adopt mixed fleets for greater logistics efficiency

Professional carriers could adopt mixed fleets, integrating bicycles, (e)cargo bikes, electric vans, and other vehicles. These modes are complementary: carrier cycles are ideal in urban centres, while the broader fleet offers the flexibility needed to handle varying cargo sizes and delivery areas geographically far from the depot. Moreover, a recent study demonstrates that efficiency gains, combined with the strategic planning of urban hubs for carrier cycles delivery, can offset hidden costs and deliver cost-effective and sustainable solutions today[67]. This strategy enhances efficiency, and optimises routing based on the concept of using the right vehicle at the right time in the right place. As a result, it strengthens the logistics network, enabling carriers to offer better service levels while prioritising efficiency and sustainability. Operators with mixed fleets can position themselves as one-stop shops for urban deliveries. To adopt mixed fleets, Cycle Logistics Carriers can collaborate with one or more Professional Carriers who use other vehicles. Such an approach allows Cycle Logistics Carriers to remain focused on their activities.

Address infrastructure limitations through innovation

Operators could work with local governments to help develop the necessary infrastructure, including strategic hub locations. When the lack of infrastructure is a barrier, operators could focus on creating temporary or micro-hubs for last-mile deliveries to improve logistics efficiency. Urban logistics also offers opportunities to repurpose underutilised or low-value real estate or land (e.g., Hub P4 in Paris), transforming it into efficient logistical hubs.

[67] EIT InnoEnergy (2024). Finding the Right Mix: The Hidden Costs, Complexities, and Benefits of Mixed Electric Fleets in Last-Mile-Logistics

4) Citizens

Be aware of the environmental impact of your deliveries

It would be useful to make consumers aware of the carbon footprint of their delivery choices. Opting for eco-friendly delivery methods, such as bike-based delivery, can significantly reduce the environmental impact compared to traditional car-based logistics. Understanding and valuing the benefits of green logistics can encourage more sustainable consumer behaviour.

Support companies that prioritise sustainability

We choose with our wallet. Consumers play a key role in promoting green logistics by supporting businesses that offer sustainable delivery options. By choosing companies that prioritise green logistics, consumers can help create demand for cycle-based solutions and eco-friendly alternatives. Citizens can also take action within their companies to encourage bike-based deliveries (whenever possible).

Advocate for policy change and urban investments

Citizens can advocate for policies and infrastructure investments that make green logistics more viable. This includes supporting urban planning changes, such as improved bike lanes, reduced car access in city centres, and other measures that enhance the efficiency of cycle logistics. It's important to recognize that change is necessary, and while it requires effort, it will ultimately benefit everyone.

5) Actors in the ecosystem

Insurance companies

The Cycle Logistics sector requires suitable insurance for its workers and the transported goods. Insurance premiums need to be based on the actual risks, based on statistics from operations, and not on perception or other considerations. Unreasonable premiums are not affordable in a sector where profitability is already a challenge. Fair insurance premiums are crucial to the development of the cycle logistics and could ultimately pose a threat to the sector's survival.

Educational institutions and Research bodies

Universities, think tanks, and research organisations that focus on sustainable transport, urban mobility, or environmental issues can play a crucial role in providing data, case studies, and innovations that drive evidence-based policy decisions and operational improvements in the sector. In particular, it would be valuable to conduct research to model the evolution of costs

for traditional logistics models, compared to cycle logistics, in the short and medium term. Such study could highlight the economic resilience of cycle logistics to the soaring costs of fossil fuels, increasing mobility restrictions, and evolving regulations, and provide a compelling impact to encourage businesses to adopt more resilient alternatives..

Retailers and E-commerce platforms

Large retailers and e-commerce companies should incentivise the use of eco-friendly options like cargo bikes as they are key beneficiaries of cycle logistics, particularly for last-mile deliveries. Hence, when selecting logistics providers, large retailers and e-commerce platforms should prioritise green delivery alternatives and consider offering incentives, such as better pricing or longer contracts, for sustainable options.

Investors and Financial institutions

Impact investments, banks, and other investors who are keen to promote ESG investments should support sustainable mobility solutions and provide the funding needed to scale cycle logistics companies and develop new technologies that enable more efficient operations.

Media and Communications platforms

Media outlets and communication channels can help shape public perception and promote the benefits of cycle logistics. Public campaigns and stories that highlight successful case studies or innovative solutions can drive broader societal support.

Summary of Recommendations

Stakeholder	Recommendations
Policy Makers	Prioritise green logistics through urban planning
	Support sustainable logistics with financial incentives
	Enable space for hub development
	Create economic incentives for bike-based deliveries
	Support employment in the sector
	Regulate the market
	Measure logistics flows
	Lead by example
Manufacturers	Enhance equipment durability and innovation
	Invest in battery technology and spare parts accessibility
	Collaborate on industry-wide innovation
	Support standardisation of carrier cycles
Professional Carriers	Expand into new territories and take initiative
	Adopt mixed fleets for greater logistics efficiency
	Address infrastructure limitations through innovation
Citizens	Become aware of the environmental impact of your deliveries
	Support companies that prioritise sustainability
	Advocate for policy change and urban investments
Others	Insurance companies should provide affordable and suitable coverage
	Educational and research institutions should publish more studies
	Retailers and e-commerce platforms should promote green delivery solutions
	Investors and financial institutions should invest in bike based solutions
	Media and communications platforms should help shape public awareness

Conclusion

In conclusion, Belgium's logistics sector is at an important turning point, driven by the need for more sustainable, efficient, and flexible urban deliveries. This analysis has shown that last-mile deliveries come with many challenges, such as high costs, environmental impacts, and increasing consumer demands. However, cycle logistics offer a promising solution, providing benefits like lower emissions, less traffic congestion, and better delivery options.

The significant growth of cycle logistics, with deliveries doubling and large CO2 savings in 2023, shows its potential to change urban transport. Companies using a mix of bikes and other vehicles have demonstrated that it's possible to meet consumer needs while reducing environmental impact. Still, there are challenges to overcome, such as making carrier cycles more robust, improving infrastructure, and ensuring financial profitability.

Moving forward, all stakeholders involved have a role to play. Manufacturers must prioritise innovation and the development of more robust, reliable cargo bikes. Policy makers should foster supportive frameworks that incentivise green delivery methods. Operators need to expand strategically and embrace mixed fleets for enhanced flexibility. Consumers also play a critical role by opting for eco-friendly delivery options and advocating for supportive urban policies.

By working together and supporting these changes, Belgium can become a leader in sustainable urban logistics. The growth of cycle logistics will lead to cleaner cities, more efficient deliveries and increased employment whilst at the same time helping meet Europe's environmental goals. With coordinated efforts and innovation, the cycle logistics sector will create a better future for cities in Belgium and set an example to follow in Europe and beyond.