

WIK-Consult • Report

Study for BIPT Belgian Institute for Postal Services and Telecommunication



Postal Aspects of E-Commerce

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Glossary

	Explanation
B2B parcels	<p>Business-to-business</p> <p>Part of B2X parcels. These parcels are sent by business senders to other businesses (e.g. from a wholesaler to a retailer). Businesses can include private and public institutions and enterprises.</p>
B2C parcels	<p>Business-to-consumer</p> <p>Part of B2X parcels. These parcels are sent by business senders (for example retailers) to consumers for example to deliver an e-commerce order.</p>
B2X parcels	<p>Business-to-all</p> <p>Parcels sent by businesses and public institutions are generally subject to a business contract with a parcel operator.</p>
C2X parcels	<p>Consumer-to-all</p> <p>Parcels sent by residential or small senders without a business contract. They are usually handed over in postal outlets, parcel shops, or parcel locker stations.</p>
Conversion rate	% of all site visitors who complete a purchase or service interaction.
CR4	Concentration ratio = volume [or revenue] share of the four biggest players by segment
Delivered parcels	Delivered parcels are the sum of domestic parcels and international inbound parcels (parcels delivered in Belgium).
Direct injection	Foreign large senders and fulfilment service providers consolidate parcels abroad and transport them by road or by air into Belgium. In Belgium, the parcels are handed over to a postal operator for final delivery. In this survey, parcels directly injected at sorting facilities or hubs of postal operators for final delivery in Belgium are defined as cross-border inbound parcels.
Domestic parcels	Parcels that are consigned and delivered in Belgium. These exclude parcels that are directly injected by foreign senders at sorting facilities or hubs of postal operators in Belgium (see "Direct injection").
E-commerce parcels	E-commerce parcels are parcels, from any type of facility (manufacturer, shop, wholesaler, warehouse, or consumer), resulting from any order placed with the supplier via electronic means. They are consigned either directly by consumers/wholesalers/retailers/brands (etc.) or by fulfilment service providers (including online platforms offering fulfilment services like bol.com, amazon.de, or amazon.fr).
EU Cross-border Parcel Regulation	Regulation (EU) 2018/644 of the European Parliament and of the Council of 18 April 2018 on cross-border parcel delivery services (https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX%3A32018R0644)
Express parcel service	Express parcels are defined as time-sensitive consignments. They are usually scheduled to be delivered before a specific time (e.g. before 9 or 10 am the next working day), often with a delivery guarantee (for each consignment), and they are more expensive than standard parcel services.
International inbound parcels	Parcels that are either consigned abroad through a postal, parcel, or express service provider or consolidated abroad (by a third party, see "Direct injection") for final delivery in Belgium. Transit parcels are excluded.
International outbound parcels	Parcels that are consigned in Belgium and delivered abroad. Transit parcels are excluded.
LAT	Latest acceptance time for handing over parcels by e-retailers and fulfilment service providers to parcel operators (e.g. to sorting facilities).
Parcel	<p>Maximum weight 31.5 kg</p> <p>Parcels usually contain goods and can be handled by one person.</p>

	Explanation
Parcel letter	Parcel letters are small parcels usually in letter format, weighing less than 2kg and are thicker than 2cm.
PDSP	Parcel delivery service providers (as defined in the EU Cross-border Parcel Regulation).
Return parcels	Return parcels are parcels handed over to the parcel operator by the consignee to send them back to the consignor. Return parcels could be part of C2X or B2X.
Standard parcel service	Standard parcels are defined as consignments that are usually delivered the next or the second working day after consignment (first attempt of delivery).
Transit parcels	Parcels that are consigned abroad, are transported via a hub in Belgium to the country of destination for final delivery.

Executive Summary

Since the 2016 release of the KPMG study on e-commerce and the Belgian postal market¹ the world has and continues to experience a series of events that have led to unprecedented social and economic impacts.

The 2020-2022 COVID-19 pandemic required far-reaching infection control measures such as social distancing, and the closure of retail stores, restaurants, schools, facilities, and administrative institutions. This period saw severe supply chain disruptions and a rapid rise in the demand for e-commerce and delivery services in Belgium and worldwide.

In February 2022 the war in Ukraine began. Its impact on energy prices, international trade, and inflation continues to challenge Belgian and other national authorities. It has led to a decrease in consumer and business confidence, reduce personal expenditures, and a likely contraction and slower growth in postal network parcel volumes in the coming years.

In this environment, BIPT commissioned WIK-Consult in May 2022 to prepare a study that provides an update on the state of e-commerce including constraints to its growth, and to shed light on postal aspects in the context of e-commerce.

The study was performed from June 2022 to May 2023. Its conclusions and recommendations are the result of extensive desk research, a benchmark analysis of the Belgian e-commerce market with five comparable EU e-commerce markets (Austria, Ireland, Netherlands, Portugal, Sweden), a public survey on the environmental sustainability of the first and last mile, a data request to Belgian parcel and express operators, a stakeholder workshop and interviews with parcel operators, experts, and the national regulatory authorities in five EU member states.

Belgium has a vibrant e-commerce sector with a major presence of big non-Belgian e-commerce marketplaces

Large non-Belgian marketplaces play a very important role in fulfilling e-commerce demand from Belgian consumers. Their service footprint can be broadly characterised as Bol.com (Netherlands) predominant in Flanders and Amazon.fr (France) predominant in Wallonia. Both now provide consumer services in French and Dutch. The 2022 establishment of an Amazon facility in Antwerp is not seen as fundamentally changing the present Belgian e-commerce landscape. It has, to date, only launched a Belgian market specific URL and website (Amazon.com.be). However, was Amazon to decide to offer its full support and delivery services suite to the Belgian market it is expected that this would radically change the characteristics and dynamics of the Belgian e-commerce supply, demand, and delivery landscape.

Belgian e-commerce enterprises remain relatively small compared to large non-Belgian marketplaces due to a strong cultural affinity to/from suppliers with a specific regional and/or linguistic profile. There is little or no evidence of the emergence of one or more Belgian e-commerce enterprises having the market presence, nationwide scale, financial resources, or brand strength to compete with non-Belgian marketplaces. Improving the quality of Belgian e-commerce sites and services is essential to increasing the overall competitiveness and the Belgian e-commerce sales conversion rate (i.e. successful sales as a per cent of total visits) of 2.1% versus an EU average of 2.7%. The study found that Non-Amazon marketplaces average a 4.4% conversion rate and Amazon worldwide averages a conversion rate of 13.6%.

¹ KPMG (2017), Étude relative au marché belge de la livraison de colis dans le cadre de d'activités d'e-commerce.

Belgium's e-commerce places it mid-rank when compared to the five other EU countries that have comparable structural and e-commerce characteristics (e.g.: economy, size, multilingual, product mixes, large e-commerce neighbours). The comparative ranking with Austria, Ireland, Netherlands, Portugal, and Sweden, across twenty e-commerce relevant variables, Belgium ranked 4th out of 6. Increasing the number of variables did not raise or lower the Belgian ranking.

Belgium, unlike most EU countries, has yet to publish a national e-commerce strategy. In addition to this, there is a lack of a clear, all encompassing national definition of e-commerce and the metrics to quantify it. This means that the true size of e-commerce and its contribution to national gross domestic product cannot be adequately and consistently measured.

Where an aspiring e-commerce enterprise is compliant with EU and national regulations no formal barriers to the establishment and operation of an e-commerce enterprise were identified in Belgium. However, more than twenty constraints were identified that can impact to effectiveness, efficiency, and commercial viability of e-commerce enterprises in Belgium.

Belgian e-commerce will continue to grow as generations of digital natives comfortable and experienced in using e-commerce enter employment, increase in wealth, and have families. In addition, underexploited opportunities exist including the immigrant and emigrant communities, tourists, hyper-local mini-marketplaces, and the increased use of innovations such as social shopping.

E-commerce is a highly dynamic and innovative sector. Thirty plus maturing innovations with a high potential for market entry in a one to five year time frame have been identified. In addition, twenty plus immature innovations have been identified as having market impact potential in the six to ten year timeframe.

Parcel services have evolved and better meet the needs of e-retailers and consumers

The Belgian parcel market is well serviced by national and international delivery enterprises. Parcel volumes have increased mainly due to domestic and international e-commerce growth. The traditional segmentation of the parcel market with the sub-segments parcel and express services does not now sufficiently reflect the current complexities of the sector because it has been evolving to service very specific e-commerce needs.

E-commerce parcels play a significant and growing role in domestic and international inbound deliveries. This is reflected in a business-to-consumer volume share of around seventy per cent including returns in 2021. Despite a significant growth between 2015 and 2021 from nine to twenty-two domestic and international inbound parcels per capita in 2021, Belgium still has a relatively low parcel level compared to the benchmark EU countries. Including international outbound parcels, the parcel per capital levels is quite similar to Sweden and Ireland.

Bpost is the biggest player in the Belgian parcel market, most notably in the delivery of parcels to consumers. The next most important competitor to bpost in the B2C segment was PostNL while the new market entrants remained niche players in 2021. Mondial Relay has been benefitting from increased C2C deliveries due to the strong growth in second-hand sales of pre-owned goods between individual consumers. It is emerging as an important competitor to bpost in this segment. Other important players in the Belgian parcel market are DPD Belgium, GLS Belgium, and UPS. These all have their origins in the B2B parcel and express business. In this group of enterprises, DPD Belgium has successfully targeted the B2C segment with a dedicated strategy and reached the third rank in the B2C segment after bpost and PostNL.

The very specific needs of e-retailers (B2C and B2B) in areas such as parcel handling, delivery, and returns have challenged existing operators in the Belgian parcel market and attracted new niche operators to the market. Budbee and Homerr have expanded their Dutch operations into Flanders. Amazon started in-sourcing of parcel delivery in late 2021 and set up its first delivery hub in Antwerp in the second half of 2022.

Overall, since 2015, postal operators have made substantial investments in sorting and delivery capabilities, increased accessibility for consumers and e-retailers, and added new services whilst also improving their digital and data applications for Belgian consumers, Belgian businesses, and international e-retailers. They have improved their offers for small and medium-sized retailers and have developed technological approaches to facilitate service integration to the software systems of retailers and online marketplaces. The major parcel operators offer deliveries to pick-up points such as parcel shops, post offices, and parcel locker stations at lower prices than home delivery. Accessibility in terms of pick-up point network density has significantly improved since 2015 and operators continue to focus on making deliveries to pick-up points more attractive to businesses and consumers.

Postal regulators are facing new challenges due to the rapidly developing e-commerce and parcel markets. The analysis of the regulatory practice in five EU member states (Austria, Germany, Italy, Spain and Sweden) revealed that they all monitor the parcel markets more closely since 2018 when the EU Cross-border Parcel Regulation came into force. They increasingly have to monitor developments in the sub-segments such as B2C, B2B, and C2C. In Italy, the postal market analysis and the expertise of the Italian postal regulator supported the competition authority in proving the abuse of market power of the vertically integrated online marketplace Amazon.

In many countries, including Belgium, there have been concerns about the working conditions of subcontractors in the parcel delivery sector. These concerns emerged with the growth of B2C e-commerce deliveries combined with a high level of demand concentration in the B2C segment that have created pressure on all market players to increase efficiency and to rigorously manage their input costs. This pressure has been devolved to subcontractors which have allegedly negatively affected the working conditions for employees and self-employed deliverers of parcel operators and subcontractors. Currently, there are legal proceedings against two Belgian parcel operators in this regard. In light of these developments the Minister pursued the objective to improving the working conditions of parcel deliverers by amending the Belgian Postal Act. Under the draft law, all parcel delivery service providers, regardless of their size or suspected violations, will have to report delivery times and remuneration to subcontractors systematically to prove that they comply with the rules on maximum delivery times and minimum compensation for the provision of parcel delivery services among others.

Environmental sustainability has emerged as the key driver of delivery network change

In Belgium there is a gradual replacement of fossil fuelled delivery vehicles with alternative fuelled vehicles such as electric vans, lorries, and manual/electric assisted cargo bikes. Electric vehicles require a nationally adequate charging infrastructure and a reinforced national electrical grid to ensure their viability as short, medium, and long haul transport options. Such vehicle replacements can place significant additional financial burdens on smaller delivery suppliers and sub-contractors.

The emergence of Belgian ecozones is notable as these provide the opportunity for administrators and transporters to trial and identify best demonstrated practices in cooperative strategies, reducing network footprints and improving delivery management. Increasing the density of out-of-home delivery infrastructure and encouraging greater acceptance and consumer use of these options will play a major role in reducing the

environmental footprint of first and last mile processes whilst offering a cheaper delivery option to e-commerce enterprises and their customers.

Although the postal regulatory framework generally does not include sustainability aspects, the definition of essential requirements includes the protection of the environment in justified cases. Increasing the sustainability of the last mile must involve the active participation of all stakeholders in the e-commerce supply chain including consumers, e-retailers, intermediaries, transporters, and administrations. Inflexible business strategies, legacy infrastructure, outdated operational practices, lack of carbon pricing, and regulatory issues are key constraints to the rapid sustainable transformation of Belgian delivery networks.

A key challenge for online retailers is the lack of reliable information to display to consumers on the availability of more sustainable delivery services. Many e-retailers are not aware of these options, or whether they are technically and commercially suitable for their businesses. As such e-retailers are presently unable to either priority display or present the most sustainable default delivery options to their customers.

Consumer attitudes and acceptance of bearing some of the costs of the necessary sustainability transformations are weak. There is an apparent gap between the expressed attitudes and preferences of consumers for protecting the environment in general and a willingness to adopt sustainable delivery alternatives such as out-of-home delivery to parcel lockers and parcel shops.

Following our analysis we have identified five areas for recommendations.

Recommendation 1: Establish a national e-commerce strategy

We consider a national e-commerce strategy as an important tool to develop measures that help improve the competitiveness of Belgian e-commerce. Moreover, a national strategy may assist in establishing the conditions necessary for e-retailers to establish national economies of scale. We, therefore, recommend reinforcing existing initiatives in the field of e-commerce (Digital Minds Group, E-commerce Strategy 4 Belgium).

Recommendation 2: Increase national economies of e-commerce scale

Belgian e-retailers still tend to focus their services on either the French- or the Dutch-speaking regions of the country. Added to this we have also identified low levels of e-commerce site quality, low consumer satisfaction and service, and low conversion rates all of which reduce growth and the ability to establish e-retailer national economies of scale. Therefore, regional governments, their dedicated agencies, and Belgian e-commerce associations should encourage and support e-commerce enterprises to engage in improving the quality of service and interaction with their websites. In addition, it is recommended to develop deeper regional level relationships with Belgian and non-Belgian marketplaces whilst also encouraging a “Marketplace first” strategy for aspiring Belgian e-commerce enterprises.

Recommendation 3: Ensure a level playing field for Belgian e-retailers

The EU has vigorously engaged in new regulatory interventions focused on market fair play, transparency, and data security/consumer protection. These interventions have implications for domestic and cross-border e-commerce in Belgium. Belgium should therefore monitor and ensure that sufficient expertise is made available to its permanent representation to the EU to ensure that the needs of the Belgian e-commerce sector are duly taken into account in all negotiations which are susceptible to impact it.

Competition authorities at the EU and national level have engaged in identifying and prosecuting abuses of market power, especially by vertically integrated platforms. The

ground-breaking decisions against Amazon are an example of this. Therefore, the BIPT should be tasked to centralise/coordinate the monitoring of operational and commercial practices of Belgian and non-Belgian e-commerce suppliers in Belgium.

Competitiveness on a level playing field requires strategic and tactical efforts by Belgian e-retailers to improve their existing capabilities, practices, quality, and outcomes. Therefore, regional governments, their dedicated agencies, and Belgian e-commerce associations should, each within their competencies and scope of activities, encourage and support e-commerce enterprises to improve their digital business capabilities and practices.

Recommendation 4: Refine monitoring of the Belgian parcel and adjacent markets

The Belgian parcel market has been growing quickly driven by domestic and cross-border e-commerce deliveries and characterised by recent market entries of B2C delivery companies including Amazon Transport. To facilitate the enforcement of comprehensive data collection by BIPT a well-defined legal mandate is recommended. The selection of additional indicators to better reflect (1) the e-commerce driven dynamics (definition of appropriate market segments); (2) the resilience of the sector (increasing demand concentration); and (3) additional indicators about environmental and social sustainability could be considered as a subject for a stakeholder dialogue and/or consultation exercises. Additionally, BIPT should consider implementing an online tool to facilitate data collection and analysis. More data collection increase administrative costs at BIPT that could be partly covered by charging fees from all postal operators and not only from operators providing letter services.

Recommendation 5: Reassess the size and scope of the planned amendments of the Postal Law

The proposed amendments to the Belgian Postal Law have the potential to change the shape of the Belgian parcel sector, as existing business models and potential market entry could be affected. Despite ample criticisms, neither a detailed impact assessment nor a discussion of alternative approaches to achieve the overall objective have been carried out hitherto. However, if the Belgian legislator would continue the legislative process we recommend the following:

- The regulation of parcel delivery in Belgium that will be put in place by the draft law goes far beyond the practice in other Member States. The Belgian legislator should include a review clause in the draft law and mandate the BIPT to conduct an ex post impact assessment two years at the latest after the new system is fully operational.
- The decrees implementing the amended law and in particular those specifying the implementation of Articles 5/3 (time-recording) and 10/1 (minimum remuneration) should be subject to a public consultation and an impact assessment of the possible alternatives. For example, with regard to the latter, the impact of different ways of quantifying the inputs in the calculation formula and the resulting levels of minimum remuneration on parcel delivery service providers depending on their profile.
- The legislator should define minimum size thresholds, for example in relation to the turnover generated by parcel delivery services, in order to avoid and/or reduce the administrative costs for small and micro enterprises as well as for transport companies with a small proportion of parcel delivery services in their overall business. These minimum size thresholds should apply to each of the requirements set out in the draft

law. This would also reduce the administrative costs for the authorities responsible for implementing the rules.

BIPT should in parallel calculate bpost's parcel delivery cost and ensure that bpost's competitors are not obliged, indirectly via the minimum compensation, to pay a higher wage including employers' charges to subcontractors' delivery staff than bpost.

Recommendation 6: Increase the environmental sustainability of the first and last mile

Measures by postal operators to increase environmental sustainability have started, but the transformation will take time. Apart from cost- and demand-induced opportunities for improving sustainability on the first and last mile by postal operators and online retailers the federal government and the regional governments in charge of transport and environmental policy should enter into an agreement entrusting BIPT – in concertation with the experts from the three regions - to (1) discuss and establish appropriate sustainability indicators with stakeholders and expand postal market indicators in BIPT's market observatory to evaluate developments in the Belgian postal sector; (2) act as a single point of contact for the sector as regards all existing mechanisms to support the increased use of alternatively fuelled vehicles; (3) give advice based on their sector-specific knowledge to local and regions' authorities concerning new spatial planning processes and rules; (4) share online data and information resources with businesses, organisations and researchers; and (5) facilitate, analyse and report on 'sandbox' multi-carrier trials of cooperative network approaches.

1 Introduction

Since the release of the 2016 KPMG study “E-commerce and the Belgian postal market”², significant changes due to the COVID-19 pandemic, deteriorating economic conditions, and changes in business and consumer behaviour have occurred in the e-commerce and postal markets.

From early 2020 the demand for online purchases grew strongly due to the pandemic. The demand surge has driven developments in e-commerce and delivery services in Belgium, Europe, and worldwide. These developments were responses to far-reaching infection control measures such as social distancing, travel restrictions, and the closure of retail stores, restaurants, schools, institutions, and administrative offices. After the late 2021/2022 relaxation of pandemic control measures, 2022 has seen a gradual return to pre-pandemic growth rates for e-commerce as physical retail facilities reopened and consumers and businesses adapted their selling and purchasing behaviours. In February 2022 the Ukraine war began and its impact on energy supply and prices drove Belgian inflation to levels not seen since the 1970s. This has negatively impacted business and consumer confidence, decreased discretionary spending and reduced consumer outlays on essential items such as food, travel, fuel, entertainment, and health care. 2022 parcel throughput is likely to fall and most e-commerce revenue growth will be due to inflation rather than organic growth.

To quantify and understand the implication of the market changes since 2016, in May 2022 BIPT commissioned WIK-Consult to prepare a study to provide an update and recommendations on the state of Belgian e-commerce including its characteristics, opportunities, constraints, and likely future perspectives. The study brief required analysis and recommendations on the postal aspects in the context of e-commerce along with an examination and recommendation on sustainability issues, opportunities, and constraints on postal operators and e-retailers. WIK was asked to answer the following research questions that form the framework of this study.

Table 1: Research questions and structure of the study

Chapter	Research questions
Chapter 2	What are the market characteristics of the Belgian e-commerce market?
	What are the sizes of the four main segments (B2B, B2C, C2B, C2C) of the Belgian e-commerce market?
	For each of the four main segments, how does the Belgian e-commerce market compare to the e-commerce market of a selected five Member States?
	What are possible obstacles and market issues in the further development of a level playing field for Belgian e-commerce? What are the external social and societal effects (positive and negative) of the further development of Belgian e-commerce?
Chapter 3	Which are the main active (both traditional and alternative) postal operators offering postal services in the Belgian e-commerce market?
	What are the active business models (both traditional and alternative) used for providing postal services in the Belgian e-commerce market?
	How are national regulatory authorities (benchmarked with five European countries including Italy and Spain) coping with the entry of disruptive alternative business models?
Chapter 4	How can the environmental sustainability of e-commerce be increased in Belgium?
Chapter 5	What developments, supported by innovations, should stakeholders anticipate?
Chapter 6	What recommendations are necessary in the view of the consultant (1) to eliminate any potential obstacles to the development and (2) to increase the sustainability of e-commerce in Belgium?

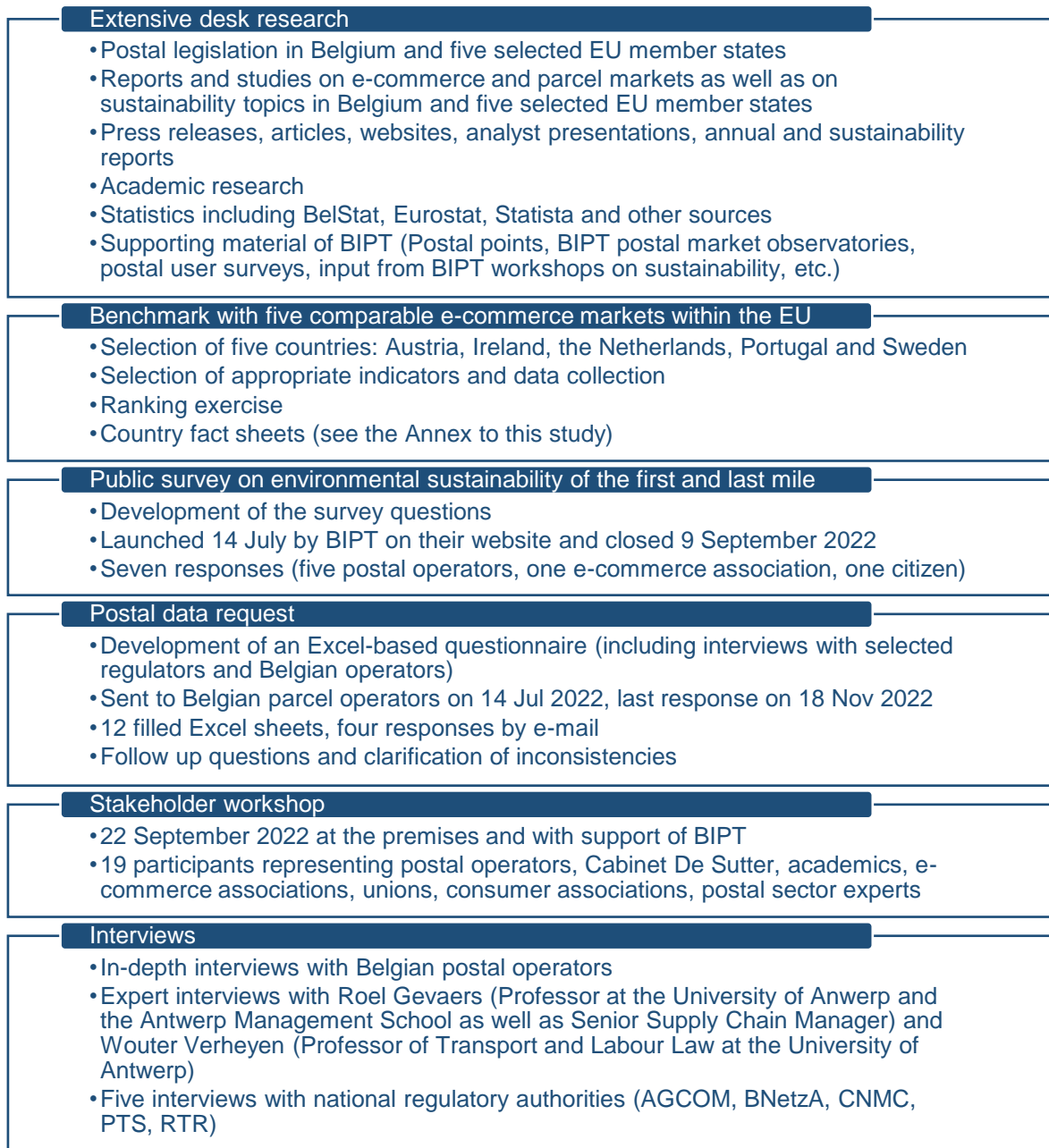
² KPMG (2017), Étude relative au marché belge de la livraison de colis dans le cadre de d'activités d'e-commerce.

In light of ongoing discussions on the important social topic on how to improve the working and payment conditions of parcel deliverers in the Belgian parcel market we outline and discuss the key aspects of the draft legislation in Chapter 3.5 of this report.

The study was carried out from June 2022 to May 2023. Figure 1 summarizes the methodology for the collection of data, information, and stakeholder feedback. It consists of five core elements including extensive desk research, a public survey on questions addressing environmental sustainability (drivers and constraints, actions taken or planned), a postal data request, a stakeholder workshop, and interviews.

The study results and recommendations are based on extensive desk research, a benchmark of the Belgian e-commerce market with five comparable e-commerce markets within the EU, a public survey on the environmental sustainability of the first and last mile, a postal data request among Belgian parcel and express operators, a stakeholder workshop and interviews with parcel operators, experts and national regulatory authorities of five EU member states.

Figure 1: Methodology of the study



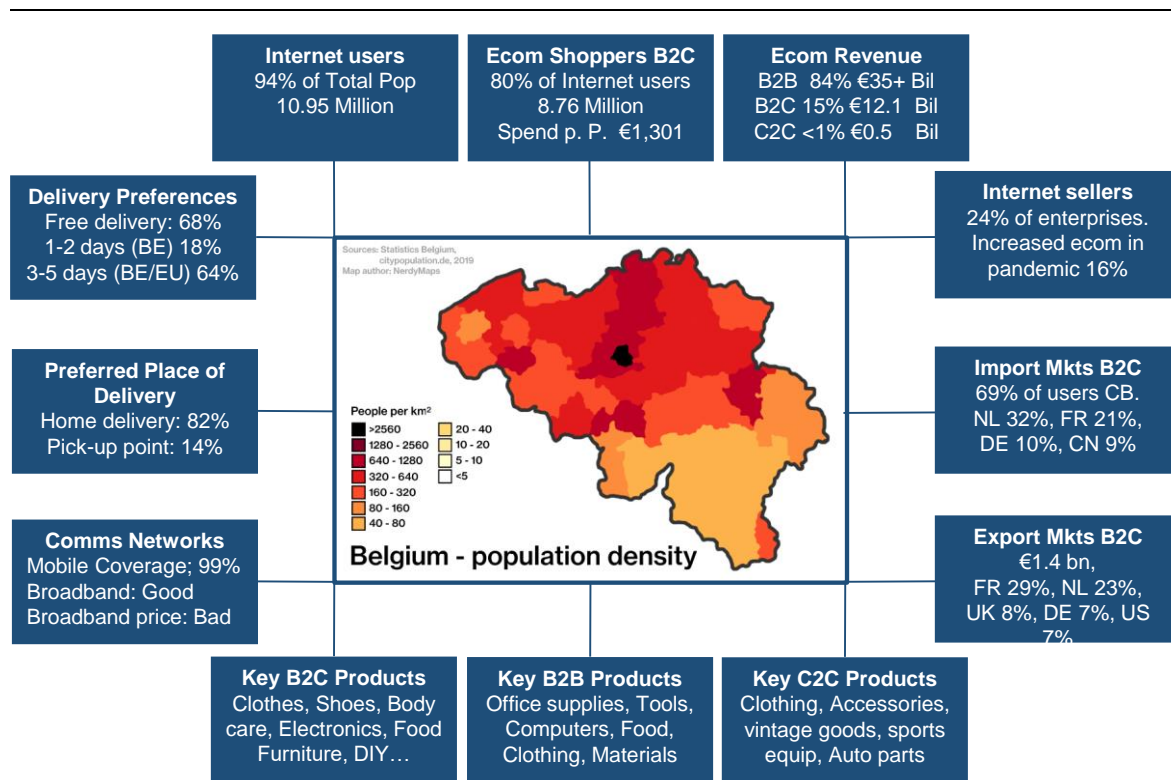
We are most grateful to the many individuals and stakeholders that provided valuable information and support for this study in discussions, interviews, surveys, and the stakeholder workshop. Last but not least, we wish to thank the BIPT team for their guidance, engagement, and close cooperation during the study.

2 The Belgian e-commerce market

2.1 Characteristics of the Belgian e-commerce market

Belgium is an open economy and has a vibrant e-commerce sector. It is notable for the presence of big non-Belgian e-commerce marketplaces and large numbers of small/medium sized domestic suppliers. It is presently enjoying comparatively high revenue growth rates but falling e-commerce use across all demographic groups except the unemployed.³

Figure 2: Characteristics of the Belgian e-commerce market



Sources: Based on Eurostat and Postnord, E-commerce in Europe 2021.

E-commerce capabilities are used to support three main market relationships: Business to Consumer (B2C), Business to Business/Government (B2B/G), and Consumer to Consumer (C2C). This profile is the same for all countries in which e-commerce is practiced.⁴

E-commerce is an important contributor to overall GDP. The GDP contribution of B2C is reported at 2.3%.⁵ With B2B and C2C included the contribution is closer to 10%. By 2024 this is projected to rise to 12-14%.

Total B2C online revenues amounted to € 9.7 billion in 2021 which was an increase of 14% in 2020.⁶ The B2C share of retail sales in Q2 2021 was 7.2% down from 7.5% in Q2 2020⁷ most likely due to continuing post-pandemic readjustments in consumer purchasing

³ See Statbel, https://statbel.fgov.be/sites/default/files/files/documents/Huishoudens/10.5%20ICT-gebruik%20in%20huishoudens/ICTHH2022_WEB_EN.xlsx (as of October 2022).

⁴ See PPRO, <https://www.ppro.com/regions/western-central-europe/> (as of November 2022).

⁵ <https://www.ppro.com/regions/western-central-europe/> (as of November 2022).

⁶ Statista, E-commerce in Belgium, Report accessed November 2022.

⁷ Statista, E-commerce in Belgium, Report accessed November 2022.

behaviour. In 2021, the average annual spend per online shopper was € 1,381⁸, or the equivalent of 78% of the basic minimum monthly wage of € 1,658⁹. The products purchased closely resemble the classic e-commerce profile found globally.¹⁰

Free shipping and returns are a major incentive for Belgian online shoppers and a growing concern for financially pressured e-retailers.¹¹ Free shipping and returns are financed through margin sacrifice or cost distribution across all the e-retailers' stock. Cart value minima, loyalty plan membership, or other conditions may apply to qualify for free shipping or returns. In 2021 68% of Belgians stated that free delivery was the top incentive to shop with an e-retailer. In 2018 it was reported that unconditional domestic free shipping was offered by 48% of Belgian e-retailers and 30% had conditional free shipping. Belgian cross border shoppers stated that 40% of their shipments were unconditionally free whilst 24% said free shipping had conditions attached.

The delivery performance expectation of Belgian consumers is that 18% expect domestic delivery in one to two days, 64% in three to five days, and 15% in six plus days. Cross-border delivery expectations are for Intra EU to take three to five days and the rest of the world two to six weeks. The preferred place of delivery included home with a signature 56%, home/outside with no signature 16%, mailbox 10%, collection from a distribution point 9%, collect from a parcel locker station 3%, instore collection 2%, and home delivery digital lock 1%.¹² The BIPT observatory revealed that in 2021 actually 79% of the parcels were delivered to the home, 20% to a postal point and only one per cent to a parcel locker station.¹³

In 2021 there were an estimated 56,642 different online stores registered in Belgium, up 17.5% from 2020. It has been widely reported¹⁴ that 49,000 new e-commerce sites have been created during the pandemic. A detailed breakdown for these sites into transactional sites and non-transactional sites was not provided. Similar surges in new e-commerce sites were seen in most EU countries. However, a key finding of research by the Department of Transport and Spatial Economics of the University of Antwerp is that 70% of the owners of these new Belgian sites did not consider them as a long-term channel of doing business with their customers even though on average they yielded up to 20% of pre-pandemic revenue levels. The research also found that only 25% of these new sites were professionally designed.¹⁵ The majority of the new online businesses were “micro” and “small” online businesses, which make up 97% of the total and generate 16% of e-commerce revenues.

Conversion rate is a key metric for e-retailers. Belgian e-retailers have an average conversion rate (successful sales as a % of total visits) of 2.1% Food and Beverage have the highest conversion rate of 4.4% whilst Home and furniture has a conversion rate of 0.5%.¹⁶ In Europe (IT, ES, UK, FR, DE) an average conversion rate of 2.86% is found. For

⁸ Report Be-commerce Shopping100 2021, Eighth edition,

https://be-commerce.odoo.com/en_US/be-commerce-shopping100 (as of September 2022).

⁹ See Tradingeconomics, <https://tradingeconomics.com/belgium/indicators> (as of December 2022).

¹⁰ See https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_ib20/default/table?lang=en (as of November 2022).

¹¹ Report PayPal online shopping survey Europe 2022, see

https://www.paypalobjects.com/marketing/web/shared/enterprise/campaigns/e-commerce-index/UK/PayPal_e-commerce_Index_2022_EU_EN_Master_Final.pdf (accessed November 2022).

¹² Report Postnord, E-commerce in Europe 2021. (<https://www.postnord.se/en/business-solutions/e-commerce/e-commerce-reports/e-commerce-in-europe>).

¹³ BIPT (2022), Communication du Conseil de l'IBPT du 19 décembre 2022 concernant l'observatoire du marché des activités postales en Belgique pour 2021.

¹⁴ See 70% of new Belgian webshops see it as something temporary, <https://cross-border-magazine.com/70-of-new-belgian-webshop-see-it-as-something-temporary/> (accessed November 2022).

¹⁵ Department of Transport and Spatial Economics of the University of Antwerp.

¹⁶ See <https://www.salesforce.com/resources/research-reports/shopping-index> (as of October 2022).

non-Amazon marketplaces, the conversion rate is 4.4%.¹⁷ However, Amazon far outperforms on conversion rates. In the United States, Amazon has a 26.6% rate, in Canada 17.3%, and an average global conversion rate of 13.6%.

At times it can be difficult for a consumer or business to identify exactly who or where they are trading. One of the issues is top level domain names such as .BE. The registration of an entity domain name in Belgium only collects the registrant's full name, organisation name, email, and phone number. Further information such as the country where the organisation owner is established and VAT number would assist in clarifying domestic domain owners from non domestic owners.

There are 17.4 million domains registered in Belgium. 72.8% are owned by enterprises and 27.2% by individuals. 69% of the .be domains are owned by Belgians. The remaining 31% are owned by foreign entities of which Dutch owners account for 17.95%, French owners for 4.1%, Germans owners for 1.76%, United States owners for 1.29%, United Kingdom owners 0.6%, and Chinese owners 0.4%. Belgian online consumers may think they are trading with a Belgian trader but in fact, the e-commerce processes and revenue recognition may be all performed outside Belgian jurisdiction.¹⁸

B2B/G constitutes the largest part of Belgian e-commerce. It is variously estimated to be between 3 and 7 times that of B2C and C2C. Large enterprises are estimated to generate 84%+ of overall B2B/G e-commerce revenues in Belgium.

There are fundamental differences in the characteristics of B2B compared to B2C, and these impact all aspects of the B2B experience. B2B relationships remain highly personal due to specialised needs and contractual relationships. Most B2B purchasing involves a range of decision makers, B2B buyers have more complex procurement processes, payment mechanisms are more limited, and often automated (e-Invoicing), enterprise data may be siloed and inaccessible for B2B processes, B2B search processes are often sub-optimal, and shipping needs are different (repeat scheduled orders, variety of shipment sizes, large volume single shipments, dynamic pricing, poor pricing transparency, and added charges).

B2B users' expectation of the purchasing process is increasingly influenced by their experience with the easy and personalised processes of B2C e-commerce. Key emerging B2B customer expectations are fast page load times, effective, easy-to-use on-site search, intuitive navigation, correct stock positions on availability, detailed product images and descriptions, self-service options, multiple payment options, flexible transport options, detailed real time tracking, facilitated returns, and quick checkout. The increased use of integrated internal platforms, development of omnichannel capabilities, provision of mobile access, and the emergence of vertical or specialised marketplaces are key emerging trends in the digitalisation of B2B sales.

In 2021 19.2% of Belgian enterprises with 10+ employees engaged in B2B/B2G activity. In Belgium, B2B e-commerce (web/apps only, excludes Electronic Data Interchange (EDI)) for 2021 was € 8.7 billion.¹⁹ This was an increase of 34% since 2017. For all Belgian enterprises, the share of turnover related to B2B/B2G was 9% in 2021 which is a fall from 12% in 2019. A CAGR of 7.6% to 2024 is estimated to make the B2B/G market worth, excluding EDI, € 11.7 billion in 2024.²⁰

¹⁷ See <https://www.quora.com/What-is-a-good-average-conversion-rate-for-a-marketplace-website> (as of November 2022).

¹⁸ See <https://www.dnsbelgium.be/> (accessed November 2022).

¹⁹ See <https://www.statista.com/statistics/1242220/b2b-e-commerce-revenue-of-physical-goods-belgium/> (as of November 2022).

²⁰ See <https://www.statista.com/statistics/1242220/b2b-e-commerce-revenue-of-physical-goods-belgium/> (as of November 2022).

EDI generated revenue is generally not included in quoted e-commerce revenue figures but it is critical to understanding the true value of the Belgian B2B market and the true contribution of e-commerce to Belgian GDP. In Flanders, EDI sales account for the largest share of online sales of goods and services. In 2020-2021, 18% of total enterprise turnover came from EDI-mediated sales. In 2020-2021 B2B/B2G web sales accounted for 11% of the total turnover of enterprises in Flanders whilst B2C web sales accounted for 4%.²¹

Belgium has a strong tradition of C2C sales and purchases. This is increasingly referred to as Re-commerce which is presently valued in Europe at € 75 billion and projected to grow by 60% to € 120 billion in 2025.²² In 2021 25% of Belgian online consumers said that they have bought a physical item from a private individual online.²³ The key reasons for making C2C purchases were price, conviction, avoiding trendy items, access to scarce styles, and designer styles at lower prices. Key reasons for not purchasing pre-owned goods were hygiene, smell, preferring to buy new, and long search time.²⁴ C2C transaction values tend to be 10% - 50% lower than similar products sold B2C. Cost of living pressures will likely drive higher growth levels in C2C in the coming years. C2C is problematic to measure because neither national nor regional statistics capture consistent C2C online, hybrid, or offline sales. Belgian C2C ranked second only to Sweden on this variable in the report's comparative matrix.²⁵ In Belgium, physical C2C stores are increasingly setting up transactional websites and/or joining a marketplace. Individual sellers tend to use marketplaces such as 2dehands.be, (2ememain.be) Vinted and eBay.

Cross-border is an important constituent of Belgian e-commerce. In 2021, 69% of Belgian online consumers shopped cross-border²⁶ and spent an estimated € 1.7 billion.²⁷ Cross-border B2C purchases were made with the Netherlands at 32%, France at 21%, Germany at 10%, China at 9%, Spain at 5%, the United States at 4%, the United Kingdom at 3%, and Scandinavia at 2%.²⁸ Popular cross-border products were clothing and footwear 18%, home electronics 12%, books 6%, and sports and leisure 6%. Cross-border basket size averaged € 145.²⁹ E-commerce (B2C) cross-border export sales from Belgium in 2020 amounted to 16% of B2C e-commerce revenue or an estimated €1.4 billion. Key markets were France at 29%, the Netherlands at 23%, the United Kingdom at 8%, Germany at 7%, and the United States at 7%.³⁰

21 See <https://www.vlaanderen.be/en/statistics-flanders/digital-economy/enterprises-turnover-from-e-commerce> (as of October 2022).

22 Cbcommerce, <https://www.cbcommerce.eu/press-releases/re-commerce-marketplaces-are-growing-20-times-faster-than-the-broader-retail-market/> (as of December 2022).

23 https://ec.europa.eu/eurostat/databrowser/view/ISOC_EC_IBGS_custom_2821683/default/table?lang=en (accessed December 2022).

24 Article One Size Does Not Fit All: Consumer Attitudes towards Circular Business Models in Fashion. V. Spaepen*, J. Van Camp, M. Lenaerts, <https://ce-center.vlaanderen-circulair.be/en/publications/download/15-consumer-attitudes-towards-circular-business-models-and-activities> (accessed September 2022).

25 Eurostat Internet purchases - collaborative economy (2020 onwards). See https://ec.europa.eu/eurostat/databrowser/view/ISOC_EC_CE_I_custom_2857275/default/table?lang=en (as of November 2022).

26 Report E-commerce in Europe 2021, Direct link, see <https://www.directlink.com/e-commerce-in-europe/> (accessed September 2022).

27 Report Be-commerce Shopping100 2021 Eighth edition, https://be-commerce.odoo.com/en_US/be-commerce-shopping100 (as of September 2022).

28 Hard copy Report Be-commerce Shopping100 2021 Eighth edition, https://be-commerce.odoo.com/en_US/be-commerce-shopping100 (as of September 2022).

29 Statista <https://www.statista.com/statistics/1237913/average-basket-value-domestic-and-cross-border-commerce-belgium/> (as of September 2022).

30 See <https://www.feweb.be/nl/nieuws/bericht/2021/03/10/20000-nieuwe-webshops-een-omzet-van-88-miljard-euro-en-108-miljoen-transacties/nl> (as of October 2022).

Table 2: Popular markets for cross-border purchases

	Countries of origin for cross-border purchases				
Austria	Germany	China	United Kingdom	United States	Netherlands
Belgium	France	China	Netherlands	Germany	United Kingdom
Ireland	United Kingdom	China	United States	Germany	Italy
Netherlands	China	Germany	United Kingdom	Belgium	Italy
Portugal	China	Spain	United Kingdom	Germany	France
Sweden	China	Germany	United Kingdom	United States	Denmark

Sources: Cumulative across multi-year surveys, including IPC, PostNord, E-commerceDB, CBCommerce Europe, Eurostat

Notes: EU Member States are highlighted in light-blue.

A key characteristic of cross border shopping is that consumers tend to favour non-national e-retailers who are in neighbouring countries and in countries with which there is a cultural affinity. The predominance of China as a cross-border source of purchases is primarily due to lower costs that are made possible through very low product prices, vast choice, Chinese government subsidies, and high volume driven lower transport costs. Changes in EU VAT regulations have greatly reduced the volumes of low value Chinese sourced items entering the EU postal networks.³¹

Statbel reports in 2021 that marketplace use by small Belgian enterprises (2 -9 employees) at 0.6% and for Belgian enterprises (10+ employees) at 0.9%. In the EU 27, Eurostat reported the percentage of EU enterprises selling via marketplaces is 8% with 7% of all Belgium enterprises doing so.³² In the DESI 2022 report, Belgian enterprise use of marketplaces ranked 14th out of 27.³³ The preferred marketplaces for Belgian online shoppers were: Bol.com, Zalando.be, Amazon.fr, Amazon.de, Amazon.nl, Coolblue, Vandeborre, and Fnac. Bol.com was the preferred platform in Flanders and Amazon.fr in Wallonia.³⁴

Marketplaces are increasingly popular internationally as a fast way to establish an e-commerce capability, enhance domestic service capabilities, and access new markets. 60% of European marketplaces have been created since 2015. 80% of the marketplaces are B2C and 20% B2B. Of these 40% are product based and 60% are services based (employment, transport, etc).³⁵ Marketplaces are tightly regulated in the EU through the Platform to Business regulation of 2020.³⁶

³¹ Effigy Consulting: European CEP report 2021.

³² See E-commerce sales of enterprises by NACE Rev.2 activity, https://ec.europa.eu/eurostat/databrowser/view/isoc_ec_eseln2/default/table?lang=en (as of November 2022).

³³ Digital Economy and Society Index (DESI) 2022, <https://digital-strategy.ec.europa.eu/en/library/digital-economy-and-society-index-desi-2022> (as of September 2022).

³⁴ See Comeos, E-Commerce Survey 2020, https://static.comeos.be/E-Commerce_Belgium_10.2020.pdf.

³⁵ See <https://bvoh.de> (accessed November 2022).

³⁶ Platform-to-business trading practices. See <https://digital-strategy.ec.europa.eu/en/policies/platform-business-trading-practices#:~:text=The%20Regulation, and%20traders %20on %20online%20platforms.> (accessed September 2022).

2.2 How does the market Belgian e-commerce market compare to the e-commerce market of a selection of five EU Member States?

A comparative analysis of the performance of Belgian e-commerce against five other EU countries places it firmly in the mid range.³⁷ The ranking table below compares Belgium, Austria, Ireland, Netherlands, Portugal, and Sweden. These countries were selected as they have structural and e-commerce characteristics (e.g.: economy, size, multilingual (multiple official languages / high degree of English literacy) product mixes, large e-commerce neighbours) against which Belgium's relative position can be ranked. It covers the e-commerce categories of B2C, B2B/G, C2C, cross-border, sales, purchases, revenues, parcels, skills, and overall DESI ranking. The ranking results are presented in three categories Good (Green), Medium (Yellow), and Poor (Red).

Table 3: Ranking of Belgium compared to five benchmark countries

	BE	AT	IE	NL	PT	SE
% of enterprises with e-commerce sales in the wholesale and retail trade sector	2	4	5	3	6	1
% of individuals that purchased something online cross-border within the last 3 months	2	3	1	4	6	5
% of individuals that purchased something online cross-border within the last 3 months (65-74 years old)	2	3	1	4	6	5
% of SMEs selling cross-border (intra EU and ROW)	2	1	6	4	6	5
C2C online purchase in the last year	2	5	4	3	6	1
% of enterprises using a specific B2B sales channel: EDI	3	4	2	4	6	1
% of enterprises using a specific B2B sales channel: Web sales	3	5	2	4	6	1
% of enterprises in the retail sector: With e-commerce sales	3	5	4	2	6	1
C2X online sales in the last year	3	2	5	1	6	4
% individuals that purchased online with the last three months	4	5	2	1	6	2
% of enterprises in the retail sector: With web sales via e-commerce market places	4	2	5	1	5	3
% of individuals who purchased physical goods online within the last 3 months	4	5	2	1	6	3
% of individuals who purchased physical goods online within the last 3 months (65-74 years old)	4	5	2	1	6	3
% of population that used the internet in the last three months	4	4	1	3	6	2
% of population with basic or above basic digital skills (65-74 years old)	5	4	2	1	6	3
B2C e-commerce revenue per capita	5	3	4	1	6	2
Number of parcels delivery per capita per year	5	2	3	1	6	4
% of population with basic or above basic digital skills	6	4	2	1	5	3
Digital Economy and Society Index (overall)	6	4	3	2	5	1
	BE	AT	IE	NL	PT	SE
Number of high rankings (1 and 2) in the six country sample (Belgian Rank 4th)	5	4	10	12	0	9
Number of middle rankings (3 and 4) in the six country sample (Belgian Rank 1st)	9	9	6	7	0	7
Number of poor rankings (5 and 6) in the six country sample (Belgian Rank 3rd)	5	6	3	0	19	3
Country Overall Rank	4	5	2	1	6	3

Source: WIK analysis based on Eurostat indicators and parcel market statistics of regulatory authorities.

Austria and Belgium can be grouped. Both have large percentages of their e-commerce demand serviced by large marketplaces based in neighbouring countries that are culturally and linguistically similar. They both have limited economies of scale and large numbers of domestic only medium to small e-commerce enterprises.

The Netherlands and Sweden are also similar. They can be characterised as having strong and competitive national e-commerce brands that service a high proportion of the domestic e-commerce demand even with the presence of competitors such as Amazon.

Ireland is interesting. Before Brexit in 2020 the largest e-commerce suppliers to the Irish market were managed and fulfilled as an integrated part of the United Kingdom. Leading up to Brexit Irish enterprises were required to revise their strategies, develop independent Irish e-commerce services and reorient their logistics capabilities and trade lanes. Irish consumers rapidly changed their United Kingdom cross-border purchases to Irish domestic sites and cross-border sites in France, Netherlands, and Germany This e-commerce revamp also drove radical improvements in the quality of Irish e-commerce sites, logistics

³⁷ See detailed figures per country in the Annex of this report (Country Fact Sheets).

services, and impacted consumer behaviours. These changes greatly improved Ireland's relative rankings in the matrix above. An equivalent disruption in the Belgian market could be envisaged if Amazon were to offer its full service suite and also implemented a branded domestic Belgian delivery network.

Portugal is the outlier of the 6 countries. It is in the development stages of e-commerce for government policies, enterprise e-commerce use, and low but growing consumer use and spending through e-commerce.

2.3 Growth opportunities are available in Belgian e-commerce

Growth opportunities for e-commerce exist from various sources in Belgium.

The “repatriation” of Belgian online shopping from non-Belgian sites is an obvious opportunity but requires improved site quality, enhanced visibility on the Belgian national product and service mix, competitive pricing, responsive fulfilment, sustainability benefits, and safer more convenient shopping for Belgian consumers.

The entry of younger digital natives into the Belgian labour force is a natural driver of e-commerce. The average spend of each is likely to rise as their earnings increase and they have families. This is paralleled by reductions in the number of aging non-digital natives and greater e-commerce and online service use in the 65+ demographic.

The high levels of immigrants in the Belgian population at 22.2%³⁸ offer an opportunity to service domestic and cross-border ethnic populations. Immigrant youths tend to have high digital skills and as such are good candidates as online entrepreneurs and consumers.

In 2020 Belgium had 429,147 Belgians living abroad.³⁹ These also represent a growth opportunity where they can be encouraged, through focused marketing campaigns, to shop on Belgian e-commerce sites rather than non-Belgian marketplaces. Major opportunities here are gifts etc for friends and family, in Belgium or their country of residence, for occasions such as birthdays, celebratory events, and religious holidays.

Tourists also represent a growth opportunity where a retailer documents their details and maintains contact with them. A very successful example of this strategy is practiced by Connemara Blue, a small Irish artisanal glass maker that now has customers in over 40 countries. Their follow-on trade from tourists who visit their small shop can represent between 25% – 30% of their annual revenue, especially in the non-tourist season.⁴⁰

A strategy of localisation also offers growth opportunities and sustainability gains. The creation of “micro-marketplaces” (Kenya, Nigeria), “e-commerce zones” (China, Turkey) or hybrid “eco e-commerce zones” for local enterprises and consumers can assist in maintaining and revitalizing local economies and businesses. These could also generate volumes of trade that can benefit from lower transport and business activity costs.

Across all e-commerce participants improvements in the quality of web shop services and management would increase customer satisfaction, improve conversion rates and generate additional volumes for Post and other transporters.

³⁸ Migrants resident in Belgium. See https://diplomatie.belgium.be/en/policy/policy_areas/highlighted/services_abroad/how_many_belgians_are_living_abroad#:~:text=According%20to%20the%20most%20recent,living%20in%20a%20foreign%20country (accessed October 2022).

³⁹ See <https://diplomatie.belgium> (September 2022).

⁴⁰ See www.connemarablue.com (December 2022).

2.4 Possible obstacles and market issues in pursuing the development of fair conditions of competition for Belgian e-commerce

Establishing and maintaining fair conditions for e-commerce competition helps avoid market distortions and requires addressing many dimensions of e-commerce commercial practices. As Belgium is an open economy the development and maintenance of fair competitive conditions need to take into account domestic and international pressures and dynamics. Obstacles and market issues include:

The lack of a national e-commerce strategy reduces stakeholder certainty as to the direction and goals of Belgian e-commerce.

The lack of a standard definition of e-commerce reduces the ability to understand the true contribution of e-commerce to the Belgian GDP.

The lack of a national product map impacts the ability of national and regional support organisations to focus on the most viable domestic and internationally competitive products and services.

Achievement of scale helps Belgian e-retailers to reduce factor costs for a business and reduces upward pressure on prices and can increase enterprise margins. Competitive scale can be achieved through enterprise growth, cooperative purchasing contracts, and service cooperation amongst other approaches. Discriminatory granting of access to mechanisms of scale growth such as operating licenses, parcel lockers, and EV charging points can cause a competitive disadvantage.

High levels of non-Belgian suppliers (marketplaces/e-retailers) can distort inputs to advisory and policy processes to the detriment of native e-retailers and intermediaries.

Low levels of marketplace use by Belgian e-retailers can reduce their market reach domestically and internationally whilst also reducing the learning opportunities concerning site quality and operation.

High broadband and communications costs increase the cost of doing business and consumption in Belgium.

Issues with labour laws and future labour availability. Changes to labour law mainly influence the social conditions and protection of employment / employees. However, they are unlikely to greatly improve Belgium's competitive position regarding externally funded strategic investments and basing of e-commerce infrastructure to service the Belgian market.⁴¹

By contrast educational policy that is closely aligned to the emerging skill set needs of digital enterprises and data intensive occupations can however greatly improve Belgium's attractiveness as an investment destination for e-commerce and other economic sectors.

Low levels of out-of-home delivery infrastructure impact the ability of e-retailers and intermediaries to engage in meaningful reductions in environmental impact and lower the social, economic, and ecological costs of delivery.

⁴¹ See Section 3.3 for a more detailed discussion on the potential impact of the "Labour Deal" (Act of 3 October 2022 on various labour provisions (Loi portant des dispositions diverses relatives au travail, https://www.ejustice.just.fgov.be/cgi/article_body.pl?language=fr&pub_date=2022-11-10&caller=summary&numac=2022206360, accessed in December 2022).

Unresponsive spatial planning for e-commerce infrastructure slows the introduction of new strategies to service using localised infrastructure (e.g.: mini hubs, transfer points, cargo bike facilities, charging points, Parcel locker placements).

The lack of consistent urban delivery transport rules raises the costs of planning, implementation, operation, efficiency, and sustainability for e-retails and their intermediaries.

Low levels of Belgian e-commerce site quality reduce the site conversion rates and reduces the commercial viability and growth potential of e-retailers.

Service quality is the most critical to consumers and business users. Increasing the e-commerce site and service quality offered by Belgian e-commerce businesses to be similar and/or equivalent to competitors is critical. This drives up conversion rates and thus creates additional postal / logistics network demand.

Unfair representation is where an e-commerce intermediary explicitly favours their products/services to the detriment of similar and equivalent product and/or service suppliers. This is generally found in listing hierarchies and is often implemented through algorithm changes by the intermediary.⁴² This can result in significant reductions in market visibility and sales for the impacted enterprise(s). This creates an illicit competitive disadvantage.

Abuse of data can have a significant impact on the competitive position of an enterprise or sector. This occurs when an intermediary gathers and retains data from the activities of contract partners and uses these data to enhance its market position or disadvantage an enterprise as illustrated in the EU Commission case against Amazon.⁴³ These data are often not shared with the contracted party which reduces their ability to effectively manage their business. The consequence is usually seen in the loss of customers and increased competitive disadvantage.

Predatory pricing is the strategy through which an initial lowering of the prices of goods and services provided is ordered by a company, in such a way as to make them highly competitive. Once market dominance is established prices are raised. This is illegal in the EU as it is a violation of Articles 101 and 102 of the Treaty on the Functioning of the EU which prohibits the abuse of a dominant position and prohibits all improper practices aimed at distorting competition.

Free shipping and free returns are considered key e-commerce attractions by e-commerce consumers. They can also create competitive issues for small and medium size businesses as the costs must be recovered through margin shaving or cost allocation across an entire stock. Margin shaving is an internal decision for an enterprise. Cost allocation across stock however means that consumers not eligible for free shipping or returns are subsidising those who do. Present rights of returns can lead to abuses that are far more burdensome on small and medium sized businesses.

VAT avoidance on ex-EU shipment transport places domestic and single market e-commerce enterprises at a competitive disadvantage. This can occur when free shipping for ex-EU items is used. VAT is liable for all costs irrespective of where they are incurred in the value chain. However, the cost of free ex-EU transport might be declared to customs as € 0 which is incorrect as the transport value declared should be the transport cost charged

⁴² Alta Crest Capital <https://altacrestcapital.com/2020/07/06/search-engine-algorithm-changes-how-big-of-a-risk-for-e-commerce/> (accessed December 2022).

⁴³ European Commission (2022), Antitrust: Commission accepts commitments by Amazon barring it from using marketplace seller data, and ensuring equal access to Buy Box and Prime, press release of 20 December 2022 (https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7777).

to the ex-EU e-retailer by the transporter. This has a cost reduction impact that is not available to the domestic or intra-EU e-commerce enterprise and leads to a competitive disadvantage. It also deprives the national treasury of due revenue.

Intellectual property (IP) can be key in the valuation of an e-commerce business. Lack of adequate IP protection can lead to product and/or service duplication by competitors and intermediaries for which there is little or no recourse to justice. This increases competition and disadvantages the innovator.

Skills availability is critical to avoiding national and enterprise level competitive disadvantages. Prepositioning for a future skilled labour force is essential as is the development of close links by enterprises with third level educational institutes.

Fraud is a term used to describe a wide range of criminal activities involving deception. In general, fraud refers to any situation in which an individual or organisation intentionally deceives another person or group for their gain. This can include activities such as using false information to obtain money or property, misrepresenting oneself or one's intentions, or using someone else's identity without their permission. Fraudulent activities by or against e-commerce enterprises can create competitive disadvantages for e-retailers, and losses to consumers.

Reduced profitability in the retail sector has followed the growth in e-commerce. This was examined in a 2021 report from Alvarez and Marsal which found a direct negative correlation between e-commerce penetration and lower overall profitability in the retail sector. Modeling for the report showed that accelerating online penetration may lead to reduced overall retail profit margins of 3.2% by 2025 for the six European countries analysed (Italy, Spain, the United Kingdom, France, Switzerland, and Germany). The aggregated losses to 2025 are estimated to amount to € 35 billion.⁴⁴ This projected loss of profitability has severe implications for the survivability of offline and online retailers. Equally margin pressure such as this will reduce the levels of free shipping and free returns and result in reduced demand for transport.

Technological change is a key source of competitive advantage and also a disadvantage. National and enterprise strategies for adjusting to technological change vary between being an early adopter of technologies that have yet to fully mature to strategies of later adoption when technologies are market mature and less costly to deploy and operate. End user adoption of technologies is a key driver as is the availability of an appropriately skilled labour force for avoiding technologically induced domestic and international disadvantage.

EU legislative activity in areas impacting e-commerce has been accelerating and has to date resulted in the DMA, DSA, P2B, Omnibus directive. Ensuring that Belgian needs and issues are proactively represented can help avoid Belgian e-commerce issues with competitiveness and ensure it is fit for national purposes. In November 2022, the EU published a proposed revision of its legislation on Packaging and Packaging Waste. The proposal outlines a maximum limit for empty space in transport, grouped, and e-commerce packaging, which should not surpass 40%. Moreover, beginning January 2030, all plastic packaging used in the EU market must have a minimum amount of recycled content from post-consumer plastic waste. This requirement applies to transport packaging, which must contain at least 35% recycled content (increasing to 65% by 2040).⁴⁵

⁴⁴ Article The Shape of Retail: The True Cost of Online. See

https://www.alvarezandmarsal.com/sites/default/files/true_cost_of_online.pdf.

⁴⁵ https://environment.ec.europa.eu/publications/proposal-packaging-and-packaging-waste_en.

2.5 External social and societal effects of the development of Belgian e-commerce

E-commerce now ranks with electricity, food supply, piped water, sewage treatment, public transport, telecommunications, and banking as strategic social and economic necessities. A healthy e-commerce sector is also critical to the ongoing commercial viability and growth of post and logistics enterprises in Belgium.

During the pandemic, the role of e-commerce and postal services/ logistics was critical to the maintenance of social stability by ensuring the continuity of adequate physical supplies and support services for citizens and the continued functioning of many business and administrative activities.

However, it is not just the commercial aspects of e-commerce that are important. The technologies and techniques that have been developed to enable it that are more critical. These have been repurposed for use by the government and many other socially critical functions such as health, education, security, social support, etc. E-commerce derived interfaces such as marketplaces, websites, web shops, apps, telemedicine, social media, augmented reality, virtual reality, wearable technologies, online courses, banking, administrative support and emerging capabilities in the metaverse are key tools in the present future of national economic, administrative and personal development spheres. They assist in increasing product/service availability to citizens, reducing the cost of living, increasing opportunities for lifelong learning and lifelong earning, increasing inclusiveness, and helping drive sustainability across the whole socio-economic spectrum in Belgium.

However, there are also costs and vulnerabilities. E-commerce functions such as payments, personal data collection/storage, product and service representation, and fulfilment are sources of cost and risk for administrations, consumers, and e-retailers.

Cyber security is critical.⁴⁶ E-commerce relies heavily on trust which is easily lost through the failure to ensure a safe, secure, robust, and accountable operational environment. Criminal interventions against e-commerce sites, city administrations⁴⁷, marketplaces, and users cost billions of euros each year.

Payment fraud alone is projected to increase for European e-retailers from € 17 billion in 2020 to € 25 billion in 2024.⁴⁸ Losses for consumers due to scams, theft, and loss of personal data are likely many multiples of e-retailer losses and mostly go unreported to authorities. In the United States alone consumers reported losing more than \$5.8 billion to fraud in 2021, a 70% increase over 2020.⁴⁹ In addition, the conflict in Ukraine demonstrates, as seen in the 2022 European Parliament report⁵⁰, the impact of state-sponsored interventions against internet and e-commerce infrastructure and capabilities.

It has yet to become clear whether employment across the e-commerce sector will contract in response to slower and lower e-commerce growth. It would appear that Belgian e-commerce enterprises did not over employ, unlike in the United States and United Kingdom,

⁴⁶ Article Top cybersecurity threats for 2023. See <https://www.techrepublic.com/article/top-cybersecurity-threats/amp/>.

⁴⁷ Article Antwerp's city services down after hackers attack digital partner, <https://www.bleepingcomputer.com/news/security/antwerps-city-services-down-after-hackers-attack-digital-partner/> (December 2022).

⁴⁸ Report reference, see: <https://www.juniperresearch.com/researchstore/fintech-payments/online-payment-fraud-research-report> (as of August 2022).

⁴⁹ Article Consumers lost \$5.8billion to fraud last year — up 70% over 2020, <https://www.cnbc.com/2022/02/22/consumers-lost-5point8-billion-to-fraud-last-year-up-70percent-over-2020.html> (accessed July 2022).

⁵⁰ Report European Parliament (Russia's war on Ukraine: Timeline of cyber-attacks), [https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI\(2022\)733549](https://www.europarl.europa.eu/thinktank/en/document/EPRS_BRI(2022)733549) (accessed December 2022).

in response to the 2021 / 2022 post pandemic e-commerce surge. However, Belgian e-commerce employment levels will remain vulnerable to an extended slowdown or contraction in e-commerce activity.

In summary e-commerce in its many and varied forms and functions has evolved in under 30 years from a simple shopping curiosity to a strategic national economic and social resource and needs to be considered and consistently managed as such nationally and regionally.

3 The Belgian parcel market

3.1 Size and structure of the Belgian parcel market

3.1.1 Market size and developments

The traditional segmentation of the parcel market applied by many postal regulatory authorities with the sub-segments parcel and express services does not sufficiently reflect the current complexities of the sector because it has evolved to service e-commerce demands. In Belgium, e-commerce parcels are often delivered the next working day independently of whether they are transported from within Belgium or come from warehouses of Bol.com in the Netherlands, Amazon.fr in France, or Amazon.de as well as Zalando.be in Germany. Next-day delivery offers are more likely the larger the e-retailers and online marketplaces are as they use their demand power to agree on high service levels for 'standard' deliveries.⁵¹ This further blurs the boundary between standard and express services at least for parcels that originate either in Belgium or in one of the neighbouring countries (France, Germany, and the Netherlands).

Our description of the Belgian parcel sector emphasises the following segments: parcels delivered in Belgium and cross-border outbound parcels.⁵² Parcels delivered consist of national and cross-border inbound parcels. We do not differentiate between parcel and express services⁵³ and apply the definition of the EU Cross-border Parcel Regulation⁵⁴. Parcels are postal items containing goods with or without commercial value weighing up to 31.5 kg. These also include 'parcel letters that are over 20 mm thick, do not weigh more than 2 kg, and contain goods.'⁵⁵ E-commerce parcels are parcels, from any type of facility (shop, warehouse, or consumer), resulting from any order placed with the supplier via electronic means. They are consigned either directly by consumers / wholesalers / retailers / brands (etc.) or by fulfilment service providers (including online platforms offering fulfilment services like Bol, Zalando, or Amazon). We further differentiate between C2X (consumer to all) and B2X (businesses to all) parcels. C2X parcels are sent by individuals or small senders without having a business contract with the parcel operator. B2X parcels consigned by businesses and public institutions are generally subject to a business contract with a parcel operator. B2C (business to consumer) parcels are sent by business senders (for example retailers) to consumers for example to deliver an e-commerce order. For simplification, we assume that B2C parcels are usually e-commerce parcels ordered by and delivered to consumers. B2B and B2C delivery services that are outside the regulatory scope of the Belgian parcel market are not considered in this study. This includes quick delivery services (for groceries or food) and delivery services for oversized items (e.g. furniture) that requires 2-man-handling.

Our analysis emphasises parcels delivered in Belgium. These categories consist of cross-border / international inbound and domestic parcels and are useful because the number of delivered parcels better reflects the potential scale of Belgian delivery services. Moreover, it provides a clearer picture of the size of the B2C parcel segment in the Belgian parcel

⁵¹ Interview PostNL (25 October 2022). PostNL parcel volumes, for example, are categorised as express parcels in the BIPT classification. PostNL argued that the service level agreements (SLA) with large e-retailers result in delivery services that are more comparable to express than parcel services. According to the postal market observatory for 2021 of BIPT the volume share of express parcels accounted for 20% in 2021 including PostNL volumes. Express consignments excluding PostNL accounted for 6%. Express items in total parcels delivered (domestic and international inbound, excl. PostNL) reached only 2%.

⁵² See the section 'Glossary' at the beginning of this study.

⁵³ See footnote 51.

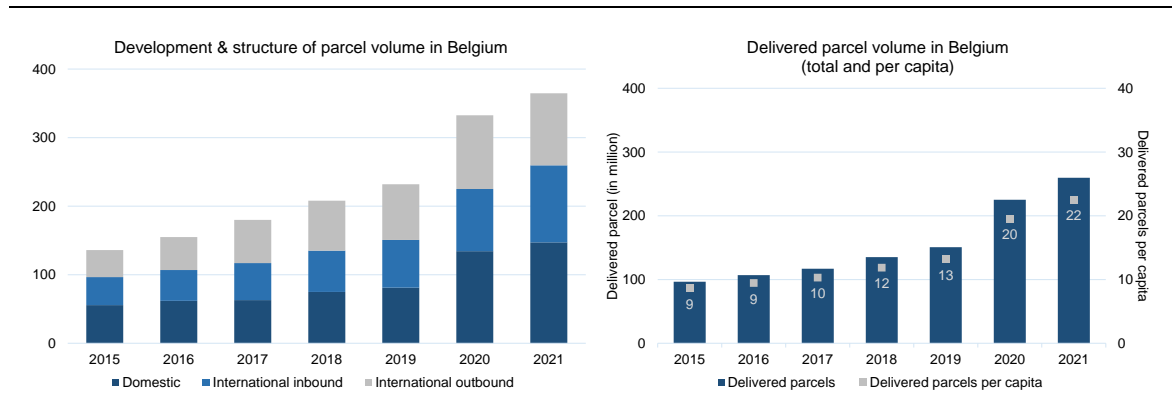
⁵⁴ Regulation (EU) 2018/644 of the European Parliament and of the Council of 18 April 2018 on cross-border parcel delivery services.

⁵⁵ Ibid, recital (16).

market as many cross-border inbound parcels are e-commerce parcels from warehouses abroad. Cross-border inbound consists of volumes and turnover of parcels either handled on behalf of another postal service provider or contracted directly with the foreign sender, e.g. a fulfilment service provider ('direct injection').

For the market figures reported in this study, we combined the data collected by BIPT for the postal market observatory with the data we collected in a separate data request from the same parcel operators.⁵⁶

Figure 3: Development and structure of the Belgian parcel market by volume (2015-2021)



Source: WIK-Consult and BIPT, Postal market observatories (2016-2022).

Note: Amazon numbers are not included because they started their operation in late 2021. Concerning total numbers, the impact of the Amazon market entry is considered negligible because its insourcing activities partly moved Amazon's volume from Belgian parcel operators to Amazon delivery services.

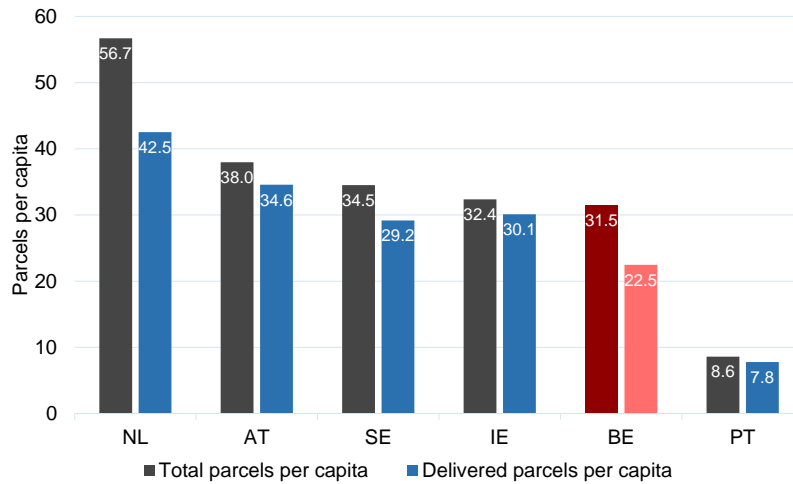
Between 2015 and 2021, the Belgian parcel market had significantly grown, with a jump between 2019 and 2020 driven by the impact of the COVID-19 lockdowns and distance rules resulted in quickly increasing online purchases. The EU Cross-border Parcel Regulation⁵⁷ expanded the definition of parcel items to parcel letters (letter-sized items especially used for international shipments of small, low-valued goods) which may have fuelled the increase of around 100 million (or 43%) in total parcels between 2019 and 2020 (see Figure 3, left-hand side). Domestic parcels increased by 66%. Between 2020 and 2021 the growth has flattened with an increase of 32 million items (or 10% in total parcels). While international inbound parcels grew by more than 20%, international outbound parcels slightly declined and domestic parcels increased by less than 10%. For 2022, we expect a decline in total parcels which, firstly, reflects a normalisation of demand after the pandemic especially in the first half of 2022, and secondly, a drop in total demand in the second half of 2022 due to increasing energy prices and overall high inflation rates (among others influences).

Total parcels delivered in Belgium (i.e. domestic and international inbound parcels) have increased from 151 million parcels in 2019 to 260 million parcels in 2021. The number of parcels delivered per capita increased from 9 in 2015 to 22 in 2021. This growth is mainly driven by growing e-commerce generated parcels that have increased domestic and cross-border inbound volumes. Between 2015 and 2021 the share of cross-border inbound parcels in delivered parcels reached levels between 40% and 46%; in 2021 the share was 43%.

⁵⁶ See BIPT (2022), Communication du Conseil de l'IBPT du 19 décembre 2022 concernant l'observatoire du marché des activités postales en Belgique pour 2021.

⁵⁷ Regulation (EU) 2018/644 of the European Parliament and of the Council of 18 April 2018 on cross-border parcel delivery services.

Figure 4: Total and delivered parcels per capita in Belgium compared to benchmark countries (2021)



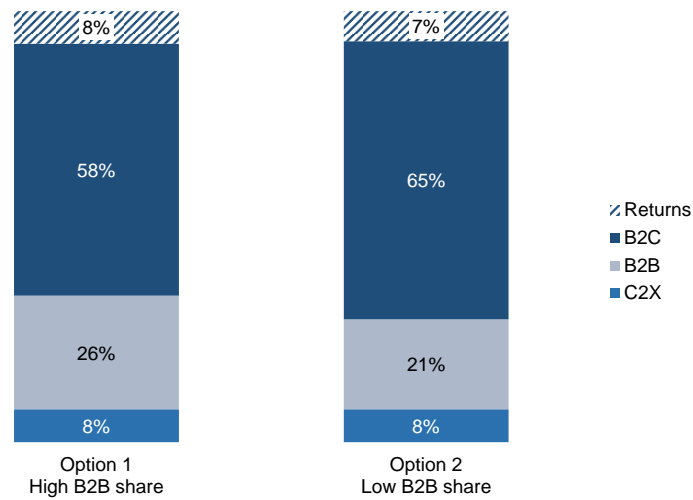
Sources: WIK Research based on parcel market reports published by regulatory authorities (ACM, RTR, ComReg, PTS, BIPT, Anacom) and Eurostat (population).

Compared to the five EU benchmark countries (Netherlands, Austria, Sweden, Ireland, and Portugal) Belgium achieved second-lowest per capita number of total parcels and delivered parcels (Figure 4). Combined with the relatively smaller size of the Belgian e-commerce market this indicates that there may still be growth potential for e-commerce parcels. The benchmark also shows that international outbound parcels play a more important role in Belgium and the Netherlands with shares of nearly 30% and 25% in total parcels compared to the other benchmark countries which have international outbound parcels shares below 10% (apart from Sweden with 15%). These big differences might be explained by significant (e-commerce) imports via the Belgian and Dutch ports and airports (especially Liège in Belgium that Alibaba uses as European e-commerce hub). Sweden is an important e-commerce export country in the Northern part of Europe.

3.1.2 The parcel market by segments

The growth in e-commerce deliveries has resulted in a shift from B2B to B2C deliveries in many countries, also in Belgium.

Figure 5: Parcels delivered by segment (WIK estimate, 2021)

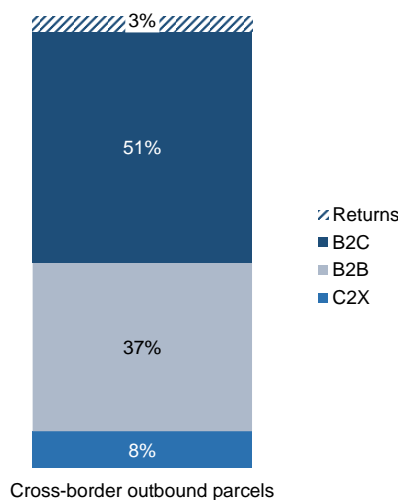


Source: WIK-Consult based on the postal data request, BIPT postal market observatory and estimates for the B2C and B2B shares of UPS, bpost, TNT and FedEx.

Notes: Option 1: B2B share in B2X for UPS 80% and for bpost 25%; Option 2: B2B share in B2X for UPS 70% and for bpost 15%.

B2C e-commerce purchases (domestic and cross-border) form a significant share of B2C parcels in the total delivered items which we estimate being between 58 and 65% (see Figure 5). Returns are not included and are estimated being around 7-8% of the volume of delivered parcels. C2X deliveries are estimated to account for roughly 8% of the volume of delivered parcels which is unusually high and can be explained by the growth in online second-hand purchases.⁵⁸

Figure 6: Cross-border outbound parcels by segment (WIK estimate, 2021)



Source: WIK-Consult based on the postal data request, BIPT postal market observatory, and estimates for the B2C and B2B shares of UPS, bpost, TNT, and FedEx.

Notes: The B2C share is unexpectedly high due to the answer of one operator. We assume that e-commerce parcels for delivery to e-commerce warehouses in neighbouring countries are included (from the ports and the airports in Belgium).

⁵⁸ This number is a bit lower than the BIPT estimate of 9% that refers to total parcels (domestic, cross-border inbound and outbound), see BIPT (2022), para (95).

Cross-border outbound parcels are differently structured with a lower share of returns and B2C parcels and a higher share of B2B parcels (see Figure 6). The revenue data provided by Belgian parcel operators was not sufficiently complete to allow for estimates of revenue-based shares per segment. For C2X BIPT reports a revenue share of 14%. From reporting practices in the benchmark countries, it is plausible to state that the revenue shares of B2C are lower than the corresponding volume share and for B2B it is vice versa (see Table 4).

Table 4: Domestic volume and revenue shares by segment of selected countries

	Ireland (2019)		Netherlands (2021)		Sweden (2021)	
	Volume	Revenue	Volume	Revenue	Volume	Revenue
C2X	3%	2%	3%	4%	3%	4%
B2B	33%	57%	20%	24%	31%	41%
B2C	64%	41%	77%	71%	66%	55%

Sources: WIK-Consult based on market reports of PTS and ACM and on Frontier Economics (2021), E-commerce Parcel Delivery in Ireland, commissioned by ComReg. No figures are available for AT and PT.

The growth in the demand for parcel services has driven investments in the sector. In Belgium, many parcel operators have invested in sorting facilities (like PostNL, DPD, DHL Express, Colis Privé). BIPT reports increasing investments from 78 million Euro in 2015 and 217 million Euro in 2021 and reached a proportion of 6.3% in total turnover.⁵⁹

3.2 Key players in the Belgian parcel market

The Belgian parcel market is made up of nine main parcel and express operators as well as emerging smaller players, especially in the B2C delivery segment. The bigger ones include bpost, the big integrators DHL Express, UPS, Fedex and TNT, the European parcel delivery operators with subsidiaries in Belgium, DPD Belgium, GLS Belgium, and DHL Parcel as well as players with an emphasis on X2C deliveries including Mondial Relay, and PostNL. Smaller niche players in the Belgian market are bpost subsidiaries Euro Sprinters and Dynalogic, PostNL subsidiaries G3 Worldwide and Mikropakket, and companies like Business Parcel Services and new players in the B2C segment entering the market 2021 like Homerr, Budbee, and Amazon.

⁵⁹ BIPT (2022), Communication du Conseil de l'IBPT du 19 décembre 2022 concernant l'observatoire du marché des activités postales en Belgique pour 2021, para (119) and (120).

Table 5: Ranking of parcel operators per segment and concentration ratios (2021, by volume)

	Total	Domestic	International inbound	Delivered (Domestic + international inbound)	International outbound
Total (BIPT)	bpost	bpost	PostNL	bpost	DPD
	DPD	GLS	bpost	PostNL	UPS
	PostNL	DPD	DPD	DPD	Mondial Relay
	UPS	Mondial Relay	UPS	GLS	GLS
CR4	79%	91%	84%	87%	73%
B2C (WIK)	bpost	bpost	PostNL	bpost	DPD
	DPD	DPD	bpost	PostNL	Mondial Relay
	PostNL	PostNL	DPD	DPD	UPS
	UPS	Dynalogic	GLS	GLS	bpost
CR4	88%	96%	94%	95%	81%

Source: WIK estimates based on the Postal Data Survey and BIPT market observatory.

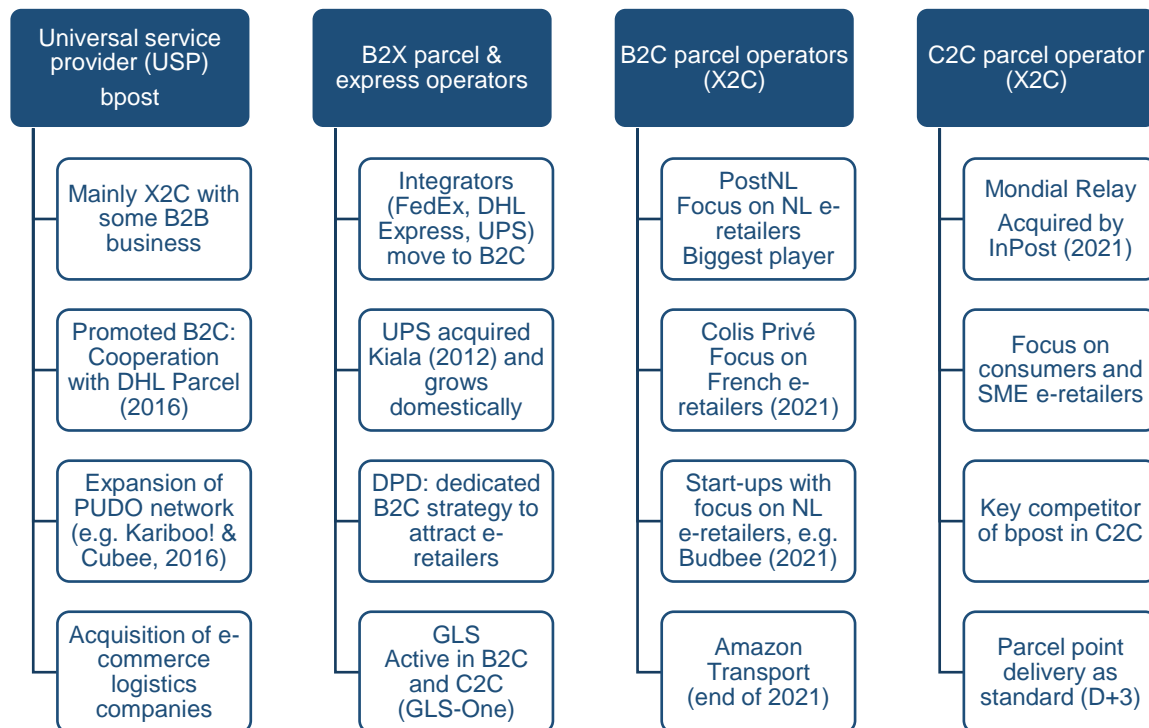
Note: B2C include e-commerce returns. CR4: Concentration ratio = volume share of the four biggest players by segment.

Overall, the Belgian parcel market appears fairly concentrated with concentration ratios calculated as the volume share of the four biggest operators in the market segments (CR4). For the total parcel market, the concentration ratios are always lower than for the B2C segment where the new market entrants still play a minor role. The highest concentration ratios are achieved for domestic parcel volumes with bpost as the leading operator, while the cross-border inbound parcel market has the lowest ratio (see Table 5). In this segment integrators like DHL Express, FedEx and TNT play a more noticeable role.

The C2X segment is not displayed in Table 5. All major players in the market have public price lists for very small senders including consumers (apart from UPS). Many of them have not provided estimates for C2X volumes and revenues. The share of C2X parcels has reached 9% driven by the growth in second-hand sales in Belgium.⁶⁰ The major players in this segment are bpost and Mondial Relay but also GLS appears to have a significant stake in this segment (via GLS-One).

⁶⁰ BIPT (2022), Communication du Conseil de l'IBPT du 19 décembre 2022 concernant l'observatoire du marché des activités postales en Belgique pour 2021, para (95).

Figure 7: Business models of the players in the Belgian parcel market (2021, by volume)



Source: WIK-Consult.

As outlined, B2C e-commerce has changed the way how parcel services are provided. This has challenged existing postal operators in the Belgian parcel market. Significant market growth in combination with the very specific needs of e-retailers and online buyers in terms of handling, delivering, and returning e-commerce purchases have attracted new players. The market players that all grow with B2C deliveries are assigned to four main categories (see Figure 7).

- Bpost is the designated universal service provider in the Belgian postal market and, since 2013, a listed company with 50.1% of shares owned by the Belgian state. As the universal service provider, bpost provides postal services for businesses and consumers and delivers letters and parcels nationwide five days a week (Monday to Friday). Letters and parcels are basically delivered jointly, especially in less populated areas.⁶¹ For this reason and in contrast to its competitors in the parcel market bpost still benefits from economies of scale and scope. Due to bpost's dense nationwide delivery network in combination with its post offices, parcel shops, and parcel stations the company has a strong position in the X2C parcel segment with an estimated volume share between 50% and 60% (see Figure 8).

After its Initial Public Offering (IPO) in 2013, bpost invested in the expansion of its access network through the acquisition of Lagardère Travel Retail businesses LS Distribution Benelux including the Kariboo! Network of (open) parcel shops in 2016 and the joint venture with Dutch De Buren (CUBEE network of (open) parcel locker stations in 2017). In May 2020, bpost rebranded the Cubee parcel locker stations into 'Parcel

⁶¹ Bpost has launched an "alternate-day" delivery model for non-priority letters in 2020 (see for example bpost, Strategy update and capital allocation 2020, 8 December 2020, Full transcript, https://bpostgroup.com/sites/default/files/2021-04/20180621_bpost-cmd_full-transcript_fv.pdf) so that priority and non-priority letters, parcels and registered letters are jointly delivered every second working day (excluding Saturday).

Stations' and the Kariboo! Shops into 'Parcel Points'.⁶² Bpost has further strengthened its position in B2C parcel deliveries after agreeing on a non-exclusive cooperation with DHL Parcel for the delivery of B2C parcels and collection of returns via bpost post offices in Belgium (and vice versa in the Netherlands).⁶³ Bpost then expanded into e-commerce fulfilment services (warehousing) by acquiring the US-based specialist Radial (a former eBay business) in 2016 and the Dutch company Active Ants in 2017.⁶⁴ Additional important acquisitions were Belgian DynaGroup (in 2016) and the most recent acquisition of the French cross-border delivery platform IMX in 2022.

- The B2X parcel & express operators consist of those operators with a clear international focus like TNT, FedEx as well as DHL Express and those operators with both, domestic and international services including UPS, DPD, and GLS. All players used to provide just B2B parcel and express services and then moved to B2C deliveries as their customers have increasingly moved to B2C online sales. These operators also offer services to consumers and very small businesses but this is a minor part of their business offer.⁶⁵
 - UPS acquired the independent parcel shop network Kiala in 2012 which was rebranded into UPS Access Point in 2015.⁶⁶ UPS uses its UPS Access Point network to offer more affordable delivery services for small businesses (see Section 3.3) but their major business is still the provision of higher margin parcel and express services that are used for B2B and high value B2C deliveries.
 - GLS Belgium appears not to follow a dedicated B2C strategy (e.g. compared to DPD) and has grown with their customers from B2B into B2C deliveries. BIPT numbers suggest that GLS Belgium was also a preferred delivery partner for consumers and small business customers.
 - In contrast to UPS and GLS Belgium, the European DPD group has launched a dedicated B2C growth strategy also being implemented by DPD Belgium with significant investments in additional capacity (hubs and depots), the launch of new services, e.g. DPD Fresh and 'neighbourhood delivery with ViaTim and marketing campaign explicitly targeting e-retailers (see DPD website). In the group of B2X operators, DPD has the highest share of B2C parcel deliveries in Belgium. In keeping with its European strategy, DPD Belgium aims to increase the rate of out-of-home deliveries.
- B2C parcel operators: These operators have in common that they usually do not provide delivery services for consumers (apart from accepting returns). The first group (PostNL, Colis Privé) delivers import parcels from e-commerce fulfilment centers in the Netherlands (PostNL) and France (Colis Privé).

PostNL Belgium started its operations in Belgium over 15 years ago (first mentioned in the TNT Annual Report 2005). Due to their close business relations with Dutch e-retailers and, especially, with the biggest Dutch online marketplace, bol.com PostNL Belgium has grown its B2C deliveries and is by far the biggest player in B2C deliveries in this group. It has a special focus on deliveries to the Dutch-speaking part of the country. Until 2021 PostNL Belgium handled parcels for Belgian delivery depots in Dutch sortation centres. This changed in early 2022 with the opening of the sorting and

⁶² In 2022, bpost divested the Ubiway Retail Network (Relay, Press Shop, Hubiz, Ubi brands, around 170 stores).

⁶³ See bpost, L'e-commerce au Benelux: bpost et DHL travaillent main dans la main, 29 August 2019 (<https://www.bpost.be/nl/blog/ecommerce/e-commerce-in-de-benelux-bpost-en-dhl-slaan-de-handen-in-elkaar>).

⁶⁴ Contents of this paragraph are based on published material of bpost including annual reports, analyst presentations and press releases.

⁶⁵ They have not provided figures on C2X volumes and revenues in the postal data request WIK performed in summer 2022.

⁶⁶ CEP Research / UPS (2015), UPS rebrands Kiala points in Belgium, published on 8 May 2015.

distribution centre in Willebroek.⁶⁷ PostNL has, together with Mondial Relay, the second densest network of parcel shops in Belgium (see Figure 11).

The Belgian delivery activities of the French company Colis Privé are much smaller than those of PostNL Belgium. In January 2022, the shipping group CMA CGM announced its acquisition of a 51% stake in Colis Privé.⁶⁸ The remaining shares are held by the Hopps Group (39%) and Amazon (10%).⁶⁹ Colis Privé delivers nationwide from their hub in Willebroek (which opened in the summer of 2021). Here, items are sorted and then transported to the depots of their subcontractors for final delivery. They focus on the delivery of mainly small parcels that can be delivered in the letter box or handed over to the recipient. Colis Privé cooperates with Mondial Relay for the “not-at-homes” and the collection of returns.⁷⁰

The second group is a combination of logistics and tech start-ups with a special emphasis on sustainable delivery solutions for e-commerce orders (examples are Budbee and Instabox, both Swedish start-ups that expanded their activities to the Netherlands and recently to Belgium). The most notable change was the start of delivery services by Amazon in late 2021. Amazon is a powerful vertically integrated e-commerce and logistics platform. It now provides delivery services for standard parcels and has in a few years established significant market shares in Austria, Germany, Italy, and Spain. Amazon started its deliveries (‘insourcing’) in Belgium in late 2021⁷¹ (Amazon Transport). In the 2021 parcel market statistics, Amazon Transport is not taken into account. The subsidiary is responsible for the transport, the sortation, and the organisation of the delivery of Amazon parcels in cooperation with subcontractors, the so-called delivery service providers (DSPs) which are classified as ‘independent delivery companies’ by Amazon⁷². The company opened its first and, at this point, the only delivery station in Antwerp on 3rd November 2022.⁷³ The analysis of the Belgian e-commerce market showed that Amazon had a weaker market position in Flanders than in Wallonia and the Brussels capital region e-commerce markets where Amazon.fr is the preferred marketplace. It appears that Amazon expects significant growth in parcel deliveries in Flanders after the launch of the marketplaces amazon.nl in 2020 and amazon.com.be in late 2022. However, for Amazon the Dutch online marketplace bol.com is an established and powerful competitor with a strong customer base in Flanders.

- C2C parcel operator Mondial Relay: Mondial Relay offers low-cost point-to-point delivery services for consumers and small and medium-sized e-retailers. Parcels are delivered in three to five days. Together with PostNL they have the second-densest network of parcel shops in Belgium. In contrast to PostNL with most shops in Flanders, Mondial Relay has dense shop networks in all Belgian regions. Mondial Relay is a French company with a long history (founded in 1992) as a delivery partner for distance sellers and was for many years owned by the German Otto Group. In the summer of 2021 the company was sold to the Polish InPost Group. InPost is investing in the French operations of Mondial Relay with new hubs, a launch of a consumer application, roll out

⁶⁷ See PostNL, PostNL to open new depots and sorting centres in Belgium, press release of 16 July 2021 (<https://www.postnl.be/en/about-postnl-belgium/press-and-news/press/2021/postnl-to-open-new-depots-and-sorting-centres-in-belgium.html>).

⁶⁸ See CEP Research/CMA CGM Group (2022), CMA CGM buys Colis Privé to boost CEVA Logistics e-commerce deliveries, 31 January 2022.

⁶⁹ dvz.de (2022), CMA CGM kauft Colis Privé, 31 January 2022 (<https://www.dvz.de/rubriken/see/detail/news/cma-cgm-investiert-in-die-letzte-meile.html>).

⁷⁰ Interview Colis Privé (4 October 2022).

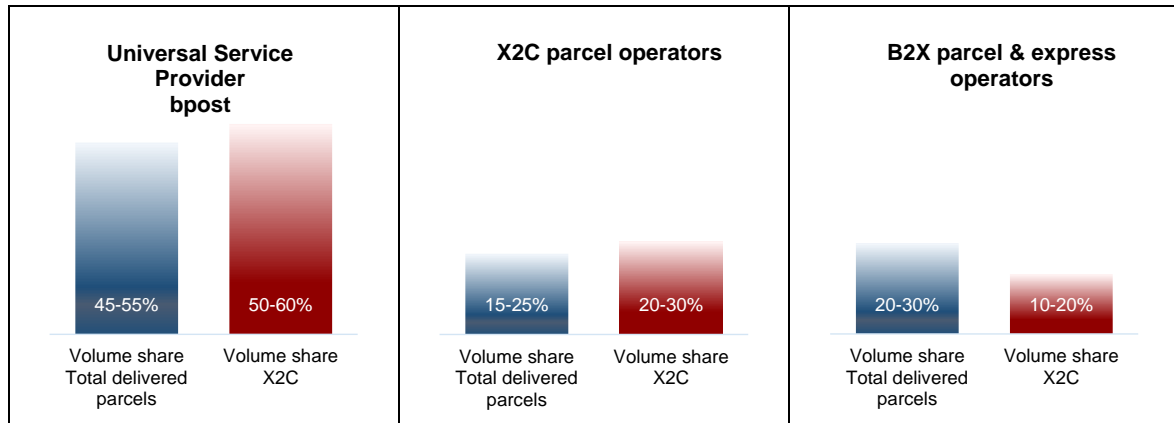
⁷¹ Bpost (2022), Interim Financial Report, First quarter 2022, Conference call transcript, 6 May 2022, p. 5.

⁷² See <https://www.amazon.jobs/en/locations/antwerp-belgium>, accessed in December 2022.

⁷³ See for example 7sur7 (2022), Amazon inaugure son premier centre de distribution en Belgique, published on 3 November 2022 (<https://www.7sur7.be/tech/amazon-inaugure-son-premier-centre-de-distribution-en-belgique--ae184d4cc/>, accessed in November 2022).

of parcel locker stations and plans to increase speed of delivery).⁷⁴ We expect that the modernisation of Mondial Relay’s French business will also improve the services provided in the Belgian and Dutch markets in the coming years.

Figure 8: Volume shares for total delivered and delivered to consumers (X2C) by category (2021)



Source: WIK-Consult

Figure 8 illustrates the market shares of the key players in the Belgian parcel market by delivered volume. Bpost is the biggest player with an estimated share between 50-60% for X2C deliveries (including returns). The growing segment of X2C parcel operators (including Mondial Relay) reached a share between 20-30%. 10-20% of X2C parcels were delivered by the group of B2X parcel & express operators in 2021. As noted above, we would categorise Amazon as X2C parcel operator. This group of operators poses a more severe threat to the market position of bpost than the B2X parcel & express operators because the market entrants in this segment apply new concepts and are much more technology-driven. Amazon will play a special role in the next years depending on how fast they expand their delivery services in Belgium. As one of the largest customers of bpost Amazon may have the opportunity to reach a significant market share in the coming years (as being observed in Austria, Germany, Italy, and Spain where the Amazon marketplaces and Amazon Logistics play a much more important role than in Belgium).⁷⁵

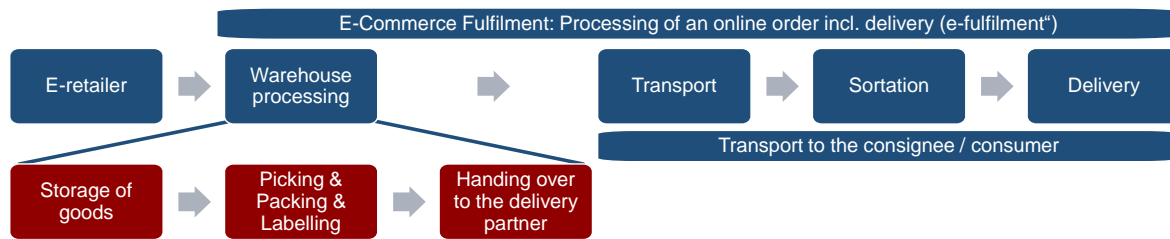
3.3 Accessibility, services and prices

In this section we describe and discuss service characteristics and prices of parcel services provided by the key players in the Belgian parcel market. This is done to answer the question of “what the key parcel operators have done to facilitate the fulfilment of e-commerce transactions of e-retailers domestically and cross-border and to improve the delivery experience of consumers?”.

⁷⁴ See InPost S.A. (2022), InPost: Transforming E-commerce Last Mile, group presentation of November 2022, p. 25-28.

⁷⁵ See Section 3.4.1 for more detail.

Figure 9: E-commerce fulfilment



Source: WIK-Consult

As outlined in Chapter 2 of this study Belgian e-retailers face significant competition from foreign e-retailers and online marketplaces like bol.com, amazon.fr or amazon.de. Their advantages can be broadly categorised as quality (speed of fulfilment: order receipt to final delivery) price (including product, fulfilment, and delivery costs), and more efficient reverse logistics (for returns). Smooth processes through the complete e-commerce fulfilment chain are necessary to minimise the time between the placement of the online order and the final delivery (see Figure 9). A short fulfilment time requires late order cut-off times⁷⁶ combined with late acceptance time (LAT) of parcels at the sorting facilities of parcel operators. Both are usually possible for large e-retailers who have professional (and flexible) warehouse processing and shorter distances between the e-fulfilment center and the facilities of delivering parcel operators. Large e-retailers have individual contracts with their delivery partners with specific service level agreements that, inter alia, define the latest acceptance time and the proportion of consignments delivered the same or the next working day (usually dependent on whether the LAT is before or after midnight).

For small and medium-sized e-retailers it is far more difficult to independently achieve the same level of quality at comparable cost as large e-retailers or fulfilment service providers. Whilst they do have some opportunities to use the fulfilment services of large non-Belgian online marketplaces (e.g. Logistiek via bol.com⁷⁷ or Fulfilled by Amazon (FBA) independent outsourcing opportunities for small and medium-sized e-retailers are not very common in Belgium.⁷⁸ Participants at the stakeholder workshop confirmed that Belgian e-retailers generally process their online orders in their warehouses. Here e-commerce orders are picked, packed, and prepared for delivery.⁷⁹ For low volume shippers parcels are usually handed over at a parcel shop to a parcel operator for delivery. For shippers with larger volumes, their parcels are scheduled for collection by the parcel operator one or more times per week.

The KPMG study on postal aspects of e-commerce concluded that the Belgian labour legislation and the prohibition of night labour work in warehouses were important constraints for the development of Belgian e-commerce⁸⁰ because they hinder the flexible use of labour and the efficient fulfilment and delivery of e-commerce transactions within a 24 to 48 hour time frame. The relevant labour legislation has recently been relaxed with as yet limited

⁷⁶ Online orders that are placed before the cut-off time (e.g. 6pm) are processed in the fulfilment centre at the same working day).

⁷⁷ See <https://api.bol.com/retailer/public/Retailer-API/v6/functional/fulfilment-by-bol.html>.

⁷⁸ Bpost's subsidiary Active Ants, for example, has opened a widely automated warehouse for e-commerce fulfilment ('e-fulfilment center) in Willebroek in October 2021 (the first center of Active Ants in Belgium), see Active Ants (2021), Active Ants officially opens its next E-fulfilment center of the future in Willebroek, published on 5 October 2021 (<https://www.activeants.com/news-and-blogs/active-ants-officially-opens-its-next-e-fulfilment-center-of-the-future-in-willebroek/>), accessed in October 2022).

⁷⁹ WIK stakeholder workshop taken place on xx. September 2022 at the premises of BIPT.

⁸⁰ See KPMG (2017), Étude relative au marché belge de la livraison de colis dans le cadre de d'activités d'e-commerce, Executive Summary (English version).

visible impact and is considered as 'too little and too late' by sector experts.⁸¹ We understand that the change in labour legislation does not fully remove the obstacle of restraints in night work and does not change other elements (labour flexibility and cost).⁸² The most important foreign e-retailers and marketplaces used by Belgian consumers like Zalando, Bol.com or Amazon have already placed their warehouses in the neighbouring countries not far from the Belgian border. That said, we do not see a short- or medium-term impact of this new legislation on key foreign players in the Belgian e-commerce market as long as cross-border inbound delivery services are such well-established. Therefore, the changes may not significantly increase the attractiveness or competitiveness of the Belgian logistics market for e-commerce fulfilment service providers in the immediate future.⁸³

From the perspective of online consumers, and small and medium-sized e-retailers it is important to understand how Belgian parcel operators have developed and improved their services to better cater to the needs of both. This is examined in the sections below.

Accessibility for pick up, delivery, and returns

Belgium is characterised by a high density of parcel shops (see Figure 10). The actual density is overestimated because a significant but unknown number of parcel shops are used by more than one parcel operator which results in double- and triple-counting of hundreds of parcel shops.⁸⁴ For this reason, the total number (excluding multiple-counting) in Belgium can only be roughly estimated as between 5,000 and 6,000 parcel shops (including post offices). The shared use of parcel shops is a value added for consumers (and for environmental sustainability if the parcels are directly delivered to the shop) because it allows them to pick up multiple parcels delivered by different parcel operators in the same shop.

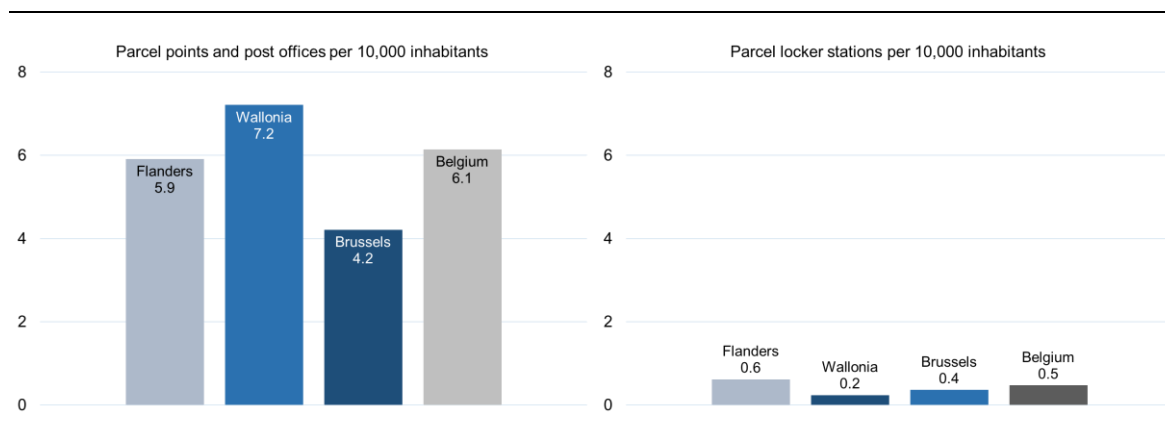
81 See Postal Hub Podcast (2022), Episode 266: The intersection of e-commerce and delivery, with Roel Gevaers, published on 4 March 2022 (<http://www.thepostalhub.com/podcasts/episode-266-ecommerce-delivery-belgium-amazon-bol>).

82 A small part of the "labour deal" enshrined in the recently passed Act of 3 October 2022 on various labour provisions addresses this topic (see Chapter 7 on e-commerce of this Act, https://www.ejustice.just.fgov.be/cgi/article_body.pl?language=fr&pub_date=2022-11-10&caller=summary&numac=2022206360, accessed December 2022). The new legislation allows for evening work (or half-night work between 8pm and midnight) in e-commerce warehouses via collective bargaining agreement with all social partners. As collective bargaining agreements might be difficult to achieve the legislator also provides for an option to introduce evening work via a temporary and one-off experiment of up to 18 months (with many conditions attached to setting up such an experiment). See Van Olmen & Wynant, The Labour Deal, The Act of 3 October 2022 on various labour provisions (<https://www.mondaq.com/pdf/1283462.pdf>, accessed in February 2023).

83 Ibid..

84 BIPT reports a total number of 7.455 postal points. They state: "En effet, on constate que dans près de 3 cas sur 10, le nom de la rue et le numéro de maison d'un point pourvu en personnel apparaissent plusieurs fois dans la base de données." [In almost 3 out of 10 cases, we see that street name and house number of a manned point appear multiple times in the database.] BIPT (2022), Communication du Conseil de l'IBPT du 19 décembre 2022 concernant l'observatoire du marché des activités postales en Belgique pour 2021, para (128).

Figure 10: Density of post offices, parcel points and parcel locker stations by region



Source: WIK-Consult based on BIPT, www.pointpostal.be (accessed October 2022).

Parcel locker stations are a complement to parcel shops and are used in many European countries.⁸⁵ They are usually well-accepted by consumers in countries, especially in Eastern and Northern European countries (e.g. Finland, Sweden, and Poland) where deliveries to parcel shops had been widely used as an affordable delivery option and consumers have switched to parcel lockers because of being more convenient. Both, parcel locker stations and parcel shops are considered as an opportunity for parcel operators to increase

- the productivity in delivery (many parcels are delivered to one point) and thus reduce the cost per parcel delivered and the need for additional deliverers (in times of serious labour shortages and labour conditions for deliverers under scrutiny);
- the ecological sustainability of the first and last mile (see Chapter 3.5).

Compared to the density of parcel shops the density of parcel locker stations remains low but is growing. They are mainly located in city centres and densely populated areas with a substantially higher number in Flanders than in Wallonia (see also Figure 10).⁸⁶

In Belgium, bpost operates the largest network of parcel locker stations with more than 540 stations⁸⁷, around 10% in two so-called bpost ecozones (Mechelen and Leuven, which are deployed with the less costly SwipBox parcel locker banks).⁸⁸ The stations are open and can be used by other parcel operators if they have a contractual agreement with bpost. At the time of the drafting of this report, GLS was the only parcel operator using bpost parcel stations as pick-up point.⁸⁹ Since late 2021, a market entrant Budbee has been rolling out parcel locker stations in the Northern part of Belgium.

⁸⁵ See Niederprüm, Antonia et al. (2021), Parcel locker stations: A solution for the last mile?, WIK Working Paper No. 2 (https://www.wik.org/uploads/media/WIK_Working_Paper_No2_Parcel_Locker_Stations_01.pdf).

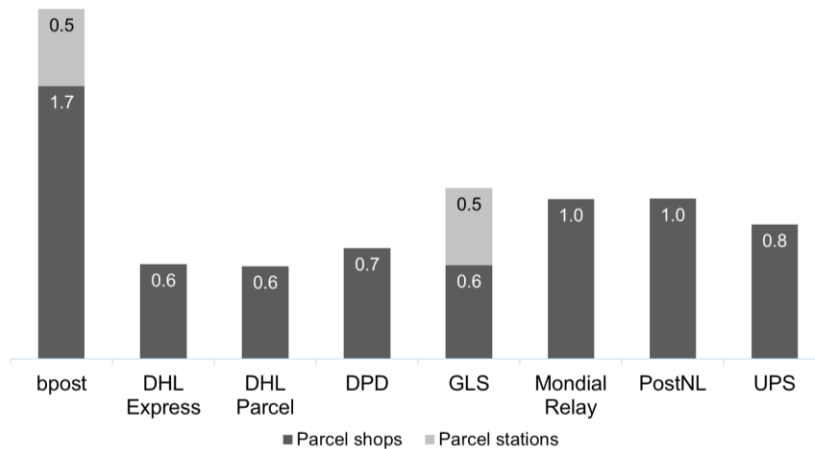
⁸⁶ See BIPT (2022) para (134).

⁸⁷ Bpost launched the parcel locker stations under the name Cubee in 2017 and rebranded the Cubee stations to Parcel Stations in early 2020 (see bpost (2020), The bpost services during lockdown, drivers of growth and guarantee of stability for customers, press release 24 June 2020 (<https://press.bpost.be/the-bpost-services-during-lockdown-drivers-of-growth-and-guarantee-of-stability-for-customers>)).

⁸⁸ See Chapter 3.5 for more detail on the ecozones. See SwipBox (2020), SwipBox and bpost join forces, press release 27 August 2020 (<https://www.swipbox.com/news/join-forces>).

⁸⁹ See BIPT, www.pointpostal.be (accessed in October 2022).

Figure 11: Density of post offices & parcel shops and parcel locker stations by operator (2021)



Source: WIK-Consult based on BIPT, www.pointpostal.be (accessed October 2022).

Notes : GLS uses bpost parcel stations.

Figure 11 shows the density of parcel shops (including post offices) and parcel stations per operator (numbers for Budbee were not available at the time of report drafting). Bpost has the densest network of shops (1.7 per 10,000 inhabitants) followed by Mondial Relay and PostNL, each one shop per 10,000 inhabitants. Dense networks and attractive locations of parcel shops (and locker stations) are necessary to make delivery to parcel shops and lockers more attractive for online buyers and to facilitate the collection of e-commerce returns.

Table 6 summarises major service characteristics and qualitative price indicators of the six key players in the Belgian parcel market.

Service characteristics

- The delivery of parcels on the next or the second day after their consignment is standard at five out of the six operators. Mondial Relay delivers parcels within three to five working days. Consumers prefer next-day delivery of parcels and accept slower deliveries (D+3 to 5) for a discount.⁹⁰
- Delivery usually takes place five or six days per week. Parcels from very small senders (without business contracts) and consumers are delivered by bpost, Mondial Relay, DPD, and GLS five days per week. These are usually Monday to Friday, only Mondial Relay delivers from Tuesday to Saturday. Keeping in mind that the universal service obligation only requires the delivery of letters and parcels on five days per week (Monday to Friday) consumers appear to have a slight willingness to pay for deliveries on six days per week (including Saturday).⁹¹
- Saturday delivery is a standard service (without extra fee) of Mondial Relay, PostNL, and UPS (if delivered to a UPS Access Point). Saturday delivery is provided for business customers at an extra fee by bpost, DPD, and UPS (home delivery). GLS does not deliver on Saturdays.

⁹⁰ For example, the price difference of single-piece parcels delivered to the home between bpost (D+1-2) and Mondial Relay (D+3-5) is around 0.70 Euro (December 2022). See also Ipsos (2021) Rapport de publication utilisateur final de services postaux 2020, survey on behalf of BIPT.

⁹¹ Ibid., p. 25.

- Evening delivery is offered by UPS for an extra fee. A new market player, Colis Privé, stated that they generally deliver parcels in the afternoon and in the evening.⁹²
- All listed parcel operators offer differently priced deliveries to the home and to parcel shops (and bpost to parcel locker stations). Parcel shops are used as pick-up points if the first delivery attempt fails (e.g. by bpost, DPD⁹³, and PostNL). DPD has started a test with ViaTim for neighbourhood delivery.
- Apart from Mondial Relay, all parcel operators have launched consumer apps. These are used to increase transparency (access to tracking data of the consignment up to live tracking e.g. DPD). Some allow the redirection of parcels to another delivery location or another delivery day.
- All operators provide IT interfaces to e-retailers' shop, marketplace, and/or warehousing software (applications and plug-ins) either on their own or via intermediaries / shipping platforms like Sendcloud and Sendmyparcel.
- Apart from Mondial Relay, all parcel operators have launched consumer applications to track parcel deliveries and, in many cases, to redirect the delivery to a specific location or to another day.

⁹² Interview Colis Privé (4 October 2022).

⁹³ Interview DPD (24 November 2023).

Table 6: Overview of the services of the biggest Belgian parcel operators

	bpost	Mondial Relay	PostNL Belgium	DPD Belgium	GLS Belgium	UPS
Major segments	X2C and B2B	C2C / B2C	B2C	B2B / B2C	B2B / X2C	B2B / B2C
Delivery quality (operators' website)	D+1/2	D+3-5	D+1	D+1/2	D+1	D+1
Saturday delivery as standard	No With business contract Extra fee	Yes (Tuesday to Saturday)	Yes	Optional Extra fee for smaller senders	No	UPS Access point: free Home: Extra fee
Evening delivery	No	No	No	No	No	Optional (extra fee)
Delivery options	Home delivery Parcel point or locker delivery	Parcel point delivery (standard) Home delivery	Home delivery Parcel shop delivery if agreed with the web shop	Home delivery Parcel shop delivery Cooperation with ViaTim (start up for neighbourhood delivery)	Home delivery Parcel point or locker delivery	Home delivery Parcel point delivery (small businesses)
Other delivery options	Delivery to the neighbour or to an agreed safe place	No	Delivery to the neighbour	Delivery to the neighbour or to an agreed safe place	Delivery to the neighbour or to an agreed safe place	n.a.
Consumer app (e.g. tracking, redirection of parcels)	Yes	No (in FR new app launched in Oct 2022)	Yes (Tracking & information about time slots of delivery since early 2022; adding redirections and delivery at a preferred location planned at the end of 2023)	Yes (myDPD app)	Yes (GLS app)	Yes (UPS My Choice for Home)

	bpost	Mondial Relay	PostNL Belgium	DPD Belgium	GLS Belgium	UPS
Available integrations for e-retailers	Via Sendcloud Via sendmyparcel.be Bpost solutions (Plug-ins, APIs) available for senders with an individual contract (see https://www.bpost.be/nl/zakelijk-pakjes-verzenden/samenwerking-svormen)	Via Sendcloud Mondial Relay solutions via Solutions Pro (https://www.mondialrealy.be/fr-be/solutionspro/decouvrez-votre-offre/)	Via Sendcloud Via sendmyparcel.be (PostNL subsidiary)	Via Sendcloud Via sendmyparcel.be DPD solutions via https://www.dpd.com/be/nl/verzenden/e-commerce/	Via Sendcloud GLS solutions via https://gls-group.com/BE/en/shipping/regular-shipment/dispatch-systems	Via Sendcloud UPS solutions via https://www.ups.com/be/en/business-solutions/expand-your-online-business/e-commerce-plug-ins.page
Public price lists for single-piece items	Yes	Yes	Yes	Yes	Yes	Yes
Access to business contracts	> 100 parcels/year (Start: 2022, see https://parcel.bpost.be/fr/pricing) Individual contract: >1,000 parcels / year Via sendmyparcel.be (access to volume-based prices)	<60 Compte Pro Individual contract: >60 parcels / day Special tariff agreement with eBay for eBay marketplace sellers	Business contract: >20 parcels / week or >1,000 parcels / year Via sendmyparcel.be (access to volume-based prices)	<50 parcels / month Via Web Parcel 2.0 Business contract: >50 parcels / month Via sendmyparcel.be (access to volume-based prices)	GLS-One (consumers, very small senders) LabelLite online (up to 30 parcels daily) Flanders: More detailed offer for e-retailers from Print & Ship, LabelLite Desktop and GLS API	Not for consumers Yes (Small Business) No threshold published for business contracts UPS My Choice for Business
Collection services for SME senders	With business contract (SME) >250 parcels	Not available	With business contract >1,000 parcels	Available for small businesses	Available	Available for small businesses

Sources: WIK Research and interviews with bpost, PostNL, and DPD.

Characteristics of price schedules

- Price lists are provided by all operators for single parcels (including VAT) used by consumers and very small business senders. Occasionally, list prices and discounts for small business senders are available (e.g. UPS, Mondial Relay, and bpost)⁹⁴. However, such list prices are a poor indication of the actual cost to the consumer as an online buyer as there are contract prices and volume discounts offered to e-retailers. In addition to this surcharges are added irrespective of whether the shipment is a one off or a contract-covered item. The most common is the fuel surcharge which can average up to 20% (November 2022) of the total shipping plus surcharges cost. More recently, in 2021 parcel operators launched peak surcharges for business parcels.⁹⁵ Oversize charges are applied if the parcel does not meet the maximum dimensions (that vary among postal operators and depend on whether the parcel is delivered to the home, the parcel shop, or the parcel locker station). Shipping platforms like Sendcloud provide detailed information on all price elements per integrated parcel operator.⁹⁶
- Apart from PostNL, all parcel operators differentiate single-piece parcel tariffs by type of delivery (home or pick-up point). Firstly, the cost savings are significant with discounts between 20% and 60% (see Figure 12). In absolute numbers, the price differences vary between one and five Euros. Secondly, the discounts are usually higher for heavy parcels (more than 5 or 10 kg) than for light parcels. Mondial Relay has the highest discounts (and the highest share of parcels delivered to parcel shops). This price structure also explains the traditionally high share of parcels delivered to pick-up points (parcel shops or parcel locker stations). We estimate that nearly one fifth of all delivered parcels (domestic and international inbound) were delivered to pick-up points in 2021.⁹⁷ The price differences fit very well with the willingness to pay for deliveries to pick-up points. Generally, Belgian consumers prefer home delivery and accept delivery to pick-up points only if the service is much cheaper (at least 1.10 to 1.20 Euros).⁹⁸

94 See bpost

(https://parcel.bpost.be/fr/home/business?_gl=1*1qzm6ao*_ga*MzMxMDM4NjMuMTY2Mjk2OTQyMw..*_q_a_RL6E59HGV4*MTY2ODU0MjU4OC4xMy4xLjE2Njg1NDI3MTMuMC4wLjA, accessed December 2022, Mondial Relay (<https://www.mondialrelay.be/nl-be/pakje-verzenden/verkoopt-u-ook-via-ebay/>, accessed December 2022 and UPS (<https://www.ups.com/be/fr/smallbusiness/content/parcel-delivery/rates.page?>, accessed December 2022).

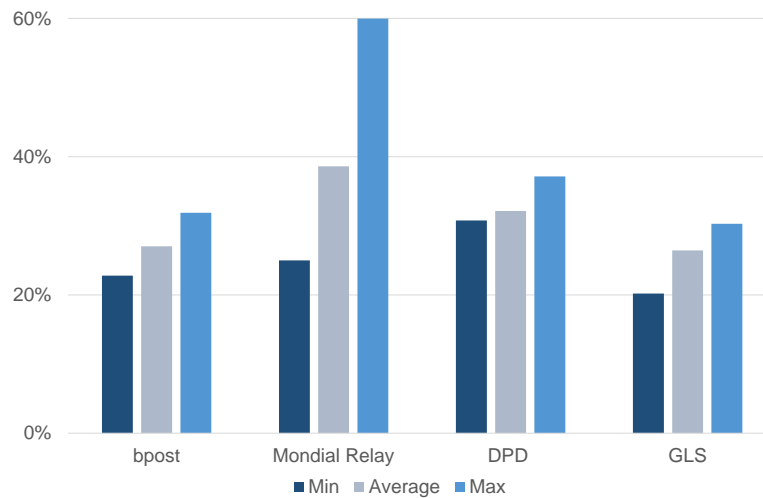
95 bpost, for example introduced a peak surcharge of one Euro per parcel during the period of 25 November and 25 December 2022

(see <https://support.sendcloud.com/hc/en-us/articles/360039763551-Bpost-surcharges-Belgium->, accessed in December 2022). This peak surcharge will also be added to the tariff of domestic C2X parcels in 2023 (see: <https://www.bipt.be/operators/publication/decision-of-22-november-2022-regarding-the-analysis-of-tariff-increases-for-bpost-s-single-piece-rates-for-the-year-2023> accessed in February 2022).

96 See <https://support.sendcloud.com/hc/en-us/categories/360001511752-Carriers-> (accessed December 2022).

97 Our share is a bit lower than the share published by BIPT (2022), para (96) because the volume base is different. BIPT's estimate is partly based on total volume (i.e. including cross-border outbound parcels that are not delivered in Belgium). Our estimate only considers parcels that are delivered in Belgium.

98 Ipsos (2021) Rapport de publication utilisateur final de services postaux 2020, survey on behalf of BIPT, p. 23-24. For consumers older than 75, delivery to parcel shops or post offices is not an acceptable option (very high discounts) and for people living in rural areas the discounts should be even higher (around 1.50 Euro). Picking parcels up from parcel locker stations was linked to higher discounts than picking parcels up from parcel shops or post offices.

Figure 12: Discounts for parcel deliveries to shops (single piece tariffs, December 2022)


Source: WIK-Consult based on price lists of bpost, Mondial Relay, DPD and GLS.

- Volume thresholds for business contracts (with list prices for business customers) can be relatively low at one hundred or more parcels per year. Individual contracts are available for senders with more than 1,000 parcels per year at bpost and PostNL. UPS has a special offer for small businesses.

Table 7: Classification of Belgian neighbour countries for cross-border deliveries

	Domestic	Zone 1	Zone 2	Zone 3
bpost		NL, DE, LU, FR		
Mondial Relay Pick-up point	LU	NL, FR		
Mondial Relay Home delivery		NL	DE, LU	
PostNL		NL	DE, LU, FR	
DPD		NL, LU	DE	FR
GLS		NL, DE	LU, FR	
UPS		NL, DE, LU, FR		

Source: WIK-Consult based on public price lists.

- All parcel operators apply zonal tariffs for cross-border parcel deliveries. Delivery to neighbouring countries is always cheaper than to more distant countries (within the EU) and to the rest of the world. The category 'Domestic' is the option with the lowest price per parcel, followed by countries classified as Zone 1, 2, and so on. Table 7 shows that the parcel operators categorise the deliveries to neighbouring countries differently indicating that for example sending a parcel from Belgium to France is most probably cheaper by Mondial Relay or PostNL than by DPD. The different price levels may reflect different levels of demand (volume) and/or delivery costs of partner operators in the countries of destination.

Postal operators have been investing in sorting and delivery capacities, increased accessibility, added new services, and improved digital solutions for Belgian consumers,

Belgian businesses, and international e-retailers since 2015. They improved their offers for small and medium-sized retailers and have developed technological solutions to facilitate the integration of the software systems of retailers and online marketplaces. The major parcel operators offer deliveries to pick-up points (parcel shops, post offices, and parcel locker stations) at noticeably lower prices than home delivery. Accessibility in terms of network density has significantly increased since 2015 and the operators aim to make deliveries to pick-up points more attractive through pricing, greater convenience of placement, availability timing, and notification of parcel availability at pick up points).

3.4 How are postal regulatory authorities coping with new market players?

In this section, we discuss the question of how postal regulatory authorities are coping with new market players, especially Amazon. For this reason, we describe the developments of Amazon's marketplace and delivery activities in Europe (Section 3.4.1).

In section 3.4.2, we analyse for five EU Member States how the regulatory authorities have coped with new players in the national parcel markets, especially with Amazon's in-house delivery activities. We selected four countries where Amazon does play a significant role as a parcel delivery service provider: Austria, Germany, Italy, and Spain. As the fifth country, we selected Sweden where new innovative players like Instabox and Budbee⁹⁹ have successfully entered the B2C delivery market. These new players target online retailers and platforms with sustainable delivery services (both, home delivery and delivery to parcel locker stations) but are not closely linked to an online marketplace (like Amazon).

3.4.1 The role of the vertically integrated online marketplace Amazon in Europe

There is an emerging group of new market players that are closely interlinked with e-commerce trading platforms. These are vertically integrated online marketplaces that not only facilitate the 'digital' side of online sales (including the payment and other support services like advertising) but also provide their marketplace sellers with the physical fulfilment and delivery of the online order. In this category, Amazon is by far the biggest and most developed player in core European e-commerce markets including France, Germany, Italy, Spain, and the United Kingdom. Other online marketplaces like Dutch Bol.com, cdiscount.fr, or Zalando are less developed than Amazon in their capabilities. They provide warehousing and e-commerce fulfilment services to their marketplace sellers but have not yet expanded much into last mile activities. Bol.com has recently made the first steps in this direction with the acquisition of the majority share of the Dutch delivery company Cycloon (to offer sustainable deliveries).¹⁰⁰ Zalando still relies on available carriers (traditional as well as new players) for parcel delivery and is testing in-house delivery capabilities at a local level in Germany.

⁹⁹ Budbee is active as niche player in the Belgian parcel market with home deliveries and deliveries to Budbee parcel locker stations (see section 3.2). Instabox is a growing player in the Dutch B2C delivery market. In 2021, Instabox has acquired the Dutch same day delivery company Red je Pakketje and has been rolling out parcel locker stations in cooperation with big local retailers in the Netherlands (see <https://postandparcel.info/138018/news/e-commerce/red-je-pakketje-becoming-part-of-instabox-will-help-us-achieve-dominance-in-the-netherlands/>). Instabox and Budbee have recently merged to "Instabee" (see Instabee (2022), Instabee has Landed – Budbee, Instabox Deal Closed, 31 October 2022, <https://instabee.com/wp-content/uploads/2022/10/flow-closing.pdf>). As of 10 November 2022, Instabox announced that it discontinued its operations in the Netherlands due to bankruptcy in the Dutch entities Instabox Netherlands B.V., Red je Pakketje B.V., and their subsidiaries (<https://news.instabox.io/posts/news/instabox-discontinues-its-operations-in-the-n>).

¹⁰⁰ See Ahold Delhaize (2022), Cycloon begins bicycle delivery of bol.com packages, brand story of 26 September 2022 (<https://www.aholddelhaize.com/news/cycloon-begins-bicycle-delivery-of-bol-com-packages/>).

The important position of the Amazon marketplaces requires a closer look at their activities in European countries. Table 8 shows the timeline of market entry in European e-commerce markets, the launch of Amazon's delivery operations, and Amazon's market share in the respective parcel markets.

Table 8: Amazon marketplaces in Europe and its delivery activities

	Marketplace launched in	# Fulfilment centres (2022)	Delivery launched in	# Delivery stations (2022)	Market share (2021)
UK	2002	46	2013	77	17% by volume
DE	2002	30	2015	67	5-15% by volume
FR	2003	11	2018	13	Not available
IT	2010	10	2016	36	15% by volume
ES	2011	16	2017	37	17% by revenue
AT	amazon.de	0	2018	4	12% by volume
NL	2020	0	2021	1	Not mentioned as parcel operator in the ACM Pakketmonitor
SE	2020	1		0	
PL	2021	9 (for AT&DE)		0	
BE	2022	0	2021	1	Not available

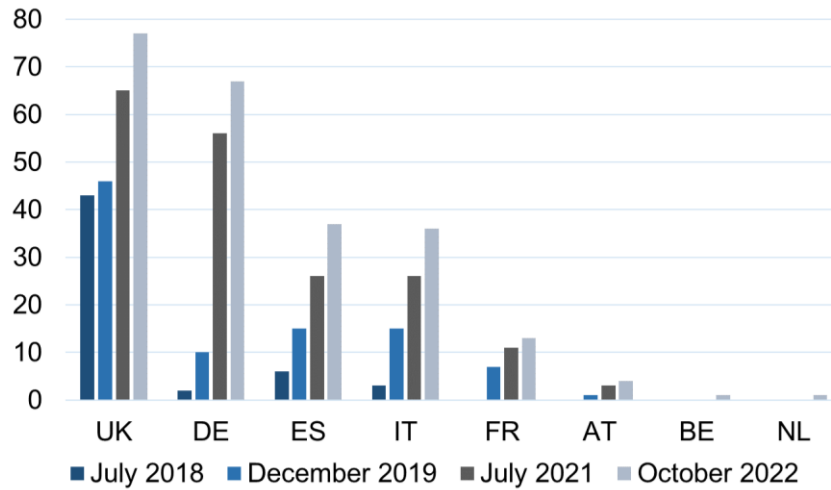
Sources: WIK Research including Pitney Bowes Shipping Index (2022), market studies of the national regulatory authorities ACM, AGCOM, BIPT, BNetzA, CNMC, PTS, RTR; Decisions of AGCOM and CMNC, interviews with AGCOM, BIPT, BNetzA, CNMC, PTS and RTR, and www.mwvpl.com/html/amazon_com.html (accessed in October 2022, the fulfilment centres are either managed by Amazon itself or by third parties on behalf of Amazon).

Table 8 shows the launch year of Amazon marketplaces of their delivery activities in Europe. The last column gives an indication of the market position of Amazon delivery services in the respective countries. Around 2000 Amazon started its sales and marketplace activities in the three biggest European countries by population, the United Kingdom, Germany, and France, all with long traditions in the catalogue and TV-based distance selling. The second wave of marketplace launches emerged around 2010 in the next biggest countries Italy and Spain. In these five countries, Amazon has now established significant market positions in the national e-commerce markets with fairly dense networks of Amazon fulfilment centres and supporting infrastructure. In Austria (served by amazon.de) delivery services were launched in late 2018. The latest available data indicate that Amazon delivery services reached significant market shares in these countries in 2021 (depending on the market definition).

The last wave of Amazon marketplace launches in Europe happened in 2020 in the Netherlands and Sweden, followed by Poland in 2021 and Belgium in October 2022. In the Netherlands and Belgium, Amazon opened one delivery station and has recently started delivery services in the biggest cities such as Amsterdam and Antwerp). After the start of amazon.com.be Amazon launched a special Prime offer to Belgian online buyers (who may have used Prime on Amazon.fr or Amazon.de) that is available for just € 2.99 per month or

€ 25 annually¹⁰¹ compared to € 6.99 respectively € 69.90 in France and € 5.99 respectively € 45 for Belgian online buyers on Amazon.de¹⁰².

Figure 13: Amazon's delivery stations by country



Source: WIK-Consult based on NRA interviews and www.mwvpl.com/html/amazon_com.html (accessed in July 2018, December 2019, July 2021, and October 2022).

Figure 13 illustrates the development of Amazon delivery services by the number of delivery stations between 2018 and 2022. It shows that during the COVID-19 driven e-commerce boom 2020-2021 Amazon increased the number of their delivery stations, especially in the UK, Germany, Spain, and Italy. In the Netherlands and Belgium, Amazon's activities are still in their early stage of development.

Concerning Amazon's delivery strategy, Belgium and the Netherlands are more comparable to Austria than to the big five European markets (UK, Germany, France, Italy, and Spain) because Amazon has only set up the delivery infrastructure but not any stock-handling fulfillment centres. These three smaller countries are – as of today – served by the fulfilment centres that are placed in Germany and France (for Belgium only). Experience shows that Amazon follows the volume when expanding its logistics network. Amazon started its delivery activities in the Netherlands and Belgium much earlier than in Austria (relative to the launch of the marketplace). Depending on the success of the Dutch and Belgian Amazon marketplaces additional delivery stations might be added in the next years (similar to the Austrian example). At this time, however, it does not appear very likely that Amazon will expand its delivery activities in these smaller countries to the same extent as in the four big countries (France is a special case). Amazon's extreme growth in logistics capacities in the last three years required significant financial investments. With the normalisation after the end of COVID-19 measures online sales have been decreasing resulting in (temporary) overcapacities. In combination with increasing cost of capital (interest rates), Amazon's shareholders are probably more reluctant to provide additional capital for further investments. Consequently, Amazon is reducing its investment activities and has even

¹⁰¹ Amazon (2022), Amazon.com.be launches in Belgium, press release of 18 October 2022 (<https://www.aboutamazon.eu/news/amazon-prime/amazon-com-be-launches-in-belgium>).

¹⁰² Amazon, The Amazon Prime Membership Fee (<https://www.amazon.de/-/en/gp/help/customer/display.html?nodeId=G34EUPKVMYFW8N2U>, accessed 11 November 2022). On amazon.fr Belgian online buyers are forwarded to the Prime offer on amazon.com.be.

stopped planned projects.¹⁰³ That said, we expect that the potential expansion of Amazon's delivery activities in Belgium may be slowed down.

There are indications of significant dependencies, especially for the universal service providers on Amazon's volume and/or revenues in their parcel business. The big national postal companies in their traditional role as universal service providers have established nationwide delivery networks for homes and businesses. They are therefore the natural first choice for Amazon as a B2C delivery partner in their target markets.

- In Italy, AGCOM's analysis revealed that in 2020 more than 50 % of Poste Italiane's B2C parcel revenues originated from Amazon delivery demand¹⁰⁴. Amazon's share in Poste Italiane's B2C parcel volume was most probably higher due to preferential pricing. The dependencies of other parcel operators' B2C business (e.g. DPD-owned BRT) on Amazon's revenues were much smaller.
- In Germany, the volume share of Amazon parcels appeared to be significant at the major B2C carriers, Deutsche Post DHL (18% by volume)¹⁰⁵ and Hermes, with estimates of 20 % (by revenue) in 2017 (at the beginning of Amazon's delivery activities).¹⁰⁶

There are no concrete market figures from other countries. However, it appears reasonable to state that in countries, where the Amazon marketplace has a significant share in total e-commerce sales Amazon also has an important stake in the parcel deliveries of operators.

3.4.2 The approaches of postal regulatory authorities

Historically, the postal regulatory framework¹⁰⁷ was designed to ensure the provision of letter services and some basic parcel services subject to the universal service obligation. Steadily declining demand for letter services and rapidly increasing demand for parcel services especially for parcels delivered to homes have shifted the attention from the letter post to the parcel markets. While the letter markets have been well understood and monitored the parcel markets had not generally been systematically monitored by the national regulatory authorities.

There have been high levels of dissatisfaction in European institutions with the perceived slow development of cross-border online trade, which is seen as a key pillar of the Digital Single Market. To support cross-border e-commerce in Europe, the European Commission initiated the development of Regulation (EU) 2018/644 on cross-border parcel delivery services (hereafter EU Cross-border Parcel Regulation) with the publication of a Green

¹⁰³ See Amazon.com (2022), Amazon.com announces third quarter results, 27 October 2022.

¹⁰⁴ AGCOM (2022), Delibera N.94/22/CONS, Figura 9, p. 32.

¹⁰⁵ Handelsblatt (2018), So abhängig ist die Post von Amazon, 24 June 2018, Article written by Christoph Schlautmann (<https://www.handelsblatt.com/unternehmen/dienstleister/paketgeschaeft-so-abhaengig-ist-die-post-von-amazon/22724300.html?ticket=ST-4345970-P7WnXnsHFT2bebf7Mrro-ap6>).

¹⁰⁶ Deutsche Verkehrszeitung (2018), Kay Schiebur: „Hermes wird auf der letzten Meile kooperieren und die Preise anheben“, 16 July 2018.

¹⁰⁷ The postal regulatory framework basically consists of the EU Postal Services Directive, rules laid down by the Universal Postal Union to regulate international postal services, and the national postal regulatory framework that transposes the requirements of the EU Postal Services Directive and sets more specific rules on the scope, the safeguarding and the regulation of the universal postal service (with specific requirements for the universal service provider, e.g. bpost in Belgium) as well as rules for postal services and postal operators generally in the respective EU Member States.

Paper on the integrated parcel delivery market in the EU in 2012. The EU Parcel Regulation entered into force on 22 May 2018.¹⁰⁸

The EU Cross-border Parcel Regulation intends to improve the functioning of cross-border delivery for shipments containing goods by increasing the transparency on volumes, turnover, and prices for cross-border parcel delivery services. This will support businesses (especially online traders) and consumers in having better information on existing (cross-border) delivery options and prices. To this end, the EU Cross-border Parcel Regulation provides for far-reaching reporting obligations of all 'parcel delivery service providers' (PDSP) to the national regulatory authorities of the Member States. These reporting obligations apply to all providers who are above a threshold of 50 permanent employees (optionally 25) and who offer cross-border services. To enforce the regular information obligations the EU Cross-border Parcel Regulation requires the registration of enterprises falling within the scope of the Regulation (Article 4).

Table 9 summarises for each of the considered countries including Belgium how the postal regulatory authorities deal with parcel operators in their countries. This also includes new players in the national parcel markets.

- Enterprises that provide postal services are subject to regulatory requirements that vary among EU Member States. There are two major legal sources for the competencies of regulatory authorities in the postal sector. The national postal regulatory framework, sometimes in combination with the statute that establishes the regulatory authority (e.g. for BIPT the 'loi du 17 janvier 2003 relative au statut du régulateur des secteurs des postes et des télécommunications belges') and the EU Cross-border Parcel Regulation.
- The EU Cross-border Parcel Regulation has been an important tool for all national regulatory authorities to have a closer look at the developments in the parcel market. Regulatory authorities confirm that the Regulation helped to enforce the collection of parcel data from parcel delivery service providers (PDSPs). According to the EU Cross-border Parcel Regulation, all companies that provide services in connection with the collection, sorting, transport, or delivery of cross-border parcels with a maximum weight of 31.5 kg are subject to this obligation.
- Definition of postal services: all regulatory authorities applied the same definition in the sense that one core activity (excl. transport) is sufficient (collection, sorting or delivery) to be qualified as PDSP (according to Recital (17)) of the EU Cross-border Parcel Regulation, derived from existing case law / Confetra case) independently whether the service is considered as standard or express service. In Belgium, courier services are also considered postal services.
- Regulatory authorities apply different models of how to deal with new players in the national parcel market (depending on the available tools in the national regulatory frameworks in combination with the requirements of the CBPR). The most common approaches are either a notification or a general authorisation / licence.
- In contrast to the general authorisation, the notification does not necessarily imply that postal operators have to comply with essential requirements. Nonetheless, notified postal operators are subject to obligations related to the provision of data and user protection and, if classified as PDSP, subject to the obligations defined in the EU Cross-border Parcel Regulation.
- Regarding the working conditions in the parcel market, postal regulators may play a role (as the Spanish and the Italian examples show) in the context of the compliance check

108 Regulation (EU) 2018/644 of the European Parliament and of the Council of 18 April 2018 on cross-border parcel delivery services (<https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX%3A32018R0644>).

with essential requirements as element of the notification procedure for obtaining an authorisation or a licence.

Table 9: Overview of regulatory measures in place to deal with new players in the parcel market

	Belgium	Austria	Germany	Italy	Spain	Sweden
Notification / authorisation of the PDSP	'Light' Notification (launched in 2018 to comply with EU Cross-border Parcel Regulation)	Notification (adapted to comply with EU Cross-border Parcel Regulation)	Notification (adapted to comply with EU Cross-border Parcel Regulation)	General authorisation	General authorisation (Ministry of Transport is responsible for the registration procedure)	Notification (launched to comply with EU Cross-border Parcel Regulation and for market observation)
Definition PDSP	Parcel, express and courier service providers (clearance OR sorting OR distribution) PUDOs and delivery subcontractors are not PDSPs Parcels up to 31.5 kg (EU Cross-border Parcel Regulation)	Parcel and express service providers (clearance OR sorting OR distribution) PUDOs are not considered as PDSPs Delivery subcontractors considered as PDSP (but not actively tracked by RTR) Parcels up to 31.5 kg (EU Cross-border Parcel Regulation)	Parcel and express service providers (clearance OR sorting OR transport OR distribution) PUDOs and delivery subcontractors are considered as PDSP Parcels up to 31.5 kg (EU Cross-border Parcel Regulation)	Parcel and express service providers (clearance OR sorting OR distribution) PUDOs are not considered as PDSPs Delivery subcontractors are considered as PDSP Parcels up to 31.5 kg (EU Cross-border Parcel Regulation)	Parcel and express service providers (clearance OR sorting OR distribution) PUDOs are not considered as PDSPs Delivery subcontractors considered as PDSP Parcels up to 31.5 kg (EU Cross-border Parcel Regulation)	Parcel and express service providers (clearance OR sorting OR distribution) Delivery subcontractors considered as PDSPs (but not actively tracked by PTS) PUDOs are not considered as PDSPs Parcels up to 31.5 kg (EU Cross-border Parcel Regulation)
Essential requirements	Art. 3 §1er, 1 requires compliance with essential requirements by PDSPs Art. 3 §2 requires that PDSPs shall ensure that their subcontractors comply with essential requirements	Essential requirements are not applicable to PDSPs	Essential requirements are not applicable to PDSPs	(Article 11, Delibera 129/15 CONS) In Italian law and regulation, compliance with labour collective agreements is necessary to obtain the authorisation as postal operator (among others)	Article 40(2) Spanish Postal Act It includes aspects like confidentiality, data protection, safety, environmental protection, and working conditions	Essential requirements are not applicable to PDSPs

	Belgium	Austria	Germany	Italy	Spain	Sweden
Compliance check with essential requirements by Ministry/NRA?	Only if evidence of breaches of the essential requirements Labour conditions at sub-contractors are monitored by social inspection	Not applicable	Not applicable	Yes, by affidavit Plus: reference to a national collective labour agreement in force in the postal sector	Yes, by affidavit	Not applicable
Obligations	Comply with essential requirements Postal operators have to ensure that subcontractors comply with the essential requirements Launch a complaints and redress system	Contribution to funding the NRA User protection Launch a complaints and redress system Cooperate in arbitration procedures Provide data (defined by Post-Erhebungs-Verordnung)	Ensure confidentiality and data protection Notify changes in business activities Cooperate in arbitration procedures	Contribution to funding the NRA Comply with essential requirements Notify changes in business activities User protection (service charter, visibility) Provide complaints statistics	Comply with essential requirements Postal operators have to ensure that subcontractors comply with the essential requirements (see 2020 CNMC decision)	Comply with rules as defined in the EU Cross-border Parcel regulation Contribution to fund data collection efforts of PTS (in the context of the EU Cross-border Parcel Regulation)

	Belgium	Austria	Germany	Italy	Spain	Sweden
Additional measures in place to ensure good working conditions in the parcel sector apart from horizontal rules	Planned amendments in the Belgian Postal Law	Not in place	Not addressed by the postal legislation Paketboten-Schutz-Gesetz (Part of the Sozialgesetzbuch, amended on 15 November 2019) Law to introduce the liability of principals in the CEP sector that their subcontractors comply with social security payment rules. By presenting a clearance certificate, parcel operators can be exempted from the liability.	By Law: Provision of a collective labour agreement More detailed requirements defined by AGCOM decision in 2022 (Delibera N. 94/22/CONS, based on the analysis of the Italian parcel market): Parcel operators with more than 50 employees and revenues of more than 10m Euro <ul style="list-style-type: none"> • Contracts with direct subcontractors • Statement of compliance with working conditions • Standard contracts with employees of various categories Decision is appealed at court	By Law: Declaration that the company complies with horizontally legal requirements (including labour legislation)	Not in place
Data provision of PDSP required by postal law?	No BIPT has the competence to collect data from PDSP defined by statutory BIPT law	Yes further defined in the Post-Erhebungs-Verordnung	Yes	Yes	Yes	Yes (for postal service operators as defined in the Swedish Postal Act) PSDPs have to provide data to PTS based on the EU Cross-border Parcel Regulation
Sanctions in case of non-compliance	Yes, but never applied	Yes, but rarely applied	Yes (and applied, see BNetzA activity reports)	Yes	Yes, some sanctions already applied to operators providing postal services without affidavit	Yes, but never applied (no breaches)

	Belgium	Austria	Germany	Italy	Spain	Sweden
Notification / authorisation of Amazon subsidiaries	Not applicable	2018 A. Transport GmbH	2016 A. Transport GmbH	2018 (enforced by AGCOM decision) A. Italia Logistica S.r.l. A. Italia Transport S.r.l. A. Italia Service S.r.l	2020 (enforced by CNMC decision) A. Spain Fulfillment S.L. A. Road Transport Spain S.L.	A. has not yet launched delivery operations in Sweden

Sources: Interviews with the national regulatory authorities BIPT (Belgium), RTR (Austria), BNetzA (Germany), AGCOM (Italy), CNMC (Spain), and PTS (Sweden) and relevant national postal legislation and decisions.

Notes: PDSP – Parcel Delivery Service Provider (as defined in the EU Cross-border Parcel Regulation)

- In Germany and Austria, the regulatory authorities (BNetzA and RTR) reported that the respective Amazon subsidiaries were notified as postal operators shortly after they started their delivery operations. In all countries, Amazon has taken care that their delivery service providers comply with the national and sector-specific rules regarding the general authorisation or the notification of the services at the national regulatory authority or the responsible Ministry (in Spain).
- In Italy and Spain, the regulatory authorities (AGCOM and CNMC) enforced by decisions (in 2018 and 2020) that Amazon subsidiaries had to be classified as postal service delivery providers and therefore had to apply for a general authorisation.

In Italy, Amazon was the subject of a competition case decided on 30 November 2021.¹⁰⁹ The proceedings in Italy are of particular interest because the transfer of market power from Amazon's B2C e-commerce platform to the market for fulfilment and delivery services was examined in detail (among others). This abuse of market power resulted in a systematic disadvantage for marketplace sellers who did not participate in Amazon's fulfilment programme (Fulfilled by Amazon, FBA), but wanted to gain access to Prime members (and the buy box) for certain products via the programme Seller Fulfilled Prime (SFP). In these elaborate proceedings, initiated on 10 April 2019, the Italian competition authority AGCM demonstrated Amazon's dominant position in the Italian market for online marketplace services. AGCM estimated that, based on the analysis of the parcel market performed by the Italian postal regulator AGCOM, Amazon delivered between 150 and 250 million B2C parcels itself or through third parties in 2019.¹¹⁰ This volume accounted for around 60 to 70% of total e-commerce parcels in Italy.¹¹¹ AGCOM's analysis of the Italian parcel market for the years 2016 to 2020 also showed a high dependency of parcel operators on Amazon volume, especially for the universal service provider Poste Italiane (more than half of its revenue from the delivery of national B2C parcels was attributable to the delivery of Amazon shipments).¹¹² Following the analysis of the Italian parcel market AGCOM stated that Amazon has a dominant position in the market for domestic B2C parcels ("e-commerce parcels"). In 2020, Amazon delivery services have achieved a market share of 36% (in terms of revenue) since 2016.¹¹³ In the final decision, AGCOM imposed transparency obligations on all major providers of parcel delivery services regarding the provision of average prices for specific customer groups (by size) and regarding the working conditions.

109 See Autorità Garante della Concorrenza e del Mercato (AGCM) (2021), Sanzione di oltre 1 miliardo e 128 milioni di euro ad Amazon per abuso di posizione dominante, decision of 30 November 2021 (<https://www.agcm.it/media/comunicati-stampa/2021/12/A528-chiusura> and https://www.agcm.it/dotcmsdoc/allegati-news/A528_chiusura%20istruttoria.pdf, accessed October 2022).

110 Ibid., para. 728.

111 Ibid., para. 202. The text mentions a figure of 150 to 200 million parcels, but the chart shows that a total of 150 to 250 million parcels are sent via Amazon. This second range corresponds more to the share of 60-70% of all B2C e-commerce packages.

112 Autorità per le Garanzie nelle Comunicazioni (AGCOM) (2022), Delibera N. 94/22/CONS, Obblighi regolamentari nel mercato dei servizi di consegna dei pacchi, Decision of 31 March 2022, para. 72 and Figure 9.

113 Ibid., Figure 5 and para. 46.

3.4.3 Lessons learnt for Belgium

In Belgium, bpost stated that nearly 20% of their parcel volume came from Amazon in 2021.¹¹⁴ Generally, Belgian postal operators with a dedicated business focus on B2C deliveries report higher volume shares of their TOP 5 customers.¹¹⁵ This reflects the typically high level of demand concentration in the B2C e-commerce sector with a low number of very big players (like bol.com, Amazon, and Zalando) and a large number of small and medium-sized retailers.

We consider Amazon is currently not a specific threat in the Belgian parcel market (like AGCOM considered for the Italian parcel market) for the following reasons.

Firstly, the current economic situation and the financial pressure on Amazon are impacting its investment strategy and are likely to delay expansion in smaller European markets such as Belgium.

Secondly, in Belgium Amazon does not operate a stock-handling fulfilment centre in the immediate future which may limit its growth opportunities in local deliveries.¹¹⁶

Thirdly, we expect that the potential share of Amazon's delivery services in the Belgian market (by volume) may develop at a slower or similar pace as in Austria with a maximum volume share between 10 to 15% in the coming years.

Fourthly, the special structure of the Belgian e-commerce market with two competing online marketplaces, Bol.com in the Dutch-speaking regions and Amazon with a more important stake in the French-speaking regions implies that the dependency of Belgian parcel operators on Amazon parcels is, overall, less significant than in Italy.

Finally, at this point in time, it is not yet clear what impact Amazon's self-commitment will have on its investment decisions in Belgium and the European Union.¹¹⁷ This commitment, which takes the remedies as defined in the decision of the Italian competition authority into account, has been made mandatory (with some changes) by the decision of the European Commission published on 20 December 2022¹¹⁸. If it is strictly implemented and closely monitored the Prime label may become more attractive for independent marketplace sellers (including potential Belgian ones) and their fulfilment and delivery partners. Belgian parcel operators have the opportunity to support these e-retailers to become eligible for the Prime label and thus help promote Belgian e-commerce sales.

¹¹⁴ bpost (2022), Interim Financial Report, Fourth quarter 2021, 25 February 2022, Conference call transcript, p. 18.

¹¹⁵ Based on responses of Belgian parcel operators.

¹¹⁶ Amazon has established fulfilment centres in France and Germany not far from the Belgian frontier to serve not only the French and the German markets but also the Belgian and the Dutch markets. So far, Amazon has not considered establishing a fulfilment centre in Belgium despite of the demand of Belgian online buyers. Amazon follows the same strategy in the Austrian market that is still served by Amazon's German and Polish fulfilment centres.

¹¹⁷ "To address the Prime concerns Amazon proposed to commit to (1) set non-discriminatory conditions and criteria for the qualification of marketplace sellers and offers to Prime; (2) allow Prime sellers to freely choose any carrier for their logistics and delivery services and negotiate terms directly with the carrier of their choice; (3) not use any information obtained through Prime about the terms and performance of third-party carriers, for its own logistics services." European Commission (2022), Antitrust: Commission accepts commitments by Amazon barring it from using marketplace seller data, and ensuring equal access to Buy Box and Prime, press release of 20 December 2022 (https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7777, accessed on 21 December 2022).

¹¹⁸ Achieving the eligibility for the Prime label independently from FBA may become easier (and fairer) after the decision of the European Commission to accept commitments by Amazon barring it from using marketplace seller data, and ensuring equal access to Buy Box and Prime, press release of 20 December 2022 (https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7777).

We see a specific role for postal regulatory authorities as institutions with postal expertise in the close monitoring of the developments in the national parcel markets after the entry of new e-commerce-driven players and platforms. The Italian example showed that the postal expertise of the regulatory authority was an essential input for the competition authority when dealing with abuse of market power in the context of a vertically integrated online platform. Applied in Belgium this means that BIPT needs a more clearly defined competence in collecting market data (including guidance on which data to collect) than currently applied. In Belgium, the draft law under discussion foresees the establishment of such a notification procedure with a compliance check for parcel delivery service providers including subcontractors.¹¹⁹

3.5 Employment and labour conditions

3.5.1 Employment developments in the Belgian parcel market

Between 2019 and 2021, the number of people directly and permanently employed by the postal operators increased (by headcount and by full-time equivalents) with bpost as in the past being the most important employer in the postal sector (including the provision of letters and parcel services).¹²⁰ Employment growth has been driven by the volume growth in the parcel sector and has accelerated since 2019. Between 2019 and 2021 the number of employees increased by 7.3% to 34,011 (by headcount) and 5.6% to 28,293 (by full-time equivalents). BIPT has highlighted that the number of temporary employees and workers employed at sub-contractors or self-employed persons have also increased and reached around 3,150 and 6,900 respectively.¹²¹

The significant number of temporary workers highlights a specific challenge for parcel operators resulting from growing e-commerce parcels. E-commerce purchases are not equally distributed over the year. There are phases of peak demand linked to special sales periods (e.g. the 'Black week') and holidays (e.g. Christmas and Easter) and the volume of returns after each. Parcel operators have had to become much more flexible in their capacity planning because the provision of parcel services is a cyclical and labour-intensive process particularly for sorting and operating the last mile. This has led parcel operators and their subcontractors to increasingly employ temporary workers.

All postal operators make use of subcontractors for the delivery of parcels, however to a different extent. According to the figures of BIPT, there are 6,900 self-employed subcontractors in the postal sector in 2021. The competitive structure of the Belgian parcel market in combination with a high level of demand concentration in the B2C segment puts pressure on all market players to increase efficiency and rigorously manage their input costs. This pressure impacts parcel deliverers and allegedly negatively influences the working conditions for parcel deliverers in Belgium. This led the public prosecutor of Antwerp to open cases in 2021 and 2022 relating to the employment conditions in two large parcel operators active in Belgium. At the time of drafting, these cases were still pending in front of the criminal court of Antwerp.¹²² According to the Conseil Supérieur des Indépendants et des PME (CSIPME) the share of suspected cases in total companies

¹¹⁹ See Section 3.5.2 for more details on the draft law.

¹²⁰ BIPT (2022), Communication du Conseil de l'IBPT du 19 décembre 2022 concernant l'observatoire du marché des activités postales en Belgique pour 2021, Figure 42.

¹²¹ Ibid., para (123).

¹²² See among others Janne Poets, Voor 16h besteld, morgen geleverd. De sociale fraude krijgt u er gratis bij, 19/10/2022 available at: <https://www.jubel.be/openingsrede-limburg-voor-16h-besteld-morgen-geleverd-de-sociale-fraude-krijgt-u-er-gratis-bij/> and Nieuwsblad, Toplui koerierdienststen PostNL en GLS voor de rechter, 2 September 2022 available at https://www.nieuwsblad.be/cnt/dmf20220901_95941677.

controlled by social inspectors in the parcel sector has decreased from one third in 2021 to 27 percent in 2022.¹²³

3.5.2 The draft law to improve working conditions in parcel delivery

In Belgium, Deputy Prime Minister and Minister of Postal Services Petra De Sutter launched a legislative initiative to improve working conditions for parcel deliverers. The first draft was the subject of a public consultation launched by BIPT on behalf of the Minister on 11 March 2022. The proposal would have required parcel operators above a certain size to gradually increase the proportion of directly employed parcel delivery staff.¹²⁴

Following discussions on this first draft, the Minister decided to regulate the working and pay conditions of parcel delivery personnel irrespective of whether they are employed by a main parcel operator, a subcontractor, or self-employed. The Minister asked Wouter Verheyen, Professor of Labour and Transport Law at the University of Antwerp, to develop an alternative approach with the aim achieving a “social level playing field” between employed (whether employed by the main parcel operator or a subcontractor) and self-employed parcel deliverers. Based on a gap analysis of existing transport and postal legislation (at Belgian and EU level) Verheyen concluded that the existing legislation was not appropriate to address the specific challenges related to working conditions in the B2C parcel delivery segment. Based on an economic analysis the study recommended a minimum payment per hour rather than a minimum payment per parcel.¹²⁵

The general principles of the draft legislation as of October 2022 were:¹²⁶

- Strengthen reporting obligations, to increase transparency and effective enforcement.
- Ensure fair compensation levels of subcontractors by introducing a minimum hourly rate.
- Implement time recording measures for all delivery drivers to limit long working hours.
- Implement preventive measures to improve the well-being of delivery drivers and road safety.

The Minister asked the National Labour Council (“Conseil national du Travail” (CNT/NAR)) to give its opinion based on the general principles of the updated draft law in Autumn 2022. The CNT decided to issue a joint opinion with the Central Council of the Economy (CCE/CRB), but declined to take a position as the text of the draft law had at the time not

¹²³ Conseil Supérieur des Indépendants et des PME, Avis sur l’avant-projet de loi modifiant la loi du 26 Janvier 2018 relative aux services postaux en vue d’améliorer les conditions de travail des livreurs de colis (Avis 897.2023), 24 April 2023, available at https://www.hrzkmo.fgov.be/files/ugd/dbba60_068a3dee7ed8481ca84ccdac729506de.pdf. The shares are based on statistics of the Service d’Information et de Recherche Sociale (SIRS).

¹²⁴ BIPT, Raadpleging op verzoek van de minister van Post betreffende een voorontwerp van wet tot wijziging van artikel 5 van de wet van 26 januari 2018 betreffende de postdiensten om te voorzien in een percentage werknemers in loondienst in de sector van de pakketbezorging in België, published 11 March 2022.

¹²⁵ This paragraph is based on an interview with Wouter Verheyen, Professor of Labour and Transport Law at the University of Antwerp, conducted on 24 April 2023. Verheyen and his team carried out a legal and an economic analysis on behalf of the minister in order to develop an alternative approach. This analysis is not publicly available and could thus not be taken into account by WIK-Consult.

¹²⁶ CCE/CRB, Conditions de concurrence équitables dans le secteur de la livraison de colis – Avant-projet de loi modifiant la loi du 26 janvier 2018 relative aux services postaux, CCE 2022-2600/CNT avis 2.321, 25 October 2022, p. 2.

been made available to them.¹²⁷ In addition, they recalled that there was existing horizontal legislation to combat social and fiscal fraud, but that the requirements of the existing legislation were generally not sufficiently controlled.

In the meantime, the Minister has completely revised the draft law in line with the recommendations of the above mentioned study. This revised bill was not subject to a public consultation and was approved by the Cabinet (Council of Ministers) on 20 January 2023.¹²⁸ After the internal consultation procedure that draft laws must go through, the final version was publicly available after the notification of the draft to the European Commission on 20 April 2023.¹²⁹

The draft law is based on the assumption that parcel deliverers whether employed or self-employed are at risk of being exploited by their principals and/or employers and stricter supervision and controls are needed to remedy this abuse. The bill aims to improve the working and safety conditions of parcel deliverers in Belgium and to combat the use of undeclared work and social as well as tax fraud.¹³⁰

The key elements of this final draft are:

- Parcel delivery service providers are responsible for ensuring that their direct subcontractors comply with the essential requirements. (Article 3 of the bill)
- A digital platform shall be set up to facilitate, manage, monitor and enable all tasks and requirements that are necessary to improve the working conditions of parcel deliverers. This platform shall be developed and maintained by the Office National de Sécurité sociale (ONSS) that is also responsible for the maintenance of the Dimona system. (Article 5 of the bill).
- Parcel delivery service providers and direct subcontractors are obliged to appoint a “coordinator” who informs parcel deliverers of their rights and obligations and is responsible to set up a vigilance plan, to identify potential risks of infringements of this draft law and of labour and social security law and, where appropriate, to remedy them. (Article 6 of the bill)
- Parcel delivery service providers and subcontractors are obliged to record the daily parcel delivery times of employed and self-employed parcel deliverers performing parcel delivery services in Belgium. The recorded delivery times shall automatically be transferred to the digital platform of ONSS. (Articles 7 and 8 of the bill, valid before and after 1 April 2025)
- The law defines the maximum delivery time per day and per week for parcel deliverers following the rules on maximum driving times in the transport sector. (Article 9 of the bill)
- A notification system shall be introduced that is binding for all parcel delivery service providers that deliver parcels within Belgium. This system shall be managed by the postal regulatory authority BIPT (via the digital platform introduced in Article 3 of the

¹²⁷ Opinion CCE 2022-2600 of 25 October 2022, available on: <https://www.ccecrb.fgov.be/p/fr/1024/des-conditions-de-concurrence-equitables-dans-le-secteur-de-la-livraison-de-colis>.

¹²⁸ Petra de Sutter, “De Sutter haar voorontwerp van wet is klaar: ‘geen oververmoeide en onderbetaalde pakjeskoeriers meer’”, press release of 25 January 2023 (<https://desutter.belgium.be/nl/de-sutter-haar-voorontwerp-van-wet-klaar-%E2%80%98geen-oververmoeide-en-onderbetaalde-pakjeskoeriers-meer%E2%80%99>).

¹²⁹ See https://ec.europa.eu/growth/tools-databases/tris/en/search/?trisaction=search_detail&year=2023&num=206.

¹³⁰ The objectives of the bill are not clearly expressed. Article 5/3 § 2 of the Postal Law (outlined in Art. 7 of the bill): “L’enregistrement du temps a pour finalité de lutter contre le recours au travail non déclaré, de lutter contre la fraude sociale et d’améliorer les conditions de travail et la sécurité routière des livreurs de colis.”

bill). BIPT shall draw up a list of all companies providing parcel delivery services in Belgium and comply with the legal obligations. (Article 11 of the bill)

- Parcel delivery service providers are obliged to provide BIPT with half-yearly data on the direct subcontractors and/or principals (if applicable) and the number of parcels delivered by and the compensation paid as well as parcel delivered by each subcontractor. (Article 12 of the bill)
- Parcel delivery service providers have to pay a notification fee to BIPT. (Article 13 of the bill)
- A minimum compensation for subcontractors shall be introduced consisting of a minimum hourly wage for parcel deliverers (following the agreement of the Comité Paritaire 140.03) multiplied by the employer's charge. (Article 14 of the bill)
- The BIPT shall draw up an annual report on the implementation for the Minister. (Article 15 of the bill)

The new rules in the bill apply to all parcel delivery service providers which can be either the contractors (“donneur d’ordre”) as well as those acting as a subcontractor on behalf of another parcel delivery service provider (main operator or subcontractor), regardless of their size and other activities they may carry out, e.g. collection services or transport of goods over 31.5 kg (freight forwarders). The only exception is the self-provision of parcel delivery services (e.g. by retailers).

3.5.3 WIK discussion of the draft law and recommendations

The BIPT Council asked WIK-Consult in mid-April 2023 to discuss the potential economic impact of the draft law on the Belgian parcel market. Our discussion is based on the wording of the draft law as notified to the European Commission on 20 April 2023. Neither the explanatory memorandum nor the draft decrees that will clarify the details of implementation were publicly available (as of 30 April 2023). To obtain a reasonably complete list of arguments, we used the following publicly available material supplemented by interviews with parcel operators (bpost, PostNL and UPS) and academics (Roel Gevaers and Wouter Verheyen), as well as the opinions on the draft published by the ‘Hoge Raad voor de Zelfstandigen en de KMO’ (hereafter “High Council”) of 24 April 2023 and of the Management Committee from the INASTI of 13 March 2023¹³¹.

3.5.3.1 General comments

The proposed amendments to the Belgian Postal Law seek a far-reaching transformation from a light regulatory approach in the Belgian parcel sector to an approach that strictly regulates and closely monitors parcel delivery service providers including subcontractors in order to improve working conditions and combat social fraud in parcel delivery. In general (and for all sectors), compliance with labour and social security legislation has been checked through targeted audits by social inspectors. Under the draft law, all parcel delivery service providers, regardless of their size, will have to report delivery times and remuneration in a systematic way to prove that they comply with the rules on maximum delivery times and minimum compensation for the provision of parcel delivery services. In other words, the system, that will be put in place by the draft law, implies a general presumption of fraud by all parcel delivery service providers.

The draft law will apply to all parcel delivery service providers in the context of parcel delivery (neither collection, sorting, delivery preparation, nor line-haul transport or the

¹³¹ Available at: https://www.inasti.be/sites/rsvz/files/2023-03/algemeen_beheerscomite_advies_202303.pdf.

delivery of items that are different from parcels would be subject to these rules). Nonetheless, according to the High Council, the draft law is not based on a thorough empirical assessment which demonstrates that the fraud is significantly higher in parcel delivery than in other activities and sectors¹³² and a discussion of alternative approaches¹³³ that may also be appropriate to achieve the overall policy objective.

Despite such criticisms, neither a detailed impact assessment nor a discussion of alternative approaches to achieve the overall objective have been carried out on the last version of the draft law as far as we know.¹³⁴ Such an analysis is also missing with regard to the actual extent and nature of the subcontracting practices in parcel delivery (e.g. size structure of subcontractors, differences in the subcontracting practices between B2B and B2C delivery services or between time-definite/express and day-definite/standard delivery services). As margins are much lower in B2C e-commerce deliveries social fraud and difficult working conditions are more likely to occur in B2C delivery than in higher-margin delivery segments (like B2B deliveries, courier and express services).

Finally, some stakeholders claim that the introduction of sector-specific rules that strictly regulate the conditions and internal practices for a specific activity (the delivery of parcels) could lead to distortions between parcel delivery service providers established in Belgium and in neighbouring countries as well as within Belgium.

First, the new rules significantly change the regulatory framework and have the potential to change the shape of the Belgian parcel sector, as existing business models and potential market entry could be affected. There is a risk of distortions to the detriment of the Belgian parcel operators if the new rules cannot be enforced against foreign players. The European Commission may indeed challenge the enforcement of the new obligations as regards deliverers not established in Belgium on the same grounds as it challenged Articles 137(8), 138, third indent, 153 and 157(3) of the Programme Law (I) of 27 December 2006 by imposing a prior declaration requirement on self-employed service providers established in Member States other than Belgium in respect of their activity in Belgium. The Court of Justice eventually confirmed that, in doing so, Belgium had failed to fulfil its obligations under Article 56 TFEU¹³⁵.

Second, the classification being a parcel delivery service provider is closely linked to the definitions of 'postal item', which requires the item to be addressed, and 'parcel', which is essentially defined by the content and the weight (postal items containing goods with or without commercial value weighing up to 31.5 kg).¹³⁶ We understand that, parcels are "addressed" even if no address is written down on the parcel itself, e.g. when accompanied by freight letters or bearing only a bar-code enabling the deliverer to make sure which parcel to deliver at which address. In practice, any parcel below the weight limit is covered and transport companies are classified as parcel services providers (except in the case of self-delivery), even if they occasionally deliver goods of a weight below the limit (the same would

¹³² According to the High Council "In de [Sociale Inlichtingen- en Opsporingsdienst] cijfers van 2022 staat de sector van de pakketbezorging niet in de top 15 van sectoren met de meeste inbreuken. Het aantal positieve controles is gedaald van 33% in 2021 naar 27% in 2022." (p.3).

¹³³ According to the High Council: "Al sinds het Plan Eerlijke Concurrentie (PEC) van 2016 vragen de sociale partners gezamenlijk (...) om betere en gerichte controles (zeker ook op voertuigen van minder dan 3,5 ton die bij uitstek gebruikt worden voor pakketbezorging) en om een verdere professionalisering van de sector door de invoering van een transportvergunning ongeacht het nuttig laadvermogen van het gebruikte voertuig. Een aantal van de in dat PEC afgesproken zaken, werden gewoonweg nog niet uitgevoerd. De bestaande wetgeving beperkt bovendien de mogelijkheden om bepaalde controles (bijv. nazicht Dimona-aangiftes, identiteitscontroles) structureel uit te voeren" (p.4).

¹³⁴ BIPT conducted a (high-level) assessment on a preliminary version of the draft law in the first quarter of 2022.

¹³⁵ Judgment of 19 December 2012, Case C-577/10, EU:C:2012:814 available at: <https://curia.europa.eu/juris/document/document.jsf?jsessionid=920FBAD18EAE9BA0634E4F39894F0DC?text=&docid=131980&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=1706683>.

¹³⁶ Article 2 (definitions) of the bill.

apply to their direct subcontractors). These transport companies, where parcel delivery is only a small part of the business, and small and micro businesses (in their role as direct subcontractors) will be just as affected as large parcel operators and will have to choose either no longer delivering goods below the weight limit or to register as parcel delivery service provider. Potential entry and competition could therefore be reduced in the parcel delivery sector as such, which could affect the growth opportunities of e-commerce in Belgium.

These distortions are all the more significant the more costly the measures are for parcel delivery service providers in terms of administrative and operational costs.

Effectiveness to improve working conditions of parcel deliverers

As regards the objective of improving working conditions for parcel delivery workers, stakeholders argue that the proposed measures would not be sufficient to ensure improved working conditions in practice. The timekeeping records for each individual delivery driver relate only to the time spent delivering parcels and not to working time. The allowed parcel delivery time of up to 9 hours per day does not preclude a working time of more than 10-11 hours per day if the deliverer also performs other tasks such as collection or sorting. However, the concept of parcel delivery time does not seem to be sufficient to avoid long working days for parcel deliverers in practice.

Proportionality of the new rules to the objective of combating social and fiscal fraud

As regards the objective to combat social and fiscal fraud, stakeholders argued that rules to fight fraudulent behaviour were already in place but were not sufficiently enforced. One of the reasons for insufficient enforcement is the lack of social inspectors to monitor compliance. Stakeholders, such as the High Council, claim that the fraudulent behaviour in the parcel sector could be reduced by better enforcement of existing rules.¹³⁷ The High Council argues that the rate of infringements of the existing rules has already fallen in 2022 compared to the previous year, without any tightening of the rules. These improvements were achieved as a result of the controls carried out in 2021 and 2022, suggesting that stricter controls and media reports (transparency) could have a positive impact on the behaviour of parcel operators and on working conditions in the sector. Parcel operators also stated in interviews that they have changed their employment and subcontracting policies and are phasing out existing contracts for self-employed parcel deliverers.

Wouter Verheyen, on the other hand, argued that the new approach would be more effective than the existing ones firstly because it would avoid long court battles over vaguely defined legal concepts.¹³⁸ Secondly, the new digital system would be more efficient in detecting fraud because the relevant data would be readily available and social inspectors would be able to regularly check the compliance of parcel service providers and subcontractors with the new rules as well as with existing rules (e.g. payment of social security contributions) in a shorter period of time. This is a strong argument, but it does not demonstrate the proportionality of imposing this digital control system combined with time recording only on parcel delivery, when other, less intrusive and costly means are used in other sectors facing similar challenges. It is difficult to understand why the envisaged requirements would be indispensable only in the parcel delivery services to ensure compliance with social and fiscal obligations and not in other activities. In addition, some stakeholders consider that a less costly system such as that applied in the Netherlands under the Act on the Combating

¹³⁷ See Conseil Supérieur des Indépendants et des PME, Avis sur l'avent projet de loi modifiant la loi du 26 Janvier 2018 relative aux services postaux en vue d'améliorer les conditions de travail des livreurs de colis, Bruxelles, le 24 avril 2023, already quoted.

¹³⁸ Interview with Wouter Verheyen, 26 April 2023.

Spurious Labour Contracts (WAS)¹³⁹ combined with a certification system¹⁴⁰, would, be just as effective in preventing fraud in the sector. The High Council considers that the calculation tool developed by the Institute for Road Transport and Logistics (ITLB) in cooperation with the Antwerp university to implement the prohibition of 'unlawful prices' in the Belgian transport law¹⁴¹ would be more effective.

EU practice

In many countries the working conditions of parcel deliverers are a cause of concern. The analysis of the postal regulatory practice in five Member States (Austria, Germany, Italy, Spain and Sweden) showed that postal regulators are generally not tasked with closely monitoring the compliance of parcel delivery service providers (and their subcontractors) with labour and social security legislation.¹⁴²

In two of the countries surveyed, Spain and Italy, parcel delivery service providers have to demonstrate compliance with the essential requirements (including compliance with labour and social security legislation) by submitting an affidavit when they notify their activities in the postal market to the Ministry (in Spain) or the regulator (in Italy). In Italy, additionally the submittance of a valid collective labour agreement is required. Following an in-depth analysis of the Italian parcel market AGCOM decided to introduce additional information requirements for the major parcel operators. The largest parcel operators will have to submit a copy of the contracts concluded with the direct subcontractors and standard employment contracts for employees at different levels of the company to the regulator.¹⁴³

In Austria, Germany and Sweden, the postal regulatory framework does not foresee that parcel delivery service operators have to comply with sector-specific labour conditions. In Germany, the liability of parcel operators on the compliance of their subcontractors with the social security legislation is ensured by a separate law outside the scope of the postal legislation ("Paketboten-Schutz-Gesetz"). If a subcontractor presents a clearance certificate stating the company has duly paid social security contributions, parcel operators are exempted from the liability for this subcontractor.¹⁴⁴ More generally, based on the EU Cross-border Parcel Regulation¹⁴⁵ all parcel operators that fall under this legislation¹⁴⁶ have to submit "the names of their subcontractors, together with any information that they hold concerning the characteristics of parcel delivery services provided by those subcontractors" to the national regulatory authorities.¹⁴⁷

¹³⁹ <https://ec.europa.eu/social/BlobServlet?docId=23572&langId=enf>.

¹⁴⁰ "Paychecked in Transport" see : <https://normecflc.nl/keurmerk/paychecked-in-transport/>

¹⁴¹ "ongeoorloofd lage prijs" defined in Art. 43§4 Transport law of 15 September 2013, available at : https://www.ejustice.just.fgov.be/cgi/article_body.pl?language=nl&caller=summary&pub_date=14-02-18&numac=2013014763

¹⁴² See Section 3.4.2.

¹⁴³ See Autorità per le Garanzie nelle Comunicazioni (AGCOM) (2022), Delibera N. 94/22/CONS, Obblighi regolamentari nel mercato dei servizi di consegna dei pacchi, Decision of 31 March 2022, para. 72 and Figure 9. The decision of AGCOM is subject to a court proceeding as most parcel operators (including Amazon) have appealed the decision.

¹⁴⁴ See Section 3.4.2.

¹⁴⁵ Regulation (EU) 2018/644 of the European Parliament and of the Council of 18 April 2018 on cross-border parcel delivery services (<https://eur-lex.europa.eu/legal-content/FR/TXT/?uri=CELEX%3A32018R0644>).

¹⁴⁶ Ibid., Article 4, subitem 6: This requirement is not applicable to parcel delivery service providers which had over the previous calendar year on average fewer than 50 persons working for it and involved in the provision of parcel delivery services in the Member State in which that provider is established, unless that provider is established in more than one Member State.

¹⁴⁷ Ibid., Article 4, subitem 3 (d).

3.5.3.2 Implementation and administration costs

The implementation of the key measures will bind resources at parcel delivery service providers (either subcontracted or not) and public authorities and lead to higher administrative costs.

There are basically six elements that will tie up resources and/or require additional resources from parcel delivery service providers and/or authorities:

- **Main & direct subcontracted parcel delivery service providers:** The appointment of a coordinator to inform parcel deliveries and monitor compliance with the draft law and social security legislation. The latter obligation will affect the main parcel delivery service providers more than the subcontractors: the main parcel operators are responsible for the compliance of their direct subcontractors with the essential requirements (including compliance with the new rules) and from April 2025 on their compliance with the time recording system. The scope of this liability for subcontractors goes much further than the liability in Germany which only relates to the payment of social security contributions and can be redeemed by a clearance certificate.
- **Authorities:** Implementing an electronic platform to manage data exchange (including time recording data) with notified parcel delivery services providers and reporting obligations.
- **Main parcel delivery service providers and authorities (especially the Office of Social Security):** The development, implementation and application of the driving time recording system (Article 7 and 8 of the draft law).
- **Main & subcontracted parcel delivery service providers and BIPT:** The notification system for parcel delivery service providers (including notification fee).
- **Main & subcontracted parcel delivery service providers and BIPT:** Reporting obligations to BIPT and BIPT's obligation to report annually on the implementation progress.
- **Main parcel delivery service providers & SFP Economie:** Administrative efforts to get an exemption of the minimum compensation and data to be provided in the course of the compliance check.

As we understand the draft law, all companies and self-employed persons who deliver parcels for third parties will be subject to the new rules, regardless of their size and on the importance of the parcel delivery business in their overall activities.

Although the draft law uses the term "subcontractor", in practice there are different types of subcontractors:

1. **Self-employed deliverers:** these are individuals who deliver parcels for a parcel service provider under a commercial agreement but not under an employment contract.
2. **Small and micro enterprises:** these subcontractors have few (one or more) employees and deliver parcels on behalf of one or more parcel service providers. Usually, the owner of the company (or family members) also delivers parcels themselves. He is therefore classified as self-employed as there is no employment contract, while the other deliverers are employees (possibly apart from family members).
3. **Medium-sized and large enterprises:** These are usually larger transport companies with more than ten employees. Very large subcontractors can also be parcel

operators who deliver parcels of own customers. For example, bpost is a subcontractor to DHL Parcel.

The administrative costs will be proportionally higher and sometimes even challenging for small and micro businesses and for companies where parcel delivery is only a small part of the business (because the items delivered fall within the definition of a parcel item). Small companies with few employees typically do not have the resources necessary to handle additional regulatory requirements and reporting obligations. Extending their administrative staff can lead to a significant threat to their profitability. Larger companies, such as larger main parcel operators, have more administrative capacities and are more experienced in dealing with regulatory requirements.

Appointing a coordinator

Each main operator and the direct subcontractor will have to appoint a coordinator who will inform parcel deliverers of their rights and obligations and who will be responsible for setting up a vigilance plan, identifying potential risks of infringements of this draft law and of labour and social security law and, where appropriate, remedying them. While this may appear to be a useful position at larger main parcel operators (as is the appointment of a person to ensure compliance with data protection legislation), such an appointment is not a practical solution for small and micro businesses or businesses with a small proportion of parcel delivery business. This position requires additional training and legal knowledge that small operators cannot afford.

Recording system of the parcel delivery time

Article 7 of the draft law requires from parcel services providers to develop a delivery driving time recording system within six months, at their own cost. However, this system will only be used until the official database developed and managed by the National Office of Social Security is in place in 2025 and Article 8 comes into force.

The cost of implementation will be considerable, as the rules for the time recording system are very detailed. While the implementation might be technically feasible by adapting the applications and databases developed by the main parcel operators to track the parcels, stakeholders doubt about its feasibility in practice. For example, parcel operators have a maximum of eight hours to check, correct and provide the registered delivery time recorded by delivery staff. Even if time recording is done carefully and diligently, it is very unlikely that it will be error-free or that any errors will be detected within eight hours. This requires additional administrative resources from both the main parcel operators and the subcontractors, which is particularly challenging for the micro enterprises with no administrative resources. In addition, if a subcontractor delivers for more than one main parcel operator, he has to deal with more than one time recording system.

In addition to the cost of acquiring and/or developing the recording systems, a considerable amount of time will initially have to be taken away from other activities to prepare thoroughly for their implementation, so that these requirements can be met within a very short period of time, given the characteristics required. It should be noted that the State allows itself a period of approximately two years (depending on the date of entry into force) to develop the official database in which the data will have to be collected, while the parcel operators have six months to set up the system.

The requirements for the time recording system set out by Article 7 are also that the security, non-falsification and integrity of the data are maintained and that the data cannot be subsequently altered. External certification will therefore be required, the cost of which will be borne by the parcel services providers.

Notification and reporting obligations to BIPT

While the notification system and procedure as such are not an issue¹⁴⁸, the key challenge is to inform all affected companies and individuals who deliver parcels on behalf of third parties (even occasionally) that such a notification is required. BIPT will need to allocate staff to such an information campaign, as well as to compile and keep up-to-date a complete list of all notified entities that meet the essential requirements, including the working time of its current or additional IT specialists to manage the database (until the electronic platform will have been launched). Moreover, staff will be needed for the enforcement of the obligations (by several hundreds of companies) and for the drafting of fining decisions, handling appeals and coordination with other competent authorities (e.g. SPF Economie and ONSS).

As far as the parcel delivery service providers are concerned, the notification fee has a direct impact on their administrative costs and should therefore be reasonably low or even zero, given that the invoicing of the fee (by many hundreds of entities) also leads to administrative costs at BIPT.

All notified parcel service providers have to comply with detailed reporting obligations which require them to submit detailed information to BIPT every six months. This includes information from the principal parcel operators on the volume of parcels delivered by each subcontractor and the remuneration paid to each subcontractor for the delivery of parcels as well as information from the subcontractors on the remuneration received from each principal operator and the parcels delivered for each principal operator. This information may not be easy to obtain as subcontractors may provide additional services to principals.

BIPT will have to devote new resources checking the consistency of the data provided, which could be a very labour-intensive task unless if this information is not provided in a well-structured way. In addition, the information on remunerations is considered commercially sensitive and BIPT will need to devote resources to explain the need for its collection and the safeguards in place to prevent leakage.

Derogation from the minimum compensation

If main parcel operators wish to obtain a derogation from the minimum compensation, the principal and subcontracted parties have to provide detailed cost data to prove the lower transport costs. Obtaining a derogation will possibly require an in-depth analysis of costs which is already a complex task in the postal regulatory practice.

However, implementation and administration costs will be considerable for both sides, the public authorities and the parcel delivery service providers. These costs combined with the complexity of rules and of dealing with various authorities involved (including the BIPT, the ONSS, and the FPS Economie) particularly affects small businesses with the risk of driving them out of the market and discouraging market entry of new delivery service providers.

3.5.3.3 Payment rules and the costs of parcel delivery

Article 14 of the draft law provides for a minimum remuneration to be paid by the parcel delivery service provider to its direct subcontractor(s). This minimum remuneration consists of three elements: (1) a minimum hourly wage; (2) transport costs depending on the delivery vehicle used and (3) other costs including administrative costs, taxes and insurance. The detailed list of elements and the method of calculation will be laid down in a Royal Decree. It is also not clear how the compliance with this requirement will be monitored in practice.

¹⁴⁸ This is practice in other EU Member States, such as Italy and Spain (see section 3.4.2).

We conclude from this rather general description (and confirmed by Wouter Verheyen) that the intention is to set a threshold for a minimum hourly remuneration for the delivery of parcels (but not for other activities carried out by the subcontractor, such as the management and maintenance of a delivery base, collection services and other activities agreed with the main parcel operator).

There are basically two main types of payment rules agreed between parcel operators and their direct subcontractors (sub-variants are possible) that are usually applied¹⁴⁹: (1) payment per parcel and (2) payment per delivery round. In both cases, the characteristics (distances, density of stops, expected parcel volume) of the delivery area are usually taken into account. The payment rules can be supplemented by a fixed fee or additional variable elements outside the control of the subcontractor such as a fuel or carbon surcharge depending on the development of fuel prices. Which type of payment rule is applied, depends on the variation in the volume of parcels over time (for B2B deliveries the volume is more stable than for B2C deliveries, plus the stop factor, i.e. the number of parcels delivered per stop is much higher than for B2C deliveries) and the total volume of parcels delivered on average (which is higher in densely populated areas than in sparsely populated areas). What these payment schemes have in common is that, from the point of view of the main parcel operator, (1) delivery costs vary (directly or indirectly via the number of rounds) with parcel volume and (2) costs per parcel are more predictable if not based on a per hour-payment.

The new requirement stipulates that the SPF Economie will set a threshold for the minimum remuneration, with many unknowns at the current stage of the draft law and most probably subject to the outstanding Royal Decree. Open questions are, for example:

- What will be the reference point for the minimum hourly wage: total working time, total delivery driving time, planned or actual hours?
- How will the time be allocated if apart from parcel delivery other activities are carried out?
- How are transport and other costs to be included in the minimum compensation, if calculated as a rate per hour?

In principle, a switch from a per-item or per-round payment system to an hourly payment system means that, from the perspective of the main parcel operator, the cost will vary much less with parcel volume, which in economic terms means that the proportion of fixed costs in total delivery costs will increase. The effect on total cost is less clear because this depends on the parcel volume delivered in combination with the density of the delivery area.

From the subcontractor's point of view, switching to an hourly payment system (either fixed in the subcontract ex ante or, ex post, via compliance check by the SPF Economie) would partly shift the risk of fluctuating parcel volumes from the subcontractor to the main parcel operator. Only partly, because the planning and the length of a parcel delivery round (and thus the number of working hours per round) also depends on parcel volume. Unlike the delivery of letters where delivery rounds have been relatively fixed (at least in the past) delivery rounds for parcels can change daily. In addition, from the principal's point of view there is a risk that the subcontractor's incentive to organise the delivery of parcels in the most efficient way would be reduced or even eliminated (if the compensation is based on actual hours and does not deviate much from actual costs). This could lead to an increase of the minimum compensation per month that have to be paid by the main contractor.

While the delivery of parcels in densely populated areas would most likely be less affected by a switch to an hourly payment, provided that the volume of parcels is sufficiently high,

¹⁴⁹ Based on stakeholder interviews and our international postal expertise.

there is a risk that the delivery cost per parcel in less densely populated, rural areas would increase, with the consequence that smaller parcel operators might decide to stop delivering parcels in less densely populated areas or to deliver only to parcel shops instead (to increase the economies of scale). We see also a risk that the operating costs of the main parcel operators will increase because the change in the incentive structure of subcontractors may lead to less efficiently planned delivery rounds.

The starting point for the calculation of the minimum remuneration is the minimum hourly wage set in collective agreement of CP 140.03. This reference wage must be multiplied by the employer's charges. The aim is to ensure a level playing field between postal operators contracting delivery to subcontractors and operators using employees. However, CP 140.03 does not apply to bpost employees, who are covered by an individual agreement which is confidential for unknown reasons.¹⁵⁰ If the hourly wage (including bpost's charges as employer) of bpost's delivery staff is lower than the reference hourly wage defined in the draft law, this will distort competition in the Belgian parcel market.

3.5.3.4 Conclusions and recommendations

More or less all postal operators use subcontractors for the first and last mile. In many countries, including Belgium, there have been concerns about the working conditions of subcontractors in the parcel delivery sector. These concerns emerged with the growth of B2C e-commerce deliveries combined with a high level of demand concentration in the B2C segment that have created pressure on all market players to increase efficiency and to rigorously manage their input costs. This pressure has been devolved to subcontractors with allegedly negative impact on the working conditions for employees and self-employed deliverers of parcel operators and subcontractors. Currently, there are legal proceedings against two Belgian parcel operators in this regard. In light of these developments the Minister pursued the objective to improving the working conditions of parcel deliverers by amending the Belgian Postal Act. Under the draft law, all parcel delivery service providers, regardless of their size or suspected violations, will have to report delivery times and remuneration to subcontractors systematically to prove that they comply with the rules on maximum delivery times and minimum compensation for the provision of parcel delivery services among others.

The proposed amendments to the Belgian pPostal Law seek a far-reaching transformation from a light regulatory approach in the Belgian parcel sector to an approach that strictly regulates and closely monitors parcel delivery service providers including subcontractors with the objective of improving working conditions and combating social fraud in parcel delivery. On the one hand, the amendments, if fully implemented, will allow maximum transparency for the public authorities responsible for monitoring the compliance of parcel delivery service providers with the labour and social security legislation, with the specific requirements set out in the draft law and the essential requirements. On the other hand, the planned measures have the potential to change the shape of the Belgian parcel sector, as existing business models and potential market entry could be affected.

Adding a review clause in the draft law

The measures outlined in the draft law go far beyond the practice in other Member States. Moreover, there are doubts on the proportionality and the effectiveness of the measures. We therefore recommend to insert a review clause in the draft law, stating that for example three years after its adoption, the law will be reviewed. This review could be based on an

¹⁵⁰ See Conseil Supérieur des Indépendants et des PME, Avis sur l'avent projet de loi modifiant la loi du 26 Janvier 2018 relative aux services postaux en vue d'améliorer les conditions de travail des livreurs de colis, Bruxelles, le 24 avril 2023, p. 9.

ex post impact assessment that BIPT could conduct in due time after the adoption of the draft law.

Carrying out impact assessments and public consultations on outstanding decrees

Several elements of the draft law need to be further specified by Royal Decrees and decisions, such as the new Article 5/2 (Article 6 of the draft law) on the determination of coordinator, Article 5/3 (Article 8 of the draft law valid from April 2025) on the conditions and modalities to be met by the time recording system, new Article 8/1 on the notification fee and, particularly, the new Article 10/1 (Article 14) on the elements and the determination of the minimum remuneration as well as on the modalities and the conditions to get an exemption from the minimum compensation. We recommend that the outstanding Royal Decrees, in particular those specifying the implementation of Articles 5/3 (time-recording) and 10/1 (minimum remuneration) should be subject to a public consultation and an ex ante impact assessment of the possible alternatives. For example, with regard to the latter, the impact of different ways of quantifying the inputs in the calculation formula and the resulting levels of minimum remuneration on parcel delivery service providers depending on their profile.

Introduce a minimum size threshold to reduce the administrative costs for small and micro parcel delivery service providers

Overall, the implementation and application of the proposed measures in the draft law will result in significant administrative costs for both, the parcel delivery services providers and the authorities involved. Small and very small businesses as well as companies that will be classified as parcel delivery service providers but have a small proportion of parcel delivery services in their overall business, are particularly affected by the draft law.

We therefore recommend that minimum size thresholds be defined, for example in relation to the turnover generated by parcel delivery services, in order to avoid and/or reduce the administrative costs for small and micro enterprises as well as for transport companies with a small proportion of parcel delivery services in their overall business. These minimum size thresholds should apply to each of the requirements set out in the draft law. This would also reduce the administrative costs for the authorities responsible for implementing the rules.

Be careful in implementing Article 10/1 (minimum remuneration)

There is an intended switch from per-parcel or per-round payments to per-hour payments in the draft law. This has the potential to change existing business models. There are many unknowns on how Article 14 (new Article 10/1 of the Postal Law) will be implemented in detail, especially how the minimum remuneration will be determined and how to obtain a derogation on the minimum remuneration. We recommend to conduct an impact assessment and a public consultation about the details of the outstanding Royal Decrees (see our first recommendation).

There is a lack of transparency with regard to the bpost collective agreement and the wage levels paid by bpost. We therefore recommend that the BIPT could calculate in parallel the distribution cost of parcels by bpost having regard to the specific minimum wages applied in the company and to ensure that competing parcel operators are not obliged, indirectly via the minimum compensation, to pay a higher wage including employers' charges to subcontractors' delivery staff than bpost.

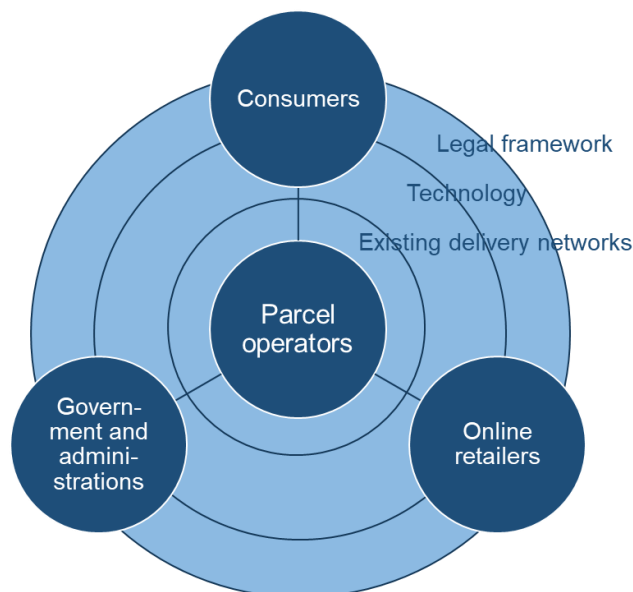
4 The sustainability of the last mile

4.1 Stakeholder attitudes and preferences on sustainability

Increasing the ecological sustainability¹⁵¹ of e-commerce collection and delivery is not a task for parcel operators alone; several other stakeholders such as consumers, retailers, and administrations need to be involved as well. Their attitudes and preferences for sustainable deliveries affect the scope of action that can be undertaken by operators. Postal operators are at the core of the sustainable transformation of e-commerce collection and delivery. They design and carry out logistical processes, thus they are responsible for switching their networks to sustainable transport which in turn can exert competitive pressure on other parcel operators.

Yet, competition in the delivery sector and other stakeholders have an impact on how fast and to which extent the transformation takes place.

Figure 14: Stakeholder ecosystem for sustainable transformation of e-commerce delivery



Source: WIK-Consult

4.1.1 Parcel operators

Parcel operators' capacity to increase the environmental sustainability of logistics on the first and last mile is constrained by a series of legacies: the existing parcel networks with their structure of sorting centres, depots, and delivery bases are optimised mainly for road transport with vehicles powered by fossil fuels. Switching to sustainable transport modes will require changes in the network and in logistics and IT processes which will require considerable effort and time. This is the reason why sustainable delivery is more costly from the viewpoint of 'traditional' operators compared to new players that build up their services from scratch taking environmental aspects into account as part of their business model.

Upgrading the network with e-vehicles and charging infrastructure requires significant investments by postal operators and their sub-contractors. State-owned bpost takes a more

¹⁵¹ Increasing the ecological sustainability refers to reducing greenhouse gas emissions as well as air pollutants.

advantageous starting point than its competitors due to its access to additional State funding, as defined in its 7th Management Contract.

There are several obstacles to a rapid transformation of the networks. E-vehicles are still more expensive than vehicles that run on fossil fuels. Smaller parcel operators and sub-contractors may not have the financial capacity (and the margins) for such investments¹⁵² New market entrants with a focus on sustainable delivery do not have to redesign existing networks but they are niche players and do not transport large volumes either. All operators have to cope with technological constraints (range and load capacity of alternative fuelled vehicles) and limited market availability of electric vehicles.¹⁵³ At the same time, on-road conditions for other transport modes such as bike delivery are less favourable than for motorised transport. A lack of appropriate and safe cycling infrastructure increases the risk of accidents for delivery staff.¹⁵⁴

The significant demand power of large e-retailers and online marketplaces limits the leeway for postal and parcel operators to increase prices for delivery services. Additionally, consumer expectations for free delivery¹⁵⁵ increase the price pressure for all online retailers who consequently look for low-cost, high-quality delivery services.

As an overall societal trend, the protection of the environment is gaining importance and sustainability is more and more valued. Consequently, operators feel general pressure from customers (senders) and the public to become more sustainable.¹⁵⁶ This is also the reason that at least some postal operators (like bpost) market sustainable delivery solutions to users and administrations.

From the view of parcel operators, there is a shared understanding that greenhouse gases and air pollutants must be significantly reduced. However, not all operators are technically and financially capable to transform their networks fast and thus are not on the same level regarding sustainable collection and delivery (see chapter 4.2 for a status quo).

Price incentives could help to accelerate the process but there is currently no price for emitting CO₂ (carbon pricing) and other greenhouse gases in the transport sector, keeping traditional transport models economically advantageous despite being environmentally unsustainable. The first step in this direction will be the inclusion of commercial transport into the EU Emission Trading System from 2024 on.¹⁵⁷ Due to the energy crisis in the wake of the Russian invasion of Ukraine, market prices for fossil fuels have increased recently, diminishing the price difference between fossil-fuel and more sustainable forms of transport.

The overall growth of parcel volumes in addition to labour shortages drives parcel operators to find more efficient and sustainable alternatives to network operations and delivery.

¹⁵² This was confirmed by responses to the public survey on sustainability for this study and in interviews.

¹⁵³ Electric vehicles have a limited reach of up to 200-300km with one battery charge. The market availability and delivery times of e-vans suitable for deliveries are low and can take up to one year. This was confirmed by operators in the sustainability survey for this study.

¹⁵⁴ This aspect was stressed in the sustainability survey for this study.

¹⁵⁵ In a consumer survey by Comeos, 65% of consumers stated that delivery should always be free of charge. See Comeos (2020), E-Commerce Survey 2020, p. 64.

¹⁵⁶ Postal operators agreed in their responses to the public survey that demand as well as the public opinion are important factors for increasing ecological sustainability. The 7th management contract between the Belgian government and bpost explicitly requires that bpost takes necessary measures to comply with the 1,5 degree target.

¹⁵⁷ See European Parliament (2022), Revision of the EU Emissions Trading System, 2021/0211(COD) - 22/06/2022 - Text adopted by Parliament, partial vote at 1st reading/single reading, [https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2021/0211\(COD\)&l=en](https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2021/0211(COD)&l=en) [9 November 2022]. However, the decision on the conditions is outstanding and is currently discussed in the trilogue procedure.

Parcel operators face increasing demand for more sustainable delivery services but their achievements in terms of low or emission-free collection and delivery are very heterogeneous. Parcel operators act on a commercial basis, and their capacity to improve the sustainability of collection and delivery is limited by market demand for such services.

4.1.2 Belgian online retailers

The landscape of the Belgian e-commerce market is dominated by online marketplaces and large e-retailers mainly from the Netherlands, France, and Germany.¹⁵⁸ In competing with these players, it is difficult for Belgian online retailers to offer comparable or competitive product pricing, customer service, and delivery pricing. High quality standards are set by big international online sellers and platforms.¹⁵⁹ For Belgian online retailers, deviating from these standards reduces their competitive position. Slower delivery services are often more sustainable, but offering these bears the risk of losing customers. In competing with international players, Belgian online retailers have therefore a limited ability to offer slower sustainable services. The common practice of free returns is wide-spread among e-retailers and further drives unnecessary parcel volumes because it incentivises consumers to order more items than customers intend to keep.

A key challenge for Belgian online retailers is their lack of information on available sustainable delivery services. Many of them are not aware of possible options, or whether available options are technically applicable and suitable for their business.¹⁶⁰ However, some e-retailers have a rising demand for sustainable delivery options as their customers increasingly value such services.¹⁶¹

Belgian online retailers are also commercial businesses confronted with intense competition, cost-conscious consumers with a preference for home deliveries as well as limited information on and access to affordable and sustainable delivery options. As for postal operators, improving sustainability in e-commerce fulfilment needs to be economically feasible and commercially attractive.

Belgian online retailers are under competitive pressure to offer similar quality standards as international players. But they will switch to sustainable delivery alternatives if it enhances their conversion rates or improves their competitive position.

¹⁵⁸ This will be analysed in detail in chapter 2, The Belgian e-commerce market of the final report.

¹⁵⁹ For example, the popular platform bol.com and omnichannel retailer Coolblue in Belgium offer D+1 delivery for many products.

¹⁶⁰ In a survey from SafeShops, online retailers were asked on their usage of several sustainable delivery options. Between 20% and 40% of respondents answered a specific option (e.g. using parcel lockers, bicycle delivery) was not feasible. This shows a lack of information which was also corroborated at the workshop on 22 September 2022.

¹⁶¹ Parcel operators have emphasised the growing demand for sustainable services as a key driver in the sustainability survey for this study.

4.1.3 Consumers

There is an apparent gap between the expressed attitudes and preferences of consumers for protecting the environment in general and a willingness to adopt sustainable delivery options in surveys on the one hand,¹⁶² and their actual behaviour on the other hand. The choice of the delivery location has an impact on the sustainability of the delivery. Home delivery is a very convenient option for recipients, but it is often not the most sustainable solution. If parcel operators can drop off several parcels at a parcel point, the distance driven is reduced along with greenhouse gas emissions and air pollution per parcel. However, recipients need to pick up the parcels using sustainable transport (e.g. on foot, by bike, by e-vehicle) to maintain the sustainable benefits of out-of-home-delivery.

Online customers often do not have the choice to use sustainable delivery options, as a limited number of web shops offer options such as bike delivery, slower delivery, or low-emission delivery by e.g. e-vehicle.¹⁶³ Between 70% and 80% of Belgian online buyers express a preference for home delivery in surveys.¹⁶⁴ The results of the BIPT postal market observatory and the WIK survey among Belgian postal operators¹⁶⁵ suggest that around 80% of the parcels are delivered to the home. This could be an indication that convenience is still a major driver when choosing a delivery option. In addition, Belgian consumers have a low willingness to pay extra for sustainable services: only one out of four online shoppers (23%) would pay more.¹⁶⁶

While some consumers are in favour of sustainable delivery, their willingness to pay for it is low. Consumers lack choice for sustainable delivery options in web shops and they need to be willing to use and also pay for sustainable delivery options.

4.1.4 Administrations

Federal, Regional and Local Governments may set rules for e-commerce players, postal operators, and consumers in their jurisdictions. Although the postal regulatory framework generally does not include sustainability aspects, the definition of essential requirements includes the protection of the environment in justified cases.¹⁶⁷ Additional to the postal regulatory framework, relevant rules come from the areas of transport, e-commerce, consumer protection, sustainability, and accounting at the EU level. Within Belgium, the Federal and Regional Governments have the competence to regulate postal operators. On the local level, cities and municipalities may use different approaches to regulate access to city centres (e.g. by introducing low emission zones). Their decisions especially related to spatial planning and transport access are crucial to the location and thus the network design of the logistical infrastructure including depots, urban hubs, charging points, or cycling infrastructure. Governments and authorities at all federal levels can set and design incentives by their decisions to speed up the sustainable transformation on the first and last mile. For example, if road taxes are differentiated by emissions, parcel operators' tax duties

¹⁶² In a Special Eurobarometer survey, 46% of Belgians said protecting the environment is very important to them. See European Commission (2019), Special Eurobarometer 501, Attitudes of European citizens towards the environment, Belgium, December 2019. A substantially lower share (23% of Belgians) would be willing to pay more for sustainable delivery. See PostNord (2021), E-Commerce in Europe, p. 17.

¹⁶³ Only 28% of Belgian e-retailers offer bike delivery, 22% offer slower delivery, and 18% offer low-emission delivery by e-vehicle, CNG or HVO-fuelled vehicle. See Safeshops Why5Research (2021), Belgian online shopper survey, p. 21.

¹⁶⁴ See Comeos (2020), E-commerce survey 2020, Safeshops Why5Research (2021), Belgian online shopper survey, DPDGroup (2021), <https://www.dpd.com/fr/en/e-shopper-barometer-2021/> [downloaded May 2022], and PostNord (2021), E-Commerce in Europe.

¹⁶⁵ See Section 3.3.

¹⁶⁶ See PostNord (2021), E-Commerce in Europe, p. 17.

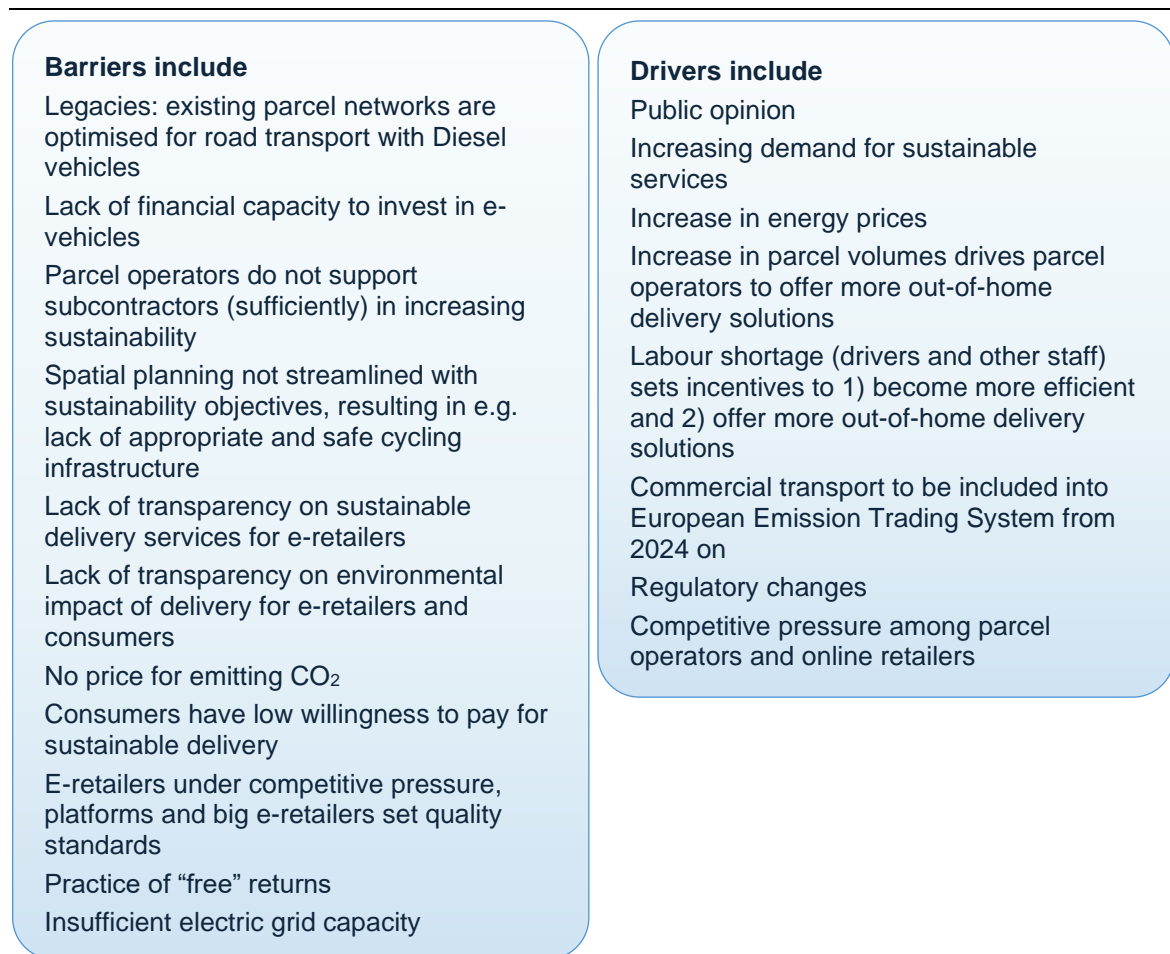
¹⁶⁷ See Art. 2 no 17 of Loi relative aux services postaux du 26 janvier 2018.

will be lower if they use low-emission vehicles, which will incentivise switching to electric or other emission-free vehicles. Similarly, spatial planning decisions may create incentives for online customers to use sustainable transport when picking up parcels or making returns, e.g. by improving cycling infrastructure and re-distributing public space (traffic lanes) from motorised individual traffic to bicycle traffic and space for walking. This includes a design of street crossings and intersections that is safe to use for cyclists and walkers.

Governments and public authorities may set rules and design incentives for consumers, parcel operators, and online retailers.

4.1.5 Barriers and drivers to increase sustainability in e-commerce delivery

Figure 15: Major barriers and drivers



Source: Own figure

Parcel operators have some incentives to improve sustainability, in particular in those cases where reducing the environmental impact brings cost savings. For example, postal operators strive to optimise delivery rounds by improving navigation algorithms and adapting the borders of delivery areas. Such measures reduce the amount of time needed for a round and thus costs, along with kilometres driven and emissions. Efforts to make out-of-home delivery options more attractive could be another example. However, such efficiency measures are not sufficient to transform collection and delivery into a low-emission or even emission-free activity without extensive infrastructure enhancements (charging points) and vehicle replacement (electric or other low/no emission vehicles). Parcel operators' commercial interests dominate other incentives as long as emission-free

technologies are more costly than fossil fuel technologies, or require investments to adapt existing networks.

Put differently, as long as there is a little commercial or social cost of emitting greenhouse gases and air pollutants, traditional parcel operators have few incentives to reduce them. Even though there is some pressure from the public to become more sustainable, parcel operators will not sacrifice economic success until the public pressure has a measurable economic impact on their business. To ensure a transformation to sustainable collection and delivery, relying on market forces alone in the current socio-economic and legal framework will not be sufficient to achieve environmental and climate protection targets. Adapting the entire framework is needed to drive this process.

4.2 Status quo of sustainable collection and delivery

With its current five Ecozones in Mechelen, Mons, Namur, Louvain-la-Neuve, and Leuven bpost have created a more comprehensive approach to collecting and delivering parcels with greatly reduced emission levels.¹⁶⁸ At the end of 2022, bpost also launched sustainable deliveries in Brussels and Bruges.¹⁶⁹ Bpost plans to further extend sustainable deliveries in these cities to create Ecozones in the future. The Ecozone-approach is based on delivery by electric vehicles and bikes with trailers. Urban hubs act as loading points for delivery staff with bikes. In addition, the number of parcel lockers where recipients can pick-up their parcels has been increased to shorten the distance to recipients' homes and enable pick-up journeys by bike or on foot.¹⁷⁰ Bpost plans to enhance the number of Ecozones further.¹⁷¹ In Antwerp, bpost combines deliveries for business customers which also reduces emissions and kilometres driven.¹⁷² Therefore, bpost can be considered a leader in sustainable delivery, in terms of low-emission vehicles as well as in terms of more sustainable out-of-home-delivery options.

It should be taken into account that bpost is in a special position compared to its competitors, as the Belgian State holds a majority of bpost's shares. In management contracts between bpost and the State, bpost pledges itself to carry out services of general economic interest beyond the scope of the legally required universal service obligation. The compensation received for these services provides bpost with additional financial support that is not available to other operators. In the current 7th Management Contract, bpost commits itself to the objective of increasing sustainability and limiting global warming to the 1.5 °C path. Concrete measures are agreed upon in the sustainability charter between bpost and the State, including replacing 800 trucks with LNG vehicles, optimising insulation, and replacing the 18,000 company cars and vans with e-vehicles until 2030.¹⁷³

¹⁶⁸ See bpost (2021), Successful Mechelen Ecozone pilot project, press statement of 29 June 2021, bpost (2021), A first in Wallonia: bpost to open a zero-emission delivery Ecozone in Mons, press release of 9 July 2021, bpost (2022), bpost and City of Namur set up Ecozone, press release of 12 April 2022, bpost (2022), Second Flemish Ecozone rolled out successfully in Leuven, press release of 27 April 2022.

¹⁶⁹ See bpost (2022), Carbon-neutral newspaper, parcel and letter delivery in Bruges city centre, press release of 8 December 2022 and bpost (2022), bpost delivers letters and parcels without emissions in European capital, press release of 23 November 2022.

¹⁷⁰ Within the Ecozones, bpost has set up the objective to limit the average distance to a pick-up point to 400m for residents, to enable pick-up by sustainable transport means. See bpost (2022), bpost and City of Namur set up Ecozone, press release of 12 April 2022.

¹⁷¹ In an interview with bpost for this study, bpost said it expected to have 15 or 16 Ecozones by the end of 2022. As of beginning of November 2022, no further Ecozones have been announced to the public.

¹⁷² See bpost (2022), bpost mise sur la livraison durable du courrier et des colis au centre d'Anvers, bpost press release of 18 February 2022.

¹⁷³ See Charte de Responsabilité Sociétale, https://bpostgroup.com/sites/default/files/2022-09/2022_CSR%20Charter_FR.pdf.

There is an incomplete picture of the extent to which parcel operators use e-vehicles, as reporting is neither systematic (among all operators) nor fully transparent. While bpost has the largest number of e-vehicles, other operators are in the phase of testing.¹⁷⁴ Two operators with a focus on sustainable delivery also use e-vehicles and (cargo) bikes: BD Logistics and start-up Budbee.

There are 5,000 to 6,000 postal points in Belgium which are evenly distributed throughout the regions.¹⁷⁵ These postal points include post offices, parcel shops, pick-up points in shops, and parcel lockers. The largest number of postal points are offered by bpost (1,855). GLS, Mondial Relay, and PostNL each run a network of more than 1,000 postal points, while UPS, DPD, DHL Express, and DHL Parcel each offer several hundred points.¹⁷⁶ New solutions such as neighbourhood collection points are offered by operators like ViaTim (in cooperation with DPD) or Homerr, which both run denser networks in Flanders than in Wallonia.¹⁷⁷

There are about 600 parcel locker stations operated by bpost¹⁷⁸ in Belgium. Bpost emphasised that currently the company is sharing its parcel locker stations with some other parcel operators. The operational and financial conditions are defined in commercial agreements.¹⁷⁹ Budbee plans to install carrier-agnostic locker stations in the future.¹⁸⁰ Although the number of locker stations has substantially increased in the last few years, their density is still low by international comparison.¹⁸¹

Delivering sustainably is more difficult in rural areas, as distances are longer and electric vehicles may not have a sufficient range. No parcel operator in Belgium has yet developed viable concepts or solutions on how to reduce emissions and air pollutants in rural areas so far. Interviews with postal operators suggest that rural postal points may be used by more than one parcel operator as pick-up and drop-off points for commercial reasons (limited availability of alternatives).

4.3 Potential action

Increasing the sustainability of the first and last mile is a complex task involving many actors within and outside the postal sector. It cannot be tackled successfully by one group of actors alone. This section presents potential measures by different actors that could contribute to increasing the sustainability of the first and last mile of e-commerce delivery. The action proposed primarily relies on market forces to ensure innovation and finding customer-oriented solutions, rather than mandating the sector to carry out specific measures.

¹⁷⁴ In its annual report for 2021, bpost stated to have a fleet of 65 e-vans in all Ecozones, and announced to purchase 1,200 e-vans in 2022. See bpost (2022), Annual Report 2021, p. 49. In the sustainability survey for this study, PostNL and another operator said they test electric vehicles.

¹⁷⁵ See Section 3.3.

¹⁷⁶ See <https://www.pointpostal.be/> [as of September 2022] and Section 3.3.

¹⁷⁷ See <https://viatim.be/> and <https://www.homerr.com>.

¹⁷⁸ See bpost (2022), bpost becomes preferred delivery partner for Vinted in Belgium, press release of 20 October 2022. BIPT reports 548 parcel locker stations at the end of 2021 (bpost and DHL Express), see BIPT (2022), Communication from the BIPT Council 19 December 2022 on the activity market observatory postal services in Belgium by 2021, para (134).

¹⁷⁹ Interview bpost (31 October 2022).

¹⁸⁰ Budbee currently advertises on its Belgian website carrier-agnostic locker systems and invites interested operators to get in touch. See https://budbee.com/be_fr/carrier-agnostic-box/ [9 November 2022].

¹⁸¹ See Niederprüm, A. (2021), Parcel locker stations: A solution for the last mile?, WIK Working Paper No.2, December 2021, p. 11.

4.3.1 Parcel operators

As described in the previous section, operators have started measures to reduce emissions – some more than others – and they would continue with such steps. Yet there is much more that could be done by the postal sector itself, even within the existing legal framework and constraints due to economic, financial, and technological barriers such as the limited range and load factors of electric vehicles. In addition to progress process and business optimisations, operators have two major levers to increase sustainability on the first and last mile: First, to switch to low-emission or emission-free vehicles, and second, to offer and promote out-of-home delivery options. While the first option would reduce greenhouse gases and air pollutants directly, the impact of the second depends on the behaviour of e-retailers and recipients to offer and select such options. Additionally, recipients should ideally pick up parcels using sustainable transport which requires a careful selection of locations and a fairly high density of such points (at least in urban areas). Hence, relying on technical changes only is not sufficient, the measures need to be accompanied by improved information and convenience as well as adapted pricing as a third pillar.

Sustainable vehicles

Generally, postal operators with their in-house delivery staff and stable profits are faster in switching to electric or alternative-fuel vehicles than their competitors. This is the case for universal postal service providers in their home markets, such as bpost in Belgium, Deutsche Post DHL in Germany, or Posti in Finland.¹⁸² Competitors in these markets that mainly work with sub-contractors for delivery have not invested in e-vehicles to a similar extent. Sub-contractors are usually smaller transport companies that may deliver for one or several parcel operators. Typically, they do not have the financial capacity to invest in electric vehicles which are not only more expensive but also require investments in charging points and have a limited reach and loading capacity compared to fossil-fuel vehicles. Small companies often do not have sufficient administrative staff capacity and knowledge to research and organise available options, limiting their ability to invest in e-vehicles.¹⁸³

To bridge the gap of knowledge and experience with e-powered vehicles, large parcel operators could share their experience with sub-contractors. Support could include low-cost measures such as advice or guidance on appropriate vehicle manufacturers and models whose technical characteristics fit with the operational requirements of the integrators, along with guidance on charging points. Financial support by parcel operators for their sub-contractors could include increasing or additional remuneration per parcel or round if e-vehicles are used. In addition, further support from outside the parcel sector is needed, e.g. by mechanisms on the federal, regional, or community level.

Overall, more transparency on the use of electric or other low-emission vehicles in the sector as a whole would be desirable for business customers such as online retailers. All operators could improve reporting on the composition of their vehicle fleets. BIPT could act as a driver toward this objective by including sustainability indicators in its annual market monitoring such as out-of-home-delivery options.

¹⁸² Compared with other national postal operators, these three universal service providers are more advanced in terms of electric or other low-emission vehicles. DPDHL had promoted emission-free delivery by developing its own e-vehicles Street Scooter. Finnish Posti had had its sustainability targets approved by the Science-based target initiative as the first logistics company worldwide and has set up an economically viable roadmap towards e-vehicles until 2030. See CEP-Research (2022), Posti will buy “thousands” of electric vehicles to accelerate sustainability targets, released 27 October 2022 (<https://www.cep-research.com/news/posti-will-buy-thousands-of-electric-vehicles-to-accelerate-sustainability-targets->).

¹⁸³ This was confirmed by responses to the public survey on sustainability for this study and in interviews.

All parcel operators have made progress in offering multiple out-of-home delivery options and increasing the number of postal points in recent years. However, there is still room for improvement. Operators could further increase the number of pick-up points for parcels and therefore reduce the distance to the recipient's home.¹⁸⁴ The mode of transport used by recipients to pick up parcels is crucial to the overall sustainability impact of out-of-home delivery.¹⁸⁵ Accompanying research on the bpost Ecozone in Leuven has yielded an overall positive environmental effect, with 92% of recipients picking up their parcel on foot, by bike or by scooter.¹⁸⁶ Parcel operators could therefore strive to increase the density of their networks of access points. This could involve more access points in shops, supermarkets, or filling stations, but also more lockers (indoors in supermarkets, train or tram stations as well as outdoors at bus stops, parking lots etc.) and new solutions such as neighbourhood collection points. An important aspect will be the convenience of these solutions for consumers and the information on available options (e.g. in check-outs). Transparency on how these options are offered by operators and used by parcel recipients is essential to understand the pace and drivers of sustainable transformation. BIPT could take a leading role in this.

Transparency and convenience

Measures to increase the volume of parcels delivered to out-of-home locations need to be embedded in suitable, digitally accessible information on their availability, location, and functions for e-retailers, websites, and consumers. Belgian online retailers, in particular small and medium-sized ones, feel they lack sufficient information on available sustainable delivery solutions.¹⁸⁷ Parcel operators could improve information on their sustainable services and target information more specifically at SMEs. Transparent information provided to online retailers is a prerequisite for these services being offered to online customers. Operators and shipping platforms could further improve tools to integrate sustainable delivery options into web shops. Enhanced convenience for online customers could increase the use of out-of-home delivery.

Another option for operators is to adapt the pricing structure to environmental criteria. Many operators already apply the size¹⁸⁸ of a parcel in addition to weight and set lower prices for out-of-home than for home delivery. These approaches could be further developed, e.g., widening the gap between home and out-of-home delivery or setting other incentives for users to choose such options.

4.3.2 Online retailers

Online retailers play an important intermediary role in reducing the environmental impact of e-commerce deliveries. It is the e-retailer who decides which parcel services and delivery options are offered on websites, and online customers may only choose from the range of services they find there. Also, online retailers decide how they present delivery options at

¹⁸⁴ A denser network of pick-up points might reduce emissions from collection journeys, see Cardenas, I. (2019), Unlocking the benefits of pick-up points for sustainable E-commerce distribution in urban areas.

¹⁸⁵ See for an overview on relevant academic research Buldeo Rai, H.; Dablanc, L. (2022), Hunting for treasure: a systematic literature review on urban logistics and e-commerce data. For a modelling of the environmental effects see for example Maere, Bart De (2018), Economic and ecological impact of automated parcel lockers vs home delivery.

¹⁸⁶ See bpost (2022), Second Flemish Ecozone rolled out successfully in Leuven, press release of 27 April 2022.

¹⁸⁷ This was a concern by online retail association SafeShops in responding to the public survey and confirmed in the workshop of 22 September 2022.

¹⁸⁸ Parcels usually contain some free space, i.e. parcel operators transport some air. Removing air from parcels would reduce the size of parcels, thus increase the number of items that fit into a delivery vehicle.

check-out¹⁸⁹ and whether they want their customers to pay for delivery or not (free delivery and returns). Therefore, the potential options for e-retailers are related to the visibility and availability of sustainable services from operators and informing their customers of the best service options for their delivery and return needs.

Sustainable delivery as a competitive advantage

Belgian online retailers could switch to more sustainable services or operators and demand more information on the environmental impact of parcel service providers. This would not only increase the pressure on operators to intensify their sustainability efforts but result in a demand shift for low-emission services. E-retailers could seize the chance to distinguish themselves from international competitors by offering more sustainable delivery services. This could be streamlined with targeted communication to online customers to inform them of the environmental benefits of domestic deliveries in contrast to international online orders.

Develop sustainability policies

Most online retailers have return policies in place that describe how they offer and handle returns for different products and return causes. Similarly, e-retailers could develop sustainability policies for delivery and return solutions. Such a policy would also include how sustainable options are offered at check-out and how they are priced. It could also be used to inform customers about the environmental impact of delivery options and returns.

The presentation of sustainable delivery options at the check-out of online shops could have a significant impact on service choices by customers. If e-retailers present sustainable options (e.g. by operators delivering with low-emission vehicles or to a pick-up point) as the default offer, it may push the use of sustainable deliveries. E-retailers could for example offer free delivery only in combination with an out-of-home delivery service. This could be combined with convenient and easy to understand solutions to find the nearest pick-up point at check-out (e.g. integrated mapping tools). Campaigns to educate online customers and consumers on sustainable delivery as well as to advertise for using such options could complement this area of action.

Return charges

The impact of returns on the environment is detrimental – not having ordered the product in the first place would be much better from an environmental perspective. Some measures might reduce returns, such as better size and fitting information or AI applications but these are outside the logistics domain. Online retailers could try to change consumer behaviour by setting price incentives: customers could be incentivised not to order more products than they intend to keep by introducing return fees. There could also be positive incentives if customers do not return products, e.g. benefits like a voucher or a discount for their next order.

189 In a survey among Belgian e-retailers, 63% of respondents said they are not encouraging customers to make more sustainable choices during the online purchase. See Why5Research (2021), Belgian online sustainability barometer 2021.

4.3.3 Federal, regional, and local public authorities

National strategy and framework for low-emission zones

There are currently three low-emission zones in place (Antwerp, Brussels, Ghent) whose effects are overall positive.¹⁹⁰ Postal operators have concerns that criteria for entering low-emission zones differ from each other, making it more complicated to respect required conditions.¹⁹¹ A regional or – even better - national framework for harmonising access criteria and schedule for their application would help operators to prepare for and respect conditions. As the existing low-emission zones have been effective in reducing air pollution, the number of low-emission zones could be increased throughout Belgium to other cities. It could even be discussed to tighten the rules and require N1 vehicles (vans) to be emission-free at an earlier stage than M1 vehicles (cars).¹⁹²

Comprehensive concepts for the future of delivery

Transforming the first and last mile of e-commerce delivery will require developing new concepts for the future that enables low-emission delivery even with further growing parcel volumes.¹⁹³ The regions and municipalities will play an important role in shaping the future of inner-city delivery. Public authorities could not be passive observers of a scenario of wild-west-delivery but actively define conditions for access to and delivery within urban areas. Comprehensive concepts for the future of delivery could contain three elements. First, suitable infrastructure for sustainable delivery could be improved or created. This includes an upgrade of the national electricity grid to cater to the charging points required to enable parcel operators to charge a sufficient number of e-vehicles.¹⁹⁴ Safe cycling infrastructure is also required by parcel operators to ensure the road safety of their staff and facilitates delivery by cargo bike or trike at the same time. In addition, introducing an appropriate number of loading zones solely to be used by sustainable vehicles creates operational advantages for operators to use these vehicles.

Second, municipalities could set rules for using public space for delivery and collection. Delivery traffic within a city can be reduced if a larger share of parcels is delivered to a pick-up-point. Rules for using public space for lockers could be established to facilitate out-of-home delivery, with equal conditions for all interested operators. There could even be more favourable conditions for carrier-agnostic solutions. Municipalities could provide city-owned premises for logistical purposes, e.g. public space or buildings to operate urban hubs. In addition, the concept for the future of urban delivery could be intertwined with a framework

¹⁹⁰ For the low-emission zone in Brussels, the number of Euronorm 4 (and lower) vehicles has declined in 2020 and 2021, along with air pollutants, resulting in keeping the legal limit for NO₂ for the second year. The effect on reducing the number of vans (vehicles category N1) with Euronorms 4 and lower has been particularly strong, from a share of 10.5% in 2018 to 0.5% in 2021. See Bruxelles Fiscalité (2022), Evaluation de zone de basses émissions, rapport 2021, p. 9.

¹⁹¹ Different criteria in low-emission zones were identified as an issue both at the workshop for this study on 22 September 2022 and in responses to the sustainability survey.

¹⁹² The current schedule for the low-emission zone in Brussels bans Diesel vehicles from 2030 on for both M1 and N1 Diesel categories. Petrol, hybrid or LNG vehicles with Euronorm 6d are allowed until 2034. See <https://www.lez.brussels/mytax/en/practical?tab=Agenda> [7 November 2022]. In the Netherlands, the national approach for low-emission zones foresees to ban vehicles other than those without emissions from cities with low-emission zones. See <https://business.gov.nl/amendment/municipalities-introduce-zero-emission-zones/> [7 November 2022].

¹⁹³ Parcel volumes have grown substantially in the last two years, driven by changing customer shopping habits. For the future, experts expect further growing e-commerce revenues. See Statista (2022), <https://de.statista.com/outlook/dmo/e-commerce/belgien#umsatz> [7 November 2022].

¹⁹⁴ It is obvious that the source of electric power generation is directly related to the climate impact of electric vehicles. The more renewable sources are used the lower the greenhouse gas emissions linked to e-powered transport.

for low-emission zones that restricts access for fossil fuelled vehicles and incentivises the use of e-vans and bikes.

As a third pillar, a comprehensive concept would need to focus on both citizens and local businesses. The concept could be explained to the public, along with advertising the benefits for residents and businesses. The positive environmental impact of out-of-home delivery could be addressed through communication campaigns.

Incentivise investments into electric vehicles and charging infrastructure

Switching to electric¹⁹⁵ vehicles is a crucial element for the sustainable transformation of the last mile. Parcel operators and their subcontractors could receive incentives to invest in electric vehicle fleets and charging infrastructure. In particular, small and medium-sized operators need support.

Financial support such as subsidies targeted at delivery operators purchasing e-vehicles or investing in charging points. Various vehicle taxes¹⁹⁶ could be adapted to yield benefits for low-emission vehicles depending on their level of greenhouse gas emissions or air pollutants (e.g. taxing at the occasion of the purchase, annual taxes, or taxing depending on usage like road taxes). Granting advantageous conditions on loans for e-vehicle investments could be another option. Such incentives could be designed to be more favourable for SMEs to enhance their use of e-vehicles.

More generally, the vehicle weight limit of 3.5 tonnes for the current drivers licence 'B' poses a problem in the context of electric vehicles. As the batteries in such electric vehicles represent a considerable weight, meaning that the 3.5-tonne limit is quickly exceeded. In anticipation of an European shift to 4.25 tonnes for drivers licence 'B', the Dutch government had already granted an exemption for electric vehicles as a pilot project.¹⁹⁷ Belgium should ideally waste no time to take such initiatives either.

Mandatory information on the environmental impact of deliveries

A conclusion from the results of a survey among Belgian online retailers is that e-retailers need more insight into the sustainability of all transport options.¹⁹⁸ Clear and comparable information on the environmental impact of different services and delivery options would enable retailers to choose sustainable services suitable for their needs. However, a major challenge is the lack of accounting and reporting standards that would allow comparable accounting of greenhouse gas emissions to companies and services. While EU-level initiatives will be needed to establish standards applicable for international businesses regardless of sector, a Belgian approach could be to oblige postal operators in Belgium to provide very basic information to retailers on the environmental impact of deliveries as a first step. A sector-wide dialogue supported by academic research could be used to identify suitable indicators.

¹⁹⁵ In the future, hydrogen-powered vehicles might also become an option, mainly for long-distance transport.

¹⁹⁶ The option of taxing and tax deduction for vehicles depending on emissions has also been recommended by Conseil Central de l'Economie in its opinion on sustainability of e-commerce, see CCE (2022), Agenda de la durabilité pour l'e-commerce et la logistique belges.

¹⁹⁷ <https://e-drivers.com/nieuwe-regeling-voor-rijbewijs-elektrische-bestelwagens-van-425-ton/>

¹⁹⁸ See Why5Research (2021), Belgian online sustainability barometer 2021, p. 49.

4.3.4 The Belgian Institute for Postal Services and Telecommunications

The BIPT is in regular contact with postal sector stakeholders. As discussed in the section on public authorities, the dialogue within the postal sector and with further actors from politics, retail and local authorities would support understanding and cooperation between stakeholders. The BIPT could continue the dialogue and strive to intensify it.

The BIPT has already started to include sustainability indicators in its annual monitoring.¹⁹⁹ This approach should be further extended. Indicators should be meaningful while also comparable and easily collectible for operators. The sector-wide dialogue could also be used to discuss and identify sustainability indicators, e.g. on vehicles used, returns, out-of-home-delivery options, and their use. The BIPT already monitors the number of postal access points and shows them on the trilingual website www.pointpostal.be to increase visibility and accessibility. This approach could be broadened to include academic researchers²⁰⁰ as well as (online) retailers to increase transparency on sorting centres, depots, and urban hubs. While researchers could use data to explore the sustainability of postal networks, retailers' information on potential access points could be improved. Ideally, the mapping of postal network elements would follow an open data approach.

199 The BIPT has required information on the carbon footprint from postal operators for the year 2021. In their recently published postal market observatory they report the average CO2 emissions ranging from 152 grams to 300 grams (based on answers of the postal operators, see BIPT (2022), Communication from the BIPT Council 19 December 2022 on the activity market observatory postal services in Belgium by 2021, para (151). These values appear to be very low and no information is provided about the methodology used (For a detailed discussion see for example Thiele et al. (2022), Klimaneutrale Postdienstleistungen: Wo stehen die Brief- und Paketdienstleister in Deutschland?, WIK Diskussionspapier Nr. 496, https://www.wik.org/uploads/media/WIK_Diskussionsbeitrag_Nr_496.pdf).

200 The data is already available to researchers and government agencies upon request. An open data approach could enhance access to and usage of the data.

5 Future developments in e-commerce and delivery

2022 saw the lifting of pandemic restrictions and an initial return to more normal trading and consumption patterns. However, the economic effects of ongoing supply chain disruptions and the Ukrainian war led to high inflation rates. This has driven a rise in input costs due to higher energy and labour costs in all sectors of the economy. In addition, labour shortages have emerged due to the residual effects of long Covid, rising early retirements, and sectoral shifts in job uptake by individuals.

The effects of these trends in the postal sector are already becoming visible through the announcement of substantial increases in parcel tariffs for example by bpost.²⁰¹ The other parcel operators will also most probably increase their tariffs in early 2023. In addition, parcel operators will also seek to become more efficient internally and in the manner with which they interact with their customers. Efficiency gains through automation, process optimisation, and sustainable practices in sorting, transport, and delivery are likely to accelerate as is the emphasis on deliveries to pick-up points instead of home delivery.

In the broader economy, the impact of higher interest rates, elevated inflation, and the increasing cost of living is impacting both consumer and business confidence. This impacts the demand for e-commerce as discretionary spending and creates more cautious purchasing patterns for staple goods and services. These pressures are likely to extend deep into 2023 and probably 2024. Growth in e-commerce parcels is likely to significantly moderate whilst revenue growth will mainly be inflation driven not organic.

New technology-driven market entrants and start-ups in the parcel sector are especially challenged by the less advantageous capital market conditions. As interest rates are increasing investors are more reluctant to invest in companies that are likely, on past evidence, to be loss-making for years. Indications of this are seen in the difficulties being experienced by quick commerce enterprises (e.g. rapid delivery of groceries and smaller items to consumers). Market consolidation such as the acquisition of Gorillas by the Turkish delivery platform Getir is more likely as smaller less viable transporters struggle to generate financing, increase business scale, and achieve profitability.

However, innovative delivery services continue to attract external financing and grow in the market. The Dutch online grocery Picnic has successfully launched its milkman-delivery model with electric vehicles in the Netherlands, Germany, and France.²⁰² Belgium is a likely target for expansion for Picnic.

At this time, it is still uncertain how the Belgian Amazon marketplace will affect the Belgian e-commerce market and where it offers more opportunities for Belgian e-retailers. As with its other marketplace launches in Europe, practically all sellers present at the time of the Belgian launch were existing non-Belgian sellers from China, Germany, the U.K., Italy, France, and Spain who are already present on Amazon's other European marketplaces.²⁰³ The 2022 decision of the European Commission concerning Amazon's trading practices may reduce the linkage between Prime and FBA. In addition, the increasingly loss-making international online sales of Amazon²⁰⁴ may delay Amazon's investment plans in Europe including a quick expansion of delivery services in Belgium and other markets.

²⁰¹ See BIPT (2022), Décision du Conseil de l'IBPT du 22 novembre 2022 concernant l'analyse des augmentations tarifaires de bpost du panier des petits utilisateurs pour l'année 2023. For example, online tariffs for single-piece domestic standard parcels up to 20 kg increase between 12% and 16%.

²⁰² See fd.nl (2022), Picnic verdrievoudigde verlies in 2021 en verwacht ook dit jaar in het rood te eindigen, 27 December 2022 (<https://fd.nl/bedrijfsleven/1462524/picnic-verdrievoudigde-verlies-in-2021-en-verwacht-ook-dit-jaar-in-het-rood-te-eindigen-i1l2caSXaSql>).

²⁰³ Marketplacepulse.com (2022), <https://www.marketplacepulse.com/year-in-review-2022#ecommerce>.

²⁰⁴ Amazon.com (2022), Amazon.com announces third quarter results, 27 October 2022. They reported a loss of 5.5 billion USD or 6.6% of the nine-month net sales (Jan-Sep 2022).

As Belgian e-commerce is highly influenced and driven by external competitors and innovations a broad trawl for potential innovations and their projected timelines for market entry was undertaken in the study.

The likely impactful innovations were identified by word searches in EU, UN, OECD, IATA, UPU, IPC, World Bank, World Economic Forum, IMF, ECB, and US Federal Reserve reports, EU call texts and final project reports, Belgian, Irish, United Kingdom United States and other government reports, annual technology company reports, e-commerce intermediary sources, e-commerce organisation reports, newspaper searches, and scientific publications.²⁰⁵ The timing allocated to the innovations is geared to the present maturity of the underlying technologies, legislative speed, and estimates of their likely market entry.

Belgian administrations and e-commerce stakeholders will be faced with many or all of these innovations and requirements for change in the coming years. To remain competitive in domestic and/or international markets they need to prepare and implement those innovations that are or will be appropriate to their national and/or business strategies.

Table 10 illustrates some of the major innovations. It first maps them to estimated time scales within which immature or emerging innovations and requirements are likely to have a market impact. It shows where regulation could be required, the type of mechanisms that are impacted (hardware or software), the drivers of change, time to market, examples, market reach, and whether implementation is required, and presents examples in each.

Table 10: Future e-commerce: innovations, regulation, and time scale

<p>30+ Innovations Time Scale 1 - 5 Years</p>	<p>Marketplaces, Omnichannel, Out-of-home (OoH) delivery points, Web shop process enhancements, B2B/B2C convergence, C2C growth, Social shopping, Retail media, Ecozones, Urban based logistics facilities, Sustainable delivery prioritisation, Lower energy intensity processes/equipment, Lower data intensity processes /services, Mass personalisation, Reduced free shipping and returns, Circular economy, Cyber Security, Domestic and cross border carbon taxation, Carbon accounting, Mandated ESG standards and governance, Decarbonisation, Remote working, Metaverse, Onshoring, Smart labelling and packaging, Internet of Things (IOT), 5G, Blockchain, Air and sea freight fuel/carbon taxation, Expanded customs responsibilities.</p>
<p>20+ Innovations Time Scale 6 - 10 Years</p>	<p>Alternatively fuelled vehicles, Predictive deliveries, Enhanced parcel delivery security, Regulated national cyber currencies, Smart sustainability, Autonomous large and small delivery vehicles, Aerial delivery craft, Adaptive logistics, Web 3.0, 6G, Edge computing, Business, and domestic 3D printing, Cooperative delivery networks, Device level artificial intelligence, Corporate quantum computing, Biometric security, Mandated sustainability, Physical internet, Sharing economy, Space economy, Localisation,</p>

²⁰⁵ Reports, articles: EU, UN, OECD, IATA, UPU, IPC, World Bank, World Economic Forum, IMF, ECB and US Federal Reserve reports, EU call texts and final project reports, Belgian, Irish, United Kingdom United States and other government reports, annual technology company reports, E-commerce intermediary sources, e-commerce organisation reports, newspaper searches and scientific publications (accessed May to December 2022).

Regulatory	Regulation Only	Regulation + Hardware	Regulation + Software	Hardware no regulation	Software no regulation
Characteristic	Sets a regulated standard for access, operation, and governance in a market or situation	Sets a regulated standard for access, operation, and governance in a market or situation and requires hardware deployments or upgrades	Sets a regulated standard for access, operation, and governance in a market or situation and requires software deployments or upgrades	A supplier driven deployment of new or upgraded hardware compliant with existing regulations	A supplier driven deployment of new or upgraded software compliant with existing regulations
Driver	Administration	Administration	Administration	Market	Market
Time to market Impact	Long: Varies depending on the permitted transition/ implementation time	Long: Time to create and implement the regulation plus the time to upgrade and/or deployed hardware elements in the market.	Medium to Long: Time to create and implement the regulation plus the time to upgrade and/or deployed software elements in the market.	Medium to Long: Time to upgrade and/or deployed hardware elements in the supplier's market. May not be market wide where multiple competing hardware offers are available and deployed.	Medium to short: Time to upgrade and/or deployed software elements in the supplier's market. May not be market wide where multiple competing software offers are available and deployed.
Available market reach	Full	Full	Full	Partial	Partial
Implementation required	Yes	Yes	Yes	Optional	Optional
Examples	<ul style="list-style-type: none"> • Transposition of EU legislation, national labour laws • Consumer safety/ protection • Spatial planning etc 	<ul style="list-style-type: none"> • 5G • Internet of Things • Drones • Small Autonomous Delivery Vehicles • Robotics • Parcel Lockers • EV fleet creation • EV charging points • Electrical grid upgrades • etc 	<ul style="list-style-type: none"> • Web site and web shop software • Marketplace software • Tax Software • Cyber security software • Invoicing software • Reporting software • EV charging software • EV vehicle software • etc 	<ul style="list-style-type: none"> • PCs & Servers • Mobile Phones • Tablets • 5G peripherals • Augmented reality headsets • Virtual reality headsets • Ear pods • Vehicles • etc 	<ul style="list-style-type: none"> • Web site and web shop software • Marketplace software • Tax Software • Cyber security software • Invoicing software • Reporting software • EV charging software • EV vehicle software • etc

Source: Colum Joyce

Having an overview of the potential innovations and influence allows prepositioning research by the appropriate Belgian institutions and enterprises to ensure that their progress is monitored and initial consideration for policy, strategy, and action are initiated. This can lessen the danger of a relative loss in market position versus state or commercial competitors.

It is also evident that there are likely to be considerable demands for new skills to be available for the Belgian economy, transporters, e-commerce enterprises, and support ecosystem. This has many implications for education policy, social and labour legislation, enterprise support, sustainability, and consumer protection in the years ahead.

6 Conclusions and recommendations

The Belgian e-commerce market faces many challenges

Belgium has a vibrant e-commerce sector that includes B2B, B2G, B2C, and C2X and it is enabled by a high quality communications and delivery infrastructure.

It is a maturing market in that the number of internet users is over 90% and the levels of online shoppers as a percentage of online users is over 85%. The per-capita spending by online shoppers is good and growth rates are consistently in low double figures. Consumer purchasing patterns and category selections are similar to the other countries of the European Union. Growth opportunities exist for Belgian e-commerce, especially in niche segments and demographics whilst improvements in conversion rates for transactional websites offer the greatest opportunity for growth across all aspects of e-commerce.

However Belgian e-commerce also faces challenges. The lack of a clear and consistently applied definition of e-commerce undermines the ability to gain a true picture of the real contribution of e-commerce to the Belgian economy. The impending “E-commerce strategy 4 Belgium” will assist in addressing this and provide a unifying vision and pathway for Belgian e-commerce.

The presence and market power of large scale non-Belgian e-commerce operators pose challenges for the many small and medium-sized e-commerce enterprises in Belgium. There is little evidence for the emergence of one or more large scale Belgian competitors to such operators due to the financial cost of establishing the necessary infrastructure, market scale, competitive offer, and brand presence.

The comparative performance of Belgian e-commerce with five EU member states places it firmly in the mid-range. Many of the indicators are more influenced by the quality of enterprise websites which would indicate that improving Belgium's overall e-commerce performance relies mainly on enterprise rather than policy improvements. The exception however is in the area of sustainability where changes at the enterprise level will be mandated and driven by policy requirements from the EU and national level.

In summary, Belgium has all the financial, demographic, infrastructure, economic, product, and service resources needed to maintain and improve its e-commerce performance in all its guises in the immediate future.

Belgian parcel operators have improved services for e-commerce deliveries

The Belgian parcel market has grown substantially since 2015 with impressive growth rates after 2019. E-commerce parcels play a significant and growing role in domestic and international inbound deliveries with a volume share of more than 70% in 2021. Postal operators have been investing in sorting and delivery capacities, increased accessibility, added new services, and improved digital solutions for Belgian consumers, Belgian businesses, and international e-retailers.

Even though the Belgian parcel market is fairly concentrated, there is competition in all segments (B2C, B2B, and C2X). The growth opportunities in the Belgian e-commerce and parcel market have attracted new market entrants with an emphasis on e-commerce deliveries. Budbee and Homerr have expanded their Dutch operations into Flanders.

Amazon is a powerful vertically integrated e-commerce and logistics platform. It now provides delivery services for standard parcels and has established significant market shares in a few years in Austria, Germany, Italy, and Spain. Amazon has set up a delivery

hub in Antwerp and started deliveries in the Antwerp and the Brussels region in addition to the B2C delivery services of PostNL Belgium and bpost.

Other important players in the Belgian parcel market with smaller stakes in B2C delivery are DPD Belgium, GLS Belgium, and UPS, all with origins in the B2B parcel and express business. The universal service provider, bpost, is the biggest player in the Belgian parcel market, especially in the delivery of parcels to consumers. The most important competitors to bpost in the B2C segment are PostNL followed by DPD while the new market entrants were still niche players in 2021. Mondial Relay has been benefitting from increased C2C deliveries due to the strong growth in second-hand sales of pre-owned goods between individual consumers and it is emerging as a serious competitor of bpost in this segment.

Apart from bpost all postal operators make use of subcontractors for the first and last mile. The competitive structure of the Belgian parcel market in combination with a high level of demand concentration in the B2C segment creates pressure on all market players to increase efficiency and rigorously manage their input costs. This pressure is then devolved to subcontractors which allegedly affected negatively the working conditions for employees and self-employed deliverers in Belgium. This led the public prosecutor in Antwerp to open cases in 2021 and 2022 relating to the employment conditions applied by two large parcel operators active in Belgium. At the time of drafting, the procedures were still pending in front of the criminal court of Antwerp.²⁰⁶ In light of these developments the Minister pursued the objective to improve the working and payment conditions of parcel deliverers by revising the postal legislation. The bill for revising the Belgian Postal Act foresees the introduction of a minimum hourly rate for parcel deliverers, strengthening reporting obligations for parcel operators and subcontractors, implementing time recording measures and implementing preventive measures for the well-being of delivery drivers and road safety.

Postal regulators are facing new challenges due to the rapidly developing e-commerce and parcel markets. We analysed the practices of five selected postal regulators (in the previously listed four countries plus Sweden) as to how they dealt with new players in the market. The analysis revealed that they all monitor the parcel markets more closely since 2018 when the EU Cross-border Parcel Regulation entered into force. They partly monitor developments in the sub-segments such as B2C, B2B, and C2C. In Italy, the postal market analysis and the expertise of the Italian postal regulator supported the competition authority in proving the abuse of market power of a vertically integrated online marketplace (Amazon case in Italy²⁰⁷).

In many countries, including Belgium, there have been concerns about the working conditions of subcontractors in the parcel delivery sector. These concerns emerged with the growth of B2C e-commerce deliveries combined with a high level of demand concentration in the B2C segment that have created pressure on all market players to increase efficiency and to rigorously manage their input costs. This pressure has been devolved to subcontractors which have allegedly negatively affected the working conditions for employees and self-employed deliverers of parcel operators and subcontractors. Currently, there are legal proceedings against two Belgian parcel operators in this regard. In light of these developments the Minister pursued the objective to improving the working conditions of parcel deliverers by amending the Belgian Postal Act. Under the draft law, all parcel delivery service providers, regardless of their size or suspected violations, will have to report delivery times and remuneration to subcontractors systematically to prove that they comply

²⁰⁶ See among others Janne Poets, Voor 16h besteld, morgen geleverd. De sociale fraude krijgt u er gratis bij, 19/10/2022 available at: <https://www.jubel.be/openingsrede-limburg-voor-16h-besteld-morgen-geleverd-de-sociale-fraude-krijgt-u-er-gratis-bij/>.

²⁰⁷ Decision of 30 November 2021 in Case A528 available at: <https://www.agcm.it/dettaglio?db=41256297003874BD&uid=801201274D8FDD40C12587AA0056B614&view=&title=A528-FBA%20AMAZON&fs=Abuso%20di%20posizione%20dominante>.

with the rules on maximum delivery times and minimum compensation for the provision of parcel delivery services among others.

The sustainable transformation of the last mile has started but it is a lengthy process

Postal operators and e-retailers have begun implementing measures to reduce greenhouse gases and air pollutants, State-owned bpost is a market leader due to its size and larger financial capacity. Competing operators with low margins especially in B2C deliveries as well as subcontractors are not as well placed as bpost to cope with the financial and organisational challenges of increasing sustainability for the first and last mile. There are also start-ups market entrants with sustainable delivery at the core of their business model. However, these small-scale niche operators are likely to remain so in the coming years. From a Belgian regional perspective, there is more progress in sustainable delivery initiatives in Flanders mainly due to its bigger e-commerce market, greater out-of-home delivery resources, and higher population density.

There are three main high potential approaches to reducing air pollutants and emissions on the first and last mile. First, the use of low-emission vehicles. Postal operators have started to employ electric vehicles and e-cargo bikes or trailers. Bpost's sustainability initiatives must respect the sustainability clauses in its 7th Management Contract, which drives bpost's role as a leading operator in terms of e-vehicles use. Other operators remain in the test phase.

Second, out-of-home delivery instead of delivery to the door may reduce traffic. Even though Belgium has, by international comparison, a dense network of postal access points, parcel locker networks in Belgium are not yet well-developed. For the sector as a whole, we see significant efforts in building up out-of-home delivery networks.

Third, delivery and collection in rural areas need to be targeted to tackle the specific challenges of low density and longer delivery routes. There is little evidence of the use of low-emission vehicles or cooperative concepts between operators in rural areas.

The pace of sustainable transformation remains insufficient to achieve the substantial reductions required by EU and Belgian national sustainability targets. Further political, regulatory, and enterprise level measures are needed to create a framework targeted at increasing sustainability for parcel operators on the first and last mile. There is a need for complementary measures from all actors within and outside the postal sector: Administrations, parcel operators, e-retailers, Belgian cities, and communities all have complementary roles and contributions to make to increase the environmental sustainability for the first and last mile.

Following our analysis we have identified six areas for recommendations.

Recommendation 1: Establish a national e-commerce strategy

The analysis of the Belgian e-commerce market revealed a lack of a national e-commerce strategy, a standard definition of e-commerce, and a lack of basic data on the capabilities of Belgian e-retailers. We consider a national e-commerce strategy as an important tool to develop measures that help improve the competitiveness of Belgian e-commerce. Moreover, a national strategy may assist in establishing the conditions necessary for e-retailers to achieve national economies of scale. We, therefore, recommend reinforcing existing initiatives in the field of e-commerce, through:

- The appointment of one or more e-commerce operational expert/s in the Digital Minds Group;

- The acceleration of the creation of the Belgian e-commerce strategy by the CCE should include a single integrated definition and measurement of e-commerce to include B2B, B2C, B2G, and C2X, products and services, imports, and exports.

Parallel and in support of this the appropriate groups should:

- establish a clear baseline measure and criteria against which the progress of the E-commerce Strategy 4 Belgium can be measured.
- Examine the role of e-commerce and its intermediaries in national contingency planning.
- Emphasise cybersecurity in the 'E-commerce Strategy 4 Belgium' for administrations, businesses, and consumers.
- Examine the commercial implications and impact on Belgian e-commerce of free shipping and returns, return rights, the competitive disadvantages imposed by undeclaration of the VAT-liable value on ex-EU e-commerce shipments, and e-commerce fraud.

Recommendation 2: Increase national economies of e-commerce scale.

Belgian e-retailers tend to focus their services on either the French or the Dutch-speaking regions of the country. Among other reasons, this helps explain the low levels of national economies of scale in Belgian e-commerce. This was also noted by KPMG in 2016 but little progress is evident in the intervening years despite the e-commerce boom during the pandemic. Added to this we also identified low levels of e-commerce site quality, low consumer satisfaction and service, and low conversion rates all of which reduce growth and the ability to establish e-retailer national economies of scale.

- Therefore, regional governments, their dedicated agencies, and Belgian e-commerce associations²⁰⁸ should, each within their competencies and scope of activities, encourage and support e-commerce enterprises to develop regional level relationships with marketplaces servicing the Belgian e-commerce market and adopt a "Marketplace first" strategy to assist enterprises in gaining e-commerce experience and expertise before establishing their stand-alone transactional site.
- In parallel, regional governments should increase inter-regional e-commerce support coordination to assist in achieving greater national economies of scale, increase conversion rates, and lower the costs of business for e-retailers and supply chain intermediaries.

Recommendation 3: Ensure a level playing field for Belgian e-retailers

The EU has vigorously engaged in new regulatory interventions focused on market fair play, transparency, and data security/consumer protection. These interventions include the Digital Markets Act (DMA), The Digital Services Act (DSA), Platform2Business regulation, omnibus directives, data collection and storage, the Single Market Emergency Instrument plan, carbon border taxation, and new initiatives on parcel packaging and permitted empty volume. All these and more have implications for domestic and cross-border e-commerce in Belgium.

- Belgium should therefore monitor and ensure that sufficient expertise is made available to its permanent representation to the EU to ensure that the needs of the

208 On 6 February 2023, the two major Belgian e-commerce associations, BeCommerce and SafeShops.be announced to merge aiming at promoting the Belgian e-commerce in a safe, reliable and sustainable way, see <http://www.becommerce.be/> and <https://www.safeshops.be>.

Belgian e-commerce sector are duly taken into account in all negotiations which are susceptible to impact it (e.g.: EU single market emergency instrument). Belgium should also include the e-commerce sector as one of its priority areas of its EU Council of Ministers presidency in the first half of 2024. This may include, in the relevant case, the follow up to the evaluation of the Regulation (EU) 2019/1150 on promoting fairness and transparency for business users of online intermediation services.

- The Belgian Science Policy Office (BELSPO) should promote the active participation of Belgian partners in Horizon Europe's EU research and development programs of relevance to e-commerce and supply chains (e.g.: EU 6G initiatives).

Non-Belgian e-retailers and platforms play a large role in the Belgian e-commerce market. Big international online marketplaces like Amazon established practices that can put independent Belgian e-retailers at a market disadvantage. Competition authorities have started to more closely prosecute abuses of market power of online platforms. The groundbreaking decision of the Italian competition authority AGCM and, closely related to the Italian case, Amazon's commitment agreed with the European Commission are examples for this.

A regular supervision of the sector is therefore appropriate. The BIPT should be entrusted with the task to centralise/coordinate the:

- the monitoring of operational and commercial practices of non-Belgian e-commerce suppliers in Belgium;
- the contribution of the Belgian authorities to the Study on Evaluation of the Regulation (EU) 2019/1150 on promoting fairness and transparency for business users of online intermediation services which is ongoing²⁰⁹.

Competitiveness on a level playing field requires strategic and tactical efforts by Belgian e-retailers to improve their commercial viability through improvements in existing capabilities, practices, quality, and outcomes. The complementary activities of the regional administrations, their dedicated agencies, and Belgian e-commerce associations should, each within their competencies and scope of activities, encourage and support e-commerce enterprises to:

- Undertake regular quality audits and updates of their transactional websites.
- Explore and use marketplaces as part of their business strategies.
- Participate in national and international representative groups and associations.
- Emphasise the need and, where available, use targeted regional support to increase the quality of e-commerce sites to increase conversion rates and improve domestic e-commerce purchases and cross-border e-commerce exports.

Recommendation 4: Refine monitoring of the Belgian parcel and adjacent markets

The Belgian parcel market has been growing quickly driven by domestic and cross-border e-commerce deliveries and characterised by recent market entries of B2C delivery companies including Amazon Transport. BIPT continuously monitors the developments in the Belgian parcel market and has been expanding the levels of market and performance

²⁰⁹ <https://open-evidence.com/2022/01/31/study-on-evaluation-of-the-regulation-eu-2019-1150-on-promoting-fairness-and-transparency-for-business-users-of-online-intermediation-services-the-p2b-regulation/>.

monitoring to transpose the EU Cross-border Parcel Regulation in 2019. The notification system in place appears appropriate for the purposes of this EU Regulation.

- BIPT should continue closely monitoring developments in the Belgian parcel market and its sub-segments including the C2C, B2C, and B2B segments, and appropriate indicators showing the operators' dependency (e.g. share of TOP 5 customers in total revenue/volume). The expertise of postal regulators is important for competition authorities in cases of the identification of potential abuse of market power within the postal market i.a. by vertically integrated online marketplaces.
- To facilitate the enforcement of data collection by BIPT a well-defined legal mandate is recommended (see for example the Austrian approach). The selection of additional indicators to better reflect (1) the e-commerce driven dynamics (definition of appropriate market segments, (2) the resilience of the sector (increasing demand concentration), and (3) additional indicators about environmental and social sustainability could be subject to a stakeholder dialogue and/or consultation exercises.
- To lower BIPT's workload and the administrative costs for Belgian parcel operators an online tool for data collection should be developed (see for example the approach of PTS). More data collection increase administrative costs at BIPT that could be partly covered by charging fees from all postal operators and not only from operators providing letter services.²¹⁰
- These proposals could be integrated in the amendment of the Postal Law. However, for the purpose of market monitoring it is sufficient to collect data from the ten or twenty largest operators in the Belgian parcel market.

Recommendation 5: Reassess the size and scope of the planned amendments of the Postal Law

The proposed amendments to the Belgian Postal Law have the potential to change the shape of the Belgian parcel sector, as existing business models and potential market entry could be affected. Despite ample criticisms, neither a detailed impact assessment nor a discussion of alternative approaches to achieve the overall objective have been carried out hitherto. However, if the Belgian legislator would continue the legislative process we recommend the following:

- As the regulation of parcel delivery in Belgium that will be put in place by the draft law goes far beyond the practice in other Member States, the Belgian legislator should include a review clause in the draft law and mandate the BIPT to conduct an ex post impact assessment two years at the latest after the new system is fully operational.
- The decrees implementing the amended law and in particular those specifying the implementation of Articles 5/3 (time-recording) and 10/1 (minimum remuneration) should be subject to a public consultation and an impact assessment of the possible alternatives. For example, with regard to the latter, the impact of different ways of quantifying the inputs in the calculation formula and the resulting levels of minimum remuneration on parcel delivery service providers depending on their profile should be assessed.
- The legislator should define minimum size thresholds, for example in relation to the turnover generated by parcel delivery services, in order to avoid and/or reduce the administrative costs for small and micro enterprises as well as for transport

²¹⁰ See the BIPT consultation initiated by the Minister in order to expand the circle of postal operators contributing to the costs of BIPT. <https://www.ibpt.be/operateurs/publication/consultation-concernant-un-projet-de-revision-de-l'article-8-de-la-loi-du-26-janvier-2018-relative-aux-services-postaux>.

companies with a small proportion of parcel delivery services in their overall business. These minimum size thresholds should apply to each of the requirements set out in the draft law. This would also reduce the administrative costs for the authorities responsible for implementing the rules.

BIPT should in parallel calculate bpost's parcel delivery cost and ensure that bpost's competitors are not obliged, indirectly via the minimum compensation, to pay a higher wage including employers' charges to subcontractors' delivery staff than bpost.

Recommendation 6: Increase the environmental sustainability of the first and last mile

Measures by postal operators to increase environmental sustainability have started, but the transformation takes time. There would be a high potential for improving sustainability on the first and last mile by postal operators and online retailers without regulatory intervention. The federal government and the regional governments in charge of transport and environmental policy should enter into an agreement entrusting BIPT – in concertation with the experts from the three regions - to implement the following actions to incentivise stakeholders to move more quickly in this direction. BIPT should

- discuss and establish appropriate sustainability indicators with stakeholders and expand postal market indicators in BIPT's market observatory to evaluate developments in the Belgian postal sector. BIPT could identify for this purpose best practices with its peers in the ERGP. These indicators should be comparable and relevant for an evaluation of the sustainable transformation of the sector. We propose to consider and discuss at least the following indicators: the number and type of low-emission vehicles by an operator, the number of parcels delivered out-of-home, and the number of return parcels by collection mode (e.g. by post office/shop, automated parcel station, delivery staff). This would enhance information on distances travelled to return parcels. Sustainable delivery is a specific concern in rural areas, and BIPT should discuss with the sector how to capture initiatives in such areas.
- act as a single point of contact for the sector as regards all existing mechanisms (at federal and/or regional as well as community level) to support the increased use of alternatively fuelled vehicles by SMEs and subcontractors in postal transport and delivery (like e-vans, cargo bikes, CNG/LNG trucks). This should include available support for investments into necessary infrastructure like charging points.
- play an advisory role based on their sector-specific knowledge, when local authorities and the regions adopt new spatial planning rules on how to facilitate localised and nationally consistent delivery and collection related infrastructure development (e.g. urban hubs, loading zones, out-of-home delivery deployments, cycle paths etc). Ideally, the three regions should agree to a common approach, a process that could be accompanied by the BIPT experts.
- gather and make available to businesses and researchers a consistently managed online resource detailing the number and geolocation of out-of-home facilities, infrastructure available for use, services available at each, level of shared use of such facilities (and which delivery operators make use of the same facilities) and intensity of use across Belgium.
- facilitate 'sandbox'²¹¹ multi-transporter trials of cooperative network approaches, mechanisms, and processes, to reduce traffic through cooperation between service providers e.g. by sharing postal access points, urban hubs, or joint delivery in rural

²¹¹ As a sandbox trial, we understand testing of innovative approaches for a limited time in a controlled regulatory environment. Such trials can be useful to explore the potential of cooperation on an experimental basis without the need to have legal provisions in place.

areas. In this framework, the BIPT could monitor the joint use of postal points and explore mechanisms to extend cooperation. At the same time, parcel operators should not be mandated to cooperate due to organisational, commercial, technical, and operative challenges.

At the federal level, the following actions should be considered:

- In case of demand by operators to enter into commercial agreements for example to deliver or collect jointly, there may be a need for specifying a 'safe haven' from possible competition law investigations and sanctions under Art. 101 TFEU. BIPT could for this purpose discuss with the Belgian Competition Authority the adoption of specific guidelines explaining which exceptions to the prohibition of vertical agreements between competitors are justified by sustainability objectives.
- E-retailers can influence their customers' choice of delivery options. An obligation to offer at least one sustainable delivery option could greatly enhance the use of these services, especially if this was the default delivery option offered at the online shop's check-out. The Belgian Government should consider amending the Economic Law Code to implement an obligation for online retailers, or to facilitate a self-commitment of the sector as a first step.
- Belgian government could consider establishing federal multi-year consumer education campaigns to emphasise domestic e-commerce use, reduce cross-border use, and drive the selection of sustainable product and delivery options.

Table 11 summarises the recommended actions by institution.

Table 11: Recommended actions by institution

Action by	Recommendation	Recommended actions
Federal Government	R1	<ul style="list-style-type: none"> Promote and establish a national e-commerce strategy (E-commerce Strategy 4 Belgium)
	R3	<ul style="list-style-type: none"> Ensure compliance with the existing EU framework (B2P Directive, DMA and DSA) and Belgian legislation (e.g. with BIPT as coordinator for the supervision of the sector)
	R4	<ul style="list-style-type: none"> Establish a dedicated mandate for BIPT for data collection Ensure that BIPT is adequately resourced to perform additional tasks in data collection and monitoring
	R5	<ul style="list-style-type: none"> Reassess the size and scope of the planned amendments of the Postal Law
	R6	<ul style="list-style-type: none"> Consider amending the Economic Law Code to implement an obligation for online retailers, or to facilitate a self-commitment of the sector to offer sustainable delivery options Consider establishing federal multi-year consumer education campaigns to emphasise domestic e-commerce use and drive the selection of sustainable product and delivery options
Federal & regional governments, communities	R6	<ul style="list-style-type: none"> Explore mechanisms to support the increased use of alternative vehicles by SMEs and subcontractors in transport and delivery Continue supporting initiatives and investments for sustainability infrastructure such as charging points, cycle lanes and urban depots
Regional governments and their dedicated agencies	R2 / R3	<ul style="list-style-type: none"> Encourage and support e-commerce enterprises, marketplaces and associations to improve their digital business skills, capabilities, practices and metrics
E-commerce associations	R3	<ul style="list-style-type: none"> Encourage and support e-commerce enterprises and marketplaces to engage in continuous improvements in the quality of service, metrics and user interaction with their websites
BIPT	R4	<ul style="list-style-type: none"> Develop and establish a standardised online tool to facilitate data collection from postal and parcel operators
	R4 / R6	<ul style="list-style-type: none"> Discuss and establish appropriate sustainability, additional postal market and e-commerce related postal indicators in dialogue with stakeholders
	R6	<ul style="list-style-type: none"> Act as a single point of contact for the sector as regards all existing mechanisms (at federal and/or regional as well as community level) to support the increased use of alternatively fuelled vehicles by SMEs and subcontractors in postal transport and delivery Play an advisory role based on their sector-specific knowledge, when local authorities and the regions adopt new spatial planning rules Gather and make available to businesses and researchers a consistently managed online resource Facilitate “sandbox” multi-transporter trials of cooperative network approaches, mechanisms, and processes, to reduce traffic through cooperation between service providers

WIK-Consult • Report

Study for BIPT Belgian Institute for Postal Services and Telecommunication



Postal Aspects of E-Commerce Annex: Country Fact Sheets

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Country Fact Sheet - Austria

1. General country facts

Population	8,932,664 inhabitants
GDP per capita purchasing power adjusted	38,900 EUR PPP
Income per capita purchasing power adjusted	25,200 EUR PPP
Share of single-person households	38.7 %
Population density	108 people per square kilometre



		Population	Area		
Population and area distribution	<i>Rural regions</i>	40.2%	75.3%		
	<i>Intermediate regions</i>	27.7%	17.6%		
	<i>Urban regions</i>	32.1%	7.1%		
<hr/>					
		2015	2019	2021	
Share of population that used the internet in the last 3 months	<i>Total</i>	84%	88%	93%	
	<i>65 to 74 years old</i>	46%	53%	66%	
<hr/>					
		2015	2019	2021	
Share of population with basic or above basic digital skills <small>2015 and 2019 with a different methodology than 2021</small>	<i>Total</i>	64%	66%	63%	
	<i>65 to 74 years old</i>	23%	27%	35%	

2. B2C e-commerce

B2C e-commerce revenues	10.72 billion EUR
Revenue development per year (CAGR 2017-2021)	11.5%
B2C e-commerce revenue per capita	1,200 EUR

		Store name	Revenue in million USD		
Top 5 online stores by revenue (2021) <small>marketplace revenue excluded</small>	<i>1st Place</i>	amazon.de	1420		
	<i>2nd Place</i>	zalando.at	436		
	<i>3rd Place</i>	mediamarkt.at	282		
	<i>4th Place</i>	shop-apotheke.at	182		
	<i>5th Place</i>	universal.at	166		
<hr/>					
		2015	2019	2021	
Individuals that purchased online within the last 12 months	<i>Total</i>	58%	62%	63%	
	<i>25 to 34 years old</i>	80%	81%	79%	
	<i>65 to 74 years old</i>	17%	24%	30%	
<hr/>					
		2015	2019	2021	
Share of individuals that purchased online cross-border within the last 12 months <small>2021: within the last 3 months</small>	<i>Total</i>	46%	47%	43%	
	<i>25 to 34 years old</i>	65%	62%	59%	
	<i>65 to 74 years old</i>	13%	16%	18%	
<hr/>					
		2015	2019	2021	
Top 3 countries of the most recent cross-border purchase (2021)	<i>1st Place</i>	Germany	65%		
	<i>2nd Place</i>	China	13%		
	<i>3rd Place</i>	United Kingdom	3%		
<hr/>					
		2015	2019	2021	
Delivery preferences ("Where do you usually have your parcels delivered to?") (2021)	<i>1st Place</i>	At home	86%		
	<i>2nd Place</i>	At a safe place agreed with the carrier	15%		
	<i>3rd Place</i>	Parcel locker	11%		

3. Enterprises and e-commerce		2015	2019	2021
Sales channels for enterprises in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales</i>	18%	28%	35%
	<i>Enterprises with web sales via e-commerce marketplaces</i>	not available	7%	15%
Enterprises that sell cross-border in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales to the own country</i>	17%	24%	29%
	<i>Enterprises with e-commerce sales to other EU countries</i>	11%	15%	17%
	<i>Enterprises with e-commerce sales to the rest of the world</i>	6%	9%	8%
Share of enterprise turnover from B2C and B2B sales for wholesale and retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises' turnover from web sales - B2C</i>	1%	2%	2%
	<i>Enterprises' turnover from B2B sales (web sales + EDI)</i>	14%	12%	15%
Share of enterprises using a specific B2B sales channel <i>Enterprises with 10 employees or more</i>	EDI	7%	7%	7%
	Web sales	8%	13%	16%
4. Delivery				
Parcels delivered per capita (2021)		35		
Share of import parcels (2020)		28.6 %		
TOP 3 parcel delivery service providers by volume Market share by revenue		Parcel delivery service providers		Market share (CR4)
		1st Place	Österreichische Post	
		2nd Place	DPD	
		3rd Place	Amazon Logistics	
			94.1 %	

Country Fact Sheet - Belgium

1. General country facts

Population	11,554,767 inhabitants
GDP per capita purchasing power adjusted	39,300 EUR PPP
Income per capita purchasing power adjusted	23,400 EUR PPP
Share of single-person households	35.4 %
Population density	377 people per square kilometre



		Population	Area	
Population and area distribution	<i>Rural regions</i>	8.5%	32.5%	
	<i>Intermediate regions</i>	38.1%	43.7%	
	<i>Urban regions</i>	53.4%	23.8%	
Share of population that used the internet in the last 3 months	<i>Total</i>	85%	90%	93%
	<i>65 to 74 years old</i>	53%	69%	77%
Share of population with basic or above basic digital skills	<i>Total</i>	60%	61%	54%
<small>2015 and 2019 with a different methodology than 2021</small>	<i>65 to 74 years old</i>	28%	34%	29%

2. B2C e-commerce

B2C e-commerce revenues	8.50 billion EUR
Revenue development per year (CAGR 2017-2021)	9.7%
B2C e-commerce revenue per capita	0,736 EUR

		Store name	Revenue in million USD	
Top 5 online stores by revenue (2021) <small>marketplace revenue excluded</small>	<i>1st Place</i>	bol.com	847	
	<i>2nd Place</i>	coolblue.be	747	
	<i>3rd Place</i>	zalando.be	537	
	<i>4th Place</i>	mediamarkt.be	250	
	<i>5th Place</i>	apple.com	249	
Individuals that purchased online within the last 12 months	<i>Total</i>	55%	66%	75%
	<i>25 to 34 years old</i>	71%	80%	89%
	<i>65 to 74 years old</i>	21%	34%	48%
Share of individuals that purchased online cross-border within the last 12 months <small>2021: within the last 3 months</small>	<i>Total</i>	37%	46%	45%
	<i>25 to 34 years old</i>	48%	61%	59%
	<i>65 to 74 years old</i>	13%	21%	20%
Top 3 countries of the most recent cross-border purchase (2021)	<i>Country</i>	%	% of online shoppers	
	<i>1st Place</i>	Netherlands	35%	
	<i>2nd Place</i>	France	23%	
	<i>3rd Place</i>	China	17%	
Delivery preferences ("Where do you usually have your parcels delivered to?") (2021)	<i>Place of delivery</i>	%	% of online shoppers	
	<i>1st Place</i>	At home	78%	
	<i>2nd Place</i>	Parcel shop	25%	
	<i>3rd Place</i>	Post office	15%	

3. Enterprises and e-commerce		2015	2019	2021
Sales channels for enterprises in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales</i>	31%	42%	46%
	<i>Enterprises with web sales via e-commerce marketplaces</i>	not available	9%	9%
Enterprises that sell cross-border in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales to the own country</i>	23%	29%	30%
	<i>Enterprises with e-commerce sales to other EU countries</i>	14%	16%	16%
	<i>Enterprises with e-commerce sales to the rest of the world</i>	5%	7%	6%
Share of enterprise turnover from B2C and B2B sales for wholesale and retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises' turnover from web sales - B2C</i>	2%	3%	3%
	<i>Enterprises' turnover from B2B sales (web sales + EDI)</i>	23%	30%	25%
Share of enterprises using a specific B2B sales channel <i>Enterprises with 10 employees or more</i>	EDI	9%	10%	11%
	Web sales	16%	19%	19%
4. Delivery				
Parcels delivered per capita (2021)	22			
Share of import parcels	43.3 %			
	<i>includes import parcels contracted with senders</i>			
TOP 3 parcel delivery service providers by volume Market share by revenue		<i>Parcel delivery service providers</i>	<i>Market share (CR4)</i>	
	1st Place	bpost		
	2nd Place	DPD	70.0 %	
	3rd Place	PostNL		

Country Fact Sheet - Ireland

1. General country facts

Population	5,006,324 inhabitants
GDP per capita purchasing power adjusted	71,200 EUR PPP
Income per capita purchasing power adjusted	19,000 EUR PPP
Share of single-person households	28.4 %
Population density	72 people per square kilometre



		Population	Area	
Population and area distribution	<i>Rural regions</i>	56.9%	88.8%	
	<i>Intermediate regions</i>	14.7%	9.8%	
	<i>Urban regions</i>	28.4%	1.3%	
		<i>2015</i>	<i>2019</i>	<i>2021</i>
Share of population that used the internet in the last 3 months	<i>Total</i>	80%	90%	99%
	<i>65 to 74 years old</i>	39%	64%	97%
			<i>2015</i>	<i>2019</i>
Share of population with basic or above basic digital skills <small>2015 and 2019 with a different methodology than 2021</small>	<i>Total</i>	44%	53%	70%
	<i>65 to 74 years old</i>	12%	19%	50%
			<i>2015</i>	<i>2019</i>

2. B2C e-commerce

B2C e-commerce revenues	5.93 billion EUR
Revenue development per year (CAGR 2017-2021)	21.4%
B2C e-commerce revenue per capita	1,185 EUR

Top 5 online stores by revenue (2021) <small>marketplace revenue excluded</small>		Store name	Revenue in million USD	
<i>1st Place</i>		amazon.co.uk	486	
<i>2nd Place</i>		tesco.ie	274	
<i>3rd Place</i>		currys.ie	165	
<i>4th Place</i>		argos.ie	155	
<i>5th Place</i>		littlewoodsireland.ie	155	
		<i>2015</i>	<i>2019</i>	<i>2021</i>
Individuals that purchased online within the last 12 months	<i>Total</i>	51%	67%	87%
	<i>25 to 34 years old</i>	69%	82%	95%
	<i>65 to 74 years old</i>	15%	29%	67%
		<i>2015</i>	<i>2019</i>	<i>2021</i>
Share of individuals that purchased online cross-border within the last 12 months <small>2021: within the last 3 months</small>	<i>Total</i>	33%	53%	57%
	<i>25 to 34 years old</i>	48%	68%	68%
	<i>65 to 74 years old</i>	9%	20%	35%
		<i>2015</i>	<i>2019</i>	<i>2021</i>
Top 3 countries of the most recent cross-border purchase (2021)		Country	% of online shoppers	
<i>1st Place</i>		United Kingdom	49%	
<i>2nd Place</i>		China	13%	
<i>3rd Place</i>		Germany	8%	
Delivery preferences ("Where do you usually have your parcels delivered to?") (2021)		Place of delivery	% of online shoppers	
<i>1st Place</i>		At home	86%	
<i>2nd Place</i>		At work	12%	
<i>3rd Place</i>		Post office	9%	

3. Enterprises and e-commerce		2015	2019	2021
Sales channels for enterprises in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales</i>	28%	41%	38%
	<i>Enterprises with web sales via e-commerce marketplaces</i>	not available	8%	4%
Enterprises that sell cross-border in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales to the own country</i>	30%	38%	39%
	<i>Enterprises with e-commerce sales to other EU countries</i>	17%	18%	12%
	<i>Enterprises with e-commerce sales to the rest of the world</i>	12%	12%	14%
Share of enterprise turnover from B2C and B2B sales for wholesale and retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises' turnover from web sales - B2C</i>	6%	5%	6%
	<i>Enterprises' turnover from B2B sales (web sales + EDI)</i>	31%	29%	31%
Share of enterprises using a specific B2B sales channel <i>Enterprises with 10 employees or more</i>	EDI	14%	17%	12%
	Web sales	14%	15%	17%
4. Delivery				
Parcels delivered per capita (2021)	30			
Share of import parcels	41.3 %			
	<i>includes import parcels contracted with senders</i>			
TOP 3 parcel delivery service providers by volume		Parcel delivery service providers		Market share (CR4, 2019)
Market share by revenue	1st Place	n.a.		
	2nd Place	n.a.		72.0 %
	3rd Place	n.a.		

Country Fact Sheet - Netherlands

1. General country facts

Population	17,475,415 inhabitants
GDP per capita purchasing power adjusted	42,600 EUR PPP
Income per capita purchasing power adjusted	24,800 EUR PPP
Share of single-person households	43.4 %
Population density	507 people per square kilometre



		Population	Area	
Population and area distribution	<i>Rural regions</i>	0.6%	2.0%	
	<i>Intermediate regions</i>	25.1%	46.7%	
	<i>Urban regions</i>	74.3%	51.3%	
		2015	2019	2021
Share of population that used the internet in the last 3 months	<i>Total</i>	93%	96%	95%
	<i>65 to 74 years old</i>	79%	89%	90%
			2015	2019
Share of population with basic or above basic digital skills <small>2015 and 2019 with a different methodology than 2021</small>	<i>Total</i>	72%	79%	79%
	<i>65 to 74 years old</i>	47%	58%	61%

2. B2C e-commerce

B2C e-commerce revenues	25.76 billion EUR
Revenue development per year (CAGR 2017-2021)	15.0%
B2C e-commerce revenue per capita	1,474 EUR

Top 5 online stores by revenue (2021) <small>marketplace revenue excluded</small>		Store name	Revenue in million USD	
<i>1st Place</i>		bol.com	2466	
<i>2nd Place</i>		coolblue.nl	1757	
<i>3rd Place</i>		ah.nl	1235	
<i>4th Place</i>		wehkamp.nl	909	
<i>5th Place</i>		zalando.nl	906	
		2015	2019	2021
Individuals that purchased online within the last 12 months	<i>Total</i>	71%	81%	89%
	<i>25 to 34 years old</i>	89%	92%	95%
	<i>65 to 74 years old</i>	39%	57%	76%
		2015	2019	2021
Share of individuals that purchased online cross-border within the last 12 months <small>2021: within the last 3 months</small>	<i>Total</i>	26%	43%	34%
	<i>25 to 34 years old</i>	38%	56%	45%
	<i>65 to 74 years old</i>	11%	17%	14%

Top 3 countries of the most recent cross-border purchase (2021)		Country	% of online shoppers	
<i>1st Place</i>		China	45%	
<i>2nd Place</i>		Germany	18%	
<i>3rd Place</i>		Belgium	7%	

Delivery preferences ("Where do you usually have your parcels delivered to?") (2021)		Place of delivery	% of online shoppers	
<i>1st Place</i>		At home	76%	
<i>2nd Place</i>		Parcel shop	20%	
<i>3rd Place</i>		Post office	12%	

3. Enterprises and e-commerce		2015	2019	2021
Sales channels for enterprises in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales</i>	42%	62%	65%
	<i>Enterprises with web sales via e-commerce marketplaces</i>	not available	19%	23%
Enterprises that sell cross-border in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales to the own country</i>	24%	27%	27%
	<i>Enterprises with e-commerce sales to other EU countries</i>	11%	14%	13%
	<i>Enterprises with e-commerce sales to the rest of the world</i>	4%	5%	6%
Share of enterprise turnover from B2C and B2B sales for wholesale and retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises' turnover from web sales - B2C</i>	3%	4%	7%
	<i>Enterprises' turnover from B2B sales (web sales + EDI)</i>	11%	10%	13%
Share of enterprises using a specific B2B sales channel <i>Enterprises with 10 employees or more</i>	<i>EDI</i>	7%	8%	7%
	<i>Web sales</i>	16%	18%	18%
4. Delivery				
Parcels delivered per capita (2021)		43		
Share of import parcels (2020)		12.0 %		
TOP 3 parcel delivery service providers by volume Market share by volume		<i>Parcel delivery service providers</i>		<i>Market share (TOP 2)</i>
		<i>1st Place</i>	PostNL	
		<i>2nd Place</i>	DHL	80-90%
		<i>3rd Place</i>	various	

Country Fact Sheet - Portugal

1. General country facts

Population	10,298,252 inhabitants
GDP per capita purchasing power adjusted	24,000 EUR PPP
Income per capita purchasing power adjusted	14,500 EUR PPP
Share of single-person households	17.3 %
Population density	113 people per square kilometre



		Population	Area	
Population and area distribution	<i>Rural regions</i>	30.8%	79.0%	
	<i>Intermediate regions</i>	22.1%	14.7%	
	<i>Urban regions</i>	47.1%	6.4%	
<hr/>				
Share of population that used the internet in the last 3 months	<i>Total</i>	69%	75%	82%
	<i>65 to 74 years old</i>	27%	33%	48%
<hr/>				
Share of population with basic or above basic digital skills	<i>Total</i>	48%	52%	55%
<small>2015 and 2019 with a different methodology than 2021</small>	<i>65 to 74 years old</i>	11%	13%	17%

2. B2C e-commerce

B2C e-commerce revenues	4.48 billion EUR
Revenue development per year (CAGR 2017-2021)	14.7%
B2C e-commerce revenue per capita	0,435 EUR

		Store name	Revenue in million USD	
Top 5 online stores by revenue (2021) <small>marketplace revenue excluded</small>	<i>1st Place</i>	worten.pt	267	
	<i>2nd Place</i>	zara.com	167	
	<i>3rd Place</i>	elcorteingles.pt	156	
	<i>4th Place</i>	ikea.com	137	
	<i>5th Place</i>	continente.pt	136	
<hr/>				
Individuals that purchased online within the last 12 months	<i>Total</i>	31%	39%	52%
	<i>25 to 34 years old</i>	57%	71%	86%
	<i>65 to 74 years old</i>	5%	7%	12%
<hr/>				
Share of individuals that purchased online cross-border within the last 12 months <small>2021: within the last 3 months</small>	<i>Total</i>	19%	20%	22%
	<i>25 to 34 years old</i>	35%	39%	45%
	<i>65 to 74 years old</i>	3%	3%	3%
<hr/>				
Top 3 countries of the most recent cross-border purchase (2021)		Country	% of online shoppers	
	<i>1st Place</i>	China	40%	
	<i>2nd Place</i>	Spain	32%	
	<i>3rd Place</i>	United Kingdom	6%	
<hr/>				
Delivery preferences ("Where do you usually have your parcels delivered to?") (2021)		Place of delivery	% of online shoppers	
	<i>1st Place</i>	At home	84%	
	<i>2nd Place</i>	At work	30%	
	<i>3rd Place</i>	Retailer store	12%	

3. Enterprises and e-commerce		2015	2019	2021
Sales channels for enterprises in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales</i>	17%	19%	24%
	<i>Enterprises with web sales via e-commerce marketplaces</i>	not available	4%	4%
Enterprises that sell cross-border in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales to the own country</i>	19%	16%	16%
	<i>Enterprises with e-commerce sales to other EU countries</i>	8%	8%	8%
	<i>Enterprises with e-commerce sales to the rest of the world</i>	5%	6%	6%
Share of enterprise turnover from B2C and B2B sales for wholesale and retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises' turnover from web sales - B2C</i>	2%	3%	2%
	<i>Enterprises' turnover from B2B sales (web sales + EDI)</i>	15%	16%	15%
Share of enterprises using a specific B2B sales channel <i>Enterprises with 10 employees or more</i>	EDI	9%	7%	6%
	Web sales	8%	7%	7%
4. Delivery				
Parcels delivered per capita (2021)		8		
Share of import parcels (2020)		29.9 %		
TOP 3 parcel delivery service providers by volume Market share by volume		Parcel delivery service providers		Market share (CR4)
		1st Place	CTT	
		2nd Place	DPD	86.0 %
		3rd Place	Nacex	

Country Fact Sheet - Sweden

1. General country facts

Population	10,379,295 inhabitants
GDP per capita purchasing power adjusted	40,100 EUR PPP
Income per capita purchasing power adjusted	21,400 EUR PPP
Share of single-person households	50.1 %
Population density	25 people per square kilometre



Population and area distribution			Population	Area	
	Rural regions		9.0%	24.2%	
	Intermediate regions		51.3%	67.8%	
	Urban regions		39.7%	8.0%	
<hr/>					
Share of population that used the internet in the last 3 months			2015	2019	2021
	Total		91%	98%	97%
	65 to 74 years old		74%	86%	90%
<hr/>					
Share of population with basic or above basic digital skills <i>2015 and 2019 with a different methodology than 2021</i>			2015	2019	2021
	Total		72%	72%	67%
	65 to 74 years old		48%	42%	39%

2. B2C e-commerce

B2C e-commerce revenues	13.89 billion EUR
Revenue development per year (CAGR 2017-2021)	10.6%
B2C e-commerce revenue per capita	1,338 EUR

Top 5 online stores by revenue (2021)
marketplace revenue excluded

	Store name	Revenue in million USD
1st Place	netonnet.se	746
2nd Place	apotea.se	584
3rd Place	amazon.se	428
4th Place	hm.com	417
5th Place	elgiganten.se	404

Individuals that purchased online within the last 12 months			2015	2019	2021
	Total		71%	82%	87%
	25 to 34 years old		85%	92%	95%
	65 to 74 years old		45%	54%	67%
<hr/>					
Share of individuals that purchased online cross-border within the last 12 months <i>2021: within the last 3 months</i>			2015	2019	2021
	Total		31%	40%	31%
	25 to 34 years old		46%	49%	36%
	65 to 74 years old		11%	17%	13%

Top 3 countries of the most recent cross-border purchase (2021)

	Country	% of online shoppers
1st Place	China	29%
2nd Place	Germany	20%
3rd Place	United Kingdom	11%

Delivery preferences ("How do you prefer a product to be delivered?") (2021)

	Place of delivery	% of online shoppers
1st Place	At home	66%
2nd Place	Parcel shop / Post office	23%
3rd Place	Parcel locker	6%

3. Enterprises and e-commerce		2015	2019	2021
Sales channels for enterprises in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales</i>	43%	49%	67%
	<i>Enterprises with web sales via e-commerce marketplaces</i>	not available	6%	10%
Enterprises that sell cross-border in the retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises with e-commerce sales to the own country</i>	27%	32%	34%
	<i>Enterprises with e-commerce sales to other EU countries</i>	10%	11%	11%
	<i>Enterprises with e-commerce sales to the rest of the world</i>	6%	7%	7%
Share of enterprise turnover from B2C and B2B sales for wholesale and retail sector <i>Enterprises with 10 employees or more</i>	<i>Enterprises' turnover from web sales - B2C</i>	3%	4%	5%
	<i>Enterprises' turnover from B2B sales (web sales + EDI)</i>	17%	21%	21%
Share of enterprises using a specific B2B sales channel <i>Enterprises with 10 employees or more</i>	EDI	10%	13%	15%
	Web sales	17%	18%	20%
4. Delivery				
Parcels delivered per capita (2021)		29		
Share of import parcels		13.1 %		
TOP 3 parcel delivery service providers by volume Market share by revenue		<i>Parcel delivery service providers</i>	<i>Market share (CR4)</i>	
	1st Place	PostNord		
	2nd Place	DHL	76.0 %	
	3rd Place	Schenker		