Analysis of logistics operations & business models

Deliverable D3.2

Version N°1

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Author(s)	Ivan Cardenas (CHA), Lingxuan Meng (CHA)
Contributor(s)	Victor Navarro (ZGZ), Clemens Leydolf (LOGP), Vasileios Zeimpekis (UAEG), Sebastien Horemans (PKSM), Bartosz Kożuch (LPIT)
Reviewer(s)	Vasileios Zeimpekis (UAEG), Georgios Tepteris (UAEG), Clemens Leydof (LOGP)

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Change Log

Version	Description of change
V0.1	Initial version preparation
V0.2	Internal review
V0.3	Version ready for review
V.1.0	Submitted Version

List of abbreviations

Abbreviation/Term	Description
4PL	Fourth-Party Logistics
AEO	Authorized Economic Operator
BMC	Business Model Canvas
CA	Consortium Agreement
D	Deliverable
DOA	Description of Action
EC	European Commission
EU	European Union
GA	Grant Agreement
LaaS	Logistics-as-a-Service
PUDO	Pick Up & Drop-Off
MVP	Minimum viable product
WP	Work Package

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Table of contents

1. Executive Summary

This deliverable presents the first iteration of an in-depth analysis of logistics operations and business models across the five GreenTurn pilot sites: Vienna, Zaragoza, Paris, Poznań and Athens. Its aim is twofold: to establish a baseline understanding of the operational and institutional settings in which GreenTurn solutions will be deployed, and to outline the expected evolution of these models as sustainable interventions are progressively phased in. The analysis is structured to support the ongoing implementation process and to provide a foundation for establishing the MVPs that will be piloted in GreenTurn.

After this summary and the introduction of the document (Chapter 2); Chapter 3 provides a reflective synthesis based on a review of previous EU-funded urban logistics projects. This section identifies key enabling conditions and recurring challenges in designing, implementing, and scaling sustainable delivery solutions. Three critical insights are elaborated:

- The importance of consumer engagement and incentives to drive behavioural change;
- The role of emission visibility and quantification tools in shaping informed, low-impact choices;
- The need for robust institutional frameworks and public–private coordination mechanisms to enable replicability and systemic uptake.

Chapter 4 offers a detailed mapping of each pilot company's logistics ecosystem, including key stakeholders, existing operational flows, and the dominant business models currently shaping last-mile delivery. Using the Business Model Canvas as a guiding framework, each pilot site is analysed in terms of value propositions, customer relationships, revenue streams, and infrastructure. This mapping is then extended to define the expected GreenTurn-specific innovations, which include new delivery modes, coordination platforms, incentive schemes, and governance arrangements adapted to each local context.

Chapter 5 introduces the phase-in approach, outlining how each pilot could implement its innovations through an adaptive and stakeholder-informed process. These proposed innovations include receiver-led consolidation models, logistics-as-a-service platforms, configurable delivery options, and tools for emissions quantification and visibility. Together, they aim to enable more sustainable, inclusive, and user-responsive urban logistics systems.

This deliverable sets the stage for defining the MVPs blueprints that will be tested in the GreenTurn pilots. During the pilots, the project will assess how the proposed innovations perform in real-world settings—evaluating their impact on logistics operations, stakeholder behaviour, service quality, and environmental outcomes. In doing so, it will

provide actionable insights for scaling sustainable delivery models across European cities and strengthen GreenTurn's contribution to the future of inclusive, low-emission urban logistics.

2. Introduction

Deliverable D3.2, entitled Analysis of Logistics Operations and Business Models, forms part of Task 3.3 within the GreenTurn project. It constitutes the first of two iterations aimed at examining how logistics operations and business models across the project's pilot sites are evolving towards more sustainable configurations. The primary aim of this first iteration is to describe and analyse the current logistics structures and business models in place at each pilot site, while also capturing the target configurations envisioned through the implementation of GreenTurn solutions.

Deliverable D3.2 plays a pivotal role in achieving GreenTurn's broader objectives of enabling sustainable, inclusive, and digitally enabled logistics systems. By documenting both existing conditions and proposed transformations, it lays the foundation for understanding how business models geared towards sustainability can be designed and tested in real-world urban settings. The findings are expected to inform efforts to reduce environmental and social externalities, strengthen the economic viability of logistics services, and contribute to broader knowledge transfer and policy learning across European cities.

The analysis in this report builds on previous work within the project, particularly Task 2.1.1, which mapped the stakeholder ecosystem and highlighted key sustainability challenges. Insights have further been enriched through a series of structured discussions and interviews with stakeholders involved in the pilots, to gain a detailed understanding of both their current operations and future ambitions.

To ensure comparability across the four pilot sites, a shared analytical approach was adopted. The Business Model Canvas served as the foundation for this analysis, offering a consistent framework for describing how each pilot creates value, delivers services, and captures outcomes. A four-step methodology was applied, as outlined in the following section, to explore the business model evolution of each pilot and assess its alignment with GreenTurn's sustainability goals.

2.1. Methodology

The methodology applied in this deliverable follows a structured four-step process, as shown in Figure 1. It combines a practical, stakeholder-informed approach with a shared analytical framework. The aim is to understand both the current configuration of each pilot and the expected evolution of their business models through the integration of GreenTurn solutions.

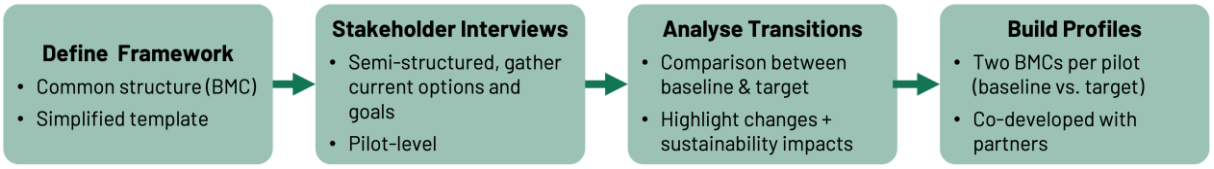


Figure 1. Methodology framework of D3.2

Step 1: Define the Analytical Framework

The first step was to establish a common analytical structure applicable across all pilot cases. The Business Model Canvas (BMC) was chosen as the central tool for analysis. This framework allows for the mapping of key business model elements, including value propositions, customer segments, key partners and activities, delivery channels, cost structures, and revenue streams.

The choice of the BMC was agreed during internal GreenTurn Work Package (WP) meetings, supported by its wide recognition in both business and research contexts. A simplified template version of the BMC was developed and distributed among pilot partners to guide data collection and ensure alignment in how information was gathered.

Step 2: Conduct Stakeholder Interviews at the Pilot Level

This step involved direct engagement with pilot partners through interviews and working meetings. The aim was to collect detailed information on current logistics operations and business models, as well as to understand the goals and expected outcomes of the pilots. The interviews followed a semi-structured protocol based on the Business Model Canvas. Most were conducted virtually and supplemented with written follow-ups for validation.

Step 3: Construct Pilot-Specific Business Model Profiles

Using insights from the interviews, two Business Model Canvases were created for each pilot. One described the baseline configuration before the GreenTurn intervention, while the second outlined the target configuration to be achieved through the pilot.

These profiles were co-developed by the analysis team and pilot partners. Additional clarification was requested where needed to ensure completeness. The dual-profile format enabled a clear comparison between existing practices and proposed innovations.

Step 4: Analyse Model Transitions and Sustainability Implications

The fourth step involved comparing current and target business models to identify key differences. This included changes in stakeholder roles, service delivery modes, value propositions, cost structures, and interactions with customers.

The remainder of this deliverable is structured as follows. Section 3 offers a reflection on relevant business model insights from past EU-funded urban logistics projects. Section 4 provides a detailed overview of each pilot, describing their current logistics operations

and business models. Section 5 outlines the proposed model evolutions associated with the GreenTurn solutions. Finally, Section 6 presents a synthesis of key findings and outlines the next steps, including priorities for the second iteration of the analysis following pilot implementation.

3. Reflection on Previous EU Projects and Business Model Insights

Recent European initiatives in urban logistics, funded under various programmes of the European Commission, have generated a wide range of operational experiments and strategic insights. While many of these projects focused on testing new delivery models in real-life settings, they also revealed a critical dependency: long-term success hinges on the viability of the business models underpinning innovation. Technical feasibility alone is rarely sufficient, especially when sustainable options introduce trade-offs in cost, speed, or convenience.

This points to business model innovation as a challenge involving not only logistics providers and retailers, but also the active participation and preferences of consumers. Greener delivery and return options often struggle to gain traction when supportive incentives and emission transparency tools are missing. As a result, these projects increasingly emphasised the need for co-designed solutions, combining user-centred design with broader system change. This shift has elevated the relevance of shared digital platforms, adaptive governance frameworks, and robust public–private collaboration.

Our review of these projects highlights both enabling conditions and recurring challenges. While several pilots have tested green delivery modes and data-driven planning tools, fewer have addressed the behavioural dimensions of change. This reflective section draws on lessons learned across these past European urban logistics projects, where delivery innovations were tested against real-world user behaviours, policy environments, and operational constraints. Table 1, Table 2 and Table 3 summarise the key EU projects referenced in Reflections 1–3, highlighting their pilots and main characteristics.

Reflection 1: Consumer Engagement and Incentives

Real-world deployments have demonstrated that the transition to zero-emission delivery models cannot rely on infrastructure and logistics providers alone. Achieving behavioural change at scale requires understanding the motivations, preferences, and constraints of end consumers. Across projects, it became clear that environmental concern among users does not automatically translate into action unless supported by clear incentives, accessible alternatives. In ULaaDS, for example, pilots in Bremen and Mechelen tested delivery scenarios involving cargo bikes and neighbourhood hubs. However, uptake was

uneven where sustainable alternatives were not proactively surfaced in the consumer-facing interface or lacked physical visibility in the local. Similarly, in LEAD, the use of digital twins helped simulate cleaner last-mile logistics scenarios, but these remained largely disconnected from consumer feedback mechanisms, limiting their influence on actual user choices.

Several experiences underscored that sustainable logistics options gain traction when embedded in coherent value propositions—balancing environmental goals with convenience, delivery speed, and reliability. However, many pilots revealed a disconnect between operational design and consumer activation. In NOVELOG, for example, green delivery options were often introduced without adequate incentive structures or communication strategies, reducing consumer uptake despite environmental benefits. Notably, few pilots explicitly addressed service level differentiation as part of their business model innovation. The potential to position zero-emission delivery as not only cleaner but also equally or more convenient was largely unexploited. This gap suggests that future interventions could benefit from linking sustainable choices to tangible service advantages, reinforcing them not just as ethical alternatives but as competitive and attractive options in their own right.

Project	Pilot Location(s)	Key Characteristics
ULaaDS	Bremen, Mechelen	Tested cargo bikes, neighbourhood hubs; limited uptake without strong consumer-facing visibility.
LEAD	Various European cities	Used digital twins to simulate cleaner last-mile logistics; limited integration with consumer feedback.
NOVELOG	Various European cities	Introduced green delivery options, but lacked incentives and communication strategies to activate consumers.

Table 1. Overview of projects in Reflection 1: consumer engagement and incentives

Reflection 2: Quantification of emissions

One significant barrier to consumer influence in urban logistics is the difficulty of accurately quantifying delivery emissions at the service level due to data scarcity (Shahmohammadi et al., 2020). The European CountEmissions EU initiative is set to establish a harmonised methodology for calculating greenhouse gas emissions of transport services (based on ISO 14083), which is critical for enabling consistent comparison of delivery options and reducing the risk of greenwashing. This initiative emphasises the importance of reliable emissions data as a foundation for consumer choice. Since many pilot interventions cannot generate primary emissions data, modelling remains the most feasible path forward for estimating environmental impact in practice (Beckers et al., 2022).

This modelling approach has been adopted in several projects. In SENATOR's Zaragoza and Dublin pilots, emission simulations were embedded in a digital logistics control tower used to coordinate urban deliveries. While this enabled sophisticated planning and demonstrated positive environmental outcomes, the project explicitly acknowledged that these gains were not communicated to end users, and no mechanisms were developed to make environmental performance visible at the point of choice. Similar challenges were noted in ULaaDS, where pilots lacked structured communication strategies or interface-level signals to highlight the environmental value of sustainable delivery options.

It can be concluded that the presence of emissions data alone is not sufficient. It must be translated into consumer-understandable formats, integrated into decision interfaces, and paired with behavioural insights that make transparency meaningful. Without this connection, visibility risks remaining informational rather than transformational and limiting its ability to drive behaviour change or support sustainable business models.

Project	Pilot Location(s)	Key Characteristics
SENATOR	Zaragoza, Dublin	Logistics control tower with emission simulations; planning effective, but results not communicated to end users.
ULaaDS	Bremen, Mechelen	Lacked structured communication or interface signals to highlight environmental value.

Table 2. Overview of projects in Reflection 2: quantification of emissions

Reflection 3: Institutional and Governance Frameworks for Scale-up

While pilot projects have demonstrated the technical feasibility of sustainable delivery models, their long-term viability hinges on a more complex alignment between business logic and governance capacity. A recurring theme across projects such as NOVELOG and ULaaDS is the difficulty of sustaining innovations once project funding ends or local champions move on. In NOVELOG, fragmented institutional responsibilities and the absence of city-integrated logistics strategies constrained the ability to replicate pilots across contexts. ULaaDS similarly revealed the fragility of partnerships based on informal collaboration, with cities struggling to align public sustainability goals with private sector delivery models.

The SENATOR project attempted to address this through the deployment of a logistics control tower in Zaragoza and Dublin, enabling real-time coordination between public authorities and logistics providers. However, the project itself recognised that without formalised data-sharing agreements and long-term governance frameworks, such coordination tools risk remaining context-bound and non-replicable.

Project	Pilot Location(s)	Key Characteristics
NOVELOG	Various European cities	Fragmented institutional responsibilities limited replication; weak city-integrated strategies.
ULaaDS	Bremen, Mechelen	Fragile partnerships, difficulties aligning public sustainability goals with private delivery models.
SENATOR	Zaragoza, Dublin	Deployed logistics control tower to coordinate deliveries; faced challenges without formal data-sharing and governance frameworks.

Table 3. Overview of projects in Reflection 3: institutional and governance

Without sustained access to evaluation tools, public authorities face challenges in steering market offerings, shaping incentives, or tracking progress toward climate and equity goals (Palacios-Argüello et al., 2025). At the same time, private actors cannot be expected to adopt new models if they lack a clear business rationale or if enabling frameworks are missing. The ability to scale or replicate innovative models thus depends not only on their technical or behavioural performance, but on creating an institutional environment where public actors have the means to guide consumption patterns—and private actors have a reason to invest in sustainable services.

The reflections above suggest that advancing sustainable urban logistics requires more than technical solutions or behavioural nudges in isolation. What emerges instead is the need for mutual alignment between consumer engagement, emissions transparency, and governance capacity. Pilots succeed when sustainable delivery choices are not only available and visible but also embedded in viable business models and supported by public actors who can evaluate, incentivise, and steer outcomes. These lessons inform the way forward in the current pilot sites, where business models must internalise both user preferences and systemic sustainability goals. These lessons inform the way forward in the current pilot sites of GreenTurn, where business models must internalise both user preferences and systemic sustainability goals. For instance, a city–operator agreement on data sharing or service integration could illustrate how institutional frameworks help anchor pilot innovations beyond the project phase.

4. Overview of Pilots: Logistics Operations & Business Models

This section provides an overview of the logistics operations and business models across the main companies and stakeholders participating in GreenTurn's pilot sites. Rather than focusing exclusively on a single company per site, the analysis captures the organisation of logistics activities, the roles of different actors, and the operational features that define each context. The aim is to document how logistics on each site is currently managed, what business models underpin these activities, and how these models serve the needs of both providers and users. This serves as the baseline for evaluating changes following the implementation of GreenTurn solutions.

The description of stakeholders and their roles leverages the detailed ecosystem mapping carried out in Deliverable D2.1, ensuring consistency and comparability across pilot sites. For each pilot, the analysis also employs the Business Model Canvas (BMC) framework to systematically capture the essential components of the current business model. This structured approach provides both a clear snapshot of each logistics context and a foundation for tracking business model evolution as GreenTurn solutions are adopted.

4.1. Vienna (Austria)

LogPOINT is a leading full-service intralogistics fulfilment provider based in Vienna, Austria. The company operates a 12,000 m^2 fulfilment centre (including 5,000 m^2 bio-certified storage) and a dedicated City Logistics Hub ("Central LogPOINT") located in the heart of Vienna. LogPOINT´s activities focus on the fulfilment of parcels for both B2C (90%) and B2B (10%) clients, with an emphasis on biologically produced foods and beverages, as well as pharmaceuticals/cosmetics and home furnishings. LogPOINT partners with local distributors to guarantee short-haul, sustainable last-mile deliveries.

The company handles approximately 2,2 million shipments per year and offers modular logistics services, including warehousing, picking, packing, labelling, returns management, and delivery. Urban distribution is enabled primarily via zero-emission vehicles and cargo bikes, with multiple delivery and return channels (home delivery, parcel lockers, and flexible interfaces) provided by their transport providers.

LogPOINT also operates a "white label" e-commerce platform, providing integrated web shop solutions, ERP connectivity, and payment interfaces for retailers.

Table 4 identifies and describes the key stakeholders engaged in LogPOINT´s Vienna operations, outlining their roles from goods supply through to last-mile delivery and customer interface. The stakeholder structure draws on the detailed mapping provided in GreenTurn Deliverable D2.1.

Type	Role
LogPOINT	Manages and operates the logistics hub, fulfilment, and last-mile delivery.
Retailers	Supply goods and use LogPOINT for storage, fulfilment, and urban distribution.
Online Shop/Marketplace Operators	Often integrated through LogPOINT's white-label platform.
Consumers	End-users placing and receiving orders with various delivery and return options.
Financial Service Providers	Manage payment processing.
Transport Providers	Deliver parcels using zero-emission vans, cargo bikes, and support for micro-mobility (e.g., e-scooters).
Municipality/City Authorities	Regulate traffic, access, emissions, and support sustainable logistics initiatives.
Technology Partners	Provide warehouse management (WMS), ERP, tracking, and route optimization (systems are regularly updated and staff are trained on new features).
Partner Networks	LogPOINT collaborates with initiatives like WienBox and Tamburi Box (parcel lockers), Food4CE (short food supply chains), and participates in Vienna´s Chamber of Commerce "Zero-Emission Transport" for green logistics innovation in Vienna.

Table 4. Stakeholders involved in the LogPOINT operation

Main Characteristics

- High-volume urban parcel logistics with a strong focus on fresh and temperature-sensitive goods.
- Two key facilities: the main logistics centre and a centrally located city hub for efficient short-haul distribution.
- Strong sustainability orientation: Zero-emission fleet (including cargo bikes and electric vans) by partners, reusable packaging, and green building certifications (bio-certified (cold) storage).
- Digitalisation and integration: End-to-end IT support for warehouse management, ERP integration, and order tracking; e-commerce modules for retailers.
- Regulatory context: Must comply with Vienna/Austrian transport regulations (night/weekend bans for trucks, emissions standards, special permits for exceptions, access restrictions in pedestrian zones).
- Collaboration and innovation: Active participant in local and European urban logistics pilot projects and innovation networks.

Business Model Overview

Figure 2 shows a representation of LogPOINT´s current business logic and provides a baseline for assessing future changes and innovations, in line with GreenTurn's goals for sustainable urban logistics.

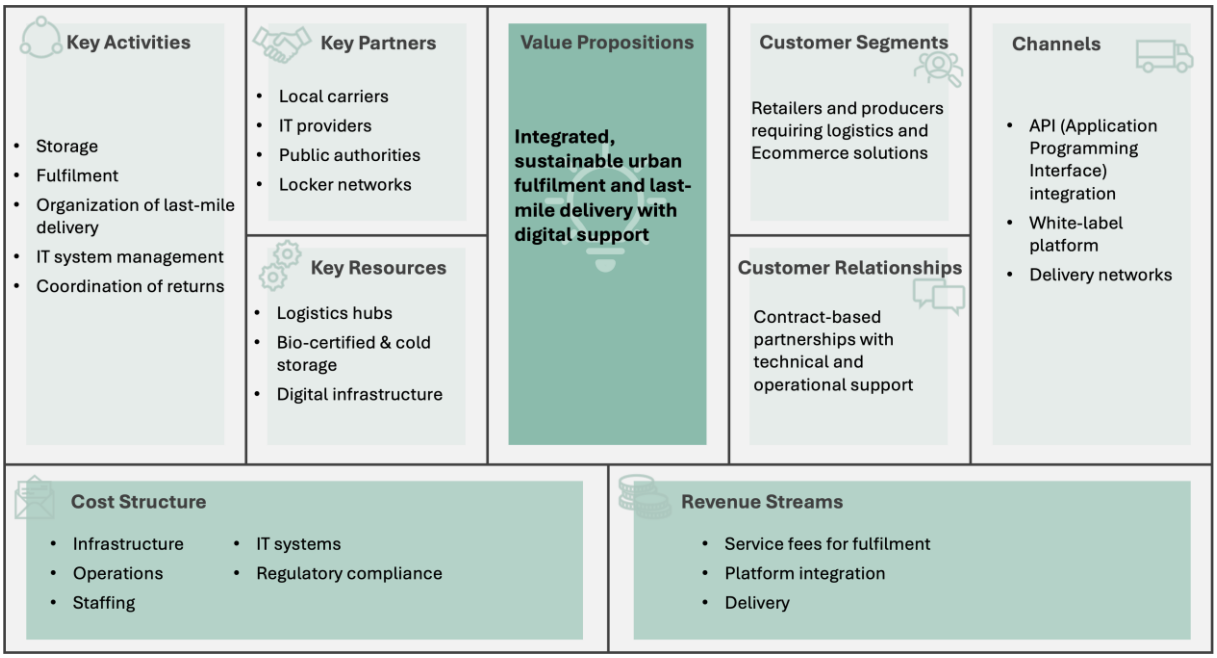


Figure 2. BMC of LogPOINT, Vienna

4.2. Athens (Greece)

Logika is a Greece-based fourth-party logistics (4PL) provider managing comprehensive supply-chain orchestration across multiple sectors. The company operates several logistics centres—totalling approximately 20,000 m^2 of warehousing capacity at locations in Magoula and Aspropyrgos, including bonded and non-bonded facilities used for storage, cross-docking, and fulfilment activities.

In the Athens metropolitan area, Logika oversees scheduled B2B deliveries to corporate clients using a fleet of around 25-30 trucks for last-mile operations, coordinated with third-party carriers but routed through its internal planning systems. These operations involve goods handling and transport planning while maintaining visibility and traceability, though systematic emissions monitoring and sustainable vehicle use are not yet embedded in daily operations.

Urban logistics in Athens presents specific challenges: dense traffic, time-window constraints, and evolving regulations around low-emission zones. Logika delivers services through its urban warehouses and uses both domestic hubs and coastal terminals (e.g., Piraeus port) to manage inbound/outbound flows. While logistics orchestration is highly digitally enabled, sustainability remains a domain for future innovation. Table 5 summarises the main findings of deliverable 2.2.

Type	Role
Logika	Leads logistics orchestration and operates key warehouse facilities, including bonded storage and e-commerce fulfillment hubs.
Corporate Clients	Businesses receiving scheduled B2B deliveries coordinated by Logika; these clients rely on fixed delivery patterns and service-level agreements.
Third-Party Carriers	Execute deliveries using contracted fleets; Logika coordinates and assigns routes without owning the vehicles.
City Authorities	Regulates access to low-emission zones, delivery times, and supports sustainable urban logistics policies.
Technology Partners	Provide IT systems for warehouse management, route optimization, tracking, and integration of sustainability indicators.
Facility Operators	Operate and manage storage, cross-docking, and customs processing infrastructures, including bonded warehouses

Table 5. Stakeholders involved in the Logika operation

Main Characteristics

- Integrated warehousing: Logika operates bonded and non-bonded logistics hubs in the Athens region, supporting cross-docking, storage, and fulfilment.
- Digitally coordinated B2B deliveries: Scheduled shipments to business clients are centrally planned and tracked using proprietary orchestration systems.
- Customs and regulatory services: The company provides support for import/export operations, including customs clearance and compliance through authorized economic operator status (AEO).
- Urban delivery constraints: Logistics activities must navigate congestion, restricted zones, and narrow time windows for commercial deliveries in central Athens.
- Modular logistics offering: Services include inbound logistics, warehousing, last-mile delivery, returns, and tailored solutions for e-commerce and industry clients.
- Limited sustainability integration: Low-emission vehicle usage and emissions tracking are not yet standard but represent areas for future improvement.

Business Model Overview

Figure 3 represents Logika current business logic and main components inspired by the Business Model. Canvas.

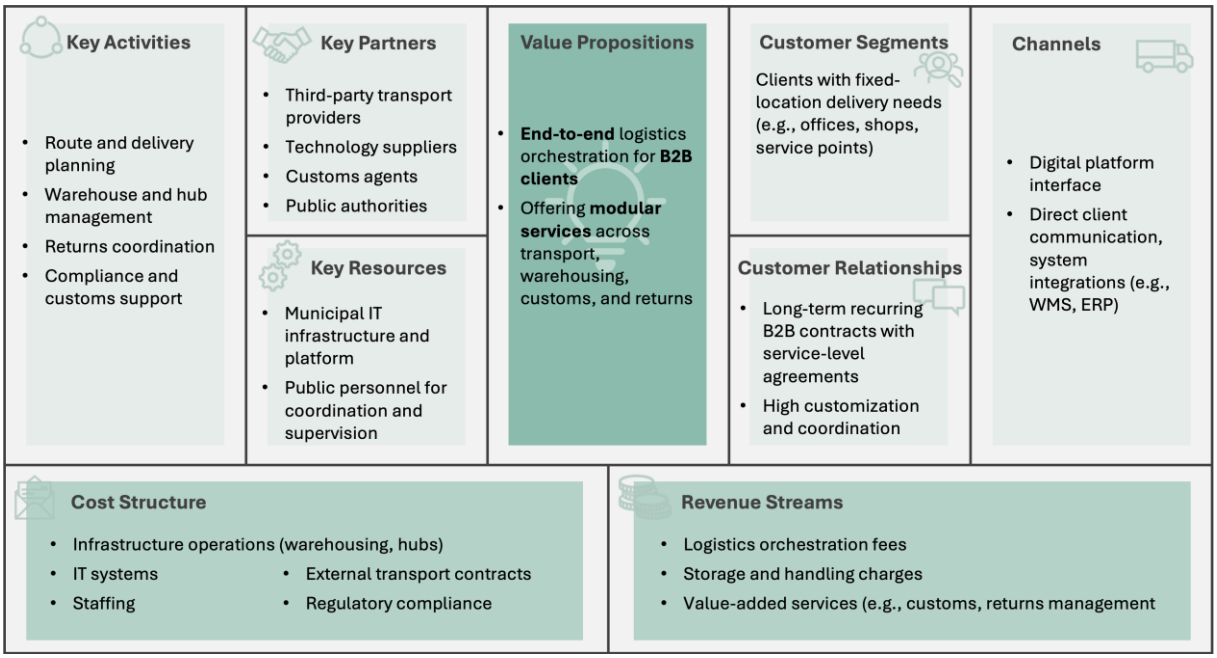


Figure 3. BMC of Logika, Athens

4.3. Zaragoza (Spain)

Zaragoza's municipal markets form a key pillar of the city's commercial and social infrastructure. The city hosts over 40 indoor and open-air markets, including four fully municipal markets with approximately 100 retailers. These municipal markets are publicly managed by the Ayuntamiento de Zaragoza and are considered strategic spaces for inclusive commerce, food security, and cultural continuity. In parallel, numerous private markets operate under municipal business licenses, creating a hybrid ecosystem of market governance that blends public oversight with private initiative. Across these spaces, hundreds of small-scale vendors offer fresh produce, meat, fish, prepared food, and other local goods, often serving as important anchors in neighbourhood economies.

As part of this modernisation strategy, Zaragoza has developed a public logistics service that supports last-mile delivery from participating market vendors to consumers. The logistics service is centrally coordinated and tendered by the city, enabling individual sellers to offer delivery without managing their transport operations. This model aims to provide affordable and sustainable distribution while maintaining the simplicity needed for small merchants with limited digital or organisational capacity.

Currently, the logistics setup is relatively standardised: delivery is offered as a shared service with fixed characteristics, with limited differentiation across carriers, delivery speeds, or environmental performance. Vendor onboarding, customer choice, and performance tracking remain in early development. Nonetheless, the municipal logistics infrastructure serves as a strong foundation for further experimentation. The GreenTurn pilot will build on this baseline to explore how the existing system might evolve into a more flexible and policy-responsive model of urban logistics, aligned with broader goals around

sustainability, inclusiveness, and digital transition. Table 6 draws on the detailed mapping provided in GreenTurn Deliverable D2.1.

Type	Role
Municipality (City of Zaragoza)	Oversees and manages the municipal markets and coordinates shared logistics services. Defines regulatory frameworks and may issue incentives.
Market Vendors	Sell goods (mainly fresh produce, meat, fish, and groceries) at municipal markets. Participate in the shared delivery service via the platform.
Platform Operator	Hosts the digital interface for ordering, manages vendor listings, and coordinates logistics matching and service tracking.
Consumers:	Place orders through the digital platform. Receive goods at home or collection points. May be offered options to influence delivery configuration.
Transport Providers	Deliver goods from markets to consumers. Operate under city-issued tenders and may include cargo bikes, electric vans, or other urban transport modes. Additionally, delivery by foot is offered in postal codes adjacent to the markets, employing workers at risk of social exclusion.
Other City Authorities	Support integration of sustainable transport and logistics in urban planning. May contribute to incentive design or regulatory adaptation.
Technology Partners	Provide backend systems for logistics tracking, emissions monitoring, vendor onboarding, and platform coordination.
Financial Service Providers	Handle transactions between consumers, vendors, and platform operators.

Table 6. Stakeholders involved in the Marcadeando operation

Main Characteristics

- Logistics services are centrally tendered by the municipality and available to participating vendors without individual contracts.
- Markets are physically distributed across neighbourhoods, with high vendor diversity and varying levels of digital readiness.
- Deliveries are conducted by external providers, using low-emission vehicles suited for urban environments.
- A basic digital interface allows consumers to place orders, though usage is still limited.
- Market supply is heavily focused on fresh food and locally sourced products, reinforcing the city's commitment to healthy, sustainable consumption.

- Coordinated within a broader urban agenda that supports public markets as pillars of inclusive, sustainable commerce.

Business Model Overview

Figure 4 represents Mercadeando current business logic and main components inspired by the Business Model Canvas.

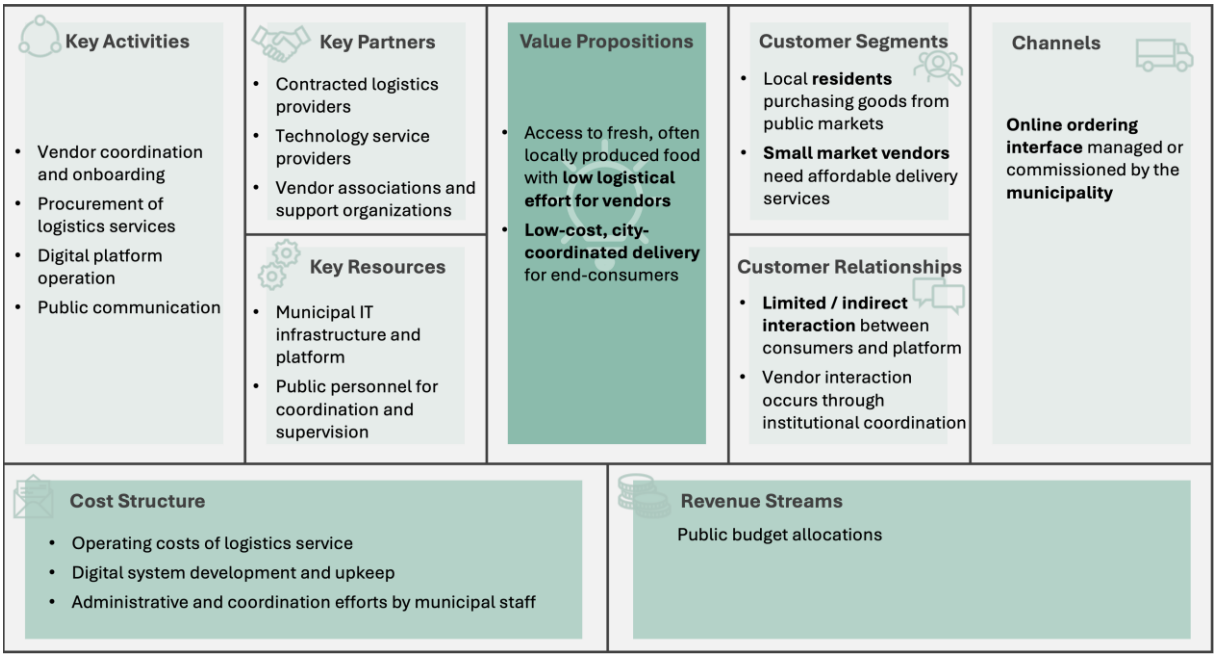


Figure 4. BMC of Marcadeando, Zaragoza

4.4. Lyon (France)

Pick & Smile is a French logistics operator that specialises in parcel collection and return services through a network of strategically located urban pick-up and drop-off points (PUDOs). Its core activity is to provide an alternative to home delivery by offering consumers the option to retrieve and return parcels at designated sites, often located in accessible, high-traffic areas. This model supports the consolidation of deliveries, allowing carriers to serve multiple end-users through fewer stops, thereby reducing vehicle kilometres and urban congestion.

The company is a B2B infrastructure provider, partnering with retailers, logistics companies, and service providers to handle the last step of the delivery chain. Pick & Smile does not operate its own fleet or offer transport services directly; instead, it functions as an interface between parcel recipients and the transport operators who bring shipments to its facilities. The pick-up points are staffed rather than locker-based, enabling the reception of oversized items and the handling of customer queries.

Pick & Smile's value proposition centres on increased convenience, improved delivery flexibility, and environmental benefits linked to delivery consolidation. The company employees handle the e-commerce parcels, improving the service level of conventional

players. The service contributes to more sustainable last-mile logistics, with emphasis on lowering emissions, reducing delivery failures, and enhancing operational efficiency for delivery partners.

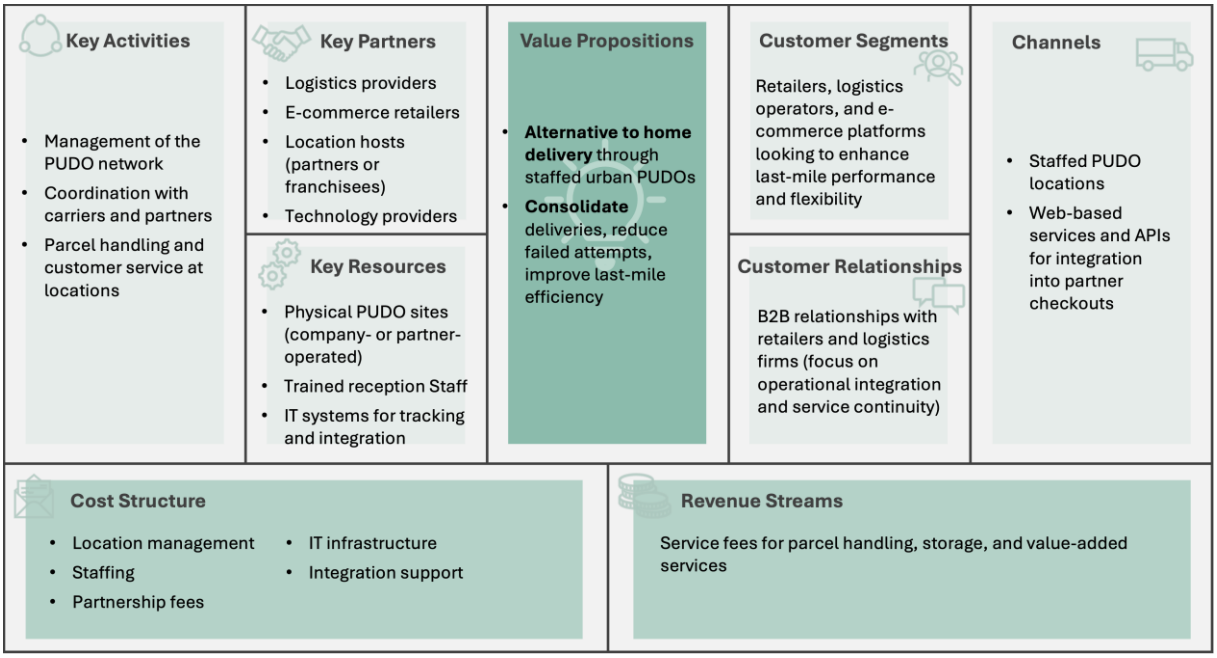
In practice, Pick & Smile collaborates with a range of e-commerce platforms, carriers, and commercial sites to host its pick-up points, leveraging existing local businesses such as shops or service counters. This hybrid model enables geographic coverage without requiring full infrastructure ownership, while also supporting local commerce through increased foot traffic. The company's expansion strategy favours scalable, modular integration with partner ecosystems, positioning Pick & Smile as a plug-and-play solution in the evolving landscape of last-mile urban logistics.

Main Characteristics

- Urban PUDO Network: Pick & Smile operates staffed pick-up and drop-off points in strategic, high-traffic urban areas, offering an alternative to home delivery that reduces failed deliveries and increases flexibility.
- Delivery Consolidation: The model enables carriers to consolidate multiple parcels into fewer stops, reducing vehicle kilometres, emissions, and urban traffic congestion.
- Neutral B2B Infrastructure: Pick & Smile acts as a logistics enabler connecting retailers, carriers, and consumers. It does not own a transport fleet and focuses on infrastructure and service coordination.
- Hybrid Location Model: The network includes both directly managed points and locations hosted by commercial partners, allowing for scalable growth and local economic synergy.
- Support for Oversized and Return Items: Staffed locations can manage oversized packages and facilitate returns, expanding the service's applicability beyond standard parcel lockers.

Business Model Overview

Figure 5



represents Pick & Smile's current business logic and main components inspired by the Business Model. Canvas.

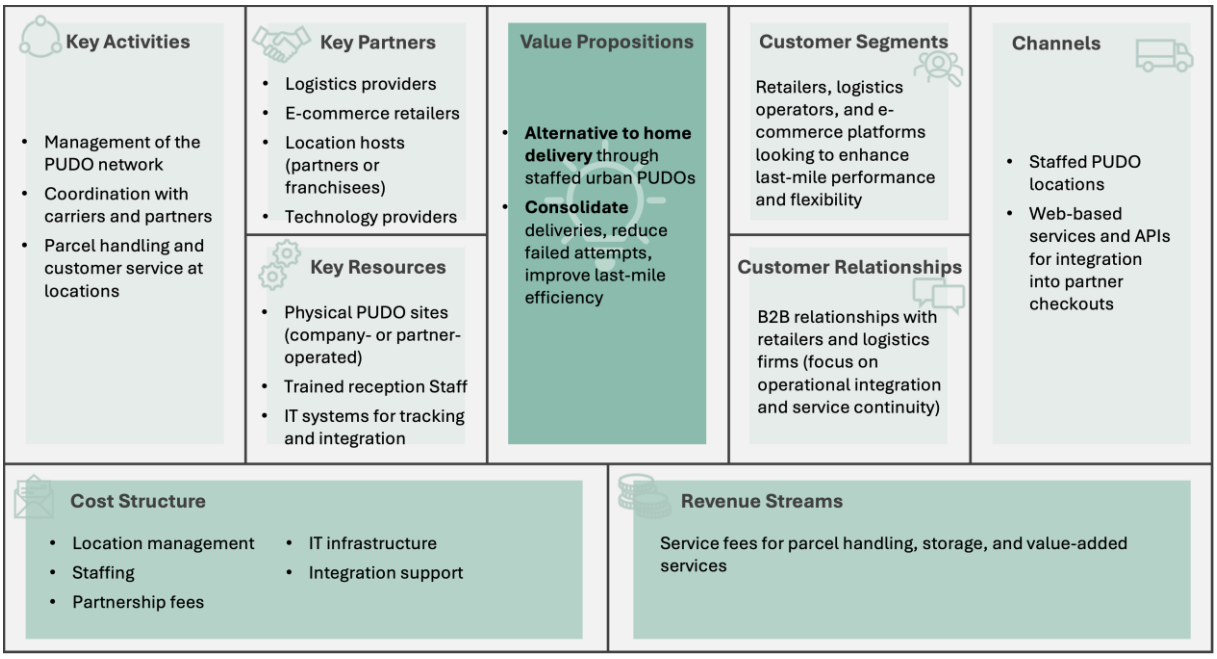


Figure 5. BMC of Pick & Smile, Lyon

4.5. Poznań (Poland)

The Polish pilot marks Pick&Smile's first step into the Central and Eastern European market, building on its growing network in France, Spain, and Belgium. While the operational concept mirrors that of Lyon, Poznań is strategically selected to examine how

the model can adapt to a market characterised by rapid e-commerce growth, high urban diversity, and strong price sensitivity.

With over 500,000 inhabitants, Poznań provides a representative environment to test consumer acceptance, operational feasibility, and opportunities for collaboration with retailers and city authorities. Unlike France, where Pick&Smile is already established, the pilot in Poland will focus on assessing the scalability of staffed pick-up and drop-off points (PUDOs) and consolidated last-mile deliveries in a national context where sustainable logistics is still emerging as a consumer priority.

The added value of this site lies in its comparative role: insights from Poznań will enable GreenTurn to contrast consumer profiles, adoption of nudges, and the operational performance of low-emission logistics systems with those observed in Lyon. This strengthens both the project's knowledge base and Pick&Smile's broader strategy of expanding into diverse European markets.

Main Characteristics

- Urban PUDO & Pickup Hub: Smile Pickup hub in Poznań serving as both a parcel collection and return point, complemented by staff support for customer interaction.
- Zero-Emission Operations: Deliveries from warehouse to hub by electric vans, and last-mile home deliveries within a 3 km radius by cargo bikes, ensuring a 100% low-emission flow.
- Reusable Packaging Integration: Distribution and tracking of QR-coded reusable packaging and pallets, tested as an incentive for greener returns and reduced waste.
- Cross-Market Testing Ground: Parallel piloting with Lyon allows direct comparison of customer behaviours and operational feasibility in a new, fast-growing e-commerce market.
- Local Policy Alignment: Pilot aligned with the City of Poznań's sustainable mobility and logistics strategies, offering input for evidence-based policymaking and urban logistics planning.

5. Proposed Sustainable Model Evolutions (GreenTurn Phase-In)

The previous chapters outlined the current logistics operations and business models in each GreenTurn pilot, as well as the sustainable solutions being co-developed with stakeholders. This chapter focuses on how these proposed innovations will be implemented through a structured phase-in approach. It describes the transition strategies adopted by each pilot to introduce new delivery configurations, digital tools, and stakeholder arrangements, while accounting for site-specific constraints and

opportunities. These phase-in plans represent the initial blueprint for how GreenTurn will support behavioural, technological, and institutional shifts across Vienna, Zaragoza, Lyon, Poznań and Athens.

5.1. Vienna (Austria)

GreenTurn Phase-in

A key area identified for experimentation in the Vienna pilot concerns how delivery options could be made visible to end-consumers while preserving LogPOINT´s business-to-business model. Currently, retailers select the preferred delivery mode (cargo bike or electric van) and pass associated costs to consumers without offering them a direct choice. Under the GreenTurn pilot, it is proposed that LogPOINT´s white-label platform and customer´s webshops be extended to **support the configuration of differentiated delivery options at checkout**. These options could vary by mode, timing, and price, allowing retailers to offer greater transparency and potentially influence more sustainable consumer behaviour.

The pilot foresees the development of **emissions estimation features** that would enable the carbon footprint of each delivery option to be displayed alongside cost and timing. This would provide consumers with relevant information while maintaining the current client relationship structure, in which LogPOINT contracts with retailers. The proposed enhancements would not alter the platform's B2B logic but would increase its flexibility and sustainability alignment by introducing modular service tiers.

Changes to the Business Model

This proposed evolution affects several elements of LogPOINT´s current business model, as summarised in Table 7. The core value proposition remains focused on fulfilment and sustainable last-mile delivery, but now incorporates optional configuration tools that can be activated by retailers. While customer segments and key resources remain stable, new digital capabilities and emissions data modules would be added to the platform. These changes would introduce limited development costs but may open up opportunities for differentiated pricing, based on delivery modes or time-of-day incentives. Critically, the proposed approach enables an indirect feedback loop from consumer choices to logistics planning, without shifting the provider's role or expanding its direct interface with end-users.

Business Model Element	Current Business Model	Proposed Changes
Value Proposition	Integrated, sustainable urban fulfilment and last-mile delivery with digital support.	Configurable delivery options and sustainability visibility at checkout.
Customer Segments	Retailers and producers requiring logistics and e-commerce solutions.	-

Channels	API integration, white-label platform, delivery networks.	Optional checkout modules showing delivery mode, timing, and emissions calculation data.
Customer Relationships	Contract-based partnerships with technical and operational support.	Digital interaction by enabling service configuration and feedback mechanisms.
Key Activities	Fulfilment, coordination of last-mile delivery, IT system management, coordination.	Emission calculation tools and logic for dynamic delivery configuration.
Key Resources	Logistics hubs, cold storage, green fleet, digital infrastructure.	
Key Partners	Local carriers, IT providers, public authorities, locker networks.	
Cost Structure	Infrastructure, operations, IT systems, labour, regulatory compliance.	Development costs for emissions calculation and configuration features.
Revenue Streams	Service fees for fulfilment, delivery, and platform integration.	Value-added pricing through modular service tiers (e.g., green delivery options).

Table 7. Proposed Business Model Evolution (Pilot Phase-In). Vienna

Proposed objectives of the pilot

The proposed changes could be explored through the pilot to assess their practical feasibility, operational implications, and impact on sustainability outcomes. A set of open questions that will guide the evaluation process and inform possible future integration of these features:

- What types of sustainable delivery services (e.g. cargo bike, off-peak delivery) are most valued by consumers when presented?
- What is the actual willingness to pay for environmentally preferable delivery modes when trade-offs such as longer lead times or reduced flexibility are involved?
- How do retailers perceive the value of offering delivery options at checkout, and what level of control or customisation do they require?
- To what extent do emissions visibility influence consumer choice, and how reliably can these preferences be integrated into logistics planning?
- What technical or operational challenges emerge when embedding configurable delivery options and emissions data into an existing B2B platform?

Main challenges

While the proposed pilot introduces promising innovations in delivery configuration and emissions transparency, its implementation is not without challenges. Several technical, organisational, and behavioural factors must be considered to ensure feasibility and effectiveness:

- Platform development: Adapting LogPOINT´s white-label as well as customers´ webshop infrastructure to support configurable delivery options and emissions estimation tools.
- System integration: Ensuring compatibility between LogPOINT´s backend systems and diverse retailer checkout interfaces/ or directly to webshop to last mile providers.
- Retailer engagement: Encouraging retailers to adopt the new features in their webshops despite potential concerns about pricing visibility or customer friction.
- Operational coordination: Aligning front-end delivery choices with real-world carrier availability and logistics capacity.
- Consumer response uncertainty: Understanding how consumers interpret and act on emissions data and delivery choices, and whether such visibility leads to meaningful behaviour change.
- Data accuracy and communication: Generating reliable emissions data and presenting it in a way that informs consumers without overwhelming them

5.2. Athens (Greece)

In Athens, the proposed GreenTurn pilot focuses on improving the sustainability of last-mile B2B deliveries within Logika's logistics orchestration model. The company currently serves corporate clients through scheduled deliveries to office buildings and commercial premises, operating as a central logistics coordinator. Delivery volumes are stable, but environmental performance is constrained by the use of conventional vehicles and fragmented drop patterns.

To address this, the pilot proposes introducing **compact electric vehicles** (Citroën Ami) for short-distance deliveries in dense urban areas. These vehicles offer environmental benefits (zero local emissions, low noise), but their limited payload and operational range introduce efficiency risks. To maintain service quality while containing costs, the pilot explores the use of **receiver-led consolidation to densify last-mile delivery routes**.

Receiver-led consolidation refers to a model in which the receiver, rather than the sender, initiates or coordinates the bundling of shipments (Dreischerf et al., 2024). This may involve aligning delivery windows or aggregating inbound flows to shared locations. In the Athens context, this could take the form of grouping deliveries to departments or companies within the same office block, or coordinating drops to nearby receivers with similar schedules. This form of destination-based consolidation has shown promise in other urban logistics contexts, reducing total vehicle-kilometres and enhancing the operational feasibility of small electric vehicles (Quiter et al., 2025).

Nevertheless, a key implementation challenge is that Logika typically contracts with corporate entities and may lack direct communication with the individual offices or final recipients. Without such access, enabling coordination at the receiver level becomes

more complex. The pilot will therefore test whether delivery slot orchestration tools, managed through the central client, can simulate the benefits of receiver-led consolidation. If effective, this would improve route efficiency without altering the existing B2B client relationship model.

This approach reflects a broader shift toward **consignee-driven urban freight models**, in which value-added logistics services (such as green delivery) are integrated not only at the supplier end but also via informed and coordinated demand-side planning. The Athens pilot thus explores how **green vehicles, digital coordination, and demand-side logistics** innovation can converge in a realistic, contract-based setting.

Changes to the Business Model

The proposed pilot introduces sustainability and efficiency innovations to Logika's B2B logistics orchestration model by incorporating low-emission delivery vehicles and exploring receiver-led consolidation strategies (Table 8). These changes affect specific components of the current business model without disrupting its core structure. The value proposition expands to include green delivery services, while new digital coordination capabilities are introduced to support demand-side consolidation. Operational costs are expected to increase due to vehicle limitations, but improved delivery density and potential co-financing mechanisms may help balance these effects. The changes aim to align last-mile logistics with urban sustainability goals while maintaining a centralised client relationship model.

Business Model Element	Current Business Model	Proposed Changes
Value Proposition	Reliable B2B logistics orchestration for corporate clients.	Green delivery option using compact electric vehicles; improved delivery density.
Customer Segments	Business clients (corporate headquarters, office clusters).	
Channels	Centralized contracts and coordination with client representatives.	
Customer Relationships	Contract-based; interactions with designated logistics or facilities managers.	Exploration of delivery slot configuration through the central client.
Key Activities	Route planning, shipment bundling, coordination of deliveries and returns.	Integration of delivery slot orchestration tools to support consolidation at the point of reception.
Key Resources	Trained personnel, routing software, client communication interfaces.	Addition of compact electric vans (e.g., Citroën Ami) for sustainable delivery.
Key Partners	Delivery subcontractors, client-side logistics teams.	

Cost Structure	Based on personnel, subcontracted transport, and software infrastructure.	Additional operating costs due to limited payload and range of electric vehicles, partially offset by higher delivery density.
Revenue Streams	Service fees for logistics coordination and delivery execution.	

Table 8. Proposed Business Model Evolution (Pilot Phase-In). Athens

Proposed objectives of the pilot

The Athens pilot aims to assess the viability of integrating small electric vehicles into a B2B logistics setting and to explore new forms of delivery coordination led by receivers. The objective is to identify whether sustainability and efficiency gains can be achieved through limited but strategic interventions. A set of guiding questions will be tested to evaluate the feasibility and added value of these innovations:

- Can delivery routes become more efficient by enabling receiver-led consolidation within office buildings or business clusters?
- To what extent can delivery slot coordination be implemented without disrupting current corporate client relationships?
- How well do compact electric vehicles perform under real-world delivery conditions in dense urban areas?
- What operational adjustments are needed to integrate electric micro-vans into existing delivery flows?
- How do logistics costs evolve when using small-capacity electric vehicles, and can route densification compensate for reduced payload?
- What digital capabilities are required to support coordination at the receiver end?

Main challenges

While the proposed innovations offer environmental and logistical benefits, their implementation in a B2B setting like Athens faces several barriers. These include technical constraints, institutional limitations, and behavioral risks that may affect scalability and performance:

- Limited vehicle capacity: Small electric vans have constrained range and payload, requiring more careful route planning and potentially more frequent trips.
- Receiver engagement limitations: Direct contact with individual recipients inside corporate buildings is often restricted, limiting opportunities for fine-grained coordination.
- Client alignment: Delivery slot orchestration must be aligned with the preferences and systems of corporate clients, who may have rigid internal policies.
- Operational coordination: Consolidating deliveries at the receiver end requires accurate scheduling and may increase complexity for dispatchers.

- Technology requirements: Additional tools may be needed to manage slot reservations and simulate route impacts in advance.
- Cost-benefit uncertainty: It remains to be tested whether improved delivery density will be sufficient to offset the higher operational cost per unit delivered.

5.3. Zaragoza (Spain)

A central area identified for innovation in the Zaragoza pilot concerns how the municipal delivery platform might evolve into a more open, flexible logistics ecosystem. Currently, logistics services are tendered centrally by the city and offered as a standardised solution to market vendors. While this model lowers entry barriers for small-scale sellers and ensures baseline service quality, it limits differentiation, consumer choice, and potential policy levers for incentivising sustainable practices.

The GreenTurn pilot proposes to explore a **Logistics-as-a-Service (LaaS) model** (Beckers et al., 2023) in which multiple logistics providers could operate simultaneously on the platform. Each provider would be able to define service characteristics such as speed, price, and environmental performance. This could allow the platform to function as a neutral logistics marketplace, where consumers select among available options at checkout and city authorities retain the ability **to steer demand through dynamic pricing or incentive mechanisms**. For example, emission-efficient options could be promoted through credits issued on Zaragoza's city card.

Importantly, the pilot would retain the municipality's role as a coordinator while shifting from direct service tendering toward market orchestration. Emissions tracking, routing data, and performance transparency would be embedded into the platform's backend, supporting both user-facing information and policy feedback loops. This evolution would not only increase the platform's responsiveness to consumer preferences and sustainability goals but also test the viability of distributed governance in public sector-led urban logistics.

Changes to the Business Model

The proposed Zaragoza pilot builds on the existing municipal logistics framework by proposing to transform a single-provider, standardised service into a **modular, multi-carrier platform**. Core customer segments (local residents and market vendors) would remain unchanged, but value proposition and delivery channels would be enhanced with **optional configurations and policy-driven incentives**. Customer relationships would shift from purely institutional coordination toward light digital engagement and feedback loops. Operationally, a **Logistics-as-a-Service marketplace** introduces new orchestration activities, while partnerships expand to include multiple carriers. Technology investments and incentive budgets would adjust the cost structure and differentiated delivery tiers to create new revenue or cost-recovery streams for the city. Table 9 depicts how the proposal would affect the current business model.

Business Model Element	Current Business Model	Proposed Changes
Value Proposition	Low-cost, city-coordinated delivery of fresh, locally sourced food.	"Choose your delivery": differentiated options (speed/emissions) with real-time sustainability info
Customer Segments	Local residents and small market vendors.	
Channels	Basic municipal online interface.	
Customer Relationships	Institutional, vendor-focused coordination; limited consumer engagement.	Light digital engagement via the platform: consumers receive delivery choices, confirmations, and may earn city-card credits for greener option
Key Activities	Vendor onboarding; municipal tender management; platform maintenance.	Orchestration of multiple logistics providers; real-time emissions calculation; incentive management (city-card integration); data collection for policy feedback.
Key Resources	Contracted logistics provider; basic IT platform; municipal staff.	Same core resources, plus extended back-end for emissions tracking, dynamic pricing engine, and integration with city-card systems.
Key Partners	Single contracted carrier; tech suppliers; vendor associations.	Multiple logistics carriers offering distinct service tiers; collaboration with urban mobility and finance agencies for incentive design and delivery monitoring.
Cost Structure	Fixed service and platform costs.	Addition of development costs for multi-carrier integration and emissions modules; incentive funds (credits on city cards) to offset differential pricing for sustainable choices.
Revenue Streams	Public budget allocations.	Potential cost-recovery via optional premium delivery tiers; dynamic pricing adjustments; increased efficiency may reduce net outlay for the city's logistics budget.

Table 9. Proposed Business Model Evolution (Pilot Phase-In). Zaragoza

Proposed objectives of the pilot

The pilot in Zaragoza offers an opportunity to experiment with a more open, modular logistics system embedded in a public digital platform. The proposed features—such as multiple carrier integration, differentiated service levels, and emissions-linked

incentives—raise important design and governance questions. The pilot will help evaluate how these innovations affect logistics performance, stakeholder behaviour, and policy effectiveness.

Key evaluation questions include:

- Which types of sustainable delivery services (e.g., cargo bike, low-emission van, off-peak delivery) are preferred by consumers when multiple options are made available?
- What levels of willingness to pay or accept trade-offs (e.g., slower delivery for lower emissions) exist among public market customers?
- How can vendors and logistics providers best be integrated into a digital, multi-actor marketplace without increasing complexity or cost?
- To what extent can incentives such as city card credits shift consumer behaviour toward more sustainable choices?
- What role can the municipality play in coordinating a logistics marketplace without assuming full operational control?

Main challenges

The pilot builds on an existing system of municipal logistics coordination, but it introduces significant complexity in terms of platform design, operational governance, and user engagement. The following challenges are anticipated during implementation:

- Carrier diversity and availability: Ensuring a competitive but reliable supply of logistics providers willing to operate under shared service standards and digital integration requirements.
- Platform architecture: Designing a flexible backend that supports service differentiation, emissions tracking, and incentive management, without compromising usability.
- Policy design and incentives: Determining how to calibrate and communicate public incentives (e.g., city card credits) to effectively nudge sustainable choices.
- Transparency and data governance: Generating and validating emissions data for different service tiers, and ensuring it is communicated at checkout without overwhelming the user.
- Legal and regulatory clarity: Defining the city's role when moving from direct contracting to platform-based orchestration, including questions of liability, data ownership, and procurement rules.

5.4. Lyon (France)

Pick & Smile operates a dense network of staffed pick-up and drop-off (PUDO) points across Lyon, providing consumers with an alternative to home delivery. These locations support delivery consolidation by enabling carriers to serve multiple end-users per stop,

thereby reducing vehicle kilometres and failed delivery attempts. The PUDO model is widely considered a step toward more efficient last-mile logistics. However, its net sustainability impact depends not only on freight consolidation but also on how consumers travel to collect their parcels.

The GreenTurn pilot in Lyon will assess the spatial and behavioural conditions under which PUDOs contribute to sustainable urban logistics. It will examine whether specific location types — such as areas near public transport, schools, or workplaces — are more likely to generate low-emission access patterns, such as walking or cycling. By estimating the emissions associated with the final leg of consumer travel, the pilot aims to quantify the net environmental performance of different PUDO sites.

In parallel, the pilot will explore a potential expansion of Pick & Smile's model to include cargo bike deliveries originating from PUDO points. Although not currently implemented, this extension would position PUDOs as urban micro-hubs, enabling onward green delivery for customers unable or unwilling to collect in person.

A third strand of exploration concerns consumer engagement and behavioural incentives. The pilot will consider mechanisms to nudge consumers toward more sustainable parcel collection choices, for example, through in-app information about the emissions impact of different access modes, or loyalty schemes that reward low-carbon behaviours. Understanding how to effectively combine information, service design, and incentives will be critical for maximising the positive environmental impact of PUDO-based logistics.

Changes to the Business Model

The GreenTurn pilot proposes to build upon Pick & Smile's existing infrastructure by exploring new service extensions and consumer engagement strategies that enhance the platform's environmental performance. The pilot introduces two potential innovations. First, it considers transforming select PUDO sites into micro-distribution hubs from which cargo bikes could deliver to nearby addresses, thereby enabling green home delivery as a complementary option. Second, the pilot seeks to assess and influence consumer behaviour through emissions-aware travel guidance and incentive schemes designed to reduce car-based parcel retrieval. Table 10 depicts these potential innovations.

Business Model Element	Current Business Model	Proposed Changes
Value Proposition	Convenient, consolidated parcel collection and return through staffed PUDO points.	Extended value through green last-mile delivery options and sustainability engagement tools.
Customer Segments	E-commerce retailers, logistics providers, and consumers	
Channels	Staffed urban PUDO locations; web services integrated into e-commerce checkout.	Micro-hub-based delivery from PUDOs via cargo bikes; digital

		modules for emissions data and travel nudges.
Customer Relationships	B2B partnerships with carriers and retailers; passive consumer interface at PUDOs.	Increased consumer engagement via sustainability feedback and behavioural nudges (e.g., mobility suggestions).
Key Activities	Parcel handoff and reception; location coordination; service integration.	Coordination of micro-distribution from selected PUDOs; monitoring and communication of carbon impact.
Key Resources	Network of staffed PUDO locations; digital integration tools.	Addition of emissions estimation tools; potential partnerships with bike delivery operators.
Key Partners	Retailers, logistics carriers, and PUDO location hosts.	Urban delivery operators (e.g. cargo bike couriers); city stakeholders supporting data sharing or incentives.
Cost Structure	Location operations, staffing, digital infrastructure.	Additional coordination and operational costs for green delivery and emissions tracking.
Revenue Streams	Service fees from logistics and retail partners.	Potential value-added services (e.g. premium green delivery) and public co-funding for sustainability trials.

Table 10. Proposed Business Model Evolution (Pilot Phase-In). Lyon

Proposed objectives of the pilot

The Pick & Smile pilot seeks to explore how staffed pick-up and drop-off (PUDO) points can play a more active role in supporting sustainable urban logistics. While the current system already contributes to delivery consolidation by reducing the need for door-to-door service, two key areas of innovation will be tested: (1) the integration of zero-emission delivery modes from PUDO locations (e.g., cargo bikes), and (2) the influence of user behaviour on overall transport emissions, particularly related to car-based parcel retrieval.

The pilot aims to evaluate how PUDO points can serve not only as passive collection sites but also as dynamic logistics hubs that enable greener distribution models. At the same time, the pilot will assess how consumer engagement can further reduce even more the environmental impact of parcel collection.

Key questions to be addressed include:

1. To what extent can PUDO sites serve as micro-hubs for low-emission last-mile deliveries?
2. What is the emissions impact of consumer travel to PUDO points, and how can it be mitigated?

3. How can user-facing features (e.g. carbon feedback, incentives) encourage more sustainable parcel collection behaviour?

Main challenges

While the Pick & Smile pilot presents a promising opportunity to enhance the sustainability of PUDO-based logistics, its implementation involves several critical challenges. These span technical integration, behavioural dynamics, and urban planning considerations:

- Data availability and emissions tracking: Quantifying CO_2 outcomes by PUDO location requires access to reliable trip, delivery, and user travel data, which may not yet be systematically collected or shared.
- Integration of cargo bike logistics: Introducing cargo bike operations from PUDO locations will require new partnerships, routing coordination, and possibly changes in local infrastructure or delivery practices.
- Incentive design and behavioural nudging: Identifying viable strategies to promote low-impact pick-up behaviour (e.g., walking, biking) without disrupting user convenience or requiring intrusive engagement.
- Site selection and evaluation criteria: Choosing which PUDO locations to analyse or enhance during the pilot involves trade-offs between logistical impact, land use diversity, and accessibility patterns.
- Stakeholder coordination: Engaging Pick & Smile, city authorities, and potential delivery partners in shared planning, data exchange, and feedback loops requires clear roles and aligned objectives.

5.5. Poznań (Poland)

The Poznań pilot, implemented in parallel with Lyon by Pick & Smile, builds on the same baseline business model described in Section 5.4, but adapts it to the Central and Eastern European context. While the operational logic mirrors Lyon, Poznań is not yet an established Pick & Smile market and therefore serves as a strategic testing ground for assessing scalability in a fast-growing but more price-sensitive e-commerce environment.

The pilot will trial a combination of electric van deliveries from the warehouse to a central staffed PUDO hub and onward cargo bike deliveries within a 3 km radius. In addition, QR-coded reusable packaging and pallets will be introduced to test whether Polish consumers respond positively to incentives for packaging reuse. App- and web-based notifications will provide customers with delivery updates, return reminders, and sustainability-related nudges. These features enable direct comparison with Lyon in terms of consumer adoption, operational feasibility, and overall environmental benefits.

Changes to the Business Model

In contrast to Lyon, where the focus is on optimising existing infrastructure, the Poznań pilot does not imply a shift in Pick&Smile's overall business model. Instead, it tests new operational features and consumer-facing mechanisms while applying the traditional PUDO-based logic in a new market. The pilot will therefore explore whether these features can be integrated into the company's model as scalable add-ons, depending on their success. The main potential Business Model Adjustments include:

- **Operational add-ons:** Zero-emission deliveries via EVs and cargo bikes complement the standard inbound-to-PUDO flow.
- **Consumer engagement:** Introduction of QR-coded reusable packaging and small digital nudges to encourage greener behaviours.
- **Market testing:** Assessment of Polish consumer acceptance, retailer interest, and alignment with local authority strategies.
- **Scalability check:** Pilot results will inform whether these features can be scaled within Pick&Smile's model in Poland and beyond.

Proposed objectives of the pilot

The Polish pilot will assess whether Pick & Smile's model can effectively scale to a new, price-sensitive national market while maintaining sustainability outcomes. It seeks to:

1. Compare consumer adoption and behavioural responses between Polish and French markets.
2. Test the feasibility of combining EVs, cargo bikes, and reusable packaging in a coherent operational model.
3. Examine consumer willingness to engage with app/web-based nudges and incentives for packaging reuse.
4. Provide insights into the scalability of Pick & Smile's business model in Central and Eastern Europe.

Main challenges

- Consumer price sensitivity may reduce uptake of green delivery or packaging reuse incentives compared to France.
- Limited awareness of environmental impacts of delivery/returns requires careful design of communication and nudges.
- Establishing retailer partnerships in a new market context may involve longer lead times.
- Ensuring infrastructure readiness (availability of EVs, cargo bikes, and staffed hub) for consistent zero-emission flows.
- Coordinating with city authorities for alignment with local sustainable mobility policies and potential regulatory support.

6. Conclusion and Next Steps

This deliverable has provided a comprehensive baseline analysis of logistics operations and business models in the GreenTurn pilot sites, offering insights into their current configurations and outlining the expected transformations driven by GreenTurn solutions. The analysis has been grounded in a shared framework based on the Business Model Canvas and enriched through stakeholder interviews, co-development sessions, and desk research. Importantly, the deliverable integrates a reflective review of previous EU-funded urban logistics projects, drawing critical lessons on consumer engagement, emissions visibility, and institutional frameworks that inform the design of GreenTurn interventions.

Across Vienna, Athens, Poznań, Lyon and Zaragoza, diverse models of urban logistics, ranging from B2B fulfilment platforms to municipal last-mile services, are exploring how sustainability objectives can be embedded in operational practices and stakeholder relationships. The proposed evolutions introduce innovations such as configurable delivery options, receiver-led consolidation, pick-up points and logistics-as-a-service platforms. These experiments aim to align value creation with environmental and social goals, while preserving the economic logic and contractual realities of each setting.

The first iteration of this analysis lays the foundation for assessing how these proposed innovations are implemented in practice. Deliverable D3.3 will propose MVPs for each of the pilot sites. Particular attention will be given to the feasibility of scaling these models, the operational trade-offs involved, and the institutional enablers or barriers encountered. This continued analysis will also inform GreenTurn's broader contribution to European knowledge on sustainable and inclusive urban logistics.

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List of tables

List of figures