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Ideas and concepts from co-creation sessions

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Change Log

Version	Description of change
V0.1	Methodology, Pilot specific workshop summaries finalised
V0.2	Consolidated portfolio of concepts finalised
V0.3	Introduction, Executive Summary, Conclusions and recommendations finalised
V0.4	Internal review within LPIT
V1.0	Final version, upgraded according to the reviewers' suggestions

List of abbreviations

Abbreviation/Term	Description
CA	Consortium Agreement
D	Deliverable
DOA	Description of Action
EC	European Commission
EU	European Union
GA	Grant Agreement
KPI	Key Performance Indicator
LSP	Logistics Service Provider
MS	Milestone
PC	Project Coordinator
PO	Project Officer
UCC	Urban Consolidation Centre
WP	Work Package
WPL	Work Package Leader
EV	Electric Vehicle
CO₂	Carbon Dioxide
PUDO	Pick-Up and Drop-Off point
B2B	Business-to-Business
API	Application Programming Interface
QR	Quick Response (code)

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1. Executive Summary

This deliverable presents the outcomes of Task 3.1 – Ideation and Conceptualisation, which initiated GreenTurn’s co-creation process across five European pilot sites: Poznań, Lyon, Athens/Elefsina, Vienna, and Zaragoza. The workshops, co-designed using a unified scenario and facilitation approach, brought together logistics service providers, retailers, consumers, local authorities, and domain experts to jointly reimagine the future of sustainable last-mile delivery.

Building on customer journeys, behavioural profiles, and pain-gain maps developed in WP2, each workshop explored the structural, behavioural, and operational barriers that hinder greener delivery choices and identified opportunities for innovation. While WP2 provided a robust understanding of individual user personas and journeys, the co-creation workshops added a critical layer of multi-stakeholder validation and operational grounding. By confronting behavioural insights with real-world logistics constraints and business realities, the workshops revealed how and where previously identified pains and gains translate into actionable intervention points.

Despite significant differences in local logistics ecosystems, personas, and cultural contexts, the workshops revealed a striking convergence in the challenges stakeholders experience and the types of solutions they consider desirable. Importantly, the workshops went beyond confirming WP2 findings by highlighting systemic interdependencies that are not visible from a single-perspective analysis. They demonstrated that many behavioural barriers identified in WP2 such as low uptake of green delivery options or resistance to reusable packaging are closely linked to operational fragmentation, lack of shared data, and insufficient coordination across actors in the delivery chain.

Consumers consistently struggle with inadequate transparency and credibility of green options, complex and inconvenient return processes, and the absence of clear incentives to choose sustainable deliveries. However, the workshops clarified that these issues cannot be addressed solely at the consumer interface. Retailers and logistics operators face fragmented data flows, operational inefficiencies, and infrastructure limitations, particularly in relation to electric mobility and consolidation services, which directly shape what options can realistically be offered to users. Public authorities, in turn, emphasised the need for harmonised approaches that align market-driven solutions with city-level sustainability objectives and regulatory frameworks.

The co-creation process generated more than 20 structured concepts across the five sites. Synthesised at consortium level, these concepts cluster into four strategic innovation categories that reflect cross-pilot convergence rather than isolated local ideas: Transparency & Eco-Choice Enablement; Circular Packaging & Sustainable Returns; Low-Emission Delivery Models & Operational Optimisation; and Behavioural Incentives & User Engagement. Together, these categories reveal a shared understanding among stakeholders that sustainable last-mile delivery requires hybrid solutions combining behavioural, digital, and operational change, rather than isolated interventions.

This consolidated portfolio therefore represents a key added value of Task 3.1: it translates user-centred insights from WP2 into solution pathways that are jointly validated by consumers, retailers, logistics providers, and public authorities, and that explicitly account for feasibility within pilot environments. On this basis, a detailed pilot-by-pilot roadmap for Task 3.2 has been developed, outlining concrete next steps for prototype development in each city. These roadmaps reflect local readiness, stakeholder commitments, and alignment with WP4 implementation plans.

Task 3.1 thus delivers not only a set of ideas, but a structured, cross-pilot understanding of where intervention is both necessary and possible. By revealing common leverage points across diverse contexts and aligning behavioural insights with operational realities, it provides a robust foundation for targeted prototyping and testing in the next phase of the GreenTurn project.

2. Introduction

This deliverable reports on the outcomes of Task 3.1 – Ideation and Conceptualisation, which marks the beginning of GreenTurn’s co-creation and solution development phase. Following the behavioural insights and customer journey findings of WP2, Task 3.1 was designed to engage key actors from the e-commerce and logistics ecosystem, including consumers, retailers, logistics service providers (LSPs), and public authorities, in collaboratively identifying challenges and generating early-stage solution concepts.

The task was implemented through a series of structured co-creation workshops held across five pilot sites: Poznań (Poland), Lyon (France), Athens/Elefsina (Greece), Vienna (Austria), and Zaragoza (Spain). To ensure comparability, a unified workshop scenario and facilitation guide were developed and provided to all pilots. This shared methodological backbone ensured that each workshop followed a consistent logic: grounding participants in validated personas and customer journeys from WP2; identifying behavioural and operational pain points; generating ideas using ideation techniques such as brainwriting, mind-mapping, and storyboarding; and consolidating the most promising ideas into coherent concept cards.

While each workshop adapted the scenario to local needs, all sessions aimed to explore three interconnected innovation levers central to GreenTurn: behavioural change, digital and technical enablement, and operational optimisation. The workshops thus operated not merely as brainstorming events but as structured environments for dialogue, co-creation, and cross-sector learning.

The purpose of this deliverable is threefold:

- To document and synthesise the outputs of the co-creation workshops, including stakeholder insights, concept categories, redesigned journeys, and early feasibility reflections.
- To consolidate the results across pilots, producing a unified portfolio of concepts that reveals shared innovation directions while acknowledging local specificity.
- To support the transition to Task 3.2, where selected concepts will undergo feasibility assessment, prototyping, and eventual deployment within WP4 pilot trials.

The chapters that follow present the methodology behind the co-creation process, synthesise the cross-pilot findings, detail the outcomes of each workshop, consolidate the overall concept portfolio, and provide strategic recommendations, including a pilot-by-pilot roadmap, to guide the next phase of GreenTurn’s innovation journey.

Together, these results form a strong, stakeholder-driven foundation for the prototyping and testing activities ahead, ensuring that the project’s solutions are both behaviourally grounded and operationally feasible.

3. Methodology and set up

The methodological approach applied in Task 3.1 was designed to ensure comparability, stakeholder relevance, and operational feasibility across all GreenTurn pilot sites, while still allowing local flexibility. At its core, the methodology followed a structured co-creation logic aligned with design thinking principles, combining behavioural insights, operational knowledge, and creative ideation techniques. Because the aim of the task was not merely to brainstorm ideas but to channel stakeholder perspectives into actionable and locally grounded solution concepts, the methodology emphasised process consistency, a shared conceptual vocabulary, and a common set of tools for all facilitators. The overall structure and sequencing of the co-creation process implemented across all pilot sites is illustrated in Figure 1, which presents the flow of the workshop from initial problem framing to concept formulation.

WORKSHOP IN FOUR STEPS

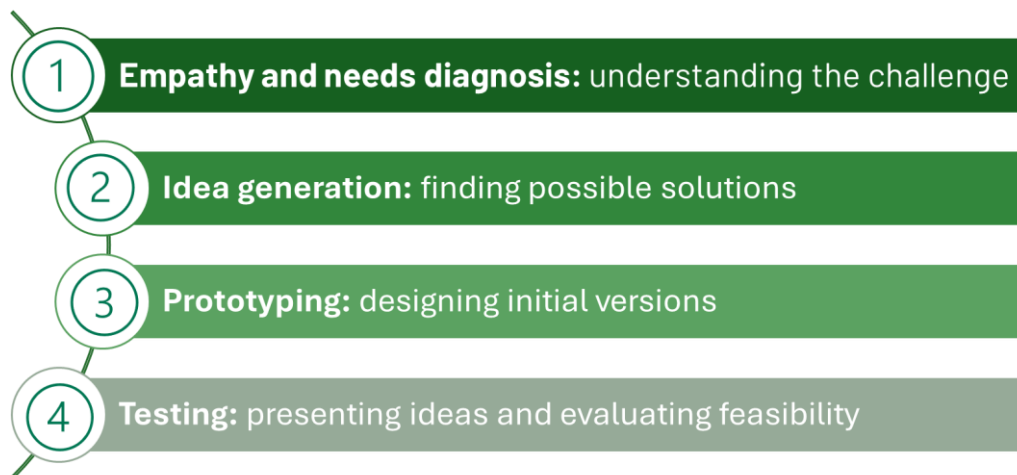


Figure 1. Flow of the workshop

Source: LPIT own elaboration

The process began with extensive preparation work, during which each pilot team received a unified workshop scenario and facilitation script developed by LPIT. This document outlined the purpose of the workshops, the sequence of activities, the expected outputs, and the materials required to guide participants through the structured ideation flow. As described in the scenario,

facilitators were instructed to anchor the sessions in insights coming from WP2, particularly persona profiles, customer journeys and pain-gain maps, ensuring that the co-creation process built on validated behavioural evidence rather than abstract assumptions. This preparatory stage also included the adaptation of workshop materials such as brainwriting sheets, mind-mapping canvases, and storyboard templates, as well as logistical arrangements to ensure representation across key stakeholder groups: logistics service providers, retailers, consumers, public authorities, and local experts.



Figure 2. GreenTurn workshop set up (7P approach)

Source: LPIT own elaboration

Although each pilot context differed in maturity of existing delivery systems, consumer behaviour patterns, and infrastructural conditions, all workshops followed the same methodological backbone. The first phase of the co-creation session focused on immersion and problem framing. Facilitators introduced the GreenTurn project and revisited the WP2 personas and journeys, prompting participants to reflect on how these mapped onto their local realities. This reflection stage served two important functions. Firstly, it allowed participants to collectively validate (and, where necessary, nuance) the drivers, pain points, and motivations identified in WP2. Secondly,

it encouraged stakeholders from different sectors to hear each other's perspectives and to combine their insights during the subsequent ideation phase.

Once a shared understanding of the challenges had been established, the workshops transitioned into the ideation phase. Here the methodology deliberately shifted from discussion to structured creative thinking. The aim was to give every participant, not only the more outspoken ones, an equal opportunity to contribute.

The workshops employed brainwriting, a silent, individual idea-generation technique that invites participants to produce many ideas rapidly without the influence of group dynamics. This step was crucial for surfacing a wide diversity of ideas and ensuring that the full breadth of participant experience could be captured. The brainwriting exercise was complemented by feasibility prompts embedded directly on the templates, underscoring that while creativity was welcome, ideas should still be anchored in the pilot's logistical and behavioural reality.

Following individual ideation, participants collectively processed their ideas through mind-mapping. This technique allowed groups to cluster ideas thematically, identify emerging patterns and relationships, and begin to interpret what the most promising directions could be. Mind-mapping served as an essential bridge between divergent and convergent thinking: rather than selecting ideas outright, groups visually explored connections, dependencies, and complementarities. This visual structuring made it easier to recognise which ideas addressed behavioural needs, which targeted operational challenges, and which depended on institutional or policy-level drivers, thus, mirroring the three innovation levers embedded in the GreenTurn methodology.

The third methodological pillar was storyboarding, introduced once idea clusters had stabilised. Storyboarding required participants to translate abstract ideas into a concrete customer journey, illustrating how the proposed solution would unfold step by step from the user's perspective. Drawing inspiration from the WP2 journey maps, participants redesigned problematic journey stages and articulated how their concept would alleviate pains and amplify gains. This exercise grounded the innovation process in service design thinking: solutions needed to be not only feasible and desirable but also coherent across touchpoints. It also tested whether participants truly understood how their proposed innovations would function operationally, enabling facilitators to identify early gaps or contradictions.

After the storyboards were completed, groups formalised their ideas into concept cards. These summarised the proposed solution, the problem it addressed, the users it targeted, the behavioural or operational levers it relied on, and initial reflections on feasibility. The concept-framing step was an essential methodological closure to the ideation process. It transformed raw creativity into preliminary prototypes of ideas, articulated in a way that could later be analysed in T3.2 for technical feasibility, piloting potential, and alignment with business model requirements in D3.2.

Although all workshops followed this same structure, facilitators were encouraged to adapt pacing, examples, or emphasis to local nuances, as foreseen in the methodology. Some pilots,

such as Greece and France, placed more emphasis on operational flows and constraints; others, like Spain and Poland, focused more on consumer-facing digital solutions and incentives. These variations were not deviations from the methodology but expressions of its flexibility: the shared structure ensured comparable outputs, while local adaptations ensured relevance.

Throughout the process, the methodology relied heavily on stakeholder diversity as an engine for insight generation. Mixed-group work was not incidental but intentionally built into the design. By placing consumers, retailers, LSPs, and authorities around the same table, the methodology harnessed real-time negotiation of interests and constraints, enabling ideas to emerge that were simultaneously user-centred and operationally grounded. Collaboration was further reinforced by plenary pitches at the end of the workshop, where groups presented their concept and received immediate feedback from the room, allowing for quick validation and refinement.

Finally, a consistent reporting method ensured methodological integrity across pilots. Each workshop concluded with the completion of a facilitator summary report, documenting the session's key insights, idea clusters, concepts, redesigned journeys, stakeholder reflections, and perceived feasibility. The common template distributed to all pilots functioned as a meta-methodological tool: it not only harmonised the format of results but also served as a guide for facilitators to monitor adherence to the process.

In sum, the methodology of Task 3.1 combined structure and creativity, standardisation and local responsiveness. It was designed to ensure that ideation was grounded in behavioural evidence, inclusive of all stakeholder voices, oriented toward feasible pilot implementation, and capable of producing concrete, comparable outputs across five diverse European contexts. This rigorous yet flexible co-creation process laid the foundation for the concept selection and prototype development activities that follow in Task 3.2.

For a detailed description of the methodology and set up see: [Annex1 T3.1 Workshop scenario](#)

4. Cross-pilot synthesis of results

The co-creation workshops implemented across the five GreenTurn pilot locations provide an unusually rich view of how consumers, retailers, logistics providers, and authorities perceive the current last-mile delivery landscape, what they identify as the most pressing challenges, and which opportunities they consider both realistic and desirable. Although each city operates within a distinct regulatory, infrastructural, and cultural environment, the workshop results reveal far-reaching commonalities across Europe. These shared patterns help build a coherent narrative of where sustainable last-mile solutions can create value and where barriers persist today. At the same time, differences between pilots highlight the importance of tailoring interventions to local logistics ecosystems. This chapter synthesises insights across all workshops by analysing convergent themes, identifying divergent local perspectives, and drawing out the conceptual clusters that emerged repeatedly.

4.1. Shared challenges and needs across pilots

Across all cities, participants consistently described a gap between the ambition of sustainable last-mile delivery and the realities of everyday practice. What consumers expect, what retailers can offer, and what logistics providers can operationalise often fail to align, resulting in friction points along the customer journey that are remarkably similar whether the context is Poznań, Lyon, Vienna, Athens, or Zaragoza.

Convenience as the dominant decision driver

The most striking cross-cutting observation is the importance of convenience. In almost every workshop, participants emphasised that consumers rarely select greener delivery options if these add complexity, uncertainty, or additional actions. In Poland, for example, consumers were described as highly cost- and convenience-sensitive, with low motivation to adopt sustainable options if these require extra steps such as travel to distant return points or extended waiting windows. Similar dynamics surfaced in Vienna, where participants stressed that even environmentally motivated users tend to prioritise reliability and simplicity, and in Zaragoza, where cost-saver and time-saver personas clearly dominated stakeholder discussions about relevance.

Low visibility and credibility of sustainable options

A second shared challenge is the lack of clear, trustworthy information about the environmental impact of delivery choices. Workshop participants in Austria highlighted the prevalence of “greenwashing” concerns and the absence of credible labels or emissions data at checkout. In France, the need for transparent communication of CO₂ savings emerged as central to consumer trust, especially among premium shoppers. Polish stakeholders echoed this insight: consumers overlook green options because they are insufficiently visible, poorly explained, or not personalised. Across workshops, participants voiced a desire for more standardised sustainability metrics, shared between LSPs and retailers and presented to customers in simple, consistent ways.

Complexity of returns as a systemic barrier

Returns were repeatedly identified as one of the most problematic parts of the customer journey. In Poland, the return process – printing labels, repackaging, travelling to drop-off points – was viewed as inconvenient and unmotivating for sustainable behaviour. Austrian stakeholders similarly described returns as frustrating and unnecessarily complex, while Greek participants raised the issue from an operational perspective, noting that uncoordinated returns lead to inefficient routing and unnecessary kilometres. Even in Spain, where returns played a smaller role for the Mercadeando app, stakeholders acknowledged that transparency about return options and associated costs influences consumer satisfaction.

Operational constraints affecting feasibility

LSPs and retailers across countries highlighted infrastructural and organisational constraints that limit the adoption of greener delivery models. In Greece, participants emphasised the inefficiency of manual routing, the absence of dynamic time-slot management, and inadequate

charging infrastructure for electric vehicles. French LSPs noted similar issues, including the regulatory constraints associated with transporting hazardous goods, which can affect routing and service design. Austrian stakeholders stressed the cost pressures limiting experimentation with new delivery modes and the lack of operational incentives supporting sustainable solutions. These insights demonstrate that behavioural and technological innovations must be paired with logistical feasibility and regulatory alignment.

4.2. Converging themes and idea clusters

Despite regional differences, the ideation outputs from all five workshops converged into a set of recurring conceptual directions. These thematic clusters represent areas where stakeholders see the highest potential for both behavioural and operational impact.

Making sustainability visible and actionable

One of the strongest clusters concerns tools that enhance transparency and allow consumers to easily understand and act upon the environmental implications of delivery choices. Several workshops, most notably in Poland and France, proposed integrated, multi-stakeholder platforms such as eco-dashboards and consumer-facing applications that display emissions data, packaging footprints, or personalised eco-recommendations. In Austria and Spain, similar ideas emerged in the form of clearer checkout interfaces, environmental impact badges, or filters for sustainable delivery types. Across workshops, stakeholders believed that visibility must be coupled with simplicity: sustainability information should not overwhelm but guide users through default choices, nudges, and incentives.

Reimagining packaging through circularity and design

Reusable and reduced packaging emerged as a compelling cluster in all pilots. Participants expressed strong emotional reactions to excessive packaging waste, calling it contradictory to sustainability messaging and frustrating from the consumer perspective. The Polish workshop produced an especially detailed concept for a foldable, durable, aesthetically appealing packaging system designed for both reuse and educational value. In Lyon, reusable packaging integrated with QR codes was considered promising for enhancing traceability, consumer engagement, and service quality. Austrian stakeholders emphasised the need for easily removable labels and deposit models, while Spanish participants linked packaging improvements to customer satisfaction and product-quality assurance. Taken together, these ideas suggest a broad recognition that packaging redesign is both a behavioural and operational opportunity for sustainability.

Optimising delivery flows through consolidation and low-emission modes

A third major theme centres on logistics optimisation and fleet modernisation. The Greek workshop strongly articulated the value of Urban Consolidation Centers, scheduled time-slot deliveries, mixed fleets with small electric vehicles, and coordinated reverse logistics. France and Austria echoed the importance of cargo bikes and EVs for short urban routes, while Poland and Zaragoza highlighted the potential of local-first or neighbourhood-level delivery matching to

shorten travel distances. These ideas indicate a cross-European recognition that operational efficiency and emissions reduction are deeply interlinked and must be tackled simultaneously.

Embedding behavioural incentives and identity cues

Across pilots, participants recognised that behavioural change is rarely achieved through information alone. Incentives – whether symbolic (badges, social-signalling cues), gamified (points, rankings), or financial (discounts, loyalty programmes) – were repeatedly suggested as mechanisms to increase adoption of sustainable delivery. French participants offered nuanced insights into how premium shoppers respond to identity-driven appeals, such as “pride of choosing low-carbon delivery,” while Spanish stakeholders emphasised loyalty schemes and personalised offers. In Poland, eco-choices accompanied by instant rewards were viewed as effective motivators. This theme underscores the value of integrating behavioural science into service design.

Strengthening local ecosystems through infrastructure and governance

The ecosystem dimension of sustainable last-mile logistics also surfaced consistently. Several workshops stressed the need for expanded PUDO infrastructure (France, Spain, Austria), micro-hubs (Greece), or better-integrated marketplace ecosystems. Spanish participants called for city-level coordination mechanisms and shared frameworks for delivery standards, while Austrian stakeholders argued for clearer regulatory incentives supporting sustainable delivery modes. The idea of multi-carrier, multi-option delivery ecosystems, raised in Austria and linked to Zaragoza’s Logistics-as-a-Service model, illustrates willingness among stakeholders to rethink competitive boundaries in favour of shared efficiencies.

4.3. Contrasting local perspectives

While many themes were shared, certain differences reflected local logistics contexts and cultural nuances.

Consumer behaviour differences

Spain’s dominance of cost-saver and time-saver personas contrasts with France’s premium-focused behavioural insights and Austria’s concern with credibility and sustainability signalling. Poland highlighted uncertainty and motivation gaps among mainstream consumers, whereas Greece’s B2B context shifted the behavioural focus toward organisational rather than individual choices.

Operational maturity

The Greek workshop reflected a high level of operational complexity and urgency (manual routing, inconsistent data, and infrastructure shortfalls), whereas Austria and France operated within more mature delivery ecosystems and could therefore explore detailed user experience enhancements. Poland’s concepts placed a strong emphasis on digitally enabled personalisation, reflecting a rapidly growing e-commerce user base transitioning toward more sustainable choices.

Regulatory environment

Hazardous goods regulations were a uniquely French constraint. Athens placed heavy emphasis on municipal cooperation for UCCs. Zaragoza highlighted the role of public authorities in integrating market apps with broader city services.

These differences reinforce the necessity of localised prototyping in Task 3.2, even when overarching solution themes are shared. At the same time, it is important to acknowledge that some of the observed differences are not solely the result of local market or logistics characteristics but also reflect the specific composition of stakeholders participating in each workshop. In several cases, particular perspectives became more visible because certain actors were strongly represented or raised context-specific concerns—for example, the presence of a retailer handling hazardous goods in the French workshop, or the stronger involvement of local authorities in the Spanish session. As such, the contrasting emphases identified across pilots should be interpreted as the outcome of an interaction between local conditions and stakeholder composition, rather than as fixed or exhaustive representations of each context. This further reinforces the value of the co-creation approach, while underlining the importance of adaptive, locally informed prototyping in Task 3.2, even when common solution themes are pursued across pilots.

4.4. Cross-pilot insights on stakeholder perspectives

Each stakeholder group: consumers, retailers, logistics providers, and public authorities, contributed unique viewpoints, but their perspectives also aligned in notable ways.

Consumers consistently expressed a desire for transparency, frictionless returns, and reliable delivery times. Their willingness to choose greener options depends heavily on convenience and clear incentives.

Retailers focused on operational simplicity, customer satisfaction, and the need for integrated systems that do not impose excessive costs or technical complexity. They showed openness to sustainable solutions that simultaneously strengthen brand positioning or reduce failed deliveries.

LSPs emphasised routing efficiency, clear data flows, vehicle constraints, and regulatory barriers. They tended to prioritise solutions that reduce uncertainty, optimise fleet use, or harmonise operational processes across retailers.

Public authorities, where present, highlighted the broader ecosystem implications, like street access regulations, infrastructure gaps or environmental objectives, as well as the need to balance commercial interests with urban sustainability.

Taken together, these perspectives underline that sustainable last-mile innovation must be simultaneously user-centred, operationally feasible, and policy-aligned.

4.5. A shared vision emerging

Across all five workshops, stakeholders articulated a shared vision of sustainable last-mile delivery as:

- transparent,
- simple,
- digitally enabled,
- incentive-compatible,
- operationally efficient, and
- aligned with local ecosystems.

The convergence of themes suggests that GreenTurn’s co-creation methodology successfully surfaced comparable problem definitions and innovation pathways. The next chapters translate this conceptual landscape into concrete solution portfolios and recommendations for prototype development under T3.2.

5. Pilot-specific workshop summaries

This chapter provides an integrated narrative of the five national co-creation workshops. While each pilot site applied the shared methodology outlined in Chapter 3, their local contexts, constraints, and user groups shaped the resulting ideas. The following sections synthesise each workshop’s specific dynamics, focusing on the interplay between stakeholder perspectives, locally salient challenges, and emerging concepts.

5.1. Poland – Poznań pilot summary

The Poznań workshop demonstrated how strongly behavioural motivations and operational constraints interact in shaping local opportunities for sustainable last-mile delivery. Although participants represented diverse segments of the value chain - GLS as a large courier, IKEA as a major retailer, city representatives, researchers, and consumers - there was rapid convergence around the idea that user choices today are primarily governed by convenience, speed, and cost, while sustainability remains secondary unless explicitly incentivised.

The empathy exercise revealed that consumers in Poznań frequently encounter friction points when attempting to behave sustainably: return processes are complicated?, green delivery options remain difficult to identify, and additional steps (e.g. printing labels, repacking, travelling to drop-off points) erode willingness to participate in greener logistics. Personas validated earlier in WP2, particularly the “cost conscious”, “time-saver buyer” and “tech-savvy shopper” resonated strongly with stakeholders. At the same time, retailers and LSPs pointed to bottlenecks in low-emission delivery infrastructure, especially limited fleet capacity and insufficient integration across data systems.

The ideation phase generated a particularly rich set of concepts that blended technological innovation with behavioural nudging. One of the strongest was the Integrated Transparency &

Eco-Guidance System, combining a back-end dashboard for retailers and LSPs with a personalised consumer-facing app. This dual architecture emphasised the need for shared sustainability metrics and a unified language around emissions and packaging impact. The second major idea, the Reusable Packaging Loop, illustrated how circular practices could become attractive when linked to convenience, aesthetics, and incentives. The EcoChoice Overlay expanded this thinking by embedding green decision-making into the checkout process across multiple platforms. A fourth concept, Local-First Circular Recommerce, aligned with Poland's growing second-hand market and explored how cargo bikes and neighbourhood-matching could drastically reduce unnecessary kilometres.

Collectively, the Poznań outputs pointed toward a city ready to experiment with digital transparency tools and circular packaging systems, provided these are designed to minimise behavioural friction and mesh with existing operational realities.

For a detailed description of the Polish workshop see: [Annex2 Poland_ FACILITATION SUMMARY REPORT](#).

5.2. France – Lyon pilot summary

The Lyon workshop focused heavily on the experiential dimension of delivery, reflecting both the city's logistics ecosystem and the personas identified for the pilot. Participants included logistics providers specialising in various domains, including hazardous materials, retailers, operators of reusable packaging systems, and cargo-bike innovators. This wide range of operational expertise created a workshop environment where behavioural insights and logistical considerations intertwined.

The discussions underscored that speed, reliability, and real-time communication remain essential expectations across consumer segments. Even highly eco-conscious or premium consumers are unwilling to sacrifice these foundational qualities. Lyon participants also emphasised the value of personalisation and identity cues: consumers respond strongly to services that affirm their values or social identity, such as contributing visibly to CO₂ savings or receiving premium-quality delivery experiences.

The ideation exercises generated several conceptually sophisticated ideas. A standout was the Low-Carbon Premium Delivery Service, centred on cargo-bike delivery combined with exceptional customer experience features such as driver identification, enhanced tracking, and personalised notifications. This concept leveraged both sustainability and aspirational branding. Another strong output was the Reusable Packaging System with Gamification, which extended packaging beyond its physical function into a behavioural engagement tool with QR-based traceability, rewards, and educational content. A third thematic area was the expansion of pick-up and return infrastructure, especially through PUDO locations embedded in users' daily routines.

The Lyon workshop therefore contributed insights into how sustainable delivery can become a premium, emotionally resonant proposition, rather than a compromise or cost-saving alternative.

For a detailed description of the French workshop see: [Annex3 France_ FACILITATION SUMMARY REPORT](#)

5.3. Greece – Athens / Elefsina pilot summary

The Greek workshop differed from the others in scope because the Elefsina pilot is B2B-oriented, focusing on deliveries between retailers, warehouses, and business receivers rather than end consumers. This created a dynamic where the workshop dealt with operational, organisational, and systems-level challenges more than individual consumer behaviours.

Participants repeatedly pointed to systemic inefficiencies: manual routing processes that produced excess kilometres, irregular delivery requests that made planning difficult, and fragmented data infrastructures that hindered real-time orchestration. The unavailability of sufficient charging stations further constrained the viability of EV-based logistics. Within this context, the collective objective became how to design predictable, consolidated, and efficiently coordinated last-mile flows without disrupting existing business models.

Consequently, the concept outputs took a highly operational form. The leading concept Scheduled Consolidated Delivery and Return Trips with Time Slots proposed a unified scheduling logic mediated by an orchestration platform and potentially supported by an Urban Consolidation Center (UCC). The Mixed Fleet Orchestration concept explored how small electric vehicles could be integrated into short urban routes while heavier vehicles served more distant areas. A third concept, Simultaneous Pickup and Delivery for Reverse Logistics, directly addressed inefficiencies in returns. Finally, a Central Data & KPI Dashboard addressed the fragmentation of data across systems and supported performance monitoring.

The Greek workshop demonstrated that sustainable last-mile logistics cannot rely solely on consumer incentives; in many contexts, organisational redesign and system integration form the backbone of sustainable transformation.

For a detailed description of the Greek workshop see: [Annex4 Greece_ FACILITATION SUMMARY REPORT](#)

5.4. Austria – Vienna pilot summary

The Vienna workshop provided one of the most nuanced behavioural analyses, reflecting the Austrian market's maturity in e-commerce and logistics. Participants included LSPs, retailers, a university representative, and consumers with diverse usage profiles. Their discussions revealed how deeply consumer trust, transparency, and perceptions of value influence adoption of sustainable delivery practices.

Participants expressed widespread frustration with excessive packaging, lack of clear sustainability indicators, limited credibility of green delivery labels, and the overall complexity of

return processes. They also highlighted a general expectation that delivery should be inexpensive, fast, and convenient making it challenging to introduce alternatives without clear value propositions.

The resulting ideas were multifaceted. One cluster focused on transparent and configurable green delivery options, helping consumers understand the implications of each delivery method. Another explored incentive mechanisms, such as rewards for selecting slower or consolidated deliveries. The emotional dimension surfaced in discussions of reusable packaging, where aesthetics, material quality, and ease of reuse were seen as crucial for user acceptance. Digital tools also featured strongly, including enhanced tracking systems and simplified return workflows. The concept of receiver-led consolidation where workplaces or residential buildings coordinate shared delivery windows emerged as a novel organisational lever.

The Vienna outputs suggest that the Austrian pilot may benefit from combining behavioural nudges with logistical refinement, emphasising trust-building and user empowerment.

For a detailed description of the Austrian workshop see: [Annex5 Austria_ FACILITATION SUMMARY REPORT](#)

5.5. Spain – Zaragoza pilot summary

The Zaragoza workshop, centred around the Mercadeando app for local market commerce, provided a unique perspective on how sustainable logistics interact with the cultural and economic identity of traditional marketplaces. Stakeholders, from small retailers and LSPs to public authorities and consumers, highlighted how digitalisation both enables and challenges this ecosystem.

An early task in the workshop was prioritising personas. Across groups, “cost-conscious” and “time-saver” personas were unanimously identified as the most representative of local shoppers. This shaped the rest of the workshop: low prices, speed, and convenience dominated discussions, while sustainability emerged as a secondary value unless framed effectively.

Participants identified several concrete challenges: insufficient transparency about delivery costs, limited PUDO coverage, inefficiencies in marketplace apps, and the need for better communication between consumers and retailers. At the same time, the workshop surfaced opportunities tied to app enhancement, community-focused marketing, and integrated user incentives.

The most developed concepts involved improvements to the Mercadeando app itself, introducing product comparison tools, clearer delivery-cost information, sustainability indicators, and incentives for choosing eco-friendly options. Another concept focused on raising awareness and increasing adoption of the app, leveraging city-wide campaigns, partnerships with public services, and targeted communication at market stalls. A third theme concerned multi-point shopping and delivery optimisation, recognising that many consumers buy from several market vendors at once.

The Zaragoza workshop highlighted that sustainable practices must integrate smoothly into a highly price-sensitive, convenience-driven local culture, and that well-designed digital tools can serve as powerful enablers.

For a detailed description of the Spanish workshop see: Annex6 Spain_ FACILITATION SUMMARY REPORT

Cross-cutting conclusions

Across all pilots, a shared structure of challenges emerges:

- consumers lack visibility and trust,
- retailers struggle with cost-value balance,
- logistics providers face structural inefficiencies, and
- public authorities seek harmonised, low-impact urban mobility.

Despite these commonalities, each pilot presents unique opportunities for prototyping:

- Poznań can lead on eco-data integration and circular packaging,
- Lyon can pioneer premium low-carbon services and reusable packaging,
- Athens/Elefsina can test consolidation and orchestration platforms,
- Vienna can formalise green-delivery transparency tools and streamlined returns,
- Zaragoza can advance marketplace digitalisation and sustainable defaults.

6. Consolidated portfolio of concepts

The co-creation sessions conducted across the five GreenTurn pilots resulted in a rich ecosystem of ideas, some behavioural, others technological or organisational in nature. While each pilot developed concepts tailored to its local context, the core patterns that emerged across workshops form a coherent portfolio of solutions capable of addressing Europe-wide last-mile sustainability challenges.

This consolidated portfolio structures the concepts into **four overarching innovation categories**:

- Transparency & eco-choice enablement,
- Circular packaging & sustainable returns,
- Low-emission delivery models & operational optimisation,
- Behavioural incentives & user engagement mechanisms.

Within each family, this chapters synthesises cross-pilot insights and describes the user-related and operational problems being addressed and assesses feasibility and relevance for prototyping in Task 3.2.

6.1. Transparency & Eco-Choice enablement

Across all workshops, the need for greater transparency emerged as one of the most universal findings. Consumers repeatedly expressed confusion or scepticism about sustainable delivery

options, while retailers and logistics providers identified a lack of shared sustainability metrics and communication standards.

The concepts in this category aim to make sustainability visible, understandable, and actionable without adding cognitive load or extra steps to the customer journey.

1) **Integrated eco-information architecture** (Poland, Austria, France)

This concept proposes a multi-layered system combining:

- Consumer-facing eco-interfaces showing CO₂ emissions, delivery mode impact, packaging sustainability, and “greenest available option.”
- Retailer and LSP dashboards enabling traceability of sustainability metrics, benchmarking, and operational decision-making.

The Polish workshop strongly articulated this dual architecture, emphasising the need for transparent data that can flow from back-end logistics operations to front-end consumer decision-making. Austrian participants reinforced this need by pointing to consumer distrust in vague “green” claims and the desire for clear standards and indicators. French participants extended this into a value proposition: customers want to be rewarded symbolically for choosing green options, and transparency is a prerequisite for that symbolism.

Value proposition: builds trust, guides behaviour, enables comparative choices.

Feasibility: medium-high; requires API-based data integration but aligns with pilots with digital platforms (PL, AT, ES).

2) **Eco-choice checkout overlay** (Poland, Spain, Austria)

The EcoChoice concept reframes sustainable delivery as the “default intelligent option.” It includes:

- A simplified checkout interface that highlights the recommended sustainable choice,
- Dynamic messaging (“Save 30% CO₂ by choosing this option”),
- Optionality for slower, more sustainable delivery windows.

In Poland, this emerged as a cross-stakeholder solution to behavioural inertia. In Spain, a similar mechanism was envisioned for the Mercadeando app, where cost-saver personas respond strongly to clearly framed price-impact trade-offs. Austria emphasised configurable modules allowing retailers to customise the degree of sustainability nudging at checkout.

Value proposition: turns complex environmental data into simple decisions.

Feasibility: high; minimal technical disruption, strong behavioural evidence.

6.2. Circular packaging & sustainable returns

Packaging and returns were among the most emotionally charged issues across workshops. Participants consistently described packaging waste as contradictory to sustainability goals, while returns were widely experienced as inconvenient, confusing, or costly.

The concepts in this category aim to reduce environmental impact while improving user experience.

1) Reusable packaging ecosystems (Poland, France, Austria)

Reusable packaging emerged as a powerful shared direction, though with locally distinct emphases.

In Poland, participants envisioned a durable, foldable, aesthetically appealing packaging system supported by incentives and clear instructions for reuse. This packaging was framed not merely as a container but as an educational touchpoint: a reminder of the circular economy with each use. In France, the reusable packaging system included QR-based traceability, enabling users to learn about the environmental impact, earn rewards, and see the “journey” of their reusable box, the gamified aspect was essential. In Austria, participants highlighted practical elements – durability, easy-to-remove labels, compatibility with multiple retailer types and the need for deposit schemes to encourage return flows.

Value proposition: reduces waste, enhances brand identity, engages consumers through transparency and aesthetics.

Feasibility: medium; requires coordination across LSPs, retailers, and return channels.

2) Streamlined return systems (Poland, Austria, Spain, Greece)

Returns were widely described as a pain point in all workshops, but the solutions varied: Poland proposed label-free returns and centralised drop-off points managed via app coordination. Austria suggested digital return workflows with integrated tracking and simplified re-packing processes. Spain envisioned pickup points at market entrances, addressing the hyperlocal model of Mercadeando. Greece emphasised reverse logistics consolidation, combining returns with scheduled deliveries to minimise route fragmentation

Value proposition: reduces friction, unnecessary kilometres, and user frustration.

Feasibility: high for digital layers; medium for consolidated operational models.

6.3. Low-emission delivery models & operational optimisation

This category encompasses innovations focused on logistics processes, fleet composition, routing strategies, and infrastructural redesign.

Across all workshops, stakeholders recognised that behavioural change alone cannot produce sustainable logistics. Operational change is required, especially in dense urban environments and B2B settings.

1) Cargo bike & EV-based delivery services (France, Austria, Poland)

Lyon produced the most advanced conceptualisation of a premium cargo-bike service, which ties operational efficiency to differentiated user experience (enhanced communication, high-quality

handovers). Austria and Poland also supported cargo-bike solutions but emphasised cost and infrastructure constraints.

Value proposition: reduces emissions in dense zones; supports branding; increases reliability for short routes.

Feasibility: medium; dependent on fleet availability and regulatory context.

2) Consolidated delivery & pick-up windows (Greece, Austria)

The Greek workshop developed a highly structured concept for coordinated delivery and return rounds, facilitated by an orchestration platform and potentially supported by an Urban Consolidation Center (UCC). Austria echoed this concept with receiver-led consolidation, where offices or residential buildings coordinate a common delivery window to reduce fragmentation.

Value proposition: lowers operational costs and emissions; improves predictability; supports small EV use.

Feasibility: high in dense or B2B environments.

3) Mixed-fleet orchestration & infrastructure support (Greece, France)

The Greek pilot articulated the need for an intelligent fleet allocation system, where cargo bikes or small EVs handle short-range deliveries while larger vehicles serve peripheral zones. A supporting infrastructure, charging stations, micro-hubs, lockers is seen as essential.

Value proposition: improves energy efficiency, reduces congestion, and supports compliance with low-emission zones.

Feasibility: medium; requires infrastructure investment.

4) PUDO & locker network expansion (France, Spain, Austria)

Several workshops highlighted the need for strategically placed PUDO points: refrigerated lockers (ES), multi-carrier parcel terminals (AT), and convenience-based locker placement (FR). The idea is to embed pick-up/return locations into users' daily mobility patterns.

Value proposition: reduces failed deliveries and travelling kilometers; increases user flexibility.

Feasibility: high when infrastructure partnerships exist.

6.4. Behavioural incentives & user engagement mechanisms

This category includes solutions designed to shift user decisions toward greener options by changing perceptions, motivations, and routines.

1) Loyalty-based eco rewards (Poland, France, Austria, Spain)

Many workshops independently arrived at reward-based approaches:

- Poland: immediate eco points for choosing green delivery.
- France: gamification linked to reusable packaging.

- Austria: bonus systems for sustainable choices.
- Spain: loyalty programmes within Mercadeando to incentivise recurring purchases and sustainable delivery options.

Value proposition: shifts behaviour without increasing friction; leverages emotional and financial incentives.

Feasibility: high; simple to integrate into digital platforms.

2) Defaults & nudges toward sustainability (Spain, Poland, Austria)

The concept of behavioural defaults, showing the sustainable option first or marking it as the “recommended” choice, emerged in Zaragoza and Poznań, while Austria highlighted its trust-building potential.

Value proposition: changes behaviour passively; supports informed decision-making.

Feasibility: high; requires minimal coding.

3) Awareness & social identity mechanisms (Spain, France)

Zaragoza highlighted the importance of city-wide campaigns, public transport-linked incentives, and communication at market stands. France emphasised premium identity cues, such as packaging messages or driver-personalisation elements that increase emotional attachment.

Value proposition: increases adoption among users who value symbolic alignment.

Feasibility: high; can be layered onto existing operations.

6.5. Feasibility and relevance assessment for Task 3.2 prototyping

Each concept category aligns differently with the practical capacities of GreenTurn pilots.

The most immediately feasible for prototyping in T3.2 are:

- Digital transparency tools (EcoChoice, dashboards) – light development, high impact.
- Loyalty and incentive mechanisms – behaviourally powerful, low technical barriers.
- Simplified return systems (label-free returns) – strong user need, clear implementation paths.
- Cargo-bike premium delivery pilots – ideal for Lyon and potentially Vienna.

Mid-term feasibility concepts include:

- Reusable packaging systems – require cross-stakeholder coordination.
- Mixed fleet orchestration – promising for Athens but more infrastructure-dependent.
- Receiver-led consolidation windows – organisationally complex but high impact.

Long-term concepts include:

- City-wide multi-operator ecosystem integration,
- Large-scale UCC-based coordination,
- Fully circular packaging return networks.

- These long-term possibilities should be tracked and gradually developed, but they exceed the immediate scope of prototyping in T3.2.

6.6. Strategic integration across pilots

Together, these concepts form a coherent innovation portfolio that reflects both the diversity of GreenTurn pilots and their shared sustainability goals.

Importantly:

- ✓ Digital solutions dominate the short-term opportunity space.
- ✓ Circular systems are emerging as a shared medium-term strategic direction.
- ✓ Operational optimisation is essential for the long-term transformation of logistics.
- ✓ Behavioural mechanisms are necessary to bridge user intent and real-world adoption.
- ✓ The portfolio demonstrates that sustainable last-mile delivery is not the product of a single innovation but of an integrated ecosystem combining infrastructure, behaviour, and data.

Together with other ongoing project activities, this shared conceptual base supports the transition to Task 3.2 where selected concepts will be translated into prototypes and tested in real pilot environments.

7. Conclusions and recommendations

The co-creation activities conducted within Task 3.1 mark a pivotal phase in the GreenTurn project, serving as a bridge between user-centred research (WP2) and practical prototyping and implementation (WP3 and WP4). Despite operating in diverse economic, cultural, and infrastructural environments, the five pilot workshops, revealed an unexpectedly strong alignment in the challenges stakeholders face and the opportunities they perceive.

Participants across all workshops articulated a shared vision of what sustainable last-mile logistics should become: transparent, convenient, low-emission, user-friendly, and grounded in realistic operational capabilities.

Several overarching conclusions emerge from the synthesis of workshop outcomes:

7.1. Converging understanding of key pain points

Across all pilots, participants reaffirmed that consumers often lack the information, motivation, or means to choose greener delivery options, even when they express environmental concern. Confusion, low credibility of sustainability claims, inconvenience in returns, and limited visibility of alternatives are central barriers. Retailers and logistics providers, on the other hand, face structural difficulties: high-cost sensitivity in the market, fragmented data flows, limited

infrastructure (especially for EVs and cargo bikes), and operational inefficiencies that push emissions upward.

This convergence demonstrates that the challenges of sustainable last-mile delivery are systemic rather than localised. Solutions must therefore be both behaviourally informed and infrastructurally grounded.

7.2. Co-creation validated the need for hybrid innovations

A key conclusion of Task 3.1 is that no single intervention, whether technological, behavioural, or organisational, is sufficient on its own. The strongest concepts developed during the workshops were those that combined several layers of innovation: for example, digital transparency tools paired with behavioural nudges, or reusable packaging systems linked to incentives and improved return logistics.

This hybrid approach aligns with the project's systemic view of sustainable mobility: behaviour, technology, operations, and governance must be addressed simultaneously to achieve real impact.

7.3. Strong cross-pilot convergence around four concept categories

The concepts generated across workshops naturally clustered into four strategic innovation categories:

- Transparency & eco-choice enablement

Consumers want clarity and trustworthy information. Retailers and LSPs need common metrics. Transparency emerged as the foundation for behavioural change.

- Circular packaging & sustainable returns

Packaging waste and returns are major pain points. Circular systems, if convenient and well-communicated, offer strong environmental benefit and user engagement potential.

- Low-emission delivery models & operational optimisation

Operational efficiency and emissions reduction go hand in hand. Consolidation, mixed fleets, and cargo bikes represent high-impact interventions.

- Behavioural incentives & engagement mechanisms

Incentives, default choices, gamification, and social-identity cues consistently emerged as levers for adoption.

These categories represent the core strategic architecture for GreenTurn's continued innovation work.

7.4. Implications for Task 3.2 – concept prioritisation and prototyping

The transition from ideation and conceptualisation in Task 3.1 to prototyping in Task 3.2 represents a critical step in the GreenTurn innovation process. While the co-creation workshops generated a broad and diverse set of ideas, the next phase will necessarily require a focused selection of concepts that can be realistically developed, tested, and deployed within the constraints of each pilot environment. This prioritisation must balance three key criteria:

1. technical and organisational feasibility,
2. expected behavioural and environmental impact, and...
3. alignment with local infrastructure, stakeholders, and WP4 implementation plans.

One clear implication emerging from the workshops is the importance of **starting the prototyping phase with concepts that combine low technical complexity with high behavioural leverage**. Across all pilots, stakeholders repeatedly highlighted that user behaviour can often be influenced more effectively through small, well-designed interventions than through complex system overhauls. Solutions such as eco-choice checkout overlays, loyalty-based rewards for sustainable delivery options, or simplified and label-free return workflows were consistently perceived as both feasible and impactful. These concepts require limited integration effort, can often be layered onto existing digital platforms, and directly address some of the most persistent pain points identified in customer journeys. By reducing friction and making sustainable choices more intuitive, such solutions can be deployed relatively quickly and generate early momentum, helping to build trust and engagement among users and partners.

At the same time, the workshops made it clear that **behavioural solutions alone are not sufficient to achieve lasting reductions in emissions**. For this reason, Task 3.2 should ensure that each pilot develops at least one prototype drawn from the family of **operational optimisation concepts**. These solutions tackle the structural inefficiencies of last-mile logistics and are closely aligned with city-level sustainability objectives. The nature of these prototypes will vary by pilot context. In Lyon, the strong ecosystem of cargo-bike operators and the emphasis on premium user experience make low-carbon, cargo-bike-based delivery services a natural candidate for prototyping. In the Athens/Elefsina pilot, where B2B flows and fragmented routing were identified as major challenges, mixed-fleet orchestration and delivery consolidation concepts offer the greatest potential impact. In Vienna, receiver-led consolidation models, particularly in office buildings or shared residential contexts, provide an opportunity to reduce delivery fragmentation while testing new forms of collective coordination. Prototyping such operational solutions will not only support WP4 implementation but also generate valuable insights into scalability and replication.

Reusable packaging emerged as another area where the workshops point to a clear direction for Task 3.2. In several pilots, particularly Poland, France, and Austria, both consumers and retailers expressed strong interest in **moving beyond single-use packaging, provided that reusable systems are convenient, attractive, and supported by clear incentives**. The implication for

prototyping is that reusable packaging pilots should be advanced where stakeholder readiness is highest, but with a pragmatic scope. Rather than attempting to implement fully circular systems from the outset, early prototypes should focus on digitally supported packaging flows, such as QR-based tracking, deposit mechanisms, and reward schemes for returns. This approach allows the consortium to test user acceptance, operational feasibility, and return rates before scaling up to more complex circular models.

Another important lesson from the workshops concerns **the design of transparency tools**. While concepts such as eco-dashboards, sustainability indicators, and CO₂ information interfaces were widely supported, stakeholders also warned against fragmented or pilot-specific solutions that could become difficult to maintain or scale. **The eco-information architecture** proposed in Poland and Austria illustrates the need for interoperability across systems. For Task 3.2, this implies that transparency-related prototypes should be designed using a modular and flexible architecture, capable of interfacing with different retailer platforms, LSP APIs, and user interfaces. **Prioritising interoperability** at this stage will reduce future integration costs and support potential replication beyond the initial pilots.

Finally, the workshops highlighted that successful prototyping is not only a technical exercise but also a cultural and communicative one. **Adoption of sustainable delivery solutions depends strongly on how well they resonate with local identities, values, and everyday practices**. The Zaragoza pilot demonstrated how deeply sustainability adoption is tied to community-based retail culture and trust in local markets, while the Lyon pilot showed how premium positioning and quality of experience can motivate greener choices. These insights imply that Task 3.2 should invest in communication and engagement strategies alongside technical prototyping. Prototypes should be framed and tested in ways that amplify city-specific narratives, whether through local branding, partnerships with public services, or experiential elements that speak to users' sense of identity and belonging.

Taken together, these implications suggest that Task 3.2 should pursue a balanced prototyping strategy: combining quick-win behavioural interventions with at least one structurally transformative operational prototype per pilot, advancing reusable packaging where readiness exists, designing transparency tools with interoperability in mind, and embedding all prototypes within locally meaningful narratives. This approach will maximise both short-term learning and long-term impact, ensuring continuity between co-creation, prototyping, and implementation within the GreenTurn project.

7.5. Strategic recommendations for consortium-level action

Beyond the pilot-specific prototyping activities, the outcomes of Task 3.1 point to several strategic actions that should be taken at consortium level to ensure coherence, credibility, and long-term impact of GreenTurn's innovation efforts. These recommendations reflect insights that cut across individual pilots and address systemic conditions necessary for scaling sustainable last-mile solutions.

A first strategic priority concerns **the harmonisation of sustainability metrics across pilots**. Throughout the workshops, stakeholders repeatedly expressed a need for clear, standardised indicators that define what constitutes a “green” delivery option. This includes **comparable CO₂ metrics, consistent packaging classifications, and shared definitions of low-emission or sustainable delivery modes**. Without such alignment, both consumers and operators risk facing fragmented messages that undermine trust and limit comparability between solutions. Developing a common sustainability measurement framework at consortium level would therefore **strengthen the credibility of pilot results and support future replication beyond the project**.

A second recommendation is to **actively reinforce cross-pilot knowledge exchange**. While each pilot operates in a distinct local context, the workshops revealed complementary strengths that could be leveraged more systematically. For example, Lyon’s experience with cargo-bike logistics and premium service design offers valuable insights for cities such as Vienna and Poznań, while the operational orchestration concepts developed in Athens could inform delivery planning in Zaragoza. Similarly, the digital eco-guidance approaches emerging from the Polish pilot provide a transferable blueprint for transparency tools across all sites. **Structured mechanisms for sharing lessons learned such as regular cross-pilot workshops or thematic working groups, would help accelerate learning and avoid duplication of effort.** (Strong relation with the D5.1 – Replicability and transferability across pilots & WP6 –Fostering replication and large-scale uptake)

Engaging public authorities at an early stage is another critical consortium-level action, particularly for concepts that depend on physical infrastructure. Solutions involving lockers, PUDO networks, Urban Consolidation Centres, or electric vehicle charging infrastructure should not be developed in isolation from municipal planning processes and regulatory frameworks. Early and continuous dialogue with city partners can help identify constraints, align timelines, and secure institutional support, thereby reducing implementation bottlenecks during later project phases.

Finally, the consortium should **prioritise early and iterative user testing across all prototypes**. Given the strong behavioural dimension of sustainable last-mile delivery, assumptions about user acceptance, convenience, and perceived value need to be validated as early as possible. Short feedback loops with consumers and business users can reveal friction points that are not apparent in concept design, allowing teams to refine solutions before larger-scale deployment. **Embedding user testing as a core practice across pilots will increase the likelihood that GreenTurn’s innovations translate into real behavioural change.**

Together, these strategic actions provide a framework for aligning pilot-level experimentation with a coherent, credible, and scalable consortium-wide approach to sustainable last-mile logistics.

7.6. Final reflection

Task 3.1 has demonstrated that sustainable last-mile logistics is a shared European challenge - one that cannot be solved through technology alone. The co-creation process has surfaced not only ideas but also a collective understanding: users are willing to adopt greener delivery options, provided they are guided clearly, rewarded fairly, and supported by efficient operational systems. The consolidated portfolio presented in this deliverable represents a robust, evidence-based foundation for the next stages of the project. It equips the consortium with the insights needed to translate ideas into prototypes, prototypes into pilot actions, and pilot actions into scalable, long-term solutions for cities across Europe.

8. Annexes

8.1. Annex1 T3.1 Workshop scenario

T3.1 IDEATION & CONCEPTUALISATION

Main objectives :

- **Initiate the co-creation process** within the GreenTurn project to collaboratively explore sustainable last-mile logistics solutions.
- **Engage key stakeholder groups** logistics service providers (LSPs), retailers, consumers, and local authorities in a structured ideation process.
- **Build upon WP2 outputs**, particularly the identified customer personas, journeys, and behavioural insights.
- **Develop early-stage ideas and concepts** that:
 - Maximise the gains and minimise the pains from the perspective of key personas.
 - Address behavioural and operational barriers to low-emission logistics.
- **Use creative and structured methods** (e.g., brainwriting, mind-mapping, storyboarding) to stimulate innovation.
- **Deliver tangible workshop outcomes** that can be further processed and evaluated by the consortium.
- **Prepare inputs for prototyping under Task 3.2**, ensuring continuity with the strategic objectives of the pilots and alignment with WP4 implementation.
- **Ensure all outputs are relevant and grounded in local pilot contexts**, while remaining adaptable across different stakeholder and market settings.

Structure & approach:

Component	Lead Actors	Format	Purpose	Timing
1. Preparation & Framing	LPIT + Pilot Partners + UAEG	Internal / Deskwork	Prepare the workshop environment, personas, journeys, pilot framing, and materials	July-August 2025
2. Stakeholder Workshop (core co-creation)	Local Facilitators (with LPIT guidance)	In-person (1x per country)	Gather ideas and concepts that respond to persona pains/gains and align with local logistics environments	September-October 2025
3. Expert Processing & Refinement	LPIT + UAEG + Pilot Actors	Desk-based + coordination calls	Assess feasibility, sort outputs, draft refined	October 2025

			concepts for T3.2	
4. Stakeholder Online Follow-Up	Pilot Partners	Optional online validation / feedback	Review refined outputs and ensure consensus or tweak ideas before prototyping phase	October 2025
5. Deliverable Drafting – D3.4	LPIT	Internal	Compile all inputs and results into a unified document	End of October 2025

WORKSHOP SETUP:

Purpose	To jointly develop early-stage ideas and concepts that address key behavioural and operational pain points in last-mile delivery, as identified in WP2 (T2.2). The goal is to generate solution concepts that are relevant, pilot-feasible, and stakeholder-validated, serving as raw material for prototyping in T3.2.
People	<p>Approximately 10–15 participants per pilot city, ensuring diversity and alignment with KPI M04.1:</p> <ul style="list-style-type: none"> - Minimum 1–2 LSPs - 3–5 retailers or marketplace providers - 5–6 consumers - 1–2 local authorities (optional) <p>Participants are pre-selected to reflect local logistics ecosystems. Mixed groups at each table to ensure cross-perspective ideation.</p>
Process	<p>The workshop includes three core sessions:</p> <ol style="list-style-type: none"> 1. Introduction & Reflection – presentation of insights, persona and journey discussion 2. Idea Generation & Exploration – brainwriting, mind mapping, storyboard 3. Concept Framing & Validation – framing cards, pitch presentations, group reflection <p>Facilitators follow a fixed schedule and script to ensure comparability across cities.</p>
Product	<p>Each pilot city delivers:</p> <ul style="list-style-type: none"> - Clustered pain/gain challenges per persona - Brainwritten idea sets - Mind map clusters of solution areas - Redesigned journey storyboards - 1–2 Concept Cards (per group) with stakeholder-fit, barriers, and feasibility - Facilitator summary with synthesis of outcomes and raw material for T3.2
Place	<p>On-site, in a physical venue provided by each pilot partner. Venue should support:</p> <ul style="list-style-type: none"> - 3–4 roundtables - Whiteboards, flipcharts, and wall space for visual outputs

	<ul style="list-style-type: none"> - Projection and audio equipment <p>Workshops are not conducted online. Only group presentations are recorded.</p>
Preparation	<p>Each pilot site must prepare:</p> <ul style="list-style-type: none"> - Printouts of WP2 personas and journeys - Visual aids and slide deck (provided centrally) - Templates for brainwriting, mind maps, storyboards, and concept cards - Diverse stakeholder invitations (aligned with KPIs) - A trained facilitator with access to the full script and instructions
Performance	<p>Evaluation is both qualitative and procedural:</p> <ul style="list-style-type: none"> - Facilitators document outputs using provided formats - Audio/video capture of group presentations - Written facilitator summary following the shared template - Outputs feed directly into D3.4 and concept validation in T3.2

Session I: Introduction & Challenge Framing (90 minutes)					
Time	Segment	Method	Instructions	Participants	Expected Outcome
0:00 – 0:10	Welcome & Objectives	Presentation	Slide XX-XX: Welcome, objectives, agenda overview	All	Understand structure and purpose of the session
0:10 – 0:50	Icebreaker & Warm-up	“Name + Adjective” Game & Parcel Metaphor	Name tags and sticky notes. Slide XX explains the game. Participants share adjective + name; write expectation as “parcel content”. Timer: 15-20 min.	All	Energised group with social ice broken; surfaced expectations
0:50 – 1:10	WP2 Key Insights + Pilot Framing	Presentation	Slide XX-XX. Explain personas and journeys. Distribute printouts. Highlight pilot-specific features: target delivery methods, stakeholders, geography, KPIs.	All	Participants understand WP2 outputs and local pilot context

1:10 – 1:30	Local Reflection & Needs Focus	Guided Discussion	Frame reflection around specific personas and journeys. Use prompt questions. Note key insights and relevancy on flipcharts. Emphasise the scope of feasible solutions.	Plenary or buzz groups	Shared understanding of local relevance and boundaries of intervention
Session II: Idea Drafting and Exploration (90 minutes)					
Time	Segment	Method	Instructions	Participants	Expected Outcome
1:30 – 1:40	Setup & Briefing	Facilitation cue	Explain Brainwriting → Mind Mapping → Storyboarding. Slides XX–XX. Distribute instruction sheets with feasibility prompts: “Can this be piloted?”	Plenary	Structured ideation start with feasibility awareness
1:40 – 2:00	Silent Idea Generation	Brainwriting	Each person writes ideas (1 per card per round). Use stakeholder lenses (consumer, retailer, LSP). Timer & music.	Individually at each table	As many ideas as possible per group aligned with pilot scope
2:00 – 2:20	Idea Mapping	Mind Mapping	Organise sticky notes into clusters (logistics lever / behavioural lever / institutional lever). Large sheet provided.	Table groups	Idea clusters per group visualised
2:20 – 2:50	Journey Improvement	Storyboarding	Choose 1 journey and redesign it using clustered ideas. Slide XX	Table groups	1 improved journey per group reflecting

			+ template. Timer 25 min.		actionable concepts
2:50 – 3:00	Group Review and Shared Assessment	In-group selection and plenary sharing	Each group selects 1-2 most promising ideas. A spokesperson briefly presents them. Participants reflect on which ideas seem most relevant.	All	Shared recognition of promising directions
Session III: Concept Framing & Reflection (60 minutes)					
Time	Segment	Method	Instructions	Participants	Expected Outcome
3:00 – 3:10	Intro to Framing	Mini-brief	Slide XX. Provide template with framing prompts: stakeholder, feasibility, benefit, barrier.	Plenary	Understand what constitutes a viable concept
3:10 – 3:30	Drafting Concepts	Concept Framing	Select top 1-2 ideas. Complete concept cards with framing focus.	Table groups	1-2 early-stage concepts per group with feasibility notes
3:30 – 4:00	Group Presentations	Storyboard Pitch	Present 1 concept. Focus: user, value, barriers, feasibility. Record pitches.	All	Initial verbal validation of draft ideas
4:00 – 4:30	Wrap-up & Closing	Facilitator summary	Slide XX. Explain expert refinement next step. Q&A.	All	Understanding of follow-up process for T3.1 deliverable

FACILITATION GUIDE:

SESSION I – INTRODUCTION & CHALLENGE FRAMING (90 MINUTES)

Goal: Present the project, introduce personas and journeys, align on the challenge, and surface pain/gain insights from WP2 in a local context.

Segment 1: Welcome & Objectives

Time: 10 minutes

Purpose: Set the tone, explain the project and workshop purpose.

Facilitator Actions:

1. **Start timer for 10 minutes.**

2. **Project Slide XX-XX** (provided in standard deck).

3. Say:

“Welcome! Today we’re here to jointly develop ideas for greener last-mile delivery. We’ll be building on research we’ve done in this city and across Europe. Our work today will directly feed into the pilots in [CITY]. At the end of the workshop, we want to have draft ideas that are both feasible and innovative.”

4. **Introduce workshop structure and sessions** (Session 1, 2, 3).

5. Ask everyone to introduce themselves **briefly by name and organisation** (or role, if unaffiliated).

Materials needed:

- Powerpoint presentation (slides XX-XX)
- Attendance list
- Name badges

Expected output:

- All participants understand the session’s structure and goal.
- Group is oriented toward co-creation with local pilot relevance.

Segment 2: Icebreaker & Warm-Up

Time: 40 minutes

Purpose: Break the ice, create energy, tie expectations to logistics.

Facilitator Actions:

1. **Distribute:**

- Name stickers
- Colored sticky notes
- Markers

2. Explain warm-up activity (5 min):

“On your name sticker, write your first name + an adjective starting with the same letter. For example, ‘Reliable Robert’ or ‘Organised Olga’. Below, add a short phrase linking your name to logistics or delivery for example, ‘Reliable Robert – always on time like a good courier.’”

3. Have participants stick their name badges on their shirts and stand in a circle.

4. One by one, participants **step up, say their name + adjective**, and place a **colored sticky note** on the “Expectations Wall” board.

“Now write what you hope to get out of this workshop. This is your ‘parcel’ that you’ll carry and unpack during today’s session.”

5. Once everyone has shared and posted, facilitator **reads 2–3 expectations aloud** and **thanks the group**.

Materials needed:

- Name badges
- Markers
- Sticky notes
- Flipchart or poster labelled “Expectations Wall”
- Timer
- Background music (optional)

Expected output:

- All participants engaged
- Expectations collected on sticky notes (to be documented)

Example outcomes:

Each participant wrote their name and adjective. Below are examples:

- Reliable Rosa - 'Always on time like a good courier'
- Sustainable Sebastian - 'Cares about green delivery methods'

Expectations ('Parcels') collected from sticky notes:

- Learn how deliveries can be more eco-friendly
- Share retailer perspective on failed delivery rates
- Understand consumer concerns about pickup point

Segment 3: WP2 Key Insights + Pilot Framing

Time: 20 minutes

Purpose: Present personas and journeys, local delivery landscape, project assumptions.

Facilitator Actions:

1. **Project Slides XX-XX.**
2. Distribute **printed personas and journeys** (1 per person).
3. Explain:

“These are the personas and customer journeys identified in our previous research. You’ll see both their experiences and the points where things go wrong – delays, confusion, bad delivery options. You’ll also see where things go well. We’ll be working with these later today.”

4. Highlight **pilot-specific elements**, e.g.:
 - Delivery mode(s) being tested
 - Expected behavioural levers
 - Constraints from KPIs
 - Sustainability goals (e.g., CO₂, traffic, consumer experience)

Materials needed:

- Powerpoint presentation (slides XX-XX)
- Persona and journey printouts
- Flipchart for noting any early participant comments
- Laser pointer (optional)

Expected output:

- Participants grasp the personas and logistics realities
- Context is anchored in real pilot objectives

Segment 4: Local Reflection & Needs Focus

Time: 20 minutes

Purpose: Align on key pains and needs for the local area, using personas and pilot relevance.

Facilitator Actions:

1. Ask participants to sit **in their assigned tables** (3–4 tables, mixed stakeholder groups).
2. Hand out:
 - Flipchart sheet per table
 - Markers
 - Sticky notes

3. Say:

“Discuss in your table groups: What challenges in the customer journeys matter the most in your city? What needs are universal, and which are local? What delivery problems can we realistically change? Use sticky notes to write insights. Cluster them into 2–3 themes on your flipchart.”

4. Optional support questions:
 - “Are these needs, preferences or actual pains?”
 - “Can this issue be solved with better delivery design?”
 - “What’s the role of LSPs, retailers, and consumers in this?”

5. **Set timer: 10 minutes group work.**

6. **Last 5 minutes:** Each table briefly **shares key insights aloud** (no presentation).
Facilitator records common patterns on a flipchart or board.

Materials needed:

- Flipchart per table
- Sticky notes
- Markers
- Persona printouts (again)

Expected output:

- 3-5 pain points / need clusters per group
- Shared understanding of key issues to ideate on
- Visual maps and notes collected from each group

Example outcomes:

Pain Points (Clustered):

- Unpredictable delivery time windows
- Lack of consumer incentives for green options
- Low trust in microhub pickups

Gains (Mapped):

- Increased satisfaction from flexible pickup
- Retailer visibility through green labeling

SESSION II: IDEA DRAFTING AND EXPLORATION (90 MINUTES)

Goal: Facilitate structured brainstorming and creative thinking to generate draft solutions that align with the pilot context and stakeholder challenges.

Segment 1: Setup & Briefing

Time: 10 minutes

Purpose: Prepare participants for ideation process; explain techniques and expectations.

Facilitator Actions:

1. Project **Slides XX-XX** (methods + example).
2. Say:

"In this session, we'll move from challenges to creative thinking. You'll first work alone to generate many ideas, then build on them in your group. We'll use three tools: brainwriting, mind mapping, and storyboarding. These help us think broadly, but within the boundaries of what's realistic for our pilot."

3. Distribute:

- Brainwriting sheets (A4, 3-idea-per-page grid)
- Blank A3 mind map sheets
- Storyboard templates (1 per table)

4. Emphasise:

- "Ideas should respond to what you identified in Session 1."
- "Feasible doesn't mean boring – push boundaries, but keep the pilot city context in mind."
- "Each group will end up with 1 storyboard for 1 persona."

Materials needed:

- Powerpoint presentation (slides XX-XX)
- Printed materials (brainwriting, mind map, storyboard templates)
- Markers, stickers, post-its
- Timer
- Music for idea generation (optional)

Expected output:

- All participants understand ideation steps
- Tools in place for next segments

Segment 2: Silent Idea Generation

Time: 20 minutes

Purpose: Generate a wide range of ideas based on real stakeholder perspectives.

Facilitator Actions:

1. Ask participants to stay seated in groups but work silently.
2. Set timer for **3 rounds x 5 minutes = 15 minutes**, with 1-minute breaks.
"Write 3 ideas per round. In Round 1, write from a consumer's perspective. In Round 2, from a retailer or LSP. In Round 3, from the city or institutional perspective."
3. Encourage volume, not perfection:
"Quick, rough ideas. No judgment. One idea per box."
4. Collect all sheets at end of session. Quick scan for duplicates.

Materials needed:

- Brainwriting sheets
- Pens
- Timer
- Optional soft background music

Expected output:

- 10-15 unique ideas per group (min. 40 across all participants)

- Multiple stakeholder perspectives captured

Example

Selected Raw Ideas from Brainwriting:

- LSPs: Real-time carbon footprint tracker for delivery route
- Retailers: 'Eco-badge' for stores using low-emission delivery
- Consumers: Loyalty rewards for selecting eco-delivery option

outcomes:

Segment 3: Idea Mapping

Time: 20 minutes

Purpose: Cluster individual ideas into broader solution spaces.

Facilitator Actions:

1. Ask each group to lay out all their brainwriting ideas on the table.
2. Give each group 1 **blank A3 mind map sheet** and post-its.
3. Instructions:

"Group similar ideas together. Use labels like 'Incentives', 'Returns', 'Tech upgrades', 'Delivery timing'. Then draw lines between ideas that connect or build on each other. Try to show clusters of thinking."

4. Give examples from previous workshops if needed.
5. After 15 minutes, ask groups to title each cluster clearly. Use bold markers.

Materials needed:

- Mind map A3 sheets
- Markers
- Tape or sticky pads to fix on table

Expected output:

- 3-5 idea clusters per table

- 1 visual mind map per group

Example outcomes:

Cluster 1: Behavioural Levers

- Loyalty points for eco-choice
- App notification about emission levels

Cluster 2: Logistics Innovations

- Consolidated deliveries to parcel lockers
- Use of e-cargo bikes for dense zones

Segment 4: Journey Improvement

Time: 30 minutes

Purpose: Use idea clusters to redesign one customer journey with practical, visual steps.

Facilitator Actions:

1. Ask each table to pick **1 customer persona** they worked on earlier.
2. Distribute storyboard templates (6-step format) and markers.
3. Instructions:
"Now integrate your ideas into one solution journey. It should be a realistic flow – what the user does, what happens at each stage, and how your ideas improve their experience."
4. Optional guidance:
 - "Start with problem → idea → solution → expected change."
 - "Try to visualise the change in delivery experience."
5. Groups may sketch icons, maps, or timelines. Emphasise clarity, not artistic skill.

Materials needed:

- Storyboard templates
- Persona profiles
- Markers, stickers

Expected output:

- 1 full storyboard per group

- Persona-specific solution showing integration of new ideas

Example outcomes:

Original Journey Step: Chooses fastest delivery → Delivered late

Redesigned Journey Step: Chooses green slot → Real-time updates → E-courier delivers to local locker → Maria picks up at convenience

Emotional State: Relieved → In control → Satisfied

Segment 5: Group Review & Shared Assessment

Time: 10 minutes

Purpose: Each group selects and presents their most promising idea(s) for general reflection and feedback from all participants.

Facilitator Actions:

1. Ask each group to quickly review their ideas and agree on 1-2 key concepts they consider most promising.
2. Have a spokesperson from each group briefly present their selected idea(s) (1-2 minutes each).
3. After all presentations, facilitate a short plenary reflection:
 - Invite spontaneous comments or questions.
 - Ask participants to reflect on which ideas seem most suitable or adaptable to their local context.
4. Conclude by summarising ideas that received strong interest or clear alignment with project goals.

Materials needed:

- Dot stickers
- Group storyboards or mind maps
- Flipchart or whiteboard to note recurring themes or standout ideas

Expected output:

- 1-2 prioritised concepts per group
- Shared understanding of which ideas resonate most across participants

Example outcomes:

Consensus-based idea: 'Eco-badge for retailers + loyalty rewards for consumers'



SESSION III: CONCEPT FRAMING & REFLECTION (60 MINUTES)

Goal: Transition from rough ideas to structured, clearly described concept drafts that can be analysed and refined in the next project phase.

Segment 1: Introduction to Concept Framing

Time: 10 minutes

Purpose: Explain the process of moving from ideas to structured, actionable concepts.

Facilitator Actions:

1. Project Slide XX with the visual of the Concept Framing Template.

2. Say:

"In this final session, we'll turn our best ideas into early concept drafts. You'll use a simple template to explain your concept clearly: what it is, who it's for, how it works, what problem it solves, and whether it fits into our pilot."

3. Hand out printed Concept Framing Cards (A4 or A3, one per concept).

4. Explain structure:

- Name of concept
- Target persona
- What behaviour or process is changed
- Main benefit / problem addressed
- Feasibility in the local pilot
- Key actors/stakeholders involved
- Optional: sketch or symbol

5. Emphasise:

"These are not final solutions, but clearly described directions that can be improved in the next steps. Be honest about limitations, and don't overpromise."

Materials needed:

- Powerpoint presentation (slides XX-XX)
- Concept Framing Cards (pre-printed)
- Pens, markers, stickers
- Timer
- Sticky notes (optional for quick peer feedback)

Expected output:

- All groups understand the framing task
- 1-2 blank concept sheets ready for use per group

Segment 2: Drafting Concepts

Time: 20 minutes

Purpose: Transform the best ideas into structured concepts.

Facilitator Actions:

1. Ask each group to:
 - Choose 1 or 2 top ideas (usually the most voted ones or those they feel most strongly about).
 - Use their mind map and storyboard to guide the framing.
2. Circulate and guide:
 - Remind groups to describe *who* the solution is for and *how it works* in simple terms.
 - Encourage filling in all fields, especially “Fit with Pilot”.

“Keep this local and real is it something we can test or try out in our pilot?”
“Who else would need to be involved to make this work?”
3. Optionally, allow a quick internal feedback round (peer table swap for 5 min).

Materials needed:

- Completed storyboard
- Blank concept cards
- Extra paper for drafting text before committing

Expected output:

- 1-2 completed Concept Framing Cards per table

Example outcomes:

Concept Title: 'GreenPoints Loyalty & Eco-Badge'

Stakeholders Involved: Retailers, Consumers, LSPs

Solution: Retailers adopting green delivery options receive an Eco-Badge. Consumers collecting deliveries via green modes earn GreenPoints redeemable as discounts.

Benefit: Higher uptake of green delivery. Motivation through visibility and rewards.

Feasibility: High – aligns with existing e-commerce platforms and loyalty schemes

Pilot Fit: Suitable for cities with local marketplaces and emission-restricted zones

Segment 3: Group Presentations

Time: 30 minutes

Purpose: Share, document and validate the developed concepts.

Facilitator Actions:

1. Prepare presentation space (one wall or board per group).
2. Ensure camera or phone is ready to record each pitch.
3. Set ground rules:

- Max 5 minutes per pitch
 - Everyone in the group should say at least one sentence
 - Show storyboard + read from concept card
 - Questions from other groups encouraged after each pitch
4. Record each pitch and take photos of the posters.
 5. After last group, offer a group reflection:
"Which concepts do you see as realistic? Which ones would you personally use, or support?"
 6. Optional: Final round of voting (stickers on posters or a show of hands).

Materials needed:

- Camera / smartphone for recording
- Presentation space
- Optional: certificates of participation or small giveaways
- Timer

Expected output:

- 1-2 video-recorded presentations per group
- Concepts validated with peer input
- Posters and cards collected for digitisation

Example outcomes:

Group A: GreenPoints + Badge (as above)

Group B: Consolidated E-delivery Subscription (monthly fixed-fee service with eco-slots)

Important note: Facilitator must ensure strict timekeeping throughout the workshop and clearly write down all key group outcomes in BIG, READABLE LETTERS so they remain visible, understandable, and useful for follow-up after the session, but also to the Task Leader for the deliverable purposes.

FACILITATION SUMMARY REPORT TEMPLATE:

1. Workshop Overview

Provide a brief description of the workshop context and purpose. Include essential details such as the date, location, facilitator(s), number and type of participants (LSPs, retailers, consumers, public authorities);, and the overall aim of the session. Summarize in a few sentences what the workshop intended to achieve and how it fits within the broader project and pilot activities.

2. Main discussion highlights

Summarize the main points discussed during the workshop. Describe the key challenges, needs, and opportunities identified by participants, as well as the ideas and solutions that emerged. Highlight any relevant insights about stakeholder perspectives, behaviours, or operational barriers. If relevant, mention how ideas were prioritized or grouped, and briefly comment on participant engagement and collaboration.

3. Concepts and emerging solutions

Provide an overview of the most promising ideas or concepts developed by participants. For each concept, include a short description explaining what it aims to solve, who it targets, and why it is valuable. Include summary of redesigned customer journeys if completed. Please note whether it is behavioural, technological, or organizational solution in nature, and **its potential feasibility and relevance for local implementation (link with Deliverable D3.2 – Analysis of logistics operations & business models).**

4. Reflections and next steps

Offer general reflections on how the workshop went – what worked well, what challenges were encountered (e.g., participation, time, logistics), and what could be improved next time. End with recommendations or next steps for developing or testing the most promising ideas, including suggestions for follow-up workshops, stakeholder engagement, and **prototype development (link with Deliverable D3.3 – Prototypes and MVPs co-created).**

5. Supporting materials

List or attach any key materials collected during the session, such as photos of group work, notes, mind maps, concept cards, or attendance lists. These help document the workshop process and support later analysis and reporting.

8.2. Annex2 Poland_ FACILITATION SUMMARY REPORT

FACILITATION SUMMARY REPORT:

1. Workshop Overview

The GreenTurn co-creation workshop took place on **24 November 2025** at the **Łukasiewicz – Poznan Institute of Technology**, serving as the first major Design Thinking session supporting the Polish pilot of the project. The event was facilitated by the GreenTurn L-PIT team and brought together **10 representatives of key stakeholder groups**: logistics service provider (**GLS**), large retailer (**IKEA**), **public authorities** from the City of Poznań, **academic researchers** specialising in social sciences and urban logistics, as well as **local e-commerce consumers**. This diverse mix ensured a well-rounded understanding of user expectations, operational realities, and policy-related constraints.

The workshop was structured as a **4.5-hour Design Thinking session**, combining short presentations, interactive group work, and hands-on prototyping. It opened with a project introduction outlining GreenTurn’s objectives and the broader Horizon Europe context, followed by warm-up activities to build rapport among participants and introduce the concept of “green e-commerce.” The core part of the workshop focused on exploring validated customer personas and journey maps developed in WP2. In small groups, participants conducted an empathy exercise to identify the key needs, frustrations, and motivations of different persona types relevant to the Poznań market.

Building on these insights, each group proceeded to define problem areas by clustering user needs and formulating **“How might we...?”** challenge statements. This step helped translate research findings into clear, actionable design opportunities for low-emission delivery and return solutions. The second half of the workshop centred on ideation, rapid brainstorming, dot-voting, and the creation of early prototypes. Participants developed visual mock-ups and revised customer journeys showing how proposed solutions could work in real-life scenarios.

The overall aim of the session was to **generate feasible and user-centred concepts that will directly inform the design and testing of the Poznań pilot**, scheduled within WP3. By gathering insights from stakeholders across the e-commerce value chain, the workshop played a crucial role in ensuring that upcoming pilot interventions are grounded in local needs, operational realities, and behavioural drivers identified in GreenTurn’s research.

2. Main discussion highlights

The core discussions of the workshop developed during the empathy and problem-definition phases, where participants worked in small interdisciplinary groups (consumers, retailers, city representatives, and logistics service providers). Using two personas per group, participants analysed user motivations, frustrations, and behaviours across the delivery and return journey in e-commerce, with a particular focus on sustainable practices relevant to the Poznań pilot.

EMPATHY PHASE

During the empathy exercise, each group clustered persona insights into **four thematic categories**, which revealed several cross-cutting challenges and opportunities:

Key challenges identified:

- **Low motivation to choose sustainable options** when they introduce additional steps or require users to leave their regular routines.
- **Strong sensitivity to delivery and return costs**, which often outweigh environmental considerations.
- **Limited visibility of green options**, causing consumers to overlook or mistrust more sustainable choices.
- **Fragmented and inconvenient return processes**, especially when they involve printing labels, repackaging items, or travelling to distant return points.
- **Unclear responsibilities for packaging waste**, particularly concerning reusable packaging that must be returned, cleaned, or collected.
- **Operational barriers** such as limited infrastructure for low-emission deliveries, varying standards for reusable packaging, and logistic complexity in managing return flows.

Opportunities observed:

- Consumers' habitual use of mobile apps and parcel-tracking tools opens space for **digital nudges**, automated guidance, and simplified return workflows.
- Stakeholders saw potential in **returnable and recyclable packaging**, but only if systems are easy, convenient, and economically attractive.
- Both retailers and logistics providers expressed interest in solutions that reduce failed deliveries and streamline reverse logistics, aligning environmental goals with operational efficiency.

PROBLEM DEFINITION PHASE

Building on the identified needs, participants formulated a range of **"How might we...?"** (HMW) questions one for each clustered challenge before selecting the most promising challenge to carry forward into the ideation stage. Discussions showed strong alignment around the need to make sustainable choices **effortless, intuitive, and rewarding**.

Examples of HMW questions proposed across groups included:

- *How might we reward users for selecting environmentally friendly delivery options in real time?*
- **How might we encourage consumers to choose low-emission delivery methods without adding extra steps to their journey?**
- *How might we simplify, automate, or standardise the e-commerce return process so that sustainable return options become the easiest choice?*
- *How might we design a return experience that eliminates unnecessary printing, repackaging, or travel?*
- **How might we introduce reusable or "green" returnable packaging that customers can easily return or hand over without friction?**
- **How might we build trust and transparency in the communication of green delivery and return options for both consumers and retailers?**
- *How might we align city infrastructure, retailer operations, and LSP capabilities to support scalable low-emission logistics?*

Groups selected their preferred HMW question (marked as **bold**) based on perceived user value, feasibility within the Poznań context, and potential impact on reducing emissions. This collaborative prioritisation also highlighted the interconnected nature of the challenges: improving sustainable delivery options often required simultaneous improvements in return procedures and packaging systems.

Participant engagement

Engagement was consistently high, with stakeholders actively sharing operational realities, behavioural insights, and constraints from their respective sectors. Public authorities emphasised regulatory and infrastructural considerations, retailers highlighted customer expectations and the cost of operational changes, while logistics providers underlined challenges related to capacity, routing, and packaging circulation. Consumers provided valuable perspectives on convenience, clarity, and trust.

Overall, the discussion revealed a shared understanding that **green delivery and return solutions must be accessible, intuitive, and seamlessly integrated into the existing customer journey**, and that meaningful progress requires cross-stakeholder coordination. These insights strongly informed the subsequent ideation and prototyping phases.

3. Concepts and emerging solutions

During the ideation phase, participants generated a wide range of concepts addressing the selected “How might we...?” challenges. Ideas were developed both individually using coloured sticky notes and collaboratively within groups, who evaluated and clustered them before selecting one final concept through dot-voting. The resulting concepts varied in their nature, spanning **behavioural, technological, logistical, and organisational** innovations. Although each table approached the challenge from a different stakeholder lens, several promising and complementary solution areas emerged.

Below is a summary of the most noteworthy concepts and the redesigned customer journeys that groups began to articulate during prototyping:

CONCEPT 1: INTEGRATED TRANSPARENCY AND PERSONALISED ECO GUIDANCE - CLIENT APP & RETAILER-LSP ECO DASHBOARD

Type: Organisational + Technological

Target users: Retailers, logistics service providers (LSPs), and consumers

Problem addressed: Lack of shared, trustworthy information on environmental impacts, combined with limited visibility and personalization of eco-friendly options for customers.

Concept description:

The Retailer-LSP Eco Dashboard & Client App is a comprehensive, integrated system that aligns operational needs with consumer engagement, creating a low-emission, environmentally friendly e-commerce ecosystem. Key features include:

1. Back-end Dashboard for retailers and LSPs:

- Monitors emissions, delivery success rates, and packaging returns in real time.

- Standardises emission calculations for each LSP based on EU regulations and approved methodologies.
- Enables data-driven decision-making, improves operational coordination, and ensures consistent communication of eco-friendly options across all stakeholders.

2. Client-Facing Mobile/Web application:

- Aggregates all shipments from multiple e-commerce platforms and couriers, giving users a central overview of their deliveries.
- Displays the environmental impact of each delivery (CO₂ emissions, packaging footprint) using standardised EU LSP methods.
- Personalises the interface to user preferences, recommending eco-friendly options such as:
 - Products with sustainable packaging
 - Platforms offering green deliveries and returns
 - Local low-emission delivery or return points
 - Provides actionable guidance, nudges, or rewards based on user habits, making sustainable choices easier and more visible.

Value:

- For retailers and LSPs: operational transparency, coordinated insights, and consistent communication of sustainable practices.
- For consumers: a single point of truth for understanding the environmental impact of all e-commerce activities.
- Encourages behavioural change through personalisation, making green choices easier, rewarding, and aligned with individual preferences.
- Supports scalable adoption of low-emission logistics solutions while reinforcing circular packaging and standardised sustainability metrics.

CONCEPT 2: “RETURN & REUSE PACKAGING LOOP” – ADVANCED REUSABLE PACKAGING WITH EASY DROP-BACK

Type: Technological + Organisational + Product/Packaging Innovation

Target users: Standard e-commerce consumers concerned about waste, Premium customers valuing aesthetics, quality, and user experience, Retailers shipping lightweight goods seeking sustainable packaging solutions

Problem addressed: High levels of single-use packaging waste, Low rates of packaging returns, Consumer perception that sustainable packaging is inconvenient, unattractive, or low-quality.

Concept description:

This concept proposes a **durable, foldable, and fully reusable packaging system** designed to combine **environmental sustainability, consumer convenience, and educational value**. Key features include:

1. Premium & multi-use design:

- Packaging can be **aesthetically appealing for premium customers**, with clean finishes, customizable prints, and optional mild scents to improve user experience.
- Designed for **second-life usage**: even if not returned, packaging can serve as gift boxes, children’s craft materials, storage containers, or decorative elements.

2. **Eco-materials & innovative construction:**

- Made from **durable recycled cardboard** or **biodegradable composites** (e.g., molded pulp, natural fibers).
- Inserts and protective materials made from **natural or regenerative fillings**, such as moss, mycelium, biodegradable sponges, or recycled paper-based cushioning.
- Closure solutions replace plastic tape with **foldable tab mechanisms** or **paper-based adhesive strips**, supporting easy opening, folding, and re-use.
- Simple folding design allows easy collapse to preserve the box's structure for return or secondary use.

3. **Educational & communication layer:**

- Packaging includes printed **educational content** about eco-logistics, carbon savings, and circular economy practices.
- QR codes or AR-enabled prints provide **interactive guidance** on sustainable use, recycling, or upcycling.

4. **Return & pick-up system:**

- Customers scan the **unique ID code** embedded on each box via an app, initiating the return process.
- Options for returning packaging include: automated lockers, courier pick-up, or **"unpacking on delivery"**, where couriers remove the product at the PUDO point and immediately take back the packaging.
- Users receive **loyalty points, discounts, or gamified rewards** upon return.

5. **Optional zero-packaging delivery:**

- Premium users or eco-conscious consumers can opt for **"packaging-free delivery"**, where products are directly handed over at pick-up points without a secondary box.

Value:

- Dramatically reduces single-use packaging waste and carbon footprint
- Promotes circular economy practices and user engagement through **second-life usage**
- Meets premium consumer expectations for aesthetics and quality while maintaining sustainability
- Provides **educational benefits**, raising awareness about eco-logistics and behavioural change
- Supports operational efficiency for LSPs and retailers through standardised returns and data tracking

This expanded concept positions the packaging system as **more than just a container**: it becomes a **behavioural tool, educational medium, and multi-functional asset** while integrating seamlessly with both consumer preferences and logistics operations.

CONCEPT 3: ECOCHOICE OVERLAY – INTEGRATED SUSTAINABLE DELIVERY AND PACKAGING SELECTION WITH REAL-TIME REWARDS

Type: Behavioural + Technological + Organisational

Target users: Cost-conscious and time-sensitive e-commerce consumers, Consumers motivated by environmental impact and gamified rewards, Retailers and logistics providers seeking to promote low-emission options

Problem addressed:

- Low motivation to choose sustainable delivery or packaging options without immediate benefits
- Lack of visibility, transparency, and trust in the eco-impact of delivery and packaging
- Limited customer engagement in logistics decisions

Concept description:

EcoChoice Overlay is a unifying interface integrated across multiple e-commerce platforms and marketplaces, providing consumers with consistent, reliable, and actionable information about the environmental impact of their delivery and packaging choices. It works as a layer on top of existing checkout and tracking flows, without requiring users to install a separate platform. Key features include:

1. **Integrated green options:**

- At checkout, consumers can choose:
 - **Eco delivery** (PUDO, cargo bike, electric vehicles)
 - **Eco packaging** (reusable, biodegradable, premium second-life packaging)
- Retailers can **promote eco options** with badges, micro-rewards, or educational messages.
- Eco deliveries can optionally be **free of charge** to incentivise adoption.

2. **Transparent and verified environmental data:**

- Carbon footprint of each delivery or packaging option is **calculated according to EU-approved LSP standards**.
- Customers can see **clear, trustworthy data** on emissions, energy usage, and circularity of packaging.

3. **Personalised education and nudges:**

- Eco information is embedded in checkout prompts and in the app: short tips, infographics, or gamified messages explaining environmental impact.
- Encourages users to adopt greener behaviours in both delivery and returns.

4. **Optimised logistics integration:**

- Retailers and LSPs receive real-time data to **bundle and route eco deliveries efficiently**, ensuring that the green option is feasible and operationally sustainable.
- Customers can choose **flexible collection options**:
 - Standard home delivery
 - Pickup from sorting hubs or partner stores
 - Immediate return drop-off for reusable packaging
- Trade-offs between **cost, speed, and eco-impact** are displayed, allowing users to make informed decisions based on personal priorities.

5. **Customer engagement and rewards:**

- Selecting eco options triggers **instant rewards**, such as points, badges, or discounts.
- Users may actively participate in logistics: picking up or returning packaging at hub locations, earning additional benefits for engagement.
- Behavioural nudges highlight both **time and cost savings**, alongside environmental impact.

6. **Full journey tracking:**

- Parcel-tracking app visualises eco-impact along the delivery and return journey.
- Customers receive feedback on **how their choices contribute to emissions reduction** and packaging reuse.

Value:

- Encourages consumers to **choose sustainable delivery and packaging** by making benefits visible and rewarding
- Aligns behavioural incentives with **logistics optimisation**, reducing environmental impact without compromising operational efficiency
- Supports retailers in **promoting eco-friendly practices** and collecting reliable impact data
- Provides **transparent, trustworthy information** to build customer trust
- Offers flexibility and personalisation to balance speed, cost, and environmental impact

CONCEPT 4: LOCAL-FIRST CIRCULAR DELIVERY MODEL - SUSTAINABLE INTRA-CITY RECOMMERCE

Type: Behavioural + Logistical + Organisational Innovation

Target users: Buyers and sellers on second-hand marketplaces ex. Vinted, Consumers open to local, sustainable, and convenient delivery options, Retailers/platforms seeking to promote circular and low-emission commerce, Logistics providers exploring intra-city green delivery models

Problem addressed:

- Long transport distances for second-hand parcels, even when buyers and sellers live in the same city
- Low visibility of eco-friendly delivery options in online marketplaces
- Lack of incentives for consumers to choose low-emission delivery paths
- Missed opportunities for local circular logistics and reduced environmental impact

Concept description:

The workshop generated the outline of a **local-first delivery concept** for the Poznań pilot, aimed at promoting sustainable behaviour in second-hand e-commerce ex. Vinted. The idea centres on making **local product matches and green delivery options highly visible, intuitive, and rewarding** for consumers. Instead of sending parcels through national hubs, the concept prioritises **short-distance, intra-city exchanges** supported by low-emission delivery methods such as cargo bikes or neighbourhood-based consolidation points.

The concept integrates behavioural nudges, simple interface cues, and trust-enhancing platform features to guide users toward greener choices while keeping transactions within the marketplace ecosystem. As a high-level pilot vision, it serves as a potential blueprint for low-emission circular commerce across European cities. Key features include:

1. **Local-first matching:** Buyers are shown items available first within their neighbourhood or city, helping them find nearby sellers and reduce delivery distances.

2. **Eco nudges & visibility:** the platform displays simple cues local proximity, estimated CO₂ savings, delivery time improvements, and eco-badges to make green options clear and attractive.
3. **Low-emission last mile:** Intra-city deliveries would be enabled by low-impact logistics (e.g., cargo bikes, micro-consolidation points, neighbourhood mini-hubs).
4. **Convenience & trust mechanisms:** In-platform communication, buyer protection, and automated delivery flows ensure that local transactions stay within the system and feel secure.
5. **Incentives & gamification:** eco-delivery choices could unlock rewards, badges (e.g., "Local Hero"), loyalty points, or visibility perks for sustainable sellers.
6. **Flexible interaction models:** local users may have options such as courier collection from sellers, neighbourhood drop-off points, or simplified return and exchange flows.
7. **Potential digital simulation layer:** Before full deployment, behavioural and logistics scenarios can be tested digitally to assess adoption potential, emissions savings, and operational requirements.

Value:

- Reduced CO₂ emissions through shorter transport distances and green last-mile solutions.
- Encourages sustainable choices by making them visible, easy, and rewarding.
- Leverages intra-city logistics to create faster, more flexible delivery loops.
- Supports circular local economies, improves marketplace engagement, and preserves transaction integrity.
- Provides a replicable model for other European cities exploring localised circular logistics.

Following the ideation session, each group of 3-4 participants engaged in a hands-on prototyping phase. Using large sheets of paper, groups created visual representations of their concepts, including a title and visual mock-up on one sheet, and a redesigned customer journey highlighting the proposed changes on a second sheet. These prototypes captured both the functional and experiential aspects of the ideas, linking them directly to the user personas previously analysed during the empathy phase. All prototypes were displayed on the walls to facilitate review and discussion.

During the testing phase, each group presented their prototype to the other participants in a 5-6 minute session. Presentations covered the concept's visualisation, redesigned customer journey, and intended impact on user behaviour. Observing groups recorded questions, feedback, and suggestions, which were shared at the end of each presentation. This interactive process enabled participants to critically evaluate each idea, identify potential improvements, and explore practical implications.

The prototyping and testing exercises allowed participants to rapidly iterate on concepts, evaluate feasibility, and refine solutions in a collaborative environment. The visual and interactive format ensured that all stakeholders consumers, retailers, logistics providers, and public

authorities could provide input and align on practical, user-centred solutions, laying the groundwork for further development in the GreenTurn pilot.

4. Reflections and next steps

The workshop successfully brought together a diverse group of participants, including retailers, logistics service providers, public authorities and social science experts, creating a collaborative environment that fostered ideation and problem-solving. The structured activities encouraged active engagement, allowing participants to explore both organisational and consumer perspectives on sustainable e-commerce solutions. Most participants contributed ideas and insights freely, resulting in a rich pool of concepts and discussions. Interactive sessions, including breakout groups and hands-on exercises, encouraged collaboration and peer learning, while the variety of ideas generated from operational dashboards to consumer-facing applications demonstrated both creativity and cross-sector understanding. The workshop largely adhered to the planned schedule, providing sufficient time for both ideation and reflection, although some groups needed additional time to discuss and refine more complex, multi-stakeholder concepts.

Despite these successes, several challenges were observed. Time constraints limited the depth of discussion in some sessions, and while most participants were actively engaged, a few voices were less prominent, highlighting the need for more inclusive facilitation techniques. Unfortunately, due to time constraints, the groups were unable to develop customer journey prototypes for the individual concepts. This is an area to be addressed as soon as the final concept is selected, which will serve as the basis for the pilot.

For future workshops, it would be beneficial to allocate additional time for idea development and prototyping, implement structured methods to ensure equal participation. Providing pre-workshop materials or primers could also help align participants on key concepts, terminologies, and sustainability metrics, enabling more focused and productive discussions.

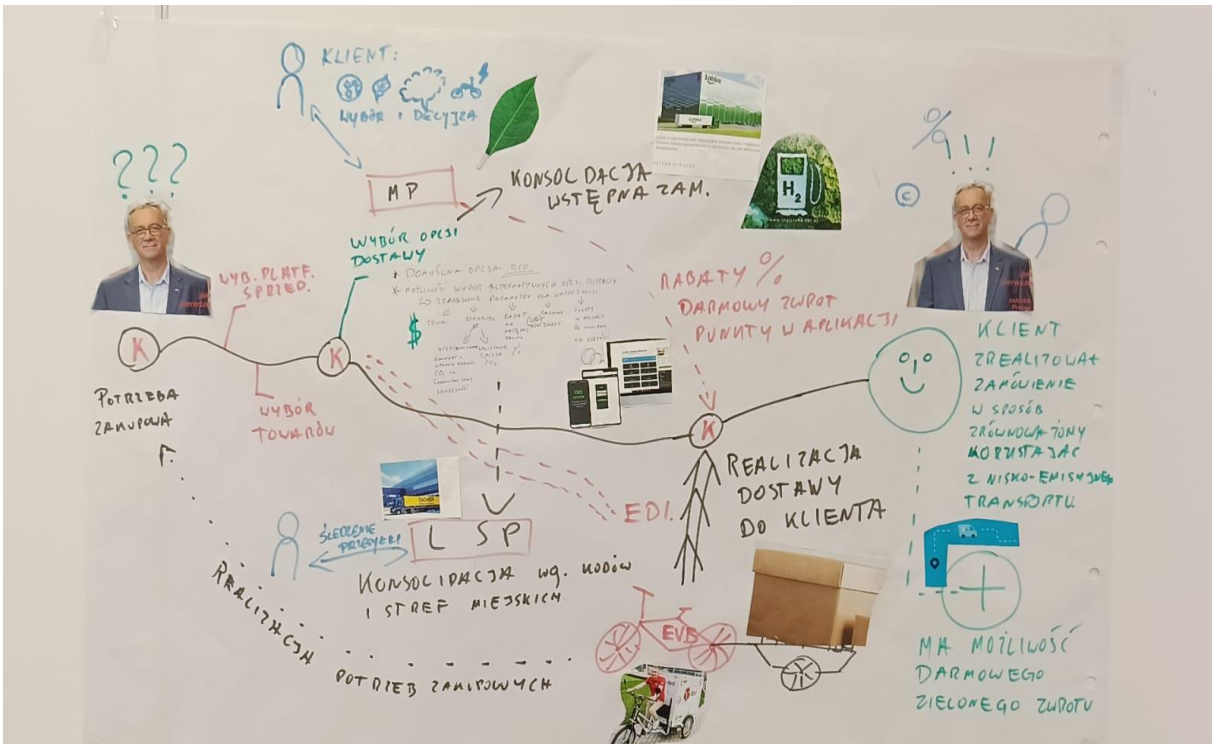
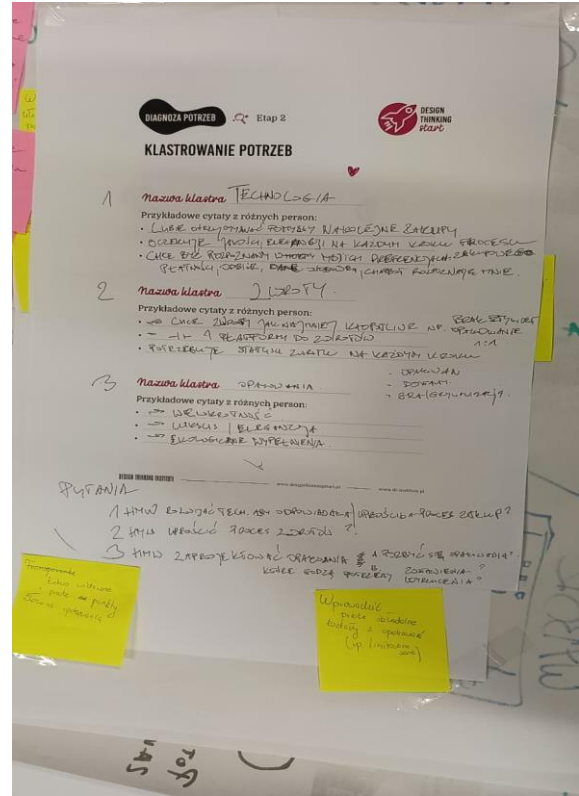
Building on the outcomes of the workshop, the next step is to validate the most promising concepts through a dedicated session with pilot stakeholders in Poznań. During this session, the pilot lead and relevant operational representatives will assess the ideas to identify which concepts are both feasible to implement and likely to deliver the greatest environmental and operational impact. Only after this validation will the selected concepts move forward to the development of minimum viable prototypes, in line with Deliverable D3.3 – Prototypes and MVPs co-created. Grounding this process in the pilot context ensures that the solutions advanced to prototyping are practical, impactful, and closely aligned with real-world operational priorities, building on the strong foundation established during the workshop.

5. Supporting materials





24.11.2025 14:02





8.3. Annex3 France_ FACILITATION SUMMARY REPORT

FACILITATION SUMMARY REPORT

1. Workshop Overview

The workshop took place on Monday December 8th 2025 online and was facilitated by Marion Cottet (ALICE), Pierre Roberts (ALICE) and Sébastien Horemans (Pick&Smile). The workshop revolved around the GreenTurn pilot activities in Lyon. The session brought together a diverse group of stakeholders, including

- Logistics service providers (LSPs),
 - Jean-François Grelaud (Heppner),
 - Pierre-Marie Laurent (Heppner),
 - Yves Demier (Deret).
- Retailers
 - Freddy Dekydtspotter (Freeledge, including hazardous goods retailing).
- Operational experts:
 - Sébastien Horemans (Pick&Smile),
 - Stéphane Déhais (Pick&Smile),
 - Olivier Bianay (K-ryole),
 - Pierre Malbranque (Réutec).

The objective of the workshop was to explore user needs, operational challenges, and emerging opportunities linked to low-carbon urban delivery, reusable packaging models, and the optimisation of consumer journeys across persona types (Time-Saver, Tech-Savvy, Premium), especially relevant for Lyon. The session aimed to co-create actionable concepts for the Lyon pilot, aligned with broader project goals and ongoing work under Deliverable D3.2 on logistics operations and business models.

2. Main discussion highlights

Across the discussions, participants identified several **cross-cutting needs and challenges**, notably:

Key challenges and needs

- **Delivery speed and reliability** remain critical for all consumer segments.
- **Effective, real-time tracking** and delivery alerts were repeatedly highlighted as a priority across personas.
- Consumers expect **multiple delivery/collection point options**, simplified access, and transparent delivery times.
- **Low-carbon delivery options** (eCargo bikes, electric vehicles) are desirable; both for environmental reasons and for reduced noise and pollution in city centres.

- There is a strong need to **improve communication** about environmental benefits and CO₂-saving impacts at the moment of purchase and delivery.
- Challenges related to **hazardous materials transport** emerged as a significant barrier for certain retailers and carriers, requiring regulatory compliance (e.g., RNADR certification, ASMAT programme).

Opportunities and insights

- eCargo bikes can support fast, efficient deliveries, enabling new service offerings.
- **Reusable packaging with QR codes** were valued for their “front/back” dual purpose: recipient traceability and richer information flows (videos, educational content, environmental indicators).
- Gamification, loyalty rewards, and “premium cues” (e.g., driver attire or name) can strengthen user engagement and shift behaviour toward reusable packaging or low-carbon delivery.
- Participants emphasised the need to **appeal to customer identity, ego, and social signalling**, especially for premium shoppers.

Engagement observations

Participants actively contributed through persona journey analysis, thematic clustering, and solution brainstorming. They brought diverse operational perspectives, ranging from hazardous materials management to reusable packaging, cycling logistics, and customer experience design.

3. Concepts and emerging solutions

Several concepts emerged as promising options for further development within the Lyon pilot. They span behavioural, technological, and organisational innovations.

3.1 Low-Carbon Premium Delivery Concept (Cargo Bike + Enhanced Experience)

Nature: Behavioural + organisational

Problem addressed: How to encourage customers, especially premium users, to choose low-carbon delivery.

Description: A premium delivery service using cargo bikes, supported by personalised tracking, precise delivery slots, driver identification, and enhanced customer experience (uniforms, packaging aesthetics). CO₂ savings would be quantified and communicated directly to the customer.

Value:

- Strengthens brand image for retailers and carriers.
- Provides an exclusive, high-quality delivery experience.
- Reinforces consumer pride and willingness to share their sustainable behaviour.

Feasibility: High – aligns with cargo bike capabilities and existing delivery operations. Requires front-end communication integration and coordination with carriers.

3.2 Reusable Packaging System with Rewards and Gamification

Nature: Behavioural + technological

Problem addressed: Low reuse rates and lack of consumer incentives.

Description: A circular packaging model with loyalty points, vouchers, and rewards for returning or reusing packaging. Includes standardised reusable packaging sizes, QR-code-enabled tracking, and return facilitation via local collection points or reverse logistics (e.g., La Poste mail flows).

Value:

- Reduces packaging waste and supports regulatory compliance.
- Engages users through gamification (e.g. Duolingo-style challenges, rankings).
- Connects logistics efforts with marketing benefits.

Feasibility: Moderate – requires packaging procurement, digital tracking, and retailer participation.

3.3 Expansion of Pickup and Return Infrastructure

Nature: Organisational

Problem addressed: Limited availability of convenient and sustainable collection/return points.

Description: Increased density of pick-up/drop-off points, such as Pick&Smile PUDOs, included in spaces with other services, next to people's shopping or working places. Also more convenient to pick up parcel: no chance of missing out the delivery time, etc.

Value:

- Simplifies returns, especially for reusable packaging.
- Reduces delivery failures and improves urban logistics efficiency.

Feasibility: Moderate – need to find the appropriate spaces, but model already in place and replicated by Pick&Smile.

4. Reflections and next steps

Workshop reflections

The workshop was highly productive, with active engagement from diverse stakeholders. The persona-based approach helped uncover needs that the pilot team had not initially considered. Participants appreciated the opportunity to share operational realities; especially regarding hazardous goods regulations, urban vs. rural constraints, and customer behaviour.

Challenges included:

- The complexity of discussing standard consumer journeys for businesses with heavy or hazardous goods.
- Time limitations, given the breadth of topics (packaging, delivery modes, tracking, regulations, user behaviour).
- Ability to projects themselves in different stakeholders' positions (e.g. local authorities, etc.)

Next Steps

- Integrate testing of Reusable Packaging and gamification concepts for early testing in the Lyon pilot.
- Develop, if possible, CO₂-savings communication module (web or email integration).
- Follow-up with Pick&Smile on what is possible to integrate in the Lyon pilot.

5. Supporting materials

The following materials were collected during the session and will support further analysis:

- photos of group work,
- mind maps,
- concept cards,
- meeting screenshot.

Project information:

Zukasiewicz - Poznański Instytut Technologiczny (Coordinator)
 University of Groningen (NL)
 Chalmers University of Technology (SE)
 University of Antwerp (BE)
 University of the Aegean (GR)
 Bax Innovation Consulting SL (ES)
 Econsult Betriebsberatungsgesellschaft MBH (AT)
 Alliance For Logistics Innovation Through Collaboration In Europe (BE)
 Logpoint Logistics Services GmbH (AT)
 Logika (GR)
 City of Saragossa (ES)
 Fundacion Zaragoza Ciudad De Conocimiento (ES)
 Urząd Miasta Poznań (PL)
 Pick&Smile (FR)

Pilot sites: Athens (GR), Lyon (FR), Poznań (PL), Vienna (AT), Zaragoza (SP)

2:05 PM | suw-ijja-sgd

#2 Persona vs. contexte local

● Besoin/défi particulièrement présent sur mon périmètre (en tant que professionnel)
 ● Besoin/défi que nous sommes plus susceptibles de pouvoir résoudre (de manière générale)

Cartographie du parcours client par profil

ACHETEURS TECH-SAVVY

ÉTAPES DU PARCOURS DE TIME-SAYER

RETOUR D'ARTICLE

RECESSION

PAIEMENT

RECESSION

LA LIVRAISON

Cartographie du parcours client par profil

ACHETEURS TECH-SAVVY

ÉTAPES DU PARCOURS D'ACHETEURS TECH-SAVVY

RETOUR D'ARTICLE

RECESSION

PAIEMENT

RECESSION

LA LIVRAISON

Cartographie du parcours client par profil

ACHETEURS TECH-SAVVY

ÉTAPES DU PARCOURS PREMIUM SHOPPER

RETOUR D'ARTICLE

RECESSION

PAIEMENT

RECESSION

LA LIVRAISON

miro GreenTurn workshop Upgrade Present Share

#2 Persona vs. conte

● Besoin/défi particulièrement présent sur mon périmètre (en tant que professionnel)
 ● Besoin/défi que nous sommes plus susceptibles de pouvoir résoudre (de manière générale)

Cartographie du parcours client par profil

ACHETEURS TECH-SAVVY

ÉTAPES DU PARCOURS DE TIME-SAYER

RETOUR D'ARTICLE

RECESSION

PAIEMENT

RECESSION

LA LIVRAISON

Cartographie du parcours client par profil

ACHETEURS TECH-SAVVY

ÉTAPES DU PARCOURS D'ACHETEURS TECH-SAVVY

RETOUR D'ARTICLE

RECESSION

PAIEMENT

RECESSION

LA LIVRAISON

Cartographie du parcours client par profil

ACHETEURS TECH-SAVVY

ÉTAPES DU PARCOURS PREMIUM SHOPPER

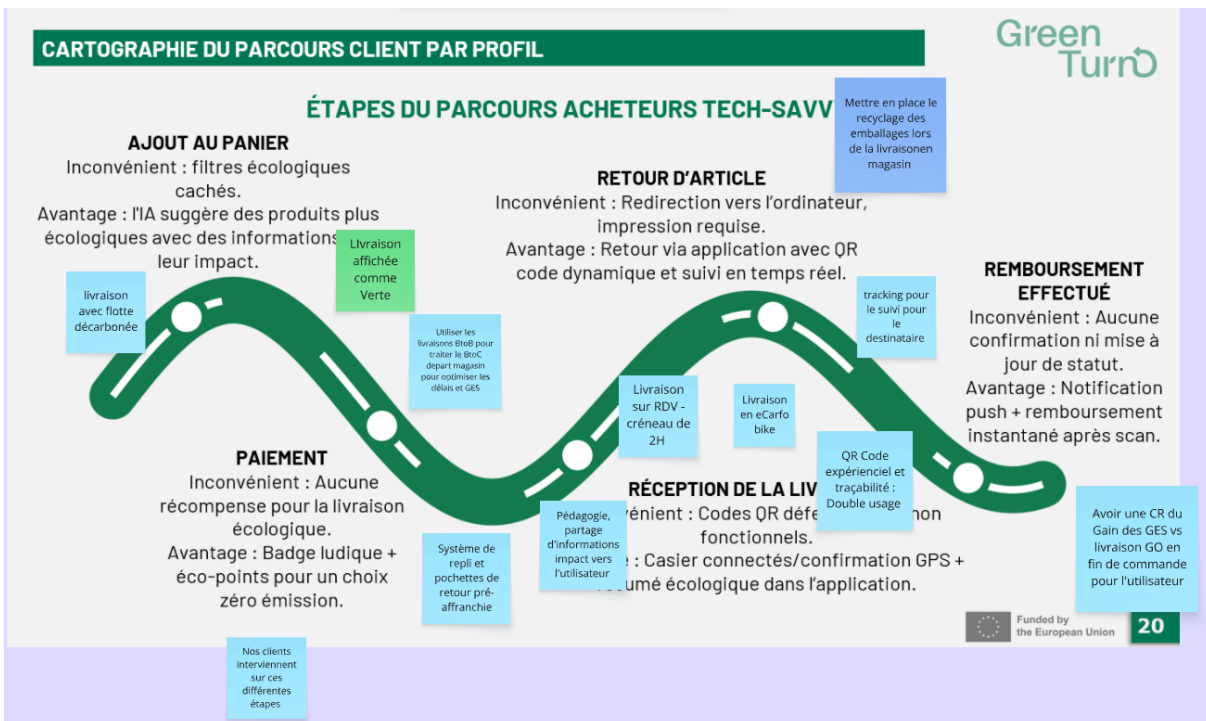
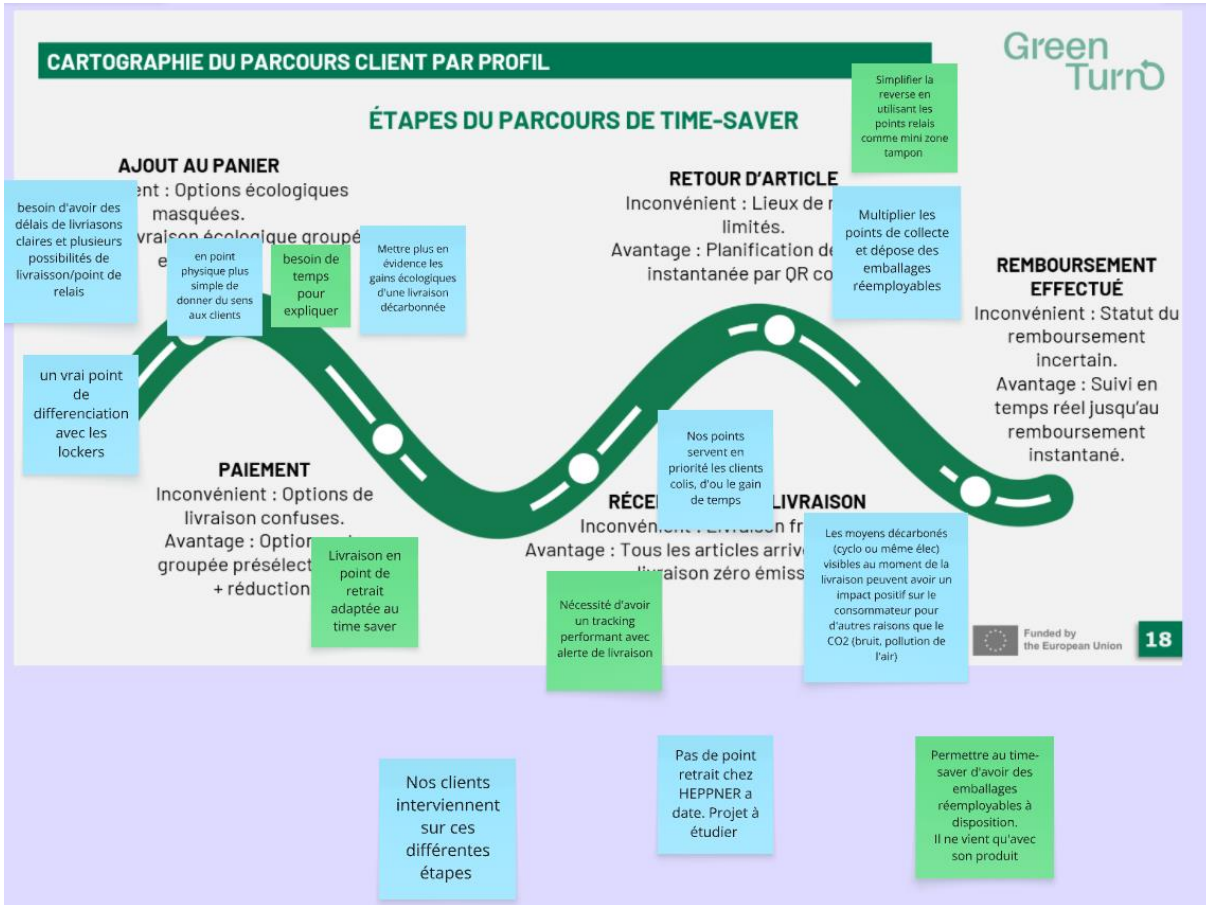
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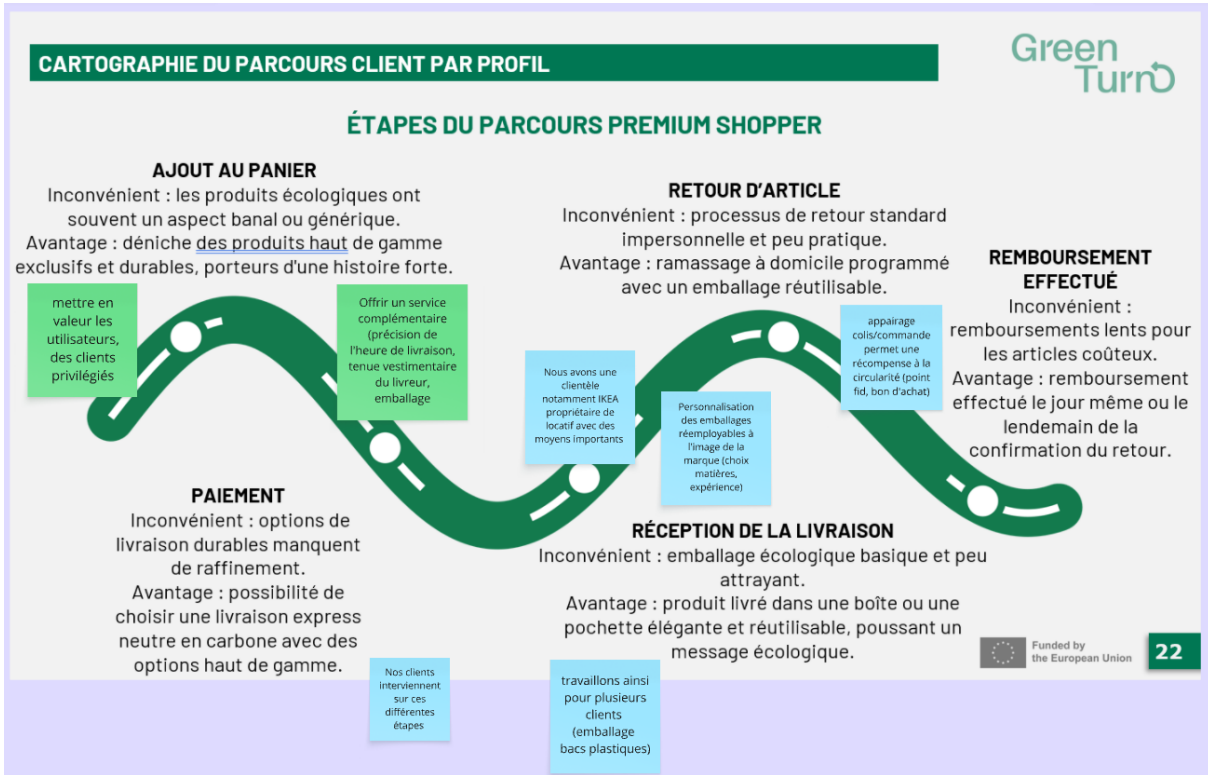
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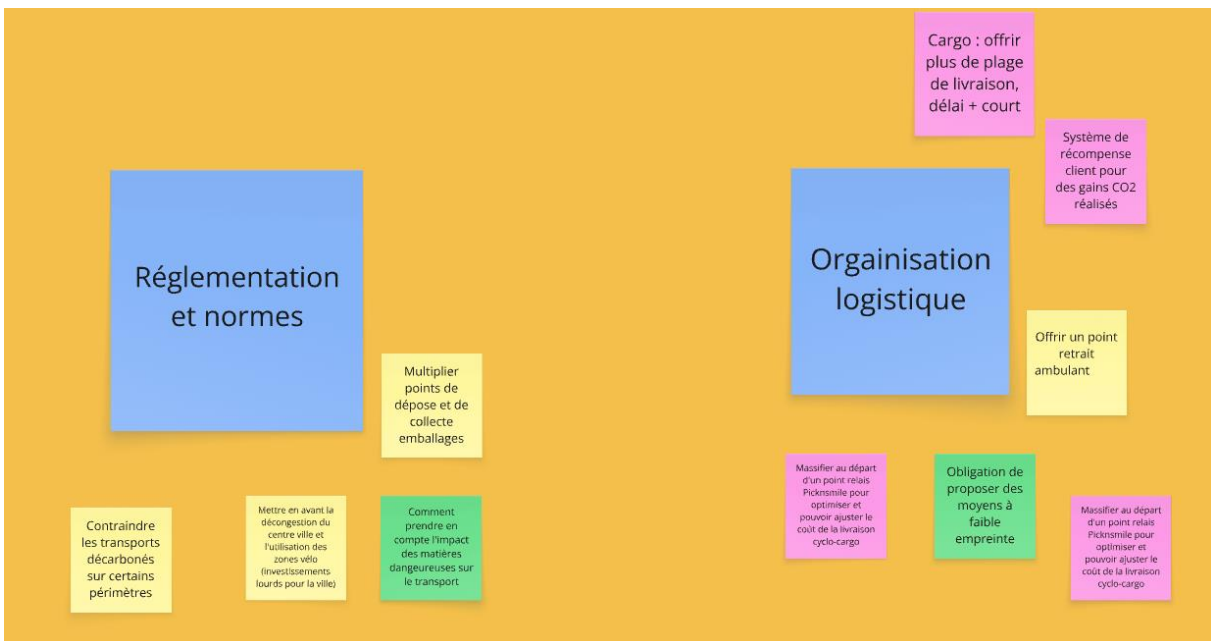
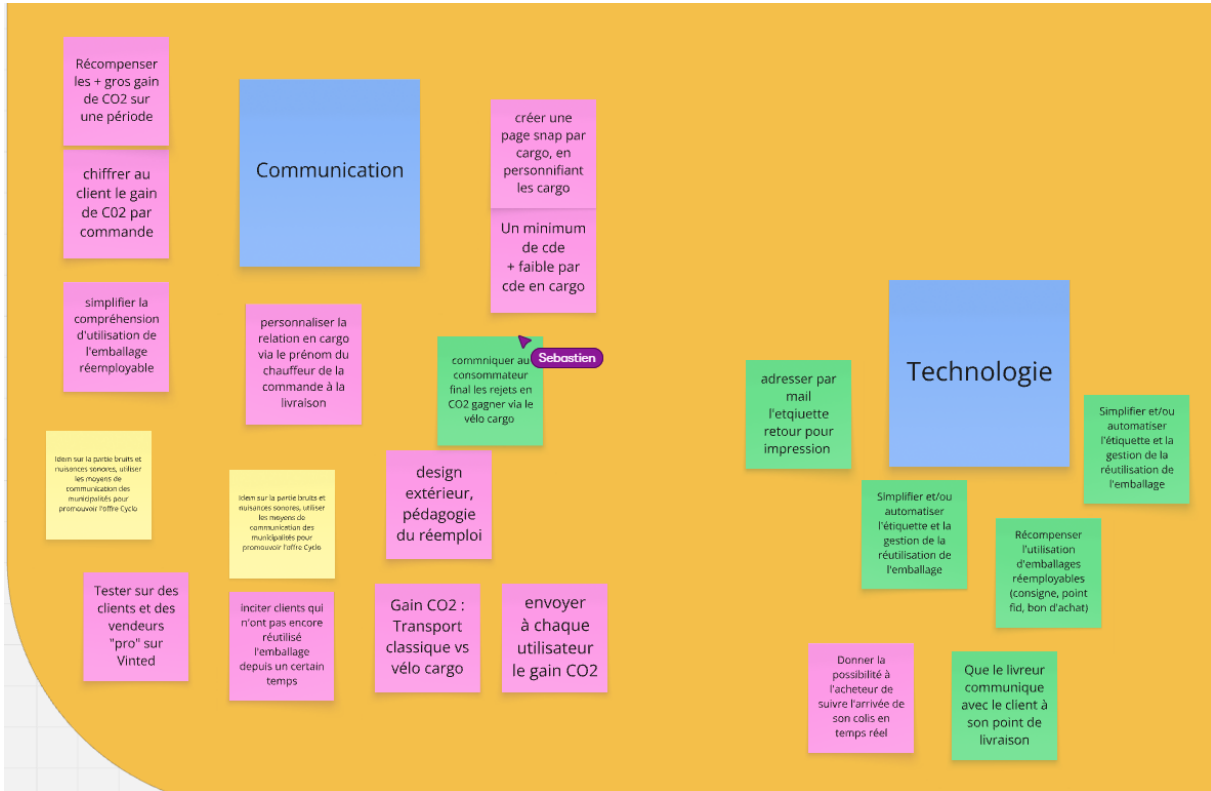
PAIEMENT

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LA LIVRAISON







#4 Nouveaux parcours clients





8.4. Annex4 Greece_ FACILITATION SUMMARY REPORT

FACILITATION SUMMARY REPORT:

1. Workshop Overview

The co-creation workshop WP3: Ideate and Prototype took place online through Microsoft Teams from 11:00 to 15:30 (Europe Athens) on November 10th, 2025. The workshop was organized by Logika and the University of the Aegean through Microsoft Teams under the guidance of Prof. Amalia Polydoropoulou, Prof. Vasileios Zeimpekis, Mr. Ioannis Manolis, Dr. Ioannis Karakikes and Ph.Dc Georgios Teptaris. The workshop brought together eleven participants from LSP, retailers, wholesalers and members of the academia. Companies included Logika and client partners such as Kyocera, Hondos Center and Altex. The workshop focused on developing pilot concepts for the Elefsina area based on Athens' last-mile delivery/returns operations which matched GreenTurn WP3 pilot requirements. The workshop was facilitated via the use of Microsoft Forms questionnaires, brainstorming sessions, storyboards and brief team presentations. Table 1 presents the workshop participants.

Table 1 Participants and affiliations

Name	Role	Company / Organization
Georgios Teptaris	Researcher	University of the Aegean
Vasileios Zeimpekis	Associate Professor	University of the Aegean
Amalia Polydoropoulou	Professor	University of the Aegean
Ioannis Karakikes	Senior Researcher	University of the Aegean
Ioannis Manolis	Chief of quality	Logika
Georgia Douka	Account manager	Logika
Ioanna Kaltza	COO logistics	Logika
Evi Georgouli	Commercial manager	Kyocera

Sokratis Gilis	Supply chain manager	Altex
Eleutheria Dimogianni	E-commerce logistics manager	Hondos Center
Spyridoula Kalifoti	E-commerce manager	Hondos Center

2. Main discussion highlights

The discussion examined Athens' last-mile delivery/returns operations/challenges which participants transformed into testable concepts for the Elefsina pilot. Using questionnaires, brainstorming sessions, storyboards and brief team presentations, participants identified the most promising options, which they then presented to the group for final review and finalization.

1. Key challenges and needs

- The current manual vehicle routing methodology produces additional travel distance and low vehicle operational efficiency.
- The unstable nature of last-mile planning occurs due to irregular delivery/returns customers' needs and no time windows for their deliveries/returns.
- The current fleet-routing approach lacks effective consolidation of deliveries/returns between retailers. Usually, pick-ups and returns from a customer are scheduled independently.
- The delivery process faces multiple obstacles because of restricted areas in the city center and insufficient parking lots and loading bays in densely populated streets.
- The current fleet-routing practices contain dispersed data that prevents real-time orchestration because they lack proper interfaces for integration.
- The current charging infrastructure cannot cope with the demand for vehicle charging. To this end, drivers face challenges when charging is needed (during delivery/returns execution).
- Fleet routing operations require a unified platform which displays all orders, time slots, routes and performance metrics (KPIs) to help users make better decisions and have end-to-end visibility coupled with high customer experience.

2. Opportunities identified

- Use of a shared hub (e.g. Urban Consolidation Center - UCC) as a consolidation point before distribution/returns.
- Introduction of scheduled delivery/return routes with static or dynamic time slots.
- Deployment of small/flexible electric vehicles for short urban trips, with staged charging plans.
- Better matching of vehicle type to cargo characteristics.
- Joint pickups and coordinated returns to reduce empty ton-Kms.

3. Ideas and solutions that emerged

- Consolidation with scheduled distribution/returns trips via a UCC, coupled with well-defined time slots (time slots may also be selected by the end customers).
- Fleet orchestration platform that selects the appropriate vehicle per trip, including small electric vehicles for sustainable city logistics operations.
- Integrated pick-ups and reverse logistics, including coordinated returns and parcel handovers at the Urban Consolidation Center (UCC).
- Data integration and KPIs dashboard, linking orders, slots, routing plans and performance metrics.

Prioritization and grouping

The participants organized their ideas into four categories which included freight consolidation, time slots, vehicle selection and reverse logistics. The ranking process showed that consolidation with scheduled trips and time slot management should be the top priority followed by mixed fleet orchestration. The participants decided to create the main concepts first while designing integrated pick-up and reverse logistics as supporting elements.

Stakeholder insights

- The LSPs selected operational simplicity and flexible services with well-defined rules instead of complicated manual routing systems.
- The retail sector requires customers to receive flexible delivery times and straightforward return procedures.
- Short-distance electric vehicle operations become possible when operators schedule their charging and loading activities.
- The fleet routing & last-mile operations enable data sharing through well-defined interfaces which safeguard important data (e.g. personal data) from unauthorized access.
- The municipality needs to have an active role in the establishment of Urban Consolidation Centers and promote sustainable and emission-free last-mile logistics operations.

Operational barriers noted

- Interface development effort (e.g. need for web services for data exchange) to connect retailer systems and the last-mile orchestration platform of the LSP (i.e. LOGIKA).
- Ensuring customer adherence to booked time slots.
- Charging points, operating hours at the hub, and driver training.
- Managing dynamic events (e.g. traffic nuisance, increased service time, various delays, etc.) during the execution of the delivery/returns trip.

Engagement and collaboration

Participation was active throughout the workshop. All attendees completed the questionnaires, provided their own ideas via and ranked their selections/suggestions. Subsequently, the plenary exchanges converged quickly on a small set of testable concepts for the Athens pilot.

3. Concepts and emerging solutions

Participants converged on four practical concepts for the Athens pilot, all oriented to business clients and store receiving operations. Each concept addresses a specific operational problem, defines primary users on the LSP and retailer sides, and explains the value for local implementation. Together they combine behavioral, technological, and organizational changes that can be assessed with the indicators used in Deliverable D3.2.

Concept 1. Consolidation with scheduled delivery/return trips and time slots

This concept minimizes unnecessary distance traveled and maximizes vehicle efficiency through depot shipment consolidation and scheduled delivery times that match business operating hours. The system design focuses on planners, dispatchers, drivers and receiving staff since it provides them with specific arrival times and brief unloading periods. The system delivers three main benefits through its ability to reduce empty vehicle travel, enhance delivery operations and improve delivery arrival within scheduled time windows. The new delivery process follows a direct path. The depot intake window allows client businesses to send their shipments or the 3PL conducts brief collection trips between client locations and distribution centers. The orchestration platform determines delivery routes for each order while suggesting acceptable delivery time slots to the recipient organization (see Figure 1). The recipient business verifies the delivery time frame before starting the handover process. The drivers maintain their predetermined route while they document both unloading duration and all handover information. The system operates with high local feasibility because it uses existing depot operations and client procedures. The solution complies with D3.2 requirements because it enables shared depot models and scheduled service patterns that directly link to cost and service performance metrics.

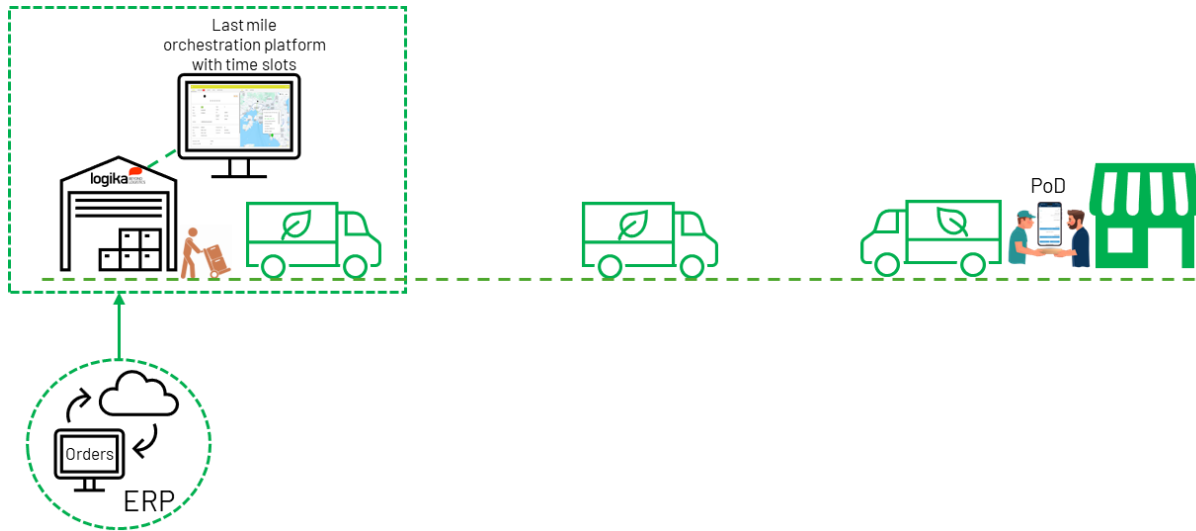


Figure 3. Depot based consolidation with scheduled delivery and time slots. Orders flow from the ERP to the 3PL depot and the orchestration platform, vehicles run the planned round, and electronic proof of delivery is captured at the recipient's business

Concept 2. Mixed fleet orchestration with small electric vehicles

This concept resolves the difference between vehicle types and road conditions by identifying appropriate vehicles for small electric cars based on range and charging requirements thereby helping dispatchers, fleet managers and drivers to select the appropriate vehicles for business delivery routes that include short urban trips and longer trips to commercial addresses. It also delivers value through improved vehicle-to-duty compatibility and reduced emissions during short deliveries and established daily operational procedures by starting the process with order triage based on dimensions, delivery urgency and time requirements. In addition, it groups compatible orders into appropriate loops for delivery and selects small electric vehicles for short dense routes and conventional trucks for longer shipments, providing drivers with detailed loading information and a simplified route map, while recipients are given specific time frames for delivery. The pilot program works with two types of vehicles including small electric cars and regular vans. The system works successfully in Athens where users have access to charging stations and follow basic selection procedures supporting the D3.2 mixed fleet models to help users evaluate environmental and economic performance through benchmarking.

Concept 3. Scheduling of simultaneous pickups and reverse logistics

This concept solves the problems with disorganized deliveries/returns. To this end, this concept is favorable both for route planners, drivers and customers who need immediate and reliable simultaneous delivery & return solutions. Furthermore, it provides multiple benefits through its operation, such as reduced number of trips and shorter delivery times by improving the performance and increasing the efficiency of the pickup process. With the platform suggesting to drivers the available return pickup options, with the driver picking up the item during the next delivery route before bringing it back to the

warehouse for consolidation or cross-docking at the desired location. The system achieves high local feasibility because customers can specify key return procedures and documentation requirements. This concept enhances circular delivery systems while allowing organizations to achieve D3.2 performance goals for first attempt delivery utilization and success.

Concept 4. Real-time data exchange integration and KPIs dashboard

The concept solves two problems which include data fragmentation and the lack of unified planning and reporting system for business-to-business operations. It provides clear insights to dispatchers, project team members and operations managers, offering a clear view of orders and time windows and routes and unloading times and performance data, which enables faster decision-making and iteration where the main impact of this change occurs within the organization. Also, this concept uses a simple interface to obtain essential data for planning and reporting purposes while showing delivery performance metrics and utilization rates and delivery success rates and emission data and return statistics. The system requires a basic application interface or file-based exchange system and defined data ownership to achieve medium-level feasibility. The output enables direct analysis of logistics operations and business models in D3.2.

Participants ranked depot-based consolidation with scheduled rounds and time windows as the lead concept, with mixed fleet orchestration in second place. Integrated returns and the data dashboard were treated as enabling elements that should be designed alongside the two lead concepts. All four concepts are feasible in the Athens business to business context with modest organizational effort and can be evaluated using the common indicators and cost structures applied in D3.2.

4. Reflections and next steps

The workshop achieved its intended objectives. The participants maintained continuous involvement while keeping their discussion centered on business-to-business delivery/returns methods. The Microsoft Teams platform operated effectively as an online platform while the questionnaires, the storyboards as well as the sticky notes enabled fast priority setting. The group established a set of specific concepts which they were connected to actual operational procedures. A few challenges were observed.

What to improve next time

One adjustment would strengthen a future session which is to circulate a short pre-reading note with definitions, a one-page with proposed KPIs, and one example journey that showcases the design and execution of a delivery/returns trip in real-life.

Next steps toward D3.3 prototypes and MVPs

The project team will use the selected concepts to create short idea sheets for implementation. The sheets will contain six key elements including goal and scope and

assumptions and minimum data requirements and interfaces and acceptance criteria and risks. The team will select the most promising concept to develop a prototype (MVP) during deliverable D3.3. The pilot (MPV) will take into consideration the use of electric vehicles coupled with a last-mile orchestration platform with certain time windows for product delivery and returns.

The exchange of data between client systems and the orchestration tool will occur through file-based transfers and application interfaces. The testing period will take place for two weeks before the pilot will take place for four to six weeks. The team will schedule three specific meetings for this project. The technical scoping meeting with IT staff will verify all necessary fields and data formats. The operational mapping session will bring together dispatchers and drivers to verify all delivery routes and time windows for pickup and delivery. The client validation call will bring together representatives from recipient businesses to verify project feasibility and identify operational limitations. The pilot owner will lead governance activities while the team maintains weekly contact and tracks all risks and issues through a shared log with partners. The reporting system of the last mile orchestration platform will present a set of indicators (KPIs) which match the requirements outlined in D3.2 and D3.3.

5. Supporting materials

The following materials document the workshop process and support later analysis and reporting. Files are stored in the project share and can be attached as annexes.

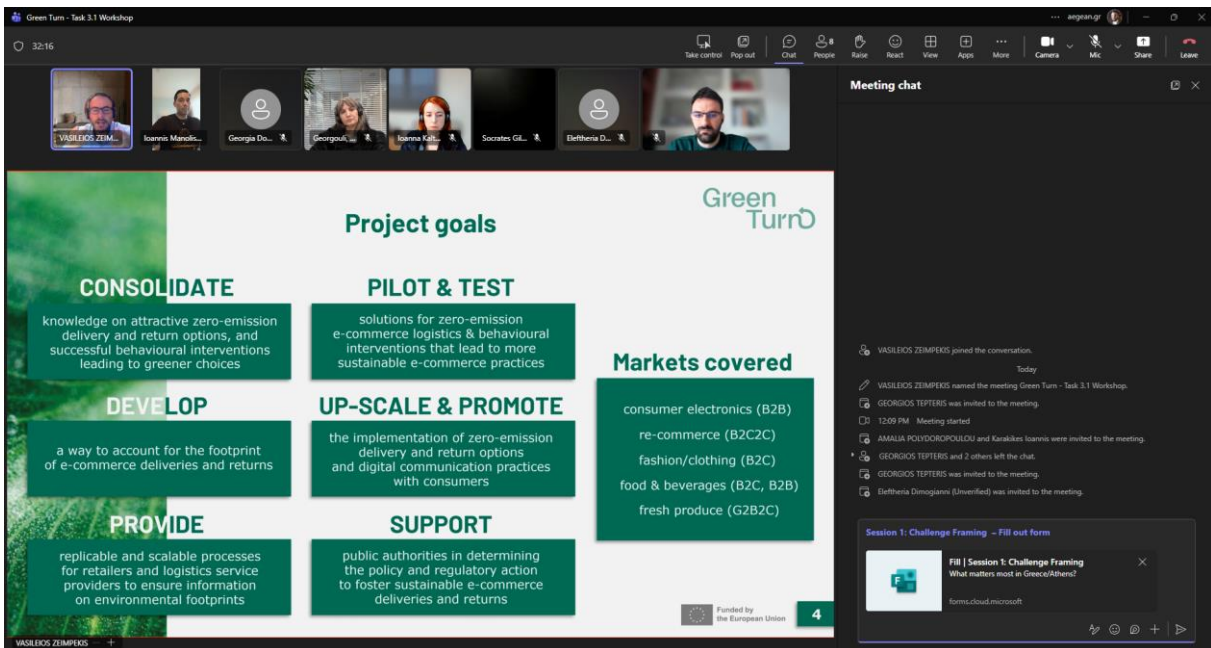
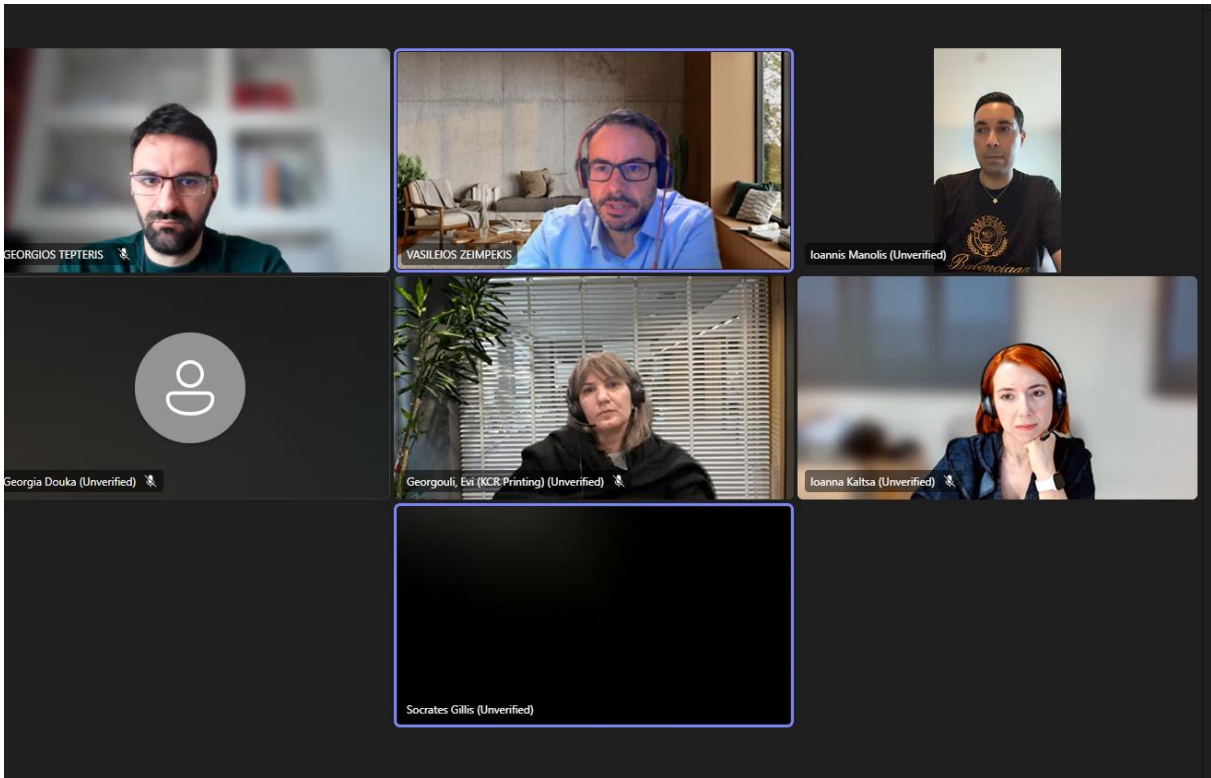
Table 2 Supporting materials from the co-creation workshop WP3 Ideate and Prototype, with file names, brief content, and use in the report

Material	What it contains	Use in report
Participant list (Table 1)	Names, roles, organisations of the eleven attendees	Section 1 and Appendix B
2_T3.1 workshop presentation_Athens_pilot.pptx	Full slide deck used across Sessions 1, 2, and 3	Context and figures
Session 1_ Challenge Framing.pdf	Slides and prompts for the first session	Methods and prompts in Section 2
Session 2_ Idea drafting & exploration.pdf	Slides with ranking and storyboard guidance	Evidence of prioritization in Section 2 and Section 3
Session 3_ Concept presentation.pdf	Slides and framing for concept articulation	Inputs for Section 3



<p>Screenshots from the online workshop</p>	<p>Screen captures from Microsoft Teams showing plenary, chat highlights, time stamps, and activity views</p>	<p>Visual evidence of process and engagement; place in Appendix A</p>
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Appendix A: Screenshots from the online workshop



Green Turn - Task 3.1 Workshop

45:14

Meeting chat

Athens (Greece) Pilot Context:

Main partner(s): LOGIKA, University of the Aegean, KYOCERA

Main goal: Validate that orchestrated time slots with Ami micro EVs in Elefsina cut VKT and CO₂, increase stops per hour through consolidation and dock scheduling, and keep cost per delivery at or below baseline.

Focus areas:

- Test environmental and behavioural impact of parcel delivery/collection in corporate environment
- Test environmental and productivity impact of time-slot based routes.
- Evaluate consolidation scenarios for increasing loading factor and improve last-mile efficiency.
- Integrate returns with deliveries

Key metrics: CO₂ per delivery, vehicle kilometers traveled, cost per delivery, stops per hour, appointment adherence, dock waiting time, return pick up rate.

WE USE THIS PILOT AS OUR TEST GROUND FOR CHANGE

Funded by the European Union 12

Meeting chat history:

- VASILEIOS ZEMPEKIS joined the conversation.
- Today
- VASILEIOS ZEMPEKIS named the meeting Green Turn - Task 3.1 Workshop.
- GEORGIOS TEPFERIS was invited to the meeting.
- 12:09 PM Meeting started
- AMALIA POLYDOROPOLIOU and Karakiris Ioannis were invited to the meeting.
- GEORGIOS TEPFERIS and 2 others left the chat.
- GEORGIOS TEPFERIS was invited to the meeting.
- Elftheria Dimogianni (Unverified) was invited to the meeting.
- Spiridou Kolofoti (Unverified) was invited to the meeting.

Session 1: Challenge Framing - Fill out form

Fill | Session 1: Challenge Framing
What matters most in Greece/Athens?
forms.cloud.microsoft

Green Turn - Task 3.1 Workshop

47:03

Meeting chat

Athens (Greece) Pilot Context:

Main challenges:

- Timely and consistent order and return data from partners
- Adopt smart technologies (last mile orchestration platform) to provide high customer service
- Balancing Citroen Ami payload and battery with the service promised
- Give incentives to B2B customers to select the proposed time slots (e.g. less delivery/return cost)

Funded by the European Union 13

Meeting chat history:

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- Elftheria Dimogianni (Unverified) was invited to the meeting.
- Spiridou Kolofoti (Unverified) was invited to the meeting.

Session 1: Challenge Framing - Fill out form

Fill | Session 1: Challenge Framing
What matters most in Greece/Athens?
forms.cloud.microsoft

39:37

Take control Pop out Chat People Raise React View More Camera Mic Share Leave

Participants

Type a name

Share invite

In this meeting (9) Mute all

- Ioannis Manolis
- Eleftheria Dimogianni (External)
- Georgia Douka
- GEORGIOS TEPTERIS (Unverified)
- Georgouli, Evi (KCR Printing)(External)
- Ioanna Kaltsa
- Socrates Gillis(External)
- Spridoula Koliototi (Unverified)
- VASILEIOS ZEIMPEKIS (Unverified) Organizer

Insights from Research in [Greece/Athens]:

- In Athens, price and convenience dominate choice.
- Sustainability matters less than reliability and time.
- Orders are mid value and returns are rare.
- Fit personas Tech Savvy, Time Savers, Cost Conscious.
- City rules favor light electric vehicles and night delivery.

In Athens, adoption improves when greener options maintain service reliability and cost parity, cluster stops through time slots and use light electric vehicles that meet city rules.

Funded by the European Union 11

Green Turn - Task 3.1 Workshop

53:04

Chat People Raise React View

GEORGIOS TEPTERIS

VASILEIOS ZEIMPEKIS

Ioanna Kaltsa (Unverified)

Eleftheria Dimogianni (Unverified)

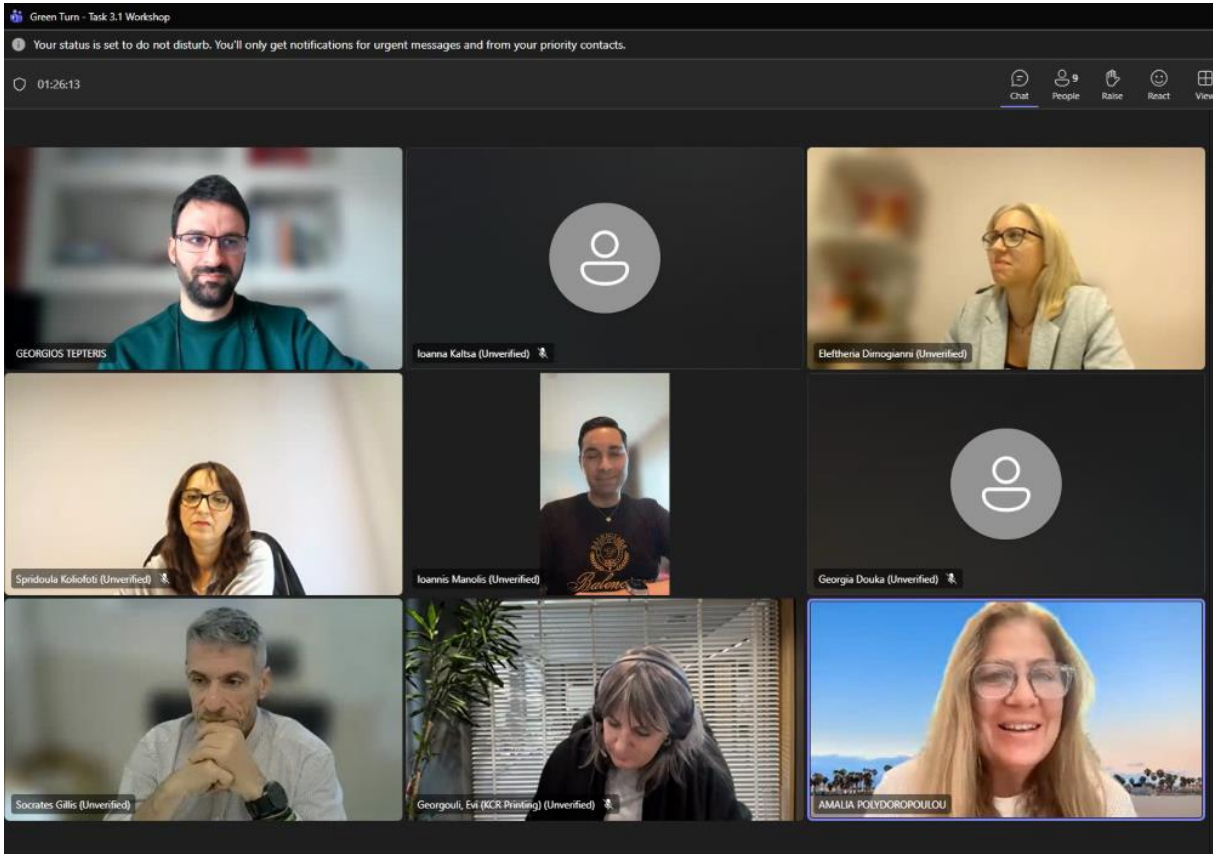
Spridoula Koliototi (Unverified)

Ioannis Manolis (Unverified)

Georgia Douka (Unverified)

Socrates Gillis (Unverified)

Georgouli, Evi (KCR Printing) (Unverified)



APPENDIX B: REGISTRATION LIST (in Greek)

Όνοματεπώνυμο	Ιδιότητα	Εταιρεία
1 Γεωργίου Τεπτερός	Ερευνητής	Nov. Agrifood
2 Βασιλική Ζελεναίου	Αναπλ. Καθηγήτρια	Nov. Agrifood
3 Αθηνά Πολυδωροπούλου	Καθηγήτρια	Nov. Agrifood
4 Ιωάννης Κρασανάς	Εμπειρ. Ερευνητής	Nov. Agrifood
5 Ιωάννης Μανιολής	Chief Quality	LOGIKA
6 Γεωργία Δαβλά	Account Officer	LOGIKA
7 Ιωάννα Κετσοπούλου	COO Logistics	LOGIKA
8 Εύη Γεωργιάδου	Commercial Mgr	KCR Entity
9 Σωκράτης Γκιλλίς	Supply Chain Mgr	ALTER
10 Ελενίτσα Δημητριάδου	E-commerce Register	HOMOS
11 Εμμανουήλ Κετσοπούλου	E-commerce Manager	HOMOS

8.5. Annex5 Austria_ FACILITATION SUMMARY REPORT

FACILITATION SUMMARY REPORT:

1. Workshop Overview

On June 17, 2025, from 14:30 to 17:00, the co-creation workshop “WP3: Ideate and Prototype” was held in the premises of LogPoint Logistics Services GmbH, in AT-2100 Korneuburg, Industriestrasse 1” as part of Work Package 3.1 in the pilot-module of the GreenTurn project.

The workshop was preceded by Workshop “WP2: E-commerce customer journey & stakeholder needs” which was set up as a dialogue on the future of urban delivery. The arrangement of combining the workshops had the advantage that participants were already familiar with the project and could therefore enter the second workshop with prior knowledge.

The aim of the workshop was to develop sustainable logistics solutions in e-commerce, with the following objectives:

- Understanding the challenges for sustainable delivery
- Identifying incentives to promote sustainable deliveries
- Identifying levers to improve sustainability in e-commerce logistics chains

The agenda was set as follows:

Table 3 Workshop agenda

14:35	Returning to work: an overview of the challenges	Brief review and overview of the key challenges in green logistics, objectives of the second part of the workshop.
14:40	Developing solutions: ideas workshop logistics concepts	Design new sustainable delivery and return models using creative technology.
16:00	From idea to concept: structure and feasibility	Joint development and evaluation of the concepts developed in terms of feasibility, integration and impact.
16:50	Summary and next steps	Look ahead to the next project milestones and conclusion.

The session was facilitated by Marianne Ramser and Clemens Leydolf (LogPoint) as well as Gerda Hartmann und Gerald Harrer (Econsult) and brought together logistics service providers (LSPs), retailers, consumers and a university member (with tight connection to public authorities in the field of logistics) to identify operational challenges and

opportunities for sustainable supply-chain logistics, share hands-on experiences, and lay groundwork for the upcoming pilot activities. This workshop was embedded in the overarching GreenTurn project structure and serves among others to gather key stakeholders on local realities before the pilot rollout begins.

Table 1 presents the workshop participants.

Table 4 Participants and company

Name (in alphabetic order)	Company / Organization
BISSELS Thomas	Let me ship
HARRER Gerald	Econsult
HARTMANN Gerda	Econsult
HUMMER Hansjörg	Biobalkan
LEYDOLF Clemens	LogPoint
RAMSER Marianne	LogPoint
SAHIN Muhammet	Veloce
STRAUSS David	University of Applied Sciences BFI Wien
SIMON Thomas	Hausbrot
WEINER Sophie (represented by M. Ramser)	Gans

2. Main discussion highlights

The Austrian GreenTurn stakeholder workshop explored consumer and retailer behaviour, barriers to sustainable e-commerce logistics, and co-created ideas for future green delivery and return models. Participants worked in three mixed teams (retailers, logistics providers, authorities, consumers), using brainwriting to collect insights. The discussions reveal a clear need for *transparency*, *convenience*, and *credibility* as foundations for sustainable logistics adoption.

Key Challenges and Needs

Consumer-Side Barriers

- **Lack of information and transparency** about CO₂ footprint, product origin, routing, or sustainability performance.
- **Greenwashing concerns** and lack of credibility of “sustainable” labels.
- **High amount of packaging waste**, no reusable options, difficult-to-remove labels, and too much plastic in standard e-commerce shipments.
- **Limited availability of sustainable choices** in checkout processes; no CO₂-reduced delivery option, no filter for green delivery, limited range of eco-friendly delivery types.

- **Returns perceived as complicated** (printing labels, re-packing, unclear processes).

Retailer & LSP (Logistics Service Provider) Barriers

- **Cost pressure:** Sustainable delivery is perceived as more expensive, and customers' *low willingness to pay* was repeatedly emphasised.
- **Lack of demand:** Retailers see little consumer pull for green delivery.
- **Infrastructure constraints:** Charging infrastructure gaps, lack of scalable sustainable options from service providers.
- **Unclear definition of "sustainable delivery"** and uncertainty about which options truly reduce emissions.
- **Lack of regulatory and operational advantages:** Conditions are the same whether one delivers sustainably or not while the cost is higher

Behavioural Challenges

- **Convenience dominates decisions:** Speed and flexibility often outweigh sustainability for many customer groups.
- **Offline affinity and habitual shopping patterns** among certain groups (high-touch shopping, preference for local stores) complicates digital logistics design.

Customer Needs and Motivations

- **Clarity and simplicity** in online shops and checkout is essential: clear platform layout, transparent delivery expectations, and simple explanations of sustainability.
- Customers value **quality, regionality, transparency, and ethical standards.**
- A **"good conscience"** and visible sustainability impact (e.g., "30% CO₂ saved") can motivate greener choices.
- Customers prefer:
 - **Home delivery with time slots**, especially for high-value goods.
 - **Low-cost delivery options**, even if slower.
 - **Flexible and free redirection** options for parcels.

Opportunities and Ideas Developed (From Teams 1-3)

The ideas were developed when answering lead questions:

What would motivate consumers choose green delivery

(Team 1 – Consumers/Retailers)

- **Nudges for reduced packaging**, combined deliveries, and reusable packaging systems.
- **Discounts on future purchases** for choosing sustainable delivery.
- **Limited-choice models**: Present only one “sustainable default” option at checkout.
- **Transparent info** on CO₂ savings for each delivery type.
- **Cheaper green delivery** when operational consolidation is possible.
- **Reusable packaging deposit/refund schemes**.

How can I ensure green delivery (including collection)?

(Team 2 – Logistics + Authorities)

- **Trust, transparency, and information sharing** across the logistics chain.
- **Level-specific rules** (EU / national / city) that support green logistics.
- **Incentives for sustainable transport modes**, including:
 - Access restrictions,
 - Tax advantages,
 - Membership models.
- **Micro-hubs, last-mile consolidation**, and **public infrastructure** (e.g., parcel walls).
- **Clear objectives and emission data** to help logistics providers invest in greener tech.
- **Cooperation** along the entire chain ensuring synergies across service providers, enhance market efficiency and promote transparency

How do we eliminate disruptive factors (‘pains’) in the consumer experience?

(Team 3 – Retailers + LSPs)

- **Real-time tracking** with proactive notifications (e.g., when package arrives at a locker).
- **One-stop return experience** (integrated label-free returns, simple drop-off locations).
- **Better visibility of locker availability**, parcel status, and delivery steps.
- **Reusable packaging** with return incentives (“deposit systems”, easy return points).
- **Digital return workflows** (return info through the app).

- **Quality seals** for LSPs to build trust.
- **Bonus systems for collectors** or green delivery choices.

The workshop format brainwriting in small teams enabled high engagement. Participants contributed actively to idea generation and validation, and the structured agenda facilitated a clear progression from problem identification to solution development.

3. Concepts and emerging solutions

During the co-creation session, several ideas emerged that repeatedly came up across groups even though participants worked separately. What became clear is that people are looking for solutions that *make sustainable choices easy*, without complicating what already works. Below is an overview of the most relevant concepts, why they matter, and how they link to the business-model directions outlined in D3.2.

Transparent and Configurable Green Delivery Options

A major theme across teams was the need to give customers clearer information at checkout. Today, many people simply choose the default option because they lack context. Participants suggested showing different delivery modes (e.g. cargo bike, EV van) alongside basic information such as price, timing, and estimated CO₂ impact.

What it solves: low transparency, low trust, and the sense that “green” is vague or marketing-driven.

Who it targets: mainly consumers but also retailers, who would offer these options.

This idea ties in very directly with the Vienna pilot’s plan to explore configurable delivery modules and emissions visibility (D3.2 Section 5.1). Based on the workshop feedback, such transparency is not a “nice-to-have” but a precondition for getting people to actually select a greener option. Feasibility is high, provided retailers adopt the checkout features.

Incentives for Choosing Sustainable Delivery

Because many customers are still price-sensitive, participants agreed that information alone won’t be enough. Incentives even small ones could tip the balance. Ideas ranged from loyalty points for choosing slower or consolidated delivery to discounts.

What it solves: low willingness to pay, the dominance of convenience over sustainability.

Who it targets: consumers directly; retailers and cities indirectly.

For the project, this connects well to the Zaragoza concept of a more flexible, multi-carrier setup combined with policy levers (city-card, dynamic pricing) described in D3.2 Section 5.3. In the Austrian context adding a sustainability layer would mostly require coordination rather than new infrastructure.

Reusable and Reduced Packaging

Packaging was one of the strongest emotional topics. Participants described the current volume of plastic, fillers, and unnecessary wrapping as “annoying” and “contradictory to sustainability claims.” A reusable system ideally supported by deposit or incentive models was mentioned multiple times.

What it solves: waste, greenwashing concerns, lack of credibility in sustainability communication.

Who it targets: retailers, LSPs, and consumers.

This aligns with the reusable-packaging components being tested in Poznań and Lyon (D3.2 Section 5.5). In Vienna, LogPOINT’s intention of re-using packing material for filling perfectly matches the challenges of this topic.

Simplified, Digital Return Processes

Participants talked a lot about returns because they are often the most frustrating step. Printing labels, finding tape, or re-packing items is inconvenient and sometimes the least sustainable part of the chain. Suggested improvements include app-based returns, QR codes, label-free options, and simple drop-off points.

What it solves: friction in the return journey, unnecessary kilometres, low satisfaction.

Who it targets: consumers; indirectly LSPs and retailers.

In D3.2, the Vienna pilot already supports more flexible digital interactions at checkout. However, it should be noted that LogPoint only acts as an LSP and that the web shops are primarily supplied by retailers.

Better Tracking and Real-Time Communication

While not a new idea, participants emphasised that reliable, real-time information reduces stress and avoids missed deliveries. This was particularly relevant for food and temperature-sensitive shipments. Suggestions included clearer notifications (“parcel in the locker”, “bike courier is 3 minutes away”) and better visibility of locker capacity.

What it solves: uncertainty, failed deliveries, repetitive customer service contacts.

Who it targets: consumers; logistics providers.

This concept supports several operational improvements proposed in D3.2, especially in Athens where EV fleets need tight scheduling and transparent routing (Section 5.2).

Receiver-Led Consolidation and Smart Delivery Windows

Although more relevant for B2B settings, some consumers also supported the idea of “bundling” deliveries when possible. In offices, this could mean a building or department choosing a single delivery window per day. In households, it may translate into optional “consolidated delivery days.”

What it solves: fragmented deliveries, inefficient routes, barriers to using smaller EVs or cargo bikes.

Who it targets: B2B receivers, building managers, and logistics providers.

This fits well with the Athens pilot's exploration of receiver-led consolidation (Section 5.2). Workshop results show interest in a softer, consumer-level version as well.

Multi-Carrier, Multi-Option Delivery Ecosystems

Participants felt that the current "one-size-fits-all" delivery model limits both consumer choice and innovation among logistics providers. A platform that can host several carriers and show different delivery options (speed, emissions, price) was seen as a promising way forward.

What it solves: lack of choice, limited differentiation, stagnating service innovation.

Who it targets: consumers, retailers, logistics providers, cities.

This maps closely to Zaragoza's proposed Logistics-as-a-Service direction (D3.2 Section 5.3) and could inspire future discussions in Austria, even if not immediately implementable.

More Accessible Parcel Locker Infrastructure

Parcel lockers were generally viewed as a good compromise: convenient for consumers and efficient for logistics. Participants mentioned that having "more lockers in the right places" (e.g. near supermarkets, public transport) would make sustainable delivery more appealing, especially for non-food items.

What it solves: failed deliveries, unnecessary van trips, time constraints.

Who it targets: consumers and logistics providers.

Vienna already collaborates with parcel-wall partners, so expansion is feasible. Discussions in D3.2 repeatedly highlight infrastructure as a key enabler for greener last-mile solutions.

4. Reflections and next steps

Reflections

The workshop provided valuable insights into current attitudes towards sustainable e-commerce logistics and offered a good opportunity to discuss ideas that could be incorporated into future pilot activities. Overall, the structured format proved successful: the brainwriting sessions helped to gather a wide range of perspectives, and the mixed composition of the groups encouraged participants to consider points of view that went beyond their own daily routines. The facilitation approach ensured that the discussions remained focused despite the diversity of stakeholders.

At the same time, several challenges became apparent. One of the biggest difficulties was motivating retailers and logistics service providers to participate. Many found it difficult to see the immediate benefits of a strategic discussion. A recurring argument was that online retail is almost exclusively determined by price, while other measures – whether in the area of sustainability or service – are considered too costly or too complex to implement. This made it more difficult for participants to think beyond short-term operational concerns and engage with longer-term or structural solutions.

In addition, many participants found it difficult to engage with the creative aspects of the co-creation process. Their daily work is very operational, and abstract or strategic thinking is not part of their usual tasks. As a result, some found the methods unfamiliar or, in some cases, ‘too theoretical’ or ‘far removed from day-to-day business’. This also contributed to a certain reluctance to explore less conventional ideas. There were also comments about the duration of the workshop, with some participants feeling that the time commitment was difficult to manage alongside their regular tasks.

Despite these hurdles, the workshop provided several promising insights that can serve as a guide for the next steps in preparing for the GreenTurn pilot. Many ideas were based on very specific problems (returns, packaging, lack of transparency), confirming that solutions with immediate practical relevance are likely to be most appealing to both retailers and logistics service providers. The concepts presented in Section 3 – in particular those relating to transparent delivery information, simplified returns and incentive-based behavioural changes – could serve as useful starting points for the development of pilot prototypes.

Recommendations and next steps

In future, several measures could help to strengthen stakeholder engagement and prepare for the development of prototypes and MVPs:

1. Shortening and streamlining future co-creation formats

Given the time constraints of participants, shorter workshops with clearer, more operationally focused tasks could improve engagement. Separating the creative and analytical phases into separate, shorter sessions could also be helpful.

2. Clearer framework conditions and concrete examples

Presenting concrete cases, visual examples or small 'entry-level' prototypes at the beginning of the workshop could make abstract discussions more accessible and demonstrate the practical benefits from the outset.

3. Strengthening the economic viability of sustainable solutions

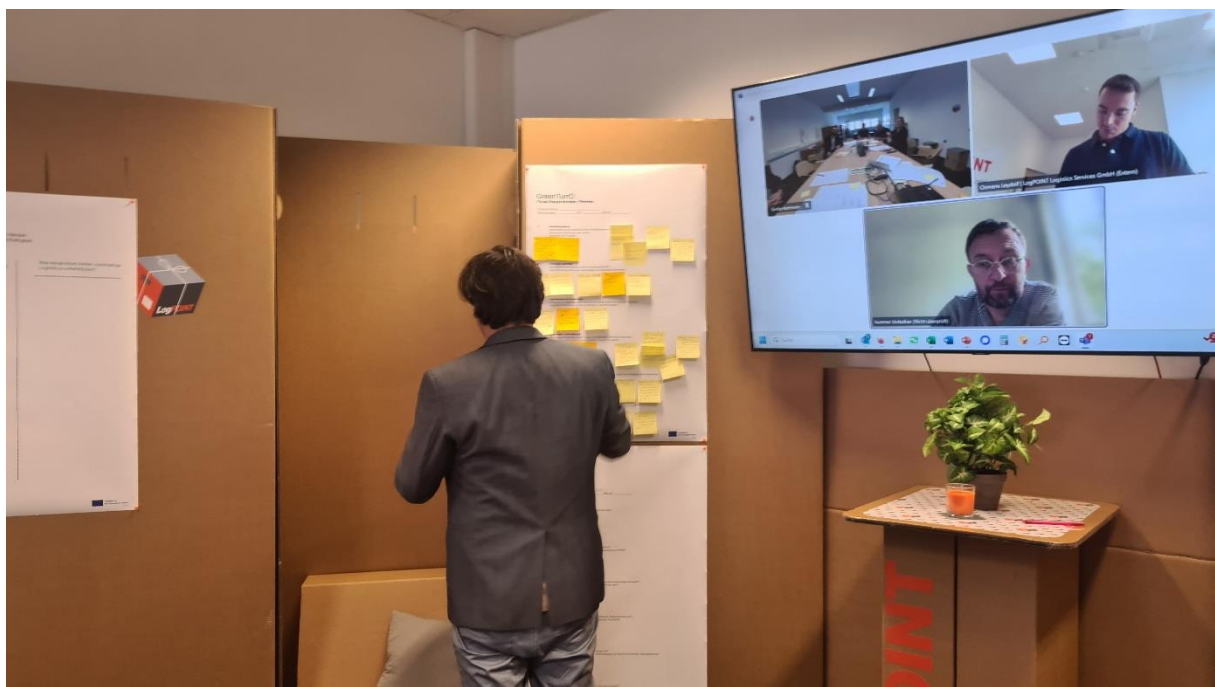
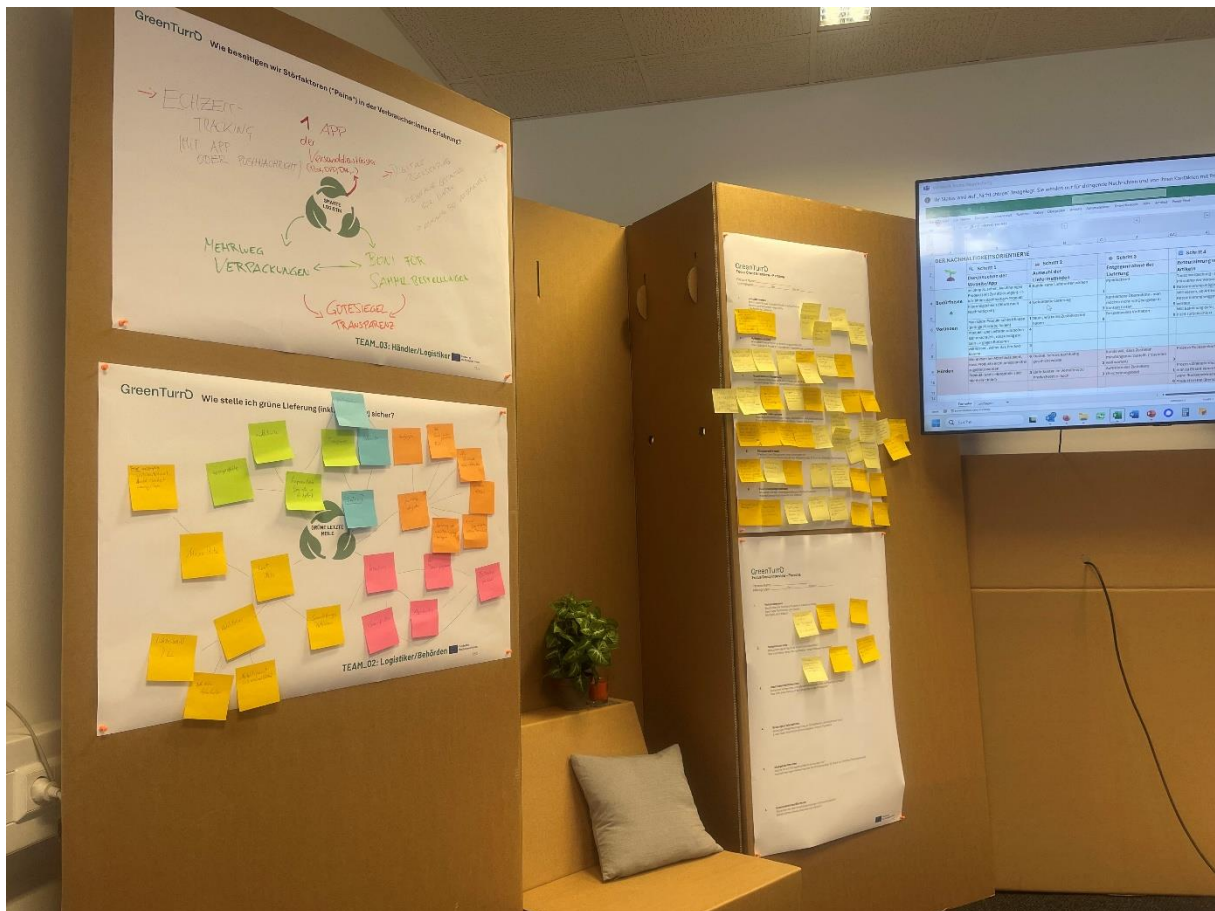
As price pressure is a dominant issue, the economic dimension should explicitly be addressed: cost savings, efficiency gains or competitive advantages. This could help shift the discussion from 'additional burden' to 'strategic advantage'.

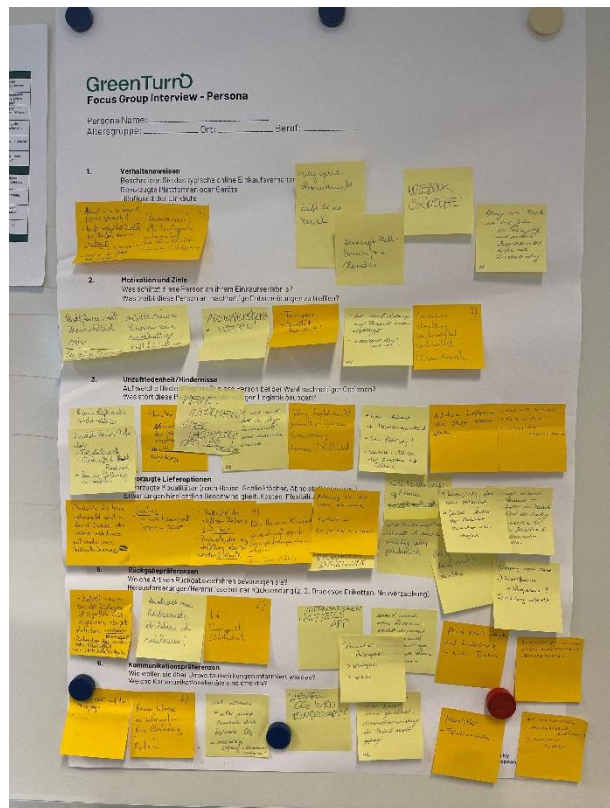
4. Deepen bilateral cooperation with key stakeholders

Individual follow-up meetings with retailers and logistics service providers could help clarify their constraints, test initial ideas and build trust before the next round of workshops. This would also make it possible to address concerns in a more targeted manner.

In summary, the workshop confirmed both the relevance and urgency of improving sustainability in e-commerce logistics, while also highlighting the need for formats that are closely aligned with operational realities.

5. Supporting materials









Brainwriting

GreenTurn Wie stelle ich grüne Lieferung (inkl. Abholung) sicher? 01

Kürzel (NAME)	IDEE 01	IDEE 02	IDEE 03
TS	11-11	Ca. 11.12.2024	11-11-11

GreenTurn Wie stelle ich grüne Lieferung (inkl. Abholung) sicher? 02

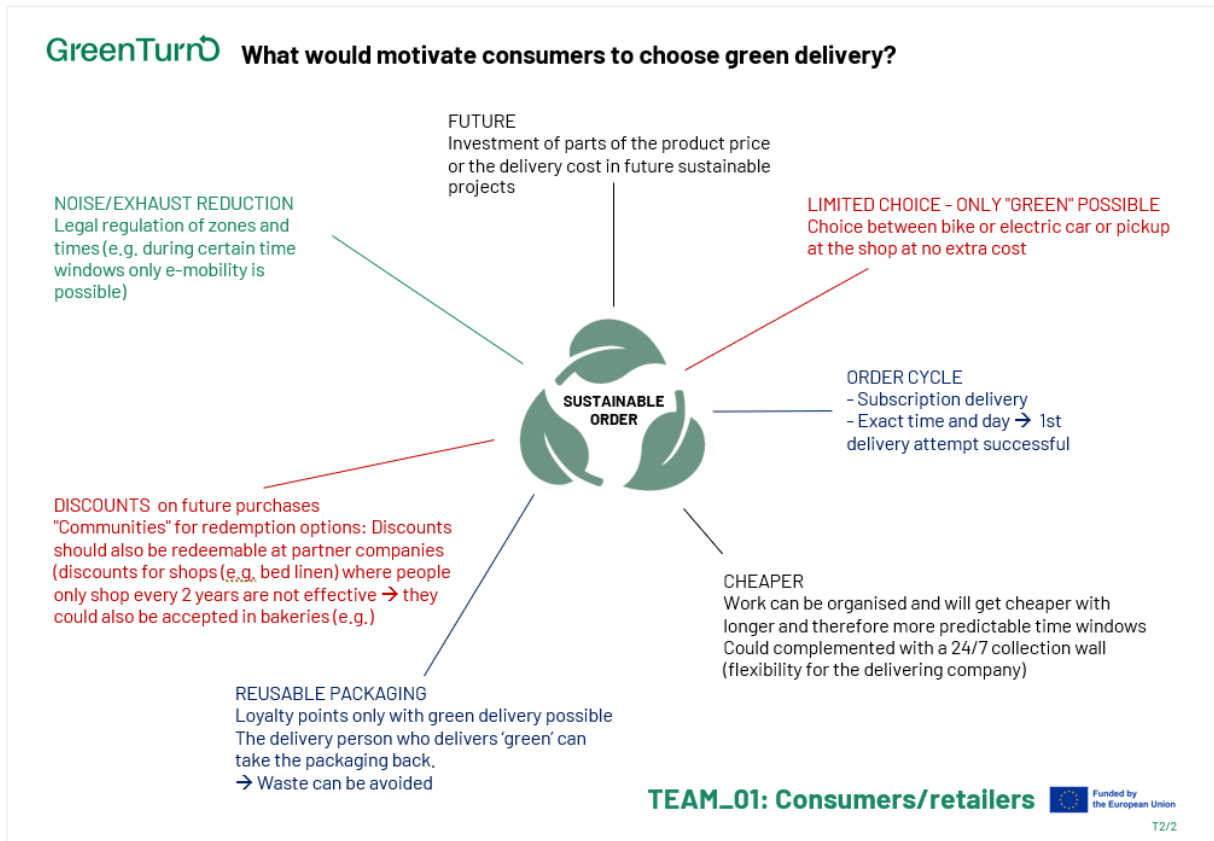
Kürzel (NAME)	IDEE 01	IDEE 02	IDEE 03
David Strauß	Stelle Daten zur Verfügung	Biete meinen Kunden	Kooperation: alle in der Kette werden einbezogen

GreenTurn Wie stelle ich grüne Lieferung (inkl. Abholung) sicher? 03

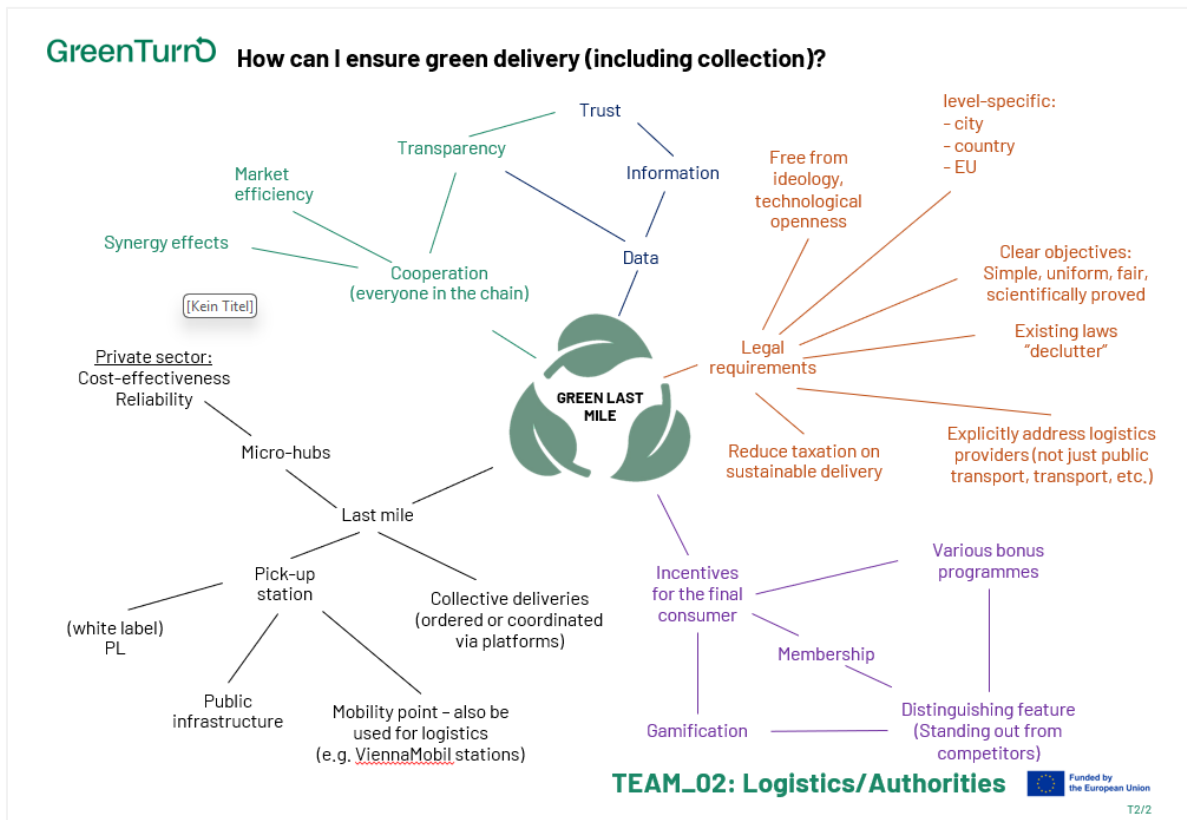
Kürzel (NAME)	IDEE 01	IDEE 02	IDEE 03
David Strauß	Wahlzeit-Beauftragter/Leiter/Leitung/Verantwortung inkl. App für Mitarbeiter/Behörden	Staat sollte keine weiteren Anreize geben für nachhaltige Prozesse, sondern die Rolle der Staat (national/EU) Technologie fördern	Stärke der Zusammenarbeit/Beziehungen, Klärung von Verantwortlichkeiten (z.B. Bäume, Pflanzen, etc.) und die Verantwortlichkeiten werden aufgeteilt und sich ergänzen und helfen bei der Umsetzung
DS	Leider wird viel Arbeit/Anforderung/Beauftragter/Verantwortung/Verantwortung, wenn Partei da	versuche durch Plattform "grüne" Vorteile zu erzielen → Plattform mit internationalen Unternehmen/Anbieter/Beauftragter/Leitung/Verantwortung (z.B. E-Carsharing, etc.)	machte Veranstaltung zur Vorbereitung der Ideen/Anforderungen/Verantwortung/Beauftragter/Leitung/Verantwortung (z.B. etc.)
TS	Rolle politische Vorgaben		Vorteile für Privatkunden/Verantwortung/Beauftragter/Leitung/Verantwortung

TEAM_02: Logistiker/Behörden

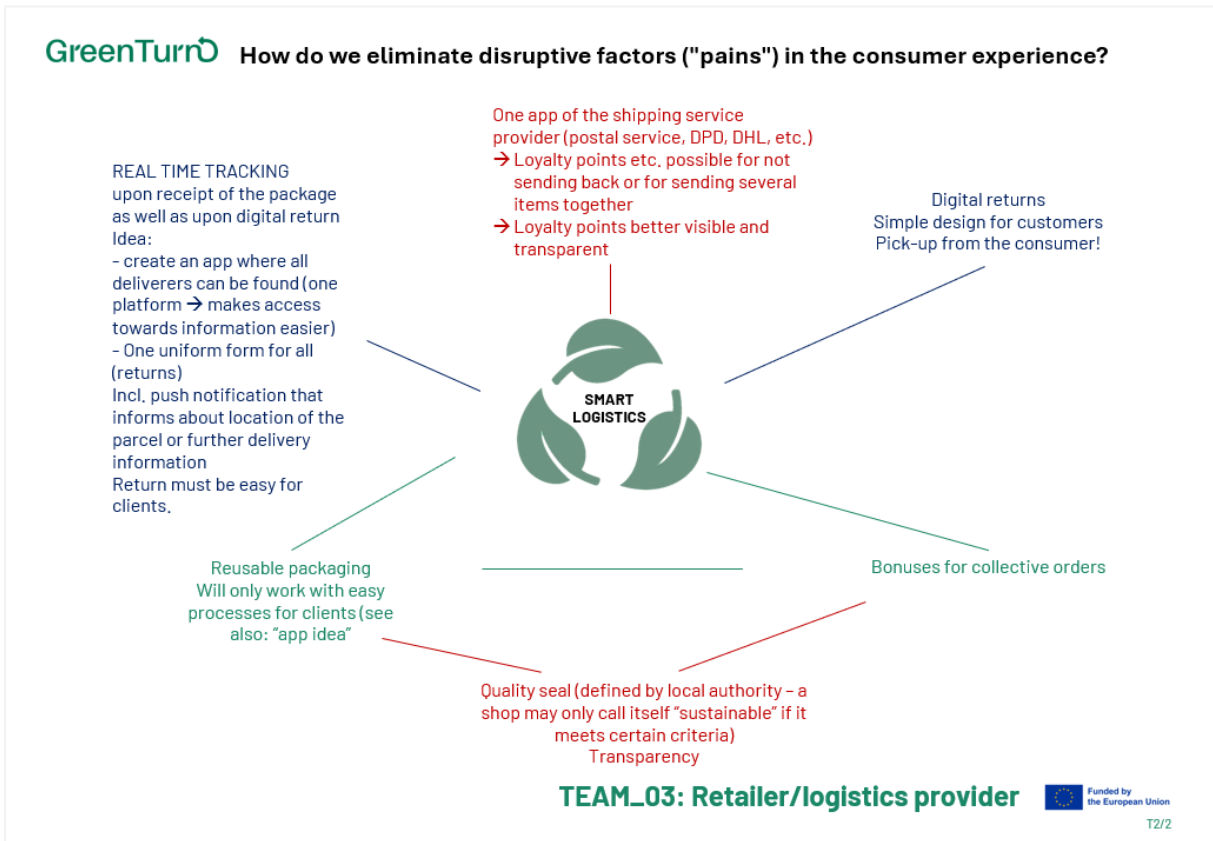
Result Team 1



Result Team 2



Result Team 3



8.6. Annex6 Spain_ FACILITATION SUMMARY REPORT

FACILITATION SUMMARY REPORT:

1. Workshop Overview

Date & time: 14 November 2025, 8.30am-12.30pm

Location: Central Market Zaragoza, in relation to the pilot involving the app Mercadeando

Facilitators: Victor Ferran, Lorena Axinte (Bax Innovation), Victor Navarro, Teresa Lopez Marco (Zaragoza Ayuntamiento)

Number of participants: 16

1. LSPs: 4
 - Fernando Salueña (Patatas Gómez)
 - Manuel Martinez (Logística Social)
 - Fernando Llorente (La Veloz)
 - Alfonso Molina (CityLogin)
2. Retailers: 3
 - Diego Peña (Patatas Gómez)
 - David Pueyo (Carnicería Hnos. Pueyo)
 - Isabel Pérez (Ventas Mercadeando)
3. Consumers: 4
4. Public authority: 5

Session aim: The workshop had a double focus: 1) validate the personas in the pilot of Zaragoza (going from 6 generic personas to 3 that were considered most relevant in the city's context), and 2) develop ideas and concepts that could be implemented in Zaragoza's pilot of the Mercadeando app.

2. Main discussion highlights

First, the facilitators introduced the project, the pilot idea in Zaragoza, and the 6 most common personas found in the previous research stages.

Then, the group was split in 3 sub-groups and each of them ranked the personas according to their relevance to the Spanish context. Each facilitator joined one of the groups, working from the perspective of a specific persona. Overall, the ranking was closely aligned amongst groups with all agreeing that e-shoppers relevant to Spain fit the cost-saver (1) and time-saver (2) personas best. tech-savvy (3), global customers (4), health-conscious (5), and premium consumers (6) came next.

Afterwards, each group focused on the challenges, needs and opportunities of one specific persona.

<p>Victor Ferran – Time-saver persona</p> <p>Key challenges, needs, and opportunities identified:</p> <ul style="list-style-type: none"> - Inefficiencies in web/app platforms → need for systems that work well together - Discomfort of having to wait at home for a delivery over a long period of time - Limited PUDO (Pick-up/Drop-off) coverage – Better to have a PUDO nearby than having to wait at home X hours. - Consumer expectations for quick or flexible deliveries <p>Opportunities</p> <ul style="list-style-type: none"> - Expand and optimize PUDO infrastructure - Better user experience through integrated digital platforms <p>Ideas and solutions that emerged:</p> <ul style="list-style-type: none"> - Show related products – helps save time for consumer - Show the most sustainable shipping method as the default option - Grouping deliveries – inform about the possibility - Home delivery should be a premium service or for people who need it (e.g. elderly, people with disabilities, etc.) - A common framework at a national level is needed to guide delivery and return processes, so that all companies operate with a minimum level of common ground regarding costs, sustainability, etc. – In Spain OCU could be responsible to develop this. - Increase Awareness & Communication of the app Mercadeando <ul style="list-style-type: none"> - Promote the service through social networks, neighborhood channels, and local market. - Offer discounts linked to public services (e.g., public transport passes, bike-sharing, etc.) to encourage adoption. - Purchase & Delivery Options <ul style="list-style-type: none"> - Provide home delivery or proximity collection points. - Implement secure drop-off options (e.g., lockers, designated spaces). - Offer default sustainable delivery choices. - Create new convenience pick-up points to expand accessibility. - Order Transparency & Reliability <ul style="list-style-type: none"> - Ensure reliable tracking and easy contact options for customers. - Guarantee product quality, potentially through seals, photos, proper labeling - Ensure correct packaging to avoid damage and returns. - Business Model <ul style="list-style-type: none"> - Share maintenance and design solutions with similar initiatives from other cities to reduce costs. - Enable collaboration between nearby businesses, sharing infrastructures or services. <p>Insights about stakeholder perspectives, behaviours, or operational barriers:</p> <ul style="list-style-type: none"> - Instant reimbursement doesn't allow the seller to check the state of the product
<p>Lorena Axinte – Cost-saver persona</p> <p>Key challenges, needs, and opportunities identified:</p> <ul style="list-style-type: none"> - customers would need an option to be able to compare products in terms of price & quality within the app / platform - customers don't have transparent information on costs (especially of transport) and cannot make an informed decision for better delivery options - sometimes customer receives info on cost only at checkout

- cost-savers are very conscious of the quality-price relationship and need to be convinced there is a good reason to pay more (e.g., for deliveries done by social enterprises)
- if a product is not good enough, a cost-saver customer might not return it (especially if they need to pay for it), but they will probably not buy again, which is why a feedback mechanism should be offered

Ideas and solutions that emerged:

Ideas for consumers to incentivise them to use Mercadeando:

- More purchase options and wider range of eco-friendly products
- Suggest featured product recommendations on the website
- Improvements in app functionality
- Loyalty program (points, benefits)
- Shopping list that can be saved and reused for future purchases
- Free samples if you become a market member
- Customer satisfaction survey
- Pickup points at the market entrance for returned items
- Reduce shipping costs or offer different prices depending on the total basket (currently only free for baskets >90€ which could be too much for people who live alone)
- On the website, notify if free returns are available and highlight it

Ideas for companies (shops and LSPs):

- Use days of the weeks with least profit to promote shop and products (e.g., with reduced price)
- Promote Mercadeando app directly to own customers (although not all shopkeepers want their customers to stop going to the market directly!)
- Use social media more to promote app
- Have direct contact with customer via an app chat
- Have access to customer profile to customise offers better

Ideas for public authority

- Greater outreach and push for city campaign (more posts online, more posters)
- Install lockers in different city areas to facilitate product delivery
- Promote eco-friendly delivery options in connection with other policies (e.g., Restrict downtown access)
- Create a working group to manage market app available in multiple cities
- Extend market models to other small shops in the ci to other small shops in the city
- Expand service hours for local delivery

Insights about stakeholder perspectives, behaviours, or operational barriers:

- LSPs shared their frustration that people expect deliveries and returns to be always free, but small companies cannot offer this

Victor Navarro & Teresa Lopez – Tech-savvy persona

Key challenges, needs, and opportunities identified:

- Expand the customer base of the online sales application.
- Increase the number of consumers who choose the eco-friendly route.
- To achieve a more efficient delivery system in terms of time and emissions.
- Increase product delivery options.

Ideas and solutions that emerged:

- Conduct advertising campaigns for the app/platform that do not involve a public cost, for example at the retailers' own stalls.

- Product tasting campaigns, for example by including a sample in the delivery.
- Clearly show in the application, from the beginning, the environmental impact of the purchase and how to reduce it.
- Implement some incentive or reward when the most environmentally friendly delivery method is followed.
- Quick return, avoiding repeated forms.
- Use of refrigerated lockers accessible 24 hours a day, as a collection option.
- Give the consumer the option to make a multiple purchase: a single purchase that includes several delivery points within the same sector (order/delivery by sectors).

Insights about stakeholder perspectives, behaviours, or operational barriers:

- LSPs need time to plan efficient routes; this is not possible when the consumer demands urgent delivery.

3. Concepts and emerging solutions

Victor Ferran

Main idea/concept description

- what it aims to solve (mention if behavioural, technological, or organizational solution in nature)
 - o primary problem identified is **Disregard/Lack of Knowledge** and **Lack of Incentive to Use** . The proposed solution is to increase **Awareness & knowledge of the app** to overcome the "entry barrier" and boost **Volume** of use.
- who it targets - **Consumers**
- why it is valuable - greater business for local commerce

Redesigned customer journeys

- Consumers learn about the app/website Mercadeando through flyers, bus stops, ads.
- **Advertising on Delivery Vehicles** and **Delivery Staff Uniforms** (sometimes they deliver by foot)
- Promotion of other local businesses around the market
- **Incentives in Public Services** like **Bike Sharing** or **Transport Cards** Use the website and it works properly, so they use it again.

Potential feasibility and relevance for local implementation

- **Low-Cost Channels:** Using **Social Media** and **Flyers** are standard, cost-effective initial steps
- **Strategic Partnerships:** The plan is built on collaboration with **Key Stakeholders:** the **City Council** , **Local Commerce**, and **Logistics Companies**. Agreements with these entities are crucial for deploying bus-stop ads, public service incentives, and logistics vehicle/uniform advertising.
- Potential promotion of other local businesses around the market. Can be included in the website and promote its use in their shops.

Lorena Axinte & Teresa Lopez

Main idea/concept description

Improve Mercadeando app (technical and operational features)

- what it aims to solve:

- Offer customers a better e-commerce experience (e.g., via daily offers, comparison of products, etc.)
- Offer more transparency for the transport options + transport costs; inform the client if the transport company has any social or environmental scope (e.g., if the person delivering has any speaking impairment, the customer knows they cannot call them)
- Increase the number of users for the app
- Increase sales for market sellers
- Improve direct relations between consumers and retailers (e.g., chat function)
- who it targets: customers of Mercadeando (existing and potential ones), companies involved (both retailers & LSPs), and implicitly the public authority in charge of the app
- why it is valuable:
 - A better app increases accessibility to fresh food for people who might not be able to access the market due to the market's functioning hours, lack of accessibility/disability, etc.
 - Satisfaction surveys done regularly allow for continuous feedback and possibilities to improve before losing customers that might be dissatisfied

Redesigned customer journeys

Step 1 – Adding products in the basket

Customer can compare products to find the best option and best price.

Customer can see the price of the delivery depending on the distance and its purchase amount from the beginning.

Customer can contact the retailer via the chat in case there are doubts.

Step 2 – Finalising shopping

Customer receives information regarding the delivery options, especially if the delivery is done by a company hiring people with disabilities.

Customer gets a (financial) incentive to choose the more sustainable option.

Step 3 – Delivery received

Customer can rate their experience directly on the app and suggest improvement.

Step 4 & 5 – Returns

Not relevant for Mercadeando

Potential feasibility and relevance for local implementation

All stakeholders assessed these changes and improvements as highly feasible within the GreenTurn project lifetime.

Victor Navarro

Main idea/concept description

- what it aims to solve: few consumers are aware of the implications of sustainable delivery and how to achieve it. It is a technological solution that involves a change in behavior.
- who it targets: Customers of the Mercadeando platform. Developers of the application.
- why it is valuable: Choosing a more sustainable delivery option through the app/platform would increase delivery efficiency, reducing urban traffic and emissions.

Redesigned customer journeys

- Advertising/promotion: the customer is aware of the existence of the Mercadeando app and its possibilities.

- Adding products to the basket: the customer can choose the type of delivery to make it more sustainable (deferred delivery, multiple delivery).
- Complete the buying: the customer receives some reward or incentive for choosing the most sustainable delivery option.

Potential feasibility and relevance for local implementation

The implementation and development of these changes in the Mercadeando application are considered feasible in the medium term.

4. Reflections and next steps

What worked well:

- Overall, the group was very engaged, and we had a diversity of opinions coming from the main stakeholder groups (consumers, LSPs, retailers and public authority). It was slightly challenging for attendees to focus on challenges/problems without immediately trying to offer solutions, but with the help of facilitators, they were reminded of each session's goal and could provide valuable input.

Challenges:

- The workshop structure was too complex for a half-day session, especially as it was not designed by the facilitators themselves. It took us a lot of time to understand the requirements and expected outputs. In the end, we've tried to simplify the structure, being aware also of the effort and time required from the participants.
- We did not offer participants any incentives except for the catering provided during one of the breaks (sandwiches and coffees), and at the end, one of them asked whether they could expect a voucher to use in the market. It would be useful to consider this carefully, both to compensate people for the time they spent, and in case we'd like them to attend any future workshops.
- Although it went well this time, if we need to rely on volunteer groups to conduct workshops, it would be appropriate to consider using some kind of incentive or reward for the participants.

Prototype development:

- App functionalities
- Promotional campaign
- Order/shopping consolidation options

It would be useful to, first of all, improve the quality of the app (e.g., transparent info on products, transport options, cost of transport, direct communication between clients and shopkeepers,

etc.), before developing the promotional campaigns. This is to prevent that dissatisfied users are lost before they have a chance to provide feedback.

Next steps

- **Ayuntamiento ZGZ**
 - o Prioritise which app functionalities to improve
 - o Establish meeting with Mercadeando representative and app developers + BAX & LPIT
- **BAX & LPIT**
 - o Participate in meeting to ensure workshop input is successfully reflected in pilot + pilot is aligned to project objectives

5. Supporting materials

Photos of workshop participants



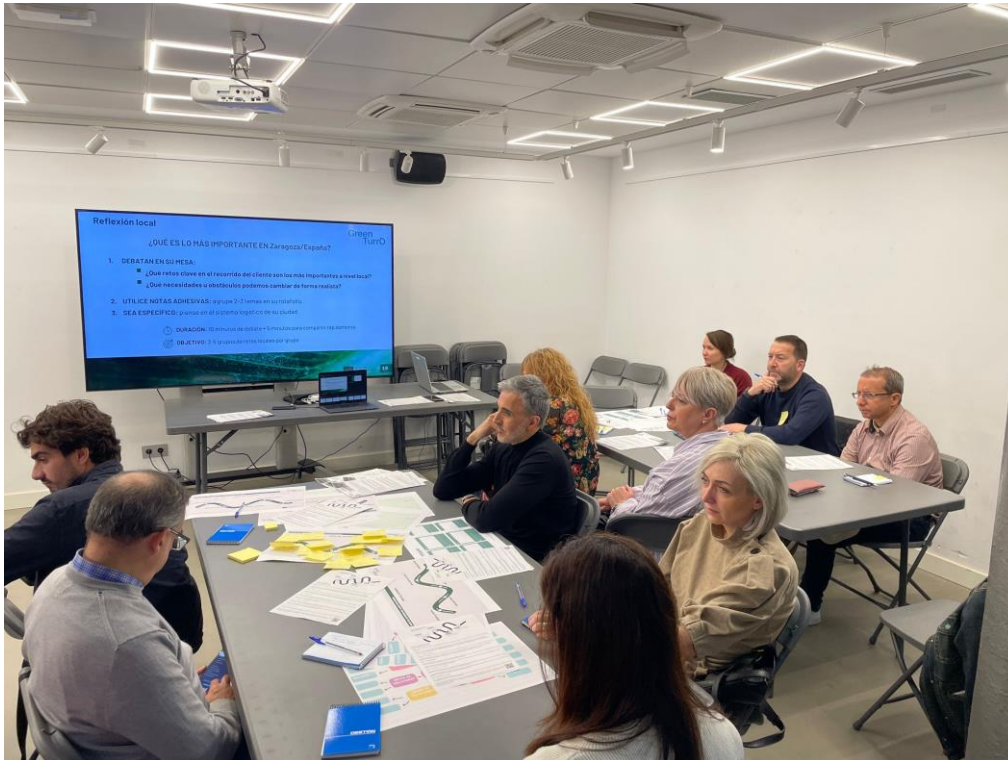
Asistentes sesión de Co-creación Mercado Central 14 de noviembre de 2025

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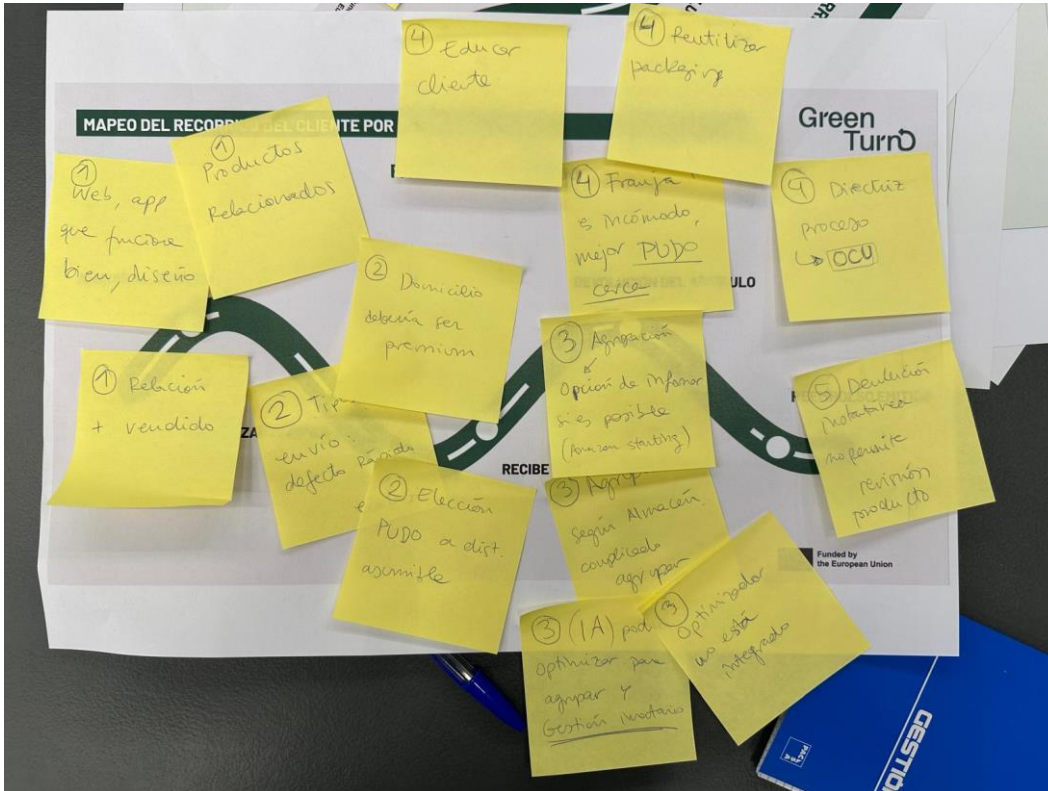


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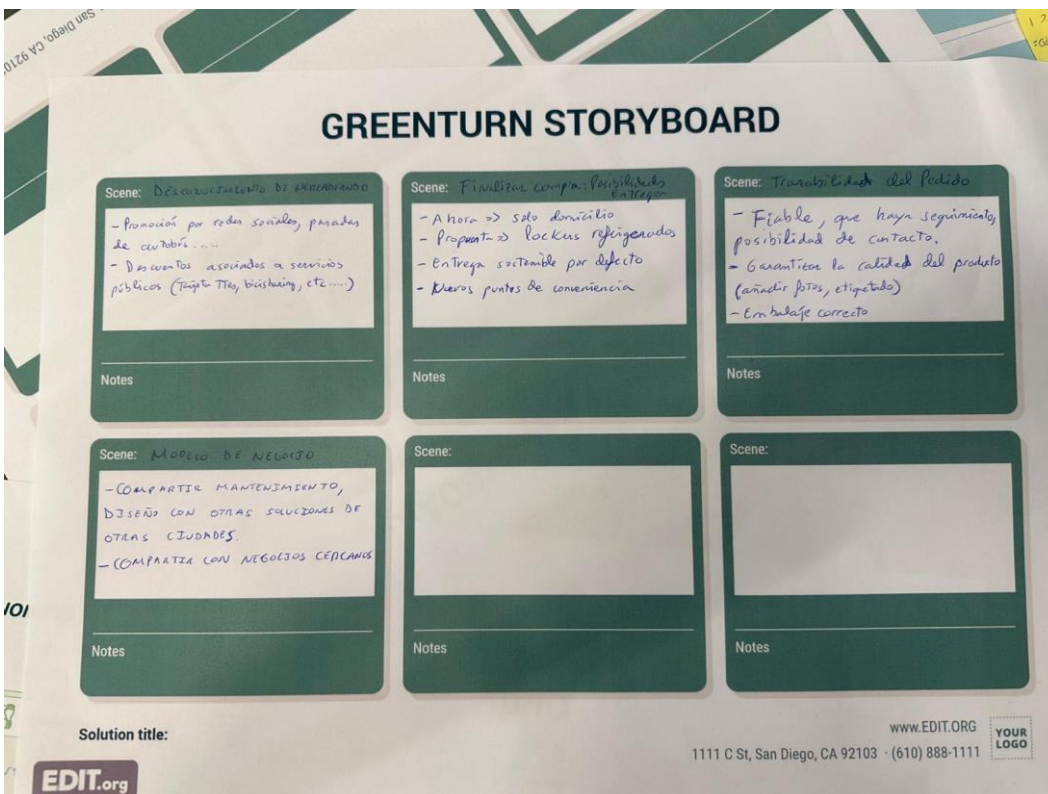


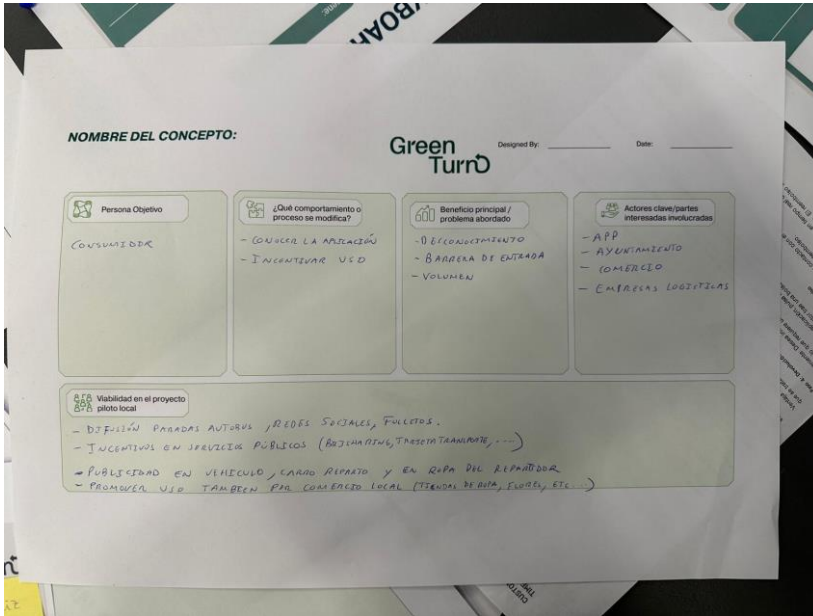


Challenges - Victor Ferran - Time saver persona



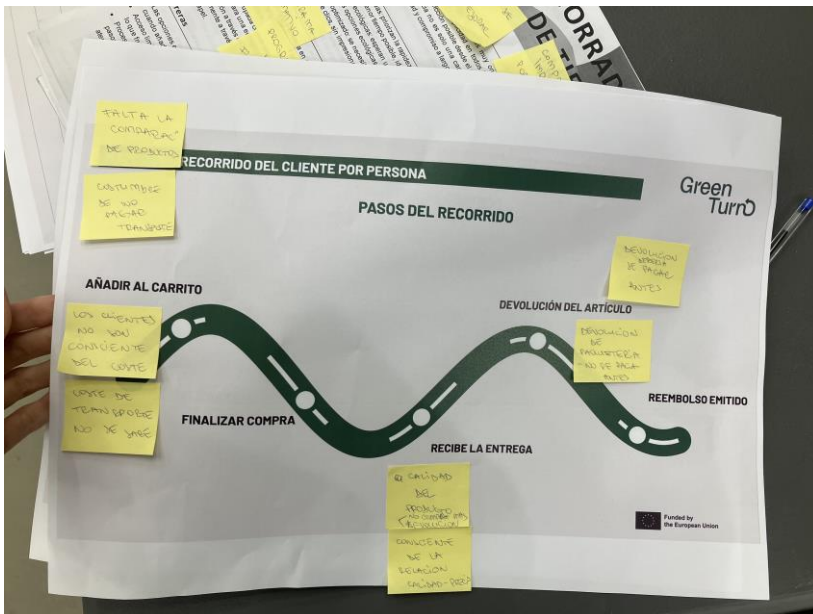
Story Board



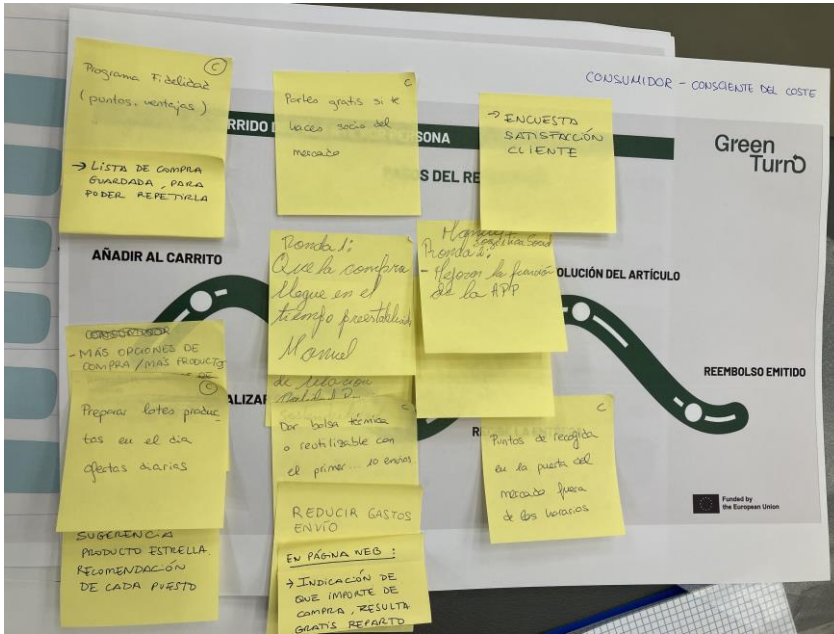


Cost-saver Lorena Axinte

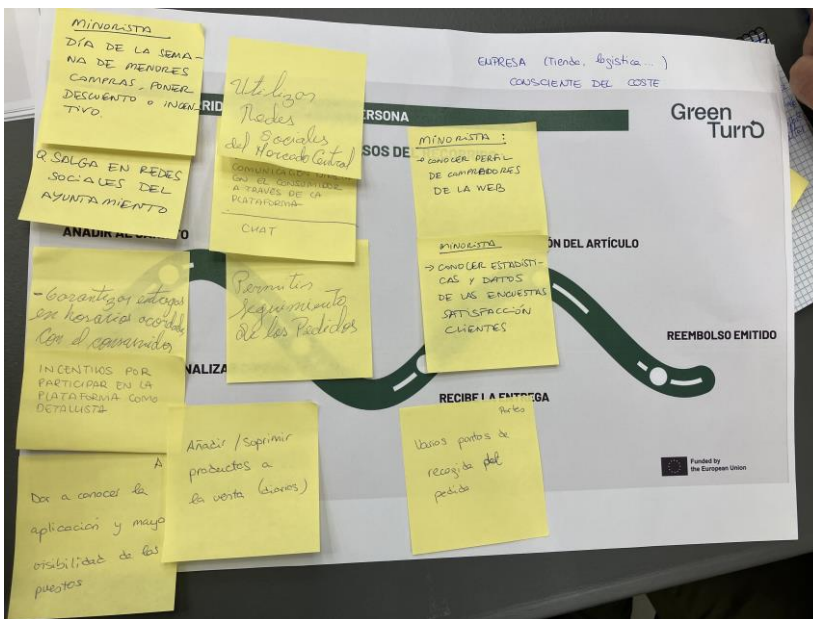
Challenges



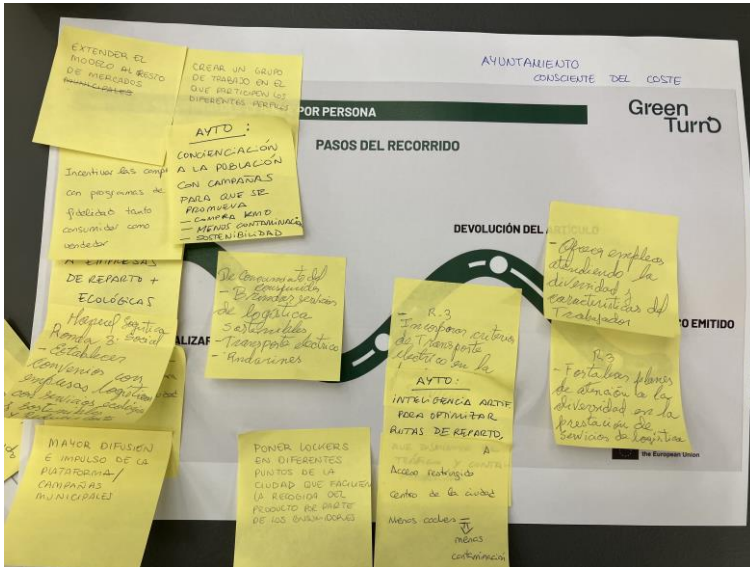
Ideas for better customer experience via app



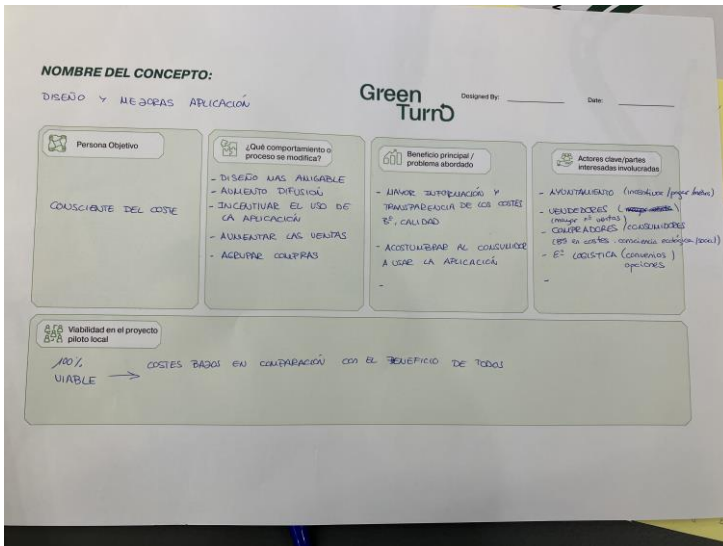
Ideas for companies joining Mercadeando



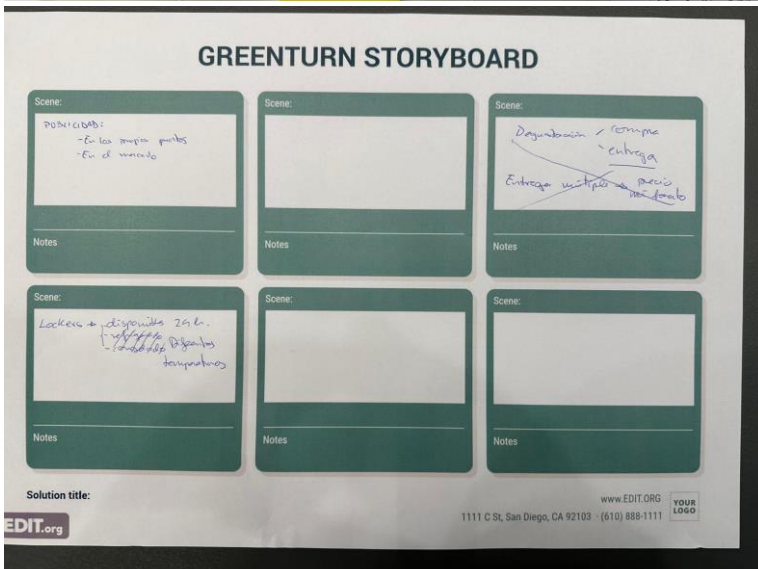
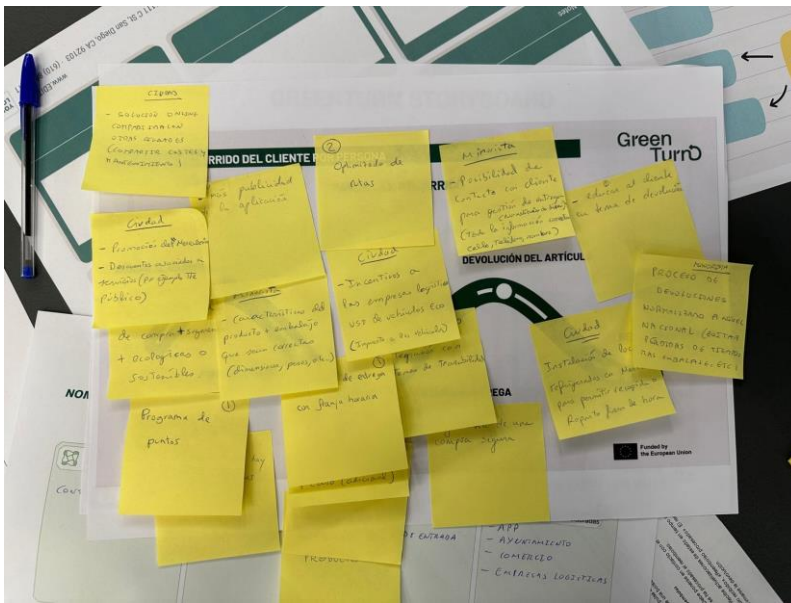
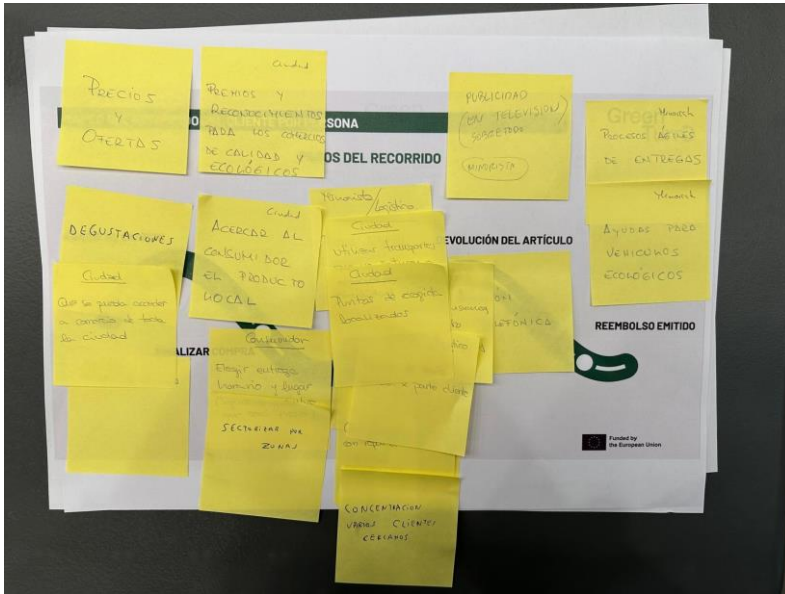
Ideas for public authority supporting app & service development



Concept for Mercadeando app improvement



Víctor Navarro - Tech-savvy persona



Concept

GREENTURN STORYBOARD

NOMBRE DEL CONCEPTO: _____ Designed By: _____ Date: _____

Green Turn

Persona Objetivo Consumidor Logística Vendedor	¿Qué comportamiento o proceso se modifica? La compra Entrega Venta	Beneficio principal / problema abordado Ahorro y comodidad Ruta más eficiente Amable y simple venta	Actores clave / partes interesadas involucradas
Viablez en el proyecto piloto local - Reducir entrega múltiple - Entrega/pedido por zonas (saturación)			

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