

Appendices

JULIKA VAN DEN BERG

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Appendix A: Hendrikx & Hagen et al. need states

(Hendrikx, 2021) (Hagen et al., 2005)

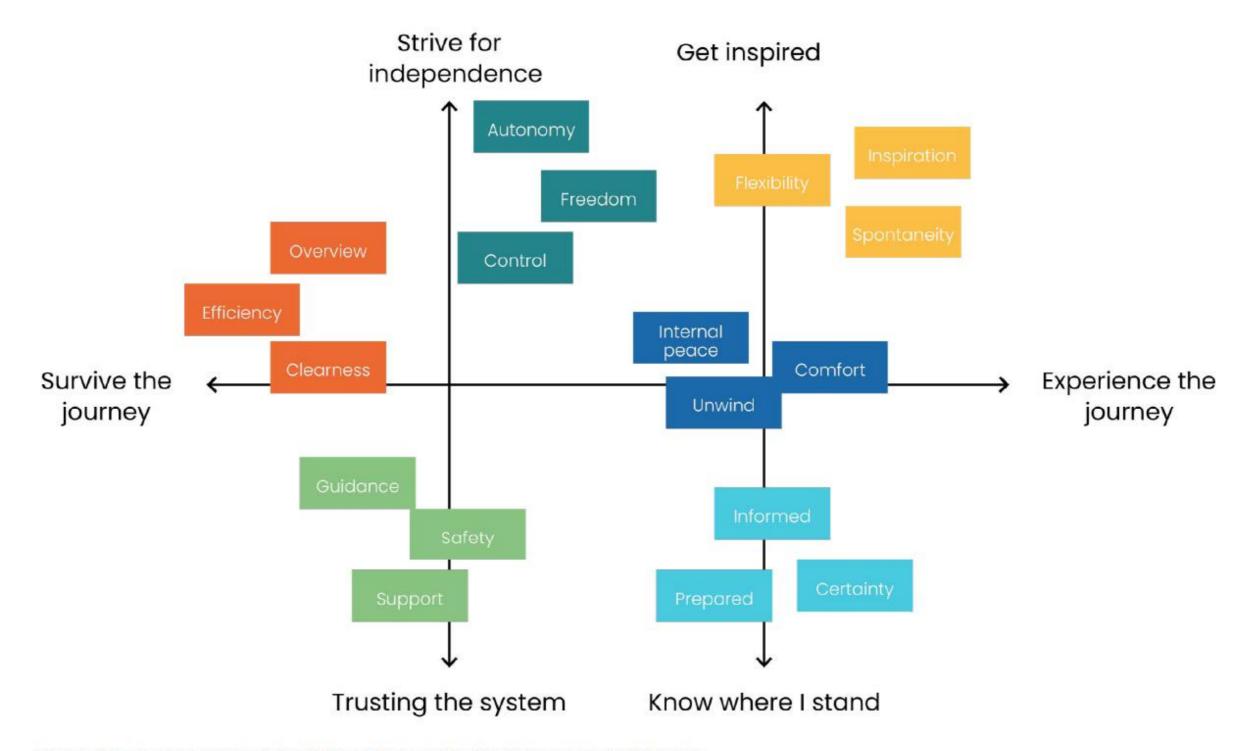


Figure 5.1 The tension model consisting of six key drivers and the identified needs of air-rail travellers.

Figure 1: The tension model consisting of six key drivers and the identified needs of air-rail travellers (Hendrikx, 2021)

1

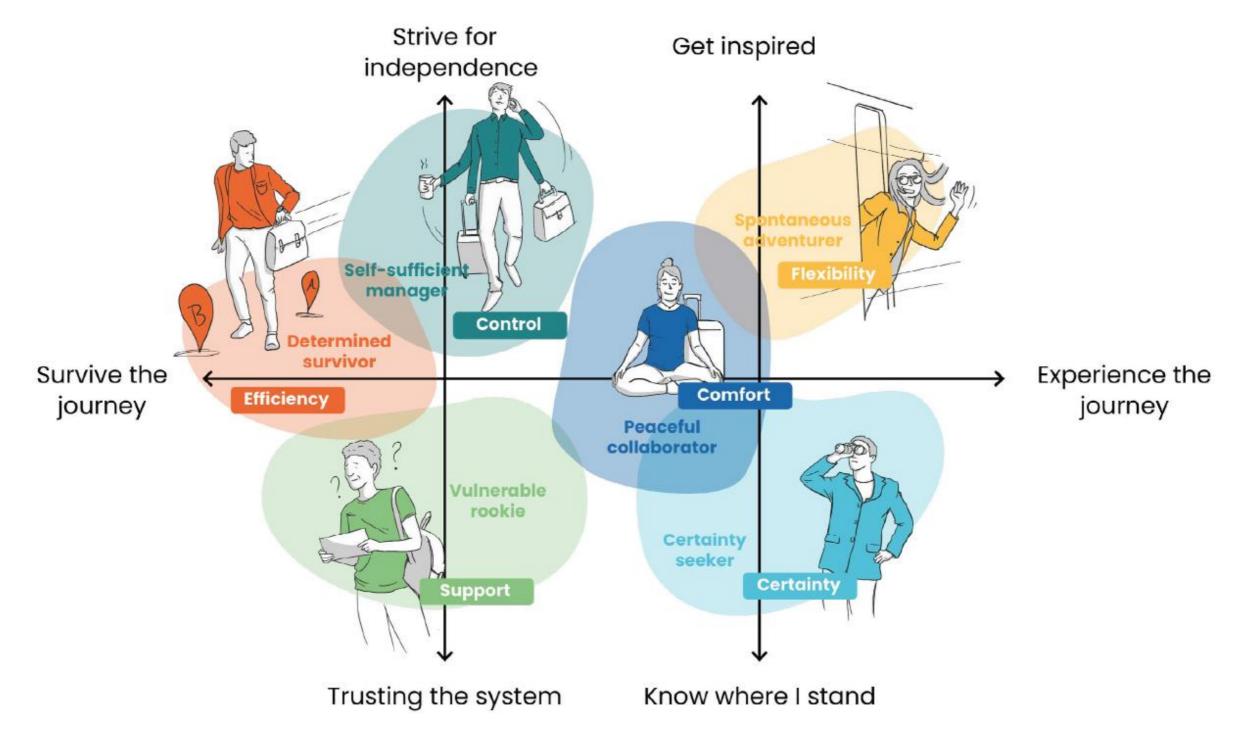


Figure 2: The need based personas plotted on the tension model (Hendrikx, 2021)



Determined Survivor

I just want to get to my final destination in the easiest and efficient way as possible.

Efficiency

Clearness Overview



It would depend if it's cost effective. If it's cheaper I will do that.But also $factoring\ the\ time\ as\ well.\ If actor\ in$ like a flight to Amsterdam, then how much time I have to wait for the train. -Australian traveller

Figure 3: Overview of the need based air-rail personas (Hendrikx, 2021)



Self-sufficient manager

I am independent and want to complete this journey as far as it's possible on my own.

Control Autonomy

Freedom

When I have a lot of options so I can decide if I want to take this train or a different one. A different time of travel. Even different types of seats. - English traveller



Vulnerable rookie

I am not sure about this, I need someone who gets me through this.

Support Guidance Safety



Because I can go from central to central. Like the Eurostar, you get from the central of London to the central of Amsterdam. It's feels like less hassle and much easier - English traveller



Peaceful collaborator

During this journey I want to get my mind off, so as long when it a bit comfortable and relaxed I am a satisfied person.

Comfort Unwind Internal peace



The comfort. The ease. Being able to sit in your seat. Being able to walk to the next carriage. And there will be a bar there or something. - English traveller



Certainty seeker

I just want to know where I stand and what is going to happen. No surprises please.

Certainty Informed Prepared



I think like this combination is good. Because you are more motivated to take the train. It's kind of planned for you. - German traveller



Spontaneous adventurer

Let's go!

Flexibility Spontaneity Inspiration



Environmental aspect, would be reason number one, and the experience. It is just amazing to be in a train. - German traveller

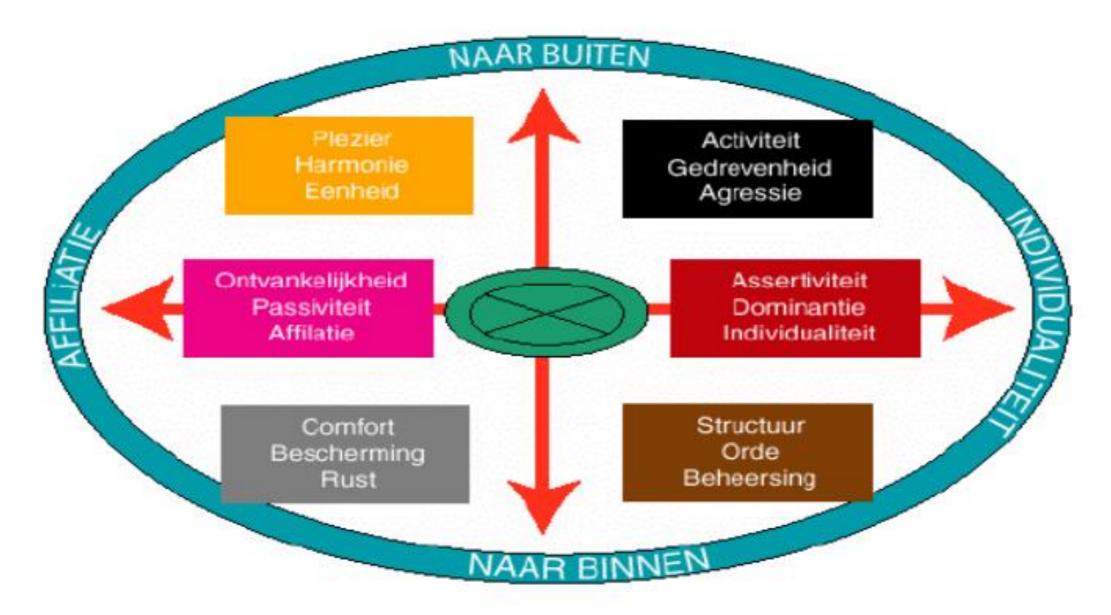


Figure 4: Needstates (Hagen et. al, 2005)

Appendix B: Contextual enquiry - interview questions

INTERVIEWFORMULIER- NEDERLANDS

Goedemorgen / Goedemiddag!

Ik doe een onderzoek in samenwerking met **AXX Airport en TU Delft** over hoe reizigers hun bagage-ervaring beleven na aankomst op de luchthaven.

Heeft u een paar minuten om een paar korte vragen te beantwoorden? Het is **volledig anoniem en vrijblijvend** – u kunt stoppen of overslaan wat u wilt. Het gaat om een reeks stellingen over het ophalen en vervoeren van bagage.

Bij elke stelling kunt u aangeven in hoeverre u het ermee eens bent, op een schaal van 1 (helemaal oneens) tot 5 (helemaal eens). We zijn daarnaast vooral benieuwd naar uw eigen ervaringen of ideeën: Als iets herkenbaar is of u iets te binnen schiet – een situatie, frustratie of voorbeeld – dan horen we dat heel graag.

NA HET UITSTAPPEN

- 1. Ik maak me zorgen of mijn bagage is aangekomen.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

- 2. Ik voel spanning over wat er met mijn bagage gebeurt terwijl ik het vliegtuig verlaat.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

NAVIGEREN NAAR DE BAGAGEBAND

- 3. Het is duidelijk waar ik mijn bagage moet ophalen.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

- 4. Ik raak verward over waar mijn bagage zich bevindt in de luchthaven.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

WACHTEN OP BAGAGE

- 5. Het wachten op mijn bagage duurt vaak langer dan ik verwacht.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

- 6. Ik voel me onzeker over waar mijn bagage is terwijl ik wacht.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

- 7. Ik ben bang dat mijn bagage zoekraakt of beschadigd is.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

- 8. Ik zou liever niet hoeven wachten op mijn bagage.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

BAGAGE OPHALEN

- 9. Ik ben bang dat mijn bagage expres/per ongeluk wordt gestolen.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

- 10. Ik voel me fysiek belast bij het optillen van mijn bagage.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

DOUANE

- 11. Het meenemen van bagage door de douane is omslachtig.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

- 12. Ik voel me gecontroleerd of opgehouden vanwege mijn bagage.
- 1 2 3 4 5 (omcirkel score)

Toelichting / quote:

NAVIGEREN IN DE LUCHTHAVEN MET BAGAGE

13. Het navigeren met bagage in de luchthaven is lastig.

1 2 3 4 5 (omcirkel score)

Toelichting / quote:

REIS NAAR BESTEMMING

14. Mijn bagage beperkt mijn keuze in vervolg transport (OV, taxi, auto).

1 2 3 4 5 (omcirkel score)

Toelichting / quote:

15. Het vervoeren van mijn bagage is fysiek zwaar tijdens de reis naar mijn bestemming.

1 2 3 4 5 (omcirkel score)

Toelichting / quote:

16. Het reizen met bagage levert mij stress op tijdens de reis naar mijn bestemming.

1 2 3 4 5 (omcirkel score)

Toelichting / quote:

17. Het zou makkelijker zijn als mijn bagage al op mijn bestemming stond.

1 2 3 4 5 (omcirkel score)

Toelichting / quote:

AANKOMST OP BESTEMMING

18. Ik ben opgelucht als ik mijn bagage op de bestemming heb.

1 2 3 4 5 (omcirkel score)

Toelichting / quote:

19. Het kost moeite om mijn bagage naar mijn kamer/verblijf te krijgen.

1 2 3 4 5 (omcirkel score)

Toelichting / quote:

ACHTERGRONDVRAGEN

- 20. Met hoeveel handbagagestuks reist u?
- 21. Met hoeveel ruimbagagestuks reist u?
- 22. Wat is het (hoofd)doel van uw reis? (Zakelijk / Vrije tijd of vakantie / Bezoeken van vrienden en/of familie / Terug naar huis)
- 23. Met wat voor gezelschap reist u? (Alleen / Met 1 volwassene / Met 2+ volwassenen / Met kinderen)

24. Hoe reist u nu verder? (Opgehaald / Bus / Trein / Taxi / Eigen auto / Huur auto)

GESPREKSLEIDRAAD – BAG TO REMOTE SERVICE (+ KORT OVER RECLAIM ON DEMAND, PLANE TO TRAIN & END-TO-END)

"Dank je wel voor je tijd! Mag ik je nu een paar korte vragen stellen over een nieuwe service die we aan het onderzoeken zijn?"

1. Voorstellen van het concept

"Stel je voor: je stapt het vliegtuig uit, en in plaats van naar de bagageband te lopen, kun je gewoon direct doorlopen. Je bagage wordt dan automatisch naar je verblijf gebracht – bijvoorbeeld je hotel of huis. Wat is je eerste gedachte daarbij?"

2. Waarde en voordelen

"In welke situaties zou jij dat fijn vinden?"

(Mogelijke vervolgvragen: bij veel bagage? drukke reis? kinderen mee?)

"Welk probleem zou dat voor jou oplossen?"

(Denk aan: Minder stress, tijdwinst, geen gesjouw etc.)

3. Verwachtingen en voorwaarden

"Wat zou zo'n service voor jou goed en betrouwbaar maken?"

"Waar en wanneer zou je deze service boeken?"

4. Bezwaren of twijfels

"Zijn er situaties waarin je het juist níet zou gebruiken?"

(Mogelijke vervolg: privacy? kosten? bezorgdheid over verlies?)

"Wat zou je nodig hebben om erop te vertrouwen dat je bagage veilig aankomt?"

5. Prijs en betaalbereidheid

"Zou je bereid zijn om voor zo'n dienst te betalen?"

"En hoeveel zou het voor jou waard zijn, ongeveer per koffer?"

6. Bestemmingsvoorkeuren

"Waar zou je bagage het liefst naartoe gestuurd hebben?"

(direct op eindbestemming, pick-up point)

"Stel de direct op de eindbestemming is niet mogelijk, wat zijn dan andere mogelijke plekken waar je de bagage op zou willen halen? En zou je de service dan nog willen gebruiken?

7. Extra scenario's en ideeën

"Ik wil graag nog drie mogelijke varianten voorleggen. Kun je zeggen wat je daar wel of niet interessant aan vindt?"

a. Bagage op aanvraag ophalen in de reclaim hal

"Zou je interesse hebben in een service waarbij je je bagage op aanvraag kunt ophalen zodra je geland bent?"

b. Bagage ophalen op het station

i "Zou je interesse hebben in een service waarbij je bagage zou kunnen ophalen op het treinstation hier?

ii "Zou je interesse hebben in een service waarbij je de bagage zou kunnen ophalen bij een station dichter bij je bestemming?"

c. Bagage afgeven bij vertrekpunt (bv. thuis of hotel) en terugzien op je eindbestemming

"Zou je interesse hebben in een service waarbij je je bagage al bij vertrek afgeeft, en het dan weer terugziet op je eindbestemming? Wat maakt dat je wel/geen interesse hebt?

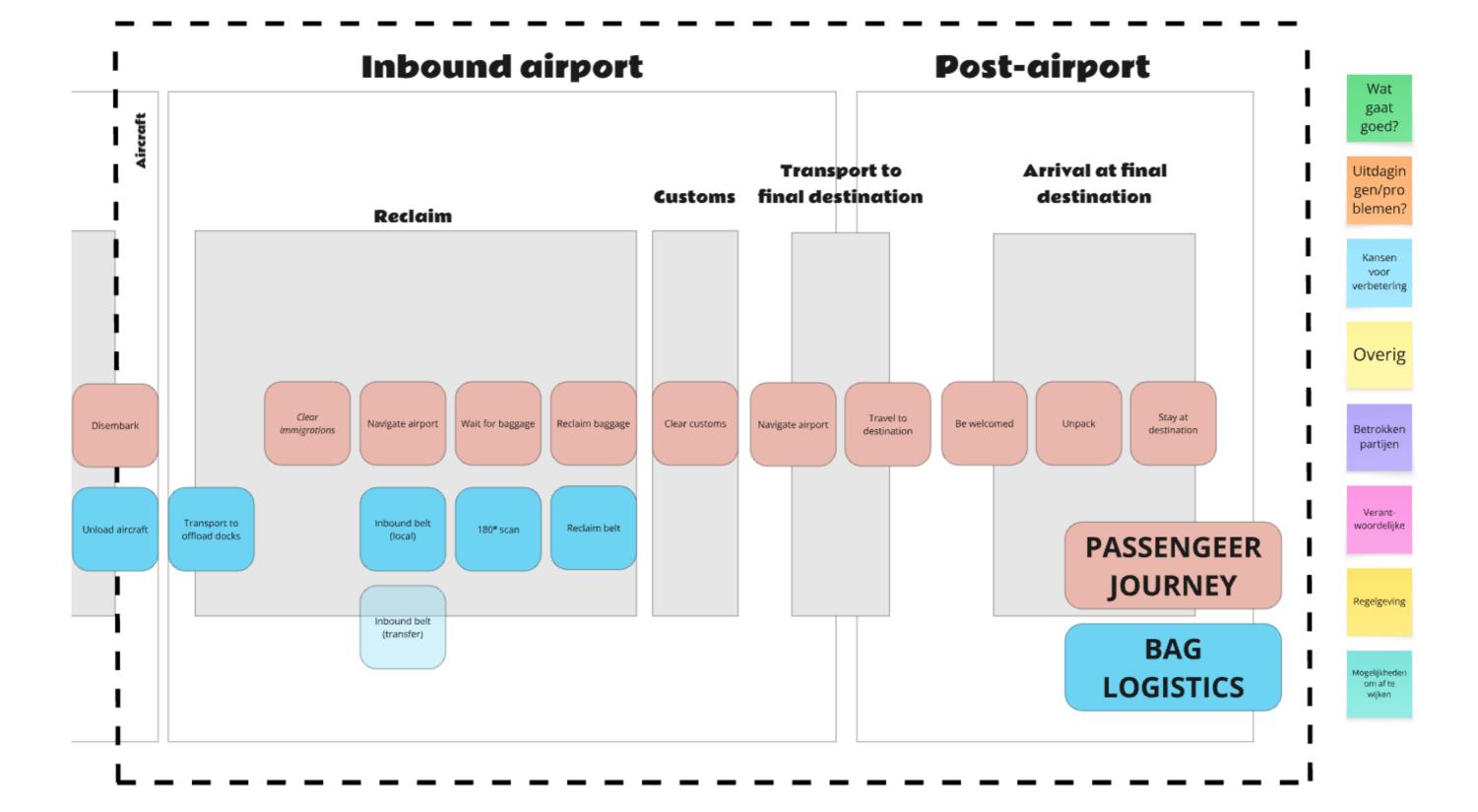
Appendix C: Contextual enquiry - signed interview form

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Appendix E: Expert interview Miro set-up and examples

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Appendix F: Case studies

Case Study: AirPortr (Switserland) (Simplify Travel, 2025)

AirPortr, partnered with British Airways, represents one of the earliest large-scale implementations of a Bag to Remote model within Europe. The service allowed passengers to have their baggage collected from



their home, hotel, or office and checked in directly to their flight, eliminating the need to bring luggage to the airport. Upon arrival, passengers could also opt to have their luggage delivered directly to their accommodation or certain areas (Airportr, 2025). ヤマト運輸

Case Study: Yamato Transport's Takkyubin (Japan)

The Japanese model of Takkyubin (what translates to shipping/fast delivery at home), offered by Yamato Transport, stands as perhaps the most mature and culturally embedded example of aircraft-to-remote baggage services. While the service has long existed for domestic shipments, its integration with air travel has steadily grown. Passengers flying into or out of Japanese airports (particularly Narita, Haneda, and Kansai International) and have their luggage forwarded to or from their accommodations after retrieving their bags from the reclaim belt.

What distinguishes Takkyubin is the scale and systemic normalization of the service. Yamato Transport's brand is embedded into the broader travel ecosystem, with hotels, convenience stores, and train stations functioning as both pick-up and drop-off nodes. The logistics backbone is built around reliability, punctuality, and a high-trust relationship with customers, enabling passengers to confidently separate themselves from their luggage without concerns over loss or delay. In a post-arrival context, the service allows for bags to be delivered after the reclaim belt to the final destination (YAMATO TRANSPORT, n.d.).

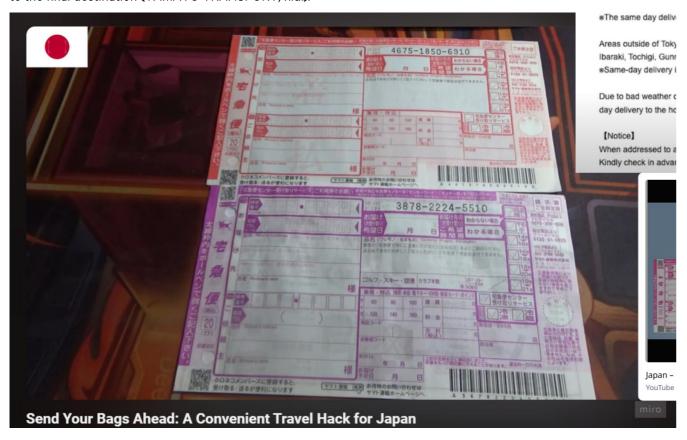


Figure 5: Fill-in format (screenshot taken from Simplify Travel (2025))



Figure 6: Check-in counter for Takkyubin at Narita airport (screenshot taken from Simplify Travel (2025))

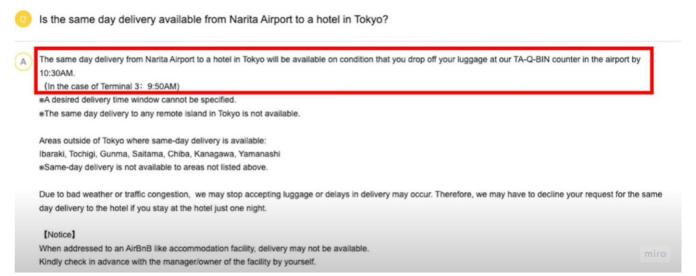


Figure 7: FAQ for same day delivery possibility



Case Study: Bagpoint (Netherlands)

The Dutch service Bagpoint, developed as an independent baggage logistics provider, seeks to decentralize the baggage journey by offering pick-up and delivery services between a passenger's location and the airport. Operating in collaboration with international airlines and utilizing its own technology platform. While Bagpoint has demonstrated technical feasibility and successful airline partnerships (such as with Singapore Airlines) the full integration into airport systems remains context-dependent and varies per location. (Bagpoint, n.d.)

mybaggage

Case-study myBaggage (UK)

MyBaggage is a UK-based baggage delivery service that provides door-to-door transport of luggage across the UK, Europe, and to over 200 international destinations. Originally catering to students moving between home and university, the service has expanded to leisure and business travellers' seeking to avoid the hassle of carrying luggage through airports.

MyBaggage operates entirely off-airport (end-to-end), relying on partnerships with major courier networks such as DHL and DPD. Passengers schedule pick-up from a home or accommodation address before traveling, and their luggage is delivered directly to the destination, bypassing the need to check it in or retrieve it at the airport. This model shifts baggage handling into the pre-trip logistics domain, requiring travelers to plan ahead.

What distinguishes MyBaggage is its focus on convenience and cost-effectiveness rather than real-time integration with the passenger journey. Transparent online pricing, real-time tracking, and optional insurance position it as a reliable alternative to airline excess baggage fees.

While MyBaggage does not integrate with airport systems or same-day delivery models, it illustrates how remote baggage services can scale through digital booking platforms and existing courier infrastructure. The service highlights a different angle of Bag to Remote concepts: shifting baggage entirely outside of the airport flow rather than embedding it within the post-arrival passenger journey. (mybaggage, n.d.)

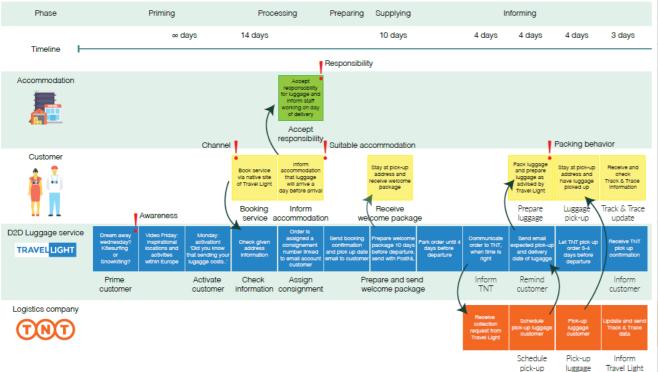


Figure 9: Travel Light service blueprint (Blaauw, 2018)

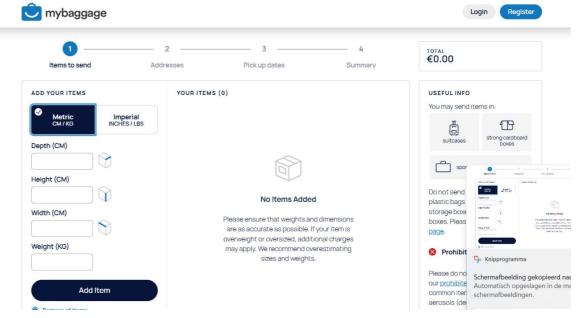


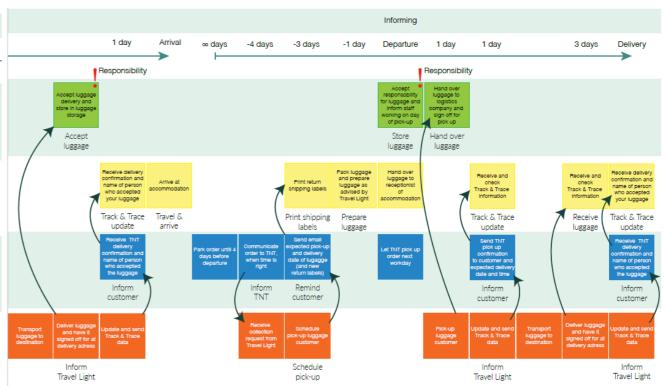
Figure 8: Dimensions asked for the package transport (mybaggage, 2025)

Case Study: Travel Light (Netherlands)



The Dutch initiative *Travel Light*, aimed to extend the aircraft-to-destination concept within the Netherlands. This service allowed for outbound and inbound baggage logistics: passengers departing from the Netherlands could have their luggage collected and checked in from home. From the masters thesis of Blaauw (2018) the Bag-to-remote back-end actions were partly based on the Travel Light blueprint, as well as direct feedback from the founders of travel light, my internship supervisor from Studio Calico.

While Travel Light showed high potential, the pilot remained limited in scope, in part due to the complex regulatory environment around baggage handling and airline cooperation, but ultimately due to the COVID-19 pandemic. Nevertheless, the initiative demonstrated that such a system is technically feasible and can be layered onto existing national logistics infrastructure, effectively decoupling baggage processing from the airport itself.



Appendix G: POI data table and data process

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Appendix H: Ideation set-up

Step 1 – Define Design Clusters and Journey Phases: The foundation is a three-phase structure of the bag-to-remote passenger journey. Booking phase: from booking the service until the baggage is included in the service. Transit phase: the phase during which passenger and baggage travel separately. Delivery phase: the moment the baggage is received at the final destination. Within each phase, three design goals were central. Trust: building confidence. Integration: seamless integration into existing systems and travel experience. Relief: providing mental and physical ease.

Step 2 – Formulate the 9 How-To Questions: For each combination of phase \times design goal, a How-To question was formulated to guide ideation:

- 1. How can the Bag-to-Remote service gain trust during booking?
- 2. How can the Bag-to-Remote service be integrated into the existing booking process?
- 3. How can the Bag-to-Remote service provide relief during the booking process?
- 4. How can the Bag-to-Remote service build trust while the passenger and luggage are in transit?
- 5. How can the Bag-to-Remote service be integrated into the passenger's journey during transit?
- 6. How can the Bag-to-Remote service offer relief during the transit phase?
- 7. How can the Bag-to-Remote service gain trust at the moment of delivery?
- 8. How can the Bag-to-Remote service be integrated into the context of the arrival location (e.g., hotel, home)?
- 9. How can the Bag-to-Remote service offer a feeling of relief when the luggage is (almost) delivered?

Step 3 – Engage Value-Driven Peers: To ensure diversity in passenger needs, six peers were involved, each representing a specific need state they identified with. These need states served as lenses to think from different behaviours, sensitivities, and expectations (see Appendix A)

- Efficiency
- Control
- Support
- Comfort
- Certainty
- Flexibility

Step 4 – Start of the How-Tos Brainstorm: The brainstorm began with an explanation of the problem, the three phases of the bag-to-remote journey, and the design goals.

Step 5 – Free Associative Brainstorm per How-To: Each How-To question was explored through open brainstorming sessions with the peers on Miro, who responded from their value perspective. These associations included emotions, preferences, examples, concerns, or triggers relevant to the specific journey phase. This was complemented with idea generation prompts using ChatGPT.

Step 6 – Clustering into Meaningful Design Themes: The raw input was clustered into themes—repeating ideas that proved critical for the design. These themes served as design principles per How-To. Further refinement of these clusters was supported using ChatGPT to compare and sharpen perspectives.

Step 7 – Designing Service Touchpoints: Multiple concrete service touchpoints were generated for each How-To question, based on the clustered themes. These touchpoints are tangible moments or functions that contribute to achieving trust, integration, or relief in the user journey.

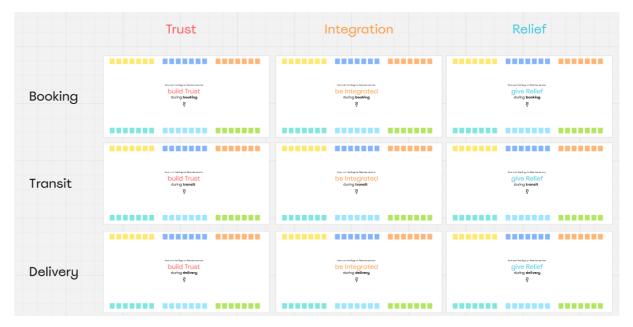


Figure 10: Overview of the different How-tos on Miro

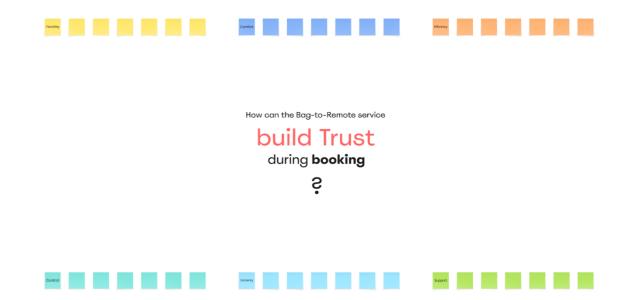
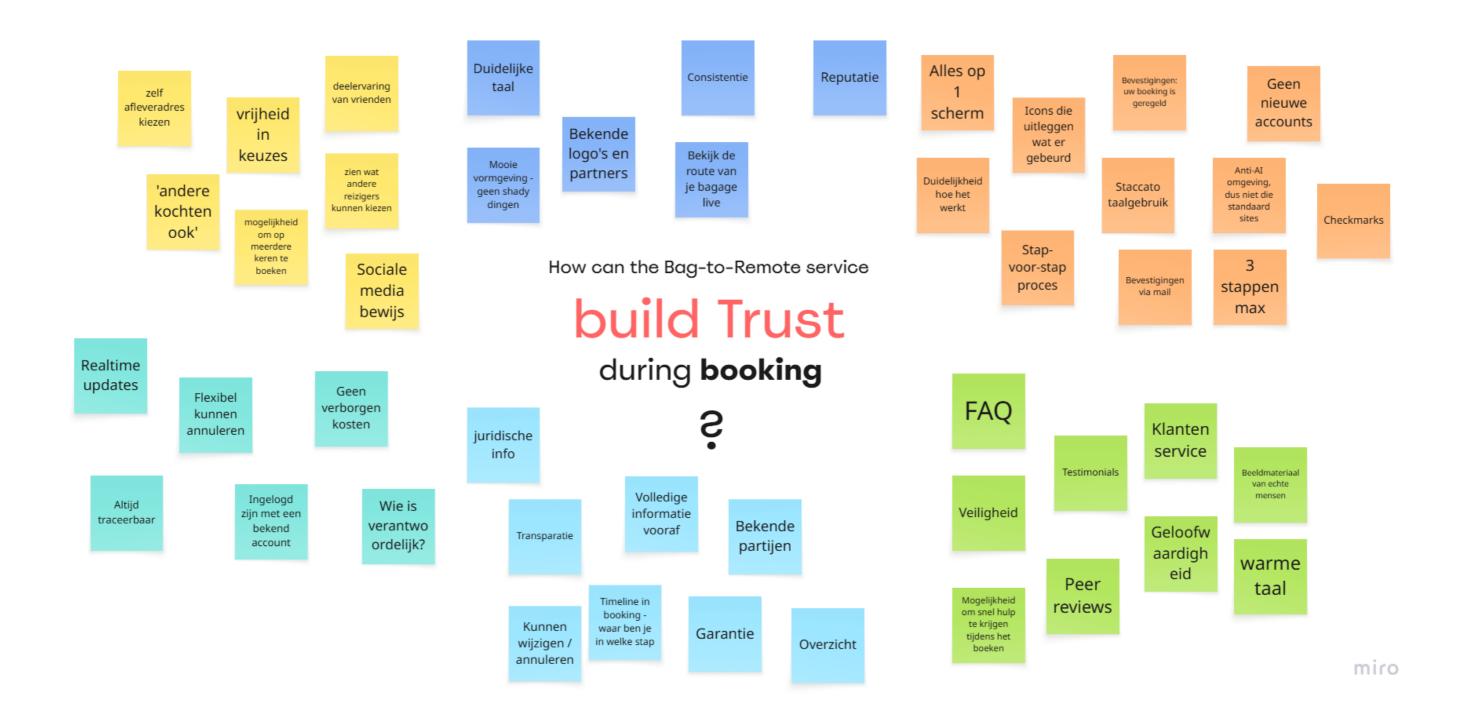


Figure 11: Appendix Figure 2: How-To 1 on Miro with post-it notes of the six different needstates for the six peers.

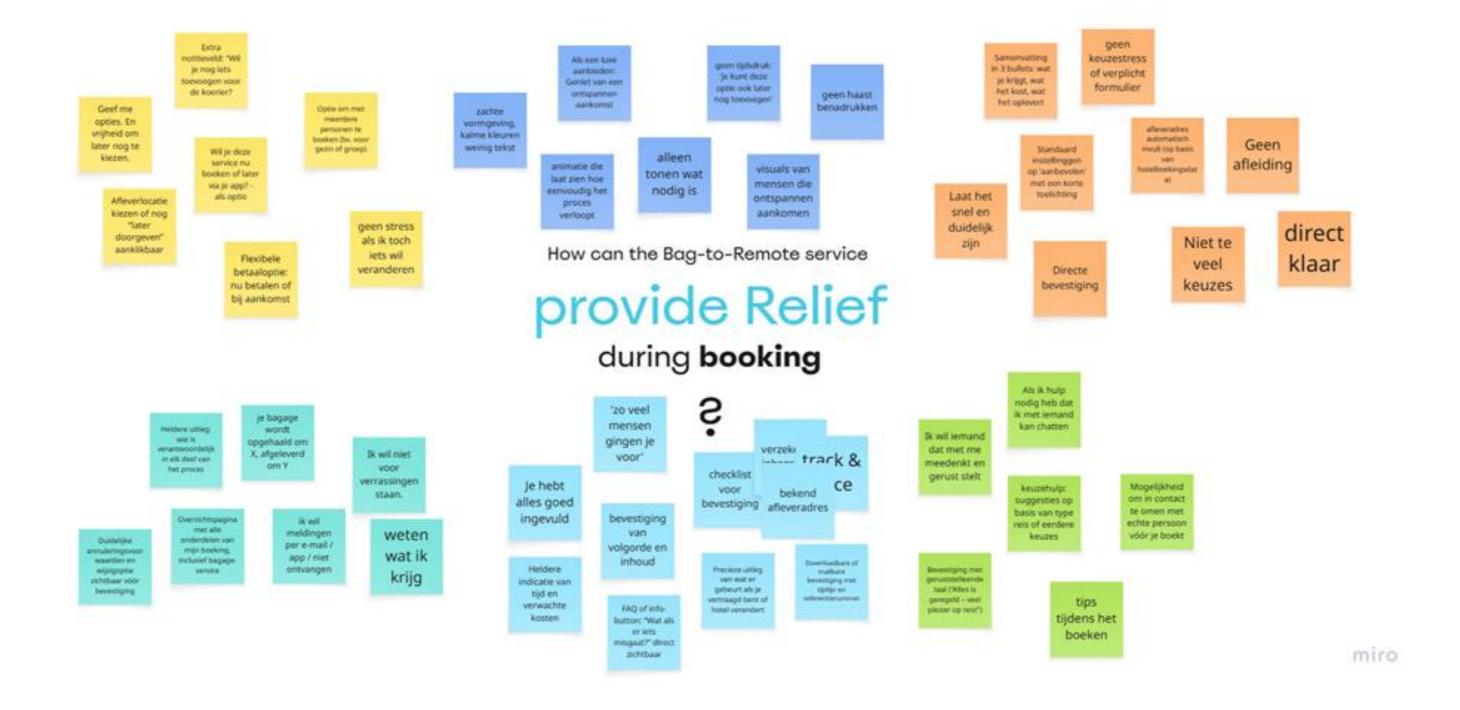
15

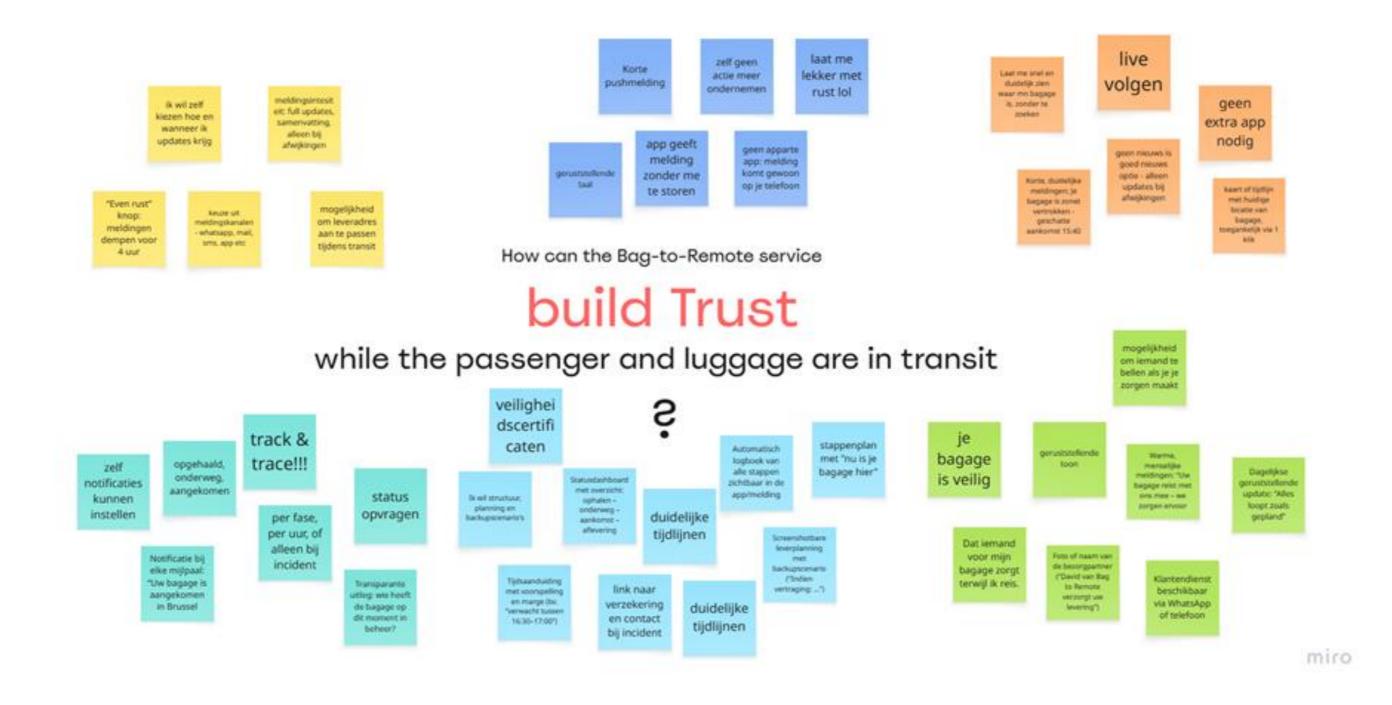
Appendix I: Results ideation How-Tos





miro

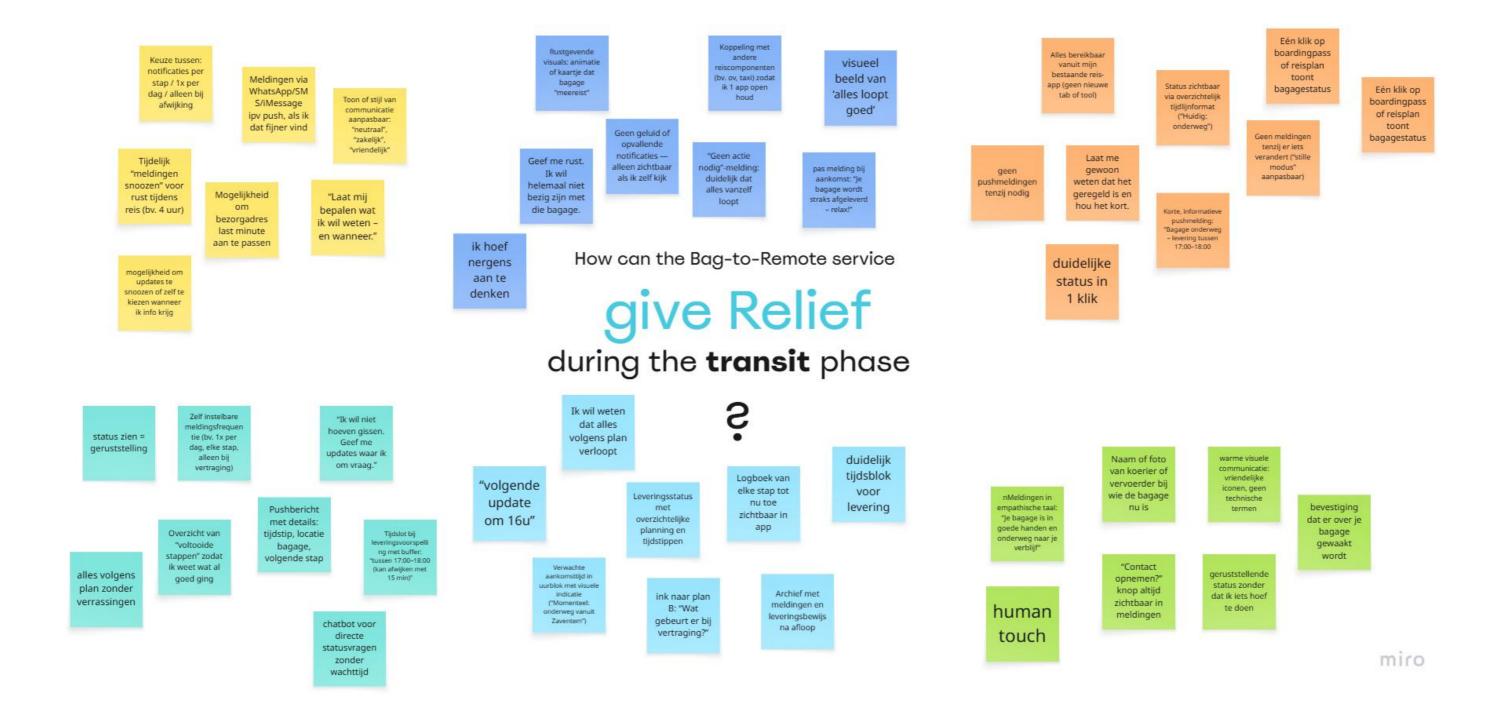


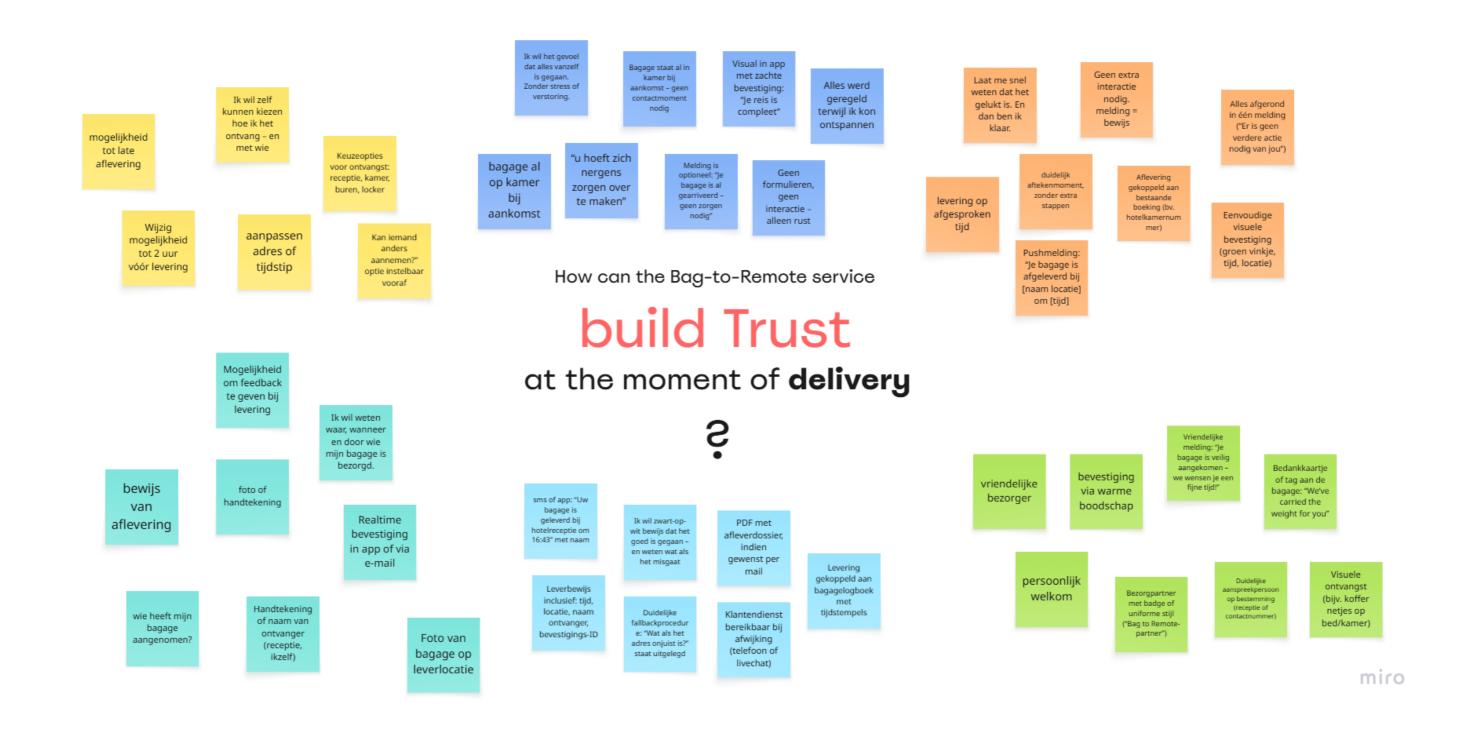




into the passenger's journey during transit?



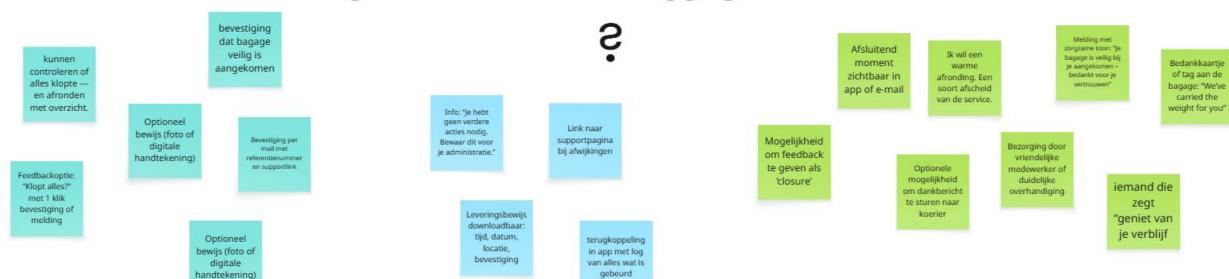






miro





handtekening)

miro

Appendix J: Interview questions passenger consultation https://forms.office.com/e/DcPCxW99MR English: EN - INTERVIEW FORM - PASSENGER BAGGAGE DESIGN RESEARCH Goodmorning / Goodafternoon I'm conducting research in collaboration with AXX airport and TU Delft on how passengers experience the baggage process after arriving at the airport. Would you have a few minutes to answer a short set of questions? It's completely anonymous and voluntary, and you're free to skip or stop at any time. When you submit this form, it will not automatically collect your details like name and email address unless you provide it yourself. 1.Can you recall your journey here from AXX Airport to your final destination in AXX's country? Yes No 2. How did you experience bringing your luggage with you after arriving at AXX airport? Why was it a good or bad experience? Enter your answer 3. What was your final destination here in AXX country? Accommodation with reception (hotel) Accommodation without reception (Airbnb) 4. What was your purpose of travel to AXX country? **Business** Leisure VFR Returning home 5. How many pieces of hand baggage are you traveling with? 2 3 5 Other 6. How many pieces of checked baggage are you traveling with?

0

1

2
3
4
5
Other
7.What is your travel company?
Alone
With 1 adult
With 2+ adults
With children (+ an adult)
8. How did you continue your journey after the baggage reclaim here?
Picked up
Bus
Train
Taxi
Own car
Rental car
Other
9.BAG TO REMOTE SERVICE CONCEPT
Imagine this: for your next trip to AXX airport, you get off the plane and instead of going to the baggage belt, you can just walk straight out. Your luggage will automatically be delivered to your accommodation – for example, your hotel or home. What is your first reaction to that?
Enter your answer
10.In which situation would you definitely use this service?
If I have a lot of luggage
If I'm traveling with children or elderly
If my hotel is far away
Never
Other
11.What would you need to trust this service?
A known partner (e.g. DHL, hotel)
A tracking system via app/website
Insurance in case of loss

Examples

Other

12. Wich benefit would be big enough to convince you to book this baggage delivery service? Not having to drag suitcases Faster and more relaxed travel to the destination No worries about luggage in public transport or taxi Being able to visit the city immediately without waiting for the check-in of the hotel 13. What would be a 'reasonable' price to pay for this service? Less than €10 €10-€30 €30-€50 €50-€70 >€70 I wouldn't pay 14. Who would you prefer to be your main point of contact for this service? **AXX** airport The airline your flying with Your hotel or accommodation Doesn't matter to me Other 15. What would be the most convenient booking option? Together with your flight Together with your hotel Via the airport upon arrival Book separately Other 16. How important is it to you to track your luggage live for an extra fee? 17.Why? Enter your answer 18. Through which channel would you prefer to receive luggage updates? WhatsApp SMS Email App (which app?) Other 19. Where would you prefer your luggage to be delivered? In my room At the hotel reception

Other 20.What would be the most reassuring proof for you that your luggage has been delivered correctly? Notification Photo Nothing needed 21. Would you prefer to receive your luggage (A) at a pre-announced time or (B) as soon as possible (even if you're not at the hotel yet)? Α В doenst matter 22.Why? Enter your answer 23.If your flight would arrive at 9:00, what is the latest time you'd want your luggage delivered to your room? ASAP By 18h By 19h By 20h By 21h By 22h Other 24. What would discourage you from using this service? Fear of loss/theft Uncertainty about delivery time Price No direct control over my baggage during the last part of the journey Other 25. How could that be resolved so that you would still consider booking the service? Enter your answer 26.Other remarks Enter your answer

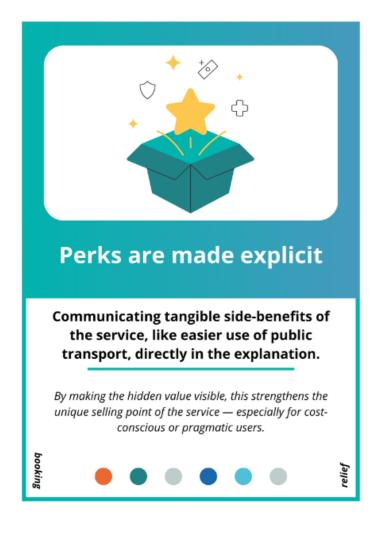
In a locker at the hotel

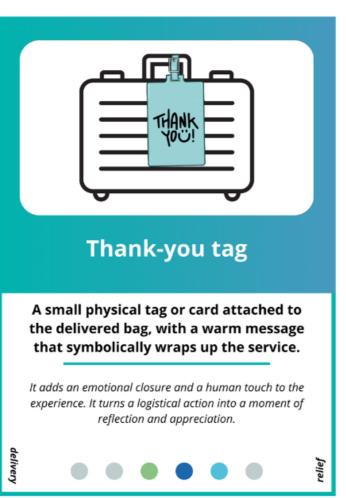
Doesn't matter

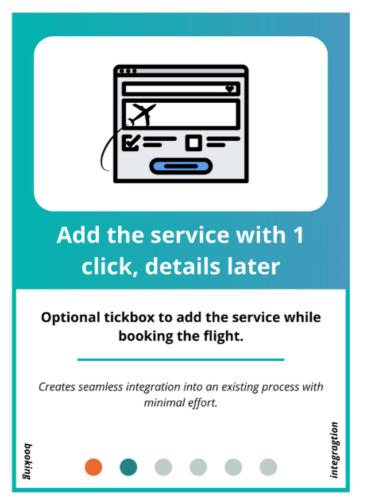
Appendix K: Service Design Annotation Cards



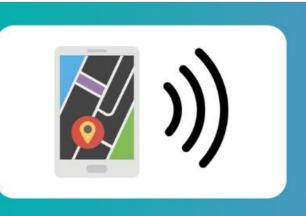










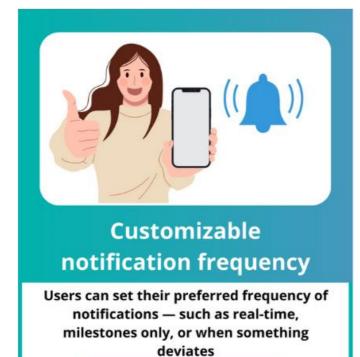


Optional live tracking

Users can choose whether or not to see the real-time location and status of their luggage throughout the delivery process.

It respects different information preferences: some users feel reassured by constant visibility, while others would find it unneccesairy. This flexibility enhances both trust and comfort by giving control without pressure.

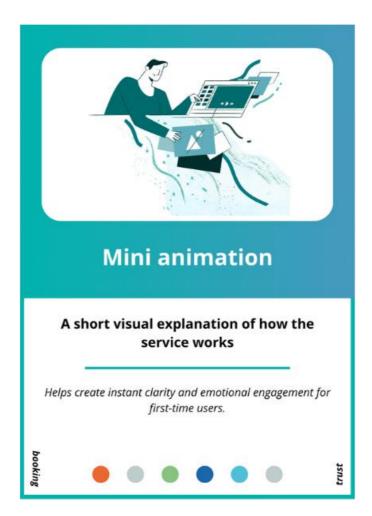


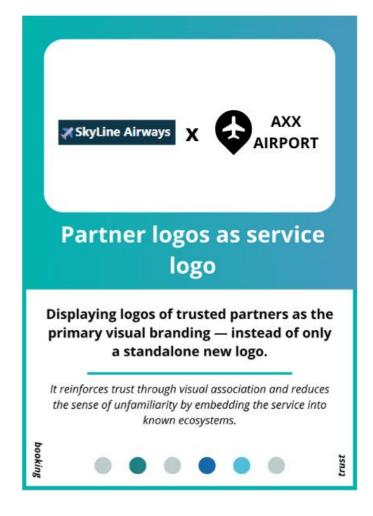


Gives users control over their information experience, and

allows personalization. It enhances trust by showing the

system adapts to their communication style.





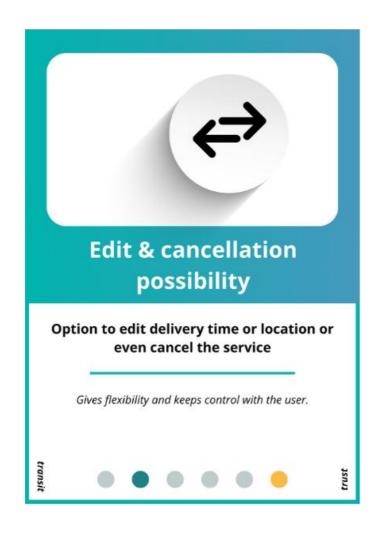


baggage reclaim area

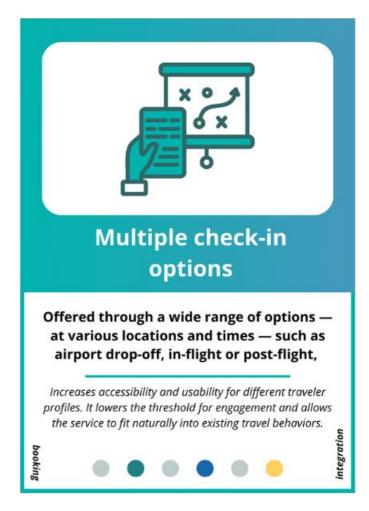
A big, clearly visible sticker or ad panel placed near baggage belts that introduces the service to passengers as they wait for their luggage.

Captures attention at a highly relevant moment — when passengers are still physically tied to their baggage and can immediately relate to the value of letting go. It triggers awareness, even for those who didn't book in advance.



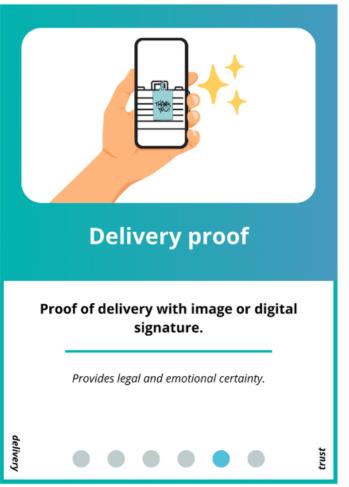


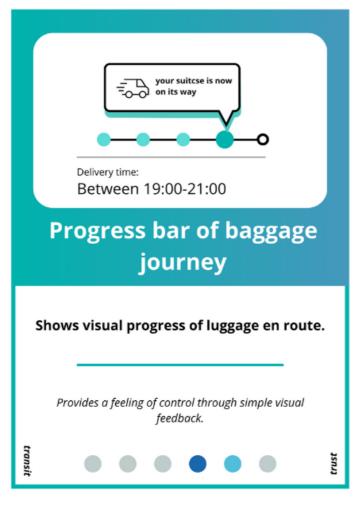












Appendix L: Digital mock-up and passenger journey

Digital mock-ups

https://claude.ai/public/artifacts/64fe5fe7-370a-4e47-ba6f-5422ceb8dc6d

Passenger journey: next page

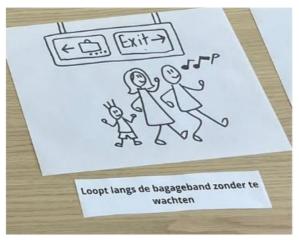




















reading direction

Figure 12: Concept passenger bag-to-remote journey passenger evaluation session.

Appendix M: Evaluation set-up

Step 1 – Define Key Journey Phases and Design Goals:

The evaluation sessions were structured around the three main phases of the Bag-to-Remote passenger journey:

- Booking: from arranging the service until baggage is included in the system.
- Transit: the phase in which passenger and baggage travel separately.
- **Delivery:** the moment the baggage arrives at the final destination.

Materials used:

- iPad to display questions, passenger types, and service annotation cards
- Sticky notes for marking and clustering feedback
- Pen for participants to annotate and add comments

Step 2 – Introduce Passenger Need States:

To ensure the sessions captured a diverse range of travel behaviours and sensitivities, participants were first introduced to the six predefined passenger need states, see page 3 & 4 of the appendix.

Participants were asked to select the two types from the iPad that best reflected how they typically travel and what they value most during a journey. This self-assessment created a personalized lens through which each participant evaluated the service, anchoring their feedback in their own psychological needs and travel mindset.

Step 3 – Contextualize the Concept Through Narrative:

Each session followed a *concept walkthrough* format. A narrated storyline, supported by the concept passenger journey and the digital mock-ups, guided participants through the proposed Bag-to-Remote experience. The narrative placed participants within a realistic scenario, showing the Booking, Transit, and Delivery phases as they would unfold in a real journey. This method allowed participants to project their own expectations and values onto the service.

Step 4 – Engage With Service Touchpoints and Visual Tools:

After the walkthrough, participants were invited to reflect on the service elements using annotated concept cards. These cards represented individual service touchpoints and were presented alongside the digital mock-ups. This stage was designed to trigger a focused discussion about which moments in the service journey built trust, offered relief, or achieved seamless integration, and how these moments resonated with their personal travel values (as defined by their chosen need states).



Figure 13: Impression of feedback collection

STEPS SHOWN TO THE INTERVIEWEE

Step 1: Read All 6 Passenger Types and Choose the 2 That Fit You Best (3 min)

Start by reading through the six different passenger types. Each type reflects a unique travel mindset.

As you read, ask yourself:

- Do I recognize parts of myself in this traveler?
- Does this feel like how I usually behave or think when I travel?

Once you've read them all, choose the **two** passenger types that best reflect you — the way you usually travel, what you find important.

There's **no right or wrong**; just go with what feels familiar.

You'll use these two types in the next step to assess which service elements from the Bag to Remote journey would actually provide value to a traveler like you.

Step 3: Evaluate the Service Elements (10 min)

Now it's time to take a closer look at specific elements of the Bag to Remote service — the concept where your luggage is delivered straight to your accommodation after landing, so you can walk right out of the airport.

Each service element represents a potential part of this experience. It could be something that happens during booking, transit, or delivery. Some features are practical, others are emotional or digital — all of them are still open for feedback.

You will help us explore:

- Which elements are valuable enough to include in the final version of this service?
- And more importantly: do they add real value?

You'll do this by giving feedback based on the two passenger types you selected earlier. You're stepping into their shoes — judging each element by what you personally would think, need, expect, or appreciate.

Step 2: Walk Through the Journey (15 min)

In this part, we will guide you through a short story that imagines what it would be like to use the Bag-to-Remote service on a real trip. This is the concept where your luggage is delivered straight to your accommodation after landing, so you can leave the airport hands-free.

The story will take you through three moments of the journey: Booking, Transit, and Delivery. You'll see and hear what the service might look and feel like, supported by images and mock-ups on the iPad.

As you follow the storyline, try to picture yourself travelling as the passenger you selected earlier. Think about what you would expect, how you would feel, and what would matter most to you in those situations.

You don't need to give feedback yet — just listen, look at the visuals, and imagine the experience step by step. After the walkthrough, we will dive deeper into the individual elements together.

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Figure 14: Overview of which feature was shown to which passenger need state















Appendix N: Evaluation results

This is good! (a perk) I'm unsure... (a question or doubt) This could be improved! (a suggestion or concern)



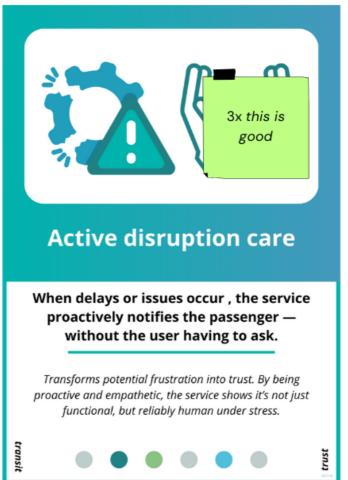
transport, directly in the explanation.

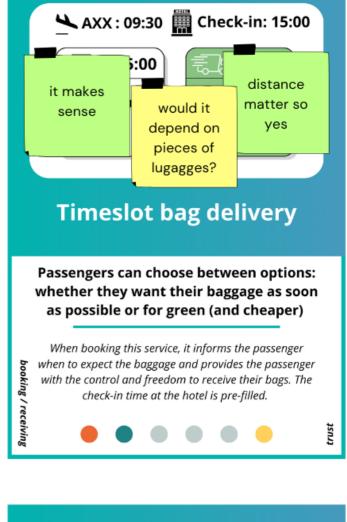
By making the hidden value visible, this strengthens the

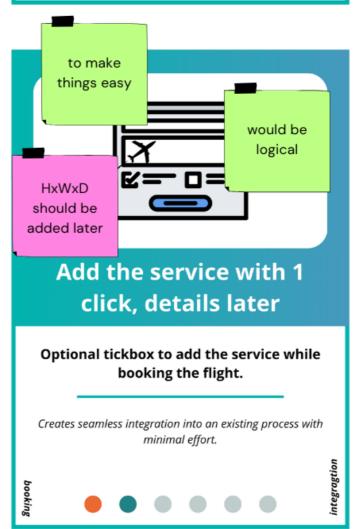
unique selling point of the service — especially for cost-

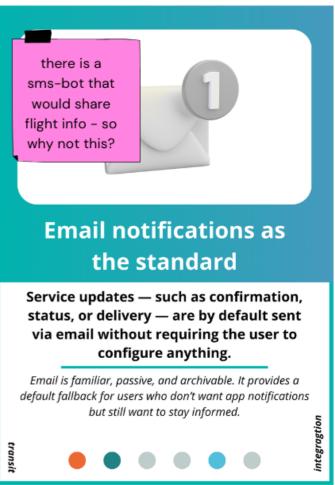
conscious or pragmatic users.

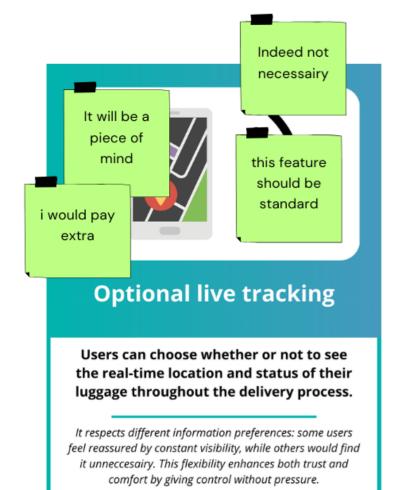


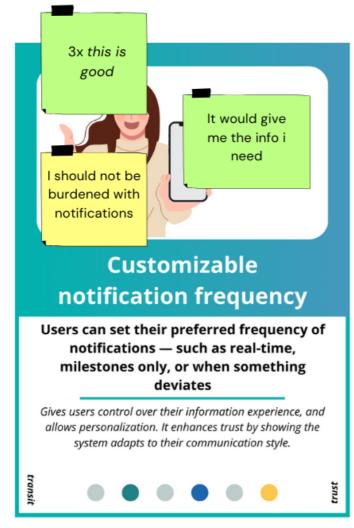


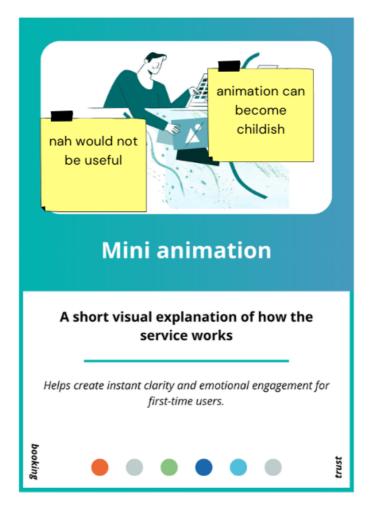


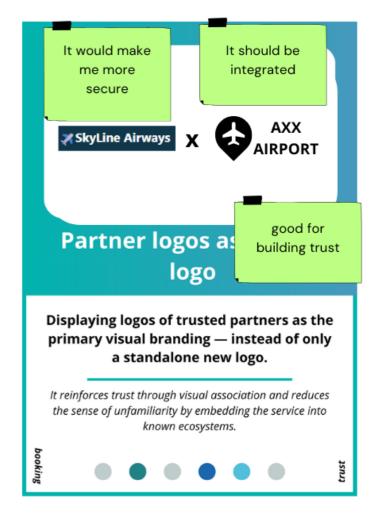


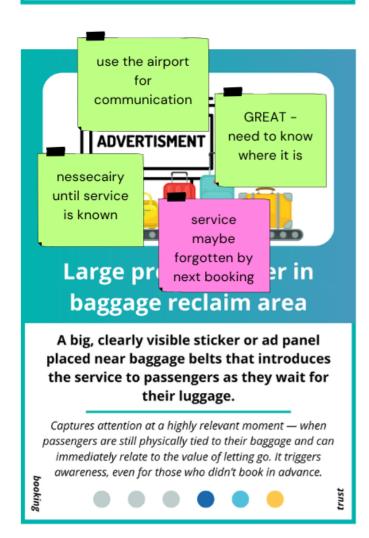




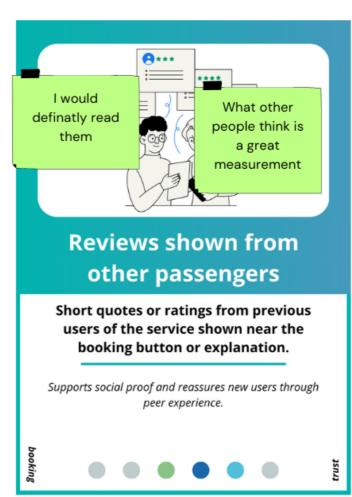


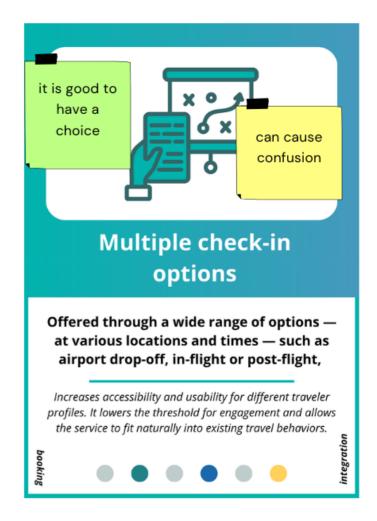








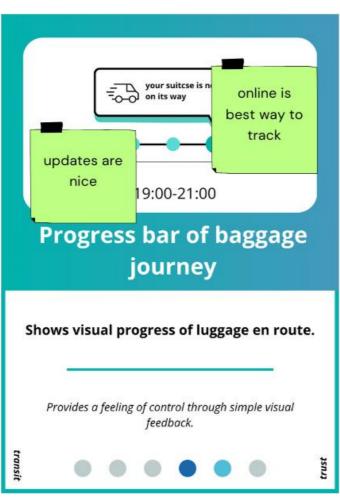












From the passenger evaluation, two clear directions emerged for the Bag-to-Remote concept. First, certain communication elements such as the physical flyer and the accompanying animation were deemed unnecessary in their current form. Passengers stressed that any animation should convey the service in a real-life context and with high production quality to build trust. As this was not feasible within the conceptual stage and practical skills of the research, the animation and flyer were dropped from the proposed journey.

Secondly, the evaluation highlighted the need for multiple opt-in moments throughout the travel chain. Not every passenger is able or willing to book the service at the same time as their flight. A modular system that allows activation booking, pre-departure during preparation, physical check-in, or even post-arrival reflects the diverse planning behaviours observed. Alongside this, passengers strongly requested a single, centralised point of reference for all service information, to avoid the experience of being sent "from pillar to post" as one participant phrased it when describing a disrupted flight scenario with split responsibilities between airline and booking platform.

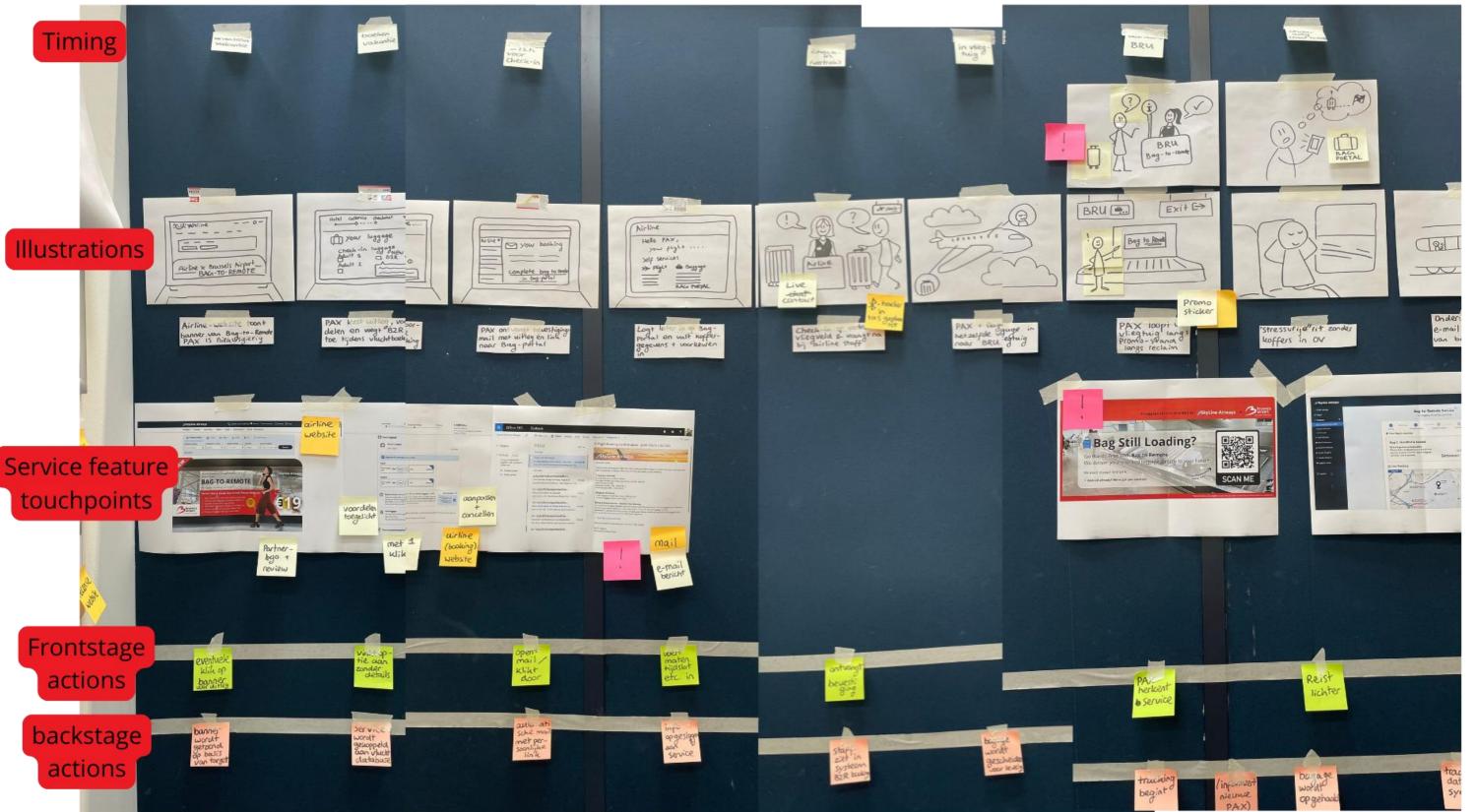
These findings reinforced the modular nature of the concept and shaped the feature touchpoints that survived the evaluation: integration into existing booking flows, a one-click opt-in with deferred payment, a single bag-portal as reference point, and a visible entry point at the baggage reclaim zone. Together, they kept the service intentionally openended while anchoring it to the criteria of trust, integration, and relief.

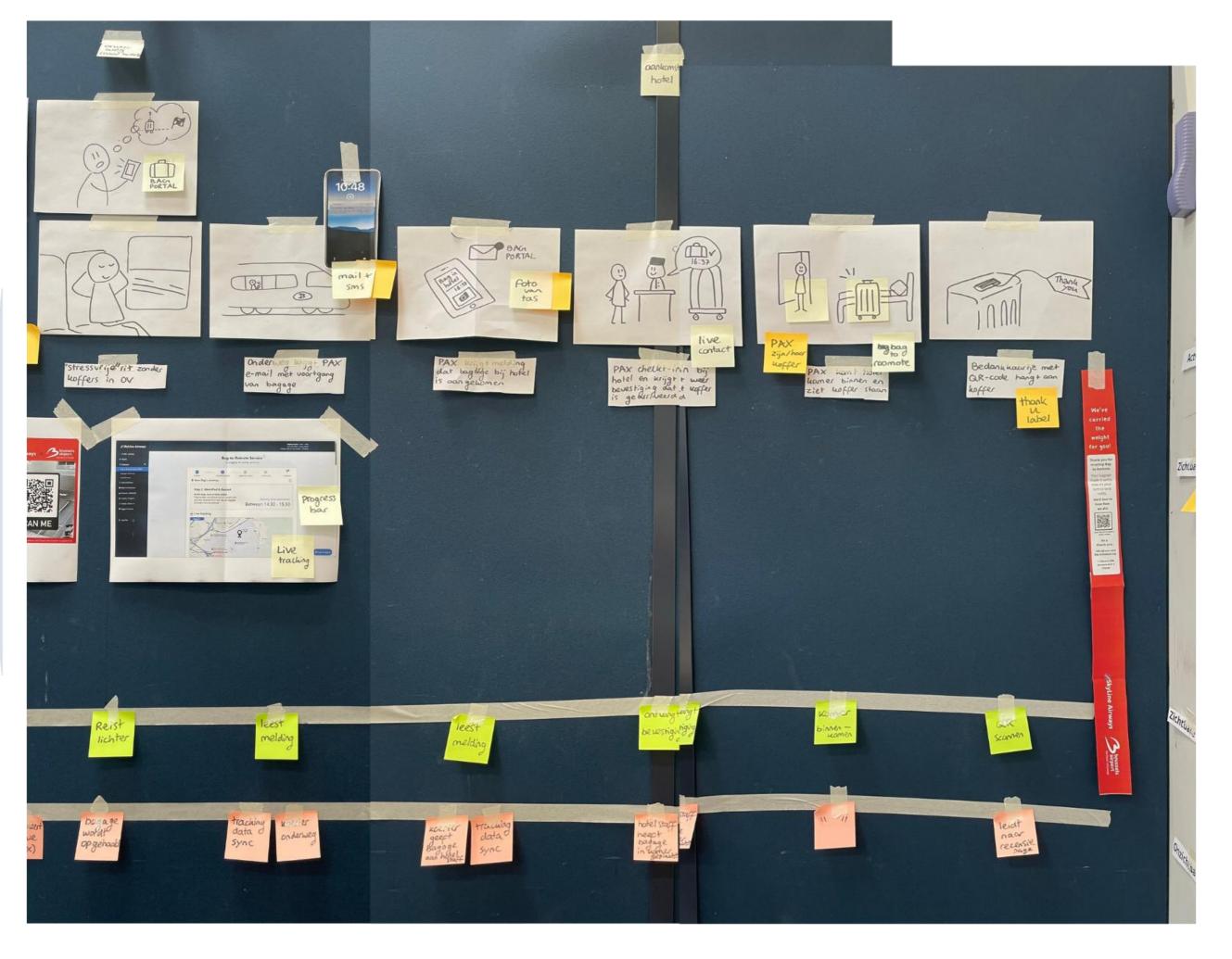
Appendix O: Concept journey from expert session





reading direction

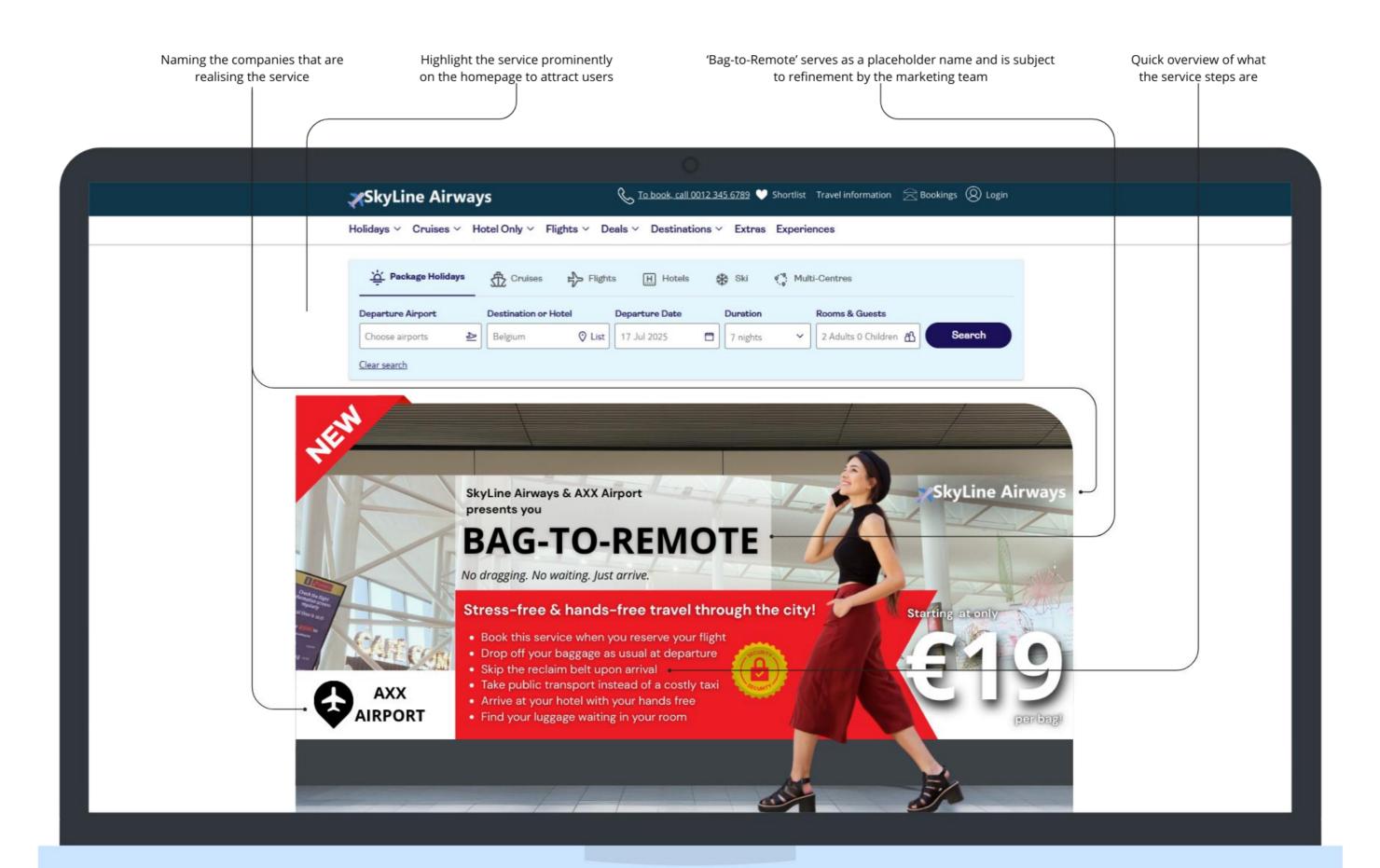




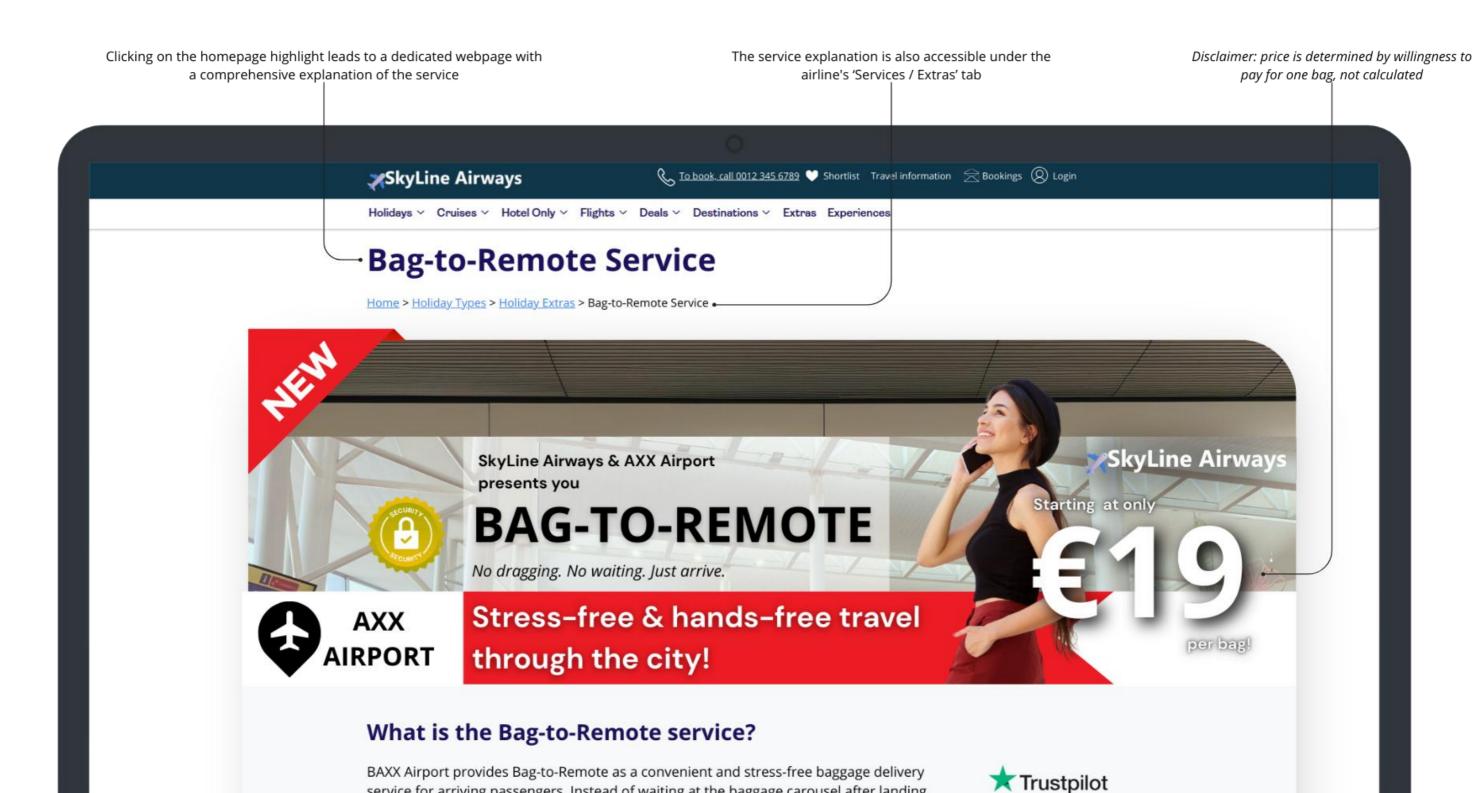
Appendix P: Service feature touchpoints mock-ups

See next pages.

The images and graphic elements in these designs are partly sourced from Canva Pro. They have been used in accordance with Canva's licensing terms and incorporated into an original design.



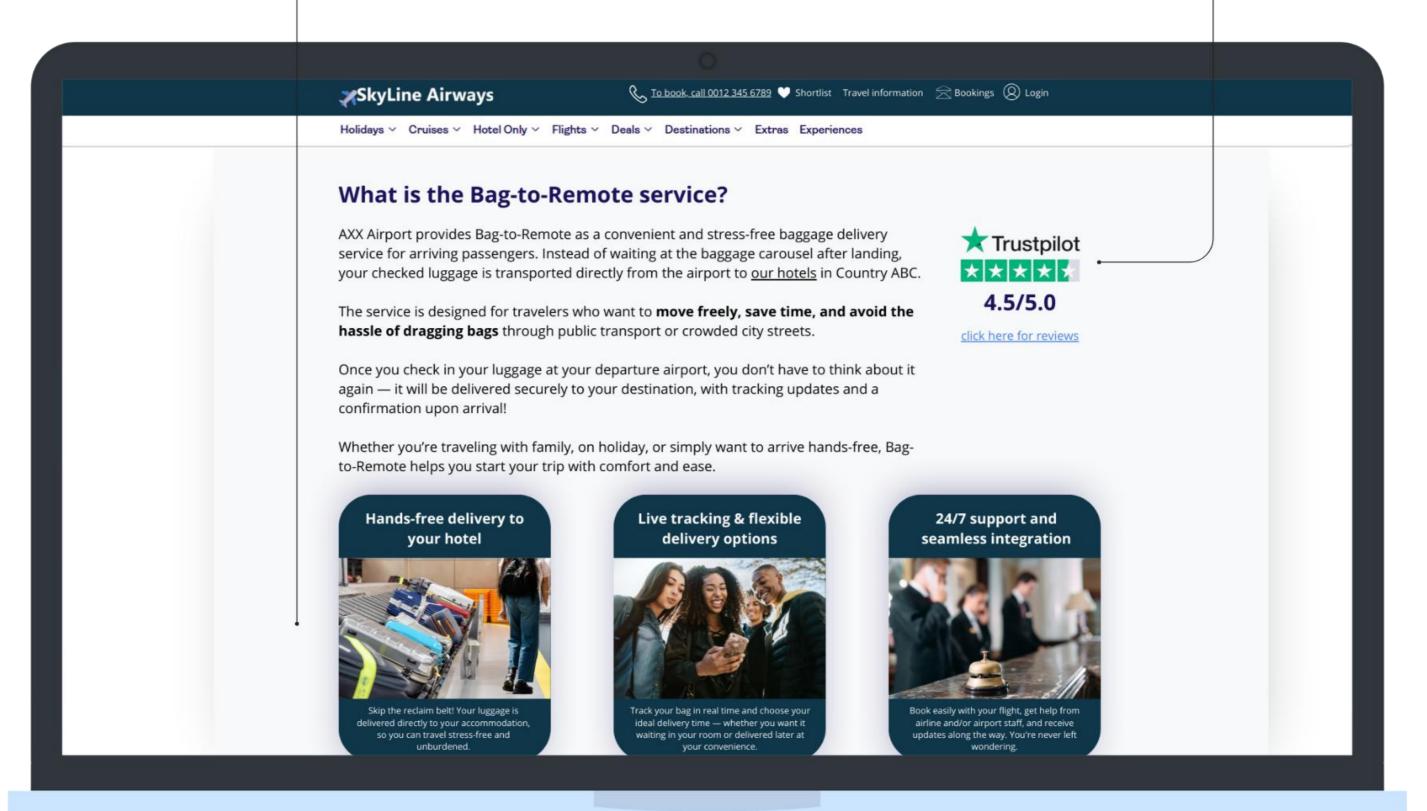


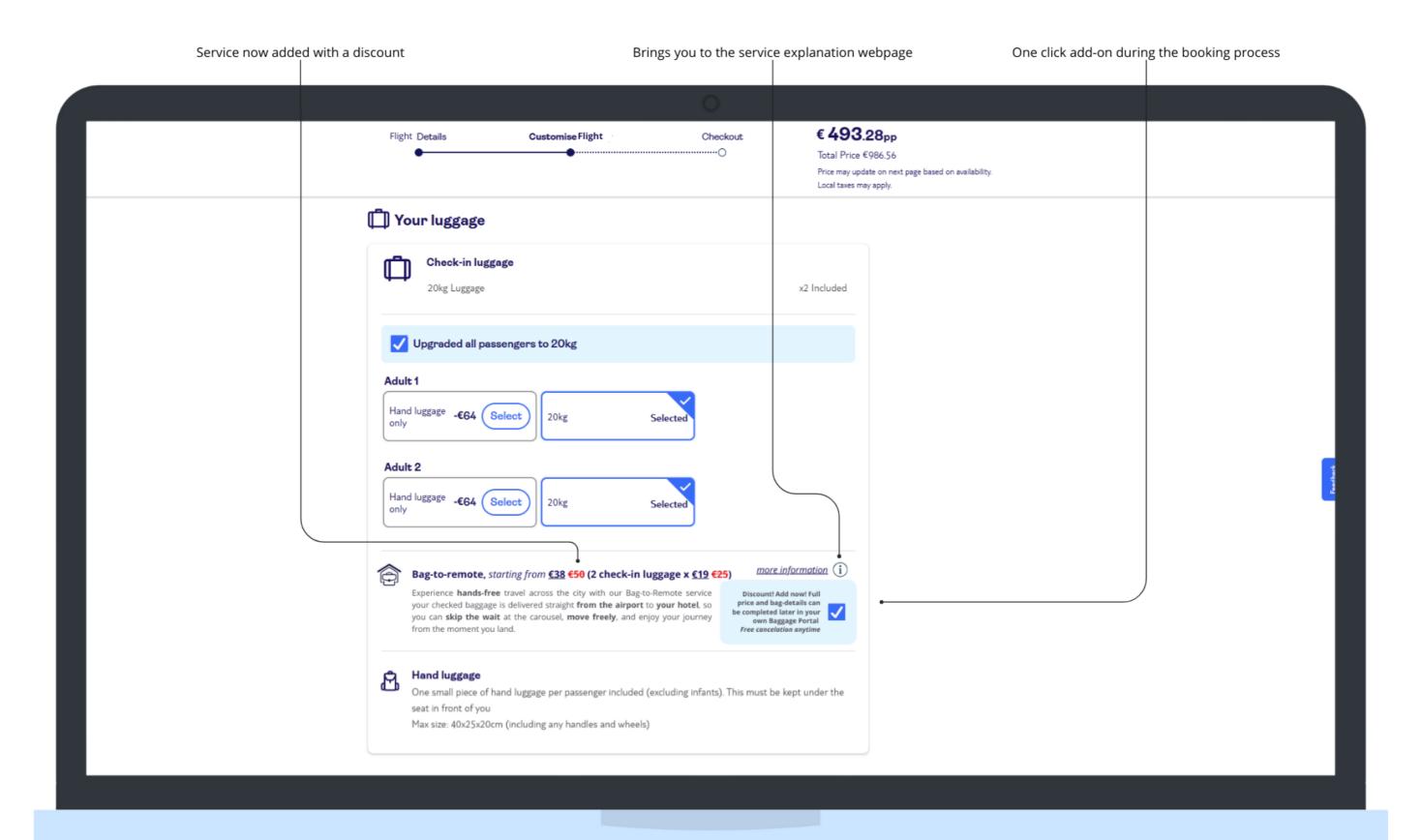


service for arriving passengers. Instead of waiting at the baggage carousel after landing, your checked luggage is transported directly from the airport to <u>our hotels</u> in country ABC.

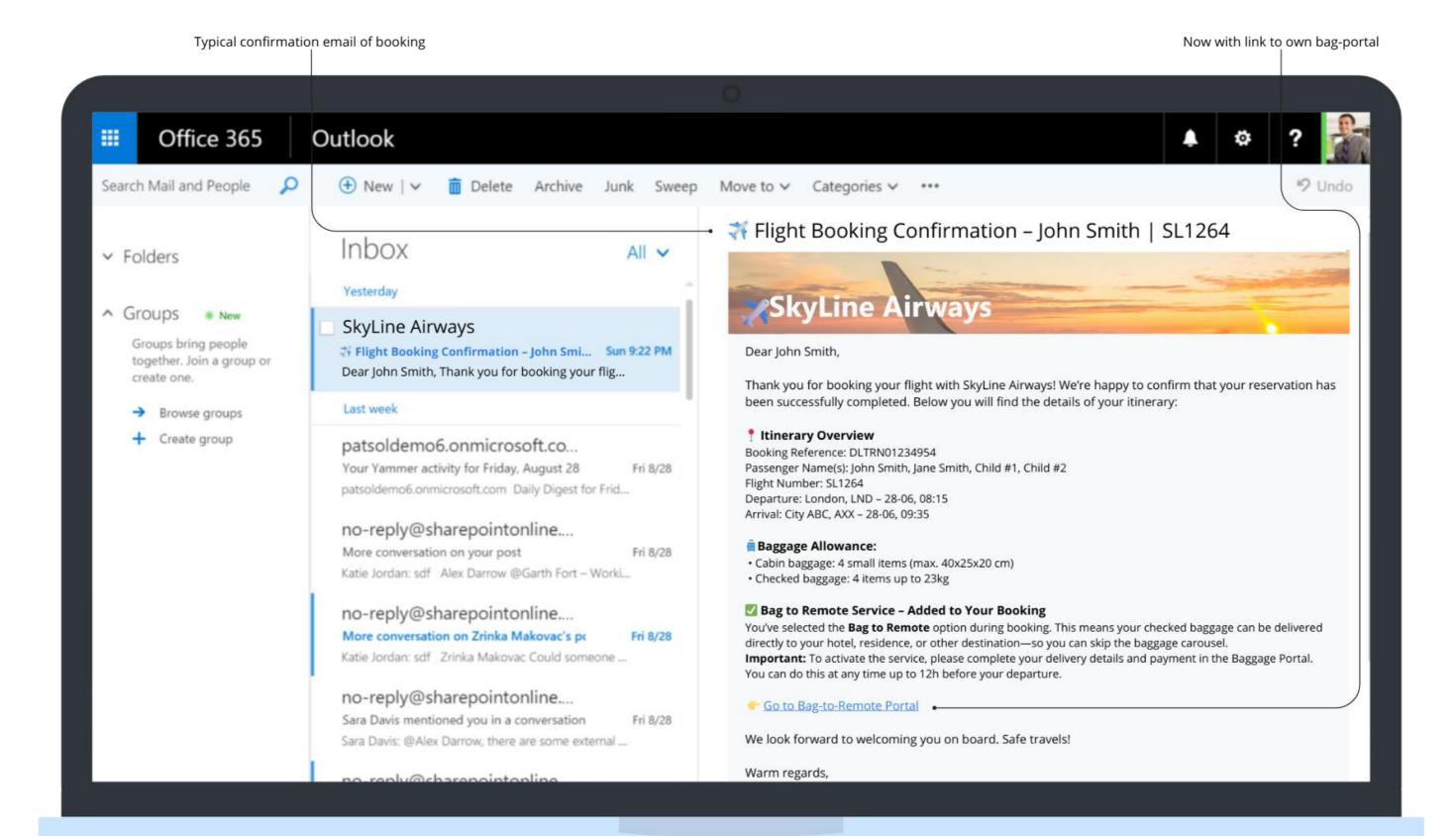
Informing what the benefits are of the service and what the passenger wil get

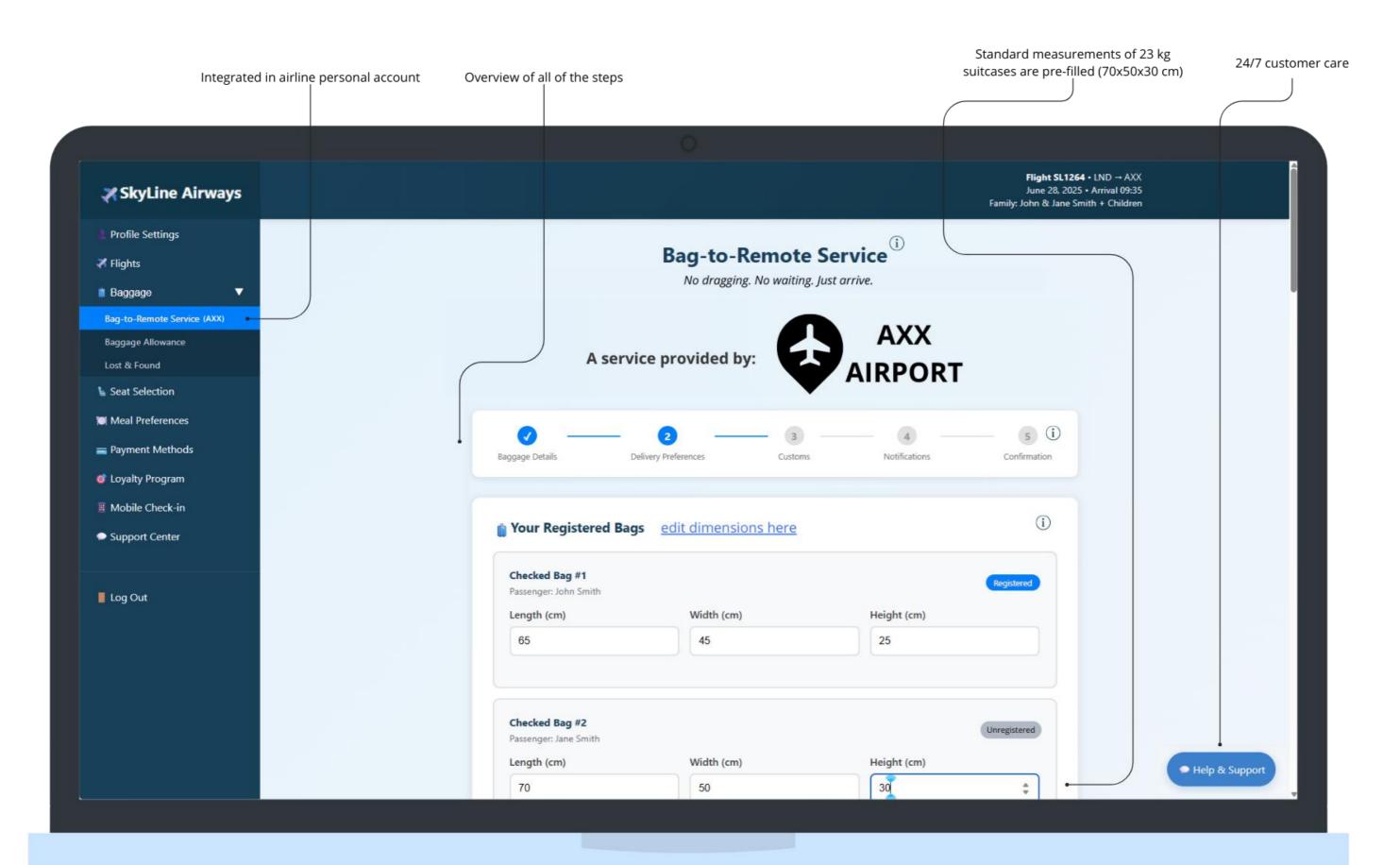
Displaying Trustpilot reviews to showcase customer satisfaction and boost trust in the service





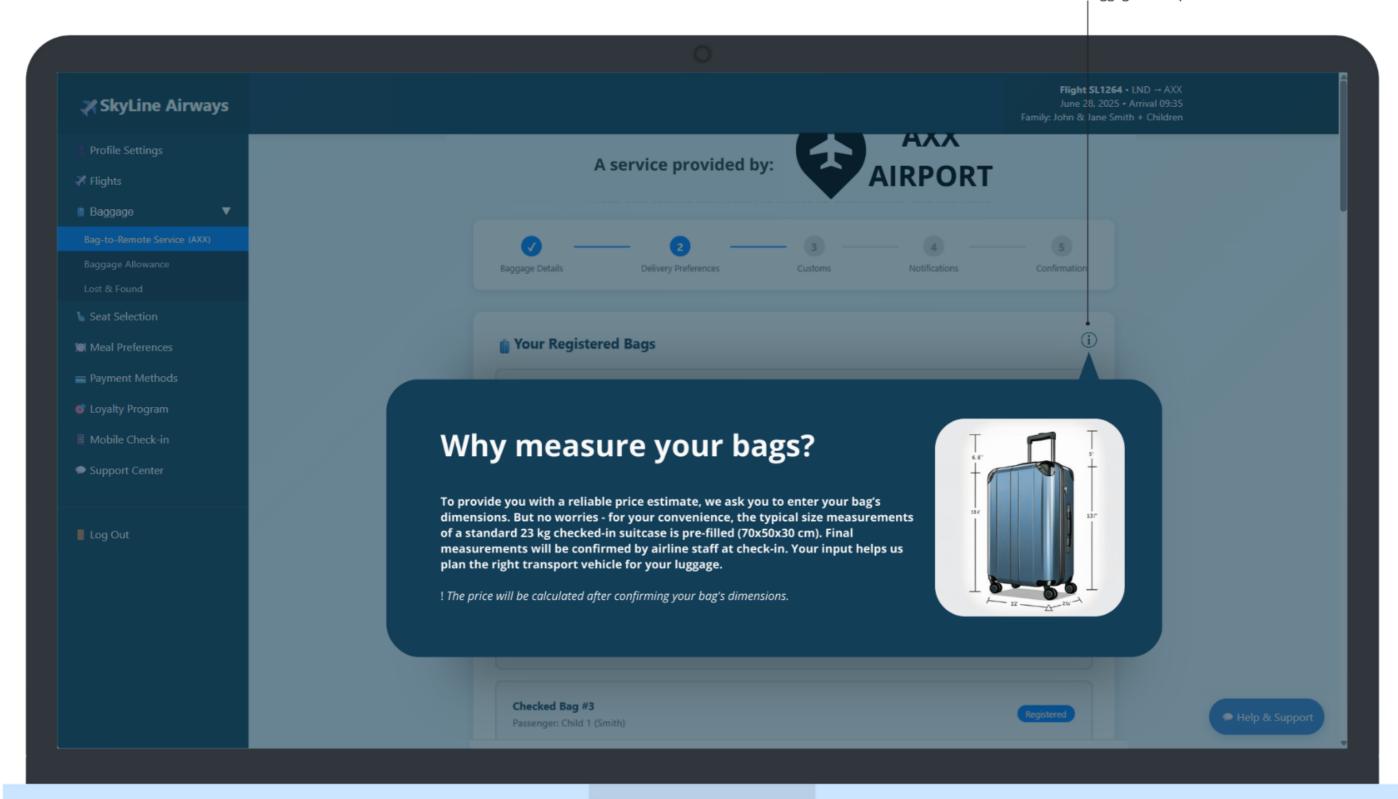


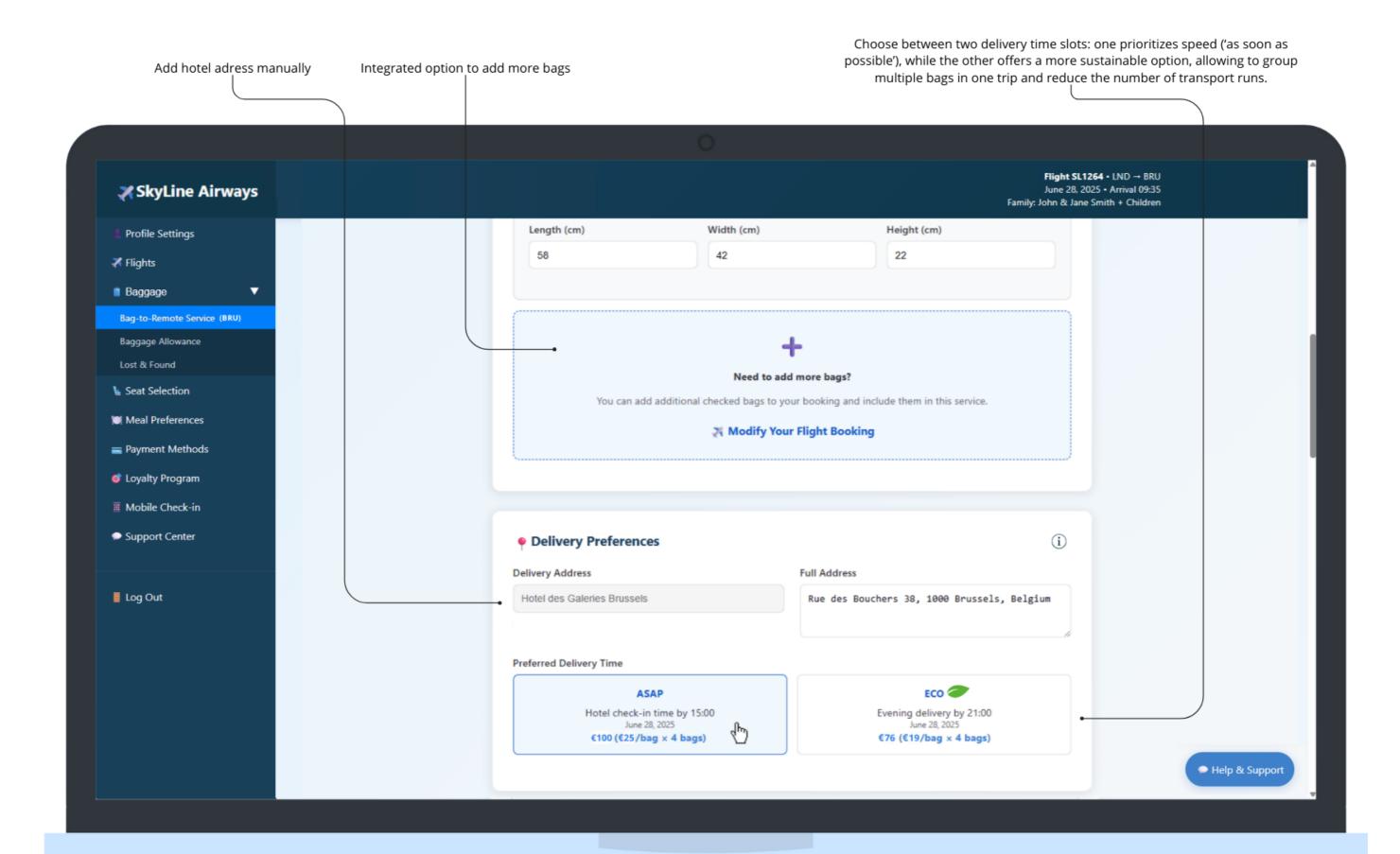






Rationale behind baggage size input

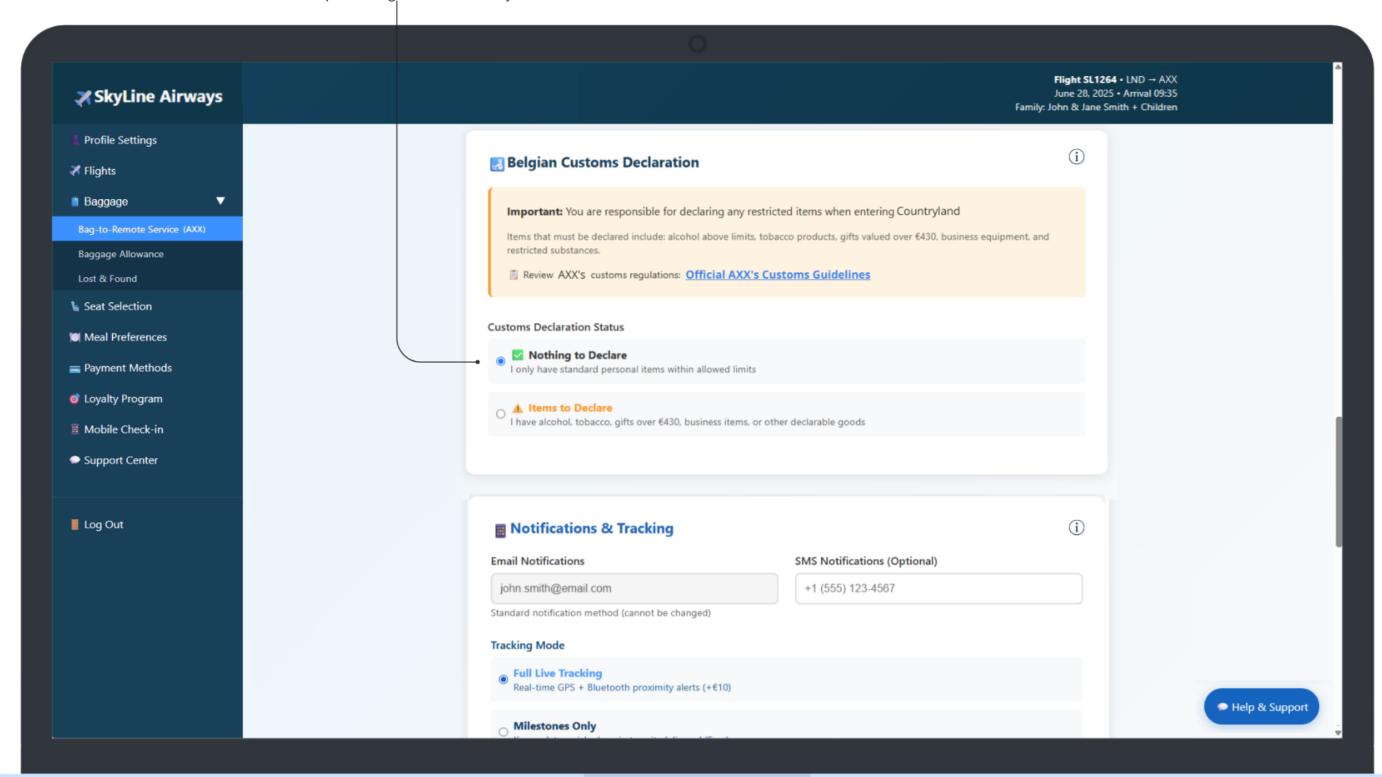






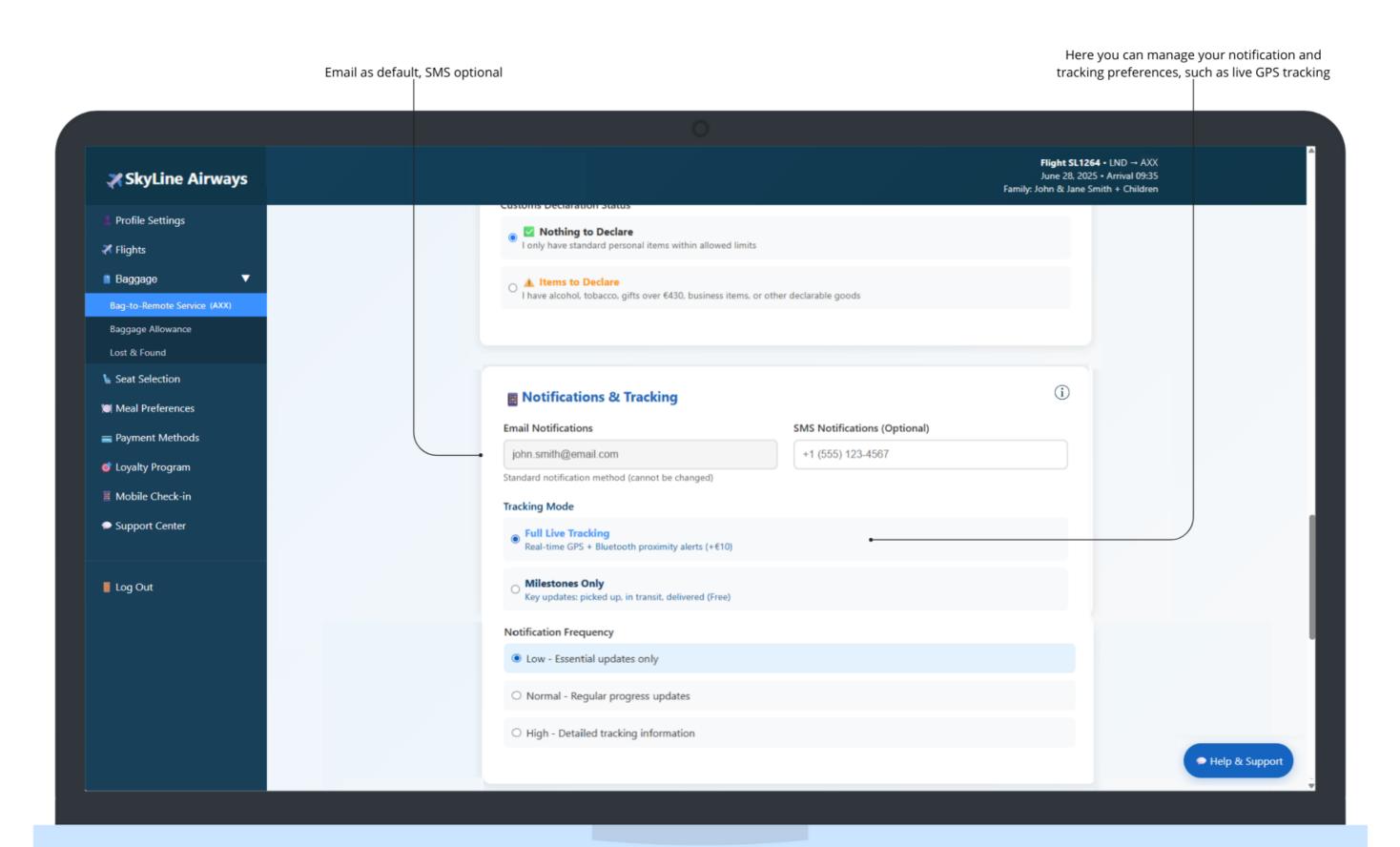


A customs declaration checkbox must be ticked before proceeding, as it is mandatory





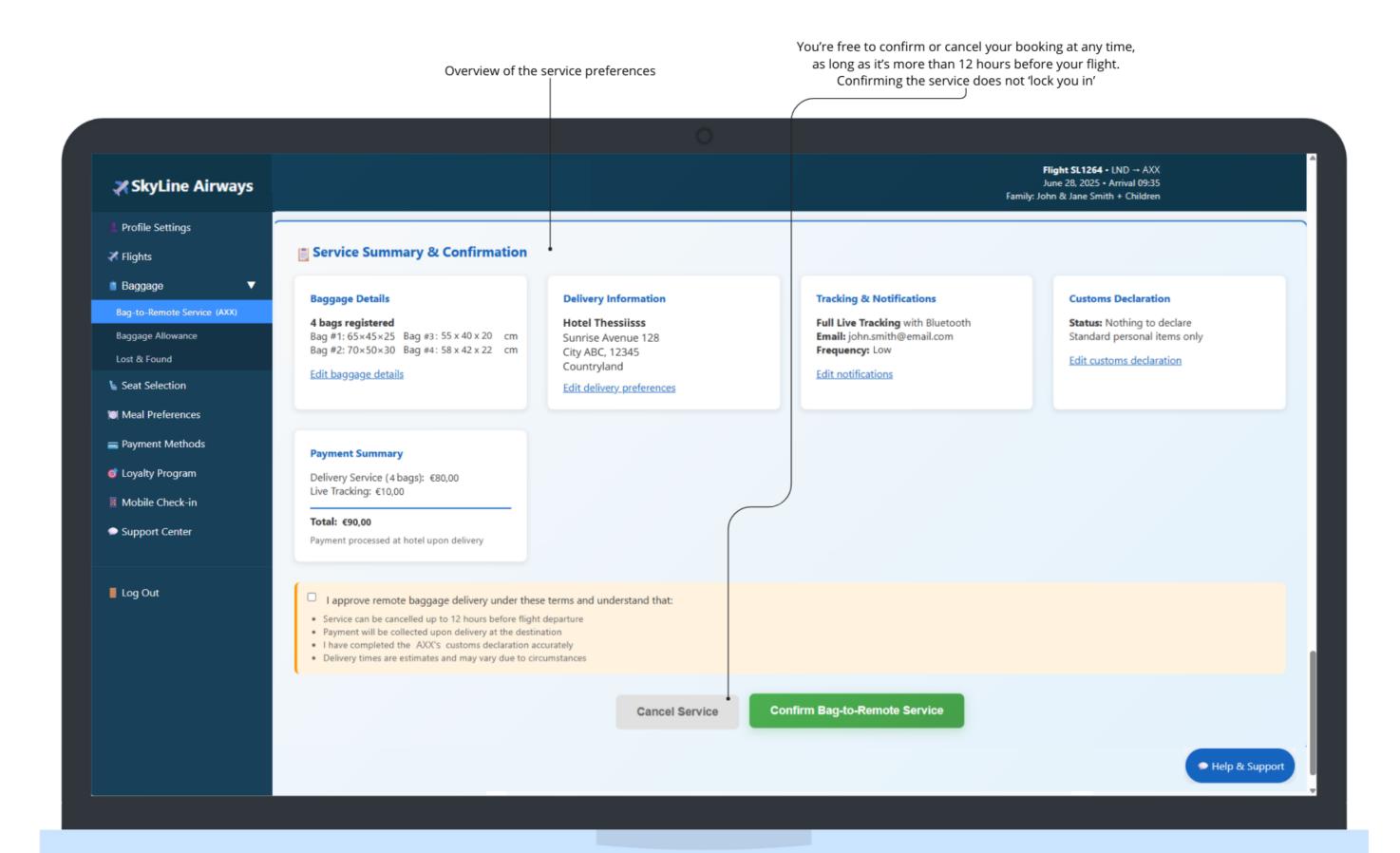




Involved passenger journey:







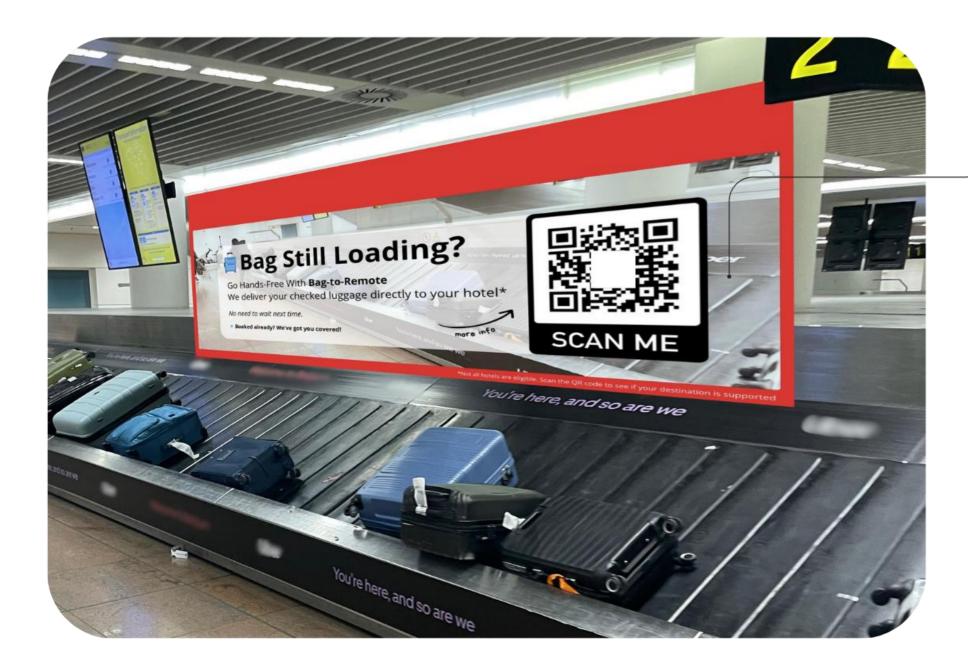
All 4 of your bags have arrived in the airport's system and were securely diverted from the regular baggage carousel

- just as planned.....



Examples of email notifications. Each email notification includes a link to the Bag Portal for easy access.





Promoted by the airport, the Bag-to-Remote service lets passengers hand off their luggage at a dedicated service desk after picking it up from the reclaim belt and passing through customs.



are now officially part of the bag-to-remote service and

are on their way to your hotel!.....

Integrated email as information provider

Thursday, June 28 Body: Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore... 0

7. Onward travel

Involved passenger journey:

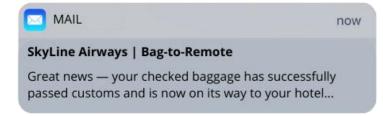












Another example of an email notifications: please note that for Passenger Journey E, bags do not pass through customs as part of the service

Involved passenger journey: A B C D E



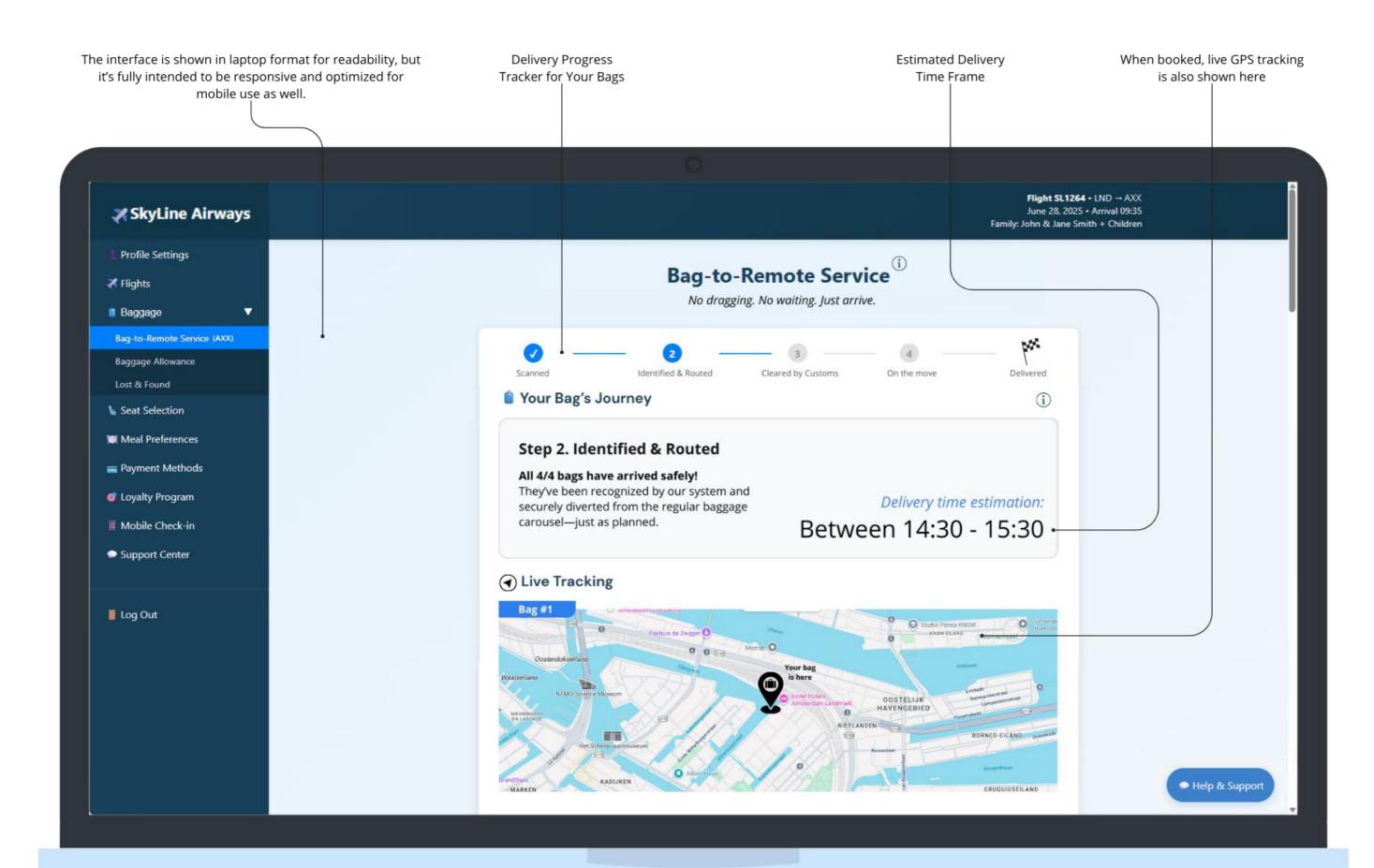












Involved passenger journey: A B C D E











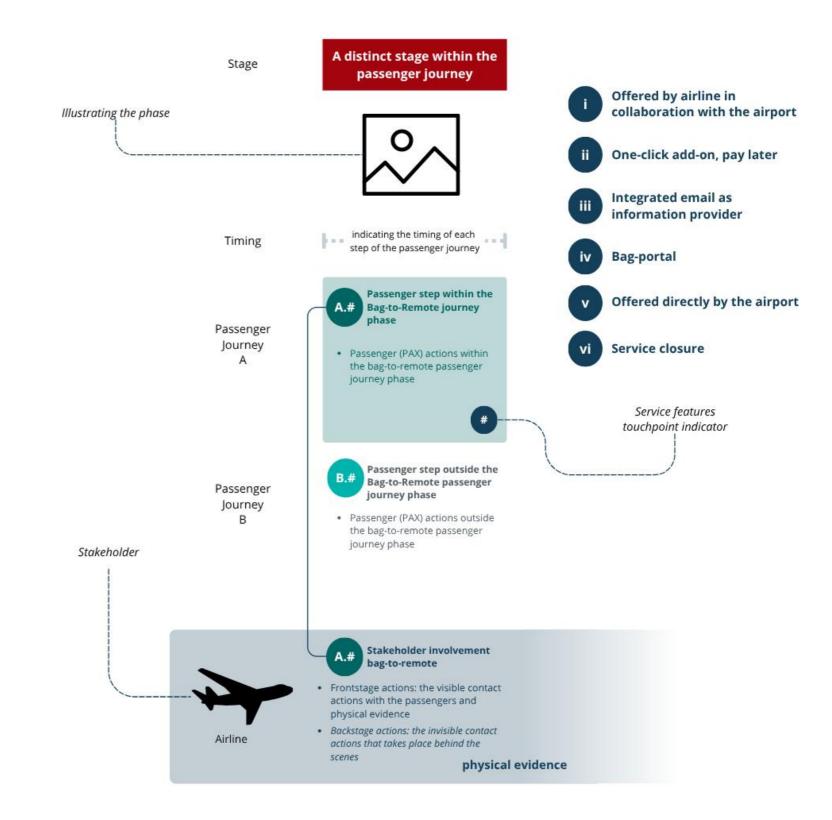






Appendix Q: Service blueprint journey A-E

See next pages



Passenger

Journey

D: Plus

Passenger

Journey

E: Basic

PAX doesn't see airline website

Doesn't see bag-toemote service

offer bag-to-remote service as a add-on

Doesn't see / want bag-toremote service (yet)

• PAX doesn't see airline website offer bag-to-remote service as a add-on / doesn't initially want the bag-to-remote service

Doesn't book bag-toremote service with their

• PAX didn't see /want the bagto-remote service as a add-on while booking their flight

Doesn't book bag-to-

· PAX books flight ticket that

PAX skips the option to

book the bag-to-remote

service

doesn't offer the service /

remote service with their

D.3 Packs the check-in bags

enter bag-details and

preferences

PAX goes to Bag-portal (iv) to

PAX packs their bags

Packs the check-in bags

PAX packs their bags

Delivers baggage at the

departure check-in

• PAX travels towards departure airport

· PAX checks their bags at their airline

airline

Delivers baggage at the

departure check-in for

 PAX gets email-notification (iii) that bags are registred for the bag-to-remote service

bag-to-remote

PAX travels towards departure

PAX books service and checks

their bags at their airline

that bags are registred

PAX gets email-notif

airport and gets convinced of

that their bags are on board

Flies together with check-D.5 n baggage

 PAX travels with check-in baggage in the same aircraft • PAX gets email-notification (iii)

that their bags are on board

Flies together with checkin baggage

• PAX travels with check-in baggage in the same aircraft

• PAX gets email-notification (iii) that bags arrived and are now waiting for customs

> Skips baggage reclaim and goes to airport exit

· PAX gets of aircraft and walks past the reclaim area to their next transfer option

• PAX gets email-notification (iii that bags arrived and are now waiting for customs

Waits at baggage reclaim E.6 and books bag-to-remote service at airport

· PAX waits at the reclaim to get

their check-in baggage PAX gets knowledge that airport

offers a bag-to-remote service · PAX books service at airportcounter (v) and gets en notification that bag are registred (iii)

review afterward (vi)

have arrived

A.8

Arrive at their hotel and **B.8** receive checked-in bags in their hotel room

sees their bags back

• PAX can scan tag to leave a

 PAX arrives in hotel and gets acknowledgement that bags have arrived and pays for service

8. Arrive at hotel

Arrive at their hotel and

receive checked-in bags in

their hotel room

acknowledgement that bags

PAX goes to their hotelroom and

 PAX goes to their hotelroom and sees their bags back

PAX can scan tag to leave a

review afterward (vi)

Arrive at their hotel and receive checked-in bags in their hotel room

> PAX arrives in hotel and gets acknowledgement that bags have arrived and pays for service

 PAX goes to their hotelroom and sees their bags back

· PAX can scan tag to leave a review afterward (vi)

• PAX can track their bags' status

Travels handsfree towards

final destination: their

• PAX gets email-notification (iii)

that bags passed customs and

are now on their way to their

Travels handsfree towards

final destination: their

PAX can track their bags' status

update in their bag

portal (iv)

E.7

hotel

update in their bag-

portal (iv)

Arrive at their hotel and D.8 receive checked-in bags in

 PAX arrives in hotel and gets acknowledgement that bags have arrived and pays for service

• PAX goes to their hotelroom and sees their bags back • PAX can track their bags' status

 PAX can scan tag to leave a review afterward (vi)

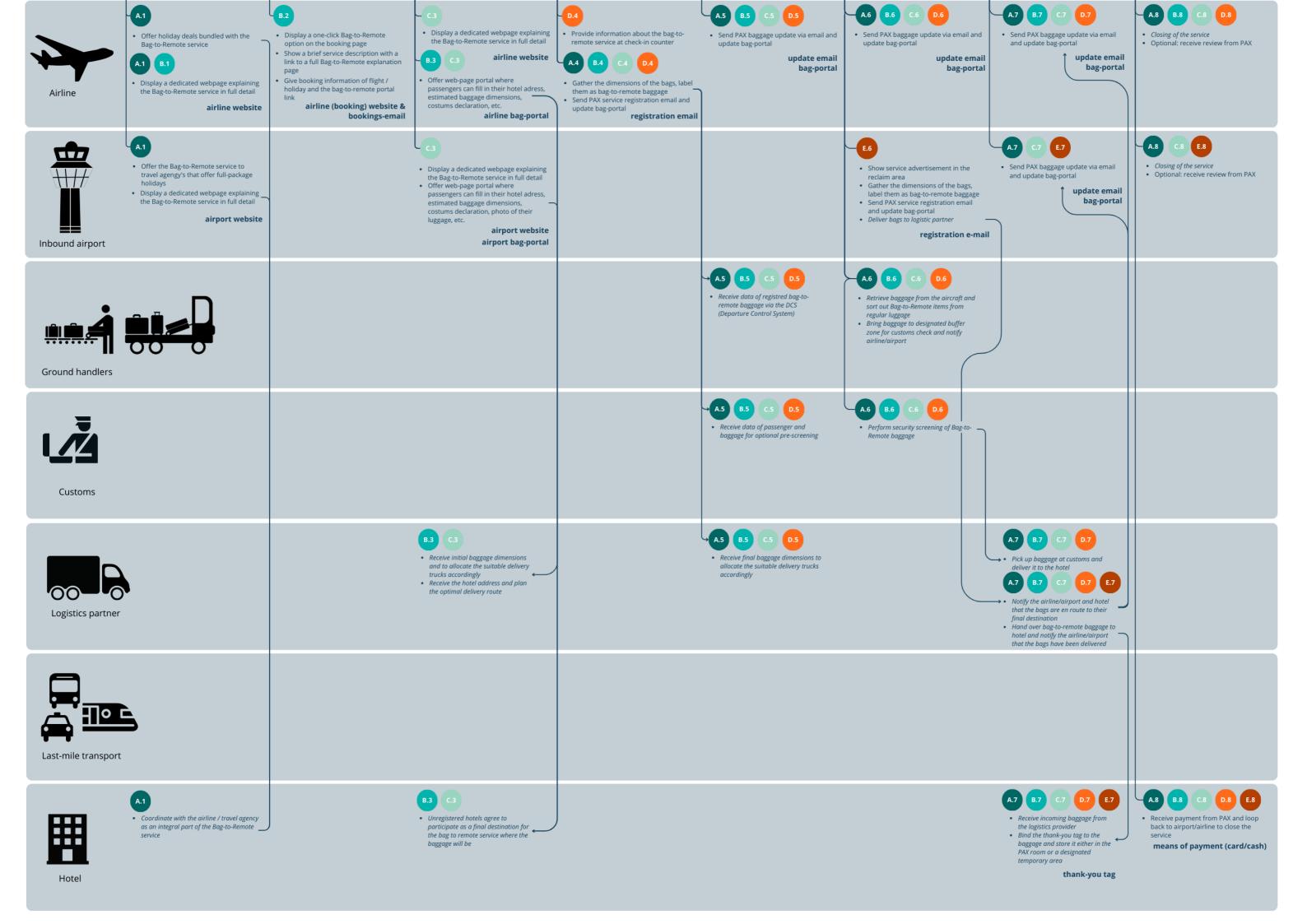
Arrive at their hotel and E.8 receive checked-in bags in their hotel room

• PAX gets email-notification (iii) • PAX arrives in hotel and gets acknowledgement that bags that bags passed customs and are now on their way to their

have arrived and pays for service PAX goes to their hotelroom and

sees their bags back PAX can scan tag to leave a

review afterward (vi)



Appendix R: Detailed implementation roadmap

2025 2027 2033 2040 Pilot Scale-up Long-term integration Set up a temporary storage zone near the baggage Develop a digital environment through which Bag-to-Remote becomes a standard arrival service at handling area, where bags can be held until delivery passengers can book and manage the service airports Test whether baggage can be labeled in a special way Expand the temporary storage into a permanent facility The service is visible in all digital channels, from airline to enter a separate delivery route. to handle more bags emails to airport signage Integration within the airport ecosystem Run delivery tests for two options: same-day delivery Bags that are marked for delivery are automatically Improve coordination between airport, customs, and and delayed delivery, to calculate realistic delivery rerouted, skipping the baggage carousel delivery partners by linking systems and data times and pricing Coordination between all parties (baggage handling, Explore how late a passenger can decide to use samecustoms, delivery partners, and hotels) is fully day delivery, while still making it possible. automated and seamless Start of Bag-to-Remo Start with one airline that also operates hotel chains, Add more airlines, hotels, travel agents, and delivery All kinds of travel companies can connect to the system service and one baggage handling company that also provides Service included without technical hurdles delivery services Launch limited Pilot I: Invite passengers staying in the airline's ntroduce multiple versions of the service (A-E), tailored A quality label or certification is introduced for hotels affiliated hotels to use the service and share their and couriers, ensuring safe and reliable handovers to when and how a passenger signs up Collaboration with key partners Explore collaboration with other European airports to Pilot II: Invite passengers after they collect their Create clear agreements about delivery timelines and make the experience consistent for international baggage to drop it off again for hotel delivery service expectations with all partners travelers Evaluate both pilots to decide whether to expand the Work with cities, regional authorities and national service through airline partnerships and/or by offering transport networks to ensure a seamless experience it independently via the airport for domestic and visiting passengers Develop, evaluate and refine journeys A through E, In Pilot I, passengers are informed about the service expanding successful ones, improving weaker options, service routes that consistently meet passenger needs shortly after booking their trip and phasing out those that do not meet passenger and long-term operational goals needs or operational feasibility. Passenger journey involvement and communication n Pilot II, passengers discover the service after landing, right after baggage reclaim and customs

Appendix S: Use of Generative AI Tools

During the development of this thesis, OpenAl's ChatGPT (GPT-4) as well as Microsoft's Co-Pilot was used as a supportive tool.

Its role was limited to:

- Assisting (peers) in the *Ideation* phase (Chapter 6.2) by generating additional *How-To* questions and alternative service touchpoint ideas to complement the brainstorming sessions.
- Refining academic language and improving sentence clarity.
- Structuring and summarizing sections based on my own written content.
- Generating alternative formulations to improve readability.

All content generated through ChatGPT and Co-Pilot was critically reviewed, edited, and validated by the author. No data, findings, or references were created by the Al; all research results, analyses, and interpretations are the author's own work. The use of ChatGPT and Co-Pilot complied with TU Delft's and WUR's guidelines on academic integrity and transparency in the use of generative Al tools.

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