TIME TO WASTE

ENABLING AND MOTIVATING PASSENGERS OF SCHIPHOL AIRPORT TO DISPOSE OF PASSENGER SOLID WASTE CORRECTLY TO SUPPORT SCHIPHOLS' GOAL TO BECOME ZERO WASTE.

GOAL

The escalating solid waste issue is a societal concern, with waste ending up in landfills, oceans, or incinerators. In the Netherlands, residual waste is incinerated after a post-sorting process. However, improving waste separation at the source reduces the contamination of waste and decreases the incinerated amount. Reducing residual waste at the source is complex, particularly for large entities like airports. Airports struggle due to millions of passengers who produce waste and lack waste separation knowledge. The EU's TULIPS consortium targets airport emissions, including consumer and passenger waste. Schiphol is collaborating with TU Delft on creating and testing green innovations for TULIPS, to reach their goal to be zero-waste by 2030 and fully circular by 2050.

PROCESS

With the insights from a context analysis, including the current bin attributes, waste mapping, and the user ecosystem, the project established a foundation for informed design decisions. Building upon these findings, the project drew design conclusions that aligned FF3 bin elements with Dutch recycling standards, enhanced signage visibility, accommodated diverse waste types, prioritised effective separation for specific streams, and considered users' perspectives. Stakeholder interviews and interactions with relevant organisations like other airports and bin manufacturers provided further insights. Employing the FOGG behaviour model, behavioural aspects were analysed, resulting in strategies that enhanced passengers' motivation and ability for waste separation.

RESULT

The Design Proposal is called: 'Time To Waste'. The proposal consists of three elements, a new skin for the already existing FF3 bins, a campaign containing 'Time To Waste' posters to gain awareness about waste separation and projectors that display indications for waste disposal at the gates where passengers have time to waste.



This project aims to improve PSW separation behaviour at Schiphol Airport to reduce the amount of residual waste being collected and incinerated.





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NO TIME TO WASTE

A GUIDE TO REDUCING THE AMOUNT OF **RESIDUAL WASTE BY IMPROVING WASTE**





SEPARATION BEHAVIOUR THROUGH DESIGN

The steps I executed throughout this graduation project can also be applied to other organisations which want to improve their waste separation behaviour. This is why, all steps are combined into a 'No Time To Waste' Brochure, which can help other organisations and companies to reduce their residual waste.

Bins:	Behaviour Analysis:	Identifying Weak Spots:
Consider the appearance and placement of bins. Are	Examine current user behaviour to identify patterns and	Combine your insights from analysis and research to identii
they consistent throughout your premises, or do variations	shortcomings. Utilize the Fogg Behaviour Model (2009) to	weak points in your waste separation process. Develop
confuse users? Assess the ease of use and visibility of bins to	uncover whether users need more motivation or ability for	comprehensive list of requirements that guide your desig
ensure their effectiveness.	proper waste separation.	improvements.
Waste:	User Needs:	Enhancing Ability:
Conduct a Waste Safari to delve into your waste	Uncover what users require for successful waste separation.	According to the Fogg Behaviour Model, enhancing abilit
composition. Identify the items present and their sources.	Do they grasp the current system? Are the bins conveniently	drives behaviour change. If redesigning, engage an (externa
Quantify how much of each item contributes to waste,	located? Evaluate the needs of indirect users (cleaners) and	designer for a fresh perspective. For smaller companies, te
pinpointing accurate insights into (in)correct separation.	dependent users (waste handlers) for a holistic approach.	systems with printouts before committing to larger changes.
Users: Jnderstand your users beyond the ones directly disposing of waste. Consider cleaners, bystanders, and waste handlers as terminal users. Recognize their roles and needs within the waste separation process for a comprehensive perspective.	Government Regulations: Stay compliant with government regulations by understanding national and international waste separation guidelines. Utilize these regulations as a foundation for improvements, ensuring alignment and consistency.	Boosting Motivation: Motivation plays a pivotal role in waste separation. Dependin on your company's size and user base, consider campaigr with posters, infographics, or newsletters. Enrich the experience with interactive elements like games or apps to educate users a futuristic and engaging way.
Re-evaluating the steps is crucial to ensure continuous mprovement and alignment with evolving waste separation goals and strategies.	Incorporating sustainability into your waste separation process goes beyond significant changes. Small, impactful	Effective waste separation is a journey that demands a comprehensive understanding of your system, user behaviour, and regulatory landscape. By strategically

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through design at Schiphol Airport

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Design for Interaction

Improving passenger waste separation behaviour

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eps, such as enhancing the appearance of bins wit designed stickers or opting for digital motivation campaigns, can yield remarkable results. By embracing sustainability, you align your efforts with

ntal goals and min