

WASTE WARRIOR

HOTEL WASTE & RECYCLING PICKUP SERVICE

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Waelkens



THE TEAM



Natalie Waelkens



**Valen Meicella
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**Haifa
Salsabila
Hutomo**



**Jennifer
Makmun**

MAIN PROBLEM

1

No categorization
system

2

Lack on food waste
data

3

Non-edible food waste to landfill

4

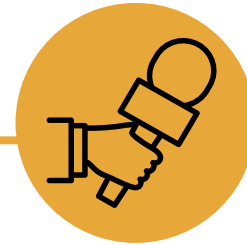
Kitchen attitudes

SCOPE OF WORK



Research

- Analyzing food waste system Ritz Carlton Hotel



Interview

- In-depth interviews different departments



Wireframes

- Sketching



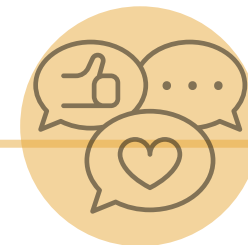
Figma Design

- Creating website



Testing Prototype

- Usability testing
 - Thinking-out-loud
 - Wizard of Oz



Hotel Feedback

- Stakeholder feedback

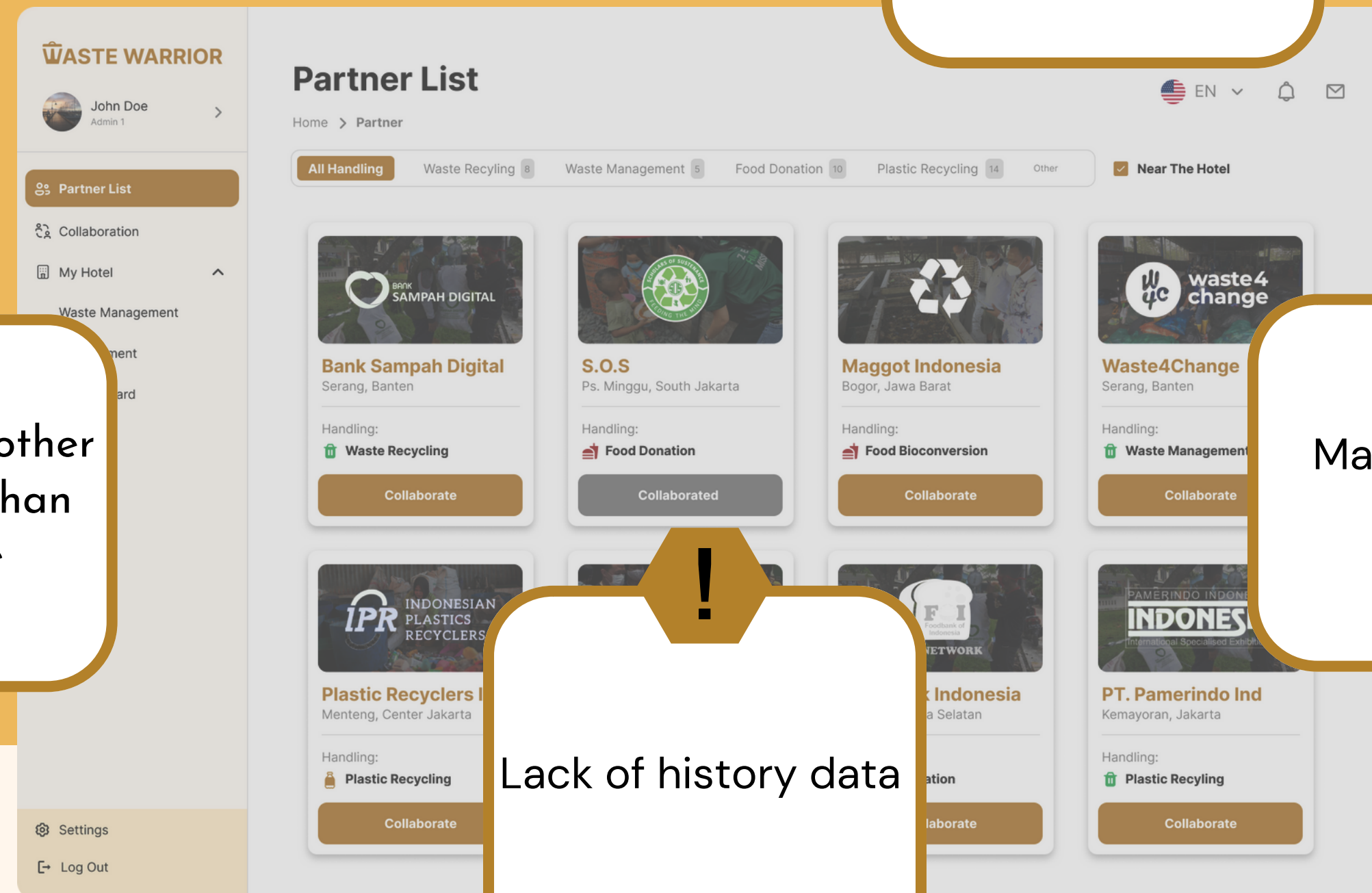
REVIEW OF THE MESH PLATFORM

No categorization system

More focus on other departments than food waste

Manual input of data

Lack of history data



KEY USERS



RECYCLING COMPANYS

- Recording the generated food waste
- Collecting the data from other restaurants
- Data entry in the mesh
- Communications to the sustainability manager



SOFTWARE ENGINEER

- Make and realize the app



KITCHEN STAFF

- Recording the generated food waste



SUSTAINABILITY MANAGER

- Data entry of the generated food waste
- Monitoring and reporting
- Exploring collaborations with recycling companies and organizations
- Promoting sustainability initiatives



KITCHEN WASTE MONITOR

- Collecting the data
- Data entry in the mesh
- Communications to the sustainability manager



WASTE BANK

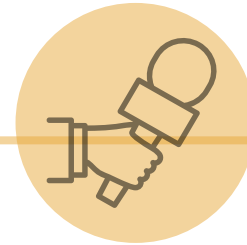
- Collect and distribute the waste to the partner

SCOPE OF WORK



Research

- Analyzing food waste system Ritz Carlton Hotel



Interview

- In-depth interviews different departments



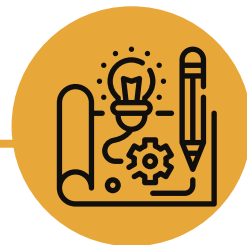
Wireframes

- Sketching



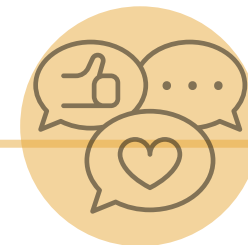
Figma Design

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Hotel Feedback

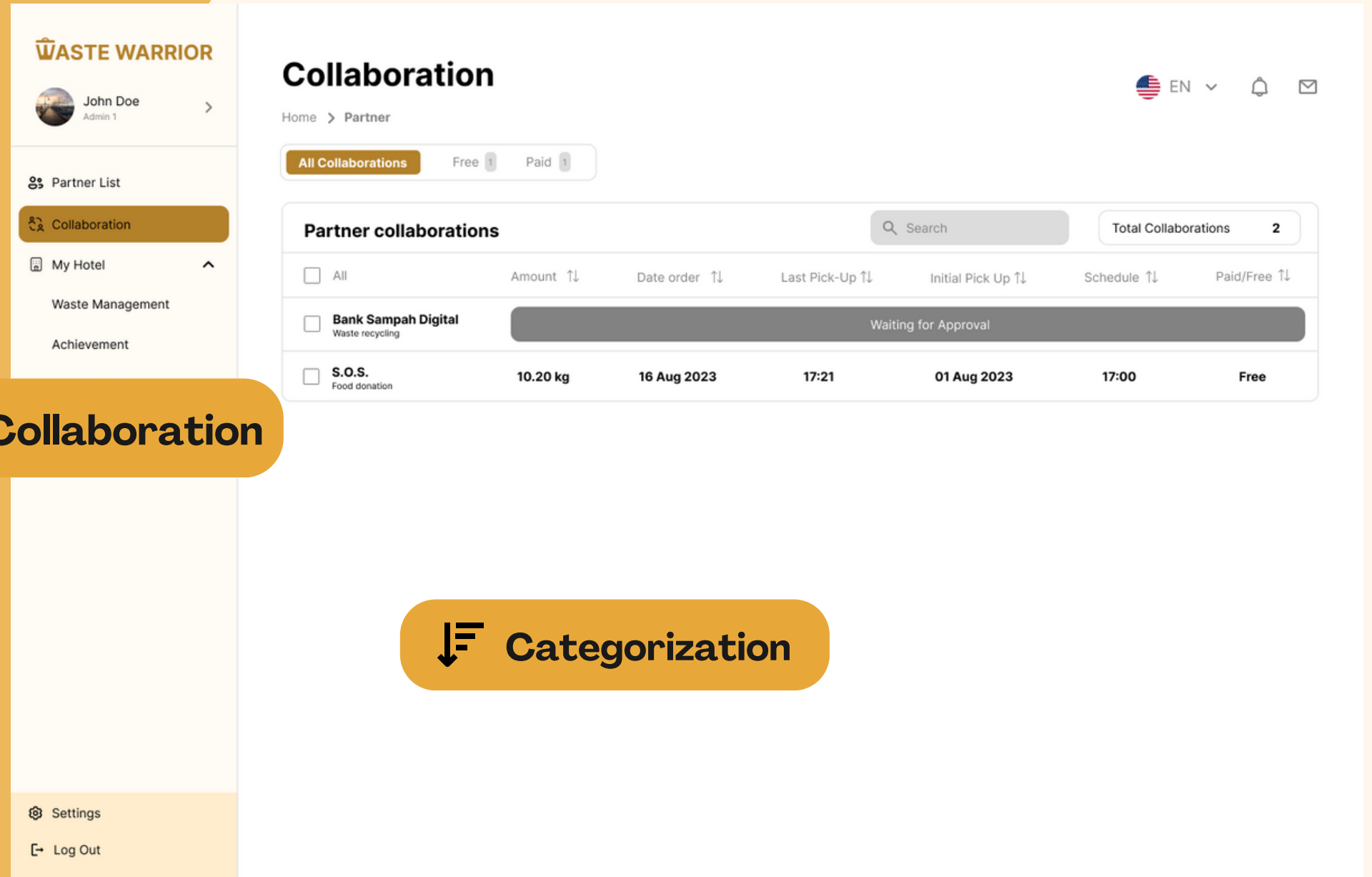
- Stakeholder feedback

SOLUTION

- Digital platform
 - Food waste management
 - Integration MESH and front desk info
- Dynamic market place
 - Hotel
 - Recycling companies
 - Third parties

Main Goals

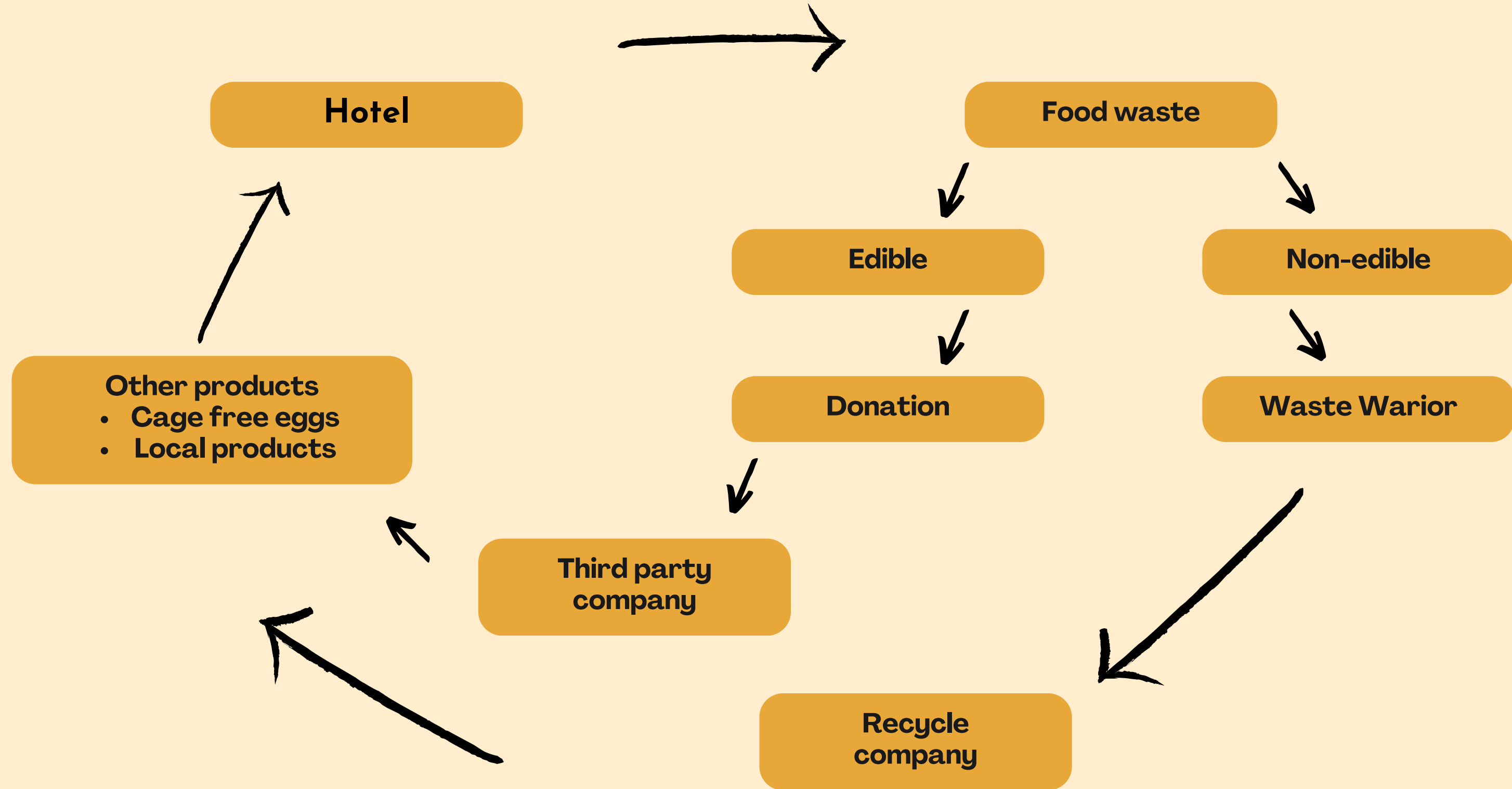
- Less landfill
- Maximization collaboration third parties



The screenshot displays the 'WASTE WARRIOR' dashboard for a user named John Doe (Admin 1). The main section is titled 'Collaboration' and shows a list of 'Partner collaborations'. The table includes columns for 'All', 'Amount', 'Date order', 'Last Pick-Up', 'Initial Pick Up', 'Schedule', and 'Paid/Free'. Two entries are visible: 'Bank Sampah Digital' (Waste recycling) which is 'Waiting for Approval', and 'S.O.S.' (Food donation) with a quantity of 10.20 kg, dated 16 Aug 2023, at 17:21, with an initial pick-up on 01 Aug 2023 at 17:00, and a status of 'Free'. A 'Collaboration' callout box with a hands icon is positioned over the table. Below the table, a 'Categorization' callout box with a funnel icon is visible. The dashboard also features a sidebar with navigation options like 'Partner List', 'My Hotel', 'Waste Management', and 'Achievement', and a bottom section with 'Settings' and 'Log Out'.

<input type="checkbox"/> All	Amount ↑↓	Date order ↑↓	Last Pick-Up ↑↓	Initial Pick Up ↑↓	Schedule ↑↓	Paid/Free ↑↓
<input type="checkbox"/> Bank Sampah Digital Waste recycling	Waiting for Approval					
<input type="checkbox"/> S.O.S. Food donation	10.20 kg	16 Aug 2023	17:21	01 Aug 2023	17:00	Free

FOOD CHAIN



ABOUT THE WEBSITE

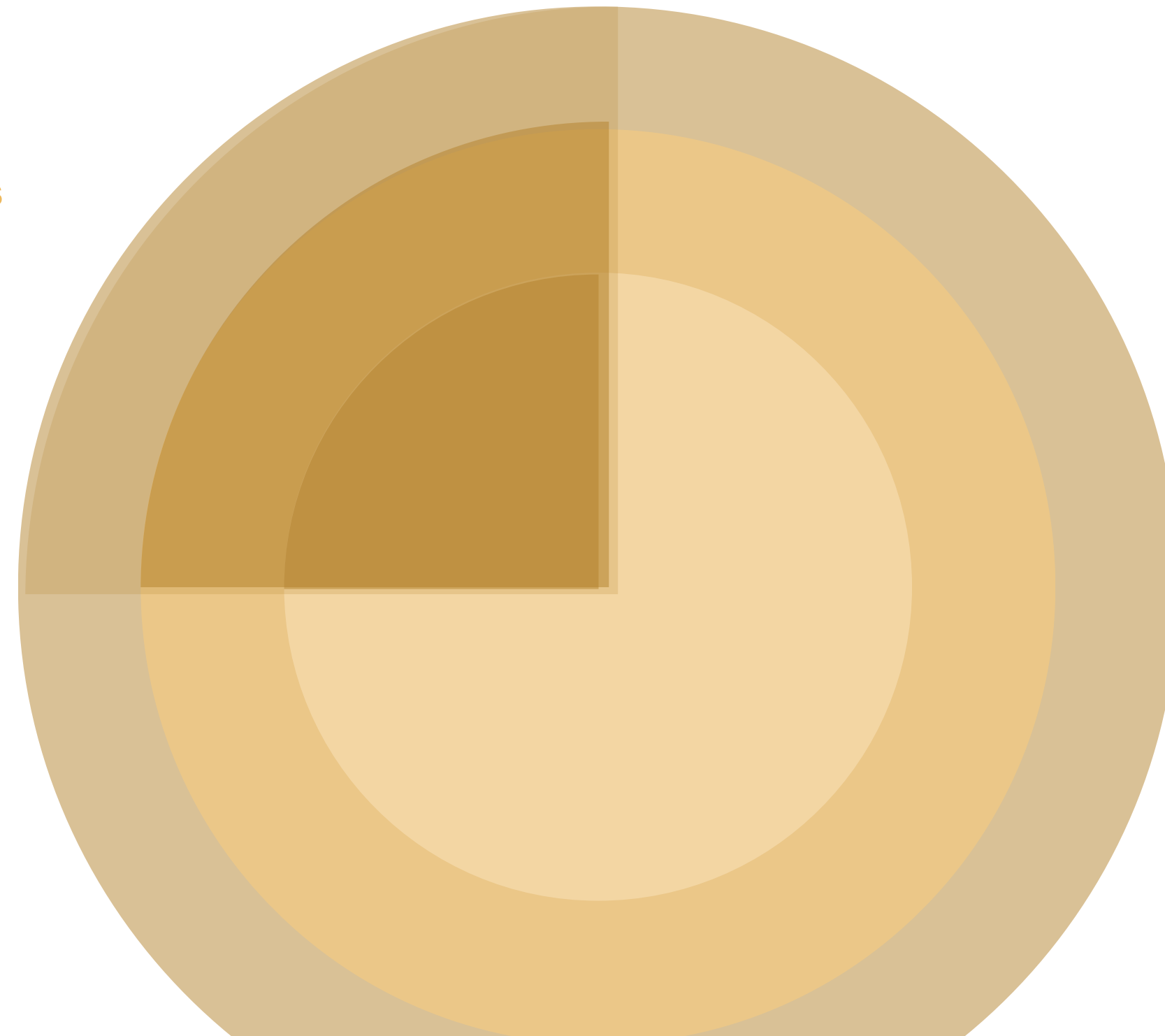
The website was created for the hotels and third parties to purchases and deliveries of the food waste

Project Goals

- Data tracking to start reducing food waste
- Competition among hotels for sustainable hotel

Website's mission

- Managing the hotel foodwaste
- Competition between Marriot Group to minimize waste



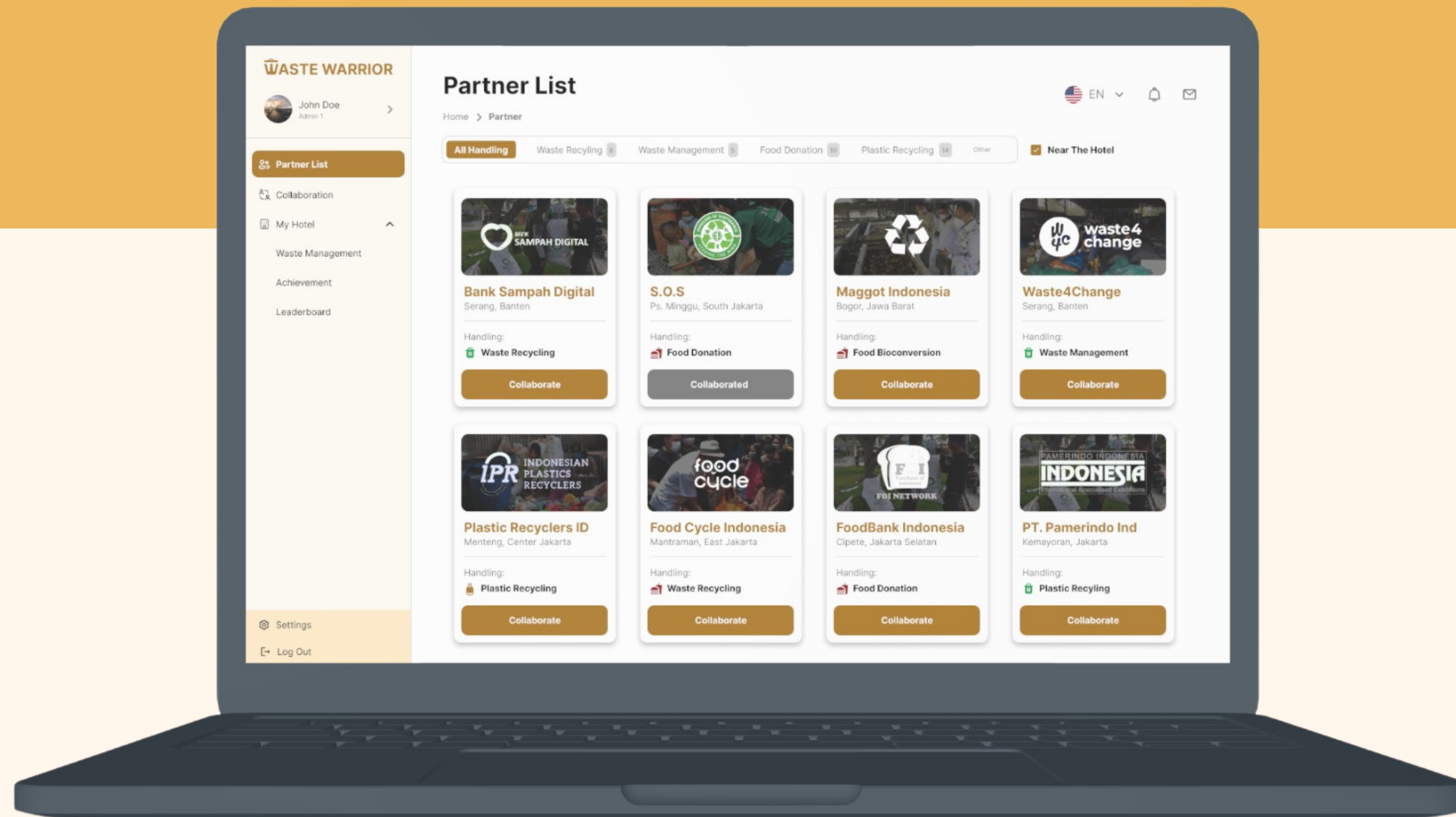
Challenges

- Focus end food chain
- Stimulating more food waste
- Daily use of MESH

Main Task

- Categorization of food waste data
- Detecting where main food waste comes from

THE PROTOTYPE



HOTEL WASTE MANAGEMENT

WASTE WARRIOR

John Doe
Admin 1

- Partner List
- Collaboration
- My Hotel
- Waste Management
- Achievement
- Leaderboard

Settings

Log Out

Partner List

Home > Partner

EN

All Handling | Waste Recycling 8 | Waste Management 5 | Food Donation 10 | Plastic Recycling 14 | Other

Near The Hotel

Bank Sampah Digital
Serang, Banten

Handling:
Waste Recycling

Collaborate

S.O.S
Ps. Minggu, South Jakarta

Handling:
Food Donation

Collaborated

Maggot Indonesia
Bogor, Jawa Barat

Handling:
Food Bioconversion

Collaborate

Waste4Change
Serang, Banten

Handling:
Waste Management

Collaborate

Plastic Recyclers ID
Menteng, Center Jakarta

Handling:
Plastic Recycling

Collaborate

Food Cycle Indonesia
Mantraman, East Jakarta

Handling:
Waste Recycling

Collaborate

FoodBank Indonesia
Cipete, Jakarta Selatan

Handling:
Food Donation

Collaborate

PT. Pamerindo Ind
Kemayoran, Jakarta

Handling:
Plastic Recycling

Collaborate

Dashboard

Collaboration

Partner List

My Collaboration

Achievement

Leaderboard

Settings

Log Out



Your Waste Management is Empty

Start importing the data from MESH or simply create a new one

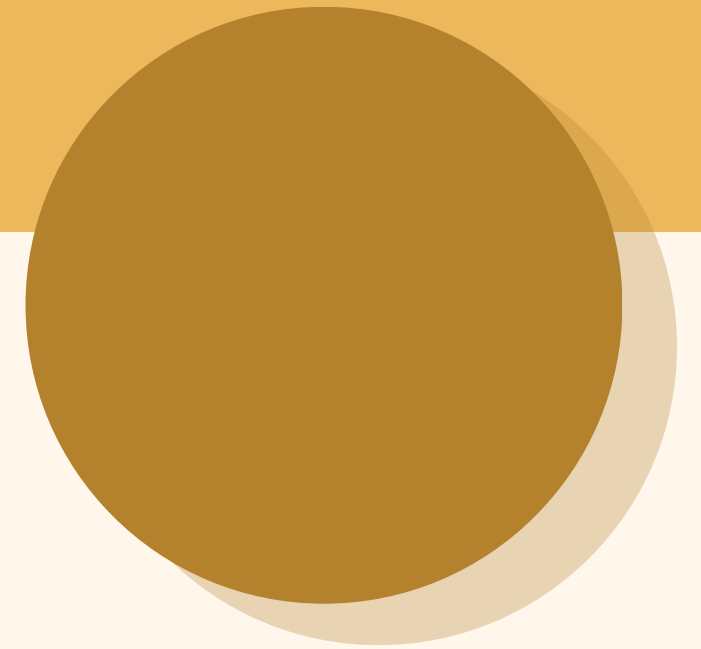
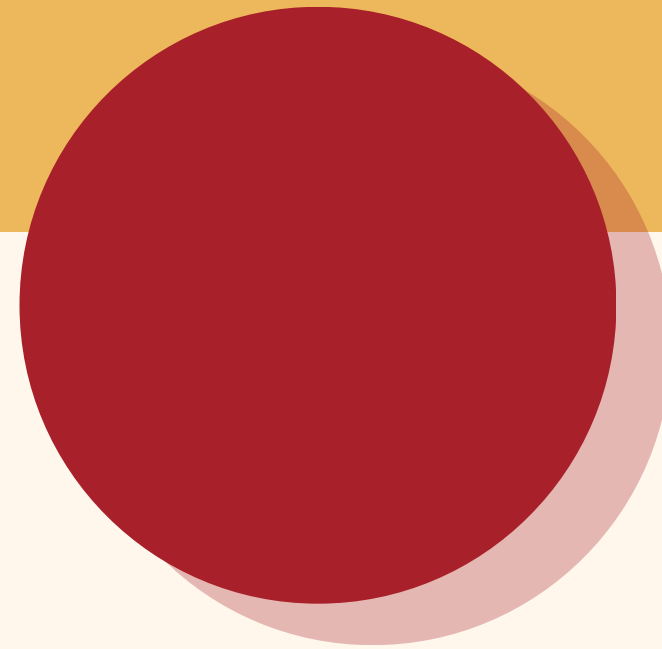
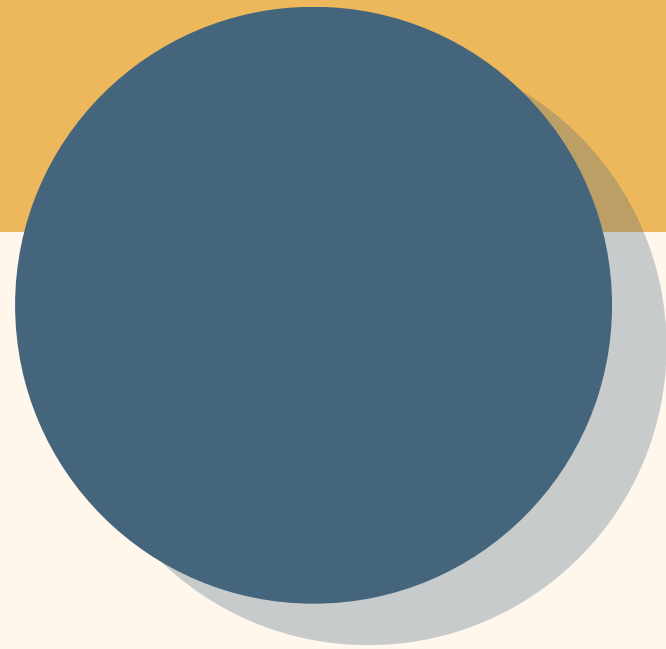
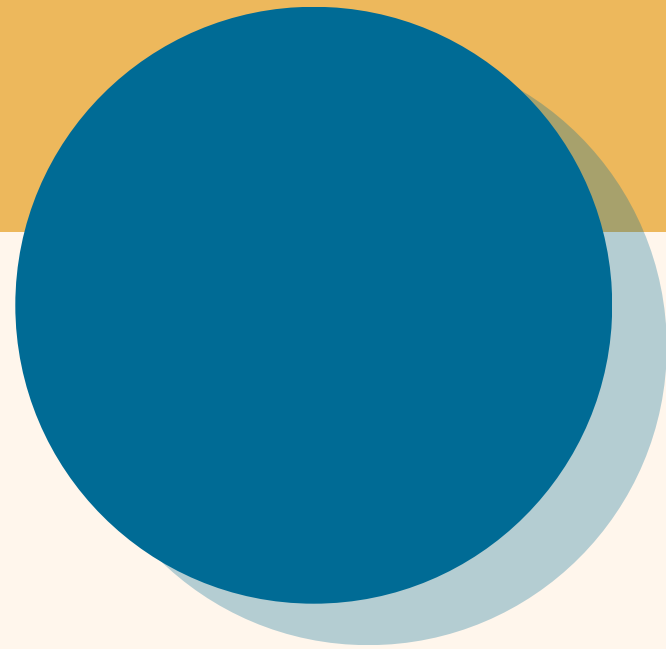
Import From MESH

Create New Management

DESIGN SYSTEM

The house style of the Ritz-Carlton was integrated into the creation of the Waste Warrior website.

Color Palette



Typography

Inter

Logo

WASTE WARRIOR

COMMUNICATION CAMPAIGN



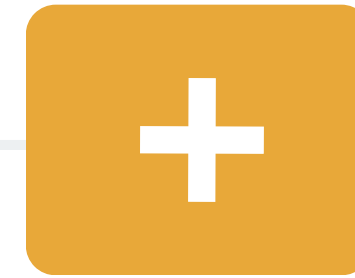
PROMOTING COLLABORATION

- With third partys
- With recycling companies



CREATING AWARENESS

- Informing customers with graphs and idea



ENGANGING STAFF

- Progress tracking
 - Monthly meetings
- Achievements
 - Sustainability score
- Competition hotels



EXTERNAL COMMUNICATION

- Social media posts to inform guest and partners
- Hotel reputation

FINANCES

1

Reduction deposal
cost

2

Cost reduction

- Identify areas of excessive waste

3

Receiving financial rewards

- Achieving sustainability goals
 - Landfill
 - Food Waste

4

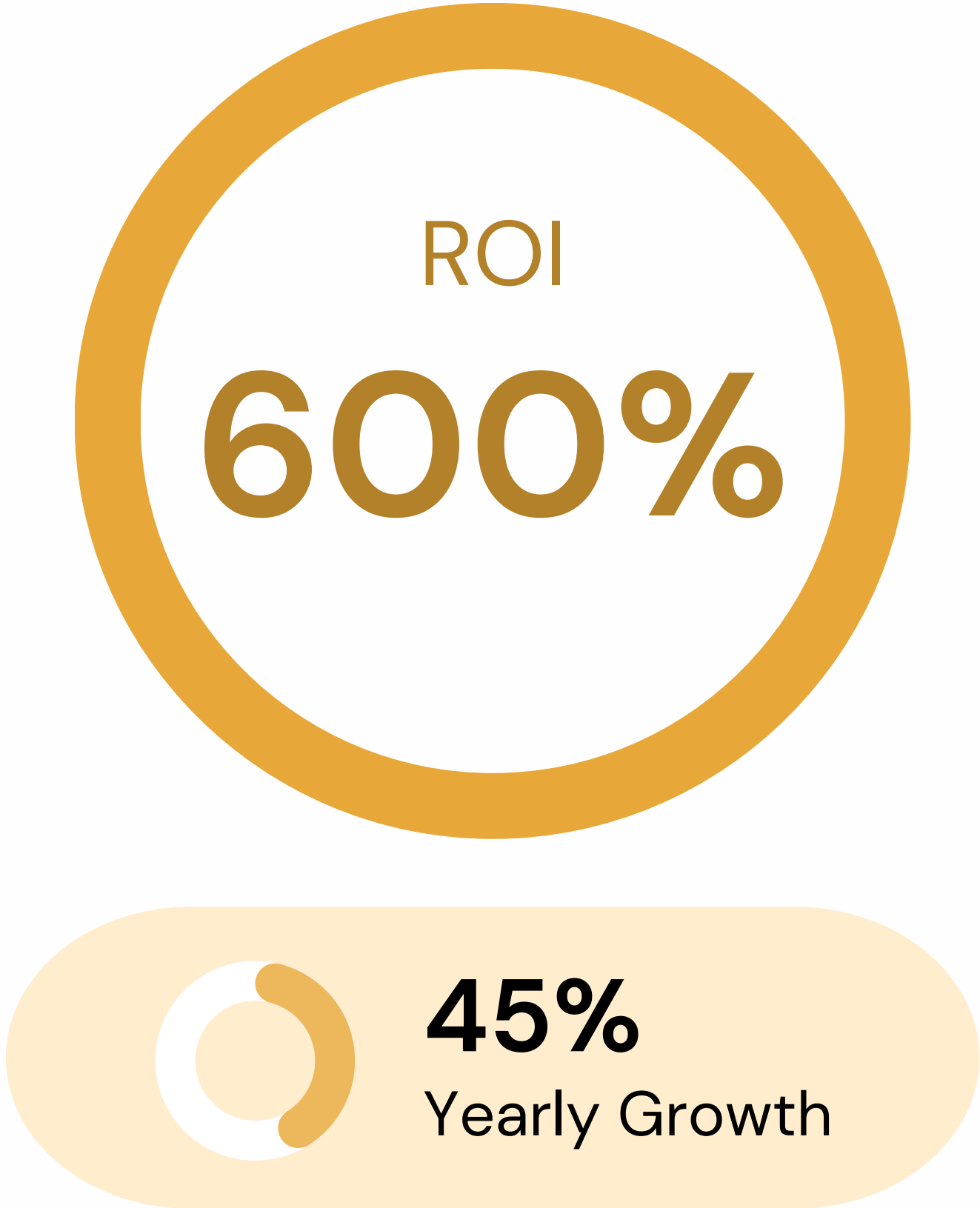
Enhancing reputation

- Increasing customers

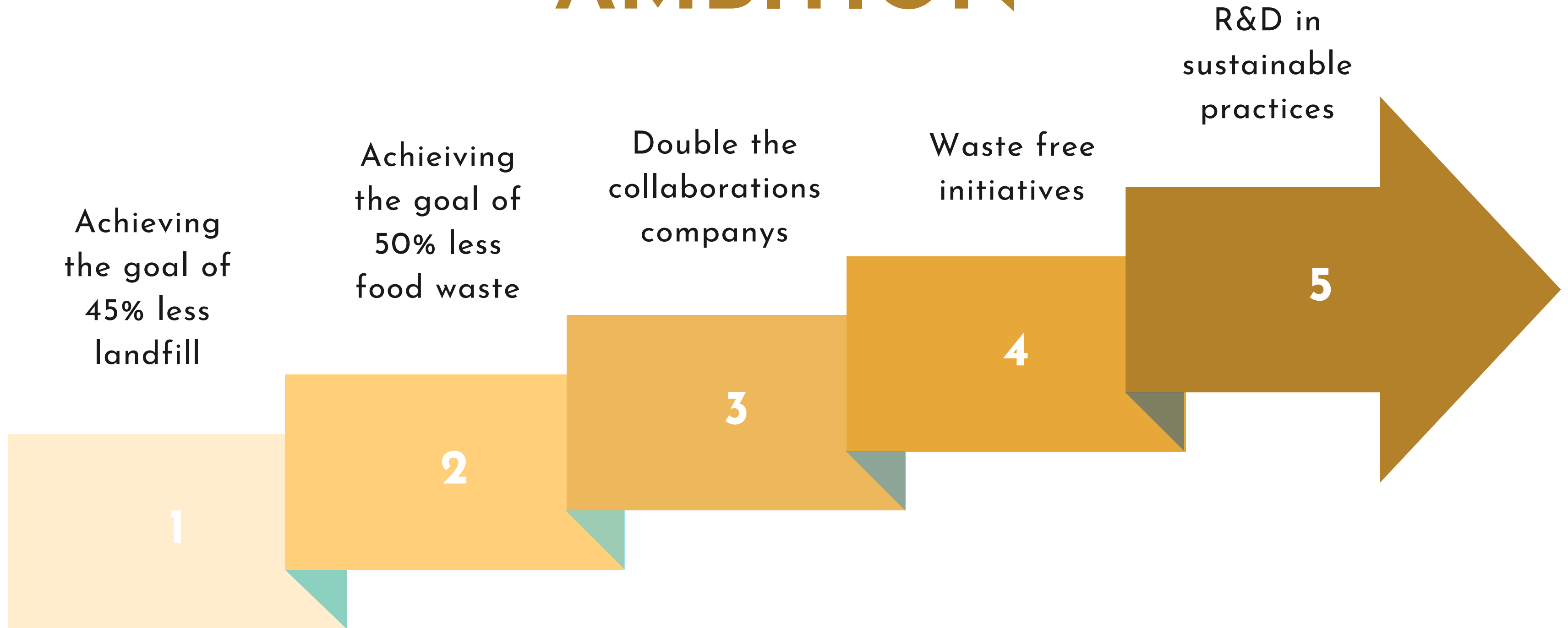
RETURN OF INVESTMENT

Initial Investment
\$10000

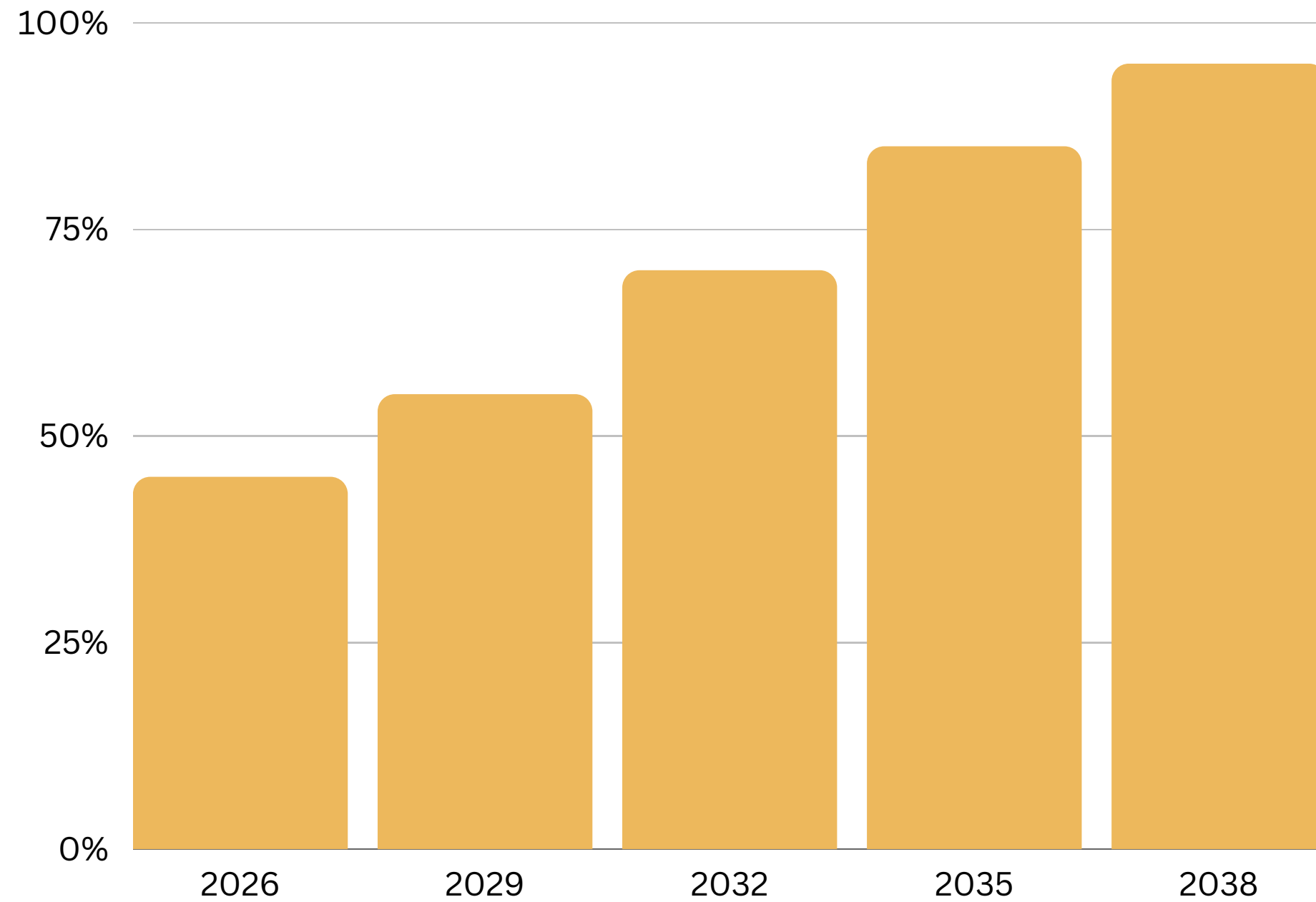
ROI Data	Year 1	Year 2	Year 3	Year 4	Year 5
Waste Cost Reduction	\$500	\$725	\$1051.25	\$1524.32	\$2210.26



GROWTH AMBITION



FUTURE WORK



- Increasing the sustainability goal every year
- Expanding collaboration with recycling companies.

GOALS

3 years

- **WASTE REDUCTION TARGET**
- **COLLABORATION EXPANSION**
- **DATA DRIVEN INSIGHTS**

5 years

- **LOCAL SUPPLIERS**
- **ADDING TECHNOLOGY**
 - – SMART BINS
- **CERTIFICATIONS / AWARDS**

10 years

- **CIRCULAIR ECONOMY**
 - LOCAL SUPPLIERS
- **EDUCATION**
 - WORKSHOPS
 - SEMINARS
 - EVENTS

QUESTIONS?