

### Introduction

Living Lab Scheveningen is a project in which new digital inventions are tested in public space in order to improve the quality of life in ways such as increased safety, protect the nature by limiting light and noise as much as possible, keep the area clean and offer better internet connectivity.

Scheveningen was chosen because this is an area where people live, work and enjoy their free time. There is beach, nature, but also a port and industry. Scheveningen also has many visitors every year, especially in the summer.

The project was recently launched as a part of the Smart City The Hague program. This stimulates (digital) innovation throughout The Hague and thus contributes to an attractive living and working environment for the residents, companies and visitors.

### The Problem

There is a lack of awareness amongst visitors and residents when it comes to the data that is being collected through sensors, such as motion and noise level, placed by the Hague Municipality in the area of Scheveningen.

### The Goal

Our goal is to create a smart object that is able to react to the user input in order to create awareness amongst the aforementioned target group, concerning data collection, by encouraging curiosity and interaction in a playful manner.

### The Vision

Our design vision is to help in creating a more comfortable future based on transparency between the Municipality and the people.

### The Target Group

Due to the 14 million visitors that Scheveningen is receiving annually, our target group is diverse. Including any nationality, but especially Europeans, and any age group from 7 years old and upwards.

We created these personas in order to better visualize our target group. With them we included: location, occupation, present action, values, behavioral identifiers and the diffusion of innovation model.

# Personas



**THOMAS, 57**

DEMOGRAPHICS

DEN HAAG, NETHERLANDS ENTREPRENEUR, BEACH CLUB OWNER

WORKING IN HIS BAR SECURITY, SERENITY, PRACTICALITY

BEHAVIORAL IDENTIFIERS

- STRUGGLE WITH FINDING A HANDICAP PARKING SPOT
- BRIEF HIS EMPLOYEES
- ORGANIZE THE TABLES FOR THE EVENING PARTY
- ENJOY A DRINK BEFORE CLOSING



**SARAH, 9**

DEMOGRAPHICS

DÜSSELDORF, GERMANY STUDENT

WALKING HER DOG JOY, HAPPINESS, EXCITEMENT

BEHAVIORAL IDENTIFIERS

- TAKE A SWIM
- BUILD SANDCASTLES
- PET HER DOG
- ENJOY TIME WITH HER PARENTS



**TIM, 27**

DEMOGRAPHICS

SCHEVENINGEN, NETHERLANDS SURF INSTRUCTOR

GETTING READY FOR SURFING FITNESS, INSIGHTFULNESS, INNOVATIVENESS

BEHAVIORAL IDENTIFIERS

- PRACTICING HIS SURFING SKILLS
- ENJOY SUNSET WITH FRIENDS
- TAKING A BREAK WITH OTHER SURFERS
- TAKE A WALK THROUGH THE NATURA2000



### Hard Requirements

1. Product creates awareness to the visitors about data collection from the Municipality in Scheveningen (Desirability)
2. The user needs to be able to interact with the product in any shape or form (Desirability)
3. Product needs to be compatible with existing infrastructure; such as lamp posts, bins and benches, in order to avoid cluttering on the boulevard (Viability)
4. Product must respect regulations of the Municipality in order to ease implementation (Feasibility)
5. Users need to understand how to operate the product within 12 seconds (Desirability)
6. Product must engage the user by stimulating at least one of the human senses (Desirability)
7. Project should not exceed the budget of 20 000€ (Viability)

### Soft Requirements

1. The product presents to the user the data that is collected from Scheveningen by the Municipality (Desirability)
2. User interface should be available in at least the top six most used languages by tourists in Scheveningen (Desirability)
3. Product should be modular and upgradable in order to anticipate future growth (Viability)
4. 20% of the product must integrate re-used or recycled materials or components (Feasibility)
5. The product should be accessible by those groups or individual that have difficulties with reduced mobility or visual impairment (Desirability)