

FreshSight

Zero food waste & Effortless management

freshsight.app

1st Cycle Integrated Project in Electrical
and Computer Engineering

The Food Waste Problem

“Out of sight, out of mind”

And therefore out of date and out in the trash.

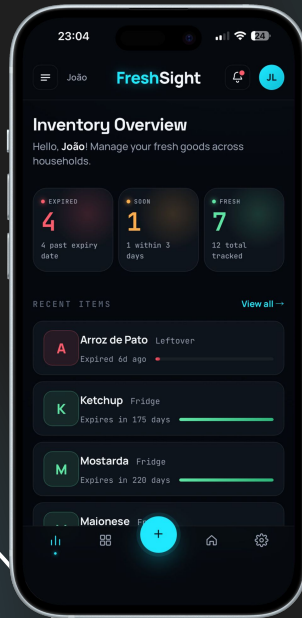
Higher grocery bills.

More organic waste in landfills.



Our Solution: Meet **FreshSight**

A low-friction inventory system.



Scanning & Identifying

Scans the product or identifies the container by the QR Code or Digital Link.



Weighing & Registering

Weight and register leftovers through the smart-scale.



Tracking & Reminding

Notification for expiring items & leftovers.

Who does this benefit?

Busy Families

Less mental load for meal planning & shopping



Budget-Conscious

Avoid duplicates & Maximize grocery spend



Health Trackers

Auto nutritional data for macros & meal prep



Eco-Conscious

Reduce carbon footprint by cutting food waste



What's out there?

Amazon Dash Smart Shelf

Tracks weight, but **ignores expiration dates** and restricts you to Amazon.



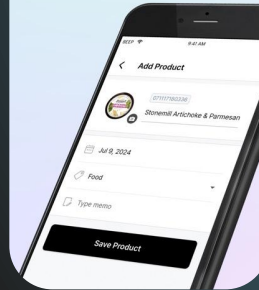
Smart Fridges

Costs thousands of dollars and often just provides a static photo of your food.



BEEP

Expiration Date
Tracking Solution



We are the **only ones** that track leftovers!

Requires **tedious manual typing** for every expiration date.

BEEP

MONITOR YOUR HOUSEHOLD ITEMS
USING THE PANTRYON SYSTEM
AND COMPANION APP



Bulky, expensive shelving that **only** tracks **quantity**, not freshness.

Pantry On


But **what's** our **secret?**




GS1 Digital Link



Mass Adoption is planned **for 2027!**

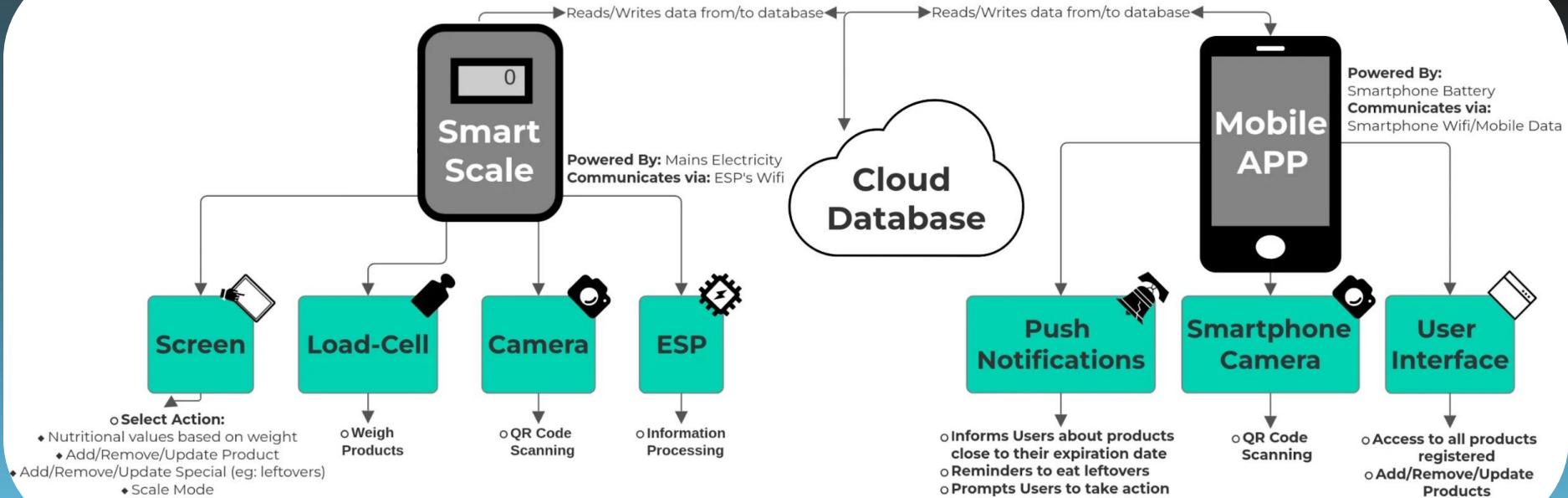
 **Barcode to URL**
Transforms traditional product codes into web addressable links.

 **Rich Data Carrier**
Encoded in 2D barcodes (QR/DataMatrix), it carries much more than a GTIN.

 **Global Standard**
Ensures integration across retailers, manufacturers, and consumer apps.



Solution Architecture



Costs and benefits

350€ wasted per year

According to data from the Instituto Nacional de Estatística, in Portugal in 2023 each person **wasted on average 183 kg** of food, corresponding to over 350€.

Our solution costs 70€

If we sell our complete solution for 70€, and expect just a reduction of 30%, our product will **pay for itself in less than a year**.

QOL Improvements

Moreover, our solution has benefits other than cost, as it **helps the environment** while helping one **be more organized** and **healthier**.

For FreshSight

In a production environment, we expect to manage a **cost per unit** of around **50€** which would give us **profits** of about **40%**.

The team



André Santos
Project Management
& Backend Engineer



David Viegas
Product Engineering
& Design



Diogo Rego
External Relations &
Database Engineer



Teresa Vazão
Project Guidance



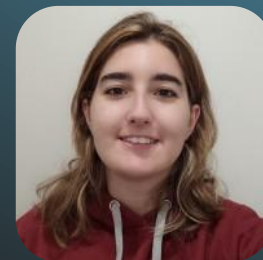
Filipa Lopes
UI/UX Designer &
Marketing Lead



Gabriel Smith
Website & App Lead



João Lourenço
Tech & Electronics
Lead



Mariana Teixeira
Project Guidance
Lead

Task Contribution

André

- Technology Architecture
- Backend Stack
- Poster

David

- Solution Architecture
- Bill of Materials
- CAD Modeling

Diogo

- All External Communication
- Camera, QR Code & System Integration
- Video Editing

Filipa

- All Blog Posts
- Questionnaire & Data Analysis
- Demo Video Production

Gabriel

- Website & Blog Design
- WebApp Development
- Communication Materials

João

- Scale Display Integration
- Solution Architecture
- Communication materials

Thank you!

Learn more at **freshsight.app**
where you can checkout our **poster & video**