

Carlos Marrero

Ux/UI Designer & Digital Artist

ux portfolio



Hi, I'm Carlos Marrero, an UX designer and researcher with a strategic mindset, the soul of a digital artist, and a commitment to social impact.

UX design It's about listening, understanding diverse needs, and creating digital products that respect and empower people – especially older adults and people with disabilities. I see design as a tool to enhance human dignity and well-being.

UX Projects

AteCheff

UX redesign of a complex hospitality POS, making it more intuitive and scalable through real user research and a modern visual approach.

Euro-Solar

UX design of a traceability app for self-sufficient energy kits in Latin America, connecting installers, European agents and end users.

Nft Canarias 2025

Design of the hybrid experience for a digital art and blockchain event, optimizing registration, signage and networking for diverse audiences.



Atecheff

UX Redesign to Transform a
Complex POS into a Clear, Scalable
and Hospitality-Specialized Product

Year

2020 - 2021

Duration

6+ months

Website

atecresa.com

Role

UX/UI Designer &
Researcher

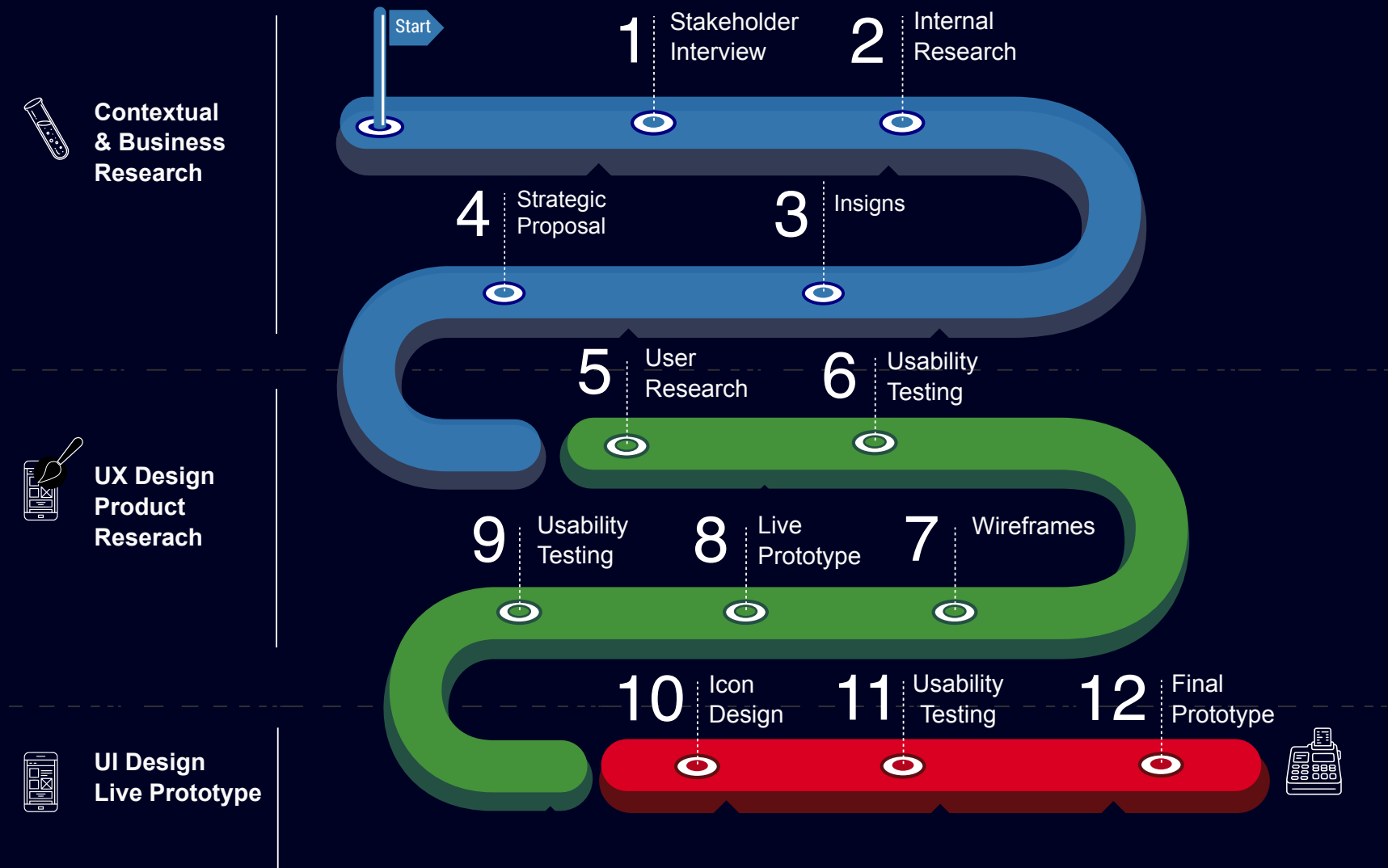
Tools

Axure RP,
Inkscape (Illustrator),
intertviews,
usability tests

Scope

Research with stakeholders and users,
persona definition, ideation, prototyping, visual
design and style guides

UX Project Roadmap



Contextual & Business Research



Stakeholder Interviews

Research and Findings

Stakeholder Research Results



The stakeholder research phase in the AteCresa project was fundamental to align the design objectives with the real needs of the business and end users. In-depth interviews were conducted with key actors involved, including product managers, technical teams, marketing, and customer service. This diversity allowed capturing different perspectives and priorities that influenced design decisions.

Stakeholders and company directors emphasized the need to modernize the corporate image and user interface to align with top market standards. They prioritized responsive design for mobile devices, aiming to improve brand perception, usability, and consistency across platforms.

Internal Research at Atecresa

Research and Findings

Main findings

I conducted interviews with different internal roles: SAT technicians, installers and commercial staff.

Dependencies

Strong dependency on technical support, even for simple tasks.

Absence of persona

Absence of defined buyer persona models.

Database

Critical issues with database compaction

Aesthetics

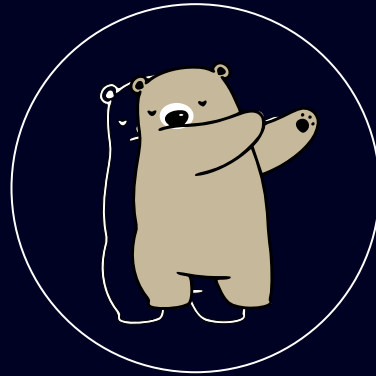
Demand to update aesthetics and UX to inspire confidence.

Navigation consistency

Need to speed up the creation of menus and products.

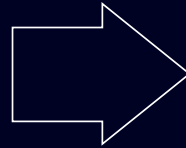
Strategic Proposal: self-sufficient

Optimize Ategest TPV to increase independence and business efficiency



Ate Gest

Dependent software



AteCheff

Autonomous Software



1

Food Service

Restaurants
Coffee shops
Bakeries
Pastry shops
Guachinches
Small traditional bars
Pizza restaurants

Retail

Greengrocers
Butcher shops
Fishmongers
Supermarkets
Clothing stores
Jewelry stores
Watch stores

Services

Hairdresser
Gyms
Workshops
Technical service

Others

Wholesalers
Gyms
Workshops
Services



2

Food Service

Restaurants
Coffee shops
Bakeries
Pastry shops
Guachinches
Small bars
Pizza restaurants

Retail

Greengrocers
Butcher shops
Fishmongers
Supermarkets
Clothing stores
Jewelry stores
Watch stores

Services

Hairdresser
Gyms
Workshops
Technical service

Others

Wholesalers
Gyms
Workshops
Services



Food Services

Restaurants
Coffee shops
Bakeries
Pastry shops
Guachinches
Small bars
Pizza restaurants



ATEGEST THE CHEFF



Focus on specific users
Integrate an error solver (Helpers)
Integrate onboarding assistants (Onboarding)
Use appropriate interaction patterns (Patterns)
Integrate sales of specific products (Shop)
Integration of training and self-help manuals

Strategic Proposal

Research and Findings

Optimize Atecresa POS"



AteCheff

Autonomous Software

Pre-Installation Training & Technical Support

Hospitality: The Best in Its Niche

Integrate Assistants

Integrate E-Commerce

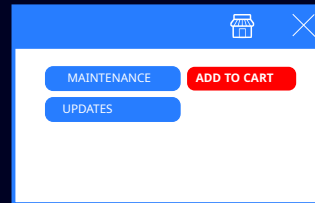
Optimize Atecresa POS

Strategic Proposal: Context & Business Insights

AteCheff



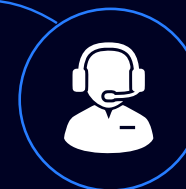
Integrate
Shop



MAINTENANCE

UPDATES

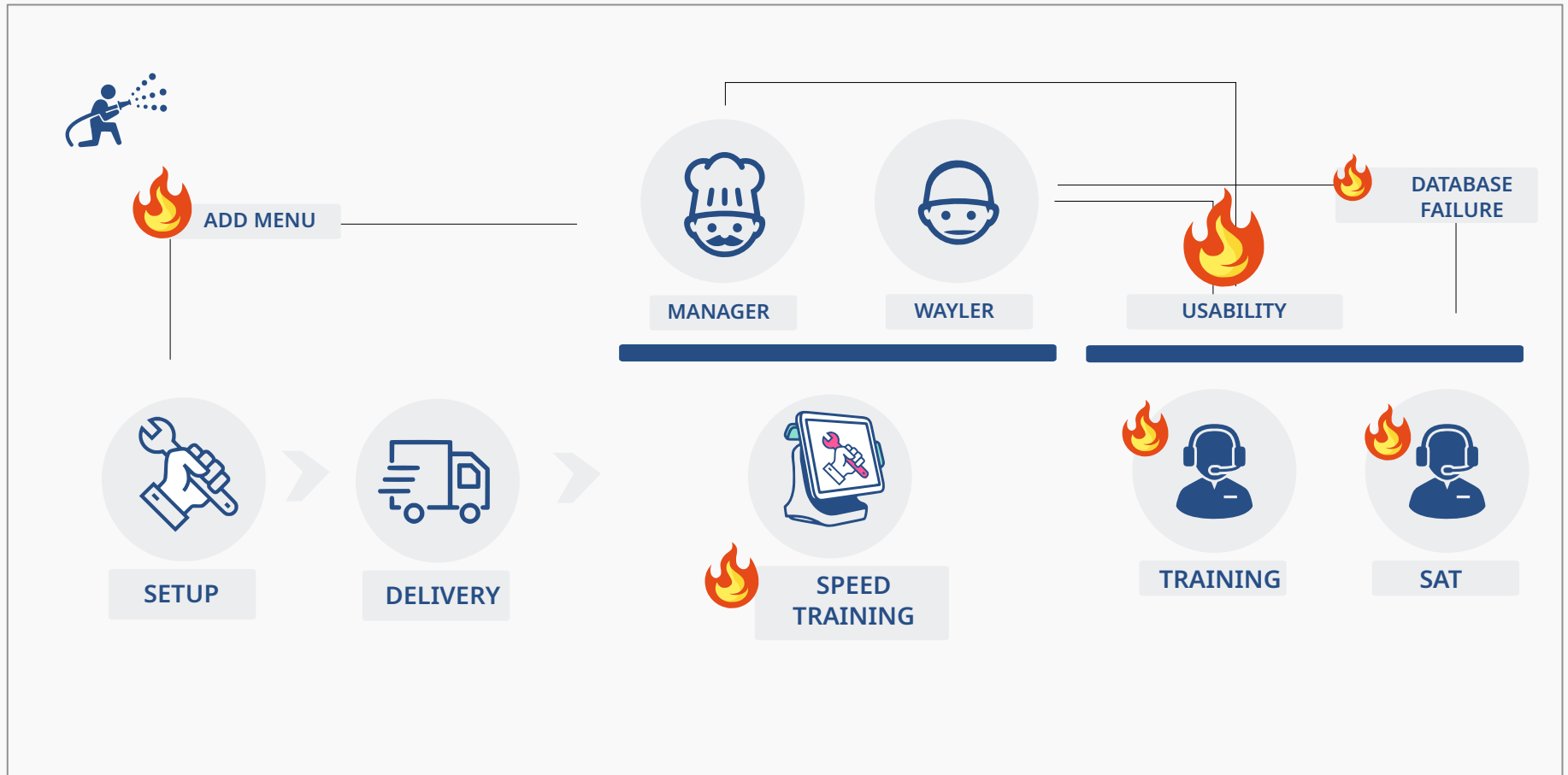
Integrate
Assistants



SELF-TRAINING

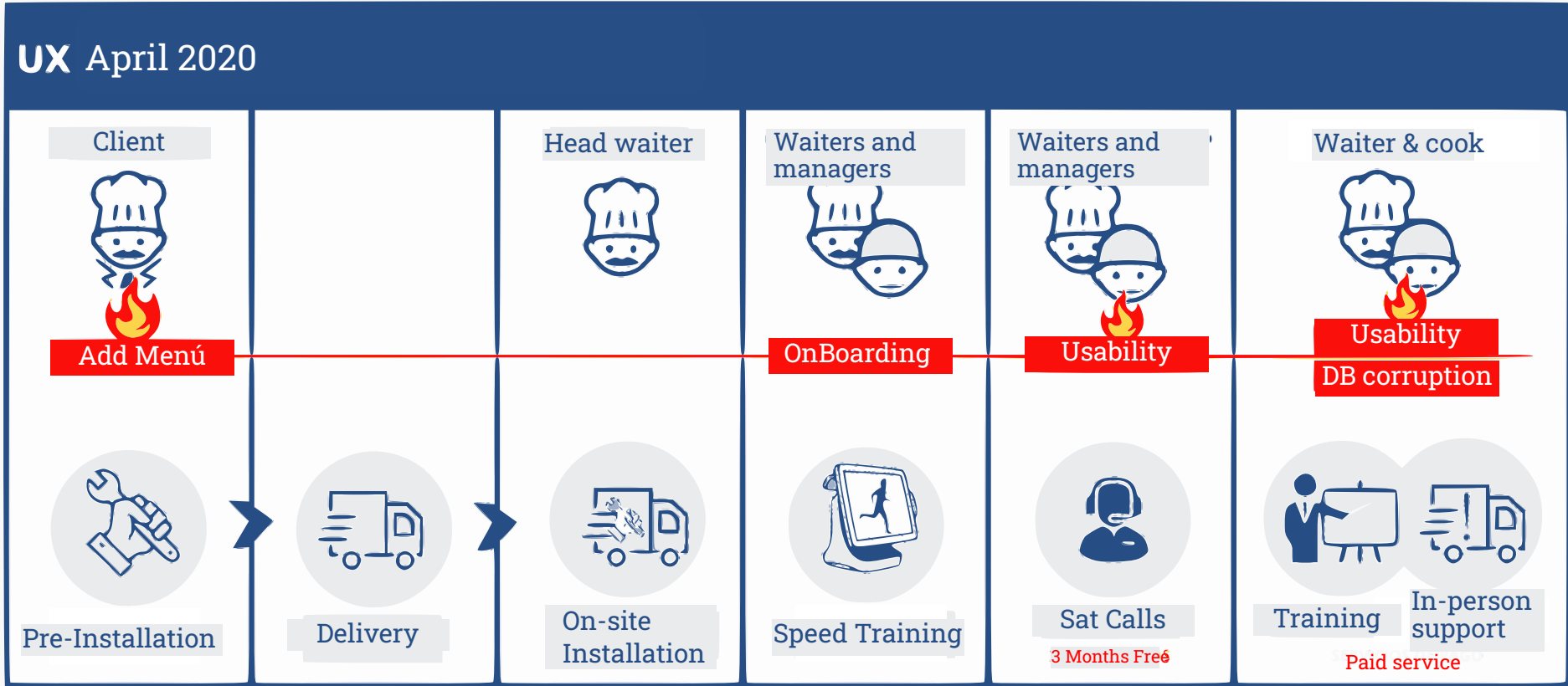
Issues identified in Atecresa

During the internal research phase within the company, after conducting interviews with various members of the technical team, SAT support, installers, sales representatives, and developers, I mapped out the main issues identified. These included problems related to the installation and setup of the product, difficulties stemming from the need for user training and onboarding, technical issues involving database corruption, and finally, after-sales service challenges caused by poor product usability.



Service Blueprint

I thought it was important to analyze the product from a service perspective to understand what might be happening and, above all, which elements we could introduce into the product to solve some of the company's problems. This blueprint shows the phases the customer goes through at the top, the company's perspective at the bottom, and in the middle, we can see where significant problems are occurring, which we will later address in the UX design phase.



Strategic Proposal: self-sufficient

Research and Findings

Optimize Ategest TPV to increase
independence and business efficiency

Product Research & UX Design



Ategest POS



Usability Testing of the Current Product

Research and Findings

Main findings

I ran usability tests to analyze the real experience with the POS:

Navegation

Rigid navigation and inconsistent patterns (like back buttons in different places).

Learning curve

High learning curve, leading to more calls to SAT.

Branding

Outdated design that harmed brand perception.

Business Management

Lack of strategic information for business management.

Visualization

Limited visualization of key data (tables, dishes, tickets).

Real Users in Context

Research and Findings

I conducted interviews and direct observation in real workplaces.

Main findings

Usability Issues

Confirmation of previous usability problems.

Onboarding.

Clear need for an onboarding guide to simplify initial setup.

Editable Maps

Demand for more realistic, editable table maps.

Customize

Need for more flexible flows to adapt to different profiles.

Automate

Opportunity to automate tasks to reduce critical errors.

Ategest POS

Shop

Integrated store (Atecresa Shop) for direct purchases from the POS.



Payments

Flexible payment methods, simplified split bills and ticket summaries.

Payments

Flexible payment methods, simplified split bills and ticket summaries.

Shop

Integrated store
(Atecresa Shop) for
direct purchases from
the POS.

UX GOALS PER USERS

Design Hypothesis - April 24

OWNER



MANUEL / 40 Years Old
IT SKILLS: HIGHT

View salest

View expenses

View recipe costing

Employee stats

ADMIN

View statistics

Cash management

MANAGER



RICARDO / 30 Years Old
IT SKILLS: INTERMEDIATE

TO TAKE AN ORDER

Place Order

Charge

ADMIN

View statisticst

Cash management

MAIN USER

WAITER



ANI / 20 Years Old
IT SKILLS: BASIC L.

TO TAKE AN ORDER

Place Order

Charge

x

x

x

MAIN USER

CHEF



PEPE / 35 Years Old
IT SKILLS: BASIC L.

View orders

Cook

Serve food

x

x

x

Opportunities and Challenges Identified

I ran usability tests to analyze the real experience with the POS.

Problems detected:

Navigation

Rigid navigation and inconsistent patterns (like back buttons in different places).

Visualization

Limited visualization of key data (tables, dishes, tickets).

Branding

Outdated design that harmed brand perception.

Learning curve

High learning curve, leading to more calls to SAT.

Business Management

Lack of strategic information for business management.

4. UX Planning and Design

The redesign focused on four critical user moments:

Initial setup

Onboarding guide, preconfigured menus and visual aids.

Taking Orders

More intuitive layered navigation, clear product cards and large buttons.

Payments

Flexible payment methods, simplified split bills and ticket summaries.

Support

Quick access to videos, manuals and FAQs.

Additional key improvements

Table Maps

Editable, realistic table maps

Custom

Customizable shortcuts based on user role.

Shop

Integrated store (Atecrea Shop) for direct purchases from the POS.

Inicial Setup

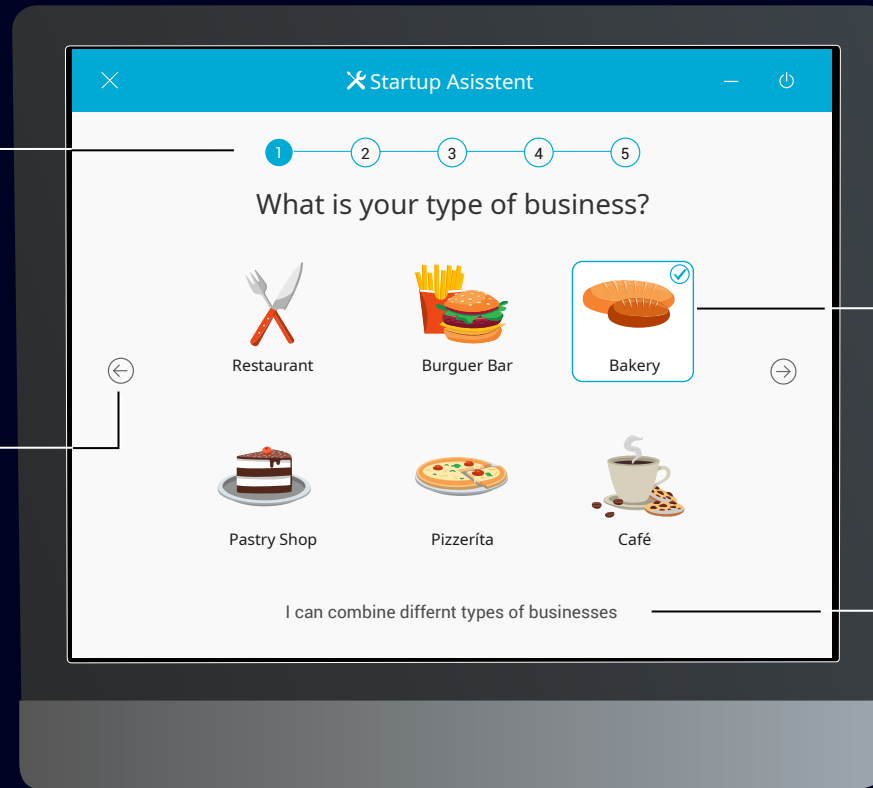
An initial setup was created to solve an important product and business problem. This setup helps the average user to configure the product initially without necessarily involving the company's employees.

Progress bar

A progress bar was included to clearly indicate which part of the process the user is in.

Navigation

Allows browsing through different types of businesses in the section.



Business

The choice of each family type subsequently defines a type of interface, a set of families, and products.

Information

Each scenario includes a text block to assist and clarify any interaction questions.

Taking Orders

The main scenario of the application is creating orders. The interface was redesigned by creating shortcuts, adding feedback, and considering the needs of the researched users.

NavBar

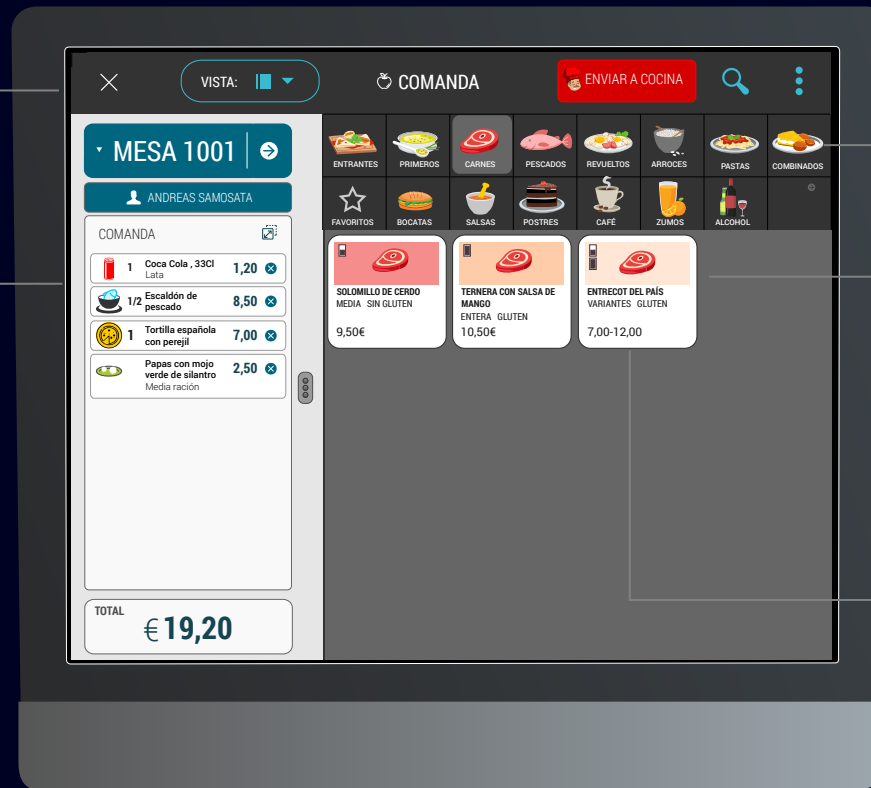
We use a global menu that changes according to the specific needs of the user

Tickets

space where we view and interact. It provides shortcuts to other parts of the application, such as table details or product information.

To fire the order

The ticket is interactive, and each piece of information is linked to a specific action in the interface



Families

A flexible family system was created, along with a generic set of icons to visually represent all families.

Items

The product is an interactive element that contains all the necessary information for correct identification.

Buttons

The entire visual interface was adjusted around one key ergonomic element: finger-friendly buttons.

Payments

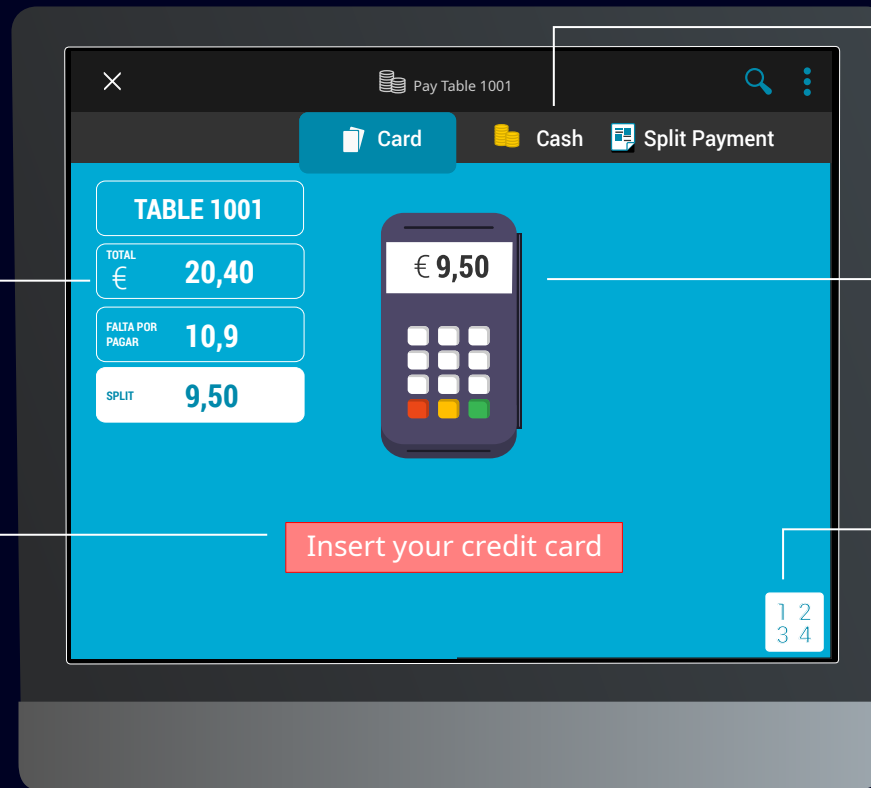
A specific payment scenario was created with access to the two main payment systems: card and cash. Additionally, a feature requested by the waitstaff was integrated – splitting the bill, something quite typical in Spain.

Direct Access

Flexible payment methods, simplified split bills and ticket summaries.

Feedback

The system displays the current status of the device, providing feedback to the user.



Pay methods

Easily provides access to the different types of payment for the user.

Invoice

Clearly shows the amount to be paid.

Numeric

Shortcut to Numeric Keypad

Support

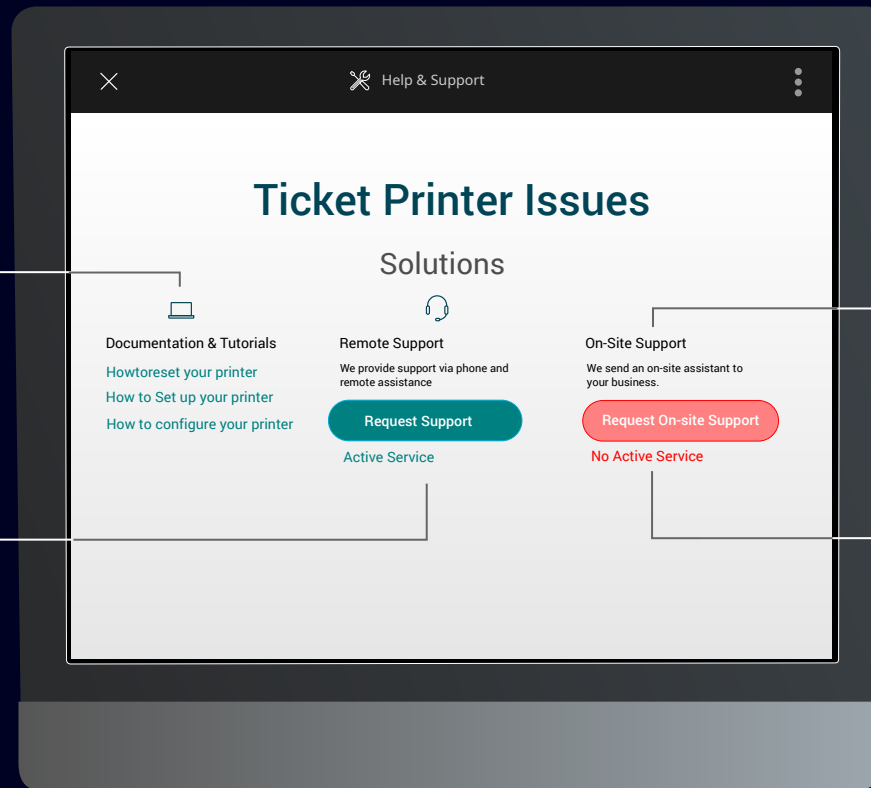
A support section was created where the client could resolve their issues independently and have the option to contract maintenance services if needed.

Tutorials

A series of self-help videos are offered to the user so they can resolve the issue by themselves

Remote

Remote Support:
Limited-time service offered by the company.



On-Site

Service involving a visit to the client's premises, usually chargeable.

Shop

Integrated store (Atecresa Shop) for direct purchases from the POS.

UI Design & Live Prototype



5. Visual Identity and Style Guides

The redesign focused on four critical user moments:

Color

Onboarding guide, preconfigured menus and visual aids.

Iconography

custom-designed icons and graphic elements.

Typography

Roboto and Roboto Condensed for clarity and modernity.

Illustrations

vector illustrations for onboarding and help, adapted to different user roles.

Affordance

Flexible payment methods, simplified split bills and ticket summaries.

UI Design: Interface

Modular

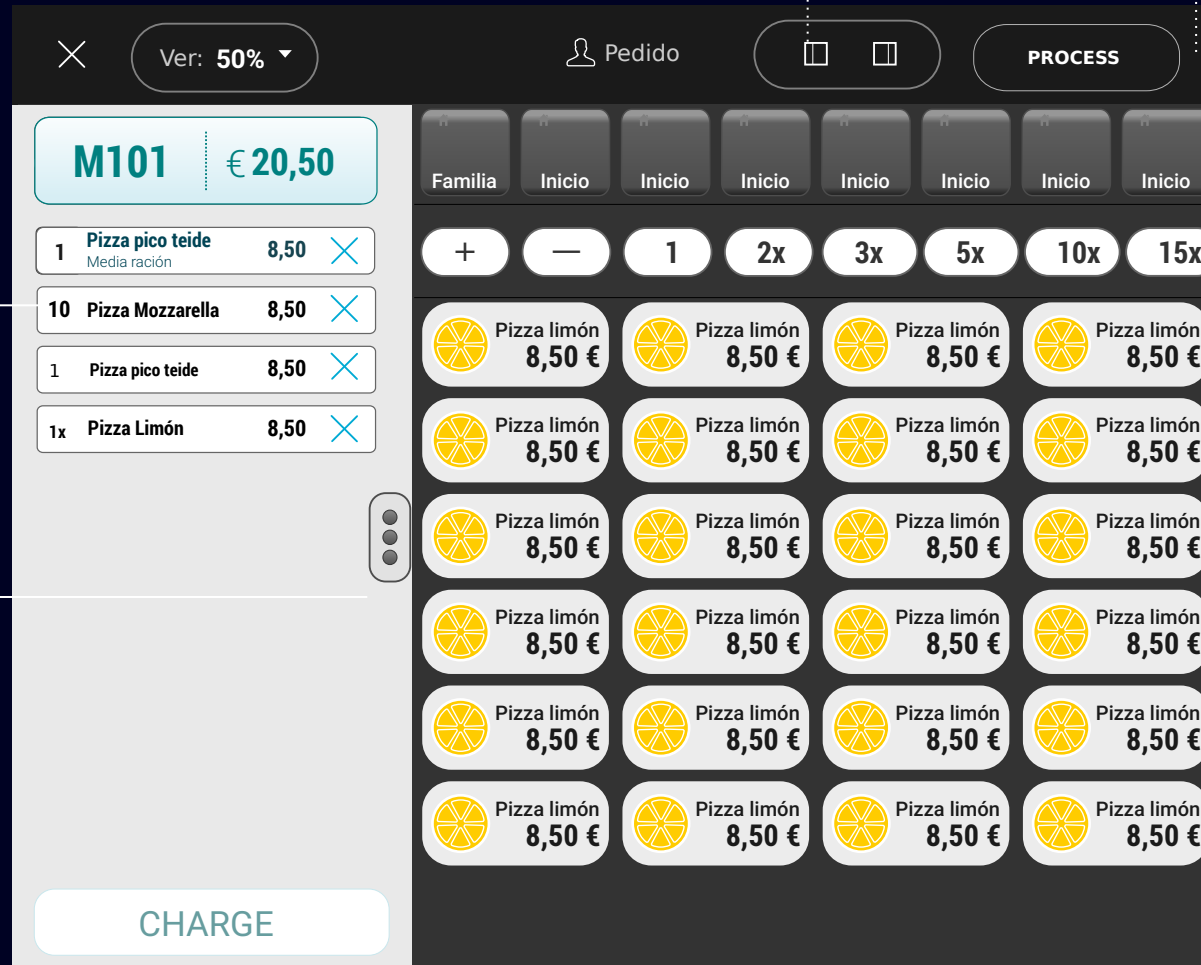
A modular design enables a flexible and adaptable user interface.

Items

The product must remain visible and clearly display the quantity, product type, and the option to remove it.

Flexible

The user can adjust the layout to prioritize either ticket information or product listings.



Visualization

Visualization Mode is accessible and crucial to the user

Global

Global Navigation is fixed and keep the main actions on the interface

Categories

Product categories. Navigation menu for the first product category

Ergonomics

Buttons based in ergonomics finger sizes.

Consistency

Design consistency: each item includes an icon and the specific product information.

6. Results and Expected Impact

The new design transforms Ategest TPV into Atecheff, a product

Market

Fully specialized in hospitality.

Learning

Faster onboarding, fewer SAT calls

Usability

large buttons (minimum 70 px) for easy touch interaction

Look & Feel

modern look that improves brand perception.

Welcome to Atecheff TPV

Vamos a ayudarte a configurar tu TPV



START



atecrea

La solución solución ideal para tu negocio de restauración



ONBOARDING

UX/UI Redesign of Atecresa POS Software

Client: Atecresa – Hospitality Solutions

Year: 2020

Role: UX/UI Designer – Research, strategy, visual design, prototyping & user testing

POS product with over 20 years in the market, originally created without a defined user. The goal was to transform it into a modern, intuitive tool focused on real users in the hospitality sector.



Com



Com



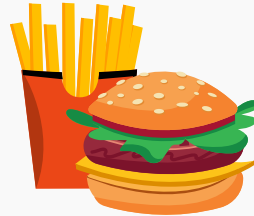
C



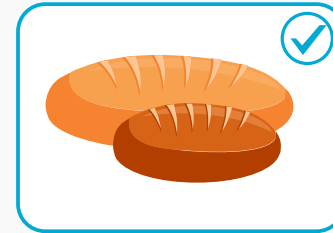
What is your business type?



Restaurant



Hamburger



Bakery



Pastelería



Pizzería



Cafetería





COMEDOR



RESUMEN



PRINCIPAL



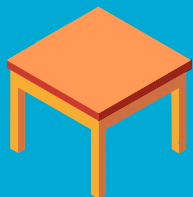
TERRAZA

RESUMEN

Resumen de salas



AÑADIR MESA



TIEMPO MEDIO POR MESA

25:10Min

MESAS LIBRES



30

MESAS OCUPADAS



15

SALAS



COMEDOR PRINCIPAL

Actualmente 16 mesas creadas

LIBRES

11

OCUPADAS

4

RESERVAS

1



TERRAZA

Actualmente 14 mesas totales.

LIBRES

5

OCUPADAS

9



ACREA UNA NUEVA SALA

SPuedes crear hasta 5 salas



CREAR SALA

7. Final Reflections

This project allowed me to work on a real product with years of history, identify problems that impacted the whole company, and design solutions focused on both user experience and business goals.

My proposal focused on hospitality, modernized the interface and reduced complexity without losing functionality, showing how design can be a lever to transform products and business models.

Eurosolar

Web application



Year

2009

Duration

6+ months

Website

No active

Role

Ux designer

Graphic Designer

Front-end developer

Tools

Personas

Prioritization of user
objectives

High fidelity wireframes

Scope

EURO-SOLAR provided 600 isolated rural communities in Latin America with a system of photovoltaic panels, in some cases combined with small wind panels, in order to generate electricity. It also provided other applications for community use in the field of education, health and communication (such as laptops, internet connection, printers/scanners, medical refrigeration equipment, water purifiers, etc.).

UX Project Roadmap



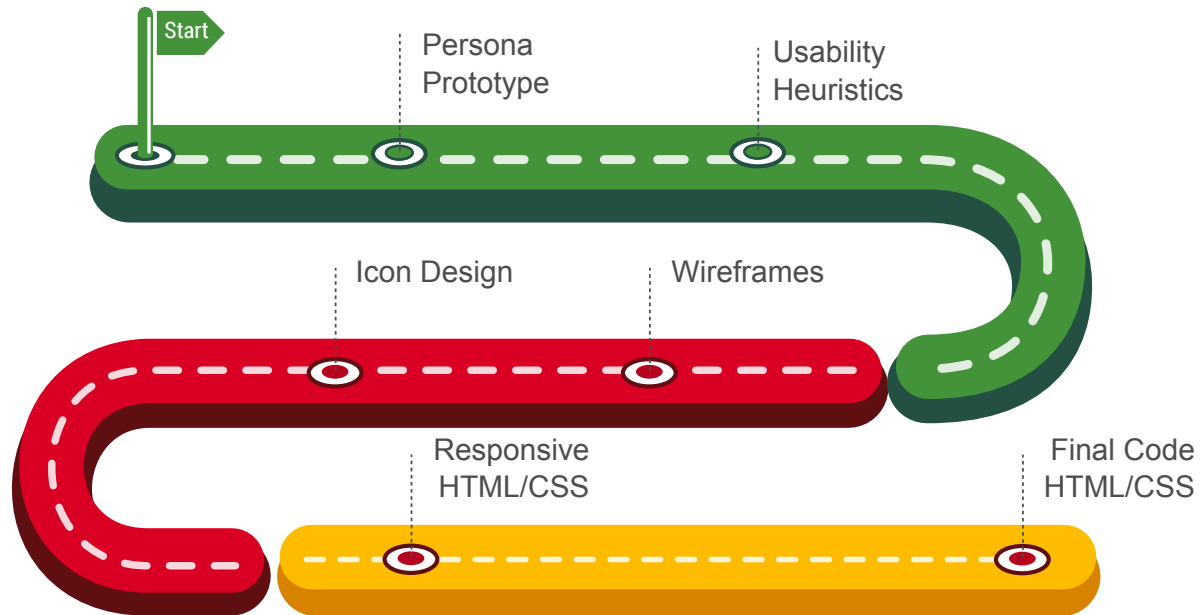
**UX Design
Product
Reserach**



**UI Design
Web App**

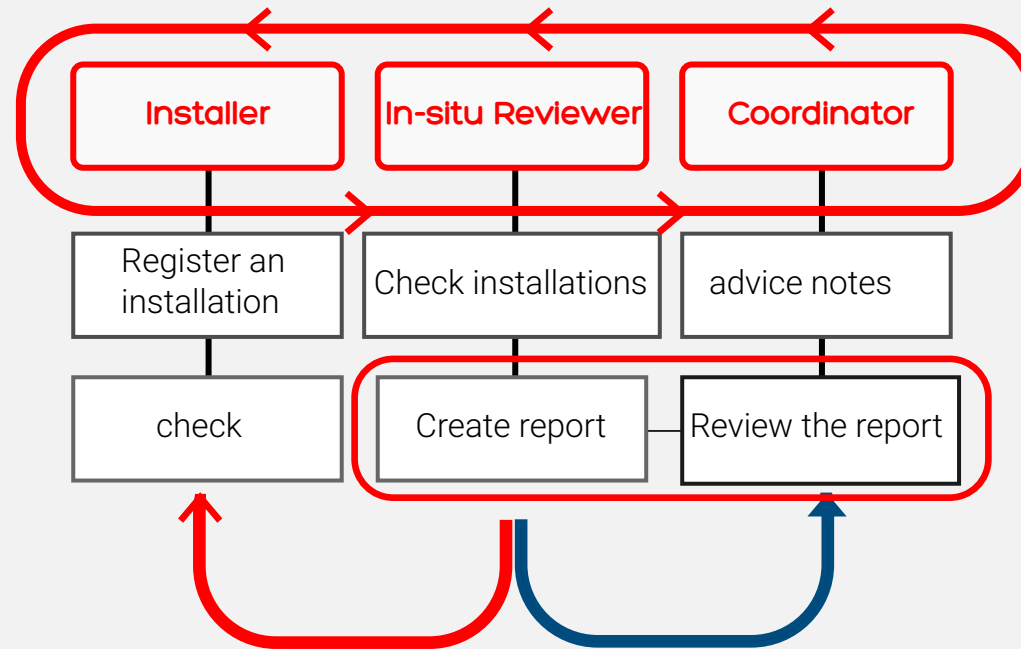


**Web-Front
Development**



Relationship Analysis

The Eurosolar program needs to monitor the facilities, the installers, the kits provided and in general the entire implementation process. This required an accessible app from the web, which the reviewers could consult on the spot and add the corresponding information.



The three main persons in the project are the installer of the kit, the in-situ reviewer who verifies that the installation has been correctly installed in order to generate a positive or negative report, and a coordinator (Approver) who reviews the reviewer's report in situ gives the approval and makes the due report to the European departments.

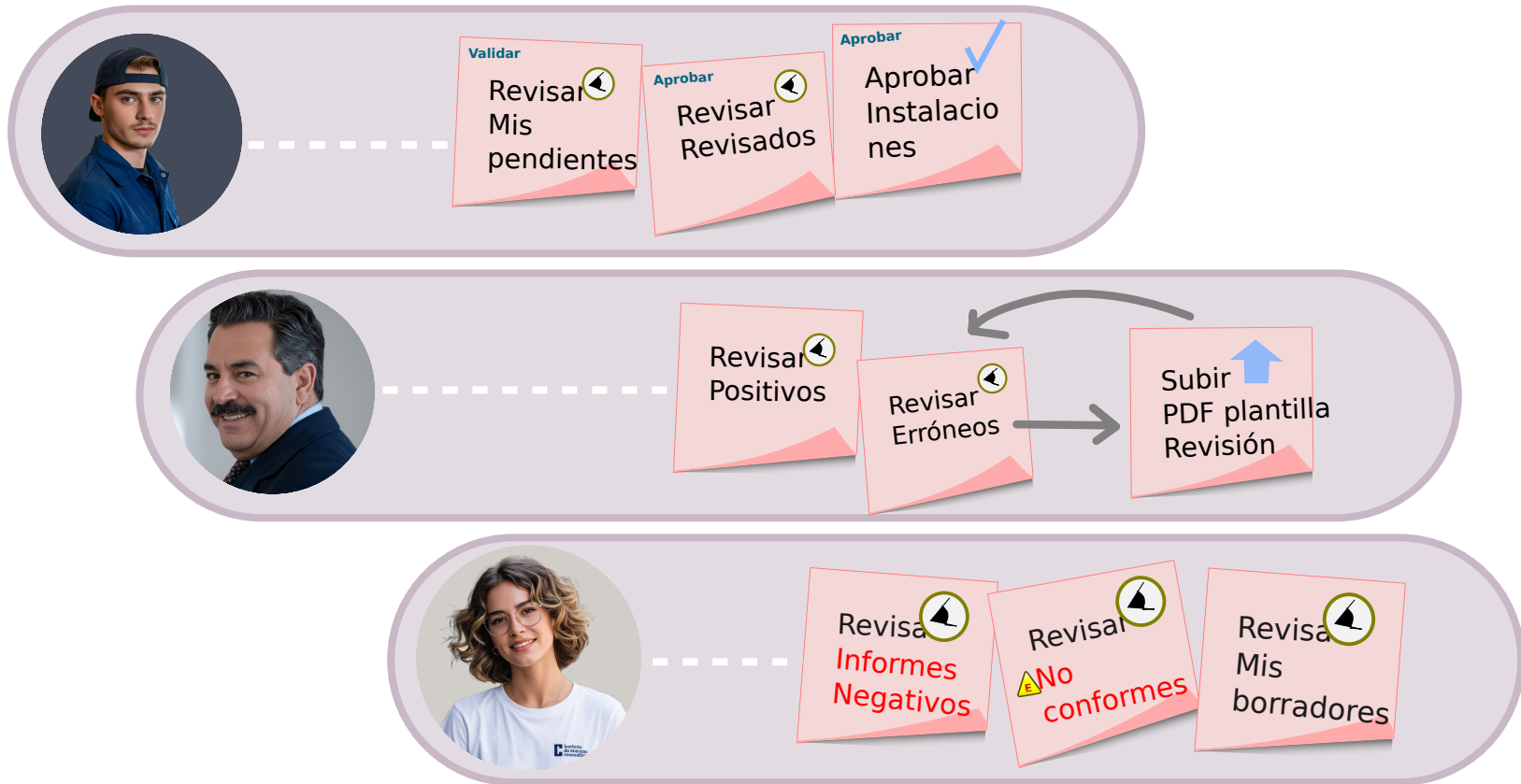
“Persona” prototyping



In this project, I used persona prototyping for the first time to define the interface approach. This tool helped me focus the design by applying concepts from Alan Cooper, which I was studying at the time. I realized that the concept of a persona not only helps to prioritize interface decisions, but also facilitates coherent and empathetic communication with the development team.

Together with the user modeling I conducted, this approach allowed me to better align the product's functional goals with user needs. However, I acknowledge that at that stage, I lacked the experience to create fully mature and validated personas. As a result, this work lacks the methodological rigor I have applied in later projects, where I used qualitative research techniques and behavioral pattern validation.

Card Shorting: Priorizing of tasks



The actions in the interface were categorized in relation to the primary needs of each user. In this case, Ricardo, our user reviewer, had to register the facilities, send them and review and correct the negative reports.

Management and monitoring of installations



Portal de seguimiento del programa Eurosolar

Instalador
D. Rodríguez Pérez

Mapa de Sitio Contacto Salir

Notificaciones Alta de instalación Estado de Instalaciones

Editando instalacion

EC - S - 011 / Pilche

Enviar

Datos identificativos Datos instalación Datos componentes Fotos

Datos Identificativos

País / Comunidad:

País / Comunidad:

Guardar

The private area of the intranet app requires user registration and shows different options on the interface according to the type of user.

The first screen shows the installer's interface where you can see the different forms that must be filled in to complete the installation before being sent to the reviewer.

Usability of tags, forms and processes

The image displays three sequential usability prototypes of a software installation confirmation process, labeled 1, 2, and 3. Each prototype shows a user interface with various elements like buttons, text boxes, and checkboxes, accompanied by user feedback comments in speech bubbles.

Prototype 1: Shows the initial state. The user is prompted to approve the installation. The interface includes a 'Ver' button and a 'Revisar' button. A user comment says: 'Mmm...aquí parece que es donde apruebo la instalación...'. Another comment says: 'Mmm...los botones son bonitos...pero qué tengo que responder? ¿qué debería estar finalizado?'. A third comment says: 'Mmm...¿qué hace este botón? ¿Qué revisa?'. The interface also shows a 'Finalizado' button and an 'Enviar' button.

Prototype 2: Shows the next step. The user is prompted to confirm the installation. The interface includes a 'Ver' button and a 'Revisar' button. A user comment says: '¿Qué hace este botón? No lo tengo nada claro. ¿Qué revisa?'. Another comment says: 'Mmm...esto es para aprobar la instalación...'. A third comment says: 'En un principio todo parece claro...voy a mirar el pdf...'. A fourth comment says: 'Mmm...esto parece que enviará la revisión de aprobación...'. The interface also shows a 'SI' button and a 'No' button.

Prototype 3: Shows the final step. The user is prompted to confirm the installation. The interface includes a 'Ver' button and a 'Revisar' button. A user comment says: 'Me encanta mi trabajo, sobre todo si alguien cumple años en el desayuno...'. Another comment says: 'Mmm...creo que tendré que enviar algo...pero...¿cuándo? ¿Ahora o luego?'. A third comment says: 'Mmm...parece que tengo que elegir entre aprobar y confirmar...qué será eso de conformidad...'. A fourth comment says: 'Mmm...esto qué hace? aún no lo veo claro...'. The interface also shows a 'SI' button and a 'No' button.

Usability prototypes aimed at the development team were made to help them understand the problem and model the approach from the user experience.

In them I have examined the process of confirming an installation, where I propose to improve the labelling of the actions, improve the navigation of the forms using labels and improve the understanding of the actions that must be performed.

Navigation & usability

1

Portal for Tracking the Eurosolar Program

Installer
D. Rodríguez Pérez

Mapa de Sitio Contacto Salir

Activity Installations **Validations**

Validating the Installation: 1 Step

EC - S - 030 / Pilche Next

12 Components: [Paneles Solares](#), [Aerogenerador](#), [Baterías](#), [Calefactería](#), [Calevera](#), [Purificador](#), [PCs](#)

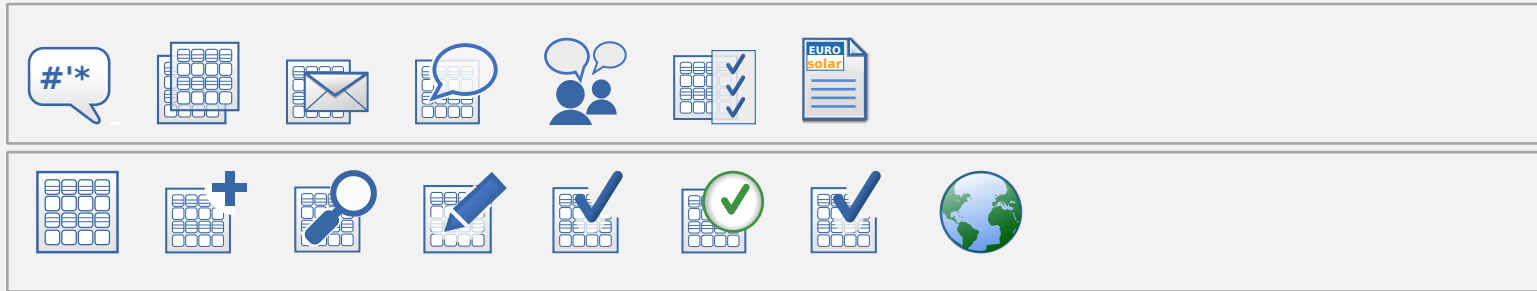
	Paneles solares Revisado	Estado actual: Si
	Inversor 1 Revisado Componente	Estado actual: Si
	Inversor 2 No revisado Componente	Estado actual: No
	Regularador No revisado Componente	Estado actual: No
	Baterías No validado	Estado actual: No
	Calefactería No validado	Estado actual: No
	Purificador No validado	Estado actual: No

Minimized component visualization provides an overview of reviewed or pending components and their current status. This helps reduce cognitive load when completing forms and performing the task.

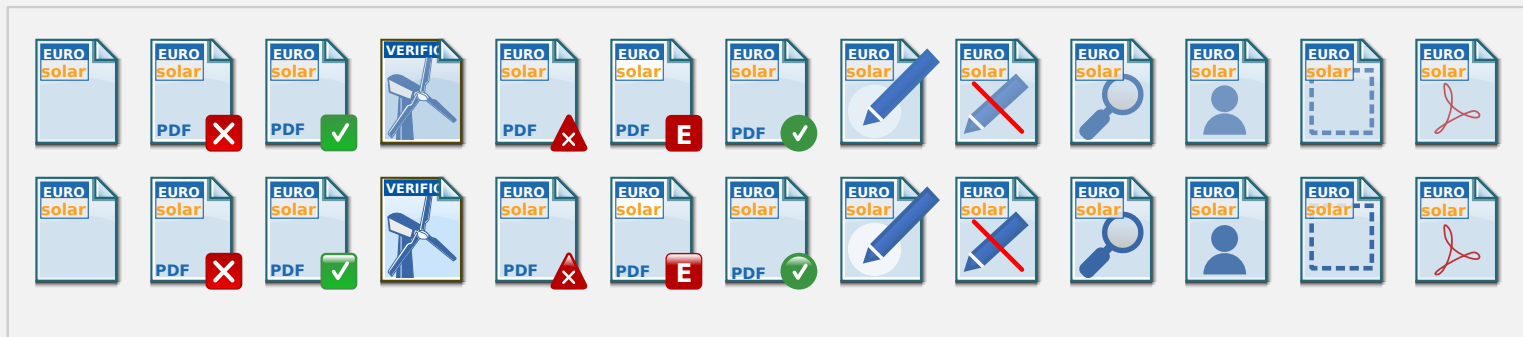
Clicking expands it and displays the data.

The design includes a default icon that could later be replaced with a custom one, helping users better understand and locate the component they are reviewing.

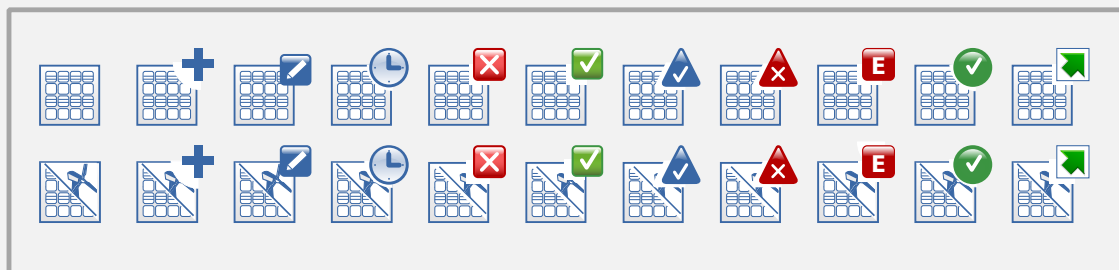
Icons & visualization



Document Type + State



Installation Type + State



Final Reflections

This project gave me, as a front-end web developer in 2010, the opportunity to apply for the first time several user-centered design techniques I was studying at the time, such as persona prototyping, card sorting, and heuristic usability analysis.

Although the project had a pre-defined base structure by the development team, I was able to contribute significantly from a UX perspective: focusing the interface by user role, incorporating quick-access sections like a customized homepage, and making the app more intuitive, efficient, and accessible.

I also contributed to the design of functional iconography and visual elements that improved legibility and interaction. Additionally, I applied web standards development techniques that gave the platform greater flexibility and enabled better adaptation to mobile devices, which were beginning to emerge at that time.

Carlos Marrero
Chr5

Linked In

www.linkedin.com/in/chr5

Twitter

@chr5art

Email

hi[@]chr5.com

UX Tools

Uxure RP

User Interviews

Online polls

Wireframes

Paper prototyping

Personas

Design

Inkscape

The Gimp

Adobe Illustrator

Photoshop

Video Edition

IA Ideogram

Code

Linux Commands

HTML / CSS

Processing

Git / Subversion

Education

Game dynamics for Companies

2013: Gamification: Games dynamics for creative companies in Cultura Visual courses

Designing Accesible sites

2008.01: FICH 2007. Advanced Course on Designing Accessible Web Sites conducted by the Institute of Human Sciences Foundation.

Diplom in Advanced Studies

2007.03: I got the title of Advanced Studies title at the university of La Laguna with the research project "cognitive & semiotics approach in the GUI".

Erasmus scholarship en Braunschweig

2004: Socrates-Erasmus Scholarship conducted at the School of Art Braunschweig [Germany] for one year studied in the specialty of "communication design".

Degree In Fine Arts

95-2004: Degree in Fine Arts at the University of La Laguna - Tenerife [Spain].

Work Xperience

NftCanarias

2022 - Current: As Project Owner, Market Researcher, product designer, graphic and manager of online community of designers.

Awwa Art

2013 - Current: As Project Owner, Market Researcher, product designer, graphic and manager of online community of designers.

Iter - Institute for Renewable

2008.01-2010.03: As Interaction Designer (UX), graphic designer and Web developer (HTML / CSS).

Canaryweb

2007.08-10: Canaryweb S.L. : As graphic designer and web layout designer.

