

CUSTOM PUBLIC-SECTOR SOFTWARE FROM FORMENTERA

Public platforms, *built to measure.*

Websites, CMSs, bookings, data, voting and AI assistants for administrations across Spain and Europe. No WordPress, no templates. Security built in and compliance with the most demanding European standards: ENS, GDPR, NIS2 and WCAG 2.2 AA accessibility. With artificial intelligence only where it truly saves time.

6

public platforms in
production

10

languages on the official
tourism website

1,116

URLs migrated without
losing search rankings

0

templates, plugins or
WordPress

Everything an administration *needs in digital.*

WEB

Custom websites and CMS

A content manager designed around your team, not the other way round. No WordPress, no plugins, no updates that break things.

AI

AI-powered platforms

Assistants that answer in any language using official data, by text and by voice. Like na Sargui on formentera.es.

BOOKINGS

Booking and appointment systems

Slots, calendars and automatic confirmations, with no double bookings. Like the appointment system for the Formentera vehicle inspection centre.

DATA

Data observatories

Semi-automated collection of local data, reports and open data. Like the Observatori de Dades de Formentera.

PARTICIPATION

Voting and participation

Citizen voting with real-time results. Like the Formentera Gastronomic Days.

REGISTERS

Public lookup portals

Public search over official registers, with an API for third parties. Like the Formentera tourism register.

APPS

Mobile apps and kiosks

Android and iOS with Capacitor, plus kiosk mode for public totems, all from the same code as the website.

AUTOMATION

AI workflow automation

We turn manual, repetitive processes into automated flows supervised by people: translations, reports, notifications.

SECURITY

Cybersecurity for the public sector

Security headers and CSP, hardening, tested access rules, backups and recovery, with Spain's National Security Framework (ENS) as the reference.

SEO

Technical and international SEO

Migrations without losing rankings, hreflang, structured data and Core Web Vitals. 1,116 URLs redirected in the formentera.es migration.

ANALYTICS

In-house usage analytics

Every interaction measured in BigQuery with our own dashboard and no third-party cookies. Like the telemetry on formentera.es, kiosks and app included.

Consell Insular de Formentera · Tourism · 2026

The new official tourism website, with AI in ten languages

in.formentera.es began life as an AI assistant and in September 2026 replaced the official WordPress site as formentera.es: website, physical kiosk, mobile app, business portal and management dashboard, all from a single codebase.

10**2,840****1,116**

languages

pre-rendered pages

URLs redirected without losing rankings

The challenge

The official tourism website lived on a WordPress install with information that was out of date and duplicated across other channels. Residents, visitors and businesses needed a single place with live data: beaches, events, transport, shops, and immediate answers in their own language.

The solution

We built a complete platform on Google Cloud. The public website is pre-rendered into more than 2,800 pages for flawless SEO and served by nginx behind a load balancer with Cloud Armor. The na Sargui assistant answers via streaming with Gemini and live voice over WebSocket, and takes geolocation, temperature and wind into account to recommend, for instance, the most sheltered beach. The same code powers the island's totems in kiosk mode, the Android and iOS app and the portal where businesses publish their listings in ten languages. The migration redirected 1,116 URLs from the previous WordPress site.

Project highlights

- **An assistant with real context.** Weather, wind, bus timetables and Google Maps built into every answer, in the visitor's language.
- **One codebase, five products.** Website, kiosk with idle detection, native app with Capacitor, business portal and management dashboard with analytics in BigQuery.
- **Security as standard.** Strict Content Security Policy, HSTS, HTML sanitisation, Cloud DLP for sensitive data and zero-traffic deployments with rollback.
- **Optimised images.** Our own pipeline with Cloudflare Workers and Cloudinary: the exact format and size for every screen.
- **Lossless migration.** 1,116 redirects handled at the load balancer to preserve rankings built up over years.
- **Deep, in-house analytics.** Every page view, search, assistant conversation, kiosk session and app use is logged in BigQuery and explored from our own dashboard, with no third-party cookies.

Technology



<https://www.formentera.es>

ITV Formentera · Consell Insular · 2026

Vehicle inspection appointments without queues or phone calls

Public appointment booking system for the vehicle inspection centre, with PIN verification, PDF confirmation and a dashboard for the centre's team.

3 83 0

languages automated tests double bookings, by design

The challenge

Appointments were handled by phone and by hand, with lost slots, double bookings and no reminders. It needed a simple website for citizens and a nimble tool for the centre's staff, with a guarantee that two people could never take the same slot.

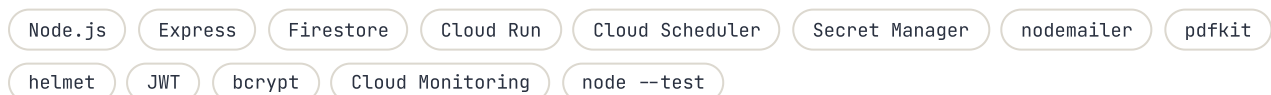
The solution

A Node.js application on Cloud Run with Firestore. Every time slot has its own occupancy document and bookings are made inside a transaction, which rules out double bookings even under simultaneous load. Citizens confirm with a PIN sent by email, download their PDF confirmation and can manage their appointments. The internal dashboard shows the daily and weekly grid and supports blocking, a blacklist and CSV export. Cloud Scheduler triggers reminders and expiries, and the operations, restore and security documentation lets the Consell run the service independently.

Project highlights

- **No double bookings.** Firestore transactions and an automated concurrency test.
- **Practical security.** Helmet, rate limiting, JWT, bcrypt, Secret Manager and data encryption.
- **Backups and recovery.** Seven-day point-in-time recovery plus daily and weekly exports to Cloud Storage with alerts.
- **Measurable quality.** 83 tests, a 24-check smoke test on staging and a documented, phased handover.

Technology



<https://itv.conselldeformentera.cat>

Observatori de Dades de Formentera · 2025

The island's open data bank

The Consell's data portal, with eight thematic views, interactive reports, public surveys in eight languages and a semi-automated collection flow from the tourist offices.

8

thematic views

8

languages in the surveys

3

languages on the portal

The challenge

Data about Formentera was scattered across reports, spreadsheets and paper surveys. It needed a single public portal, a dashboard so the team could publish without depending on anyone, and a way to collect field data without manual work.

The solution

A Next.js application with Firestore as its single data store. The public portal organises information in a category tree with embedded Power BI reports. The admin dashboard includes an editor, drag-and-drop ordering and Excel export. The tourist offices enter data through their own form, and the public surveys, such as those for the Starlight project, work in eight languages. Gemini automatically translates content from Catalan into Spanish and English and powers a public chatbot about the data.

Project highlights

- **Frictionless publishing.** Visual editor, reorderable categories and one-click exports.
- **Semi-automated collection.** Forms for the tourist offices and multilingual surveys that feed the data bank.
- **AI translation.** Every new piece of content is published in three languages with no extra work.
- **In-house authentication.** Signed sessions in a secure cookie, encrypted passwords and per-route access control.

Technology

Next.js 16

React 19

TypeScript

Tailwind CSS 4

Firestore

Gemini

Power BI

Chart.js

dnd-kit

Docker

Cloud Run

<https://www.observatorideformentera.cat>

Consell Insular de Formentera · Tourism regulation · 2026

The island's tourism register, public and searchable

Public search tool for tourism businesses, establishments and activities, with a role-based admin dashboard, case files with attachments and an API for third parties. Migrated from years of spreadsheets.

8

establishment categories

2

applications: public and management

1

public API with keys

The challenge

The register lived in Excel and ODS sheets accumulated over years, with no stable identifiers and no way for the public to consult it. It had to be migrated without losing its history, expose only what is public and give the team a management tool with full traceability.

The solution

A monorepo with two React applications and a shared package that defines the master schema. Firestore stores the complete case files and projects a public version with an aggregated index, so the search tool never touches internal data. Writes are atomic and audited, the Firestore and Storage security rules have their own tests, and a REST API with encrypted keys lets third parties query the register. The migration scripts generated stable identifiers from the historical files.

Project highlights

- **Public data kept apart from internal data.** Automatic public projection with an index for fast search.
- **Tested rules.** Access rules are tested against the emulator before every deployment.
- **Extra protection.** App Check with reCAPTCHA Enterprise and encrypted API keys.
- **Backups.** Weekly backups and point-in-time recovery.

Technology

React 19

Vite

TypeScript

Mantine

pnpm monorepo

Firestore

Cloud Functions

Firebase Auth

App Check

reCAPTCHA Enterprise

Firebase Hosting

<https://registre-turisme-formentera.web.app>

Save Posidonia Project · 2025

A lightweight website for a cause that deserves it

Multilingual site for the campaign protecting the posidonia meadows, the seagrass that keeps Formentera's waters crystal clear.

100% **0**

static, no database plugins to update

The challenge

The campaign needed a website that was fast, multilingual and cheap to maintain, without the burden of a content management system demanding constant updates and attention.

The solution

A static website in HTML, CSS and JavaScript with JSON-based internationalisation, served by nginx on Cloud Run. No database or dashboard to maintain: content is versioned as code. The container includes only the allowed files and sends security headers with every response.

Project highlights

- **Speed.** Static files with long-lived caching and compression.
- **Minimal cost.** Scales to zero when nobody is visiting.
- **Secure by default.** File allowlist and security headers.

Technology

HTML CSS JavaScript i18n JSON nginx Docker Cloud Run

<https://saveposidoniaproject.org>

Consell Insular de Formentera · Tourism · 2026

Public voting for the Gastronomic Days

Campaign application at app.formentera.es where the public votes for the participating dishes and restaurants, with real-time results.

Live 1

real-time results codebase shared with the tourism platform

The challenge

The Gastronomic Days wanted to involve the public in choosing the best dishes, with a vote open for weeks, accessible from a mobile phone and with results visible instantly.

The solution

A campaign application inside the tourism platform, published at app.formentera.es and deployed on Cloud Run. It shares components, services and languages with formentera.es, so each new campaign launches in days. Votes are stored in Firestore and results update in real time for both the organisers and the public.

Project highlights

- **Reusable.** The same foundation serves any future participation campaign.
- **Mobile first.** Designed for voting from a QR code at the restaurant.
- **Live results.** No waiting for the count.

Technology

React 19

Vite

TypeScript

Firestore

Cloud Run

pnpm monorepo

<https://app.formentera.es>

Technology that is already *in production*.

Frontend · Pre-rendered websites, kiosks and mobile apps from a single codebase.

- React 19
- Next.js 16 (App Router)
- Astro 7
- Vite 8
- TypeScript
- Tailwind CSS 4
- Mantine
- SEO prerender (2,840 pages)
- Server actions and middleware
- View Transitions
- WebGL and GSAP
- Chart.js
- dnd-kit
- WYSIWYG editors

Apps and kiosks · The same platform in your pocket and on the street.

- Capacitor (Android / iOS)
- Google Play and App Store
- Kiosk mode for totems
- Inactivity detection
- QR sharing between screen and phone
- Campaign apps
- Touch-friendly, accessible design

Backend · APIs, real time and scheduled jobs.

- Node.js 22 to 26
- Express 4 / 5
- WebSockets (ws)
- Server-Sent Events
- Cloud Functions v2
- REST API with keys
- Atomic transactions and batches
- Cloud Scheduler with OIDC
- Transactional email (nodemailer)
- Generated PDFs (pdfkit)
- Excel / CSV export

Identity and access · Who gets in, to what, and with which guarantees.

- Firebase Auth (Google)
- In-house JWT (jose)
- httpOnly cookie sessions
- bcrypt
- Email PIN verification
- Roles and claims
- App Check + reCAPTCHA Enterprise
- Encrypted API keys
- Blocklists and lockouts

Data · Modelling, analytics, migrations and open data.

- Firestore
- Public projections and aggregate indexes
- BigQuery
- Cloud Storage
- Embedded Power BI
- Migration from Excel / ODS with stable ids
- WordPress / MySQL
- Open data
- Multilingual surveys
- PITR and scheduled exports

AI · Chat, voice, translation and automation with human oversight.

- Gemini (@google/genai)
- Vertex AI
- Claude
- Streaming chat
- Live voice over WebSocket
- Knowledge base built on official data
- Real-time context (weather, wind, transport)
- Machine translation with review
- Cloud Translate
- Cloud DLP
- Handover to people

Maps and real time · Territory and live data inside the platform.

- Leaflet
- OpenStreetMap
- Google Maps
- CARTO and ArcGIS basemaps
- Geolocation
- Open-Meteo (weather and wind)
- Live webcams
- Transport timetables
- Sunrise and sunset

Images and media · Every screen gets exactly the right format and size.

- Cloudflare Workers (images)
- Cloudinary
- Responsive WebP and AVIF
- Lazy loading
- Cookie-free YouTube and Vimeo video
- Self-hosted fonts
- Fontsource and Fontshare

Infrastructure · Google Cloud end to end, within the European Union.

- Multi-service Cloud Run
- HTTPS Load Balancer
- Cloud Armor (WAF)
- Certificate Manager
- Static IPs and url-maps
- Multi-site Firebase Hosting
- Cloud Build and Artifact Registry
- Multi-stage Docker
- nginx
- Secret Manager
- Cloud Monitoring and alerts
- Error Reporting
- European regions

Security · Layered protection, tested backups and recovery.

Content Security Policy with hashes

HSTS, COOP and CORP

helmet

Rate limiting

HTML sanitisation (DOMPurify)

Encryption of data at rest

Firestore and Storage rules with tests

Cloud Armor

Cloud DLP

7-day PITR backups + exports

Restore drills

security.txt

ENS reference (Spain's National Security Framework)

Operations · Deploy without fear and roll back in seconds.

pnpm monorepos

Tagged revisions at 0 % traffic

Instant rollback

Staging per service

Infrastructure as code

Scripts with dry run and --apply

Bulk redirects (1,116 URLs)

Migration from WordPress

Living operations documentation

Quality · Tests, load and accessibility measured, not promised.

node --test

Rules tests against the emulator

Typecheck and lint

Smoke tests (24 checks)

Concurrency tests

Load testing with k6

Lighthouse 100

Core Web Vitals

WCAG 2.2 AA and EN 301 549

International SEO · Indexed in the right language, without losing a single URL.

Up to 10 languages

hreflang and canonicals

JSON-LD structured data

Sitemaps per language

Open Graph

Pre-rendering

Search Console

Analytics · Measure every interaction without tracking anyone.

In-house telemetry

BigQuery

Web, app and kiosk events

Assistant conversations

Searches and unanswered questions

Management dashboards

Automated reports

No third-party cookies

04 · COMMITMENTS TO THE PUBLIC SECTOR

Accessibility

WCAG 2.2 AA and EN 301 549 from the design stage, not as a final patch.

GDPR and data sovereignty

Hosted in the European Union, with your data always under your control.

Truly multilingual

Co-official and European languages with their own routes, SEO and content.

Your own code

No third-party licences or dependencies that expire. The code is yours.

Agile procurement

Clear phased budgets, suitable for minor contracts and tenders.

Human maintenance

A small team that answers, not a ticket in a queue.

Shall we talk about *your next project?*

Tell us what you need and we'll reply within 48 hours with a first proposal.

hola@trucadors.eu

<https://trucadors.eu> · Formentera, Illes Balears

Four steps. Zero surprises.

01

Listen

A session with your team to understand the real problem, not just the brief.

02

Design

A navigable prototype in days, with your identity and all your languages.

03

Build

Custom development with weekly deliveries you can test.

04

Support

Deployment, training and continuous improvement, with AI where it adds value.