

Water Intelligence

Redefining Urban Consumption Analytics

Transforming Barcelona's Water Data into Strategic Insights

CONAN DATA

Data Consultancy · Barcelona · 2025

The Challenge



Complex Data

Multiple districts, usage types,
and consumption patterns create
analytical complexity



Real-time Needs

Decision makers require instant
access to consumption insights

Our Solution

Water Consumption Analytics Dashboard

Real-time intelligence platform designed for Barcelona's water ecosystem

- Interactive visualization of consumption patterns
- District-by-district performance analysis
- Predictive insights and trend identification
- Executive-ready reporting capabilities

Key Features



Instant Analytics

Real-time dashboard with
interactive filtering and
visualization



Predictive Intelligence

Advanced time-series analysis
reveals consumption trends and
patterns

The Numbers

365

Days of Data

10+

Districts Analyzed

Live Dashboard Demo

Interactive Experience

- **Time-series Analysis:** Consumption patterns over time
- **District Comparison:** Performance across Barcelona neighborhoods
- **Usage Breakdown:** Commercial, Domestic, and Industrial insights
- **Heat Maps:** Visual consumption intensity mapping

Built with Streamlit + Plotly for maximum interactivity

Technology Stack



Frontend

Streamlit with custom Apple-inspired CSS styling



Analytics

Pandas, NumPy for high-performance data processing

Business Impact

Strategic Value Creation

For Water Utilities:

- Optimize resource allocation across districts
- Identify peak usage patterns for capacity planning
- Monitor efficiency metrics in real-time

For City Planners:

- Support sustainable urban development initiatives
- Analyze consumption trends for infrastructure investment

Why Conan Data?

Catalan Expertise

Deep understanding of local
market needs and regulatory
requirements

Startup Agility

Rapid development cycles and
innovative solution approaches

Implementation Roadmap

Phase 1: Foundation (*Week 1-2*)

- Data integration and validation
- Core dashboard development
- Basic visualization implementation

Phase 2: Enhancement (*Week 3-4*)

- Advanced analytics features
- Custom styling and branding

What's Next?

Future Roadmap

- **AI Integration:** Machine learning for consumption prediction
- **Mobile Applications:** Native iOS and Android apps
- **API Development:** RESTful services for third-party integration
- **Real-time Streaming:** Live data connection capabilities

Scalability Ready

Built to grow with your organization's evolving needs

Let's Transform Your Data

Ready to unlock your water consumption intelligence?

Schedule a consultation with Conan Data

Start Your Data Journey

Contact Information

Email: hello@conandata.com

Thank You

Questions & Discussion

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Transforming Data into Strategic Advantage

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