

DIGITAL INNOVATION CHALLENGE

LOS RETOS DE LA INNOVACIÓN DIGITAL



POLAR PLATFORM

MILTON MOURA, CTO @ TETRAPI CREATIVE SOLUTIONS



Internet of Things

ALL DEVICES

ALL CONNECTED

ALL THE TIME

Internet of Things

FLEET MANAGEMENT

SMART WASTE

SMART PARKING

SMART LIGHTING

SMART EVERYTHING

Internet of Things

CHALLENGES

- Different vendors, closed platforms
- Realtime data... or maybe not...
- Availability of efficient wide-area networks
- Hardware acquisition & software licensing cost
- Focus on capitals / large urban centres

How we got here

OUR BACKGROUND

- Fleet management platform
- Realtime geo-referenced task & dispatch systems
- Public transit information systems
- ML models applied to collected data
- Native mobile app development

FIMAC / FIWARE

CRITICAL FIWARE ENABLERS

- Orion Context Broker as a primary data / object repository
- QuantumLeap for historic data retrieval
- Keyrock / PEP-Proxy for Identify Management
- IoT Agent for LoRaWAN for sensor data
- NGSIv2 harmonised data models

POLAR Platform

WHAT IS IT

- Generic, modular, connected devices platform
- Basis for Fleet Management, Smart Waste, Dispatching systems
- Realtime optimized vehicle routing based on dynamic parameters
- ML-based models for estimating future sensor data
- Native mobile-first

POLAR Platform

VALUE PROPOSITION

- Native, integrated, highly interactive and responsive mobile clients
- Continuous resource optimization model, in preparation for autonomous operations
- Based on open source software and protocols, FIWARE standards
- Multiple feature modules in a single platform

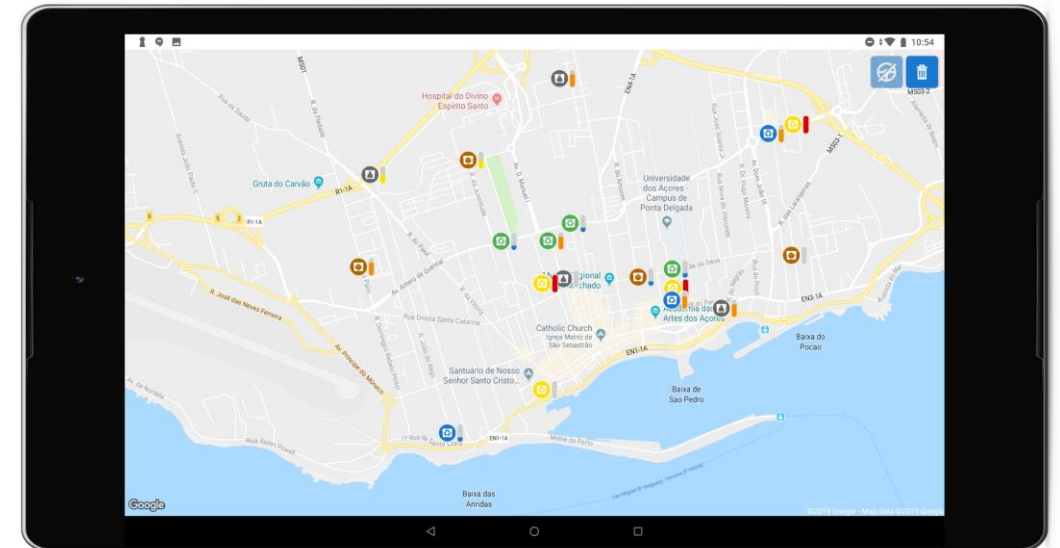
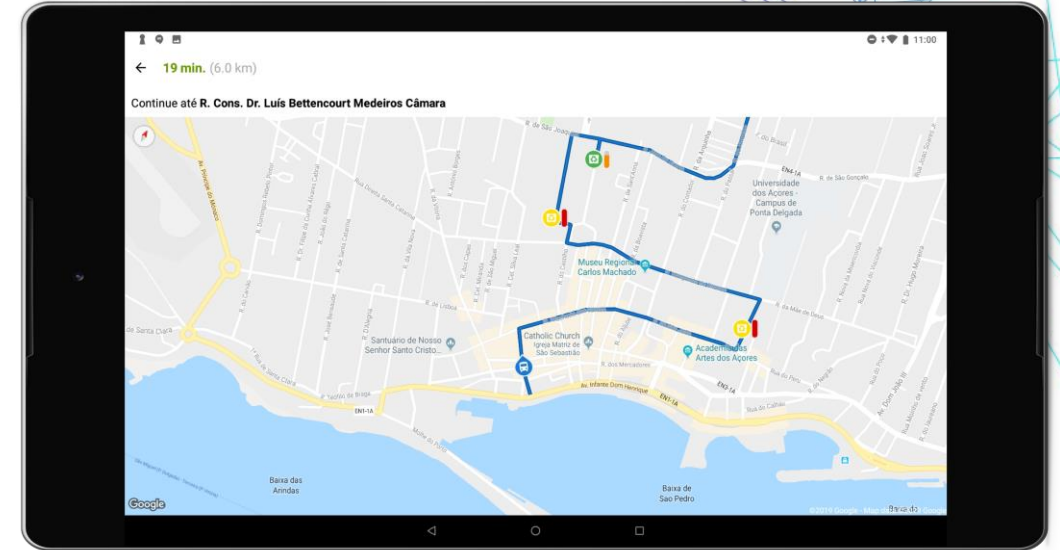
POLAR Platform

BUSINESS MODEL

- Software licensing and hardware rental to public / private organisations
- Multi-tier, cloud-based, Software as a Service platform
- Attractive pricing (you won't go bankrupt)

Key Metrics

- Team of 5 young, skilled, developers and designers
- Profitable after **3 years** of operations
- Clients include public and private sector
- We have a mobile prototype and one large private group as the first client



Goals / Roadmap

2019

- First iteration of mobile frontend, app server backend and AI model
- Transition of existing clients to new platform

2020

- Pilot project in local municipality
- Pilot project in private waste management organisation

2021 and beyond

- Regional, national and international expansion