B:SM Barcelona de Serveis Municipals

Ajuntament de Barcelona

BCN SMART CITY

Pensant en les persones, impulsant Barcelona

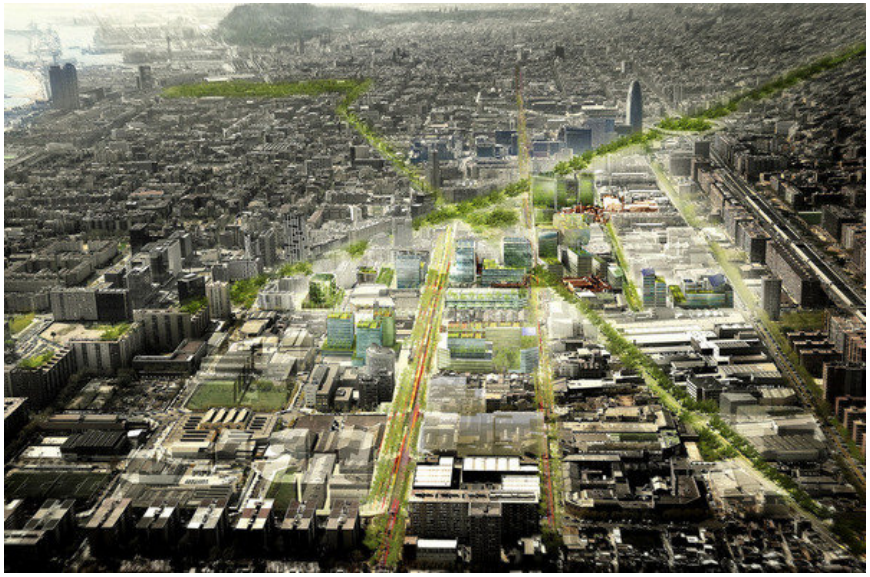
AREADUM : BARCELONA'S NEW URBAN FREIGHT DISTRIBUTION (UFD) SMART SYSTEM

January 14th, 2015

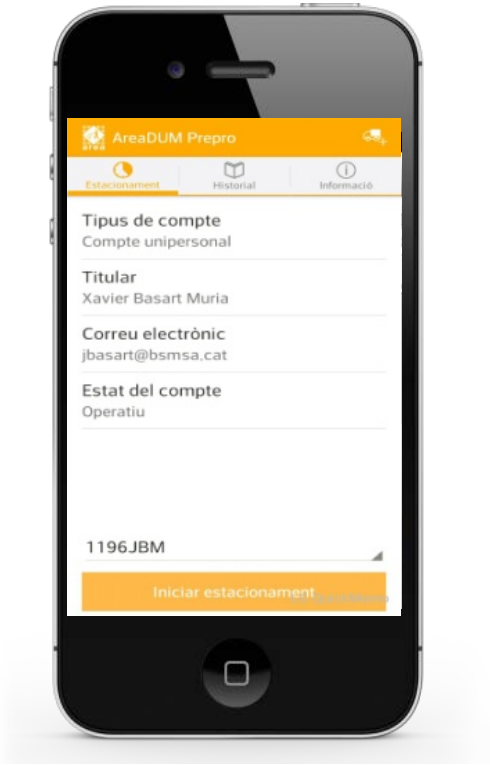
1 PROJECT DESCRIPTION

What is areaDUM?

1) New UFD mandatory system to access loading/unloading bays in Barcelona
2) Main access tool is and APP based on smartphone and geolocation technologies
3) For all UFD users (commercial, transport, freight, etc.)
4) Scope: 9.000 parking places and more than 45.000 daily operations

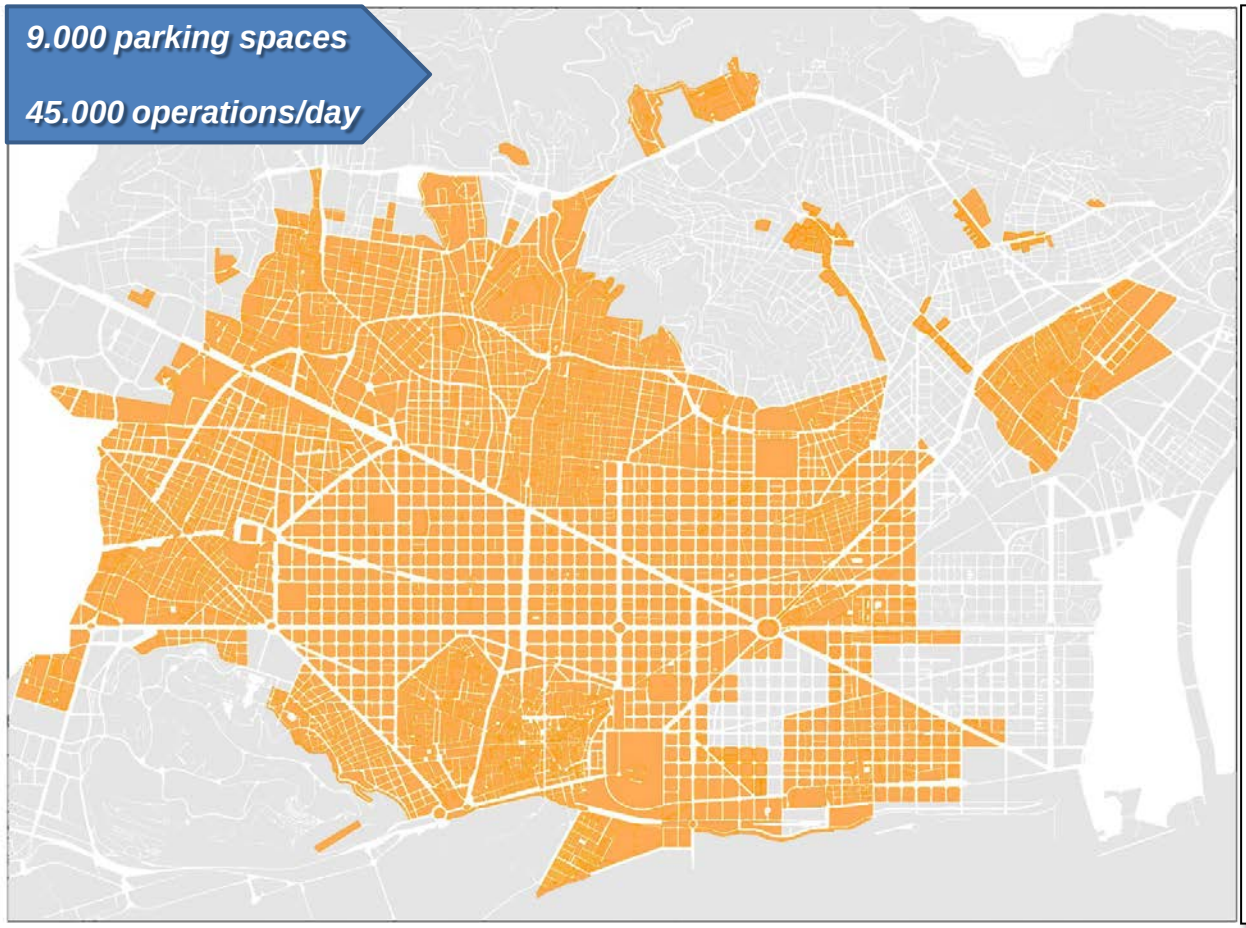


2 MAIN GOALS & BENEFITS PURSUED



- To optimize the use of a scarce resource: ***Public Space***
- To match real supply and demand according to real needs
- To have more available parking space
- To reduce indiscipline
- Improved enforcement efficiency: x2 productivity
  "ONE-SHOT INFRINGEMENT DETECTION PROGRAM"
- Improved UFD management through smartphone technology
- Integrated special permits (booking) without printed authorisation
- Reinforced Barcelona's leadership among Smart Cities

3 SCOPE OF THE PROJECT



4 PROJECT TIMELINE

1 areaDUM ***PROJECT DEFINITION / PROGRAMMING: September 2013 – October 2014***

[Includes definition, APP requirements, web user portal development, APP programming and user-testing on UFD pilot parking spaces]

2 ***PROJECT DEPLOYMENT ON STREET: November 2014 – March 2016***

Phase 1

Nov 2014

areaDUM in Barcelona city center

Phase 2

Jan-Mar 2015

Fulll deployment areaDUM in Barcelona (9.000 UFD spaces)

Phase 3

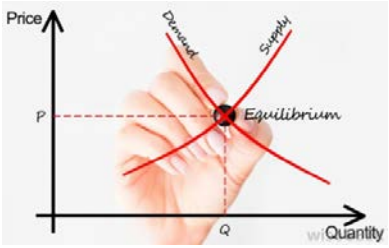
Sep 2015

Information of available spaces to customers

Phase 4

March 2016

Real on-street supply-demand adjustment



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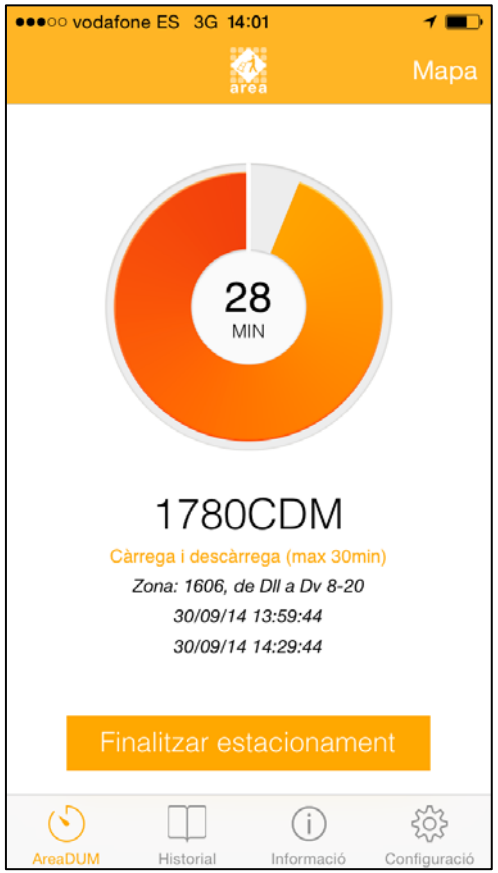
5 UFD EVOLUTION: from Cardboard Parking Clock to Smart App

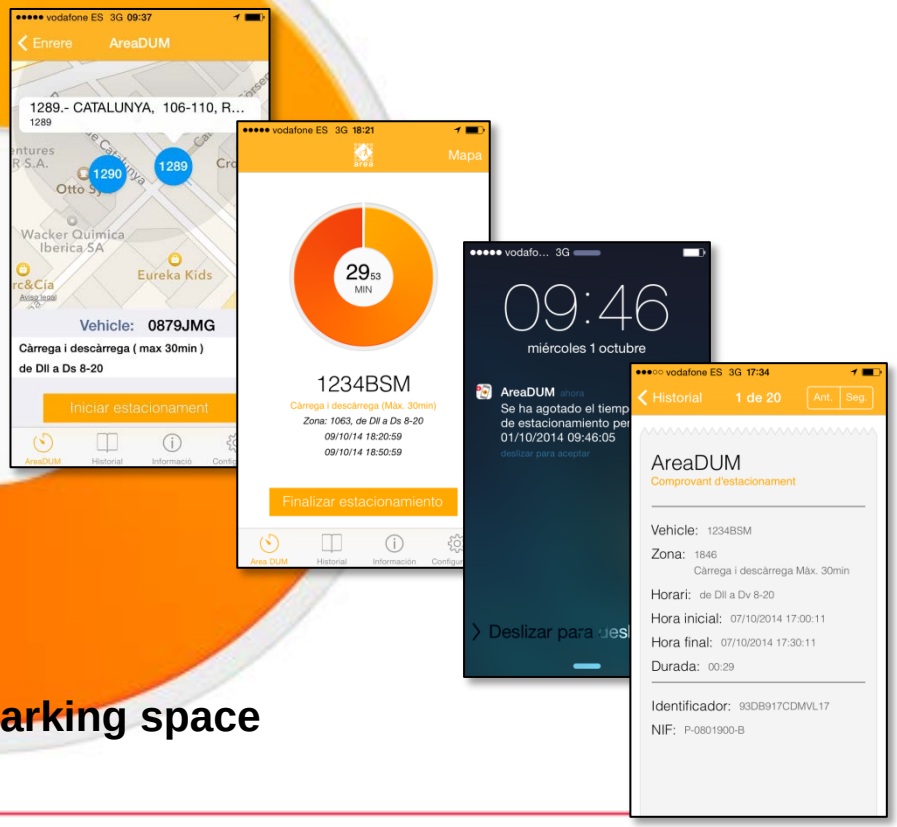
- Anonymous User / Unknown usage
- More indiscipline / Noise
- Strong enviromental impact
- Easy cheatable
- No time alerts for customers
- Permanently visible.



- User-friendly, easy-to-use APP.
- Direct communication between user &on street operator.
- Infringement prevention through in-app programmable alarm system.
- Information available online and personally through supervisors.
- Data management, enables track information.
- Efficient customer service +99% incidences and support response ratio in <24h.
- Less indiscipline
- Less noisy city and improved environment
- Better, smarter city for residents and foreign visitors.

6 HOW IT WORKS

1. Download free App
2. User and Car Registration
3. Geolocation
4. Press «Start parking» button
5. Alert before max. time is reached
6. Press «Stop parking» and leave parking space



7 HOW IT WORKS

AreaDUM Ticket OK

AreaDUM Ticket KO

MAIN EFFECTS

City & Social

- Optimization of public space use
- Improve quality of life of citizens and foreign visitors
- Reinforce the image of Barcelona as Smart City
- Reduction of enforcement pressure perception due to efficiency increase

Mobility & Operator

- Indiscipline reduction
- UFD cruising for parking time reduction (10-20% estimated)
- Help to network distribution to optimize routes/time
- Enforcement productivity x2 and cost reduction

Environment

- Improvement of air quality by reducing CO2, NOX, etc.
- Noise level reduction due to less cruising for parking.

Customer

- Infringement prevention and help via alarm system IN-APP
- website portal - registered users
- car location, ticket history, fleet customers account, in-app FAQS
- direct support & communication

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