FIWARE: transforming cities into engines of growth

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FIWARE: helping Smart Cities in their transformation journey

**Efficient and Open**
- Vertical solutions (some being IoT-enabled) bringing efficiency in silos
- Historic data as open data
- Information still in vertical silos, no global picture

**Truly Smart**
- Horizontal platform gathering “right-time” context info from different vertical services
- Common information models
- Smart City Governance Solutions

**Unleashing Right-time Open Data**
- right-time context info published to third parties
- authorization and access control (API management)
- open innovation ecosystem

**Support to Data Economy**
- city as a platform including also 3rd party data enabling innovative business models
- open and commercial data enabling multi-side markets
Breaking vertical silos, through a Context Info Management layer with info about what is going on in the city

- Enabling publication of resources by third parties
- Ability to assign price to the acquisition of access rights and definition of pay-per-use schemas

- Biz Framework based on Open TMForum APIs
FIWARE: Reference Architecture for Smart Cities

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FIWARE: Becoming the de-facto standard

100+ cities
22 countries

- Common APIs:
  ✓ FIWARE NGSI to start with
- Standard Data Models:
  ✓ CitySDK and more, collaboratively
- Platform for Open Data/API publication
- Driven by implementation approach

FIWARE NGSI and Context Broker Technology has been selected to become a CEF (Connecting Europe Facility) Building Block

FIWARE has been recognized as major contributor for a shared IoT-Enabled Smart City Framework. The initiative is led by NIST
The GSMA has published a Reference Architecture for IoT Big Data Ecosystem which recommends to mobile operators that FIWARE NGSIv2 should be supported by implementers delivering the IoT Big Data ecosystem.

TM Forum, the global industry association for digital business, is working with FIWARE to deliver the key building blocks for enabling and connecting Smart City ecosystems. TM Forum is supporting FIWARE NGSI REST-based APIs for real-time access to contextual information for cities.

ETSI has announced the creation of a new Industry Specification Group on cross-sector Context Information Management (ISG CIM) for smart cities applications and beyond. FIWARE NGSIv2 is the starting point for the CIM API to be specified.
Driving definition of Common Information Models for the City

- Portable Governance Solutions
- Vertical solutions more easy to plug or replace
- Sharing of best practices between cities made easier
- Smart Cities as a market where it will be more attractive to invest
FIWARE case example: enriching car navigation through front-runner smart cities using third-party data

- Car navigators can display context information about available parking slots published by cities or other data from third parties it has acquired the right to access to.
- The car can share speed info with the city if the drivers agree and both get something in return.

City of Santander

- Users can receive recommendations from smart home systems (“do you want me to switch on the heat before you arrive?”)
- Users may have paid for apps developed around data and recommendations used from the car (discount restaurants around).
It’s time to execute!

Transference to Market

Common information models

front-runner OASC cities

(cities and solution/platform providers collaborate in defining common information models for selected challenges)
Reference Architecture – Open APIs

Common Information Models

Paving the way towards transforming cities into platforms enabling the Data Economy
Thank you!

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