ITEMS INTERNATIONAL

Cityzen Sciences

Cityzen Data

# Innovation in Connected things & Big data

## towards platforms for cities

November 11th, 2014
ITAPA - Bratislava

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## The D-Shirt: the original product

# The D-Shirt

(Prototype)

**Fabric embedded sensors**
Physiological data

**Sensors embedded in the gateway**
Actimetric data

**Real time monitoring**

**Data Management Indicators**

**Data Analytics**

## Available sensors

- Electrocardiogram (ECG)
- GPS
- 3-axis accelerometers
- Altimeter
- Bluetooth connector

## Sensors available in 2015

- Temperature
- Respiration
- Hygrometry
- Muscles: Mechanomyogram (MMG) / electromyogram (EMG)

Sport
Cityzen
Sciences

Health
Cityzen
Sciences

# Wellness

Smart Sensing

## The starting consortium

**Electronic manufacturer**

éolane

Cityzen Sciences

**Sportwear company**

groupe Cyclelab

Cityzen Sciences

TELECOM Bretagne

**Academic Lab specialized in Sensors and data**

7.2 M€ granted by

bpifrance

PAYEN

**Fabric manufacturer**

# Data : The key factor in the value added for services providers and for citizens

Cityzen Data

Cityzen Sciences

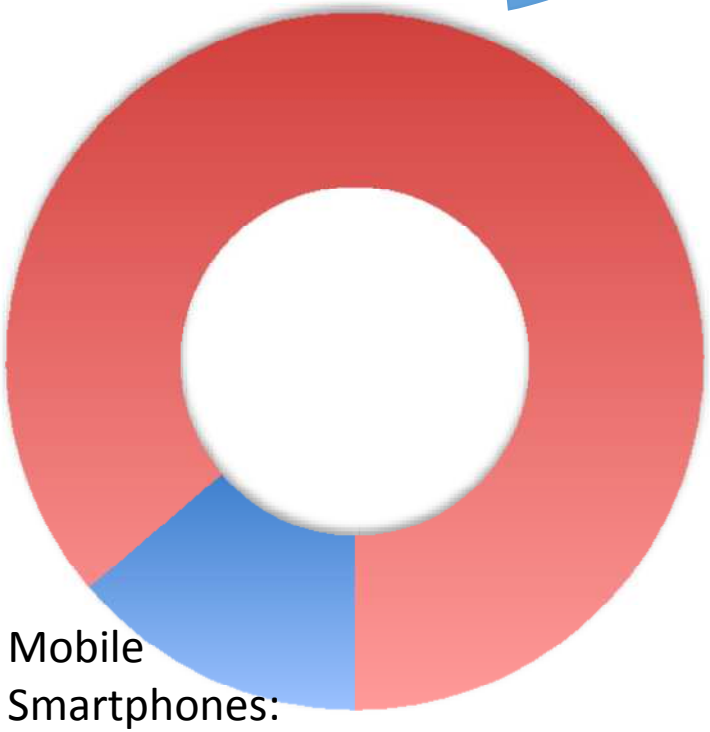
# Cityzen Data addressing the market of Internet of Things

Connected things forecast (Billion of units)

Morgan Stanley 75

CISCO 50

Gartner 26




2020

2 billions of connected things,
7 billions mobiles

Things connected

Mobiles
Smartphones
Tablets

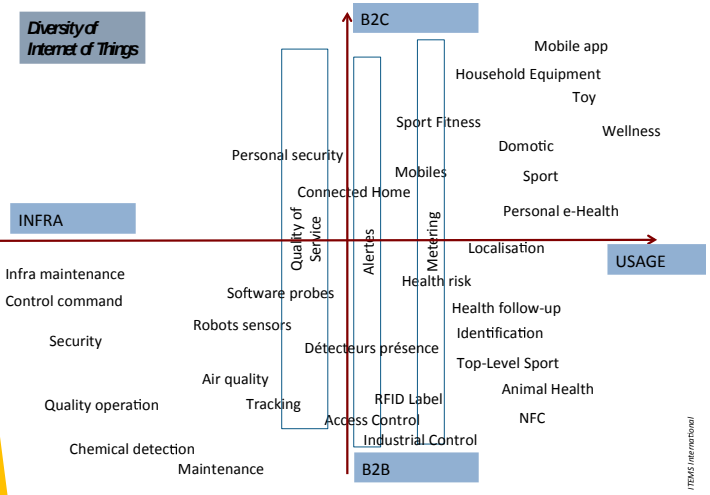
2010

ITEMS International

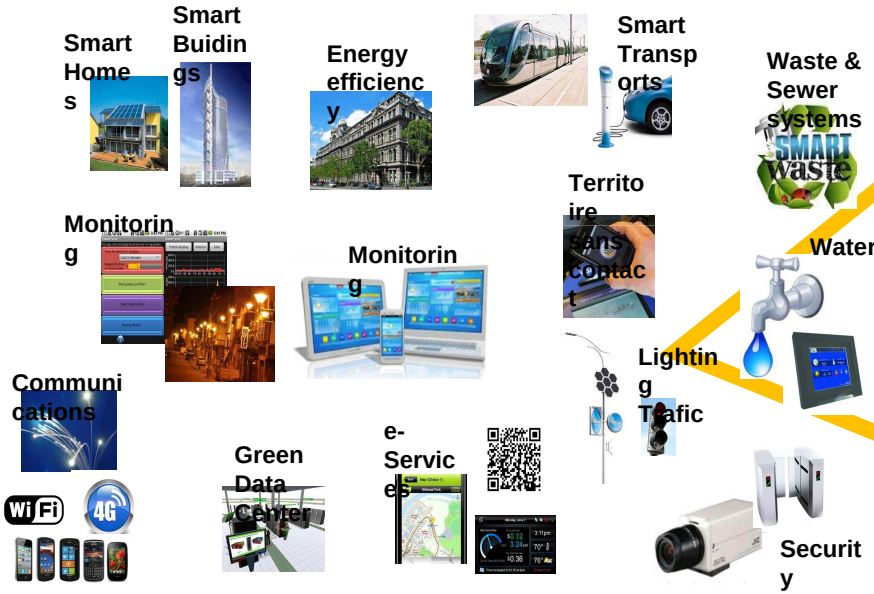
# A key challenge within the triangle Cities, Things and Data

## Internet of Things

Internet of things: $8.9 trillion market in 2020, 212 billion connected thing, IDC

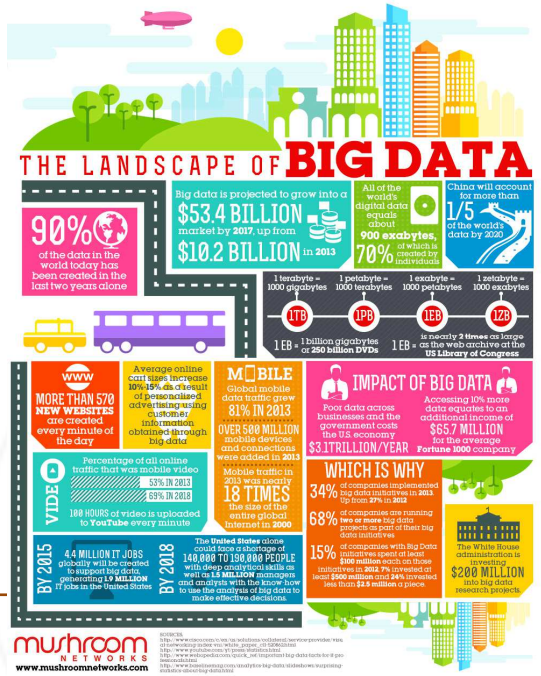



## Smart Cities




## Data

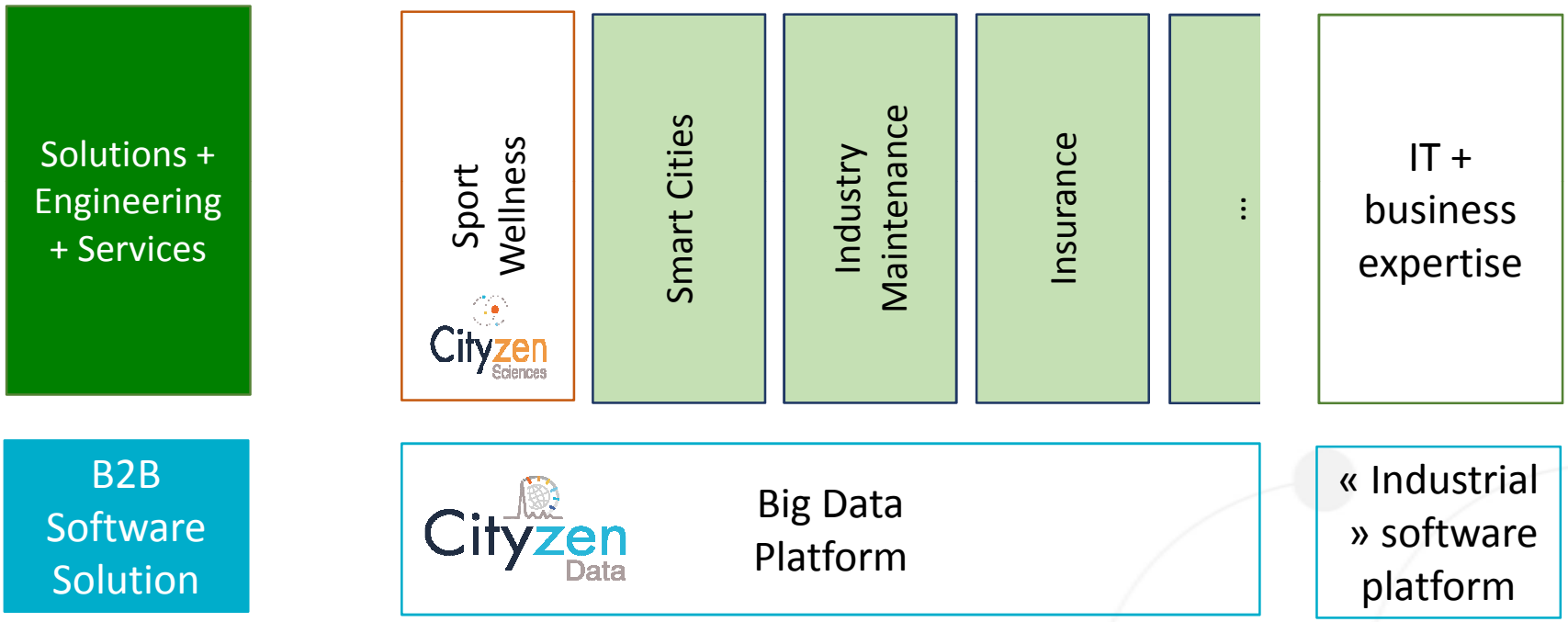
Big Data Market Reaches $18.6 B in 2013, heading for $50 B in 2017, Wikibon



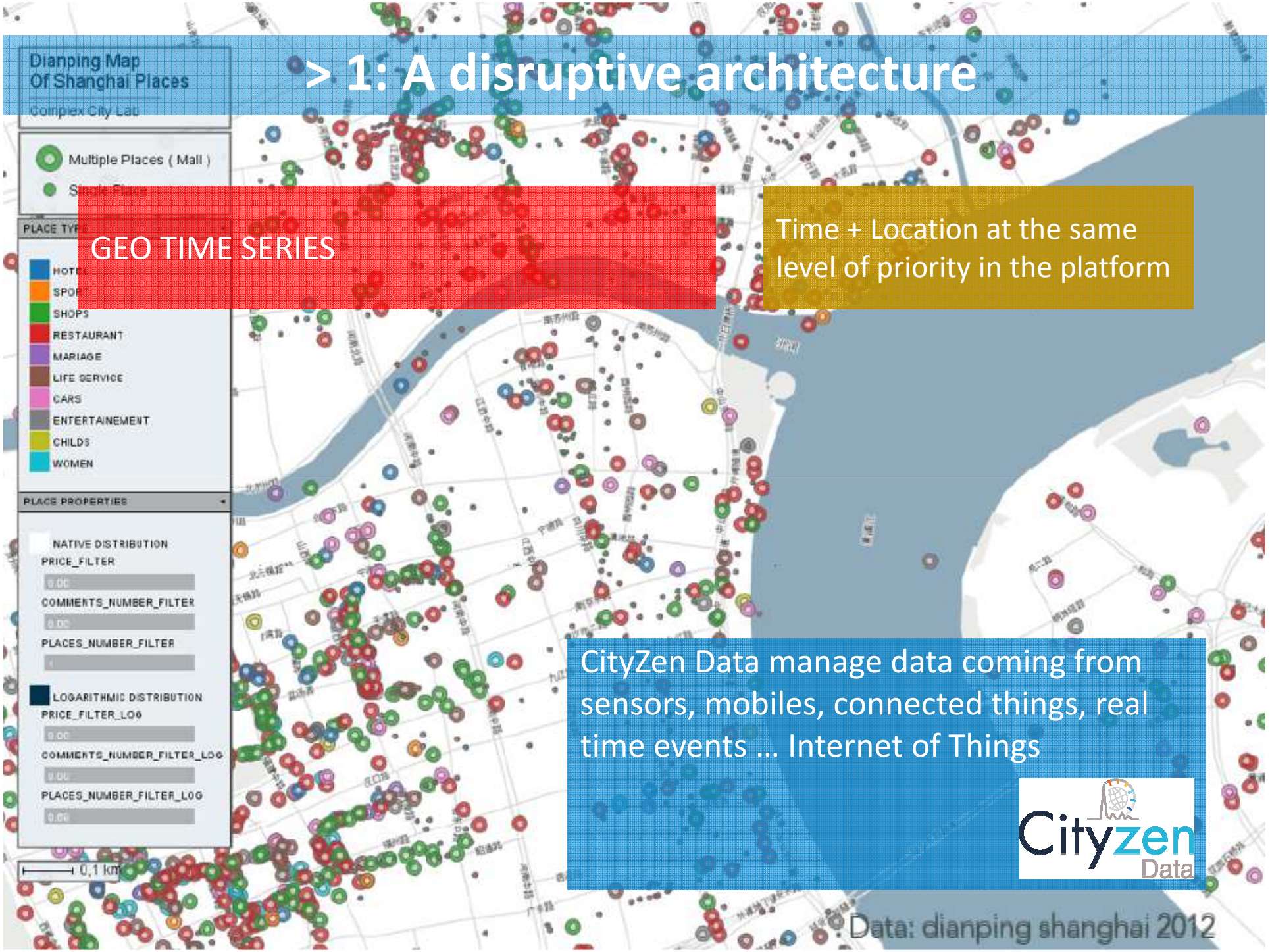
# The Business model for Cityzen Data

> Cityzen Data addresses Cityzen data needs

> Big data platforms and tools designed to address any other needs for data coming from sensors, connected thing, mobiles …



# > 1: A disruptive architecture



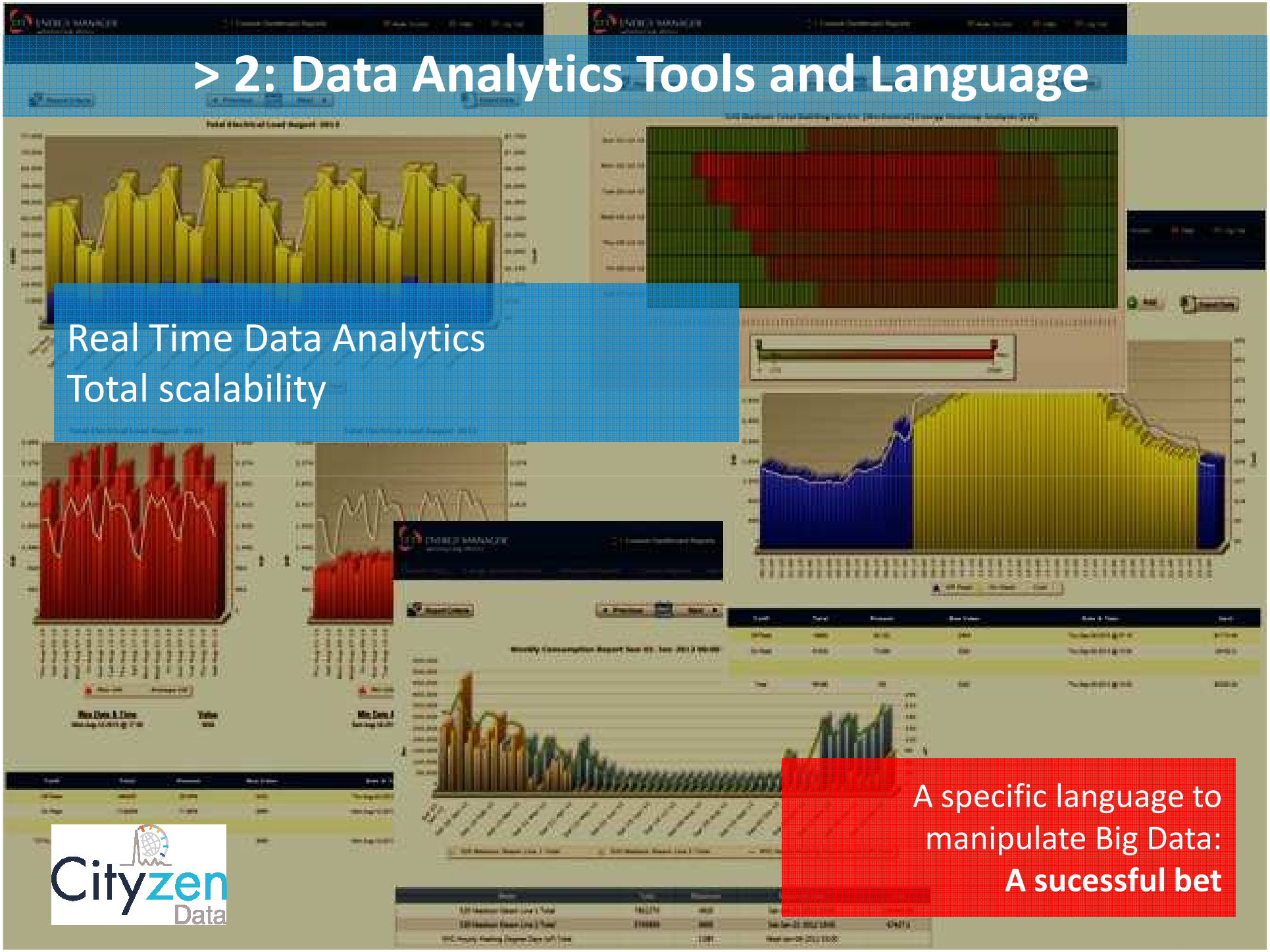

GEO TIME SERIES

Time + Location at the same level of priority in the platform

CityZen Data manage data coming from sensors, mobiles, connected things, real time events … Internet of Things

Cityzen Data

# > 2: Data Analytics Tools and Language



Real Time Data Analytics
Total scalability

A specific language to manipulate Big Data:
**A sucessful bet**

Cityzen Data

# > 3: High level security

Encryption of critical data

Differenciation of data manager and user

# Award au CES Las Vegas

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