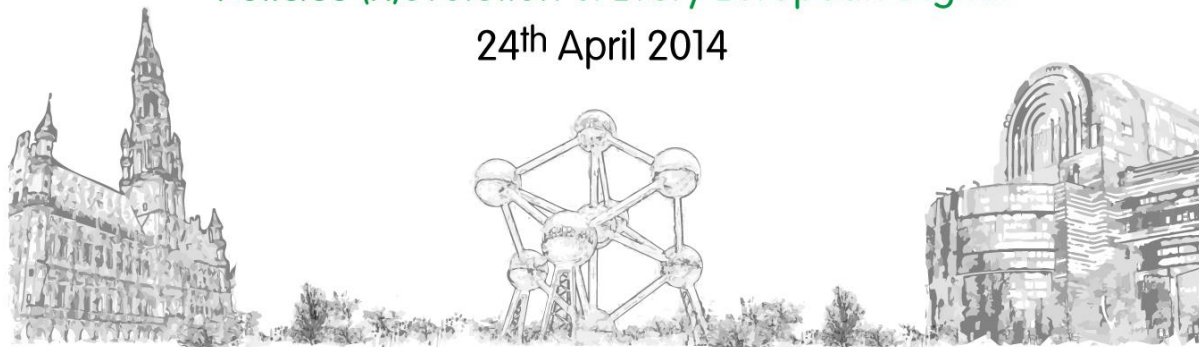




ONE CONFERENCE BRUSSELS 2014

Policies (R)evolution & Every European Digital

24th April 2014



Challenges: Turning Big Data into value

*Sylviane Toporkoff, President Global Forum/Shaping the Future;
partner & founder ITEMS International ; full Professor University
Paris 8, Institute of European Studies*

Big Data: Data coming from



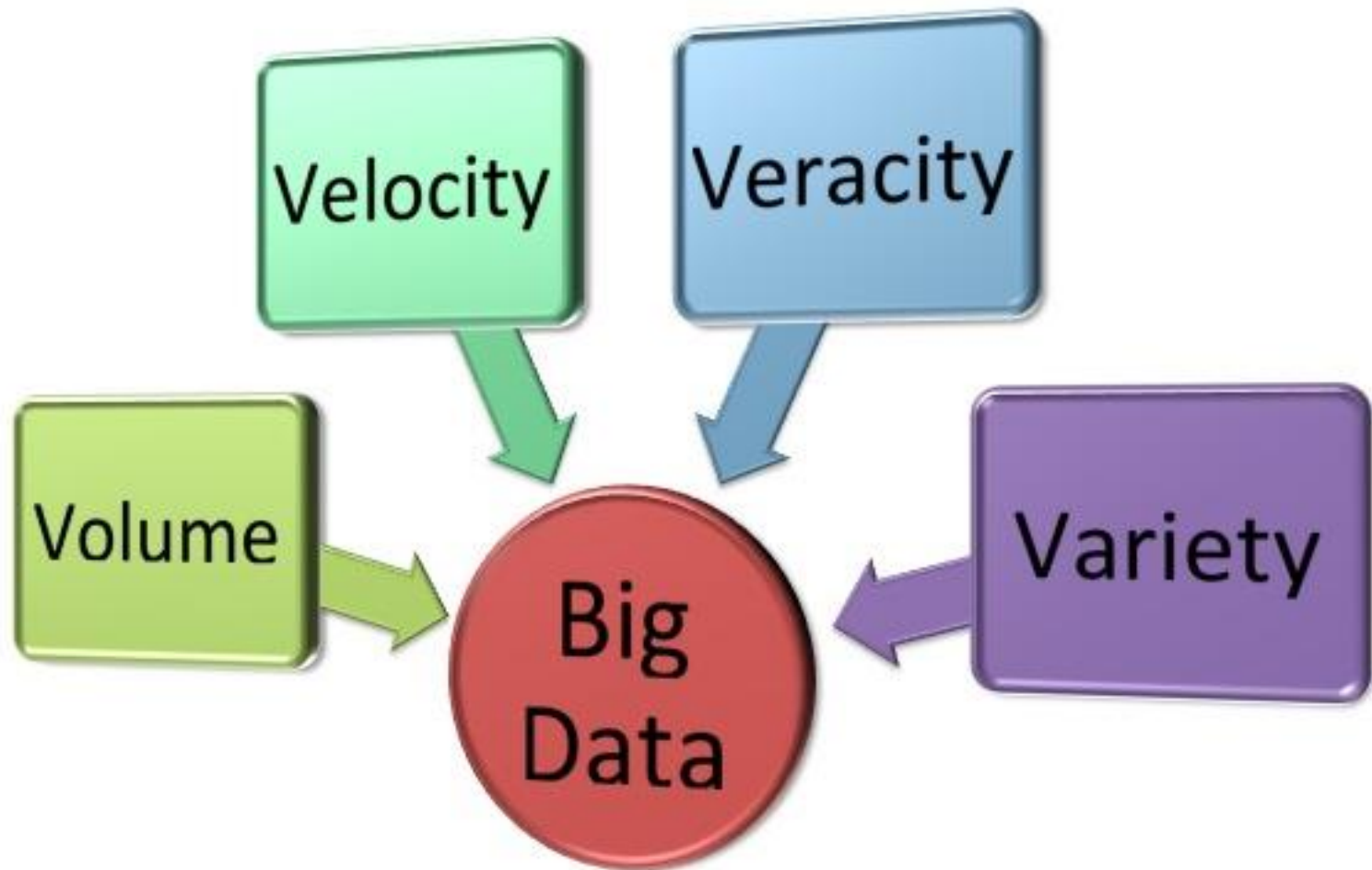
IT
Systems



Internet
Usages



Sensors &
Meters



FACING THE VOLUME

THE WORLD OF DATA

NUMBER OF EMAILS SENT EVERY SECOND

2.9
MILLION

DATA CONSUMED BY HOUSEHOLDS EACH DAY

375
MEGABYTES

VIDEO UPLOADED TO YOUTUBE EVERY MINUTE

20
HOURS

DATA PER DAY PROCESSED BY GOOGLE

24
PETABYTES

TWEETS PER DAY

50
MILLION

TOTAL MINUTES SPENT ON FACEBOOK EACH MONTH

700
BILLION

DATA SENT AND RECEIVED BY MOBILE INTERNET USERS

1.3
EXABYTES

PRODUCTS ORDERED ON AMAZON PER SECOND

72.9
ITEMS

SOURCES: Cisco, eMarketer, MapInfo, Redian Group, Statista, TheInfo

IN THE 21ST CENTURY, we live a large part of our lives online. Almost everything we do is reduced to bits and sent through cables around the world at light speed. But just how much data are we generating? This is a look at just some of the massive amounts of information that human beings create every single day.

Sensors and connected things: the future market



Total 2,5 billions of things

Things connected



Smartphones
Tablets

2009

Connected things (billions)

Gartner

26

CISCO

50

Morgan Stanley

75



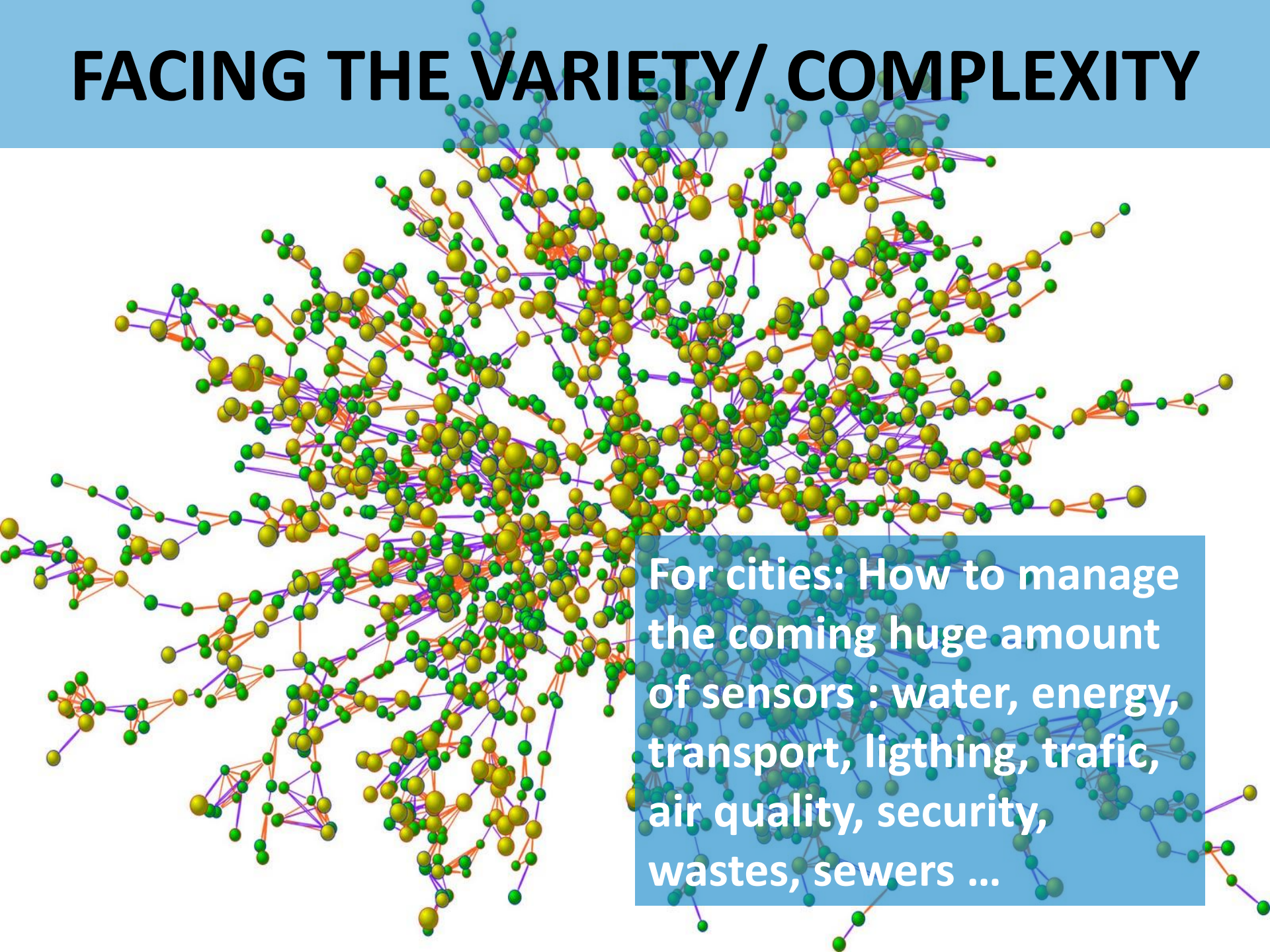
Smartphones
Tablets :
#8 billions

2020

VELOCITY / FACING THE FLOW



FACING THE VARIETY/ COMPLEXITY



For cities: How to manage the coming huge amount of sensors : water, energy, transport, lighting, traffic, air quality, security, wastes, sewers ...

FACING THE VERACITY & VALIDITY

BIG **BAD**
DATA

FACING PRIVACY

BIG LINKY
IS WATCHING
YOU!

Risks for privacy ?

More than the mobile
?

Opt-in



Big Data... so what:

- Value and interest of Big Data depend on big data analytics
- Big Data analysis is the challenge for companies & public administration
- High-Performance Analytics required

Key Challenges

- Security best practices for non-relational data stores
- Secure data storage and transactions logs
- End-point input validation/filtering
- Real-Time Security Monitoring
- Scalable and composable privacy-preserving data mining and analytics
- Cryptographically enforced data centric security
- Data Provenance

An ex. Items International Cityzen Sciences

- Cityzen Data

- **Cityzen Sciences company** specialized in smart textiles conception and development.
 - **Cityzen Sciences produce** Smart textiles embedded with micro-sensors enabling them to monitor temperature, heart rate, speed and acceleration as well as to geolocalise.
 - Cityzen innovates in the field of data-collection and management through integrated solutions involving sensors, smart devices (such as Smart phones, smart watches) and the related big data management
 - High level follow-up of the Performance; Health; Fatigue; Risks prevention
 - Great application for sport (Tshirts) and healthcare.
- Cityzen Data :Geo time data ; Cross-sources data analytics ; Historical and statistical data analytics ; Predictive data analytics

The D-Shirt

(Available next Sept 2014)



Fabric embedded sensors
Physiological data



Sensors embedded in the gateway
Actimetric data



Real time monitoring



Data Management Indicators



Data Analytics





Smart Sensing

The starting consortium

Electronic
manufacturer

éolane



Sportswear company

Cityzen
Sciences



Academic Lab specialized in
Sensors and data

PAYEN

Fabric manufacturer

A technological platform including innovative storage architecture and tools

3 families of services (B2B et B2B2C) :

Services for individual or professional users

Services for applications developpers

Real time decision systems



Sport



Cityzen
Sciences

> 1 - Sport

VIRGIN 3G 4:20 PM

RÉSULTATS

FIE100

LIVE : OLYMPIC GAMES LONDON

FEMMES

HOMMES

ÉPÉE

FLEURET

SABRE

INDIVIDUEL

EQUIPE

La compétition
Jeux Olympiques de Londres
FEMMES, ÉPÉE INDIVIDUELLE
se déroulera le

30 Juillet,
à p

Individual follow-up

Team follow-up

Coach decision assistance

Historical data analytics

Retour



LIVE

PISTE BLEUE
QUART de FINALE / FLEURET / SENIORS - FEMMES - IND.



Eliso
DI FRANCISCA
ITALIE



Corinne
MAITREJEAN
FRANCE

13 9

Score en LIVE



Valentina
VEZZALI
ITALIE



Hyun Hee
NAM
CORÉE DU SUD

8 7

Score en LIVE



Nicolas
LORA
FRANCE



Luigi
TARANTINO
ITALIE

10 8

Score en LIVE

15-8

Résultats

Clubs

Pratiquer

Services

Retour



LIVE PISTE BLEUE

QUART DE FINALE
FLEURET / SENIORS - FEMMES - INDIVIDUEL

01:57

13

9



Eliso
DI FRANCISCA
ITALIE

Victoire en huitième de final face à
JEON Hee Suk (KOR) 13-12



Corinne
MAITREJEAN
FRANCE

Victoire en huitième de final face à
ROSS Nicole (USA) 13-10

DIRECT COMMENTÉ

13-9

Très belle touche ou dos de DI FRANCISCA qui est désormais à 2 points d'une place en demi-finale!

12-9

Jolie série de 3 points pour la française qui revient sur DI FRANCISCA, mais cette réaction n'arrive elle pas un peu trop tard?

12-8

Double touche, l'arbitre accorde le point de l'assaut à Corinne MAITREJEAN.

13-7

Corinne MAITREJEAN met fin à la série de 5 point de suite de

Accueil

Résultats

Clubs

Pratiquer

Services

> 2 - Health

Individual follow-up

Risks prevention

Decision assistance

> 3 - Smart Cities

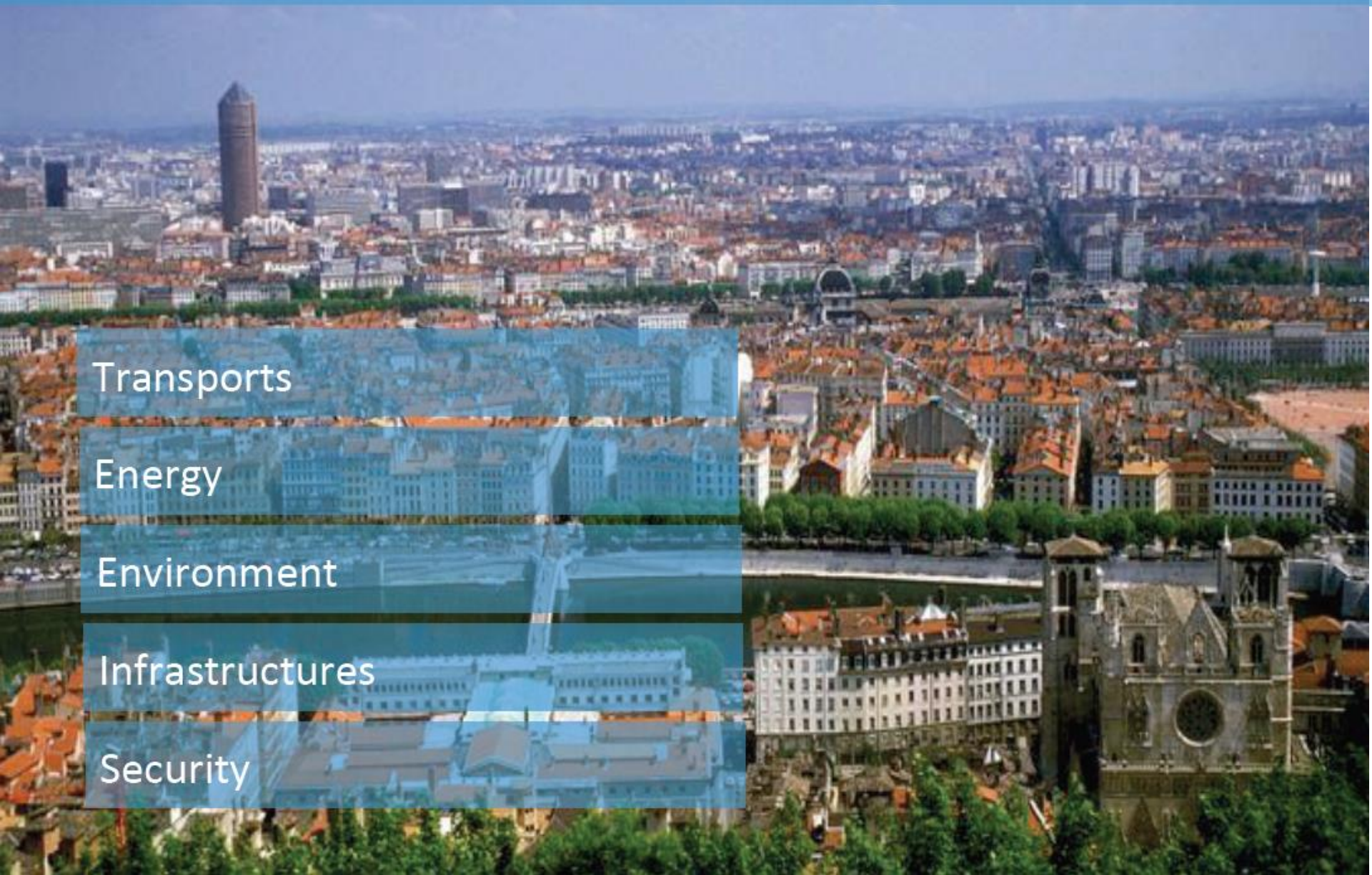
Transports

Energy

Environment

Infrastructures

Security



> 4 - Smart Buildings

Infrastructures

Flow management

Security

Real time systems



> 5 - Monitoring

A large, modern control room or data center. The room is filled with rows of computer workstations, each with multiple monitors. In the background, a massive wall of monitors displays various data visualizations, including charts, graphs, and tables. The overall atmosphere is professional and high-tech.

IT Monitoring

Network Monitoring

Infrastructures Monitoring

> 6 - Maintenance

Industry

Data centers

Infrastructures

Conclusion

- Big Data = big opportunities
- Impact all aspects and domains,
- Need for Public Education, Transparency, and Advocacy