

big & fast data for smart city applications

GSMA Smart Cities, Brussels 6 Sept. 2013

Nicolas de Cordes – VP Marketing Vision, Group Marketing, Orange

committed to Europe



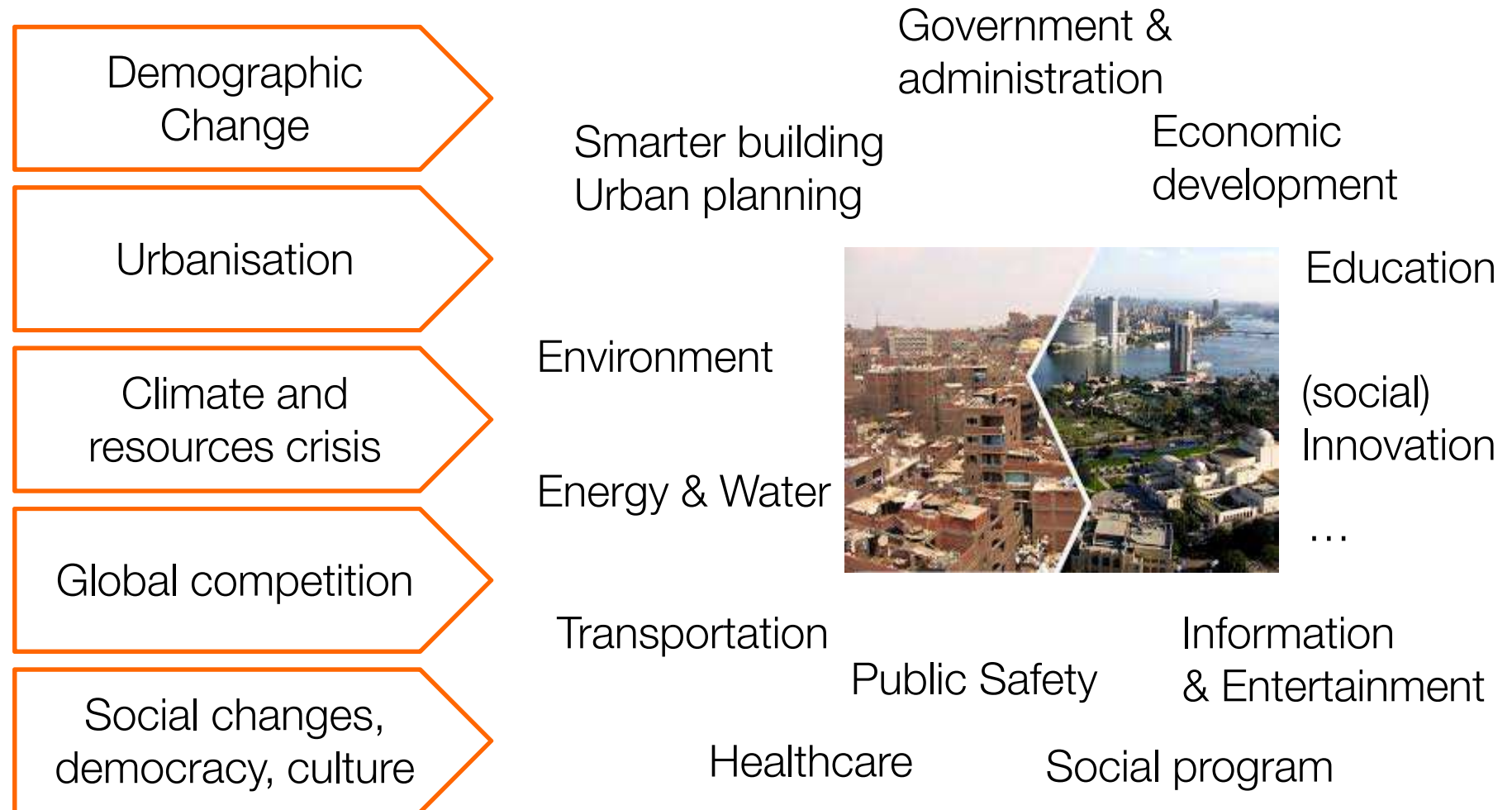
1. Smart cities & Orange

2. Big Data & Fast Data applications

3. Food for thought

Smart Cities are a necessity

significant challenges require profound cities' transformation



Orange's smart-city vision

“creating a sustainable urban environment that improves quality of life and enhances economic development”
in a world wide competition

intelligent use of information, enabled
through connected IT, is an essential
solution component

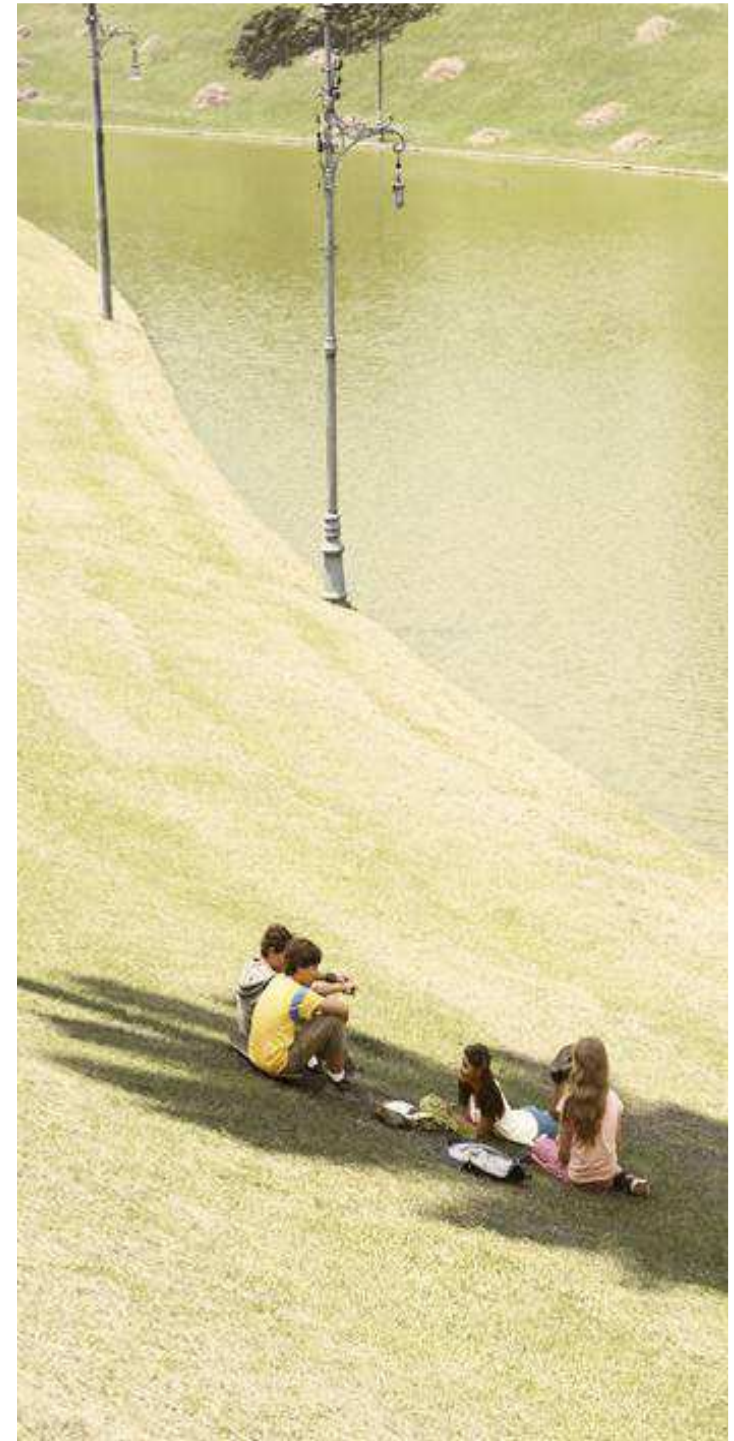
ubiquitous
connectivity

connected
objects

Big Data

cloud
services

**security,
privacy**



Orange's Smart cities, a 5 axes program



Connected cars and public transportation

connected, synchronisable, talking with the city...



Cooperation (NFC, 4G,...) with several Car manufacturers



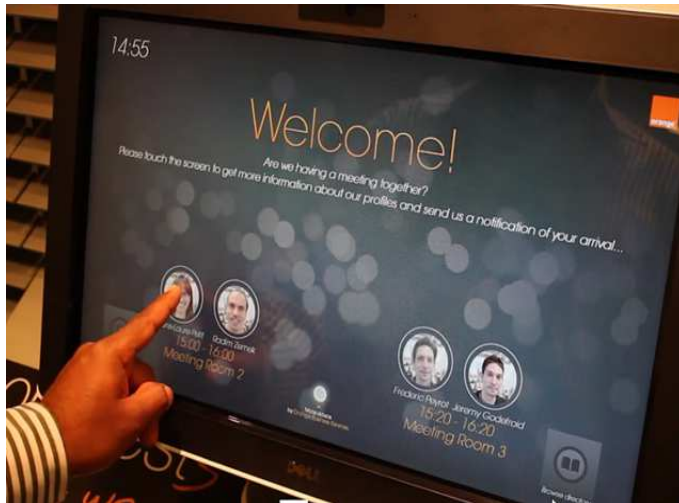
Smart Bus, offers free WiFi through a 4G connection

In the (not too distant) future cars will:

synchronise their movements, talk with traffic lights, be autonomous-driving, be shared, book parking/charging spots, be Apps and wallets on wheels, contribute to the smart Grid storage, be Crowd –Sensors for city Data and information, participate in Multi-Modal transport, etc...

Smart Building & Smart Metering

a social network of buildings and sensors...



In the (not too distant) future buildings and the city will:

create a social network of buildings to synchronise their energy resources and reduce their needs, inform citizens about shared resources (parking spots,...) and local events, enable to better work from home, be flexible to accomodate for elderly requirements, changing family structure or temporary Home Rental, ...

Smart cities need ICT and management

Orange is an ICT partner for leading new districts

- state-of-the-art ICT infrastructure
- telecom services: Fiber, VoIP, IPTV, VoD, datacenter
- added value services for the district, its tenants and managers: smart metering, smart building, parking real time management, location based services, digital signage



- Orange has been supporting RIC (Rayadah Investment Company) in KSA for 5 years for the digital development of two new districts: KAFD (King Abdullah Financial District) and ITCC (IT & Communication Complex).
- consulting, design, supervision of service implementation
- key benefits: smart city vision, state-of-the-art network design, convergent services...
- creation of a new subsidiary in KSA in April 2012 and in Qatar early 2013

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Cities need to innovate

innovation is different in a connected world

One isolated man with a
simple production process:
no change for 10.000 years



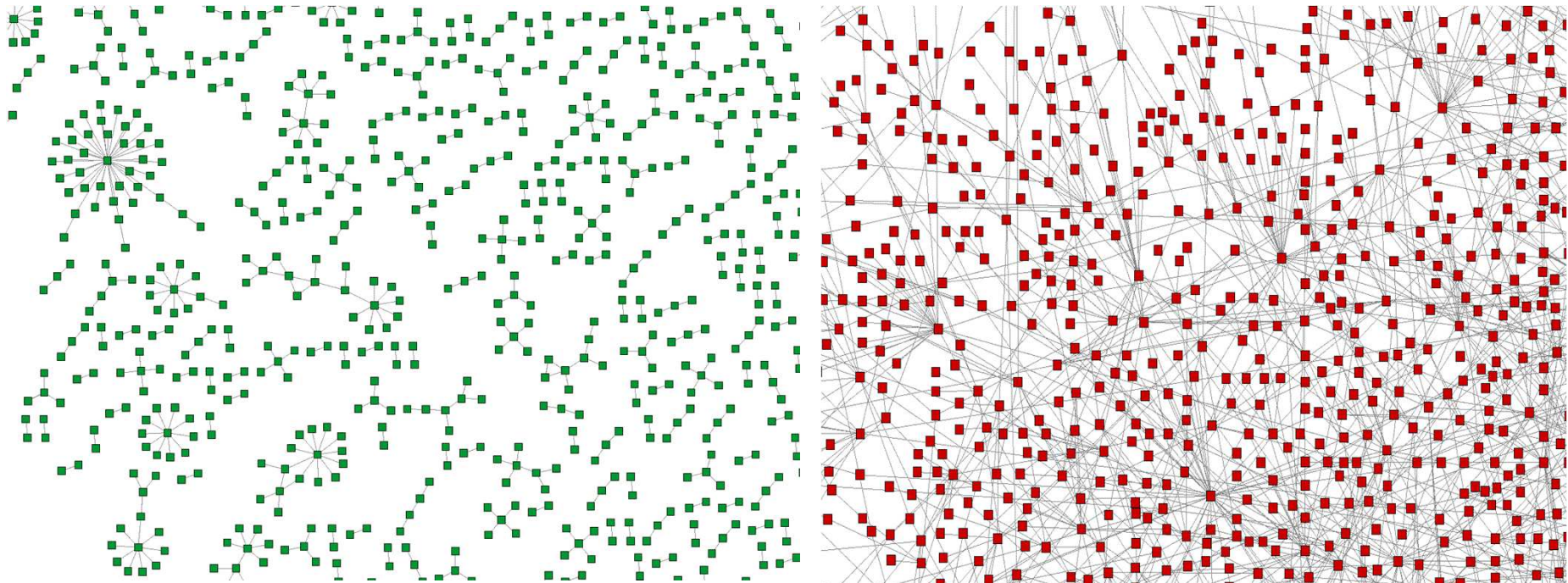
Several organisations in a
complex production process:
several changes per year



- Distributed accessible knowledge
- Network of collaborative experts
- **Fast and creative innovations**

Cities need rich social networks to innovate

access to Data and Expertise is key for finding new ideas



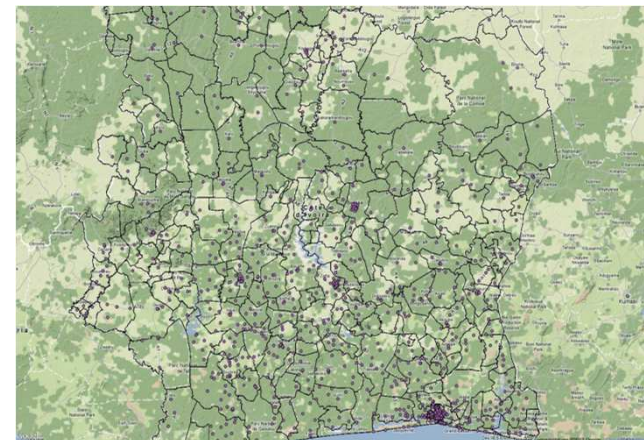
Cleveland's vs Silicon Valley's
innovators "networks" structures

<http://expertvoices.nsd.org/cornell-info204/2008/02/18/silicon-valley-network/>

D4D

challenge data for development

an Open Innovation & BigData challenge by Orange
to help populations in Ivory Coast

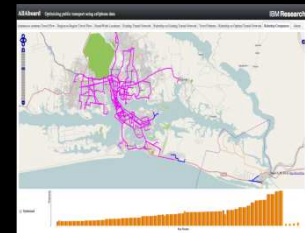




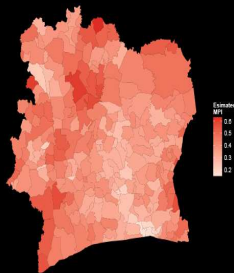
University of
Birmingham,
UK



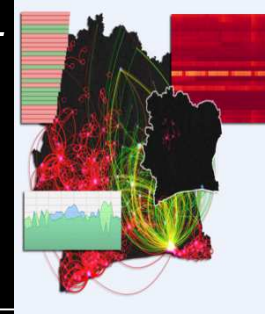
*IBM Research,
Dublin, IRL*



*Université de Sar
Diego, CA, USA*

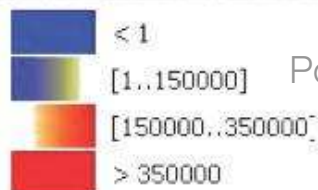
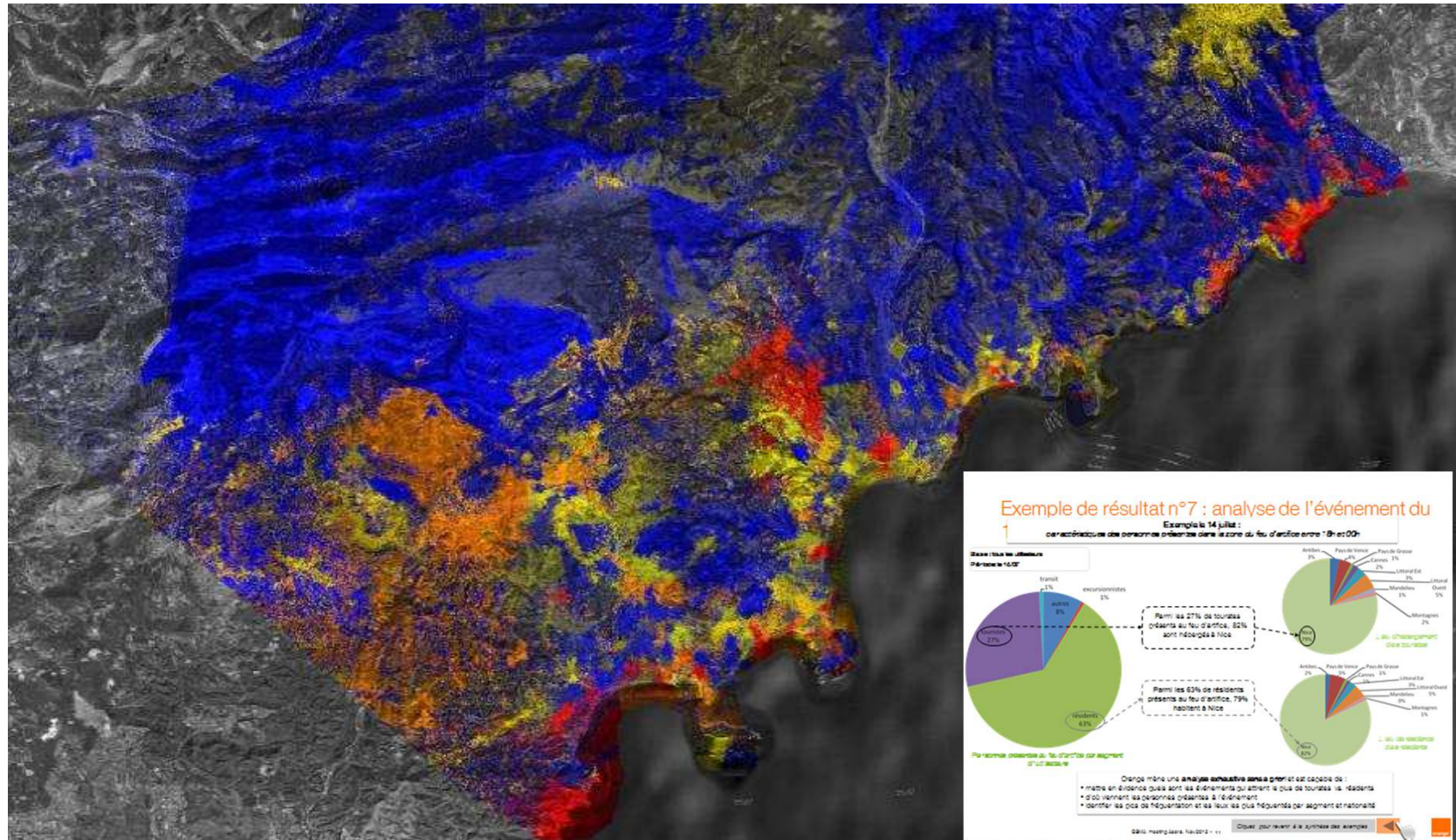


Eindhoven U, NL
SynerScope, NL
MIT, Cam, USA



Network (anonymous) information as a service

Flux-Vision for tourists flows' analysis in south of France



Fréquentation touristique cumulée sur les 3 mois

Pour chaque antenne, somme de la fréquentation touristique horaire sur les 3 mois

Velocity: fast Data depends on context and often on accessing personal information to create value

		information about				
		Distant Past	Recent Past	NOW	Short term Future	Long term Future
activity	Sense					
	Act					
	Think					

M2M fast data & personalisation require **automation**...
a complex and privacy/Citizen vs Consumer set of issues

Orange smart parking solution

partnership on smart parking with:



Integrated Smart Parking platform

mobile payment

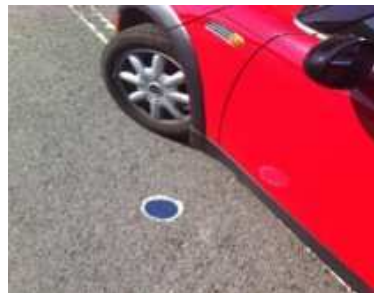
Municipal Smart Parking Systems

Parking Management Platform

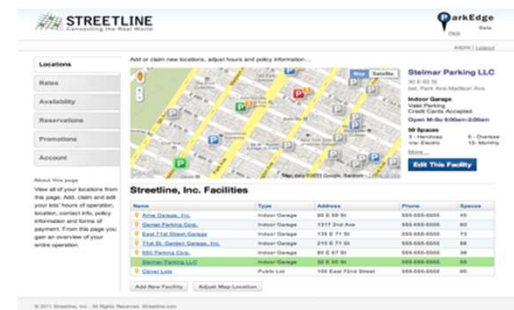
Consumer Guidance



user friendly SMS-enabled on street parking payment based on multi-operator micro-payment solution



sensor-enabled applications for cities around the world



Software-as-a-Service parking management platform



consumer guidance for smart phones, tablets and in car navigation systems

JD.com – same day delivery with real-time item tracking on Map/Mobile...often on Bicycle

Free* Same-Day Delivery in 25+ Cities in China / Customer Can Track Package Location on Map / Mobile Devices and Contact Delivery Person in Real Time



KPCB

Note: *For orders > \$8. 70

Taxi Apps: push to talk to Driver or bid extra to increase chances of getting a car on your terms during peak time

Push to Talk

Say current location and where you're going. Your voice message will be delivered instantly to all nearby available taxis



Bid to Win

Increase your chance of hailing a cab during peak hours by offering extras tips up front (in addition to regular fare)



Real Time Tracking

View your taxi's location in real-time, push to talk to the driver directly to coordinate pick-up



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Big Data

...is not unlike the discovery of a DNA for the World

In mid-March 1953 Watson and Crick deduced the double helix structure of DNA.

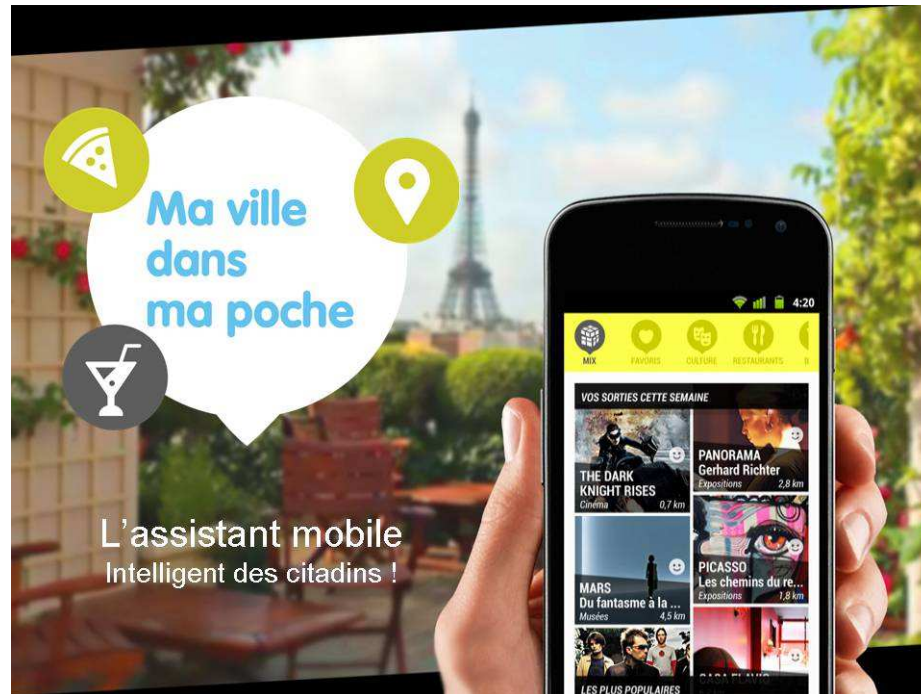
DNA decoding and manipulation
opens new fields of applications
asking new society questions and
their host of policies and regulations.

BigData is accessing information
about the world, and making us
capable to change its operations.

We need similarly to learn to use it,
address key society questions and
make sure we evolves towards a
better world.



OpenData & BigData could provide citizens access to better city services and innovation in public policies



Orange's « Ma ville dans ma poche »
for services to citizen's daily lives



City services to improve public
policies for better quality of life

How to end-up with Human Smart Cities ?

made by and for the Smart Citizen

Human Smart Cities are those where governments engage citizens by **being open to be engaged by citizens**, supporting the **co-design** of **technical and social innovation** through a peer-to-peer relationship based on **trust and collaboration**.

The Human Smart City is a city where people, citizens and communities, are the main actors of urban “smartness”. Technology should serve them first.



<http://peripharia.eu/blog/human-smart-cities-manifesto>

10 / 04 / 2013 19



Beijing's « recycle against metro tickets » is primarily a Smart Social innovation

Thank you

