IBM Smarter Cities
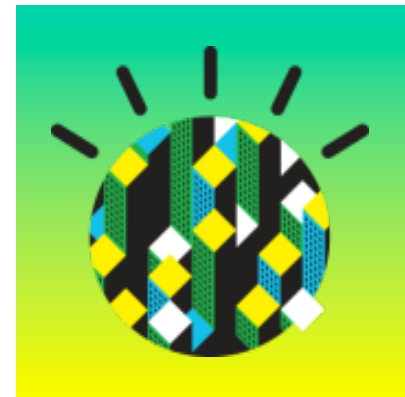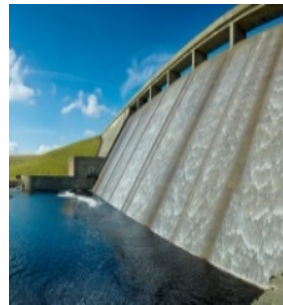
The City of tomorrow – The intelligent City

June 2014, Kay Hartkopf, Smarter Cities Leader DACH

IBM Germany

Agenda

1 **IBM Smarter Cities**

2 Infrastructure challenges

3 IBM Smarter Cities Solutions

Strategies of urban planning

„The Death and Life of Great American Cities"
Jane Jacobs (1961)

Humans live in communities
characterized by layered complexity
and seeming chaos

Most violent: urban renewal
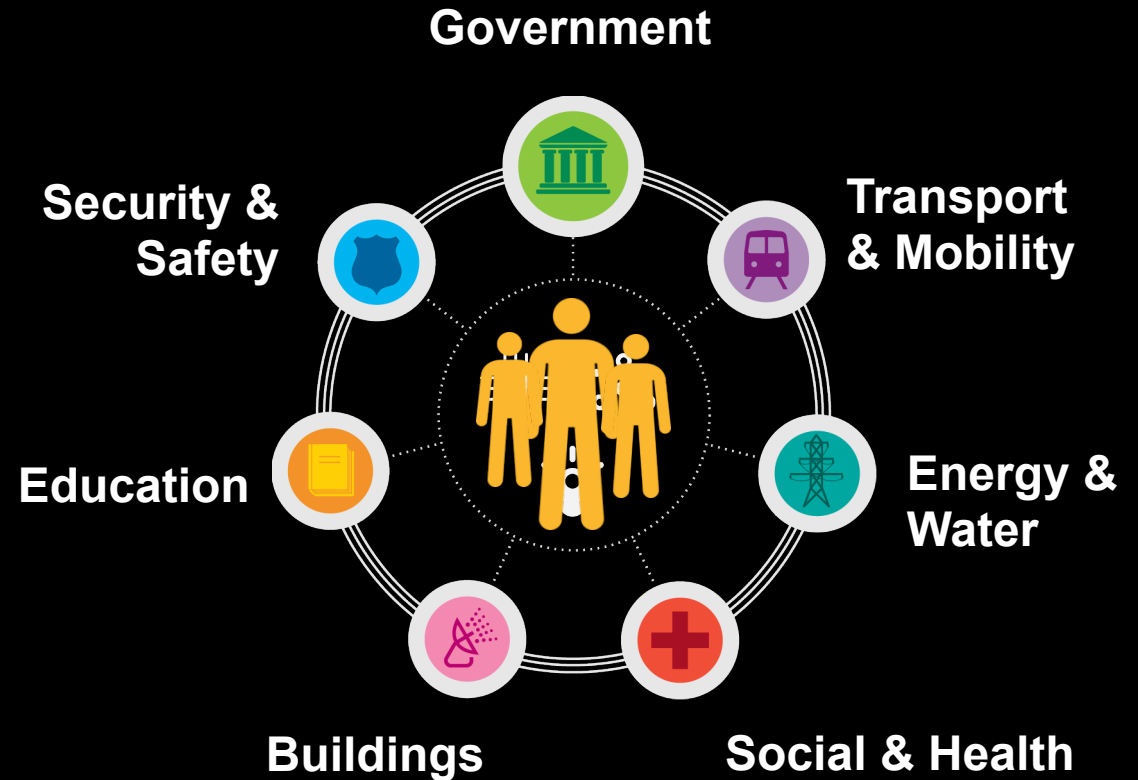and separation of uses

Richard Florida

(American urban studies theorist)

A creative class (incl. technology workers, artists,
musicians, diversity index) fosters an open,
dynamic and professional urban environment

IBM Smarter Cities:
"Rethinking" cities from citizen experiences and expectations
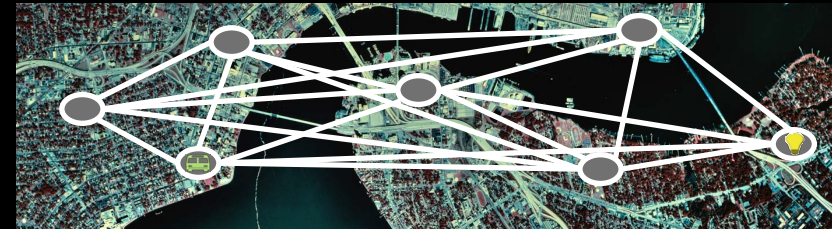
From the citizen's perspective, all city domains interact

Government

Transport & Mobility

Energy & Water

Social & Health

Buildings

Education

Security & Safety

How IBM can help cities become smarter ?

Our world is more and more
INSTRUMENTED

Our world is more and more
INTERCONNECTED

Virtually, all systems can become more and more
INTELLIGENT

A g e n d a

1 IBM Smarter Cities

2 **Infrastructure challenges**

3 IBM Smarter Cities Solutions

Aging infrastructures require city leaders actions

Transport

In France, traffic jams cost 1.5% GDP per year and 27% of CO2 emissions.

Safety

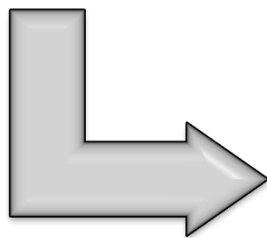**City assets need a better protection. But how to manage image volumes and valuable information?**

Energy

An energy blackout, which originated in Germany, affected Paris and 15 French regions, its effects were felt in Austria, Belgium, Italy and Spain.

Situation of infrastructure

$57 trillion global infrastructure needed in 2013-30

$1 trillion annual savings from a 60% improvement in infrastruture productivity

Economic Infrastruture			Social Infrastructure	Service
Transport	**Energy**	**Telecommunication**		
Streets	Gas & power supply	Kabel network	Schools	Productivity increase
Bridges & tunnel	Water supply	Satellite system	Hospitals	Sustainability
Train & metro	Water distribution		Prisons	Smart approaches
Logistics center	Effluent disposal		Courts	
	Renewable energies			

Working harder is not sustainable

Cities require innovative approaches

A g e n d a

1 IBM Smarter Cities

2 Infrastructure challenges

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1960

NESCAFE

19

2544

2014

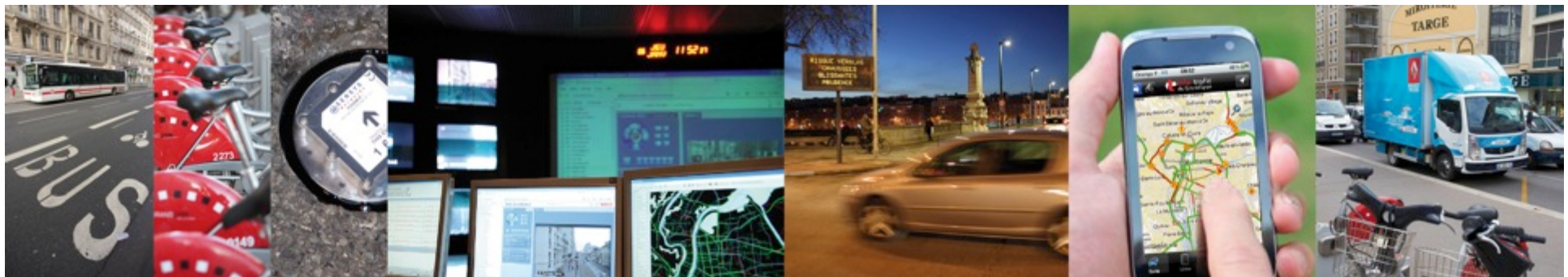Zwischen A und B gibt es viele Möglichkeiten: switchh

© Hamburger Hochbahn AG
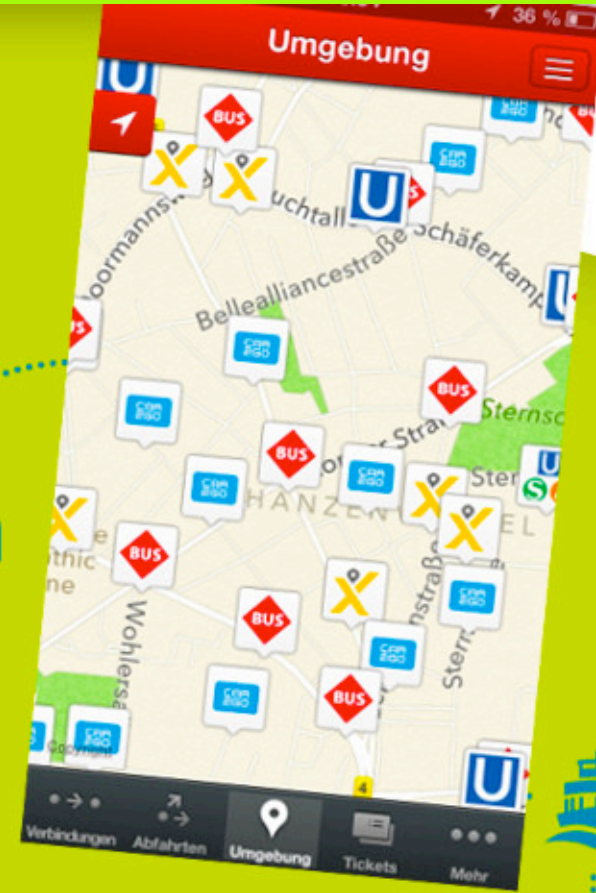
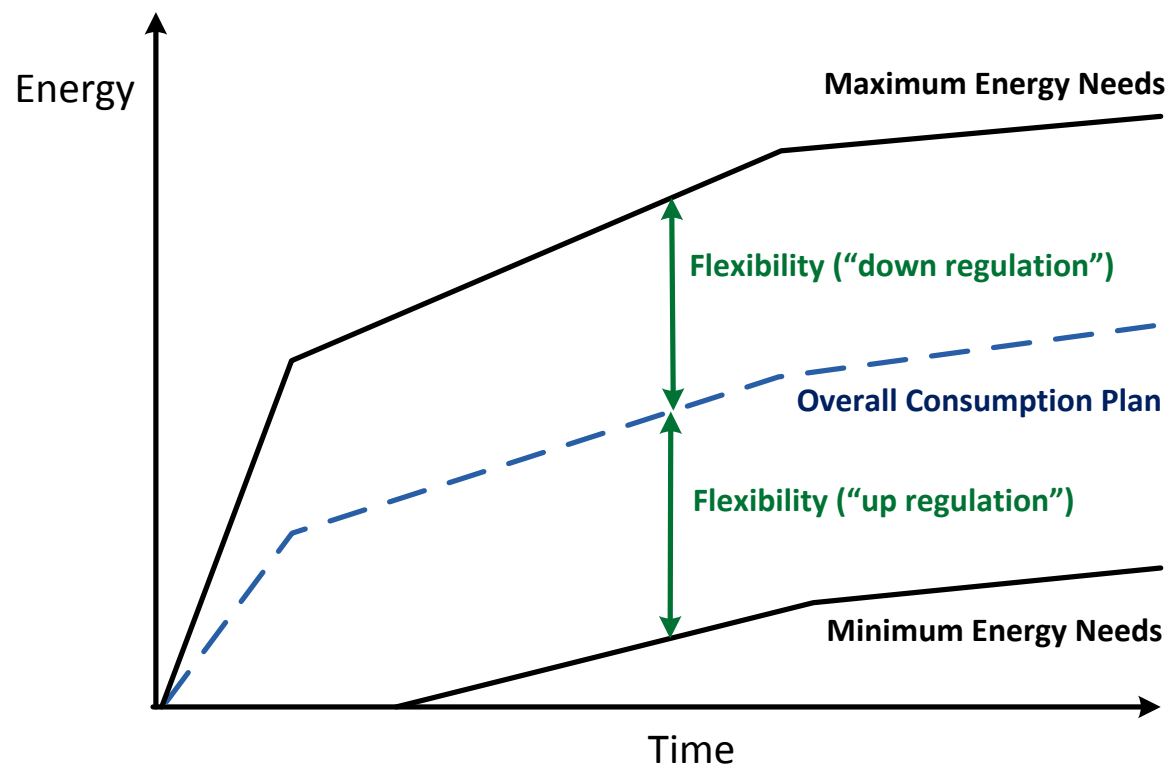# OPTIMOD·LYON

1h traffic prediction

Real-time **travel planner**

Optimizing freight and professional moves

Prevent deaths from frequent flooding

Expand early warnings to **48 hours**
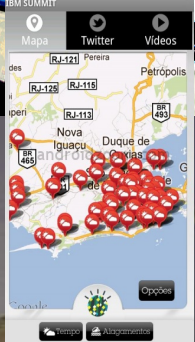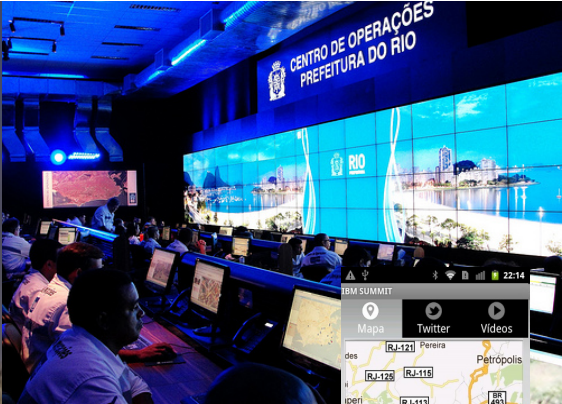
Smart grid - Using renewable energy in Switzerland

Energy

Maximum Energy Needs

Flexibility ("down regulation")

Overall Consumption Plan

Flexibility ("up regulation")

Minimum Energy Needs

Time

↑ 5,400 GWh of renewable energies

BKW ⊘ **MIGROS** IBM **swissgrid**

The technology behind the scenes

Multiple Data sources

Connecting across multiple data sources for a single picture across the city

Video

Sensors

Citizen Collaboration

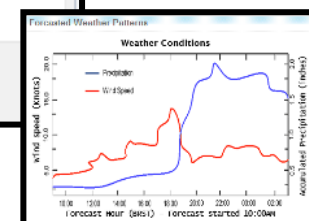**Mobile Phone Tracking**

Social Media Analytics

Correlation
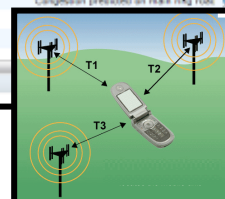
Prediction

Smarter Cities Video
http://youtu.be/I3iDBfB_ZC0

Working harder is not sustainable

Cities require innovative approaches

Grazie
ITALIAN

धन्यवाद
HINDI

Merci
FRENCH

ありがとうございました
JAPANESE

Obrigado
BRAZILIAN PORTUGUESE

多谢
SIMPLIFIED CHINESE

THANK YOU !

多謝
TRADITIONAL CHINESE

Gracias
SPANISH

Спасибо
RUSSIAN

நன்றி
TAMIL

ขอบคุณ
THAI

Danke
GERMAN

شكراً
ARABIC

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