The «Universe» of smart cities

Technological Factors
- Digital city
- Intelligent city
- Ubiquitous city
- Wired city
- Hybrid city
- Information city

Institutional Factors
- Governance
- Policy
- Regulations / Directives

Human Factors
- Human infrastructure
- Social capital

Creative city
- Learning city
- Humane city
- Knowledge city

Knowledge city
Smart growth
- Smart community

Source: Nam and Pardo (2011)
Smart City : A broad definition

A “smart city” is a multi-stakeholders’ ecosystem (composed with local governments, citizens’ associations, multinational and local businesses, universities, international institutions…)

Engaged in a sustainability strategy/transition (mobility, environment, economy, people, governance & living)

Using technologies (ICT mainly) as enabler

In order to become more sustainable (economic prosperity, social well-being & conservation of our natural resources)
Smart City: 6 key dimensions

- Economy
- Mobility
- Environment
- People
- Governance
- Living
THE STATE OF DEVELOPMENT OF SMART CITIES IN BELGIUM

FEBRUARY 2017

JONATHAN DESDEMOUSTIER
PhD researcher

PROF. NATHALIE CRUTZEN
Director

SMART CITY INSTITUTE
A quantitative research amongst Belgian municipalities

Key statistical observations

1st significant scientific research on the state of development of smart cities in Belgium
BELGIUM

POPULATION: 589 MUNICIPALITIES
SAMPLE: 113 MUNICIPALITIES
RATE: 19%

SAMPLE RESPONDENTS
SAMPLE
REPRESENTATIVITY

BELGIUM
REPRESENTATIVE

REGIONS
REPRESENTATIVE

URBAN/RURAL
REPRESENTATIVE
TOPIC #01 PERCEPTION

"HOW DO BELGIAN MUNICIPALITIES PERCEIVE THE SMART CITY PHENOMENON?"
SMART CITY BAROMETER

DEFINITIONS

REGIONS

FLANDERS
OPPORTUNITY

BRUSSELS
TECHNOLOGICAL CHALLENGE

WALLONIA
TECHNOLOGICAL CHALLENGE
SMART CITY BAROMETER

BELGIUM

66% OF BELGIAN MUNICIPALITIES FEEL CONCERNED BY THE CONCEPT OF SMART CITY
SMART CITY BAROMETER

REGIONS

FLANDERS
- YES: 84%
- NO: 16%

BRUSSELS
- YES: 88%
- NO: 13%

WALLONIA
- YES: 45%
- NO: 55%
6 DIMENSIONS OF THE SMART CITY
RANKING BY CITIES FROM 1: MOST IMPORTANT TO 6: LESS IMPORTANT

1. Smart Governance
2. Smart Environment
3. Smart Mobility
SMART CITY BAROMETER

PRIORITIES

BELGIUM - TOP 3

1. GOVERNANCE AND E-SERVICES
2. ENERGY EFFICIENCY
3. SUSTAINABLE MOBILITY
"HOW DO BELGIAN MUNICIPALITIES IMPLEMENT SMART CITY PROJECTS ON THEIR TERRITORY?"
SMART CITY PROJECTS ARE PERCEIVED AS DIFFICULT OR VERY DIFFICULT TO IMPLEMENT!
BELGIUM - TOP 3

- 1. Money
- 2. Expertise
- 3. Stakeholders involvement & engagement

SMART CITY BAROMETER BARRIERS
STAKEHOLDERS

INITIATORS

Most of the time public authorities are initiating smart city projects → top-down approach

- **80%** Public Authorities
- **10%** Private Sector
- **5%** Civil Society
- **4%** Research Centers & Universities
- **1%** Don’t know the initiator
Belgian municipalities often perceive Smart City dynamics as a TOP-DOWN process involving mainly local public actors.

Limited involvement of private actors, the Civil Society and … citizens
TOPIC #03 MANAGEMENT

"HOW DO BELGIAN MUNICIPALITIES MANAGE SMART CITY-RELATED DYNAMICS?"
Belgium – Smart City Plan

Do Belgian municipalities have a smart city strategy?

Yes: 13%

No: 87%
SMART CITY DEPARTMENT

IN BELGIAN MUNICIPALITIES

NONE

OF BELGIAN MUNICIPALITIES

HAS A SMART CITY DEPARTMENT
SMART CITY BAROMETER

PEOPLE IN CHARGE

SMART CITY MANAGERS
IN BELGIAN MUNICIPALITIES

17 municipalities have hired one or more Smart City manager(s)

FLANDERS: 6
BRUSSELS: 2
WALLONIA: 9
BAROMETER 2018

DEADLINE

January 19, 2018

LINK TO THE SURVEY

FR : www.smartcityinstitute.be/barometre

NL : www.smartcityinstitute.be/onderzoek
THANK YOU FOR YOUR ATTENTION

www.SmartCityInstitute.be

sci@ulg.ac.be

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