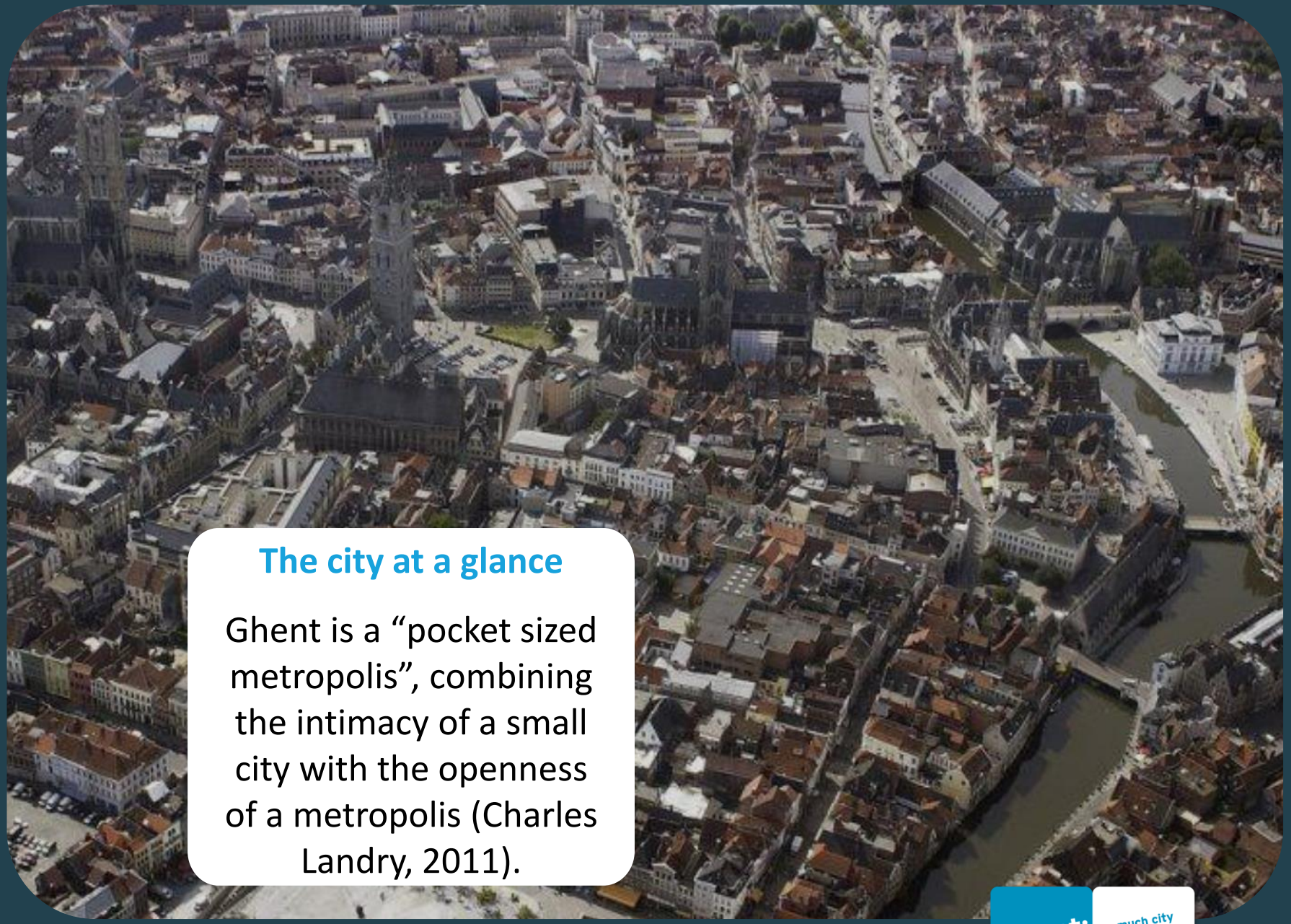
ghent:
so much city
Ghent, (smart) City of People
September 23 2015,
Karl-Filip Coenegrachts, City of Ghent



The city at a glance

Ghent is a “pocket sized metropolis”, combining the intimacy of a small city with the openness of a metropolis (Charles Landry, 2011).

ghent: so much city

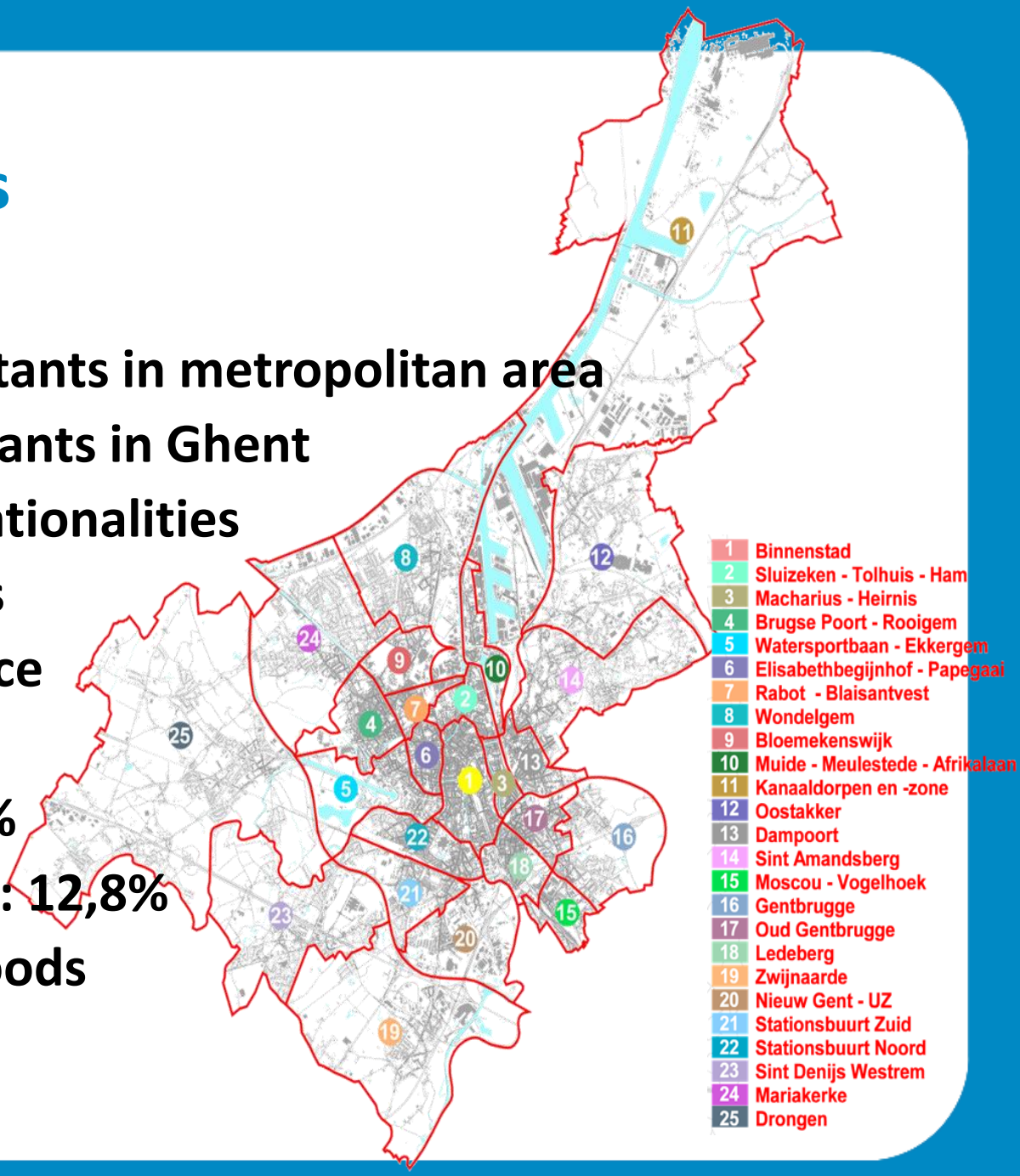
A medieval metropolis (11th – 14th century)

An industrialized city (18th - 19th century)

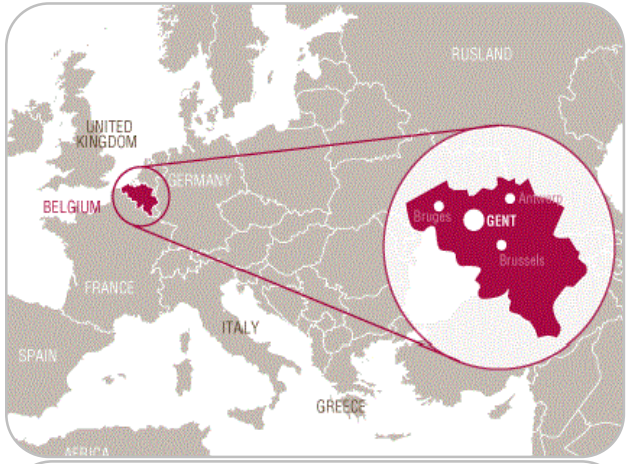
Belfort
P9

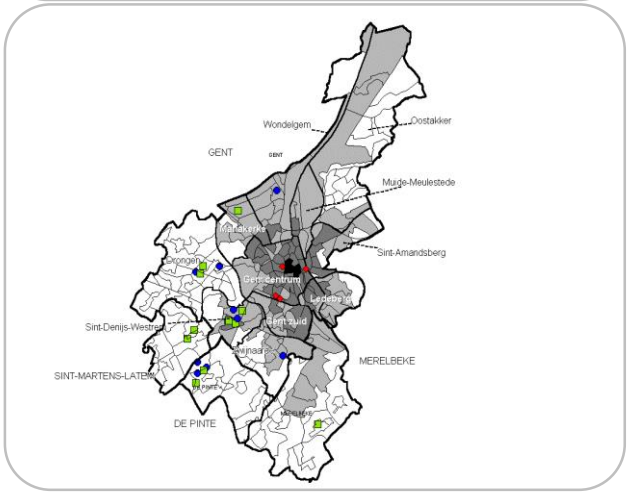
Facts & figures

- 500.000 inhabitants in metropolitan area
- 251.798 inhabitants in Ghent
- 159 different nationalities
- 72.500 students
- 15.643 ha surface
- 170.249 jobs
- Job ratio 104,8%
- Unemployment: 12,8%
- 25 neighbourhoods



Ghent, strategically within Europe





- Ghent is the capital city of the province of East Flanders
- Ghent is situated at the crossroads of other economically strong areas such as the Randstad Holland in the north, the Ruhrgebied in the east, London in the west and Paris and Lille-Roubaix-Tourcoing in the south

Ghent, city with a diversifying population

- Total population reaches 251,798 (Dec. 2014)
- The population is on the rise since 1999 (12% increase, after decreasing for 19 years)
- Ghent has a relatively young population compared to the rest of Flanders, though almost 1 out of 3 inhabitants is 55 or older
- The city is a melting pot of 156 different nationalities

Ghent is ethnically and culturally becoming more and more diversified with 19% belonging to an ethno-cultural minority

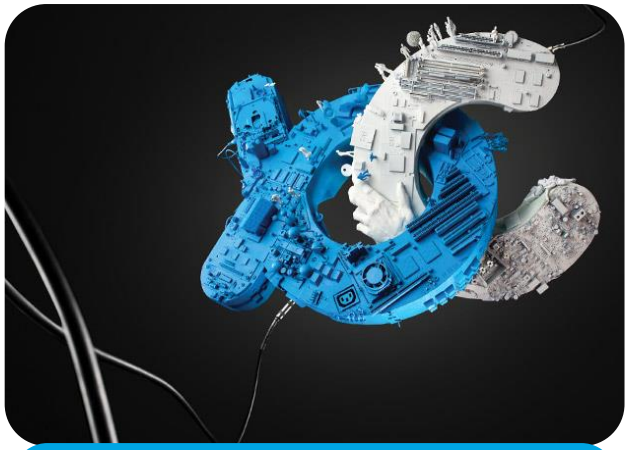
Ghent, city of culture and tourism

Ghent is a big cocktail of styles in art, design, architecture and music. History is gracefully connected to modern design and art.

- Ghent is host of the International Film Fest
- Ghent is a UNESCO City of Music and has a wide range of musical events
- The ten-day Ghent Festivities is the largest European city festival
- Ghent is 3rd in the National Geographic Traveler Magazine ranking of authentic destinations

Ghent, city of innovation and creativity

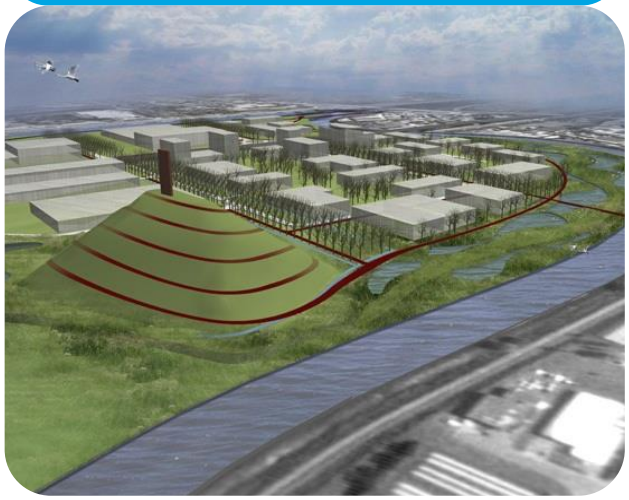
- Largest student city of Flanders (72.500 students)
- The ‘Academic Ranking of World Universities’ puts Ghent University as Belgium’s top-institution
- 13 research centers of world class (e.g. the Flemish Institute for Biotechnology).
- The creative economy counts more than 500 creative and innovative enterprises and more than 6,000 workplaces



Ghent BC (Big in Creativity) is a network of researchers, entrepreneurs and government stimulating the knowledge economy

Ghent, city of future-oriented businesses

The economic structure is determined by the Port of Ghent, wich is providing almost 30,000 direct and 40,000 indirect jobs



- 170,249 jobs
- Industry plays an important role in local employment and knowledge networks: OCAS, CRM, SIM, …
- An innovative economy (bio-energy, biotechnology, ICT) with strong patent position
- Room for new projects: more than 1,000 acres assigned to Logistics, Knowledge Economy and Services

What do they say?

"The most creative city I've seen so far" – Charles Landry, Creative City Index

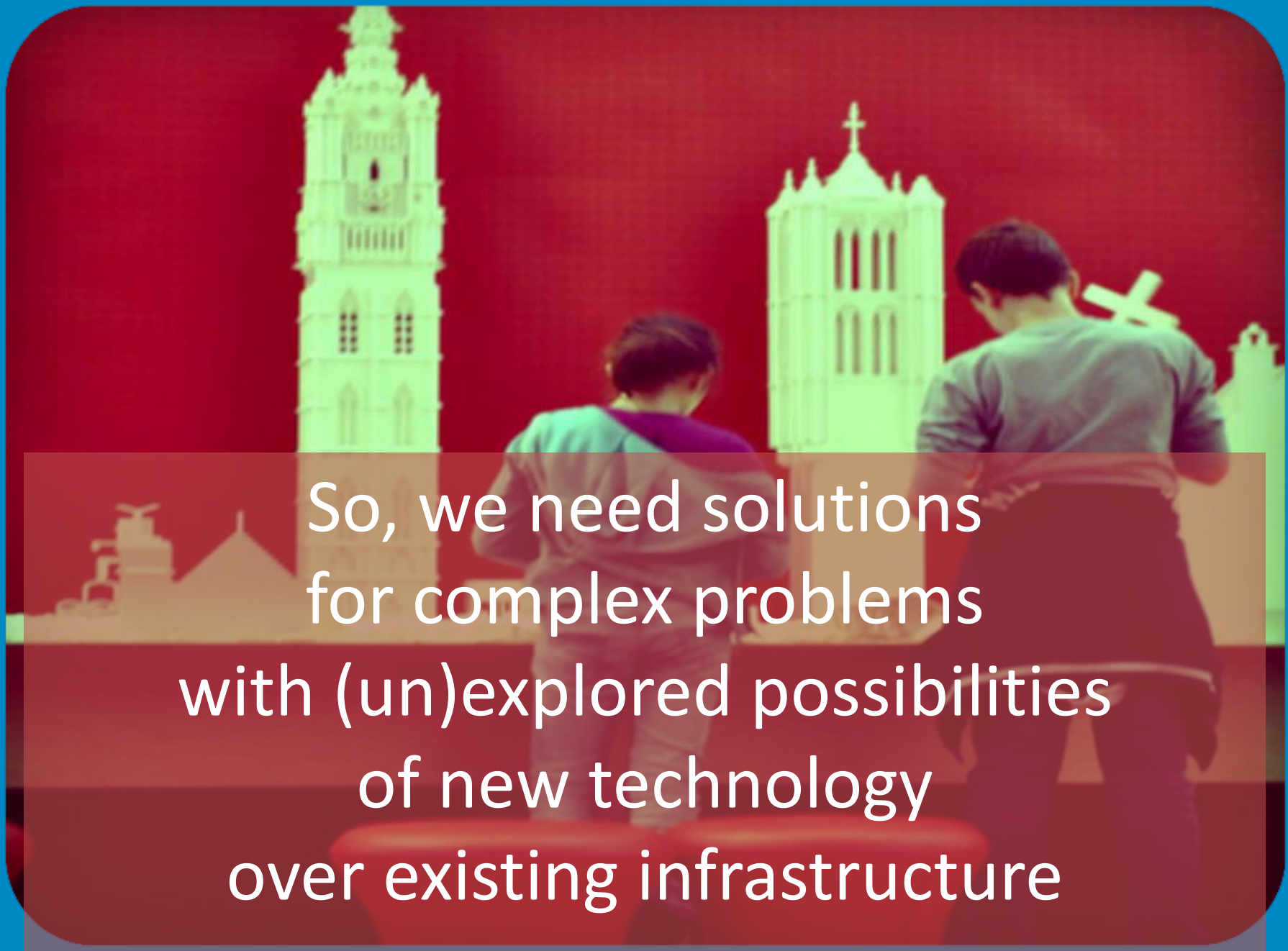
"Ghent is Europe's best kept secret"

theguardian

- *"Ghent is the hipster capital of Belgium"*

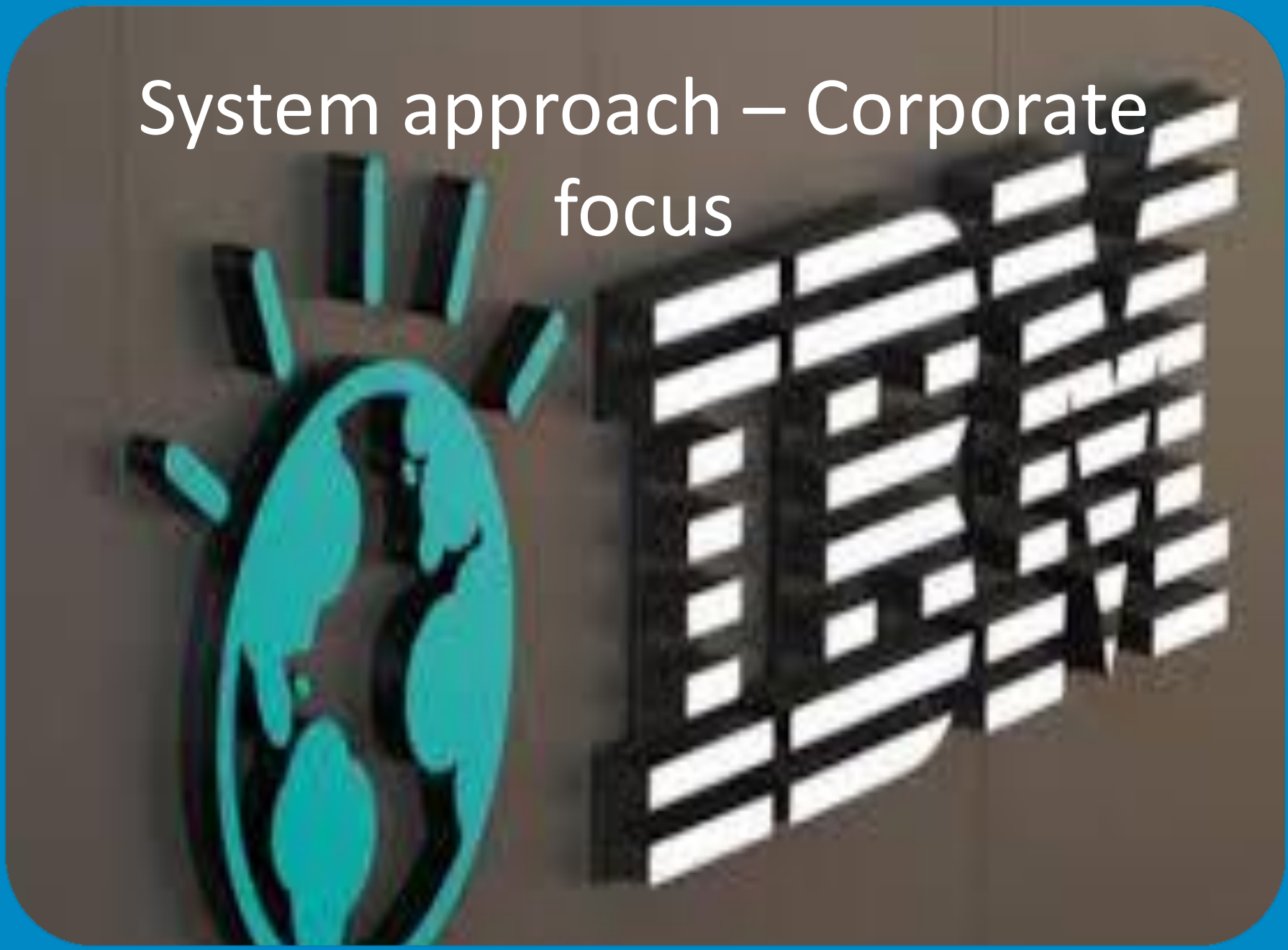
Ghent as a Smart City

beta
version
LOADING CITY
image by uncreatives*


So, we need solutions
for complex problems
with (un)explored possibilities
of new technology
over existing infrastructure

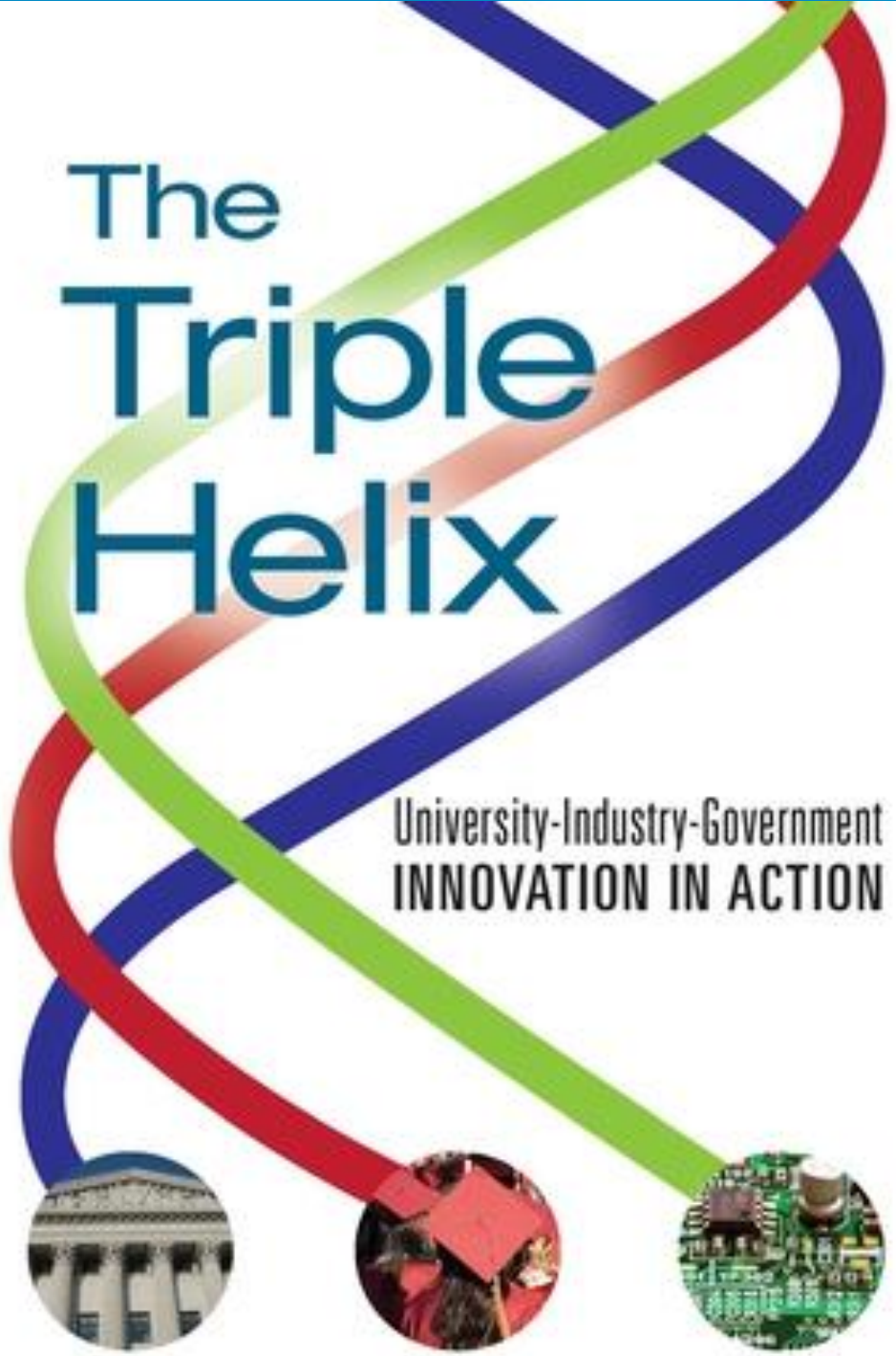
System approach – Emerging cities

System approach – Corporate focus



System approach – Urban control rooms

Focus Mobility and Energy efficiency



From Innovation to Smart Cities?

Concept Smart City

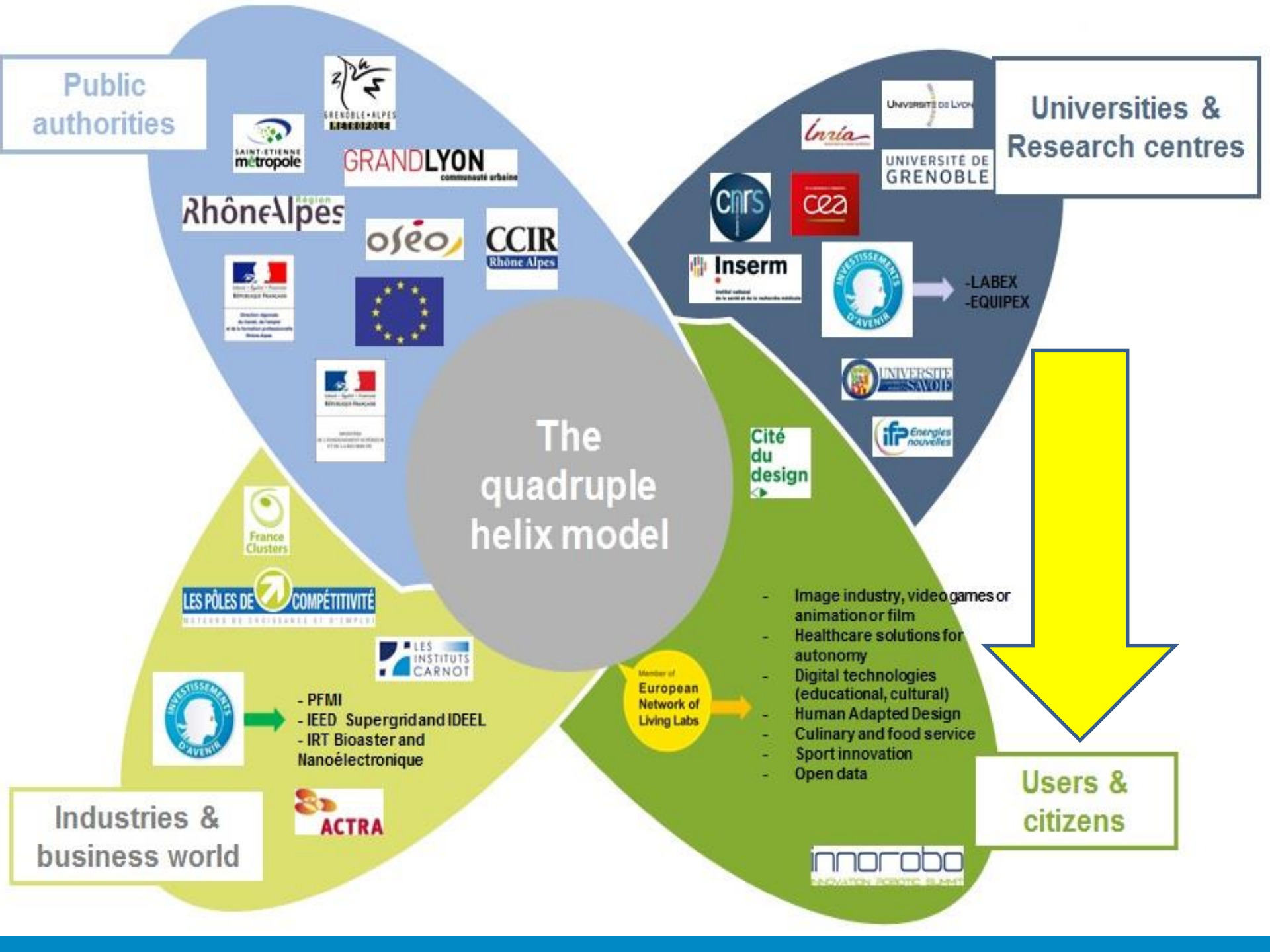
- From Sustainable Development to **Future Fit**
- Smart City
  - Building blocks
  - System approach
    - Greenfields in Asia
    - IBM, Siemens, …
    - Transport, Energy
    - Sensors, Urban Control Rooms

Smart City building blocks

- Human and social capital
- Communication
- Sustainable development
- Natural resources
- Participatory local policy
- Good place to live in
- Quality of life
- Efficient use of resources

Someone is missing

• The most important building block of a Smart City: the Smart Citizen


Public authorities
Universities & Research centres
The quadruple helix model
Industries & business world
Users & citizens
-LABEX
-EQUIPEX
- PFMI
- IEED Supergrid and IDEEL
- IRT Bioaster and Nanoélectronique
- Image industry, video games or animation or film
- Healthcare solutions for autonomy
- Digital technologies (educational, cultural)
- Human Adapted Design
- Culinary and food service
- Sport innovation
- Open data
Member of European Network of Living Labs

Smart Citizen

- Smart Cities need Smart Citizens to be truly inclusive, innovative and sustainable.

www.eurocities2013.eu

DIGITAL changes GOV-CITIZEN relations

NiteOwl

Stem hier

Wij delen

Stem hier

Wasbar

Stem hier

Uit in 9050

Stem hier

Buren van de abu

Stem hier

Wijveld

Stem hier

Toreke

Stem hier

Mastouche

Stem hier

Cohousing

Stem hier

Fietskeuken

Stem hier

First Smart City Projects in Ghent

- GreenWeCan
- Terrain
- SmartiP
- Citadel on the move

Green **W**ireless **E**fficient **C**ity **A**ccess **N**etworks

- Research question:

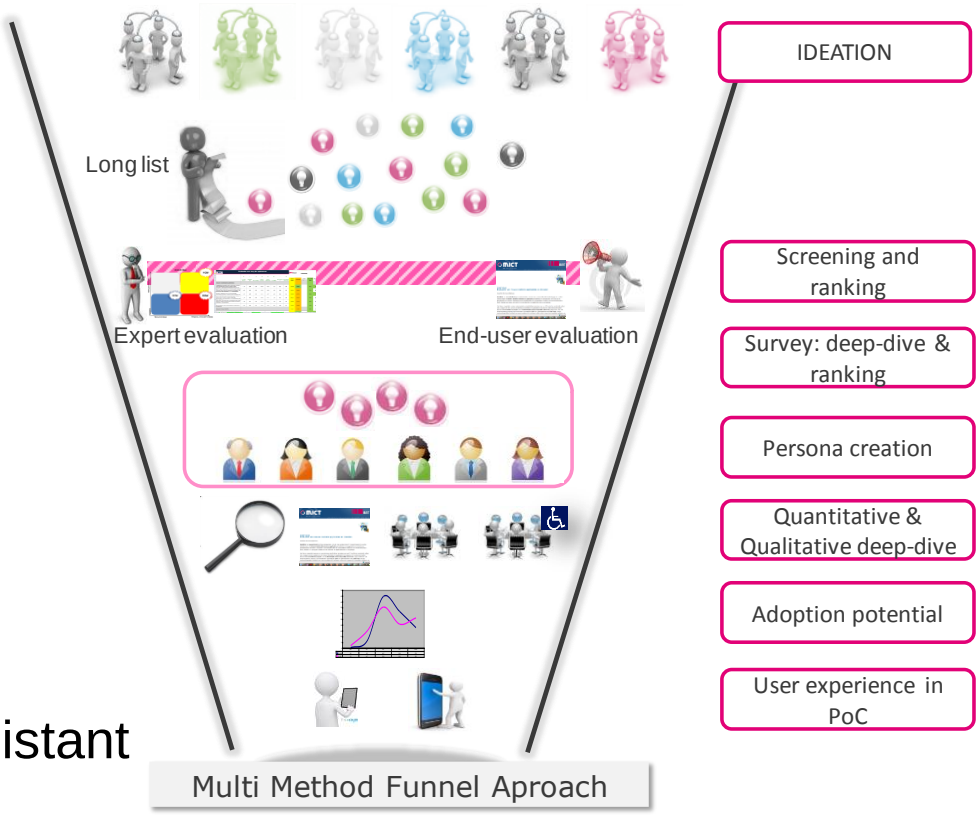
  What is needed to make sensor information useful for the citizen?

- Multidisciplinary research project involving local **government**, innovative **industry**, and **research** partners

- Timing: February 1st, 2011 - July 31st, 2013

GreenWeCan use cases

- Exploration of short and long term opportunities for wireless network applications in a smart city
- 88 potential ideas
- Primary application domains
  - Mobility
  - Parking
  - Environmental applications
- Trial applications
  - Garbage bin sensors
  - Personal parking assistant for disabled people



Interdisciplinary research consortium

Industry & local government

- Network
  - OneAccess
  - Bausch Datacom
- Application
  - Be-Mobile
  - Androme
- Local government
  - City of Ghent

iMinds research groups

- Network
  - UGent-IBCN
  - UGent-WiCa
  - UAntwerpen-PATS
- Application
  - UHasselt-EDM
  - KULeuven-DistriNet
- User research
  - UGent-MICT
- Business modelling
  - VUB-SMIT

TERRAIN

TERRAIN (Techno-Economic Research for futuRe Access Infrastructure Networks) project investigates the rollout of **optical fibre** in the access network in cooperation with other utility networks as future-oriented solution.

To meet the large installation costs it focuses on optimizing the collaboration between all actors involved (equipment vendors, telecom operators, utility companies, municipality, FTTH interest group, GIS and telecom software suppliers, and multi-disciplinary research groups), analysing all aspects from a techno-economic point of view, considering technical, social, economic and regulatory sub-problems.

Project duration: October 2010 - September 2012

SMARTiP priorities:

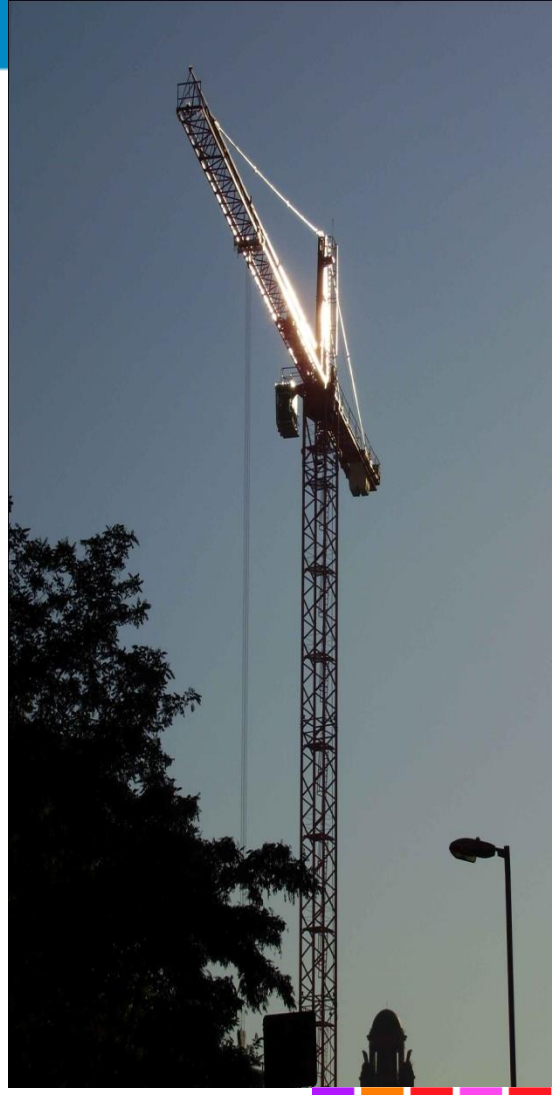
- Smart cities need smart citizens
- User driven innovation
- Co-creation and co-production
- Users as producers
- Empowering citizens
- Future Internet social capital
- Innovative business models

European Network of Living Labs

EUROCITIES

SMARTiP Themes

- Smart Engagement
- Smart Environments
- Smart Mobility
  - Open Data
  - Citizens as sensors
  - Social (data) networking
  - Co-production of services



European Network of Living Labs

EUROCITIES

COMUNE DI BOLOGNA

The University of Manchester

Citadel on the Move challenges…

- Getting Dev's to work with your data
- Make their work known beyond your city
- Stay relevant

EUROCITIES website ×
onthemove.eu/en-us/exploremycitadel/appcatalogue.aspx
Analytics Pin It Paper.li Datanews.be Tweet Activity a... Squirt EUROCITIES we... Gent.be European PSI a... Storify this Beeldbank Spotify Web Pla...

Citadel ...on the move

Login Register

Citadel on the Move

Open Data | Create an App | Explore My Citadel | Cities | News | Ask for Help | About

Explore My Citadel >> App Catalogue

Wednesday , November , 19 2014

Create an app

Use the Application Generation Tool to easily create your own app!

My apps and data

Datasets I have uploaded and Apps I've created

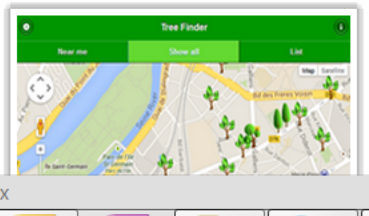
App catalogue

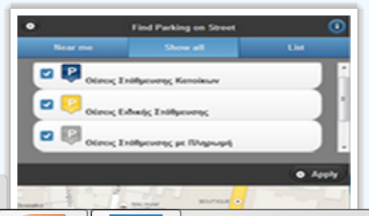
Browse the App Catalogue to find out about the apps created across the cities using the Citadel AGT

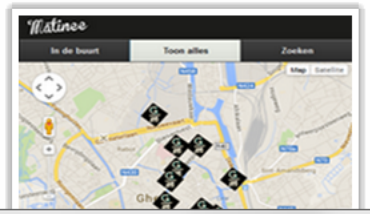
Community

Talk to the Community or Ask a Question

Built with Citadel







ome.aspx

Goals

- Harmonising data
- Human readability and useability
- Citizen Development
- Open Data for solutions

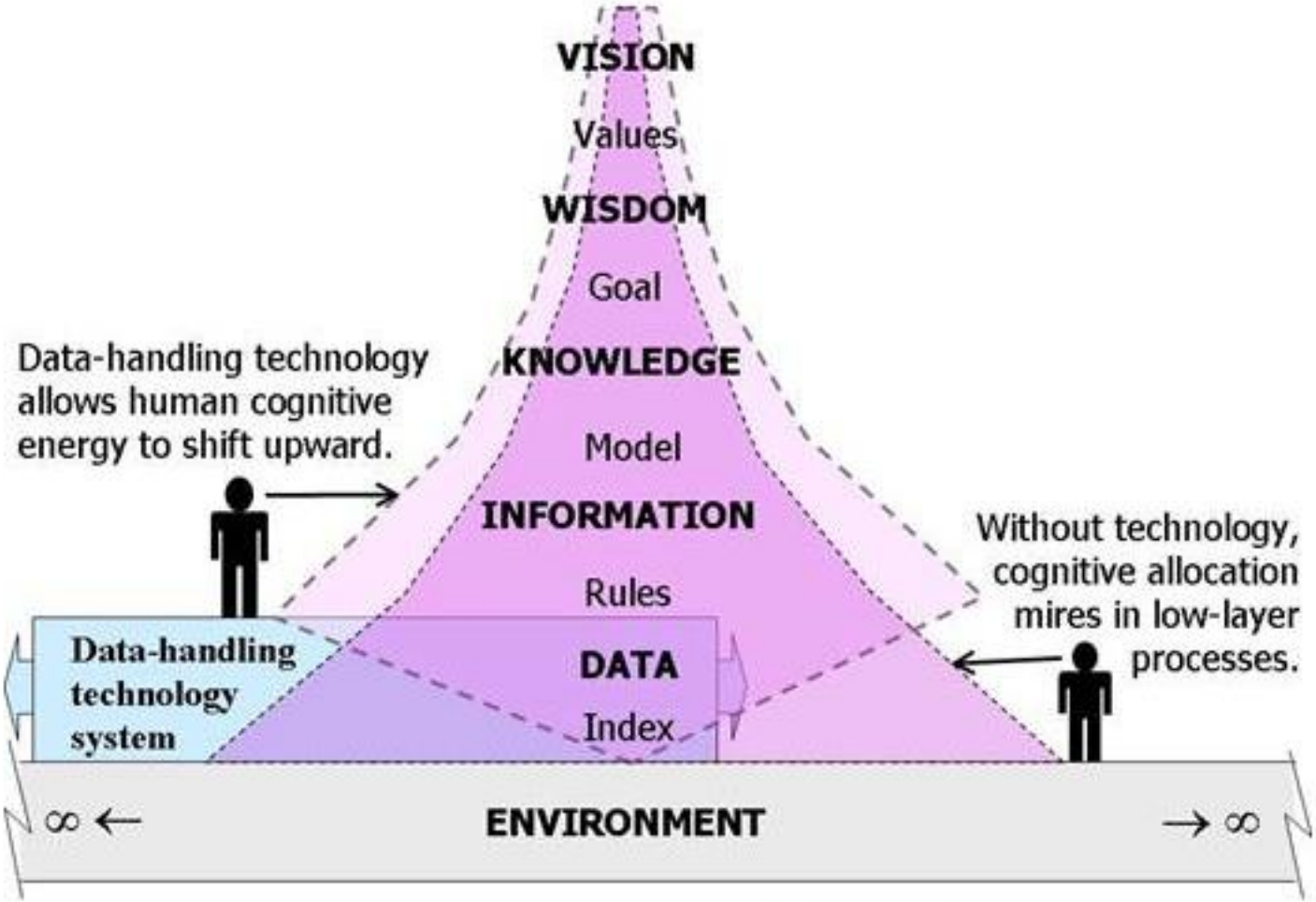
Connecting Citizens

- Apps For Dummies
- Crashcourse to use the Citadel tool
- Example:
  - Treefinder
  - Babysit app
  - Matinee: art galleries

Connecting Developers

~~Cities~~ Data as problem

~~Cities~~ Data as solution



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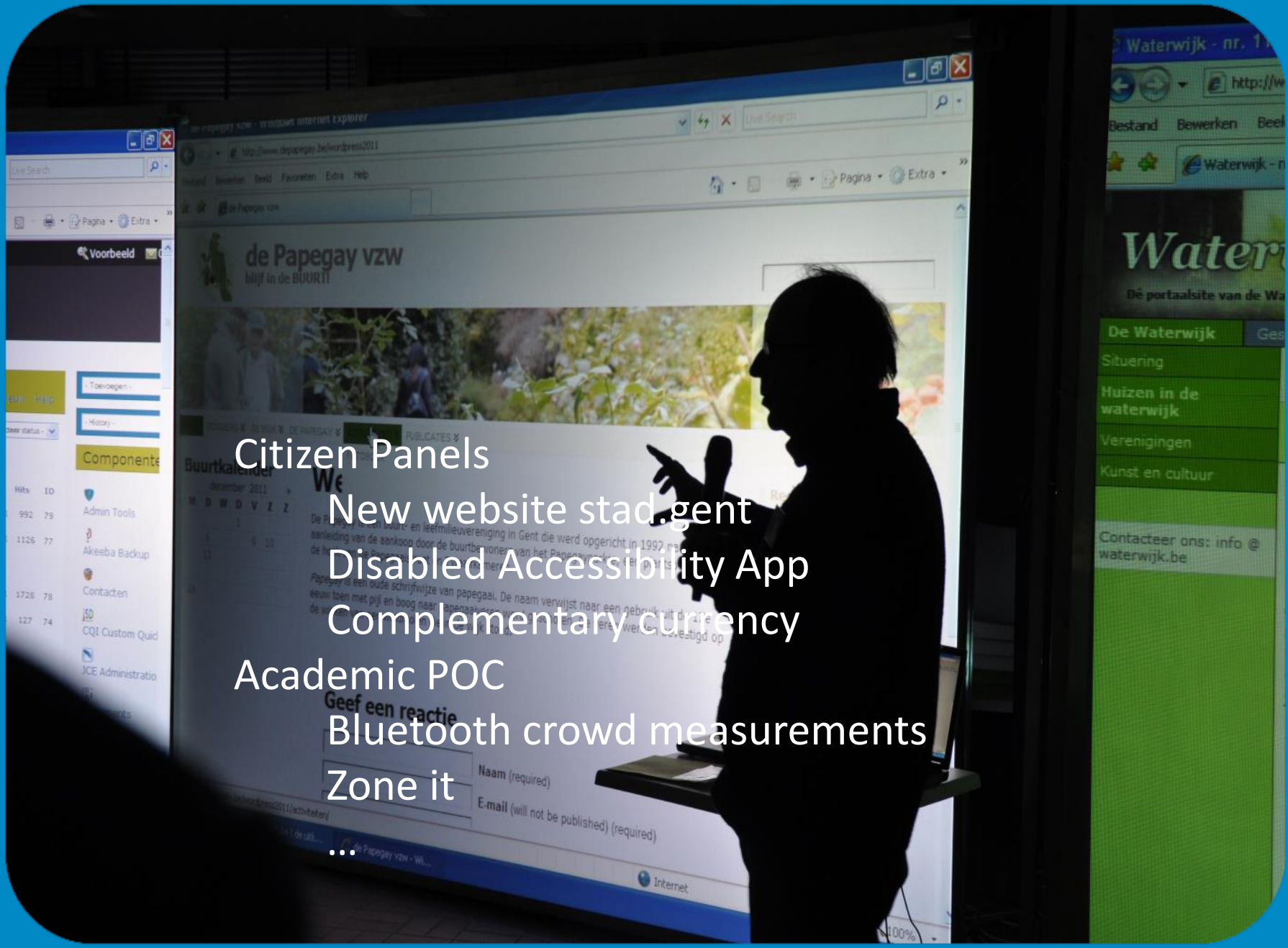
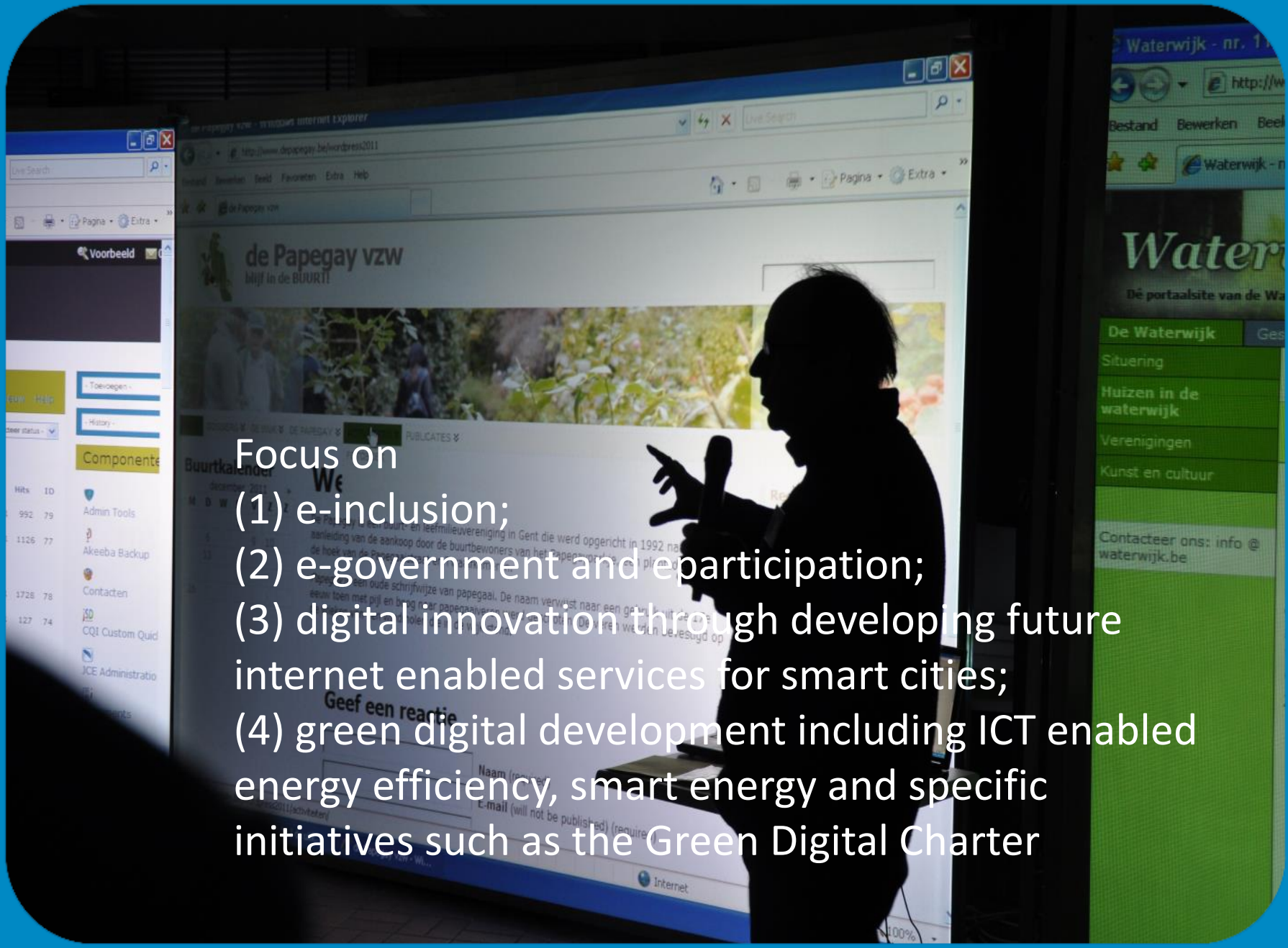
Smart City tools in Ghent

Connecting the dots

- **Ghent Living Lab**
  - Longer term projects
  - Like minded stakeholders:
    - University
    - Colleges
    - NPO
    - GOV
    - Citizens' initiatives
    - Ghent Web Valley: association of 'Web' companies


Citizen Panels
New website stad.gent
Disabled Accessibility App
Complementary currency
Academic POC
Bluetooth crowd measurements
Zone it
...



Focus on
(1) e-inclusion;
(2) e-government and eparticipation;
(3) digital innovation through developing future internet enabled services for smart cities;
(4) green digital development including ICT enabled energy efficiency, smart energy and specific initiatives such as the Green Digital Charter

Open Data

Apps

- Trash app
- Parking App
- EcoPlan
- Library Apps

2016: MapsForGhent

Students

- City Data in IT courses
- City development in Student Projects
- Foundation for future GOV IT'ers

Talent and creativity

Ghent as European partner

- Eurocities
  - Vice-President
  - Knowledge Society Forum en Open Data Chair
  - Connected with other EU cities (Birmingham, Manchester, Helsinki, Amsterdam, Athens, ….)

- EU projects
  - STEPUP
  - CIVITAS
  - Citadel on the Move

What to do with pilot results?

Challenges

- **Ideas**
- **People want to Act**
- **Tackle complex issues together**

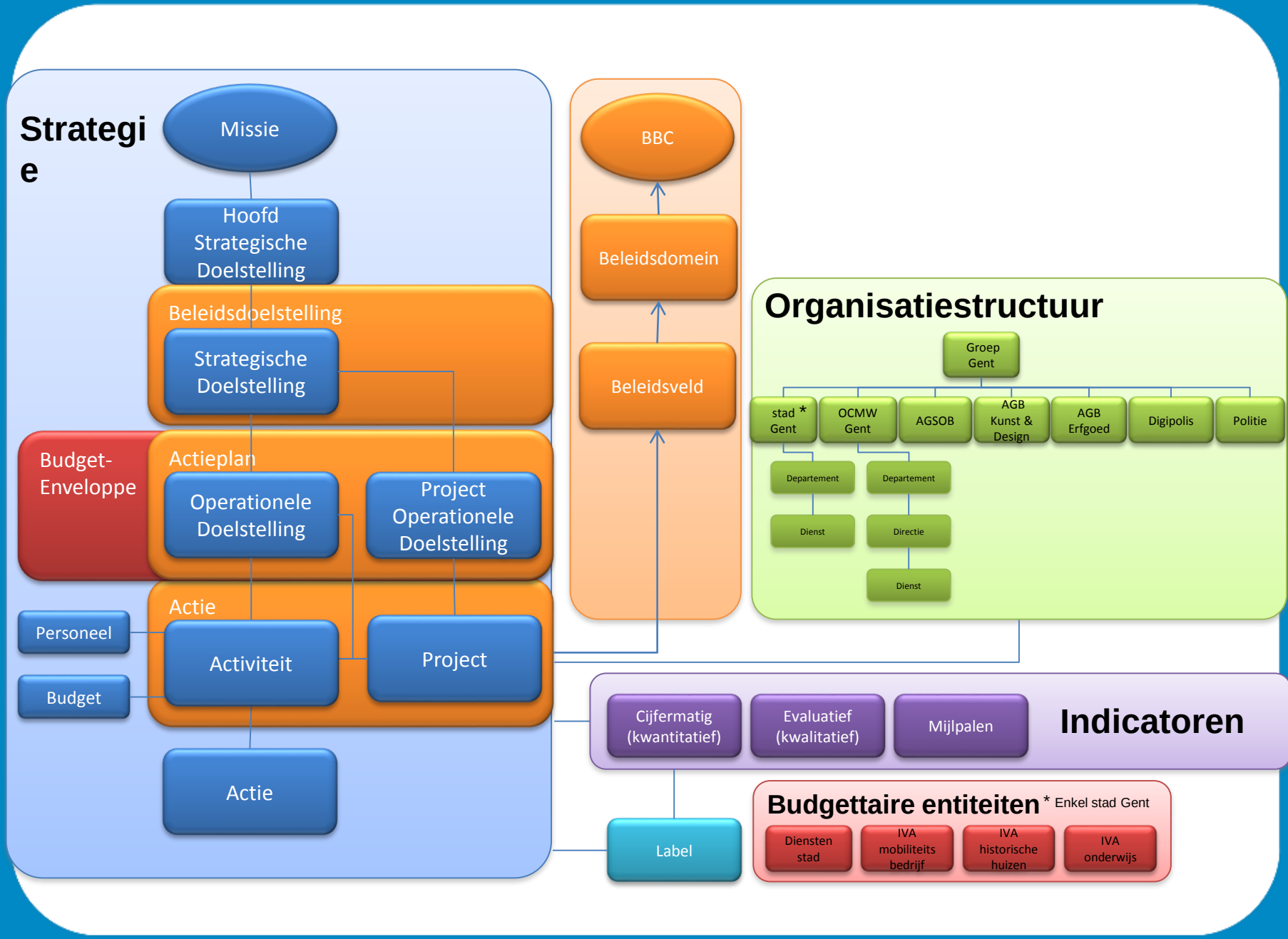
- **What's the role of the government??**
  - Code Napoleon or The Government as a platform

Ghent: city with a mission

*“Ghent is an **open, inclusive, smart and child-friendly city**. It **connects all forces** to develop the city into a lasting and liveable whole and in doing so **shapes the future**.*

*Ghent wants to be **a creative forerunner** in the transition towards a climate-neutral city. We are building an eco-friendly and diversified economy that brings welfare for all.*

*By doing so, we develop a community of **responsible citizens** who can develop themselves freely and who can count on the necessary supp”*


Strategie
Missie
Hoofd Strategische Doelstelling
Beleidsdoelstelling
Strategische Doelstelling
Budget-Enveloppe
Actieplan
Operationele Doelstelling
Project Operationele Doelstelling
Actie
Personeel
Budget
Activiteit
Project
Actie
BBC
Beleidsdomein
Beleidsveld
Organisatiestructuur
Groep Gent
stad * Gent
OCMW Gent
AGSOB
AGB Kunst & Design
AGB Erfgoed
Digipolis
Politie
Departement
Departement
Dienst
Directie
Dienst
Cijfermatig (kwantitatief)
Evaluatief (kwalitatief)
Mijlpalen
Indicatoren
Label
Budgettaire entiteiten * Enkel stad Gent
Diensten stad
IVA mobiliteits bedrijf
IVA historische huizen
IVA onderwijs

1. Ghent opens opportunities

Inclusion

- **Involving people in poverty and people with a different etnic background in policy, service delivery and society**
- **E-inclusion: Digitaal.talent@gent**
- **Fight against generational and child poverty**
- **Assisted living experiments**

2. Climate neutral & energy indepent

Climate

- 2050: Ghent climate neutral
- Climate Alliance and transition arenas
- Climate adaptation and mitigation plan
- Thursday Veggie Day
- Urban Food Strategy
- Volvo Cars, Stora Enso, UZ Gent

3. Ghent opt for sustainable transport

Smart mobility

New mobility vision

- **Enlarging pedestrian area**
- **Parking plan**
- **Cycling plan**
- **Circulation plan**
- **ANPR**
- **Traffic Center**
- **Promoting alternatives**

4. Living in Ghent is pleasant & affordable

465’000’000 EUR
Investment budget

34 mio

Current big
urbanisation projects

Dampoort-Sint-Amandsberg
Muide-Meulestede
Nieuw Gent

Housing quality

Demolition of bad-Q houses & building new houses

Social housing mix

5. Sustainable economy & industry

Ghent hi-tech clusters

BIOTECH

Powered by VIB

- Mostly Plant- & industrial biotech
- Industrial Biology Pilot Plant
- Mix of large companies & startups
- 500+ Researchers
- Flanders Bio, 30+ biotech companies

IT

Powered by IMinds & IMEC

- 4 business development clusters
- Start-up city
- Being pooled on UGhent Technology Campus: hardware, nanotech, photonics
- iLab.t, Virtual Wall, gaming lab, living labs,…
- 600+ researchers
- 100+ companies in Ghent area

MATERIALS

Powered by MRC

- Co-operation with OCAS, academia and 6 research organisations
- Research infrastructure on 1 location
- Textiles, polymers, concrete, fast prototyping, composites & steel
- 400+ researchers
- Co-operation with all larger materials companies

Start-up city

TPVISION

TOMTOM

engagor

in the POCKET

ESKO graphics

HUAWEI

Caliopa

showpad

NETLOG

iCUBES

UNIVERSITEIT GENT

Ghent Web Valley

GENT M
DIGITALE CREATIVITEIT IN GENT

iMinds
CONNECT.INNOVATE.CREATE

imec

6. Ghent is a learning and creative city

Knowledge and culture

- **De Krook: library of the 21st century + creative cluster**
- **Child friendly city plan**
- **Multi-functional usage**
- **Smart and digital: IOT, open services, open government**

7. A city with desire for experience and solidarity

Participation initiatives and experiments

- Living streets
- Temporary use
- 3D visualisation of new developments
- Pioneer fund
- Citizen budget
- Sharing concepts
- Digital participation platform

crowdfunding .GENT

- City policy: create and experience the city together
- (local) Government not the only societal actor
- Crowdfunding as extra instrument
- Low treshold, quality, trust
- Coaching

crowdfunding .GENT

8. Ghent is a safe, healthy & viable city

Organisational flexibility
“Smart” bureaucracy

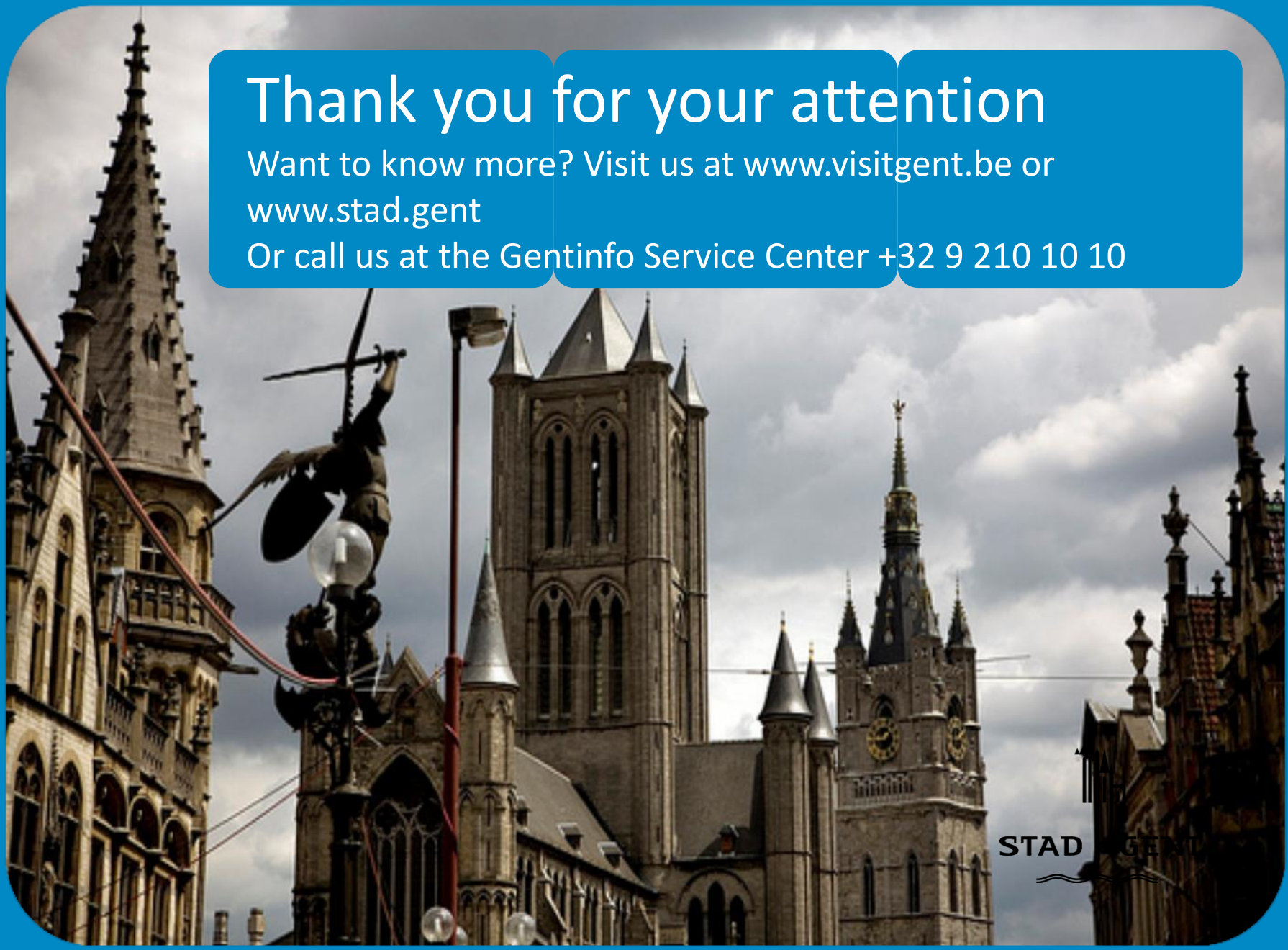
Future Fit Basics

- Technology is an enabler, not the goal
- Cities cannot be smart, citizens are
- Tap into the collective intelligence
- Make choices for the future, based on your DNA together with your stakeholders
- Shape your future, together with your stakeholders

Future Fit Basics

- Make co-creation possible
- Rethink politics and government organisation. Break the silos!
- Government as a platform
- Use data as a strategic asset
- Be open, in an intelligent way
- Dare to fail!

Thank you for your attention

Want to know more? Visit us at www.visitgent.be or www.stad.gent

Or call us at the Gentinfo Service Center +32 9 210 10 10