

14th June 2023

INTRODUCTION OF SMART CITY INSTITUTE

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THE SMART CITY INSTITUTE



TEACHING



RESEARCH



AWARENESS



INNOVATION

- ▶ Founded in 2015
- ▶ Sustainable and Smart Cities/Territories from a Management and Strategy approach
- ▶ University of Liège, HEC Liège (Belgium)  
- ▶ Team of 14 – Multidisciplinarity
- ▶ Professors – Partners (private and public) – Smart Cities experts
- ▶ Academic referent of the Smart Region on Smart Cities



Wallonie

official partner | digital
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DEMOGRAPHIC CHANGES



URBANISATION



CLIMATE CHANGE

DIGITAL AND TECHNOLOGICAL REVOLUTIONS



INTERNET



SMARTPHONES



DATA & CLOUD



SOCIAL MEDIA

CONTEXT

EXPONENTIALLY CHANGING ENVIRONMENT

**NEW
IMPERATIVES**

**NEW
EXPECTATIONS**

**NEW
POSSIBILITIES**

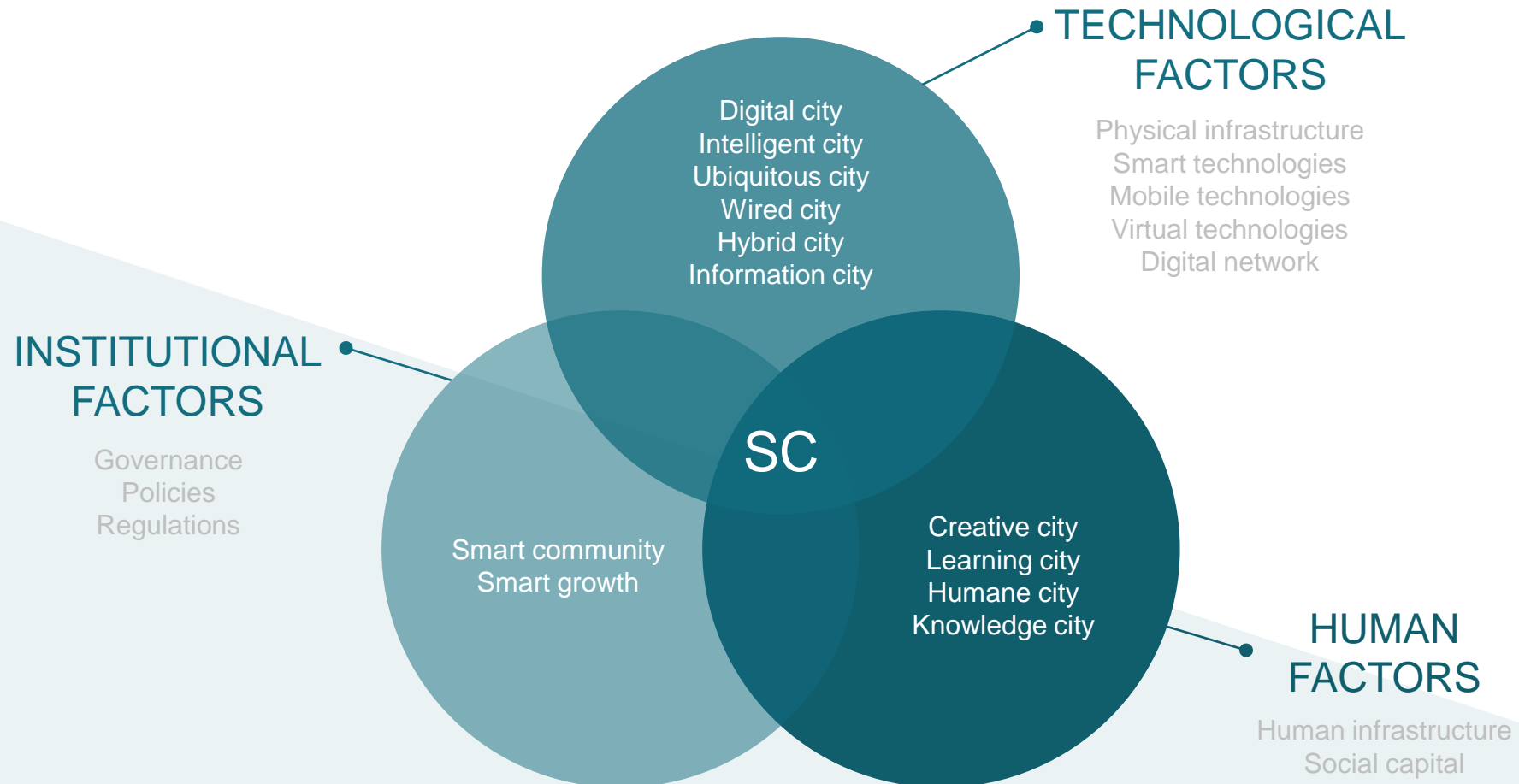
SMART CITY

MANY LABELS AND NO-ONE GENERALLY ACCEPTED DEFINITION

Patridge (2004)	“A city in which the ICT strengthen the freedom of speech and the accessibility to the public information and services”
Giffinger & al (2007)	“A city well performing in a forward-looking way in economy, people, governance, mobility, environment, and living, built on the smart combination of endowments and activities of self-decisive, independent and aware citizens”
Hollands (2008)	“It is the implementation and deployment of information and communication technology infrastructures to support social and urban growth through improving the economy, citizens' involvement and governmental efficiency”
Caragliu & al (2009), Hall (2000)	“Safe, secure, environmental and efficient urban centre of the future with advanced infrastructures such as sensors, electronic devices and networks to stimulate sustainable economic growth and a high quality of life”
OECD (n.d)	“Cities that leverage digitalisation and engage stakeholders to improve people’s well-being and build more inclusive, sustainable and resilient societies”

SMART CITY

A BROAD DEFINITION





SMART CITY

OUR 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**

Using technologies (such as digital technologies) as **enabler**

In order to become **more sustainable** (economic prosperity, social well-being & conservation of our natural resources)

SMART CITY

SIX DIMENSIONS



ECONOMY



ENVIRONMENT



PEOPLE



GOVERNANCE



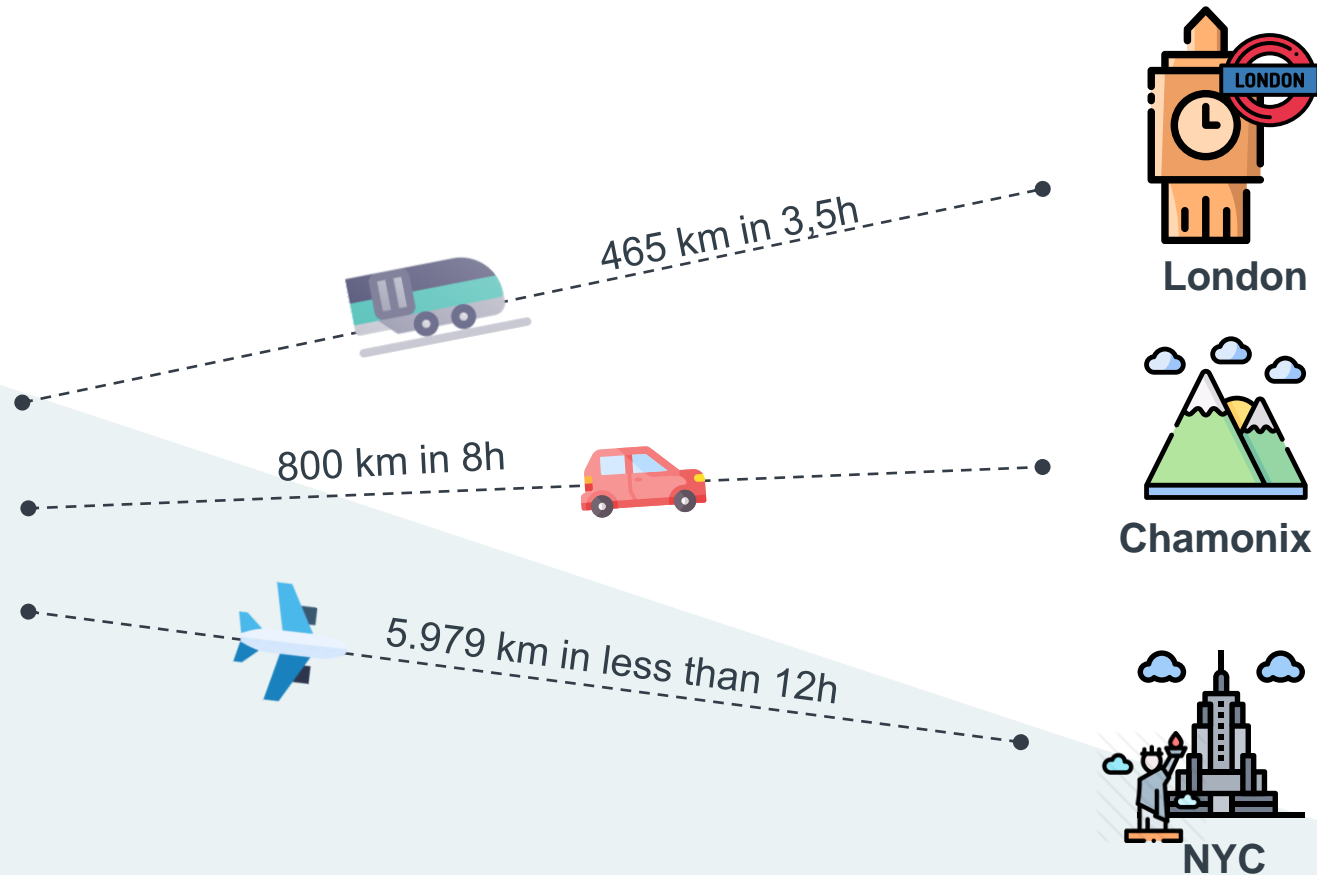
LIVING



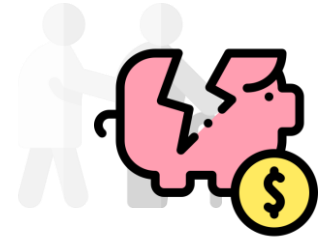
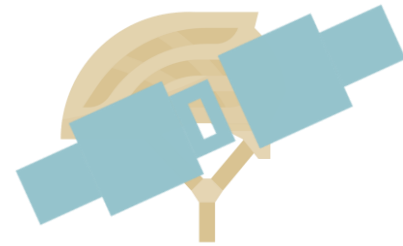
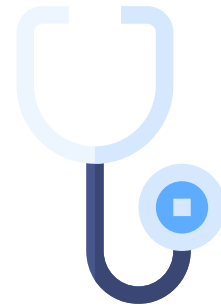
MOBILITY

MOBILITY: A CHANCE

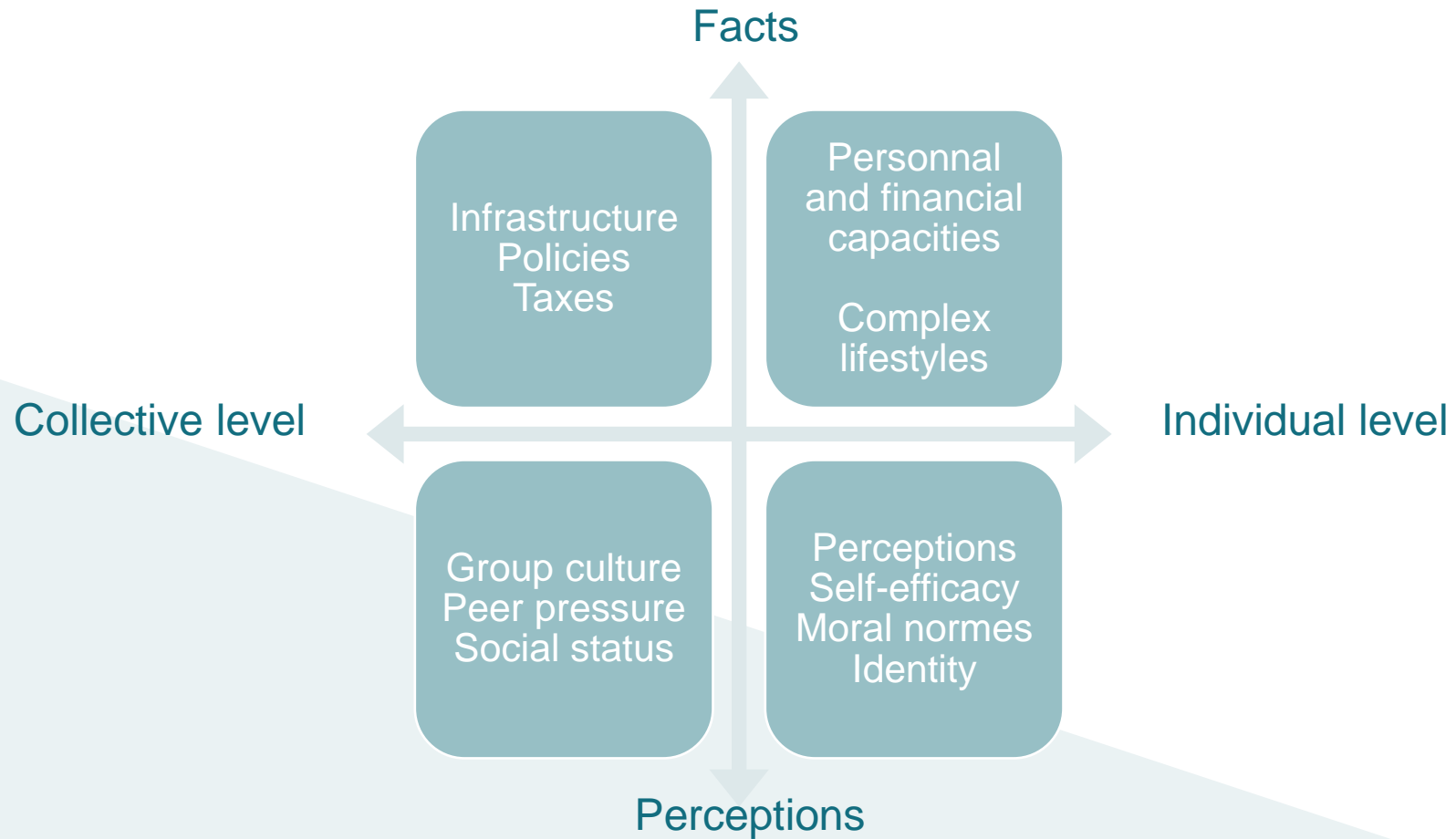
Liège



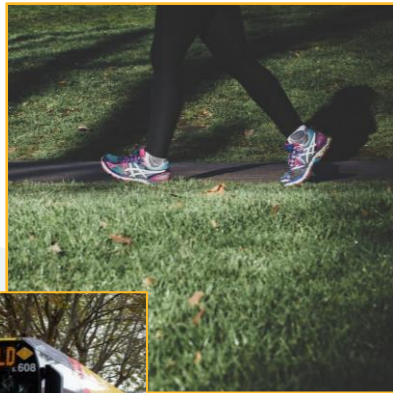
WITH CONSEQUENCES



BARRIERS TO THE CHANGE OF MOBILITY BEHAVIOURS



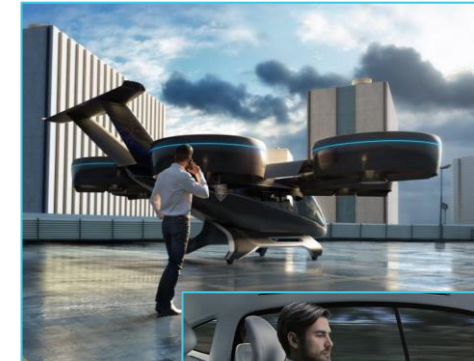
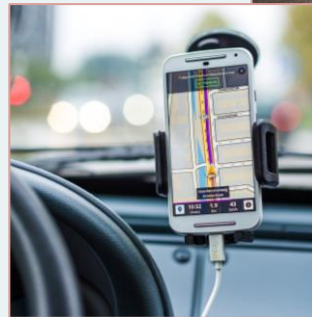
SMART MOBILITY: DEFINITION



#1



#2



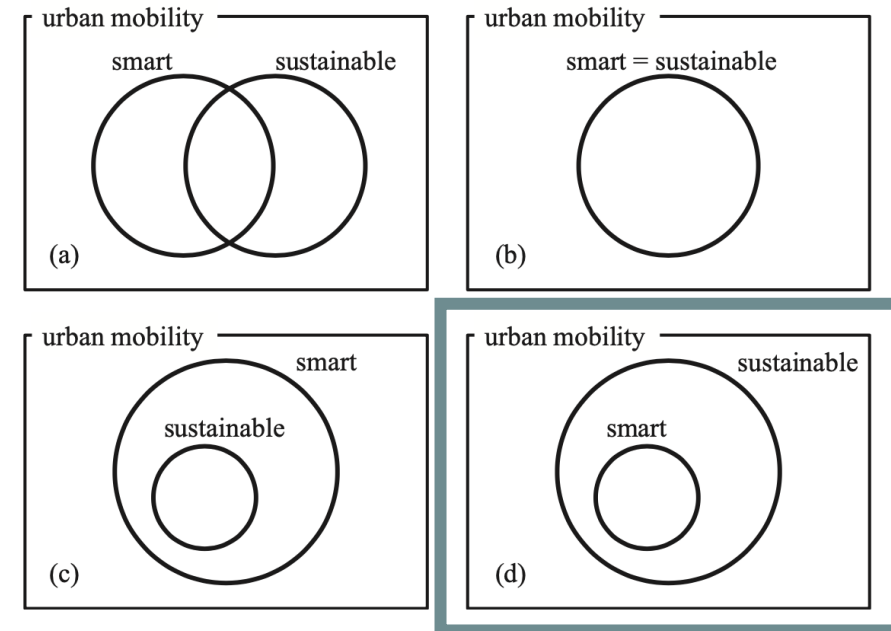
#3



SMART MOBILITY: DEFINITION

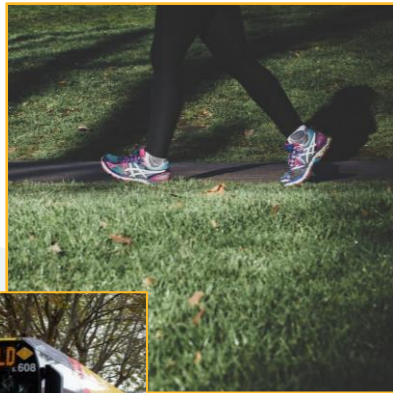
Smart Mobility brings together all the solutions aimed at **optimising the use of infrastructure, vehicles and equipment** to facilitate the mobility of people and goods (European Commission, 2011)

Smart Mobility is a broad concept which facilitates to achieve a sustainable development **by optimising transport services**, taking into account technological, societal, economic and environmental challenges (Zawieska & Pieriegud, 2018)



Alternative Venn diagrams of urban mobility
 Lyons (2018).

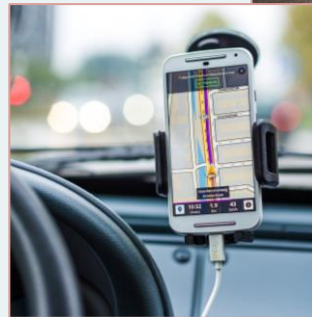
SMART MOBILITY: DEFINITION



#1



#2



#3



SMART MOBILITY: DEFINITION



4 INNOVATION TRENDS IN SMART MOBILITY



#1
Electrification



#2
Sharing



#3
Connectivity



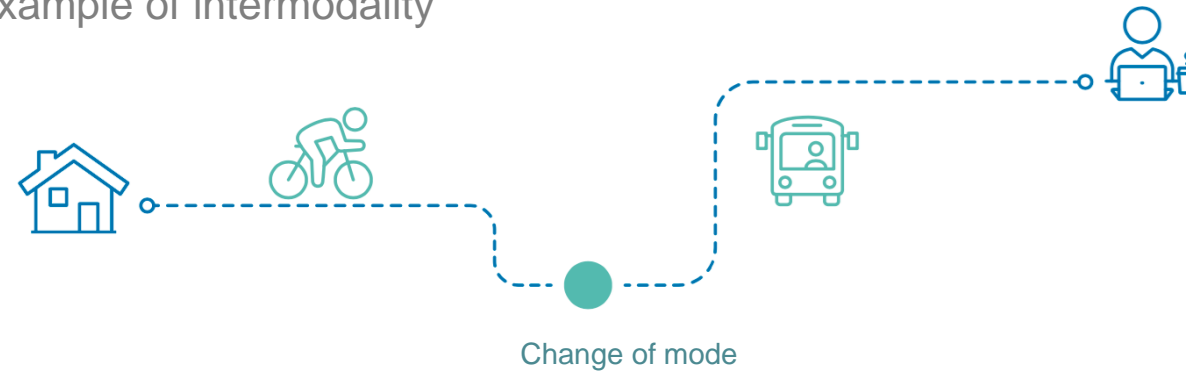
#4
Automation

SMART MOBILITY: DEFINITION



MULTIMODALITY & INTERMODALITY

Example of intermodality



Example of multimodality :



Adapted from Lebas, A. (2020)

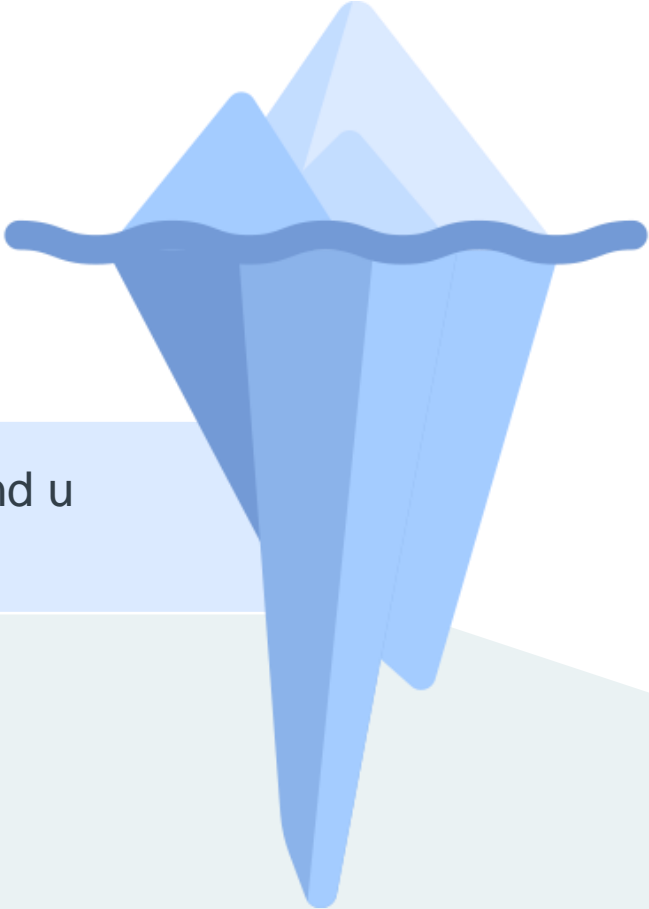
MULTIMODALITY & INTERMODALITY

Digital Integration



MULTIMODALITY & INTERMODALITY

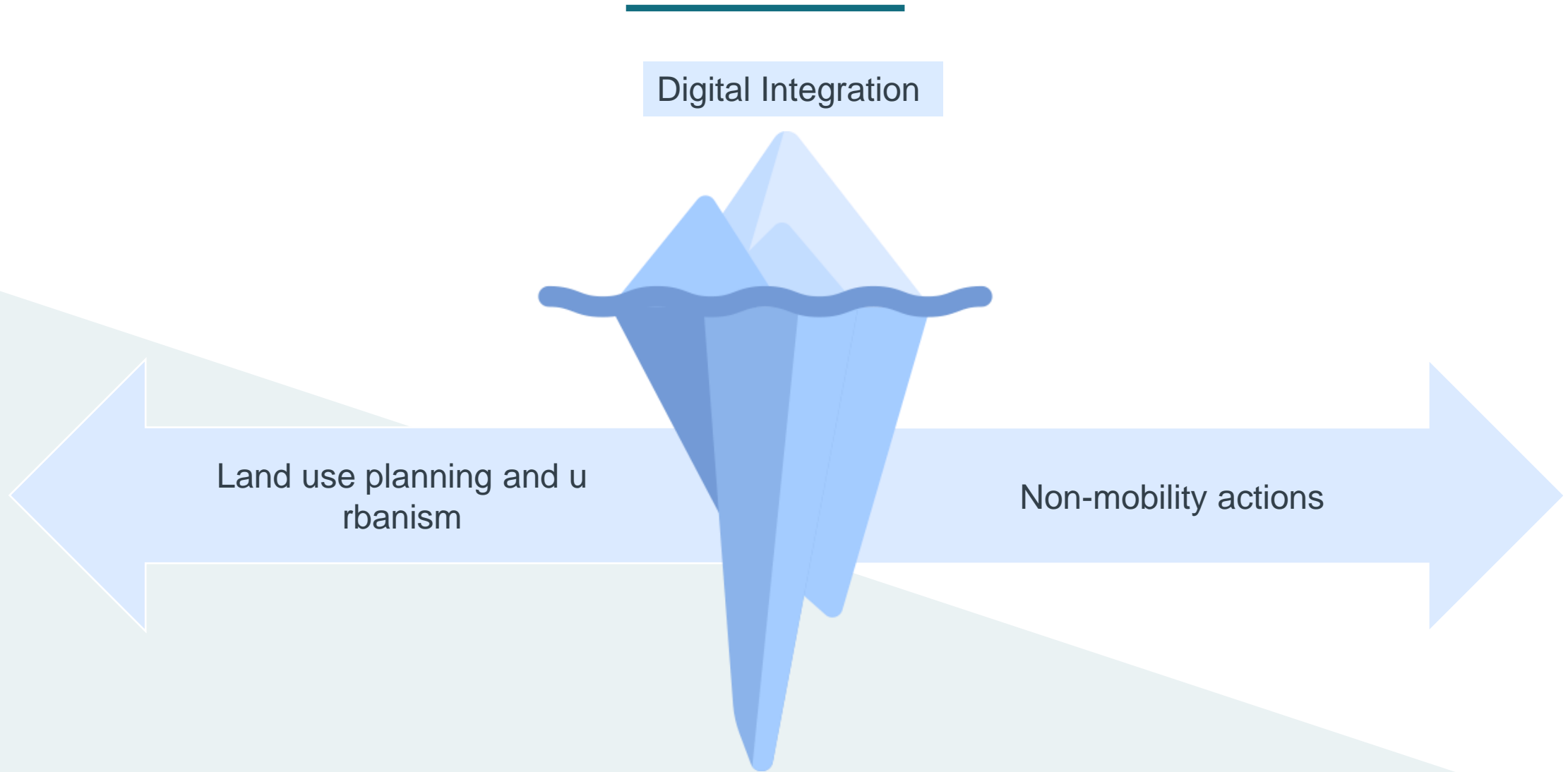
Digital Integration



Land use planning and urbanism

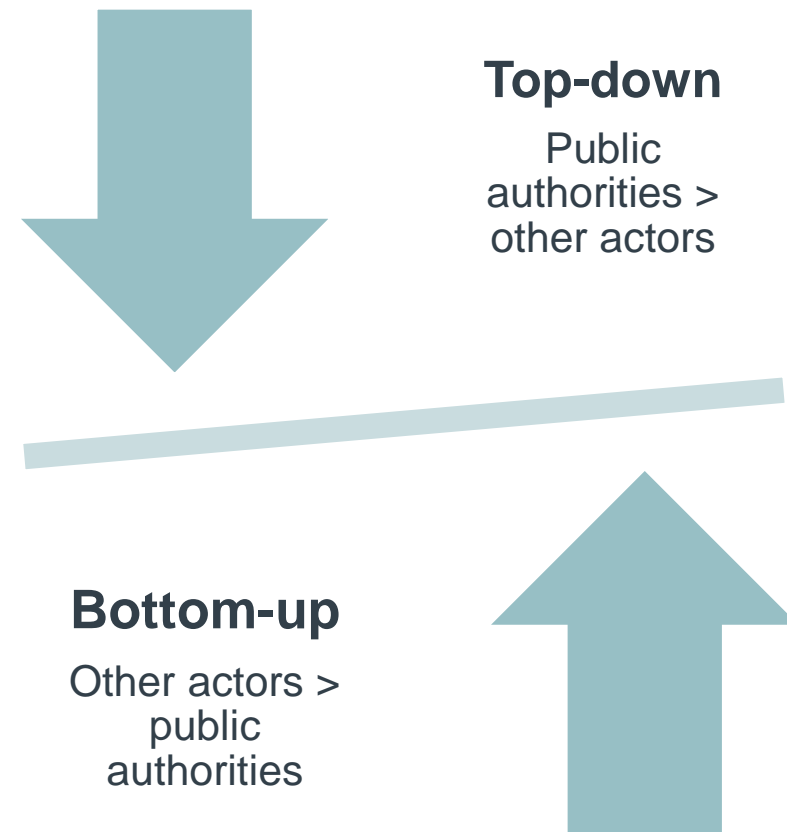
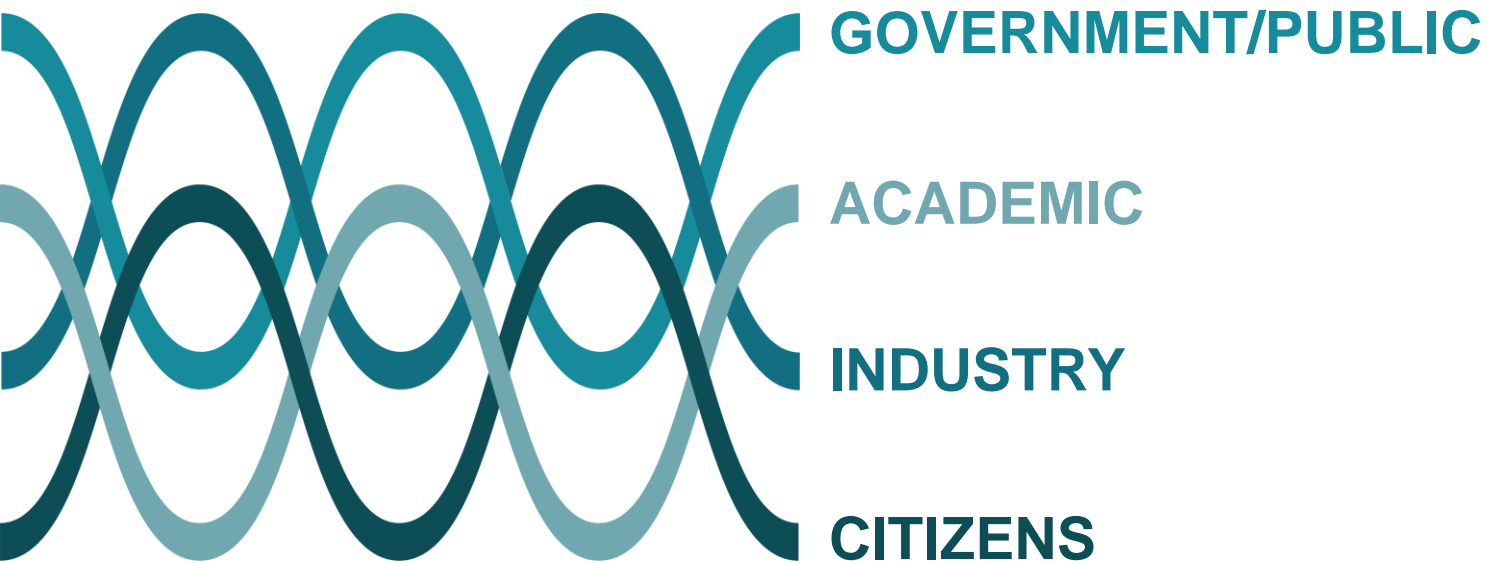
The diagram features a central iceberg with a wavy top edge. The visible part of the iceberg is light blue, while the submerged part is a darker blue. A horizontal arrow points from the submerged part of the iceberg towards the left. The background is a light green gradient that slopes downwards from left to right.

MULTIMODALITY & INTERMODALITY

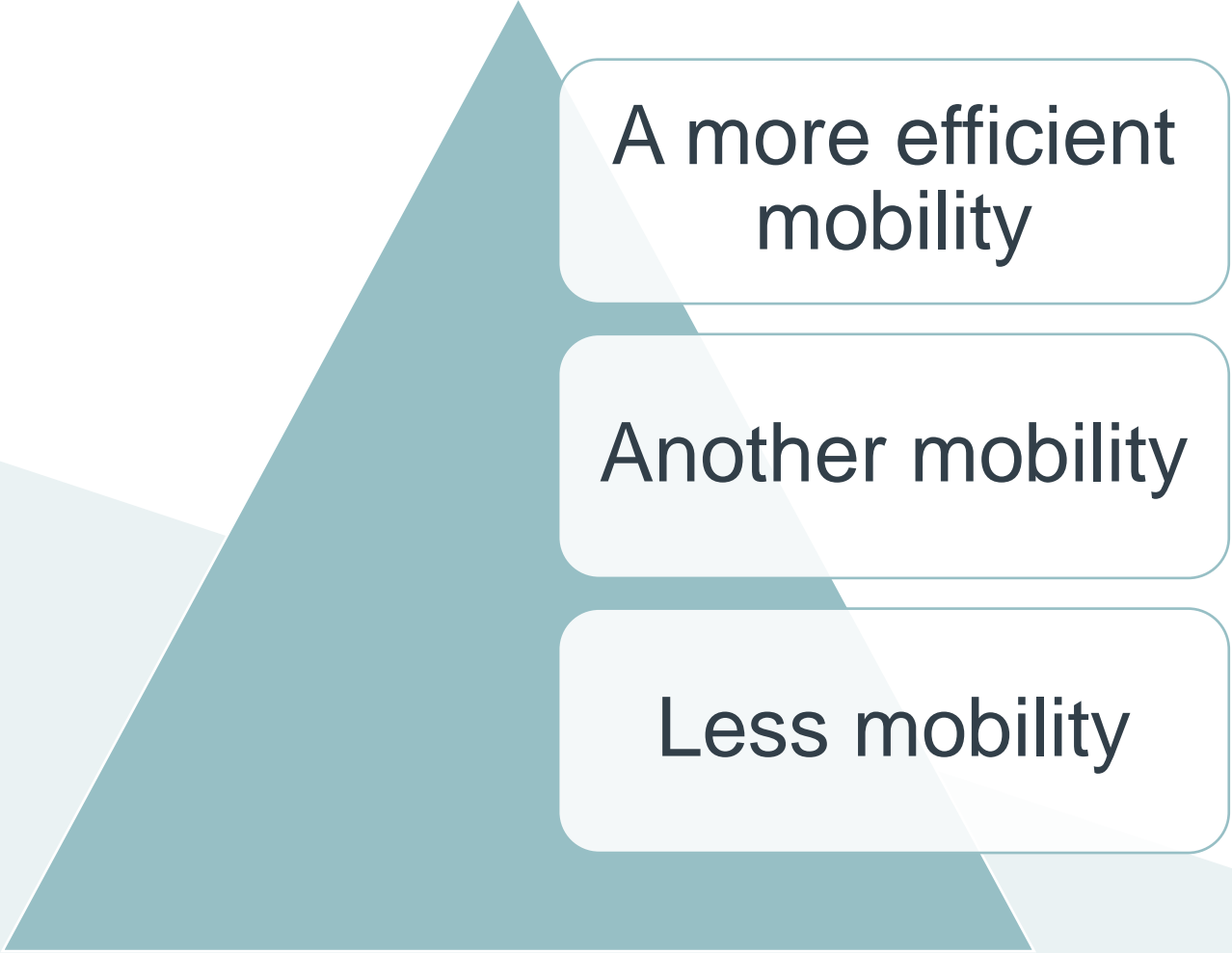


SMART CITY/MOBILITY

STAKEHOLDERS/GOVERNANCE



SMART CITY/MOBILITY



A more efficient
mobility

Another mobility

Less mobility

THANK YOU

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www.SmartCityInstitute.be



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LE FONDS EUROPÉEN DE DÉVELOPPEMENT RÉGIONAL
ET LA WALLONIE INVESTISSENT DANS VOTRE AVENIR



Wallonie

