



WEBINAR

MOBILITY AS A SERVICE (MAAS)

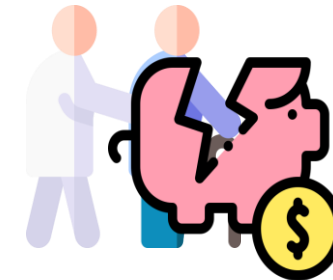
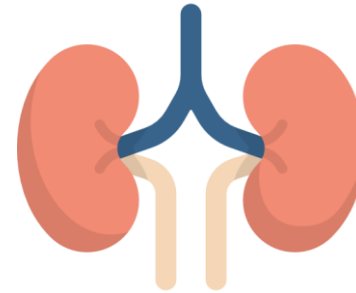
INTRODUCTION & PERCEPTIONS
IN BELGIUM

16.03.2021

Audrey Lebas, Smart City Institute

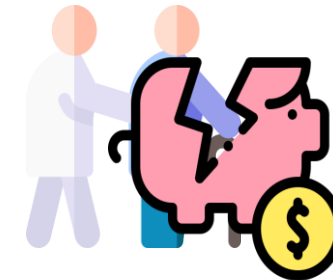
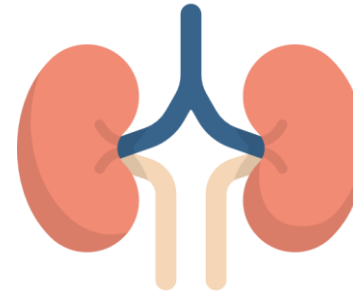
SIGNIFICANCE OF THE STUDY

CHALLENGES IN MOBILITY



SIGNIFICANCE OF THE STUDY

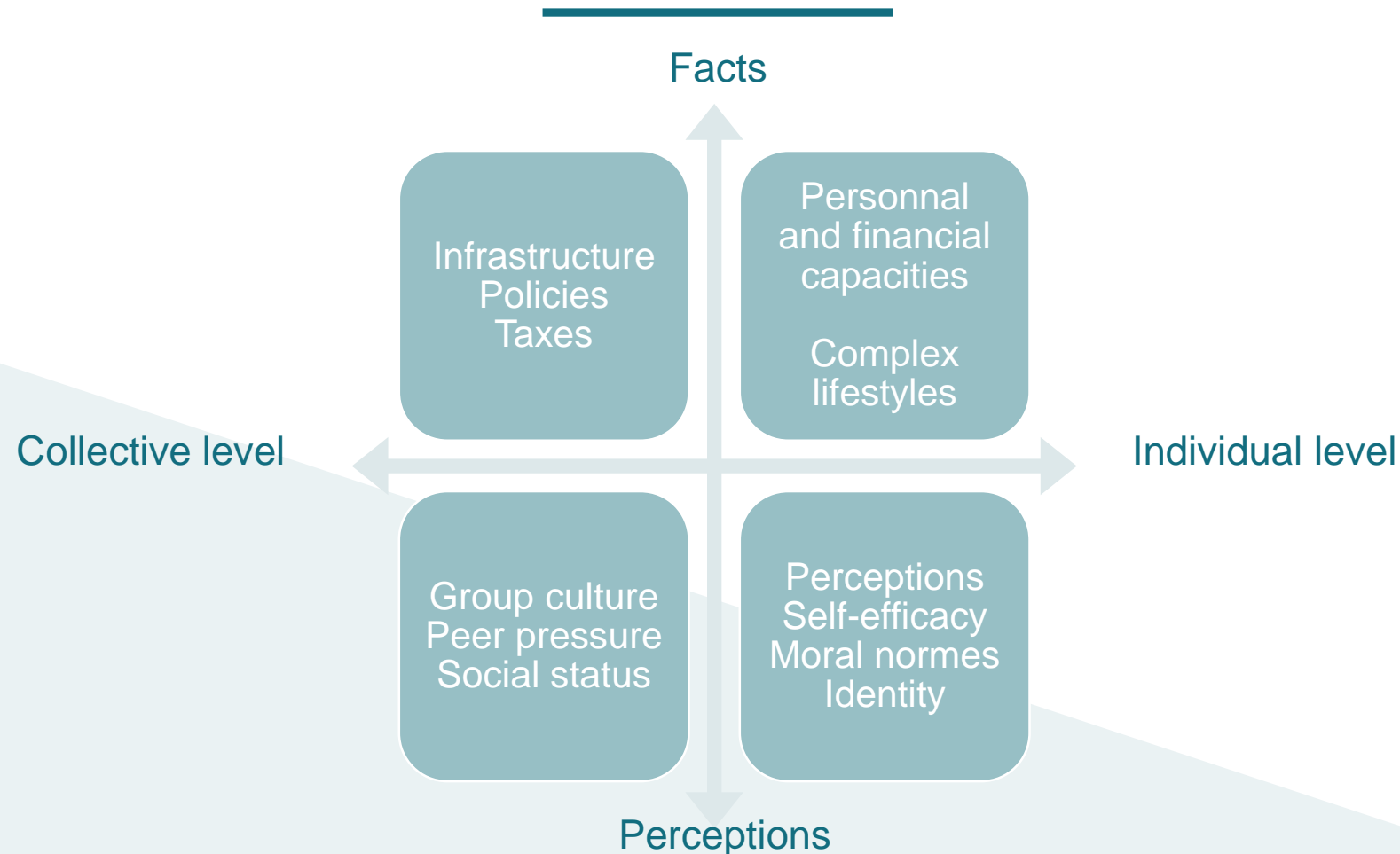
CHALLENGES IN MOBILITY



Need to develop intermodality and multimodality

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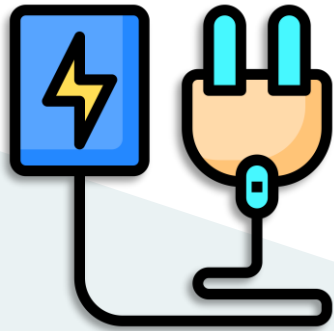
BARRIERS TO THE CHANGE OF MOBILITY BEHAVIOURS



Adapted from Grant-Muller, Hodgson & Harrison (2020)

SIGNIFICANCE OF THE STUDY

SMART MOBILITY AS A SOLUTION?



#1
Electrification



#2
Sharing



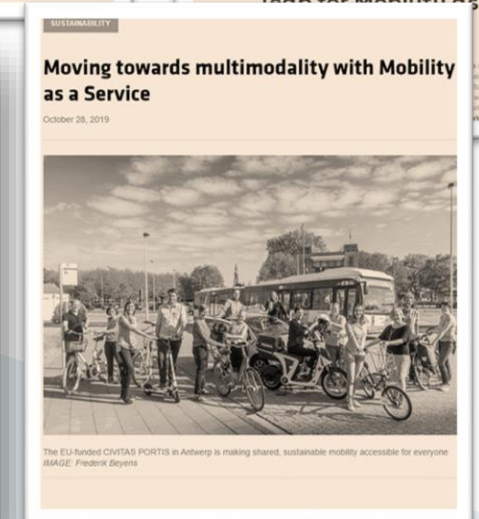
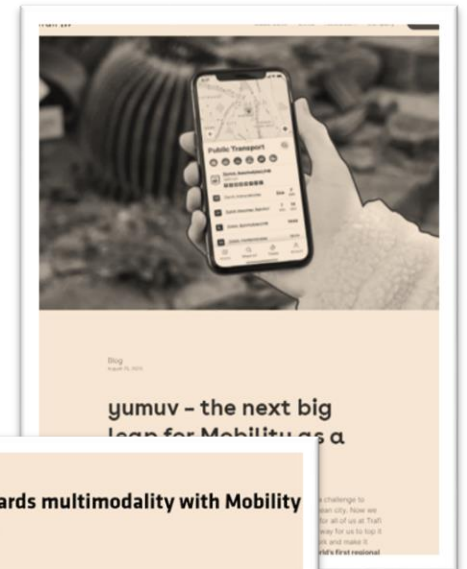
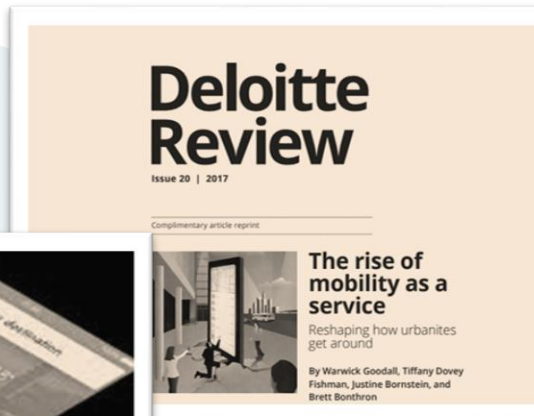
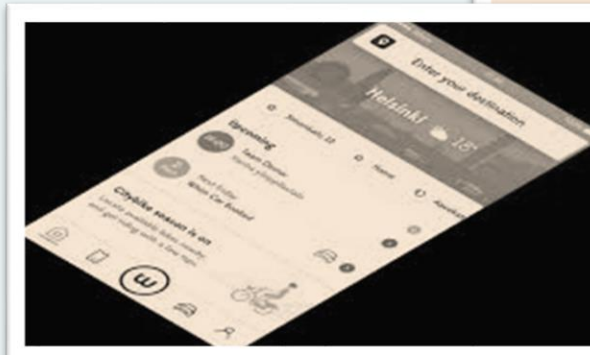
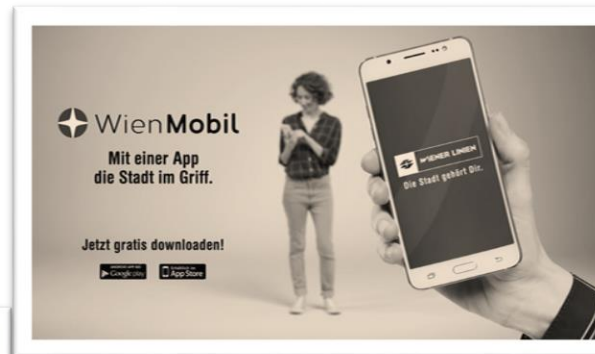
#3
Connectivity



#4
Automatisation

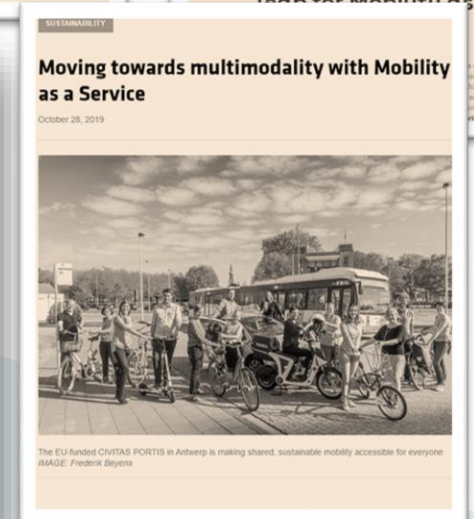
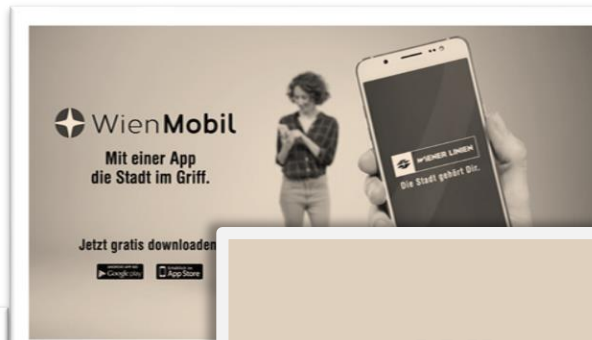
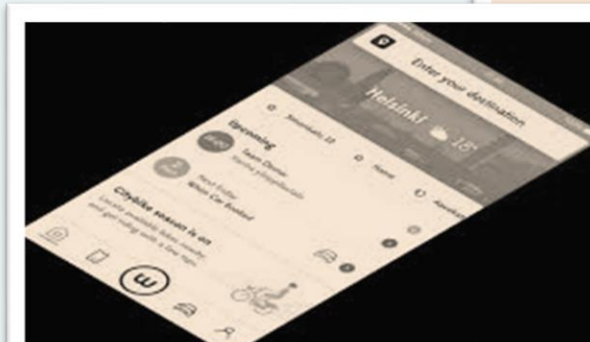
SIGNIFICANCE OF THE STUDY

MAAS FRENZY



SIGNIFICANCE OF THE STUDY

MAAS FRENZY



PURPOSES



- ▶ #1 - Demystify the concept of MaaS and the major issues related to its governance and management
- ▶ #2 - Make a first assessment of the interest and perception of the mobility representatives of Belgian cities with regard to MaaS and its implementation (management and governance).
- ▶ #3 - Offer an information and discussion basis for public authorities and stakeholders

Different audiences with different expectations

Focus on MaaS addressed to individual citizens (not enterprises)



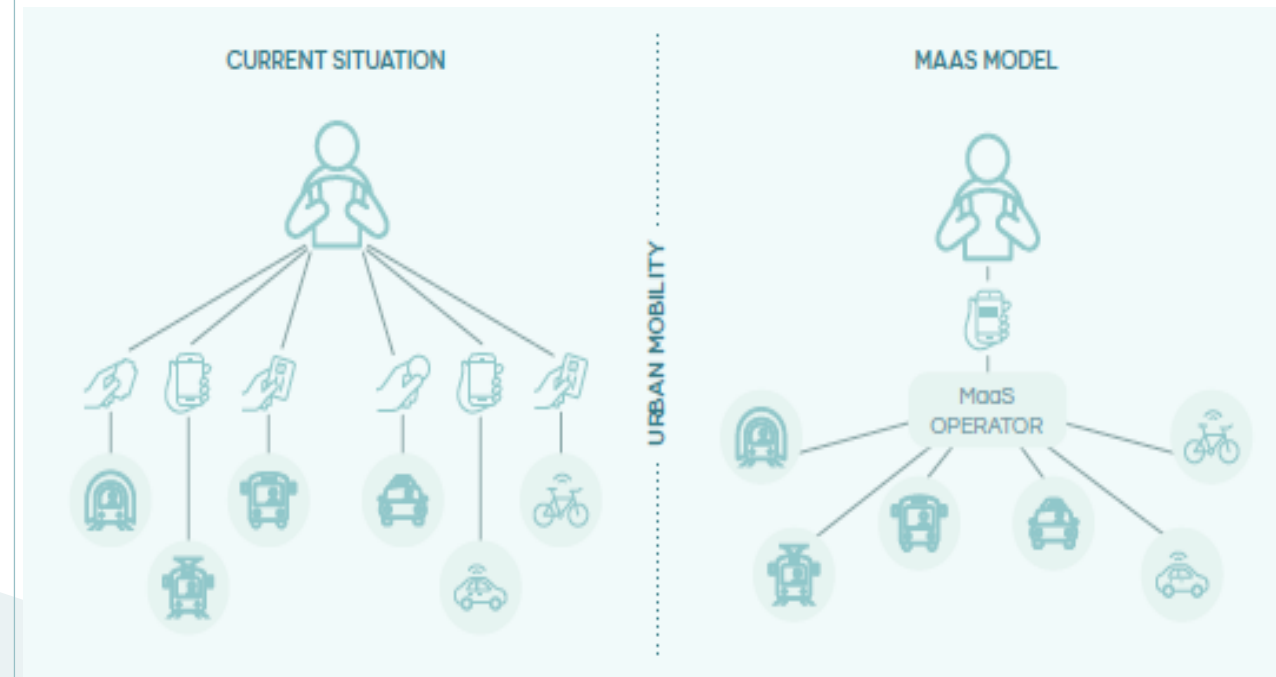
#1 Demysty MaaS

Definition, management and gouvernance

DEFINITION

Mobility as a Service (MaaS) can be defined as a user-centric intelligent **integrated system of information, reservation, purchase and validation of tickets** for mobility services (MaasLab, 2018)

MaaS implies **the integration of all mobility services available in a territory**: public transport (e.g. bus, tram, metro, train) as well as shared modes of private operators (e.g. car-sharing, car-pooling, bicycles, scooters).



Lebas (2020). Adapted from Kamargianna & Mathyas (2017)

LEVELS OF INTEGRATION

NOT CONSIDERED AS MOBILITY AS A SERVICE		MOBILITY AS A SERVICE		
LEVEL 0	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4
NO INTEGRATION	INTEGRATION OF INFORMATION	INTEGRATION OF BOOKING & PAYMENT	INTEGRATION OF SERVICES	SOCIETAL INTEGRATION

Adapted from Durand & al, 2018

 Uber



Trafi I>>



MANAGEMENT & GOVERNANCE MODELS

Private (B2C)

- A commercial entity operates its platform in different cities and manages services
- Governing by enabling/laisser faire

whim.

Public (G2C)

- A public authority or a PTO develop a platform and manage its services and/or collaborations
- Governing by doing

 **WienMobil**

Hybrid (B2G2C)

- A private MaaS operator proposes a franchised model to a public authority or PTO (PPP)
- Governing by making do

 **Jelbi**

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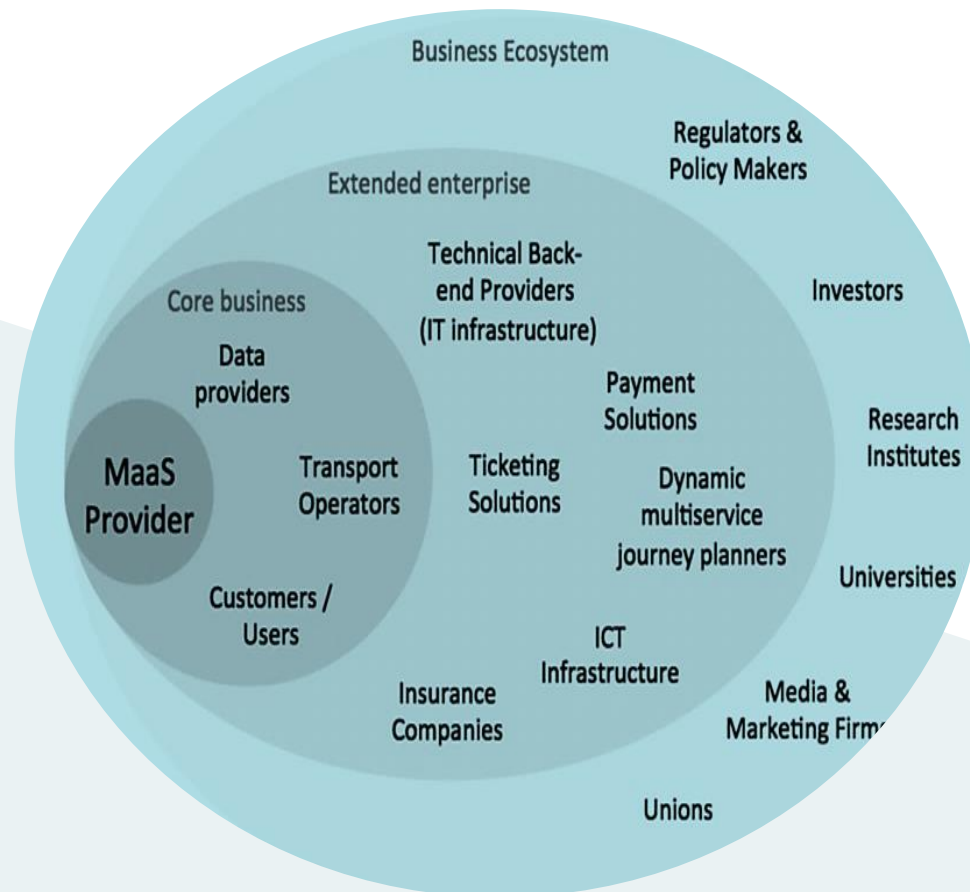
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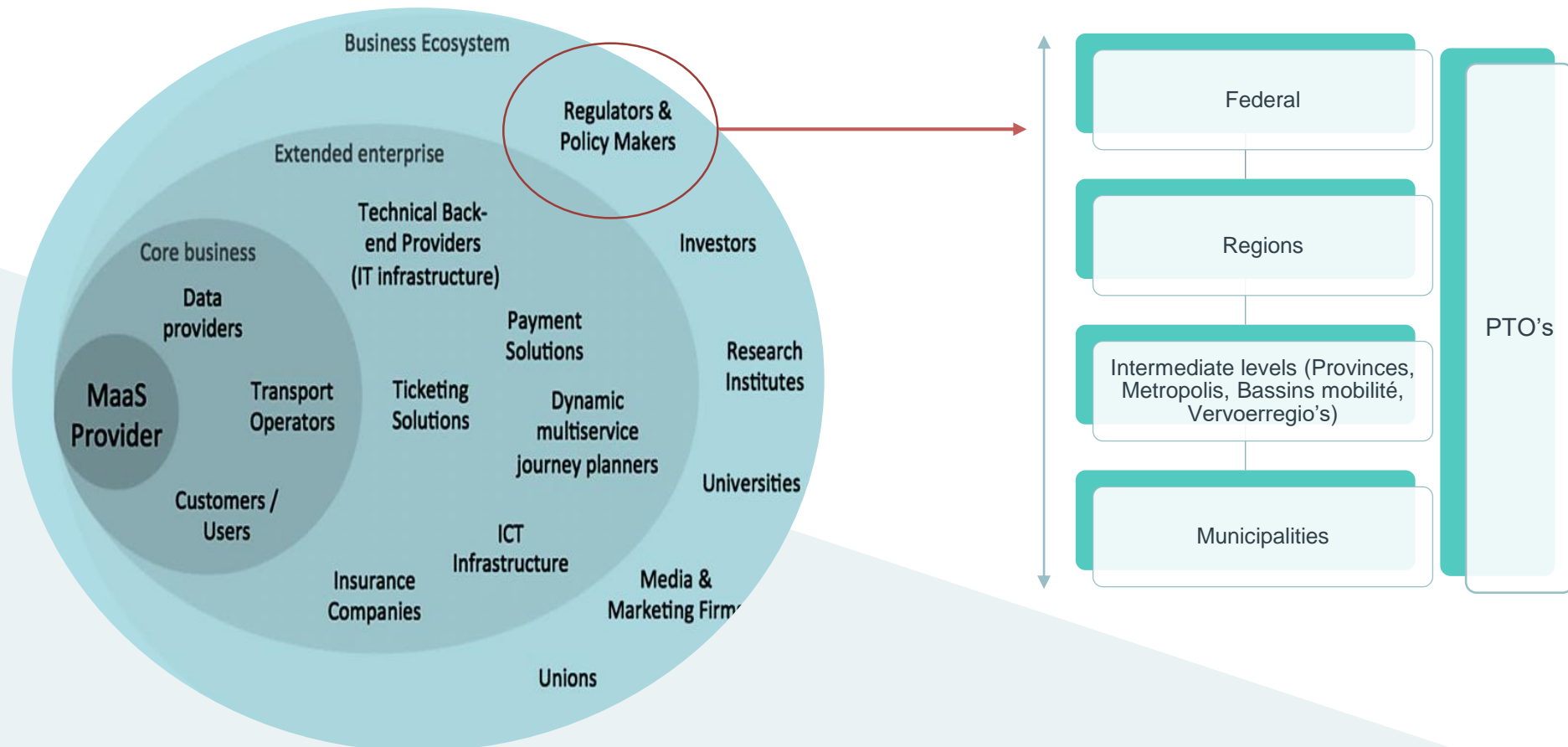


- ▶ Active involvement of public transport operators and public authorities necessary
- ▶ Collaboration of the MaaS operator with all stakeholders

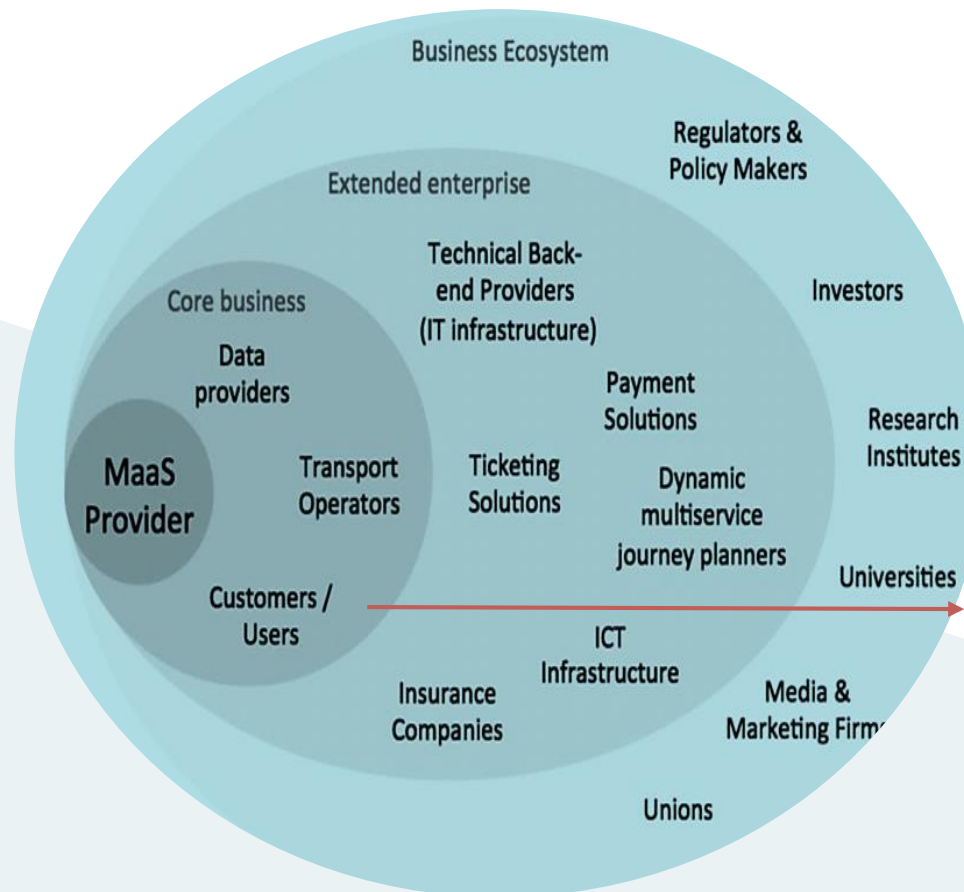
MANAGEMENT & GOVERNANCE MODELS



MANAGEMENT & GOVERNANCE MODELS



MANAGEMENT & GOVERNANCE MODELS



- Understand the mechanisms that encourage modal shift
- Must have an added value over the current system in terms of cost, convenience, choice and personalization: minimum level 3 of integration?

#2

Results

MaaS perception in Belgian cities

METHODOLOGY



- ▶ Mobility representatives from 8 Belgian cities (Antwerp, Bruges, Charleroi, Ghent, Hasselt, Leuven, Liège, Namur) + 1 mobility representative from the Brussels-Capital Region
- ▶ Representatives of the 4 Belgian public transport operators (SNCB/NMBS, STIB/MIVB, De Lijn, le TEC)



- ▶ Via phone or video conference
- ▶ Horizontal and vertical analyses



- ▶ Potential biases

QUESTIONNAIRE FOR CITIES AND BRUSSELS-CAPITAL REGION

APPENDIX 1

1. INTRODUCTION

- Presentation of the Smart City Institute and reminder of the objective of this call for proposals
- Presentation of the structure of the interview
- Request authorisation for registration

2. GENERAL PERCEPTION

- What is your definition of MaaS (to ensure we share the same point of view) ?
- What is your general perception of MaaS ?
- What do you think are the prerequisites for MaaS to work? What are the brakes and levers to its deployment ?
- In your opinion, what respective roles do the private and public sectors have in the deployment of MaaS ?

3. MAAS IN YOUR CITY/IN THE BRUSSELS-CAPITAL REGION

- Are you interested in the development/the implementation of a MaaS system within your city/within the BCR ? Why ? Why not ?
- What are the prerequisites for MaaS to work in your city/within BCR ?
- Which MaaS model do you think is most appropriate for your city/the BCR: private operator, public operator (city, transport authority or Walloon region) or a hybrid model ? Why do you think so ?
- What is the role of regional authorities in the development of MaaS ?

METHODOLOGY



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- ▶ Via phone or video conference
- ▶ Horizontal and vertical analyses



- ▶ Potential biases

QUESTIONNAIRE FOR PUBLIC TRANSPORT OPERATORS

APPENDIX 2

1. INTRODUCTION

- Presentation of the Smart City Institute and reminder of the objective of this call for proposals
- Presentation of the structure of the interview
- Request authorisation for registration

2. GENERAL PERCEPTION

- What is your definition of MaaS (to ensure we share the same point of view) ?
- What is your general perception of MaaS ?
- What do you think are the prerequisites for MaaS to work? What are the brakes and levers to its deployment ?
- In your opinion, what respective roles do the private and public sectors have in the deployment of MaaS ?

3. MAAS ON YOUR OPERATING TERRITORY

- Which MaaS model seems to suit the best the area in which you operate: private operator, public operator (city, transport authority or Walloon region) or a hybrid model ? Why do you think so ?
- What is the role of regional authorities in the development of MaaS on this territory ?

PERCEPTION OF MAAS



EASE OF USE



- ▶ Opportunity to develop intermodality and stimulate the use of sustainable modes
- ▶ Centralisation and enhancement of existing offer and services
- ▶ Complementary asset to existing policies (e.g. *Vervoerregio's*, *centrales de mobilité*)



- ▶ Opportunity to reduce car use and achieve modal shift

PERCEPTION OF MAAS



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Not the ultimate solution to modal transfer

Important prerequisites

PREREQUISITES (1/2)



#1

Stakeholders collaboration



#2

Data availability and management



#3

Profitability and investment

- ▶ Within the administration itself
- ▶ Between different level of powers (metropolis/province levels are key)
- ▶ Private - Public

- ▶ Interoperability & standardisation
- ▶ Management

- ▶ Clear economic models
- ▶ Financial investments

PREREQUISITES (2/2)



#4

Physical infrastructure

- Supply = demand (modes)
- Urbanism that favours soft modes and intermodality



#5

Adequate legislation

- Lack of coherence between existing regulations and reality/objectives



#6

Inclusive approach

- MaaS developed in an inclusive manner to ensure adoption

ROLE OF PRIVATE AND PUBLIC SECTORS

PRIVATE SECTOR

Deploy & providing
technical solutions

Why?

Material and financial
resources = quality

The expertise = adequate
and optimal mobility
solutions

Decision-making flexibility =
faster innovation

The access to data =
continuous optimization and
improvement of services

ROLE OF PRIVATE AND PUBLIC SECTORS

PUBLIC SECTOR

Facilitator



Coordinator

- 1 Stimulate exchanges and collaborations
- 2 Give political impetus, establish a vision and a legislative framework
- 3 Ensure the local and regional mobility objectives are respected
- 4 Act as an economic accelerator
- 5 Control or retain mobility data
- 6 Act as a field of experimentation

MANAGEMENT & GOVERNANCE

FAVOURITE MODEL



BRUSSELS C.R

ANTWERP

HASSELT*

BRUGES*

LIEGE*

GHENT*

NAMUR*

LEUVEN

CHARLEROI*

MANAGEMENT & GOVERNANCE

FAVOURITE MODEL



BRUSSELS C.R

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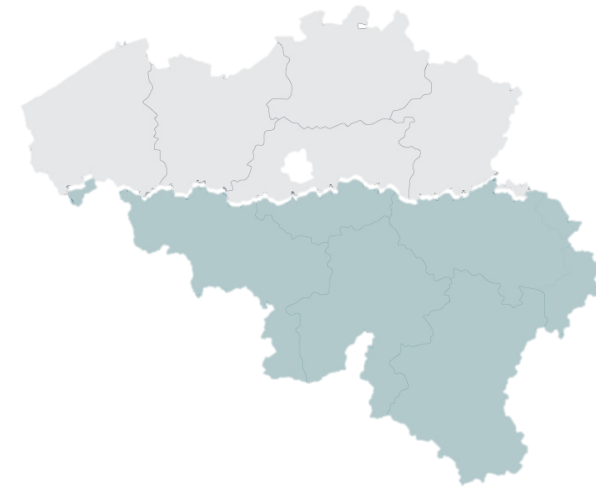
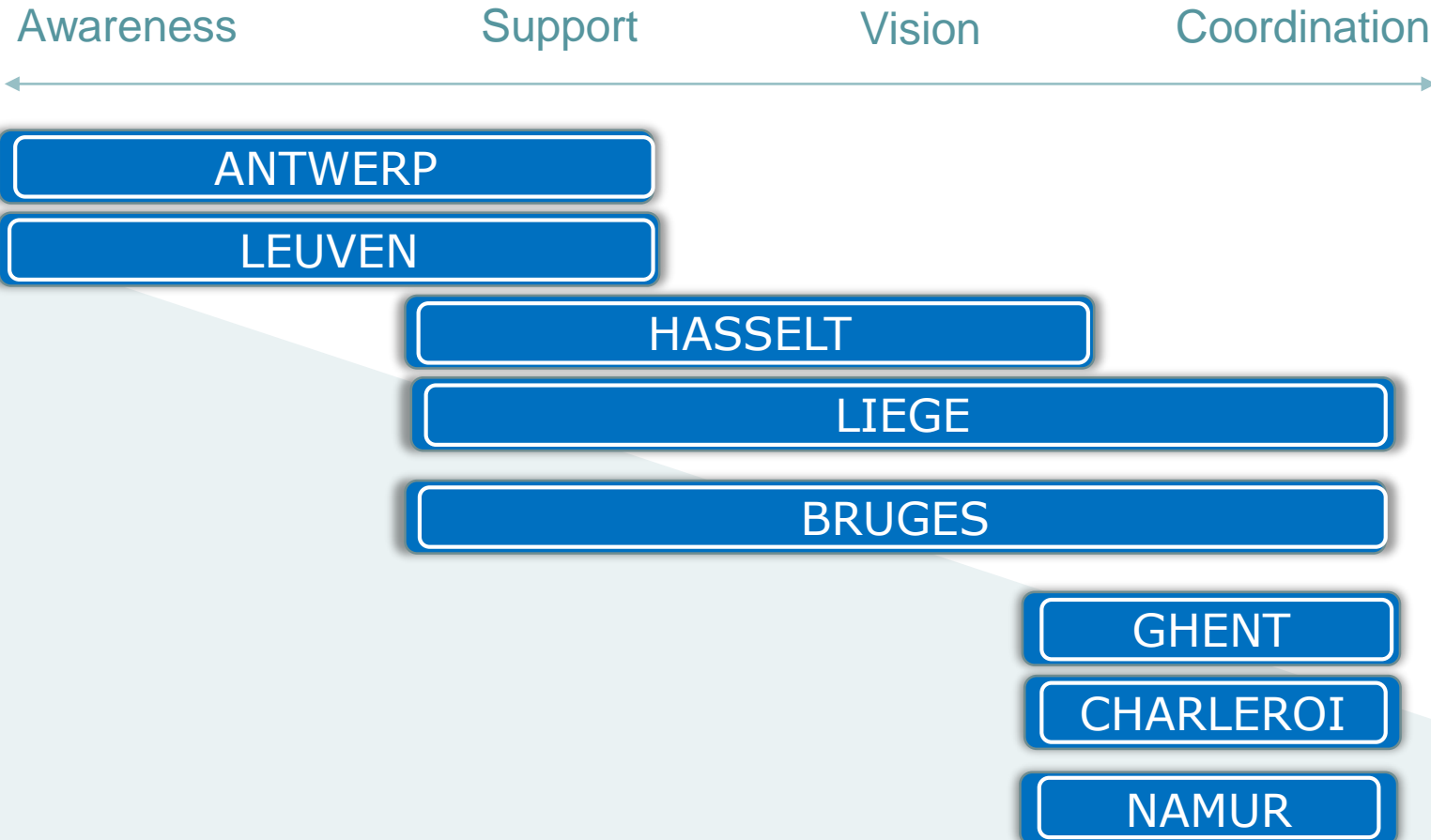
LEUVEN

CHARLEROI*



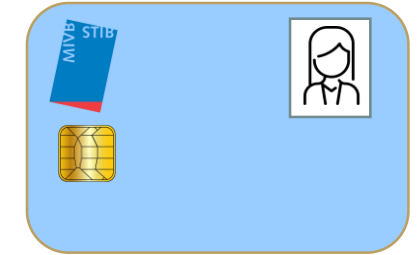
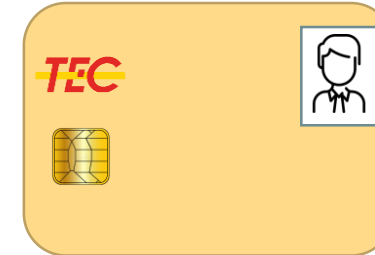
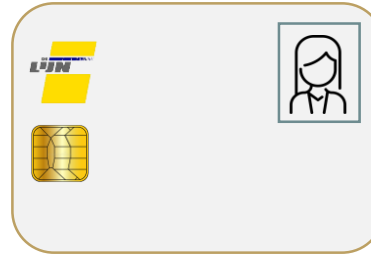
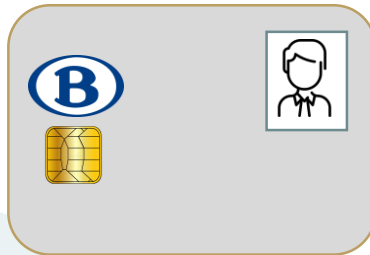
MANAGEMENT & GOVERNANCE

ROLE OF REGIONAL AUTHORITIES



MANAGEMENT & GOVERNANCE

IMPLEMENTATION LEVEL (PTO'S)



City or Regional
(with a good
understanding of
local issues)

Region or Federal
Régional (reality) >
complicated
because transport
operators usually
operate at the city
level

City ecosystem) (own

Régions must
create conditions

Ongoing pilot
project at the BCR
level

CONCLUSION

CONCEPT



- ▶ The 9 territories and the 4 PTO's have a positive perception of MaaS

- Asset for accessibility and/or modal transfers
- Should not be the only tool to encourage modal transfers



- ▶ Identified prerequisites of various natures

- Develop an holistic approach including various disciplines

CONCLUSION

PRATICAL IMPLEMENTATION

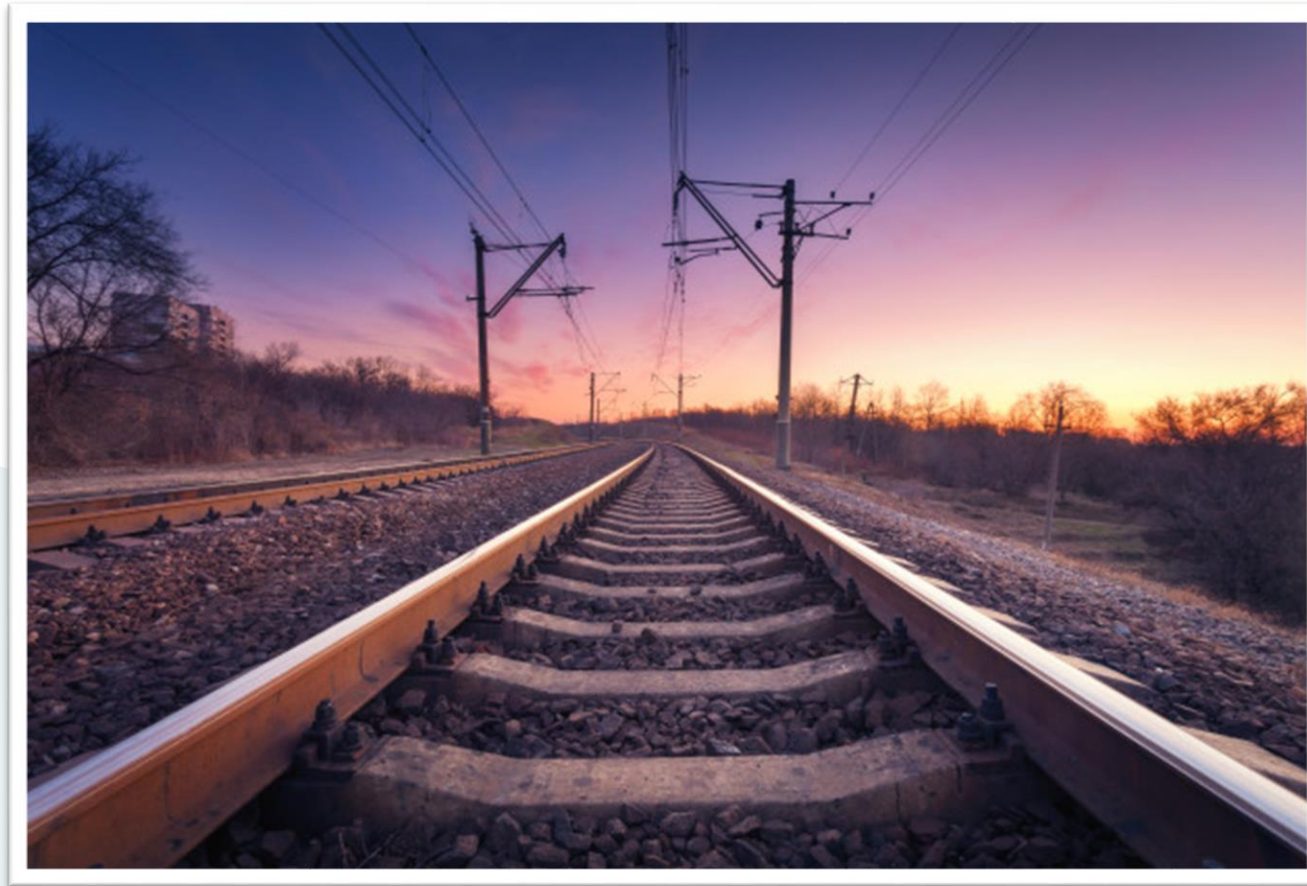


- ▶ Common vision on the role of private and public sectors
 - Private sector: deployment of mobility solutions (except public transport)
 - Public sector: facilitator or coordinator



- ▶ No common vision of the management & governance model or the level of implementation
 - Slight tendency toward hybrid models
 - No « laissez-faire » in Belgique (sustainability and objectives)
 - Involvement of the Regions strongly desired by the cities

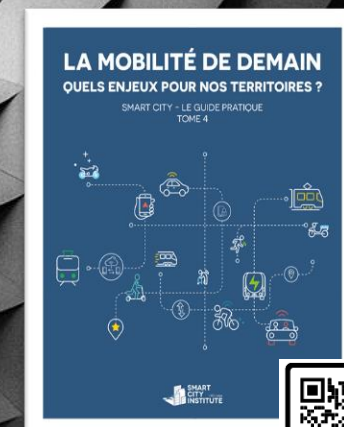
CONCLUSION



THANK YOU!
Questions? Remarks?

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www.SmartCityInstitute.be



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