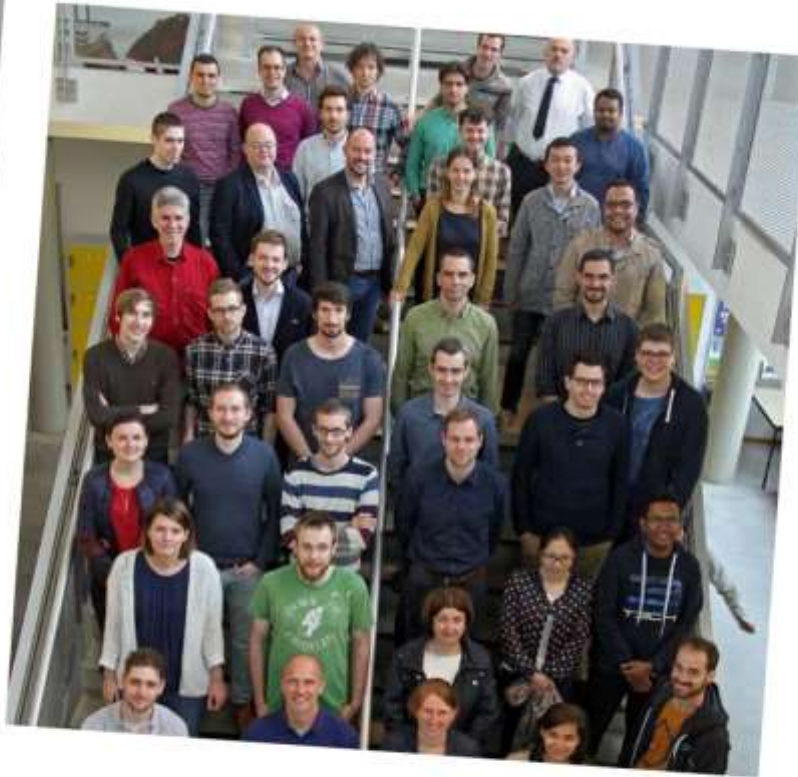


THE HUMAN CITY

Rethinking mobility

Prof. dr. Cathy Macharis

MOBI Team



Twitter.com/**MOBI_VUB**

THE HUMAN CITY

Storyline

Conclusion

Yes we can

● **Yes we should!**



Yes we should!



Urbanisation

66%
2050

41 megacities
2030





Transport activities are responsible for

CO₂ 25%

PM 30%

NO_x 60%



4% of GDP

New technologies



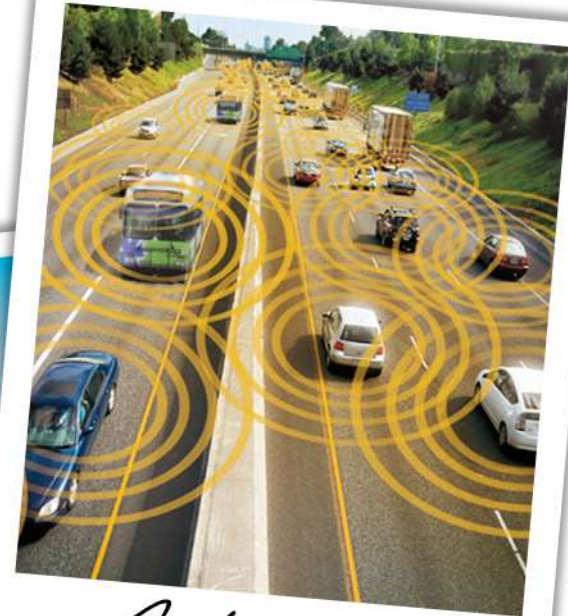
Smartphones



*Vehicle
electrification*



Big data



*Autonomous
vehicles*

PUBLIC

COLLECTIVE

train

metro

demand-responsive
transport

tram

bus

ride-sourcing

AV shuttles

shared taxi

ride-sharing

taxi

**Mobility as
a Service**

private or corporate
carpooling

rent-a-car

rent-a-bike

e-car-sharing
car-sharing

chartered services

e-bike sharing
bike-sharing

e-bike

car

bike

autonomous vehicles

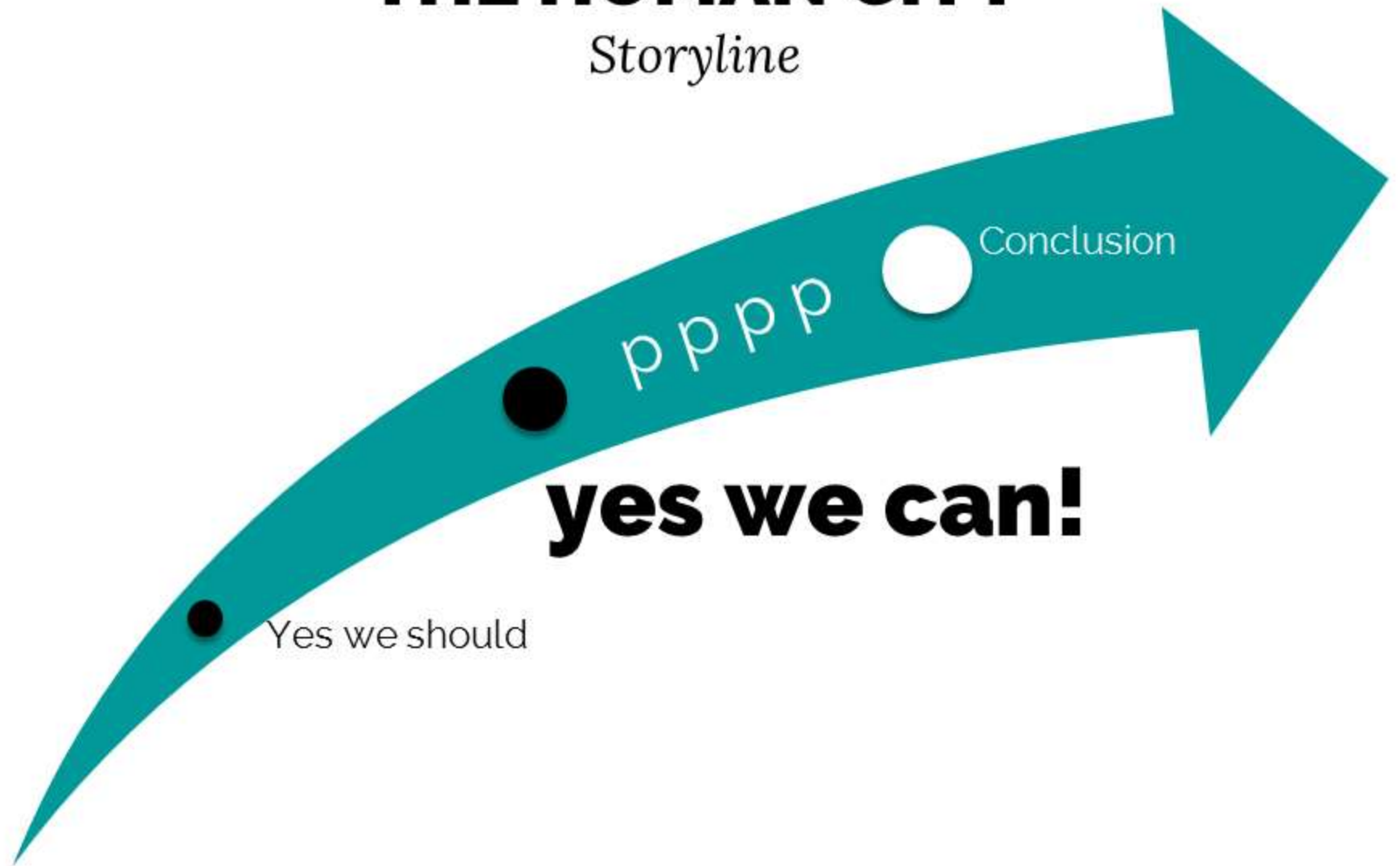
pedestrian

INDIVIDUAL

PRIVATE

THE HUMAN CITY

Storyline





proximity



prosperity for all

THE 4 P's OF THE HUMAN CITY

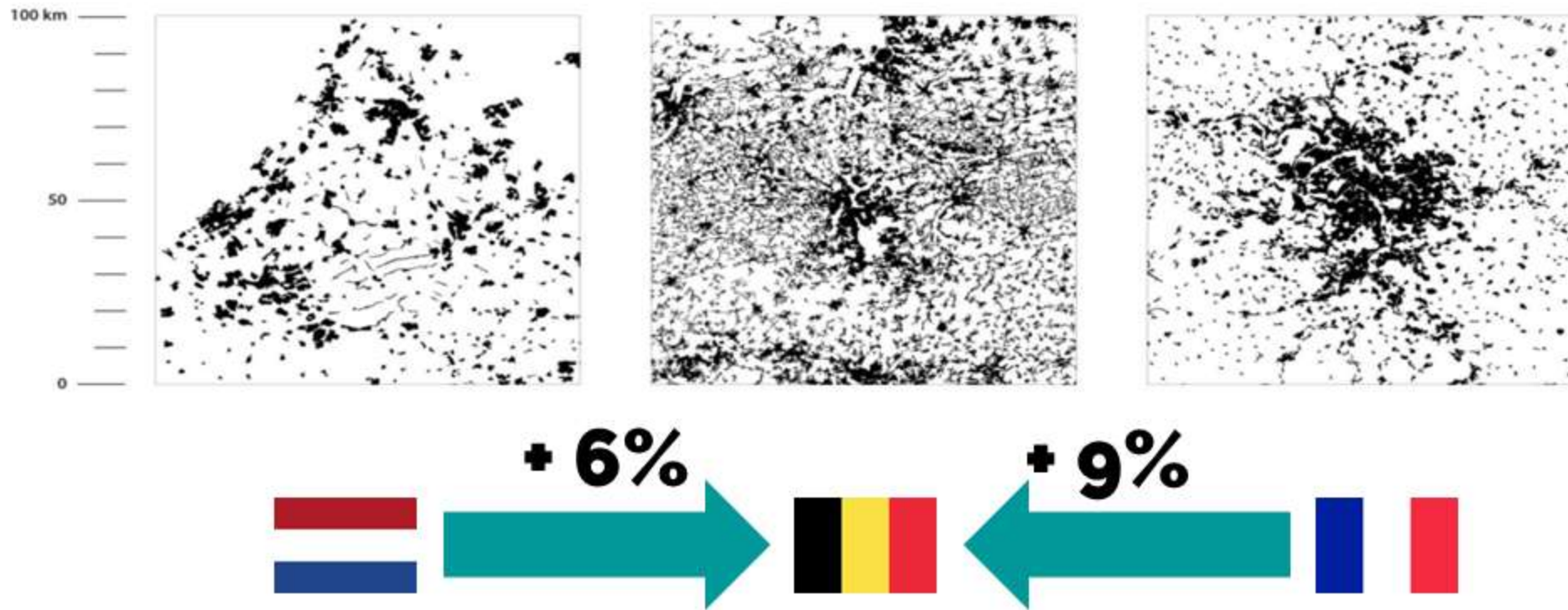
place for humans

participation



Commuting distance

The Netherlands - Belgium - France



Mixed-use developments



Telework, satellite and co-working





proximity



prosperity for all

THE 4 P's OF THE HUMAN CITY

place for humans

participation

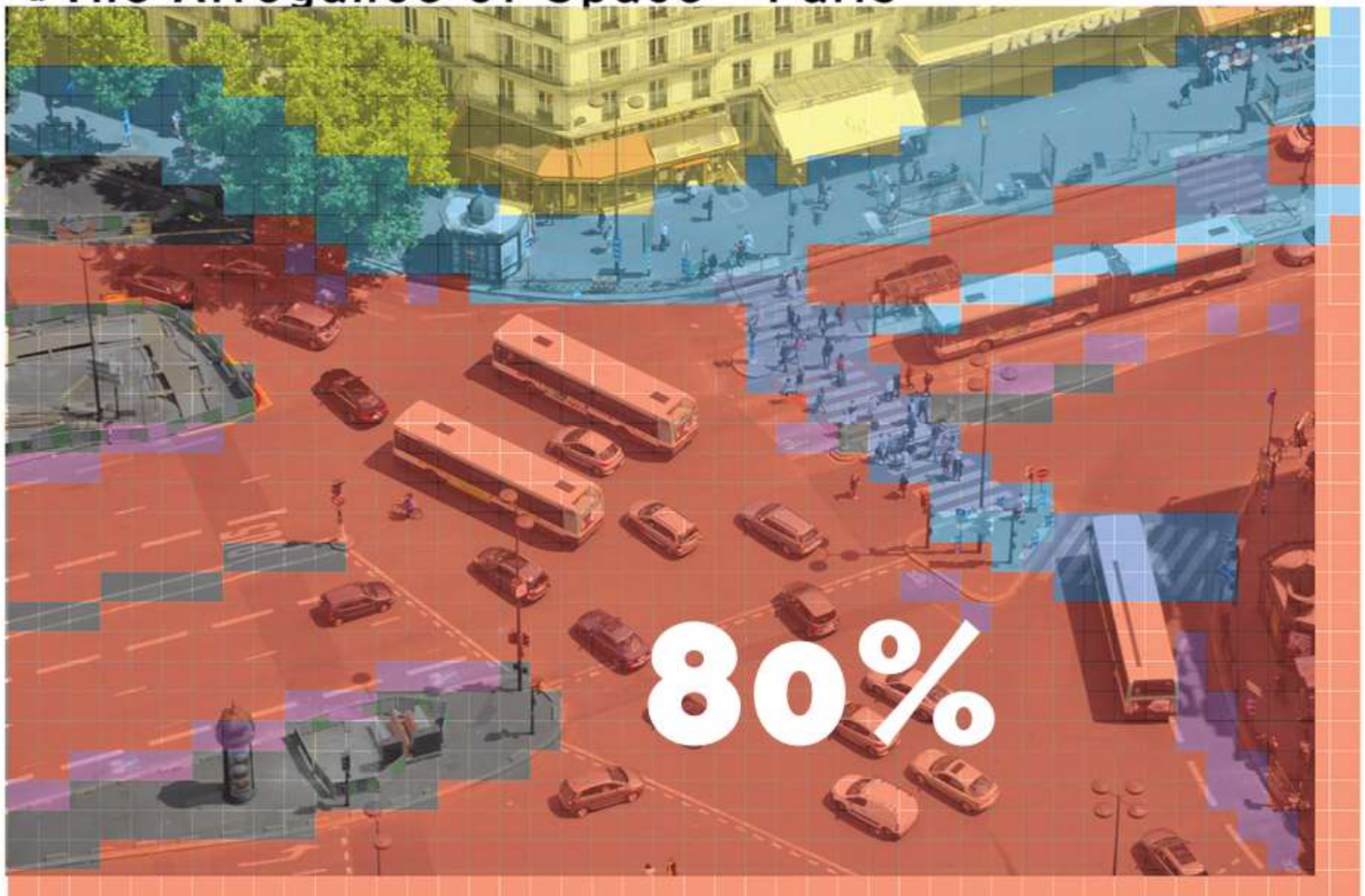




50-70%

*of land is dedicated to road infrastructure
within city centres*

The Arrogance of Space - Paris



Space for cars
and used space

Space for peds
Peds crossing

Space for bikes
and used space

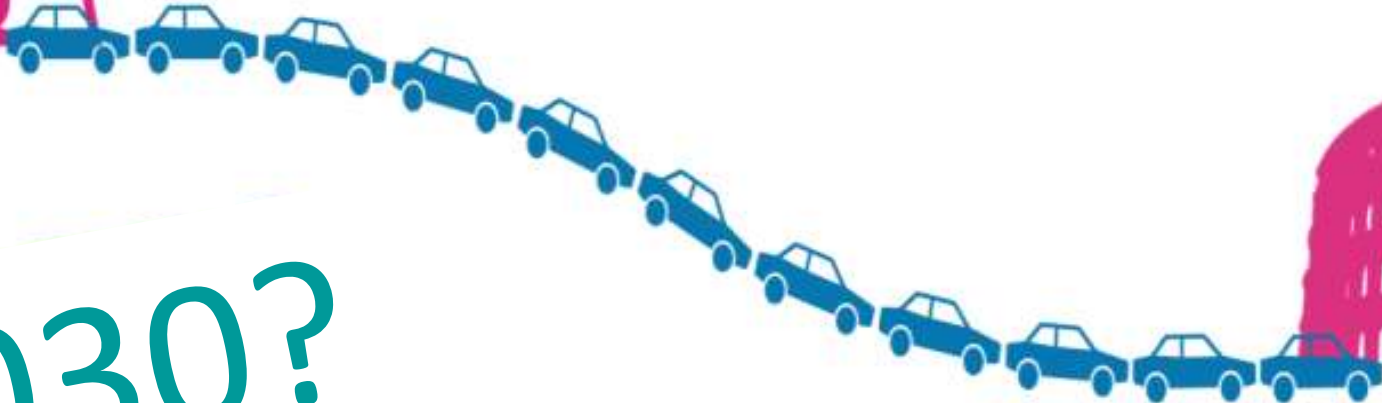
"Dead" space

Buildings

265.000 places of parking



1.500 km of public space
= DISTANCE BETWEEN BRUSSELS AND ROME!

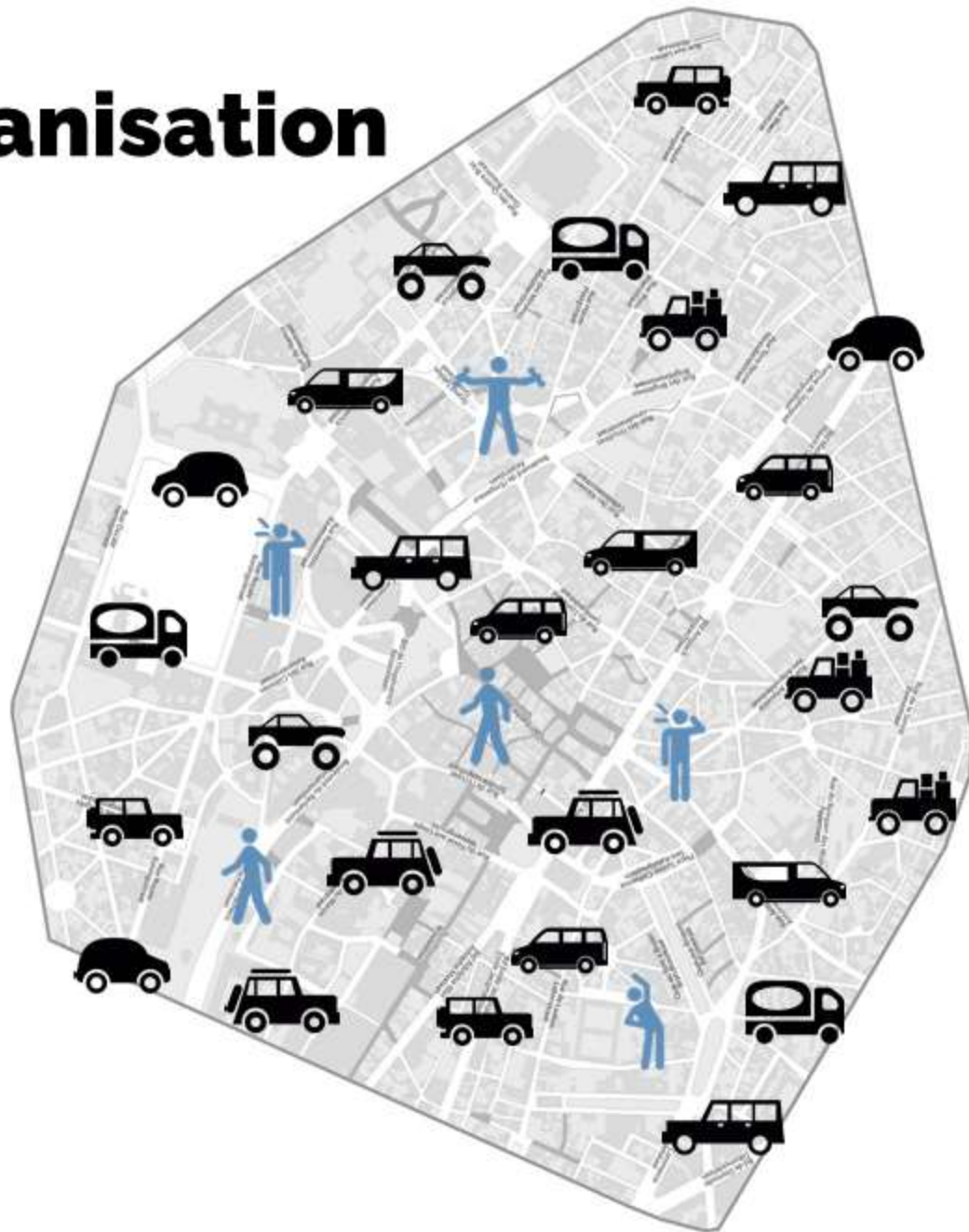


2030?

+10 cars/day



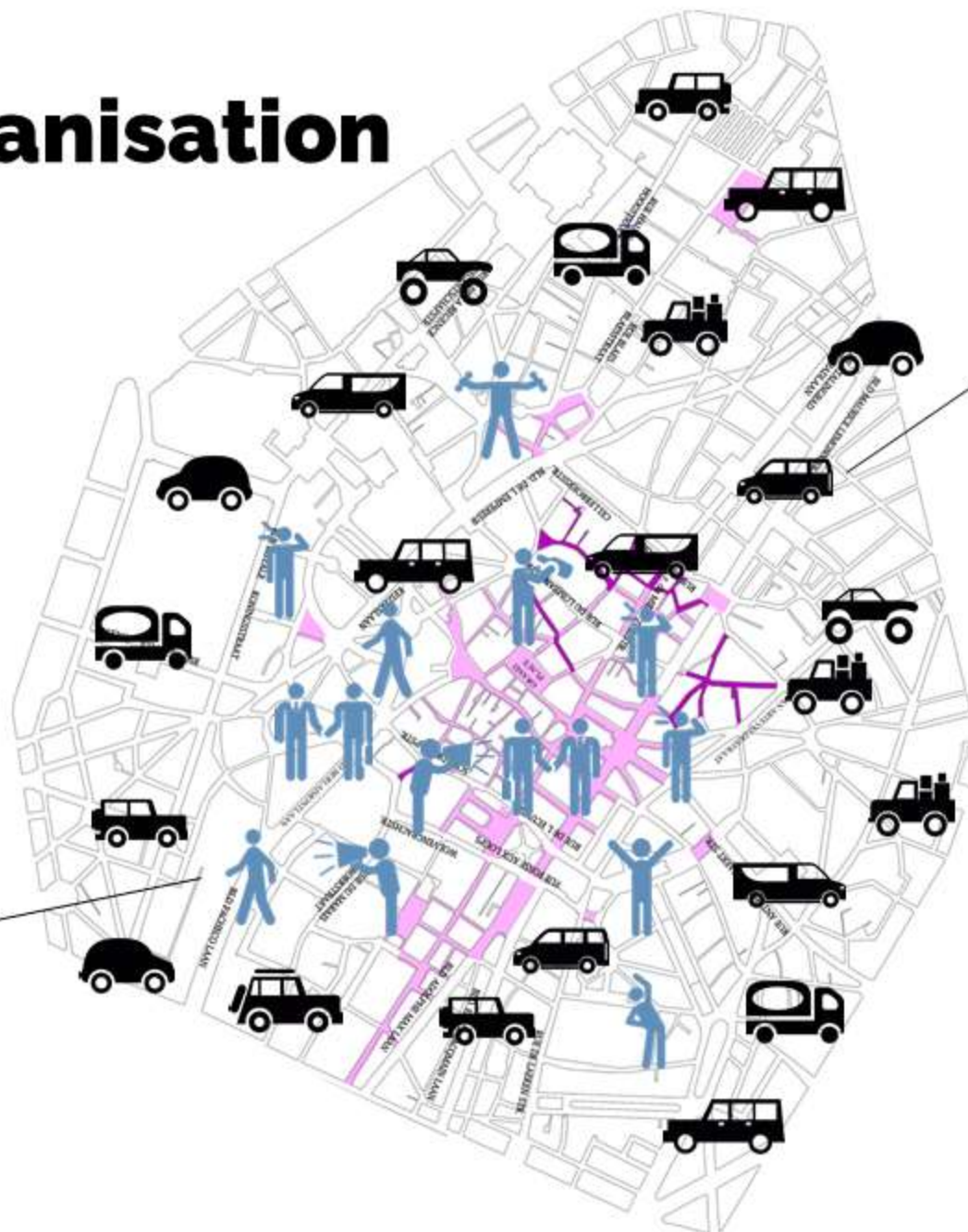
Before pedestrianisation



After pedestrianisation

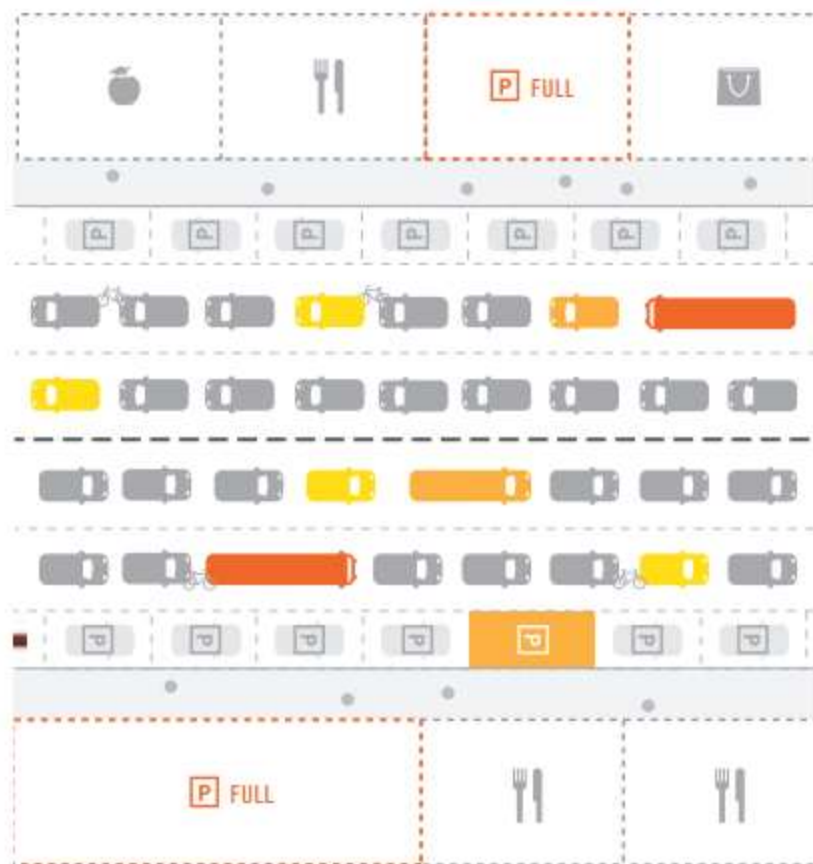
-12,1%

x 2,5





Focus on **ownership**



Shared electric connected automated



Sharing



mobility as a
service: any time,
any place

future

fully automated
private luxury



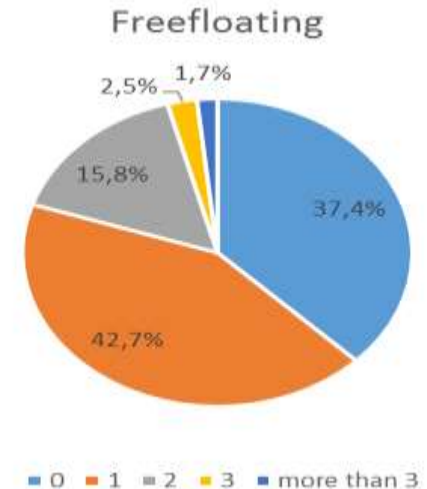
Ownership

2017

Profile of car sharing users

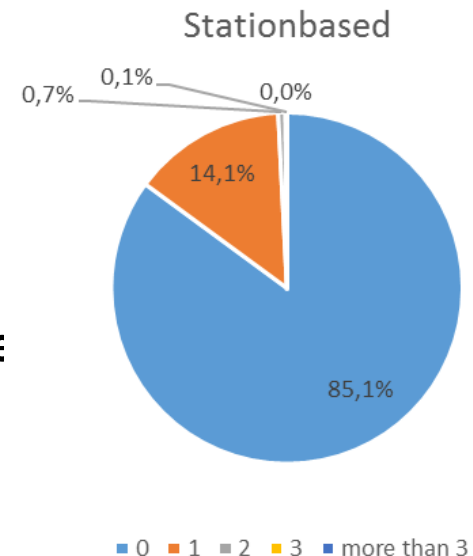
Free –floating car sharing:

- **primarily young (aged between 19-39 years)**
- highly educated
- **primarily male**
- single or lives with a partner and has no children
- **has a higher-than-average household income**
- **owns one or more cars**



Station-based car-sharing:

- **middle-aged (aged between 26-64 years)**
- highly educated
- **more females than in other group**
- single or lives with a partner and has no children
- **has a lower average household income than the other group**
- **does not own a car**





proximity



prosperity for all

THE 4 P's OF THE HUMAN CITY

place for humans



participation



Prosperity for all

Triple bottom line

Social

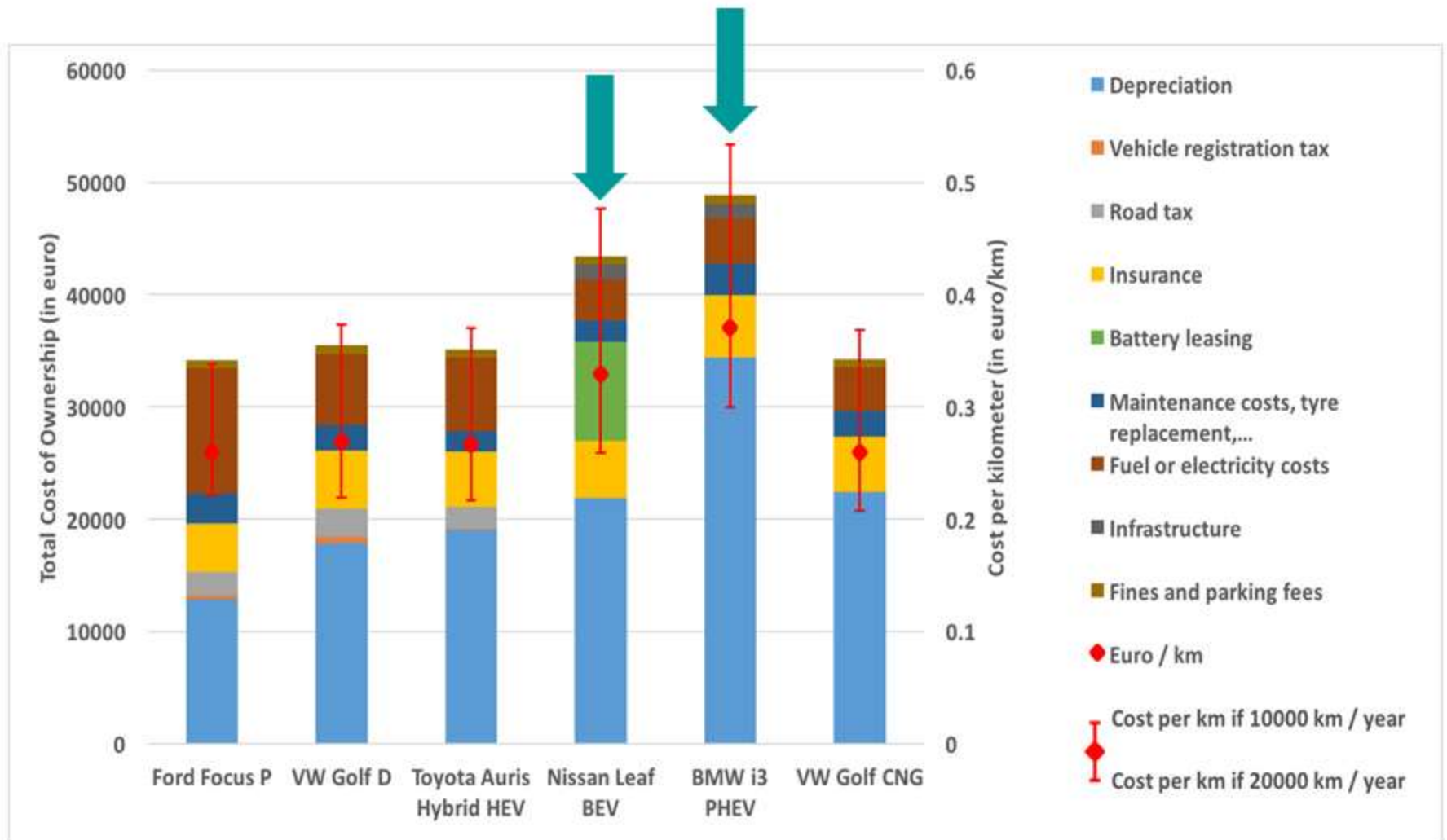
economic

ecological



Electric vehicles

Total Cost of Ownership



 **PUBLIC**
LIKE THE METRO

+

 **FLEXIBLE**
LIKE A BIKE

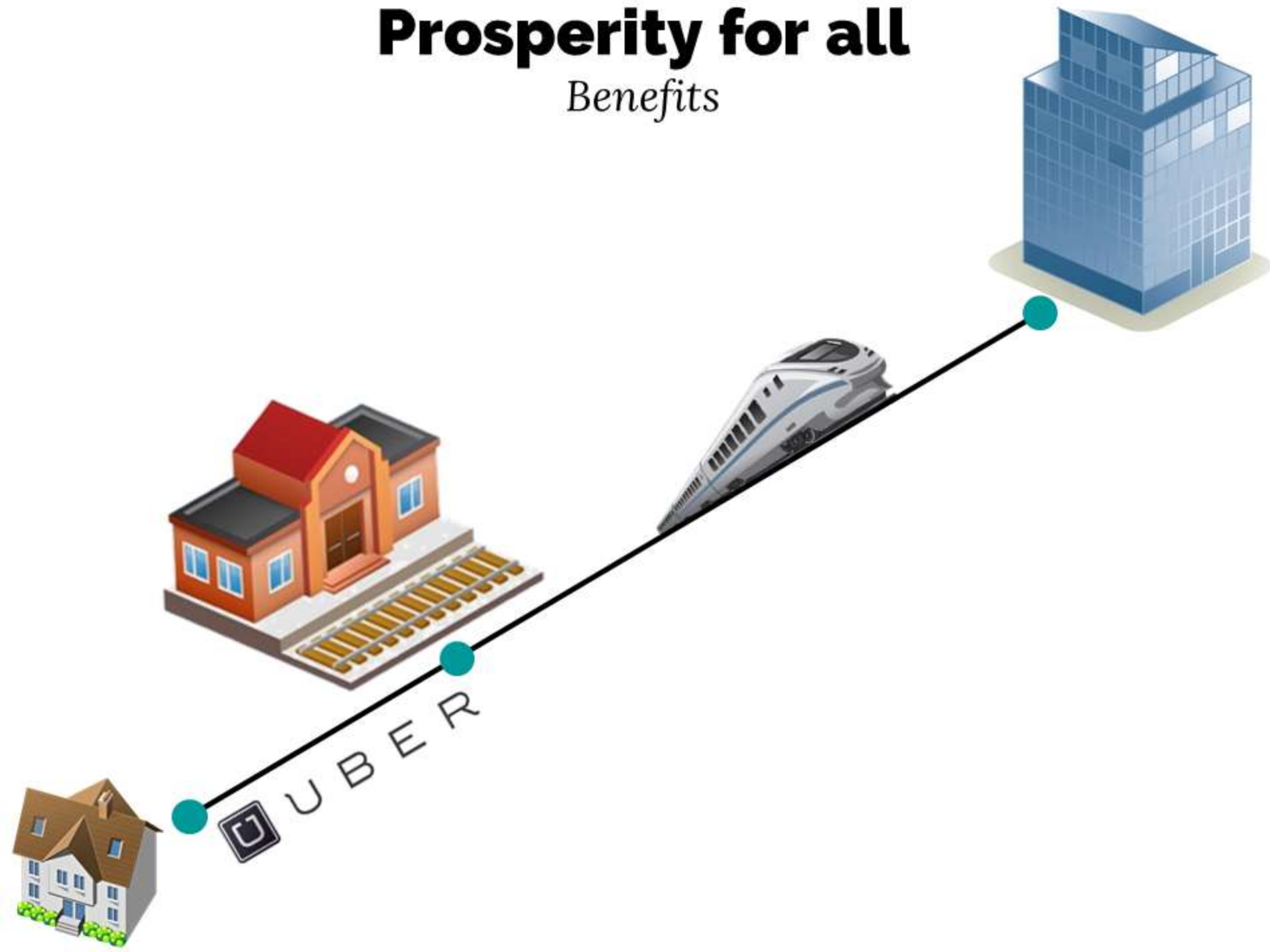
+

EVERYWHERE
LIKE TAXIS 



Prosperity for all

Benefits

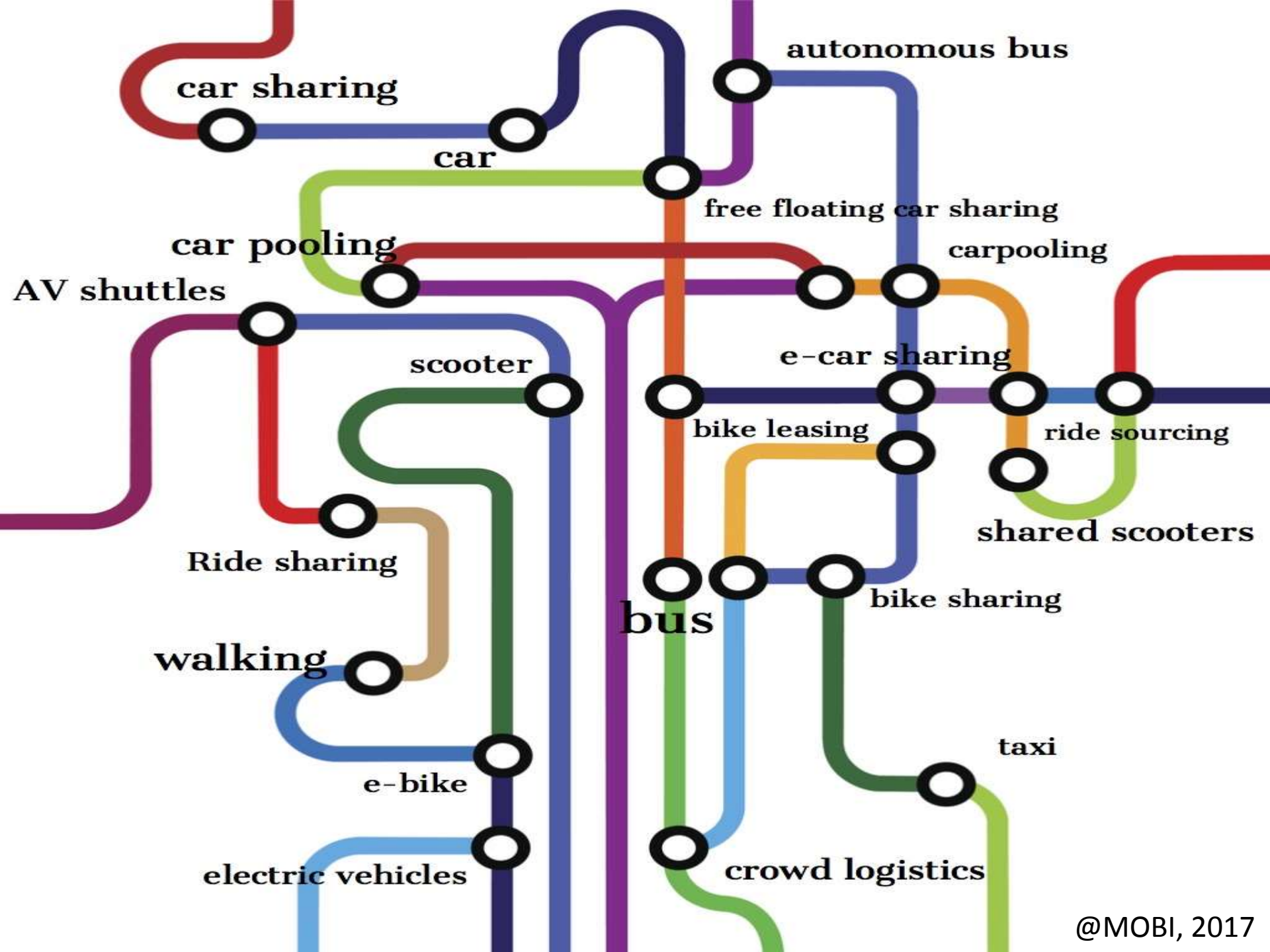


∞ LOOP

PUBLIC SERVICE VEHICLE

Frederik **Vanden borre**







proximity



prosperity for all

THE 4 P's OF THE HUMAN CITY

place for humans

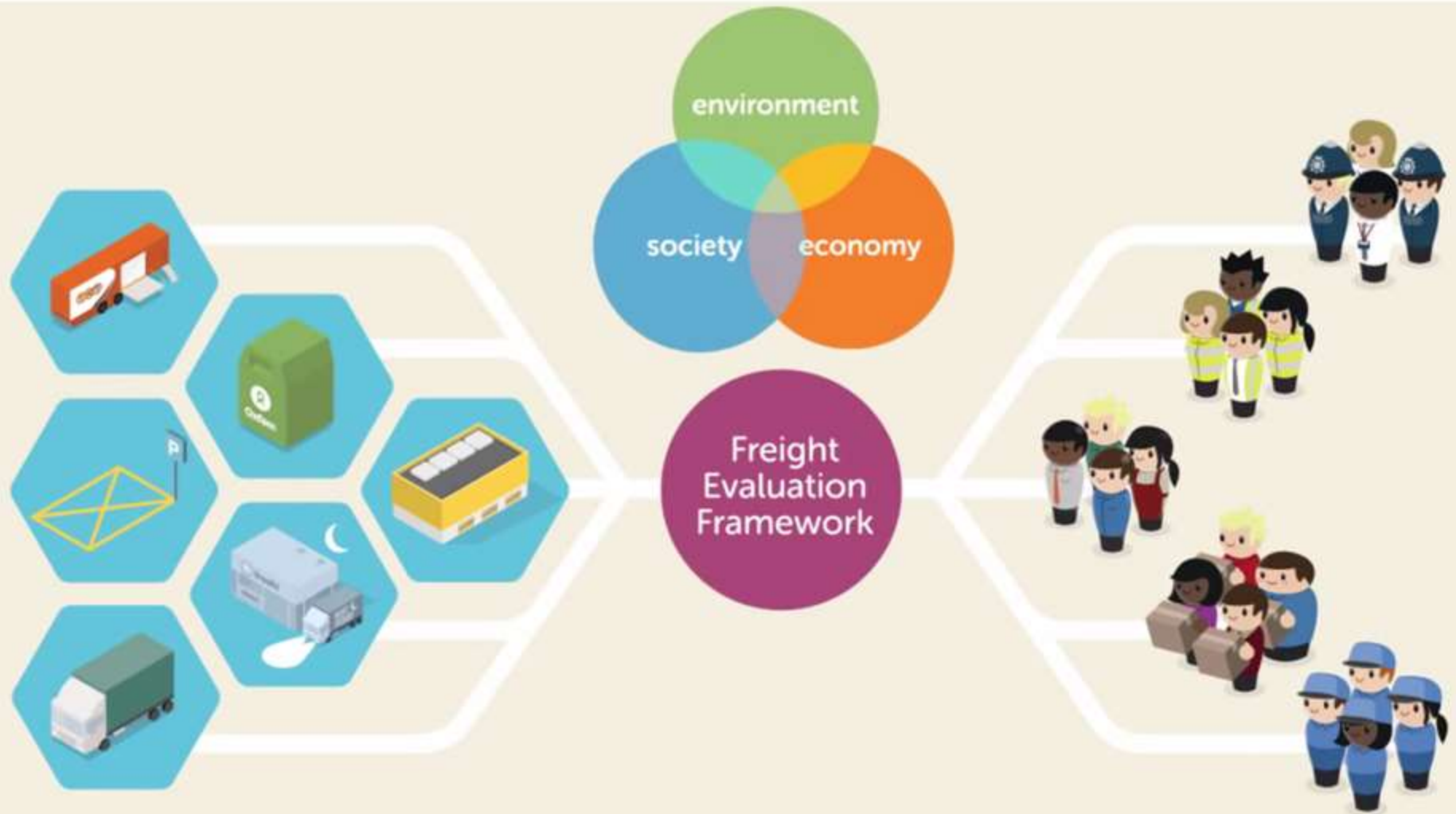


participation



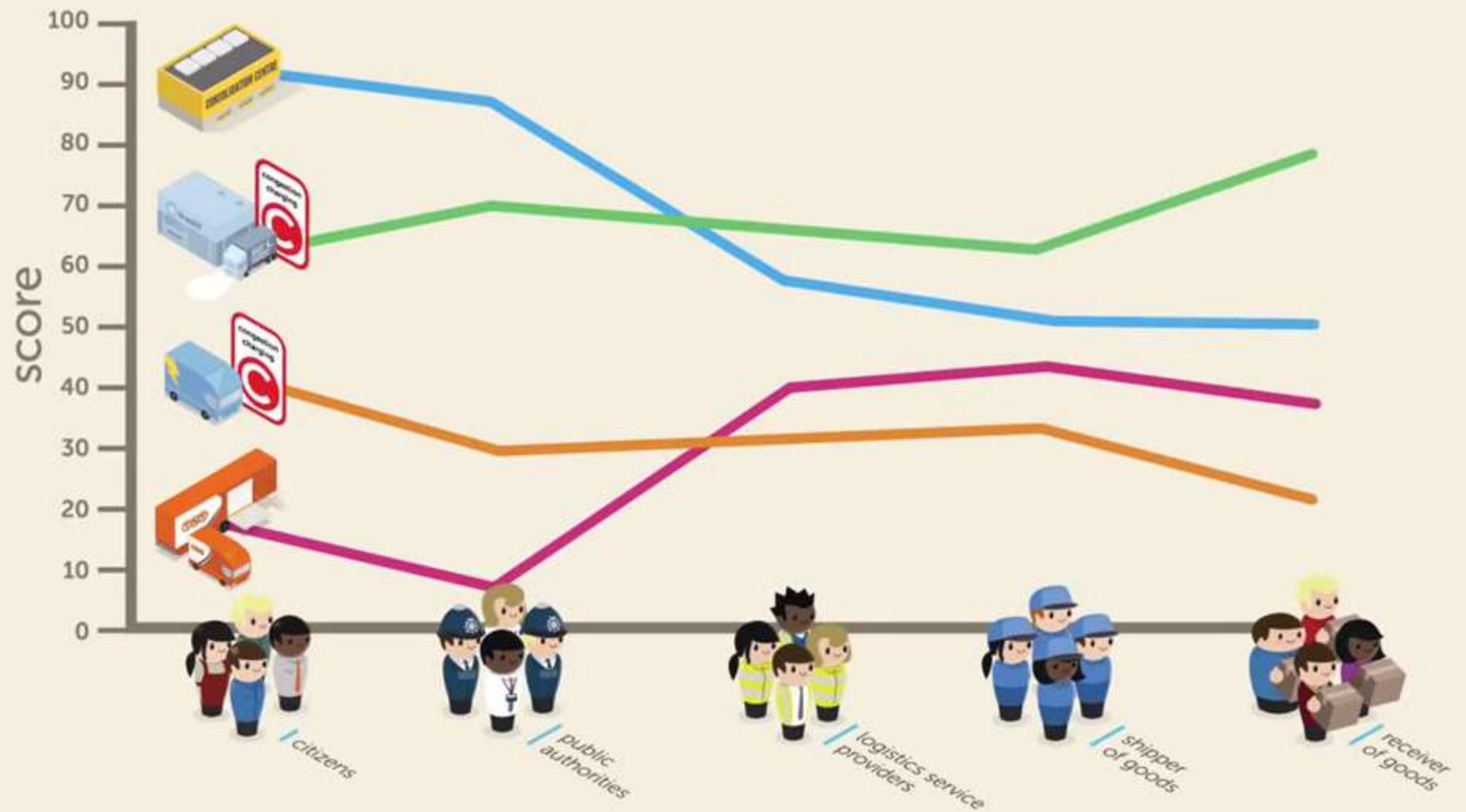
Multi Actor Multi Criteria Analysis

MAMCA



Multi Actor View

MAMCA



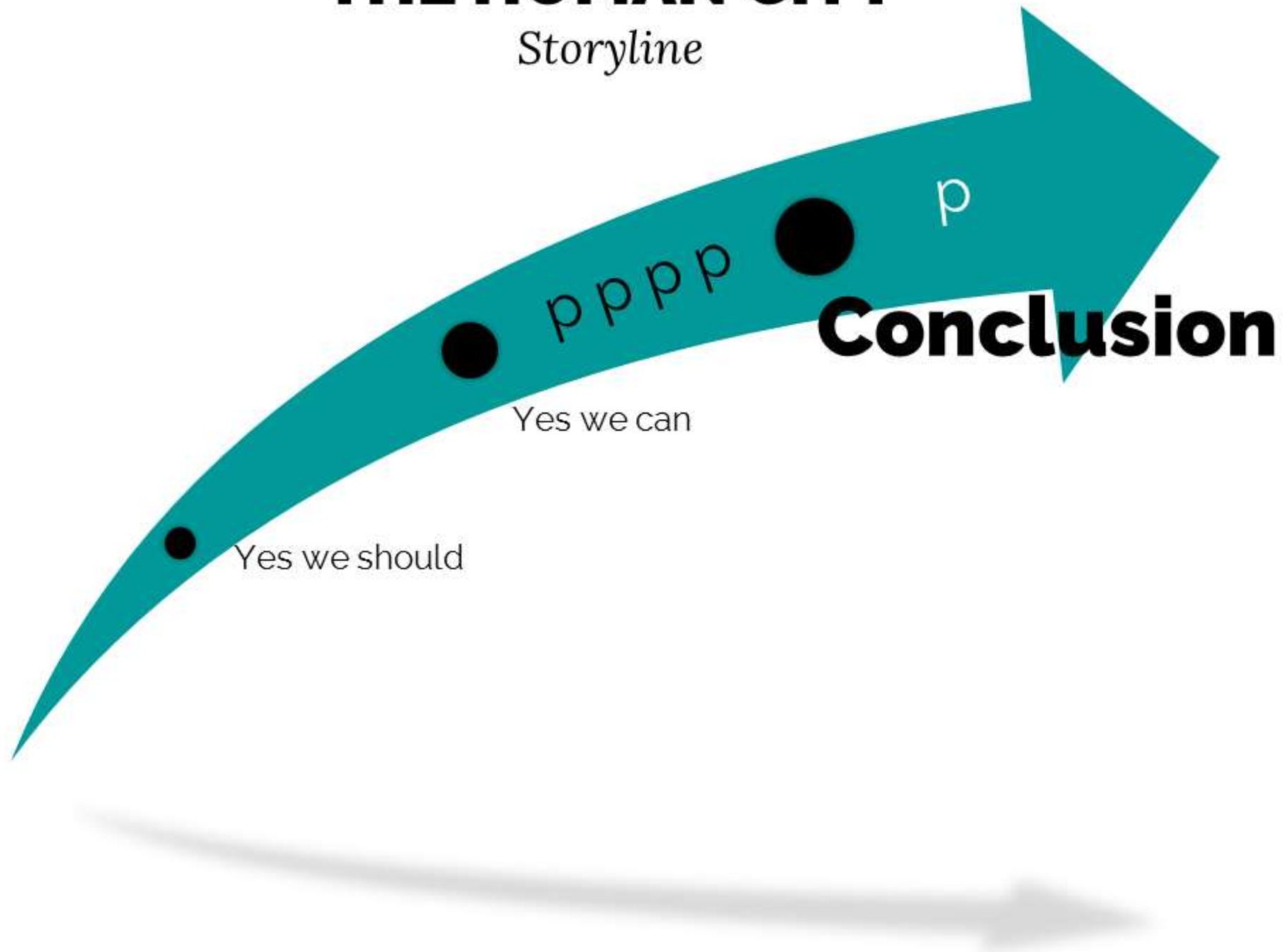
Participation

Co-creation



THE HUMAN CITY

Storyline





THE 5th P OF THE HUMAN CITY



Data

Cities

Carrots/sticks

CONCLUSION

Let us connect the dots

Proximity

Place for humans

Prosperity for all

Participation

&

Passion

30 voorstellen
voor een stad
op mensenmaat

Pieter Ballon,
Cathy Macharis en
Michael Ryckewaert (ed.)

DE HUMANE STAD



VUBPRESS

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EVENT OP
14/12
IN
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BLOOM,
BRUSSEL**

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