

What future for mid-sized cities?



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National Technical University of Athens

These cities can range in size from 50,000 to 250,000 in population.

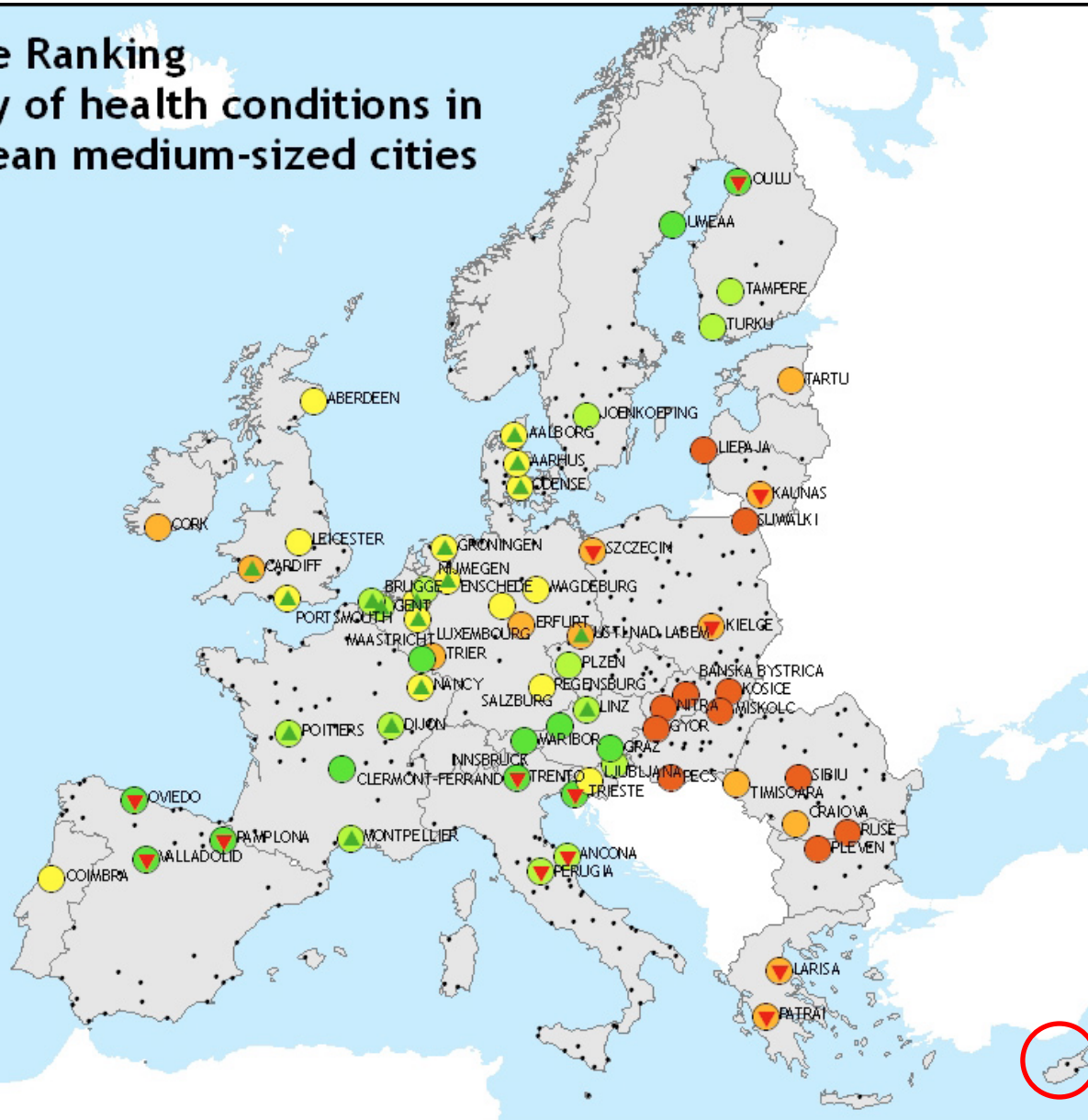




Street in Larnaca in 1878



Sample Ranking Quality of health conditions in European medium-sized cities



Technische Universität
Wien
Vienna University of
Technology



Team for World of Spatial
Development Infrastructure &
Environmental Planning



Centre of
Regional Science

Legend

Quality of health conditions

- Class 1
- Class 2
- Class 3
- Class 4
- Class 5

Correspondence with perceptual rating

- ▼ overrated
- ▲ underrated

Research area

- Espon space (EU27 + 2)
- Other medium-sized cities

Included indicators:
Life expectancy, 2001
Doctors per 1000 residents, 2001
Infant mortality, 1999 - 2003
Satisfaction with access to health system, 2004
Satisfaction with quality of health system, 2004

Selection method of city sample:
1. FUAP population 100,000 - 500,000
2. PUSH (catchment area population) < 1.5 mio.
3. Covered by Urban Audit
4. Adaptation by the project team (out of the remaining 101 cities 66 were selected)

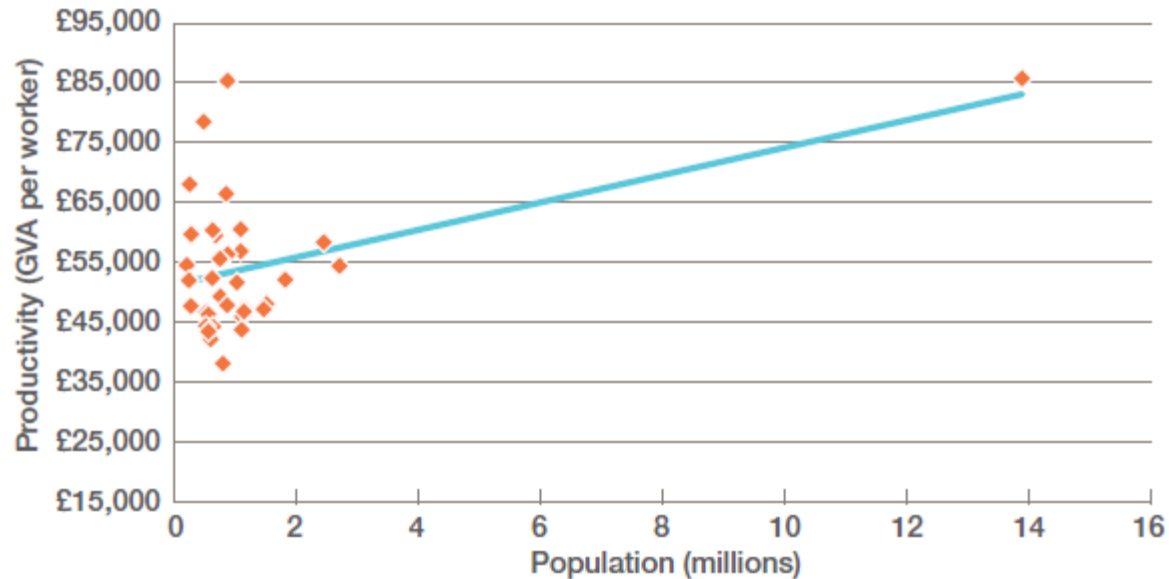
Sources:
Centre for Regional Science, Vienna UT
Nordregio (2004) ESPON 1.1.1: Potentials for
polycentric development in Europe; Project
report, Luxembourg: European Spatial Planning
Observation Network Coordination Unit.

0 125 250 500 750
Kilometers

Giffinger, Kramar, Fertner, Meijers, July 2007

The role of small and medium-sized towns and cities in growing

Resident population (x axis) and GVA per worker (y axis) in 2003 and 2013, in UK metropolitan areas



Source: Eurostat 2016a, 2016b and 2016c

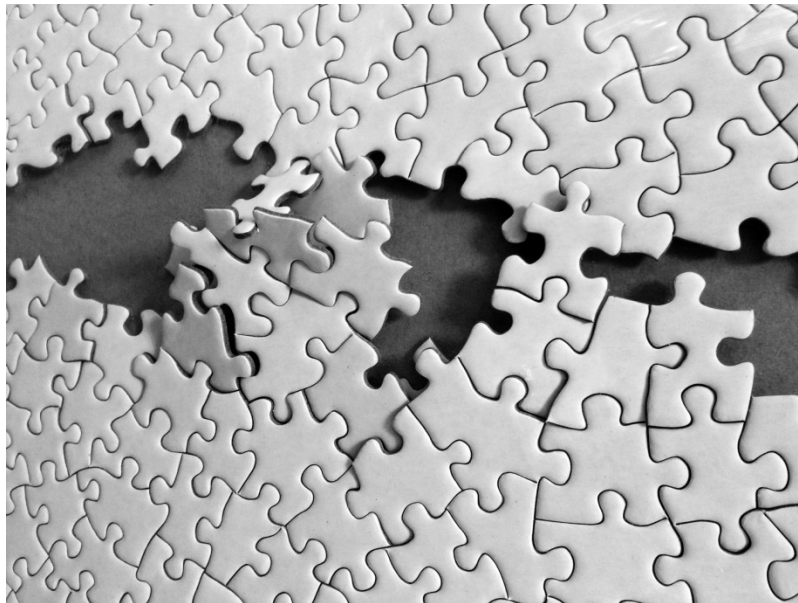
IPPR North | City systems: The role of small and medium-sized towns and cities in growing the northern powerhouse

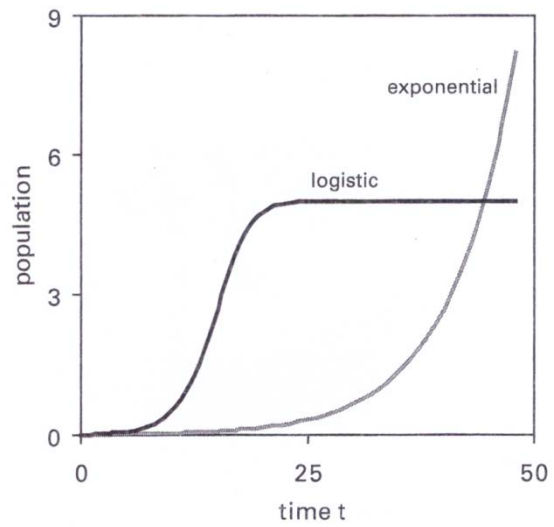
With the exception of London, population does not correlate with productivity in UK metropolitan areas

GVA: Gross Value Added

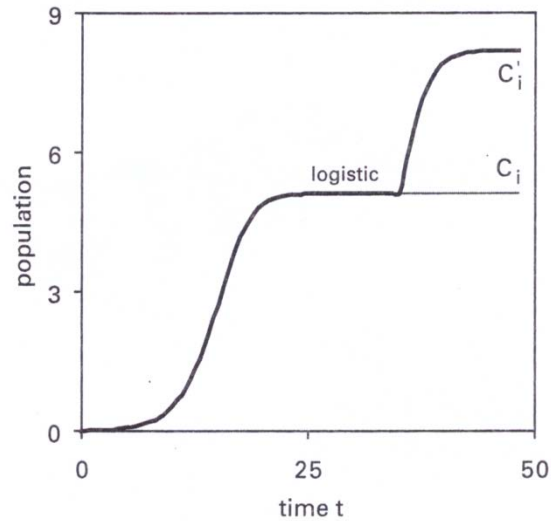
Roughly, by a complex system I mean one made up of a large number of parts that interact in a nonsimple way. In such systems, the whole is more than the sum of the parts, not in an ultimate, metaphysical sense, but in the important pragmatic sense that, given the properties of the parts and the laws of their interaction, it is not a trivial matter to infer the properties of the whole.

-Herbert A. Simon, “The Architecture of Complexity” (1962)

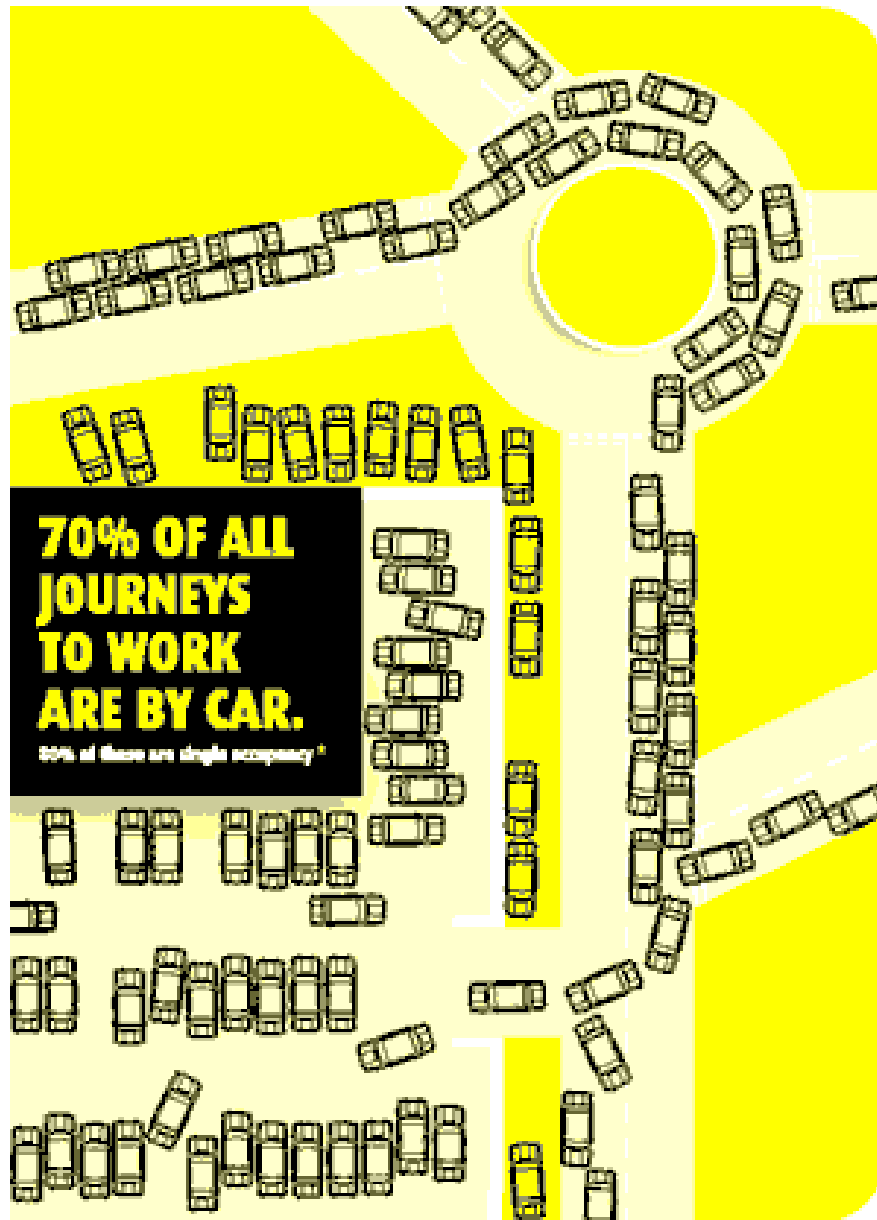




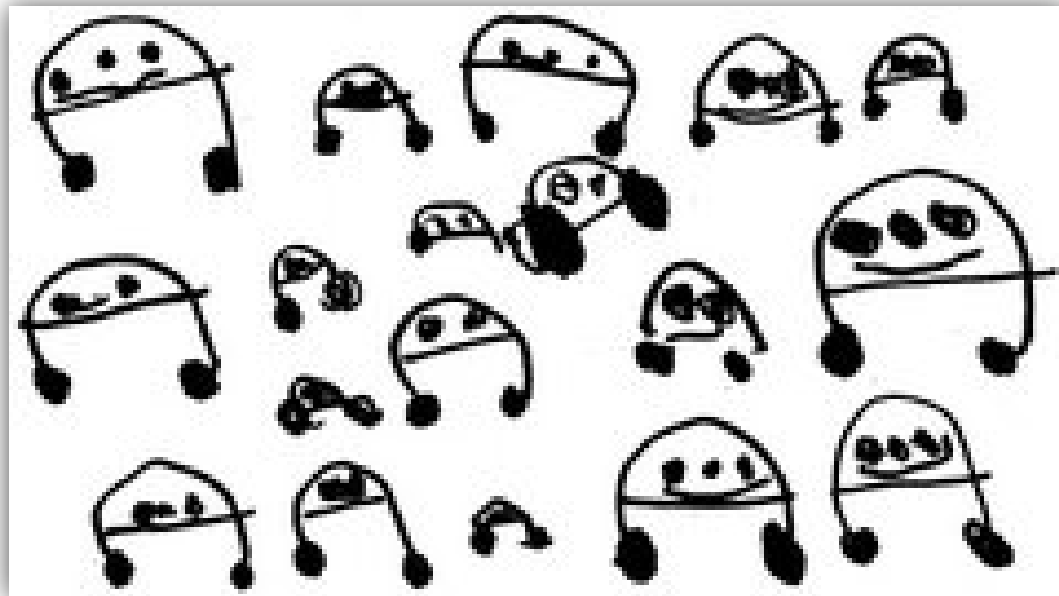
Exponential and logistic growth trajectories



A bifurcation due to a change in capacity C_i



*Source: Transport Statistics for Cyprus, 2008



**A 3-year old drew the street
outside his Toronto window**



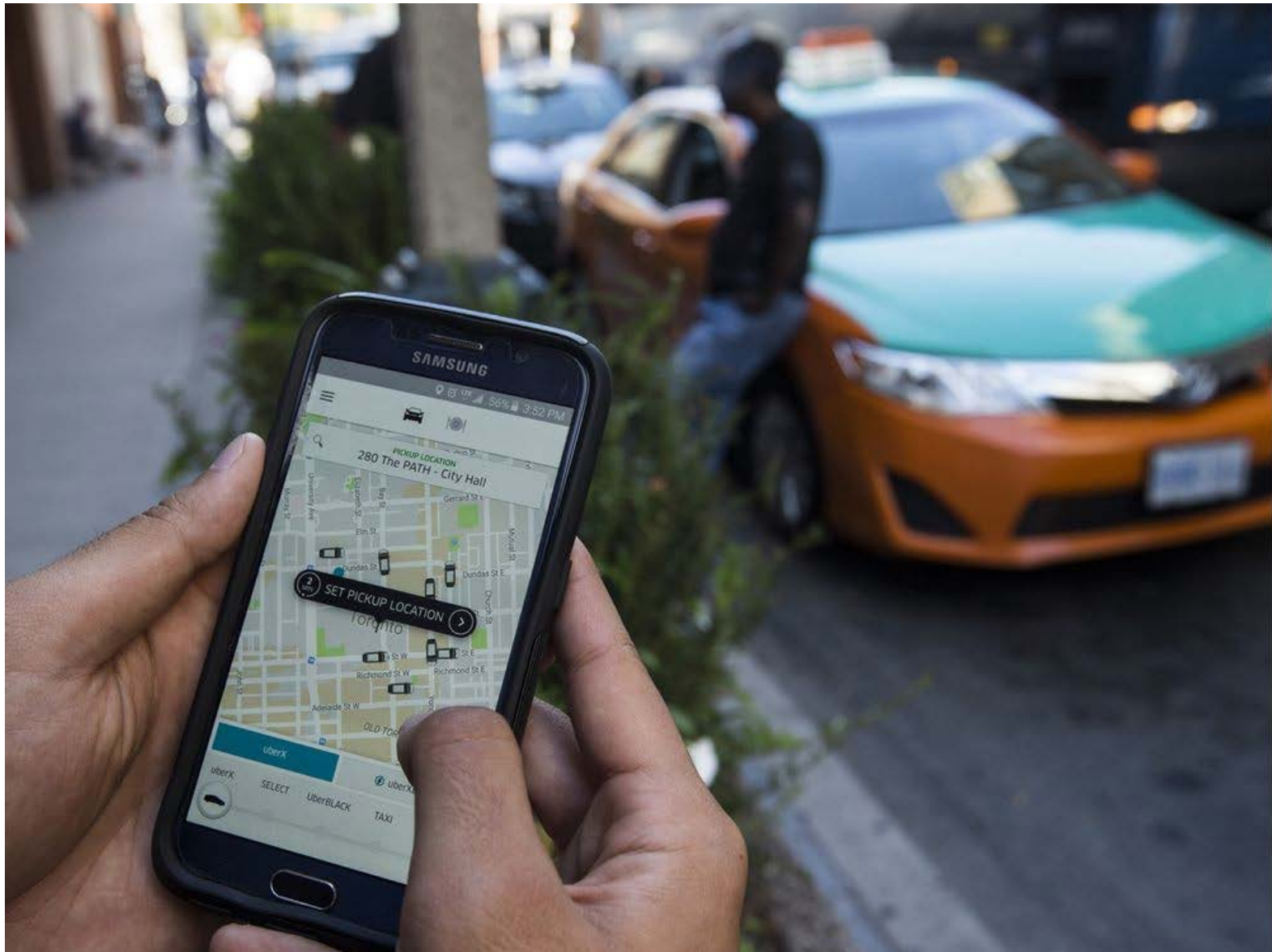
Everyone for himself and the devil takes the hindmost

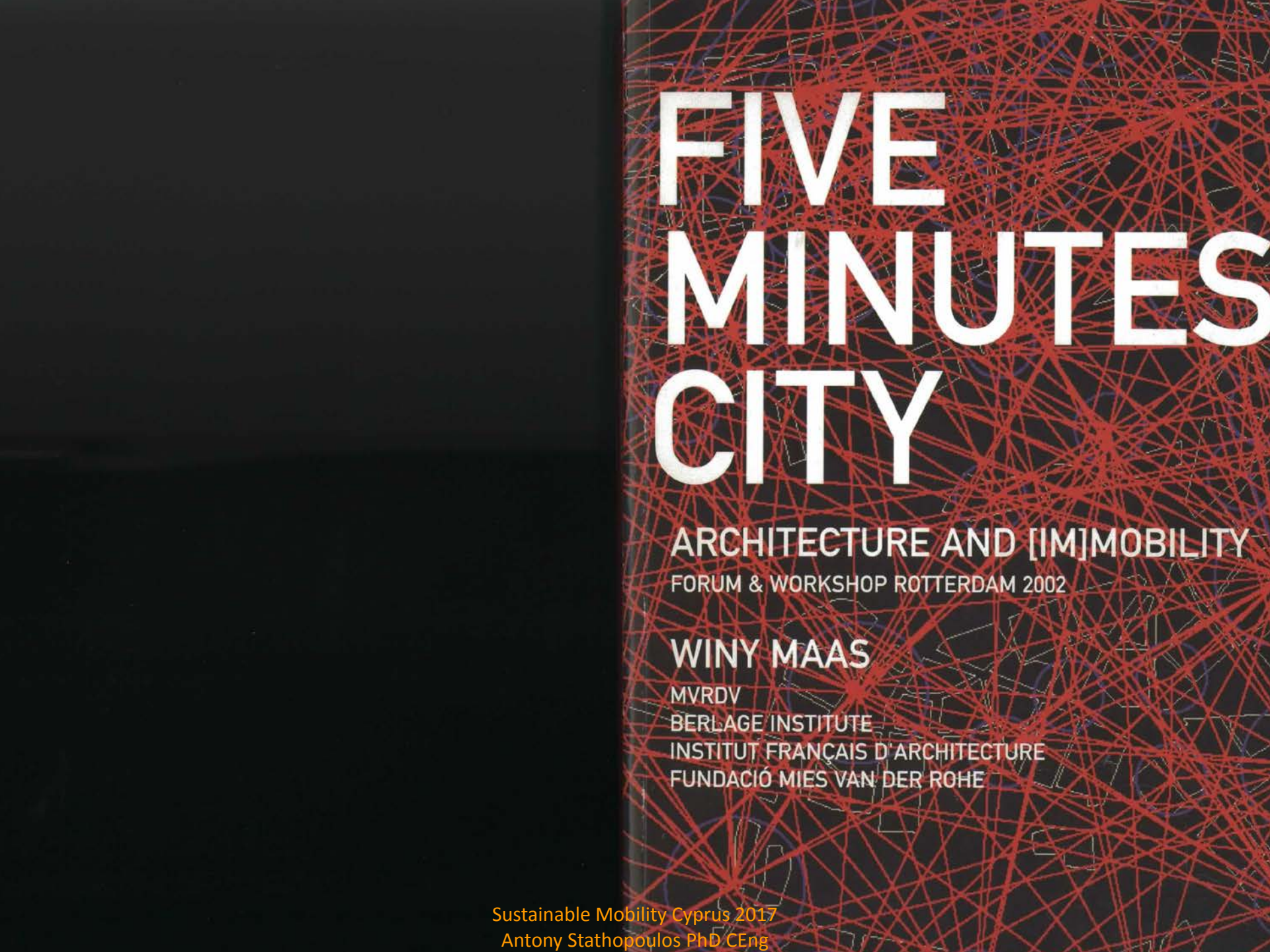


Finding ways to simplify complex problems is the hallmark of good science.



Does one need a ball of string to get out of the maze?





FIVE MINUTES CITY

ARCHITECTURE AND [IM]MOBILITY
FORUM & WORKSHOP ROTTERDAM 2002

WINY MAAS

MVRDV

BERLAGE INSTITUTE

INSTITUT FRANÇAIS D'ARCHITECTURE

FUNDACIÓ MIES VAN DER ROHE

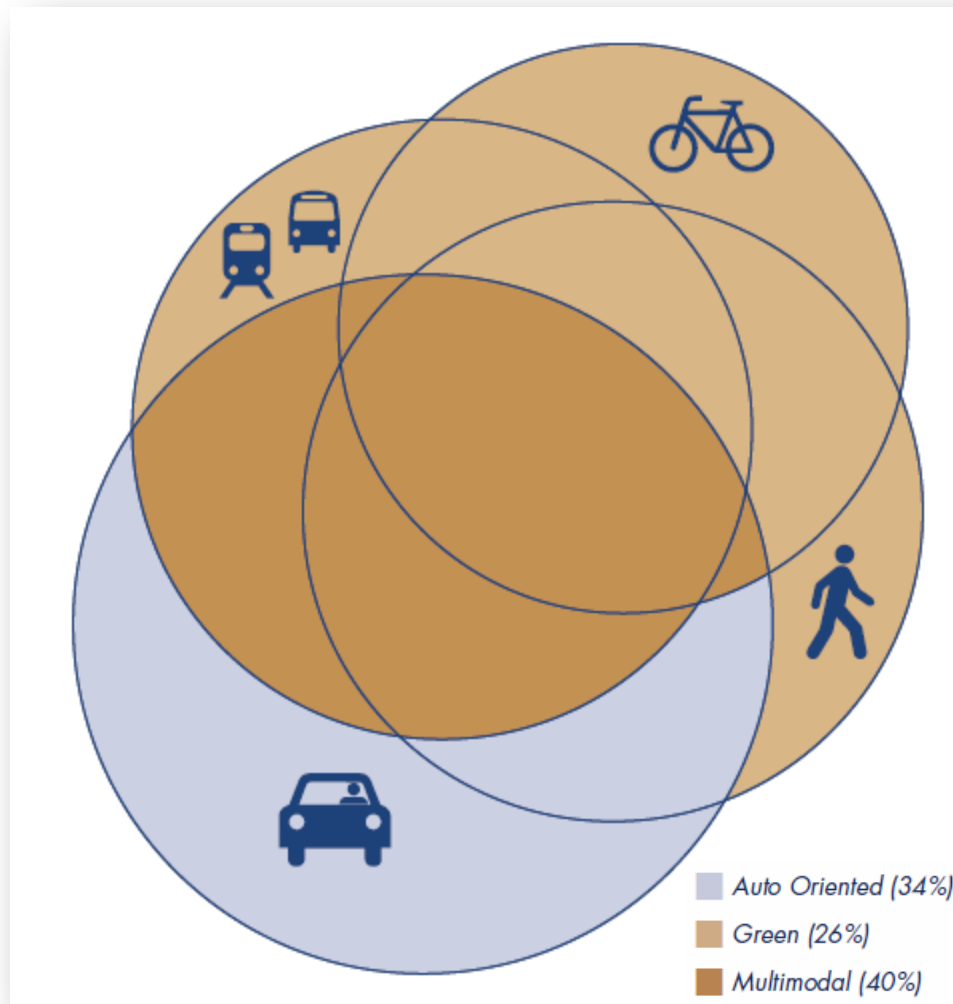
Is this achievable?



The modal mix



What modal mix?



Smart planning would help to reach an ideal modal mix



Examples of non-motorized transport policies

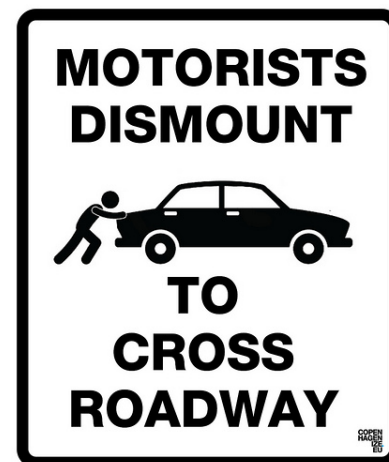
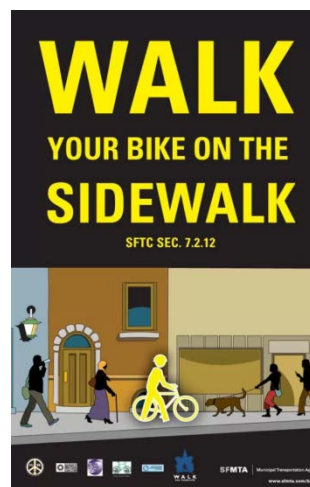
- auto-free zones in city centers



- sidewalks on both sides of the street
- zebra crosswalks, often raised and with special lighting for visibility
- pedestrian-activated crossing signals, both at intersections and at midblock crosswalks
- extensive networks of bike paths and lanes
- bike parking (ranging from secured boxes to simple racks)
- integration of bicycles with public transport (i.e., allowing bicycles on public transport vehicles, at least outside peak hours)
- modifications of street networks to create deliberate dead ends and slow, circuitous routing for cars but direct, fast routing for bikes

Examples of non-motorized transport policies (ctd)

- traffic calming of residential neighborhoods through speed limits and physical barriers such as raised intersections and crosswalks, traffic circles, road narrowing, zigzag or chicane routes, curves, speed humps, and artificial dead ends created by midblock street closures
- prohibitions of truck traffic and through traffic of any kind in residential neighborhoods
- driver training focused on avoiding collisions with pedestrians and cyclists
- traffic education of children
- traffic regulations that favor pedestrians and bicyclists, placing the burden of proof on drivers in case of collisions
- **strict ticketing and high penalties for motorists, pedestrians, and cyclists who violate traffic regulations**



Freight bicycle



The availability of efficient freight and goods infrastructure can be a vital competitive edge for small- and medium-sized communities when vying for businesses.

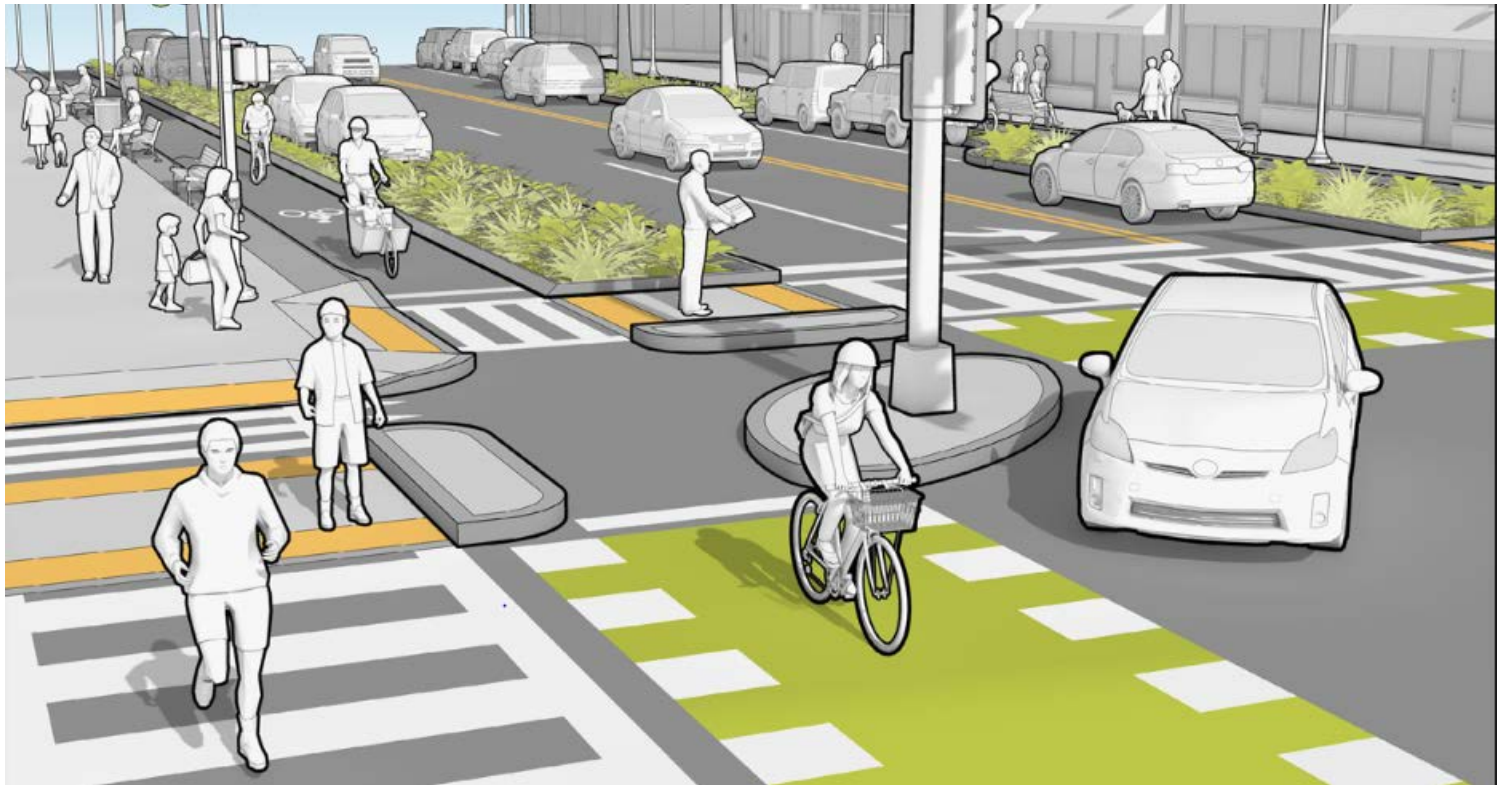
Mobility for these modes must be considered in developing transportation plans.



Access to and Preservation of Rights-of-Way

Access to and preservation of transportation rights-of-way become more important, with the emphasis on maximizing the benefits of existing investments.

Access management is a broad term encompassing an array of traffic design and land use techniques used to preserve and enhance the capacity of existing streets while significantly improving safety.





SMART GROWTH

Smart growth encompasses various planning concepts, but typically includes

- Compact and walkable neighborhoods,
- Mixed-use development,
- “Complete Streets” to improve safety and accessibility for all modes and users,
- Urban infill and redevelopment, and
- New communities that integrate a mix of housing styles and commercial development in a walkable environment.

Retrofitting commercial corridors



Pedestrian- and bicycle-friendly zones



Sustainable Mobility Cyprus 2017
Antony Stathopoulos PhD CEng

Get prepared!



Smart Systems for Mid-sized Cities



Smart Cities is a term denoting the effective integration of physical, digital and human systems in the built environment to deliver a sustainable, prosperous and inclusive future for its citizens.



European smart city model

The European smart city model was first developed in 2007 as a way to provide a multidisciplinary, holistic approach to profiling and benchmarking cities in Europe for the purpose of sharing innovations and lessons learnt around urban development. The model is currently in its fourth version, and has grown from exploring medium sized cities of 100,000 to 500,000 citizens to those from 300,000 to 1,000,000.

The European smart city model focuses on six "smart" characteristics working in relationship with each other:

Economy

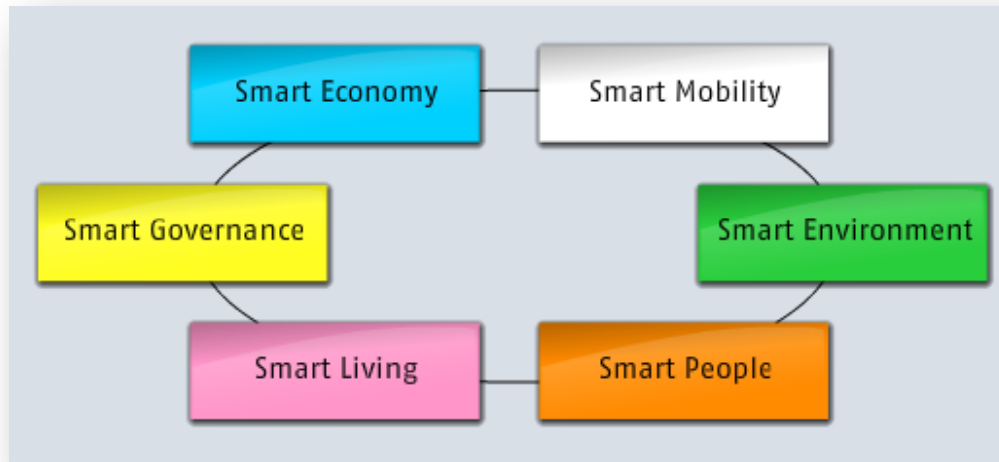
Mobility

Environment

People

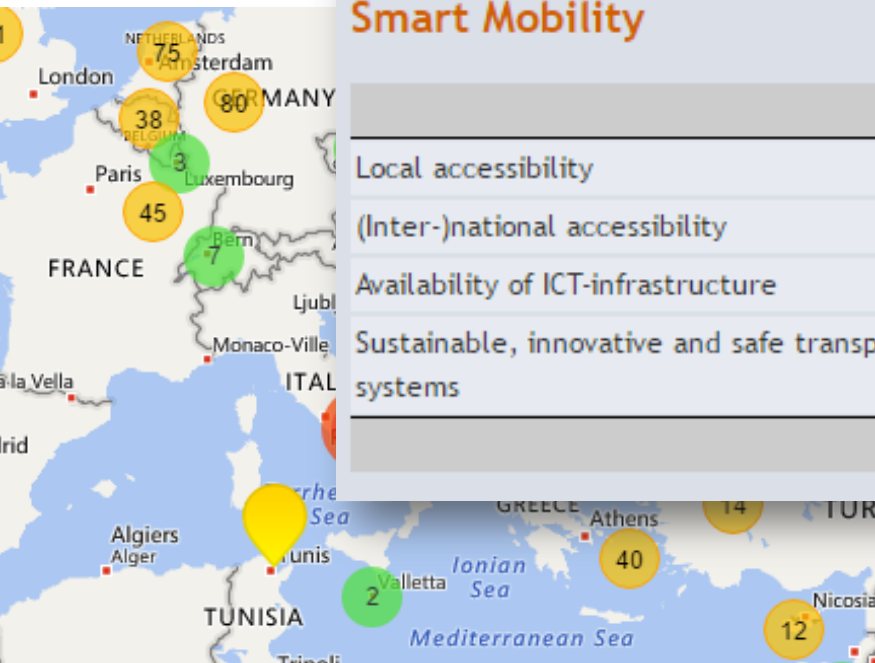
Living

Governance

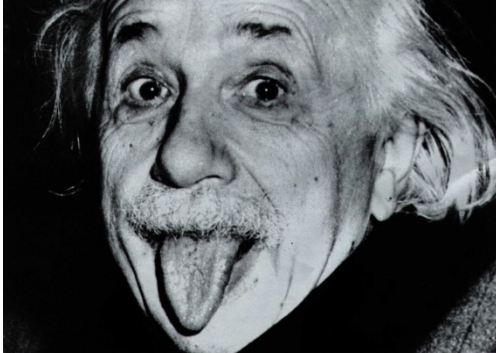


Factors and indicators Smart Mobility

	indicators	weighting
Local accessibility	3	25%
(Inter-)national accessibility	1	25%
Availability of ICT-infrastructure	2	25%
Sustainable, innovative and safe transport systems	3	25%
	9	100%



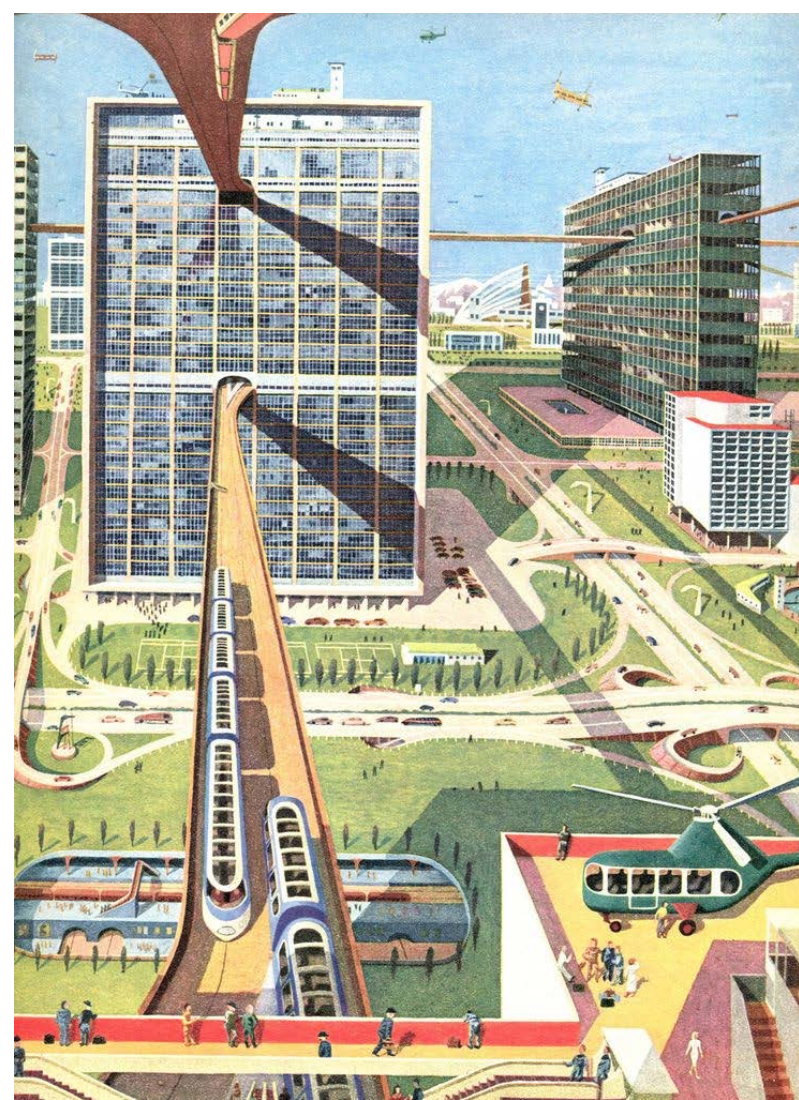
Smart people?

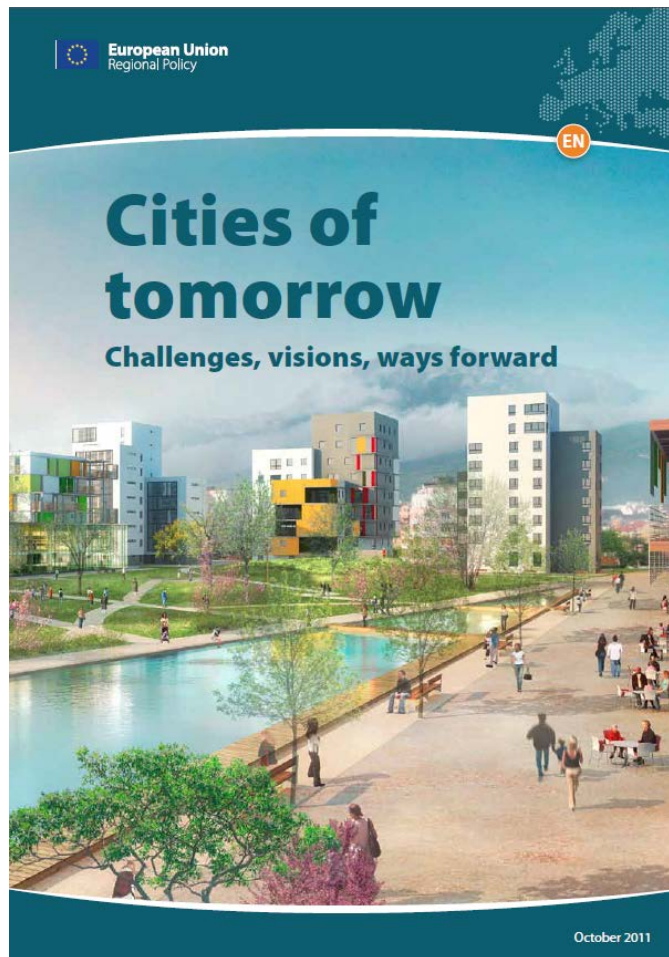


Factors and indicators Smart People

	indicators	weighting
Level of qualification	4	14%
Affinity to life long learning	3	14%
Social and ethnic plurality	2	14%
Flexibility	1	14%
Creativity	1	14%
Cosmopolitanism/Open-mindedness	3	14%
Participation in public life	2	14%
	20	100%

Which future?





Thriving and dynamic small and medium-sized cities can play an important role in the well-being not only of their own inhabitants but also of the surrounding rural populations.

They are essential for avoiding rural depopulation and urban drift and for promoting balanced territorial development.

What future for mid-sized cities?

A bright future!

