

# Functional Urban Areas

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# What makes FUAs more productive (1)

(OECD - Ahrend, Farchy, Kaplanis, Lembcke)

- 1) Productivity of a FUA increases with the size of the FUA:
  - doubling of population leads to 2-5% productivity growth
- 2) Human capital seems to play an important role, direct and indirect;
  - direct: often higher levels of education
  - indirect: FUAs with a higher average educational level have a positive influence on the productivity of lower educated employees

## What makes FUAs more productive (2)

- 3) Proximity of densely populated cities have a positive effect on the productivity of a city: ‘borrowed agglomeration advantage’)
  - When population size within a radius of 300 km of a city core doubles, then productivity in the core increases with 1à 2%.
- 4) Proximity of large cities is anchorage for regional convergence
- 5) Production level harbour cities is 3 percent higher
- 6) Specialisation seems to positively effect production levels
- 7) Great share of high tech activities result in higher productivity

- On the governance side, the paper finds that cities with fragmented governance structures tend to have lower levels of productivity.
- For a given population size, a metropolitan area with twice the number of municipalities is associated with around six percent lower productivity; an effect that is mitigated by almost half by the existence of a governance body at the metropolitan level.
- [http://www.oecd-ilibrary.org/urban-rural-and-regional-development/what-makes-cities-more-productive-evidence-on-the-role-of-urban-governance-from-five-oecd-countries\\_5jz432cf2d8p-en?crawler=true](http://www.oecd-ilibrary.org/urban-rural-and-regional-development/what-makes-cities-more-productive-evidence-on-the-role-of-urban-governance-from-five-oecd-countries_5jz432cf2d8p-en?crawler=true)

# OECD-concept: Functional Urban Areas

Metropolitan areas – urban agglomerations with more than half a million inhabitants

- not administrative borders as starting point
- but the economic geography of living and working
- departing point > commuting streams
- Potential advantages: better policy coordination, use of synergy

The Netherlands:

- Polycentric structure: 35 FUA's (75% of total population)
- Metropolitan Region Rotterdam Den Haag (14,3% of total population):
- FUA Rotterdam, FUA Den Haag, FUA Delft

Source: Territorial Reviews: The Netherlands

# The OECD metropolitan database

<http://measuringurban.oecd.org/#>

- Common definition of metropolitan areas.
- Harmonised definition as “functional economic units”.
- Related to 275 OECD functional urban areas with > 500 000 population.
- The methodology consists of three main steps:
  - High-density cluster of contiguous **grid cells** of 1 km<sup>2</sup> with a density of at least 1,500 inhabitants per km<sup>2</sup>.
  - Connecting non-contiguous cores belonging to the same functional urban area. (polycentric structure: If more than 15% of the residence population of any of the cores commutes to work in the other core it is considered part of the same polycentric metropolitan area).
  - Identification of urban hinterlands - worker catchment area of the urban labour market. The size of it, relative to the size of the core, gives clear indications of the influence of cities over surrounding areas. Urban hinterlands are all municipalities with at least 15% of their employed residents working in a certain urban core.

**Cities of tomorrow (EC)**

# Cities of tomorrow (EC)

[http://ec.europa.eu/regional\\_policy/sources/docgener/studies/pdf/citiesoftomorrow/citiesoftomorrow\\_final.pdf](http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/citiesoftomorrow/citiesoftomorrow_final.pdf)

- A Functional Urban Area (FUA) can be described by its labour market basin and by the mobility patterns of commuters, and includes the wider urban system of nearby towns and villages that are highly economically and socially dependent on a major urban centre
- Potential discrepancy between FUA and the city with its representative democracy.
- A not corresponding tax base.



## Cities of tomorrow (EC) (2)

- Models - merging neighbouring settlements with the city, or cooperation between municipalities with metropolitan bodies with limited delegated power.
- Democratic legitimacy can be problematic - less transparency and accountability to directly elected bodies.
- Inter-municipal cooperation can be basis for the creation of a FUA governance entity.
  - school buses, manage multimodal transport systems, collect and treat waste, provide water, universities, major transport nodes, business parks, hospitals etc.



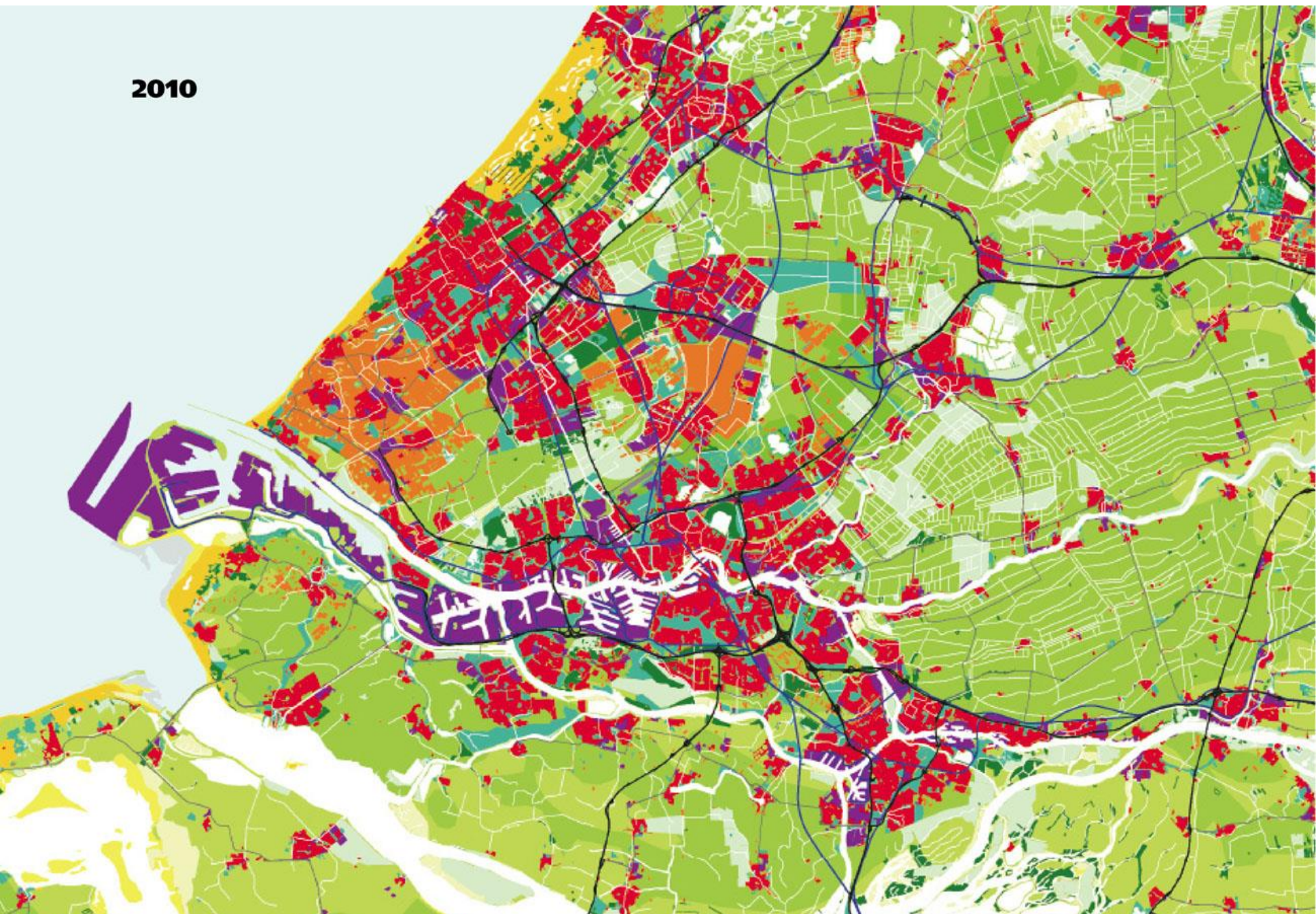
Metropoolregio  
Rotterdam Den Haag

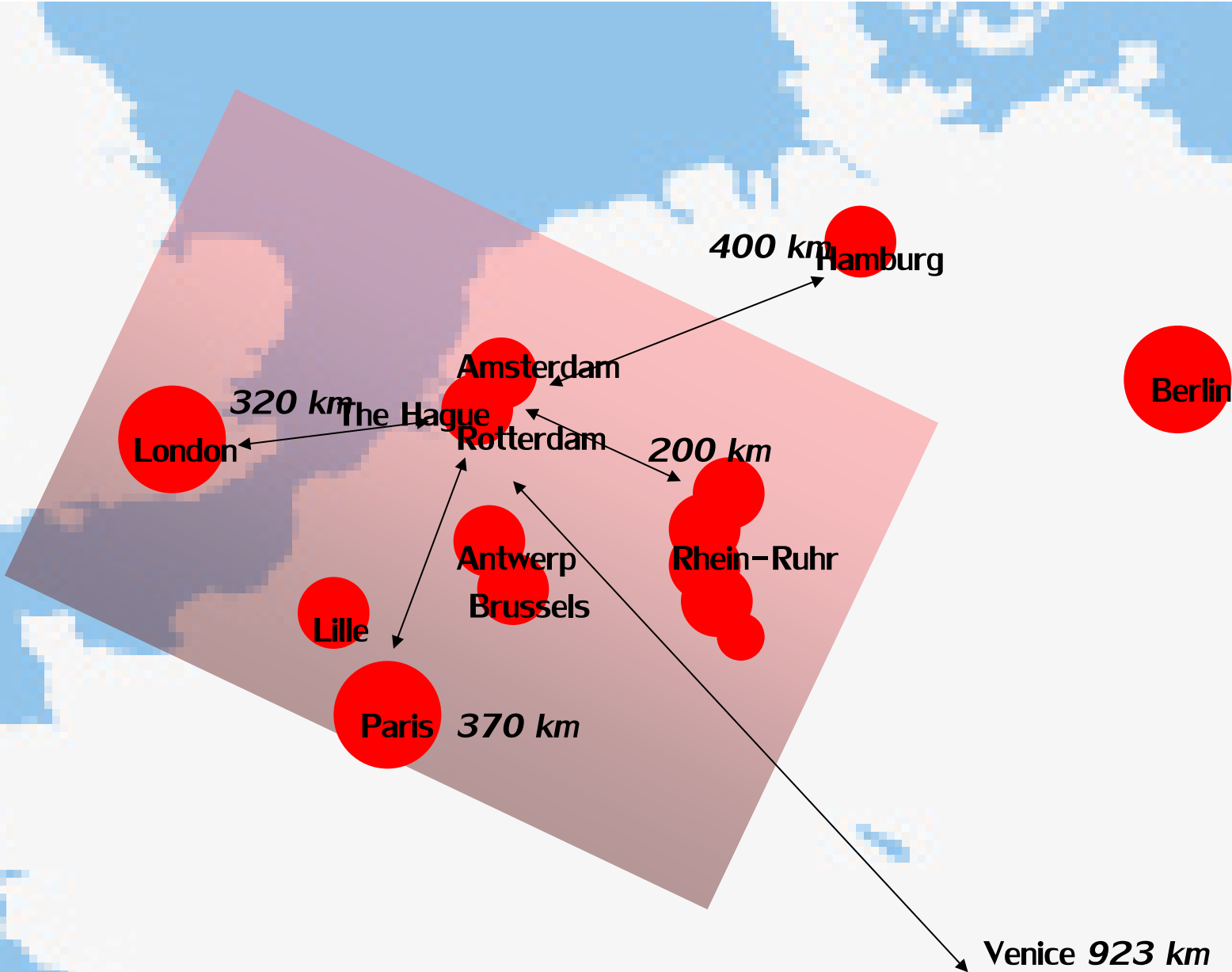
**1890**

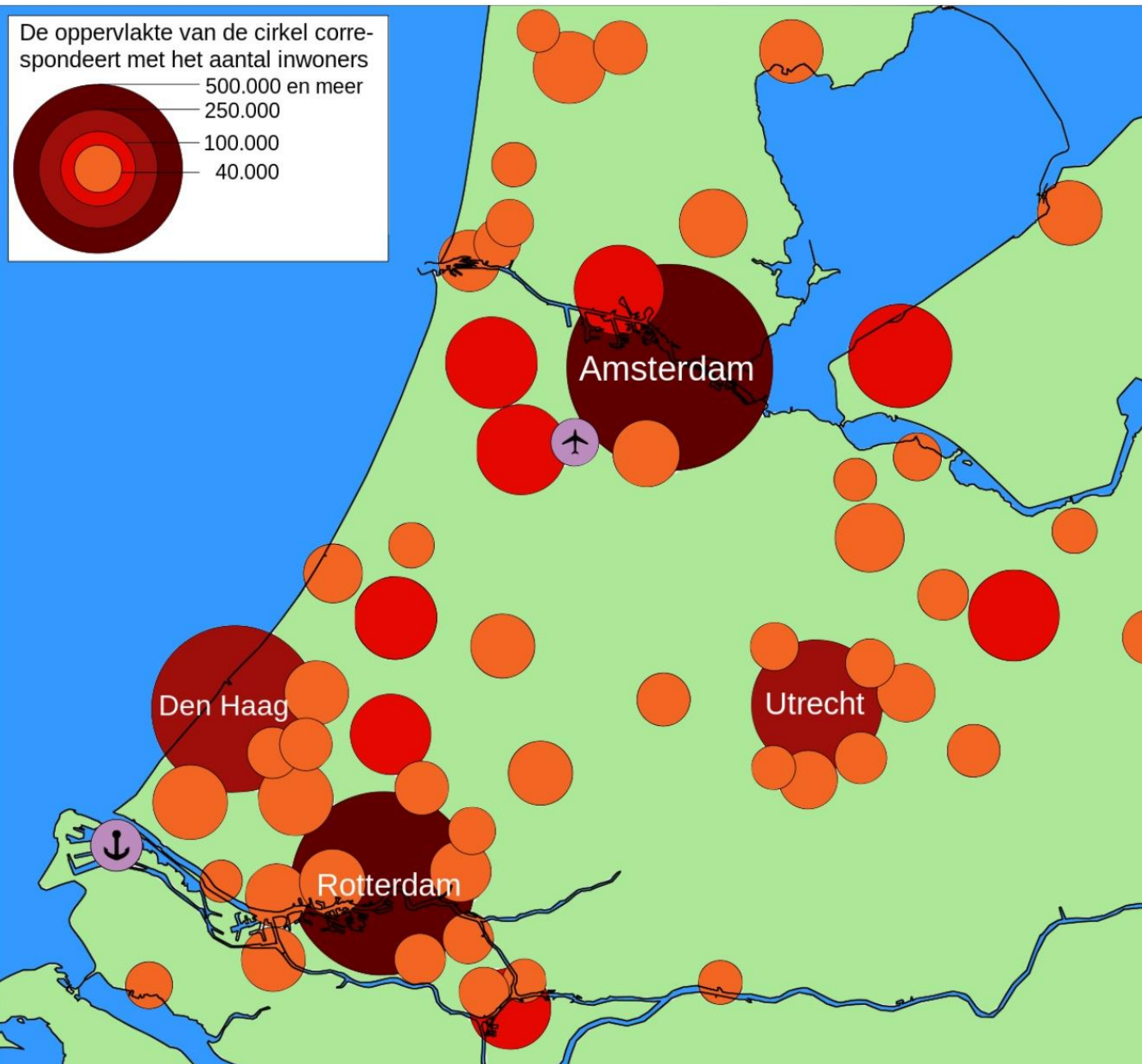


bron: **must** stedenbouw 2004

**2010**







NL: 17 mln  
 Urbanised: 10 mln

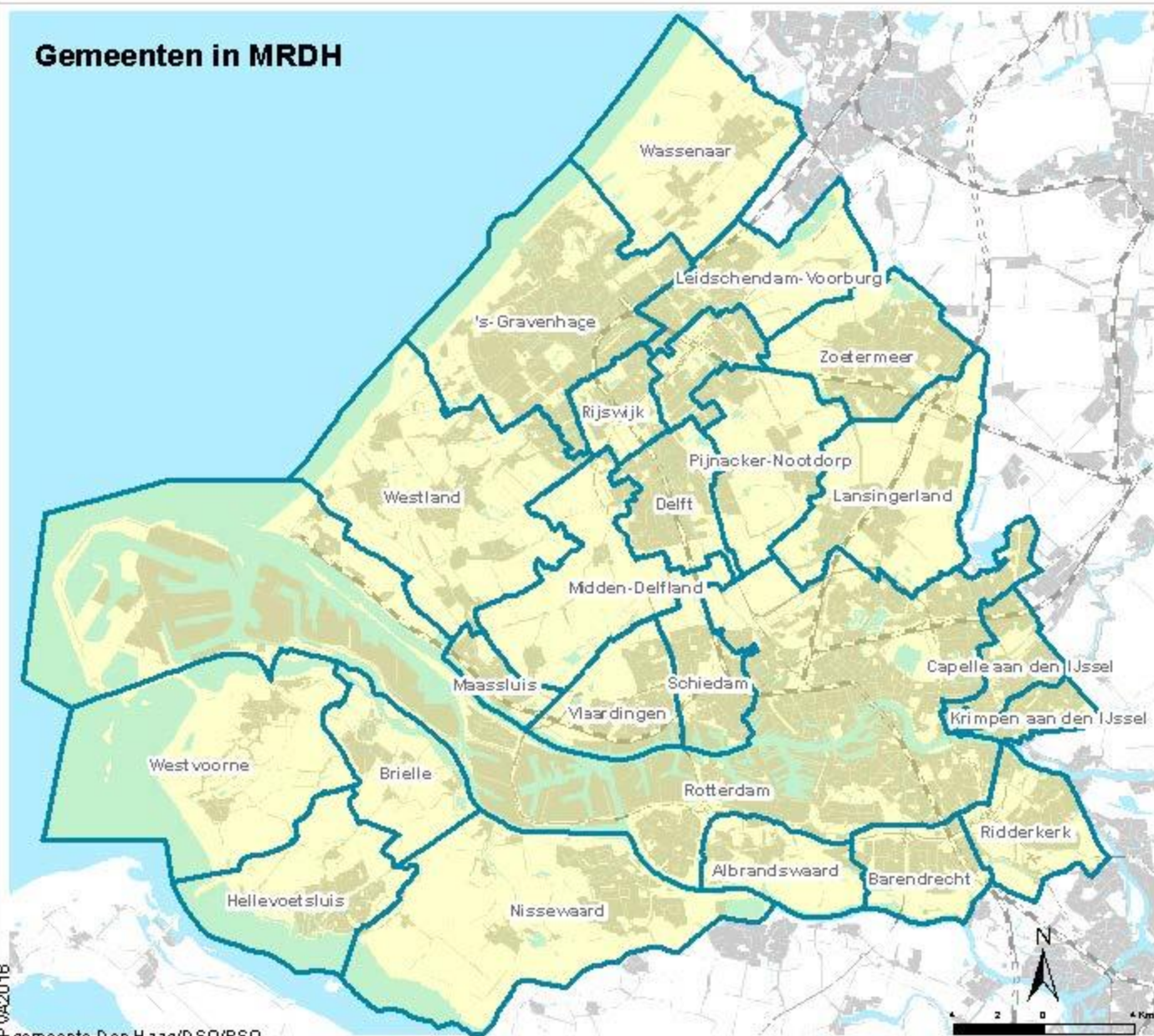
Randstad: 7 mln

Northern R: 3.5 mln  
 Southern R: 3.5 mln

Metropolitan regions:  
 Amsterdam: 2.4 mln  
 Rotterdam: 1.2 mln  
 The Hague: 1.1 mln  
 Utrecht: 0.7 mln

G4 cities:  
 Amsterdam: 810,000  
 Rotterdam: 620,000  
 The Hague: 510,000  
 Utrecht: 330,000

## Gemeenten in MRDH



<i>Tier</i>	<i>Representatives</i>	<i>Executives</i>
<i>Country</i>	Parliament	Government
<i>Province</i>	Provincial council	Provincial executives
<i>Municipality</i>	Municipal council	Mayor & Aldermen

# Rotterdam The Hague Metropolitan Area

## The Netherlands

12 provinces  
16.9 inhabitants

### Provincial tasks and responsibilities:

- Spatial development & water management
- Environment, energy & climate policies
- Rural and nature areas
- Regional infrastructure & public transport
- Regional economy
- Monuments
- Monitoring municipal administrations

## Province Zuid-Holland

59 municipalities  
3,6 m inhabitants

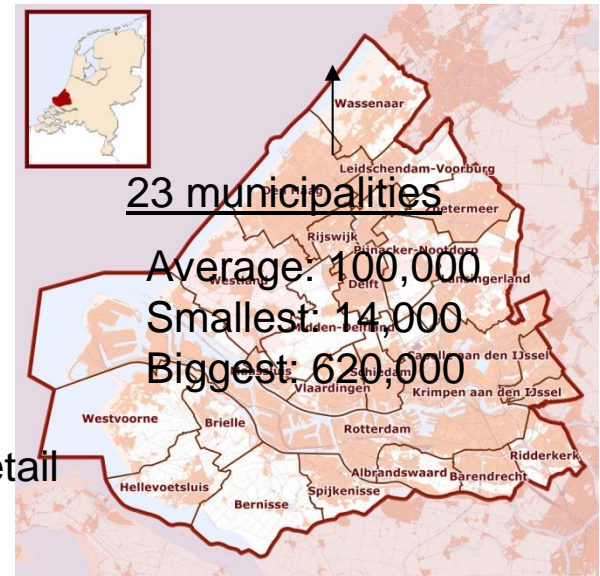
1. Regional infrastructure and Public Transport
2. Regional economy / business climate

### Municipal tasks and responsibilities:

- Public services
- Social services
- Education and schools
- Spatial planning
- Housing planning
- Local infrastructure
- Environmental and waste policies
- Industrial areas, offices and and retail

## 393 municipalities

Average: 40,000  
Smallest: 1,000  
Biggest: 815,000





kick-off conference 19 March '15.

23 municipalities, trade and industry and knowledge Institutes

- There is a need for Innovative governance. Mayor DH
- A different world in ten years. Change to local production, clothing not from Bangladesh, but printed around the corner. > Logistic and infrastructural effects. Mayor R'dam
- How tiers of government work, is not of interest to a resident, 'he/she wants questions to be answered'. Kings commissioner
- Urban regions having a common governance model - do better. OECD
- Cooperation is a piece of art, and Power, Money, Vigour are essential for urban regions. It is special that two big municipalities cooperate in this way. minister
- Business climate, accessibility, quality and investment, but especially building on existing strength. Shell
- Hope the mrdh shows courage, by indicating test grounds, and connecting technology and social relevance. Just do it. Daan Roosegaarde, pioneer and artist
- Cooperation between trade and industry and education is powerful, students should learn in a business environment. Henk Oosterling, philosopher

# International competitiveness & economic structure

Past

Present

Future

Future

TRANSPORT & LOGISTICS



challenges such as Aging

CHEMICAL & ENERGY



population, Rapid technological developments

GREENPORTS



Climate change

WATER, DELTA & MARITIME



Energy demands

*Under the influence of technological development and globalisation historically strong sectors have evolved to become the backbone of our economy*

require a 'revolution' in order to remain

PEACE, JUSTICE & SECURITY

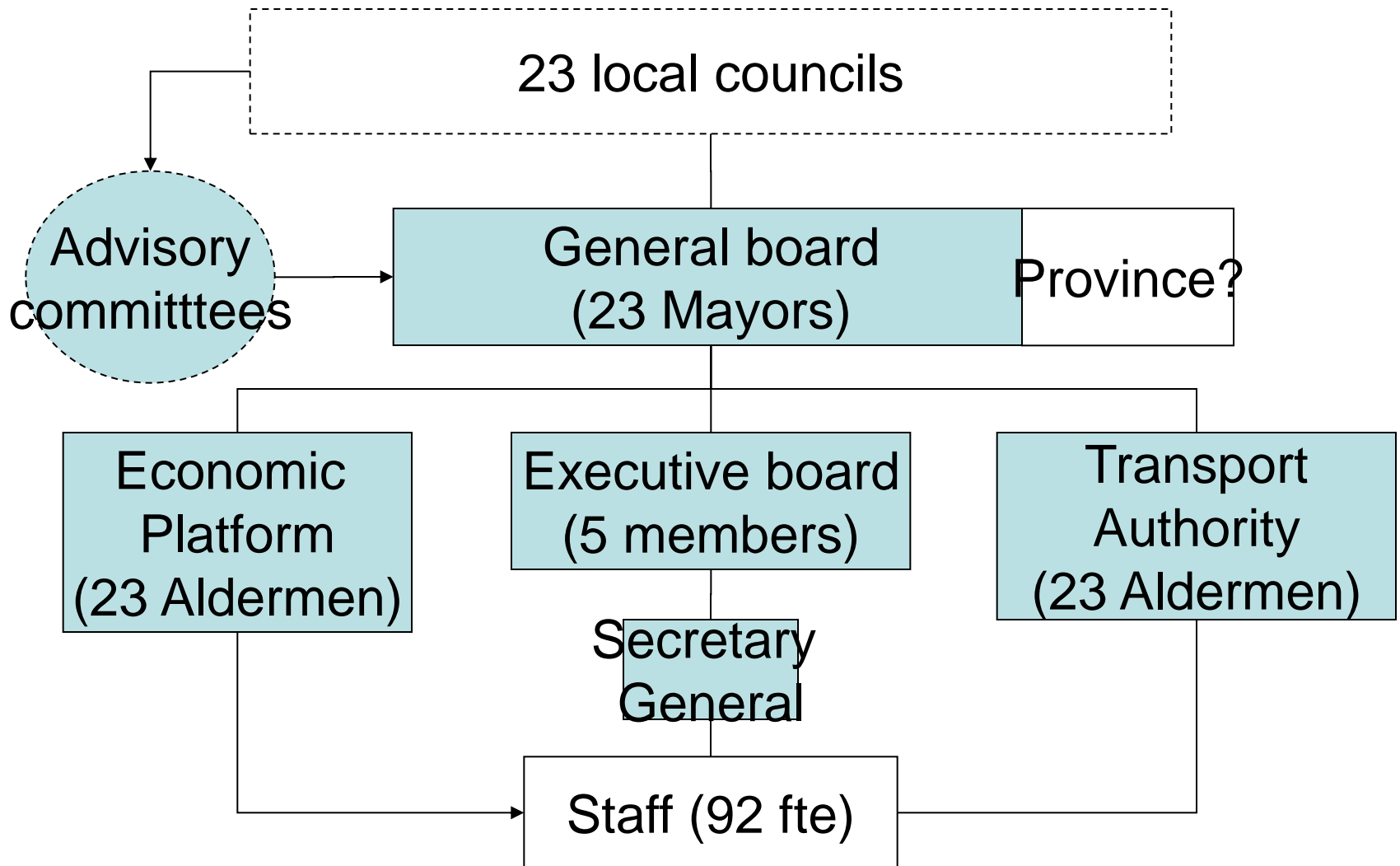


competitive internationally

LIFE & HEALTH SCIENCES



Governance model Rotterdam The Hague Metropolitan Area  
Administrative / legal form: "joint regulation" → = Dutch model for intermunicipal co-operation



Branding

# Institutional context MRDH: no greenfield operation...

Infra/Hardware  
Area development



Greenport promotion



TIC Delft



Internationale zone



## METROPOOLREGIO ROTTERDAM DEN HAAG

Cluster- & networking

Knowledge Institutes



DELTRIPLATFORM



ZUIDVLEUGEL Programmaraad ROM



The Hague Institute for Global Justice



Erasmus Smart Port

The Hague Security Delta

TU Delft

Drechtsteden Maritiem.nl  
Dé maritieme portal voor de Drechtsteden



# Strengths, weakness, threads

- + International position in competitive struggle between metropolitan areas.
- + International orientation, diverse economic structure, top universities and colleges, proximity of nature areas
- - Economic performance lags behind comparable regions (Amsterdam, Eindhoven)
- - Persistent unemployment, (>national) in the large cities
- - Important and dominant economic sectors on threshold of a major period of renewal.

# Challenges and working on...

- Metropolis: municipal regions compete, not countries.
- Knowledge economy: production and exchange of knowledge
- Intelligent manufacturing: in 'high wage countries', close to the markets (robotics, 3D printing and industrial internet applications)
- Ecologising economy: transition to sustainable manufacturing.
- Attractive cities: facilities, culture, leisure.
- Bundled strengths provides mass to respond to the leading global economic trends.
- Create conditions for public business development.
- Working together– voluntarily without hierarchical structure – demands a different mind-set from the administration.
- Concrete form in its implementation by working in eight areas:

1. **Work locations** – effective spatial structure (retail, offices, industrial), balanced d&s, space for companies to grow, support cluster formation, facilities in smaller centres.
2. **Energy** infrastructure – sustainable, metropolis-wide energy infrastructure ‘grid’, to exploit scale and efficiency advantages and make new technologies possible.
3. **Branding** – a common flag to attract more (international) visitors, (international) companies and congresses.
4. **Cluster** formation – economic diversification, growth of employment and incomes. Establish economic networks of companies and knowledge institutes. Crossovers > companies, sectors and regions.
5. **Financing** – investment propositions to link Dutch and foreign financiers – public and private.
6. **Education** and labour market – flexible and well-educated working population to match demand, labour market with mobility of employees between companies and sectors.
7. New economic **carriers** for the rural area – higher quality facilities. e.g Tourism and leisure alongside agricultural sector.
8. **Area** development to enable innovation, cross fertilisation, interaction and attractive living.