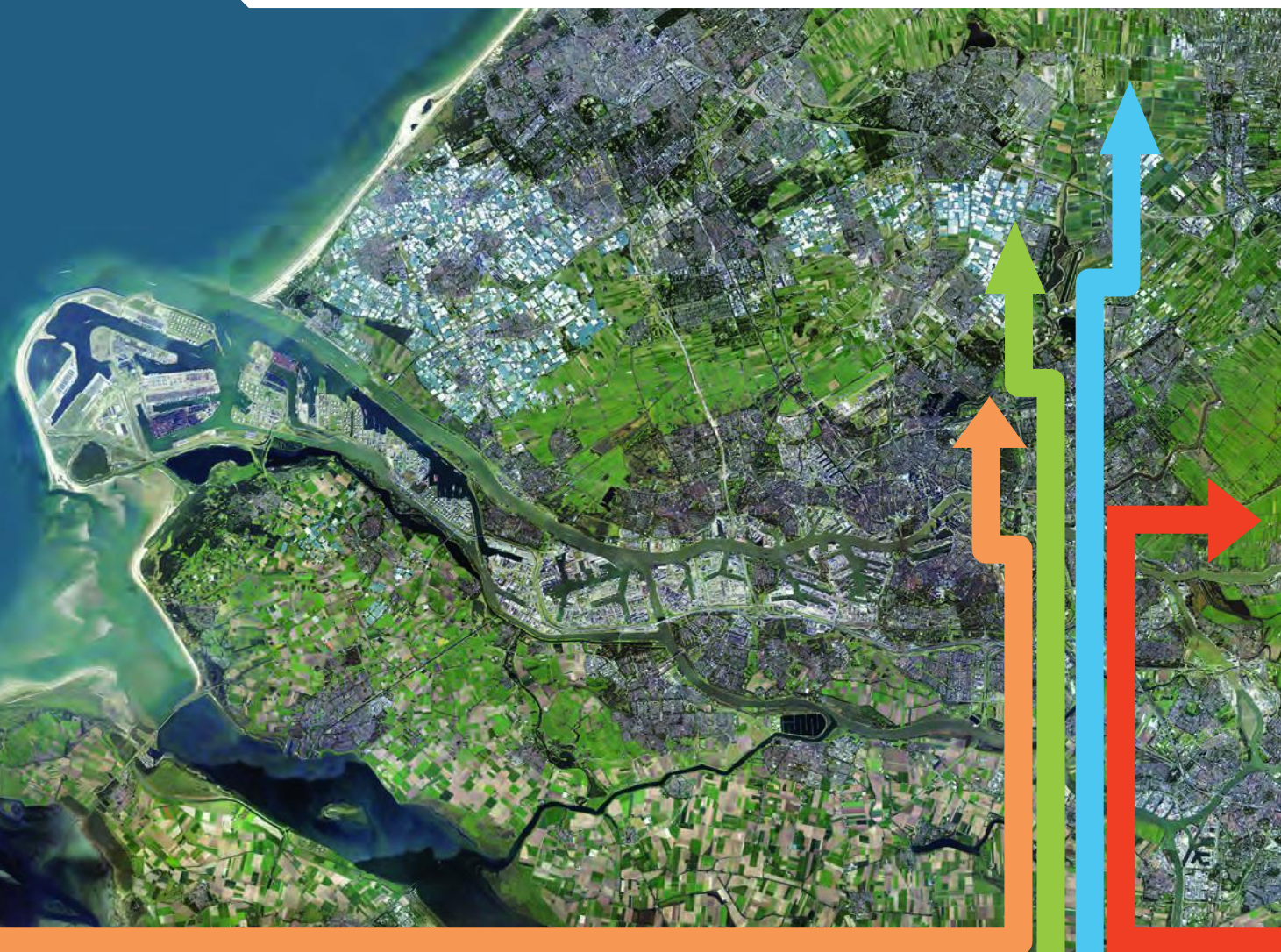




THE METROPOLITAN REGION OF ROTTERDAM-THE HAGUE, NETHERLANDS

Policy Highlights



Notes

This document summarises the key findings of OECD (2016), *OECD Territorial Reviews: Metropolitan Region of Rotterdam-The Hague, Netherlands*, OECD Publishing, Paris. The full publication is available at <http://dx.doi.org/10.1787/9789264249387-en>.

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This review of the Metropolitan Region of Rotterdam-The Hague is a unique contribution to the series of *OECD Territorial Reviews* in its particular focus on metropolitan governance. It builds on the findings of the 2014 *OECD Territorial Review of the Netherlands* and the 2015 flagship publication on metropolitan governance, *Governing the City*.

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PART 1 |

Towards more competitive, sustainable and inclusive urban areas in the Netherlands

The Dutch government is developing new tools and institutional responses to strengthen urban areas

Findings from the 2014 *OECD Territorial Review of the Netherlands* suggest that the country could be getting more out of its cities and urban areas. The rich, polycentric spatial structure of the Netherlands has contributed to high levels of gross domestic product (GDP) per capita, yet Dutch cities have not benefited to the expected degree from agglomeration economies (OECD, 2014a).

In search of new tools and institutional responses to strengthen urban areas, the Dutch government has in recent years undertaken the development of a National Urban Agenda (*Agenda Stad*), in parallel to a series of broad institutional reforms.

One such reform, which became effective in January 2015, was the abolition of the eight city-regions (*stadsregio WGR+ regio*), which had for decades managed a range of metropolitan-scale functions in the country's largest urban areas. While different institutional configurations were envisaged to redistribute their competencies and corresponding resources, Rotterdam and The Hague joined forces with 21 smaller neighbouring cities to merge the 2 former city-regions of Rotterdam and The Hague (*Stadsregio Rotterdam* and *Stadsgewest Haaglanden*, respectively) to form the

Metropolitan Region of Rotterdam The Hague (*Metropoolregio Rotterdam Den Haag*, MRDH).

To a certain extent, the abolition of the eight city-regions in the Netherlands, which had been established in 1950 and made compulsory in 1985, runs counter to OECD trends in metropolitan governance. As urban areas continue to grow, resulting in many cases in administrative borders that no longer match the daily economic realities, many countries have created (or are in the process of creating) specific mechanisms for metropolitan governance (OECD, 2015a).

Co-operation can take many forms, but is often driven by an ambition to reduce fragmentation and manage complex issues at the right economic and social scales. Concretely, this may imply tools and platforms to co-ordinate policies across neighbouring cities and towns, or to create stronger linkages between urban and rural areas.

In the Netherlands, only the two largest urban areas, Amsterdam and Rotterdam-The Hague, emerged from the latest reform with their own metropolitan governance arrangements.

The emergence of the Metropolitan Region of Rotterdam-The Hague

The creation of the MRDH marks an important experiment in metropolitan governance, with lessons for policy makers in the Netherlands and across the OECD. In the Netherlands, the MRDH represents the latest in a string of attempts to fill the gap between the provincial scale (too large for addressing many socio-economic challenges adequately) and the municipal scale (too small). Yet, more broadly and of relevance beyond Dutch borders, it is also an experiment in asymmetrical metropolitan governance: an attempt to fit policies and institutions to specific contexts, rather than adopt universal solutions for cities of all shapes and sizes.

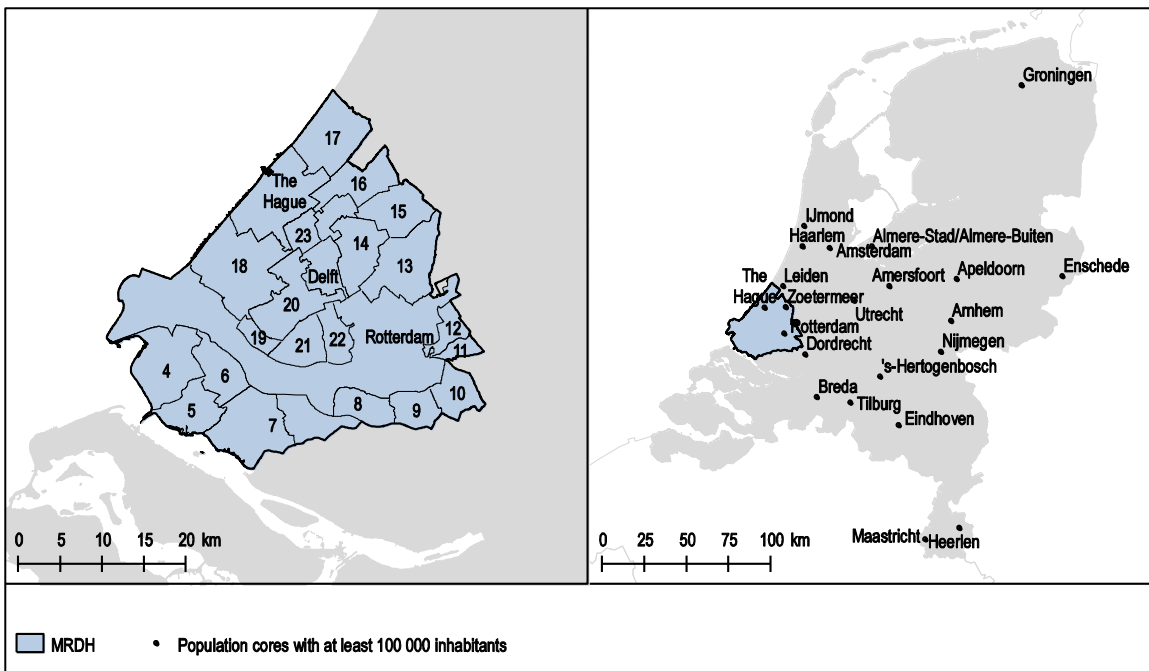
This review analyses the emergence of the MRDH, both as a geographical area that spans 23 municipalities in the southern Randstad region, as well as a new metropolitan-scale institution tasked with transport and economic development responsibilities for this territory

(Figure 1 and Box 1).

Although the MRDH area is not yet a single metropolitan area, the ambition of the new governance body is to help it become one. Among the central questions addressed in the OECD review:

- How can public policies deepen the functional integration of the MRDH area whilst generating growth and well-being?
- How can the MRDH body add value in an already crowded institutional landscape?
- What lessons from metropolitan governance reforms in other OECD countries could be valuable for the MRDH and the national government moving forward?
- How can the MRDH experience inform policy makers beyond Dutch borders?

Figure 1. The MRDH area in the Netherlands, 2015



Notes: Left panel: The numbers refer to following municipalities: 4: Westvoorne, 5: Hellevoetsluis, 6: Brielle, 7: Nissewaard, 8: Albrandswaard, 9: Barendrecht, 10: Ridderkerk, 11: Krimen aan den IJssel, 12: Capelle aan den IJssel, 13: Lansingerland, 14: Pijnacker-Nootdorp, 15: Zoetermeer, 16: Leidschendam-Voorburg, 17: Wassenaar, 18: Westland, 19: Maasluis, 20: Midden-Delfland, 21: Vlaardingen, 22: Schiedam, 23: Rijswijk.

Right panel: Cities (defined as population cores [Bevolungskernen]) with at least 100 000 inhabitants are displayed.

Source: Based on Statistics Netherlands (2015a), adjusted for municipal mergers in 2015 (left panel); and Statistics Netherlands (2011).

Box 1. Creation and structure of the Metropolitan Region of Rotterdam-The Hague

The Metropolitan Region of Rotterdam-The Hague came into formal existence on 1 January 2015, following the abolition of the eight Dutch city-regions (*stadsregio WGR+ regio*). From 1985 until 2015, city-regions were designated associations of municipalities active in the policy fields of transport, spatial planning, housing and economic development, among others. Rotterdam and The Hague were each at the centre of a separate city-region (*Stadsregio Rotterdam* and *Stadsgewest Haaglanden*, respectively), which was further comprised of each city's surrounding municipalities. Currently, the 23 municipalities that formed the 2 city-regions make up the MRDH.

In terms of functions, the work of the MRDH body is organised into two pillars: transport and economic development. These two pillars are nonetheless distinct. The legal framework for co-operation (top-down for transport and bottom-up for economic development) is based on two parts of the same law: the Joint Regulation Act (*Wet Gemeenschappelijke Regelingen*, WGR). Accordingly, the MRDH

body created two governing committees within the MRDH joint regulation, one directing the formal transferred responsibility (from central government) for public transport and one directing the (voluntary) inter-municipal co-operation for economic development.

The transport functions of the MRDH body receive the lion's share of the budget: EUR 480 million annually for the period 2015-18, compared to approximately EUR 5.5 million annually for economic development. Over 96% of the transport budget is from a transfer from the central government. The economic development activities of the MRDH body are funded by a EUR 2.45 contribution per inhabitant of each member municipality. The MRDH body employs 85 full-time employees in its transport pillar and 15 in its economic development pillar.

Sources: Ministry for Infrastructure and Environment (2014); Ministry of Interior and Kingdom Relations (2010); Spaans, M. and W. Zonneveld (2014).



PART 2 |

Within the polycentric Dutch urban system, a metropolitan area in the making

The polycentric structure of the Netherlands affects the productivity of its urban areas

The dense, polycentric urban structure of the Netherlands is, in many ways, a source of economic strength. This is consistent with general trends across OECD countries, as countries with a more polycentric urban system are found to have higher GDP per capita on average (Brezzi and Veneri, 2014). The five largest Dutch functional urban areas combined – Rotterdam, Amsterdam, The Hague, Utrecht and Eindhoven – host nearly 40% of the national population and account for about the same share of national GDP (OECD 2013a). With the exception of Eindhoven, they together form an urban network of 7.1 million people known as the Randstad.

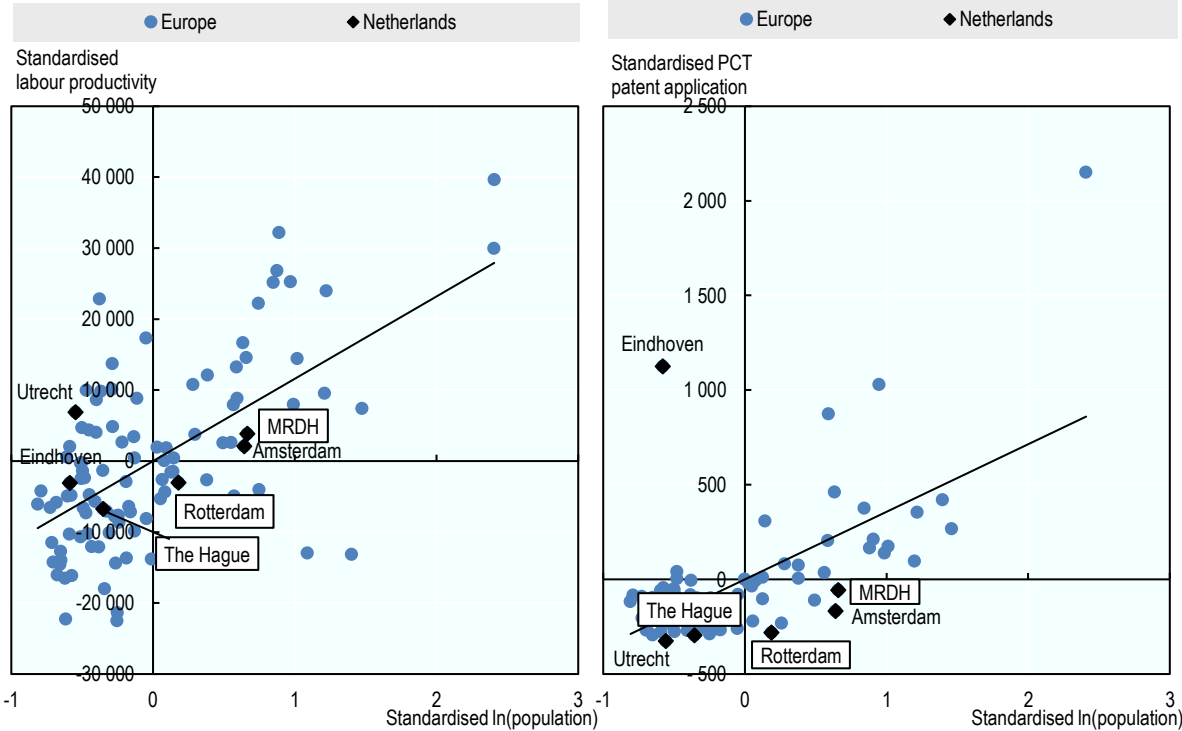
Despite their important contributions to national growth, these major urban areas, and notably Rotterdam and The Hague, register lower labour productivity than expected when compared to cities of similar size in OECD countries with levels of GDP per capita comparable to the Netherlands. Only two Dutch metropolitan areas, Utrecht and Eindhoven, perform slightly above average and register higher labour productivity levels than Rotterdam and The Hague, despite a smaller population size (Figure 2). These findings are consistent with the *OECD Territorial Review of the Randstad*, which highlighted that the Randstad area was not sufficiently exploiting the proximity of its four large cities (OECD, 2007).

Given the strong economic performance at national level – the Netherlands is among the top five OECD countries with respect to labour productivity – the question remains why the largest Dutch cities are not doing better.

Two findings from research conducted for this OECD report are central to understanding how agglomeration economies function in the Netherlands:

- First, **the strong performance of some smaller Dutch functional urban areas (FUAs)** that are located in close proximity to the country's largest cities may help explain these surprising results. On average, larger cities are typically more productive than smaller ones. However, small Dutch FUAs (those with a population of fewer than 250 000) located in the Randstad in proximity to larger FUAs have much higher productivity levels than would be expected, given their size. This finding supports the concept of borrowed size, whereby smaller cities benefit from borrowing agglomeration from their larger neighbours (in this case, Amsterdam and the MRDH). This also implies that the MRDH benefits from a worker catchment area that extends beyond its boundaries.
- Second, **connectivity matters for agglomeration economies**, especially in the Netherlands, given the country's small size and its polycentric spatial structure. In other words, improving connectivity – reducing travel times between the MRDH and other large FUAs – could increase market access and boost the agglomeration benefits of the MRDH area.

Figure 2. Labour productivity and innovation across European OECD FUAs



Note: MRDH refers to the combination of the COROP regions of Groot-Rijnmond, Delft en Westland and Agglomeratie 's-Gravenhage (see Box 1.3 for a discussion of the various units of analysis used in this chapter, as well as a definition of the OECD functional urban area, FUA). Only European FUAs are displayed. Values are corrected for country fixed effects, standardised by country average.

Source: OECD (2013a); Statistics Netherlands (2015b); Statistics Netherlands (2015c); Statistics Netherlands (2015d); author's calculations based on EPO Worldwide Statistical Patent Database "PATSTAT".

Two cities turning towards each other

Traditionally, from both a historical and an economic perspective, Rotterdam and The Hague have not been natural partners. In contrast to many OECD metropolitan areas, the two cities have developed distinct socio-economic and cultural profiles in close proximity to each other.

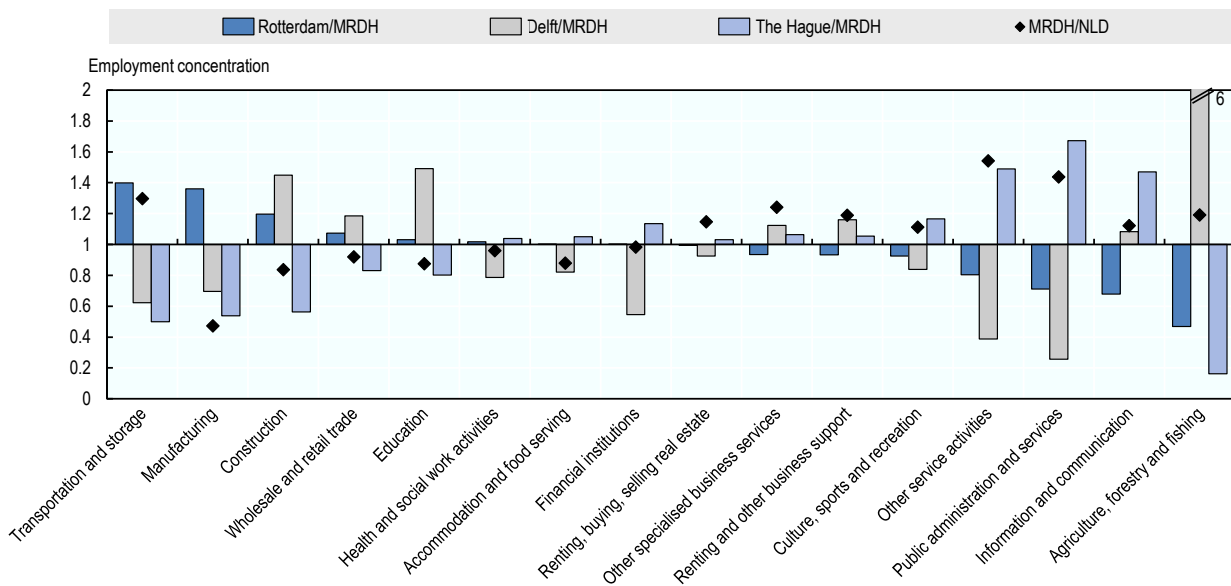
Transport and logistics activities are concentrated in and around Rotterdam, as the city is home to the Port of Rotterdam, which is the largest in Europe and among the top 15 worldwide in terms of cargo throughput and containers shipped, respectively (Merk and Notteboom, 2013). The economic and cultural roots of the city are closely connected to the port, and Rotterdam is still often seen as a working class city, while having transformed itself into a modern urban centre.

The Hague, meanwhile, is a centre for public administration and services: in 2013,

about 21% of jobs in The Hague were in the public administration sector, equivalent to more than 10% of Dutch employment in this sector (Statistics Netherlands, 2015b). It has long been the seat of the Dutch government and home to approximately 300 international organisations, including the International Court of Justice and the International Criminal Court. The Hague has a reputation as a city of white-collar public sector employees.

Beyond the two main cities, the MRDH's economy is further complemented by smaller municipalities that are specialised in horticulture and food, which form the green belt of the MRDH area, as well as knowledge institutions in Delft (Figure 3).

Figure 3. Employment concentration in the MRDH area, 2013



Note: Rotterdam refers to the municipalities of Rotterdam, Capelle aan den IJssel, Krimpen aan den IJssel, Lansingerland, Maasland, Ridderkerk, Schiedam, Spijkenisse, Vlaardingen, Albrandswaard, Barendrecht, Middelburg, and Brielle. Delft refers to the municipalities of Delft, Westland and Midden-Delfland. The Hague refers to the municipalities of 's-Gravenhage (The Hague), Zoetermeer, Leidschendam-Voorburg, Rijswijk and Pijnacker-Nootdorp. The figure shows the concentration of employment by sector, measured as ratio of employment shares in the respective sector in Rotterdam, The Hague, or Delft, compared to employment shares in the MRDH; the MRDH series shows the ratio compared to the Dutch average. A number greater than 1 indicates a higher concentration of employment in the respective sector, a value lower than 1 indicates a lower concentration than the average. For instance, there is a higher employment concentration in the MRDH relative to the Dutch average in the Transport and Storage sector and Public Administration (visible by the black diamond with a value above 1). Within the MRDH, Rotterdam has a higher employment concentration in the Transport and Storage Sector relative to the MRDH average; The Hague has a higher employment concentration in the Public Administration Sector relative to the MRDH average (as displayed by the dark blue and light blue bars, respectively, with values above 1).

Source: Statistics Netherlands (2015b).

The MRDH is one of the most densely populated urban areas in the Netherlands

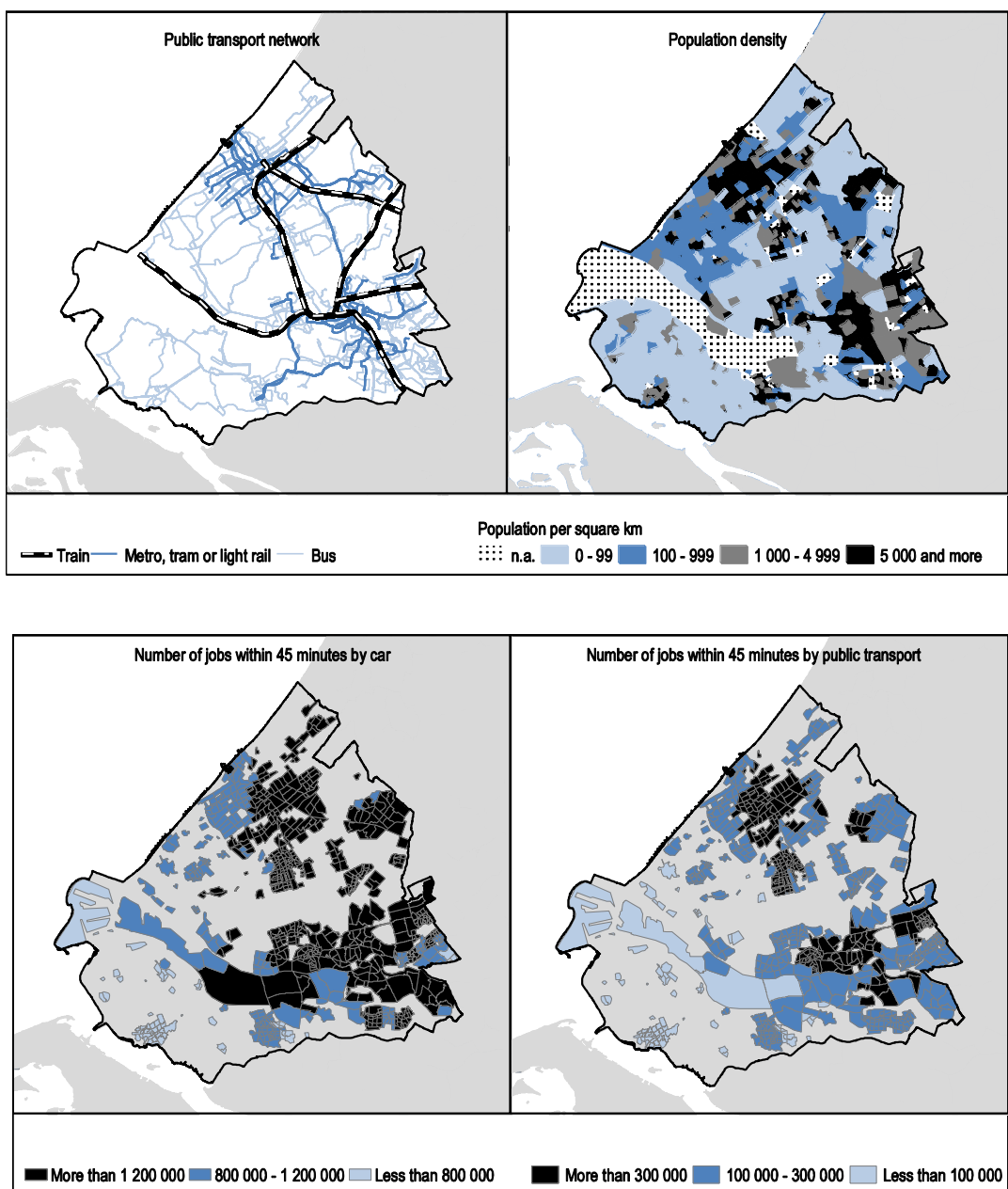
The MRDH area is one of the most densely populated urban areas in the Netherlands, with 2.3 million inhabitants, comparable in size to the metropolitan areas of Amsterdam, Vancouver or Portland (**Figure 4**) (OECD, 2013a).

Covering about 900 square kilometres, the MRDH area represents more than 60% of the population of the Province of Zuid-Holland but just 36% of its geographical area (Statistics Netherlands, 2015c). It

generates about 16% of national GDP and is responsible for the lion's share of economic activity within the province, accounting for more than two-thirds of all firms and jobs (Statistics Netherlands, 2015d).

Rotterdam and The Hague are by far the two largest cities in the MRDH, with roughly 623 000 and 515 000 inhabitants, respectively (**Box 2, Table 1**).

Figure 4. Public transport and population density within the MRDH



Source: Population density based on Statistics Netherlands (2013). Number of jobs within 45 minutes' travel time by car/public transport, based on MRDH (2013).

Box 2. Statistical snapshot of the Metropolitan Region of Rotterdam-The Hague

Administrative composition

- The MRDH area is comprised of 23 of the 60 municipalities in the Province of Zuid-Holland.

Population

- The MRDH covers about 36% of the area of the Province of Zuid-Holland, but more than 60% of its population. The largest cities in the MRDH are Rotterdam (623 652 inhabitants), The Hague (514 861), Zoetermeer (124 025), Westland (104 302) and Delft (101 030). The MRDH is one of the most densely populated areas in the Netherlands. Since 2000, population growth within the MRDH area has been higher than at provincial or national level, suggesting increased urbanisation within the MRDH.
- As of January 2015, the MRDH area had a larger share of its population with a foreign nationality (8.8%) than the Province of Zuid-Holland (7.0%) and the national average (5.0%). Among the main cities of the MRDH, the share of the population with a foreign nationality is largest in The Hague (14.6%), followed by Delft (12.1%) and Rotterdam (10.2%).
- Relative to the Province of Zuid-Holland and the national average, the MRDH area has a smaller share of people aged 65 and older. Population projections until 2040 suggest that even though this share will increase in the MRDH, it will still remain below that of the province and the national average.

Economy

- The MRDH generates about 16% of national GDP and is responsible for the majority of economic activity within the Province of Zuid-Holland (which generates about 20% of national GDP).
- Approximately 67% of firms and jobs in the Province of Zuid-Holland are located within the MRDH area. However, unemployment in the MRDH (9.5%) is above the national average (7.4%), and highest in Rotterdam (12.6%).
- In terms of educational levels, the share of highly educated workers in the MRDH (35.2%) is slightly larger than the Dutch average (34.0%). Educational levels vary within the main cities of the MRDH, with highly educated workers making up the largest share of the labour force in Delft (42.6%) and The Hague (41.4%). Rotterdam registers the largest share of workers with medium education levels (40.8%).

Source: Statistics Netherlands (2015c); Statistics Netherlands (2015e); Statistics Netherlands (2015f); OECD (2013a).

Table 1. Key statistics: MRDH, Province of Zuid-Holland and the Netherlands
Latest available year

	Rotterdam (municipality)	The Hague (municipality)	Delft (municipality)	MRDH area (total)	Province of Zuid-Holland	The Netherlands
Population (total)	623 652	514 861	101 030	2 244 159	3 600 011	16 900 726
Land area (km ²)	209	82	23	997	2 808	33 718
Municipalities (2015)	1	1	1	23	60	393
Nationality (%)						
Dutch	89.8	85.4	87.9	91.2	93.0	95.0
Africa	1.3	1.4	0.8	0.8	0.7	0.5
Americas	0.5	0.8	0.9	0.5	0.4	0.3
Asia	1.2	1.7	4.1	1.2	0.9	0.7
Europe ¹	6.5	10.0	5.8	5.7	4.6	3.2
Oceania	0.0	0.1	0.1	0.0	0.0	0.0
European Union ¹	4.5	7.7	4.8	4.3	3.5	2.5

	Rotterdam (municipality)	The Hague (municipality)	Delft (municipality)	MRDH area (total)	Province of Zuid-Holland	The Netherlands
Population growth since 2000 ² (%)	5.2%	16.7%	5.1%	8.1%	6.0%	6.5%
Population projections, 2040 (% of total; percentage point change, 2015-40)						
Under 15	16 (0)	17 (-1)	14 (+1)	16 (-1)	16 (-1)	16 (-1)
15-65	62 (-7)	63 (-5)	67 (-5)	60 (-8)	60 (-6)	58 (-7)
65 and older	21 (+6)	20 (+6)	19 (+4)	24 (+8)	25 (+7)	27 (+9)
Labour force (total workers)	310 000	257 000	54 000	1 174 000	1 872 000	8 874 000
Unemployment rate (%)	12.6	10.9	9.3	9.5	8.3	7.4
Education of labour force ³ (%)						
Low	23.2	21.9	18.5	23.1	23.1	22.9
Medium	40.8	36.7	38.9	41.7	42.5	43.1
High	35.9	41.4	42.6	35.2	34.4	34.0
Firms (<i>vestigingen</i>)	25 220	38 650	5 780	121 330	180 190	1 315 350
Jobs (<i>banen</i>)	314 120	250 130	49 580	1 008 190	1 501 140	7 944 540

Notes: 1. Excluding Dutch nationals. 2. Does not account for possible municipal incorporation. 3. Low educational level: education at the level of primary education, VMBO, the first three years of HAVO/VWO or assistant training (MBO 1). Medium: highest educational attainment is high school. This includes the upper years of HAVO/VWO, basic vocational training (MBO-2), professional training (MBO-3) and middle management or specialist training (MBO-4). High: college or university-level education.

Source: Statistics Netherlands (2015c); Statistics Netherlands (2015e); Statistics Netherlands (2015f); OECD (2013a).

Accessibility, a world-class port, a well educated workforce and high quality of life are key assets

The MRDH area possesses significant assets, including a strong infrastructure network with good accessibility to internal and external markets. Its dense transport network makes the MRDH one of the most accessible areas in the Netherlands and Europe.

It is located in proximity to the Schiphol airport in Amsterdam and is home to the Rotterdam The Hague regional airport. More generally, accessibility is high for households of all income levels in the MRDH, which is often a challenge in other OECD urban areas. Rotterdam is home to Europe's largest hub port, with economic impacts that reach far beyond national borders (Merk and Notteboom, 2013).

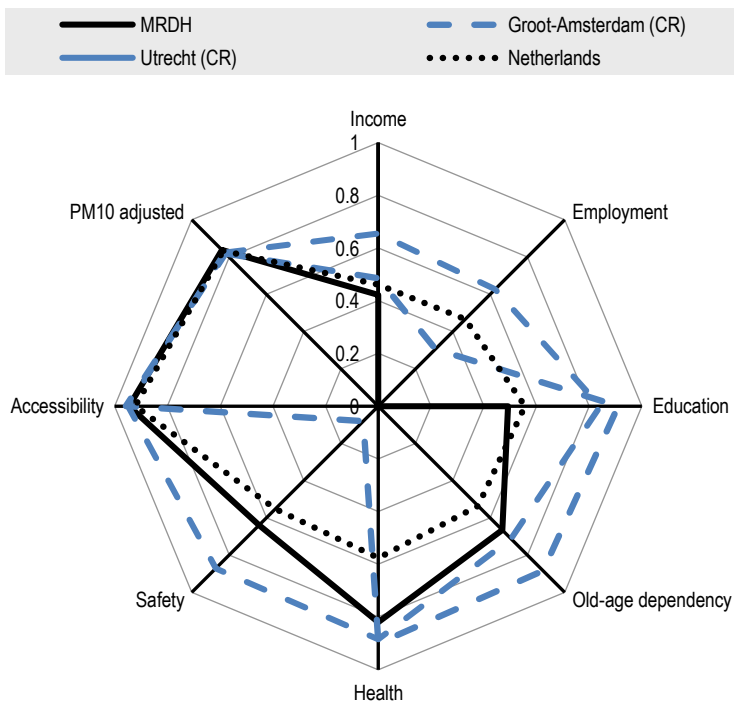
The regional economy is diverse, hosting several Top Sectors¹ that have been identified by the central government as priorities for investment; these include agriculture and food, water, logistics, energy, chemicals, and horticulture and propagation materials.

Moreover, from an international perspective, the MRDH area has a well-educated workforce, with a large share of highly skilled people and high quality education standards at all levels. These strong education outcomes reflect broader national trends: the Netherlands registers above-average results in both the Programme for International Assessment of Adult Competencies (PIAAC) and the Programme for International Student Assessment (PISA).

In terms of well-being and quality of life, the MRDH exhibits a higher standard of living than most OECD regions and performs well compared to the Dutch average in terms of health, safety and a relatively young labour force. However, the MRDH lags behind the Dutch average in terms of educational attainment, disposable income and employment (Figure 5).

Figure 5. Well-being in the Netherlands and in the MRDH

Adapted from the OECD Regional Well-being Index, based on all Dutch COROP regions²



Source: Statistics Netherlands (2013); Statistics Netherlands (2014a); Statistics Netherlands (2014b); Statistics Netherlands (2014c); Statistics Netherlands (2015e); Statistics Netherlands (2015b); WHO (2014).

The MRDH nonetheless lags behind other Dutch urban areas in economic and educational indicators

Nevertheless, the MRDH area also faces a number of challenges. It has struggled to recover from the 2008 global crisis and continues to be outperformed by other metropolitan areas in the Randstad (Statistics Netherlands, 2015d; OECD, 2014b).

GDP per capita levels in the MRDH remain significantly lower than those in the Amsterdam region, and the performance gap in per capita levels of GDP has increased since the onset of the global crisis, from 32% in 2002 to 38% in 2013 (Figure 6, left panel).

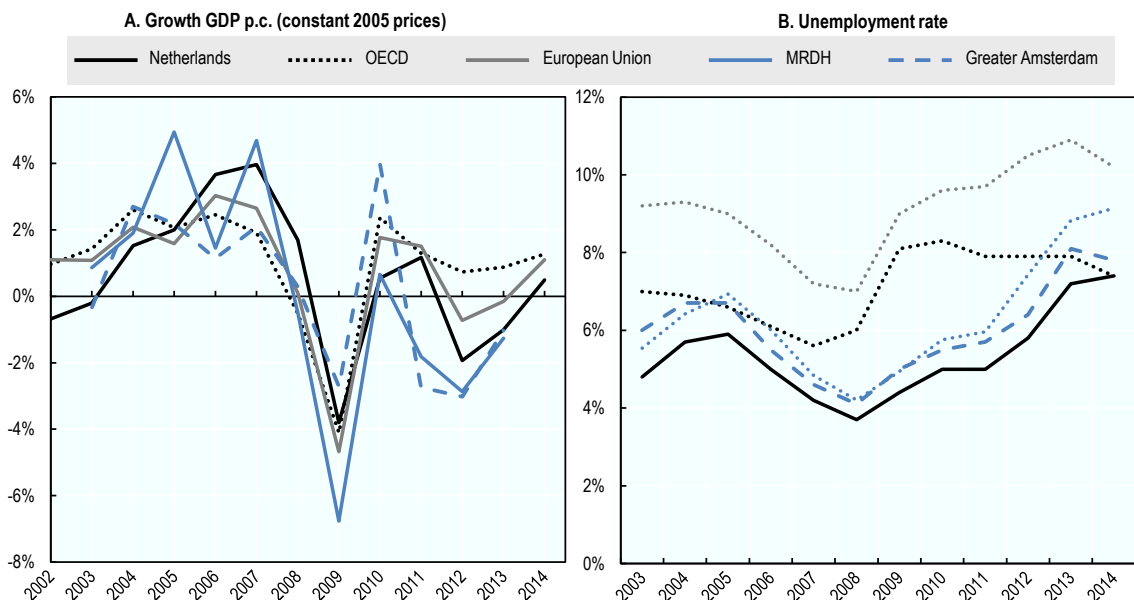
In 2014, unemployment in the MRDH was 9.1%, more than double the rate in 2008 and one of the highest across all Dutch COROP regions (a statistical unit of analysis created by researchers in 1971 and named after the committee, Co-ordination Committee Regional Research Programme) (Figure 6 right panel). Unemployment has especially affected youth and workers with a non-Western migrant background in the MRDH. For instance, in 2014, workers of a non-Western background

registered an unemployment rate of 16.9%, compared to 6.9% among all other workers (Statistics Netherlands, 2015g).

Education attainment of the working-age population in the MRDH (68% with at least an upper secondary education) is slightly below the average for other large Dutch cities (70%) and well behind Amsterdam (78%) – though from an international perspective, these levels are still high (Statistics Netherlands, 2014a and OECD, 2014c).

Moreover, while the economic diversity of the MRDH may render the regional economy more resilient to sector-specific shocks, the absence of complementarities among sectors is likely to limit stronger cluster formation. Patenting output is low, both from an international and a national perspective: all Dutch urban areas lag well behind Eindhoven in patent applications.

Figure 6. Recent trends in GDP per capita and unemployment, 2002-2014

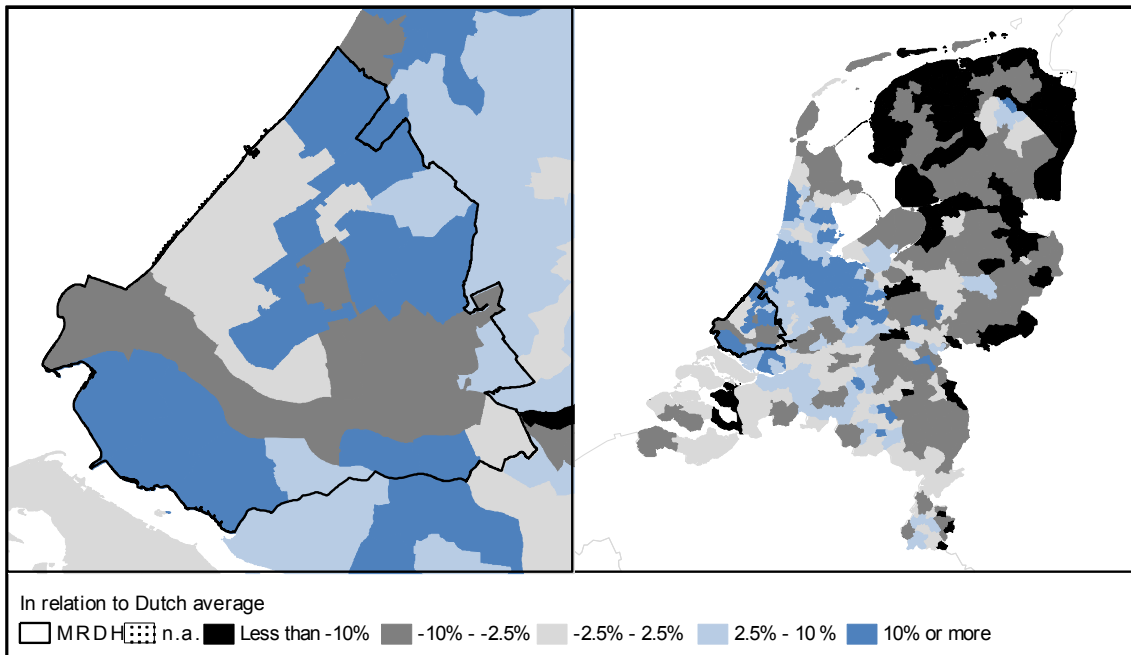


Note: 1. GDP data for sub-regional level has a break in 2010/11 as GDP numbers until 2010 are published according to ESA 95 and since then ESA 2010. See e.g. Eurostat (2014) on methodological changes between these two. The MRDH and Greater Amsterdam refer to COROP regions.

Source: Statistics Netherlands (2015d); OECD (2014d); Statistics Netherlands (2015e).

Figure 7. Regional disparities in income, 2012

Measured as average income per person by municipality in relation to Dutch average



Source: Statistics Netherlands (2013).

Air pollution and intra-regional income disparities constitute additional challenges in the MRDH. Levels of PM10 and PM2.5 exceed the threshold values recommended by the World Health Organization (WHO, 2005). High levels of air pollution are due in part to emissions from industries in the port area and from port-related transport, as well as high population density, large shares of urban built areas and a limited amount of green space (Merk and Notteboom, 2013).

In addition, intra-regional income disparities exist, with Rotterdam and The Hague registering the largest share of households

living below or at the social minimum within the MRDH area (Figure 7). Within a single municipality, the average household income can vary significantly across census areas (*buurts*); the annual income gap can reach more than EUR 50,000 in some parts of The Hague (Statistics Netherlands, 2013). Lower income levels are particularly common among single-parent households, young households and non-Western first- and second-generation immigrants (Salverda et al., 2013).

PART 3 |

Towards a more functionally integrated metropolitan region

A more integrated region could help boost agglomeration benefits

One of the central objectives of the MRDH is to bring the economies of Rotterdam, The Hague and their surrounding municipalities closer together. This ambition is supported by economic theory: agglomeration economies are an important source of productivity gains, and integrating Rotterdam and The Hague is likely to strengthen agglomeration economies (see, for instance, Rosenthal and Strange [2004], Marshall [2009] and Puga [2010]) (Figure 8 and Box 3).

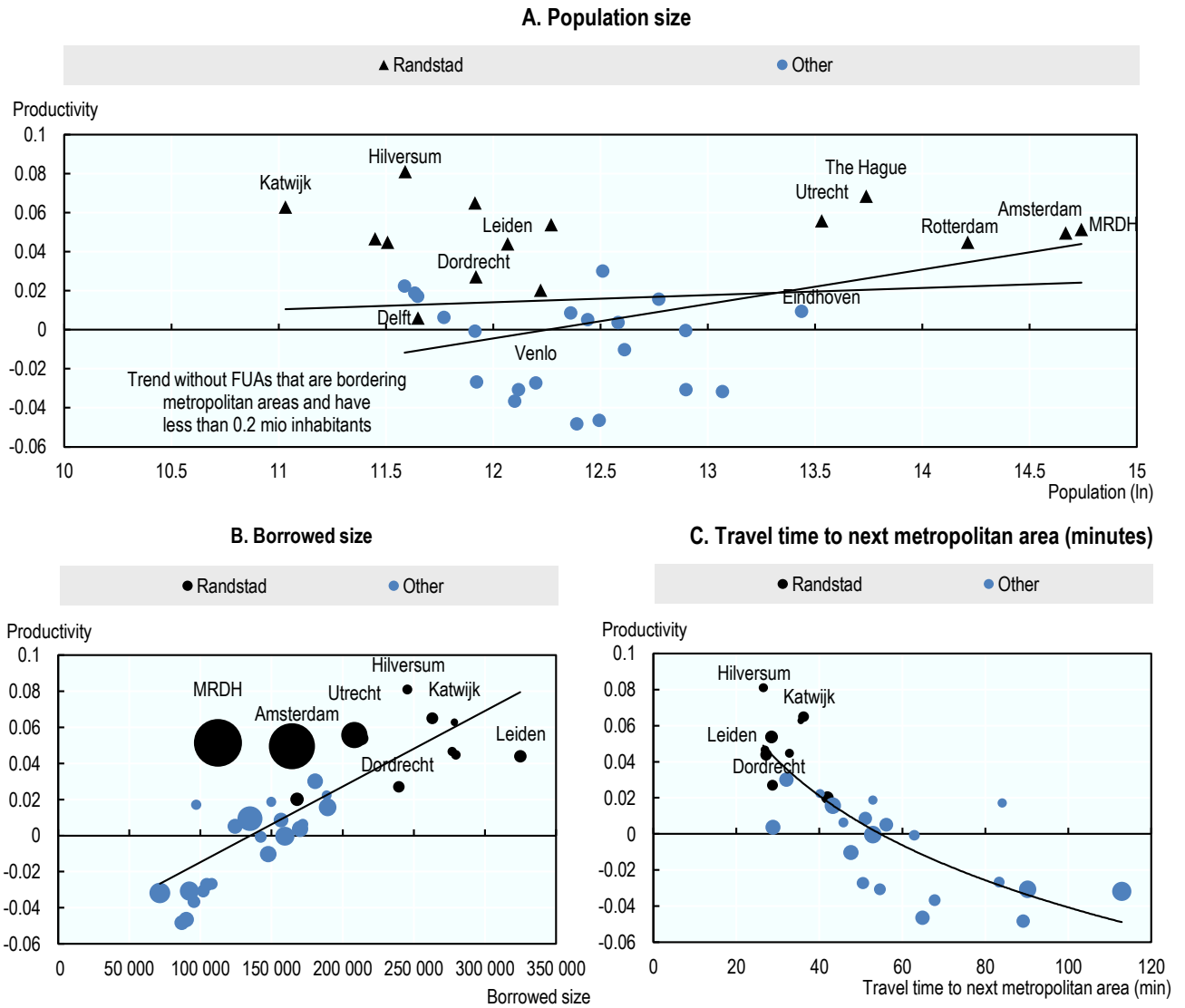
Indeed, across OECD countries, the

productivity of workers and firms increases with the size of the urban agglomeration in which they operate: on average, workers in a city twice the size of another city are between 2% and 5% more productive than workers in the smaller city (Ahrend et al., 2014).

Among the reasons for higher productivity levels in larger cities are the faster spread of ideas, larger local labour markets that ensure better matches between workers and jobs, as well as higher utilisation rates of infrastructure.



Figure 8. Agglomeration benefits in the Netherlands, 2010



Note: Driving distances and travel times calculated with Stata’s command `traveltime3 ado`. Productivity is defined as a wage premium associated with each functional urban area (FUA) once the characteristics of its workforce are taken into account. Individual wage regressions are estimated with controls for the workforce, in order to account for sorting of individuals to FUAs. Borrowed size is measured as population in other FUAs in the Netherlands, weighted by the inverse distance to the respective FUA. Figure 8.B shows the productivity versus borrowed size, which is measured as the population in other Dutch FUAs discounted by the distances to them. The size of the circles indicates own city size. There is a positive relationship between productivity and borrowed size, with FUAs in the Randstad showing greater potential for borrowing agglomeration power. FUAs located between the metropolitan areas in the Randstad region (e.g. Katwijk, Leiden, Hilversum) seem to benefit from access and close proximity to all three metropolitan areas. Figure 8.C displays productivity plotted against the travel time (in minutes) to the next metropolitan area. Proximity to the next metropolitan area is positively correlated with productivity. Thus, as travel time to the next metropolitan area increases, productivity decreases.

Source: Author’s calculations, based on original analysis provided by Dr. Henri de Groot to the OECD.

Box 3. What are agglomeration economies?

The mechanisms that create agglomeration benefits can be broadly split into three groups: sharing, matching and learning. The outline below follows Duranton and Puga's contribution to the *Handbook of Regional and Urban Economics* (2004) and builds on a long history of research, with early discussion of the concept of agglomeration benefits ranging back to the 19th century economist Alfred Marshall and his "Principles of Economics" (Duranton and Puga, 2004; Marshall, 2009).

- **Sharing:** Sharing of facilities or inputs by a large number of firms is one way of creating critical mass. The provision of certain goods or facilities requires a critical mass of beneficiaries. For example, branching a river to provide a constant stream of fresh water for an industrial site involves large fixed costs that are only worth paying if there are enough firms benefiting from this investment. A similar argument applies to the provision of specialised goods and services. Specialisation creates gains, but also requires a large enough demand to sustain the business model.
- **Matching:** Larger labour markets result in better matches between employers and employees. A better match means that the person who is hired for a job is better suited for his or her position and hence more

productive. Most people tend to look for jobs primarily within their city. In larger cities, they have more choice between different potential employers and are more likely to find a matching one.

- **Learning:** Another cause that is often considered to be relevant is so-called technology spillovers. Businesses tend to learn from other nearby located businesses about the latest production methods. In larger cities, more businesses that are similar to each other exist. Therefore, there are more opportunities for them, e.g. enforced by labour market mobility, to learn about the most efficient production methods and to adapt accordingly.

In addition to these main mechanisms, agglomeration benefits are often thought to also be related with higher "connectivity" of individuals in larger cities, and to possibly arise in the context of higher levels of "knowledge-based capital" (intangible assets) in enterprises located in larger cities.

Lastly, a larger number of businesses can also increase the level of competition within a city. Fiercer competition ensures that unproductive businesses leave the market, which increases the average level of productivity within a city and raises its GDP.

Source: OECD (2015b); Duranton, G. and D. Puga (2004); Marshall, A. (2009).

Despite progress, the MRDH is not yet a single, integrated functional area

Although commuting flows and economic interactions within the MRDH area have increased over the past decade, it is not yet a single, integrated functional area. Based on the OECD definition of functional urban areas, the MRDH actually consists of two separate FUAs: Rotterdam and The Hague.

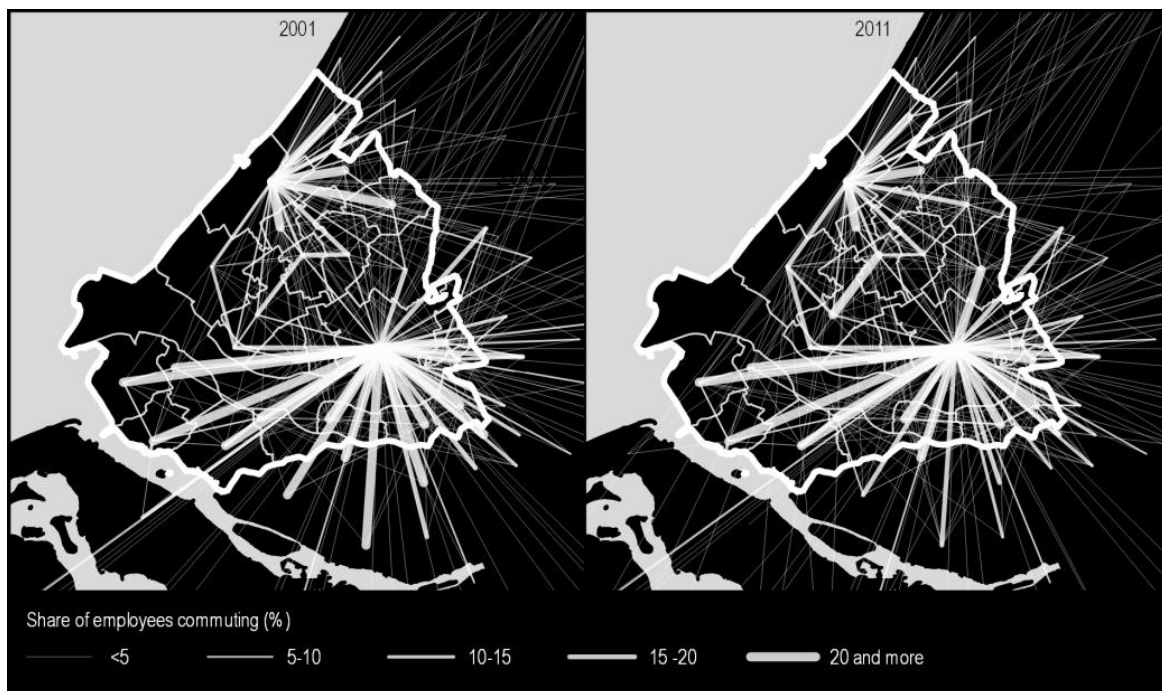
There is also no contiguous built-up urbanisation between Rotterdam and The Hague. Even though an increasingly dense public transport network links the two cities, along with many of the municipalities in between, most commuting flows and economic exchanges continue to occur at smaller, sub-regional scales. The share of workers commuting between Rotterdam and The Hague has increased in the past decade, but remains small relative to the short

distance between the two cities (a mere 30 kilometres) and that are relatively well connected by both a rail and light-rail lines of high frequency. In 2011, less than 5% of workers commuted between the core of Rotterdam and the core of The Hague (Figure 9).

Similarly, economic interactions among firms in the MRDH have increased, but have not yet reached their full potential. Finally, some cities in the MRDH also maintain strong economic ties to cities outside the MRDH boundaries: for instance, Rotterdam shares significant links with Dordrecht around port and logistics activities, while The Hague and Delft maintain close economic ties with Leiden to the north.

Figure 9. **Commuting flows within the MRDH area, 2001 and 2011**

Commuting by all transport modes, to and from municipalities in the MRDH area



Source: Calculations based on Statistics Netherlands (2001); 2011 data provided by Dr. Henri de Groot to the OECD.

Public policies have constrained greater economic and physical integration in the MRDH

Public policies have also played a role in the weak functional integration of the MRDH. Transport investments within the MRDH area have had some success in bringing the region closer together, even if the impact on commuting has thus far been lower than one might expect.

Meanwhile, policies in other fields have explicitly or implicitly constrained greater functional integration. Past national spatial and housing policies aimed to channel population growth outside cities to avoid congestion and other agglomeration costs. In this context, the growth management strategy expressly sought to prevent cities and towns in the Randstad from forming large metropolitan areas (see Faludi, 1994; Priemus, 1997; 1998; Ministry of Infrastructure and the Environment, 2012).

At provincial level, a restrictive approach to economic and spatial planning has persisted in the Province of Zuid-Holland: provincial authorities aim for balanced territorial development and a fair allocation of the regional economic pie, often overriding local planning decisions (see, for instance, Spaans and Stead, 2013).

While restrictive spatial planning may help reduce potential agglomeration costs, like congestion and pollution, it also has clear economic costs, particularly when spatial planning is used as an explicit tool to shape the regional economy (see, for example, Cheshire and Sheppard, 2002; Barker, 2006).

In addition to spatial planning, social housing policies have led to greater fragmentation within the MRDH area,

constraining labour mobility and further limiting the spatial integration of the MRDH (see OECD, 2010; De Graaf, van Leuvensteijn and van Ewijk, 2009; Battu, Ma and Phimister, 2009).

The Dutch renter-occupied social housing sector is among the largest in the OECD, representing 32% of the total housing stock. Among OECD countries, only Austria and Denmark have a similarly sized social rental housing sector. Social rental housing makes up 38% of all housing in the COROP regions of Rotterdam, The Hague and Delft, and more than 80% of all rental accommodation in Rotterdam (IMF, 2014).

The MRDH area is divided into two housing regions: one corresponding to the former city-region of Rotterdam and the other to the former city-region of The Hague, each with its own waiting list and somewhat different regulations.

The system makes it significantly easier for residents of social housing to move within their housing region than across housing regions. Moving to another housing region means that individuals would lose their tenure on the waiting list and be subject to an income verification (which only takes place at the time of registration on the waiting list). In practical terms, this means that an individual on the social housing waiting list in The Hague has strong disincentives to apply for social housing in Rotterdam.



Economic integration of the MRDH will not be an automatic process, and will take time

Achieving greater functional integration of the MRDH should be understood as a long-term ambition. There is no silver bullet to increase the economic ties between the former city-regions of Rotterdam and The Hague overnight, nor will the process be automatic. Rather, it will take a range of

policies and programmes related to economic development, spatial planning, housing and transport, designed and implemented at different levels of government, to further these ambitions.



PART 4 |

Advancing the dual pillars of the MRDH: Economic development and transport

As a non elected intermunicipal authority, the MRDH is comparable to the governance models currently in place in Barcelona (Spain), Montreal and Vancouver (Canada), which have authority over metropolitan areas that range from 2.2 million to 4 million inhabitants.

The combination of responsibilities in transport and economic development puts the MRDH broadly in line with the majority of metropolitan governance bodies across

the OECD area, as around 80% of metropolitan governance bodies work on regional development and over 70% on transport (OECD, 2015a).

However, the strategic competencies of the MRDH are more modest than those in many other OECD regions, as 60% of metropolitan bodies also work on spatial planning, and more than half work on these three fields at the same time (OECD, 2015a).

Two policy pillars with distinct approaches: Top-down for transport, bottom-up for economic development

The two policy pillars of the MRDH derive from different approaches, a unique feature of the MRDH in the context of other metropolitan bodies across the OECD. The responsibility for public and private transport is the founding motive of the MRDH, resulting from the abolition of the city-regions. Led by Rotterdam and The Hague, the municipalities of the two former city-regions jointly seized the opportunity for acquiring the Traffic and Transport Policy Funding (*Brede Doeluitkering Verkeer en Vervoer*, BDU), which would otherwise have gone to the Province of Zuid-Holland, as in all other Dutch regions (except Amsterdam).

Parallel to these negotiations with central government authorities, leaders of the two former city-regions successfully built consensus among their member municipalities to broaden the competencies of the new body beyond transport. Ultimately, municipalities agreed to cooperate on a voluntary basis on economic development, a policy field that is also part of the province's portfolio. Nevertheless, the responsibilities of the MRDH in economic development do not include any enforcement mechanisms: its legal competencies and financial resources in this domain – its “hard tools” – are relatively limited.

The voluntary, bottom-up collaboration led by two big cities in the MRDH is uncommon and encouraging

The voluntary, bottom up collaboration among municipalities is a positive, distinctive feature of the MRDH compared to other OECD metropolitan regions built around two large cities of roughly equal size.

While across the OECD there are examples of strong co-operation between two cities within a shared metropolitan area (e.g. Copenhagen and Malmö), not all cases are as successful. For instance, the co-operative foundation of the MRDH can be contrasted with Aix-Marseille (France) and Minneapolis-St. Paul (United States), two regions characterised by long-standing antagonism between their two largest cities and for which intervention

from an upper echelon of government (the central government in France, and the state government in the United States) was necessary to make metropolitan governance reform happen.

In the case of the MRDH, the initiative for metropolitan co-ordination came from municipal leaders, concretised by the central government's decision to grant the significant transport funds to the new metropolitan, rather than provincial, authorities. The co-operative foundation of the MRDH is also reflected in the carefully designed balance of powers between the two largest cities, as well as between them and their smaller neighbours.

The MRDH must demonstrate that it can add value in a crowded institutional landscape

When the MRDH body came into formal existence in January 2015 it entered a crowded field of institutional actors, networks and platforms in regional economic development. While a number of economic development and promotion agencies that are primarily operated by municipalities exist in the region, the main conflict initially emerged between the MRDH and the Province of Zuid-Holland.

The creation of the MRDH was problematic for the provincial authorities on two levels. Not only did the province miss the opportunity to manage the significant transport portfolio that in most other Dutch regions was transferred to the provincial authorities; the MRDH's second policy pillar, economic development, is also a key function of the province. In particular, co-operation for economic development at the

level of the so-called "South Wing" started almost two decades earlier than the MRDH under the leadership of the province (its geographic coverage includes the municipalities that are members of the MRDH, in addition to Leiden and Dordrecht and their surrounding municipalities, none of which are part of the MRDH).

In recent months the long-standing tensions between the Province of Zuid-Holland and the municipalities of the MRDH have given way to a more co-operative working relationship. Nevertheless, the MRDH will need to demonstrate that it can be more than another platform for dialogue and exchange in a region that is already home to many. The MRDH must prove that it can add value and achieve real change over both the short and long term.

The MRDH could operate as an idea factory for its member municipalities

Rather than replicate the activities of existing platforms and agencies for economic development, the MRDH could align the region behind new ideas.

As an “idea factory” for the region, it could complement the functions of existing actors and networks. In such a role, the MRDH could develop project proposals and work together with municipalities to organise the necessary political and financial support to implement them. In this context, a particular emphasis should fall on projects that have a metropolitan dimension.

To operate as an idea factory, the MRDH would need to consider the following steps:

- 1) Develop strong in-house analytical capabilities or good connections to universities, think tanks and the private sector in order to design effective policies.
- 2) Ensure that municipalities and other actors support the joint policies of the MRDH.
- 3) Co-ordinate the activities of member municipalities to maximise their effectiveness in achieving common goals.
- 4) Align transport and economic policies for the MRDH area.





The MRDH could deepen functional integration via a dual strategy: Focus inward while looking outward

If greater economic integration is the central objective driving the actions of the MRDH, one of its core policy objectives should be to identify and rectify policies that prevent the economies of Rotterdam and The Hague from being more closely integrated. Such measures could enhance growth because they would let both cities grow more closely together in economic terms, which would produce gains from agglomeration economies.

Nonetheless, it will be important for the MRDH authority to implement concrete, federating projects with an eye to both the short and long term. To do so, the MRDH could consider two overarching strategies to advance in parallel: focusing inward to promote greater integration of the MRDH while looking outward to boost the competitiveness of the MRDH relative to its national and international peers:

- **By focusing inward**, the MRDH could concentrate on: 1) strengthening agglomeration economies within the region while preserving existing economic connections to areas outside the MRDH; 2) facilitating the process of regional economic transition; 3) attracting outside funding to support the economic

development objectives of the MRDH; 4) addressing key strategic questions for regional economic policy.

Specific measures could include consolidating the two social housing waiting lists into a single regional list; improving the regional transport network to reduce travel times between Rotterdam and The Hague; creating a regional open data portal (as has been done in Helsinki); or providing assistance to regional firms to navigate the path to innovation and growth.

- At the same time, **looking outward** could help boost the competitiveness of the MRDH within the Netherlands and raise its international profile. To this end, strategies could include: 1) establishing the MRDH as the voice for external relations; 2) developing an internationalisation agenda; 3) pursuing larger scale projects and flagship events (e.g. World Expo 2025). OECD experience points to both potential benefits (Barcelona) and risks (Athens) of such global events.

Public support could help the MRDH implement politically challenging – yet beneficial – mobility policies

In terms of its traffic and transport pillar, the MRDH operates with a larger budget and substantially fewer conflicts with other regional stakeholders compared to its economic policy portfolio. While the creation of transport authorities responsible for multiple jurisdictions within a functional urban area is increasingly common, international experience suggests that there is no single successful model.

Compared to other metropolitan transport authorities in the OECD, the MRDH has several important assets: a strong legal framework, qualified technical staff, a solid financial base and political support from several key actors. Yet as with economic development, the MRDH will have to prove itself by delivering mobility improvements that are significant, effective and visible to the population.

OECD experience suggests that over the long term, strong public support could enable the MRDH to implement more politically difficult reforms (e.g. congestion charges). As such, the MRDH will need to demonstrate that it can solve tough issues and communicate on its progress.

At the same time, the MRDH could look to broaden political support from actors whose co-operation will be critical to implement transport plans and policies. These efforts could include:

- 1) improving co-operation with the province and private real estate developers;
- 2) ensuring that smaller municipalities are also well served by the MRDH transport authority; and
- 3) improving co-operation with the Dutch Railways to harmonise national and regional transport projects.



PART 5 |

Ensuring that the MRDH body can be effective and sustain its momentum over the long term

To ensure that it is effective and sustains its momentum over time, the MRDH body will need to build strong partnerships with a range of public and private regional stakeholders and consider how its functions, as well as its financing, might evolve over time.

There is no guarantee that effective co-operation will last beyond the political term of the two mayors of Rotterdam and The Hague. Neither the political culture in municipal administrations nor public opinion has yet fully embraced the new co-operative spirit between the two cities. Public opinion is often unaware of inter-municipal co-operation, as long as the

quality of daily public services remains satisfactory. At present, there appears to be little public support in either city for conceding its own advantages for the sake of the larger region.

As the experience of other OECD metropolitan regions demonstrates (**Table 2, Figure 10**), metropolitan governance reforms need to reach beyond purely institutional changes to build a long-term process of collaboration. Moreover, the presence of a metropolitan authority does not, in itself, guarantee better policy co-ordination.



Table 2. Governance structures of selected OECD metropolitan areas that include two large cities

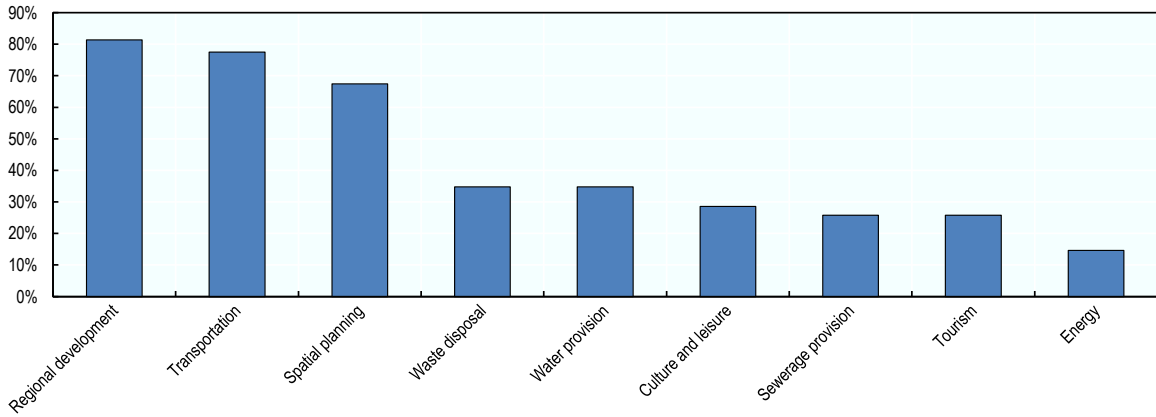
Rotterdam-The Hague, Aix-Marseille, Minneapolis-St. Paul

	Rotterdam-The Hague (Netherlands)	Aix-Marseille (France)	Minneapolis-St. Paul (United States)
Current metropolitan governance structure	<ul style="list-style-type: none"> – Metropolitan Region of Rotterdam-The Hague (MRDH) – Operational since January 2015 	<ul style="list-style-type: none"> – Métropole Aix-Marseille-Provence – Scheduled to be operational as of January 2016 	<ul style="list-style-type: none"> – Metropolitan Council (often called Met Council) – Created in 1967 by the Minnesota legislature, and responsibilities were expanded in 1974, 1976 and 1994
Population covered by the metropolitan governance structure	<ul style="list-style-type: none"> – 2.2 million – 23 municipalities 	<ul style="list-style-type: none"> – 1.8 million – 93 municipalities 	<ul style="list-style-type: none"> – 3 million – 7 counties
Share of the two large cities in total metropolitan population	<ul style="list-style-type: none"> – Rotterdam: 616 295 inhabitants (27.9% of MRDH population) – The Hague: 505 855 (22.9%) 	<ul style="list-style-type: none"> – Aix: 140 000 inhabitants (7.8% of the Aix-Marseille-Provence population) – Marseille: 850 636 inhabitants (47.2%) 	<ul style="list-style-type: none"> – Minneapolis: 400 070 inhabitants (13.5% of the Twin Cities population) – St. Paul: 294 873 inhabitants (9.8%)
Internal structure	<ul style="list-style-type: none"> – General management – Executive Board of five members 	<ul style="list-style-type: none"> – Metropolitan Council, initially elected by municipal councillors, then to be directly elected by citizens – President to be elected by the Metropolitan Council – Subdivided into “territoires” (sub-units corresponding to the previous inter-municipal organisations) 	<ul style="list-style-type: none"> – Board of 17 members appointed by the Governor of Minnesota (16 representatives of geographical districts and 1 chair)
Previous governance structure (before the reform)	<ul style="list-style-type: none"> – Two distinct city-regions (Rotterdam and The Hague) 	<ul style="list-style-type: none"> – 6 inter-municipal authorities 	
Budget	<ul style="list-style-type: none"> – 98% from grants from the central government (EUR 475 million) – 2% from voluntary contributions from member municipalities (EUR 5.5 million) 	<ul style="list-style-type: none"> – Estimated to be around EUR 524 million – Upon its creation, it is expected to receive an additional transfer of EUR 50 million from the central government 	<ul style="list-style-type: none"> Operating budget of USD 936 million (in 2015) coming from: – 38% from user fees (e.g. transit fares and wastewater treatment charges) – 50% from state, federal and local government funds – 9% from metropolitan-wide property tax – 3% from other sources
Staff	95 employees	9 000 employees	3 700 employees
Responsibilities	<ul style="list-style-type: none"> – Transport – Economic development 	<ul style="list-style-type: none"> – Transport – Economic development – Spatial planning – Housing – Environmental protection – Various public services (e.g. water, waste) 	<ul style="list-style-type: none"> – Transport (includes Metro Transit, the largest public transportation operator) – Economic development – Regional planning – Housing – Environmental services (e.g. wastewater) – Parks – Tax base sharing programme
Next upper level of government	Province of Zuid-Holland	<ul style="list-style-type: none"> – Département des Bouches-du-Rhône – Région Provence-Alpes-Côte d’Azur (PACA) 	State of Minnesota

Source: Author’s own research drawing on various sources, including OECD (2013b); website of Metropolitan Council.

Figure 10. OECD metropolitan governance bodies mostly work on regional development, transport and spatial planning

Share of OECD metropolitan governance bodies active in a field



Source: OECD (2015a).

The MRDH will need to engage its member municipalities to maintain momentum

The MRDH will need to engage its primary stakeholders – municipalities – to work effectively on a daily basis and achieve their longer term ambitions. Efforts by the MRDH to support municipal administrations can be beneficial in improving the quality of the public administration in the region (thus providing a direct benefit to the region), and in creating goodwill for the MRDH within administrations (increasing support and thereby the effectiveness of MRDH projects).

Because several other formal and informal networks and working groups of municipalities

exist that aim at co-ordinating specific policies at varying scales, the MRDH can provide support on more practical aspects. Such support could range from assisting in capacity-building efforts like knowledge-sharing programmes, particularly for smaller administrations with less specialised staff; offering secondment positions for municipal employees to work hand in hand with the permanent staff of the MRDH; and promoting networking among municipalities.

The MRDH and the Province of Zuid-Holland need to work together as partners

The long-standing competition between the provincial, municipal and (most recently) metropolitan authorities within the MRDH area is a challenge common to many OECD countries. This is especially the case in countries where metropolitan areas are emerging as young and dynamic organisations while provinces (or their equivalents) correspond to the country's traditional administrative structures.

Tensions between the province on the one hand, and the MRDH and its member municipalities on the other, have subsided in recent months and should form the basis of a more co-operative working relationship going forward. In the short to medium term, the MRDH and the province need to work together effectively, particularly to co-ordinate the economic and transport planning functions of the MRDH with the economic and spatial planning functions of the province.

The experience of other OECD metropolitan governance bodies demonstrates that separate authorities can exert transport and spatial

planning competencies effectively – and it is often the case that these functions are managed by different authorities – so long as well-functioning co ordination mechanisms are in place.

Notably, in September 2015, the MRDH and the province signed an agreement to work together on eight concrete projects around transport infrastructure and regional development, each to be co ordinated by a leader from the MRDH and a leader from the province. This is an extremely positive step toward a more content-based working relationship.

It may also make sense in the medium term to merge the parallel regional economic agendas of the MRDH and the South Wing Economic Board into a single economic agenda for the region. However, the different strengths of each existing platform (the strong political backing of 23 municipalities in the MRDH and the triple-helix aspect of the South Wing Economic Board) should be preserved.

Engaging businesses in the MRDH will be critical to support the regional economic transition

Engaging the business community in metropolitan governance is a challenge shared across the OECD – only 9% of metropolitan governance bodies include representatives of the private sector or other interest groups in their organisational structure.

However, the MRDH will need to foster close dialogue with the private sector if it is to achieve its ambition of accompanying the economic transition of the region and supporting the creation of new, innovative and sustainable types of economic activity. Closer collaboration with regional firms can help the MRDH by informing the organisation about the needs of the business community and working as partners to advance regional development goals.

Across the OECD, and notably in Chicago, Vancouver, Marseille and London, metropolitan authorities have worked effectively with the private sector without necessarily giving firms a voting seat. In some cases, the business sector provided strong momentum to drive public reform processes (Chicago and Toronto).

In others (Aix Marseille), the business community helped lead a campaign to boost the image of the region; in parallel, efforts were made to raise awareness among business leaders about important metropolitan themes, such as transport, housing and business tourism.

Governance arrangements in the MRDH may need to evolve further over the long term

Over the long run, governance arrangements in the MRDH area – just as the MRDH co-operative structure itself – may need to evolve further, as illustrated by the experiences of other OECD countries.

First, the MRDH body could consider expanding its geographic boundaries beyond the current 23 municipal members to include, for instance, the cities of Dordrecht, Leiden and their surrounding municipalities. This is likely one of the most natural evolutions of the MRDH, considering that strong economic links already exist between them.

Second, it may be possible, over the long term, to reconsider the current regional governance structure and co-operative arrangement between the MRDH and the Province of Zuid-Holland.

Like Dutch provinces, intermediate levels of government in OECD countries are often the

product of history and the subject of a debate about their role in today's fast-changing environment. In some countries, the search for a streamlined, modernised system of subnational government has led to enacting substantial institutional reforms, ranging from taking a metropolitan area out of the jurisdiction of its upper tier to merging them altogether (e.g. France, Italy, New Zealand and Turkey) (Tables 3 and 4).

While most such reforms have triggered intense political debates, as they hinge on the specific history and socio-institutional framework of each country, this spectrum of experiences illustrates that many OECD countries no longer settle on maintaining a status quo and actively seek more efficient public policy delivery to raise quality of life and the international competitiveness of their main cities.

Table 3. Addressing metropolitan and intermediate levels of government in selected OECD countries

Options	Examples	Tiers of government affected by the reform	Change of existing administrative boundaries of the intermediate level of government
Splitting the metropolitan area from the rest of the province/region	Lyon (France): 2015	– Municipalities (inter-municipal authority) – <i>Département</i>	Yes – three-quarters of the <i>département</i> of Rhône were merged with the Métropole de Lyon
Matching metropolitan and provincial/regional boundaries	Italy: 2014 Turkey: 2014	– Municipalities – Province – Municipalities – Provinces	No – the ten <i>città metropolitane</i> correspond to the existing provinces No – 30 “provincial metropolitan municipalities”
Merging local and regional governments into a single government	Auckland (New Zealand): 2010	– Municipalities and districts – Region	No – seven local councils were merged into the existing regional council

Source: Author's own elaboration.

The MRDH financing model may also need to change with time

The budget of the MRDH is comprised of transfers from other levels of government: from the central government for the transport pillar and from municipal governments for the economic development pillar.

The dual functions of the MRDH are reflected in its organisational structure as two distinct pillars, in terms of both budget and staffing. The transport pillar employs roughly 85 full-time staff, with a budget of EUR 480 million that results primarily from a transfer from central government.

The economic development pillar employs approximately 15 staff with a much smaller budget (EUR 5.5 million), which is based on an annual voluntary contribution from each member municipality of EUR 2.45 per inhabitant. The funding arrangement for the economic pillar of the MRDH is common across the OECD and its per capita budget lies within the typical range of informal metropolitan associations that do not have regulatory powers.

In terms of staffing, the MRDH has a smaller secretariat compared to other OECD metropolitan governance bodies that oversee a similar population size, but this is consistent with its more limited set of responsibilities.

As the MRDH evolves, it may need to broaden its funding sources.

Metropolitan governance bodies in OECD regions can draw from a mix of three main sources of finance: own source revenues, transfers from other levels of government and capital finance (**Table 4**) – each with its own set of advantages and drawbacks.

The MRDH may need to consider a different funding model if the scope of its responsibilities changes in the coming years to expand its budget. Options appear somewhat limited, however, as the MRDH is not allowed to levy taxes or impose other fees or charges; the MRDH can set user fees for public transport, but these revenues are allocated to the (separate) transport operators and would only indirectly affect the long-term financial situation of the MRDH in the form of reduced subsidies to transport companies.

Capital finance, which includes revenues from asset sales and land-value capture tools, public-private partnerships and borrowing, is currently underutilised and might offer an avenue for the future. Namely, increasing land-value capture to fund infrastructure could be a useful tool to fund local infrastructure investments.

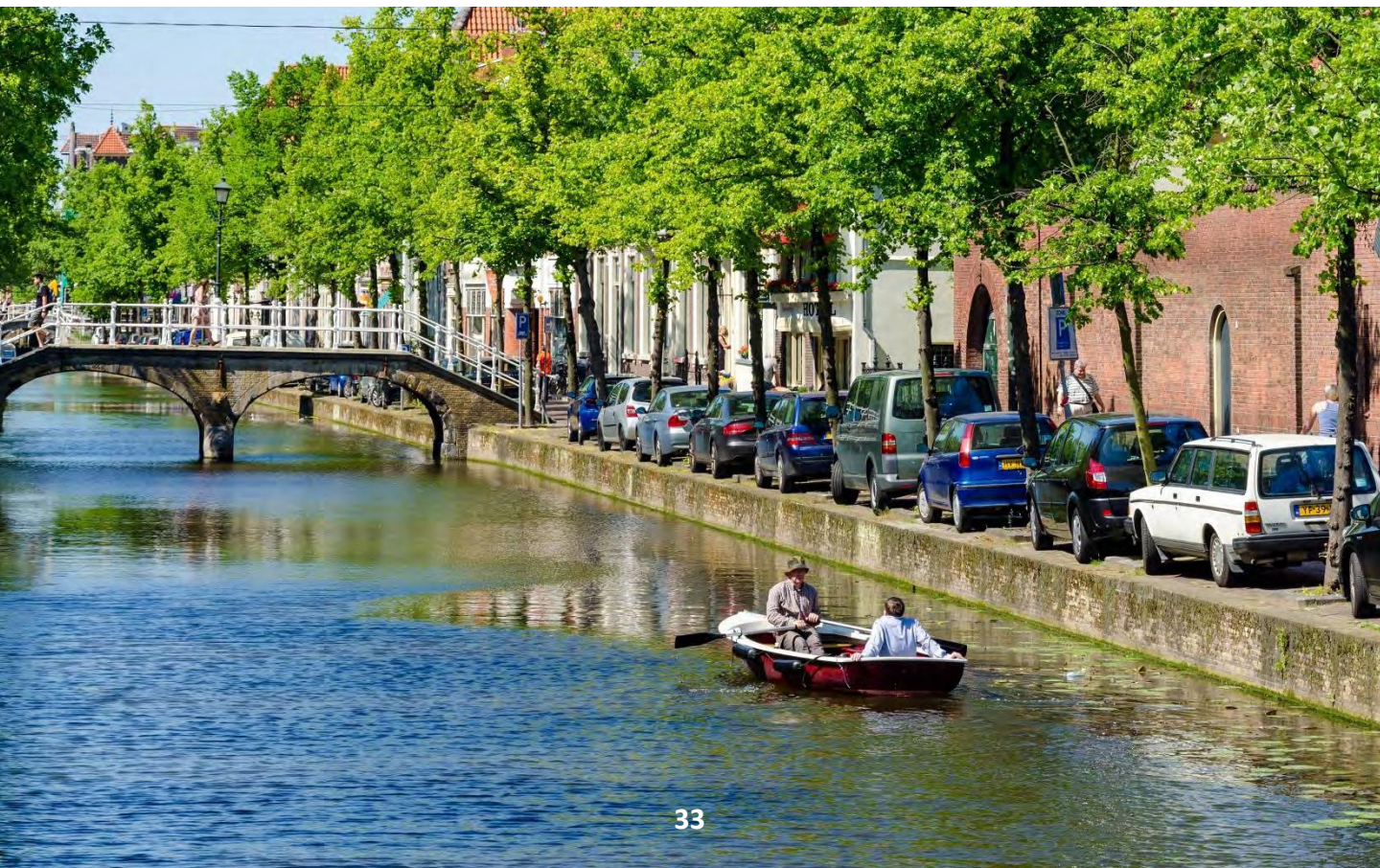


Table 4. Main sources of revenues of metropolitan areas in OECD countries

	Main types of revenues	Examples	Characteristics
OWN SOURCES	Taxes	Property tax Income tax Sales tax Business tax Congestion charge	Most common local tax. Relatively stable source of revenue. Immobile tax base and lower risk of tax evasion. Relatively costly and difficult to administer. Possibility of split-rate. Often not only a local tax. Can offer substantial revenues in periods of economic buoyancy but is highly volatile. Generally argued to be more revenue-elastic than the property tax and more progressive in its distributional impact on taxpayers. Allows more direct benefits from local economic growth and addresses externalities from services by making commuters and visitors pay. May be prone to tax competition and distortions if rates are set locally. Can generate substantial revenue and is more responsive to economic growth, but rarely equitable, often costly to administer, and likely to encourage tax exporting and to lead to destructive tax competition. Sometimes called “smart taxes”, fees for road use can vary throughout the day to reach its peak during rush hour, as in Stockholm (2006), but also vary across vehicles in order to charge higher rates to higher polluting vehicles, as in Milan (2008) and Singapore (1975-98).
	User fees	Public transport fares Fees on other public services (e.g. waste, water, energy) Parking fees	If charged at appropriate levels, can function as market prices for market commodities (allowing users to know how much they are paying for the services they receive from local governments, and giving governments an indicator of consumer willingness to pay for services). Help ensure efficiency in production and accountability in service delivery. Low price elasticity. Uneven levels of cost recovery across OECD metropolitan areas, full recovery not frequent. Full cost recovery frequent. Can help encourage resource preservation. High price elasticity. Generally effective in reducing car trips and decreasing the car share in the modal split.
TRANSFERS	Intergovernmental transfers	Equalisation grants (represent about 50% of intergovernmental transfers across the OECD) Unconditional grants Conditional grants (either matching or non-matching)	Redistributive effect (on average in OECD countries, reduces pre-equalisation inequalities by more than two-thirds). Formula can be based on revenue equalisation and/or cost equalisation. Widespread preference for revenue equalisation, which “taxes” the fiscal resources of a jurisdiction (net effect: marginal equalisation rate) and equalises tax-raising capacity. Cost equalisation is prone to subnational manipulation and can lead to inflated allocations. General purpose grants with no strings attached. Earmarked for specific purposes. Oriented towards inputs rather than outputs. Creates an administrative burden and may have high compliance costs. Disappointing equalising effect in the case of matching grants.
CAPITAL FINANCE	Land- and asset-based sources	Development charges Land-value capture (e.g. betterment levies)	One-time levy on developers to finance growth-related capital costs (urban infrastructure and services for the developed area). In principle, should be calculated in a way that measures the incremental costs of new construction, including infrastructure costs but also congestion costs. Taxes on estimated land-value increments and windfall gains for the private sector arising from public investment.
	Public-private partnerships (PPPs) Private participation in infrastructure (PPI)	Concessions Private finance initiatives (PFIs)	Wide variety of contractual arrangements where private operators bid for a contract to design, finance and manage the risks involved in delivering public services or assets and receive fees from the public body and/or user tolls. In certain cases, can offer an attractive way to relieve municipalities from upfront capital costs and avoid highly visible debt while tapping into the expertise of the private sector, but require strong local capacity for concluding adequate contractual agreements.
	Borrowing	Bond issue or loans	Either direct access to capital markets via bond issue (but unlikely to become a main source of long-term capital investments) or loans from specialised financial institutions (often via the creation of a financial intermediary that spreads the risks across many municipalities and lowers the average cost of borrowing). Access often restricted by national legislation, due to moral hazard and macroeconomic stabilisation problems.

Source: Author’s own research drawing from various sources including: Bird, R. and E. Slack (2013); OECD (2013c); OECD (2006).

Part 6 |

Where to for cities in the Netherlands? The MRDH and the National Urban Agenda

A new way forward for governing cities in the Netherlands

The emergence of the MRDH and development of a National Urban Agenda (NUA) is proof that the Dutch government is rethinking its role in governing the country's urban areas. Allowing for the creation of the MRDH and the Amsterdam Metropolitan Area (*Metropoolregio Amsterdam*, MRA) illustrates the government's willingness to tailor its urban policy to the specific needs of different urban areas, as opposed to imposing a uniform setting across the country.

The NUA process, led by the Ministry of Interior with input from multiple ministries, is characterised by three key features:

- 1) a focus on growth, innovation and quality of life within the entire urban network;
- 2) an inter-governmental, multi-stakeholder process;
- 3) the pursuit of pragmatic tools (e.g. the United Kingdom's City Deals) (**Box 4**).

Box 4. The National Urban Agenda under development in the Netherlands

The Dutch government, under the leadership of the Ministry of Interior and Kingdom Relations, is developing a National Urban Agenda (*Agenda Stad*, NUA). It launched a call for cities and relevant actors to present their ambitions and position papers on how to boost growth, innovation and quality of life in Dutch cities.

A major conference brought together more than 500 stakeholders in April 2015. Drawing from this wide ranging consultation, the NUA was communicated to the House of Representatives (Lower House, *Tweede Kamer*) in June 2015 via a letter co-signed by the Minister of Interior and Kingdom Relations, the Minister of Economic Affairs, the Minister of Infrastructure and the Environment, and the State Secretary of Infrastructure and the Environment.

The Dutch NUA has four guiding principles:

1) Strengthening the urban network. The government not only focuses on the Randstad or the largest cities, but on exploiting complementarities across the entire polycentric urban network of the Netherlands. The Urban Agenda goes beyond a pure economic growth approach and embraces broader objectives such as quality of life and innovation (including the concepts

of circular economy, smart mobility, and social and managerial innovation).

- 2) **Fostering adaptability and resilience.** The NUA aims to help cities quickly develop solutions in response to new economic and social challenges and market them internationally.
- 3) **Enabling customisation and experimentation.** The government has not taken a one-size-fits-all approach, preferring instead to allow some cities to deviate from existing statutory and regulatory schemes to better address social issues. The government received proposals from 25 municipalities and is selecting those that will be carried out as experiments as of 1 January 2017.
- 4) **Multi-level, public-private co-operation on shared ambitions.** The government acknowledges the importance of co-creating workable solutions with various levels of government, businesses and other social stakeholders, rather than a unilateral supply-demand relationship between cities and the government. Reducing administrative fragmentation can help, but success ultimately comes down to a cultural shift towards willingness to co-operate.

[continued next page]

Box 4 [continued]. The National Urban Agenda under development in the Netherlands

A number of cities, institutions and stakeholders have responded to the government's call for proposals. Respondents include the G4 (the four largest cities), the G32 (the next 36 largest cities), the Association of Dutch Municipalities (*Vereniging van Nederlandse Gemeenten*, VNG), the Network of Knowledge Cities, the MRA, the MRDH, BrabantStadsome provinces, the Association of Water Boards, and individual cities such as Utrecht, Zwolle, Nijmegen, Overijssel, Gelrestad, Landstad Noord-Nederland.

Examples of proposed initiatives include:

- **smart cities** (e.g. developing The Hague Security Delta into the main cybersecurity hub in Europe);
- **accessible cities** (e.g. proposal from Groningen and Zwolle for more effective management for bicycle and bike parking at stations; in June 2015, a group of 30 parties – including the public sector, businesses and various interest groups – signed a Green Deal to encourage car sharing);

- **inclusive cities** (e.g. the cities of Eindhoven, Enschede, Leeuwarden, Utrecht and Zaanstad are experimenting with more efficient management of care, housing, unemployment and social assistance services);
- **healthy cities** (e.g. Utrecht is organising research institutions and companies in a Health Campus and is interested in developing a toolbox for Healthy Urbanisation; Amsterdam is planning to promote prevention by providing innovative incentives to healthcare providers).

Based on the proposals received from the cities, the government will discuss those that could be developed into “City Deals” – public-private co-operation agreements on concrete, urgent tasks, which are modelled after the City Deals in the United Kingdom and the Green Deals in the Netherlands. City Deals do not provide any new funding, but pool together existing resources and allow for a temporary adjustment of regulations for innovative pilot projects.

Source: Based on Ministry of Interior and Kingdom Relations, the Ministry of Economic Affairs, the Ministry of Infrastructure and Environment, and the State Secretary of Infrastructure and Environment (2015).

At the same time, the central government is also redefining its own role in supporting new metropolitan governance arrangements. In the MRDH area, for instance, the Ministry of Interior has, for the first time, taken an active, explicit role to facilitate a better working relationship between the MRDH and the province. Such a position contrasts with the top-down strategies that have been adopted in other countries, and could be of broader interest across the OECD.

In its development of the NUA, the government could also review the impact of a range of public policies in other domains (e.g. housing, spatial planning and transport) on urban areas, and make any necessary adjustments to ensure coherence across policy sectors.

In particular, some of the policy bottlenecks observed in the MRDH in terms of housing, spatial planning and transport may also be relevant in other Dutch urban areas. Notably, in view of further taking advantage of the potential agglomeration benefits of large urban areas, national policy makers could aim to ensure that spatial planning policies are consistent with the

ambitions of the NUA for greater productivity gains.

The government could also consider a number of measures to increase the flexibility of the regional housing market and boost labour mobility, primarily through reforms to the social housing system and efforts to expand the private (unregulated) rental housing sector.

The shift of focus in national urban policy places the Netherlands in line with broader OECD trends and opens up a valuable window of opportunity for the MRDH to develop a stronger partnership with the national government. Many OECD countries are increasingly aware of the significant contribution of urban areas to national economic performance and have developed national visions or strategies for cities.

Compared with other OECD countries, the Netherlands is focusing on a selective set of overarching priorities that aim to empower cities. The MRDH could take advantage of the NUA to speak with a unified voice and help redefine the governance of Dutch urban areas.

Notes and Bibliography

NOTES

1| Page 14 The Top Sector Policy programme was introduced by the national government in 2012 (see, for instance, OECD, 2014e) as a means of increasing competitiveness; the programme targets sectors that have been identified as essential to meet the challenges of globalisation and as both knowledge-intensive and export-oriented.

2| Page 14, Figure 5

1. All data were normalised to a range of 0-1, where higher values mean better outcomes, based on all Dutch COROP regions. The region with the best performance has a value equal to 1, and the worst a value equal to 0.

2. MRDH refers to the aggregation of municipalities where possible. The environment indicator refers to cities, and was only available for Rotterdam and The Hague. The safety indicator for the MRDH is based on the COROP regions of Delft en Westland, Groot Rijmond and Agglomeratie Gravenhage.

3. Income is quantified by the average standardised household income (2012). The employment indicator is defined as the share of the active labour force to the overall working-age population (15-65 years) quantified in three-year averages (2011/13). Education represents the share of the population aged 15-65 years that has attained at least an upper secondary education (2011/13). The old-age dependency ratio, expressed as “old-age dependency”, measures the share of population aged 65 years and above to the working-age population (20 65 years). The indicator of environment is composed of PM10 air pollution, calculating the simple inverted average of the respective standardised values (2011), with a higher value indicating lower PM concentrations. Health is the inverted standardised age-adjusted mortality rate (2013). Safety is measured by the number of homicides per 100 inhabitants (2012-14), with a high value indicating a low number of homicides (2007-11).

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