

Conclusion and outlook

Zonneveld, W.A.M.; Nadin, V.

10.4324/9780203383346-21

Publication date

Document Version Final published version

Published in The Randstad

Citation (APA)
Zonneveld, W. A. M., & Nadin, V. (2021). Conclusion and outlook. In W. Zonneveld, & V. Nadin (Eds.), *The Randstad: A polycentric metropolis* (pp. 333-345). (Regions and Cities; Vol. 147). Routledge - Taylor & Francis Group. https://doi.org/10.4324/9780203383346-21

Important note

To cite this publication, please use the final published version (if applicable). Please check the document version above.

Other than for strictly personal use, it is not permitted to download, forward or distribute the text or part of it, without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license such as Creative Commons.

Takedown policy

Please contact us and provide details if you believe this document breaches copyrights. We will remove access to the work immediately and investigate your claim.

Green Open Access added to TU Delft Institutional Repository 'You share, we take care!' - Taverne project

https://www.openaccess.nl/en/you-share-we-take-care

Otherwise as indicated in the copyright section: the publisher is the copyright holder of this work and the author uses the Dutch legislation to make this work public.

16 Conclusion and outlook

Wil Zonneveld and Vincent Nadin

In this final chapter we briefly review the evidence to address the questions posed in the introduction: in summary, did the Randstad come about through deliberate intervention, has spatial planning influenced the spatial configuration of the region to help meet social and economic goals, what are the advantages and disadvantages of the spatial configuration of the Randstad, and what is the outlook for the future Randstad?

Did the Randstad come about through deliberate intervention?

"God created the earth, but the Dutch created the Netherlands" is a wellknown saying about the country. It emphasises that the outlook of the country is not just influenced by its inhabitants but they also have moulded and shaped the territory. Is the Randstad indeed a creation? Is the Randstad humanmade? The concept as such, a genuine metaphor emphasising its ring-shaped morphology, certainly is an invention as discussed in Chapters 6 and 11. But what about the urban structure itself? According to Meyer (Chapter 3) history is not as straightforward as the above proverb suggests. The first people settling in the Randstad area thousands of years ago did not have much choice about where to live. Subtle height differences of a few meters in an otherwise flat and flood prone country determined where people could build their home. However, through agriculture and drainage of wet peat soil they almost immediately started to shape their surroundings in a seemingly endless game of subsidence through oxidation of peat and getting rid of water which causes this oxidation. A wide range of hydrological inventions and interventions throughout the centuries (dams, dikes, sluices, windmills and diesel pumps) created a canvas for the development of the Randstad and its cities and towns.

Recent history shows that the capriciousness of the Dutch delta is becoming increasingly visible and tangible and the vulnerability of the territory is becoming ever more urgent in a context of climate change, sea level rise and volatile weather conditions. For instance, the Rhine river basin is nearly six times bigger than the land surface of the entire country, meaning that heavy

precipitation in this gigantic hinterland can lead to serious flood risk downstream. The rather technical approach towards delta management developed over the course of decades and even centuries, and directed towards, water containment comes up against its limits. 'Room for the River' is currently the leading principle which is also gaining a foothold abroad, further upstream in the river basins of Rhine (and Meuse). Accommodating and working with the natural water system is also taking root in how Randstad cities are currently planned, as shown by the example of Rotterdam (Chapter 4).

From a historical perspective the question of whether the Randstad is the result of deliberate interventions can be addressed by investigating how 'rulers' over the course of time contributed to the (economic) fortunes of the individual cities of the Randstad. Brand (Chapter 2) shows how specific advantages given to cities, for instance trading and taxation rights in medieval times, had a clear influence on the economy of cities and through that, on population growth. This resulted in a constantly changing hierarchy between cities although the pattern becomes more stabilised in the modern age, from about 1800 onwards.

In the twentieth century not monarchs but the state through spatial planning becomes important, especially after WWII when the limited role of the state concerning mainly infrastructure development expanded quickly into many other fields of spatial development, alongside social and economic life. There is ample ground to say that the welfare state created from the late 1940s onwards clearly included a territorial dimension. One can summarise the post-war strategy towards the Randstad as reviewed by Zonneveld (Chapter 11) as directed towards balanced development: avoiding the growth of massive cities and agglomerations and safeguarding the openness of rural spaces between the Randstad cities as a public good, just like the creation of parks and parkways was added as a principle of late nineteenth and early twentieth-century town planning. Spatial planning not only became a Randstad project but even a national project, aiming for a fair(er) distribution of economic opportunities and welfare across the country right up until the mid-1980s: territorial cohesion avant la lettre (Faludi, 2007). The Netherlands was not the only country to deploy such policies, but the connections between spatial planning and regional policy were probably much closer than anywhere else. Also, housing policy became part of the Dutch post-war territorial welfare project (Chapter 9), providing good quality housing for lower-income groups not only in the main (Randstad) cities but from the 1970s onwards in the groeikernen (growth centres). This is often referred to as the marriage of convenience between the two policy systems of housing and planning. This marriage lasted until the early 2000s and was ended not by a divorce but by a phasing out of both policy systems.

Urban containment and controlling urban sprawl as prime objectives of the Randstad strategy leads to the question: was this strategy effective? Did policy interventions have a clear influence on the map of the Randstad? Answers can be found in Chapter 7 and in particular in Chapter 13, although causality

between planning ('input') and outcome ('output') is always rather difficult to establish. The answer in short is that (national) planning had an influence. It was possibly more decisively through 'positive' policy tools like the support of the development of growth centres in the 1970s and 1980s, and compact city locations during the following two decades, than through negative instruments like curbing the growth of smaller towns and villages through directives from national government to provinces and municipalities prescribing the content of regional and local plans. The reason is that the Dutch spatial planning system has a rather decentralised orientation leaving room for discretion at provincial and municipal levels. It is for this reason that Van der Wouden (Chapter 13) concludes that the reputation of Dutch national spatial planning of being effective in containing urban sprawl is unwarranted, or at best only partly justified. Others, like Korthals Altes (2006) would say (in paraphrase), count your blessings, as during a period of several decades massive housing production took place on locations selected, stamped and approved by the planning system, and thus the possibility of much more dispersed urban development was avoided.

Looking at the effectiveness of spatial planning in the Randstad from this perspective is instructive. One of the prime ambitions of early national spatial planning was to prevent the Randstad becoming one single contiguous megalopolis (the noun is a nice example of framing) invading the quintessential Dutch polderscape. This certainly did not happen, although the Rotterdam-The Hague area comes close to it if one includes greenhouse complexes and the giant Rotterdam port area in the picture, as is clearly shown in Figure 1.1. But even there, government decided to invest in the preservation and restructuring of a green space to serve as a leisure area for the surrounding cities and towns: Midden-Delfland, nowadays a Bijzonder Provinciaal Landschap (Special Provincial Landscape).

Being effective to prevent the forming of a megalopolis has an important side effect, at least according to some observers: genuine *metropolitan* environments are rather scarce in the Randstad. We came across these environments in Chapters 10 and 11. The makers of the 1966 Second National Report on Spatial Planning regarded the Netherlands as a whole as well as individual (Randstad) cities as too small for 'top class' environments which can be found in large, concentrated mononuclear cities. Later on, opinions changed, for instance under the early 2000s concept of the Randstad as an integrated Deltametropolis (Chapter 11). De Hoog in Chapter 10 shows how so-called interaction environments, places for personal encounters and for the exchange of persons, goods (including cultural 'goods' like music, theatre or museological productions), capital and information, are today scattered over the Randstad (together forming the Holland Cluster), while at the same time concentrated in the main cities, spilling over in ever larger areas, in particular in Amsterdam.

The answer to the overall question above is unsurprisingly rather mixed and varied. Yes, deliberate interventions played a role, but these interventions

show an enormous variety over time, from specific trade and taxation rights given to individual cities in the Middle Ages to 'Delta interventions' in their broadest sense across an entire millennium. State interventions under the banner of *spatial planning* are typical for the post-WWII period and include the support of rather massive housing programmes at locations selected according to explicit planning principles and classic zoning tools to curb development at other locations. It goes too far to conclude that the present structure of the Randstad is primarily the result of spatial planning. Nevertheless, the morphology of the present Randstad is quite 'ordered', specifically as one keeps in mind the enormous extension of built-up areas in the Randstad areas during the last three quarters of a century. Without planning a far more spread out development would most certainly have taken place.

Assessing the value of the management of the Randstad's spatial configuration, its polycentricity, for its economic, environmental and social performance is a complex task. The balance of opinion is that whilst significant challenges remain, planning has steered the Randstad towards a more sustainable pattern than might otherwise have been the case, and provided a structure that offers opportunities to create more resilience in the 2020s and beyond. Some years ago the Dutch government published a small booklet called '35 Icons of Dutch Spatial Planning' (Ministerie van Infrastructuur en Milieu/Ministry of Infrastructure and the Environment, 2012). One of these icons, in fact the very first one in the list, is called 'Randstad and Green Heart'. In the light of what we have concluded we believe this was a very appropriate choice.

The Randstad: just an idea or also a reality?

The second main question this book seeks to answer is whether the Randstad is fiction or truth. Is the Randstad a metropolis of a specific nature, namely with numerous centres located in different cities but together forming an integrated whole with a clearly recognisable morphology? For Peter Hall (1966, 1977, 1984) the answer was simply 'yes' as he included the Randstad in his three consecutive editions of 'World Cities', highly impressed by the fact that the country was clearly pursuing a spatial planning strategy for the most urbanised part of the country. Nevertheless, he had some worries about the implementation of this strategy, at least in the final 1984 edition.

To be effective, continuity in policy is needed. In terms of *urban form* there has been such continuity. The Randstad model was politically accepted as it served many goals, including goals outside spatial planning, such as promoting more self-sufficiency in food production as rural areas would be protected against urban sprawl, whilst enough space is allowed for industrial ports to expand contributing to the economic modernisation of the country. It is this continuity which inspired Faludi and Van der Valk (1994) to use the term 'planning doctrine', emphasising not so much the rigidity of Dutch planning (in fact Dutch planning is an example of a largely indicative system) but the durability. The 2012 National Spatial Strategy however dropped

the 50-year old ambition to maintain the Green Heart and the buffer zones such as Midden-Delfland mentioned above. In planning terms these planning spaces were handed over to the provinces. Golden jubilee festivities to mark the fiftieth birthday of the Randstad-Green Heart 'doctrine' in 2010 (if one considers the 1960 first national report on spatial planning as the birth) never took place as national government was right in the middle of shaking off what was considered a redundant policy domain.

Parallel to half a century of consistency about the (desired) morphology of the Randstad there was inconsistency in planning how to perceive functional relationships between the cities forming the Randstad. Over the course of years, a rich vocabulary has formed: agglomerations, city regions, conurbations, wings, Western Wing, (national) urban network and Deltametropolis to name the most important ones (see Chapter 11). The conclusion which seems to hold up to the present day is that the Randstad is formed by two wings, one in the north, centred on Amsterdam, and one in the south, centred on Rotterdam and The Hague. So, not one single 'World City' but two metropolitan regions as both areas are called.

Empirical research on the exact nature of the Randstad over the course of years has not been very consistent either, as Meijers, Burger and Van Oort show in Chapter 6. Obviously, there is substantial relational complexity in the Randstad. This brings with it the conclusion that any answer to the question of functional coherence is very much dependent on the conceptual and methodological approach adopted by the researcher(s), as well as the data being considered which, of course, depends on availability. Whether there is a Randstad is in the eye of the beholder, so to speak.

Next to spatial and relational complexity there is governance complexity. Spaans, Zonneveld and Stead show quite an interesting picture of how Dutch government (and parliament!) has struggled with the question of whether and how to adapt the administrative structure of the country to deal more effectively with spatial integration in the Randstad and in some urban regions elsewhere in the country. Observers with a heart for spatial planning will possibly feel quite happy knowing that spatial issues have always dominated discussions about the best sort of regional governance. However, they could be dissatisfied as well as so many options were considered and eventually put aside. In the end, around 2015 the Dutch government opted for the softest form of regional governance: voluntary municipal governance through so-called metropolitan regions, a terminology developed bottom-up, first of all in the Amsterdam region. For the Amsterdam municipality this was obviously an effort to claim World City status at the level of the city and the surrounding region as Zonneveld suggests in Chapter 11. A nice example of framing, not so much with images (Faludi, 1996) but through language.

All-important in the first decades of this century is the gradual phasing out of national spatial planning, which we have already touched upon. In this new context, interventions in the development of the Randstad become much more dependent on the creation of governance capacity at the local and regional levels. Whether 'soft' cooperation bodies are effective is open for

debate though. As discussed in Chapter 12, the OECD is not very optimistic. However, this conclusion might be based on perceptions of governance based on hierarchical relations between administrative layers, while the 'soft' power of metropolitan regions is closely related to the consensus seeking nature of Dutch politics in general (Hendriks and Toonen, 2001).

What are the advantages and disadvantages of a Randstad spatial structure?

One of the reasons why Peter Hall included the Randstad in all three editions of his 'World Cities' book was related to what he called the 'moral of the Randstad'. For him this moral was intrinsically connected to 'polycentric quality' as opposed to world city regions taking the shape of 'urban giants' like London, Paris or New York (Hall, 1966: 121). Hall admired the Dutch solution for planning for growth: along radial corridors stretching in outward direction while keeping all the advantages of open country between the 'lines'.

There seems little doubt that for most of the rapidly growing world cities of the present time, the Dutch solution is the right model.

(Hall, 1966: 121)

Since Peter Hall wrote down these words many more urban giants have developed across the globe, many of them without the advantage which the Randstad obviously had according to Hall, thanks to its history. Dutch planners themselves called their growth model gebundelde deconcentratie (concentrated deconcentration). There is no overall consensus about whether the Dutch planning system has effectively dealt with deconcentration or 'urban sprawl'. Some deplore that urban growth has been transferred to overspill centres as this has led to a loss of potential metropolitan qualities (for instance: Frieling, 1983, 1997). However, others like Ritsema van Eck and Van der Wouden in this volume (Chapter 7) conclude that possibly the greatest asset of the Randstad being polycentric is its diversity of small and mediumsized cities. Diversity is also emphasised by De Hoog (Chapter 10). The lens through which he looks at the Randstad is the concept of interaction environments, which is quite novel in the literature about the Randstad. For him the Randstad looks like the assembly of big and small tents at large music festivals, each offering different types of music, art and artists. There is an abundance of interaction environments, mostly in inner city cores which together form one giant 'Holland cluster'. So diversity holds sway, again.

A big challenge for polycentric urban regions is the supply of integrated, high quality public transport. According to Schrijnen (Chapter 15), such a system at the Randstad level does not exist. Even if one goes down one level of scale, the wing level, such systems are absent he concludes, although the Rotterdam-The Hague region some years ago acquired a new system with

the somewhat misleading name Randstad Rail. Schrijnen's vision might be a bit too harsh as the network of the *Nederlandse Spoorwegen* (*NS*, the state-owned national railway company) in the Randstad area is gradually becoming a kind of proxy of a metropolitan rail system through the frequency of services (also through the night on some lines) and because main stations (the central stations in all four main Randstad cities, plus the national airport and Amsterdam South) have become hubs connecting the NS networks with regional and local public transport systems. Possibly the biggest policy failure, to use this grand term, is the lack of integration between spatial planning and (public) transport planning throughout the years.

Does the Randstad as a polycentric urban region face economic disadvantages as agglomeration economies seem to be less strong compared with concentrated urban regions? A concept which is getting a foothold in this discussion is 'borrowed size', originally coined by the planner and economist William Alonso (Alonso, 1973). According to Meijers and Burger (2017) borrowed size occurs when a city possesses urban functions and/or performance levels normally associated with larger cities. According to them, this is made possible through interactions in networks of cities across multiple spatial scales. These networks serve as a substitute for the benefits of agglomeration. The final verdict whether borrowed size holds for the Randstad or its constituent parts varies. An OECD study (OECD, 2016) suggests that the borrowed size effect does seem to occur in smaller urban regions but not at higher levels of scale such as the Rotterdam-The Hague region, let alone at the level of the Randstad.

If one summarises the above discussion, which of course cannot be complete as there are many dimensions at stake, then possibly the biggest advantage of the Randstad and its wings as polycentric urban regions is that they create 'liveability': a large diversity of living and working environments and access to open spaces outside cities, ranging from polder areas to a largely unspoiled coast with urbanisation right up to the seafront in only a few places, mainly Scheveningen, Noordwijk and Zandvoort. It is exactly this that the 1950s inventors of the Randstad as a planning concept had in mind: recognisable cities and towns of limited size with clear perimeters and accessible open space for 'recreation' around and in the centre of the Randstad. This legacy will be valued in the post-pandemic Netherlands. Nevertheless, cities have become much larger than they had in mind and also suburbanisation has gone further. A 'sea of houses' did not emerge, but for truly empty horizons and dark skies (plus higher than average sunshine) one has to visit the Wadden islands in the north of the country.

Outlook: future challenges and the role of spatial planning

At present, inhabitants of the Randstad do not worry a lot about their geographical situation, although apart from a rather narrow coastal zone the Randstad is located in areas below sea level, sometimes even several metres

the famous Dutch polders. Nevertheless, this poses risks, even now. In the case of river dikes or the dune ridge breaking large areas will be inundated quickly (PBL, 2009). A major part of the Randstad is vulnerable as protection comes from one single dike which surrounds roughly all the areas south of the North Sea Canal, north of the Nieuwe Waterweg and Hollandsche IJssel and west of Utrecht (about this so-called Dike Ring 14 see for instance: Oost and Hoekstra, 2007). So, if there is one major challenge for the Randstad, in particular in the long run it is sea level rise in combination with an increasing seepage of saltwater. The situation is not helped by the fact that the soil of large parts of the country, particularly in the west and north, is subsiding at a speed faster than the rise of the sea level thanks to the withdrawal of groundwater (Koster et al., 2018), a problem shared with many other delta areas across the globe. So far measures taken have a time horizon of 2050. Cautiously possible scenarios with a time horizon of 2100 and beyond are discussed. In particular engineers come up with technical solutions like the closure of the port of Rotterdam through a large sluice complex and the installation of very large pumps as a free fall of river water into the North Sea and Wadden Sea becomes difficult, especially at high tide. For some the prospect of a 'move' of the Randstad to higher ground in the long run comes in sight, a possibility mentioned in Al Gore's film 'An Inconvenient Truth'. This scenario is known as 'Amersfoort at Sea', as the city of Amersfoort is the only Randstad city situated on higher ground at a distance of about 65 kilometres from the coast.

Others are less pessimistic. For example, a group of researchers from Wageningen University developed an interesting scenario of how the country could look in 2120. Interestingly the shape of the country is still there while also the basic configuration of the Randstad has not changed either. However, all major urban agglomerations in the Randstad are to become interspersed with so-called green-blue arteries. Also, all new urban areas will be built on higher ground, in the east and south of the country and immediately east of Utrecht (see Figure 1.1 for the location of this city). This would lead to a shift of the centre of gravity of the Randstad to the east, the only critical change in its shape. Another major change is a complete overhaul of how rural areas are used. The only sort of agriculture to be found is circular while there is much more room for water. The Netherlands would no longer be the second food exporting country on the globe. Finally, another major intervention is how the country should be protected against floods: much more room for the rivers and a soft, forward type of sea defence. There are no vast dikes in this scenario.

Coming from Wageningen University (the former *Landbouwuniversiteit*: University of Agriculture) there is a particular sort of emphasis on rural areas, water and nature which this scenario combines with a soft engineering approach. There is for instance limited attention to the energy transition: this takes largely place on the North Sea through floating 'sun fields'. Whether this would be sufficient remains to be seen as the energy transition is another

major challenge which the Randstad and the country as a whole is facing and which will remain critical in the coming decades. Scenario studies point out that the energy transition is rather space consuming, leading to (vast) 'energy landscapes' irrespective of whatever sort of non-fossil-based energy production takes place (Sijmons *et al.*, 2014).

Onshore energy landscapes are already taking shape but in a highly uncoordinated fashion. Targets for wind energy are formulated for each of the 12 provinces but there is not very much coordination between the provinces in the absence of overall principles for the location of wind turbines. On top of that, the environmental gains of wind energy are leaking away through the arrival of very large data centres of global technology firms. They are highly interested in a location in the Netherlands, either within the Randstad or in areas nearby the Amsterdam Internet Exchange node – one of the largest globally – as they can 'green' themselves through the ample availability of wind energy (which is partly paid for through taxation of energy use by households!). The biggest of these data centres use as much energy as the entire city of Amsterdam, which presents another reason for more coordination and guidance.

Another major challenge the country faces, that particularly affects the Randstad, is the availability of housing, both in number as well as price. The four main Randstad cities are struggling, Amsterdam in particular is a very attractive residential location, while the housing stock is under pressure thanks to tourism and Airbnb (Nieuwland and Van Melik, 2020). Lower and middle-income groups find it increasingly difficult to find a home for a decent price. Annual production volumes cannot keep up with demand. Major reasons have to do with high quality requirements imposed by (local) policies (including energy consumption) and the desire to build within the present perimeters of cities to avoid out of town greenfield development. However, inner city locations are often more difficult to develop and also are more expensive. This in turn leads to a heavy emphasis on the building of apartment blocks which given the present housing culture within the Netherlands, is not everybody's choice. The problem is known as 'one million homes', based on a rough calculation of present and future shortages but also as it communicates so well. Looking back, every decade since the 1950s had a one million homes issue. The terminology has been used over and over again so has become a kind of metaphor for public intervention.

What these challenges have in common is *interscalarity* as they do not manifest themselves on one spatial scale only. Take the example of energy transition. The level of an individual building is relevant here: insulation, new cooling and heating techniques as well as 'responsible' behaviour of homeowners. The scale of neighbourhoods, districts and the city at large is important, for instance through the realisation of heating networks. Zooming out one eventually arrives at the level of north-west Europe, by looking at the North Sea as a potential area for transnational wind energy production. This is only possible through the creation of integrated networks at a larger scale (OMA, 2008). For water management, one can tell a highly similar story: from the

individual building plot (less hard surfaces – roofs, gardens and streets – to make infiltration of water possible in periods of heavy precipitation) to very large water systems: sea, coasts and estuaries and large river basins.

It is this interscalarity which makes spatial planning challenging. We have seen in Chapter 11 that from the early 2000s national government gradually handed over spatial planning responsibilities to provinces and municipalities and, while doing that, reducing the concept of the Randstad to a sort of place name, so no longer having a vision on its development, let alone a strategy. In 2014 government announced another drastic step: an overhaul of all laws related to the environment, including the planning law. The 33 existing laws will be partially or entirely integrated into one single act: the Environment and Planning Act. Main objectives are simplification, deregulation and decentralisation. The act is expected to take effect in 2022.

A new (planning) act means a novel type of a national policy document. Around mid-2019 a draft of the 'National Strategy on Spatial Planning and the Environment' was published (in Dutch: *Nationale Omgevingsvisie*; see: Ministry of the Interior and Kingdom Relations, 2019). The publication of this draft was delayed for several years, largely due to a great deal of uncertainty about its content and sometimes fierce discussions between government departments as the strategy is supposed to become far more integrative than any other previous national strategy or policy report.

The strategy is based on four key objectives called priorities. However, how these priorities come together on the ground in specific territories like the Randstad is not made clear. Indeed, the document is carefully stripped of any spatial concepts which could work in this way, in stark contrast to all post-war national spatial planning reports. There is one map called 'economic core areas and links' which shows the Randstad in its classic shape made up of two 'wings' (see Figure 16.1). The map is entirely indicative though. On the other hand, one can also draw the conclusion that certain key ideas, like the very existence of the Randstad as a relevant spatial scale, have become an intrinsic part of thinking about the spatial structure of the country.

Although the 2019 (draft) strategy is admirably comprehensive in its analysis of key planning and environment issues and possible objectives of transitions and interventions, the lack of any sort of spatial concept does not give it a lot of strategic authority. We do not plead for a return to the directive planning reports of the latter part of the previous century which included planning concepts and guidelines for about every square metre of the country (the sea was not yet included). What we would like to see is more of a scenario approach using spatial design to imagine possible futures across different spatial scales and the unavoidable trade-offs between priorities and objectives. This comes close to what John Friedmann has formulated as "the role of strategic planning for the longer range":

[...] in-depth exploration of strategic issues of urban development under different sets of assumptions or 'scenarios' as a way to assess potential

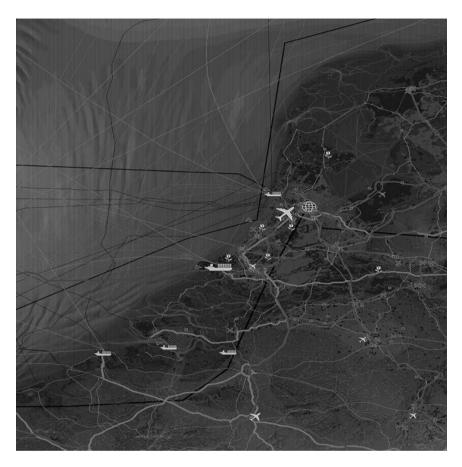


Figure 16.1 Economic core areas and international connections. Source: Ministry of the Interior and Kingdom Relations, 2019.

outcomes and their effect on local populations, the economy and the ecology of cities. It is a way of probing the future in order to make more intelligent and informed decisions in the present. The object [...] would be not to produce 'plans' (not even strategic plans), but insights into prospective change to encourage and promote public debates about them.

(Friedmann, 2004: 56)

As the largest concentration of population, economic activity, real estate, as well as architectural and cultural heritage in the country, such 'probing the future' is highly needed for the Randstad. Apart from national government we do not think there is any other actor capable of having the capacity nor the authoritative position to organise this sort of strategic endeavour.

Epilogue

Writing the above took place in an extraordinary period, namely the weeks that the COVID-19 crisis took hold across the world. The crisis had enormous spatial consequences. The concept of social distancing alone is quintessentially spatial! There are many important planning questions, for example, related to good quality housing (think about people living in – tiny – houses with no external space whatsoever), easy access to green space and recreation, vulnerability and resilience of the urban economy including its cultural sector. The concept of interaction environment, introduced and analysed in Chapter 10, acquired quite a different meaning as suddenly interaction meant risk and danger. In our view, the spatial implications of the 2020 COVID-19 crisis are also characterised by interscalarity as even the large Randstad scale is relevant here. Spatial planning undeniably has contributed to diversity; a dispersed world city where cities and towns still have their own distinctive identities and where people are not locked-in in an endless 'sea of houses', the greatest fear of the 1950s makers of the Randstad concept.

We speculate that the Randstad idea – the value of a polycentric metropolis—will become more not less important in the post-pandemic future, as we see the value of avoiding damaging congestion caused by a sprawling metropolis. We will see new strategies for economic development that emphasise self-sufficiency and resilience of smaller cities and towns, more effective re-use of existing commercial urban areas, and much more attention to the natural systems that created the delta and the Randstad, as advocated by Hooijmeijer in Chapter 4. Meyer in Chapter 3 makes the radical proposition that in the long term this may inevitably involve managed decline of the Randstad cities and a move to higher ground in the east. Above all, the levels of government intervention required in the response to the COVID-19 crisis are unlikely to be undone quickly. There will be an appetite for stronger government action on managing the spatial development of the territory in the 2020s, in pursuit of the secure and healthy environments lauded in policy.

References

Alonso, W. (1973). 'Urban Zero Population Growth', Daedalus, 102(4), 191–206.

Faludi, A. (1996). 'Framing with Images', Environment and Planning B: Planning and Design, 23(1), 93–108.

Faludi, A. (Ed.) (2007). Territorial Cohesion and the European Model of Society. Lincoln Institute of Land Policy, Cambridge MA.

Faludi, A. and Van der Valk, A. (1994). Rule and Order: Dutch Planning Doctrine in the Twentieth Century. Kluwer Academic Publishers, Dordrecht/Boston/London.

Friedmann, J. (2004). 'Strategic Spatial Planning and the Longer Range (with comments by John Bryson, John Hyslop, Alessandro Balducci, Wim Wiewel & Louis Albrechts, and a brief introduction by Patsy Healey)', *Planning Theory & Practice*, 5(1), 49–67.

- Frieling, D.H. (1983). 'Concepties en hun gevolgen' [Conceptions and their Consequences], Stedebouw & Volkshuisvesting, 64(6), 258–269.
- Frieling, D.H. (1997). 'Verstedelijking als politieke opgave' [Urbanization as a Political Challenge], Stedebouw en Ruimtelijke Ordening, 78(5), 4-8.
- Hall, P. (1966). The World Cities. London: Weidenfeld and Nicolson.
- Hall, P. (1977). The World Cities; Second Edition. London: Weidenfeld and Nicolson
- Hall, P. (1984). The World Cities; Third Edition. London: Weidenfeld and Nicolson.
- Hendriks, F. and Toonen, T. (Eds) (2001). Polder Politics: The Re-Invention of Consensus Democracy in the Netherlands. Farnham: Ashgate [Reissued in 2018 by Routledge].
- Korthals Altes, W.K. (2006). 'Stagnation in Housing Production: Another Success in the Dutch "planner's paradise?" Environment and Planning B: Urban Analytics and City Science, 33(1), 97-114.
- Koster, K., Stafleu, J. and Stouthamer, E. (2018). 'Differential Subsidence in the Urbanised Coastal-deltaic Plain of the Netherlands', Netherlands Journal of Geosciences, (97)4, 215–227.
- Meijers, E. and Burger, M. (2017) 'Stretching the Concept of "borrowed size", Urban Studies, 54(1), 269-291.
- Ministerie van Infrastructuur en Milieu/Ministry of Infrastructure and the Environment (2012). 35 Iconen van Ruimtelijke Ordening in Nederland/35 Icons of Dutch Spatial Planning. Ministerie van Infrastructuur en Milieu/Ministry of Infrastructure and the Environment, The Hague.
- Ministry of the Interior and Kingdom Relations (2019). Draft National Strategy on Spatial Planning and the Environment; A Sustainable Perspective for Our Living Environment. Ministry of the Interior and Kingdom Relations, The Hague.
- Nieuwland, S. and Van Melik, R. (2020). 'Regulating Airbnb: How Cities Deal with Perceived Negative Externalities of Short-term Rentals', Current Issues in Tourism, 23(7), 811-825.
- OECD (2016). OECD Territorial Reviews: The Metropolitan Region of Rotterdam The Hague, Netherlands. OECD Publishing, Paris.
- OMA (2008) Zeekracht [Sea Power] A Strategy for Masterplanning the North Sea. OMA, Rotterdam, https://oma.eu/publications/zeekracht-a-strategy-formasterplanning-the-north-sea.
- Oost, J. and Hoekstra, A.Y. (2007). 'Flood Damage Reduction by Compartmentalization of a Dike Ring: Comparing the Effectiveness of Three Strategies', Journal of Flood Risk Management, 2(4), 315–321.
- PBL, Planbureau voor de Leefomgeving (2009). Overstromingsrisicozonering in Nederland: Hoe in de ruimtelijke ordening met overstromingsrisico's kan worden omgegaan [The Zoning of Flood Risks: How Spatial Planning Could Manage Flood Risks]. PBL, The Hague.
- Sijmons, D., Hugtenburg, J., Feddes, F. and Van Hoorn, A. (2014). Landscape and Energy; Designing Transition. nai010 Publishers, Rotterdam.