Learning International Lessons

Dutch spatial planning in transition

Shyreen Shaib

Master Thesis

June 2016

The Netherlands

California

Denmark

England

Japan

New Zealand

Oregon

CLICK ON THE ICONS OF THE LOCATIONS TO GO TO THE MAIN SPATIAL STRATEGIES USED IN THIS RESEARCH

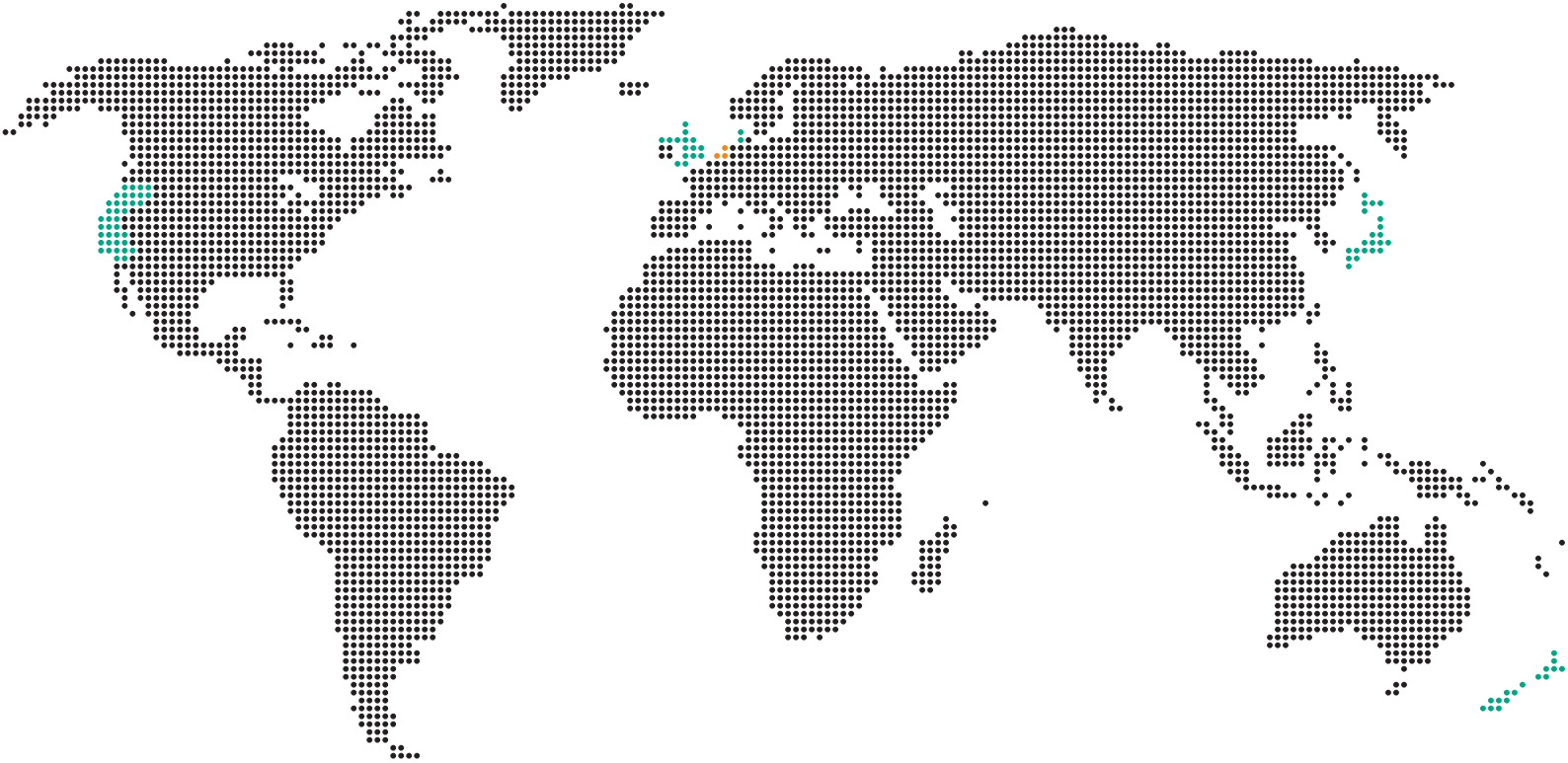
NOVI: Nationale Omgevingsvisie (National Environmental Planning Strategy). Planned to go into effect in 2018.

SVIR: Structuurvisie Infrastructuur en Ruimte (National Policy Strategy for Infrastructure and Spatial Planning). The current national spatial strategy of the Netherlands. Went into effect in 2012.

Content-related

Process-related

Product-related



‘And he who does not know himself does not know others, so it may be said with equal truth, that he who does not know others knows himself but very imperfectly.’

- Sir Joshua Reynolds, 1776

Ministerie van Infrastructuur en Milieu

Colophon

LEARNING INTERNATIONAL LESSONS:
DUTCH SPATIAL PLANNING IN TRANSITION

Master Thesis 16 June 2016
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Cover
Aerial collage of Dutch spatial structure. By author

Keywords
comparative study | national spatial strategies | policy transfer | spatial planning |

Acknowledgments

This graduation project dives into the history of Dutch spatial planning, the definitions of spatial strategies and visions, methodologies for comparative planning, understanding the spatial strategies of seven different locations in relation to their context, grasping a method on transferring innovations from other strategies to the Dutch strategy, the role of design on the level of national spatial planning, visualising each step in an integrative and clear manner, synthesizing it back to clear recommendations, and so much more; all within the time-frame of one graduation year. I could not have succeeded to bring this enormous complexity to a comprehensive and effective end product without the large amount of help I have received throughout the project.

I would like to thank my graduation mentors Vincent, Daan and Michiel for all the time and effort they have put into helping me succeed in their own way;
Vincent, thank you for sharing your immense knowledge on (comparative) spatial planning, your anecdotes, your constant remarks on all my writing, but mostly your confidence in this project and for always pushing me to go one step further in my critical thinking.
Daan, thank you for challenging me to step outside my (methodological & always justified) comfort zone and your on-point comments which always help me to make the next step in finding synthesis between the research and design. Most of all, thank you for assuring me that design within urbanism has a million definitions.
Michiel, bedankt voor de tijd die je voor mij hebt vrijgemaakt in jouw verschrikkelijk drukke schema. Jouw frisse en scherpe opmerkingen hebben mijn project constant door verbeterd en ervoor gezorgd dat ik het kon terugkoppelen aan de werkelijkheid.; zonder jou was dit project een stuk minder relevant geweest. Ik wil je vooral bedanken in jouw hulp om mijn project behapbaar te houden en mij mentaal gezond te houden door te vragen hoe het met mij gaat en niet alleen mijn project. Je bent veel meer voor mij geweest dan een afstudeerbegeleider; ik waardeer alles wat jij afgelopen anderhalf jaar hebt toegevoegd aan mijn persoonlijke en professionele zoektocht en ontwikkeling.

This project would not exist without the Ministry of Infrastructure and the Environment. My deepest thanks go out to David van Zelm van Eldik, the project leader of the NOVI, who suggested doing this project; thank you for believing in me and offering me the opportunity to stay involved with NOVI.
I have received so much relevant feedback during different sessions and presentations at the ministry, thanks to all who have expressed an interest in my project with specific thanks for the NOVI project team and the department of spatial design whose regular comments, feedback and enthusiasm for the project kept me going.

I would also like to offer a special thanks to the following very intelligent and specialised people who took their time to help me at different stages of my graduation:
Roberto Rocco, Wil Zonneveld, David Evers, Stefanie Duhr, Peter Ache, Daniel de Groot, Diego Sepulveda Carmona and Paul Broekhuisen.

Thanks to my friends Yos, Steph, Martina, Onno, Eva, Nirul, Barbara, Paolo, Luis, Aiste, Dan, Willem and many others for both distracting me from this project and helping me advance in a million ways.

My final thanks go out to the most important people in my life: my mom, my dad, Yasmin, Younes, Rayan and my grandpa, may he rest in peace. Thanks for always believing in me and giving me all I need to achieve my dreams.

Please feel free to contact me for any interest in this graduation project!

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Samenvatting

Dit afstudeerproject is gemaakt in samenwerking met het Ministerie van Infrastructuur en Milieu, om lessen te leren voor de Nationale Omgevingsvisie (NOVI), de nieuwe ruimtelijke strategie voor Nederland die in 2018 in werking zal treden. Kijkend naar de Nederlandse geschiedenis van nationale ruimtelijke visies, heeft NOVI de potentie om een belangrijk mijlpunt te worden in de constante transitie. De ambities zijn hoog en er zijn innovatieve doelen gesteld voor de inhoud, het proces en het product, maar er is nog onvoldoende duidelijkheid over hoe deze doelen bereikt gaan worden. Dit afstudeerproject kijkt over de grenzen heen en onderzoekt de ruimtelijke strategieen van zes andere locaties in de wereld om lessen te leren voor de NOVI. Een belangrijk element van dit onderzoek is de toepasbaarheid van deze lessen. Daarom kijkt dit project niet alleen naar de innovaties maar is ook gezocht naar de afhankelijkheid van de innovaties aan de context. Hierdoor kunnen algemene principes en concepten worden onderscheiden van de specifieke principes en concepten binnen ruimtelijke strategieën.

Om dit te bereiken is er een methodiek ontwikkeld die bestaat uit vier delen: de theorie, het vergelijkend onderzoek, de demonstratie en de reflectie. De theorie en de reflectie worden ingezet als constante ondersteuning, onderbouwing, verantwoording, reflectie en bevestiging door het project heen.
Het vergelijkend onderzoek observeert de context en de ruimtelijke strategie van Nederland en vergelijkt het met de volgende zes locaties: Californië, Denemarken, Engeland, Japan, Nieuw Zeeland en Oregon. Elk van deze locaties is gekozen op basis van de volgende criteria: een globale spreiding, een bepaalde gelijkenis met Nederland en de aanwezigheid van innovatieve oplossingen voor de gestelde doelen die NOVI wilt bereiken.
De algemene vergelijking leidt tot twee typen analyses: de vergelijkende analyse en de locatie-specifieke analyse. De vergelijke analyse gebruikt de observaties van de algemene vergelijking om zes sleutelvariabelen voor inhoud, proces en product vast te stellen om de variatie in (nationale) ruimtelijke strategieën te meten. De locatie-specifieke analyse is een collectie van inspirerende innovaties die specifiek plaatsvinden in een van de zes gekozen locaties De innovaties zijn gecategoriseerd met een primaire focus op de inhoud-, proces- of product doelen van de NOVI.

Om de toepasbaarheid van alle geleerde lessen van het vergelijkend onderzoek te begrijpen wordt het gedemonstreerd in twee fasen: replicatie en applicatie. Replicatie is een oefening om de effecten en consequenties van de transferabiliteit van strategieën te toetsen, door de andere ruimtelijke strategieën te kopiëren op de Nederlandse context. De replicaties worden gevisualiseerd in illustratieve kernbeelden waarop vervolgens wordt gereflecteerd. De overkoepelende conclusie van deze beelden is dat de product gerelateerde innovaties het minst afhankelijk zijn van de context, en de inhoudelijke innovaties het meest. Vooral de inhoudelijke innovaties met ruimtelijke implicaties zijn afhankelijk aan de context, daarom worden er vijf ruimtelijke inhoudelijke innovaties dieper uitgewerkt om de relatie met de context beter te toetsen en demonstreren wat voor impact het zou kunnen hebben op de Nederlandse context.
Op basis van de replicatie oefening, de analyse van de sleutelvariabelen en theorie over visies en ruimtelijke strategieën is het mogelijk om algemene principes en concepten te filteren die kunnen worden toegepast in Nederland. Voor de einddemonstratie wordt er een ontwerp voor de NOVI voorgesteld als synthese van de voorgaande stappen naar een geintegreerd persoonlijk ontwerp van inhoud, proces en product, met volledige inachtneming van de Nederlandse context.

Dit volledig proces leidt tot conclusies in de vorm van aanbevelingen voor de NOVI en een reflectie. De aanbevelingen voor NOVI bestaan uit een drieluik; de eerste hoofdaanbeveling is om ***geinspireerd te raken door voorbeelden met open overweging voor de context****. Het deelt inspirerende lessen die zijn gebaseerd op de locatie-specifieke analyse. De tweede hoofdaanbeveling is om* ***bewust te zijn van de functie van de strategie in relatie tot de veranderende rol van de overheid en de bijhorende NOVI daartoe te ontwerpen****. Het bevat algemene aanbevelingen waarin terug wordt gegrepen naar een balans in de functie van een ruimtelijke strategie als geheel en de rol van de overheid. Deze aspecten worden gekoppeld aan de sleutelvariabelen en aan een brede set van tools die kunnen worden ingezet. De laatste aanbeveling is om de* ***algemene principes toe te passen, maar de beperkingen van NOVI's doelen te herkennen en er extra aandacht, tijd en moeite aan te besteden****. Dit is gebaseerd op de algemene principes die eerder zijn gefilterd, en hoe ze toe te passen in de NOVI.*

Summary

This graduation project is created in collaboration with the Dutch Ministry of Infrastructure and the Environment, to learn lessons for the new national spatial strategy which expected to go into effect in 2018.
Considering the Dutch history in spatial planning strategies, this spatial strategy (currently called NOVI) has the potential to become an important milestone in a constant transition. It has high ambitions and has set innovative content-, process - and product objectives, yet is not sure how to reach those objectives. This graduation project takes a look beyond the borders and explores the spatial strategies of six other locations, to find inspiration and learn lessons for the NOVI. An important aspect is understanding the applicability of lessons learned. Therefore, this project seeks to not only find innovations, but also understand its dependence on the specific context and filter the general principles and concepts from the specific principles and concepts of spatial strategies.

To do so, the methodology consists of four parts: the theory, the comparative study, the demonstration and the reflection. The theory and reflection are used as constant support, justification, reflection and validation tools throughout the project.
The comparative study observes the context and the spatial strategy of the Netherlands and compares it with the following six locations: California, Denmark, England, Japan, New Zealand, and Oregon. Each of these locations is chosen based on the following criteria: a global spread, a certain similarity with the Netherlands, and offer innovative solutions to the objectives that the NOVI has aimed to achieve.
The general comparison leads to two types of analyses, a comparative analysis and a location-specific analysis. The comparative analysis uses the observations of the general comparison to filter six key variables in content, process and product, which determine the essential variation in (national) spatial strategies. The location-specific analysis is a collection of inspiring innovations that take place specifically in one of the six locations. The innovations are categorized with a main focus on either content, process or product, but show the connection to the other categories with a set of indicators which are based on NOVI's objectives.

To understand the applicability of the lessons learned in the comparative study, it is demonstrated in two phases: the replicability and applicability. Replicability is used as an exercise to test the effects and consequences of policy transferability, by copying another spatial strategy onto the Dutch context. The replications are visualised through strong conclusive drawings, which is then reflected upon. The overarching conclusion is that product-related aspects are the least dependent on the context, while content-related aspects, especially with spatial implications, are the most dependent. Therefore, five spatial content-related innovations are chosen to dive into, to understand its relation to the context, and what it could mean for the Dutch situation. Using the exercise of replication, the analysis on key variables, and the theory on visions and spatial strategies, it is possible to extract the general principles and concepts which can be applied in the Netherlands. As a final demonstration, a proposed NOVI is created to synthesize above steps into an integrated personal design of content, process and product, with full consideration of the Dutch context.

This entire process leads to conclusions in the form of recommendations for the NOVI and a reflection. The recommendations for NOVI are three-fold;
The first main recommendation is to **get inspired by examples with open considerations of the constraints of the context.** It offers inspiring lessons based on the location-specific analysis. The second main recommendation is to **be aware of the purpose of the strategy and the transforming role of the government; design the NOVI accordingly.** It offers general recommendations based on finding a balance in the purpose of the strategy and the role of the government, by linking them back to the key variables and offering a set of tools to consider.
The third and final recommendation is to **apply the general principles, but to recognize the critical issues within NOVI's objectives and offer them the time, effort and research needed.** It is based on the general principles and concepts which have been extracted earlier and how they can be applied in the NOVI.

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1 | INTRODUCTION & RESEARCH

1.1 | Context

In 2012, the Dutch government announced a new spatial planning act which will cause an enormous reform in the national spatial planning system. The slogan for the act is 'simply better'. It aims to combine and simplify acts and regulations for the user and to create one act in which the user will not experience any irregularities or inconsistencies (see Figure 1.1). This act also steps away from the term spatial planning and includes everything which affects the physical living environment in a more general term of 'environmental planning'. The proposed act will be accompanied by a spatial vision, which will also integrate the 80 (and counting) sectoral visions into one. It will be called the '*Nationale Omgevingsvisie*', or the 'National Environmental Planning Strategy', with a Dutch abbreviation of NOVI.

This graduation project is created simultaneously with the first steps of the NOVI. The NOVI aims to publish an agenda in June 2016 which creates an urgency and names themes. This project has closely adapted to the currents of NOVI and its agenda, by combining the academic research with an internship within the project team of the NOVI. Through this graduation project, a first insight can be offered to what the NOVI could look like in 2018.

Figure 1.1 The official leaflet of the new spatial planning act. It promotes an integral system with a new flexible and active government. Source: Rijksoverheid.nl

1.2 | Motivation

My motivation for this project has a personal and professional aspect. I have developed my interest during my course of studies towards a more strategic, complex level of urbanism. Starting my bachelor's degree in Eindhoven, I quickly shifted from urban design to urban management to understand the large processes behind design-making. Afterwards, I made the decision to do my masters in Delft, following this interest as well as my passion for international perspectives, including international planning cultures and concepts. To discover my professional ambitions after the studies, I searched for an internship of a planning perspective, with a focus on large scales and complexities. This led to an internship at the Ministry of Infrastructure and the Environment, where I was part of an inter- and intra-departmental project team to work on the National Environmental Planning Strategy. During the course of six months I thoroughly enjoyed working on a strategic level, in which abstract problem solving and process design led the work and wanted to continue working on this project. During this period I also discovered the lack of international perspective in the project team, where everything is set up from the national borders to the smaller scales, leaving behind the international scales. Also, there was a general need for more academic research to be conducted within the project team. I discussed the possibilities to set up a graduation project including an international perspective in the new strategy, which was received enthusiastically by the project leader, as well as TU Delft, which provides me with the international and national academic knowledge, insight and perspective which the ministry needs. I hope this graduation project will help me achieve my professional ambitions by making the start of my professional career full of international perspectives, comparative studies and complex strategic projects.

PERSONAL CHALLENGES

Even though any graduation project in itself is a challenge, I started the graduation project with the aim to challenge myself on specific aspects, which I can use as a reflection of my learning process through graduation. The first challenge is in the combination of working with the NOVI project team at the ministry and graduating simultaneously. Not only is it a challenge in time management but especially in managing to keep an academic distance in the project to be able to research it correctly. The second challenge is the method of design and visualisation of the end product. In choosing this project, I realised quickly that there aren't very similar projects to use as examples or inspiration for my own. Forming my end product in this abstract design project is therefore a challenge in itself, especially in consideration of the fact that I need to present my work to a broader range of people (at the ministry), not only urban designers and planners.

The third challenge is in creating a network of experts for my project as a mean of reflection by testing and validating my observations, analyses and conclusions. It requires making use of the network of the ministry and TU Delft, and formulating the right questions at the right moments in the process, to obtain a more solid result and support for my project.

1.3 | Problem analysis

INTRODUCTION

The Netherlands has enjoyed a great reputation in spatial planning for decades, often used as an example for the rest of the world. Currently, the government has announced a new ambitious planning strategy for 2018, which promotes co-creation; the process of creating the vision with all members of society; and aims to innovate its content, process and product. This strategy has the intention to redefine Dutch planning by creating a sustainable and robust planning system but the outcome remains uncertain. This chapter researches the history, present and future of national spatial planning in the Netherlands, and states that it is in current transition.

PAST REPUTATION

The Netherlands is often seen as an example for spatial planning worldwide and has received a lot of praise in academic literature. Hajer and Zonneveld (2000) even talk about its almost 'mythical reputation' in the international academic literature. Dutt and Costa (1985) were very confident in their choice of words, claiming that the Netherlands is decidedly the most planned country among the European nations. And Faludi and Valk (1994) start their book Rule & Order with the following sentence: 'This book is about an art in which the Netherlands excels: strategic planning'.

This praise arises for various reasons. One is the high number of full-time planning professionals in the Netherlands (Mastop, 1989), though it is arguable that the institutional density in itself does not make the system legitimate or effective (Hajer and Zonneveld, 2000). It is also praised for its institutional creativity; the continuous output of planning documents on the national, regional and municipal level (Faludi, 1990). This came mostly from an ambitious set of national policy documents, in which the integration of various ambitions and interests created comprehensive plans. Even before the national documents, integrated plans were made (see Figure 1.2 and Figure 1.3). The plans use strong spatial planning concepts to realise the ambitions, such as the Green Heart and the Randstad (Gerrits et al., 2012). The national spatial plans are seen as successful because they are more than hopeful visions; many aspects of them have been realised (Needham, 2015).

Hall (1977) was clearly impressed with these concepts and the resulted general urbanization policy. The reports addressed the spatial dimension of various sectors like infrastructure, settlement structure, economic development and the protection of various natural resources. All was to be realised in a coordinated way, which was possible thanks to the Dutch culture of consensus building and compromise (Evers et al, 2000). The praise for this coordination and consensus model is high. It is realised through 'an extensive and fine-meshed network of coordination and consultation between the physical planning at the various levels and between the physical and sector planning' (Needham, 1989). The national reports emphasize this coordination and comprehensiveness the best, and in the 1960s and 1970s they were seen as more or less 'blueprints' of future spatial design for the Netherlands (Bontje, 2003). Spatial planning had the capacity to align itself with prevailing interests like housing and agriculture (Hajer and Zonneveld, 2000) by its strong horizontal coordination system. The department of spatial planning never had its own finances, so it relied on influencing other sectors through the spatial concepts to achieve its goals (van der Burg, 2012).

These aspects led to a 'comprehensive, functionalist, well-structured and dominant planning doctrine' (Gerrits et al., 2012; 336). The term 'planning doctrine' was introduced by Faludi and Valk (1994; 20) and is defined as 'a set of interrelated and enduring notions about spatial organisation and development strategies and the guidelines on how to handle them'.

SPATIAL PLANNING IN THE 20TH CENTURY

The first four national spatial strategies can be seen as a sequential set of documents with a fairly consistent position which in essence follow the five 'basic principles' of spatial planning by the *WRR* (*Wetenschappelijke Raad voor het Regeringsbeleid*, or Netherlands Scientific Council for Government Policy in English); The concentration of urbanization, spatial cohesion, spatial differentiation, spatial hierarchy and spatial justice. (Hajer & Zonneveld, 2000; Needham, 2007)

In 1960, the first national spatial planning policy document appeared (Figure 1.4). The growth of the cities in the Randstad vs. the rest of the Netherlands and a fear of congestion is the main problem named in this document. The concept of a buffer zone was introduced as well as the preservation of the green area in the centre of the Randstad, later called the Green Heart. (VROM, 1960).

Figure 1.2 Offering a more abstract and schematic rendering of the structure of the Randstad, 1958. Source: Westen des Lands Committee

The *Wet Ruimtelijke Ordening* (*WRO*) is the first spatial planning act, created in 1965. It is a reflection of two important societal movements: the democratisation and the decentralization. The *WRO* was highly decentralised at first, but over the years a string of amendments ushered in centralising instruments like the key planning decisions (*Planologische kernbeslissingen*, more commonly known as *PKB*) (Roodbol-Mekkes et al., 2012), *PKB* is the name of the entire procedure to realize important plans in national spatial development. An example is *PKB* Schiphol which was created to enlarge the Schiphol Airport.

The second national spatial planning policy document of 1966 forms the basis of how to deal with urban sprawl in the Netherlands. It is a document that until this day is seen as the most daring vision (see Figure 1.5)about the development of urban space and landscapes which was set up by the national government, and has become a monument of optimistic planning spirit that would always stay unparalleled (Lörzing, 2014). The government decided that the growth of the Randstad needed to be controlled to avoid monocentric urban metropolises like London and Paris, for

Figure 1.3 Map of the design for closing off the Zuider Zee, including the order and the time scheme for closure and construction, demonstrating strategic planning in 1901. Source: Mastering the City ||

Figure 1.4 The cover of the first national policy document in 1960. The start of a series of famous Dutch national planning documents Source: VROM

fear of congestion and pollution. Cities were not allowed to have more than one million inhabitants so buffer zones were created to stop the growth (van der Burg, 2012). Instead, growing cities outside of the Randstad were stimulated, known as growth nuclei (VROM, 1966). This spatial concept came to be known as 'bundled deconcentration' (See Figure 1.6).

The 1970s emerged with a strong realisation of the surrounding environment, and a time of continued decentralization. Mastop (1977:3) names this period 'the heyday of Dutch national spatial planning' . The third policy document of 1974 concludes that different areas need different approaches, in different sectors. The growth nuclei policy was sharpened and continued, priority was to be given to the expansion and densification of existing cities and the nuclei which are close to the cities. This spatial policy adopted a regional economic development policy within its spatial concepts; new growth nuclei were promoted and subsidies were given to stimulate jobs outside of the Randstad area, specifically in the North and Limburg. The objective of the document is interweaving different functions to achieve spatial differentiation (one of the basic principles of the WRR) in the landscape and to regenerate old neighbourhoods. (VROM, 1974)
In the fourth spatial planning policy document of 1994, the national government decided to put an end to the growth nuclei policy. Compact cities became the new leading force in urbanisation, within the trend of urban regeneration which started with the third document. The gap between working and living was growing bigger, which caused high levels of commuting (VROM, 1991). Also, the priority of government was to make the Netherlands stronger economically with the rise of the European Union and to recover from the partial oil crisis of the 1980s. This document reveals the first signs for a shift to focus on economic development, and was praised for the integrated approach where the environment, housing, nature and economy came into spatial consideration and placed in an international context (Schijndel, 2011).

TRANSITION #1

From the 1990s, academic criticism started to substitute the praise for the Dutch system. The integration of different sectors and horizontal and vertical coordination was seen as becoming too complex because of the high number of sectors and rules and regulations

Figure 1.5 Blokjes kaart: an innovative map which specifies urban typologies and how to distribute them for the year 2000. Source: VROM 1966

that needed to be integrated in the planning document. It was argued that it was not able to achieve the comprehensiveness that it aimed to achieve in spatial planning anymore (PBL, 2015). Different departments of the government created sectoral documents with spatial implementations as a result of this complexity, instead of dealing with the spatial aspect through the national spatial planning policy documents. Although these documents did not have a legal status, it was argued that it was a sign of the limitations of the institutional design and that this institutional system was not best suited anymore to deal with the issues in spatial planning in the future (Hajer and Zonneveld, 2000). Mastop (1995) also argued for an inevitable fundamental reorientation of the system, and van Rossem (1996) talks about a fossilization of the old system. In a Dutch newspaper *Trouw*, van Houten (2000) published an article that the Dutch planning system has been running behind the facts for a whole century.
The sectoral documents with spatial implications were not the only argument for change in the spatial planning system. They were a result of certain driving forces larger than the organisation of an institutional system. The first important driving forces are globalisation and Europeanization. In globalisation, an intensification of worldwide relationships occur which are driven by

international trade, as a result of open markets. It stimulates a stronger international economy in the Netherlands to stay competitive. Europeanization also influences Dutch policies as the importance of economic development in

Figure 1.6 Explaining Bundled deconcentration; the underlying principle for the current Dutch urban structure.. Source: VROM 1966

relation to the rest of Europe the world started to rise, which increased the complexity of national spatial planning in three ways. First, national borders were no longer seen as the natural demarcations so the larger scales of the plans increased in importance. Second, it brought along a new level of abstraction by trying to translate economic aspects into a spatial concept, like the Mainports Schiphol Amsterdam and the Harbour of Rotterdam of the fourth policy document. Third, governance issues related to different spatial aspects like infrastructure became more complex (see Figure 1.7) due to the fact that most issues are regulated outside national authority (Gerrits et al., 2012).

A second important driving force was the change of urgency which led to new modes of communication. Since the start of national spatial planning after world war two, the main driving force of spatial planning was the reconstruction of the country to recover from war. However, when creating the fourth spatial planning policy document, there was the belief that the Netherlands would be "finished" in 2015, if all was executed as planned (PBL, 2015). Also, managing the growing population became less important with the changing demographics, related to lower fertility rates, smaller household sizes and the individualising society.

The third driving force is a societal trend; the growing democratization. Related to the previous driving force, in the post-war era the population started questioning national choices if they had not been included in the process. Also, there was more appreciation for heritage, culture, leisure and green spaces. These sectors became more dominant in spatial planning once the reconstruction after the war seemed finished, which put doubt on large infrastructural expansions, business districts, etc. (Gerrits et al., 2012).

Related to these driving forces came a neo-liberal wave which gained political momentum through western Europe. Neoliberalism became the new course of capitalism starting in the 1980s. It promotes extensive economic liberalisation, privatisation and deregulation. Deregulation is the process of reducing state regulations as the government is seen as too invasive and needs to cut back on its involvement in society. By reducing economic regulations, economic liberalisation is realised to make room for the market, including private initiatives of companies, developers and individual citizens (Gerrits et al., 2012). A part of this deregulation process includes privatization (see Figure 1.8). Since the 1980s, several companies have been transferred to the private sector in the Netherlands, including bus companies, energy companies and postal services (Kuiper, 2014)

SPATIAL PLANNING IN THE 21ST CENTURY

As a result of the neoliberal trend, the academic criticism, and the different driving forces mentioned above, changes started to be made in the government which resulted in radical changes in the spatial planning system, In

2001, the national government accepted the argument that spatial development can no longer be planned in the 'hierarchal' and

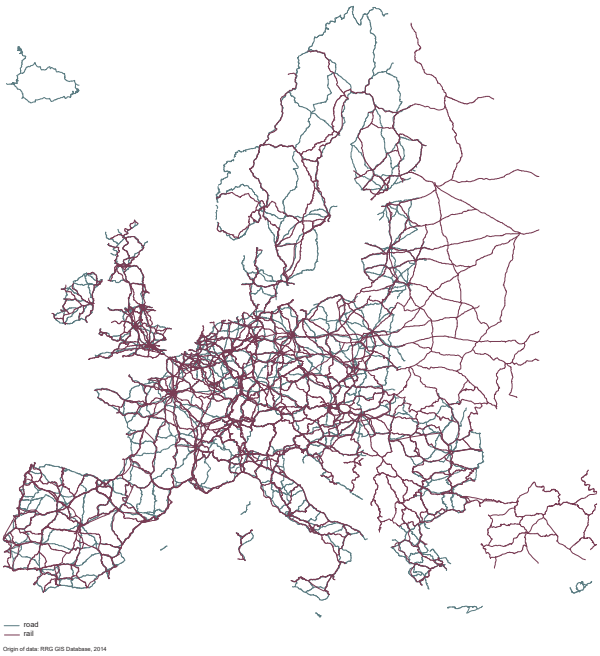


Figure 1.7 Infrastructural map of Europe, showing the important relationship of the Netherlands with Europe. Source: ESPON

'doctrinal' way. The idea of a mouldable society, in which planners could control and design spatial developments in order to change society, came under intense pressure (Gerrits et al., 2012). Big (economic) interests wanted more freedom within this idealogical shift, which caused the 'blueprint' strategy aspects of earlier policies to be abandoned completely (van der Cammen and de Klerk, 1996), and there was a strong shift of responsibilities, as the national government decided that decentralisation had more advantages than disadvantages in the changing times. This helped to bring citizens closer to the decision-making process, and reduces the number of politicians and levels of governance, which speeds up the planning process and reduces costs (Needham, 2015). This interest in an open planning process resulted in more focus on horizontal and vertical cooperation instead of just coordination, as well as the involvement of communities in the different phases of planning and collaboration with different private actors. Gerrits et al. (2012) note that in this cooperation process, there was a slow shift from vertical integration to a horizontally layered government, each performing tasks in their own sector. This led to an area-specific policy, where sectors were integrated in the smallest scale instead of nationally.

At the national level, the nature of planning changed significantly. The focus of spatial planning shifted from comprehensive and distributive goals to sectoral goals, economic competitiveness, strategic national interests, and, more recently, climate change. (Knaap et al., 2015). In the institutional system changes were made as well. The *Rijksplanologische dienst (RPD),* the service of the ministry which was responsible for the spatial development in the Netherlands, ceased to exist. The agency was thus split up into a government advisory body and a research institute to separate the policy-makers from the professional planners. Roodbol-Mekkes et al. (2012) explain that politicians felt uncomfortable with the fact that the planning agency was responsible for evaluating its own government policies.

To announce the start of a transition, the Dutch

Figure 1.8 A critical infographic about the privatisation across Europe, which affected the Dutch government as well. Source: Roarmag.org

government abandoned the series of policy documents and released the '*Nota Ruimte*' ; the national spatial strategy; in 2004. The slogan of the document is *'decentralise where possible, centralise where necessary'* (VROM, 2004). The number of rules and regulations imposed by the central government on others have been reduced, while creating more scope for local and regional governments, social organisations, private actors and the citizens themselves. The government set four objectives with 39 national interests. Sustainability became a trend and the main goals of the document are to create space in a sustainable and efficient way for different functions that need it, and maintaining the

livability and increasing the quality of urban and rural areas.
Adding to the transition, a new spatial planning law *(Wro)* was created in 2008, which accommodates the new strategy better than the old law (see Figure 1.9).
This law abolished the evaluation of land-use plans by provinces and the national government (Zonneveld and Evers, 2014), which is based on the principle of offering more freedom and speed in the local plans, and enabling diverse approaches at the local level more explicitly. It was created as a reaction on the (political) feeling that each layer of government did not express their interests clear enough, which is now required beforehand. This new system aims to remove unclarified issues and complex decision-making processes. (van der Burg, 2012).

Pushing changes even further, in the 2010 the Ministry of Housing, Spatial Planning and Environment merged with the Ministry of Transport, Public Works and Water Management. As a result, spatial planning became a part of the new Ministry of Infrastructure and the Environment *(Ministerie van Infrastructuur en Milieu)*. The first vision to fall under the new law and in the new ministry is the *Structuurvisie Infrastructuur en Ruimte (SVIR)*. The National Policy Strategy for Infrastructure & Spatial planning was published in 2012 and is the vision of the current spatial policy of the Netherlands. The *SVIR* merged the interests of infrastructure and spatial planning and defines 13 interests of national importance related to those sectors.

TRANSITION #2

The changes of the planning system were not welcomed in the way the government anticipated. Though it is argued that it is too early to draw conclusions on the failure or success of the new system (Needham, 2015), other observers have been more critical. Separating the professional planners from the policy-makers has led to removing the innovative capacity, leading to a form of planning where decisions are made by lawyers and are embedded in rules and regulations, on the basis of 'sectoral non-negotiable and legalistic definitions and obligations' which are not adaptable to local circumstances. (Roodbol-Mekkes et al., 2012: 382). Bontje (2003:1) claims that the 'planners' paradise' which once existed in the Netherlands has disappeared, as national planners 'seem to limit themselves to giving a broad outline to desired future spatial development and to leave the concrete actions for meeting their planning goals to the lower

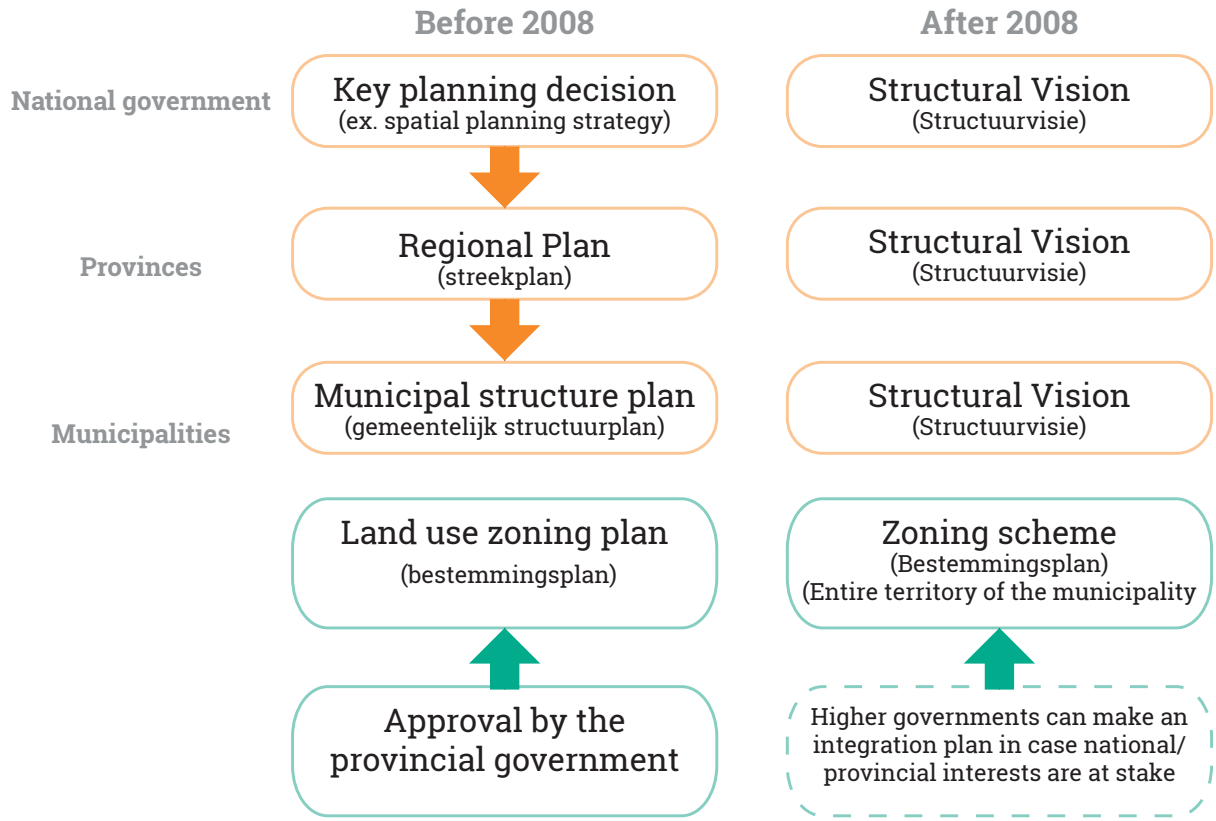


Figure 1.9 Change of governance system of spatial planning. After 2008, the hierarchal planning doctrine made place for a more free and open system. Source: author

tiers of government'.
Zonneveld and Evers (2014) see an erosion of consensus and compromise as society has become more politically polarized over the last two decades. With this movement, the polder model which was seen as the foundation of Dutch spatial planning is being eroded as well. They also note that the national government is retreating from spatial planning with the disappearance of the Ministry of Housing, Spatial Planning and Environment. Spatial planning has weakened under the powers of infrastructure, symbolically proven in the changed name of the Ministry of Infrastructure and the Environment, and was detached from important sectors like housing and agriculture in the reorganisations. Within this focus on infrastructure at a national level, integrating various sectoral demands became a responsibility of regional governments (Gerrits et al., 2012). This is recognised in the *Wro* of 2008. The clear cooperation system of the old law of spatial planning was replaced with a loose and (in practice) non-obligatory structure (Lörzing, 2014), with an unclear division of planning powers and responsibilities between the different levels of government.
The content of the visions has changed considerably. While in the first 60 years the national policy documents gradually included more sectors, the scope has been reduced greatly since 2002 (see Figure 1.10). Urbanisation concepts have disappeared entirely; there is no mention of desired patterns of urbanisation in the *SVIR* (Zonneveld & Evers, 2014). The document offers no spatial concepts on how to approach the 13 national interests it formulates, nor does it define who will take responsibility on specific issues. Virtually all policies in the *SVIR* are related to economic growth. The focus on economic development instead of spatial justice is in line with the movement of many other countries (Needham, 2015) (See Figure 1.11 for an overview).
Spatial quality is no longer considered a national interest in the *SVIR* and Zonneveld & Evers (2014) argue that by making economic development the main priority, the comprehensive integrated approach, which was the strength of Dutch spatial planning, has been replaced by a 'type of regional economic approach'. However, one of the key characteristics of the regional economic approach is a balanced economic, territorial and social development (Farinós Dasí, 2007) and the *SVIR* focuses only on specific regions for development, strengthening the locations which were already strong on an economic level. Van der Burg (2012) states that the planning system is still 'comprehensive' and 'integrated' but with a different meaning. Comprehensive but with a marginal list of national interests; and integrated but with a locus of integration in the provinces and municipalities. Also, the *SVIR* makes decentralization appear like a goal in itself, instead of a tool to achieve certain goals.
A major upcoming driving force for change in the last 20 years is the ideology of the 'energetic society', called *de energieke samenleving* in Dutch. As a consequence of the neoliberal wave mentioned before, individuals and groups of the society have established themselves into new

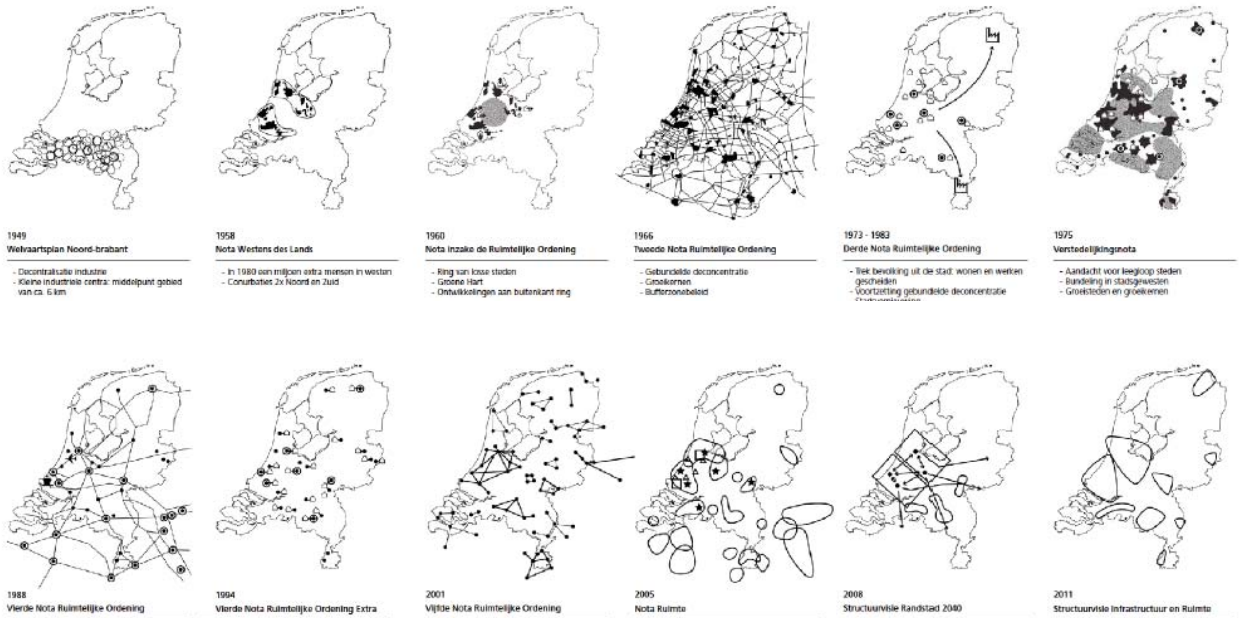


Figure 1.10 Change of geographical scope and conceptual level of the national spatial strategies through time. The last few strategies put the main focus on economic competitiveness. Source: Bureau MUST

Main Changes in Dutch National Spatial Strategy

Reasons that a National Government Might Want to Pursue a National Spatial Strategy	Dutch National Spatial Strategy to Approximately 2003	Dutch National Spatial Strategy After Approximately 2003
To meet international obligations	Not very important because there were few such obligations	Important because there are many more international obligations, especially from the EU
To provide infrastructure of national importance	Important, but not always supported locally	Important and promoted by greater powers of the national government
To achieve important national goals that the separate regions alone cannot achieve	Important, but not always supported locally	Selective; applied only to economic competitiveness
To reduce inequalities between regions	Important and supported locally	No longer part of national spatial policy
To ensure that citizens of the country enjoy the same basic amenities, wherever they live	Important and supported locally	No longer part of national spatial policy
To resolve conflicts when there are negative external effects between regions	Important, but often resisted locally	No longer part of national spatial policy
To compensate for disproportionate effects of national government responsibilities (e.g., defense) that would affect the distribution of people and activities within the national space	Important and supported locally	No longer part of national spatial policy
To achieve territorial integration of different national government	Important	Given greater importance

Figure 1.11 Table of Main changes in Dutch National Spatial Strategy. The societal aspect disappeared entirely after 2003. Spatial planning focused mainly on economic competitiveness. Source: Needham, 2015; p. 325

coalitions. Hajer (2011) defines the 'energetic society' as a society with autonomous citizens and innovative companies, with fast reaction times, high levels of creativity and capability of learning, comprised of people that want to take action and invoke changes by themselves. They realise surprising ideas that haven't been initiated from the government, as the power of innovation is mostly found within individual citizens. People desire more space to realise their personal ambitions, and Hajer (2011) argues that it is the responsibility of the government to create the right conditions for them to realise it. This societal energy is a new motor of the development of the living environment (NOVI, 2015). However, the energetic society has limited opportunities to flourish within the current system of rules

and regulations, citizens are not able to realise good ideas which would add value to the living environment, an essential part in a system of decentralisation (Hajer, 2011). This is a result of the remains of the old 'planning doctrine' which allows for very little flexibility in the structured and dominant regulation system

Another driving force for the upcoming strategy is the theory of the fourth industrial revolution (see Figure 1.12), 'which is about to take place right now' according to Hermann et al (2015;5) and is defined by them as 'a new level of value chain organization and management across the life cycle of products' and is based on cyber-physical systems 'where all of the objects you use on a day to day basis are custom-made and constantly talking to one another for your benefit' (Oberhaus, 2015). This revolution instigates a new sense of urgency to handle spatial aspects in a new way, taking into account the technological advances which are available, allowing for a new framework for action from the national government.

A third driving force is a sense of environmental consciousness and the need to go towards more sustainable methods of planning for our surroundings.

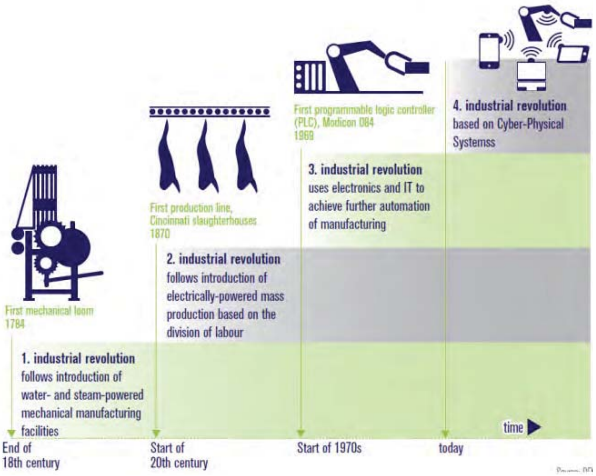


Figure 1.12 A time line of the industrial revolutions; showing the current fourth revolution based on cyber-physical systems. Source: German Research Center for Artificial Intelligence

THE NATIONAL ENVIRONMENTAL PLANNING STRATEGY

In 2012, the national government announced a new act for the living environment, to once again integrate the different sectors that have drifted apart. These sectors have generally developed over several decades, and the process resulted in dozens of laws, hundreds of regulations and up to 80 visions related to the living environment. Each of these sectors have their own principles, procedures, and requirements. The old planning system was recognized as an approach to try to reduce the complexities of integration, but is said to have resulted in a system which is not efficient enough to resolve problems in an integrated manner, for all layers of government (Bersee, 2015).

The announcement of the new act shows a recognition of the criticism and the trends in the society. With the slogan 'Simply Better', the act aims to integrate all sectors which relate to the living environment, reducing the number of acts from four to one comprehensive act; the number of *AMvB's* (*Algemene Maatregelen van Bestuur*, or General administrative orders) from 120 to four, and the number of visions and strategies from 80 to one. This new vision will be named *NOVI* , a Dutch abbreviation for *Nationale Omgevingsvisie*, which translates to the National Environmental Planning Strategy and borrows from the high ambitions of its old reputation, adapted to current times, to co-create an innovative vision with all groups of society. By co-creating, the national government encourages active involvement and interactive relationships, but also creates a better understanding of the interests of different parties.

This new course of action in spatial planning is related to a larger governmental transition of a changing role to become more serving instead of ruling. It is based on the objective of helping the (energetic) society to make better choices on matters that affect the living environment on all levels.

The approach used to achieve the objective is three-fold, based on content, process and product. For the content, it seeks to combine all sectors with an influence on our living environment and take out any inconsistencies that were created by the large number of sectoral documents. By doing this, *NOVI* aims to seek meaningful connections between sectors, scales, regions and time (see Figure 1.15). This will allow the Netherlands to tackle issues which have been ignored or of which their existence or character was not understood, and create better solutions for the challenges which they are facing now like the energy transition or climate adaptation. An example of a meaningful connection between regions is the soil subsidence which affects almost half of the Netherlands, yet each municipality deals with it in its own way. This non-coordinated process of dealing with subsidence has resulted in unnecessarily high costs (Robert et al., 2001).

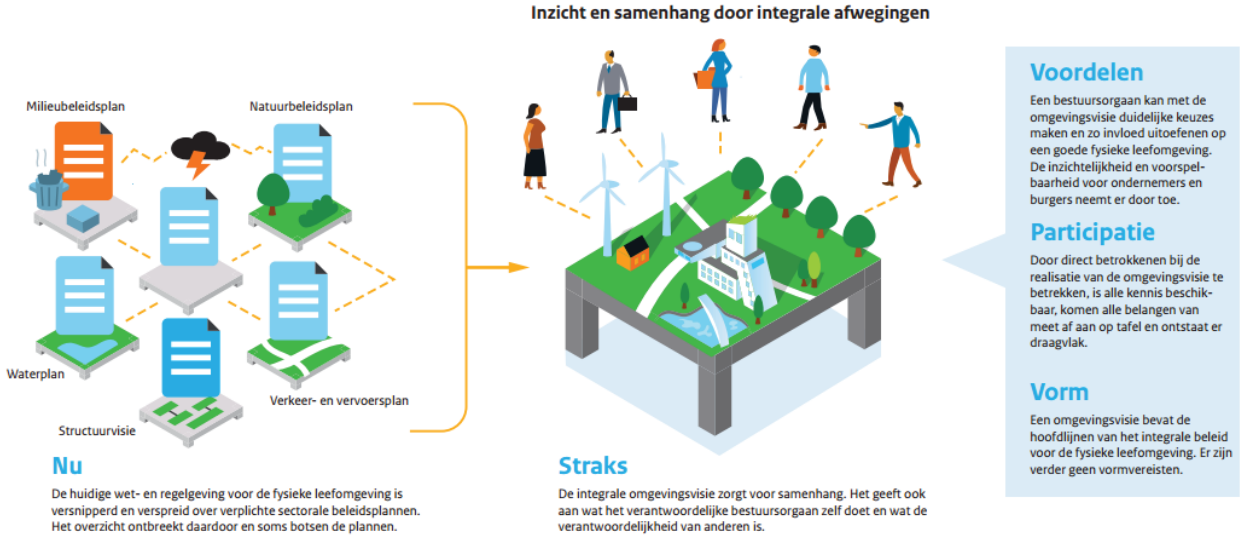


Figure 1.13 A summary leaflet explaining the new national environmental planning strategy. This strategy will move away from sectoral policies to a comprehensive overview in which participation in encouraged. Source: Rijksoverheid.nl

The second innovation should take place in the process. The Dutch government aims to co-create the vision with four different fields: civil society, the interdepartmental field, the intradepartmental field, and the academic field. The innovation lies in finding a sustainable, inclusive process for individual citizens, companies etc. to join this process and accept this vision as their own. Also, the national government is cooperating with the provinces and large municipalities to simultaneously create the new visions (the Environmental Planning Strategy is going to be an obligatory tool for provinces and municipalities starting 2018) to learn from each other and understand the struggles which are being dealt with on each level, but also come to better insights to which level must deal with which issue, a feature that was slightly lost in the *SVIR*. (see Figure 1.16)

The last form of innovation is sought in the product. The result should be a sustainable and robust planning system which doesn't need to be replaced after a few years but adapts with the changing needs. It also needs to be comprehensive and clear, so that each actor involved can make the right decisions (see Figure 1.17).

By innovating in content, process and product as explained above, the national government aims to reach its objective and take its responsibilities of national interests, role distribution and guiding the country. See figure 18 on opposite page for a summary of the objectives.

The high ambitions of the upcoming vision is receiving both enthusiasm and scepticism. One of the most important sources for the content requires seven departments of the national government to work together to create one vision in which they need to find meaningful connections instead of simply defending their own sector (see Figure 1.14). It is the first time that this many departments work together on one joint vision, and are required not only to cooperate or coordinate but to fully integrate their visions into one. Zonneveld and Needham acknowledge the limitations of aiming to integrate all sectors of the living environment, and plead for selectivity (Zwanniken, 2014).

Also, there are doubts about the process and whether the government will be able to convince citizens to support the new document. First, it is difficult to grasp the urgency of the new document. The Delta programme of 2011 was able to create new coalitions and find support by communicating the urgency that citizens would be at risk if changes would not be taken. However, communicating a similar sense of urgency for the general living environment is difficult ever since the post-war reconstruction has been completed. Second, the aimed co-creation with citizens is proving to be a difficult process. There are several risks in the process of citizens participation. The first is the risk of 'over-asking' citizens into a sense of fatigue. A second risk is not being able to meet the citizens' expectations. A third risk the gap between the general short-time, limited view of individual citizens versus the strategic long-term view which visions should adopt (SCP,

2015)
Despite the scepticism, the national government aims to achieve its ambitions to be able to present a new and innovative strategy for the living environment in 2018, and become the next milestone in national spatial planning. This strategy offers chances and possibilities to assure a new stance in governance, to keep innovating the position of national spatial planning in a pro-active manner, and to rethink the objectives it aims to achieve and how to achieve them. Innovation requires space for experimentation and learning. This graduation project aims to discover the comparative study as a method of learning for the *NOVI*, which can contribute to a better understanding of the Dutch system, as well an inspire and recommend the *NOVI* project team on how to achieve its objectives for the strategy.

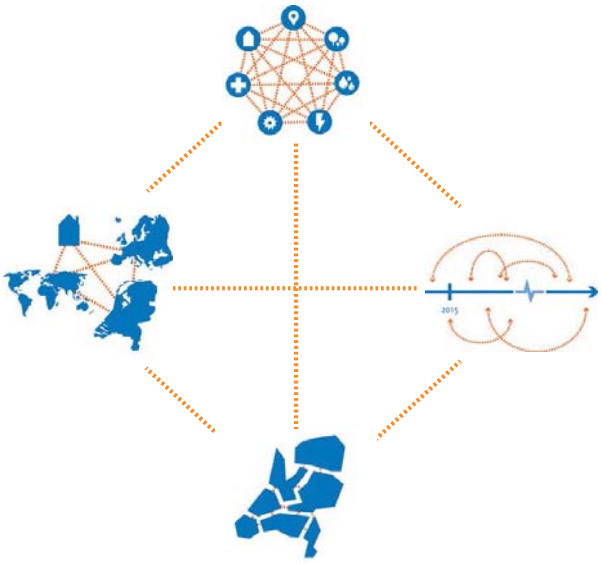


Figure 1.15 Content objective; connecting sectors, time, regions and scales. Source: author, commissioned by NOVI.

Figure 1.14 A selection of the policy documents that will be integrated in NOVI. Source: author, commissioned by NOVI.

Society

Using the power of innovation of Dutch society

Governments

Co-creating Environmental strategies between national, provincial and municipal governmets

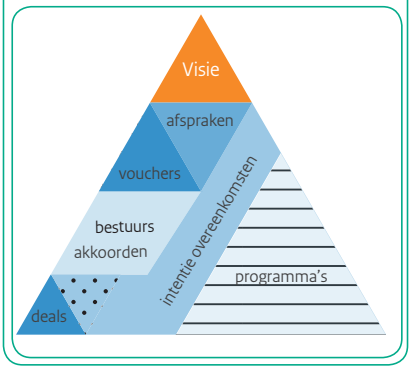
Departements

One vision for the physical living environment of seven departments

Figure 1.16 Process objective, a co-creative process with society, governments and departments. Source: author, commissioned by NOVI.

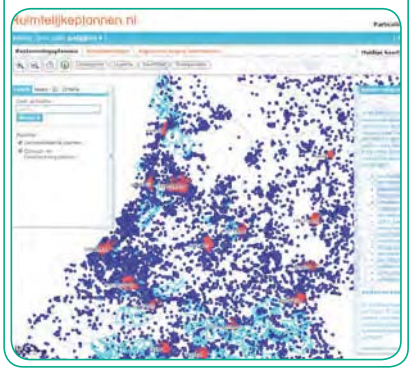
New management

Different types of implementation



Digital

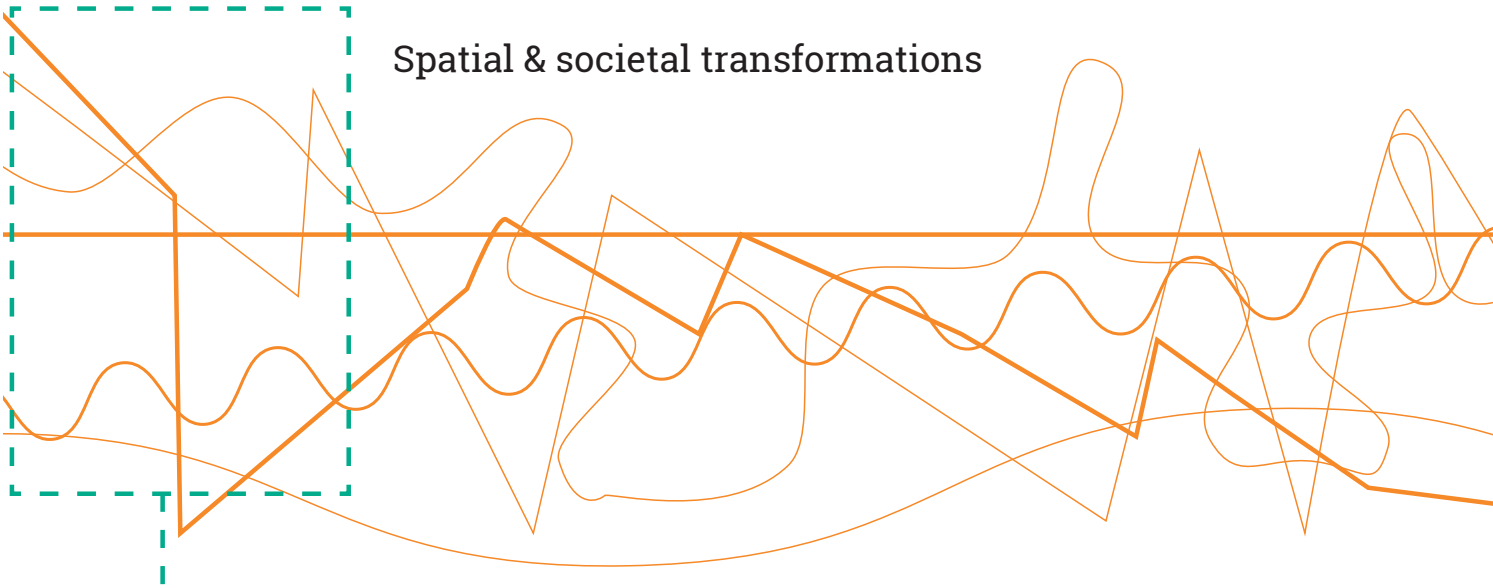
Clear, dynamic and digitally clickable file which can switch between levels of scale



Adaptive

Yearly updated instead of replaced every few years

Figure 1.17 Product objectives, a new type of management with digital and adaptive product design. Source: author, commissioned by NOVI.



TRANSITION #0

ACADEMIC PRAISE

'The Dutch system of spatial planning can rejoice in an almost mythical reputation in the international academic literature'
Hajer and Zonneveld, 2000

'This book is about an art in which the Netherlands excels: strategic planning'
Faludi, 1994

'The Netherlands is without a doubt the most planned country among the European nations'
Dutt and Costa, 1970

'comprehensive, functionalist, well-structured and dominant planning doctrine'
Gerrits et al, 2012

'(The Netherlands makes use of) an extensive and fine-meshed network of coordination and consultation between the physical planning at the various levels and between the physical and sector planning'
Needham, 1989

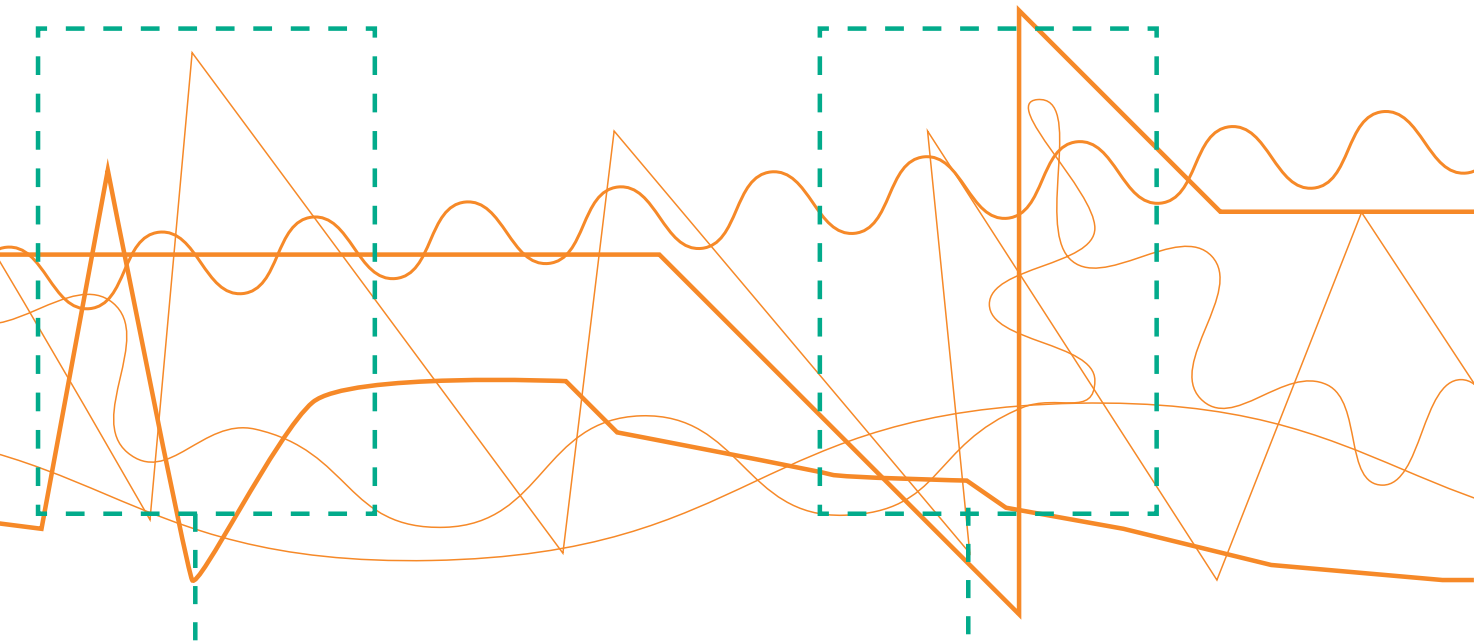
DRIVING FORCES

Housing need

Accessibility

Demographic shifts

Figure 1.18 Summary of problem analysis, showing the correlation of the spatial strategies with the spatial and societal transformation. Source: author



TRANSITION #1

ACADEMIC CRITICISM

'Spatial planning can (in 1990) no longer achieve comprehensiveness'
PBL, 2015

'The institutional system is not best suited anymore to deal with ..issues yet to come'
Hajer and Zonneveld, 2000

'The (spatial planning) system needs an inevitable and fundamental reorientation'
Mastop, 1995

'The Dutch spatial planning system is fosslizing'
van Rossem, 1996

DRIVING FORCES

Globalisation

Europeanisation

Change of Urgency

Democratisation

Neoliberalism

....

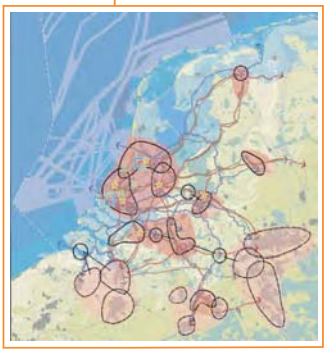
1990

National Policy Strategy for Infrastructure & Spatial planning

Fifth policy document

2000 2005 2010

Wro



National spatial strategy

TRANSITION #2

ACADEMIC CRITICISM

'The changes have not made the spatial planning doctrine stronger... The innovative capacity of the central planning agency has waned and planning will become more embedded in rules which cannot be adapted to local circumstances'
Roodbol-Mekkes et al, 2012

'In the first 60 years, it (National spatial strategy) gradually included more aspects of spatial development, but in the past 10 years, the scope has been reduced greatly.'
Needham, 2015

'Since the 1990s, the polder model has eroded as society has become more politically polarized, and with it support for a technocratic activity oriented towards consensus and compromise has eroded as well.'
Evers and Zonneveld, 2015

'(national planners) seem to limit themselves to giving a broad outline to desired future spatial development and to leave the concrete actions for meeting their planning goals to the lower tiers of government'.
Bontje, 2003

DRIVING FORCES

The energetic society

The fourth industrial revolution

Environmental consciousness

National Spatial Planning Agenda

NOVI

2015 2020 2050

Nationale Omgevingswet

1.4 | Problem definition

NOVI has the potential to become an important milestone in the current transition of Dutch spatial planning. What the final product will contain is yet to be defined; which gives the opportunity to step outside the national borders and learn lessons of innovation from other governments of other countries on how to achieve aimed objectives of NOVI, categorised in content, process and product, within the framework of spatial and societal transformations.

1.5 | Research aim and questions

RESEARCH AIM

The research aim is to **learn lessons** from other (national) spatial strategies based on the content, process and product objectives of the Dutch national government for the NOVI.

MAIN RESEARCH QUESTION

What are the characteristics of (national) spatial strategies and how can they be transferred?

SUBQUESTIONS

Comparative study

- Which planning strategies from other locations are suitable for a comparative study?
- How do the Dutch context and spatial strategy compare in general to the other locations?
- What are the key variables to measure the variation in (national) spatial strategies?
- What location-specific innovations can be found in content, process and product based on NOVI's objectives?

Demonstration of transferability

- To what degree are the innovations of the spatial strategies of other locations dependent on the context?
- What are general principles and concepts that can be filtered from the spatial strategies?
- What could NOVI look like if the filtered principles and concepts are applied on the Dutch context?

1.6 | Societal & scientific relevance

SOCIETAL RELEVANCE

As mentioned in the problem analysis, the society is claiming and receiving a more important role in the choices of the national government. They are invited more often to join in this open planning process that the government is trying to create but there is still a big gap between the citizen and the national government. On the other hand, citizens are now often not waiting for the government to tell them what to do but have developed a sense of taking care of themselves and their living environment, but are faced with unnecessary legal issues which makes it very difficult for them to realise their ideas. This group of citizens is very important to the national government as they can provide insight to the struggles and the limitations of the current situation and how it needs to be adapted. By giving the national government recommendations of planning & design tools, instruments and methods; integrated in a form of adaptive planning while being the strong connection between the global and local scale, with a strong process of citizen participation and co-creation, the society can embrace this new role which it has had trouble with to give a concrete form.

SCIENTIFIC RELEVANCE

This project aims to add to the academic knowledge of international planning systems and comparative studies. It researches the tension between planning transitions and planning cultures, which changes are possible and which aren't, as well as the applicability and comparability of a comparative study. Important is the understanding and the performance of spatial structures, especially in the change of focus from spatial content to more abstract aims like economic competitiveness. A strong methodology for these comparisons is crucial, in the context of increasing global integration. It also aims to discover innovation (through the comparative study and literature) in large-scaled planning systems. The main innovations are in policy integration and comprehensiveness of a certain strategy, multi-level governance systems and citizen participation, and the national strategy as a communication system The complexity of spatial relationships is growing larger and the classic institutional system of the Netherlands can't deal with it in the same manner. The rediscovery of the national Dutch role of spatial planning coincides with the time line of this project.

1.7 | Understanding NOVI

WHAT IS THE NOVI?

The NOVI in Dutch stands for *Nationale Omgevingsvisie.* Its official English translation is currently National Environmental Planning Strategy. These terms require some elaboration. First, there is a significant difference between the terms *omgeving* and environment. Omgeving refers to 'the surroundings', establishing a broader meaning than 'environment'. NOVI is a comprehensive document that includes all sectors which affect the physical living environment (OW, 2015). Second, in the Dutch term, there has been a concious choice of naming it a 'national' vision instead of a governmental vision *(rijksvisie)* within its new intention of inviting other actors to participate. Also, the Dutch name uses the term 'vision', while the English name uses the term 'strategy'. This chapter consists of two parts. The first aims to understand what both terms mean and what their purpose is. It seeks the definitions through literature, and gathers the types and models that have been presented. The second part uses the definitions, types, models, and a broader literature study to find 'key criteria' that are necessary for what a vision and/or spatial planning strategy should contain. The key criteria are categorized in general criteria, and criteria for content, process and product.

Definitions, types and models

(Spatial) visions:

Van der Helm (2009) distinguishes three aspects when dealing with general visions: (1) the future, (2) the ideal, and (3) the desire for deliberate change. The visions of the future is a recent definition, since the word 'vision' finds its etymological roots in the faculty of seeing, and therefore one could easily apply vision to what we prefer to call 'view' or 'perspective' . Secondly, a vision is often seen in the light of the ideal, wanting to aim for something better than before. The third aspect is the underlying assumption that a vision is needed in order (to help) to converge our actions into a desired direction. These aspects correlate 'vision' with 'change'. A vision only becomes a vision if it contrasts sufficiently with the past and/or present.

In spatial visioning, Shipley and Newkirk (1999) identify four substantive forms of planning vision: the vision as master plan, the vision as the truth, the vision as utopia or dystopia, and the vision as mission statement. (see

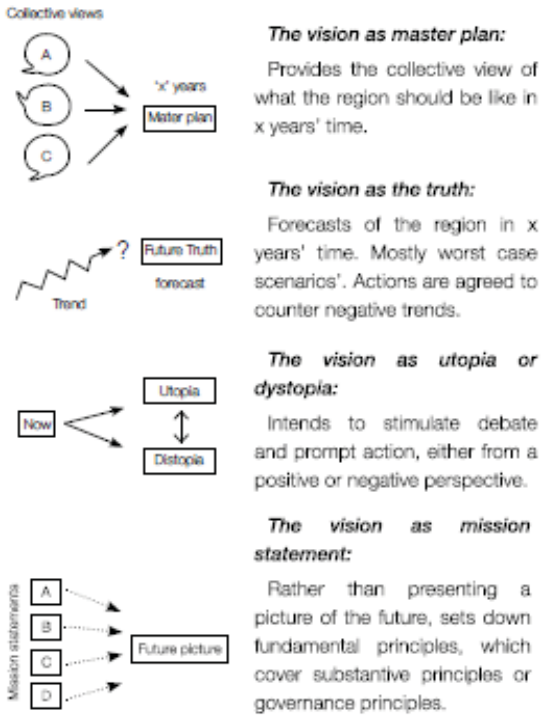


Figure 1.19 four types of spatial visions which are used as tools to illustrate ideal conditions in long-term future. Source: Adapted from Shipley & Newkirk, 1999

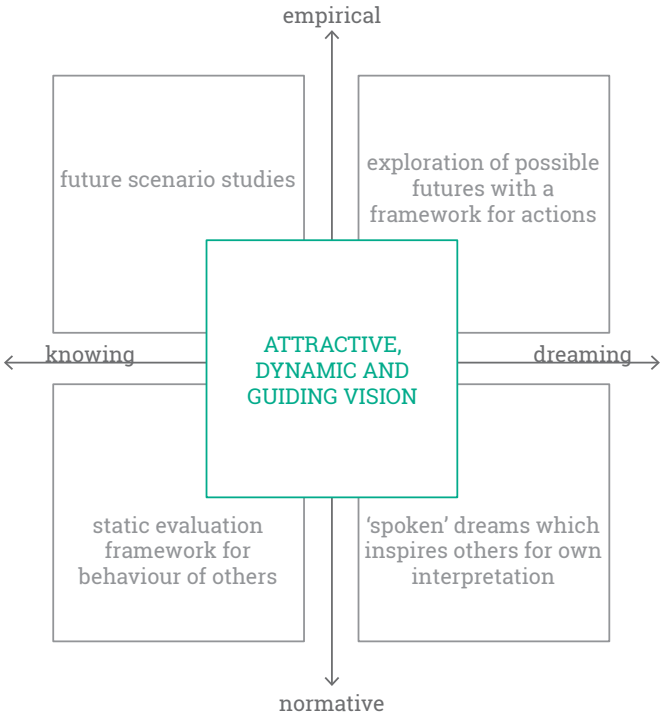


Figure 1.20 A model for understanding visioning in spatial planning. An attractive vision should balance 'knowing and dremaing' and being 'normative and empirical' Source: Adapted from Teisman, 2016

Figure 1.19 for definitions), These four types suggest that spatial visions define 'vision' more broadly, and do not necessary relate it to the three aspects mentioned above.

Teisman offers a different model in visioning when it comes to spatial planning (see Figure 1.20). He talks about vision in a balance between 'dreaming' and 'knowing' and between being 'normative' and 'empirical'.

MEANS \ AIMS	undefined	defined
undefined	potential futures	desirable futures
defined	probable futures	necessary futures

Figure 1.21 Types of futures, depending on the aims and means. For spatial planning, the focus usually lies on desirable futures. Source: Frieling, 2002; p. 492

A third model focuses specifically on the 'future' aspect when it comes to vision making (Figure 1.21), stating that the kind of vision defined in the strategy depends on if the aims and/or means are defined or not.

The role of design changes with each specific type of future. In the potential futures, design stays mainly conceptual, as it becomes an exercise of professionals. In the desirable futures, when aims are defined but the means aren't, design becomes programmatic, functional and system oriented. In probable futures however, it is based on traditional research, in which design focuses on the process, portraying rules to regulate the course of events. The last type of future is the necessary future, in which both aims and means are defined, design becomes a technical tool to demonstrate and communicate the set course of action.

Strategic (spatial) planning:

Literature often mentions the difficulty of finding clear definitions of spatial strategies (Albrechts, 2006; Friedmann, 2004; Healey, 1997). 'Strategy' first appears within military context, but strategic planning starts to take form in the USA in the private sector in the 1950s, due to the complexities of rapidly changing large organisations. This strategic method of dealing with change has found its application in spatial planning, starting from 1970s. (Albrechts, 2004) In Europe, Mastop (1998) traces strategic planning back to the 1920s, as it is used as a tool to direct activities to other actors or sectors. In the Netherlands, an example would be the spatial strategy of the Zuiderzee, introduced in chapter 1.3 (see Figure 1.3)

For Mastop (1998), the first traces of strategic spatial planning in northwestern Europe date back to the 1920s and 1930s. He links strategic spatial planning closely to the idea of the modern nation-state. Strategic planning is used here to direct the activities of others (different authorities, different sectors, private actors)

Faludi and van de Valk put strategic plans as an opposite of project plans (Figure 1.22). They Albrechts (2006) concludes that strategic (spatial) planning is not a single concept, procedure or tool, but a set of concepts, procedures and tools that must be tailored carefully to whatever situation is at hand. To summarize, he defines strategic spatial planning as follows:

Strategic spatial planning is a transformative and integrative, (preferably) public sector-led socio-spatial process through which a vision, coherent actions, and means for implementation are produced that shape and frame what a place is and what it might become. His definition suggests that a vision is an important element of strategic spatial plans.

	Project plans	Strategic plans
Object	Material	Decisions
Interaction	Until adoption	Continuous
Future	Closed	Open
Time element	Limited to phasing	Central to problems
Form	Blueprint	Minutes of last meeting
Effect	Determinate	Frames of reference

Figure 1.22 The difference between project- and strategic plans, showing the adaptive and flexible means of strategic planning. Source: Faludi and van der Valk, 1994; p.3

The integrative quality of strategic planning suggests a certain level of collaboration from key actors. Stead and Meijers (2009) identify three levels of policy integration: Policy cooperation, policy coordination and policy integration (see Figure 1.24 for an overview) Policy integration relates to the idea of a 'holistic government', it is reached when 'the consequences for that policy are recognised as decision premises, aggregated into an overall evaluation and incorporated at all policy levels and into all government agencies involved in its execution' (Underdal, 1980; p.162).

Planning is an activity that helps to the define the frame of reference for actors (de Vries, 2002). De Jong (1986) defines three functions for government planning : Providing insight, decision-making and actions. Graaf and van Hoppe (1989) also emphasize the need to legitimize actions through national (spatial) strategies, which is an important task for the national government because its law is both the aim and the instrument. De Vries (2002) explains that based on the responsibility of the national government, spatial planning as an activity can have two main functions; coordination or steering. Coordination is an activity that aims to bring together all decisions that affect one place, to avoid conflict as much as possible. Planning as coordination should ensure that actors can achieve their objectives without conflicting with others. Steering on the other hand is about guiding the spatial development in a certain direction; it restricts the decision-making freedom of a certain space significantly. The allocation of the VINEX neighbourhoods* is an example of steering by the national government. The national spatial strategy as a tool can also have two main functions; it used to either inform or

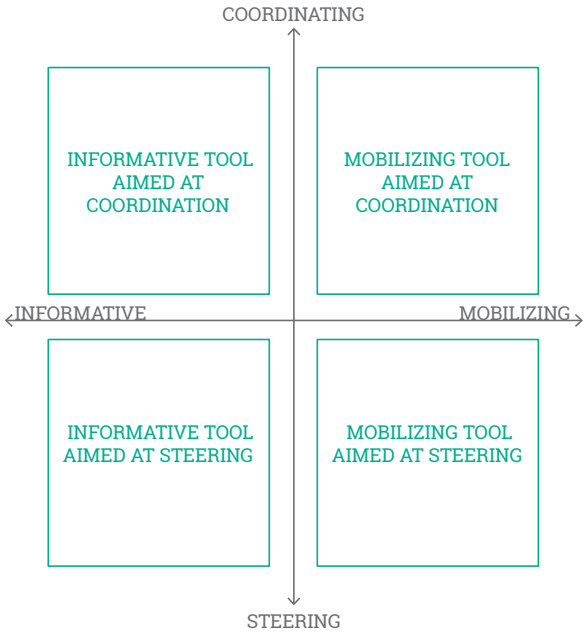


Figure 1.23 Considering the variation in the purpose of spatial planning. It is either a mobilizing or informing tool, aimed at either steering or coordinating. Source: adapted from de Vries, 2002.

to mobilize. When informing, spatial planning shares the current status, legitimizing choices made and offering explanations to the reader of the document. In mobilizing, its more about inspiring and inviting the reader to take actions. Using the above definitions, there are four different main types concerning the general aim of the national spatial strategy: The strategy as an informative tool aimed at coordination, the strategy as a mobilizing tool aimed at coordination, the strategy as an informative tool aimed at steering and the strategy as a mobilizing tool aimed at steering. (see Figure 1.23 for an overview)

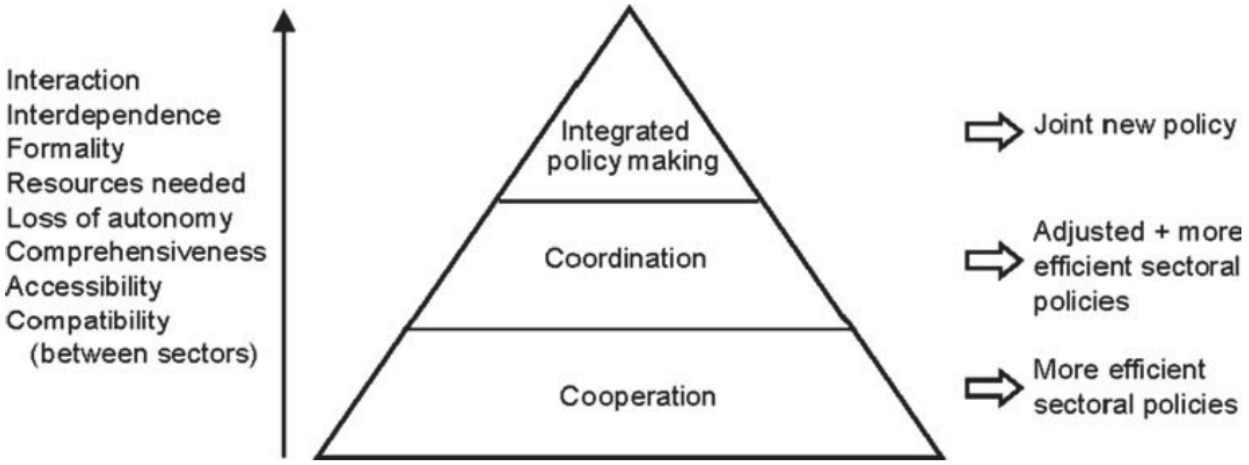


Figure 1.24 policy integration, coordination and cooperation. Source: Stead, 2009

Figure 1.25 Four types of government role The Dutch government aims to integrate all types of roles in its policies. Source: van steen 2002

The legitimate government	The relationship with the public is vertical and mostly takes shape in the protection of rights and obligations
The performing government	The relationship with the public is vertical and mostly takes shape in performance targets and transparency.
The networking government	The relationship with the public is more horizontal and takes shape in negotiations and compromises
The participating government	The relationship with the public is more participatory, which offers space and supports societal initiatives and collaborates with both organised and non-organised parties

Figure 1.26 Explanation of the different relationship of the government with the public and how it takes shape. Source: adapted from van Steen, 2002.

Role of the government:

The role of the government is closely related to the purpose of the spatial strategy. The Dutch national government is rediscovering its role with citizens (NOVI, 2016). This is related to the movement of the 'energetic society' mentioned earlier, and a current general decline of trust in the traditional model of the government (NRC, 2016). The relationship between citizens and governments is changing. This does not ask less of the government, but asks something different. Van der Steen (2002) defines four types of governance: the legitimate government, the performing government, the networking government and the participating government. In Figure 1.25, van der Steen explains that the government has moved between themselves and the citizens, and between public performances and political choices. See Figure 1.26 for an explanation of the different roles with citizens and the market. Another aspect to consider when discussing the role of the government is the role of the national government in the Dutch administrative system. The Dutch administrative system has consisted of three levels of administration since the Dutch constitution of 1848: the National government, the provincial government and the municipal government, called 'Huis van Thorbecke' or House of Thorbecke.. Since the European Union the powers have shifted in the House of Thorbecke, the national government no longer holds the highest power in the administrative system. Together with the decentralisation movement in the 2000s, there is a lot of insecurity about the role of the national government concerning spatial planning.

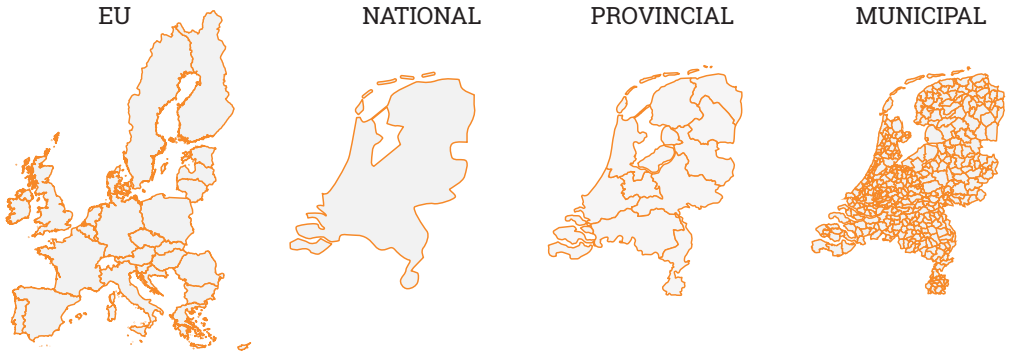


Figure 1.27 The administrative layers in the Netherlands. Since the EU the role of national government is unclear. Source: author

Key criteria

What should a strategic plan contain? This is a literature review which categorizes the key criteria for content, process and product in strategic plans. A summary of the criteria is in Figure 1.28.

CONTENT CRITERIA

For the content, there are some general ideas for criteria on how to select content. the *Planbureau voor de Leefomgeving* (2016) (the Environmental Assessment Agency; PBL) advised the NOVI to select content based on the following criteria:

- It should be about the long term. This is shared by Albrechts (2007) who talks about combining a long-term perspective with short-term actions.
- The content as a whole should have a type of coherence: either through friction or synergy.
- It should be content in which quality should either be maintained or gained
- It should be based on the subsidiarity principle.

A similar research has been carried out by the *Raad van de leefomgeving en infrastructuur* (2016) (the council of the living environment and infrastrcuture; Rli). It adds the importance of selectivity, and that the content should contain an international perspective. It also states that it should be challenge oriented.
Based on these criteria, the PBL and Rli advice the following themes for the *NOVI*:

- Energy transition
- Climate adaptation & safety
- Transformation of the landscape
- Improving the spatial-economic structure
- Circular economy
- Competitive and livable urban regions

Albrechts (2007) also suggests that selectivity is the essence of strategic planning, and a strategy should contain a limited number of strategic key issues. Byrson (1995) argues that the selected content should be oriented around decisions, whereas Faludi and Korthals Altes (1994) talk about action oriented content. it can also be results oriented (Poister and Streib, 1999) or implementation oriented (Byrson and Roering, 1988).
Needham (2015) observes that most strategic plans in Europe involve economic competitiveness, (recently) climate change and sustainable development.
Albrechts (2010) and Teisman (2015) also notice the shift from actual spatial content to relational concepts of space and place through networks.

PROCESS CRITERIA

For the process, Teisman (2015) suggests that the key to an attractive vision is to offer space for initiative for other actors, and that local governments should have the right to know and do better. This requires a right of deviation, with an obligation of justification. It suggests a broad support for the strategy, which can be achieved through a broad an diverse involvement during the planning process itself, coproducing the strategy with other key actors, trusting them, and by offering a clear framework for the local governments (Albrechts, 2010)
The United Nations (2010) has determined a set of criteria for good governance in general. This includes cooperation, equality, efficiency, transparency, accountability, civic engagement and citizenship. Openness and a democratic process should lead to an inclusive and integrative strategy (Albrechts, 2015). In the strategy making process, a broad collaboration should be sought through vertical, horizontal and geographical coordination. Groeneveld and van de Walle (2011) name 5 essential types of governments; the agile government, the open government, the evidence-led government, the collaborative government, and the devolved but accountable government.

PRODUCT CRITERIA

For the product, it is important that it has a certain adaptivity (Teisman, 2015; PBL, 2016; Albrechts, 2010) and that it should act as a supporting tool for the process. It should contain content, images and decision frameworks through which spatial change should be influenced and managed (Healey, 1997). Balducci (19XX) also notes the symbolic and practical role of a product to be a report on 'work in progress', as to stop it from becoming an obstacle in effective contemporary planning. It should be inspiring (Rli, 2016; Albrechts, 2007), by offering a long-term vision or perspective. Hames (2007) notes that it should confront our beliefs about what is important and why. It should be about possible and desirable futures and how to get there, and probing the future in order to make more intelligent and informed decisions in the present (Albrechts, 2015).

APPLICATION OF THE THEORY

This understanding of visions and strategies is used as a testing tool throughout this thesis for a better comprehension, reflection, validation and synthesis. See Figure 1.28 for a summary of the criteria.

In the comparative study, this theory is used in chapter 3.3, when a comparative analysis is made on the variation of national spatial strategies, by selecting six key variables in which the strategies are compared. These variables are based on the above understanding of the definitions, types and models of visions and strategic plans, and chosen to offer a broad understanding of key issues in the documents.

It is also used in the application chapter (6.2), to distill general principles and concepts from the comparative study, based to the key criteria formulated.

In the recommendations chapter 7, this theory is used to synthesise the methodology as a whole, relating back to the models and types , and connecting them to the variables of chapter 3.3, to offer insight in how to make balanced choices in creating a national spatial strategy.

Figure 1.28 A summary of the criteria for spatial strategies, giving a first overview of characteristics to consider when reviewing spatial strategies. Source: author

2 | METHODOLOGY

Introduction

The methodology consists of four main parts which are tied together by 'Lessons Learned'. The four parts are: theory, comparative study, demonstration, and reflection. 'Lessons learned' acts as a nucleus of the methodology as a constant reminder of the research aim; learning lessons for the NOVI (Figure 2.1).

The theory and reflection parts are supporters of the methodology, while the comparative study and demonstration are active elements. The comparative study mostly gives answer to the first part of the main research question: 'what are the characteristics of (national) spatial strategies?' The Demonstration phase dives into the second part of the research question, 'how can the characteristics be transferred?'

The separate sections are not researched in a linear process, the whole process is cyclical with the nucleus on "Lessons Learned", which is the main aim of the research.

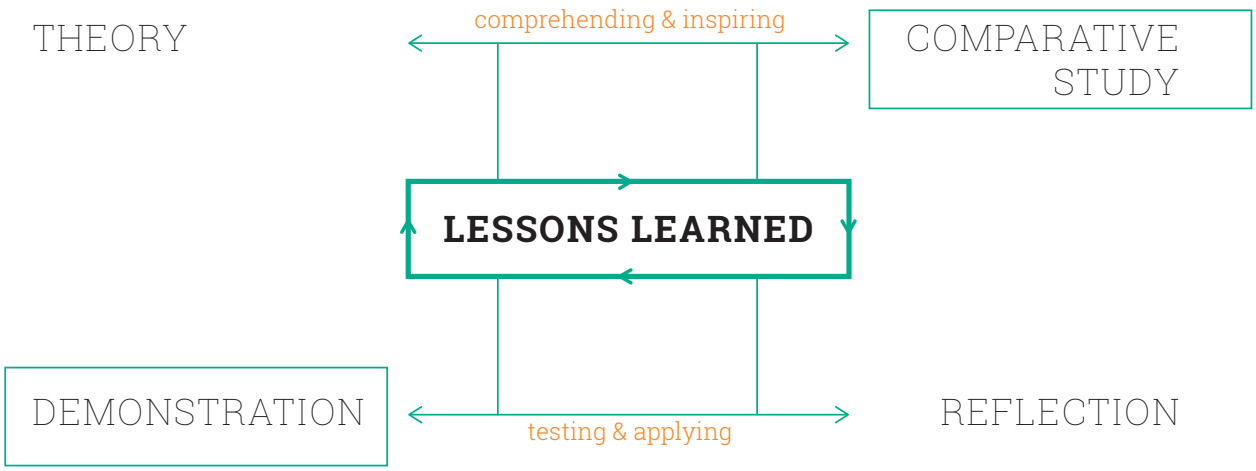


Figure 2.1 A summary of the methodology. The top part focuses on comprehending and inspiring, while the bottom part is concerned with testing and applying. Source: author

2.1 | Theory

The foundation of the research approach is the **THEORY**. The aim of the theory is to comprehend. The theoretical framework acts as a support base through the graduation thesis as a whole, and has three main functions in the process. The most general function is that it acts as a justification of the methodology as a whole. It supports each step by substantiation of academic literature. This plays a crucial role in the problem analysis (chapter 1.3) and for understanding NOVI (chapter 1.7) but also for the comparative study. The second function is to understand general key models and concepts in (national) spatial planning systems. Key definitions, general concepts, types of categorizations, types of planning systems, etc in planning needed to be understood throughout this project to understand the basics in each step. The third main function is the formulation of criteria and variables for comparison. The theoretical framework offers a basis for the filtering of criteria needed to make choices throughout the process. Examples are the criteria for comparison in the comparative study or the criteria for reflection. These are explained in detail further on.

2.2 | Comparative study

The **COMPARATIVE STUDY** is an extensive study in which the Dutch national spatial planning system is compared with other national planning systems, based on their context and national Planning systems. The aim of the comparative study is to inspire. Concepts like *policy transfer, planning culture and methodologies for comparison* are important in understanding comparative studies. It is defined as 'the desire to know how others make and implement policy and to see whether there are policies and practices that might be borrowed from other places' (Booth, 2011:14). International comparative studies have been popular within the profession of spatial planning, 'From the outset, modern urban planning has shown a strong internationalist spirit...despite obvious problems produced by language differences and distance' (Ward, 2002, p. 5).

The objective of the general comparative is to inquire what conditions have given rise to an innovative aspect of a spatial strategy and to investigate the characteristics of the spatial strategies and their relationship with the context. By answering this question, the government is helped in achieving its objectives based on content, process and product. The criteria needed for the comparative study are two-fold. On one hand criteria for the variables for the comparison are named and categorised, on the other hand the criteria for the choices of the locations are set. Both sets of criteria

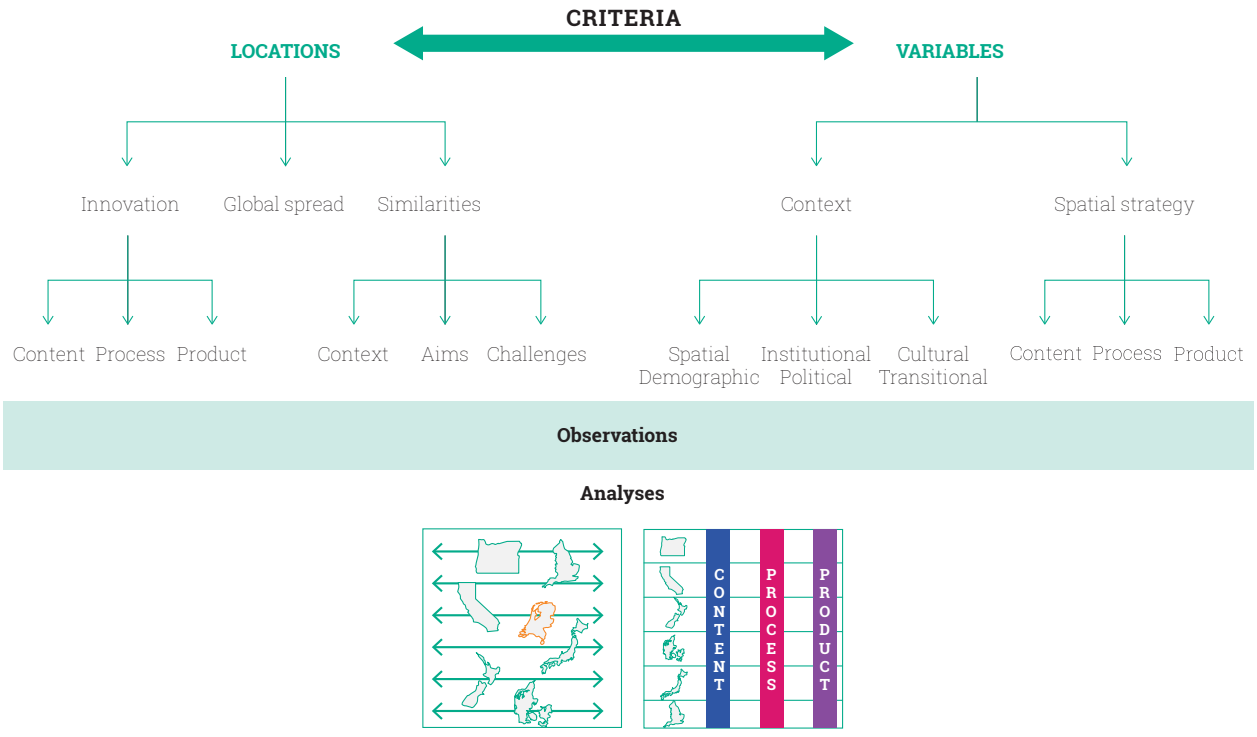


Figure 2.2 A summary of the comparative study. A formulation of criteria offers a methodological reasoning for the analyses. Source: author

together lead to a set of observations, which allow for analyses. For the summary of the method of the comparative study see Figure 2.2.

Criteria for variables for comparison

The variables for comparison are divided into CONTEXT and NATIONAL PLANNING SYSTEM.

A. CONTEXT

The context is essential when comparing planning systems, since it has an enormous impact on the planning system. Needham (1989) recognizes that it is impossible to relate spatial structure directly to spatial planning alone. Othengrafen (2010:83) argues that 'spatial planning is understood and practiced differently because it is strongly rooted in and restricted to the specific cultural contexts or traits of a society'. Friedmann (2005, p. 32) wonders 'whether there is a common conception of planning at all' thanks to the specific situation of each place and says that even the meaning of the term 'spatial planning' is highly dependent on the context.

However, Kaufmann & Escuin (2000) argue that planning shares many values in which they conclude that a common planning culture does indeed exist. Markesinis (1997) argues that convergence in planning systems is not only possible but also happening. Booth (2011) argues that within the context of globalisation, the similarities between planning systems seem more obvious than the differences and Dühr et al. (2007) state that Europeanisation has contributed in a horizontal process of policy transfer between member states.

These arguments ask for caution and a high level of sensitivity for the contextual situation of the planning systems. Therefore, the context is subcategorised into three categories; to differentiate the types of contexts and the influence they might have on the planning culture. As a given, these are aspects that (generally) can not be influenced or changed. However, they offer a deeper level of understanding of the national systems. These three categories are: spatial/demographic context, institutional context, and cultural/ transitional context.

- *Spatial & demographic context*

The spatial and demographic context offers the basic situation which are usually the fundamentals of a planning system. The type of soil, the infrastructural system, the relationship with water, etc. are crucial aspects in the development of a planning culture as well as the 'basic principles' of spatial planning (e.g. where urbanisation can or can not take place).

- *Institutional & political context*

Institutions include 'rules and resources', 'signification and legitimation' (Giddens, 1984), 'structures of meaning' (March & Olsen, 2004), 'formal and informal procedures', 'patterns of behaviour', 'routines' and 'conventions' (Hall & Taylor, 1996). De Vries (2015) argues that a focus on the legal and administrative context of planning emphasizes issues such as independence levels, the degree of centralisation of the system and the position of different layers of government. He notes that it is a widely applied perspective in the comparison of planning systems.

- *Cultural & transitional context:*

Culture is about "shared attitudes and values", "the collective programming of the mind" (Hofstede, 1980) and "cultural biases can be distinguished from personal biases" (Geva-May, 2002), and plays a large general role how a place is organised, understood and used. Culture is often recognised in comparative studies but not investigated (Nadin, 2012), which is why it is added to this study to attempt investigation.
Within the general culture of a location, there is a specific interest in the planning culture. Planning culture is 'the collective ethos and dominant attitudes of planners' (Faludi, 2005) or 'the values, attitudes, mind sets and routines shared by those taking part in planning' (Fürst, 2009). It is essential in understanding the planning system. When focusing on the uniqueness of each planning culture, the comparative study helps in "*sensitising us to [the] largely implicit assumptions in our own planning activity*" (Booth, 2011, p. 18).
Another aspect to consider is that comparative studies are often static. They offer a snapshot of a specific point in time (Nadin, 2012). This comparative study has a static characteristic because the current national planning systems form the main inspiration. However, a diachronic perspective (an explanation of change of periods) is part of the context to offer a better understanding of how the planning systems became the way they are currently formed.

B. NATIONAL PLANNING SYSTEM

The national planning systems are investigated within the three categories of the formulated research questions: content, process, and product. The government aims to achieve

certain objectives within these three categories. In these three categories, the extraction of innovation from the planning systems to learn lessons for the Netherlands is made accessible, as well as that its a first effort to determine on which level policy convergence or divergence takes place, which helps to determine the possible applicability on the Dutch system. Theoretical research has already observed certain trends in content, process and product. This comparative study may add to the observations.

- ***Content***

The comparison of the content is about understanding the substantive aims, national interests, concepts, driving forces, etc. Adams (2008) names two terms which are evident of a 'common planning language': Sustainable development, and balanced and polycentric forms of development.

- ***Process***

An important aspect in comparing the process is to divide the comparison of 'process' in two: Process in the creation of the document and the process which is set in motion thanks to the national planning system. There has been a general convergence towards more collaborative and communicative forms of planning (Adams, 2008), so part of the comparative study is to research which actors are part of which process and how they participate in those processes, which instruments are used to help other actors, how the documents are received, etc.

- ***Product***

Comparing the product means comparing the communicative aspect of the planning system. The the current policy document, the numbers of pages, the types of visualisations used, the amount of interactivity, the storyline of the documents, etc. Adams (2008) argues that "A fine balancing act is required between being specific enough to be meaningful and being abstract enough to be strategic general trend towards relatively short, non-technical and highly accessible documents."

Criteria for choice of locations

Three main criteria have been formed in the choice of the locations for comparison: Innovation, global spread, and similarities to the Dutch situation. These criteria have led to six locations to be compared to the Dutch planning system. These locations are California, Denmark, England, Japan, New Zealand and Oregon.

- *Innovation*

This is the main and most crucial criterion for the comparative study because the aim of the study is to seek innovation to answer to the research questions. The theoretical framework plays an important part due to the fact that academic literature offers an insight to where innovation takes place on state or national level. The innovation of the different locations are related to the objectives that *NOVI* aims to achieve. See Figure 2.3 for the summary of the objectives of *NOVI.*

1. **California** is among the states that delegated most but not all land use authority to local governments (Knaap et al, 2015). However, in 2008 the state of California adopted a bold new initiative to address climate change in an integrated manner. Climate change is one of the most important challenges for the Netherlands in the coming decades, and California has developed an innovative process-related strategy to offer incentives to local authorities to follow the plans of MPO's though they retain near-full authority over land use. The innovation in content and process is closely related to the objectives of the *NOVI.*
2. **Denmark's** innovation is also content related. Being similar in size to the Netherlands, as well as going through similar transitions on an institutional level, it is interesting for *NOVI* to understand how Denmark has been able to deal with the energy transition, which is the other urgent challenge for the Netherlands for the next decades.
3. **England** has decentralised spatial planning decades ago, and have a lot of experience in offering frameworks in which other levels of government or citizens can make their own choices. Neighbourhood planning is becoming increasingly popular in England, in which citizens influence the plans for their immediate living environment. These strategies can help *NOVI* learn lessons to achieve its process- and institutional objective.
4. **Japan's** innovation is product-related, as it has released a strategic vision for 2050, which is also the objective for *NOVI.* Japan focuses on the mode of communication and in conveying a sense of urgency.
5. **New Zealand** has integrated all sectors of the living environment in 1970, and

has offered regions the responsibility for integrated management of natural and physical resources and for regulation of land use effects upon soil, water, and natural hazards (Swaffield, 2012). On National level, it offers a simple framework with a product that aims for clarity and simplicity. These aspects are related to the *NOVI's* objectives in content and product.

6. **Oregon** has long been regarded as having the best-performing land use program in the United States, the success of the Oregon program stems from a policy framework where local institutions are given space to develop their own specific solutions. (Knaap et al., 2015). Also, Oregon has kept the same system of planning since 1970, from which the NOVI can learn how to become more adaptive and sustainable as a product.

- *Global spread*

Choosing for a global spread is mostly personally motivated. There have been numerous comparative studies which included the Netherlands in European context, especially with the rise of the EU (CEC, 1997; ESPON, 2007; Nadin & Stead, 2008). To add to the scientific relevance of this project, it would be more interesting to broaden the international perspective. This means not only viewing the EU, but choosing locations in North America, Asia and Oceania as well, in this case California, Oregon, New Zealand and Japan (while maintaining common characteristics, see below).

- *Similarities*

Adams (2008) argues that in a comparative study, the chosen location should share enough common characteristics to make comparison meaningful. This similarity could be in the context (in all the subcategories of context), in the objectives that the national planning systems share, or the challenges that they are facing.

Observations

The general comparison generates observations by putting out the two lines of criteria (choice of locations and choice for variables) against each other. Chapter 3.2 offers a list of the observations made, categorised according to the variables of the context and the planning strategy mentioned above.

The observations of the comparative study lead to two types of conclusions: the comparative conclusions which are an analysis of the basic comparison of the comparative study, and the 'special cases', which are location-based conclusions.

Figure 2.3 A summary of the objectives of NOVI, showing that the separate objectives are related to a larger changing institution. Source: author

Analysis

- *Comparative analysis:*

The comparative conclusions (chapter 3.3) use the observations of the comparative study to analyse the variation of national spatial strategies, and the relational position of the locations with each other on a more abstract level which cannot be directly deduced from the spatial strategies itself. They embody a personal interpretation of the observations and offer a deeper layer of understanding the key criteria of the comparative study, based on a

design approach with specific indicators. The main objective of formulating the comparative conclusions is to come to a real comparison (categorised into content, process and product) and not only present a 'juxtaposition of data' (Hantrais, 2009:2). This has led to a set of six key variables, which are a measurement for the variety with the planning documents. They are categorised in Content, Process, and Product. Each key variable is explained by giving insight to the Dutch historial and cultural context, and measures a certain variation in the national spatial strategies.

- *Location-specific analysis:*

Comparing the context and the national planning systems gives a good understanding on how the locations are different or similar to each other, and offers a basis for answering the main research question. However, to answer the first three sub research questions on which innovations can be found in the planning system of these locations, related to the content, process and product goals of the NOVI, a different approach is needed. The 'Special cases' are location-based innovations which are related to these goals of the NOVI.
NOVI's goals provide a selection of indicators to be looking for in search of innovation. Innovation is defined as a new idea, method or product, in this case 'new' for the Netherlands, and not per se for the location itself

For the **content**, innovation is sought in:
1. Integrating sectors in an intelligent manner to create meaningful connections
2. Dealing with similar themes that the NOVI is facing. Currently, these themes have been formulated as: Energy, Urbanisation & accessibility, Safety & risks, Environmental quality, Natural capital, Spatial economic structure, Identity, and Water and landscape. (NOVI, 2016)

For the **process**, innovation is sought in:
1. Methods of offering more freedom and responsibilities to other actors
2. Methods of cooperating with civil society, other layers of government and other departments

For the **product**, innovation is sought in
1. Creating a strong communicative product which delivers a sense of urgency
2. Creating an adaptive product which is updated instead of replaced

In choosing the locations at the start of the comparison, a quick scan was made to discover innovation. By using these indicators as starting point, an extensive literature review is used for a more thorough in-depth analysis of the innovation that takes place in these locations. These innovations are not meant for comparison with the other locations, but to offer an inspiration for the NOVI to achieve their aimed goals. The literature review consists of three parts: academic papers, news articles and blogs, and the national spatial strategies of each location.
Academic papers offer an academic view on innovations of content, process and product of the national planning system in the locations chosen. News articles or blog posts offer the more accessible innovations and very recent innovations. Both are reflected against the actual spatial strategy document of the location to understand if they correspond and the document itself offers its own innovations which haven't been written about.
The indicators are a starting point and therefore not a direct one to one relation with the chosen innovations. This is to keep a broader view and to discover possible missing goals or implicit goals that have been mentioned but are not formulated correctly in the NOVI process. They are visualised through icons to indicate the relation of the innovation illustrated with the goals NOVI has formulated. See Figure 2.4 for an illustration of an innovation.

Considerations

There are many aspects that need to be considered in a comparative study. Some have already been mentioned like the important of context and planning culture, the juxtapositioning of data versus producing a comparative study, and considering a diachronic perspective instead of offering a snapshot.
Another important aspect is the use of language. Four locations use English as a first language. However, Denmark, Japan and the Netherlands do not. It is important to take caution in the translation of documents and when discussing certain concepts, as it questions the validity of the comparison.
Another aspect which is difficult to grasp in an international comparison is the reality of how a planning system actually works. This includes that the unwritten but critical rules need to be identified (Nadin, 2012). The basis of this research are the actual documents, which gives insight to the ambitions and objectives, but not the reality.
Therefore, it important to use non-traditional sources of information (Nadin, 2012). The

chosen location do not have even accessibility to information about planning systems. An example is that there have been several comparative studies in Europe, making England and Denmark more accessible than Japan.

2.3 | Demonstration

The demonstration section of the methodology seeks to answer the second part of the main research question: 'how can the characteristics of (national) spatial strategies be transferred?' Before anything is applied to the NOVI, a replication exercise is done as a mean to discover the barriers in application, and the level of dependence on the situational context.

Replication

The first exercise in the replication chapter is a study in which the planning strategies of other locations are pasted onto the Netherlands. This is based on the personal observations and analyses done in chapter 3. This leads to a series of visualisations named 'If the Netherlands had a *(fill in location here)* planning strategy', based on the six other locations. The purpose of this exercise is to grasp the archetypal characteristics of each planning system, and understanding what it would mean for the Netherlands. Based on this exercise, it is possible to make a rough categorization of the level of dependence on the context. In general, the content-related innovations with spatial implications are the most dependent on the context, which is why five content-related innovations in chapter 6.1 are used as an in-depth exercise of discovering the level of applicability of certain concepts, demonstrating the relationship of the content with its context.

Application

The five innovations are chosen with the following criteria:
- Spatial implementations have already taken place to measure the spatial effects,
- Has been part of the national strategy for a longer period
- Related to the 8 substantive themes that NOVI would like to involve.

Based on the criteria, the following five innovations are chosen as a demonstration of the limitations of applicability:

1. Shinkansen - Japan

2. Offshore wind farms - Denmark

3. Urban growth boundaries - Oregon

4. Disaster parks Tokyo - Japan

5. Fingerplan Copenhagen - Denmark

Each of the above examples is researched with the aim of discovering the underlying general principles which could be applied in the Dutch situation.

Using the theory, the comparative study, and the exercise of the replication chapter, it is possible to start to apply the lessons learned in NOVI. Chapter 6.2 offers the general principles and

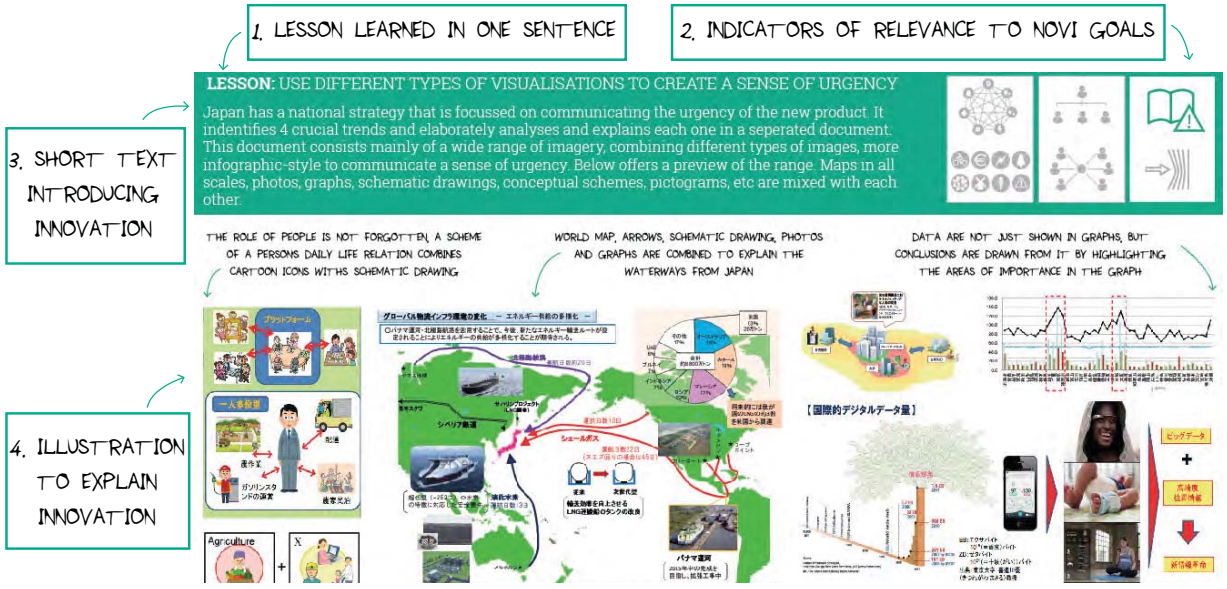


Figure 2.4 four key elements for the explanation of innovations. Source: author

concepts filtered from the previous chapters to offer an overview of possible universal ideas within spatial planning. This is an iterative process between the theory, the visualisations of the replication chapter and the results through general principles and concepts. In appendix B there is an overview of the connection between the strategy visualisation and the filtered general principles and concepts.
Chapter 6.3 is the final synthesis in the form of a proposed NOVI, demonstrating an interpretation of all lessons learned in the shape of an actual strategy, showing what the NOVI should look like based on a personal subjectivity, within the framework of this graduation thesis as a whole. In short, it takes the theory of what a strategy and a vision are and what they should contain, uses the analyses of the comparative study, and the conclusions from the replication exercise, and connects them back to the objectives that NOVI aims to achieve, and the general Dutch context in which the NOVI will be created. With the proposed NOVI comes a thourough explanation and justification of the choices made in the process to create the end product.

An important aspect to consider in the demonstration section is the method of visualisation. Since this project is done together with the Ministry of Infrastructure and the Environment, it is important to share the applied lessons in an attractive and understandable manner, not just for urbanists or designers. For the same reason, it also needs to offer a clear overview which is easy to read and does not take up too much time.

2.4 | Reflection

The reflection section, similar to the theory, is a constant factor throughout the entire project to constantly sharpen and reconsider the method as a whole and the conclusions that are made during the process up until the final conclusions. Each section in this thesis contains elements of reflection and synthesis.
Comparative study section: In the general comparison, a short reflection is given on the compared data. When analysing the data, the comparative analysis reflects back to the Dutch context, considering the relationship of the variables with the history of the Dutch national spatial strategies.
In the Demonstration section, testing through replication is a constant reflection to the Dutch context and the context of the other locations to discover how the different aspects depend on it. Especially within the spatial replications in chapter 5.2, not only does it link back to the specific spatial contexts but also its relevance for the Dutch situation. Also, a general synthesis is given at the end of the replication chapter with general observations.
The application chapter reflects on the Theory section and the replication exercise to synthesize the general principles and concept from the different national strategies. These general principles and concepts are used as a reflection when creating the proposed NOVI, making sure it contains the principles and concepts chosen.
The conclusion section contains the final synthesis and reflection in the form of recommendations and a general and methodological reflection.
Another method of reflection takes place through a network of experts, categorised in three different groups; International experts, national experts, and the NOVI project team. This network of experts is created with the help of the Ministry of Infrastructure and the Environment and the TU Delft. The reflection takes place on two levels: tand validation. In 'reflection', the (interim) conclusions of the replication and application of the demonstration section are offered to the experts, and ask for commentary (either in written or verbal form). Afterwards, in validation, the final conclusions are sent and asked if the reflection offered has been interpreted and understood correctly and if the experts support the final conclusions. This is done to generate a broader justification for the work done to generate a certain value for the Ministry of Infrastructure and the Environment. See Figure 2.5 for a summary of the network used for reflection.

International experts

The international experts are professionals in spatial planning in the six other locations of the comparison. They are either academics or work for their government and are crucial in the process to help determine if all aspects used in the graduation project for comparison, replication and/or application have been interpreted and researched well, and to offer a deeper understanding of the international planning systems.

National experts

The national experts are groups of people or advisory boards who have already been asked to help NOVI in the process. They have been asked for their knowledge about the Dutch situation. The department of spatial design at the Ministry of Infrastructure and the

Environment is an important advisor to the NOVI due to the important role of design in the NOVI process. The design-thinking of the department offers out-of-the-box ideas as well as solid research by design. Another group of experts are the advisory boards which have been asked to produce a product which offers help in achieving the objectives of the NOVI. These boards are:
Board of Government Advisors (College van Rijksadviseurs, CRa), Netherlands Environmental Assessment Agency (*Planbureau van de Leefomgeving*, PBL), The council for the living environment and infrastructure (*Raad voor de leefomgeving en infrastructuur,* Rli) The Netherlands Institute for Social Research (*Sociaal Cultureel Planbureau* SCP), Professor consultation for Planning (*Professorenoverleg Planologie,* POP), and Water Advisory board (*Adviescommissie Water*, AcW). Each produced document is examined to use as a reflection tool for the proposed recommendations of this project.

NOVI project team

The NOVI project team is the most important tester since this project is done partly under its commissioning. Therefore, it tests the intermediate conclusions far more often that the other testing groups. Around each presentation of the university, the progress is also presented in the project team in which all the feedback and reflection is recorded and logged. As the project moves more towards final validation, the reflection of the project team gains importance.

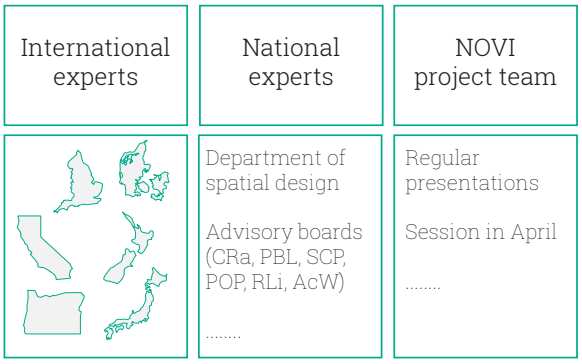


Figure 2.5 Asking reflection in three different categories of experts to offer meaningful insights and validation of the research. Source: author

2.5 | Lessons learned

'Lessons learned' is the nucleus of the methodology as it relates directly to the main research question: 'What lessons can the Dutch government learn from other governments of different countries based on innovation in content, process and product, to achieve the objectives of the National Environmental Planning Strategy (NOVI)?'. The top and bottom sections of the methodology serve for learning different types of lessons (see Figure 2.6). The top section consisting of theory and comparative study has the aim of comprehending and inspiring. The bottom section consisting of demonstration and reflection is aimed at testing and applying.

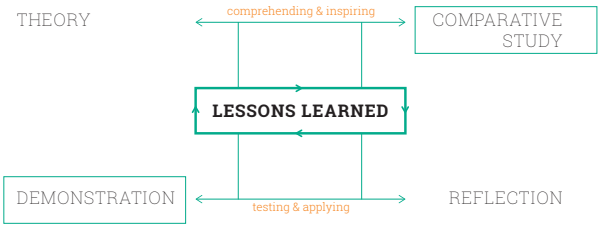


Figure 2.6 Main type of lessons learned per section. Source: author

Recommendations

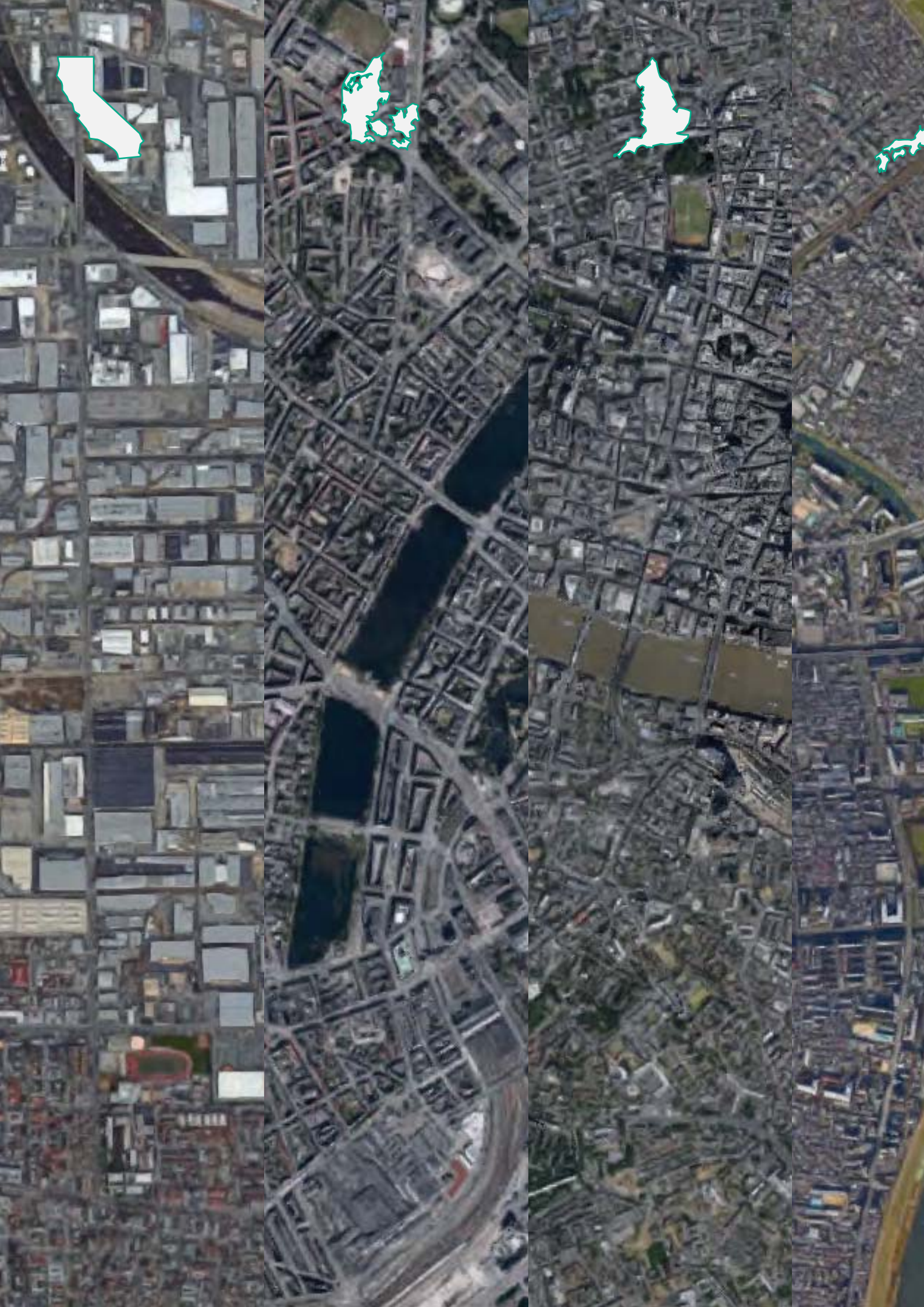
Chapter 7 concludes the lessons learned in the form of recommendations for the NOVI in three fold:

- Lessons learned from the innovations discovered in the location-specific analysis of the comparative study.
- Lessons learned from the proposed NOVI in relation to the current objectives of the NOVI.
- General lessons learned about the purpose of the strategy and the role of the government, and how it relates to the analysis.

The three sub-chapters offer three main recommendations for the NOVI:

- Get inspired by examples with open considerations of the constraints of the context
- Be aware of the purpose of the strategy and the transforming role of the government; design the NOVI accordingly
- Apply the general principles, but recognize the critical issues within NOVI's objectives and offer them the time, effort and research needed.

Source: mediatheek Rijksoverheid

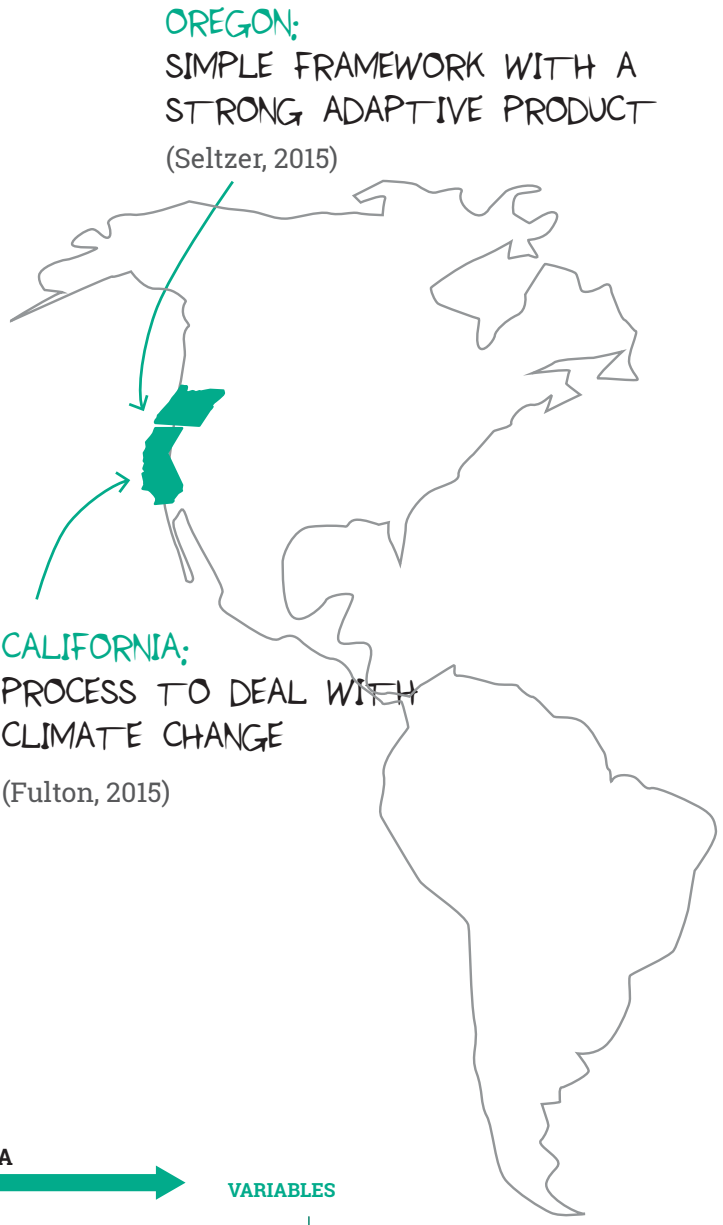


3 | GENERAL COMPARISON

Introduction

The general comparison is a comparison of the context and the spatial strategy of the Netherlands, California, Denmark, England, Japan, New Zealand and Oregon. It answers the first two sub-research questions: **"Which planning strategies from other locations are suitable for a comparative study?" and "'How do the Dutch context and spatial strategy compare in general to the other locations?"'**
It is a collection of observations within specific categories. Each category starts with an elaborate explanation of a related Dutch situation. For the context, there are three categories: the spatial & demographic context, the political & institutional context, and the cultural & transitional context.
For the spatial strategies, the three categories are content, process and product. The current spatial strategy of each location forms the main source for this comparison. This chapter offers a selection of all aspects analysed.

This general comparison is used as a starting point for two types of analyses; comparative analysis and location-specific analysis. These can be found in chapter 4.



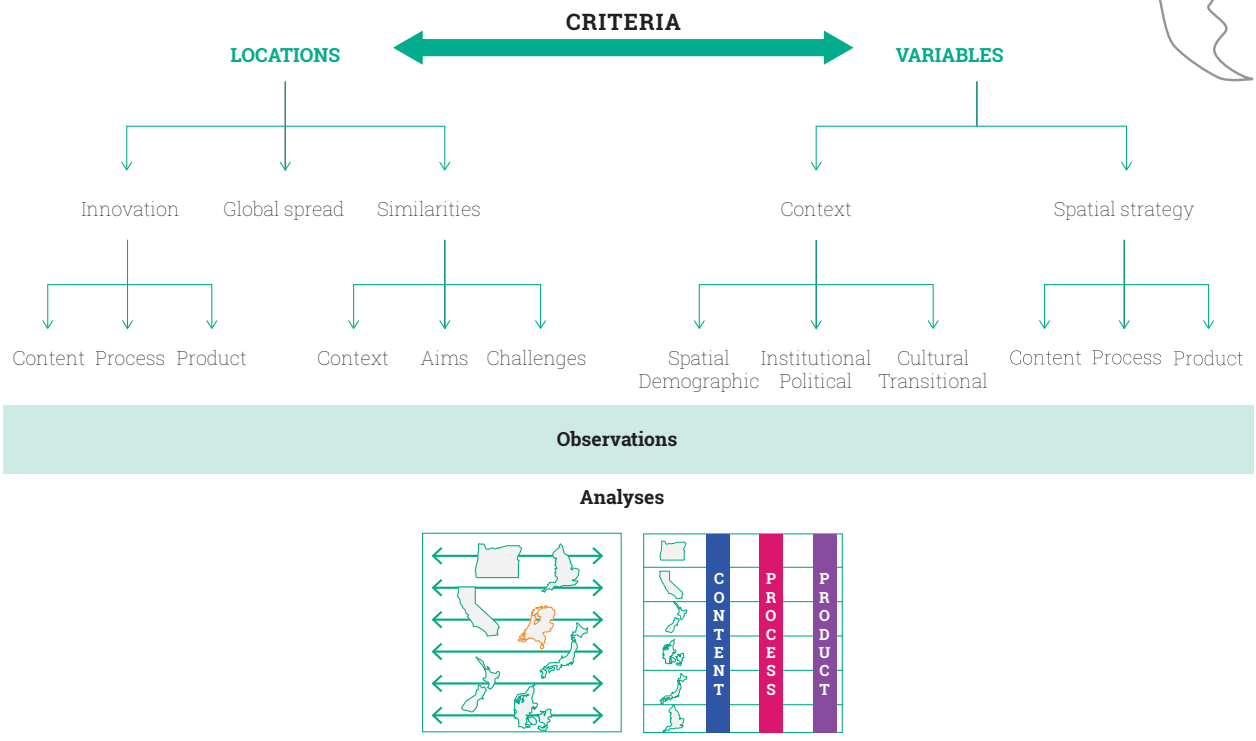


Figure 3.1 A summary of the comparative study. Source: author

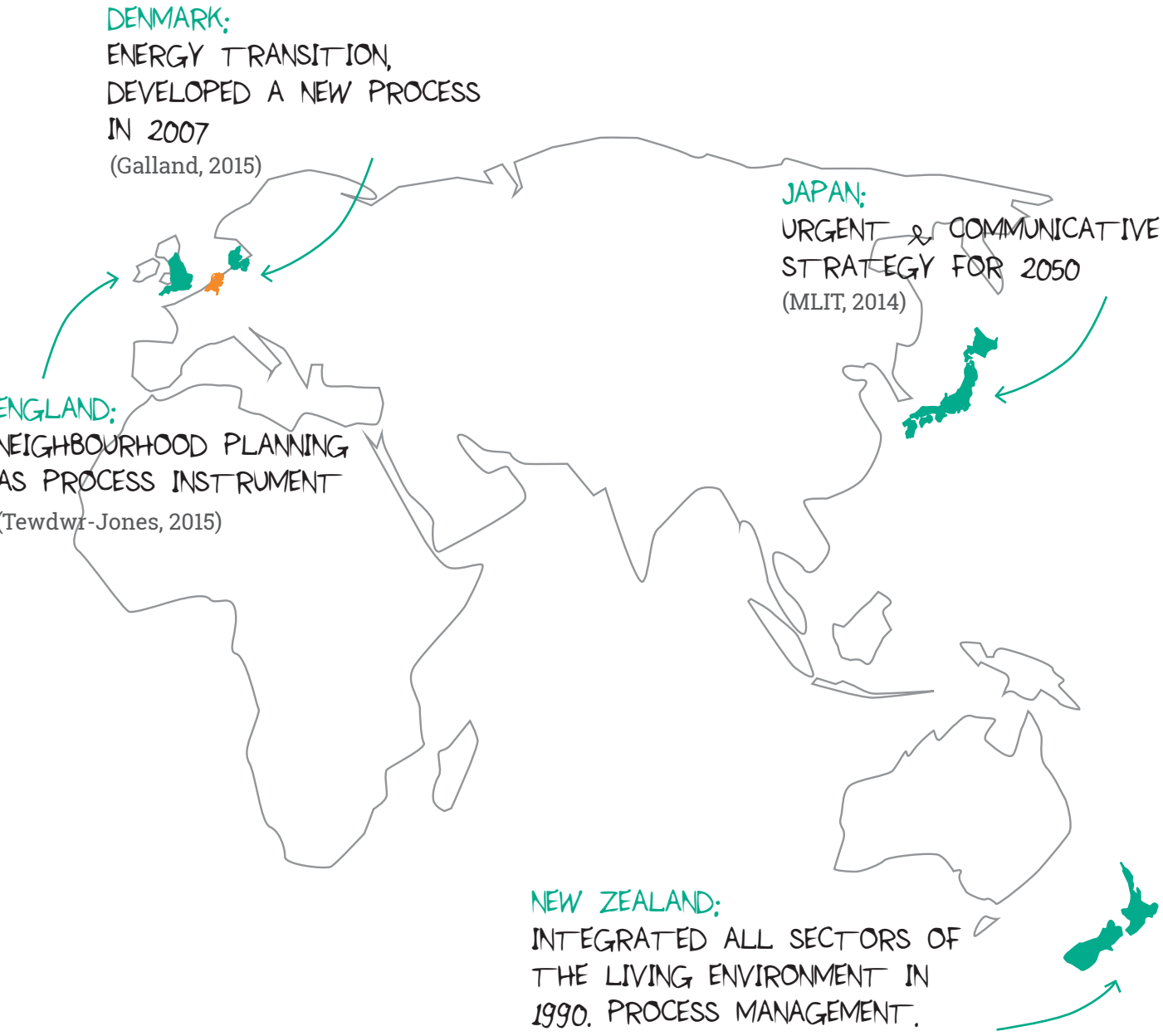


Figure 3.2 Chosen locations for comparative study. Each location displays innovation related to NOVI's objectives.. Source: author

3.1 | Context

The research and comparison of the context is an important aspect of the general comparison. It is categorised in three types of context: spatial & demographic, institutional & political, and cultural & transitional. Below list offers an overview of aspects compared.

SPATIAL & DEMOGRAPHIC

- International context
- Area
- Density
- Infrastructure
- Water system
- Subsoil

INSTITUTIONAL & POLITICAL

- Responsible ministry
- Governance system
- Locus of power
- Type of government
- Current minister

CULTURAL & TRANSITIONAL

- Time line spatial strategies
- Capital cities
- Google search
- Photo collection
- Daily life

3.2 | (National) Spatial Strategy

The spatial strategy itself is also compared across the seven locations. The current (2016) spatial strategy is used for the comparison, which means the SVIR is compared with the spatial strategies of the other locations. This is categorised in content, process and product.

CONTENT

- Strategy aim
- Driving forces
- Conceptualisation of themes
- National interests
- Number of sectors included

PROCESS

- Actors
- Legitimacy & accountability
- Public engagement
- Perception of citizens

PRODUCT

- Number of pages
- Number of images
- Current national product
- Types of media
- Writing style
- Scope of the vision

Source: mediatheek Rijksoverheid

SPATIAL STRATEGY

For the comparative studies, the current spatial strategies are used. This means that the current spatial strategy of the Netherlands (the SVIR) is compared to the spatial strategies of the other locations. For Denmark, California and Oregon, two documents are analysed, as these locations make a separation in national or state actions, and the framework for local governments or other actors.

National Policy Strategy for Infrastructure and Spatial Planning 2012

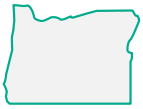
National Planning Policy Framework 2012

National Policy Statements & National Standards 2015

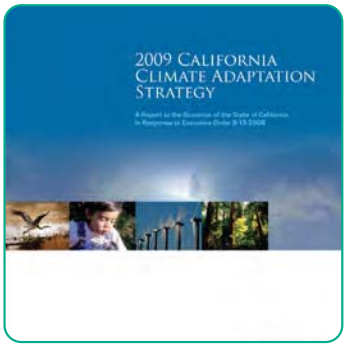
National Spatial Strategy 2050
2014

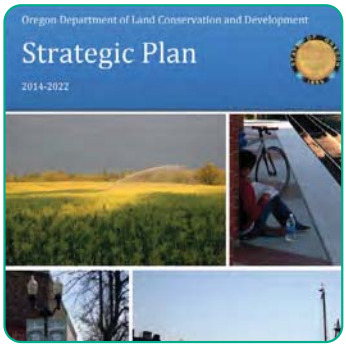
National Planning Report
& National Interests
2013

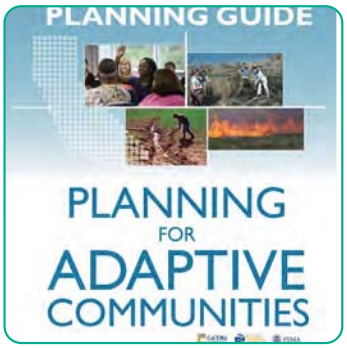
California Climate Adaptation Strategy & Planning Guide
2009



Strategic Plan
& State-wide goals
2014







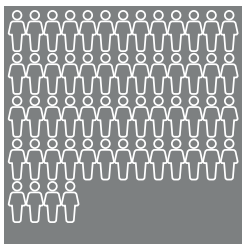
AREA & DENSITY

The seven locations vary in area and density. The Netherlands is the smallest, and compares in size to Denmark. However, the difference in population density is large, as the Netherlands has a very high population density, more similar to England. Japan and California are roughly the same same with very different densities as well. Oregon and New Zealand are very similar in both size and population density,.

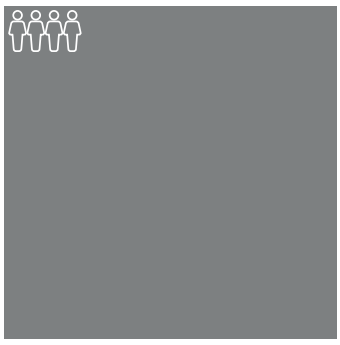
41,526 km²

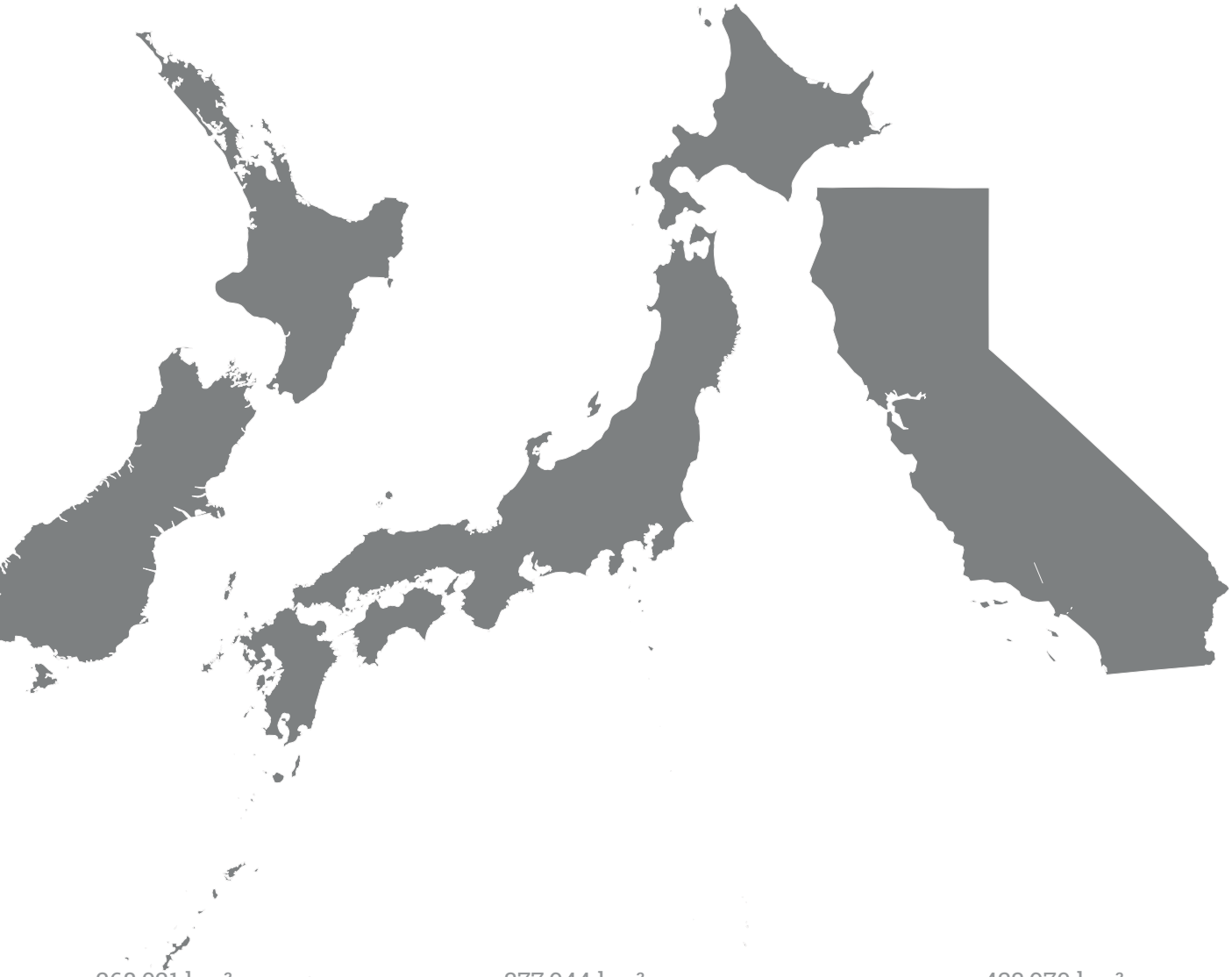
43,094 km²

130,395 km²

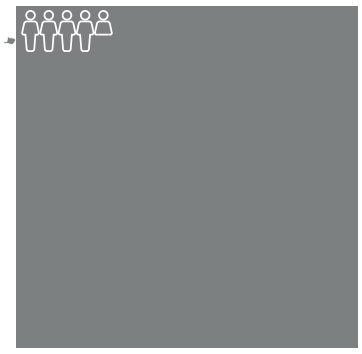


255,026 km²

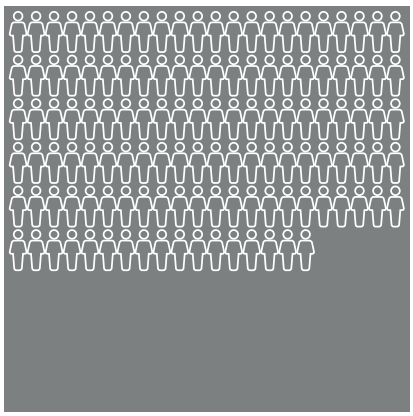




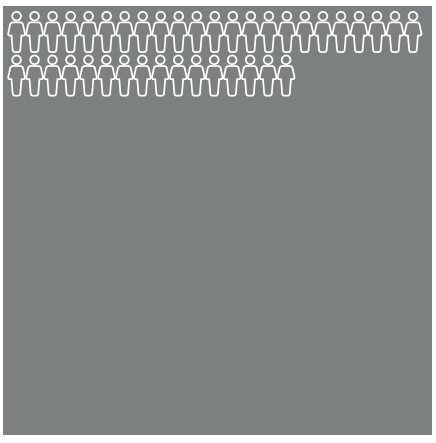
268,021 km²



377,944 km²



423,970 km²



RESPONSIBLE MINISTRY

Each of the locations has a different body of government which is responsible for the national spatial strategy. In the Netherlands, the Ministry of Infrastructure and the Environment is the main responsible. The key sector environment reoccurs in Denmark and New Zealand as well. In England, spatial planning is the responsibility of the department for communities and local government, signifying the high level of decentralisation in England.

Ministry of Infrastructure & the Environment

Ministry of Environment & Food

Ministry of Energy, Utilities & Climate
Ministry of Transport & Building

Department for Communities & Local Government

Department of Transport
Department of Energy & Climate Change
Department for Environment, Food & Rural Affairs

California Natural Resources Agency

Department of Transportation
Environmental Protection Agency
Strategic Growth Council

Department of Land Conservation & Development

Department of Energy
Department of Environmental Quality
Department of Transportation

Ministry of Land, Infrastructure, Transport & Tourism

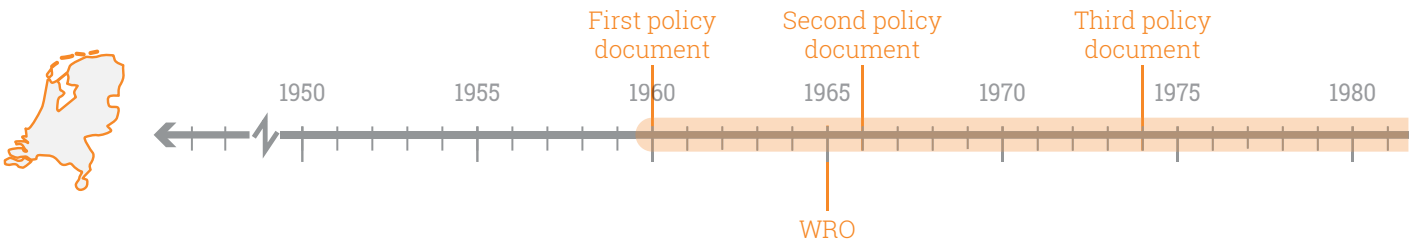
Ministry of the Environment

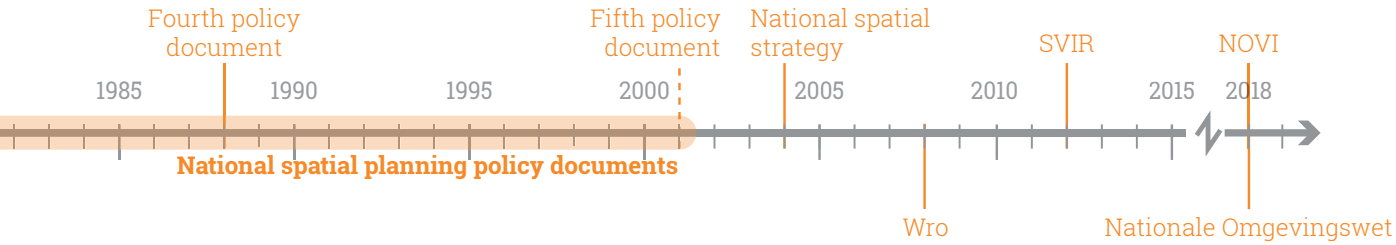
Ministry of Environment

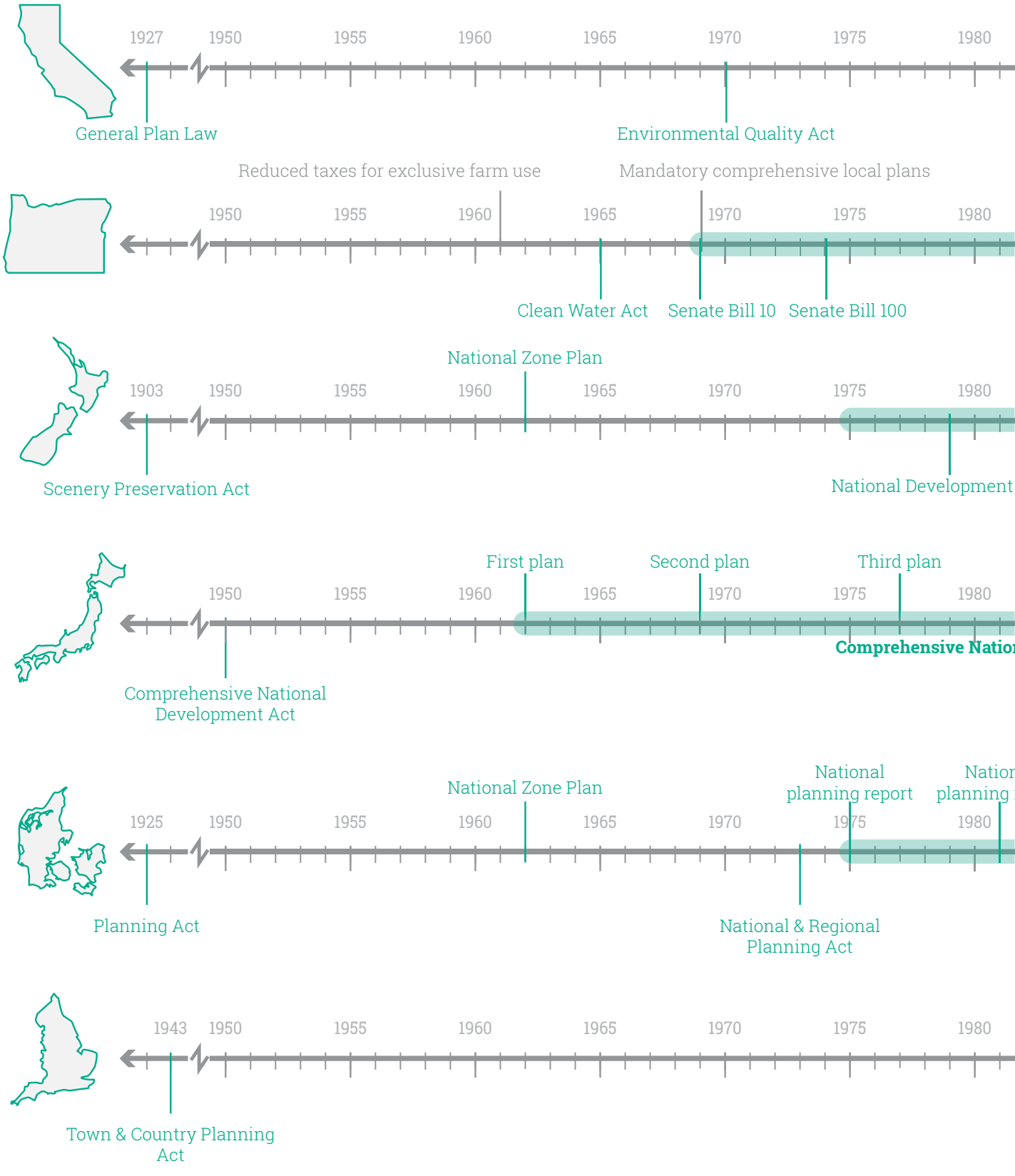
Ministry of Transport

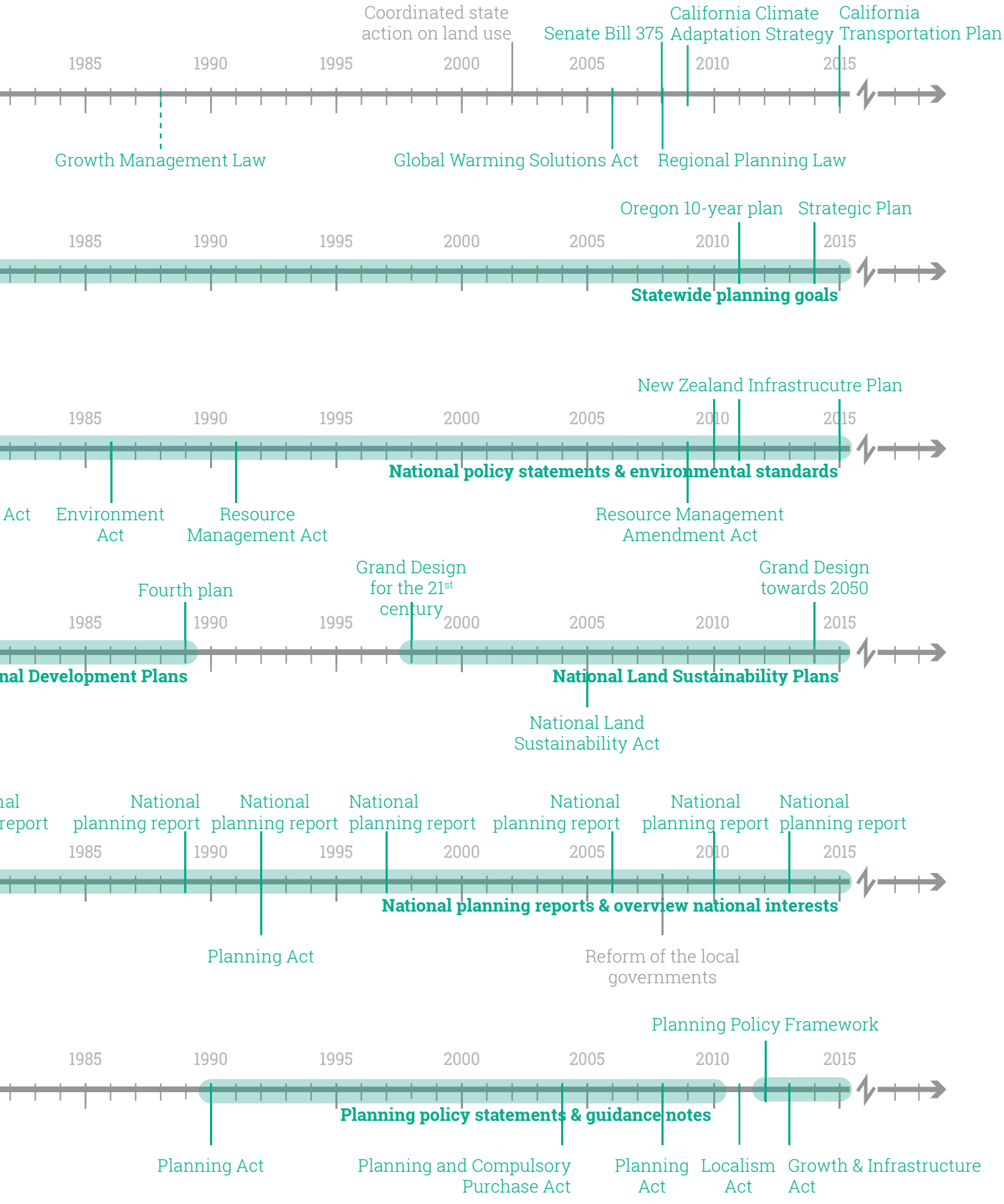
HISTORY

The history of national spatial planning of the different locations gives an understanding on the adaptivity of the planning system and how it has evolved throughout the years. The Netherlands and Japan seem to have followed a similar structure; having four consecutive spatial planning documents between 1960 and 1990, and after that creating a complete new structure of documents. Oregon has had the longest consecutive system, working with state wide planning goals since 1969.




Fourth policy document
Fifth policy document
National spatial strategy
SVIR
NOVI
1985
1990
1995
2000
2005
2010
2015
2018
National spatial planning policy documents
Wro
Nationale Omgevingswet


1927
1950
1955
1960
1965
1970
1975
1980
General Plan Law
Environmental Quality Act
Reduced taxes for exclusive farm use
Mandatory comprehensive local plans
Clean Water Act
Senate Bill 10
Senate Bill 100
National Zone Plan
1903
Scenery Preservation Act
National Development
First plan
Second plan
Third plan
Comprehensive National Development Act
National planning report
National & Regional Planning Act
1925
Planning Act
1943
Town & Country Planning Act


Coordinated state action on land use
Senate Bill 375
California Climate Adaptation Strategy
California Transportation Plan
1985
1990
1995
2000
2005
2010
2015
Growth Management Law
Global Warming Solutions Act
Regional Planning Law
Oregon 10-year plan
Strategic Plan
Statewide planning goals
New Zealand Infrastrucutre Plan
National policy statements & environmental standards
Act
Environment Act
Resource Management Act
Resource Management Amendment Act
Grand Design for the 21st century
Fourth plan
Grand Design towards 2050
nal Development Plans
National Land Sustainability Plans
National Land Sustainability Act
National planning report
National planning reports & overview national interests
Planning Act
Reform of the local governments
Planning Policy Framework
Planning policy statements & guidance notes
Planning and Compulsory Purchase Act
Planning Act
Localism Act
Growth & Infrastructure Act

NATIONAL AIM

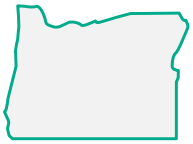
The national aim is the main aim or mission given in the spatial strategies. There is a large variety in the main aims. Both Oregon and New Zealand give similar comprehensive aims, considering the environment, the economy, and a societal aspect. The Netherlands and Japan mix both aims and means. In the Netherlands: accessibility is a mean to become livable and competitive. In Japan: autonomous development of regional blocks is a mean to create beautiful and comfortable land. California

“Making the Netherlands competitive, accessible, livable and safe”

**“Green transition-
new possibilities for Denmark”**

“Achieve sustainable development”

“Begin a state wide, ongoing, and commited process of adapting to a changing climate in the context of other changes in the environment, the economy and society”



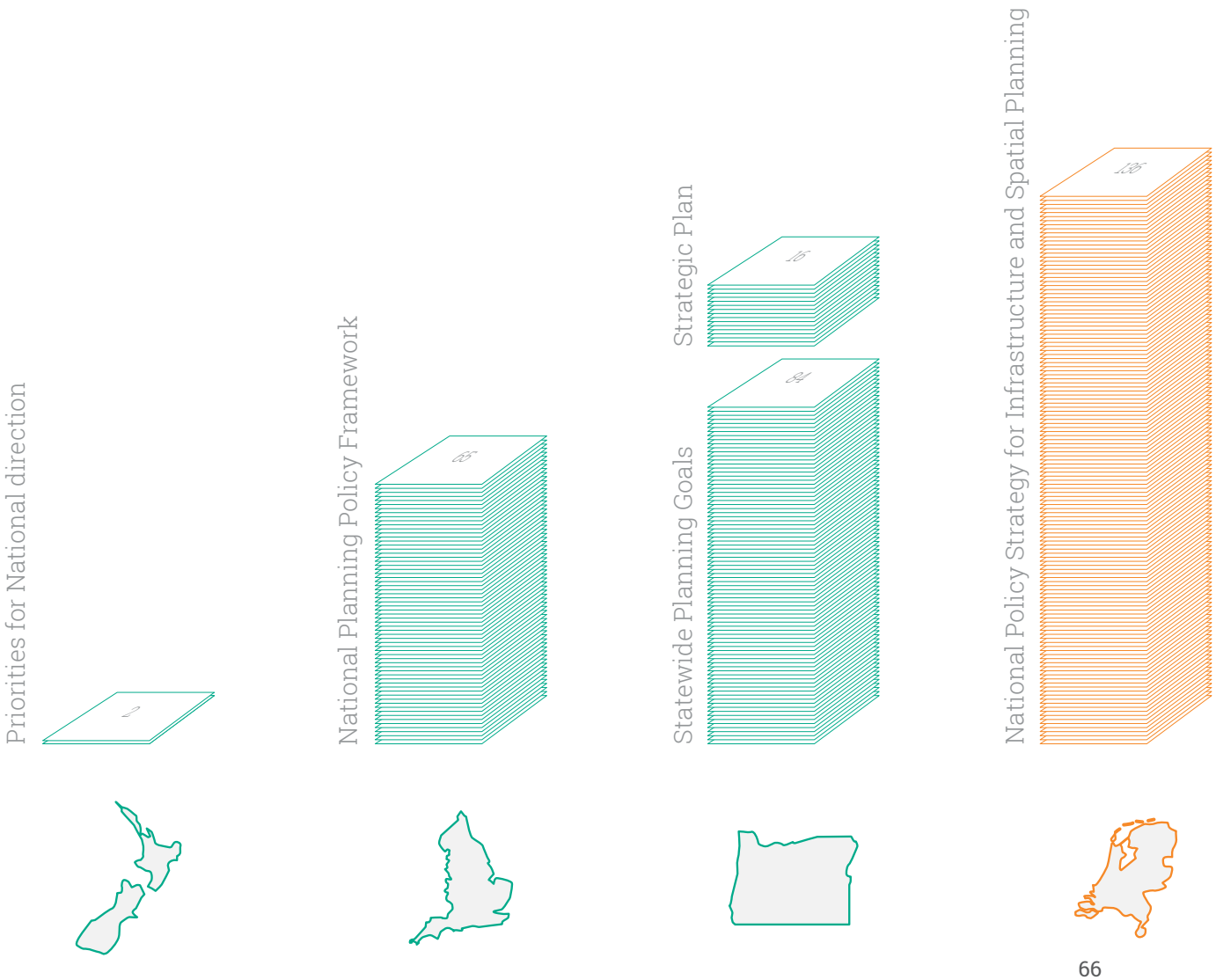
“Provide a healthy environment, sustain a prosperous economy, ensure a desireable quality of life, and provide fairness & equity to all Oregonians”

“Creating beautiful & comfortable national land and autonomous development of diverse regional blocks”

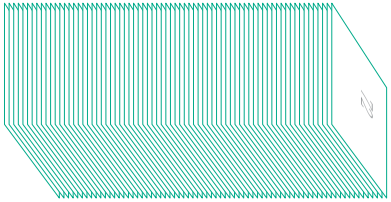
“Protect the environment, strengthen the economy and enable New Zealanders to provide for their social and cultural well-being”

PAGE NUMBERS

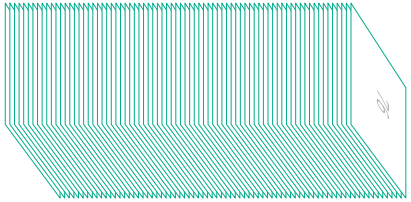
There is a large difference in the page numbers used for the spatial strategies. The spatial strategy of New Zealand is web based and therefore the priorities for national direction consits of a 2 paged flyer. Japan offers a compact national strategy but adds supporting documents to justify and elaborate on each section.



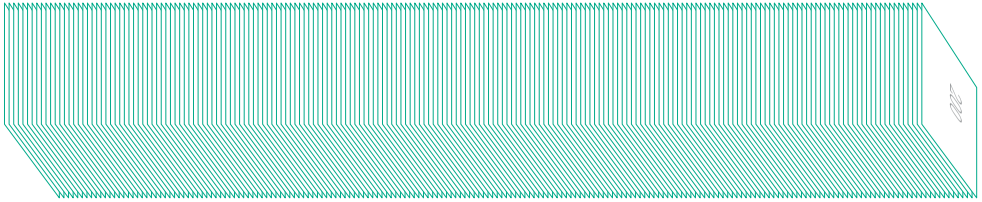
National Interests



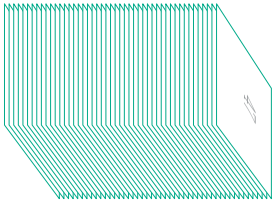
National Planning Report



California Climate Adaptation Strategy

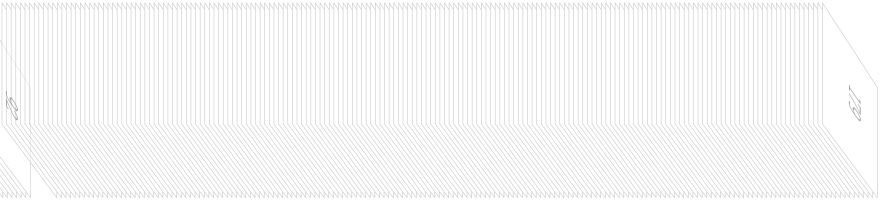


Grand Design



Relation to demography

Facts & figures: Trends & transitions



4 | GENERAL ANALYSIS

Introduction

4.1| Comparative analysis

4.2| Location-specific analysis

Introduction

The general comparison made in chapter 3 offers an overview of the context and the national planning strategies of California, Denmark, England, Japan, the Netherlands, New Zealand and Oregon. It gives observations, divided in different categories, to reach a first understanding of the locations. However, to reach analytical conclusions of the comparison, it needs to be more than a broad 'juxtaposition of data'. Therefore, the observations of the general comparison are taken as starting point to analyse the national spatial strategies. This chapter answers the second and third research questions: **"What are the key variables to measure the variation in (national) spatial strategies?"** and **"What location-specific innovations can be found in content, process and product based on NOVI's objectives?"** It offers two types of analyses, a comparative analysis and a location-based analysis (Figure 4.1). The comparative analysis in chapter 4.2 uses the theory on 'what is a spatial strategy' to give an understanding on what the spatial strategies mean, by naming six key variables in content, process and product. The six key variables are defined and reflected onto the Dutch context, and are used to analyse the variation of the selected locations. This creates a better understand of the Dutch national spatial strategy.

The location-specific analysis of 4.3 is a matrix of collected innovations in the other locations. 'Innovations' are defined as new ideas, methods or products, in this case 'new' for the Netherlands, and not per se for the location itself. They are based on a literature research, taking the objectives of the NOVI as a starting point for seeking innovations. The innovations are categorized in a matrix, based on content, process and product.

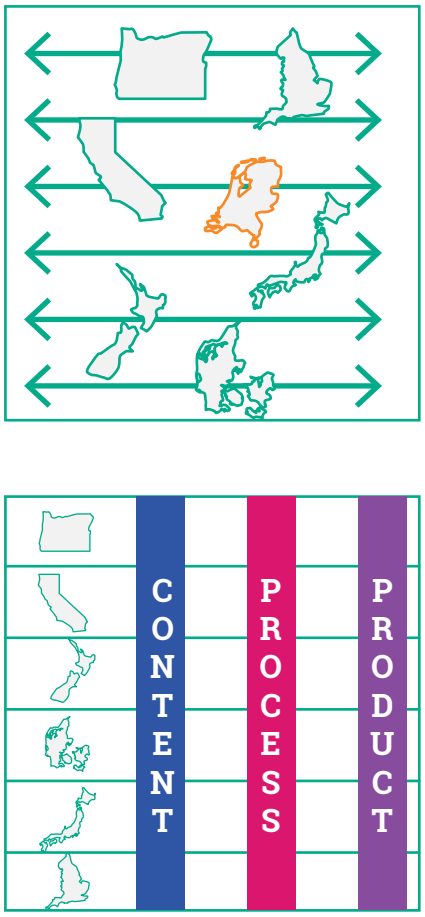


Figure 4.1 The two types of analyses from the general comparison: the comparative analysis and the location-specific analysis. Source: Author

4.1 | Comparative analysis

The comparative analysis mentions six key variables, each defined and reflected onto the Dutch context, to grasp the variation that exists in the national spatial strategies of Oregon, Denmark, California, England, New Zealand, Japan and the Netherlands. The variables are:

Content:
1. Scope of content
2. Specificity of content

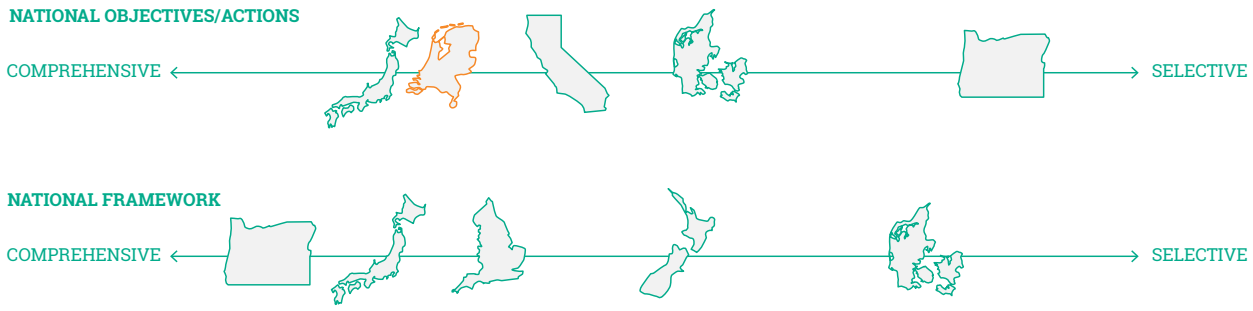
Process:
3. Openness of the planning process
4. Collaboration in the strategy-making process

Product:
5. Adaptivity of the product
6. Interactivity of the product

Based on both inductive and deductive methods, the theory is taken as a starting point, and the general comparison is used to extract the key variables from which it is possible to measure the essential variation that exists in the strategies based on content, process and product. The variables are measured by indicators from the general comparison of the planning system. Therefore, the variables share the limitations of the general comparison. They are mostly based on desk research and on a literature review of the separate documents, and can differ from the practical application. Also, a lot of indicators are qualitative in nature, and are given a subjective value based on the academic knowledge of the subject and all information available. Each variable refers to the pages of the comparative study that offer an understanding of the indicators chosen.

To measure the variation in the content, a separation should be made between the national objectives and actions; and the framework the national government gives to other governments since they vary within the chosen locations. Denmark and Oregon produce two different documents to differentiate between the objectives of the national government and the framework for the local governments. California and the Netherlands produce a document which is only binding for its own national government, while the national governments of England and New Zealand only set a framework for other governments, not naming any specific objectives for themselves. Japan formulates a set of objectives in its national spatial strategy which also serve as a framework for lower governments.

CONTENT



1. SCOPE

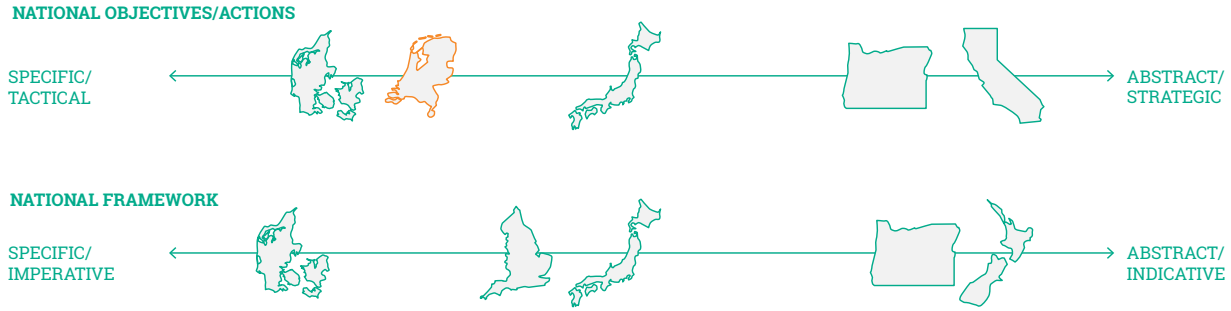
The first key variable is the scope, which is determined by the level of selectivity or comprehensiveness of the national spatial strategy. Historically, up until the fifth spatial document in 2001, the national government added more sectors and became more comprehensive with each national spatial strategy. Coming from this tradition of a "comprehensive integrated approach" (CEC,1997), the Netherlands has attempted selectivity in the SVIR with the slogan 'je gaat er over of niet' ('You are either in charge or you aren't')

'Central government intends to bring spatial planning decision-making closer to the stakeholders (individuals and companies), delegating more to local and provincial authorities (decentralisation as the first option), and focusing more on users. Central government policy will be applied more selectively, focusing on 13 national interests for which central government will take responsibility and ensure it achieves results.' (SVIR, 2012)

This type of selectivity is based on subsidiarity. Subsidiarity is the principle where actions are taken by the lowest level of government that is able to handle it efficiently and correctly. There are also other methods of selectivity. California maintains a 'thematic selectivity', integrating all sectors that are affected by or can affect climate change. Oregon determines its scope by 'spatial relevance', including all sectors that affect the use of space. For measuring the selectivity, the number of objectives formulated for the national actions as well as the framework is used as an indicator, and how many sectors are included in those goals.

Oregon is the most selective in the formulation of its state objectives, but most comprehensive in the framework for other governments. For the state strategy, it has five objectives, of which three are process related. For the framework for the local government, it formulates nineteen separate themes that affect the living environment. Japan does not differentiate between the two; it names ten basic strategies which need to be followed through on a local level. The spatial strategy for the Netherlands has twelve national objectives, it is only legally binding for the national government itself. Denmark is highly selective in its framework for local governments, naming six specific themes with limited sectors.

CONTENT



2. SPECIFICITY

The second main variable is the specificity, or the level of abstraction of the content. The specificity of the national objectives serves a different purpose than the specificity of the national framework. When national objectives are very specific, they become tactical in nature. Tactical national objectives offer a clear and tangible message about the role of the national government concerning a specific topic. Abstract national objectives are more strategic in nature, and do not communicate clear actions by the national government. Considering the national framework, a high level of abstraction creates indicative interests that are open to interpretation which require an active role from local governments to specify. Specific national interests are more imperative and offer limited freedom of interpretation for local governments. Traditional national spatial strategies in the Netherlands were tactical in nature, often aiming for a specific number (eg: housing), and place all objectives on a specific location on the map. Through time, together with the decentralisation movement, the national spatial strategies of the Netherlands have become a hybrid of tactical and strategic goals, he SVIR is also a combination of both, containing strategic aims and conceptual schemes, but also tactical goals and specific GIS maps. The following indicators have been used: The writing style (tactical/strategic; indicative/imperative), the abstraction of related images, and the amount of text per objective.

Denmark is specific in both its national objectives and the framework for other governments. It mentions tactical actions for its national objectives (e.g.: 'The ministry will complete the following nine projects') with specific placement on a national map (very similar to the Netherlands), and offers very precise guidelines for local plans (e.g.: 'wind turbines shall be placed at a distance of at least 250 meters from the main road'). Oregon stays abstract, mentioning strategic actions (eg: 'seek methods to ensure sustainable land') for its national objectives, and staying indicative in the framework (eg: 'conserve nature').

PROCESS

3. OPENNESS OF THE PLANNING PROCESS

The third variable for measuring the variation in national spatial strategies is the openness of the planning process. The openness of a planning process is determined by its legitimacy and accountability. The indicators for a high level of legitimacy are if the document offers a well-argued motivation for the creation of the document, and mentions the process of creating the national spatial strategy: in which way what actors can get involved and engaged and what the status of the document is. Accountability is measured by how responsibility is taken for the document: the presence of a ministerial foreword, picture and/or signature; or other texts throughout the document that communicate accountability.

Oregon values the openness in a planning process. It offers an elaborate explanation of how the nineteen state-wide planning goals evolved, which actors were involved and addresses the importance of citizen participation. Citizen involvement is also the first of its nineteen state-wide planning goals, and each local government is required to have a body for citizen involvement. It also offers different methods of communications for questions and comments, and a brief text on how to understand the document. Denmark includes a ministerial foreword, with a picture of the current minister including signature, to explain the motivation of the document as well the message that all stakeholders need to be involved. Later in the document, it offers information about how the document came to exist. Japan's process is the most closed. It explains the next steps that will be taken but nothing on accountability. The SVIR is similar, though it explains the relation of the SVIR with the previous and other national documents, and the importance of trusting other actors involved.

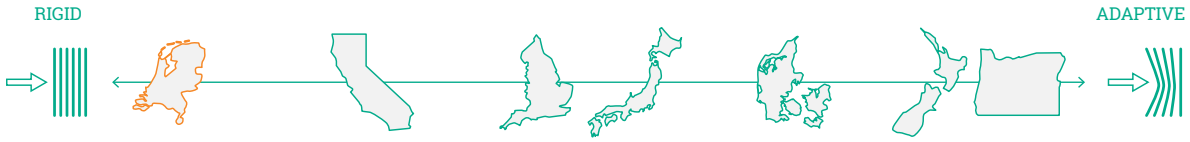
PROCESS

4. COLLABORATION IN THE STRATEGY-MAKING PROCESS

The fourth variable is the level of collaboration in the strategy-making process. The Dutch 'polder model', which is the consensus-based decision-making model has long played an important role in the Dutch spatial planning system. However, Evers and Zonneveld (2015) note an erosion in the last twenty years: "Since the 1990s, the polder model has eroded as society has become more politically polarized, and with it support for a technocratic activity oriented towards consensus and compromise has eroded as well." On national level, the Netherlands continued to collaborate with more actors in the creation of the national spatial strategy through time, yet changed this course of action with the Nota Ruimte, which is a collaboration of only three ministries, and no vertical involvement. The SVIR one mentions one actor: the Ministry of Infrastructure and the Environment. To measure the level of collaboration, the number of horizontal, vertical, geographical and public participants mentioned in the planning process and in the actual document are measured.

The national spatial strategy of the Netherlands does not express the involvement of other actors, and seems to be developed mostly in the isolation of the Ministry of Infrastructure and the Environment. Japan involves the public for reflection, and co-creates its national document with all relevant ministries for the living environment. Denmark addresses public participation as one of its three core principles and offers room in the planning process for collaboration. Oregon has defined the themes for the state framework through a broad participation programme through the state, involving the local governments and public participants.

PRODUCT



5. ADAPTIVITY

The fifth key variable in national spatial strategies is the level of adaptivity of the product. As explained in the problem analysis, the Netherlands maintained a similar planning system in the twentieth century, leading to four planning documents. Although each document is very different, they are seen as one series of consecutive documents. The Nota Ruimte set a new type of document which was different in name and style of images etc. The SVIR came next and was again very different than Nota Ruimte, having a completely different name, changing to a system of selective key interests, and showing no high variation in types of images. To measure the adaptivity, the indicators are the change of the names and styles of the documents in time, the evolution of the planning system, the duration of one document, and the update possibilities of the current document.

The national spatial strategy of the Netherlands is currently the most rigid in comparison to the other locations; the SVIR is very different than the previous documents in style, has a completely different name, and is going to be replaced again in 2018 with the NOVI. California did not have state strategy before the current one, but since it was released in 2009 it has been updated and amended several times. The nineteen state-wide planning goals of Oregon are almost the same as when they were created in 1970. Oregon's own national objectives are updated as well with a new strategic plan every eight years, and the website offers a list of all amendments made to the state-wide planning goals. New Zealand's website offers easy possibilities for regular updates and always reveals in the corner of the page when the last update was made.

PRODUCT

6. INTERACTIVITY

The sixth and final key variable in measuring national spatial strategies is the interactivity of the product, an essential aspect when using the national spatial strategy as a tool for communication. Interactivity relies on three aspects in inviting the reader to engage:
1. The type of media: interactiveness in media require users to actively engage in responsive actions like clicking, writing comments, adding to the discussion, etc (Terry, n.d).
2. The variation in communication by balancing use of image and text
3. Inviting writing style

The national spatial strategies of the Netherlands all have a main passive document, though there have been several attempts at spreading out to other media. The map of the second spatial strategy was produced as a physical model which traveled through the country on exhibition, and the fourth spatial strategy had an elaborate marketing campaign with commercials on television, advertisements in the newspapers and special editions for the general public. Products vary in interactivity by the number and types of media chosen, the number and types of means of communications chosen, how much interactive elements are added into the medium and how much tailor-made information is available through the medium, the balance of text and images, and the writing style.

The national spatial strategy of New Zealand is the most interactive by offering all necessary information related to the strategy on a web platform which includes a mix of text and images and an inviting writing style which urges participation. It refers to external links for in depth reports on specific topics and categorizes the website by sector and actor. Japan only offers a downloadable pdf from the website with no form of interactivity, it does not have an inviting writing style yet offers appendices full of images to communicate an urgency. The Netherlands however balances text and images and also offers cross-references in the pdf document. It includes a separate website with the spatial implementations of all government plans, which offers tailor-made information. California has a pdf document with an inviting writing style and a balance between image and text, but also offers an elaborate web platform to share research, videos, interactive maps, and other relevant information concerning climate change (www.cal-adapt.org).

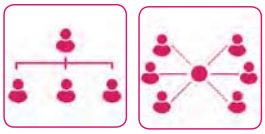
4.2 | Location-specific analysis

This analysis takes NOVI's ambitions in content, process and product as a starting point and closely dives into the innovative non-comparable aspects of the locations, in which they distinguish themselves from others. They are categorised into content, process and product led innovations, which show the main type of innovation even though it often relates to other objectives as well. (see Figure 4.2 for an overview) To explain this, the following indicators of innovation are identified :

CONTENT

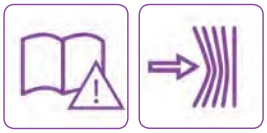
For the content, innovation is sought in:
1. Integrating sectors in an intelligent manner to create meaningful connections
2. Dealing with similar themes that the NOVI is facing. Currently, these themes have been formulated as: Energy, Urbanisation & accessibility, Safety & risks, Environmental quality, Natural capital, Spatial economic structure, Identity, and Water and landscape. (NOVI, 2016)

PROCESS



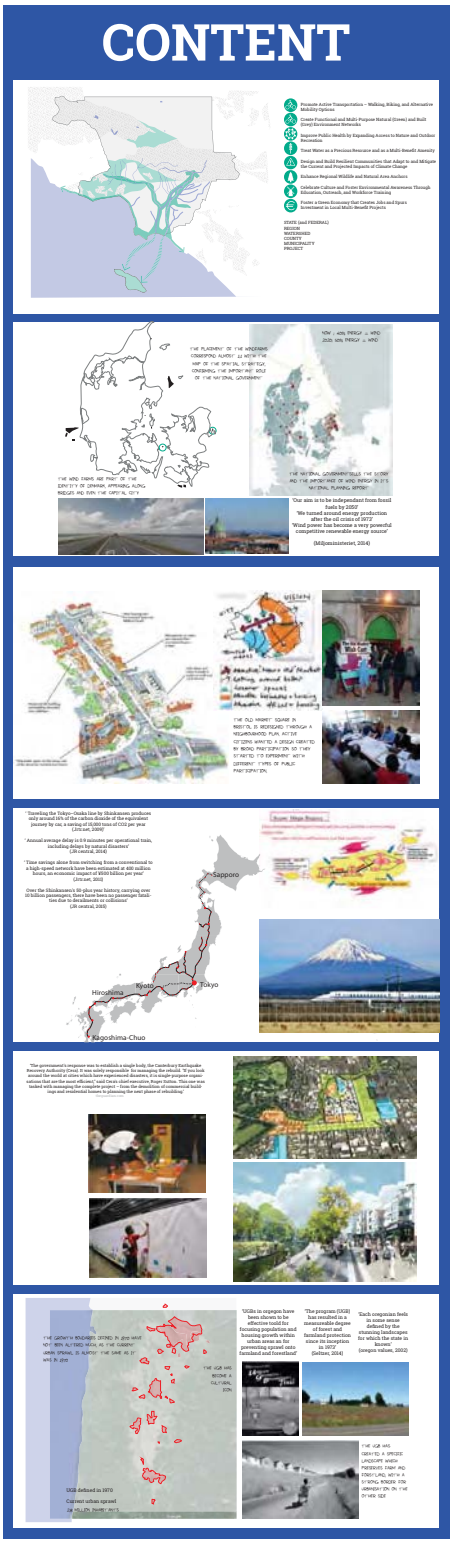
For the process, innovation is sought in:
1. Methods of offering more freedom and responsibilities to other actors
2. Methods of cooperating with civil society, other layers of government and other departments

PRODUCT



For the product, innovation is sought in
1. Creating a strong communicative product which delivers a sense of urgency
2. Creating an adaptive product which is updated instead of replaced.

See appendix A for a full overview of the innovations.



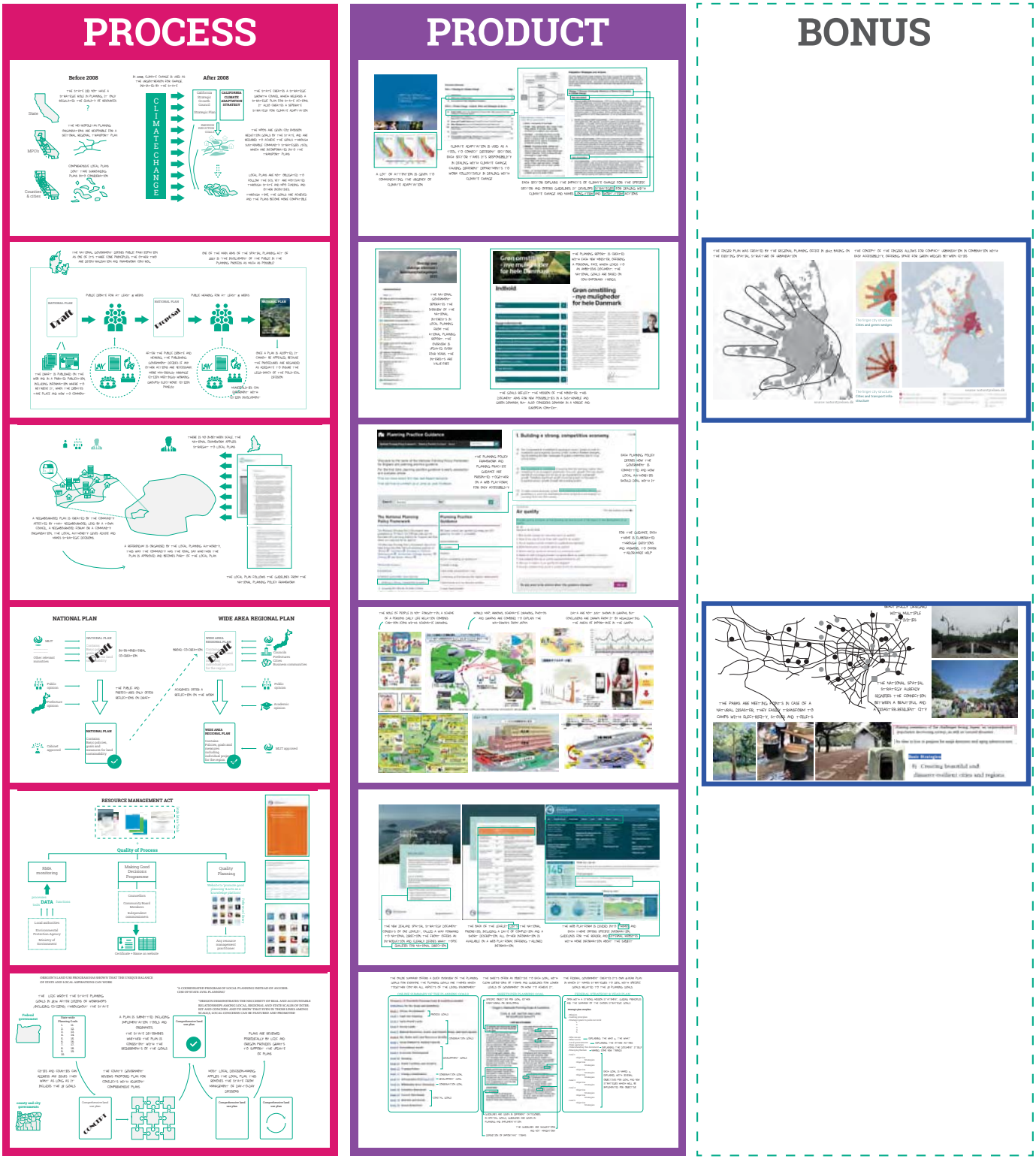


Figure 4.2 This matrix shows the rich amount of innovations which can be found in each location, showing that innovation can be sought anywhere See full explanations in appendix A. Source: Author

5 | REPLICATION

Introduction

This chapter offers a first answer to the research question **"To what degree are the innovations of the spatial strategies of other locations dependent on the context?"** Using the comparative study as a whole, different elements of the national strategies are tested by replicating and reflecting onto the Dutch context. In 5.1, a replication of the national spatial strategies as a total is offered.
Using above exercises, a reflection is given on each of the total tests of replications, giving observations on what happens if the Netherlands had the national spatial strategy of the six other locations, and how that would relate to the Dutch context.
Looking at the applicability of the location-specific innovations of chapter 4.2, an important observation is that there is a large difference in the level of applicability in the content, process and product innovations. In general, the product innovations are the least dependent on the context, and the content related innovation the most dependent.

5.1 | General strategy replication

For the general strategy replication, the comparative study as a whole is used to comprehend the spatial strategies of the different locations. From this understanding, it is possible to create an overview on what the Netherlands would look like if it had a spatial strategy from the six other locations.
This overview is created by taking NOVI's objectives as starting point and extracting interesting aspects from the spatial strategies based on those objectives. The objectives are specified in chapter 4.2.
Each replication exercise contains a map of the Netherlands. This is a spatial exercise to test what the spatial strategy map could look like, based on the content of the specific locations.

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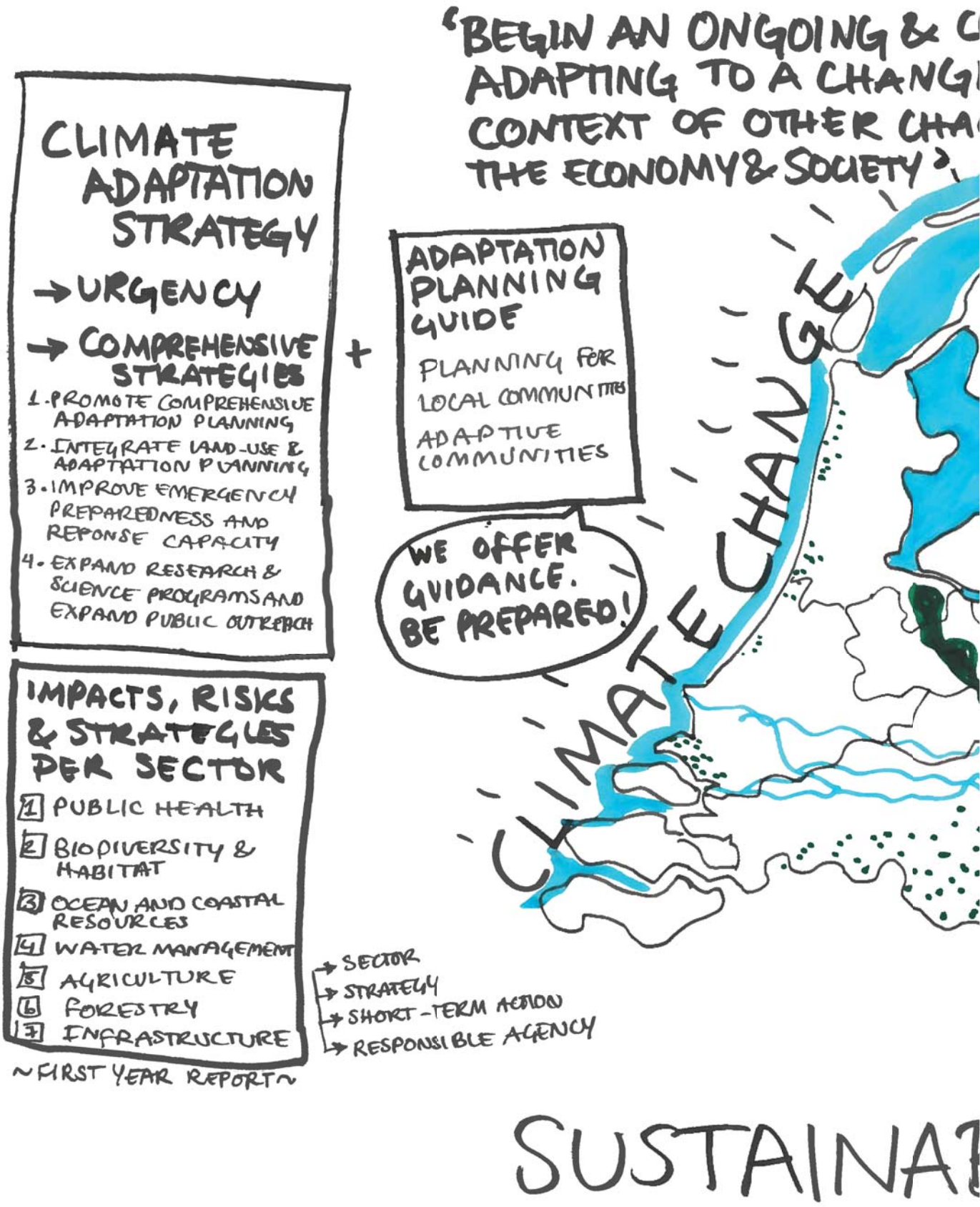

ALIFORNIAN SPATIAL STRATEGY

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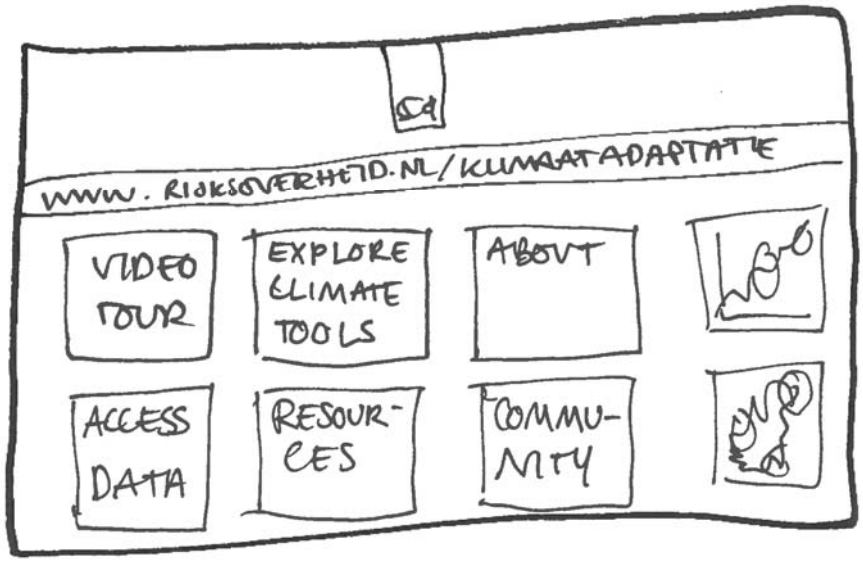
GUIDING PRINCIPLES

1. USE BEST AVAILABLE SCIENCE
2. UNDERSTAND THAT DATA IS STILL BEING COLLECTED AND KNOWLEDGE EVOLVES
3. INVOLVE ALL RELEVANT STAKE-HOLDERS
4. ESTABLISH STRONG PARTNERSHIP WITH ALL ACTORS
5. GIVE PRIORITY TO STRATEGIES THAT ENHANCE EXISTING POLICIES
6. UNDERSTAND THE NEED FOR POLICIES THAT ARE ADAPTIVE
7. ENSURE THAT ADAPTATION STRATEGIES ARE COORDINATED

→ EMMISSION REDUCTION GOALS
→ INCENTIVES FOR LOCAL GOVERNMENTS



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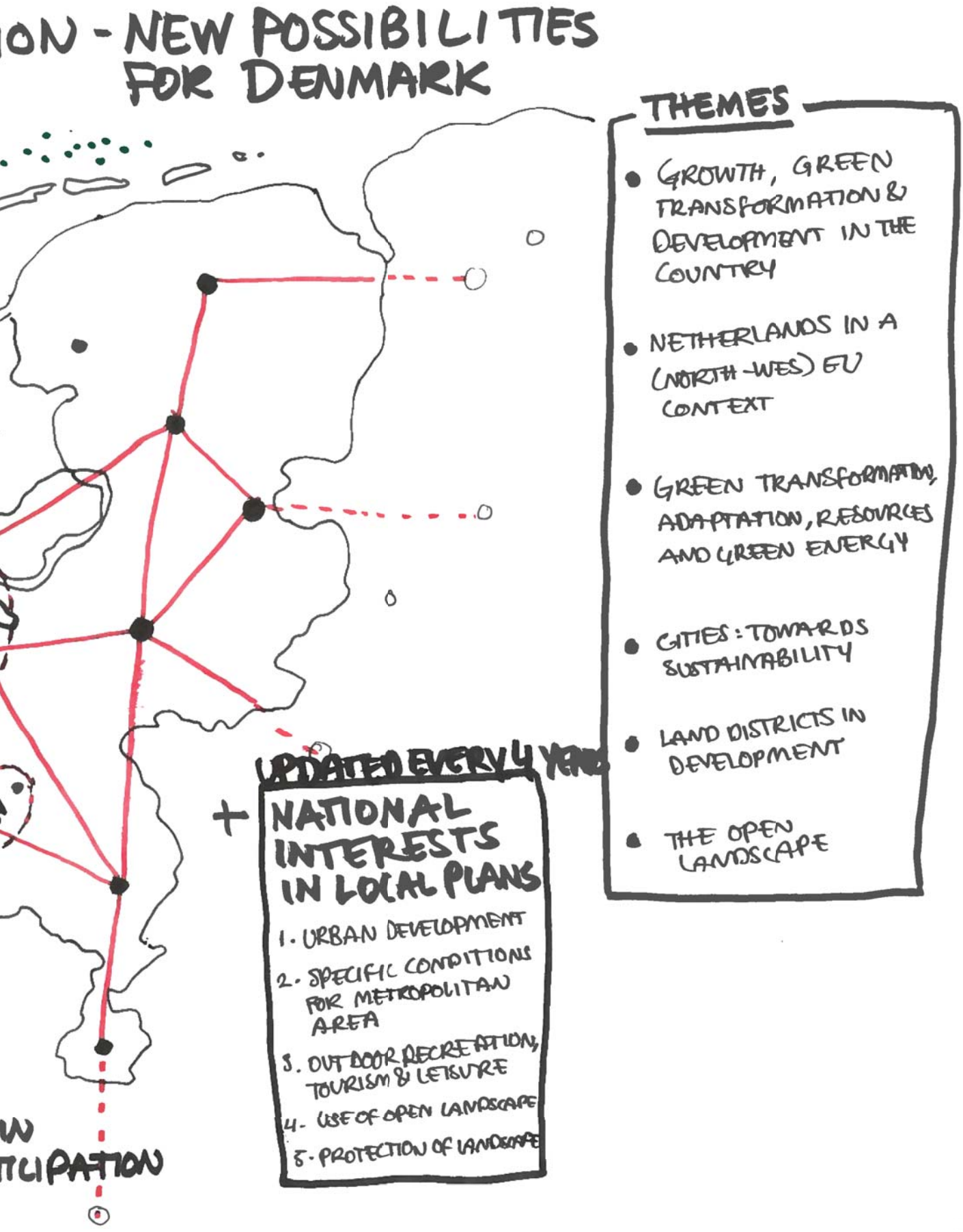

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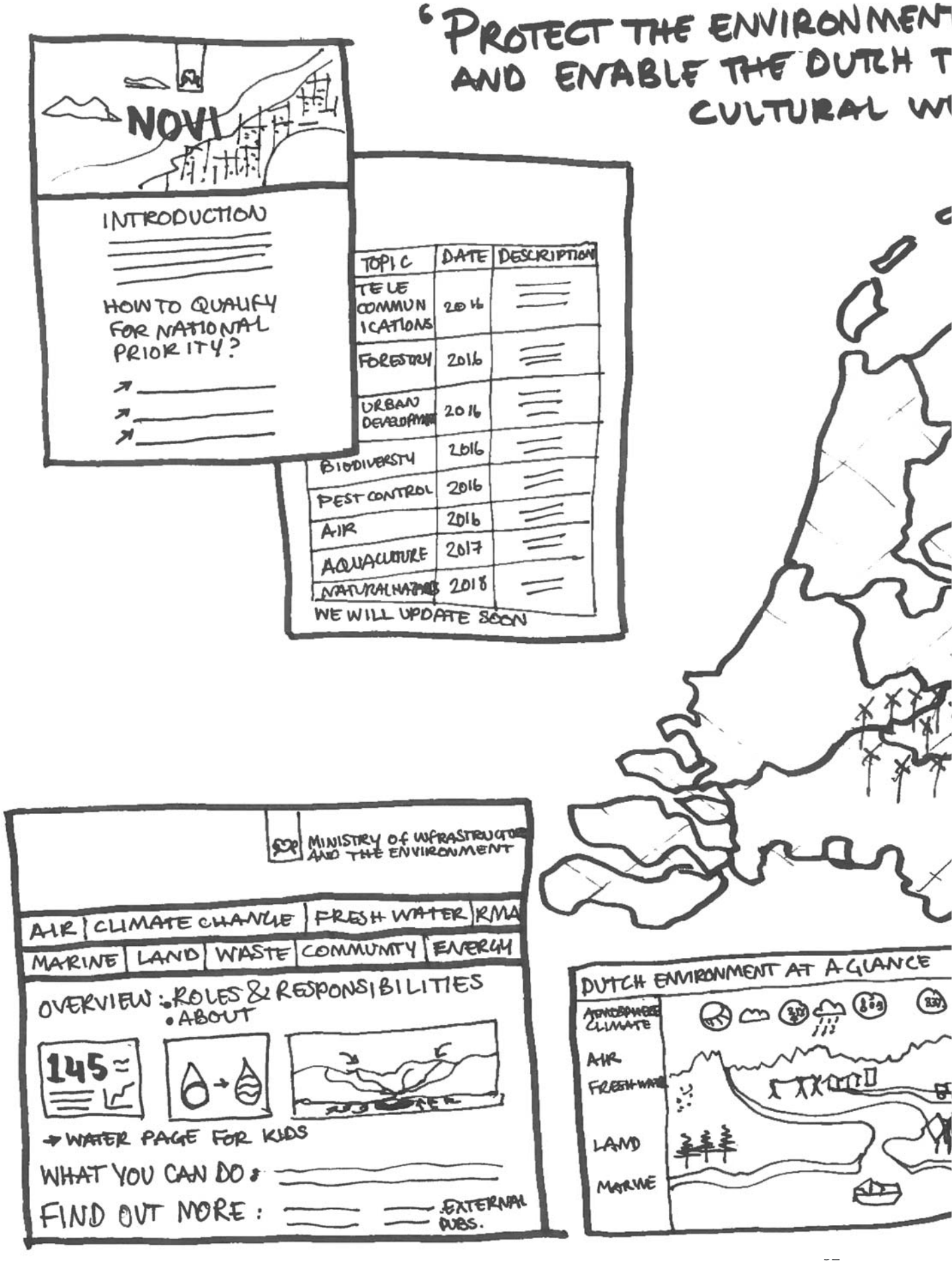

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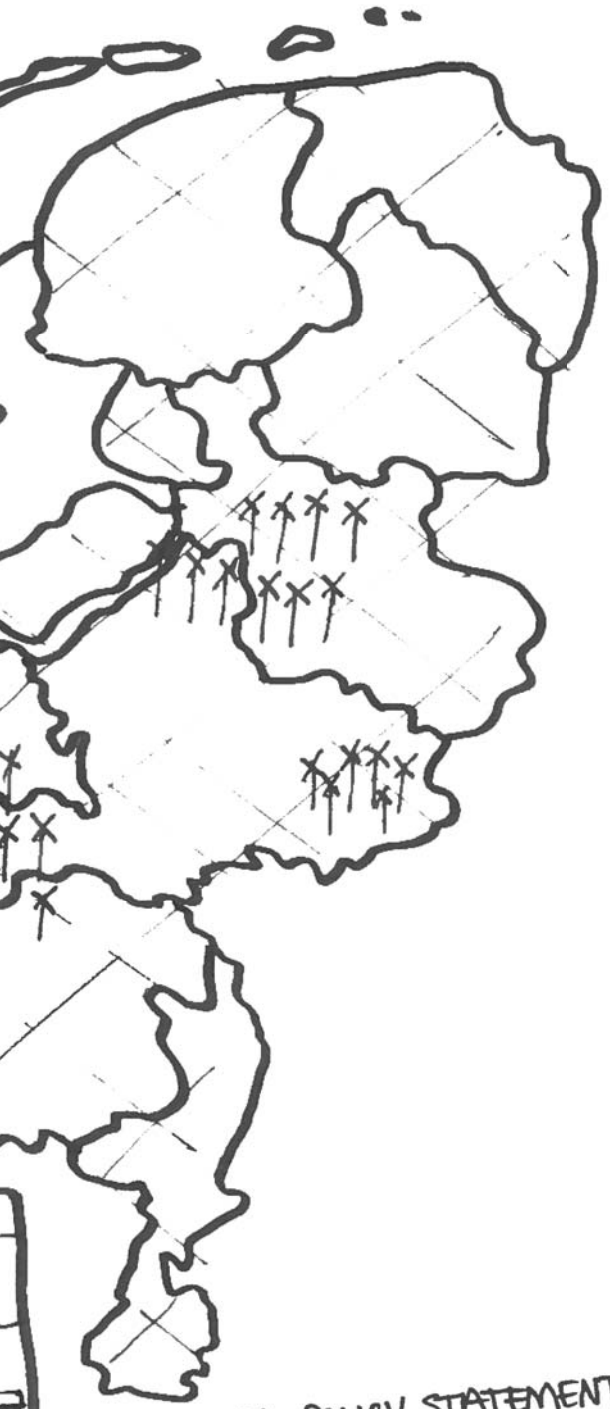

[NATIONAL POLICY STATEMENTS]
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MAKING GOOD DECISIONS PROGRAMME

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			30 JUN 2012

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WWW.QUALITYPLANNING.NL

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'A KNOWLEDGE PLATFORM'

AIR | BIO DIVERSITY | COMM UNITY | ENERGY | MARINE

WASTE | INFRA STRUCTURE | RURAL AREAS | WATER | SUST. DEV.

RESOURCE MANAGEMENT ACT (RMA, 1991)

↳ DEVOLVED PLANNING

AN INTEGRATED FRAMEWORK FOR DEALING WITH LAND-USE & ENVIRONMENTAL MANAGEMENT

SUSTAINABLE MANAGEMENT

'EFFECTS BASED'

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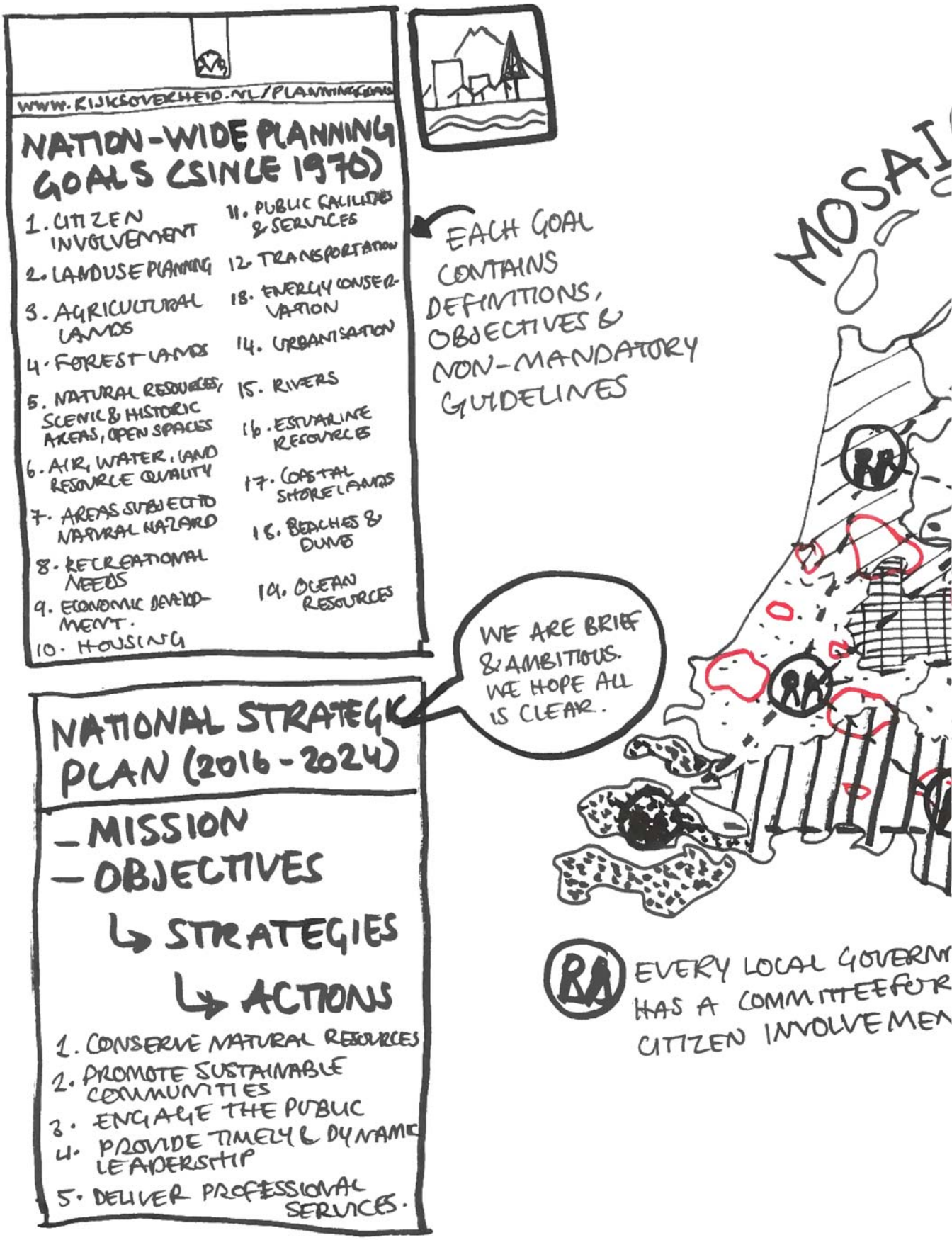


OREGONIAN SPATIAL STRATEGY

5.2 | Reflections on replicability

CALIFORNIA

If the Netherlands had a Californian spatial strategy, it would use climate change as a main driving force for change. Its comprehensive local plans would be uncoordinated, since they are not required to consider surrounding plans by the national strategy. They are moving towards coordination thanks to incentives offered by the nation to follow sustainable community plans on provincial level. It has an Adaptation Planning Guide, a tool for other actors including the public on how to join the adaptation process. Multi-disciplinary deals between multiple actors would be sought in place-based designs, with clear responsibilities per actor involved. The national government would focus on comprehensive non-spatial objectives in its national strategy, like promoting scientific research on climate change, and offer more specific objectives per sector involved, which allows for overarching meaningful connections between sectors. The main aim of the strategy would be to begin a state wide, ongoing, and committed process of adapting to a changing climate in the context of other changes in the environment, the economy and society. To achieve this, varied aspects in process and product are important, like communicating the urgency, a clear role division, co-production, as well as a strong media plan that reaches broad public.

DENMARK

If the Netherlands had a Danish spatial strategy, it would rely on three core principles: public participation, decentralisation, and framework control. It would release a new National Planning Report with each new minister, which allows for a high level of accountability. It would be an inviting strategy, emphasizing that everybody needs to be involved in spatial planning, including the citizens. It would encourage innovative methods for public participation and co-production, and would leave room for initiatives.
Photos would be used throughout the strategy for recognizability, making it easier to access a broad public. Also, broad themes are chosen as chapter heading but with very specific objectives, actions and role divisions. Each theme has a separate chapter to explain the role of the national government.
The spatial focus would lie on (international) networks, and on sustainable (energy) transition. The energy transition is told with urgency and pride, which creates an inspiring strategy. Off-shore energy farms would be a responsibility of the national government, as well as the creation of a solid (inter)national infrastructural network.

The open landscape would form an important part of the content, as well as any 'green' aspect concerning the environment.
It would contain a clear vision for green transformation and have a spatial concept for the metropolitan region of Amsterdam, as with the Danish Finger plan for Copenhagen.

ENGLAND

If the Netherlands had a British spatial strategy, the spatial strategy would consist of a framework for local governments. It would offer comprehensive themes and its system responsibility would focus on how to offer clarity and ease to local plans. The document would contain an elaborate glossary and clear explanations on what a term such as 'sustainable development' would mean. It would define 12 general planning principles which would offer a foundation for planning. It would offer accountability with a picture of the minister and would be inviting by explaining that the planning system has been simplified so communities can join. Broad participation is important, and citizens can design their own living environment through neighbourhood planning.

JAPAN

If the Netherlands had a Japanese spatial strategy, it would focus on being compact and creating networks. Its aim would be to generate diverse synergies among regions, to tackle the urgencies of the demographic shifts and aging society. It would have a clear vision on the development of cities and regions for the future, aiming to connect the materialized network to the data and information network to create smarter and sustainable areas. It would steer on creating a 'super-mega-region' by securing and advancing its high speed train network. It would also stimulate the creation of beautiful and resilient cities, which will be outed in 'disaster parks'.

It would use different types of images in the communication of its product, ranging from maps to schematic drawings, and going through the different scales from global to local. The basic national plan would be co-created between all relevant ministries, and other relevant actors would be joining to create specific plans for wide area regions.

NEW ZEALAND

If the Netherlands had a New Zealand spatial strategy, most spatial responsibilities would be devolved to lower governments. The national government would stay responsible for the creation of frameworks and set certain environmental standards . It would also stay responsible for the system as a whole and the quality of the process. There would be an elaborate website dedicated to ease of communication and offering tailor-made information to a broad public, offering external links for further research and special pages for children.

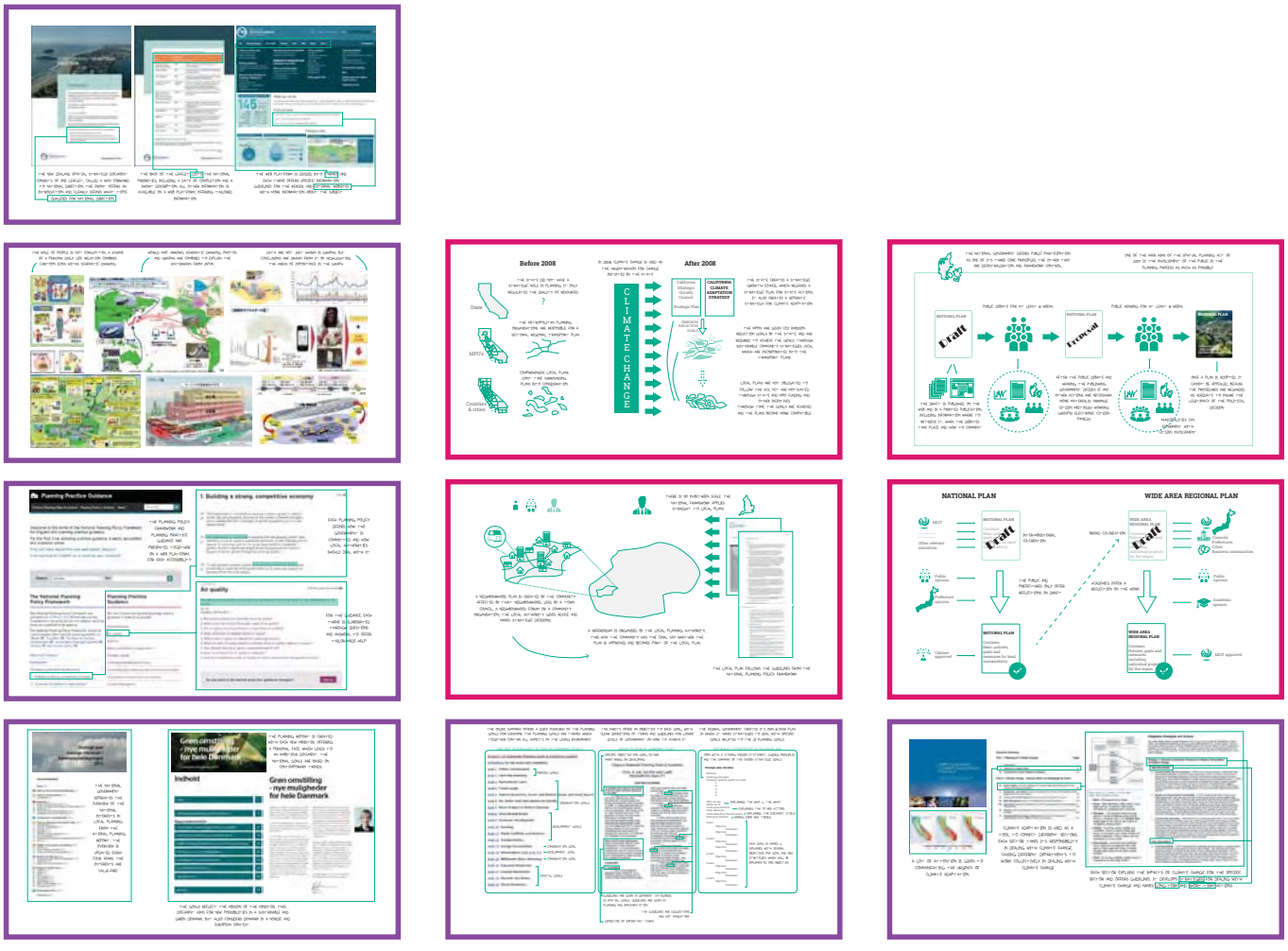
OREGON

If th Netherlands had an Oregonian planning strategy, it would have two separate documents; one would be a comprehensive framework for local governments and the other would be an 8-year strategic plan. The strategic plan would contain very systematic national actions, going through strategies, objectives and specific actions. It would contain a lot of non-spatial objectives which would in term influence the spatial structure. The nation-wide planning goals would offer a broad range of themes with guidelines for local governments on how to achieve them. These are non-obligatory, allowing space for initiative from others.

GENERAL REFLECTION

Considering the general idea that the Dutch spatial planning system is in transition and NOVI's high ambitions, there is an open consideration for the possibilities of innovation when considering the transferability of other strategies. Looking at the replication exercise as a whole, it becomes clear that there is a general difference of the dependence of the innovations on its specific context. The product-related innovations like the use of images, creating separate documents or creating a web platform are the least dependent on the context.

The process-related innovations are more dependent on the context, as there are often institutional barriers or a different cultural background, like California using incentives for local plans to become more coordinated and sustainable. In general, the content-related innovations have the highest dependence on its context. The content-related innovations with spatial implications proved the most difficult to replicate in the exercise. Therefore, in Application chapter 6, five content-related innovations are researched in depth and applied to the Netherlands to discover its relation to the context.



Product

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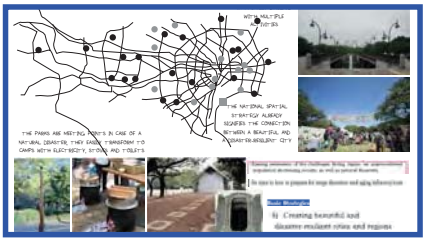
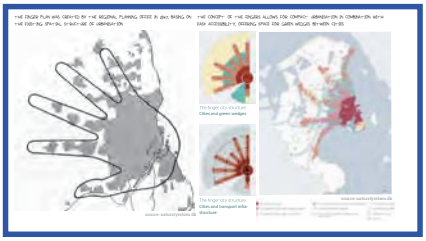
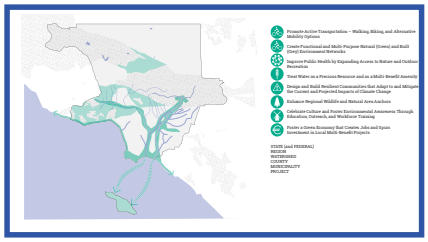
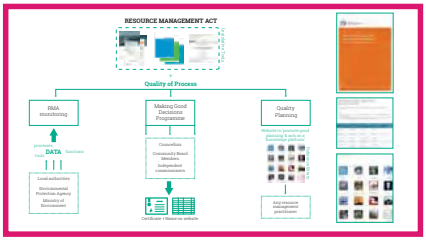
Figure 5.1 Dependence of the innovations on the context. In general, there is a pattern in which the product innovations are the least dependent on the context and content innovations are the most dependent. Therefore, content innovations should be given more attention. Source: author

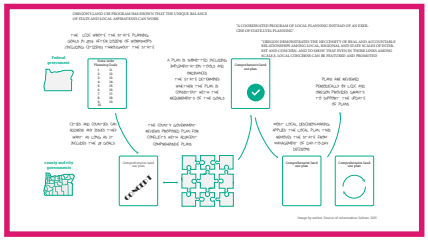
DEPENDENCE OF CHOSEN INNOVATIONS ON THE CONTEXT











Process ⟶ Content ⟶

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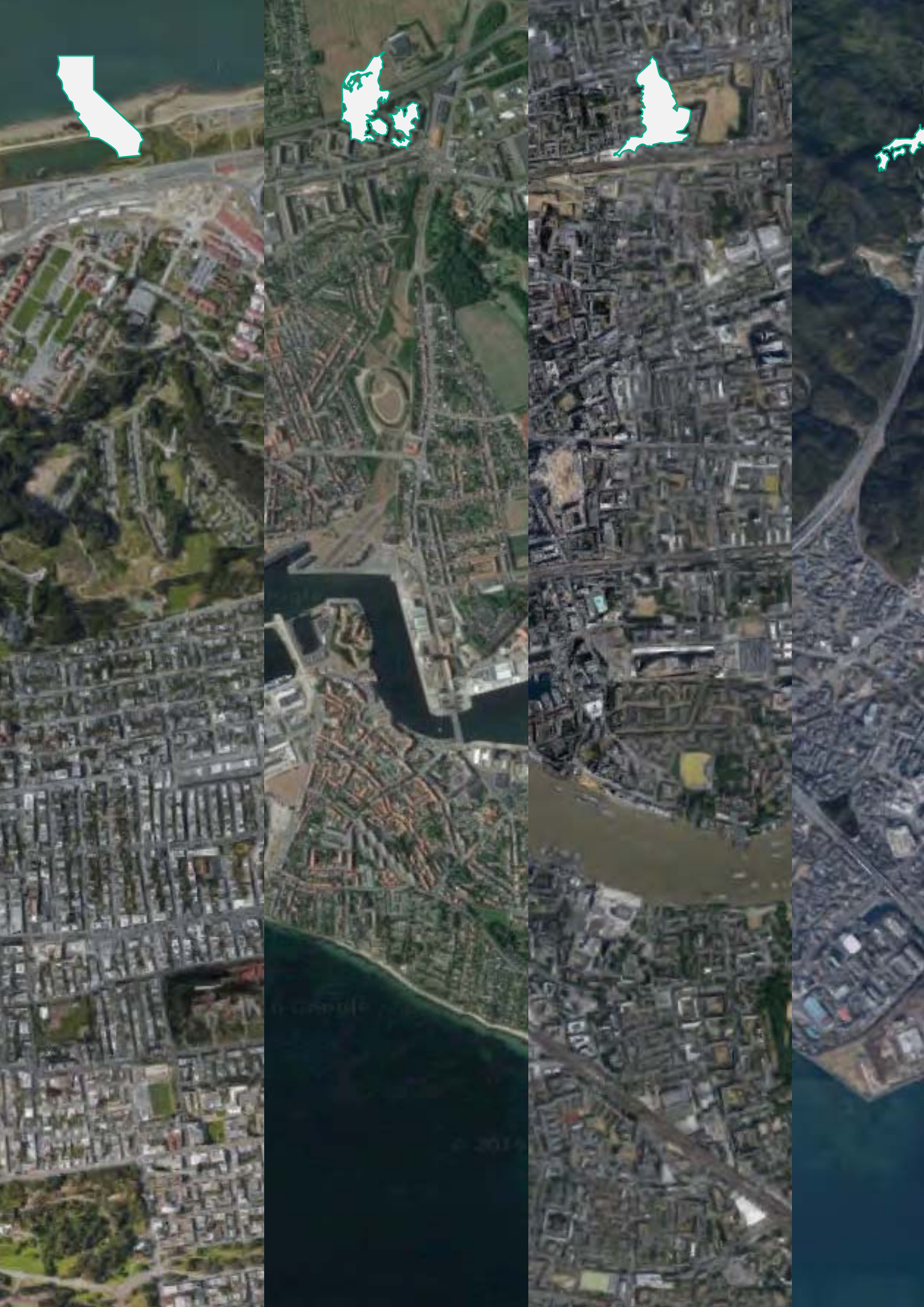


6 | APPLICATION

Introduction

The goal of the application phase is to demonstrate the final results when filtering through the different levels of applicability in the project to discover the transferability. It continues to answer the research question of the previous chapter: "To what degree are the innovations of the spatial strategies of other locations dependent on the context?" by applying several content-related innovations with spatial implications. It also answers the two final research questions: **"What are general principles and concepts that can be filtered from the spatial strategies?"** and **"What could NOVI look like if the filtered principles and concepts are applied on the Dutch context?"** The theory, the comparative study and the replication exercise have led to a synthesis of two parts: the general principles and concepts that can be applied in the NOVI, and the proposed NOVI.

The general principles and concepts in 6.2 uses the categorisation of content, process and product to name those principles and concepts that reoccur in several locations, which implies a certain level of transferability. The general concepts and principles have been defined in both inductive and deductive methods. They are on one hand related to the theory on what spatial strategies should contain, and on the other hand filtered from the replication exercise of chapter 5.

The proposed NOVI is 6.3 is a personal design synthesis on what the NOVI would look like if the lessons learned are applied. It relates back to the Dutch context, grasping the spatial, demographic, institutional, political, cultural and transitional systems, to create a comprehensive understanding what the NOVI should look like, were it published today.

6.1 | Spatial application

The content innovations with spatial implementations are the most dependent on the context of the chosen location. To understand the spatial implications, five content innovations are chosen to demonstrate and test the applicability of the innovations. The five innovations are chosen with the following criteria:
- Spatial implementations has already taken place
- Have been part of the national strategy for a longer period
- Related to the current spatial urgencies of the Netherlands.

The current spatial urgencies in the Netherlands are:

- Migration and urbanisation
- Energy transition
- Climate adaptation

This had led to the following five innovations:

Concerning migration and urbanisation:

1. Shinkansen - Japan
2. Urban growth boundaries - Oregon
3. Finger plan Copenhagen - Denmark

Concerning energy transition:

4. Offshore wind farms - Denmark

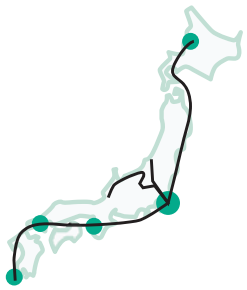
Concerning climate adaptation (natural disasters):

5. Disaster parks Tokyo - Japan

Examining the content innovations with spatial implementations, there are seven important cross-cutting ideas between content, process and product which seem to reoccur across the five innovations:

- Created from a specific urgency
- Seeking solutions through the existing potential
- Smart combination of functions
- Societal connection
- Clear national actions
- Long-term perspective
- Compactness
- Large-scaled network

These aspects are reflected upon in each innovation. To be able to apply the innovations for the NOVI, the spatial innovations are brought back to a general spatial concept which can be applied to the Netherlands, as well as showing the variation in the national roles to define variety which is possible when applying spatial concepts.



SHINKANSEN - JAPAN

The Shinkansen was created from an urgency to upgrade the exisiting infrastructure network to increase accesibility, within the restrictions of the mountainous terrain. Japan was the first country in the world to build dedicated railway lines for high speed travel. Currently, its potential is used to create a 'super-mega-region', connecting Japan on a design concept of networks and compact nodes. It inspires by setting that 'an inter-city trip will become just like travel within a city'. Throughout the years, it has become an important part of the Japanse identity and the daily lives of citizens. The Japanese national government take clear national actions by ensuring the tracks and the corresponding stations, while all other design of the spatial structure surrounding the tracks is left open for the private market.

Considering the Netherlands, networks have been an important part of spatial strategies in the past, though kept within a smaller network. A large-scaled high speed train network has often caused for problems in the Netherlands., though they have often been attempted. A 'Zuider-zee lijn ' was supposed to create a high speed connect Amsterdam to Groningen, allowing for future connections to Hamburg and Scandinavia. It was proposed twice,the proposals were abandoned in 1986 and 2007. Also, recently the failure of the high speed train to Brussels has caused the state secretary to leave her position. The national government just announced to regain the grip on the (inter) national train network to ensure succes. Taking the Shinkansen rails, they would spread throughout whole of Europe, which would mean a trip from Amsterdam to London would take less than two hours, allowing for an international trip to become just like a travel within a nation.

' Traveling the Tokyo–Osaka line by Shinkansen produces only around 16% of the carbon dioxide of the equivalent journey by car, a saving of 15,000 tons of CO2 per year (Jrtr.net, 2009)'

' Annual average delay is 0.9 minutes per operational train, including delays by natural disasters' (JR central, 2014)

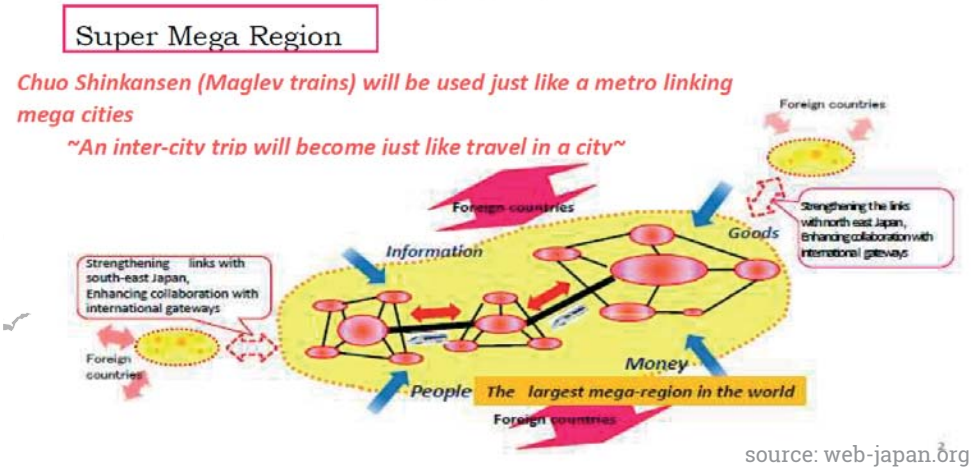
' Time savings alone from switching from a conventional to a high-speed network have been estimated at 400 million hours, an economic impact of ¥500 billion per year' (Jrtr.net, 2011)

Over the Shinkansen's 50-plus year history, carrying over 10 billion passengers, there have been no passenger fatalities due to derailments or collisions' (JR central, 2015)

source: jnr

THE FIRST SHINKANSEN WAS CREATED OF A NEED FOR HIGH SPEED RAILS THROUGH THE MOUNTAIN LANDSCAPE OF JAPAN.

THE SHINKANSEN ARE AN INTEGRAL PART OF THE SPATIAL STRATEGY, AS AN ANSWER TO THE OBJECTIVE OF MAKING AN INTER-CITY TRIP FEEL LIKE A TRVAEL IN A CITY



source: web-japan.org

THE TRAINS GO THROUGH THE EXTENTS OF JAPAN, HAVING A TOTAL OF 2,764.6 KM OF TRACKS

source: web-japan.org

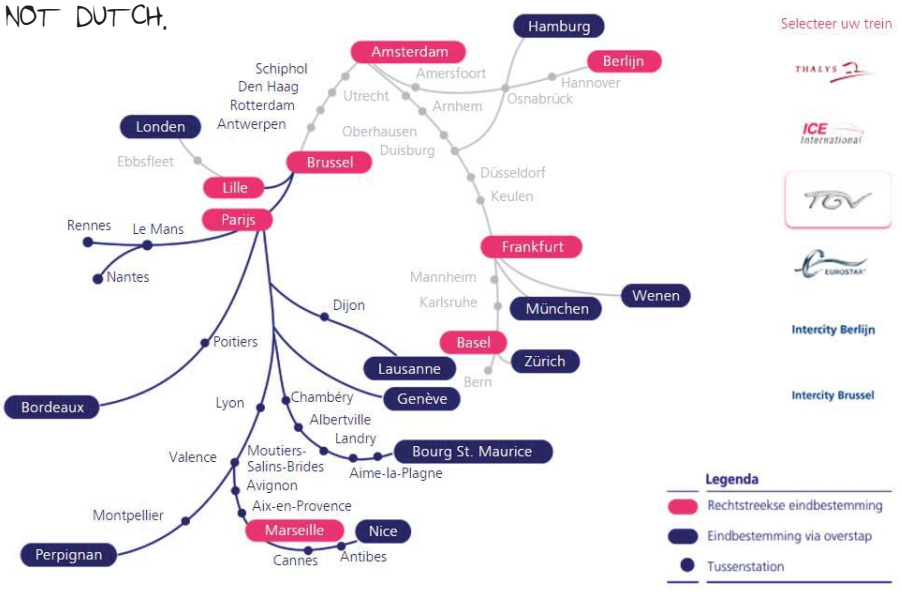
THE NATIONAL GOVERNMENT TAKES RESPONSIBILITY FOR THE DEVELOPMENT OF THE SHINKANSEN

d. Developing a super-mega-region through the Linear Chuo Shinkansen railway

The Linear Chuo Shinkansen development is a national-perspective-based project expected to combine the main western and eastern arteries of Japan into a dual system, integrate the three large metropolitan regions and revitalize other regions to greatly reform the national spatial structure. The central and relevant local governments will cooperate and collaborate with to the project's undertaker, Central Japan Railway Co., for its steady progress in the construction of the ultra-high-speed railway line.

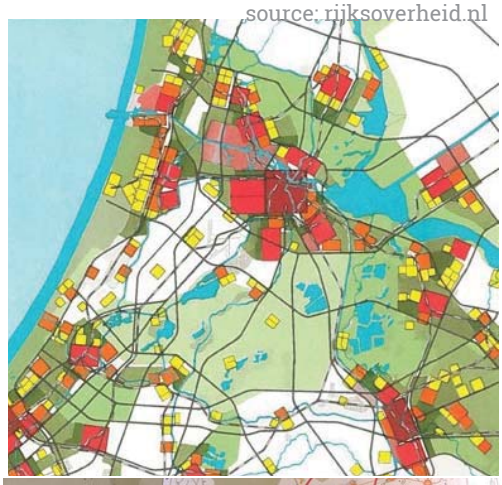
source: Grand Design of Japan, 1998

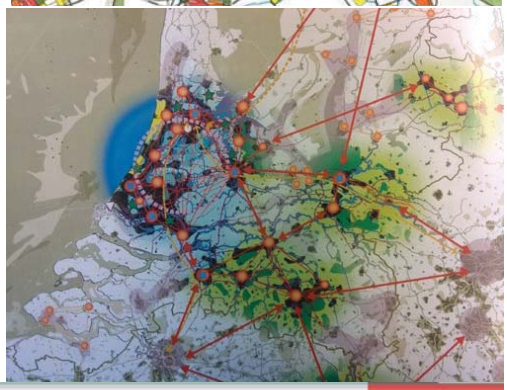
MOST OF THE CURRENT HIGH SPEED RAILS REACHING THE NETHERLANDS ARE NOT DUTCH.



source: ns international

source: rijksoverheid.nl





THE NETHERLANDS HAS OFTEN FACED PROBLEMS COCNERNING HIGH SPEED RAILS. THE COMPLEX PUBLIC PRVATE RELATIONSHIP BETWEEN GOVERNMENT AND MARKET CURRENTLY CONTRIBUTES TO THIS PROBLEM

BANEN ABONNEER DIGITALE KR

Nieuws Cultuur & Leven deVolkskran

Politiek

Staatssecretaris Wilma Mansveld van Infrastructuur en Milieu (IenM) kondigt haar aftreden aan. © ANP

Mansveld stapt op om Fyra: 'Ik heb dingen niet goed gedaan'

Staatssecretaris Wilma Mansveld van Infrastructuur en Milieu stapt op naar aanleiding van een kritisch rapport van de parlementaire enquêtecommissie Fyra. De commissie oordeelt dat zij de Kamer onjuist heeft geïnformeerd over het debacle met de hogesnelheidstrein. Om 17.30 uur gaat de Kamer met premier Rutte in debat over haar vertrek. Door op te stappen neemt Mansveld verantwoordelijkheid voor haar eigen fouten en die van haar voorgangers, zei Mansveld in een toelichtende verklaring.

Door: Redactie 28 oktober 2015, 14:45

Na de uitgebreide opsomming van de commissie van wat er allemaal fout ging met de Fyra is het nu tijd voor het debat over de lessen voor de

Noorden bedelt weer om de Zuiderzeelijn

22 juni 2015 | Laatste update: 22 juni, 10:42 1 REAGEER (1)

EMMELOORD/ZWOLLE/DEN HAAG - Het rijk moet onderzoeken of de Zuiderzeelijn (Lelystad-Heerenveen-Drachten-Groningen) er toch nog van kan komen. Dat vindt de SER (Sociaal Economische Raad) in Groningen, Friesland en Drenthe.

WHEN PROJECTING THE JAPANESE SHINKANSEN ONTO THE NETHERLANDS, THE SCALE OF THE JAPANESE SYSTEM BECOMES CLEAR, THE SAME TRACKS WOULD COVER HALF OF EUROPE

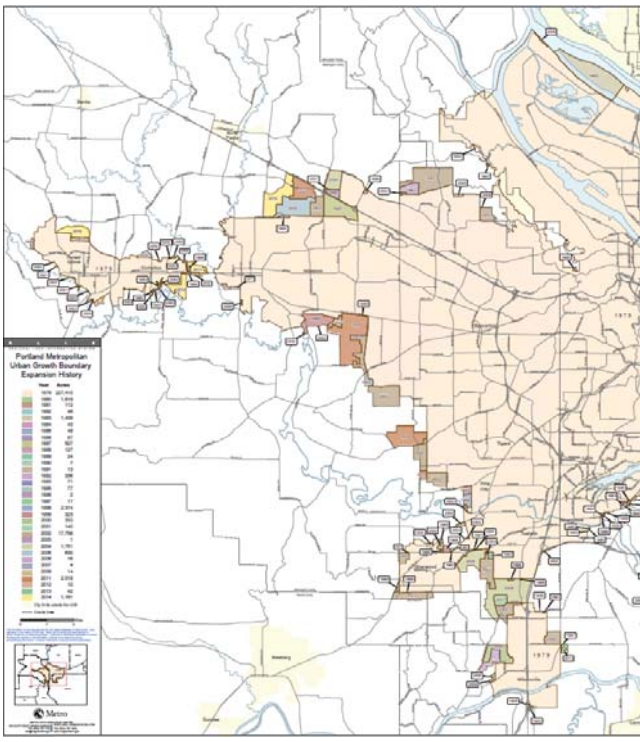
THE DUTCH NATIONAL SPATIAL STRATEGIES HAVE OFTEN CONCERNED THEMSELVES WITH ACCESSIBILITY, THOUGH MOSTLY VEHICLE RELATED.

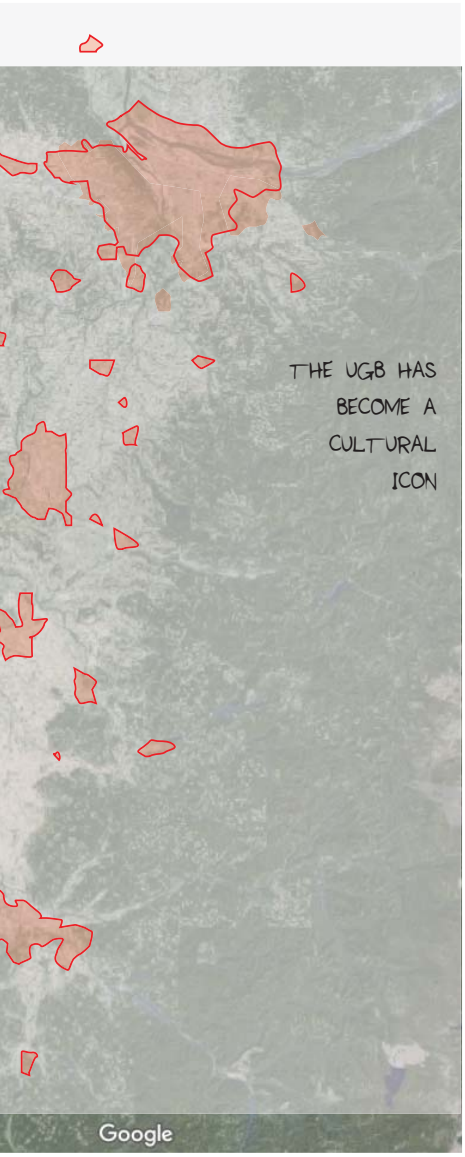
ADAPTING IT TO THE EUROPEAN SPATIAL STRUCTURE, A TRIP FROM AMSTERDAM TO COPENHAGEN WOULD TAKE LESS THAT 4 HOURS. A DIRECT TRAIN TO MADRID WOULD TAKE 7 HOURS.

URBAN GROWTH BOUNDARIES - OREGON

The urban growth boundaries in Oregon were created in 1970 from a sense of urgent need to protect the landscapes and stop urban sprawl. It made use of the existing urban structure to determine a boundary in which urbanisation was allowed to occur. The long-term perspective allowed for adaptivity of the boundaries through the years. The urban growth boundaries also created a sustainable urbanisation system through programming on compact systems. This shows the smart combination of objectives, including preservation of highest-quality agricultural lands and conservation of forests and open space. The goals also aim to 'develop high-quality, livable cities and towns by increasing density, improving public transit options, and encouraging affordable housing close to jobs.' (Senville, 2013).
The societal connection plays a large role in the Urban Growth Boundaries. One of the reasons of success is that citizen involvement is the first state-wide planning goal and citizens are expected to be part of the planning process. This culture in which citizen engagement is expected creates a general support for the urban growth boundaries which are offered to the state by the cities. This allows for a coordinated system instead of a top-down bureaucratic process. The state stays responsible for the system as a whole.

Looking at the Netherlands, the difference of density becomes clear when replicating the growth boundaries onto the Dutch context. What is considered compact in Oregon and contains 2.8 million inhabitants, is considered an immense urban sprawl in an area where 7 million citizens live in the Netherlands. The Netherlands attempted Urban Growth Boundaries for the fifth spatial document in 2001, which failed to be executed. However, a spatial principle for urbanisation is necessary within the dense complexities of the Netherlands, which has currently manifested itself in a 'ladder of sustainable urbanisation', which offers a step-by-step consideration of sustainable urbanisation. Currently, this ladder is not a success due to the fact that it stays unclear and offers no sanctions for abuse. It is already being updated for the NOVI.



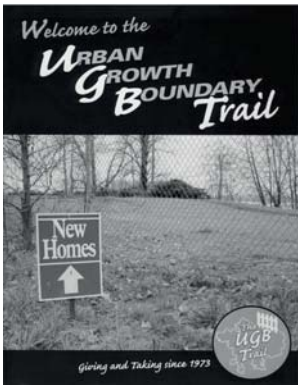


THE UGB HAS BECOME A CULTURAL ICON

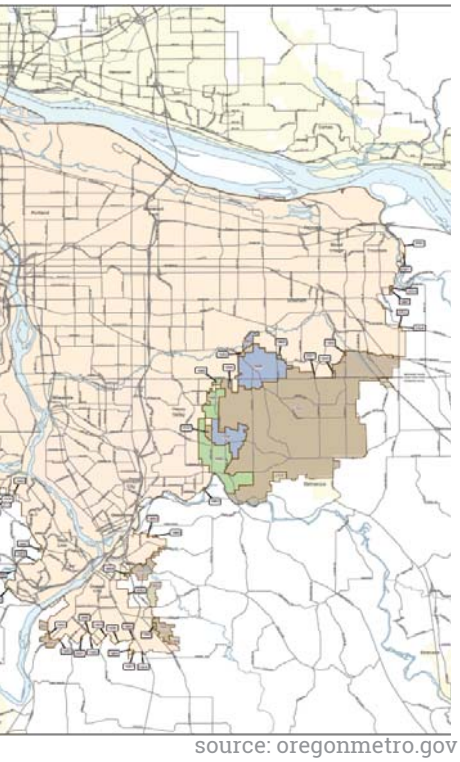
'UGBs in orgegon have been shown to be effective toold for focusing population and housing growth within urban areas an for preventing sprawl onto farmland and forestland'

'The program (UGB) has resulted in a measureable degree of forest and farmland protection since its inception in 1973'
(Seltzer, 2014)

'Each oregonian feels in some sense defined by the stunning landscapes for which the state in known'
(oregon values, 2002)



THE UGB HAS CREATED A SPECIFIC LANDSCAPE WHICH PRESERVES FARM AND FORSTLAND, WITH A STRONG BORDER FOR URBANISATION ON THE OTHER SIDE

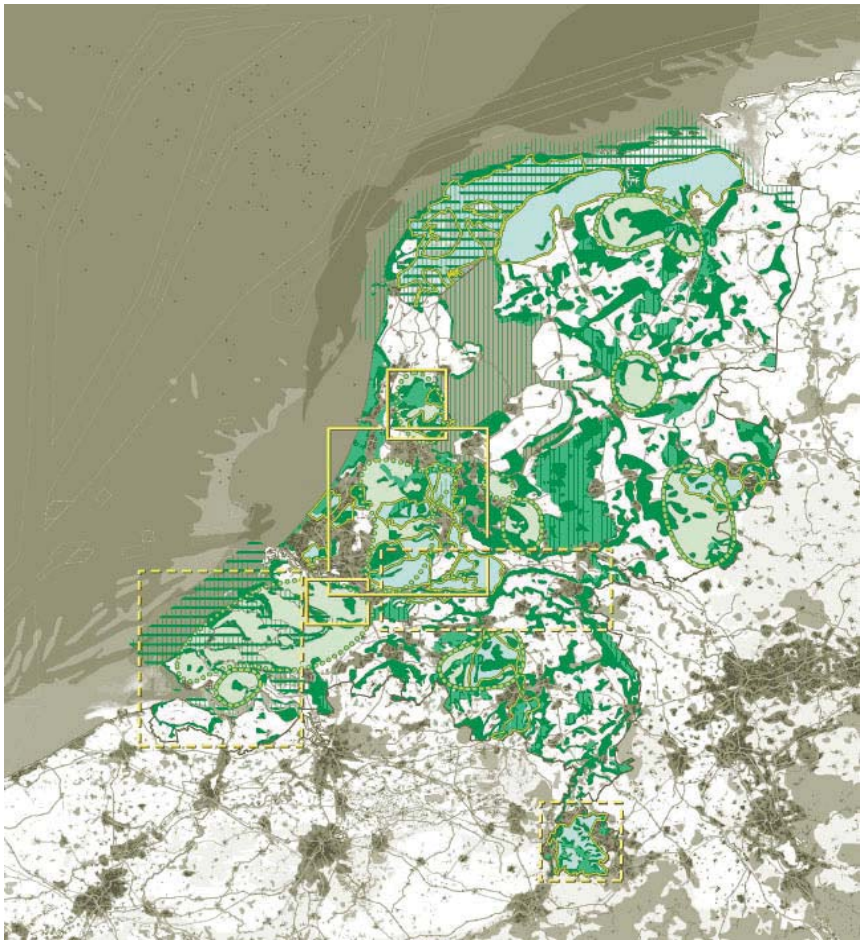


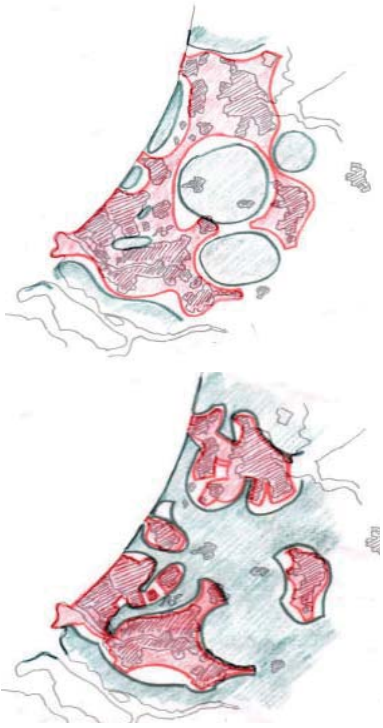
source: oregonmetro.gov

source: plannersweb.com

A ZOOM IN OF PORTLAND SHOWS THE CHANGES THAT HAVE OCCURED IN THE URBAN GROWTH BOUDARIES SINCE THEY WERE IMPLEMENTED IN 1970. PORTLAND UNDERWENT THE LARGEST CHANGES IN OREGON YET THE DIFFERENCES REMAIN SMALL.

source: VROM, 2001

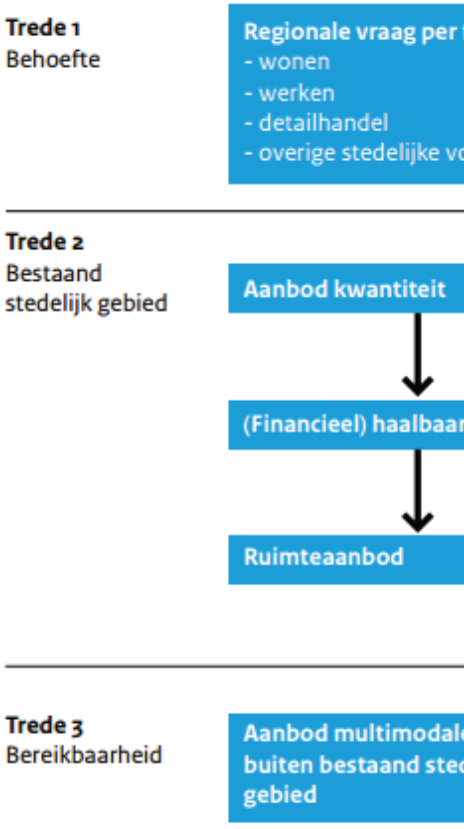




source: Deltametropool, 2000

Ladder duurzame verstedelijking: het drama van een goede bedoeling

Door Friso de Zeeuw en Jos Feijtel



THE DUTCH NATIONAL GOVERNMENT ATTEMPTED TO IMPLEMENT GROWTH BOUNDARIES WITH THE FIFTH NATIONAL SPATIAL STRATEGY (WHICH NEVER WENT INTO EFFECT). THIS WAS NOT RECEIVED WELL IN THE NETHERLANDS, AS IT WAS SAID THAT IT WOULD LOCK THE SPATIAL STRUCTURE OF THE NETHERLANDS

In het land van Pronk wil niemand wonen

Wijnand Duyvendak en Klaas Breunissen – 31/01/01, 00:00

We staan voor een belangrijke keuze: doorgaan met het volbouwen van ons land óf groene landschappen openhouden. In de vijfde nota ruimtelijke ordening ontbreekt elk besef van urgentie. De verloedering van ons open landschap zal onverminderd voortgaan.

DOSSIER Archief

Meer ove

Trouw-archief

Platini hou

Vertrek to

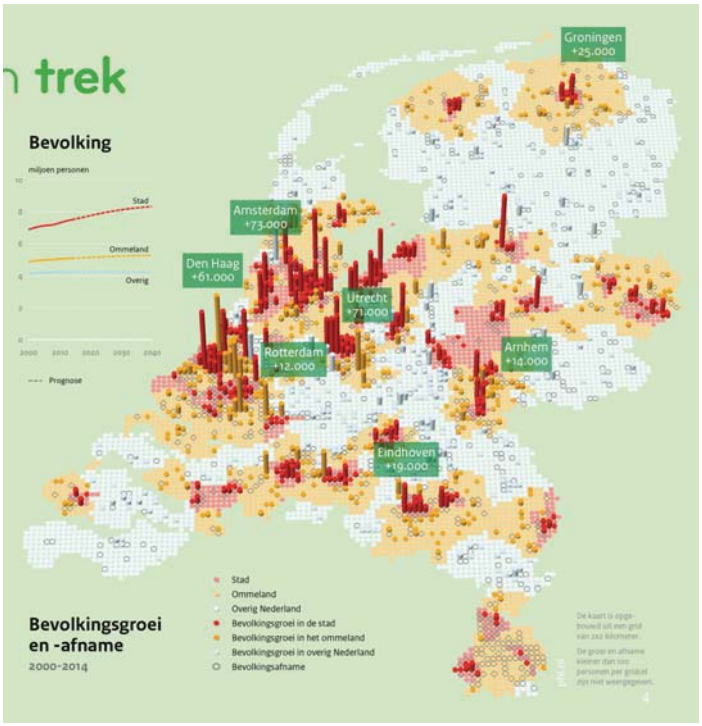
Technisch

Wint Feye
'stammens

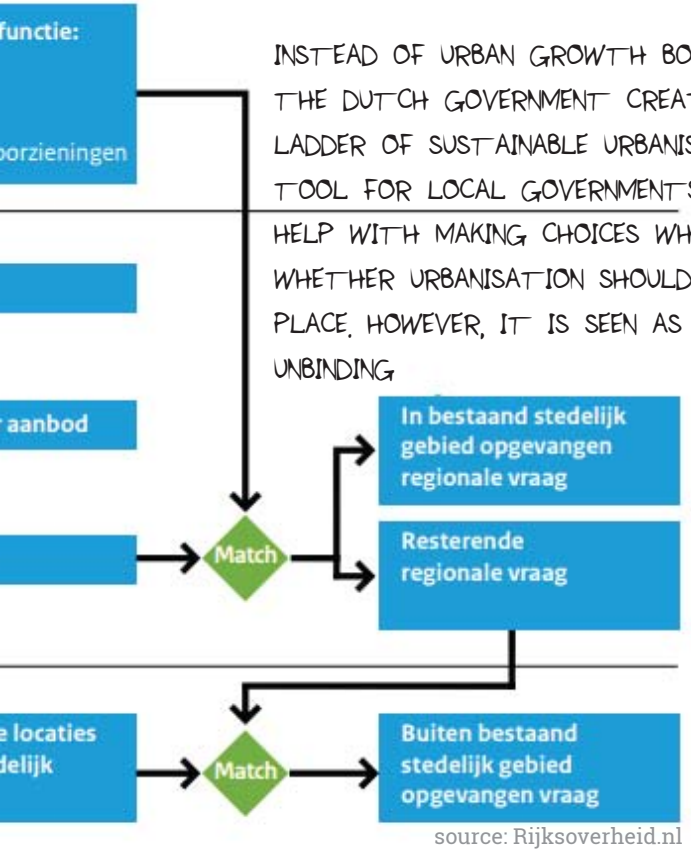
Al voor de presentatie van de vijfde nota, vandaag, heeft een meerderheid van de Tweede Kamer laten weten een betere bescherming voor het open gebied te willen. Het is te hopen dat deze politici ook tijdens het kamerdebat in april hun tanden laten zien.

Het open landschap wordt in toenemende mate aangetast door verstedelijking. In de onlangs verschenen Balans Ruimtelijke Kwaliteit 2000 schetst het ministerie van ruimtelijke ordening een beklemmend beeld. Tussen 1990 en 1996 nam het stedelijk gebied in Nederland toe met een gebied ter grootte van de Noordoostpolder. De open ruimte slinkt en wordt uniformer, de diversiteit aan landschappen neemt af. Zelfs in het buitengebied wordt er op los gebouwd.

Dat is niet wat de Nederlanders willen. Minister Pronk van ruimtelijke ordening weet dat, want hij schrijft in de balans: ,,Het belangrijkste uitgangspunt voor de ruimtelijke ordening vindt de Nederlander de bescherming van natuur en milieu (62 procent) en het mooi en afwisselend houden van stad en land (58 procent). De Nederlandse concurrentiepositie en sociale rechtvaardigheid scoren aanzienlijk lager."

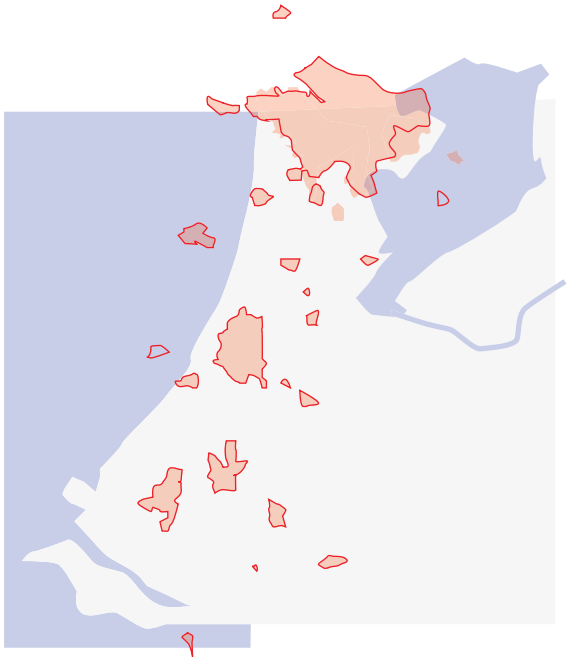


THE RANDSTAD IS CURRENTLY UNDER A LOT OF PRESSURE, THERE IS A HIGH MIGRATION TO THE RANDSTAD WHICH REQUIRES MORE HOUSING

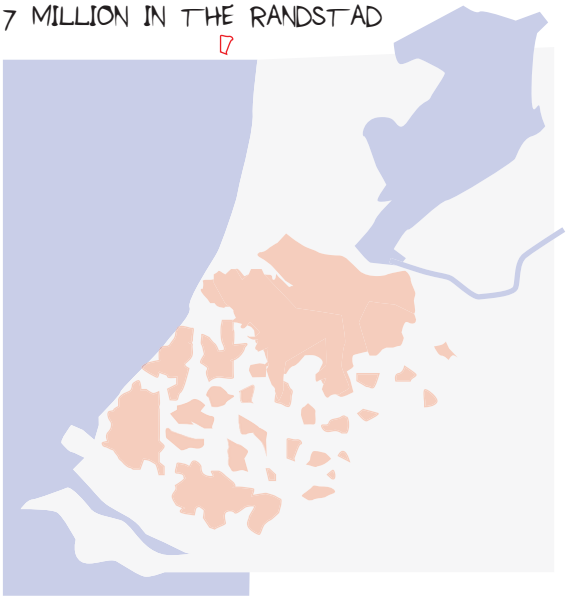


source: Rijksoverheid.nl

INSTEAD OF URBAN GROWTH BOUNDARIES, THE DUTCH GOVERNMENT CREATED THE LADDER OF SUSTAINABLE URBANISATION, A TOOL FOR LOCAL GOVERNMENTS TO HELP WITH MAKING CHOICES WHERE AND WHETHER URBANISATION SHOULD TAKE PLACE. HOWEVER, IT IS SEEN AS TOO UNBINDING



THE UGBS SEEM COMPACT BUT ONLY CARRY 2.8 MILLION PEOPLE, COMPARED TO 7 MILLION IN THE RANDSTAD



7 million inhabitants

IF PLACED IN THE RANDSTAD, THE UGBS OF OREGON WOULD FILL UP THE ENTIRE RANDSTAND

THE DIFFERENCE OF NENOW VS IF UGBS HAD BEEN IMPLEMENTED IN 1970

FINGER PLAN COPENHAGEN - DENMARK

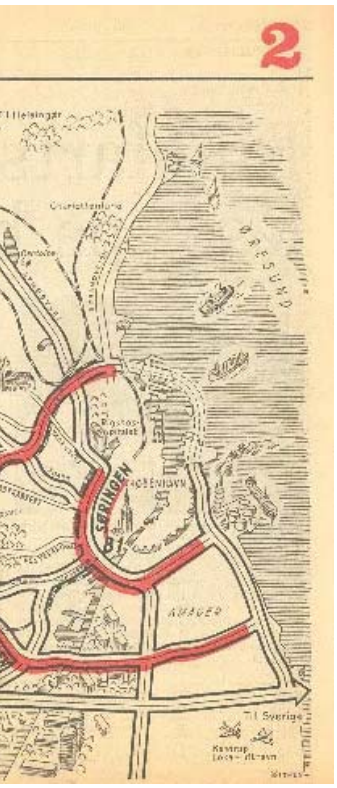
The finger plan of Copenhagen was based on a plan to manage the urban structure of Greater Copenhagen region in 1947. It used the existing urban structure to developed a spatial concept which consisted of hand-shaped form in which urban regions could develop further. Within the fingers, there would be spaces for infrastructure, creating an incentive for compact building along the fingers. The wedges between the fingers are then left open for green spaces. More than 50 years later, the focus lies on compact building and secondary transport networks to connects the fingers together efficiently. Within the long-term perspective, there are plans to connect the finger plan to a large-scaled cross-border network trough the underlying potential of the existing network. The national government took over responsibility for the Greater Copenhagen finger plan in 2007 after political reforms. The central government states a clear vision for the finger plan, focused on further enhancing Copenhagen's profile as a green capital in the future. Planning in Greater Copenhagen must ensure the main principles of the finger city structure.

The Dutch national government has often created spatial concepts for urbanisation in its spatial strategies. The spatial concept of 'bundled deconcentration' introduced in chapter 1.3 has influenced the urbanisation pattern of the Netherlands greatly, as well as the concepts 'groeikernen' and 'compacte stad'. Several concepts have discussed basic accessibility in relation to urbanisation. However, in the decentralisation transition, the spatial concepts for urbanisation have disappeared. The Netherlands is facing large insecurities in urbanisation. The difference between growing regions and shrinking regions is growing larger and there is no spatial policy on national level to deal with accessibility and housing issues.
The finger plan of Denmark serves 36% of the total Danish population. Copying it onto the Netherlands reveals a difference in density. When corrected for population density, the finger plan would cover half of the Dutch area.

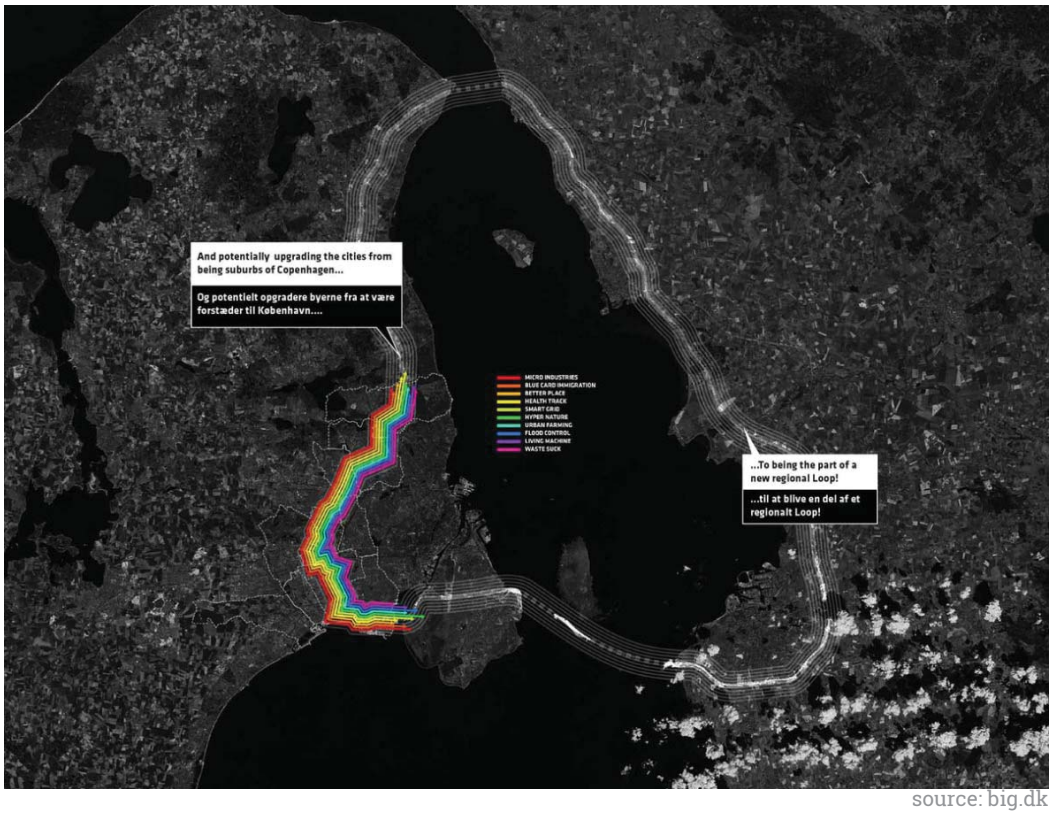
THE DANISH NEWSPAPER POLITIKEN OPPOSED COPENHAGENS URBAN DEVELOPMENT PLANS IN THE 1960S

source: naturstyr

CURRENTLY, THERE ARE PLANS TO USE THE TRANSPORT RING OF THE FINGER AS A PART OF AN INTERNATIONAL LOOP CROSSING THE ORESUND REGION

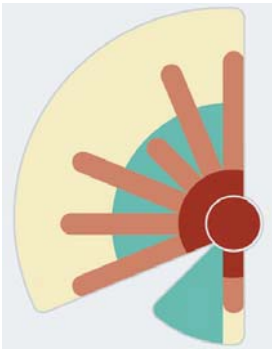


source: copenhagen city archive



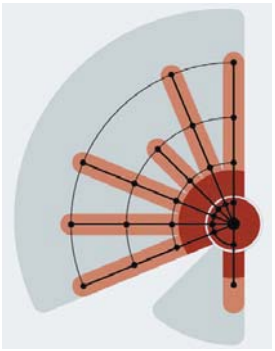
source: big.dk

THE FINGER PLAN WAS CREATED BY THE REGIONAL PLANNING OFFICE IN 1947, BASING ON THE EXISTING SPATIAL STRUCTURE OF URBANISATION

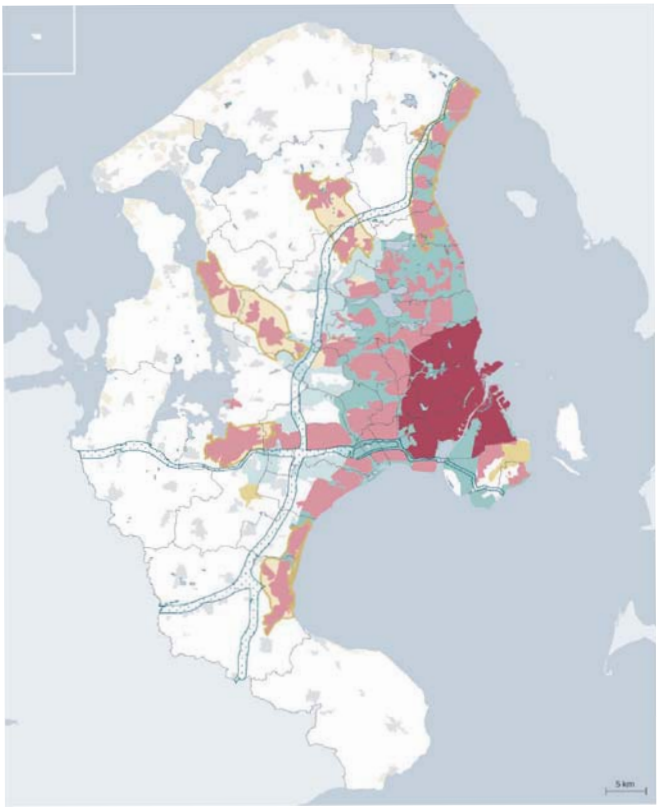


The finger city structure:
Cities and green wedges

THE CONCEPT OF THE FINGERS ALLOWS FOR COMPACT URBANISATION IN COMBINATION WITH EASY ACCESSIBILITY, OFFERING SPACE FOR GREEN WEDGES BETWEEN CITIES

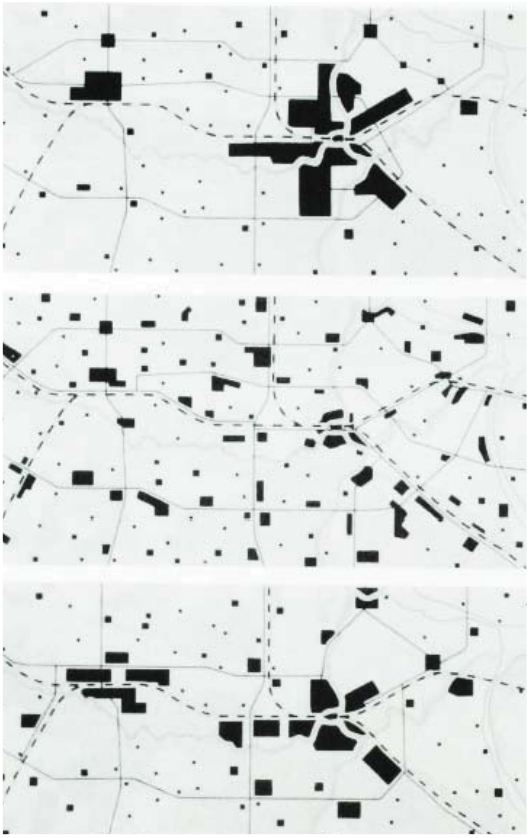


The finger city structure:
Cities and transport infra-structure

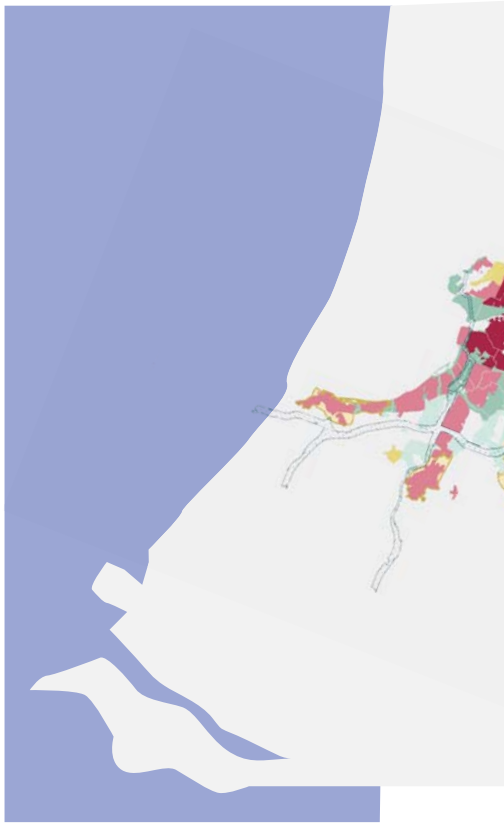


source: naturstyrelsen.dk

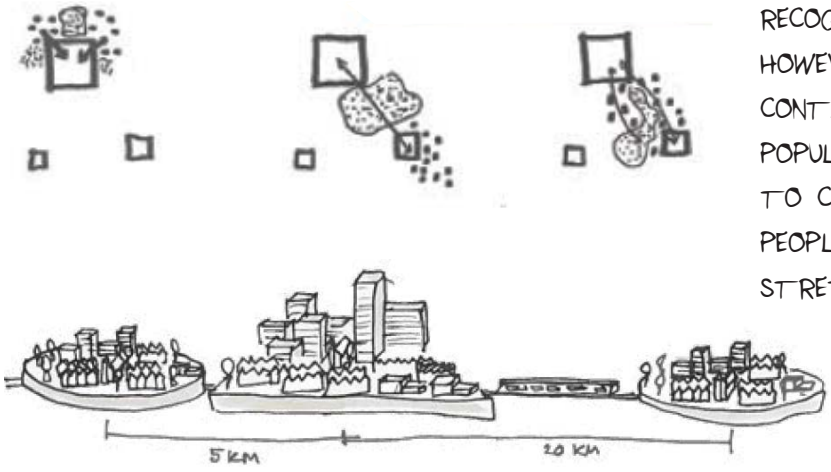
The core urban region
The peripheral urban region (the city fingers)
The peripheral urban region (rural district)
The core green wedges and the coastal wedges
The peripheral green wedges
The remaining greater Copenhagen area (urban area)
The remaining greater
The remaining greater
Transport corridor
Airports



THE ORGANISATION OF URBANISATION USED TO BE THE MAIN TOPIC OF NATIONAL SPATIAL STRATEGIES UNTIL THE FIRST TRANSITION. SPATIAL CONCEPTS LIKE BUNDLED DECONCENTRATION DEFINE THE SPATIAL STRUCTURE OF THE NETHERLANDS TODAY



source: VROM, 1966

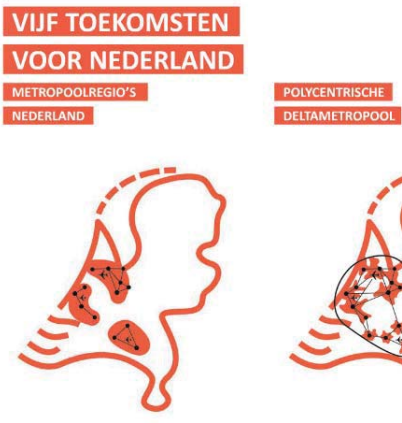


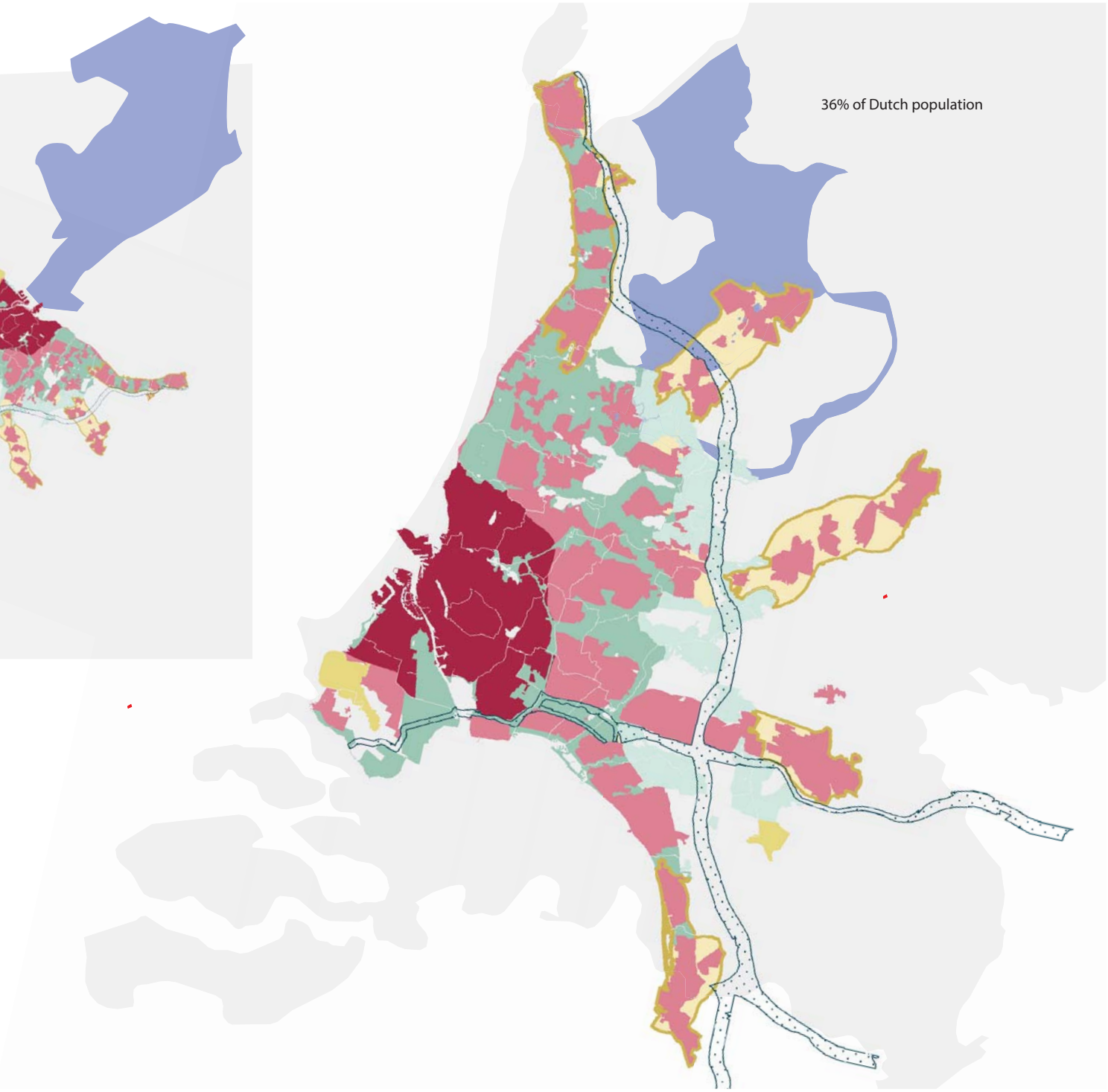
source: VROM, 1988

WHEN PROJECTED, THE FINGERPLAN OFFERS RECOGNISABLE USE OF URBANISATION. HOWEVER,THE FINGER PLAN IN COPENHAGEN CONTAINS 36% OF THE TOTAL DANISH POPULATION. IF THE AREA IS MULTIPLIED TO CONTAIN A SIMILAR PERCENTAGE OF PEOPLE IN THE NETHERLANDS, IT WOULD STRETCH THROUGH HALF OF THE COUNTRY.

EIB-STUDIE OVER DE TOEKOMST VAN DE BOUW

TOT 2040 ÉÉN MILJOEN NIEUWE WONINGEN NODIG

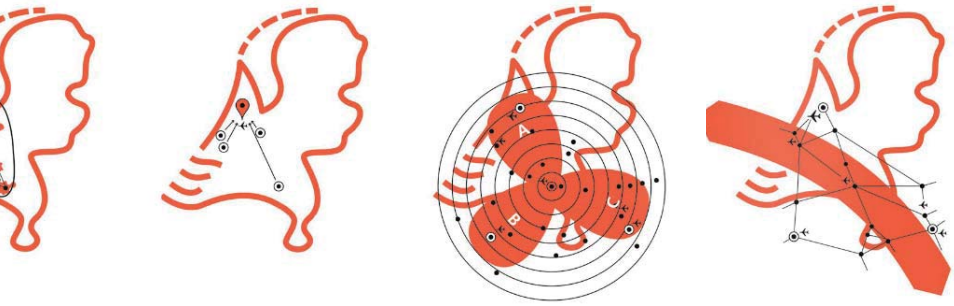




CAPITAL CITY REGION

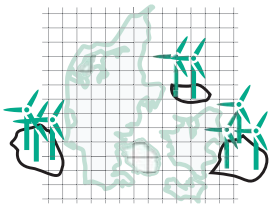
NW EUROPESE DELTAMETROPOOL

NW EUROPESE DELTACORRIDOR



source: Bureau MUST, 2015

THOUGH SPATIAL CONCEPTS HAVE NOT BEEN USED IN RECENT NATIONAL SPATIAL STRATEGIES, THERE IS A GENERAL NEED FOR A DIRECTION OF DEVELOPMENT FOR THE RANDSTAD (AND EINDHOVEN). SEVERAL SPATIAL CONCEPTS HAVE BEEN DEVELOPED RECENTLY TO INSPIRE THE NATIONAL GOVERNMENT.

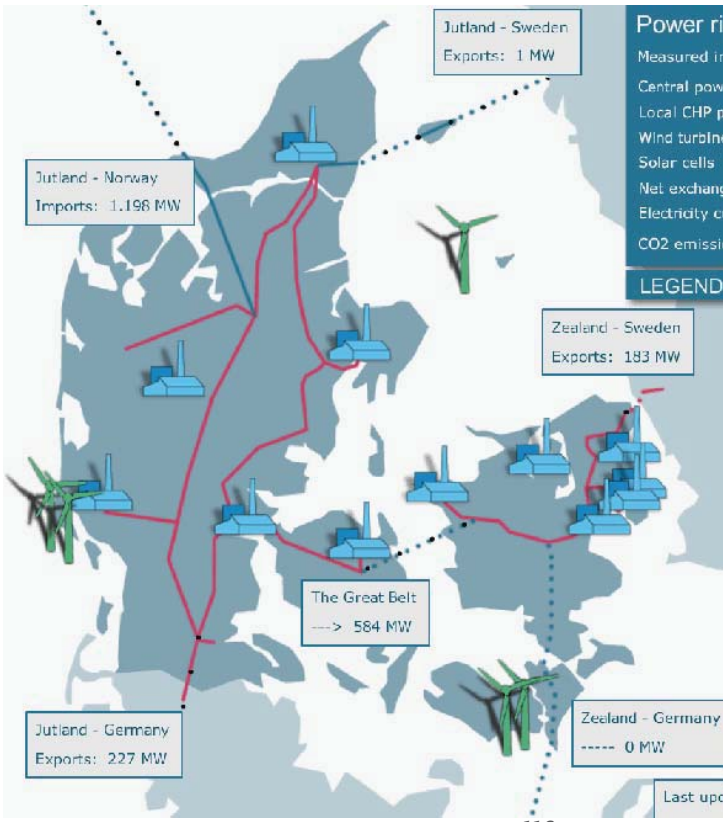


OFFSHORE WIND FARMS - DENMARK

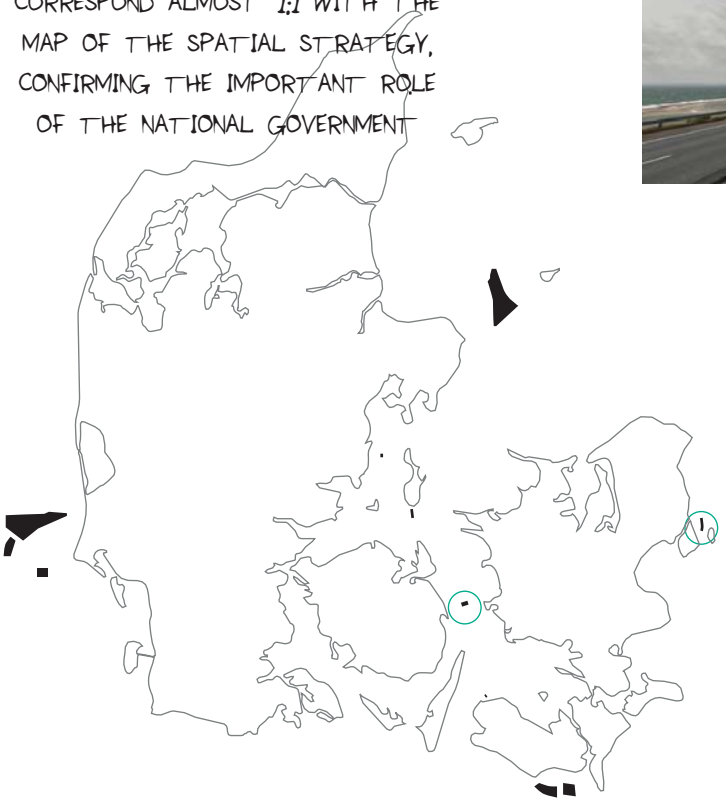
The offshore wind farms are a result of a sense of urgency after the oil crisis of 1973 to turn around energy production and not be dependent on fossil fuels. This transition relied on the existing potential by focusing on wind energy. The Danish land and sea reached high levels of wind which could be used for energy production and Denmark has a lot of open space (land and sea) to create energy landscapes. Currently, about 40% of all electricity is generated by wind, and will be 50% by 2020. The aim is to be completely fossil-fuel free in 2050, which shows a certain long-term perspective. The national government takes a responsibility for the large-scaled energy operations, which includes offshore wind farms, offering locations for experimentations with renewable energy, and creating the underlying power grid and smart grid. Creating large-scaled wind farms offshore is not the main reason of the fast transition to renewable energy, the real success of the wind production comes from the underlying grid. The national government connected its energy grid with the surrounding nations, understanding the benefit of cross-border cooperation and to rely on a larger network to reach a certain level of security. Also, it created a smart grid to connect small-scaled initiatives to the larger power grid, allowing for an efficient energy use. This smart grid helps to create a societal connection, offering citizens to contribute to the energy system as a whole. Another method to increase the societal connection is with the placement of the wind turbines. They are placed along several bridges and even along the coast of Copenhagen which makes it intertwined with the daily lives of the citizens.

For the NOVI, the Netherlands is struggling in initiating the energy transition, it has one of the lowest percentages of renewable energy in Europe. There is a lot of resistance against wind turbines, even though the Dutch have a long history with windmills. The complexity of the Dutch density asks for a plan in which a spatial and societal transformation is necessary to make space for energy.

THE DANISH NATIONAL GOVERNMENT CONSIDERS TWO TYP
TO MAXIMIZE THE POTENTIAL OF THE ENERGY GRID: TH
NETWORK AND THE LOCAL NETWORK.



THE PLACEMENT OF THE WINDFARMS CORRESPOND ALMOST *1:1* WITH THE MAP OF THE SPATIAL STRATEGY, CONFIRMING THE IMPORTANT ROLE OF THE NATIONAL GOVERNMENT



THE WIND FARMS ARE PART OF THE IDENTITY OF DENMARK, APPEARING ALONG BRIDGES AND EVEN THE CAPITAL CITY

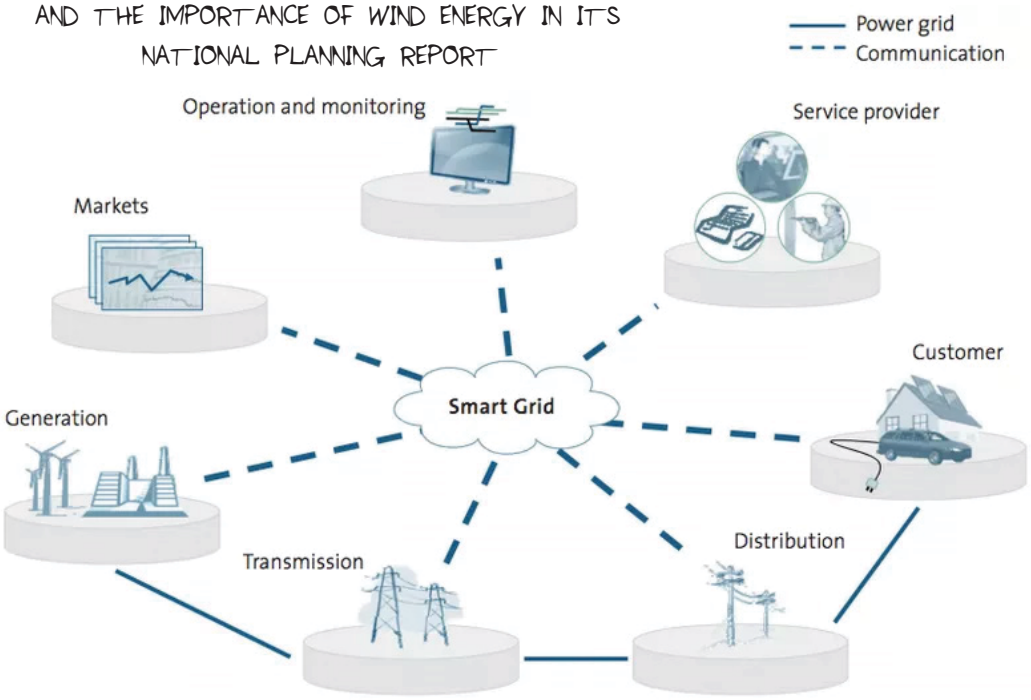
'Our aim is to be independant from fossil fuels by 2050'
'We turned around energy production after the oil crisis of 1973'
'Wind power has become a very powerful competitive renewable energy source'

(Miljoministeriet, 2014)

t, 2014

PES OF NETWORKS
HE INTERNATIONAL

THE NATIONAL GOVERNMENT SELLS THE STORY AND THE IMPORTANCE OF WIND ENERGY IN ITS NATIONAL PLANNING REPORT



source: vindinfo.dk

deVolkskrant

Nieuws | Cultuur & Leven

Binnenland

Windmolens bij Nederlandse kust hebben amper effect op toerisme

Lobby kustgemeenten gesmoord

De plaatsing van windmolens nabij de Nederlandse kust heeft nauwelijks of geen effect op het toerisme in de strandregio. Dat blijkt uit een nieuwe studie naar de regionale effecten van windparken, dat op verzoek van de Tweede Kamer is gedaan.

Door: Jeroen Trommelen 29 januari 2016, 02:00

Protesten tegen windmolenpark

DOST-GRONINGEN

Provincie is aan zet bij windpark

Raad Veendam weigert ook medewerking aan mer

'Wij weten niet hoe het verder gaat'

deVolkskrant

Nieuws | Cultuur & Leven

Opinie

Tijd voor een breed debat over windmolens

Commentaar

Er moet alsnog een maatschappelijk debat komen over nut, noodzaak en locatie van de windmolens.

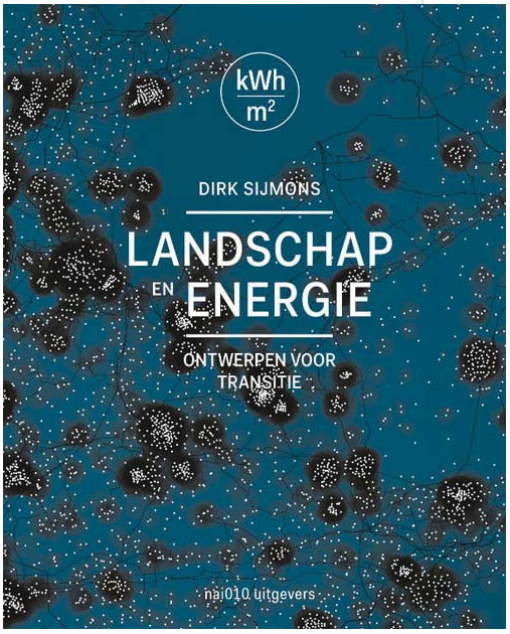
Door: Pieter Klok 3 maart 2015, 21:46

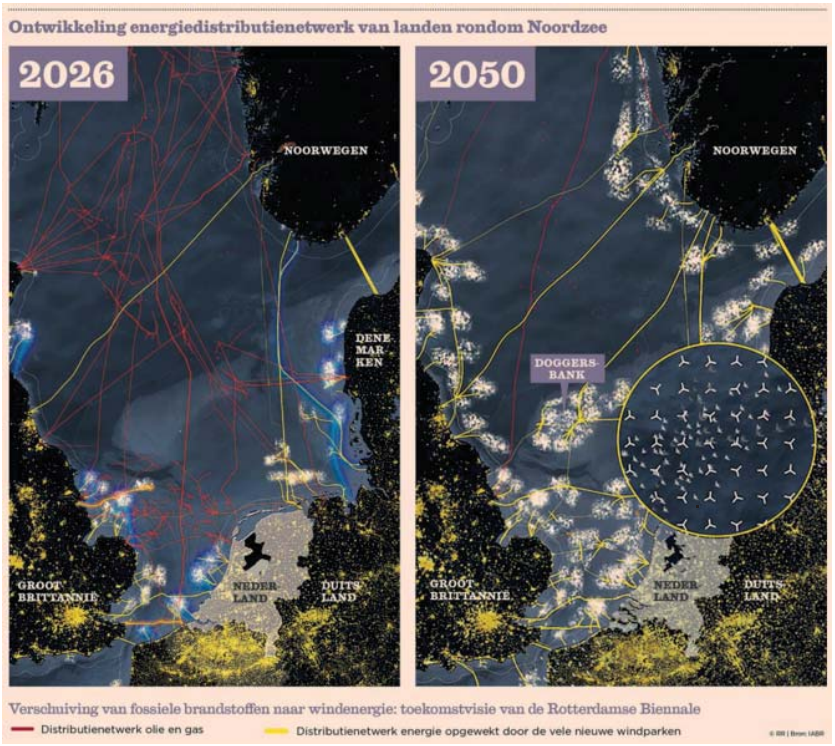
Denmark broke world record for wind power in 2015

Windy year helps Denmark to produce 42% of its electricity from wind turbines, despite two major windfarms being offline

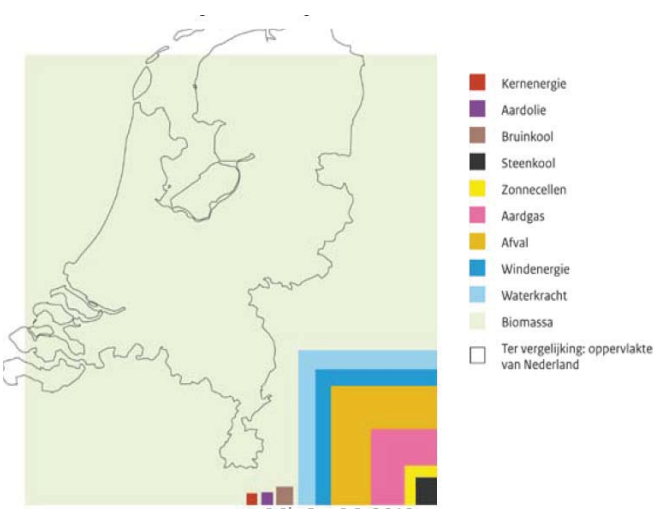
Denmark set a new global record for wind power generation for electricity in 2015. Photograph: Rex Shutterstock

THERE IS NOT A GENERAL ACCEPTANCE FOR WIND FARMS IN THE NETHERLANDS, UNLIKE DENMARK WHERE IT IS PART OF THE URGENCY AND IDENTITY OF THE PEOPLE

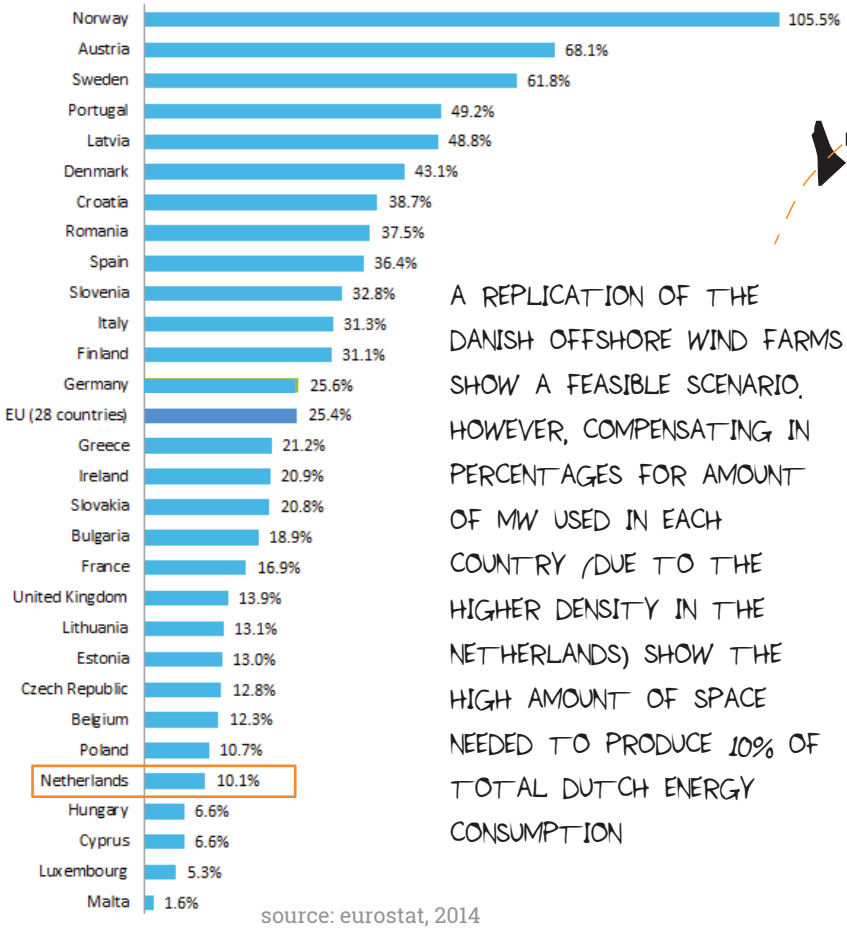




source: 123rf.com

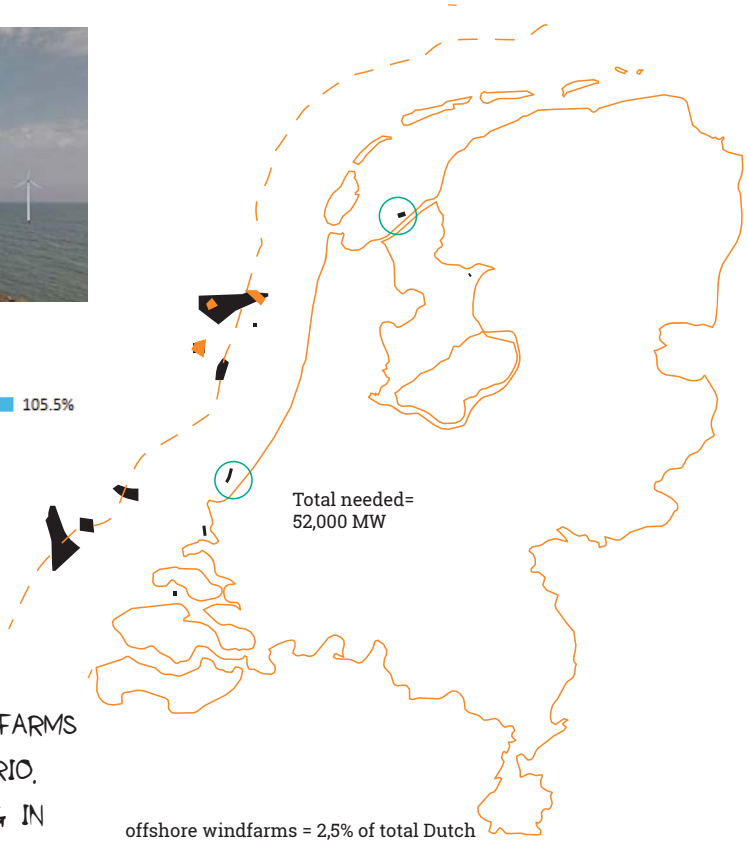


source: MinIenM, 2012

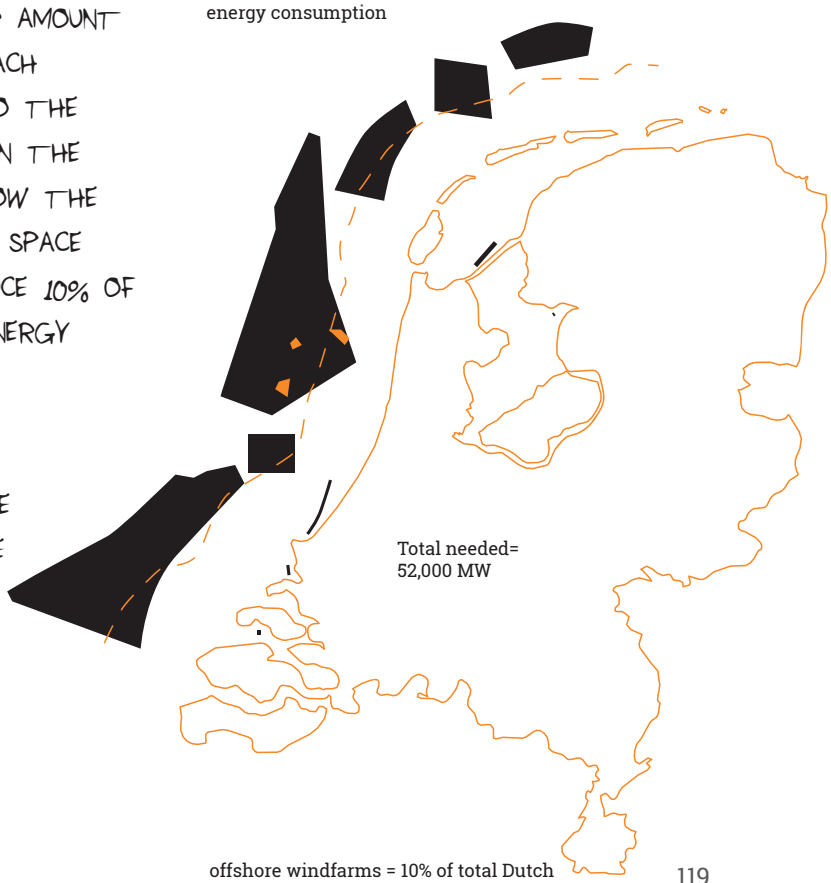


source: eurostat, 2014

A REPLICATION OF THE DANISH OFFSHORE WIND FARMS SHOW A FEASIBLE SCENARIO. HOWEVER, COMPENSATING IN PERCENTAGES FOR AMOUNT OF MW USED IN EACH COUNTRY (DUE TO THE HIGHER DENSITY IN THE NETHERLANDS) SHOW THE HIGH AMOUNT OF SPACE NEEDED TO PRODUCE 10% OF TOTAL DUTCH ENERGY CONSUMPTION



offshore windfarms = 2,5% of total Dutch energy consumption



offshore windfarms = 10% of total Dutch energy consumption

THE NETHERLANDS IS RUNNING BEHIND IN EUROPE WHEN IT COMES TO GREEN ENERGY, MAINLY DUE TO THE COMPLEXITY AND DENSITY OF THE DUTCH SPATIAL STRUCTURE. THE SEA OFFERS OPPORTUNITIES, LIKE IN DENMARK

DISASTER PARKS TOKYO - JAPAN

In 1923, the Great Kanto earthquake hit Japan, causing casualties. One of the reason for the high number of victims was the lack of open spaces within the city centre, which means citizens couldn't escape the flammable materials and run into tracts of forest and farmland.
This earthquake released the urgency for creating more open spaces within the cities, which the government cleverly doubled with a refuge function: the open spaces are parks which are integrated into the daily lives of the citizens which creates a high societal connection: there are bird sanctuaries, camp grounds, archery fields and festivals. Yet also include water reservoirs and storehouses containing enough food for the surrounding districts to survive the first 72 hours after a disaster. They feature lampposts fitted with electric outlets and LAN connections, temporary toilets, and benches that double as stoves. The parks are created within the existing infrastructural network, since accessibility is crucial.

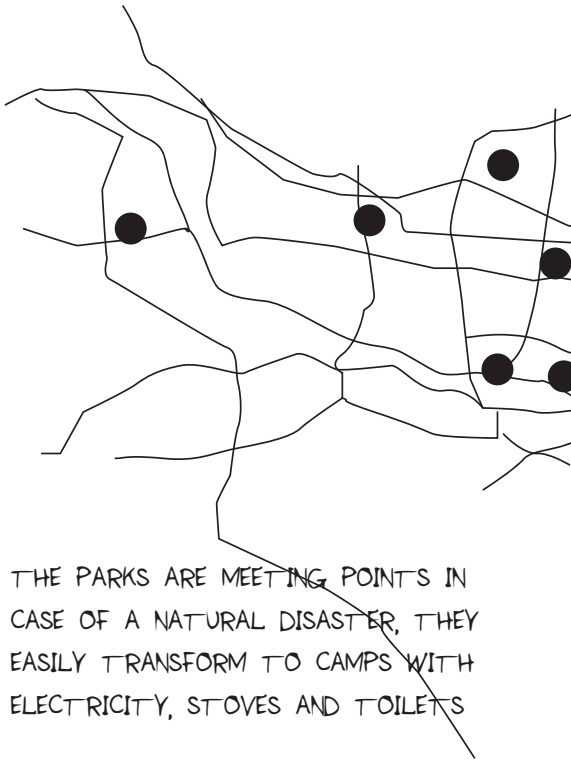
Parks are often used in times of disaster. The Netherlands also made use of the benefits of open space during the second world war. Natural disasters in the Netherlands are usually water-related. The last water disaster of 1953 created a similar urgency in the Netherlands to tackle water management issues. However, these are mostly large-scaled projects which are based on prevention and not on evacuation. The current minister has noted that the nation is not well-prepared for a similar flood. Dordrecht is an area in the Netherlands which is often subjected to floods. It became a pilot project for multi-level safety measures and is currently looking into possibilities to connect recreational areas to evacuation routes. Creating well-connected protected public spaces could be a solution.


NEXT CITY Inspiring Better Cities.

The Future of Resilience

In Tokyo's "Disaster Parks" Residents Play on Good Days and Cheat Death on Bad Ones

BY CAMERON ALLAN MCKEAN | RESILIENT CITIES | AUGUST 14, 2014



Cities
Resilient cities

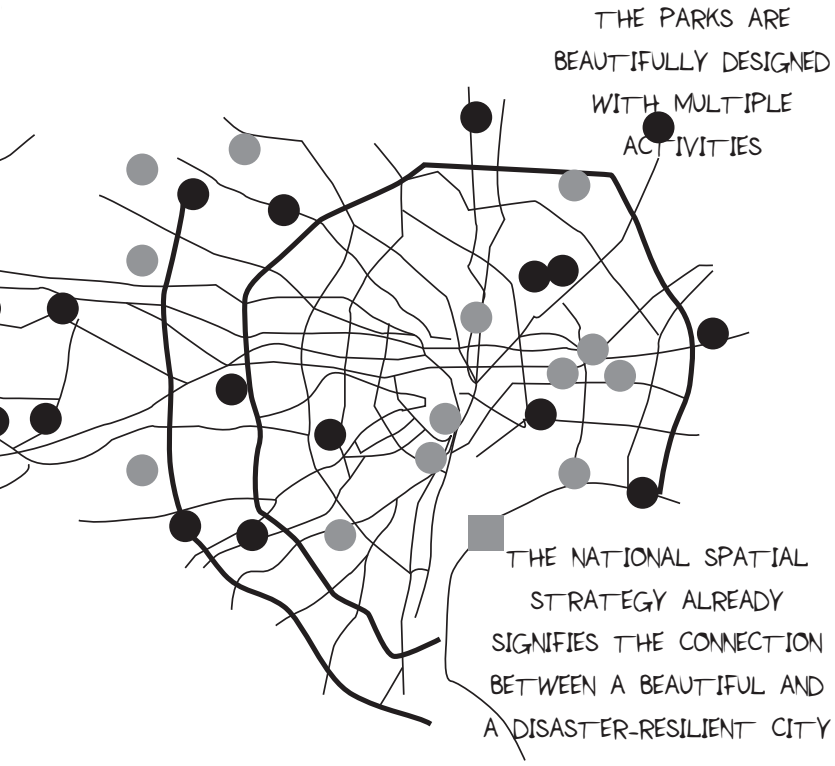
Tokyo's disaster parks: hi-tech survival bunkers hidden under green spaces

Things aren't what they seem in Tokyo's parks, where benches double as cooking stoves and underground stores hold emergency food and water for entire districts

Cities is supported by Rockefeller Foundation

Cameron Allan Mckean

Tuesday 19 August 2014 11.44 BST



○Raising awareness of the challenges facing Japan: an unprecedented population decreasing society, as well as natural disasters

-No time to lose to prepare for mega disasters and aging infrastructure

Basic Strategies

8) Creating beautiful and disaster-resilient cities and regions

CONCERNING NATURAL DISASTERS, THE NETHERLANDS HAS ALWAYS HAD PROBLEMS WITH WATER MANAGEMENT. THE CONCEPTS OF MULTI-LEVEL SAFETY HAS NOT BEEN WIDELY IMPLEMENTED YET.

SIMILAR TO JAPAN, THE NETHERLANDS HAS ALSO USED PARKS AND PUBLIC SPACES IN TIMES OF DISASTER (ROTTERDAM IN WW2)

source: unknown

Minister Melanie Schultz van Haegen (Infrastructuur) © ANP

'Nederland slecht voorbereid op watersnoodramp'

Minister Schultz (Infrastructuur) waarschuwt dat Nederland niet voldoet voorbereid op een nieuwe watersnoodramp. Te veel mensen kennen het niet en ze weten niet wat ze moeten doen in geval van nood.

Van onze verslaggevers 26 januari 2013, 06:00

nrc.nl Onbeperkt nrc.nl Alle abonnementen

Binnenland Buitenland Economie Cultuur Sport Opinie Wetenschap Tech & Media Meer

'Alle Amsterdamse daken moeten groen'

Groen Groene daken in de stad: beter voor het milieu en besparend. En voor onszelf: „Mensen die erop uitkijken ervaren minder stress."

Menno Sedee 22 april 2016

source: rotterdamfestivals.nl

source: gemeente rotterdam

THE AREA ROTTERDAM-DORDRECHT OFTEN DEALS WITH WATER MANAGEMENT ISSUES. IT CONTAINS A LARGE SELECTION OF PARKS AND OTHER PUBLIC SPACES WHICH COULD BE USED AS PART OF AN EVACUATION PLAN

ANOTHER EXAMPLE OF COMIBINING THE USE OF PUBLIC SPACE TO TACKLE NATURAL DISASTERS ALREADY IS OCCURING IN ROTTERDAM. THE WATER SQUARE IN ROTTERDAM OFFERS A DIFFERENT IMPLEMENTATION OF THE JAPANESE STRATEGY OF CREATING BEAUTIFUL AND RESILIENT CITIES.

source: urbanisten.nl

COMPREHENSIVE APPLICATION

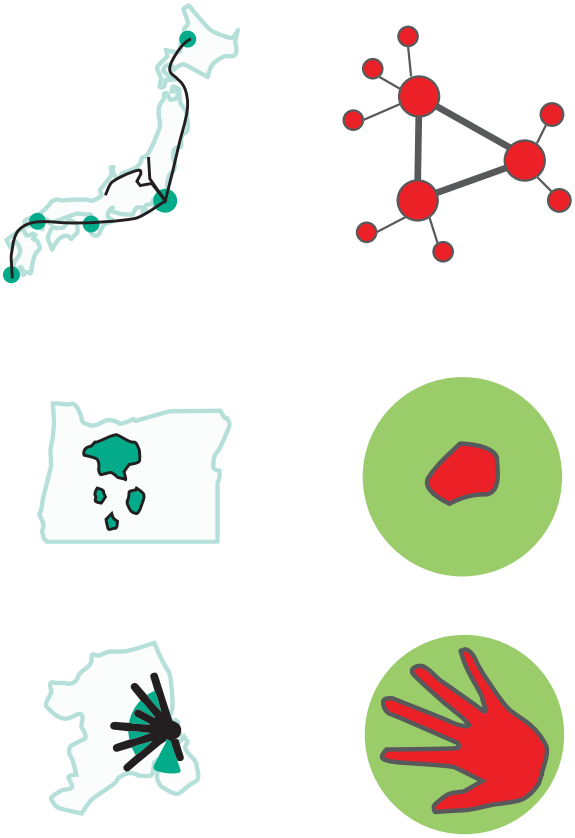
Considering each spatial innovation above, it is possible to create a comprehensive spatial application in the Dutch context by filtering the general underlying spatial concept and applying it back to the Dutch context (Figure 6.1). Learning from the spatial concepts as well as the wide variety of national actions that occur, the spatial concept in the Netherlands starts to shape itself by observing the underlying existing spatial structure and using the potentials that exists in the landscape.

For migration and urbanisation, the three chosen examples display spatial answers to tackle urbanisation. Japan focuses on compact cities with good accessibility, while Oregon focuses on the compactness of cities with urban growth boundaries. The Copenhagen Finger Plan is a combination of both: it specifies where urbanisation should take place to allow space for nature, by creating a compact finger structure with good accessibility.
For the Netherlands, the concepts of Japan and Copenhagen are combined to create a structure of compact cities with good accessibility, where urbanisation takes place along the axes. The national actions variate from initiating a structured accessibility network to stimulating compact urbanisation.

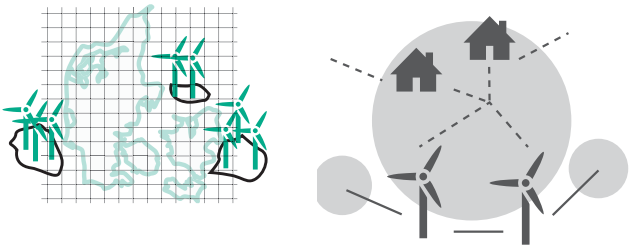
For the energy transition, the Netherlands borrows the general concept of Denmark in creating both a hard and soft grid in connecting the small scale initiatives to the larger infrastructure. Also, to create a more sustainable and stable energy network, it connects the energy grid to the surrounding nations, along the axes that were created for the migration and urbanisation. In this way, the axes become multi-purpose corridors in which different types of infrastructure are developed.

For climate adaptation, the Netherlands can learn from Japan in the formulating of the strategies to stimulate multi functional spaces. Using public spaces to add both livability and safety can be applied in the Netherlands by stimulating innovative measures in the public spaces of cities to adapt to climate change, taking the water square in Rotterdam as an example.

MIGRATION AND URBANISATION



ENERGY TRANSITION

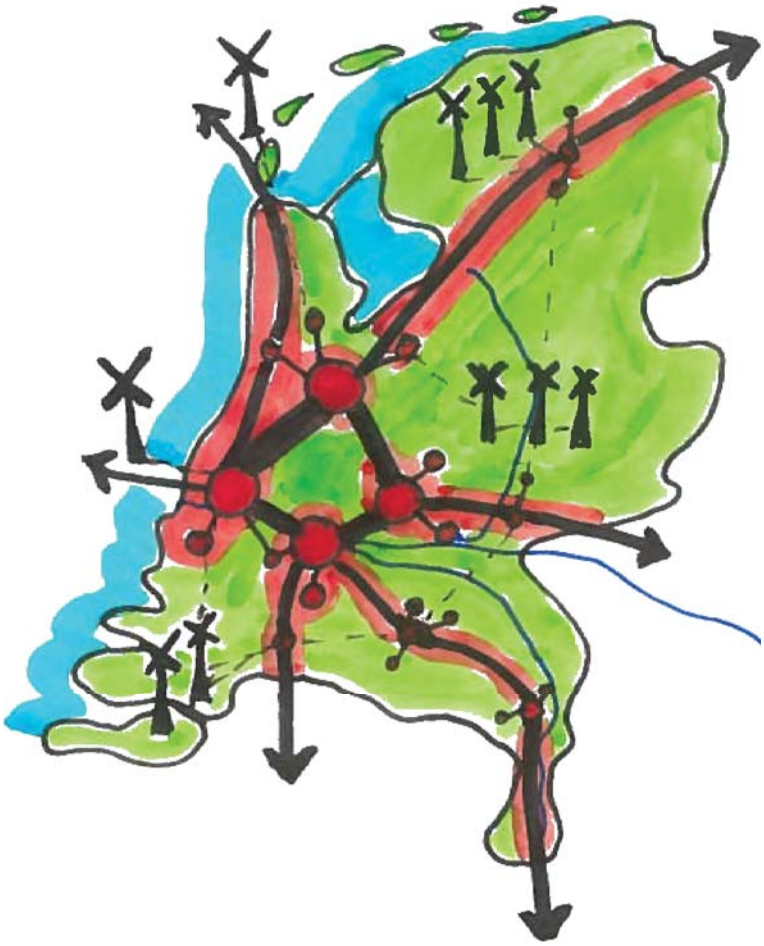


CLIMATE ADAPTATION

- Initiating rail network
- Stimulating compact urbanisation

- Coordinating urbanisation
- Designating functions
- Stimulating compact urbanisation

- Coordinating urbanisation
- Designating functions
- Stimulating compact urbanisation



- Facilitating initiatives
- Initiating large windfarms

- Stimulating beautiful & resilient cities

Figure 6.1 Applying the spatial concepts of other locations onto the Dutch context, it is important to consider the potential of the current spatial structure.. Source: author

6.2 | General principles and concepts

To filter general principles and concepts, the theory of chapter 1.7, together with the variables to measure variation of strategies in chapter 4.2 and NOVI's objectives, were used as a starting point to understanding the recurrence of certain principles and concepts between the diverse spatial strategies. This led to an iterative process between the theory, the testing through replication exercises and the application phase, which together formulated the following overview of general principles and concepts in content, process and product. Each general principle or concept contains the different locations that express that principle or concept in a specific manner.

CONTENT

For the content, the theory and the variables did not offer a lot of general principles or concepts since it mostly discusses on which criteria choices should be made, the level of specificity, or on the amount of subjects that need to be discussed. Therefore, these general concepts are mostly based on the recurring topics within the visions, aims, objectives and actions of the different strategies, as well as the eight themes which NOVI has formulated (Energy, Urbanisation & accessibility, Safety & risks, Environmental quality, Natural capital, Spatial economic structure, Identity, and Water and landscape)

- Environmental quality
- Sustainable urban development
- Accessibility
- Climate adaptation
- Sustainable energy
- Economic development
- Cultural heritage
- Land preservation
- Sustainable communities
- Safety and risks
- Knowledge and innovation
- Tourism and recreation
- Housing
- Networks
- Natural capital
- International context

PROCESS

The process principles show a more direct relationship to the theory and the variables, a lot of the criteria mentioned in chapter 1.7 can be used as a general principle. Also, the indicators used in measuring the variation of openness and collaboration of the process are used as general principles (e.g. accountability, vertical coordination, etc.)

- System responsibility
- Public participation
- Co-production
- Subsidiarity
- Providing clear framework
- Trust in key actors
- Offering space for initiative
- Clear role division
- Vertical coordination
- Horizontal coordination
- Transparency
- Efficiency
- Accountability
- Legitimacy

PRODUCT

For the product principles and concepts, there are two types of general principles and concepts. What the product is as a whole and what it should contain. The theory has offered a few ideas on what the product should be and should contain, e.g. being inviting and containing a clear vision.

The product is..

- Inviting
- Adaptive
- Digital
- Urgent
- Suitable for public
- Inspiring

The product contains..

- Clear summary
- Separation of short-and long term
- Mix of images and text
- Clear vision
- Guiding principles
- Clear national actions
- Foreword
- Clear framework:

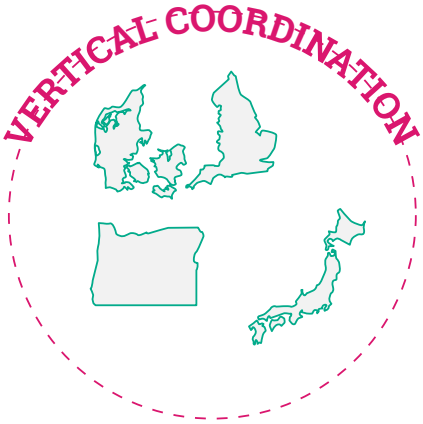
CONTENT PRINCIPLES AND CONCEPTS

- Environmental quality: e.g. Oregon state-wide goal 'To maintain and improve the quality of the air, water and land resources of the state.'
- Sustainable urban development: e.g. New Zealand national priority: 'Requirements for councils to provide sufficient capacity for urban development including housing.'
- Accessibility: e.g. Oregon state-wide planning goal 'To provide and encourage a safe, convenient and economic transportation system'
- Climate adaptation: e.g. California's aim 'begin a state-wide ongoing committed process of adapting to a changing climate'
- Sustainable energy: e.g. Denmark's objective to have 50% of the energy generated by wind power in 2020.
- Economic development: e.g. in the British NPPF 'Building a strong competitive economy'
- Cultural heritage: e.g. the British NPPF 'Conserving and enhancing the historic environment'
- Land preservation: e.g. the Danish interests in local plans: 'Protection of the open landscape'
- Sustainable communities: e.g. Japan 'Regenerating local communities, friendly to both young and silver generations'
- Safety & risks: e.g. New Zealand Natural Hazards 'Guidance on managing significant risks from natural hazards.'
- Knowledge and innovation: e.g. California's comprehensive strategy 'Expand California's Climate Change Research and Science Programs'
- Tourism and recreation: e.g. Japan 'Promoting tourism, illuminating diverse treasures of the region'.
- Housing: e.g. British NPPF goal of 'Delivering a wide choice of high quality homes'.
- Networks: e.g. Japan 'Designing a 'super-mega-region' nurturing new links.'.
- Natural capital: e.g. 'Conserve Oregon's natural resources'.
- International context: e.g. Denmark National Planning Report: 'Denmark in a Nordic and European context'.

Figure 6.2 Content-related general principles. The circles indicate which spatial strategies have applied this general principle. Source: author

PROCESS PRINCIPLES AND CONCEPTS

- System responsibility: The national government takes a responsibility in some manner for the system as a whole. e.g. framework control is defined as one of the core principles in the Danish spatial strategy.
- Public participation: The public is in some way involved in the public planning process, initiated from the national government. e.g. Oregon names Citizen involvement as #1 state-wide planning goal.
- Coproduction: Parties other than the responsible body are involved in the strategy-making process. e.g. Japan creates its strategy with all relevant departments that influence spatial planning.
- Subsidiarity: Devolving decisions and responsibilities to the lowest practical level. e.g. California's local comprehensive plans
- Efficiency: Offering methods for efficient and sustainable planning. e.g. Denmark has decentralised planning for efficiency
- Trust in key actors: the belief that other actors can make the right choices. e.g. the devolved planning system of New Zealand
- Offering space for initiative: actively providing room for other actors to realise their initiatives. e.g. Neighbourhood Planning in England
- Clear role division: Ensuring that each actor knows its role and the related responsibilities. e.g. New Zealand national government offers an overview of roles and responsibilities per sector of the environment.
- Vertical coordination: Actively coordinating spatial plans with local governments. e.g. Oregon's coordinated cooperation in policy-making.
- Horizontal coordination: Actively coordinating spatial plans with other sectors. e.g. California's sector-based plan for climate adaptation.
- Accountability: Taking responsibility for the chosen spatial strategy. e.g. The Danish Planning Report is updated with each new minister who is accountable for its content
- Legitimacy: The validity of the strategy is communicated. e.g. Japan extensively explains why the urgent trends in Japan require a new spatial strategy



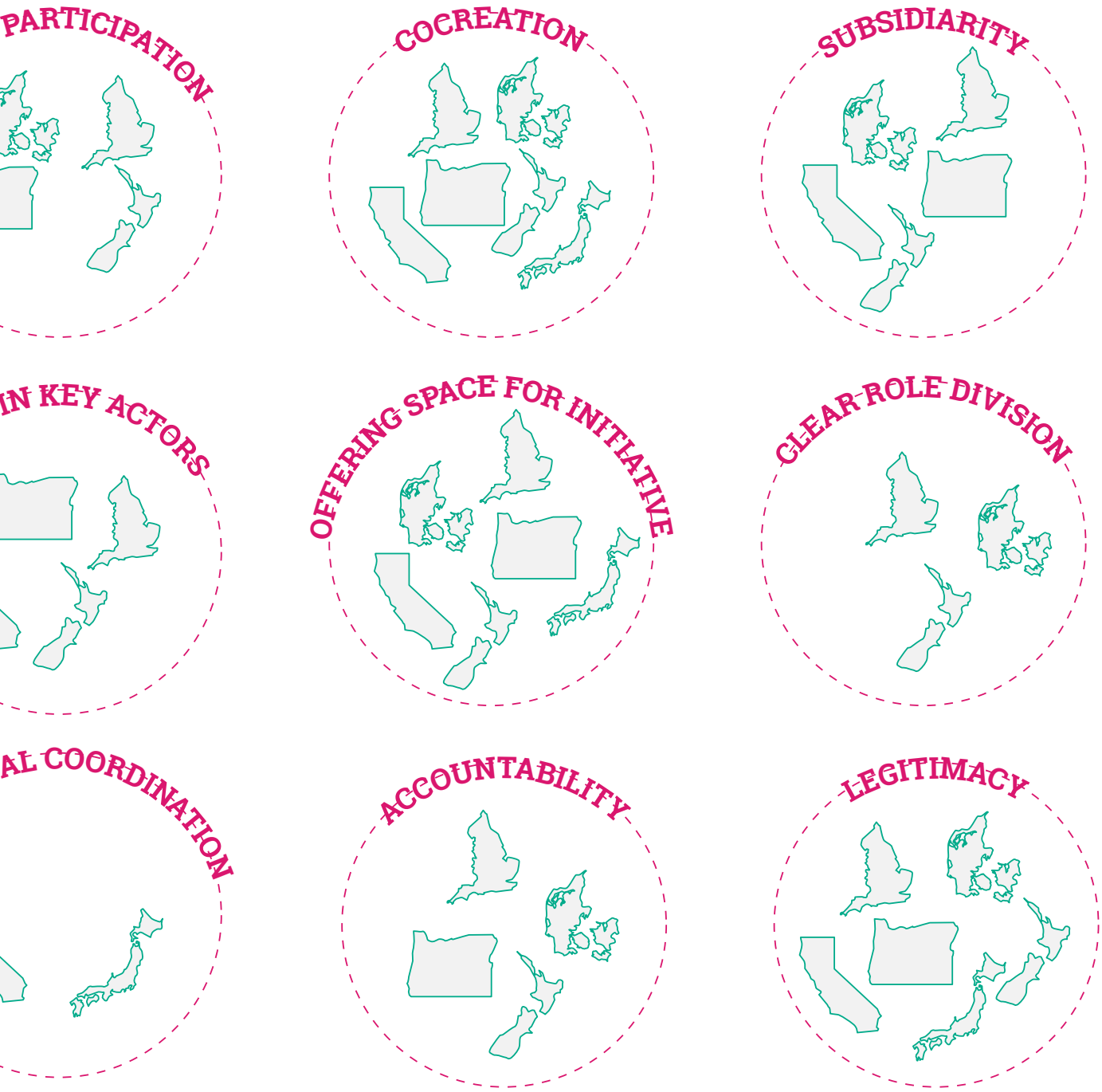


Figure 6.3 Process-related general principles. The circles indicate which spatial strategies have applied this general principle. Source: author

PRODUCT PRINCIPLES AND CONCEPTS

The product is..

- Inspiring: Animate the reader e.g. In the ministerial foreword of the Danish National Planning Report, the minister emphasizes the importance of working together, and invites the reader to join in shaping their living environment.
- Adaptive: Can be updated without having to replace all. e.g. Oregon's 19 state-wide planning goals have been constantly updated since 1970.
- Digital: Uses digital means to offer tailor-made information and interactivity. e.g. the Californian Cal-adapt website offers an overview of all aspects concerning climate change and adaptation.
- Urgent: Communicates a strong sense of urgency. e.g. California spatial strategy analyses the climate change and explains its consequences and effects before naming strategies.
- Suitable for public: contains elements to reach a broader public. e.g. New Zealand government introduces special web-pages of information for children.

The product contains..

- Clear summary: an overview of the content. e.g. Japanese flyers with an overview of the national spatial strategy.
- Separation of short-and long term: differentiation between actions that need to take place soon and objectives for the future. e.g. Oregon builds up each strategy with
- Mix of images and text: e.g. California uses a variety of images to communicate the research on climate change.
- Clear vision: setting a desired future to work towards. e.g. Japan states a vision for connecting the material space with knowledge and information and directing migration flows to specific regions.
- Guiding principles: setting a foundation to work with. e.g. the British NPPF sets 12 planning principles including 'always seek to secure high quality design'
- Clear national actions: formulation of the specific actions of the national government. e.g. Oregon 's strategic 8-year plan
- Foreword: creates accountability, and can add to the sense of urgency and inspiration.
- Clear framework: a specific framework about what can and can not be done within the national framework. e.g. The British National Planning Policy Framework.

Figure 6.4 Product-related general principles. The circles indicate which spatial strategies have applied this general principle. Source: author

6.3 | Proposed NOVI

Based on the replication and application exercises, it is possible to create NOVI by applying the relevant general principles and concepts back to the Dutch context. The following proposal is a personal demonstration of the NOVI, which can be used as a method to start a discussion in creating the NOVI towards 2018.

In consideration of the Dutch context, there are a few main aspects in the personal NOVI. The first is the changing purpose of the national strategy. The main purpose of the strategy no longer simply informs, but also aims to mobilize others. Also, it takes much more of a coordinating role than a steering role, compared to the traditional comprehensive spatial strategies. Therefore, the key variables which make up a spatial strategy need to be applied differently than before. The following variables enable a focus on mobilization and coordination: Strategic content, selective content, indicative content, open process in spatial strategy, collaborative process in strategy making, an adaptive product and an interactive product. The same applies for the changing role of the government. The Dutch government aims to be a more flexible government, taking up a different relationship with the public and adapting to the situation and changing societal needs. On the other hand, its role is also changing due to the simultaneous Europeanisation and decentralisation, in which the national government becomes a mediator. In this changing role, the national government should have a broad consideration for three aspects when creating the NOVI

1. A broad consideration of scales: the NOVI should contain all scales, from global to local.
2. A broad consideration of national actions. The NOVI should communicate the actions that the national government will take. However, it should not only consider actions that the national government will initiate, but a broader set of actions in which the government collaborates, initiates, stimulates and facilitates.
3. A broad consideration of types of frameworks. To coordinate in the context of the changing role, in which the NOVI is only binding for the national government and not for others, it is important to mobilize and coordinate through different methods. The legal basis of this coordination is set in the new Environmental Planning Act. However, a collection of planning principles, a spatial vision and a planning guide can support coordination in non - legal methods.

For more explanation on the changing purpose of the strategy and the changing role of the government, see chapter 7.2 | Recommendation #2.

When observing the general principles and concepts that can be applied to the NOVI and relating it to the objectives that NOVI aims to achieve in content, process and product; it becomes clear that in the specific Dutch context, some general principles need extra time, effort and research if they are going to be applied. They are critical to achieving NOVI's objectives yet are difficult to apply due to the specific Dutch context. These general principles and concepts are:

- International context
- Knowledge and innovation
- Sustainable communities
- Accountability
- System responsibility
- Clear (spatial) vision
- Suitable for public

Therefore, the personal NOVI focuses on these critical issues to demonstrate how these specific principles could be applied in NOVI.
For more explanation on the critical general principles and concepts that are applied in NOVI, see chapter 7.3 | Recommendation #3.

Taking before-mentioned aspects into account, the proposed NOVI is built up from the personal implementation of these aspects.
The proposed NOVI is a dynamic and inspiring strategy, with a clear ministerial foreword which sets the urgency, mobilizes others and takes responsibility for the strategy as a whole. It has a variety of products. It in not only a passive book, it is also an interactive website which is often updated. The book marks a moment in a longer, flexible process. It is also available as a flyer, in which the essence of the strategy is summarised. This is one of the many tools to reach a broader public. Another tool is to offer specific pages for specific audiences, like pages for children. Also, there is a wide variety in the use of images and text. To promote this method of reaching a broad public, the NOVI creates a serious game in which the public can understand the complexity of the choices made in the Dutch spatial structure, and how they affect each other. The NOVI should communicate clearly that it is a strategy that is created by many. All actors involved should be clearly stated, with their specific roles and responsibilities, as well as detailed information on how to contact for recommendations and inquires. It is essential that the reader easily understands what their personal contribution could be.
Looking at the challenges within the Dutch context, there are both spatial and societal transformations. The NOVI's main function should be to tackle those transformations.
For the spatial transition, it means identifying the challenges which will have the largest impacts on the spatial transformation:
1. Migration and urbanisation
2. Energy transition
3. Climate adaptation
Each of the spatial challenges are tackled in the NOVI by offering a specific objective per spatial challenge, with a set of national strategies to achieve these objectives. These national strategies offer a broad set of actions by the national government. The spatial actions initiated by the national government are stated in a map of the Netherlands.
The NOVI also consists of a planning guide which helps other actors to achieve the objectives of the NOVI. It also offers guiding principles which have been set by all actors involved.

The mission of the NOVI is to enhance the (inter)national spatial and societal connections to maximize the potential of the economy, the livability, the knowledge and innovation, and the spatial equity and inclusiveness.

The NOVI recognizes the enormous complexity of the Dutch spatial and societal structure, and the impact of the spatial challenges for the future of the Netherlands. The challenges that the Netherlands is facing are larger than its borders. It requires a collaboration of much larger networks. Therefore, a smart system of networks and use of space is essential for a sustainable future. The spatial vision of the NOVI therefore focuses on the Netherlands that is connected with the world, in spatial and societal manner. The corridors of connections should be the focus point for all essential soft and hard infrastructure, along which urbanisation should take place, alleviating the pressure from the Randstad, and creating spaces for nature and the Energy transition.

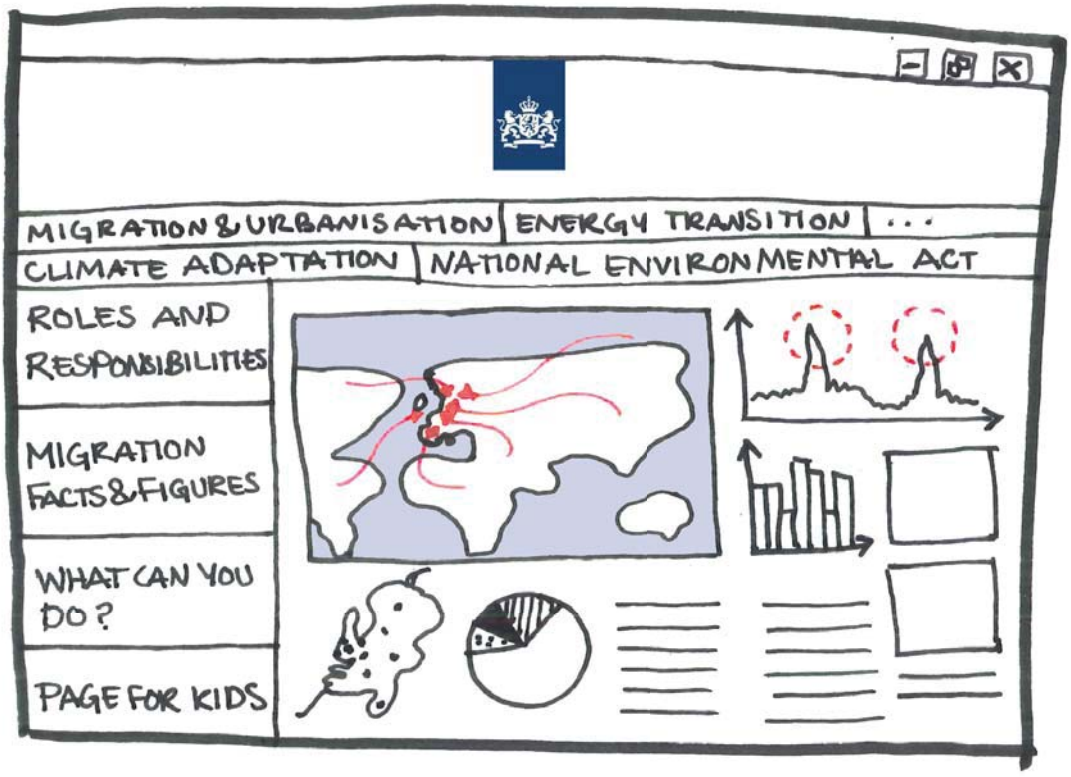
WE ARE IN A SPATIAL & SOCIETAL TRANSITION. WE NEED TO TACKLE THIS TRANSFORMATION TOGETHER! WITH YOU AND WITH THE REST OF THE WORLD!

NOVI PLANNING GUIDE

MISSION

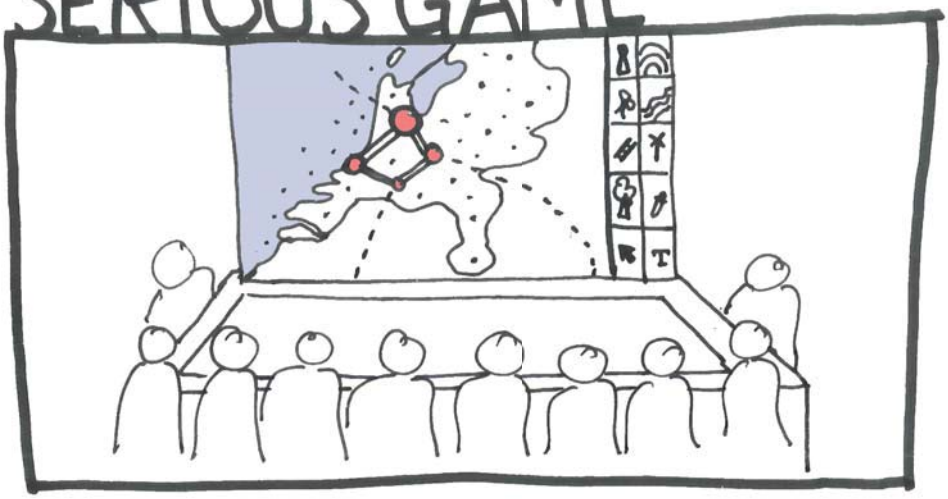
'ENHANCE (INTER) NATIONAL SPATIAL & SOCIETAL CONNECTIONS TO MAXIMIZE POTENTIAL OF:

- ECONOMY
- LIVABILITY
- KNOWLEDGE & INNOVATION
- EQUITY & INCLUSIVENESS



PLANNING PRINCIPLES

SERIOUS GAME

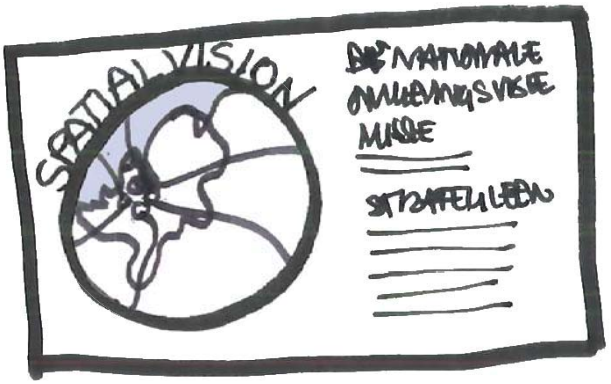


THIS NOVI IS CREATED BY :

HOW TO CONTACT:

TIMELINE NATIONAL ACTIONS

LAST UPDATE : 22 JUNE 2016



DUTCH ENVIRONMENT AT A GLANCE

CLIMATE
ATMOSPHERE
AIR
URBAN
RURAL
FRESH WATER
PEOPLE
LAND
FOREST
MARINE

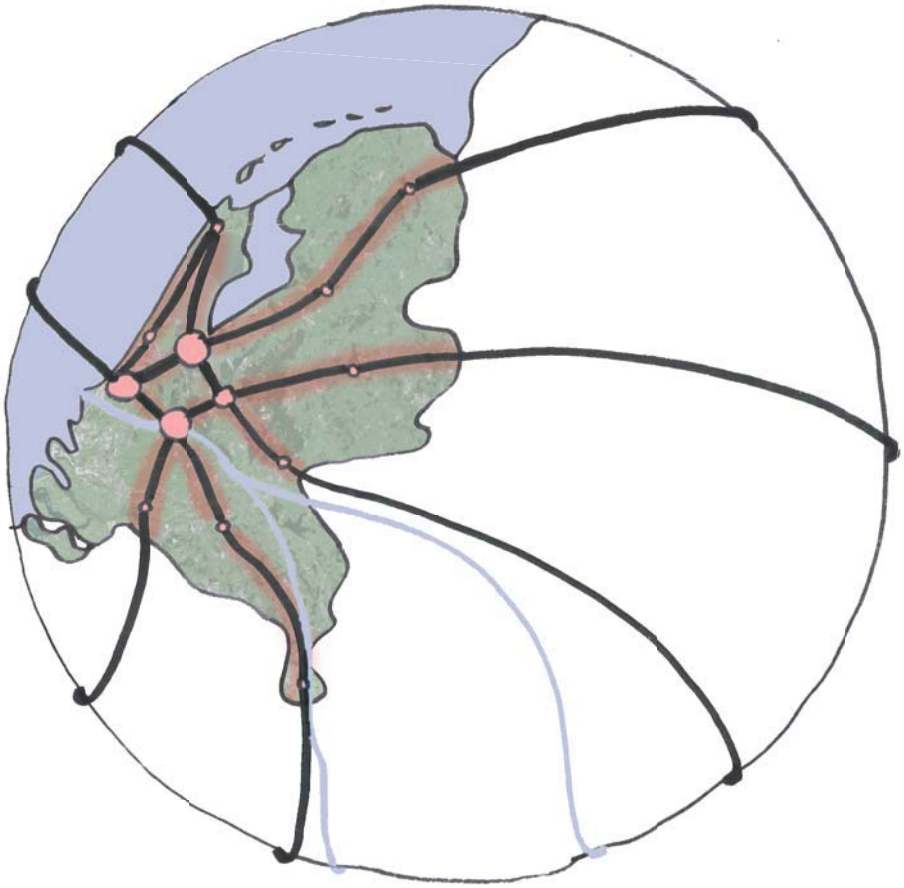
CHALLENGES

LARGEST IMPACTS ON LIVING ENVIRONMENT:

1. MIGRATION & URBANISATION
2. ENERGY TRANSITION
3. CLIMATE ADAPTATION

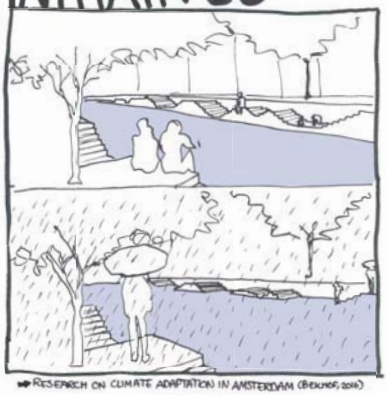
REQUIRE A SPATIAL GRIP!

SPATIAL VISION FOR THE NETHERLANDS

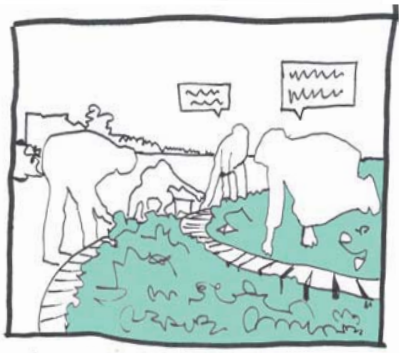


URBANISATION
NATURE & ENERGY
SPATIAL & SOCIETAL NETWORKS

INITIATIVES



➡ RESEARCH ON CLIMATE ADAPTATION IN AMSTERDAM (BEKKOF, 2011)



➡ INITIATIVE FOR SOCIAL COHESION

➡ NEIGHBOURHOOD INITIATIVE

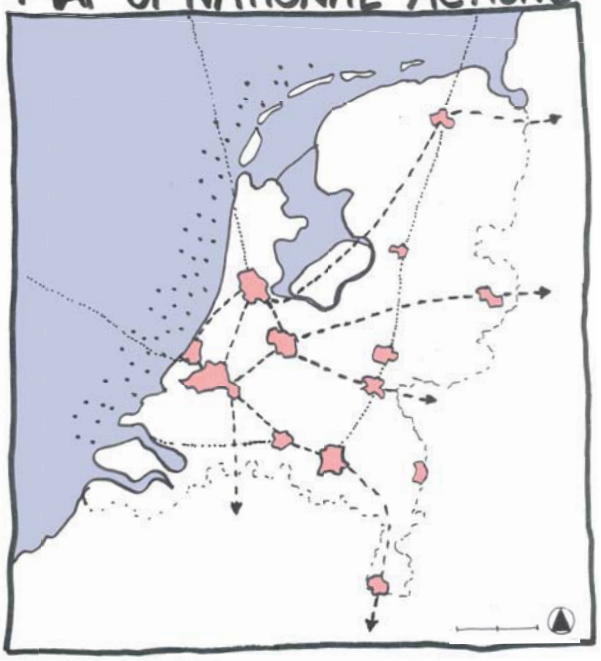
'SMART USE OF SPACE THROUGH (INTER) NATIONAL NETWORKS AND COMPACT SYSTEMS'

COMPREHENSIVE STRATEGIES

- COLLABORATE ON AN INTERNATIONAL SPATIAL PLANNING KNOWLEDGE PLATFORM
- INITIATE PLATFORM OF GOOD INITIATIVES
- STIMULATE CITIZEN PARTICIPATION IN LOCAL PLANNING
- STIMULATE RESEARCH IN THE THREE MAIN SPATIAL CHALLENGES
- FACILITATE LOCAL INITIATIVES WITH THE SIMPLIFIED COMPREHENSIVE ENVIRONMENTAL PLANNING ACT (CEW)

ACT & ACCESSIBLE

MAP OF NATIONAL ACTIONS



PLATFORM OF INITIATIVES

MIGRATION & URBANISATION

OBJECTIVE: HAVE DIVERSIFIED LIVING ENVIRONMENTS WITH A HIGH QUALITY OF LIFE WHICH PROMOTES EQUITY & INCLUSIVENESS FOR ALL PEOPLE IN THE NETHERLANDS

- COLLABORATE ON INTERCULTURAL EXCHANGE PROGRAMS
- INITIATE HIGH SPEED TRAIN NETWORK FOR (INTER) NATIONAL QUALITY CONNECTIONS
- STIMULATE SUSTAINABLE URBANISATION THROUGH UPDATED LADDER OF SUSTAINABLE URBANISATION
- STIMULATE ACCESSIBILITY TO ALL PUBLIC SERVICES
- STIMULATE DIVERSIFICATION OF REGIONS BY EMPHASIZING ASSETS AND RESOURCES
- FACILITATE THE TRANSFORMATION OF OCCUPATION OF CURRENT EXISTING BUILDINGS

ENERGY TRANSITION

OBJECTIVE: BE 100% INDEPENDENT FROM FOSSIL FUELS BY 2050

- COLLABORATE ON INTERNATIONAL ENERGY GRID TO ALLEVIATE PRESSURE FROM DUTCH SPATIAL STRUCTURE
- INITIATE SMART GRID TO COLLECT SMALL-SCALE INITIATIVES
- INITIATE OFF SHORE WIND FARMS
- STIMULATE EXPERIMENTATION WITH INNOVATIVE RENEWABLE ENERGY SOURCES
- STIMULATE LARGE SCALED ENERGY SUSTAINABLE PROJECTS
- FACILITATE TRANSFORMATIONS TO ENERGY-NEUTRAL HOUSING
- FACILITATE INITIATIVES OF LOCAL SUSTAINABLE ENERGY PRODUCTION

CLIMATE ADAPTATION

OBJECTIVE: ADAPT TO CHANGING CLIMATE IN A SUSTAINABLE AND FLEXIBLE MANNER TO KEEP THE NETHERLANDS SAFE AND LIVABLE

- COLLABORATE IN ACHIEVING CO_2 EMISSION REDUCTION GOALS.
- INITIATE AWARENESS PROGRAMS
- INITIATE DELTA PROGRAMME UPDATES
- STIMULATE INNOVATIVE SOLUTIONS FOR ADAPTIVE CITIES
- FACILITATE LOCAL ADAPTATIONS LIKE GREEN ROOFS

7 | RECOMMENDATIONS

Introduction

There are three types of recommendations based on this research. The first one in 7.1 is a collection of lessons learned from the location-specific analysis in chapter 4.2. The second in 7.2 observes the NOVI from a more abstract level; it offers recommendations on how to relate the NOVI to the purpose of the strategy as a whole and the role that the national government has or should have. The third recommendation are conclusive recommendations based on the NOVI objectives. Together with the conclusions of the application chapter, the three recommendations offer a set of tools to be considered when creating the NOVI. In 7.4, these tools are summarized.

The three main recommendations are:

- Get inspired by examples with open considerations of the constraints of the context
- Be aware of the purpose of the strategy and the transforming role of the government; design the NOVI accordingly
- Apply the general principles, but recognize the critical issues within NOVI's objectives and offer them the time, effort and research needed.

7.1 | Recommendation #1

Get inspired by examples with open considerations of the constraints of the context.

In the location-specific analysis in chapter 4.2, innovation is sought in the locations based on the objectives of NOVI. Understanding each of these innovations, it is possible to generate a set of general lessons to consider in creating NOVI. In appendix A there is a complete set of the innovations, with full explanations and the lessons learned from each. Figure 7.1 offers an overview of these lessons, categorised in content, process, product, and by location.

In general, the lessons learned from the specific content, process and product innovations are not specifically related to those categories, but are broader considerations of certain ideologies, concepts, aims and roles within these innovations. For example, the content-related offshore wind farms in Denmark depend on a specific set of actions from the national government to initiate the green transition, which requires them to take a specific role within a network of actors.

CONTENT

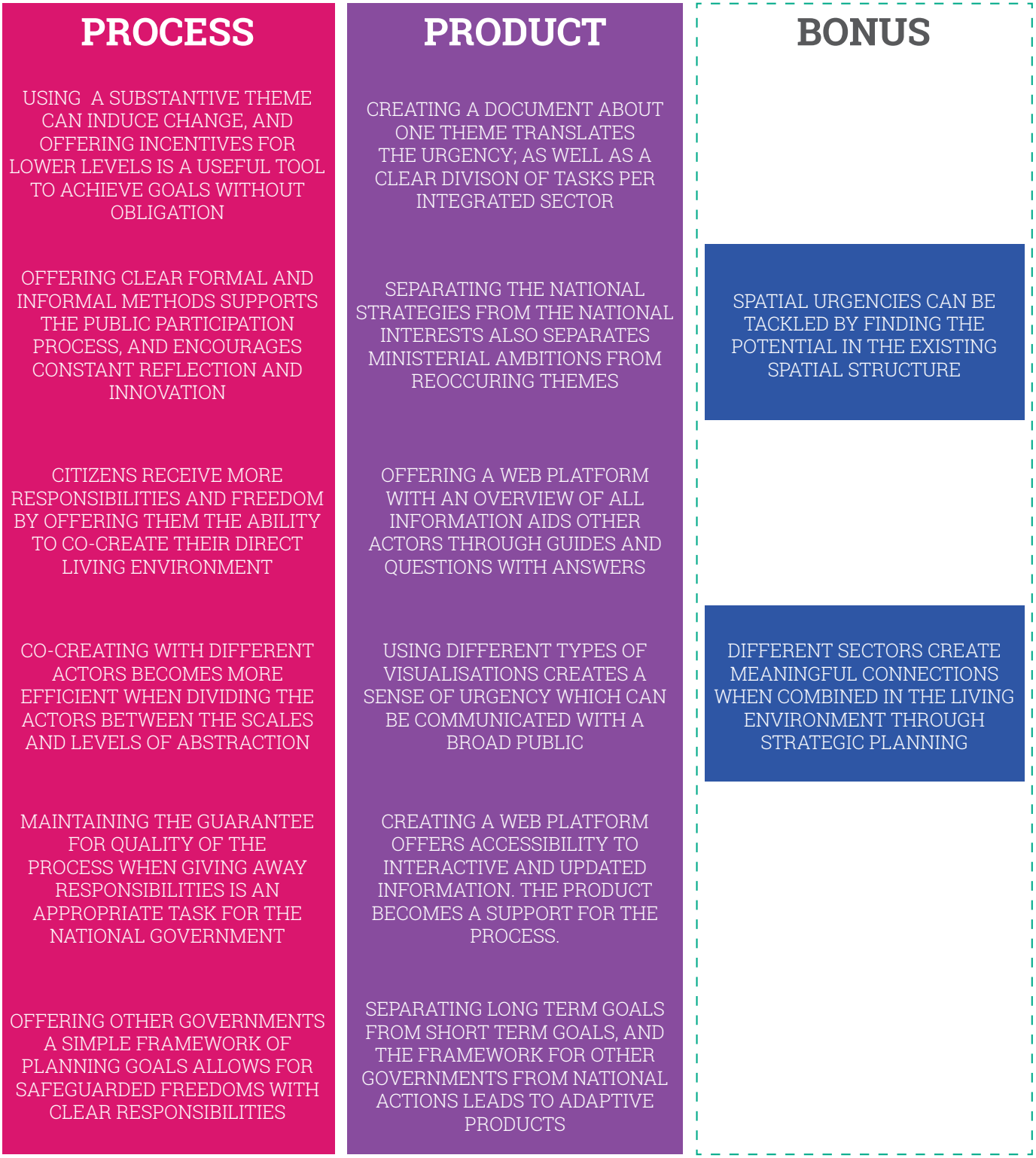


Figure 7.1 Lessons learned from the location-specific analysis on chapter 4.2, offering broad inspiration for the NOVI, categorised in content, process and product innovations. Source: author

7.2 | Recommendation #2

Be aware of the purpose of the strategy and the transforming role of the government; design the NOVI accordingly

NOVI PURPOSE

The NOVI has set content, process and product objectives early on in the strategy-making process. It has announced to be ambitious, innovative, inspiring and different. This movement is a consequence of the changes of the Dutch planning system through time, as is explained in chapter 1.3. In chapter 1.7, a model adapted from de Vries (2002) on the purpose of the strategy is introduced (see Figure 7.2). It defines four types of spatial planning strategies, by either mobilizing or informing, and by either coordinating or steering.

Considering this model in the Dutch spatial planning context, the national strategies have mainly been in the left part of the model, focusing on informing the actors involved and not on mobilizing them. Also, the traditional spatial planning documents up until the 'Vierde Nota' had an aim of steering the actors in a specific direction (e.g: VINEX), while the decentralisation process which took place after the first transition put the main focus coordination instead. (see Figure 7.3)

It is essential for the NOVI to critically understand what the purpose of the NOVI should be. In the current situation, the national government seems to request a radical change from the past with the NOVI, and aims to move the purpose entirely to a focus on mobilization and coordination. This is expressed in its current objectives, with ideologies of broad collaboration, new methods of implementations, and integrations of themes. However, it should not forget the function of the other types of planning strategies, and find a balance within the NOVI by containing the right type of elements to reach the different purposes.

The key variables of national spatial strategies of chapter 4.2 (scope, specificity, openness, collaboration, adaptivity and interactivity) are used as a first consideration to understand which elements would serve which purpose. Depending on the aim of the function of the strategy, these variables can act as enablers or inhibitors in the model, by dividing it into two. The extremes within the variables either enable the informative and steering' type or the 'coordinating and mobilizing' type. A summary is in Figure 7.4.

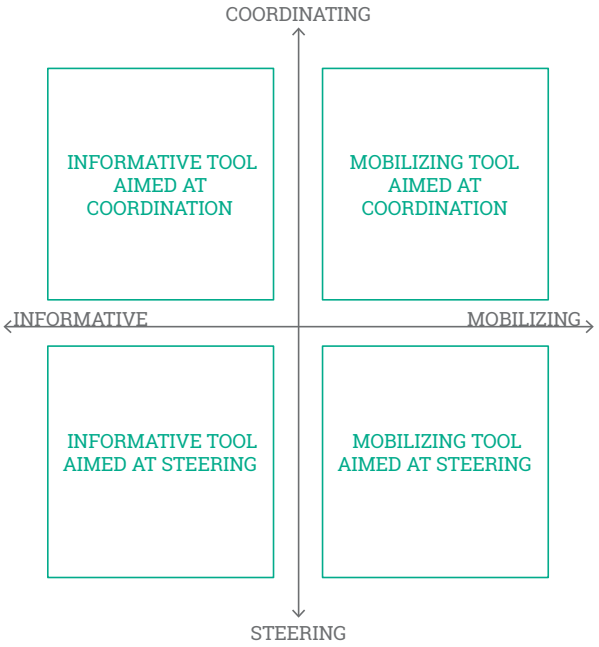


Figure 7.2 Model on the purpose of spatial planning strategies. Source: author

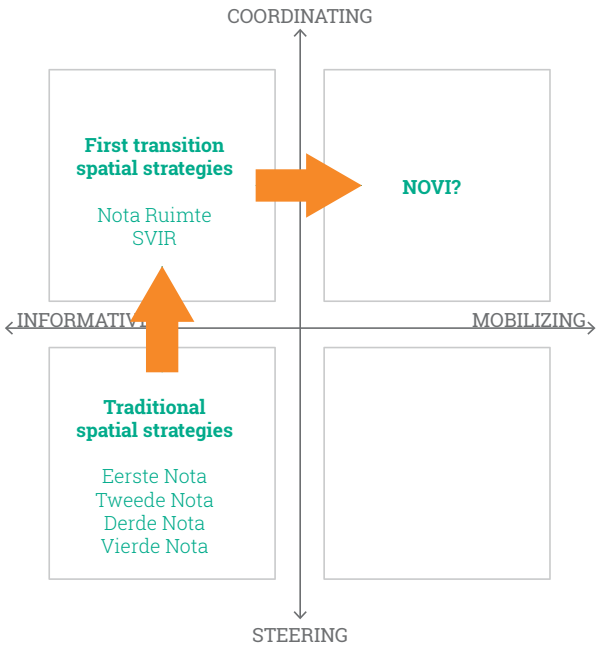


Figure 7.3 The main purpose of Dutch spatial strategies through time. Source: author

1. Scope: The first variable affecting the general function of the national spatial strategy is the level of selectivity. When a strategy is selective, it enables coordination by putting the focus on a low number of issues. A high level of comprehensiveness makes it difficult to coordinate all issues and therefore enables steering. Selectivity also enables mobilization by putting urgency on selective issues. 'Strategic' spatial planning is often related to selectivity. Bryson & Roering (1988) define strategic spatial planning as a process that is directed at a limited number of strategic key issues. In general, selectivity is often mentioned in recent literature on spatial planning; both Albrechts (2006) and the Rli (2016) advocate for selectivity. Albrechts mentions that strategic spatial planning should be oriented to issues that matter.

2. Specificity: The level of specificity is the second key variable to determine the general function of the national spatial strategy. If the level of abstraction is high is it difficult to mobilize others because it is difficult to formulate actions to achieve it. (Shipley, 2001). Shipley argues that a clear image will inspire and motivate purposeful action. Ziegler (1991) also stresses the importance of a specific vision to mobilize, this is supported by Klein et al (1990), who showed the relationship between goal specificity and task performance. However, for coordination, a high level of abstraction makes it easier to reach consensus (Duhr, 2007) and thus enables the task of coordination and inhibits the task of steering.

3. Openness: The third variable is the openness of process. The planning process can be closed or open. De Vries (2002) names legitimization as one of the key responsibilities of the government, and accountability is one of the requirements of good governance according to the United Nations (200X). Groeneveld and van der Walle (XXXX) name an open government as one of the new governance solutions for the changes in society. A high level of openness in the process enables mobilization and coordination by legitimizing the document, engaging the public and offering accountability.

4. Collaboration: The fourth variable is the level of collaboration of the strategy-making process. Albrechts (2010) emphasizes the importance of broad and diverse involvement in strategic planning, and the UN (200X) says that participation is a key cornerstone of good governance. A high level of participation enables mobilization because actors involved in the process have been able to be part of the creation of the content. Broad involvement in in creating the national planning strategy also enables national coordination in the planning system as a whole.

5. Adaptivity: The level of adaptivity is the

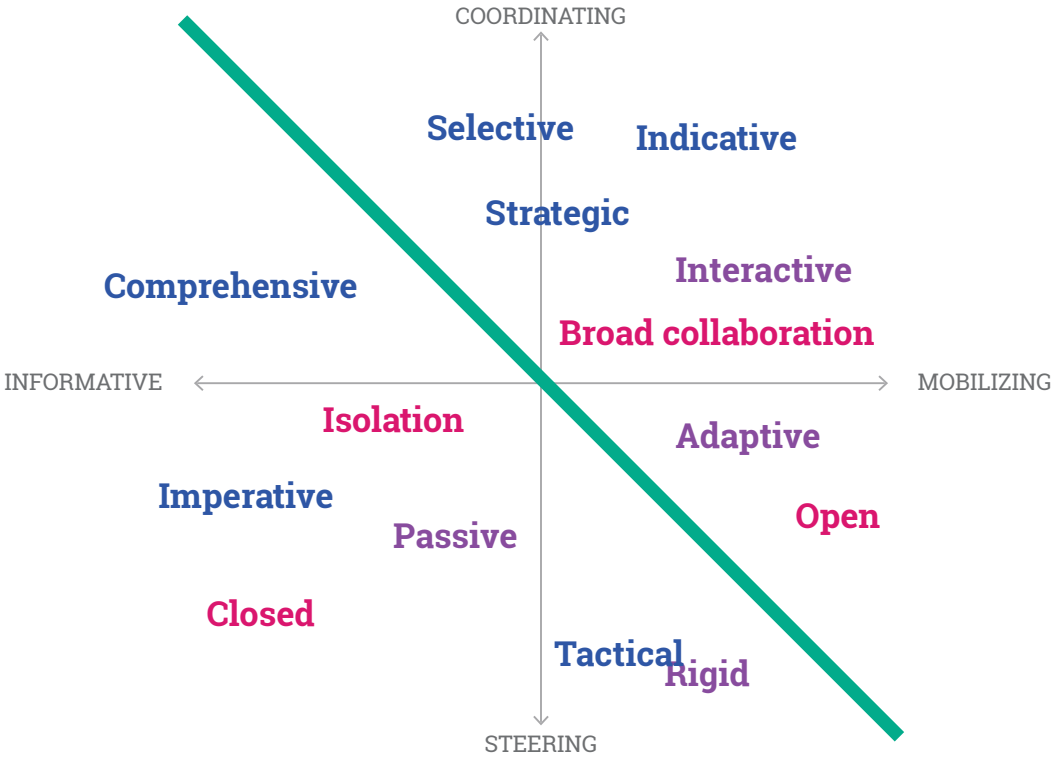


Figure 7.4 The relation of the key variables with the purpose of the spatial strategy. Source: author

fifth key variable. A national spatial strategy document can be rigid or adaptive. A low level of adaptivity in the product inhibits mobilization and coordination and enables mobilization and coordination due to the continuity in the product.

6. Interactivity: The last key variable is the level of interactivity of the product. The product can range from passive to interactive. It is essential in the idea that new interactive media open channels for citizens to interact with elites, whether government officials, political candidates, or experts, and has important implications for democracy (see Agre, 2002; Bucy & Gregson, 2001; Hacker, 1996) . A high level of interactivity enables mobilization and coordination by offering ease of access to all information. A passive document enables steering and informing.

In general, a good balance needs to be sought between the use of the elements from the key variables and the general purpose that the national spatial strategy should have. The variables only enable or inhibit the general function, they do not rule out a specific function entirely. An example: Oregon's framework is very comprehensive, but mobilizes through this framework by staying very indicative in the formulation of the comprehensive goals. However, based on the variables, it is possible to relatively identify the main function of the spatial strategies of the different locations by adding the variables together per location (see Figure 7.5). With this method, the spatial strategy of Oregon relates most to the coordinating and mobilizing type of spatial strategy, while the elements in the Japanese spatial strategy focus on informing and steering. To create the NOVI, the Dutch national government needs to decide which function it should serve, and understand the effect of the variables on the chosen function by looking at the implementations in the other locations.
The NOVI is currently struggling with several key issues related to these variables, in which the methods and the expressions of the other spatial strategies could help in finding answers. For example, it is facing a dilemma of comprehensiveness vs. selectivity. The act (Omgevingswet) expresses comprehensiveness in the new planning system, yet NOVI is advised to be selective in order to mobilize and coordinate. Here, the balance mentioned above in Oregon offers a good example on how to balance selectivity and comprehensiveness simultaneously in one planning strategy.

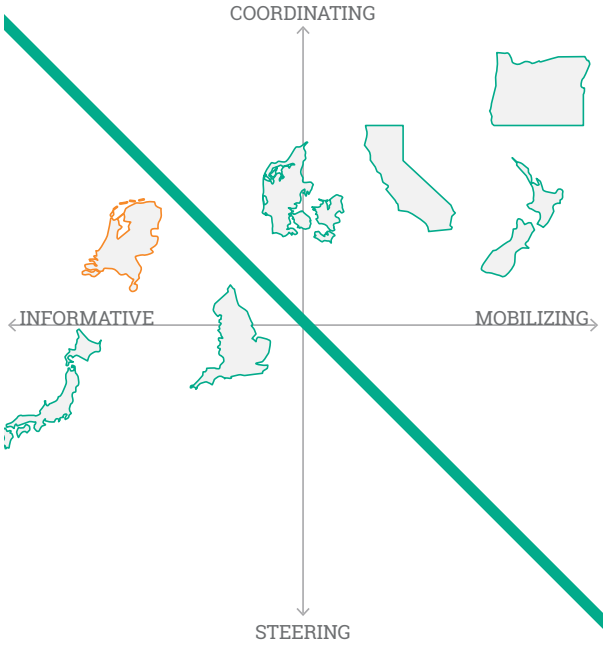


Figure 7.5 The function of the spatial strategies based on the key variables. Japan is considered the most informative and steering, while Oregon is considered the most coordinating and mobilizing. Source: author

ROLE OF GOVERNMENT

Deciding the purpose of the NOVI is closely linked to the general role of the national government, and the type of governance system it chooses to follow. Within different types of governance, the NOVI can be used as a tool to exert a specific type of power within a governance system. As mentioned in chapter 1.7, there are four possible types of governments: the legitimate government, the performing government, the networking government and the participating government. The Dutch national government has acknowledged the necessity of embracing the four different roles and using them depending on the situation. They have incorporated this model into the story of the NOVI yet do not explain what this means for the NOVI. Within the proposed NOVI, The different roles of government are intertwined. The national government takes three different roles which are expressed in the verbs Initiate - Stimulate - Facilitate. The initiating government is a performing government, initiating necessary projects which will benefit the nation as a whole and are best organised at national level. The stimulating government is the collaborative government, working together with other parties to achieve large-scaled projects on regional level. The

specific role of the government within this collaboration can differ.
The facilitating government is the participating government, offering space and possibilities for small scaled initiatives to shape the structure of the living environment through a fine-meshed network of initiatives. The working method of the proposed NOVI is one method of designing the NOVI according to the new government roles. Other methods should be considered and researched as well.

Considering the governance system within the administrative division, there is a shift from tasks for the national government, due to both europeanisation and decentralisation. The european union has a large influence on spatial planning In reference to the changing role of the national government within the shifts of responsibilities in the administrative system, the role of the national government manifests itself in two aspects: offering the link between the higher and lower scales, which means a broad consideration of all scales in the national strategy; and offering a broad framework for the other governments to offer a coordinated vision between all layers of government. This means a large set of organising principles, spatial vision, guiding principles and a clear spatial planning act. This act of coordination is fitting in the shift from the doctrinal and hierarchal government to the roles of government towards society just explained.

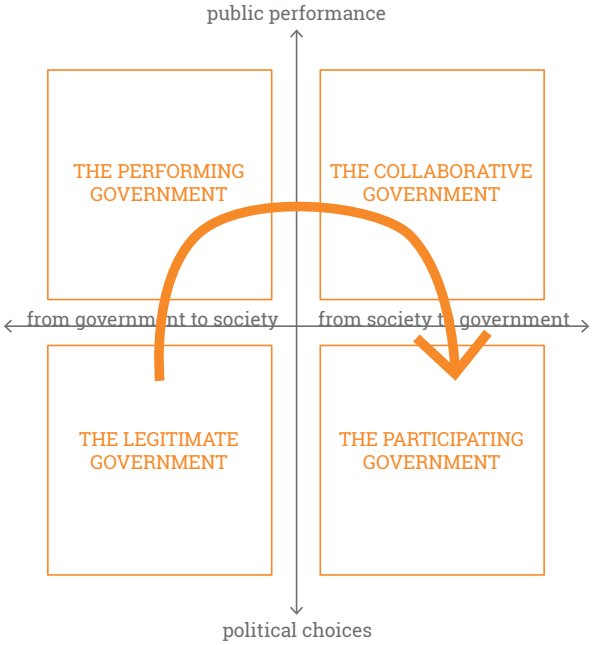


Figure 7.6 The movement of the Dutch government between types, wanting to involve all types of governments Source: adapted from van de Steen et al, 2002

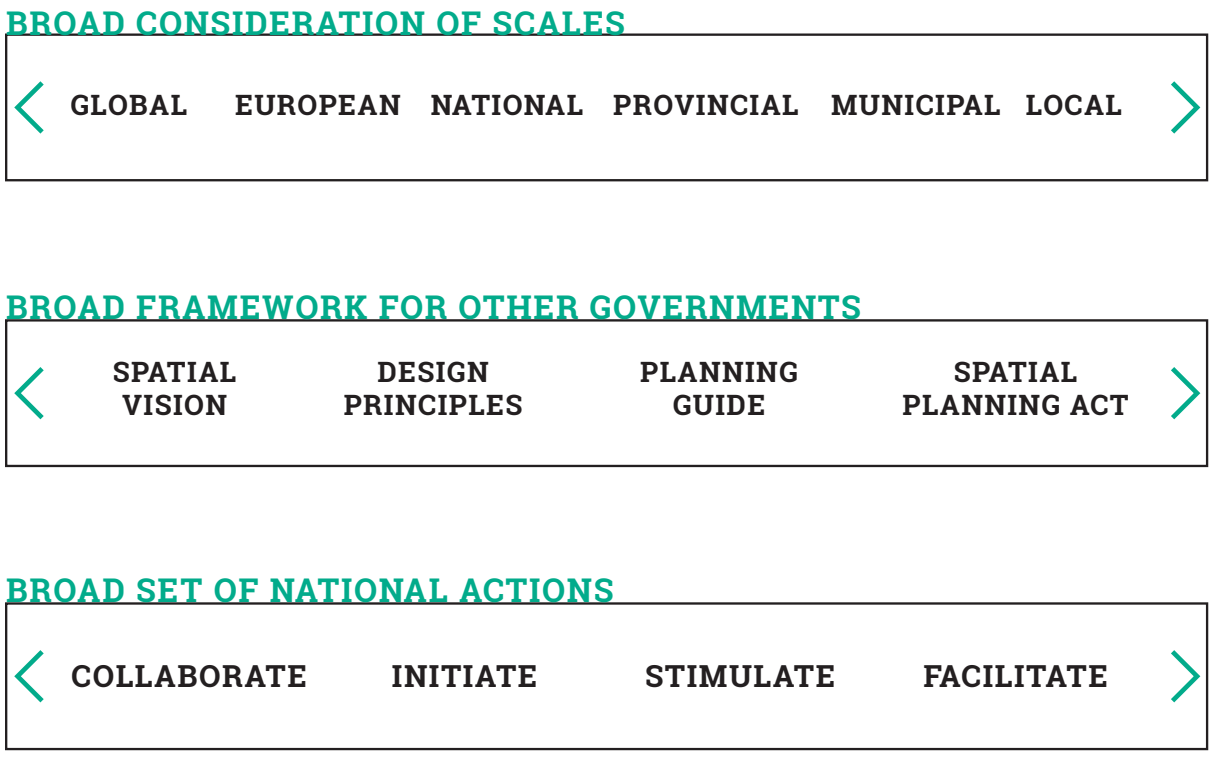


Figure 7.7 When creating the NOVI, the national government should consider a broad set of scales, it should create a broad framework for other governments and offer a broad set of national actions in relation to the changing role. Source: author

7.3 | Recommendation #3

Apply the general principles, but recognize the critical issues within NOVI's objectives and offer them the time, effort and research needed.

When applying the general principles and concepts filtered from the spatial strategies onto the Dutch context, there are a few critical issues which need to be considered. These bottlenecks are elements that have been implemented in the proposed NOVI, yet are not easily executed due to the context that NOVI is in. This chapter explains a few of these issues, why they form difficulties within the context, why they are considered innovative, and offers examples of the other spatial strategies on different methods of implementation, to form a starting point for further research.

The general principles and concepts that form a critical issue for NOVI are:

INTERNATIONAL CONTEXT
SUSTAINABLE COMMUNITIES
KNOWLEDGE AND INNOVATION

ACCOUNTABILITY
SYSTEM RESPONSIBILITY

CLEAR VISION
SUITABLE FOR PUBLIC

CONTENT

For the content, a general critical issue for the NOVI is to include non-spatial objectives in a spatial strategy. Two of the three content-related critical issues are therefore non-spatial principles: sustainable communities and knowledge & innovation. Within this societal transition, it is necessary to not only have spatial objectives but also non-spatial societal objectives that in turn can influence the organisation of the spatial structure. Both Oregon and California include a lot of non-spatial comprehensive strategies and can be used as a general example. This method is adopted in the proposed NOVI by naming several comprehensive non-spatial national actions, and to include a mission.

International context:

In regarding the international context, the Dutch spatial strategies have lately been viewing the international context from a defensive point of view, mostly concerning economic competitiveness. This also relates to the role of the national government in 7.2, to consider a broad range of scales including the larger scales. In the current context, the spatial urgencies the Netherlands is facing are all urgencies with an international perspective. Migration, urbanisation, energy transition and climate adaptation are all issues that are relevant on a global scale. Therefore, the NOVI should move towards a more collaborative approach with not only neighbouring countries from a spatial perspective but also use a global network to maximize the potential of answering the spatial and societal urgencies. Denmark and Japan both offer an international perspective in their national spatial strategies:
Denmark has a general high expertise in international collaboration due to its geographical position with Sweden, with the Oresund region containing both Malmo and Copenhagen. There are currently programmes of developing this region as one entity, not considering borders as a restriction and creating a new centre and transportation network. Also, concerning the energy transition, a large part of the success in Denmark was due to the international energy network connecting Denmark to its surrounding countries to deal with instability in energy production.
In Japan, even though it is a island with no direct surrounding countries to consider, one of its strategies is to make maximum use of the sea and encourage exchanges on global level. Also, its vision defines the importance of global exchanges in the future. As demonstration in chapter 6.1, the immense scale of Japan's train network also offers inspiration for the Netherlands to create a network on a similar scale (EU) to improve accessibility.

Sustainable communities:

Spatial strategies in the Netherlands have lost a consideration of the spatial influence on social aspects and vice versa. The focus is on economic competitiveness and the spatial-economic structure. The SVIR's aims is to make the Netherlands competitive, livable, accessible and safe, yet offers no specific objectives on how to achieve livability. In the proposed NOVI, sustainable communities are promoted in two ways: One of the national actions is to stimulate sustainable communities, and the mission of the NOVI promotes prosperity by equity and inclusiveness. The spatial strategies of Oregon, Japan, New Zealand, California and England all promote sustainable communities in different ways:
Part of Oregon's mission is to provide fairness and equity to all Oregonians. One of Oregon's

goals is to promote sustainable, vibrant communities. To achieve that, it ensures that local plans have sufficient development capacities, that land use and transportation are linked to provide well linked, well designed and healthy communities. This includes affordable housing as well. It also offers technical assistance to local community development activities and seeks public infrastructure solutions. By doing this, it clearly establishes the relationship between the spatial structure and communities.
One of Japan's strategies is to 'regenerate local communities, friendly to both young and silver generations', which is related to Japans demographic shift. One of the methods to apply this is to train managers for specific regions, specify educational institutions and promote accessibility for all ages.
New Zealand dedicates a specific part of the website to community and public. It creates a platform for general information on the environment for the public. Also, part of the mission is to provide for the social and cultural well-being of New Zealanders.
California tackles climate change from specific sectors. The health sector has a strategy to 'Promote Community Resilience to Reduce Vulnerability to Climate Change', which includes promoting healthy built environments, identifying and reducing health vulnerabilities and offering food security and quality.
England 'promotes healthy communities' by allowing opportunities for all members of the community to come in contact with each other, with safe and accessible environments and developments. It also promotes to deliver social, recreational and cultural facilities and access to public services.

Knowledge and innovation:

Promoting knowledge and innovation is a crucial part of spatial strategies in transition, as it considers all aspects unknown and emphasizes the need of adaptivity through time. The proposed NOVI adopts knowledge and innovation as one of the four key elements to generate prosperity and stimulates research on the three spatial urgencies of the Netherlands: Migration, energy transition and climate adaptation. It also contains a national action for initiating a platform of local initiatives to share knowledge and innovation. The SVIR acknowledges the economic benefit of knowledge institutions yet does not promote specific research, innovation or experimentation on aspects which influence the living environment. The spatial strategies of California, Denmark, Japan and New Zealand each promote knowledge and innovation in different manners; and can be used to research further examples:
One of California's strategies is to 'Expand California's climate change research and science programs and expand public outreach to policy makers and general public' which connects knowledge and innovation to a societal program of expanding public outreach. Denmark promotes innovation on methods for public participation, and initiates experimentation facilities for green energy.

PROCESS

The process is where the largest innovations should take place. The NOVI has a new purpose, the role of the government is changing, as is the role of the public. This asks for a new method of working together with others, which is one of NOVI's main focuses, but also asks for a clear role division and specific tasks for the national government. This requires an open process, in which the government takes responsibility for the strategy and for the system as a whole. The SVIR mentions the system responsibility of the national government, yet needs to be reconsidered in the changing process and within the context of the new Environmental Planning Act (OW).

Accountability:

Accountability is a form for taking responsibility for the choices made in the spatial strategy. This can be outed in the spatial strategy. Often, one of the tools to offer accountability is with a clear representation of the head responsible. Within the Dutch planning culture, outing responsibility does not seem to fit within spatial strategies. The proposed NOVI offers accountability by having a clear representation of the minister of Infrastructure and the Environment. On the website, it states the different roles and responsibilities per section to be transparent in offering accountability. It also clearly states in the document who co-produced the NOVI and is therefore co-responsible for achieving its objectives. The strategies of Oregon, England, New Zealand and Denmark offer accountability in similar manners. They offer clear forewords, with pictures, signatures, contact information, state the key actors who worked on the strategy and what their specific role is.

System responsibility:

Within the changing governance and decentralisation process in spatial planning, it is essential that the national government takes responsibility for the system as a whole and rethink what this responsibility means

within the transition. This is related to the accountability, as it is one of the forms for which the national government is responsible. In the proposed NOVI, the system responsibility is outed by different types of national actions which influence the different scales. Also, one of its comprehensive strategies is to initiate a platform of good initiatives so local government and citizens can share knowledge and innovation. The different locations share the system responsibility in different manners; one of Denmark's core principles is 'framework control', meaning decisions on lower levels can not conflict with higher levels. This is operationalized through dialogue and veto. New Zealand keeps responsibility for the quality, the national government has a monitoring system, requires local councils to take part in a 'making good decisions programme' and offers a web platform of reference projects. One of Oregon's strategic goals is to 'Provide timely and dynamic leadership to support local and regional problem solving'

PRODUCT

For the product in general, there needs to be a fresh reconsideration what a product should contain based on the purpose that the strategy has. There are two large bottlenecks within the product innovation, which are currently not considered in NOVI's objectives: creating a clear (spatial) vision, and making the product suitable for the public.

Clear vision:

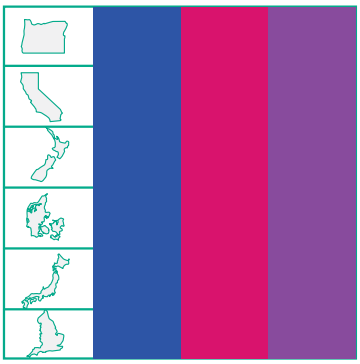
Having a vision of the future to work towards is an essential part of a spatial strategy which wants to mobilize and inspire. Within the spatial application exercise, one of the main conclusions was the urgency of having a vision for the spatial development of the Netherlands due to the high complexities of the spatial structure. Within the current spatial planning transition, spatial visions in national strategies have become an item of the past, due to its reputation of a top-down interference of a national government, which does not fit the principles of subsidiarity and offering space for key actors. However, within this new process of co-creation, a spatial vision can be the result of a consensus-based decision to get a grip on Dutch spatial transformation by organizing it in a specific manner together. In the proposed NOVI, it is outed in an abstract conceptual vision map, which can be specified by local governments. The vision map is based on improving the position of the Netherlands within the global context, and designating spaces for urbanisation and nature in which the three current urgencies of Migration, Energy transition and Climate adaptation can be tackled. The three locations which offer a clear vision are: Oregon, Denmark and Japan.

Suitable for public:

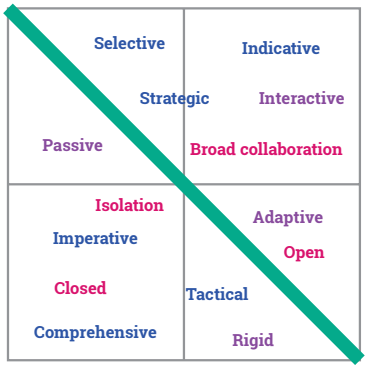
The NOVI has announced that every Dutch citizen needs to be involved, or at least have the opportunity to be involved with NOVI and shaping the spatial structure Netherlands of the future. This means a large amount of aspects for the process, the NOVI is considering all types of managerial procedures to involve citizens. However, this also requires the product itself to be suitable for the public, something which is not well considered in the current process. This is also because the national spatial strategies have never before focused on getting the public involved. For the proposed NOVI, several types of products are proposed, including a summary in the form of a flyer and an interactive website to get the public engaged. However, since this is an entire new concept in the Netherlands, it is important to create a large media campaign and to use the product as a part of a larger process of a constant evolving strategy. Therefore, in the proposed NOVI there is a proposal for a 'serious game', a method of involving the public by creating a type of game in which they can understand the urgency, the complexities of the Netherlands, the cohesion of all systems and the impact of spatial changes.

7.4 | Road map for NOVI

Get inspired by examples with open considerations of the constraints of the context.

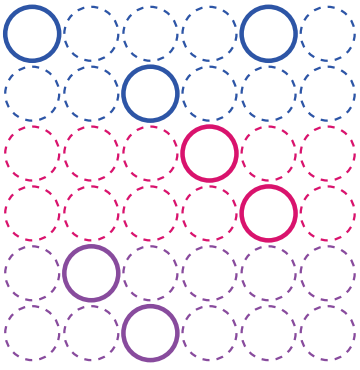


Understand the changing purpose of the strategy; design the NOVI accordingly



Understand the changing role of the government; design the NOVI accordingly

Apply general principles, but recognize the critical issues in NOVI objectives; offer them time, research and effort.



8 | REFLECTION

8.1 | General reflection

RELATIONSHIP BETWEEN RESEARCH AIM, QUESTIONS AND METHODOLOGY

Sub-research questions

Comparative study

- **Which planning strategies from other locations are suitable for a comparative study?**

For the choice of the locations, I formulated three criteria: The main criterion was that the spatial strategy needed to contain innovations related to NOVI's content, process and product objectives . The other two criteria were a global spread, and the locations required a certain similarity with the Netherlands in the context, aims or challenges. Through an extensive literature study in which I researched spatial planning documents, literature concerning national spatial strategies and news, blogs, etc on innovative concepts within spatial strategies, I chose the following six locations: California, Denmark, England, Japan, New Zealand and Oregon. See Figure 3.2 for a visualisation of the chosen locations and their main relationship to NOVI's objectives.

- **How do the Dutch context and spatial strategy compare in general to the other locations?**

This question is largely answered in chapter 3, the general comparison. In this chapter, I compare the context and the spatial strategy of the Netherlands, California, Denmark, England, Japan, New Zealand and Oregon. For the context, I compare several spatial and demographical aspects, political and institutional aspects, and cultural and transitional aspects. Together, they form an overview of the different contexts of the spatial strategies. This is essential to understand the large dependence of the spatial strategy on its context and supports the overall understanding of the spatial strategies. The current spatial strategy of the Netherlands (SVIR) is compared to the current spatial strategies of the other locations in the categories of content, process and product, to grasp the differentiation and offer an understanding of the spatial strategies.
The question is further answered throughout the rest of the project; each step considers the Dutch context and spatial strategy.

- **What are the key variables to measure the variation in (national) spatial strategies?**

Chapter 4.1 recognizes that a general overview of elements concerning the spatial strategies does not offer a real understanding of the variation that occurs within (national) spatial strategies. Based on the general comparison, I formulated six key variables:
1. Scope of content
2. Specificity of content
3. Openness of the planning process
4. Collaboration in the strategy-making process
5. Adaptivity of the product
6. Interactivity of the product

Each of the variables show the variation within the spatial strategies of the locations. It also specifically relates back to the Dutch context and highlights a few specifics to explain how the variation was measured.

- **What location-specific innovations can be found in content, process and product based on NOVI's objectives?**

This research question is answered in chapter 4.2, in which I created a matrix of innovations based on the six chosen locations and on content, process and product innovations. The innovations were extracted from an extensive literature study, in which the spatial strategy documents proved the most useful. A full overview of the innovations is found in appendix A. Each innovation is explained with a title, a short text, an illustration, its relationship to NOVI's objectives, and a conclusive lesson.

Demonstration of transferability:

- **To what degree are the innovations of the spatial strategies of other locations dependent on the context?**

To answer this question, I tested the applicability of the innovations of the strategies by replicating them onto the Netherlands. This exercise allowed me to understand to which degree innovations can be replicated onto the Netherlands. This exercise revealed that, in general, the product-related innovations are the least dependent on the context, while the content-related innovations with spatial implications are the most dependent on the context. Therefore, in chapter 6.1 I chose five spatial content-innovations to dive deeper into understanding its relationship with the context and what that could mean for the Netherlands.
The content-innovations are always created from a context-related urgency and developed through existing potential in its location-

specific spatial structure and are therefore applicable within the right consideration of the specific context.

- **What are general principles and concepts that can be filtered from the spatial strategies?**

To discover general principles and concepts I performed a literature study from which I categorized criteria for the content, process and product of a strategy. Taking the criteria as a starting point, I started an iterative process with the strategy replications made in chapter 5, by filtering recurring aspects between the strategies within the categories of content, process and product. This led to the following list of general principles and concepts:

- Environmental quality
- Sustainable urban development
- Accessibility
- Climate adaptation
- Sustainable energy
- Economic development
- Cultural heritage
- Land preservation
- Sustainable communities
- Safety and risks
- Knowledge and innovation
- Tourism and recreation
- Housing
- Networks
- Natural capital
- International context
- System responsibility
- Public participation
- Co-production
- Subsidiarity
- Providing clear framework
- Trust in key actors
- Offering space for initiative
- Clear role division
- Vertical coordination
- Horizontal coordination
- Transparency
- Efficiency
- Accountability
- Legitimacy
- Inviting
- Adaptive
- Digital
- Urgent
- Suitable for public
- Inspiring
- Clear summary
- Separation of short-and long term
- Mix of images and text
- Clear vision
- Guiding principles
- Clear national actions
- Foreword
- Clear framework

- **What could NOVI look like if the filtered principles and concepts are applied on the Dutch context?**

I developed a proposed NOVI in 6.2, based on my interpretation of the theory, the Dutch context, the analysis of the comparative study and the replication and application exercise. According to this proposed NOVI, the NOVI would focus on getting a grip on the societal and spatial transitions taking place. The changing role of the government is made explicit by a clear division in types of roles and the related actions. The three main urgencies of migration, energy transition and climate adaptation all occur within a context of globalisation. The Netherlands uses the potential of an extended European high speed train network to develop a spatial vision for the future development of the Netherlands, along which the urgencies can be solved.

Research aim

The research aim is to learn lessons from other (national) spatial strategies based on the content, process and product objectives of the Dutch national government for the NOVI.

After answering the above research questions, I reach the aim of this graduation project by giving a threefold of recommendations for the NOVI, based on the lessons learned from the different sections of the methodology. The first recommendation is to get inspired by examples with open considerations of the constraints of the context by offering a set of lessons learned from the location-specific innovations. The second recommendation be aware of the purpose of the strategy and the transforming role of the government; and design the NOVI accordingly. This final recommendation relates the key variables back to the purpose of the strategy and explains how it can inhibit or enable a specific purpose, and how it relates to the role of the government.
The third recommendation is to apply the general principles, but recognize the critical issues within NOVI's objectives and offer them the time, effort and research needed. Based on the proposed NOVI, I extract a few crucial issues, explain why they form an issue and offer a range of solutions given by the other locations.

RELATIONSHIP BETWEEN RESEARCH AND DESIGN

In this project, the research and design form a symbiotic relationship. A theoretical foundation formed the stepping stones of this project, to create a basic understanding of national and regional spatial planning, comparative studies, and the history of Dutch spatial planning. Design is used as a working method more than an actual final output of design. 'Design thinking' is a methodology of finding innovative solutions to complex problems. Within the complexity of the chosen graduation topic, it proved useful to think of large systems with logic, creativity, intuition, imagination, systemic reasoning and exploration. This attitude of critical and explorable thinking was used as a constant next to the scientific and theoretical research for the project. In general, the project consisted of a few divergent movements, broadly exploring theory and design, followed by a converging movement towards synthesis.

Using the theoretical foundation, I was able to perform a general comparison in which the context and the spatial strategy of six locations are compared. It relies both on a 'classic' form of research and the use of design thinking to show a variation of important aspects when looking at spatial strategies. Because of the limitations of the comparative study, I required creativity in gathering information, processing the data and visualizing it. The same counts for the analysis of the general comparison. After the divergence of the general comparison, convergence took place by filtering six main variables in measuring variation in spatial strategies. For the location-specific analysis,

In the demonstration phase, I tested the replicability through an iterative process to filter out general concepts and principles. I had researched some theories on what content, process and product should contain, and had created visualisations to offer an overview of what the Netherlands would look like if the national strategies of the other locations were applied. An interaction of inductive and deductive methods caused for constant adaptations and alterations in the visualisations of the exercise and of the general principles and concepts.

The design output, which is part of the demonstration phase, is a visualization of a proposed NOVI within content, process and product design. I did a full theoretical and spatial analysis of several spatial implementations of strategies to understand its relationship with the context. Also, a spatial analysis of the Dutch context was essential to generate which opportunities and challenges exist in its spatial structure. This was needed to form the main content used in NOVI. The spatial design is a part of the content design, in which a vision is drawn out for the Netherlands on how it should transform its spatial structure towards the future.

The main output is not a spatial design but general recommendations for the NOVI. The design and research output together form an equal input to the final conclusions where synthesis takes place, which signifies the balanced relationship between research and design throughout the project.

RELATIONSHIP BETWEEN THEME OF GRADUATION LAB AND SUBJECT CHOSEN

The keywords of this research are **international comparison, national planning systems, complex strategies, spatial structure, (multi-level) governance, spatial planning concepts, planning culture , planning transition, adaptive planning, globalization, competitiveness, livability,** and **planning & design tools, instruments and methods.** These keywords relate to the graduation lab 'STRATEGIC SPATIAL PLANNING AND DESIGN', which consists of three sub research groups 'METROPOLITAN SPATIAL STRUCTURE', 'REGIONAL GOVERNANCE, PLANNING AND DESIGN' and 'INTERNATIONAL PLANNING AND DEVELOPING REGIONS', which are each related differently to this graduation project.

The 'metropolitan spatial structure' is concerned with linking planning strategy and practice and the performance positively with improved knowledge of spatial structure and performance. Three main terms are economic competitiveness, environmental sustainability and social well-being. These three terms form an essential part of the spatial strategies that I have compared. They often find their way back into the aims or missions of the national spatial strategies (see p. X of comparison chapter X). The spatial exercise of chapter X also links the planning strategy with practice by looking at the spatial implications and the context in which it was created.

'Regional governance, planning and design' is concerned with governance of metropolitan regions in the context of the increasing complexity and fragmentation of spatial relationships. The role of spatial planning and design in managing regions is investigated. It also concerns itself specifically with the paradoxical situation of the Netherlands, in which spatial planning loses political influence but design methods on regional scale are increasing. This relates closely to my

personal investigation on the role of spatial planning on a national level, and the transition which the Netherlands is currently in from a governance point of view. For this reason, I offered more than a comparison of strategies and how to implement them in the NOVI, but also linked back to the purpose of a strategy and the role of different governance systems, and the power it exerts through the strategy. New governance concepts are examined and translated back to the national spatial strategies. In the recommendations, I make a careful consideration of the possible purpose of NOVI within the context of the changing government.

The sub research group 'INTERNATIONAL PLANNING AND DEVELOPING REGIONS' is the most relevant. This theme 'undertakes comparative analysis of varying forms of intervention through spatial planning and territorial management in Europe and developing regions in the world. There is an emphasis on building valid methodology for international case studies, comparison and policy transfer'(SPS editor, 2011). It recognizes the urgency of international comparison within the context of increasing global integration, which was my personal starting point for an international comparison as well. My developed methodology for comparing spatial strategies is extremely relevant for this research group as it underpins the importance of the context in policy transferability and offers a method of filtering the level of applicability for any given aspect within a spatial strategy.

In general, the scientific relevance of this project is found in the link between design and research within the methodology, and the link between comparison and application. Also, the filtered general principles and concepts are a useful framework in the general research of spatial planning strategies.

RELATIONSHIP BETWEEN PROJECT AND WIDER SOCIAL CONTEXT

This project is done in collaboration with the ministry of infrastructure and environment, where I am participating as a full member of the NOVI project team. This has allowed me to adapt to changing circumstances throughout the project which has added to its relevance. At several moment throughout my graduation I have presented my interim findings with the NOVI project team and offered my insight to the position of NOVI and the Dutch situation in general compared to others.

Within the general social context, the government seeks to reinvent its role in how it interacts with citizens. As mentioned in the project, the transition which is taking place in the society is manifesting itself in movements like the 'energetic society' mentioned by Hajer (2011) which requires new methods of partnership and collaborations between the government and citizens, this is a part of my final recommendations for the NOVI.

8.2 | Reflection on methodology

In this reflection I discuss the three most important aspects which influenced my methodology as a whole, how my chosen methodology managed to give answer to my research questions, and how it relates to my personal challenges for this project mentioned in my motivation. I end with recommendations for further research based on the reflection.

Reflecting on the methodology as a whole, there were a few important aspects which have influenced the project at large. The first is the manageability of the project. Creating a manageable project within the given time-frame of graduation was in conflict with my personal ambitions and interests. At the start of graduation, I had already been part of the project team of NOVI for six months, and had a lot of ideas on how the NOVI could be enriched, improved and complemented. The term 'international' was an important term from the start, though I was not sure which role an international perspective could have. Choosing a comparative study to 'learn lessons' meant two things for the manageability: The focus stayed on the Netherlands, instead of an equal comparison between all seven locations; and I could compartmentalize the comparison by searching for specific innovations in content, process and product. This three-fold of content, process and product has proven to be a solid structure to fall back on, and has pushed me to consider all aspects of strategy-making equivalently. At the P2, the largest criticism received concerned the manageability as well. There was a concern with choosing six different locations to use for the comparative study. However, showing the variation of spatial strategies was important to me, which is why I chose to continue with all six locations, but to manage it by being selective in the demonstration of the transferability. By creating visual overviews when testing the replicability of the spatial strategies for the Netherlands, I was able to highlight the most important aspects of each strategy and show its dependence on the context and the same time. Also, I stayed selective by choosing the five spatial examples which were the most dependent on the context to dive into to discover the deeper layers of the importance of the context. While testing through replication, I made sure to show the cohesion between the content, process and product and how they influence each other. This interconnection between content, process and product becomes especially important in the conclusions (chapter 6.3), when I relate the NOVI to its larger purpose and the role of the national government.

The second aspect is the limitations within my comparative study. The comparative study is based mostly on desk research, which comes with several restrictions. First, it is extremely difficult to understand how the strategy works in practice. Within the three objectives of NOVI in content, process and product, especially the process was difficult to measure since I relied mostly on the description of the process in the strategy itself, or supporting documents from the governments. This affects the reliability of my general comparison and the analyses of the strategies. I make several assumptions in the indicators used in chapter 4.1 when I measure the variation between the national strategies. This has its effect on the conclusions of chapter 7.3 as well, where I use the purpose of the strategy to identify enablers and inhibitors in reaching a specific purpose.

Also, I started this graduation thesis under the impression that spatial strategies would be spatial and visionary. However, most spatial strategies do not contain the spatial implementations or implications of the given content. This is partly due to decentralisation but also a difference in planning culture; the Dutch spatial planning system has a long tradition of spatializing its content, whereas other nations do not. Also, even though 'visions' are often seen as a main requirement for a spatial strategy (explained in chapter 1.7) the visions often stay within 'the vision as a mission statement', where only Japan seems to define a desired future on what Japan should develop towards from a spatial point of view.

Another limitation of the comparative study was the main languages of the spatial strategies. Four of the six chosen locations have spatial strategies and all other information available in English (California, England, New Zealand and Oregon) but Japan and Denmark proved to be more difficult to research due to the language barrier. The Japanese government offers a summary of the National spatial strategy in English and uses a lot of different types of visual communications, which softens the language barrier. It also offered several documents with overviews of spatial planning in Japan in general and the before last spatial strategy of 2008 had a full translation, which was useful to understand the structure of the spatial strategy document as a whole, and to understand the changes with the current strategy. The Danish government has not translated any spatial strategies since its reforms in 2007, except for the Finger plan of Copenhagen. It offers several elaborate document on the history of Danish spatial planning up until 2007, but in analyzing

the current main spatial strategy I had to rely on the Danish version.
I also did not visit the chosen locations of my comparative study except for Denmark , which limited my ability to assess the dependence of the innovations with the context. I tested this during my graduation year by taking a field trip to Copenhagen, Denmark. This trip confronted me by showing large differences between my expectations and the reality. This field trip was an important reality check , and emphasized the importance of being able to look through the context and find the general principles and concepts that could be applied in the Netherlands.
In choosing the starting point of 'innovations' for my comparative study, there is a possibility of 'glorifying' certain aspects of the strategies. This mostly happened in the location-specific analysis, in which I specifically review the strategies in search for these innovations. That's why it's important to note that these innovations are meant to inspire, and even though there is an uncertainty in their implementation, it can challenge the NOVI project team in considering new methods or tools for content, process and product which they hadn't previously considered.
The third aspect is that this project is about spatial planning and policy making, which is a part of urbanism that I haven't been confronted with often during my studies. This meant that I had to deliver extra work to understand a lot of the basics of spatial planning and strategy-making. Within the few months of graduation, I have extended my knowledge of spatial planning and strategies immensely. Unfortunately, I feel like I have not learned as much as was necessary to receive the depth I wanted to achieve when giving a complete answer for my research questions. First, I did not dive as much into the theories of the product–related innovations due to the fact that it was difficult to find literature on the product within spatial planning. I relied on some general theories of communication, concerning interactivity and the purpose of different types of communications. Also, I put too much emphasis on a theoretical analysis of the Dutch context at the beginning of my graduation while later, the theory on comparability and especially policy transferability became much more important. Within the manageability of the project, I have balanced researching as many aspects of spatial planning as possible, within the time-frame of graduation. The collaboration with the ministry proved to be very helpful in understanding the practicality of spatial strategies

In general, this project at large is a study on international transferability of spatial strategies to learn lessons for the NOVI. The enormous influence of the context in general on the spatial strategies was something that I was constantly confronted with. I overcame this limitation as much as possible by methodologically applying filters of applicability, peeling away the layers of the context to reach the general principles and concepts, and constantly reflecting it back to the Dutch situation. Moving through the filters of applicability is an innovative method to generate general principles and concepts, and demonstrating the applicability of the concepts back to the Dutch context brings it together and makes it tangible again.
At times, I had given too much weight to individual parts of my graduation instead of placing it in the larger frame of transferability. For example, the location-specific innovations analysis was a very useful exercise to get inspired by the other locations but forms the basis for only one of the three chapters of my final recommendations, and is the least applied to the Dutch context. My two other chapters in the final recommendations are based on the proposed NOVI and on general aspects of the larger framework in which the NOVI is created, e.g. the purpose of the strategy and the role of the government. The large framework in which I give recommendations demonstrates the comprehensiveness of the graduation project as a whole. It moves between different levels of abstraction and is able to create connections between several layers of applicability.
This method of filtering layers of applicability and demonstrating it within the comparative study to end in specific recommendations has proven to be more than a 'juxtapositioning of data' but to move towards a deeper understanding of the spatial strategies as a whole and how they could be applied within a specific context. It has led to a a research which moves through layers of abstraction and offers insight to the transferability of content, process and product innovations.
The method as a whole has been applied systematically, allowing for a graduation project which is methodologically sound research which is justified through each step.

PERSONAL CHALLENGES

I named three personal challenges in my motivation (chapter 1.2) to reflect on within this graduation project: Combining the work of the NOVI project team with my graduation, finding a strong method for designing and visualizing the end product, and developing a network of experts for reflection through testing and validation.

The combination of working within the NOVI project team and graduation

This combination is rare within the faculty of architecture at TU Delft. Especially at the beginning it was difficult to reinvent my role within the project team as a student researcher within a specific aspect of NOVI. In the last phase, I found it difficult to academically distantiate myself from the project team at times when it came to creating a proposed NOVI and offering recommendations. I needed to make a very conscious switch to being able to make a proposal for the NOVI, which my mentors thankfully helped with In the end, the proposed NOVI is a methodologically-sound, justified proposal based on the theory, the comparative study and the replication exercises. However, doing this work within the NOVI project team has made the project extremely relevant, and it is very rewarding to have seen how my research (in progress) has been able (and continues) to contribute to the NOVI as a whole. The framework would not have developed the same way without the reflection from practice. It also makes me experience the everyday complexities when working on a project like this, and has helped in creating awareness of the many factors that influence strategy-making on national level. This collaboration also made me aware of the gap between academic research and practice. At TU Delft, the interest was in the creation of a framework and methodology and justification of each step, while the ministry's interest was how to produce results in such a manner that the NOVI can benefit from it. Having both points of view in my tutoring sessions has made this project comprehensive and complete.

Method of visualization and designing the end product

In going towards a proposed strategy design and communicating the end product, I was confronted by a few aspects. One mentioned earlier is the fact that I need to be able to present my work to non-urbanists as well within the NOVI project team. Another is that this graduation project is quite unique which means there were not a lot of references on how to work towards an end product. Also, I was confronted by the fact that the chosen spatial strategies were not very spatial in general. For example, Adams (2008) mentioned 'polycentric development' when discussing policy transfer as a reoccurring spatial theme. However, this does not seem to resonate in the content of chosen strategies, except for the Japanese national strategy. In general, there are not many references to actual space, which made it difficult to compare the content. Also, the structure of content-process-product automatically meant that I needed to search for different methods of visualisations for the end product. This struggle has caused me to delay working on the design product several times.
The visualisations of the strategies in the replication and application chapters are sketched by hand and mixed with digital elements: they are a collection of content, process and product elements fitted into one poster. This is to show the subjectivity of the chosen elements, the comprehensiveness and interrelations between content, process and product, and the testing nature of the chapters where it is used as an exercise to discover the transferability. In the proposed NOVI, the sketched nature of the visualisations emphasize that the choices made for the implementation are my personal choices, though methodologically justified based on the theory, the Dutch context and the replication exercise. It is a 'demonstration' and not a final design in any way.

Network of experts

Within the complexities of this graduation project, I happily relied on the knowledge of experts as much as possible. In my methodology (chapter 2), I mention the use of experts to test and validate my observations, analyses and conclusions. I mention three types of experts I wish to involve: International experts (experts of the chosen locations), national experts (have insight in the Dutch context and planning history), and the expertise of the NOVI project team at the ministry. Unfortunately, I have not manage to set up a strong network of international experts, which has affected the reliability of my comparative study, also explained above as a limitation of my desk research. However, my network of national experts and the NOVI project-team have been extremely helpful in adding depth to the research, especially concerning the Dutch context and perspective. I made use of the network of TU Delft and the Ministry of Infrastructure and the Environment to test and validate my observations, analyses and conclusions several times.

Further recommendations for research:

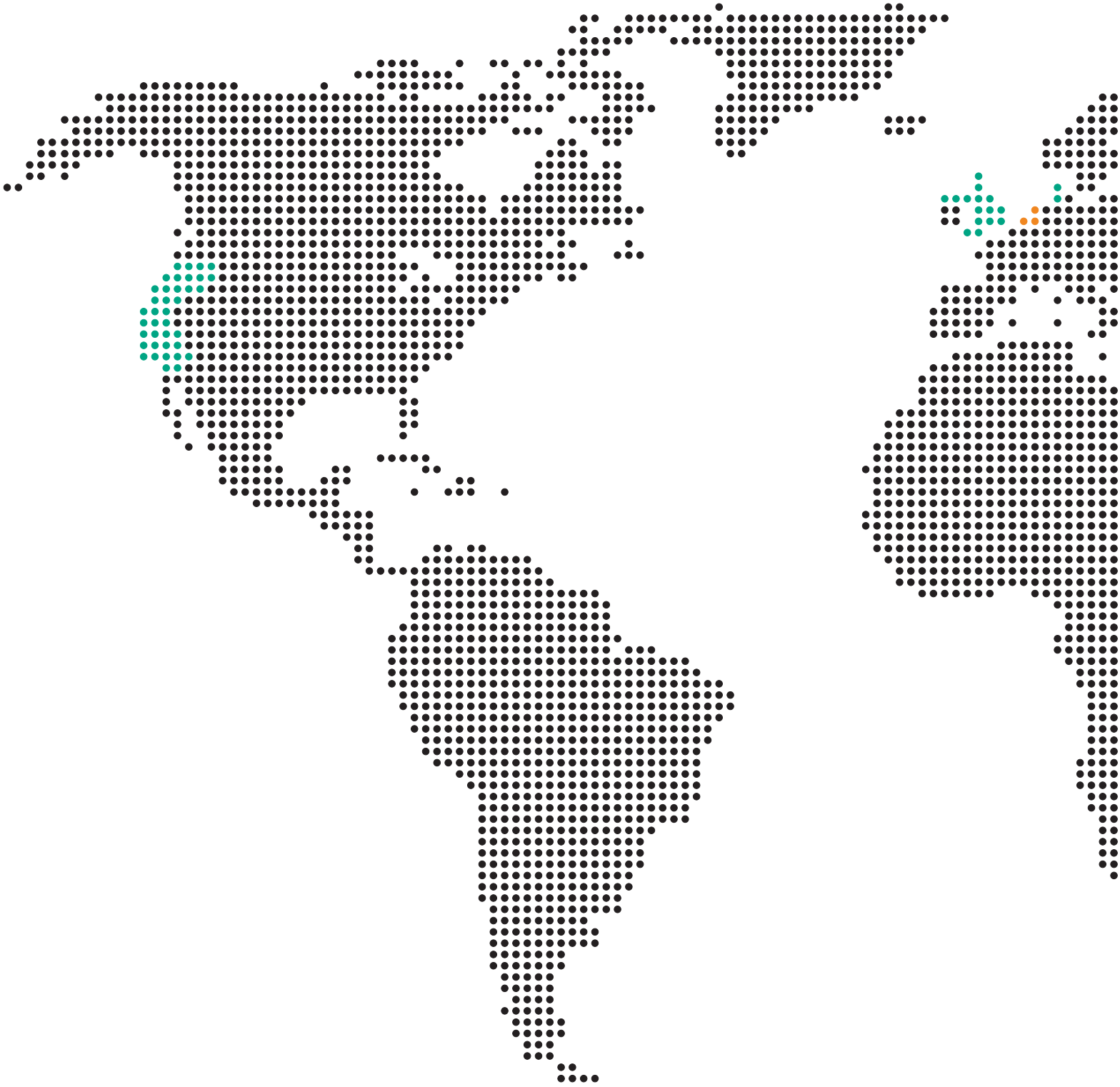
The NOVI should go into effect in 2018, this graduation project took place in an orientation phase of the project, where they are still searching for the answers of some basic questions like which purpose should it have, how it should communicate a sense of urgency and what the content should be. I have made a first proposal based purely on the objectives of the NOVI project team but once the content and the purpose becomes more clear, specific research into examples can be made to understand the specific transferability better.

I also suggest an in depth research on the proposed urgencies of migration, energy transition and climate adaptation. This includes research for the possible design solutions for the content instead of using the other locations as a starting point, but researching it from scratch from the urgencies that occur in the Dutch context.

I also recommend a specific research for the general comparison, specifically to develop a methodological research on the (planning) culture.

As mentioned earlier, an extensive literature review of product innovation and of understanding spatial planning as a whole would add more depth to the final recommendations.

Also, this method of filtering general principles and concepts provides a starting point towards further research on what a spatial strategy could contain. These general principles and concepts are partly based on NOVI's objectives in content, process and product and therefore relate to a specific type of strategy with a specific purpose. I would recommend a more objective research towards principles and concepts which can be related to different types of purposes, as I demonstrate with the influence of the key variables on the purpose. This would offer a catalogue for governments to make balanced decisions in creating a national strategy.



Appendices

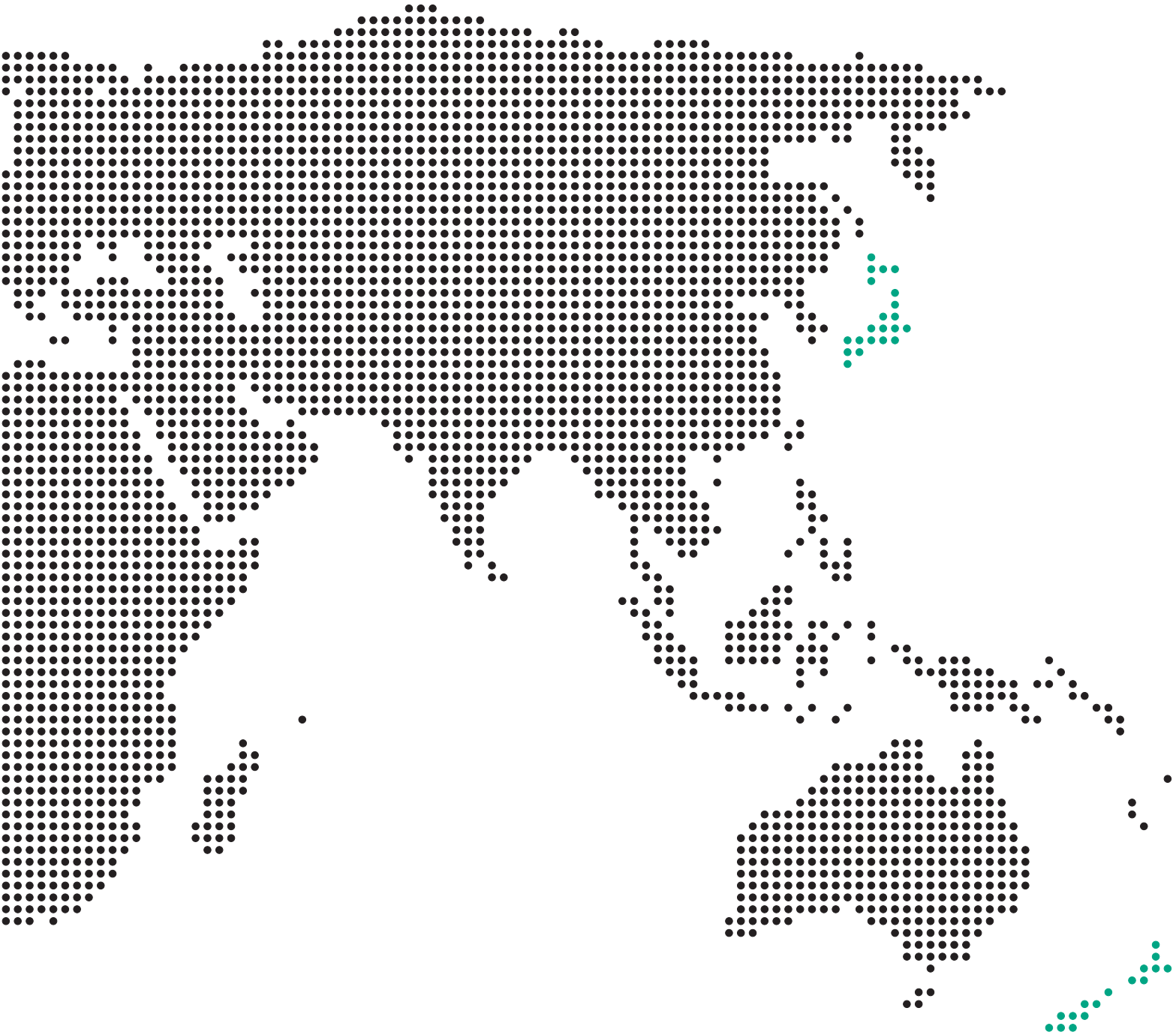
A | Location-specific analysis

B | List of figures

C | Bibliography

Shyreen Shaib

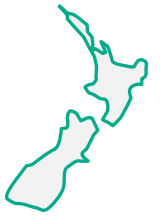
Master Thesis
13 June 2016



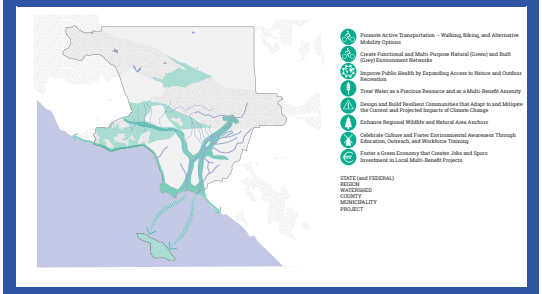
Appendix A

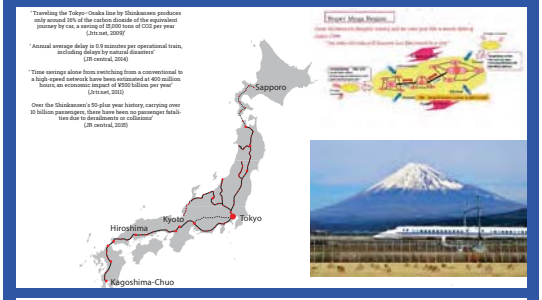
Location-specific analysis

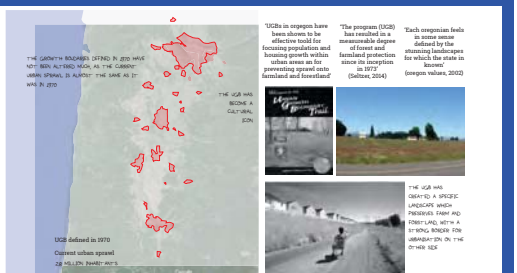
TABLE OF INNOVATIONS



CONTENT







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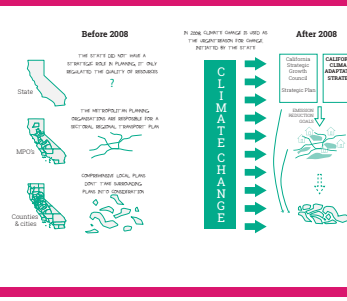
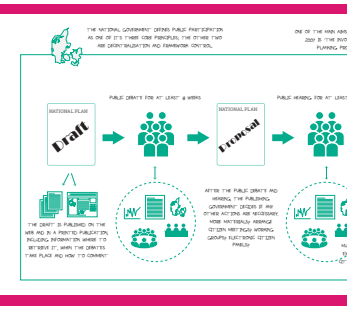
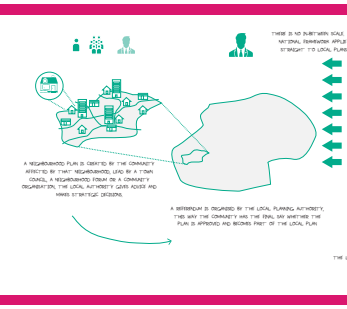
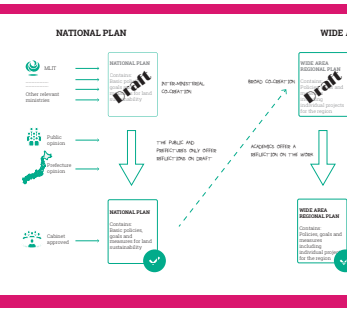
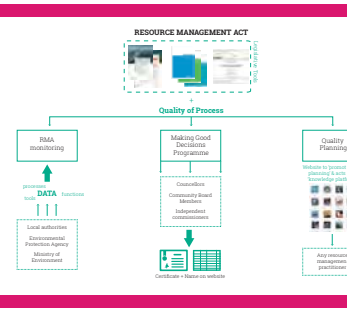
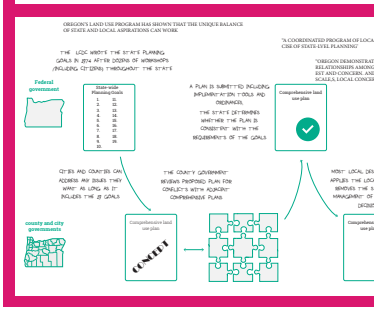


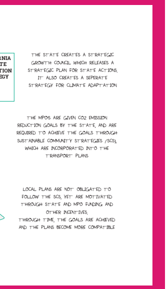
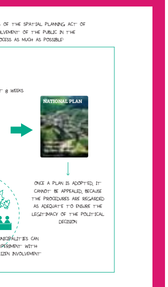
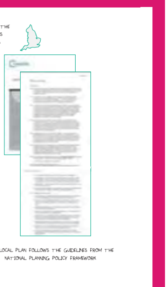
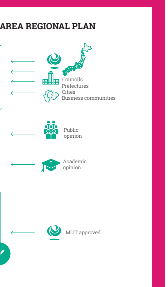


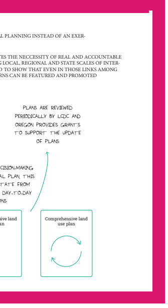




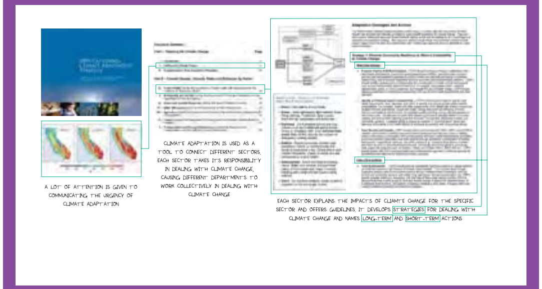
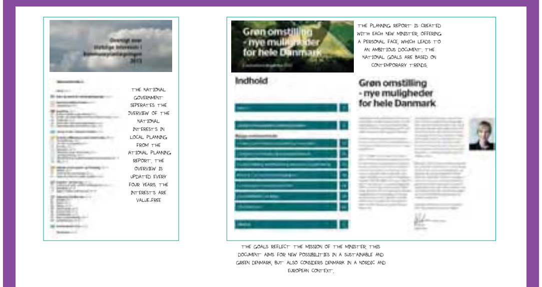
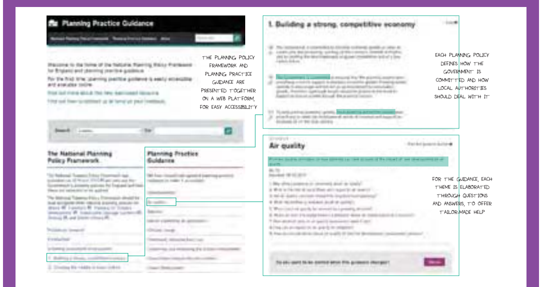


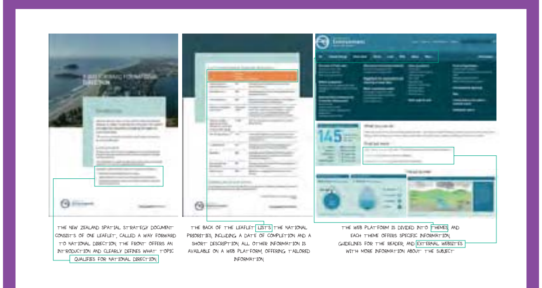
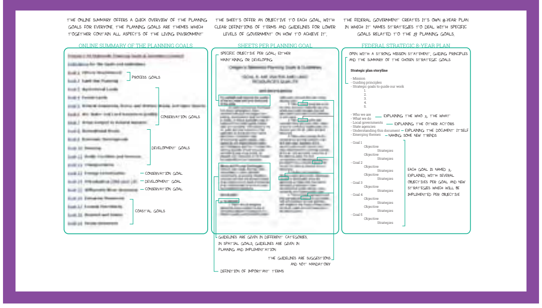


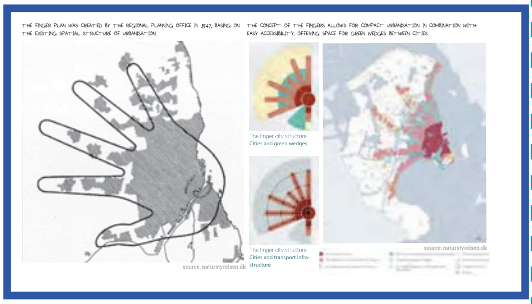
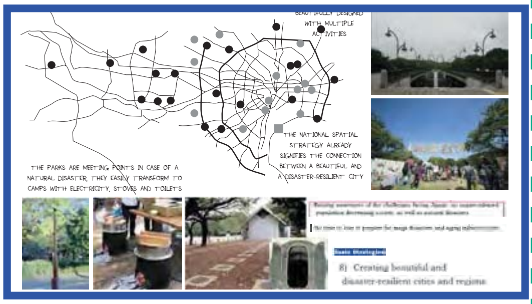


PRODUCT

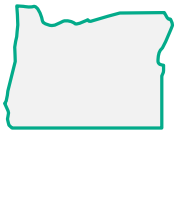




BONUS

LESSONS LEARNED



CONTENT	PROCESS
PLACE-BASED DESIGN WITH A STRONG OBJECTIVE OFFERS CHANCES FOR INTEGRATED, COMPREHENSIVE PLANS WITH MULTI-PARTICIPATORY PROJECTS AND RESPONSIBILITIES	USING A SUBSTANTIVE T CAN INDUCE CHANGE, OFFERING INCENTIVES LOWER LEVELS IS A USEFU TO ACHIEVE GOALS WIT OBLIGATION
THE NATIONAL GOVERNMENT IS A CRUCIAL ACTOR FOR A TRANSITION TO BE INITIATED AND MADE SUCCESSFUL	OFFERING CLEAR FORMA INFORMAL METHODS SUF THE PUBLIC PARTICIPAT PROCESS, AND ENCOUR CONSTANT REFLECTION INNOVATION
WHEN AIMING FOR BROAD PARTICIPATION IN A DESIGN, CITIZENS REACH OTHER CITIZENS MORE EASILY THAN THE GOVERNMENT	CITIZENS RECEIVE MO RESPONSIBILITIES AND FR BY OFFERING THEM THE A TO CO-CREATE THEIR DI LIVING ENVIRONMEN
FOCUSSING ON SPECIFIC LARGE-SCALE PROJECTS IN THE LIVING ENVIRONMENT AS A NATIONAL GOVERNMENT INDUCES SUCCESS	CO-CREATING WITH DIFF ACTORS BECOMES MO EFFICIENT WHEN DIVIDIN ACTORS BETWEEN THE S AND LEVELS OF ABSTRA
BY ALLOWING SOME ADAPTIVE CAPACITY, THE GOVERNMENT CAN ADAPT TO SUDDEN CHANGES EFFICIENTLY AND EFFECTIVELY	MAINTAINING THE GUAR FOR QUALITY OF TH PROCESS WHEN GIVING RESPONSIBILITIES IS APPROPRIATE TASK FOR NATIONAL GOVERNME
SPATIAL CONCEPTS REMAIN A USEFUL TOOL TO ACHIEVE LAND SUSTAINABILITY	OFFERING OTHER GOVERN A SIMPLE FRAMEWORK PLANNING GOALS ALLOW SAFEGUARDED FREEDOM CLEAR RESPONSIBILIT

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PRODUCT

CREATING A DOCUMENT ABOUT ONE THEME TRANSLATES THE URGENCY; AS WELL AS A CLEAR DIVISON OF TASKS PER INTEGRATED SECTOR

SEPARATING THE NATIONAL STRATEGIES FROM THE NATIONAL INTERESTS ALSO SEPARATES MINISTERIAL AMBITIONS FROM REOCCURING THEMES

OFFERING A WEB PLATFORM WITH AN OVERVIEW OF ALL INFORMATION AIDS OTHER ACTORS THROUGH GUIDES AND QUESTIONS WITH ANSWERS

USING DIFFERENT TYPES OF VISUALISATIONS CREATES A SENSE OF URGENCY WHICH CAN BE COMMUNICATED WITH A BROAD PUBLIC

CREATING A WEB PLATFORM OFFERS ACCESSIBILITY TO INTERACTIVE AND UPDATED INFORMATION. THE PRODUCT BECOMES A SUPPORT FOR THE PROCESS.

SEPARATING LONG TERM GOALS FROM SHORT TERM GOALS, AND THE FRAMEWORK FOR OTHER GOVERNMENTS FROM NATIONAL ACTIONS LEADS TO ADAPTIVE PRODUCTS

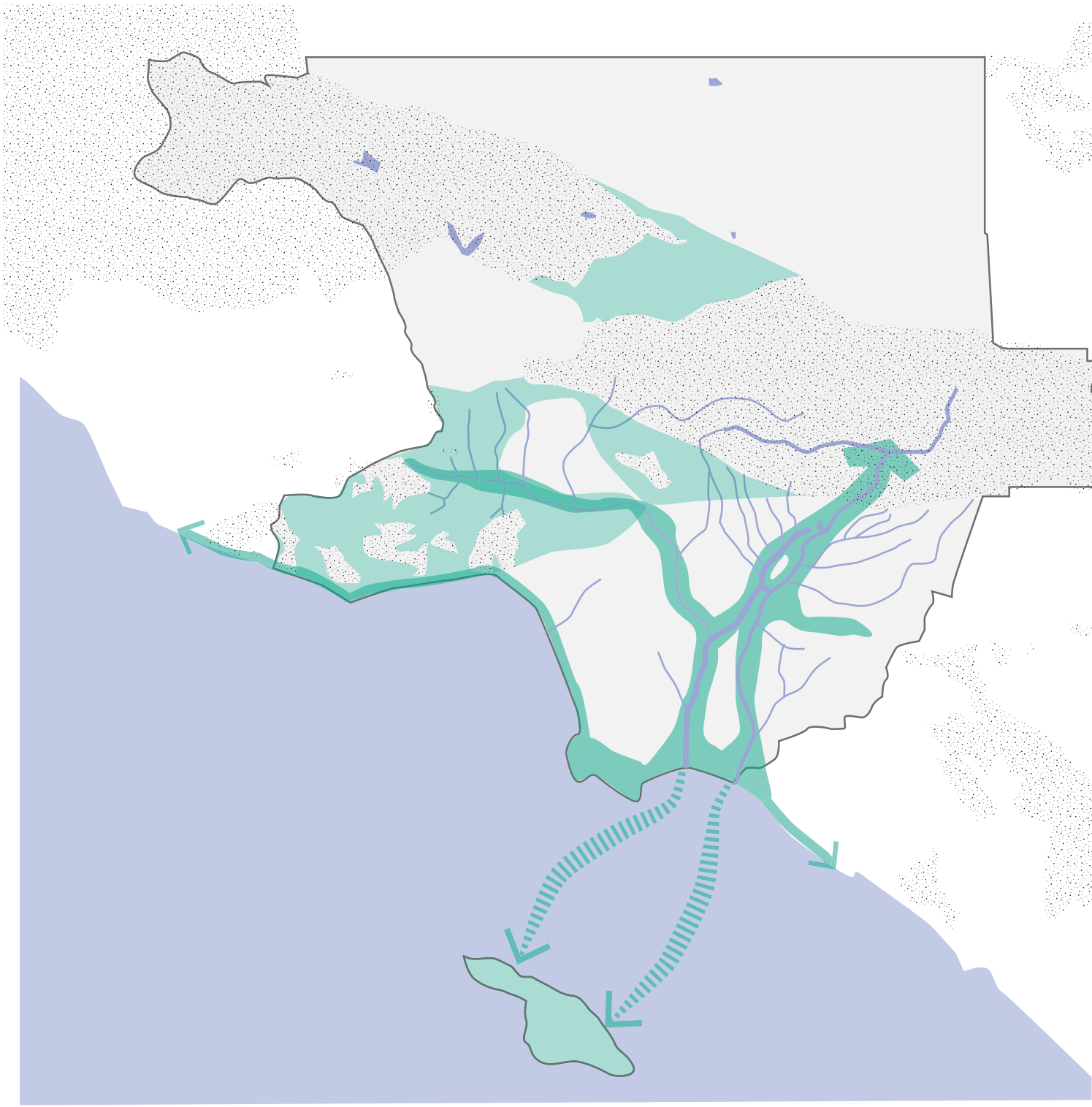
BONUS

SPATIAL URGENCIES CAN BE TACKLED BY FINDING THE POTENTIAL IN THE EXISTING SPATIAL STRUCTURE

DIFFERENT SECTORS CREATE MEANINGFUL CONNECTIONS WHEN COMBINED IN THE LIVING ENVIRONMENT THROUGH STRATEGIC PLANNING

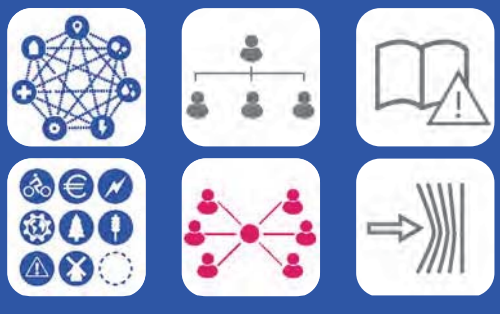
PLACE-BASED DESIGN WITH A STRONG OBJECTIVE OFFERS CHANCES FOR INTEGRATED, COMPREHENSIVE PLANS WITH MULTI-PARTICIPATORY PROJECTS AND RESPONSIBILITIES

The state works together with other actors to implement strategies spatially. The Emerald Necklace plan is an integrated plan which uses the necessary upgrading of the space to plan for benefits in multiple themes for the living environment. It is used as an opportunity for different actors and sectors to work together and to create spatial projects that upgrade the quality of life. For climate adaptation, the state uses this plan to create more green landscapes through urbanised places.



Emerald necklace plan

Content Innovation California



- Promote Active Transportation – Walking, Biking, and Alternative Mobility Options
- Create Functional and Multi-Purpose Natural (Green) and Built (Grey) Environment Networks
- Improve Public Health by Expanding Access to Nature and Outdoor Recreation
- Treat Water as a Precious Resource and as a Multi-Benefit Amenity
- Design and Build Resilient Communities that Adapt to and Mitigate the Current and Projected Impacts of Climate Change
- Enhance Regional Wildlife and Natural Area Anchors
- Celebrate Culture and Foster Environmental Awareness Through Education, Outreach, and Workforce Training
- Foster a Green Economy that Creates Jobs and Spurs Investment in Local Multi-Benefit Projects

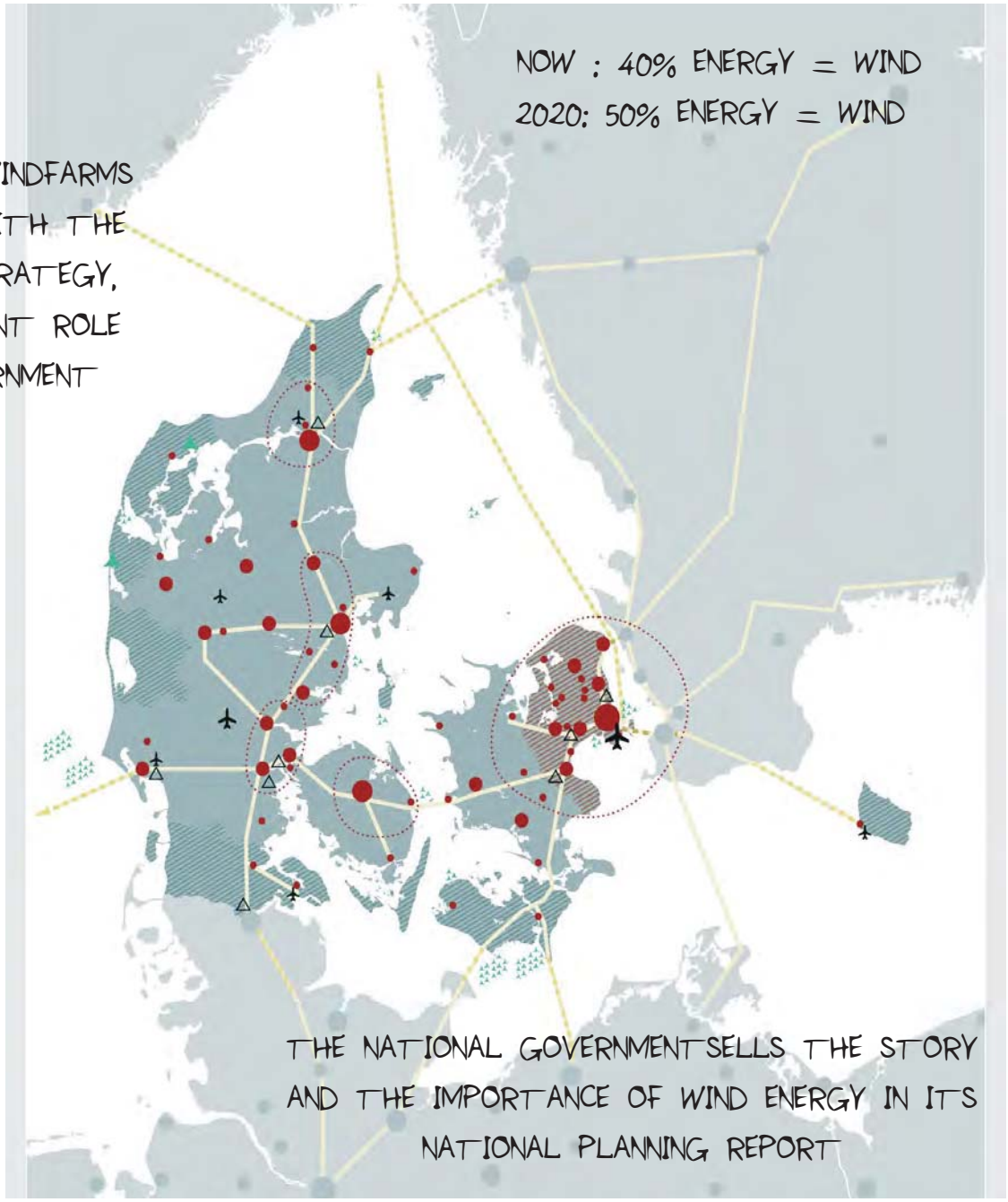
STATE (and FEDERAL)
REGION
WATERSHED
COUNTY
MUNICIPALITY
PROJECT

THE NATIONAL GOVERNMENT IS A CRUCIAL ACTOR FOR A TRANSITION TO BE INITIATED AND MADE SUCCESSFUL

The national government in Denmark has and continues to play a large role in the transition to green energy. It initiated the transition after a bold choice in 1973 to turn around their energy dependence after the oil crisis, are still profile themselves as the initiator. They continue to guide the placement of offshore wind farms and have made citizens proud of the wind turbines; it has become a part of the identity of the Danes.

Offshore wind farms

Content Innovation Denmark



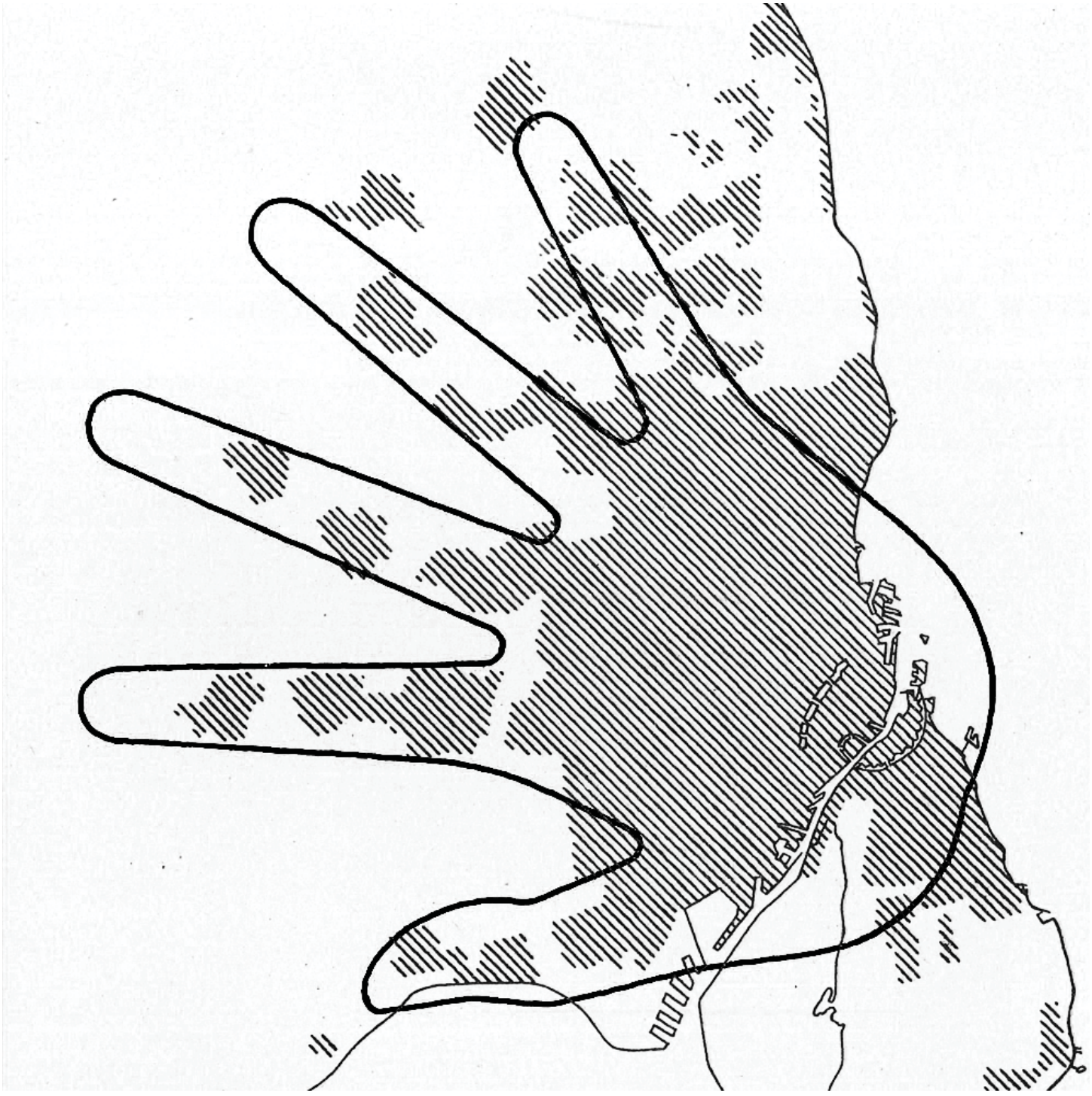
'Our aim is to be independant from fossil fuels by 2050'
'We turned around energy production after the oil crisis of 1973'
'Wind power has become a very powerful competitive renewable energy source'

(Miljoministeriet, 2014)

SPATIAL URGENCIES CAN BE TACKLED BY FINDING THE POTENTIAL IN THE EXISTING SPATIAL STRUCTURE

To tackle urban sprawl, the regional planning office of Copenhagen created the spatial concept of the Finger plan in 1947, relying on the existing spatial structure to strengthen the spatial concept. This fingerplan allowed for a differentiation between urbanised and green areas and allowed for a clear structure for accessibility. Since 2007, the national government took over the responsibility of the framework for the finger plan to allow for cohesion in the implementation.

THE FINGER PLAN WAS CREATED BY THE REGIONAL PLANNING OFFICE IN 1947, BASING ON THE EXISTING SPATIAL STRUCTURE OF URBANISATION

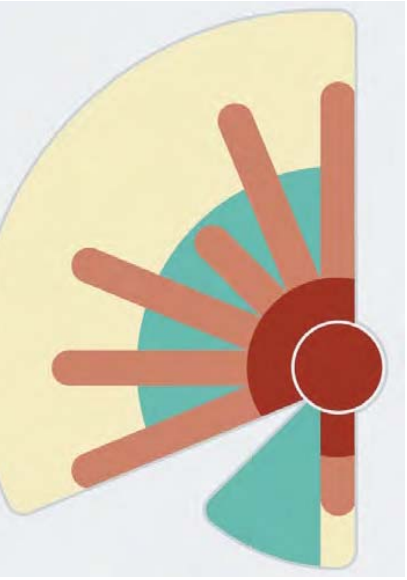


source: naturstyrelsen.dk

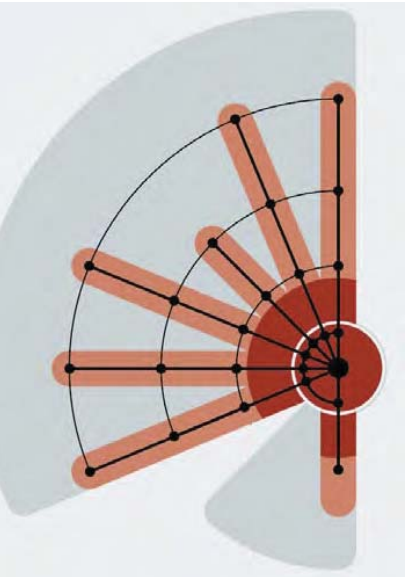
Finger plan Copenhagen

Content innovation Denmark

E CONCEPT OF THE FINGERS ALLOWS FOR COMPACT URBANISATION IN COMBINATION WITH
Y ACCESSIBILITY, OFFERING SPACE FOR GREEN WEDGES BETWEEN CITIES



e finger city structure:
ies and green wedges



e finger city structure:
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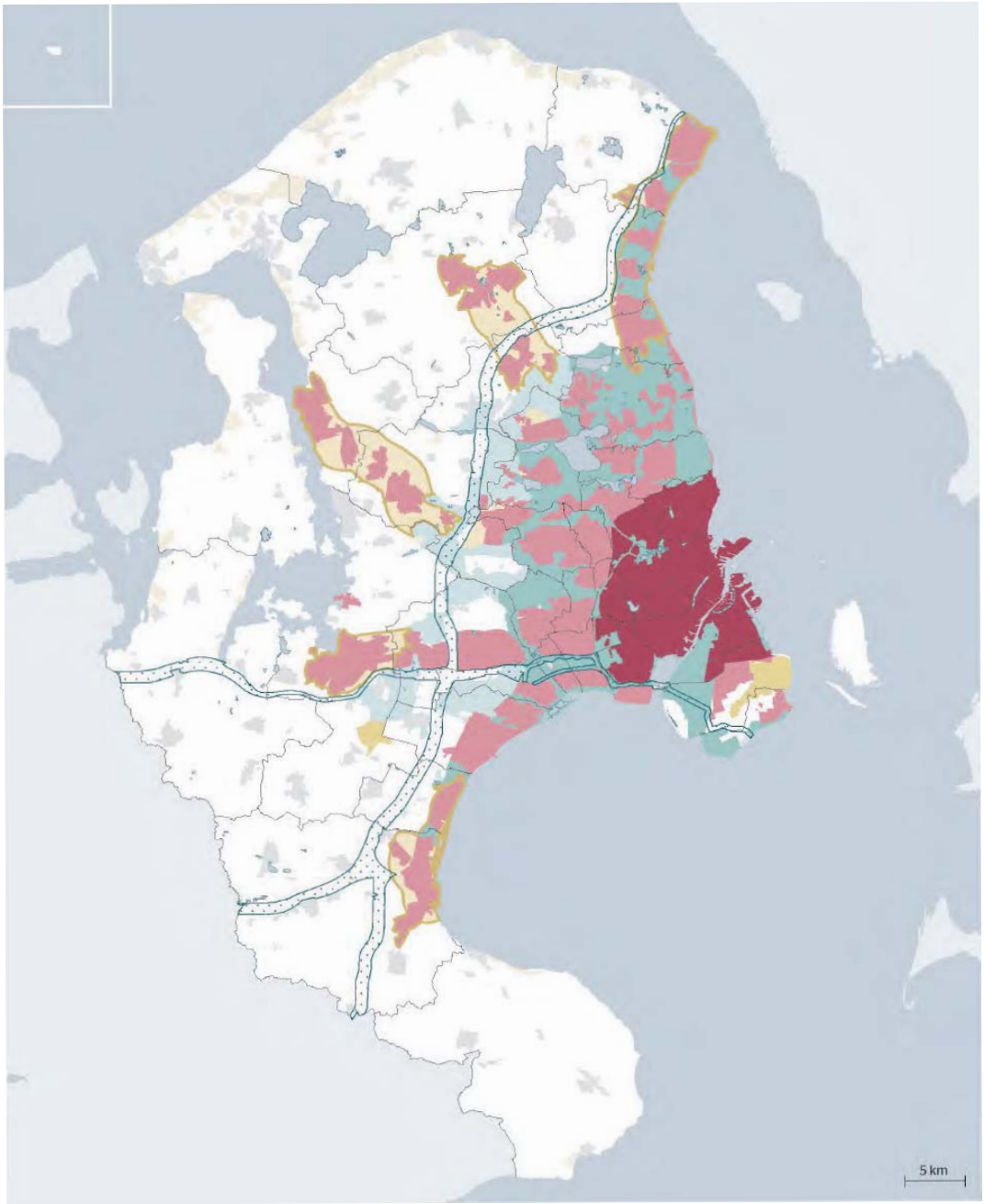
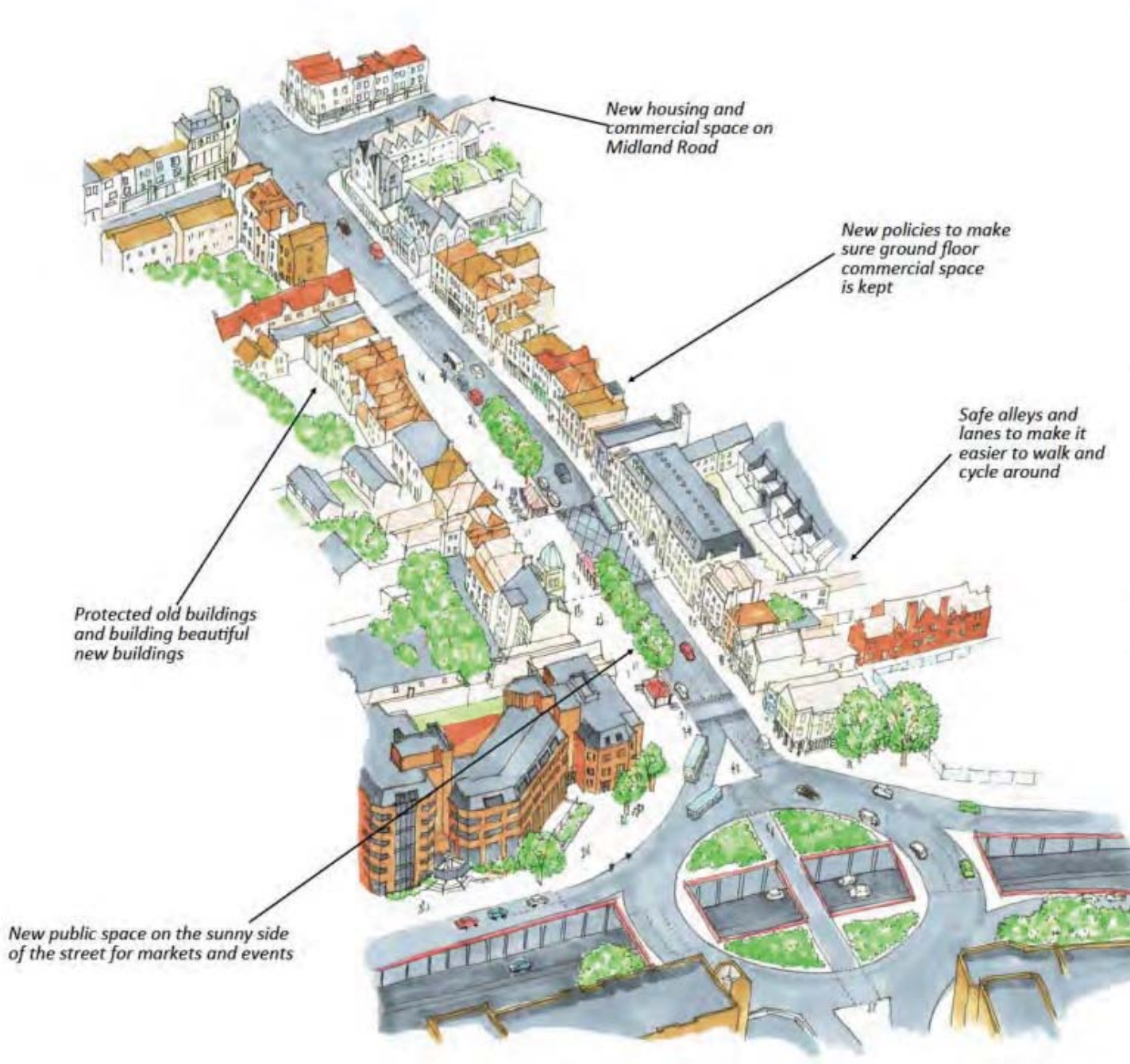


source: naturstyrelsen.dk

- The core urban region
- The peripheral urban region (the city fingers)
- The peripheral urban region (rural district)
- The core green wedges and the coastal wedges
- The peripheral green wedges
- The remaining greater Copenhagen area (urban area)
- The remaining greater
- The remaining greater
- Transport corridor
- Airports

WHEN AIMING FOR BROAD PARTICIPATION IN A DESIGN, CITIZENS REACH OTHER CITIZENS MORE EASILY THAN THE GOVERNMENT

The national government introduced the concept of Neighbourhood Planning with the Localism Act of 2011, as an attempt to bring the design of the living environment to those who are most affected by it. Public participation is difficult to achieve, especially on national or regional level, due to the gap between government and the public. Neighbourhood Planning is an innovative method to allow for experimentation with public participation and using the local energy of the citizens.



Old Market Bristol

Content Innovation England

THE OLD MARKET SQUARE IN BRISTOL IS REDESIGNED THROUGH A NEIGHBOURHOOD PLAN. ACTIVE CITIZENS WANTED A DESIGN CREATED BY BROAD PARTICIPATION SO THEY STARTED TO EXPERIMENT WITH DIFFERENT TYPES OF PUBLIC PARTICIPATION.

FOCUSSING ON SPECIFIC LARGE-SCALE PROJECTS IN THE LIVING ENVIRONMENT AS A NATIONAL GOVERNMENT INDUCES SUCCESS

The Japanese government argues the importance of 'Super-Mega-Regions' in its national strategy, to achieve a strong economic spatial structure, where mega cities feel like a metro trip away. It has taken responsibility for the Shinkansen (bullet train) since the start, and has turned it into a successful national project, with multiple economic, cultural, a safety benefits. It has become part of the Japanese identity, and continues to expand its network.

' Traveling the Tokyo–Osaka line by Shinkansen produces only around 16% of the carbon dioxide of the equivalent journey by car, a saving of 15,000 tons of CO2 per year (Jrtr.net, 2009)'

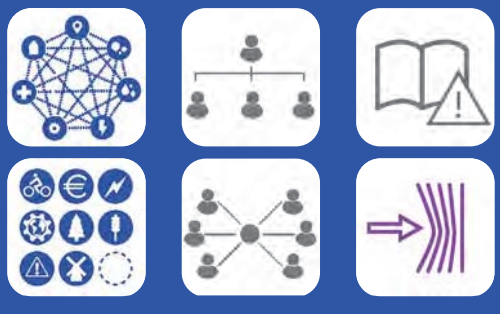
' Annual average delay is 0.9 minutes per operational train, including delays by natural disasters' (JR central, 2014)

' Time savings alone from switching from a conventional to a high-speed network have been estimated at 400 million hours, an economic impact of ¥500 billion per year' (Jrtr.net, 2011)

Over the Shinkansen's 50-plus year history, carrying over 10 billion passengers, there have been no passenger fatalities due to derailments or collisions' (JR central, 2015)

Shinkansen trains

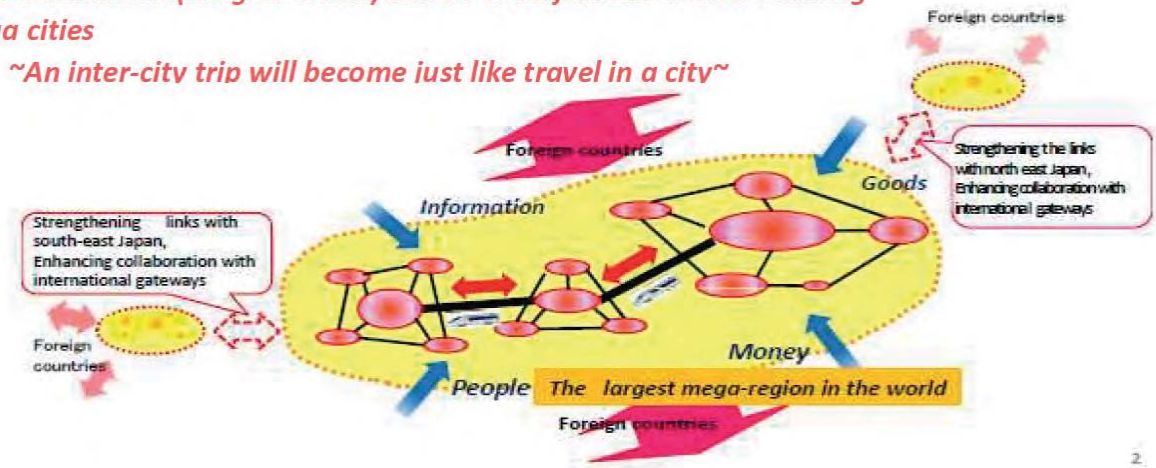
Content Innovation Japan



Super Mega Region

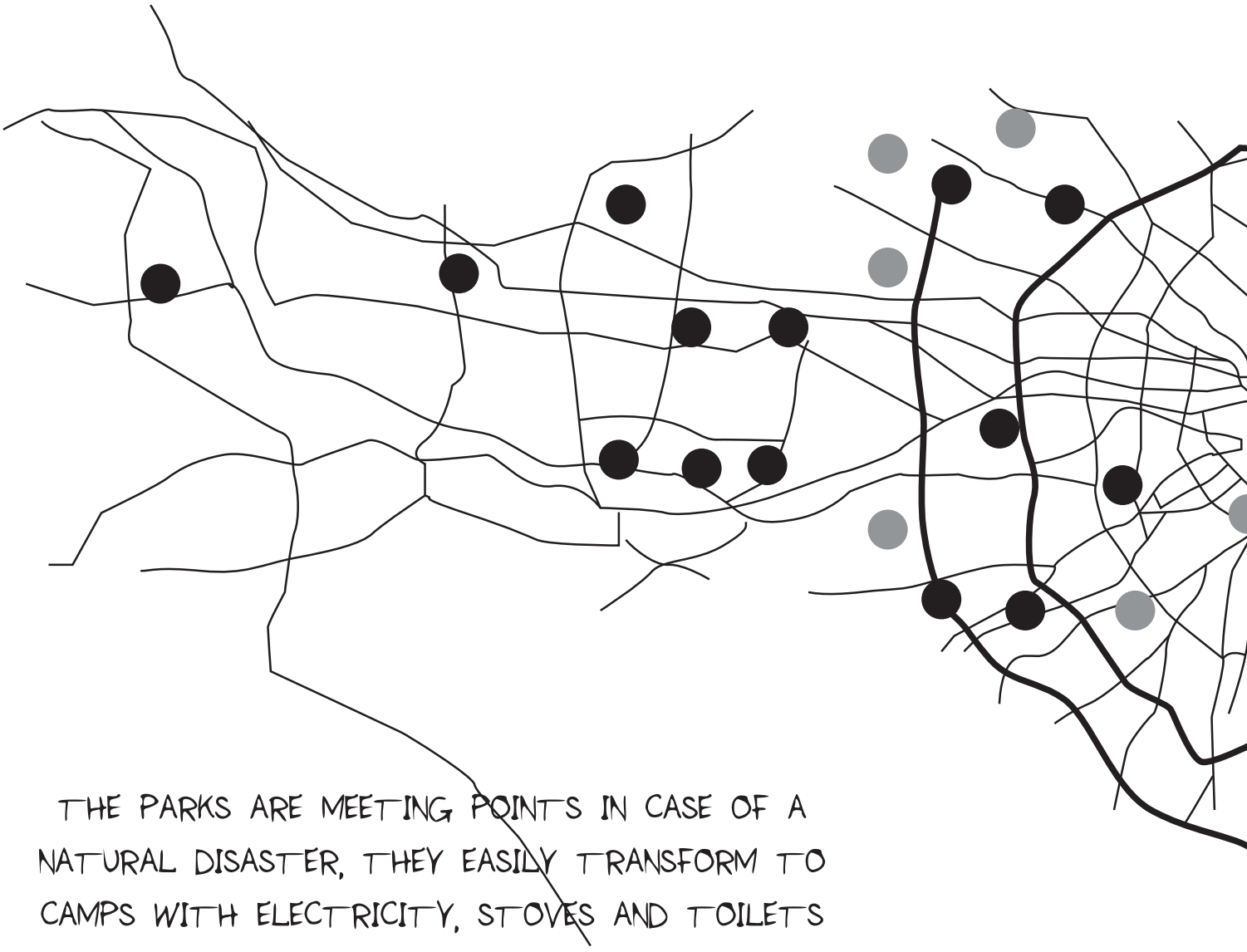
Chuo Shinkansen (Maglev trains) will be used just like a metro linking mega cities

~An inter-city trip will become just like travel in a city~



DIFFERENT SECTORS CREATE MEANINGFUL CONNECTIONS WHEN COMBINED IN THE LIVING ENVIRONMENT THROUGH STRATEGIC PLANNING

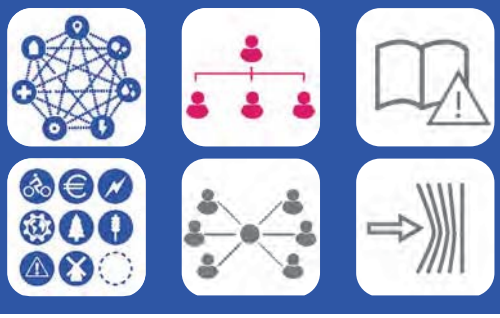
The national government of Japan names natural disasters as one of the two main challenges for the 21st century. In the national spatial strategy, one of the basic strategies is defined as 'Creating beautiful and disaster-resilient cities and regions'. In the metropolitan area of Tokyo, this basic strategy has translated to 'disaster parks', which are parks that add liveability and recreation to the region, but are also meeting points in times of disasters, with hidden facilities like stoves, electricity and toilets



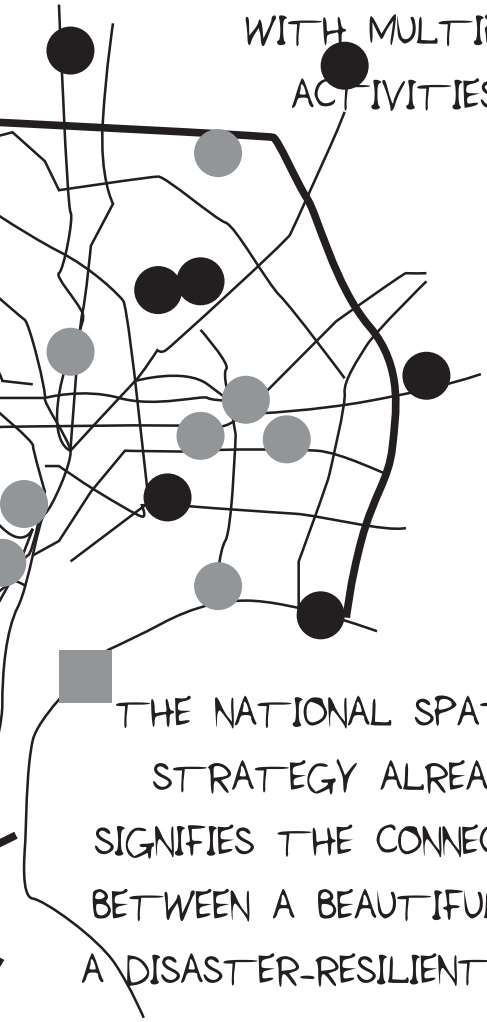
THE PARKS ARE MEETING POINTS IN CASE OF A NATURAL DISASTER, THEY EASILY TRANSFORM TO CAMPS WITH ELECTRICITY, STOVES AND TOILETS

Disaster parks

Content Innovation Japan



THE PARKS ARE BEAUTIFULLY DESIGNED WITH MULTIPLE ACTIVITIES



THE NATIONAL SPATIAL STRATEGY ALREADY SIGNIFIES THE CONNECTION BETWEEN A BEAUTIFUL AND A DISASTER-RESILIENT CITY

- Raising awareness of the challenges facing Japan: an unprecedented population decreasing society, as well as natural disasters

-No time to lose to prepare for mega disasters and aging infrastructure

Basic Strategies

8) Creating beautiful and disaster-resilient cities and regions

ALLOWING FOR SITUATION-BASED CHOICES INCREASES THE ADAPTIVE CAPACITY OF THE NATIONAL GOVERNMENT AND SYNERGY WITH COMMUNITY ORGANISATIONS

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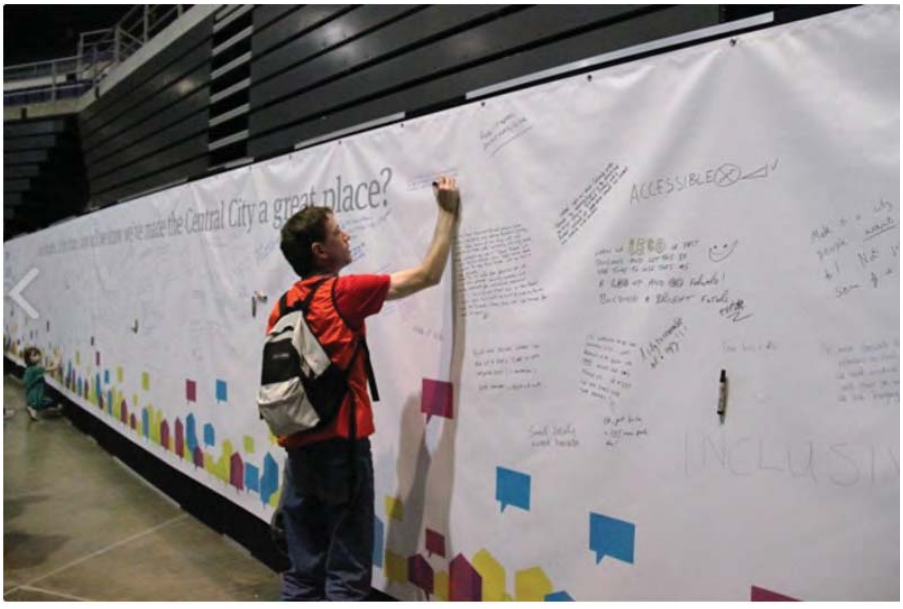
'The government's response was to establish a single body, the Canterbury Earthquake Recovery Authority (Cera). It was solely responsible for managing the rebuild. "If you look around the world at cities which have experienced disasters, it is single-purpose organisations that are the most efficient," said Cera's chief executive, Roger Sutton. This one was tasked with managing the complete project – from the demolition of commercial buildings and residential homes to planning the next phase of rebuilding.'

theguardian.com

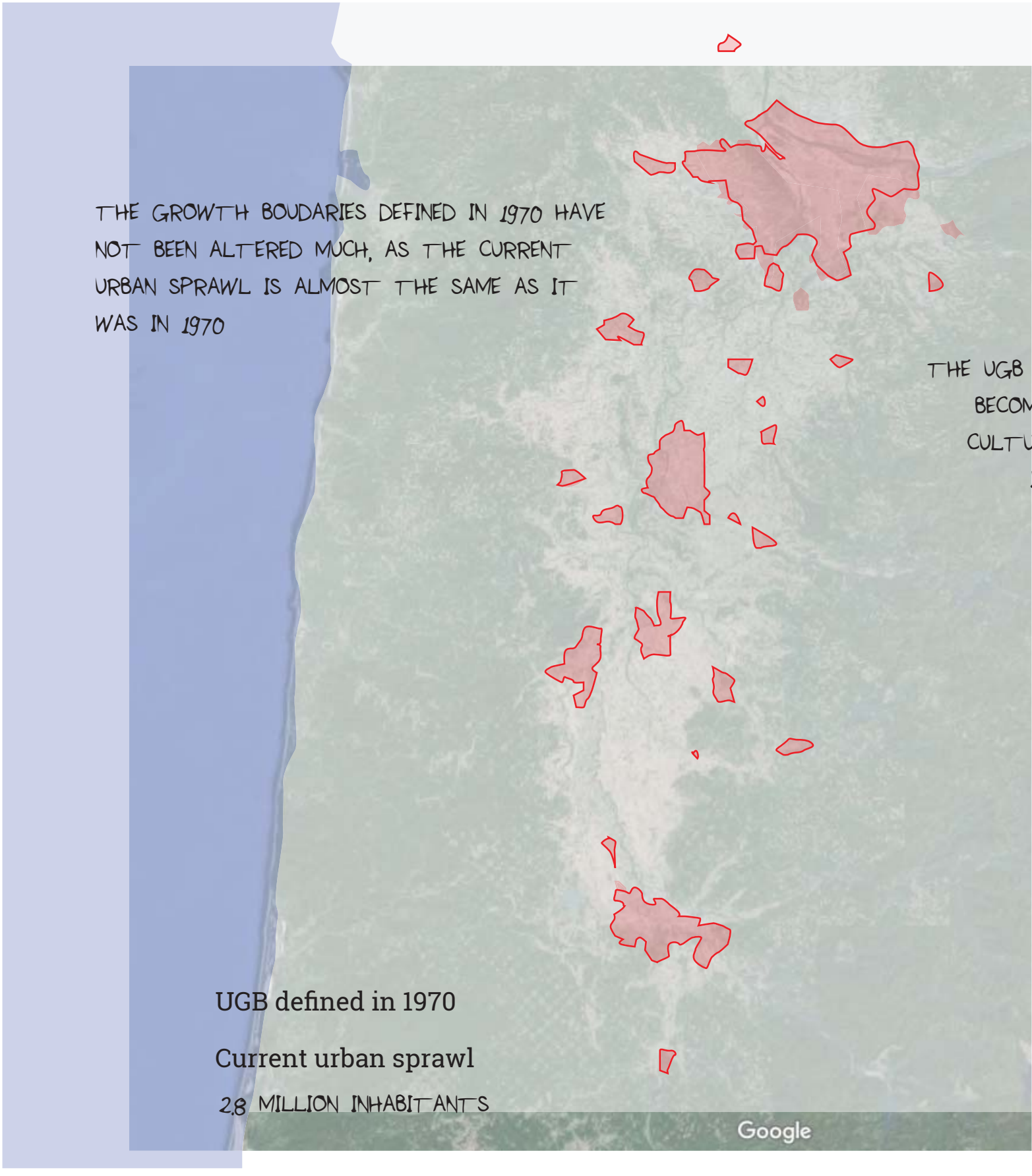


Rebuilding Christchurch

Content Innovation New Zealand

SPATIAL CONCEPTS REMAIN A USEFUL TOOL TO ACHIEVE LAND SUSTAINABILITY

Oregon has a large appreciation for its landscape, which had the state creating measures against urban sprawl early on. The Urban Growth Boundaries (UGB's) were introduced in 1973 to conserve the landscape and achieve land sustainability through concentration of urbanisation. Almost 50 years later, the UGB's have shown measurable success, and has become part of the identity of the Oregonian landscape, offering recreational walking trails.



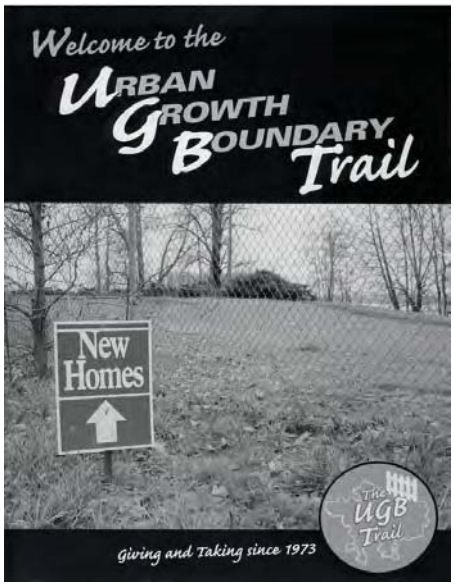
Urban Growth Boundaries

Content Innovation Oregon

'UGBs in orgegon have been shown to be effective toold for focusing population and housing growth within urban areas an for preventing sprawl onto farmland and forestland'

'The program (UGB) has resulted in a measureable degree of forest and farmland protection since its inception in 1973'
(Seltzer, 2014)

'Each oregonian feels in some sense defined by the stunning landscapes for which the state in known'
(oregon values, 2002)



THE UGB HAS CREATED A SPECIFIC LANDSCAPE WHICH PRESERVES FARM AND FORSTLAND, WITH A STRONG BORDER FOR URBANISATION ON THE OTHER SIDE

USING A SUBSTANTIVE THEME CAN INDUCE CHANGE, AND OFFERING INCENTIVES FOR LOWER LEVELS IS A USEFUL TOOL ACHIEVE GOALS WITHOUT OBLIGATION

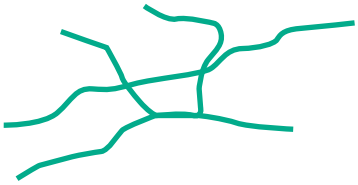
California has always been driven by fragmented local plans, which where not obligated to take surrounding plans into account. MPO's created a transport plan, and the State did not have an active role. In 2008, the State used the urgency of climate change to create an action plan, and give MPO's CO_2 emission reduction goals, through 'sustainable community plans'. They are not legally binding for local plans, but are made attractive through state-level and MPO incentives.

Before 2008

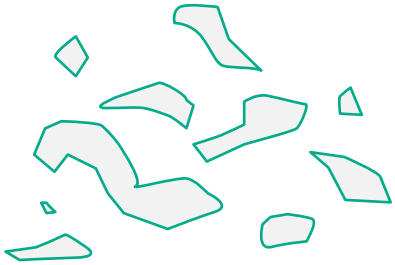
THE STATE DID NOT HAVE A STRATEGIC ROLE IN PLANNING, IT ONLY REGULATED THE QUALITY OF RESOURCES

?

THE METROPOLITAN PLANNING ORGANISATIONS ARE RESPOSIBLE FOR A SECTORAL REGIONAL TRANSPORT PLAN



COMPREHENSIVE LOCAL PLANS DONT TAKE SURROUNDING PLANS INTO CONSIDERATION



IN 2008, CLIMATE CHANG
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CLIMATE CHANGE

Climate adaptation

Process Innovation California

GE IS USED AS
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STATE

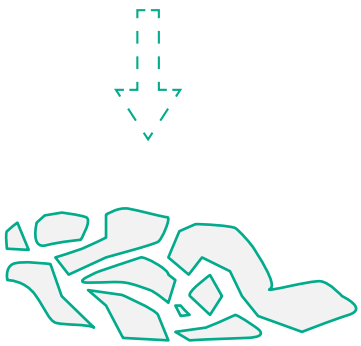
After 2008

California Strategic Growth Council

Strategic Plan

CALIFORNIA CLIMATE ADAPTATION STRATEGY

EMISSION REDUCTION GOALS



THE STATE CREATES A STRATEGIC GROWTH COUNCIL WHICH RELEASES A STRATEGIC PLAN FOR STATE ACTIONS. IT ALSO CREATES A SEPERATE STRATEGY FOR CLIMATE ADAPTATION

THE MPO'S ARE GIVEN CO_2 EMISSION REDUCTION GOALS BY THE STATE, AND ARE REQUIRED TO ACHIEVE THE GOALS THROUGH SUSTAINABLE COMMUNITY STRATEGIES (SCS), WHICH ARE INCORPORATED INTO THE TRANSPORT PLANS

LOCAL PLANS ARE NOT OBLIGATED TO FOLLOW THE SCS, YET ARE MOTIVATED THROUGH STATE AND MPO FUNDING AND OTHER INCENTIVES.
THROUGH TIME, THE GOALS ARE ACHIEVED AND THE PLANS BECOME MORE COMPATIBLE

OFFERING CLEAR FORMAL AND INFORMAL METHODS SUPPORTS THE PUBLIC PARTICIPATION PROCESS, AND ENCOURAGES CONSTANT REFLECTION AND INNOVATION

Denmark has made public participation one of it's core principles. It frames it as such in the National Planning Report, and has been added to the planning process in the Spatial Planning Act of 2007. Planning drafts should offer a clear overview on how the public can read, comment, and object on the draft, and governments are encouraged to innovate in methods of public participation. Governments are required to reflect on the methods and materials created after each public debate or hearing.

THE NATIONAL GOVERNMENT DEFINES PUBLIC PARTICIPATION AS ONE OF ITS THREE CORE PRINCIPLES: THE OTHER TWO ARE DECENTRALISATION AND FRAMEWORK CONTROL.

PUBLIC DEBATE FOR AT LEAST 8 WEEKS

NATIONAL PLAN

Draft

NATIONAL

Propo

THE DRAFT IS PUBLISHED ON THE WEB AND IN A PRINTED PUBLICATION, INCLUDING INFORMATION WHERE TO RETRIEVE IT, WHEN THE DEBATES TAKE PLACE AND HOW TO COMMENT

AFTER THE PUBL
HEARING, THE
GOVERNMENT D
OTHER ACTIONS
MORE MATERIA
CITIZEN MEETIN
GROUPS? ELECT
PANEL

Public participation

Process Innovation Denmark

ONE OF THE MAIN AIMS OF THE SPATIAL PLANNING ACT OF 2007 IS 'THE INVOLVEMENT OF THE PUBLIC IN THE PLANNING PROCESS AS MUCH AS POSSIBLE'

PUBLIC HEARING FOR AT LEAST 8 WEEKS

PLAN

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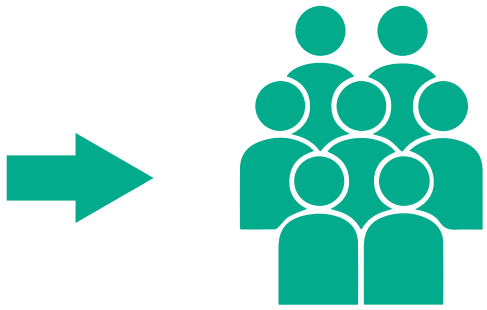

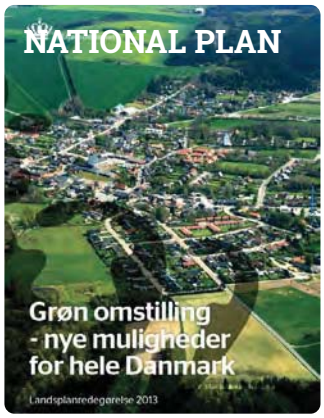

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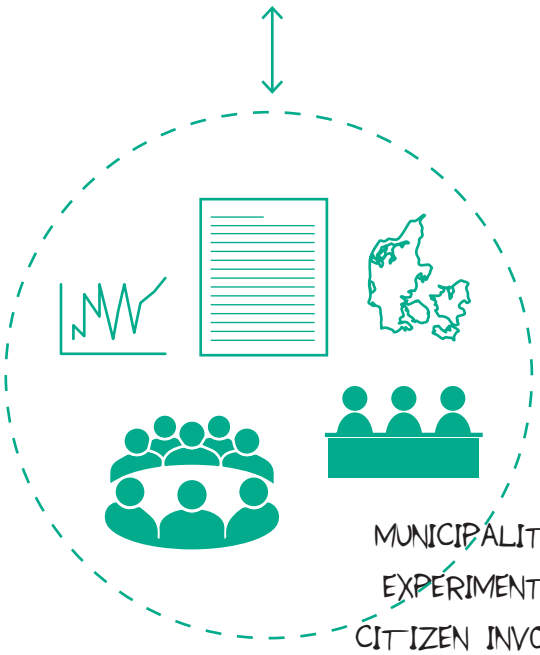


MUNICIPALITIES CAN EXPERIMENT WITH CITIZEN INVOLVEMENT

ONCE A PLAN IS ADOPTED, IT CANNOT BE APPEALED, BECAUSE THE PROCEDURES ARE REGARDED AS ADEQUATE TO ENSURE THE LEGITIMACY OF THE POLITICAL DECISION

CITIZENS RECEIVE MORE RESPONSIBILITIES AND FREEDOM BY OFFERING THEM THE ABILITY TO CO-CREATE THEIR DIRECT LIVING ENVIRONMENT

In England, the Localism Act of 2011 has given citizens the right to create their own neighbourhood plan, giving them power to influence their own direct living environment. Once the neighbourhood plan is created, a referendum decided whether it becomes part of the local plan, giving the community the final say. This puts trust in the citizens as well as freedom, which are guarded by the elected councils, through the National Planning Policy Framework.

A NEIGHBOURHOOD PLAN IS CREATED BY THE COMMUNITY AFFECTED BY THAT NEIGHBOURHOOD, LEAD BY A TOWN COUNCIL, A NEIGHBOURHOOD FORUM OR A COMMUNITY ORGANISATION. THE LOCAL AUTHORITY GIVES ADVICE AND MAKES STRATEGIC DECISIONS.

A REFERENDUM IS ORGANISED BY

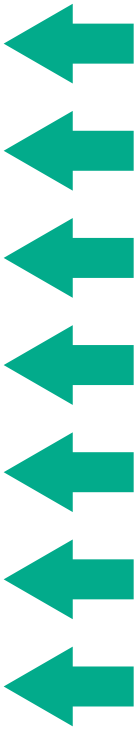
THIS WAY THE COMMUNITY HA

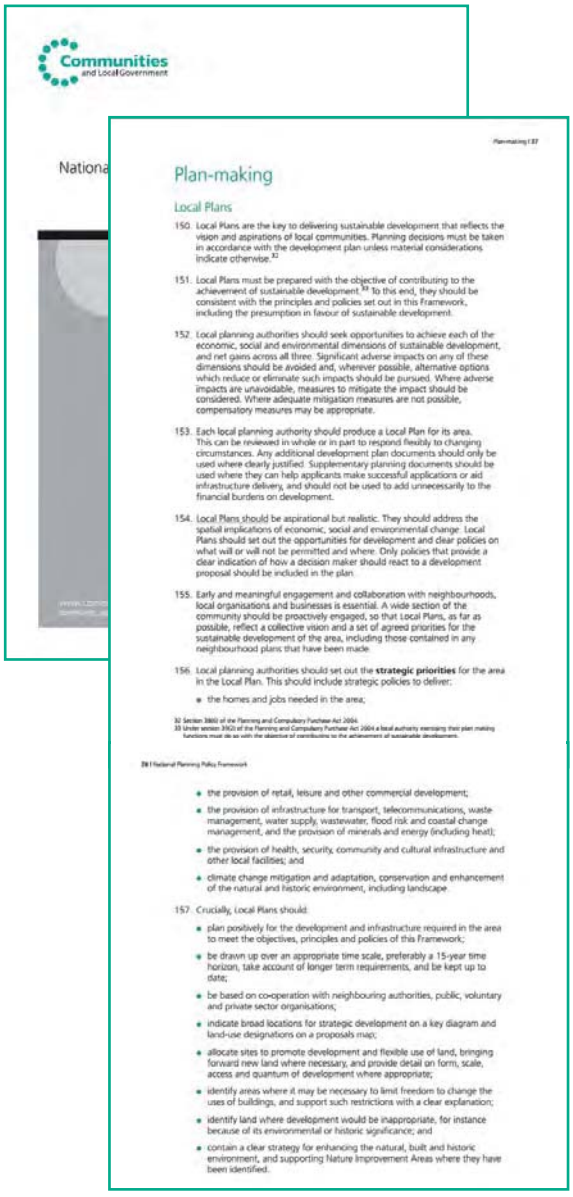
PLAN IS APPROVED AND BECO

Neighbourhood Planning

Process Innovation England

THERE IS NO IN-BETWEEN SCALE. THE NATIONAL FRAMEWORK APPLIES STRAIGHT TO LOCAL PLANS





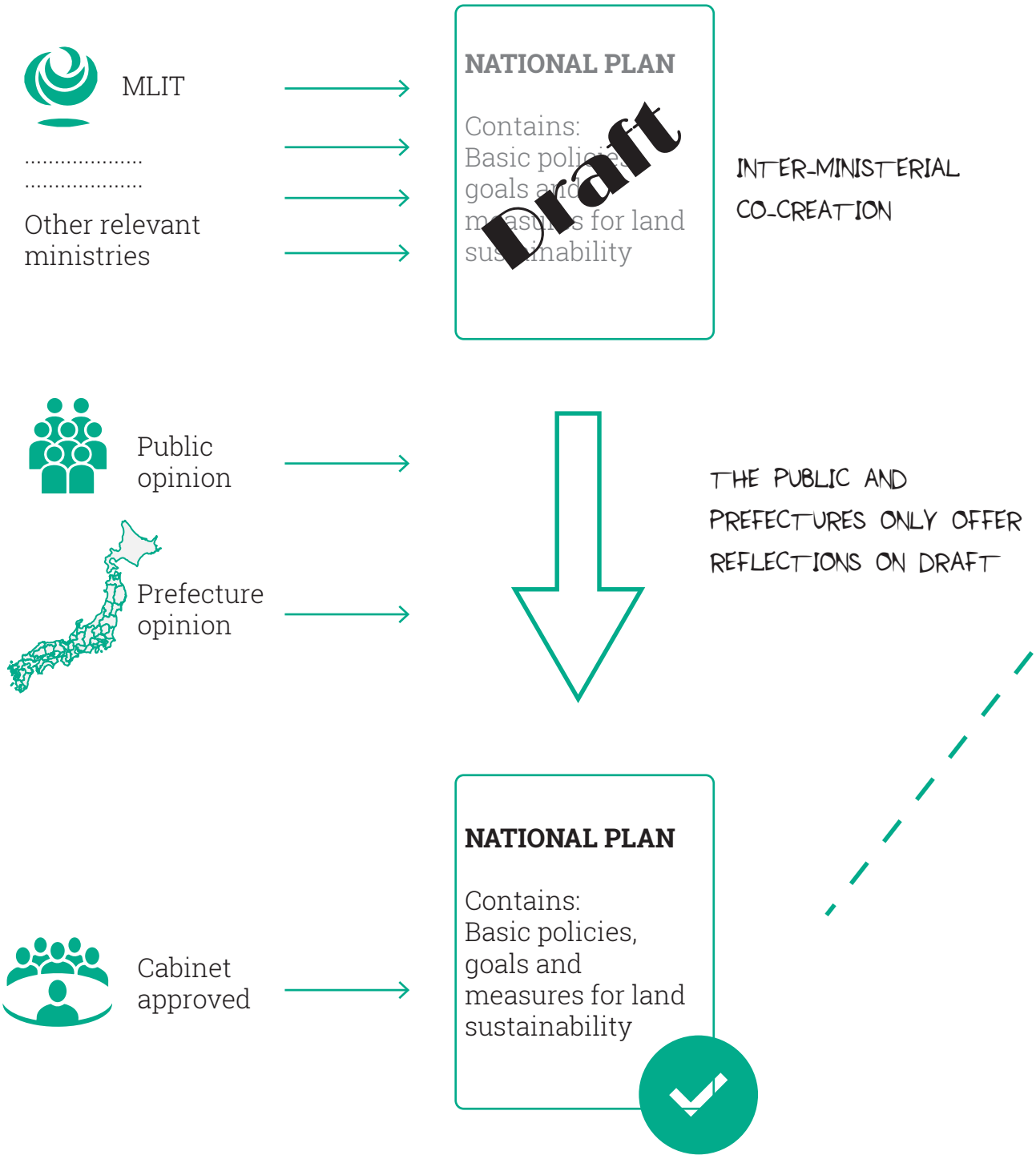
THE LOCAL PLANNING AUTHORITY, AS THE FINAL SAY WHETHER THE MES PART OF THE LOCAL PLAN

THE LOCAL PLAN FOLLOWS THE GUIDELINES FROM THE NATIONAL PLANNING POLICY FRAMEWORK

CO-CREATING WITH DIFFERENT ACTORS BECOMES MORE EFFICIENT WHEN DIVIDING THE ACTORS BETWEEN THE SCALES AND LEVELS OF ABSTRACTION

The national government of Japan organises a national plan with basic policies, goals and measures for land sustainability. This plan is co-created with all relevant ministeries concerning the living environment, with reflection of the public and prefectures. Once the basic plan is elaborated in a wide area regional plan, all relevant stakeholders join. This way, the co-creation process is split up to be more efficient, and to involve the right stakeholders when necessary.

NATIONAL PLAN



Product Co-creation

Process Innovation Japan

WIDE AREA REGIONAL PLAN

BROAD CO-CREATION

ACADEMICS OFFER A REFLECTION ON THE WORK

WIDE AREA REGIONAL PLAN

Draft

Contains:
Policies, goals and measures including individual projects for the region

Councils
Prefectures
Cities
Business communities

Public opinion

Academic opinion

WIDE AREA REGIONAL PLAN

Contains:
Policies, goals and measures including individual projects for the region

MLIT approved

MAINTAINING THE GUARANTEE FOR QUALITY OF THE PROCESS WHEN GIVING AWAY RESPONSIBILITIES IS AN APPROPRIATE TASK FOR THE NAITONAL GOVERNMENT

The New Zealand government has decentralised all substantial tasks for the living environment, yet keeps the responsibility of maintaining good quality. It realises that task by three different tools: A monitoring system, a 'Making Good Decisions' programme, and a website for quality planning. The monitoring system collects data to check quantative information, while the programme and the website offer qualatitive measures for making good (planning) decisions.

+

Quality of Process

RMA monitoring

processes

tools **DATA** functions

Local authorities

Environmental Protection Agency

Ministry of Environment

Making Good Decisions Programme

Councellors

Community Board Members

Independent commissioners

Certificate + Name on website

Quality management

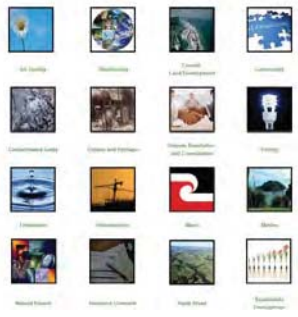
Process Innovation New Zealand

CT

Legislative Tools

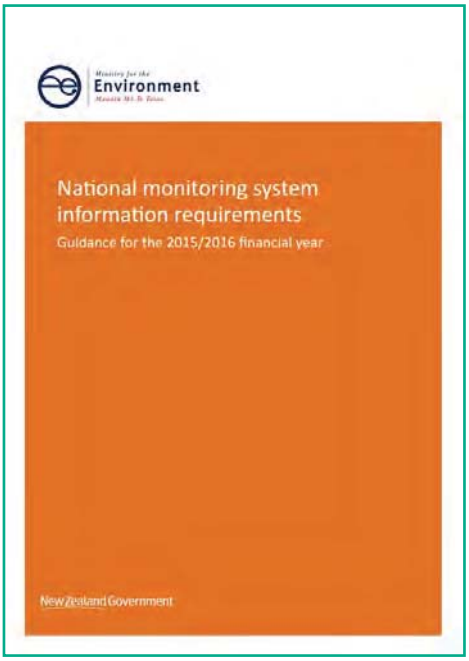
Quality Planning

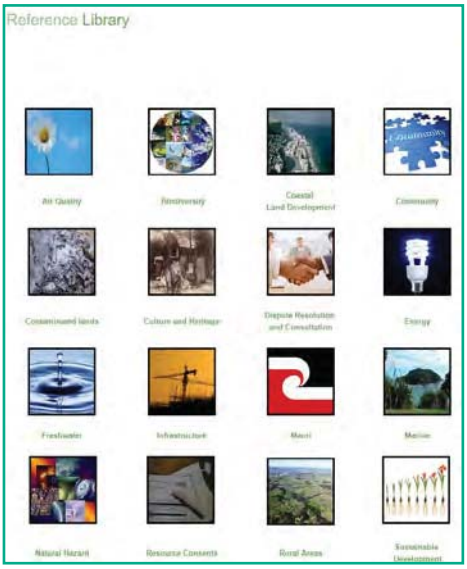
Website to 'promote good planning' & acts as a 'knowledge platform'



Reference library

Any resource management practitioner





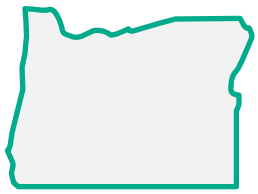
OFFERING OTHER GOVERNMENTS A SIMPLE FRAMEWORK OF PLANNING GOALS ALLOWS FOR SAFEGUARDED FREEDOMS WITH CLEAR RESPONSIBILITIES

The planning system in Oregon is a direct relation between state and local level. The counties and cities create comprehensive land use plans, which can contain anything they desire, as long as it includes the 19 state-wide planning goals which the State of Oregon has defined.They have the responsibility to make the plan correspond with the surrounding plans, and the State determines whether it is consistent with the requirements. This offers a lot of freedoms and responsibilities to the local level.

OREGON'S LAND USE PROGRAM HAS SHOWN THAT THE UNIQUE BALANCE OF STATE AND LOCAL ASPIRATIONS CAN WORK

THE LCDC WROTE THE STATE PLANNING GOALS IN 1974 AFTER DOZENS OF WORKSHOPS (INCLUDING CITIZENS) THROUGHOUT THE STATE

Federal government



State-wide Planning Goals

1.	11.
2.	12.
3.	13.
4.	14.
5.	15.
6.	16.
7.	17.
8.	18.
9.	19.
10.	

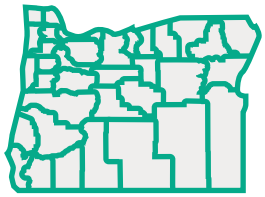
A PLAN IS SUBMITTED INCLUDIN IMPLEMENTATION TOOLS AND ORDINANCES.

THE STATE DETERMINES WHETHER THE PLAN IS CONSISTENT WITH THE REQUIREMENTS OF THE GOALS

CITIES AND COUNTIES CAN ADDRESS ANY ISSUES THEY WANT AS LONG AS IT INCLUDES THE 19 GOALS

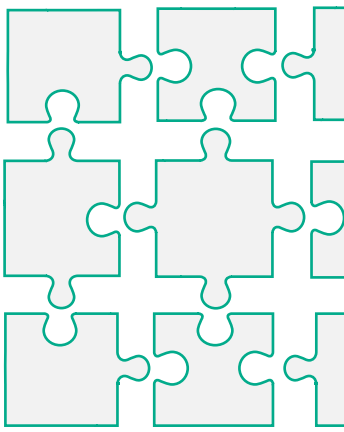
THE COUNTY GOVERNMENT REVIEWS PROPOSED PLAN FOR CONFLICTS WITH ADJACENT COMPREHENSIVE PLANS

county and city governments



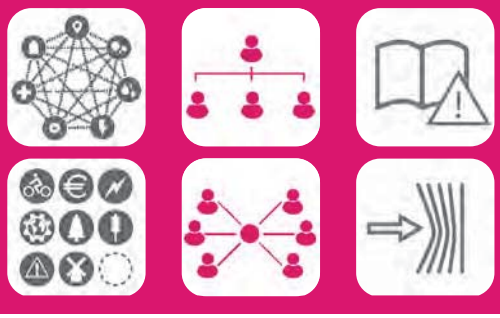
Comprehensive land use plan

CONCEPT



Coordinated program

Process Innovation Oregon



"A COORDINATED PROGRAM OF LOCAL PLANNING INSTEAD OF AN EXERCISE OF STATE-LVEL PLANNING'

"OREGON DEMONSTRATES THE NECCESSITY OF REAL AND ACCOUNTABLE RELATIONSHIPS AMONG LOCAL, REGIONAL AND STATE SCALES OF INTEREST AND CONCERN. AND TO SHOW THAT EVEN IN THOSE LINKS AMONG SCALE,S, LOCAL CONCERNS CAN BE FEATURED AND PROMOTED

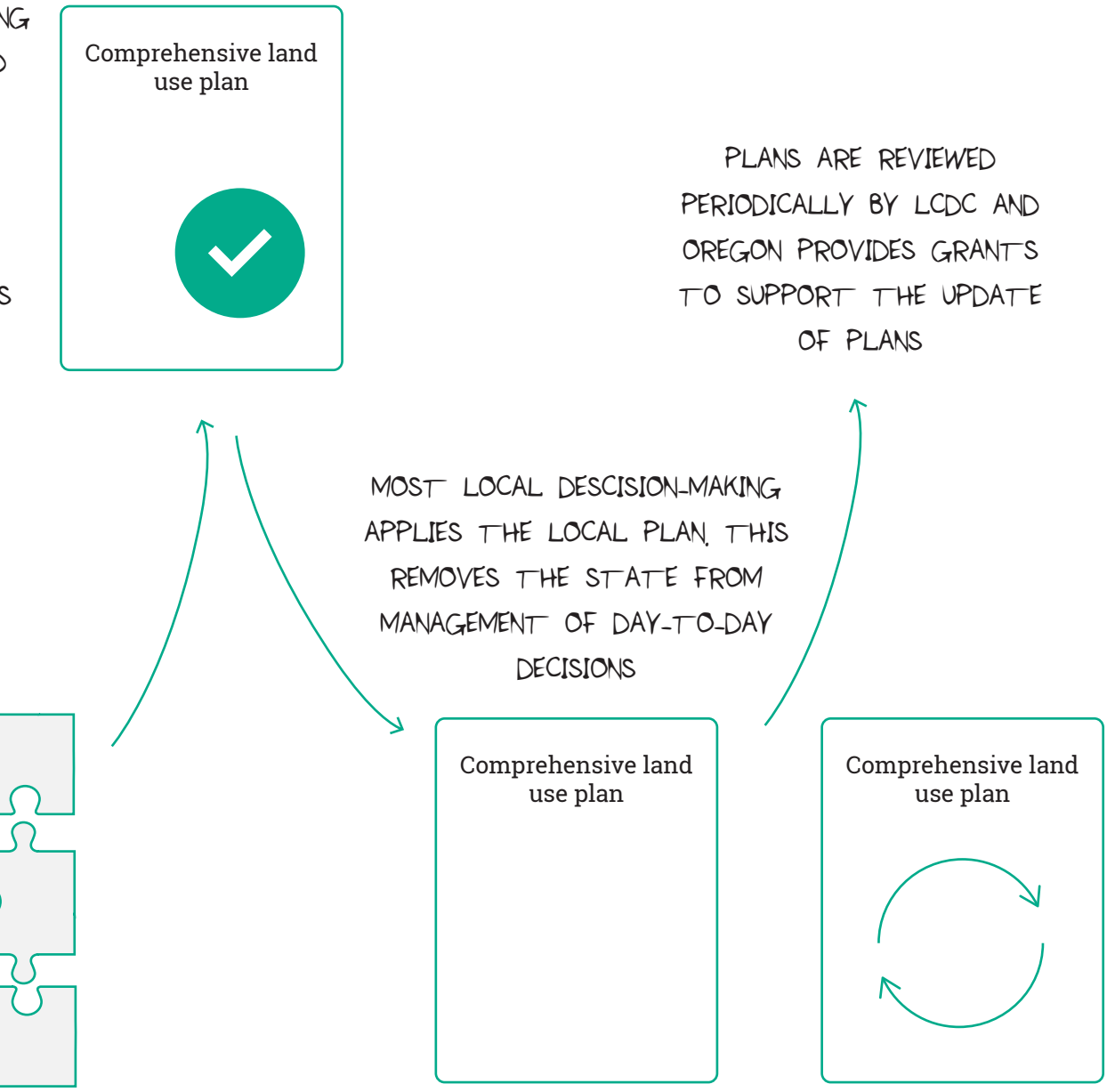
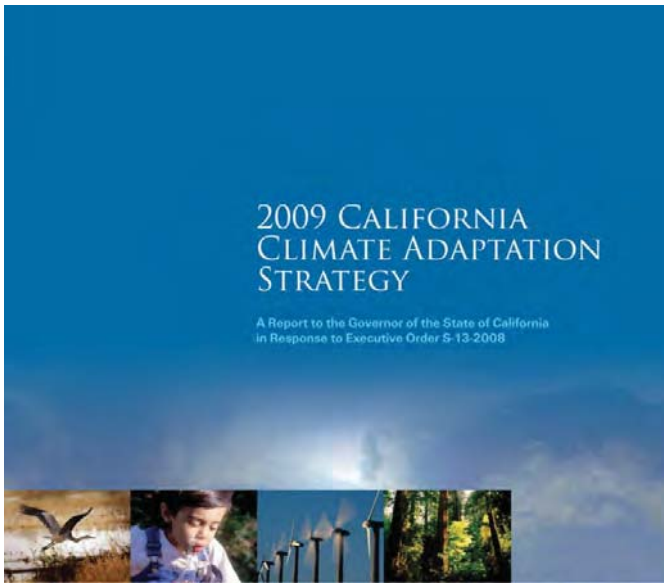
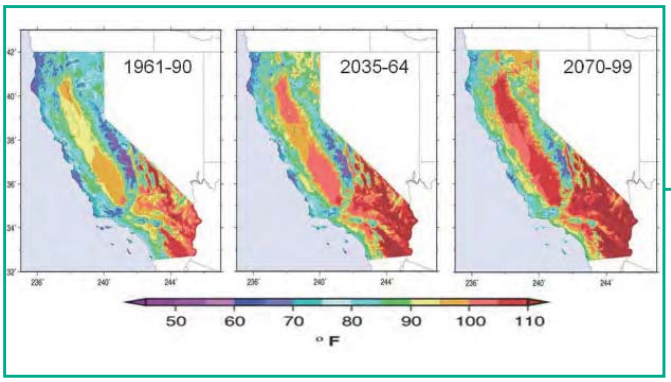


Image by author. Source of information: Seltzer, 2015

CREATING A DOCUMENT ABOUT ONE THEME TRANSLATES THE URGENCY; AS WELL AS A CLEAR DIVISON OF TASKS PER INTEGRATED SECTOR

The California Climate Adaptation Strategy tackles one theme from different sectors, instead of naming several themes without showing who is responsible how. The focus lies on the urgency, the document provides an in depth analysis on climate change, and why it is important. It names comprehensive strategies to deal with climate adaptation. Then, eight different sectors explain the effect of climate change on their own sector, with personal strategies that they are responsible for.





A LOT OF ATTENTION IS GIVEN TO COMMUNICATING THE URGENCY OF CLIMATE ADAPTATION

Executive Summary

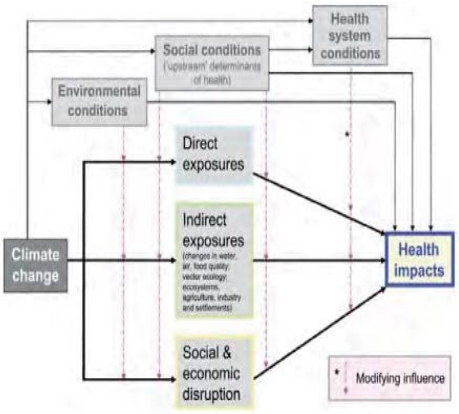
Part I – Planning for Climate Change **Page**

Part II – Climate Change - Impacts, Risks and Strategies by Sector

CLIMATE ADAPTATION IS USED AS A TOOL TO CONNECT DIFFERENT SECTORS. EACH SECTOR TAKES ITS RESPONSIBILITY IN DEALING WITH CLIMATE CHANGE, CAUSING DIFFERENT DEPARTMENTS TO WORK COLLECTIVELY IN DEALING WITH CLIMATE CHANGE

Thematic selectivity

Product Innovation California



Adaptation Strategies and Actions

The Public Health Climate Change Adaptation Work Group, in concert with the Department of Public Health, has identified the following priorities for public health adaptation for climate change. The near-term actions referenced below are those identified actions which can be initiated by 2010 (contingent on available and sustained funding). The long-term actions include those recommended actions that will require support from the state and collaboration with multiple state agencies and are identified as cross-sector strategies.

Strategy 1: Promote Community Resilience to Reduce Vulnerability to Climate Change.

Near-Term Actions:

a. **Promote Healthy Built Environments** – CDPH should continue working in collaboration with local health departments, community based organizations (CBOs), and other state and local planning and transportation agencies to improve community planning and design to promote healthy living, and to balance integration of social, economic and environmental concerns. CDPH should identify mechanisms to institutionalize the consideration of health in local and regional land use and transportation decision-making in, for example, local general plans, regional transportation plans, or CEQA guidelines, and through the use of Health Impact. CDPH should develop guidelines for health impact assessment, for use by local health departments and other agencies.

b. **Identify and Reduce Health Vulnerabilities** -- CDPH should provide tools for use by local health departments, other agencies, and CBOs to identify and reduce climate-related health vulnerabilities For example, community wide assessments could identify the homes occupied by disabled persons and seniors, assess the safety, energy and water use efficiency of these homes, and modify or retrofit homes, for example weatherproofing, energy efficient appliances, and shade cover. Identification of urban heat islands could lead to targeted efforts to increase shading and reduce heat-reflecting pavement through,[36] for example, expansion of parks and community gardens. Increased efforts to reduce air pollution in "toxic hot spots" would also decrease vulnerability to the health effects of increased air pollution with rising temperatures.

c. **Food Security and Quality**– CDPH should work in partnership with USDA, CDFA, and CDSS to maintain commitment to healthy foods and nutrition programs that improve access to healthy foods in low-income communities DPH should partner with Local Health Departments and CBOs to promote healthy sustainable local food systems through working for consideration of healthy food access in agricultural, land use, and other policies (e.g., zoning to allow farmers markets, incentives for farm to school/business/consumer, community and school gardens, and strong state support for programs such as Women, Infants and Children (WIC), SNAP-Ed, etc). CDPH should partner with CDFA and local health and environmental agencies to enhance capacity for surveillance and response for food-borne illness outbreaks.

Long -Term Actions:

d. **Food Sustainability** – CDPH should promote sustainable local food systems to reduce reliance on food that requires a high amount of "vehicle miles traveled". This could be done through supporting projects with mutual partners and/or through media/outreach campaigns, such as school and community gardens, peri-urban "ring" agriculture, farmland preservation, etc. CDPH should consider working in conjunction with the Natural Resources Agency and the CDFA to discuss/to develop a work group on food and climate change to assure the implementation of sustainable food practices, and policies including promoting a wider range of organic and local foods to California residents and California programs

Adaptation - County of Sonoma Heat Wave Guidelines:

- **Drink** - Drink plenty of cool fluids.
- **Dress** - Wear lightweight, light-colored, loose-fitting clothing. If outdoors, wear a wide-brimmed hat, sunglasses and sunscreen.
- **Decrease** - Limit physical activity and stay indoors in an air-conditioned space (home, library or shopping mall). In an ***extreme heat event***, listen to the radio for the location of emergency cooling centers.
- **Defend** - If working outside, monitor your coworkers. Check on elderly friends and family at least twice a day. Check infants and children frequently. Check on those who are overweight or in poor health.
- **Demonstrate** - Avoid hot foods and heavy meals. Make sure animals and pets have plenty of fresh water and shade. Consider bringing pets inside and wet down outside animals.
- **Don't** - Do not leave children, adults or pets in a parked car for any length of time.

EACH SECTOR EXPLAINS THE IMPACTS OF CLIAMTE CHANGE FOR THE SPECIFIC SECTOR AND OFFERS GUIDELINES. IT DEVELOPS STRATEGIES FOR DEALING WITH CLIMATE CHANGE AND NAMES LONG-TERM AND SHORT-TERM ACTIONS

SEPARATING THE NATIONAL STRATEGIES FROM THE NATIONAL INTERESTS ALSO SEPARATES MINISTERIAL AMBITIONS FROM RECURRING THEMES

Denmark has two different national document: the national interests in local plans, and the national planning report. The first is an adaptive product which is updated every four years. The national planning report is renewed with each new cabinet, offering the new minister to declare ambitions for the direction of the country. This produces a document with an identity, and a face that takes responsibility for the words written down.

INDHOLDSFORTEGNELSE

THE NATIONAL GOVERNMENT SEPERATES THE OVERVIEW OF THE NATIONAL INTERESTS IN LOCAL PLANNING FROM THE NATIONAL PLANNING REPORT. THE OVERVIEW IS UPDATED EVERY FOUR YEARS. THE INTERESTS ARE VALUE-FREE

Indhold

THE GOALS
DOCUMENT AIM
GREEN DENMARK

Ministerial strategy

Product Innovation Denmark

THE PLANNING REPORT IS CREATED WITH EACH NEW MINISTER, OFFERING A PERSONAL FACE, WHICH LEADS TO AN AMBITIOUS DOCUMENT. THE NATIONAL GOALS ARE BASED ON CONTEMPORARY TRENDS.

Grøn omstilling - nye muligheder for hele Danmark

Regeringen vil skabe udvikling, dynamik og vækst i hele landet. Vi vil gøre det på en måde, så vi samtidig beskytter vores natur og landskaber bedre, skaber mere effektiv og miljørigtig transport, reducerer mængden af affald og sparer på energien.

Denne landsplanredegørelse er vores fælles rettesnor for, hvor vi skal hen med planlægningen og indretningen af dette lille land, hvor vi vil så meget på så lidt plads.

Det er en fælles rettesnor og ikke bare regeringens, fordi det er kommunerne og regionerne, der nu skal i gang med at gøre ønskerne og de gode hensigter til konkrete planer. By for by. Parcel for parcel. Derfor har kommunerne og regionerne sammen med andre interessenter også været vigtige medspillere i forberedelsen af Landsplanredegørelse 2013. Tak til alle for de mange indspil. De har for eksempel sikret, at Landsplanredegørelse 2013 nu rummer mere om den nationale friluftspolitik, Naturplan Danmark, regeringens Klimaplan og planlægning for solcelleanlæg. De har også inspireret til, at mere om Togfonden er kommet med. Den sikrer hurtigere tog, så de store byer rykker sammen med kun en ens times transport imellem sig.

Samarbejdet skal fortsætte ude i kommunerne. Det er ikke bare et stærkt ønske fra regeringen. Det er også en forudsætning for, at vi kan lave de smarte løsninger, der skaber vækst i hele landet med mindre pres på vores ressourcer. Kommunerne og regionerne skal samarbejde om fælles planlægning. I stedet for at se nabokommunen som en konkurrent, er det regeringens håb, at kommunerne i højere grad vil se naboen som en forudsætning for at nå målene i denne landsplanredegørelse og dermed skabe gode rammer for indbyggernes liv.

Regeringen vil gerne hjælpe det fælles arbejde på vej ved at skabe mere fælles viden. Derfor deltager Miljøministeriet nu i fem udviklingsprojekter som opfølgning på Landsplanredegørelse 2013. De handler om muligheden for at fremme brugen af cykler i byerne, om at modernisere planlægningen for erhvervslivet i byerne, om at udvikle de stedbundne kvaliteter i de mindre samfund, om at udvikle natur og landskab i de kystnære områder og om at se på de funktionelle byregioner i en nordisk sammenhæng.

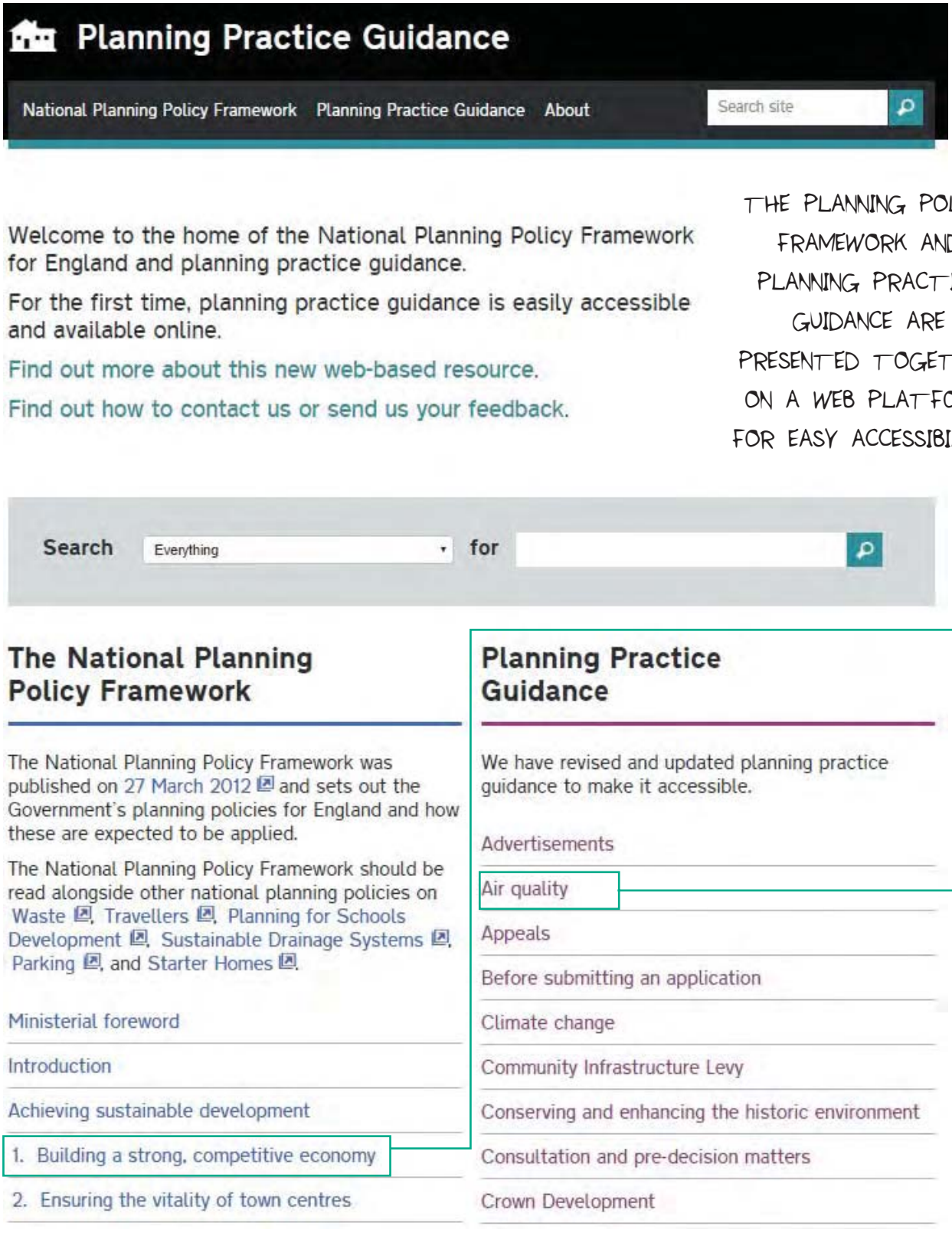
Jeg glæder mig til at se kommunerne og regionerne rykke sammen om den store opgave.

Ida Auken
Miljøminister

REFLECT THE MISSION OF THE MINISTER. THIS
'S FOR NEW POSSIBILITIES IN A SUSTAINABLE AND
, BUT ALSO CONSIDERS DENMARK IN A NORDIC AND
EUROPEAN CONTEXT.

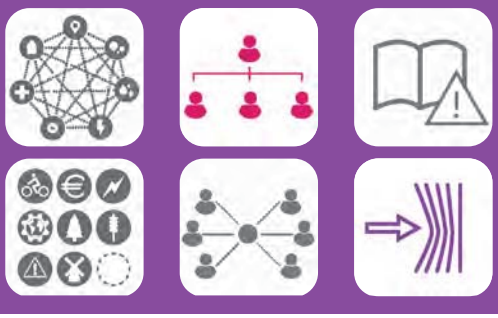
OFFERING A WEB PLATFORM WITH AN OVERVIEW OF ALL INFORMATION AIDS OTHER ACTORS THROUGH GUIDES AND QUESTIONS WITH ANSWERS

The National Planning Policy Framework is a downloadable report, with all national interests for England in local planning. However, to increase ease of use and the availability of specified information, a planning practice guidance was created as a web platform. The Framework and the Practice Guidance are presented side by side to offer tailored information for the target groups. The guidance is done in the form of questions and answers .



Planning Practice Guidance

Product Innovation England



. Building a strong, competitive economy

Print

8 The Government is committed to securing economic growth in order to
? create jobs and prosperity, building on the country's inherent strengths, and to meeting the twin challenges of global competition and of a low carbon future.

9 The Government is committed to ensuring that the planning system does
? everything it can to support sustainable economic growth. Planning should operate to encourage and not act as an impediment to sustainable growth. Therefore significant weight should be placed on the need to support economic growth through the planning system.

0 To help achieve economic growth, local planning authorities should plan
? proactively to meet the development needs of business and support an economy fit for the 21st century.

EACH PLANNING POLICY DEFINES HOW THE GOVERNMENT IS COMMITTED AND HOW LOCAL AUTHORITIES SHOULD DEAL WITH IT

Guidance

Air quality

Print this guidance section

Provides guiding principles on how planning can take account of the impact of new development on air quality.

D: 32
Updated: 06 03 2014

. Why should planning be concerned about air quality?
2. What is the role of Local Plans with regard to air quality?
3. Are air quality concerns relevant to neighbourhood planning?
4. What information is available about air quality?
5. When could air quality be relevant to a planning decision?
6. Where to start if bringing forward a proposal where air quality could be a concern?
7. How detailed does an air quality assessment need to be?
8. How can an impact on air quality be mitigated?
9. How do considerations about air quality fit into the development management process?

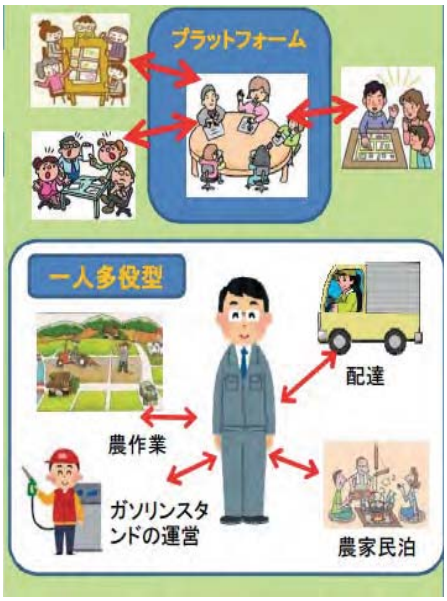
Do you want to be alerted when this guidance changes? Sign up

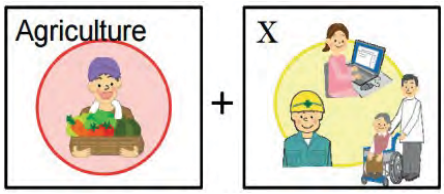
FOR THE GUIDANCE, EACH THEME IS ELABORATED THROUGH QUESTIONS AND ANSWERS, TO OFFER TAILOR-MADE HELP

USING DIFFERENT TYPES OF VISUALISATIONS CREATES A SENSE OF URGENCY WHICH CAN BE COMMUNICATED WITH A BROAD PUBLIC

Japan has a national strategy which is focused on communicating a sense of urgency, it names six trends and challenges and offers elaborate explanations for these trends and challenges, and uses different types of images throughout the entire strategy. It mixes different types of images, by combining graphs, maps, photographs, etc to create infographic-like images.

THE ROLE OF PEOPLE IS NOT FORGOTTEN, A SCHEME OF A PERSON'S DAILY LIFE RELATION COMBINES CARTOON ICONS WITHS SCHEMATIC DRAWING





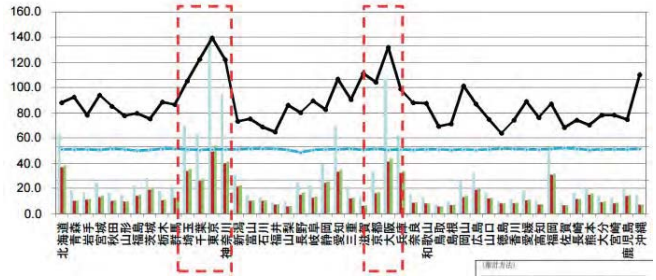
WORLD MAP, ARROWS, SCHEMATIC AND GRAPHS ARE COMBINED T WATERWAYS FROM

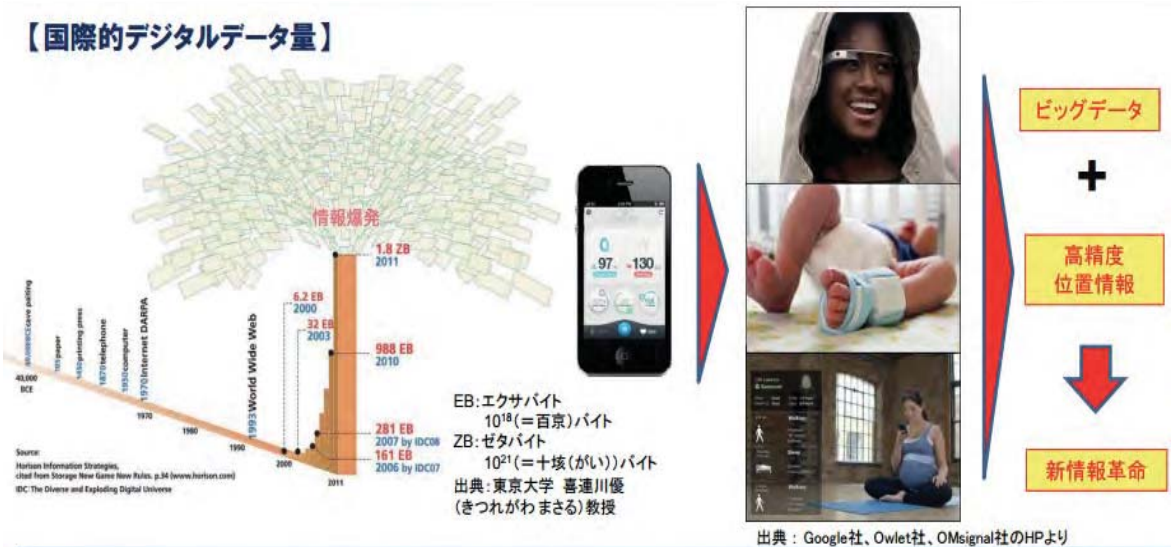
Use of imagery

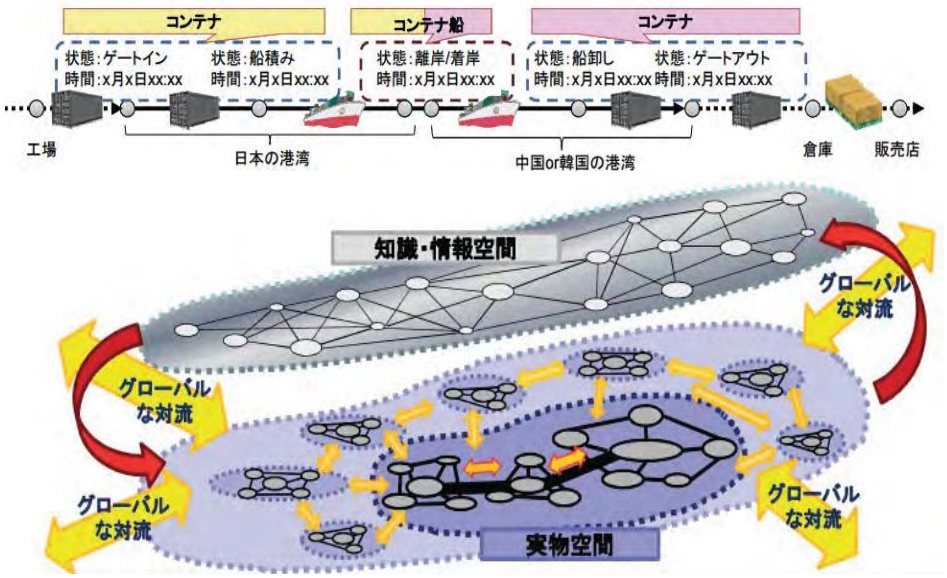
Product Innovation Japan

C DRAWING, PHOTOS
TO EXPLAIN THE
JAPAN

DATA ARE NOT JUST SHOWN IN GRAPHS, BUT
CONCLUSIONS ARE DRAWN FROM IT BY HIGHLIGHTING
THE AREAS OF IMPORTANCE IN THE GRAPH

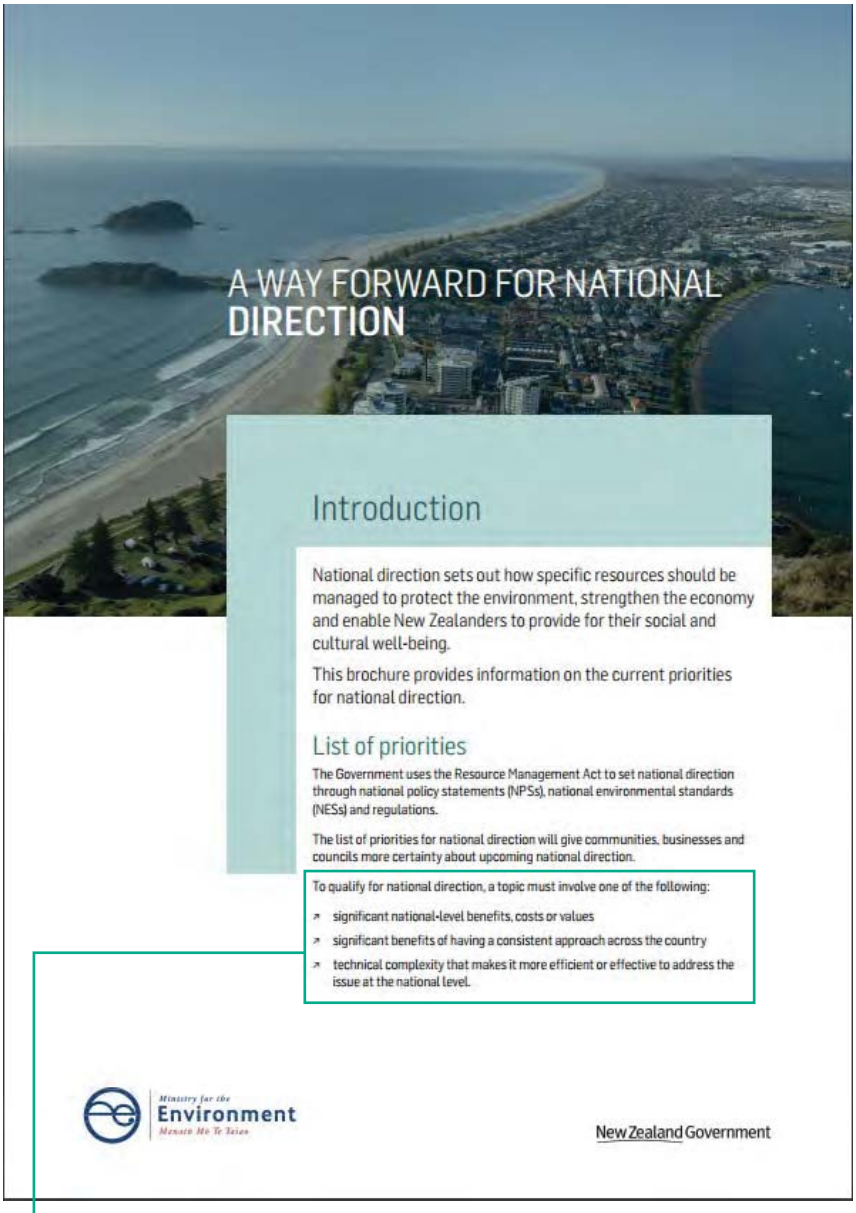


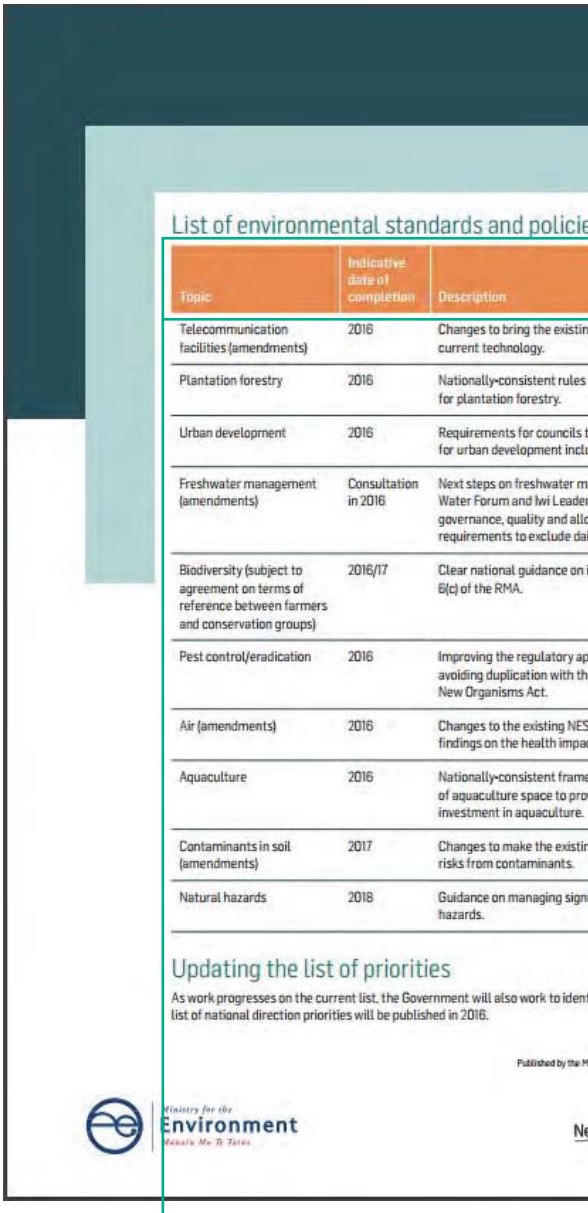




CREATING A WEB PLATFORM OFFERS ACCESSIBILITY TO INTERACTIVE AND UPDATED INFORMATION. THE PRODUCT BECOMES A SUPPORT FOR THE PROCESS.

The National spatial strategy of New Zealand is focussed on a process, the product is merely supportive of the entire process. As the process requires interactive information being available for different stakeholders, as well as being able to update information easily, New Zealand has chosen a web platform, which is theme-based. All information per theme can be found on the website. A summary of national priorities is given in a two-page leaflet.



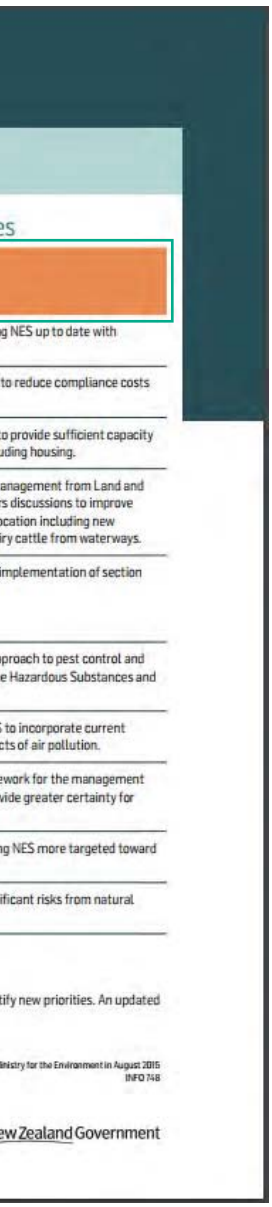


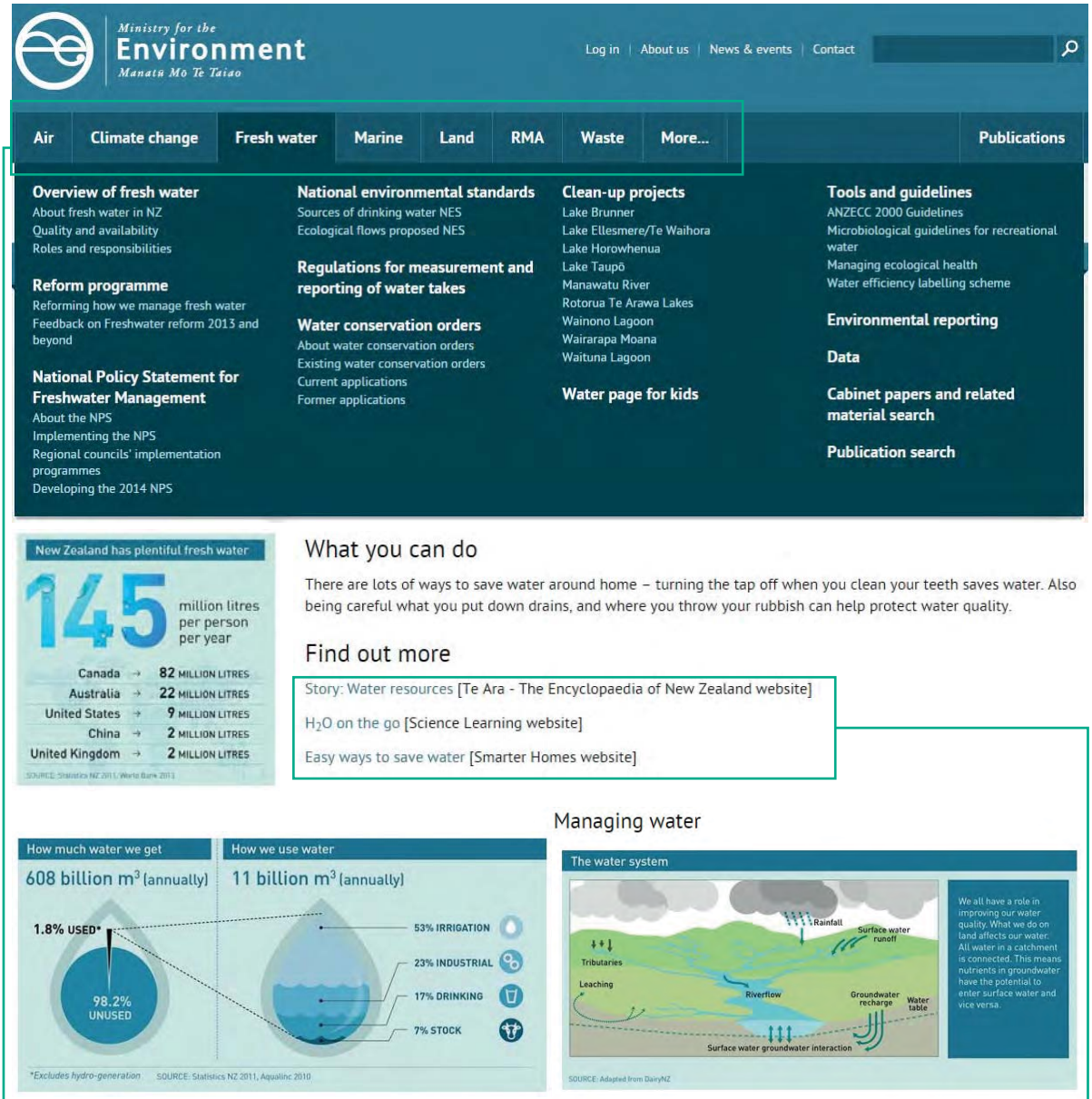
THE NEW ZEALAND SPATIAL STRATEGY DOCUMENT CONSISTS OF ONE LEAFLET, CALLED A WAY FORWARD TO NATIONAL DIRECTION. THE FRONT OFFERS AN INTRODUCTION AND CLEARLY DEFINES WHAT TOPIC QUALIFIES FOR NATIONAL DIRECTION.

THE BACK OF THE LEAFLET LISTS PRIORITIES, INCLUDING A DATE OF CO SHORT DESCRIPTION. ALL OTHER I AVAILABLE ON A WEB PLATFORM, OFF INFORMATION.

Two-page strategy

Product Innovation New Zealand





THE NATIONAL
OMPLETION AND A
NFORMATION IS
FERING TAILORED

THE WEB PLATFORM IS DIVIDED INTO THEMES, AND EACH THEME OFFERS SPECIFIC INFORMATION, GUIDELINES FOR THE READER, AND EXTERNAL WEBSITES WITH MORE INFORMATION ABOUT THE SUBJECT

SEPARATING LONG TERM GOALS FROM SHORT TERM GOALS, AND THE FRAMEWORK FOR OTHER GOVERNMENTS FROM NATIONAL ACTIONS LEADS TO ADAPTIVE PRODUCTS

Oregon has a general framework of 19 state-wide planning goals, which have existed since 1970. These long-term planning goals are general themes which always have an influence on the living environment. along these themes, the State produces its own 8-year plan with strategic goals for more short-term actions. The general themes are well explained with clear definitions and guidelines on how to handle the theme, though the guidelines are not mandatory.

THE ONLINE SUMMARY OFFERS A QUICK OVERVIEW OF THE PLANNING GOALS FOR EVERYONE. THE PLANNING GOALS ARE THEMES WHICH TOGETHER CONTAIN ALL ASPECTS OF THE LIVING ENVIRONMENT

ONLINE SUMMARY OF THE PLANNING GOALS

Oregon's 19 Statewide Planning Goals & Guidelines booklet

Definitions for the Goals and Guidelines

Goal 1 Citizen Involvement — PROCESS GOALS

Goal 2 Land Use Planning — PROCESS GOALS

Goal 3 Agricultural Lands — CONSERVATION GOALS

Goal 4 Forest Lands — CONSERVATION GOALS

Goal 5 Natural Resources, Scenic and Historic Areas, and Open Spaces — CONSERVATION GOALS

Goal 6 Air, Water and Land Resources Quality — CONSERVATION GOALS

Goal 7 Areas Subject to Natural Hazards — CONSERVATION GOALS

Goal 8 Recreational Needs — DEVELOPMENT GOALS

Goal 9 Economic Development — DEVELOPMENT GOALS

Goal 10 Housing — DEVELOPMENT GOALS

Goal 11 Public Facilities and Services — DEVELOPMENT GOALS

Goal 12 Transportation — DEVELOPMENT GOALS

Goal 13 Energy Conservation — CONSERVATION GOAL

Goal 14 Urbanization [Old Goal 14] — DEVELOPMENT GOAL

Goal 15 Willamette River Greenway — CONSERVATION GOAL

Goal 16 Estuarine Resources — COASTAL GOALS

Goal 17 Coastal Shorelands — COASTAL GOALS

Goal 18 Beaches and Dunes — COASTAL GOALS

Goal 19 Ocean Resources — COASTAL GOALS

THE SHEETS OFFER AN OBJ
CLEAR DEFINITIONS OF TERM
LEVELS OF GOVERNMENT

SHEETS PER P

SPECIFIC OBJECTIVE PER GOA
MAINTAINING OR DEVELOPING

Oregon's Statewide Pl

GOAL 6: AIR, W
RESOURC

OAR 66

To maintain and improve the quality of the air, water and land resources of the state.

All waste and process discharges from future development, when combined with such discharges from existing developments shall not threaten to violate, or violate applicable state or federal environmental quality statutes, rules and standards. With respect to the air, water and land resources of the applicable air sheds and river basins described or included in state environmental quality statutes, rules, standards and implementation plans, such discharges shall not (1) exceed the carrying capacity of such resources, considering long range needs; (2) degrade such resources; or (3) threaten the availability of such resources.

Waste and Process Discharges -- refers to solid waste, thermal, noise, atmospheric or water pollutants, contaminants, or products therefrom. Included here also are indirect sources of air pollution which result in emissions of air contaminants for which the state has established standards.

GUIDELINES

A. PLANNING

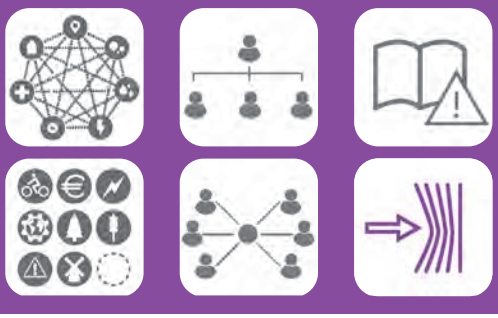
1. Plans should designate alternative areas suitable for use in controlling pollution including but not limited to waste water treatment plants,

GUIDELINES ARE GIVEN IN DIFF
IN SPATIAL GOALS, GUIDELINE
PLANNING AND IMPLEMENTATI
T

DEFINITION OF IMPORTANT

State-wide planning goals

Product Innovation Oregon



ECTIVE TO EACH GOAL, WITH
MS AND GUIDELINES FOR LOWER
ON HOW TO ACHIEVE IT.

PLANNING GOAL

AL: EITHER

anning Goals & Guidelines

WATER AND LAND
CES QUALITY

0-015-0000(6)

solid waste disposal sites and sludge disposal sites.

2. Plans should designate areas for urban and rural residential use only where approvable sewage disposal alternatives have been clearly identified in such plans.

3. Plans should buffer and separate those land uses which create or lead to conflicting requirements and impacts upon the air, water and land resources.

4. Plans which provide for the maintenance and improvement of air, land and water resources of the planning area should consider as a major determinant the carrying capacity of the air, land and water resources of the planning area. The land conservation and development actions provided for by such plans should not exceed the carrying capacity of such resources.

5. All plans and programs affecting waste and process discharges should be coordinated within the applicable air sheds and river basins described or included in state environmental quality statutes, rules, standards and implementation plan.

6. Plans of state agencies before they are adopted should be coordinated with and reviewed by local agencies with respect to the impact of these plans on the air, water and land resources in the planning area.

1

FERENT CATEGORIES.
S ARE GIVEN IN
ON

HE GUIDELINES ARE SUGGESTIONS
AND NOT MANDATORY
TERMS

THE FEDERAL GOVERNMENT CREATES ITS OWN 8-YEAR PLAN IN WHICH IT NAMES STRATEGIES TO DEAL WITH SPECIFIC GOALS RELATED TO THE 19 PLANNING GOALS.

FEDERAL STRATEGIC 8-YEAR PLAN

OPEN WITH A STRONG MISSION STATEMENT, GUIDING PRINCIPLES AND THE SUMMARY OF THE CHOSEN STRATEGIC GOALS

Strategic plan storyline

- Mission
- Guiding principles
- Strategic goals to guide our work
    1.
    2.
    3.
    4.
    5.

- Who we are — EXPLAINING THE WHO & THE WHAT
- What we do
- Local governments — EXPLAINING THE OTHER ACTORS
- State agencies
- Understanding this document — EXPLAINING THE DOCUMENT ITSELF
- Emerging themes — NAMING SOME NEW TRENDS

- Goal 1
    - Objective
        - Strategies
    - Objective
        - Strategies
- Goal 2
    - Objective
        - Strategies
    - Objective
        - Strategies
- Goal 3
    - Objective
        - Strategies
- Goal 4
    - Objective
        - Strategies
    - Objective
        - Strategies
- Goal 5
    - Objective
        - Strategies

EACH GOAL IS NAMED & EXPLAINED, WITH SEVERAL OBJECTIVES PER GOAL AND NEW STRATEGIES WHICH WILL BE IMPLEMENTED PER OBJECTIVE

Appendix B

List of figures

Appendix C
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