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Preface

This preliminary draft for the Spatial Memorandum is a second intermediate product towards the Draft Spatial Memorandum and builds on the outline memorandum for the Spatial Memorandum published in October 2023.[1] The preliminary draft focuses on the national scale, covering the European Netherlands including the territorial waters, as indicated in the Environment Act. In addition, the preliminary draft covers the living environment in a broad sense. So not only traditional spatial issues, but also safety, health, environment, landscape and urban values, cultural heritage, nature, climate.
And not only on buildings, infrastructure and land use, but also on space underground, in the North Sea and in the air.

This preliminary draft has a spatial vision for the whole of the Netherlands as its starting point. In doing so, it offers perspective to all regions and at the same time appeals to all regions to contribute to a future-proof Netherlands from their own strengths and qualities.

The preliminary draft offers an overview of the new directions, spatial images and choices for now, later and later. This includes choices that have already been made and deployed in various national programs, choices that are additionally needed and still to be made in the (draft)
Nota Ruimte and choices that will be put on the agenda for later. The new directions, spatial images and maps form the basis for further elaboration of steering, instruments and participation towards the Draft Spatial Memorandum. Choices in the spatial planning of the Netherlands may have financial or budgetary consequences for the national budget in the (near) future.
This means that spatial planning policies from the state with financial or budgetary consequences must also be fitted into departmental budgets, as always in accordance with rules of budget discipline.

[1] House of Representatives, session 2023-2024, 29 435, no. 264

A small country with big tasks

Within Europe, the Netherlands occupies an extraordinary position in many ways. Much of this can be explained from our country's location on the edge of the continent, where land and sea meet and even merge. Where great rivers flow out. Blessed with fertile clay and peat soils. Strategically located in the urban system of northwestern Europe. With, until recently, always access to its own fossil energy sources: successively peat, coal, natural gas. But also exposed to the power of the sea and rivers, with fragile landscapes and heavily dependent on global trade networks. All this has made our country what it is today. Thanks to ports, airports and excellently connected to the world by road, rail and data cables. The gateway to Europe, with highly productive and competitive agriculture, strategic industries and attractive and vital cities and landscapes.

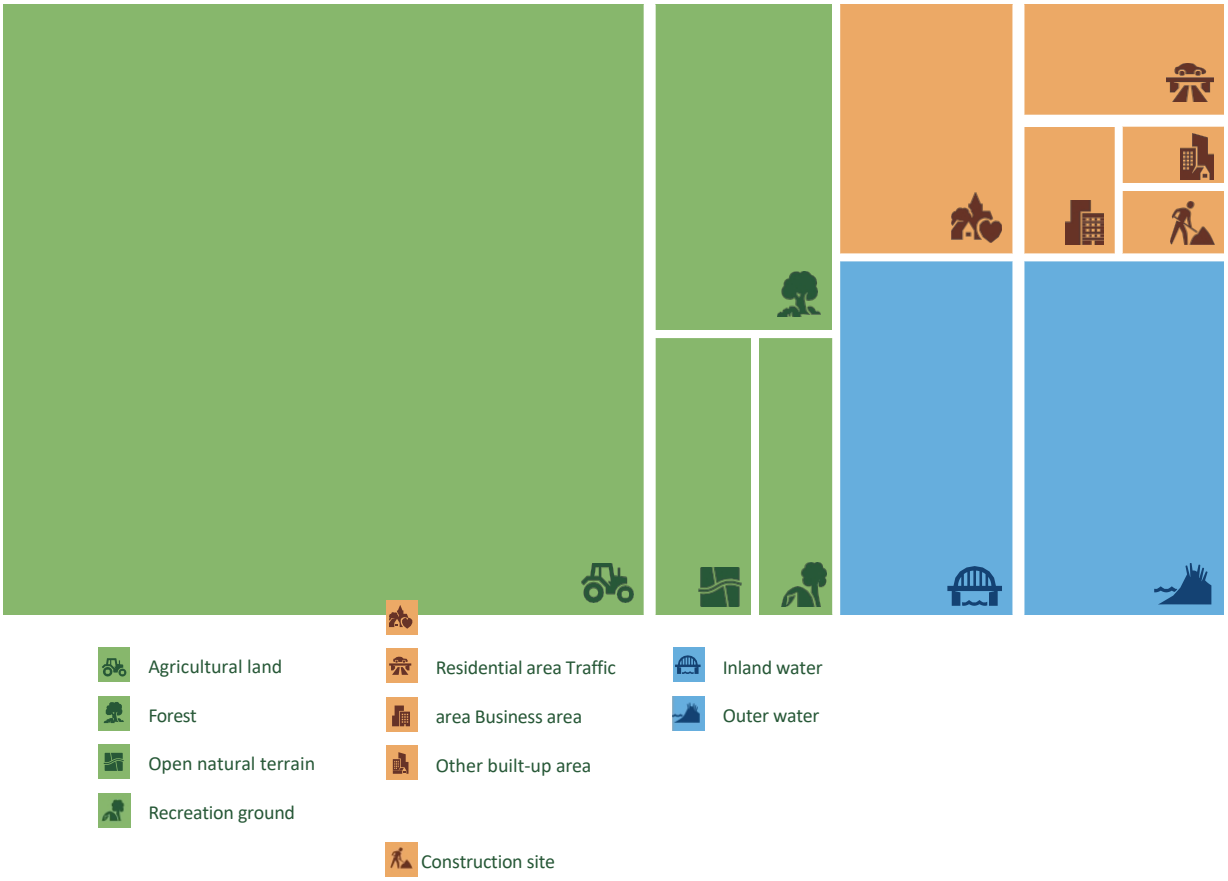
We have managed to maximize our fragile yet favorable location. The unparalleled control of water, soil and landscape is just one aspect of the planning and management of our living environment that is admired worldwide. Good spatial planning and a concern for spatial quality are born out of necessity in the Netherlands. Because we are vulnerable, but also because space is traditionally scarce in our small but densely populated country. And there is actually much to be proud of. The Netherlands is among the most prosperous countries in the world. Internationally, our economy is considered highly innovative. The quality of life is rated as high by the vast majority of Dutch people.

At the same time, it has become clear in a short time that the certainties on which we hoped to sail for years to come are not to be taken for granted. The population is growing much faster than expected as a result of immigration. The housing shortage is back. The climate turns out to be more unpredictable than we thought and extreme weather creates risks of flooding or, on the contrary, prolonged drought and heat. With consequences for harvests and the food supply. Biodiversity is declining sharply and with it the resilience of nature. The economic success of our country is anything but self-evident. Energy security is suddenly no longer a given and resource scarcity is a serious challenge. Geopolitical turmoil means that our security and freedom can no longer be taken for granted.

The design of our country and our environment have come under pressure. Sometimes this is very acute. Because in summer there is not always enough fresh water for all users, or because the power grid locally cannot cope with new homes and businesses. Sometimes problems have come into view more gradually, such as the housing shortage that has grown over the years, the cluttering of the countryside, the effects of air, water and soil pollution on health, or the decline in biodiversity.

Continuing on the current path is therefore not a solution. We will lose our certainties such as sufficient energy, fresh water and sufficient housing. And we also simply do not have the space for it. We will have to make choices about how, where and what we want to provide space for. The way in which all this translates into spatial tasks in the Netherlands is unique. This is mainly due to the already unusually high pressure on space. A pressure that will only increase.

Current land use in the Netherlands



Just over half of the Netherlands consists of agricultural land. Furthermore, inland water, outdoor water and forest make up about a quarter of Dutch territory. The rest of the N e t h e r l a n d s ' territory consists of residential land, traffic land, industrial land, construction land, open natural land, recreational land and other built-up land. (Source: CBS, [2][0][1][5][2])

The recent interim report of the Sea Level Rise Knowledge Program[3] states without equivocation: we can live safely in the Netherlands even in the long term. But **geographical security** is only guaranteed if we make radical choices. No longer can everything go everywhere. We will have to create space.
For reinforcement of flood defenses and for the water itself. To be able to withstand peak downpours and to have sufficient fresh water in times of drought. We will also have to be more economical with the fresh water we have, which must also be clean. The water challenges cannot be separated from those for soil. We will have to spare vulnerable soils much more than before. This has implications for the use and design of space and how we build infrastructure. A large part of our current economic core area will be affected by sea level rise in the longer term. The earning capacity of the Low Countries is indispensable to cope with the effects of climate change and to finance transitions. The water safety of the coastal provinces must therefore remain guaranteed.

[2] CBS' most recently published Soil Use Database (BBG) is from 2017.
[3] https://www.rijksoverheid.nl/documenten/rapporten/2023/11/01/interim-balance-of-knowledge-program-sea-level-rise

Water and soil have a major impact on **agriculture and nature**. One of the achievements of the 20e century is the guarantee of food security. Dutch agriculture is among the most produc- tive in the world. The sector is of great strategic importance for all of Europe. Not only because of its yields, but also because of innovations such as seed breeding, on which part of global food production is directly dependent. Dutch agriculture, like nature, is vulnerable to changes in weather patterns and higher average temperatures. For food and the preservation and management of our fragile and valuable landscapes, the Netherlands will continue to depend largely on its own agricultural sector. Agriculture is therefore indispensable for food security and the recreational function of the countryside. Current emissions from agriculture have a negative impact on the quality of the living environment and biodiversity. Nature is in bad shape in many places, partly due to excessive nitrogen precipitation. A future-proof Dutch and European agriculture must be brought more in balance with nature, water, soil and air. At the same time, more landscape and nature values offer opportunities for new revenue models.

For our **economy** and **energy and mobility system,** its central position in the Northwest European city system and its location at the mouth of major rivers is all-important. It made the Netherlands a natural gateway to Europe. We owe our seaports, airports and excellent hinterland connections to it, which in turn also helped determine how our country developed. Starting in the 1960s, Groningen gas provided our country with a reliable and cheap source of energy, which led to an extensive energy-intensive industry and the growth of the horticultural sector.

With the signing of the Paris climate agreement and the loss of our own fossil energy source, this competitive advantage has disappeared and the sustainability of the Dutch energy supply has become an urgent task. From the point of view of strategic independence and **security of supply** of energy and goods, we are working hard to utilize new energy sources. The energy system will have to be adapted and certainly expanded accordingly. After all, energy no longer comes mainly from the ground and cannot always be transported in the same way as before.

The adaptation of the energy system has major consequences. For the layout of cities and landscapes, but certainly also for the economy. At the same time, strategic autonomy in a European context is more important than ever. Increasing **scarcity of raw materials** calls for reuse and for choices not to do certain things more or less. The transition to a circular economy offers opportunities to make the economy cleaner and to improve the quality of the living environment. But despite a gradual phasing out of the fossil system, much extra space is expected to be needed to maintain the earning capacity of the Netherlands and to realize the envisioned transitions, including on existing and new **business sites**. Space that cannot simply be combined with other functions because of safety and health effects. The same applies to the mainport function of the Netherlands. This remains of great importance, but needs to relate to other functions and the quality of the living environment.

It was the good international connections that made the Netherlands an internationally oriented country. In recent decades, in terms of **regional development,** a number of urban regions have benefited greatly from globalization. Knowledge-intensive and high-tech companies of global significance developed here. These companies and the cities where they are located now serve as key drivers of the Dutch economy. They also attract many people from Europe and the rest of the world. The growth of recent years is not an incident. The Netherlands is attractive and our economy cannot function without sufficient human capital.

Prosperity has increased throughout the Netherlands since the turn of the century, and employment grew almost everywhere. But significant differences have emerged within and between regions, including when i t comes to broad prosperity. This is reflected, for example, in average education levels, labor force participation, health, livability and subversive crime. Moreover, the rapid growth of population, economy and mobility was not accompanied by the construction of sufficient **housing** and investments in **infrastructure, accessibility, cultural and other facilities and green spaces**. The layout of our cities and towns are not yet adapted to a growing yet elderly population and a changing climate. More intensive land use also means that activities affect health through noise, vibrations, emissions to air, soil and water, and safety risks. As a result, the preconditions for a **healthy living environment** are under pressure. On top of everything that is being added comes an equally large task to renew and improve what already exists. The regional development task for housing, the economy, infrastructure and facilities will be at least as great in the coming decades as it was in the reconstruction years. This is also an opportunity. By making better use of the existing and taking advantage of the new, we can prepare our cities, villages and regions for the future.

National security, protecting one's own territory and that of allies, demands expansion space for Defense in the Netherlands. In the past, national defense has left a strong mark on the layout of our country. Think of extensive fortifications around cities, water lines, barracks complexes, airfields and training grounds, but also transport routes. In the future, Defense will again be more emphatically present in the physical environment. In addition to restrictions due to noise, for example, this also brings opportunities, including for nature development and strengthening the regional economy.

The Netherlands has been shaped by centuries of interaction between man and nature. Traces of ancient layers can be recognized and read everywhere in our cities, villages and landscapes. This legacy of the past still gives meaning to our existence today and largely determines the quality of our living environment. It is also an indispensable part of new spatial quality.
Cultural heritage helps determine the identity of the Netherlands and its communities. It provides inspiration and can contribute to finding new solutions. We protect what we consider important, utilize the past and connect spatial development to the characteristics and identity of areas.

Vision: all of the Netherlands

The world around us is changing rapidly. We are facing major tasks to guarantee new certainties towards 2050. We want to make our country future-proof. And that concerns all Dutch people. We want to offer future generations a high quality of life, with an attractive, safe and healthy living environment. To make the entire Netherlands stronger, we will use existing qualities and seize local opportunities.

The tasks we face are so great that, by analogy with reconstruction, we can speak without exaggeration of a reconstruction of the Netherlands. It is a challenge, but also an opportunity to give the quality of the living environment an enormous boost. This will only succeed if we work together with fellow governments. All over our country we are already working on spatial tasks and transitions. In the process, we are discovering new ways of working and smart solutions.

This preliminary draft seeks to do justice to all regions and leverage the distinctive strengths of all parts of the Netherlands. From 'make stronger what is strong' to 'make stronger what must be strong'. In this way, all of the Netherlands will contribute to the spatial challenges and changes we face. And all of the Netherlands can benefit.

This requires the search for new solutions and an equitable distribution of scarce space and of joys and burdens. In doing so, we apply three guiding principles:

1. ***Do justice to future generations: don't pass it off***: Good ancestry is important. We do not pass problems off to elsewhere or to future generations, and we strive for a fair distribution of benefits and burdens.
2. ***Doing justice to scarcity: multiple use of space***: Space is scarce and valuable. Therefore, where possible, we look for opportunities for smart function combinations and efficient use of space while maintaining spatial quality.
3. ***Doing justice to individuality: area characteristics central***: We protect and utilize what is there and develop new, distinctive spatial quality. We work on locally appropriate solutions.

With the Spatial Planning Policy Document, the national government wants to regain control of the design and organization of the physical environment in our country. Making clear and coherent choices is central. With this the
Nota Ruimte directs the development of the Netherlands. Taking the lead means not only making clear and coherent choices, but also directing good teamwork to realize the tasks. In doing so, the national government enables fellow governments, the market and society to play their part. Various government programs are already demonstrating the way in which the government takes the lead: inspiring, taking the initiative and working together with other governments and society. The ultimate goal of the National Spatial Strategy is to protect and utilize the physical living environment. This also means that existing laws and regulations form the framework.

Throughout the Netherlands, we strive for a **good quality of life**. What we do to achieve this varies from region to region, but also within regions. The central government's role in this also varies from place to place: from initiating and stimulating to more accommodating. But that role is always an active one, together with other governments, society and market parties. In the long term, this leads to a Netherlands with room for people and nature, with a future-proof economy including a strong agricultural sector, and lower social costs. With a good balance between ecological, social and economic aspects. Now, later and later. This pursuit of a good balance has been increasingly adopted in recent years as the basis for policy under the heading of broad prosperity, with aspects such as health and quality of life being given a much firmer place.

In allocating scarce space and seeking new solutions, we ensure that **spatial quality** is preserved and, where possible, enhanced. We seek a good balance between protection and utilization. The cultural-historical legacy still gives meaning to us today.

existence and largely determines the quality of our living environment. The preservation of spatial quality manifests itself in the protection of valuable and vulnerable landscapes and built-up areas. We use centuries of experience in designing, changing and adapting, building and creating to create new, distinctive spatial quality. Spatial quality arises when synergy is found between the use value, future value and experience value of a place or area. Use value is about effective, efficient and multiple use of space. Future value is about sustainable, adaptable and robustly designed space. Experience value focuses on beauty, individuality and distinctive quality. By also including the origin value, the history and identity of a place come into focus.

A spatial image for all of the Netherlands

Spatial planning is about small and very large, from the sidewalk tile to international connections. Different scale levels will soon form a functioning system together. Space for local solutions, smart regional combining and national steering for coherence and connection must reinforce each other. It is about tomorrow and the distant future. This short-term and long-term working on multiple scales is a common thread in the National Spatial Strategy. The Netherlands is a complex, multi-layered and integrally functioning system, which cannot be captured in a simple scheme or concept as a final image. This is where spatial planning differs from architecture and urban planning. With spatial planning we can give direction and at the same time offer space. Changes in spatial planning occur slowly. Nevertheless, a small adjustment can result in an entirely different place in the long term.

Despite all the complexity, the Nota Ruimte therefore focuses on a coherent picture of the future. This picture will serve as a dot on the horizon, outlining the connection between choices, but leaving room for further interpretation. The spatial image of the Netherlands in 2050 will be more balanced than it is now. This applies to the relationship between living and working, agriculture, the quality of the living environment, earning capacity and the carrying capacity of society, but also to the demands we make on nature, water, soil and raw materials. There will also be more balance in the development of different parts of our country, with fewer major differences between and within regions in quality of life and dynamics.

In the Netherlands of 2050, water and soil challenges have been used to create new nature. In the peat and clay polders of the Low Netherlands and around the major rivers. The landscape is future-proof, with more natural values and opportunities for recreation. Where the farmer and fisherman earn a good living and business operations contribute to spatial quality and livability. With compact, economically strong and livable cities and villages. Smartly ordered: more densely built-up around stations and city centers. More spacious and landscaped at the city edges. With a logical arrangement of our networks for energy, data and mobility. With fast rail connections to foreign countries, opening up the new urban growth regions. With a clean, innovative and sustainable industry, circular activity, logistics and agricultural sector, which thanks to smart clustering and contributes to an economically strong Netherlands. A Netherlands that works. A beautiful Netherlands moreover.

We want to give space to various regions, cities and villages to contribute in their own way and from their own history and geographical characteristics to a future-proof Netherlands. The starting point for development must be to use and strengthen as much as possible what is already there. We protect what we want to pass on to future generations and make cultural heritage respectfully suitable for new forms of use and changing circumstances. Through targeted, smartly phased investments, we enable responsible growth and strengthen natural systems and infrastructure, increase earning capacity and improve the quality of life. This requires deploying movements, shifting course, national choices.

National choices in three interrelated movements towards 2050

The Nota Ruimte aims at a strong Netherlands without major differences in quality of life and spatial quality. The preliminary draft of the Spatial Memorandum focuses on three substantive movements and corresponding national choices. The Netherlands must choose where, how and to what we offer space. Because giving space to everything in the Netherlands is simply no longer appropriate. Especially in the somewhat longer term, this also means that we must be clear about what we do not give space to, or only under conditions. That is why we present choices in the Spatial Planning Policy Document for now, later and later. For 2030, 2050 and with a look ahead to 2100. In this preliminary draft we use the following classification: choices already made now, in the
Nota Ruimte choices to be made for later and choices to be put on the agenda for later.

When making spatial analyses and choices, we are always aware of how the three layers of the water and soil system, the infrastructure networks and the use of space above ground, in the so-called occupation layer, interact and what they mean for the existing quality and identity. In spatial policy, we strike a proper balance between the three layers, with water and soil guiding what is possible in terms of spatial development and land use. But vice versa, the existing urban structure and the development tasks in city and landscape will continue to influence each other and the choices regarding the water system and infrastructure networks. The fact that the security of existence is under pressure on so many fronts has everything to do with the fact that systems, working methods and the organization of space no longer fit the major tasks. At the same time, most of the future Netherlands is already here. Design of space, buildings and infrastructure will often last more than a hundred years. That requires smart building on and making use of what is already there when deploying movements towards 2050 and 2100.

The layer approach helps us to make future-proof choices towards 2050. As far as possible, we avoid developments that later lead to high costs for management or adaptation, or that have negative consequences for the quality of the living environment, health and nature. In this way, we work towards a healthy and safe living environment and prevent the transfer of problems to future generations. Every choice takes into account the availability and quality of natural resources, such as fresh water. We develop from the existing basis and set the course towards 2050. At the same time we want to keep options open as we look ahead to 2100. Options to be able to respond spatially to future uncertainties. For example, by being able to scale up and down the pace of development, depending on the development of the economy and population or the urgency of transitions and the effects of climate change. But keeping options open in the future sometimes requires choices to be made in the shorter term. For example, by reserving sufficient space in and around the main water system.

The scarcity of space and the fact that solutions increasingly call for smart combinations force us to make connections between goals. To look beyond the local to the national and international scale. To connect short-term choices with long-term directions. In the *three movements* we connect the most closely related sectoral subjects and make national choices for the Netherlands as a whole. In each case we show how water and soil affect the choices we make and how the different layers of the spatial system interact. Nature inclusiveness plays an important role here, throughout the movements. The three movements apply side by side, but also in conjunction with each other. In the elaboration of the movements we therefore also switch between them, so that they elaborate the vision in mutual coherence.

Water and soil

The basis from which we make the three movements toward 2050 are national choices for water and soil and the main water system. With a commitment to resolving freshwater issues regionally as much as possible and reserving enough space around the main water system to cope with the effects of climate change.

Movement toward a future-proof balance between agriculture and nature

We are working to make agriculture future-proof while restoring biodiversity. Both depend on restoring the water and soil systems. It is important to ensure economically strong agriculture with sufficient earning power. Nature also requires strengthening. Therefore, we strive for a restored water and soil system as a basis for future-proof agriculture and nature.

Movement toward a climate-neutral and circular society

We must make major adjustments to existing energy and mobility networks to ensure that we generate enough clean energy in the future and to make our transportation more sustainable. We will manage major transitions. Life extension of products, reuse of materials and processing of waste are expected to require more space in inner cities, business parks and the countryside. We will shape the circular economy and energy transition by saving as much as possible locally and using it ourselves. We will connect regional supply and demand as well as possible through a system of nodes and networks and places for processing the reuse of raw materials. At the national level, for energy and mobility, we select a limited number of clusters and corridors with an important role in the transitions around energy, mobility and circularity.

Movement toward strong regions, cities and villages nationwide

There is a great demand for more space to live, work and relax. At the same time, we need to make the existing built environment future-proof. Different regions require a distinctive approach. In this way we bring more balance to the development of the regions among themselves while at the same time ensuring that we improve the quality of life within them. To this end, we also want to appeal much more to the regions in the north, east and south. By strengthening the metropolitan strength of the Randstad with the surrounding Bandstad. And by linking up with the distinctive spatial-economic development of urban regions in the north, east and south of our country, giving them a much greater role in the urbanization tasks. Indispensable for this is a vision of economic development of the various regions in an (inter)national context.

Structure texts water and soil and by movement

The elaboration for water and soil and in the three movements is as follows:

- We describe the current situation and its main tasks and urgency that come together in this movement.
- We describe the direction for the future with, for each movement, the spatial image in 2050 and movement that we are deploying to that end.
- We describe the spatial strategy that elaborates on this and the choices we make based on it:
  - The choices already made in various programs that we are building on;
  - The choices we want to add to that in the Nota Ruimte;
  - The choices we put on the agenda in the Nota Ruimte for later.

The preliminary draft provides a basis for working with the provinces, based on their spatial proposals and the development perspectives of the NOVEX areas and their analyses by the College of State consultants and the Netherlands Environmental Assessment Agency, to take the next steps. Therefore, in each of the elaborations for water and soil and the three movements, we have given a brief overview of points from the spatial proposals of the provinces and the development perspectives of the NOVEX areas and their analyses by the Planning Bureau for the Living Environment (PBL) and the College of Government Advisors (CRa). After the three movements, we also present separately the tasks with regard to the intersecting themes of Defense and Cultural Heritage. In doing so, we always establish the relationship with the three movements.

Water and soil

Urgency and tasks

Limits of the water and soil system have been reached
We are increasingly feeling the effects of extreme peak rainfall, on the one hand, and longer summer periods of drought and freshwater shortages, on the other. These effects are exacerbated because the quality and vitality of our (ground) water and soil are not in order. To be able to continue to meet the basic needs for food, clean (drinking) water and a healthy living environment in the future, we must be guided more by the limits of natural systems.

Less freshwater, higher freshwater demand and deterioration of water quality
Freshwater is no longer self-evidently always available everywhere. The new Delta scenarios show that tasking for freshwater availability will increase substantially. In all scenarios water supply and demand for water are further out of balance. More and more often in summer there will not be enough water for all functions. Climate change is reducing the supply of freshwater in summer.
Water demand increases in all new scenarios, including for flushing water systems (salinity control), irrigation of agricultural areas, drinking water and nature. Wetland reclamation, to reduce subsidence and CO_2 emissions, becomes a new water demand. It is important to be well prepared for these shortages to prevent social damage as much as possible. The available water also increasingly does not have the desired quality: due to salinization, higher temperatures and because contaminants are less diluted at low discharges.

Soil degradation and subsurface hazards
Soil is important in mitigating the effects of climate change such as extreme rainfall, heat stress and drought. Healthy soil is important for biodiversity, healthy food, nature and the ambitions for housing, healthy cities and the growing need for nature. Soil is structurally disturbed by digging and tillage, compaction, contamination and sealing. Soil subsidence is occurring. Climate change is putting pressure on soil ecosystems through desiccation, salinization and extreme rainfall.

Sea level rise and heavier rainfall
Increasing sea level rise and more frequent weather extremes threaten water safety and may lead to more frequent flooding (in the Netherlands). These risks require measures with spatial impact, consideration of spatial planning and, in some situations, adaptation of current uses. Our country can technically cope with a five-meter rise in sea level in the future, but the consequences for spatial planning will be great and will require radical adaptation of (also existing) land use. As a result of higher average temperatures, the Netherlands will have to contend with more frequent heavy rainfall. This can lead to considerable local flooding, both in the high and low lands of the Netherlands. The way the landscape, cities and villages and public spaces are designed will have to be adapted to this. Starting with climate-robust design of new residential areas and houses.

Points from the provinces' spatial proposals and development perspectives of NOVEX areas on water and soil

- First, provinces are asking for clarity on the national spatial (fresh) water distribution, in anticipation of the Delta Decisions in 2026 and in particular i.r.t. water from the IJsselmeer and large rivers, and a national role on this subject.
- Furthermore, a number of provinces are also asking the state to play a role in national drinking water availability such as for the Southwest Delta, for example, by tightening regulations for use, constructing drinking water reservoirs or protecting and developing the national network of drinking water pipelines.
- In addition to concerted action now, provinces are asking for a long-term vision from the national government on water safety. In this way, provinces can anticipate which developments will and will not (no longer) be possible in time, without possibilities for spatial development
  (including urbanization assignments) to be locked in.
- And provinces are requesting a vision for the development of the river region beyond 2050.

Direction for the future

Basics in order

We must ensure that, despite the effects of climate change, the Netherlands remains safe and livable in the long term, with healthy soil and sufficient clean water. To tackle the urgent tasks we are taking a new direction by making spatial choices that anticipate a dynamic future. By aligning land use with the water and soil system, we are more resilient to weather extremes. The water system and our actions are flexible and robust so that we can better cope with increasing drought, extreme or prolonged precipitation. Among other things, we maintain sufficient space for the main water system so that we remain protected from high water and flooding.

In the policy brief "Water and Soil Stewardship," seven principles apply:

- *Do not pass on*: This applies to future generations as well as areas or functions and from private to public;
- *More allowance for extremes*: We are more likely to experience heavy and prolonged rainfall and periods of heat and drought;
- *Deal with flooding, drought and soil in context*: Smarter use of the water and soil system to retain water in wetter periods to mitigate effects of drought;
- *Multi-layer safety*: In addition to reinforcing the levees, the spatial design behind the levee and methods of crisis management are essential to making our Delta safe
- *Less capping, less digging, non-contamination*; It is important to handle soils wisely because soil-forming processes are slow and recovery is complex and costly.
- *Integrated approach in the living environment*: issues in the area and the water and soil system are considered in conjunction to achieve an optimal design;
- *Comply or explain*: The structuring choices in the letter are guiding and deviation requires careful justification.

It is important that we build in flexibility to adapt spatial planning to new insights. In this way we avoid making choices now that will increase our vulnerability in the long run and safeguard the geographical security of the Netherlands' existence.

Freshwater availability

In the future, demand for water (fresh and of good quality) will increase sharply and availability will decrease. In the policy letter "Water and Soil Stewardship" it has been established that on the one hand we must use water more sparingly and on the other hand adjustments in the design and management of water bodies and soils and land use are inevitable, so that we can retain and store more water.
In addition, in preparation for the recalibration of the Deltaprogram Freshwater in 2026, the future freshwater demand of all freshwater regions is being identified and water management and land use measures are being examined to balance this water demand with the water supply.

Vital soil and sustainable use of subsurface potentials

Harnessing the power of soil helps us in the major challenges of climate, biodiversity, water and nitrogen. Healthy soil acts as a sponge for water buffering, is more resistant to heat and drought, stores carbon, retains nitrogen and contributes to biodiversity and water quality. Needless to say, healthy soil is of value to the agricultural sector. Space choices involve site selection, design and layout, land use, needed restoration measures and sustainable soil management.

The subsurface is busy and getting busier. Not every use is possible everywhere on the basis of soil properties and some functions in the subsurface influence each other negatively. That is why management of the subsurface is necessary. Only then will there be sufficient space for drinking water, geo-therapy, soil energy, archaeological heritage and cables and pipes, among other things.

Water safety and flooding

Decisions on adjustments to the current system for the storage and discharge of the rivers and protection against the sea will be taken in a few decades. However, we must reserve sufficient space now for future adaptations and developments; around flood defenses in view of future dike reinforcements and in the delta waters in view of higher water levels due to rising sea levels. For radical choices such as additional dams and measures for river widening inside the dikes, the potential land take will first be further mapped out. Climate change may cause even higher extreme discharges in the future.

However, we cannot wait for these changes to take place. That is why we no longer allow new construction in the floodplains covered by the Major Rivers Policy. By doing so, we make our rivers more climate-resilient and prevent damage. Even after completion of the dyke reinforcements in 2050, an additional task for water safety remains. This task can be fulfilled by raising the height of the dikes and/or by creating more room for the river, for example by dike relocation.
Regardless of the choice between dike reinforcement a river widening, in time, inland dike space is needed for a safe and robust river system due to climate change for either dike reinforcement or river widening.

Coastal policy is based on the principle of cooperating with the natural processes in the coastal zone. The national government chooses to safeguard the existing sand reserves in the coastal zone and its dynamic character and to leave the morphological processes within the coastal system undisturbed as much as possible. In managing the coastal foundation, the national government chooses to preserve sand and unhindered transport of sand along and across the coast. We therefore work according to the principle of soft where possible, hard where necessary. In accordance with the policy letter Water and Soil Management, no coastal expansion is planned for the time being.

Spatial strategy

We are working on these tasks through a number of programs. The Integral River Management (IRM) program examines in how far the discharge distribution of the Rhine can be restored during low water in order to strengthen the freshwater supply of the northern Netherlands (depending on the IJssel and the freshwater buffer in the IJsselmeer) and the eastern Netherlands (via the Twente canals). The results of these and other programs will form the basis for the recalibration of the Delta Decisions in 2026 and their decision-making in the National Water Program in late 2027. In the recalibration of the Delta Decision freshwater these starting points and the regional strategies form the basis for decisions in the National Water Plan (2027) on increasing storage capacity and the (discharge) distribution of freshwater in the main water system across functions and areas. The location of the river bottom must ensure that the river is navigable, that it contributes to the natural river dynamics and that it ensures that we can also distribute the water well over the Netherlands in dry times. In the coming period, the IRM will work on the development of policy choices regarding the design of the river system. The measures needed for this require space. In the IRM program it has been decided to maintain the current spatial reservations within the dikes for widening the rivers for the time being. To further elaborate on the tasks for soil, subsoil and groundwater, in 2025 the National Programme on Soil, Subsoil and Groundwater will establish the frameworks, principles and measures of STRONG, Water and Soil Stewardship and EU regulations and develop instruments for this. It is important to take climate change into account, via the Assessment Framework for Climate Adaptive Built Environment and the Measure for Green and Climate Adaptive Built Environment.

The **Wadden area** requires an integrated approach. This includes adaptive measures such as wide green dikes that both ensure dry feet and promote nature development, storing water locally to bridge dry summer periods, preserving natural sedimentation processes to ensure the buffering effect of the intertidal zone and creating gradual fresh-saline transitions. This integral approach is also reflected in the main goal from the area agenda: "The main goal for the Wadden Region is that it should be safe, vital and resilient by 2050. Safe because we anticipate the consequences of climate change and rising sea levels. Vital because living, working, education and care remain possible, on the islands and along the coast, and because economic sectors excel in the context of the UNESCO Wadden Sea World Heritage Site. Resilient as robust, world-class nature and landscape can accommodate the effects of climate change, sustainable use and new developments.

A coherent package of measures must make the water system of the **IJsselmeer region** more robust, with a good balance between the utilization functions. This involves an intensive search for opportunities for synergy between the three main challenges facing the area: freshwater availability, water safety and a future-proof ecosystem. To protect the freshwater supply and ensure water safety, a flexible summer level and a winter target level have been managed since 2018. This must be done in conjunction with retention - storage and discharge - smarter distribution - accepting (residual) damage. Furthermore, it is also crucial not to reduce freshwater reserves and bowl storage capacity and not to allow land reclamation and construction outside the dikes in the IJsselmeer region. For robust nature in the IJsselmeer region that is resilient enough to cope with the consequences of climate change, three solution directions are used: adding missing habitats, increasing diversity and defragmentation.

We are working out the integral tasks in the **Southwest Delta** in innovative, climate-proof area concepts in which a better connection is made between the water and soil system and spatial planning. An example of this is the connection of the tasks for water safety, ecology, water quality and economy into a climate-proof area concept such as flood control landscapes. In the short term, the current and future expected freshwater demand from the region and the low freshwater availability from the

main water system during periods of extreme drought. All sectors will have to adapt to dry periods that more often lead to water shortages and salinization. Energy tasks, the accessibility of seaports and nature and water tasks must be worked out jointly in order to realize a climate-proof spatial planning. In the Southwest Delta, limited tides will be restored wherever possible. Attention will also be paid to sand replenishment for the functional preservation of intertidal areas, the creation of freshwater-saline transitions and the development of (new) intertidal areas through large-scale and integrated sediment management.

Work is currently underway on the Partial Review **North Sea** Program 2022-2027. The main purpose of the Partial Review is to reserve sufficient physical space for the offshore wind energy needed for climate ambitions. The balance between the three transitions in the North Sea (food, nature and energy) in conjunction with other uses, including sand extraction and shipping, is the basis for the government's efforts.

Towards the draft of the National Spatial Strategy, the text on large waters and the North Sea will be further elaborated. This will include not only spatial policy but also the more sectoral programs and policies specific to these areas, such as Offshore Wind Energy and the Vision of Food from the Sea and Large Waters.

Most of the choices for water and soil have an impact on specific tasks in the three movements. We have therefore included the spatial elaboration of these in the three movements, including the corresponding choices.

Movement toward a new balance between agriculture and nature

Urgency and tasks

Nature is under pressure
A healthy, safe and future-proof living environment requires a robust and resilient nature. Nature has intrinsic value, contributes to protection against climate and weather extremes, provides clean water and air, contributes to sufficient and healthy food, promotes our health, identity and opportunities for recreation and relaxation. In short, nature is inherently part of the Broad Prosperity. However, nature is in a bad way. This concerns not only nature in nature reserves, but also nature outside, in our immediate living environment.
Several species are in danger of disappearing from the Netherlands and negative trends are continuing, making achieving the favorable conservation status difficult. Losses of fertilizers and pesticides to the environment and discharges from industry are leading to a decline in biodiversity, with major consequences for agricultural, aquatic and soil life. Biodiversity decline thus threatens the foundation of our existence.

In addition, climate change leads, among other things, to increasing desiccation of nature. The consequences of this climatic drought are reinforced by the current (agricultural) land use and by groundwater withdrawals that lead to accelerated drainage of drought-prone natural areas. Increasing urbanization and infrastructure has also led to the fragmentation of existing nature, further limiting the resilience of our environment. As a result, we are less able to cope with increasing weather extremes, reducing nature's ability to provide a buffer to absorb extreme precipitation or drought. This decreased resilience translates into increasing costs to take mitigation measures, for example to prevent permanent damage to nature during droughts. To ensure the quality of habitats and habitats, these pressures must be reduced. More cohesive natural areas will be needed and more intertwining of nature with our living, working and living environments outside of natural areas to achieve a favorable conservation status of all species and habitats, with sufficient size to flourish.

The water and soil system has also been excessively adapted to land use in an area for too long, with insufficient consideration of natural conditions. Among other things, these adaptations have led to peat oxidation, land subsidence and reduced soil infiltration capacity. The buffering capacity against desiccation, heat stress and the effects of climate change of our natural environment has decreased as a result, and will only decrease further if we do not adjust our course. Salinization is also an increasing problem due to subsidence, sea level rise and more limited freshwater availability for flushing soils. It has therefore become clear that this path is no longer sustainable and that we are running up against the limits of the current system.

Agriculture requires perspective
A well-functioning production system is of great importance. Dutch agriculture and horticulture is at a high level internationally. Agriculture and horticulture as a whole is an important and robust economic sector and an integral part of spatial planning. Among other things, the sector ensures food security, healthy and affordable products, contributes to the livability of the countryside and provides employment. This applies to all agricultural and horticultural sectors in the Netherlands. We therefore explicitly refer to all agricultural and horticultural sectors when we talk about agriculture.

Agriculture has a major role as a carrier of landscape quality and recreational attraction and can contribute to nature-inclusive landscape design and the provision of social services. Maintaining this role requires good soil management and further reduction of fertilizer and plant protection product losses in order to increase soil quality, biodiversity and nature quality. This is also in the interest of agriculture because it contributes to crop pollination, natural pest control and improving the buffering capacity of soils, and thus ultimately maintaining and improving yields with fewer inputs. In addition, agriculture is increasingly facing drier summers, wetter winters and increasing fluctuations in temperature, due to climate change. Spatial interventions can help reduce the negative effects of these.

Also vital and livable in the future

Nature and agriculture are the two largest land users in the rural area and the main carriers of the Dutch cultural landscape. However, the local identity and attractiveness of this landscape is under pressure due to clutter and the decline of biodiversity. This also applies to the vitality and livability of the rural area, because the contribution of agriculture to the rural economy and employment is declining, the population is aging and facilities are becoming increasingly remote. In some cases, additional construction will be necessary to maintain the livability of (small) villages and cores. It is important that these new developments are designed with respect for what already exists by linking up well with existing area characteristics, reallocating vacant agricultural buildings and making use of heritage expertise on landscape characteristics and qualities. Green-blue veining is a good approach to preserving and strengthening the quality of the landscape, when it fits in with the existing area characteristics.

Points from the spatial proposals of the provinces and the development perspectives of NOVEX areas on the Movement toward a new balance between agriculture and nature

- From almost all provinces there is a call for a national perspective on agriculture, in which choices and priorities in land use for a future-proof agriculture, earning models/investment security for farmers and the preservation of (good) farmland are central.
- Furthermore, provinces are asking for a tightening of policies on the application of crop protection and fertilizer legislation, with a view to achieving the goals set by the Water Framework Directive (WFD).
- Provinces are also asking the state to further elaborate and implement the EU soil strategy.
- And provinces are asking for flexibility in regulations around nitrogen.
- As far as nature tasks are concerned, a few provinces are asking the national government to make zoning around Natura 2000 areas a joint responsibility with room for customization, and to express the intention to contribute to the reinforcement and improved functioning of the Nature Network Netherlands (NNN).

Points from PBL and CRa's reflections on provincial spatial proposals on the Movement toward a new balance between agriculture and nature

To achieve the national policy goals for agriculture and nature, the Netherlands Environmental Assessment Agency (PBL) believes that drastic and unprecedented measures are needed, in a balance between generic agricultural emissions policy and spatially differentiated policies. This choice is up to national politics. PBL recommends that the national and provincial governments urgently agree to start implementing a selective number of 'no regrets' measures in the short term, such as restoring environmental conditions (water, soil, air) through, among other things, extensification of agriculture around vulnerable nature areas. PBL argues that for too long attempts have been made to optimize what exists.

Water safety and freshwater availability are important themes in the provincial proposals. The College of Governmental Advisors (CRa) states that there is a need for clarity on what the (im)possibilities are given the Water and Soil Stewardship Principle. Restoration of the natural system is an important condition for achieving goals for nature, climate and water. But it goes further. The CRa argues that a truly different approach is needed, one that differs greatly from how we have organized nature policy today. The national government should develop a national vision for the NNN.

Direction for the future

Spatial image for 2050
In 2050, the design of agriculture follows the natural system of water and soil based on area-specific requirements, such as raising groundwater, contributing to vital soil, preventing salinization, and preventing subsidence. Throughout the Netherlands, there are new, robust ecological connections along streams and rivers and in vulnerable landscapes. At the same time, agricultural land abstraction has been minimized and the structure of agriculture and parceling improved. The full integration of and improved conditions for nature in rural areas, our cities and villages, on energy parks and industrial estates also connect previously fragmented nature and contribute to its recovery. Our ecosystems are once again resilient, future-proof and, with their essential (ecosystem) services, provide an irreplaceable, valuable contribution to our broad societal prosperity and a healthy living environment.

Agriculture is undergoing a transition towards 2050, in which business operations and earning models have been brought into line with the opportunities and limitations arising from local water and soil conditions. Crops are adapted to more saline, dry or wet conditions. Thanks to innovative ways of cultivation, less fresh water is needed and agriculture can minimize the use and leaching of manure and pesticides. Dairy farming is land-bound and more extensive with fewer emissions. In all regions, linked to economic development and urbanization, opportunities arise for farmers to fulfill social functions. This also guarantees the long-term preservation of valuable cultural landscapes. And the attractiveness and distinctive quality of the various regions.

In 2050, the landscapes on the sandy soils and in South Limburg are set up for diverse, sustainable agriculture and contribute to ecological and cultural-historical quality. Agriculture there is more extensive in character, with small-scale green elements between fields and pastures, such as wooded banks, hedges and groves. [e] Brooks and streams, which were straightened in the 20th century, meander naturally again. Stream valleys are designed to retain water and form robust ecological connections. As a result, nature areas have a less fragmented character. Nature values have been restored thanks to reduced emissions from livestock farming and pollution of water and soil. With their restored cultural landscapes and vital natural areas, the sandy soils are attractive recreational areas for both residents of the growing cities and people from other parts of the country.

In the lower-lying parts of the country, the major tasks of making room for the rivers and combating salinization and subsidence have been used to strengthen nature and provide new prospects for agriculture. Peatland areas have been vernatized and have significantly greater ecological and recreational value. You can enjoy the historic polder land and nature by sailing, cycling and walking. More room for water and restoration of the soil has

ensured that cultural landscapes are a valuable complement to protected natural areas. Along the rivers, more space has been created for peak discharges and the storage of water in periods of scarcity. This space for the rivers also means more scenic quality and space for nature. As of old, the sea clay polders offer space for high-producing arable farming. But here too, landscape elements have been added, which provide more quality for nature, contribute to the water tasks and offer opportunities for recreation.

Nature on the road to integration

The term "nature" can be used differently. The term nature can be used as a synonym for ecological values and is then a goal to be achieved in biodiversity restoration. Nature can also be used as a synonym for (protected) natural areas. It then refers to areas with the function of nature.

The goal is to restore nature and achieve a favorable state of conservation, embedded in spatial development and land and space use in the Netherlands. Nature forms the basis of our existence and is everywhere in our living and working environment. We are therefore committed to nature restoration in and around existing nature areas and beyond. This means that in and around existing nature areas we limit the influence of pressure factors - such as nitrogen deposition, desiccation, deteriorating water quality and recreational pressure - and adapt land use to make nature restoration possible. In particular, improving hydrological conditions and air and water quality will require a substantial effort. A favorable conservation status also requires sufficient natural areas and connections in which ecosystems can flourish and space where nature and other space uses coexist in balance and harmony.

In order to achieve a robust and healthy nature, it is not only necessary to adequately protect nature within natural areas, but also that other activities outside them are carried out in balance with nature. In recent years, this has increasingly led to a realization that a broadening of nature policy is necessary, focusing on the realization of an overall basic quality of nature (BKN) and the integration of nature within all domains of society (nature inclusiveness). The commitment to an overall basic quality of nature serves as a counterpart to the more species-oriented nature policy resulting from the BHD. This approach aims to ensure that common species, can remain common.

In this way, all life has a role to play in a healthy and sustainable living environment. With the programs green grows along and green in and around the city, we are committed to nature-inclusive development of our urban area. We use nature development and nature inclusiveness in the urban area to create robust connections, prevent flooding and heat stress, create a healthy living environment with sufficient recreational opportunities and improve the infiltration capacity of the soil. We apply the Assessment Framework for Climate Adaptive Built Environment and the national Measure for Climate Adaptive, Green Built Environment to ensure that urban developments are designed to be nature-inclusive and in harmony with the living environment.

In order to strengthen and sustainably restore nature and biodiversity in the Netherlands, the area of nature also needs to be expanded. This includes both additional protected nature areas and nature in combination with other functions (such as agricultural nature, nature in built-up areas and nature combined with infrastructure). We will also complete the Nature Network Netherlands (NNN) in accordance with existing agreements and create additional woodland in accordance with the national Forest Strategy. Where possible we will combine these existing tasks with additional tasks to achieve a favorable conservation status under the Birds and Habitats Directives.

NaEuur on the North Sea

Nature

This map indicates current natural areas as recorded in Matur6 2ooo and NatuurneEwerk Nederland.

Existing besthe'mde nature Nacura

zooo areas on land

Natura zoo areas at sea and large waters NatuurneEwerk

Nederland

Natura eooo areas outside the Netherlands

De kaarten zijn gebaseerd op feitelijke informatie, op basis van huidige kennis en inzichten. Ze worden verder uitgewerkt in het proces naar de Ontwerp-Nota Ruimte.

Finally, nature will also have to move with the changing conditions caused by climate change. One way we do this is by artificially controlling area-specific features to a lesser extent, but accepting local conditions and adapting land use accordingly. We therefore not only focus on the preservation of the current natural environment, but for the long term commit to the combined development of a robust water and soil system and new nature that suits it and thrives in a changing Dutch climate. In the lowlands, we develop nature that suits the unique characteristics of our Dutch delta, such as the dynamics of water. In the highlands, the emphasis is on nature as a carrier of the robust, regional water system, such as the stream valleys and wet lowlands. In the peat meadow areas, nature contributes to the preservation of peat soils and limiting emissions, such as providing space to maintain higher groundwater levels. In this way we link the development of nature to the development of a robust water and soil system and create vital nature that can contribute to the tasks for climate (including CO_2 storage), (clean) water and improved soil quality.

Agriculture in transition

It is an undisputed goal for agriculture to maintain a functioning production system in the Netherlands that contributes to food security with affordable, healthy products. That system provides diversity of products including vegetables, fruits, starches and sugars, vegetable protein, products of animal origin (dairy, eggs, meat) and organic products. The agricultural sector continues to excel internationally in the production of basic materials and knowledge. Agriculture is also a relevant economic sector and an important carrier of the quality and livability of rural areas. To fulfill this role, agricultural production must be sufficiently profitable and requires a certain size of production chains (critical mass for primary production, processing and knowledge), room for business development of individual farms and attention to the quality of the integration of farms and production methods in the environment.

However, this can only be achieved in a sustainable manner if agriculture adapts to the physical conditions on site. Agricultural use of space has always been linked to soil type and water availability. That dependence, and the corresponding differentiation in farm types and intensity, will nevertheless play a greater role and guide the development of agriculture, in the region and at the farm level. The transition of agriculture will include adaptation to changing soil conditions such as wetter peatlands, to more extreme weather and water availability, for example in the highlands, and increasing salinization in the clay areas. In addition, there are also challenges to achieve animal husbandry, a transition to a more plant protein-based food supply, circular business operations and good air, water and soil quality.

Together, these tasks lead to a sector- and area-specific development perspective for agriculture, guided by the physical conditions and local challenges. For example, in areas with relatively large tasks, land farming will be more extensive and efforts will be made to achieve a greater interrelationship between agriculture and nature. In these areas, opportunities will arise for new, extensive crops and other forms of agriculture such as protein crops and biocommodities. Many farmers in these areas are expected to expand their business model to include agricultural nature management, the provision of social and ecosystem services, and other combinations of functions that support other agricultural land uses. Realizing green-blue veining in these areas will contribute to a variety of ecosystem services such as climate adaptation, pollination and soil fertility.

Greenhouse horticulture has the ambition to be climate neutral by 2040. To make this possible, we are focusing on intensification and clustering in areas with sufficient sustainable energy sources to meet the sector's heating requirements. For this, geothermal heat, industrial residual heat and electrification in particular come into the picture. It is anticipated that in the coming years horticultural entrepreneurs with solitary businesses (not located in a cluster) will make the choice to move to a cluster area with access to sustainable heat. Although account will also have to be taken

with local entrepreneurial initiatives to achieve climate-neutral cultivation in other ways. Proximity to suppliers, logistics centers and the auction will continue to be of great importance to the sector. Roboticization, automation and digitization will also be used to make the sector more efficient and sustainable and to reduce the demand for labor migrants in the long run. We regard the realization of sufficient facilities and housing for labor migrants as an absolute precondition for the growth of this sector.

For building-based livestock farming, we foresee a future in which emissions are reduced and production takes place within the standards for air quality, odor nuisance and in which the risks of animal diseases and zoonoses are reduced. This includes avoiding excessive animal concentrations and maintaining sufficient distance between intensive livestock farming and inhabited areas. For this sector, opportunities for relocation and expansion are limited. It is therefore foreseeable that the size of intensive livestock farming will shrink in the coming decades in order to meet these frameworks. We want to offer perspective within these frameworks by bringing the chains for feed, residual flows, building-related livestock farming and processing together as well as possible. This benefits the environment, agricultural structure and animal welfare. Finally, we are investigating whether innovative links are possible in which residual flows can be used and the commitment to circularity is promoted.

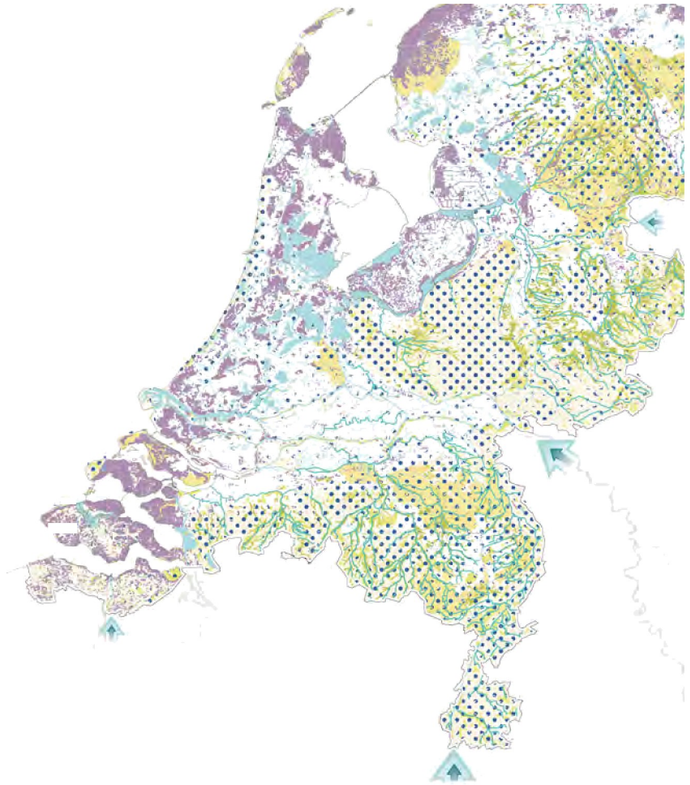
Spatial strategy

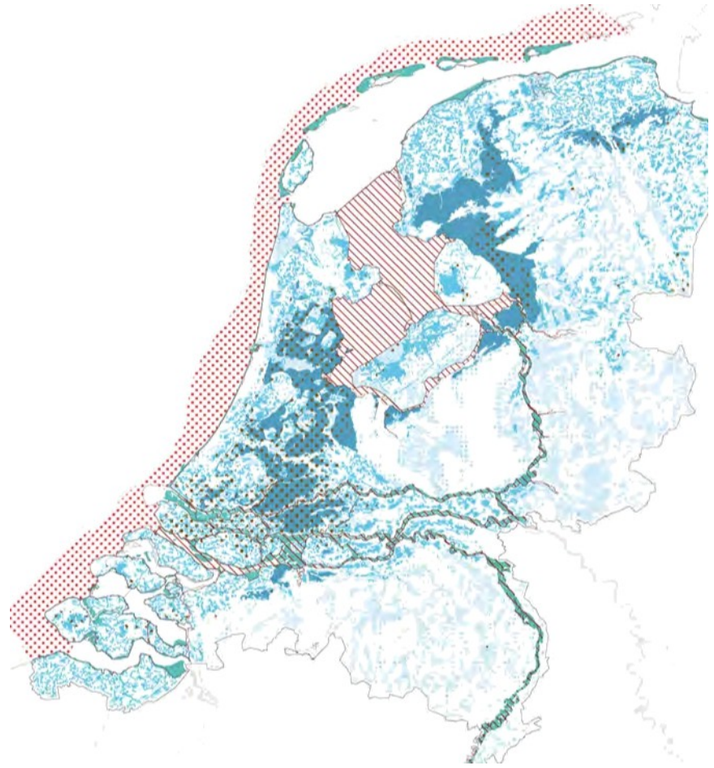
Area-based approach

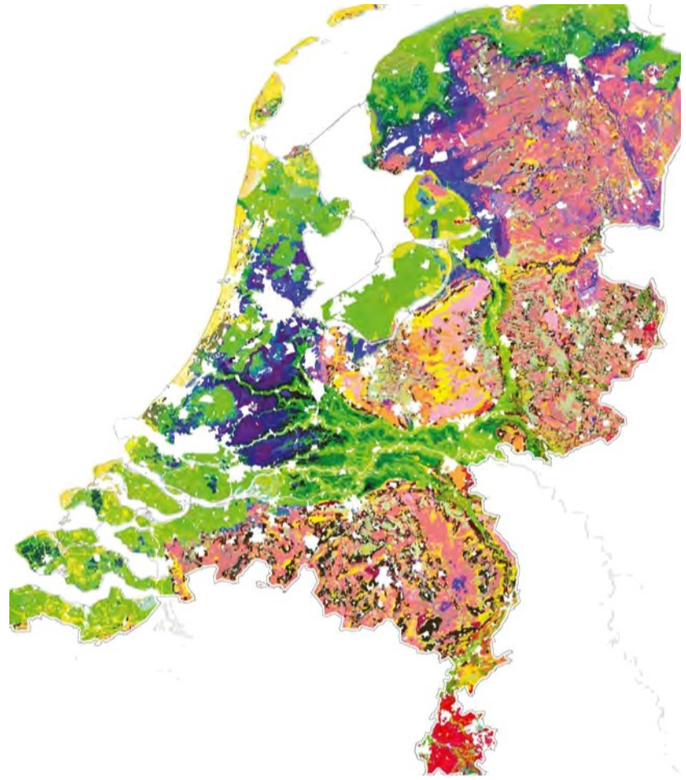
The directions outlined above showed that the task of restoring biodiversity depends heavily on how we manage land use for different functions. Agricultural land use plays an important role here. After all, much of the rural area consists of agriculture. Also, both the agricultural perspective and the commitment needed to restore nature depend on the physical conditions and the water and soil system in an area and its climate resilience. This dependence on each other and on area-specific conditions requires an area-specific approach. The physical conditions (water and soil), the characteristics of agriculture and the challenges for nature, water and climate differ from area to area, and thus the solutions are also different from area to area. This area-specific, coherent approach has been elaborated in the National Rural Area Program (NPLG). As part of the NPLG, provinces are working out the tasks for water, nature and climate per area in coherence in provincial programmes for rural areas (PPLGs). The area is central to this. The PPLGs work a lot with area processes to give direction to an area-specific future with the close involvement of stakeholders. Because cohesive development requires commitment and decisions from all governments, inter-governmental cooperation is essential. This requires a new way of working together to get areas moving.

Many spatial considerations become concrete in this area development, such as the relationship between nature and agriculture and the incorporation of other functions. Not everything can be done everywhere and the pressure on space requires careful consideration, taking into account the specific conditions per area. For water and soil this means that choices in the entire regional water and soil system must be made in conjunction with each other in order to achieve effective restoration. Together with the various layers of government, we are exploring how an approach can be reasoned with the water and soil system in mind. The importance of heritage, landscape quality and a recognizable regional identity is also growing and should be part of the area-specific approach.
An area biography, for example, can be used to illustrate in words and pictures how the past has an effect on the present-day landscape. In addition, the amount of vacant agricultural buildings will increase, among other things because of the termination regulations for farmers who have stopped farming. We will therefore work out in more detail which developments with regard to these agricultural buildings we wish to stimulate or, conversely, consider undesirable.

Water and soil guiding the movement toward a new balance between agriculture and nature







Waterbeschikbaarheid

Freshwater is no longer naturally available everywhere

Increasing salinization

Drier conditions Stream valleys

Water framework directive (WFD) water bodies.

Potential areas to better utilize available groundwater through infiltration

Greater variations of river discharge and resulting " drought and flooding and implications for water distribution and quality

'"Groundwater is also covered by the WFD quality objectives concern. These *iin landsdeLLend and therefore not shown on this map. Also the cus'zune of the North Sea. the Wadden Sea, the es'uaria of the Southwestern Delta and the iJsselmeer and htarkermeer are WFD waters that are not depicted for the |ee sability of the mapc.

Water safety and nuisance

Keep in mind more often narther conditions

Floodable parts of outer dike areas: the lower parts of these are more often naE

Search areas peatland for level upzeE

Areas prone to naLtere conditions and flooding

No building in floodplains and IJsselmeer area

No seaward coastal expansion for now

Sufficient space around the barriers to allow for future reinforcement

Soil conditions

Take into account the **opportunities and constraints from** the Ipcal soil cpndities

Peat soils

Courageous soils Sandy

soils River clay soils Sea

clay soils Brook valley soils

Loamy soils Loess soils

These maps show the relevant components of the waEer and soil system for spatial strategy within this movement.

The Spectes are based on ßelt eJijAe ijtmrtie. on ßosis von current ltenisi and insights. *They* are v9dr er Ulitgewe/ ftt inlietprotes heo rde Draft Space Note.

Careful handling of farmland

Nature and agriculture need space for new economic and ecological perspectives. In addition, restoration of water and soil systems will require space and direction for what can be done where. At the same time, agricultural land in particular remains under great pressure from other demand for space, such as housing, industry, recreation, energy, defense, water safety, water storage and other functions. To strengthen nature, system restoration and expansion of the natural area will be necessary, to extensify agriculture, farmers need space, and to give space to water and retain water longer, interventions in land use will be necessary. The pressure on space is thus only increasing. Agriculture is the largest net supplier of space, and expansion of other functions often takes place on agricultural land. We will therefore have to guide the spatial choices we make now in order to ensure that sufficient space is preserved for the transition of agriculture, the development of new nature and the necessary adjustments to the water and soil systems. And so that we do not make choices now that will stand in the way of a sustainable system in the future.

We therefore use the Assessment Framework to carefully consider the interests of agriculture when making spatial decisions. This framework ensures that applicants for space first investigate whether infill development or combinations of functions with agriculture are possible, so that expansion on agricultural land can be avoided. If a decision is made to expand functions on agricultural land, the framework must be used to justify why this is necessary. Provinces are also developing an area classification that distinguishes land with relatively severe, moderate and limited challenges for agriculture. This area classification may
- if possible - be involved in the location choice of new functions on agricultural land, by sparing areas with good agricultural prospects from function changes as much as possible and seeking the required space in areas where agricultural prospects are limited. Application of the consideration framework consists of the following steps:

- Applicable to all functions: infill first, combine and then change (current frameworks/ladders, such as the solar ladder and the urbanization ladder). This minimizes pressure on agricultural land.
- If agricultural land does need to be claimed, then first look for function com- bination with added value for agricultural transition, i.e. on land with the greatest (future) challenges and fitting within the NPLG goals locally, then agricultural land with moderate constraints. And as a final option on agricultural lands with few future challenges, because here food production is paramount.
- If a function combination is not possible, then a function change with the most added value for the transition in the area is preferred. Does the function change fit and is it supportive of the agricultural transition path and appropriate to the desired spatial development in the area? And, if necessary, how can it be made to fit in?
- Windfall effects (such as an increase in the carbon anchoring task on remaining agricultural land) are avoided to the extent possible or otherwise compensated for.

Rural area divided into four types of areas

The National Spatial Policy Document is intended to ensure that the large space claim on land in the rural area by other space claimants vis-à-vis nature and agriculture takes place on an equal footing. To substantiate this, we describe the goals that apply to nature and agriculture and the value of different nature and agricultural areas using a classification for nature and agriculture in four different areas:

- Nature (areas)
- Agricultural focus areas
- Agricultural areas
- Building-related agriculture

Sketchy rural zoning (not to scale)

Nature

As the Netherlands, we are making broad efforts to restore and preserve nature and natural areas. Various programs, such as the Nature Program, the NPLG and Agenda Natuurinclusief, focus on the preservation and restoration of biodiversity. This fulfills the European agreements made in this regard. The goals of the Birds and Habitats Directive (VHR) are central to this. These directives indicate which bird species (Birds Directive) and which animal and plant species (Habitat Directive) must be protected in their natural habitats. For VHR species and habitat types, the goal is to achieve and maintain a favorable conservation status in the Netherlands.
Protection of habitats and species is important everywhere, but in some situations this can only be done properly in nature reserves. For these habitat types and part of these animal and plant species, special protection zones have been designated in the Netherlands, better known as
Natura 2000 areas. However, the fact that these areas are primarily designated for a nature conservation function does not mean that these areas are only used for that purpose. Nature areas in the Netherlands have combinations of functions including recreation, water extraction, use by the military and also agricultural use. In order to guide the efforts to achieve a favorable conservation status, the NPLG provides an indicative expansion target for 2030 for nature areas, broken down by province for the various types of nature. In many places the expansion of nature areas can be combined with other tasks such as the Forestry Strategy and the completion of the National Nature Network.

Agriculture

The future prospects of land-based agriculture depend on a variety of factors. For example, the quality of land, temperate climatic conditions, the pressure on land and the strength of the sector drives a highly productive agricultural sector and an agricultural structure to match. This means that processors and the necessary (knowledge) infrastructure must be close by and geared to optimizing agricultural activities. Also, in the Netherlands we already have many highly productive and developed agricultural areas characterized by a number of agricultural sectors in which we are a major player worldwide. However, if we want to maintain this starting position and continue to produce here within ecological limits, agriculture will have to go through a transition. By reducing harmful emissions and restoring water quality, reducing compaction, and improving soil vitality, nature can be restored and a better basic quality of nature can be achieved.

Perspective agriculture

For land-based agriculture, therefore, we focus per area on a perspective for agriculture based on the water and soil system and the physical conditions. The related opportunities and limitations are therefore guiding for the type of agriculture, the intensity of agriculture in a location and the combination possibilities with other tasks such as strengthening biodiversity or recreational opportunities. For land-bound dairy farming, we foresee strong alliances with arable farmers in the neighborhood in order to make optimal use of residual flows. For arable farms we envisage a more intensive crop rotation, but one that meets the requirements set by the crop protection policy, sustainable soil management and the manure policy and thus fits within the ecological boundaries.

For much of land-based agriculture, primary production will remain the main source of income. However, where the physical conditions for agricultural production are more limiting, the earning capacity can be supplemented by the provision of ecosystem services and/or social services. For example, management of the landscape and (agricultural) nature can be chosen, recreational services can be offered or the creation of an interlacing network of green and blue. We therefore foresee an increase in the proportion of nature-inclusive and organic land-based farms. It is also possible to switch to the cultivation of less environmentally damaging and/or more extensive crops, such as the cultivation of protein crops and biocommodities. Finally, the entrepreneur can choose to broaden his earning model by offering other functions on the farmyard, such as small-scale housing (red functions finance nature and extensive agriculture) or stay-at-home farming (BGB, mobile home sites, barn living or camping). Such function combinations can play a role in broadening earning capacity and compensating for income loss through more extensive land use.

Changing conditions

In the coming decades, the climate will continue to change. This will also affect physical conditions, which will impose more constraints on the area-specific agricultural perspective in the future. Increasing salinization in coastal areas and decreasing freshwater availability mean that agricultural entrepreneurs cannot always count on sufficient water supply from the main water system. Entrepreneurs will therefore bear more responsibility for their own freshwater availability, whether or not in a regional context. Sustainable soil management and the improvement of soil quality that this aims to achieve contribute to this, because healthier soil holds more water. In addition, agricultural entrepreneurs themselves will have to take responsibility for adapting to salinifying conditions in the area concerned. It is important that agricultural entrepreneurs anticipate this change and gradually adapt their business operations to it. The government will not prescribe how entrepreneurs should do this, but can act as a facilitator if desired.

Physical conditions by landscape type, from water and soil system restoration measures

This map depicts future conditions by landscape type from the water and soil system restoration measures for the higher (sandy) soils, river clay areas, sea clay areas and peat meadows.

Drainage units Higher
(sandy) soils
Sandy soils
Weir walls 8-week
valley bottoms Boulder
clay areas Former peat
colonies Loess areas

River Clay
Bowl grounds
Riparian

Sea Clay
Young sea clay areas Drylands

Peat soils
Low bog on flanks high ground Low
bog cussen rivers High bog
restanEen

The Species znJ based on /ëit dijAe inJbrmol ie on ócsis von current Itennsi *and* insights.
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Agricultural focus areas

As described above, area-specific conditions will increasingly determine the future prospects for agriculture and land use at the site. This means that there are different directions for development based on these physical conditions. For example, different areas can be designated where the physical conditions will generally be more limiting because they are subject to specific, additional tasks in terms of restoring biodiversity, restoring the water and soil system and the climate. These include groundwater protection areas and priority areas from the NPLG (peat meadow areas, buffer zones around vulnerable stream valleys, transitional areas around nitrogen-sensitive nature). In these areas, we advocate an approach that focuses as much as possible on multiple functional use, while maintaining the agricultural perspective. We want to make this possible by creating more interrelationships between agriculture and nature in these areas and to bring these areas together under the denominator 'Agricultural focus areas' (hereafter: focus areas).

Coherent area development is desirable in the short term for all focus areas, in view of the major system change that is needed here to enable adaptation to the area's challenges and to meet the international obligations with regard to the water, climate and nature challenges. The degree of steering this involves is greater, which may mean that the opportunities for primary agricultural production will also be more limited here than elsewhere. The perspective and movement in these areas will therefore be different. This applies in particular to the components below.

Intensified commitment to nature restoration and intertwining agriculture and nature

Agricultural focus areas are agricultural areas with nature, water, and climate challenges. The agricultural land in these areas will retain its agricultural use. This does not alter the fact that land can be withdrawn for other functions such as small-scale housing under the condition that the consideration framework for the protection of agricultural land has been applied. In these areas, space will primarily be provided for nature development, agricultural nature and nature-inclusive agriculture. The proportion of agricultural nature and landscape management realized in these areas will be relatively high. There are also opportunities in the focus areas to contribute to various tasks by creating an interlacing network of green and blue. The Provinces have therefore been asked within the framework of the NPLG to realize 10% green-blue meander in these areas by 2030. This is not a goal in itself, but gives direction and prioritizes implementation. The focus areas will thus be deployed for the dual interest of sustainable production of food and feed and landscape management for biodiversity restoration, improvement of the water and soil system and achieving a favorable conservation status. Thus, in these areas, farmers will be actively supported in managing, for example, pasture and field birds, managing landscape elements and landscape management for other biodiversity goals.

Perspective agriculture focus areas

In the focus areas, commitment to agricultural nature will more often be part of the perspec- tive of the agricultural entrepreneur. Land use will be combined with the realization of landscape and nature elements, among other things. The perspective of agricultural businesses in these areas consists mainly of three components: primary production, ecosystem services and social services. Dairy farms here are land-bound, more extensive and largely self-sufficient in their fodder production. Arable farms here also have a more extensive cropping plan, in which fewer or no plant protection products are used and the extent of nutrient leaching is very low. Opportunities arise in these areas for other forms of agriculture such as protein crops and biocrops. A commitment to organic farming is also being encouraged, as this can fit in well with the more stringent frameworks for primary agricultural production.

The focus areas will be subject to additional requirements for the design of agriculture and other functions. This will ensure that these functions do not get in the way of the climate, water and local challenges, or that they are designed in a nature-inclusive way to prevent this. However, room will be left for function combinations with, for example, recreation, the energy transition, defense and small-scale housing construction because these can be implemented in a nature-inclusive manner and can increase the earning capacity for entrepreneurs in the focus areas. Broadening the economic base and livability is made possible, for example, by providing space for this when companies cease trading.

Area-based tasks
Provinces determine the exact size and approach in the peat meadow areas, buffer zones around stream valleys and transition areas around nitrogen-sensitive nature by means of an area-specific approach. Each of these areas has its own task, following from the specific nature and water task. In the peat meadow areas, for example, the water level will be raised further because this leads to a reduction in greenhouse gas emissions and subsidence. The continued commitment of farmers and agriculture in these areas is important to achieve the nature and landscape goals in these areas and to preserve the cultural heritage. An extensive, nature-inclusive form of agricultural use here contributes to the goals for farmland birds.

Building-related agriculture

Greenhouse horticulture
For greenhouse horticulture, we are committed to further clustering at existing locations with sufficient availability of sustainable energy sources. To achieve the goal of climate neutrality in 2040, the current heat supply based on natural gas will have to be transformed to other sources. For this, geothermal heat, industrial residual heat and electrification in particular come into the picture. Unlike natural gas, these sources are sufficiently available at every location in the Netherlands to make greenhouse horticulture sustainable. This has implications for the attractiveness of areas for greenhouse horticulture. In order to make the sector more sustainable, intensification (economies of scale) and clustering at locations where sustainable heat is available is of great importance. It is anticipated that in the coming years horticultural entrepreneurs with solitary businesses (not located in a cluster) will make the choice to move to a cluster area with access to sustainable heat. However, room will have to remain for local initiatives by entrepreneurs to achieve climate-neutral cultivation. After all, it is also possible for greenhouse horticulture companies to arrive at sustainable and profitable solutions through linkages with other sectors.

The future image of greenhouse horticulture is a sector that produces in a climate-neutral and circular way, with zero discharge on water and no greenhouse gas emissions, thus greatly reducing the negative impact on the environment. Robots, automation and digitization are being used, which (possibly in combination with a shift in cultivated crops) will also bring about a change in the labor required by greenhouse horticulture companies. Clustering of companies and economies of scale is a trend that is expected to continue in the future, creating large clusters of a limited number of very large greenhouses. The proximity of suppliers, logistics centers and the auction will therefore remain of great importance to the sector. New greenhouse clusters can be developed at locations near electolysers and industrial centers and where geothermal heat is available. In addition, the linking of heat networks for the built environment and greenhouse horticulture can provide added value, making it an obvious choice of location to position greenhouse horticulture between a heat source and a residential area. A precondition for clustering and intensi- versation of greenhouse horticulture is that sufficient facilities are realized to house migrant workers. As long as this cannot be properly guaranteed, this will impose restrictions on the intended growth of this sector.

Building-based animal husbandry

The movement that building-related livestock farming will make is driven by various tasks. For example, the physical conditions and area-specific climate, water and nature challenges are also driving the development direction of building-related livestock farming. These conditions and tasks will limit the extent of building-related livestock farming. In addition, there are various standards and frameworks that contribute to the protection of public health and protect livability of the immediate environment. The standards and frameworks for air quality (particulate matter), animal diseases and zoonoses (limiting risks) and odor nuisance steer towards preventing excessive concentrations of animals and maintaining sufficient distance between intensive livestock farming and inhabited areas.
Finally, the livestock industry is making the move toward an animal-grade livestock industry, within which animals can exercise their behavioral needs. This commitment requires, among other things, more space per animal, which carries the risk of higher emissions per animal.

In order to be able to meet these various challenges and continue to exist in a sustainable manner, it is foreseeable that Dutch livestock farming will decrease in size in the coming decades. Dilution will be desirable in areas with a very high livestock density and the overall impact of the sector on the environment will have to decrease in order to be able to produce within the constraints of physical conditions and water, climate and nature. At the same time, opportunities for relocation or expansion to new sites are often limited due to externalities on nature and the built environment. Nevertheless, within these frameworks, sufficient future prospects will have to be offered to the remaining businesses. We want to steer this by bringing together the chains for feed, residual streams, building-related livestock farming and processing as well as possible.
This benefits the environment, agricultural structure and animal welfare. Part of this approach is that we want to use the most suitable, existing locations for building-bound livestock farming as best we can for permanent farms. The autonomous shrinkage of the sector can be used to gradually move towards the most suitable locations, where space for building-related livestock farming will be preserved.

General frameworks building agriculture

The spatial Assessment Framework for Climate Adaptive Built Environment and the national Maatlat groene, klimaatadaptieve gebouwde omgeving (Yardstick for Green, Climate Adaptive Built Environment) should also be applied to the expansion of building-related agriculture. These instruments help spatial planners and developers with climate adaptive building and design. For example, an expansion of the number of greenhouses can be combined with the creation of an interlacing network of green and blue to improve the infiltration capacity of the soil. In addition, innovative links can be made between intensive livestock farming, the food industry and greenhouse horticulture, using each other's waste streams and further promoting circularity.

Building-related agriculture

This k9art indicates the concentr9tion areas of building-related agriculture: the greenhouse clusters, the intensive livestock inclusEers and the GreenporEs.

Greenhouse farming clusters

Intensive livestock farming

clusters

Greenports

Existing greenhouse concentrations(based on: CRa, eolp. (X)XL anesthesia) 8existing loft

livestock concentrations(based on: Agrimation)

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Choices

Nature

- (Made choice) In the NPLG, Nature Program and Nature Inclusive Agenda, the commitment to species conservation, nature inclusiveness and achieving a good basic quality of nature has already been elaborated.
  The commitment to nature restoration in the NPLG has also been translated into an indicative area task per province, consisting of the creation of new (agricultural) nature, the creation of forests and the realization of green-blue meanderings. In addition, the NPLG includes several structuring choices for nature, water and soil. These choices include a specific approach aimed at reducing greenhouse gas emissions in the peat meadow areas by increasing the water table, desiccation in high sandy soils (raising the groundwater level), transitional areas around nitrogen sensitive nature, large-scale stream valley restoration, the creation of an interlacing network of green and blue, and the incorporation of new areas of nature and agricultural nature.
- (Choice to be made) In addition to these choices, we want to make nature development for the long term (after 2030) climate-robust and link it to efforts aimed at restoring the water and soil system. In the peatlands, nature contributes to the preservation of peat soils and limiting emissions, such as providing space to maintain high water levels. In the lowlands, we develop nature that suits the unique characteristics of our Dutch delta, such as the dynamics of water. In the highlands, the emphasis is on nature as a carrier of the robust, regional water system, such as the stream valleys and wet lowlands. Where possible, we focus on multi-functional and nature-inclusive use of space. We use the green-blue meander to create a nature-inclusive layout of our waterways and roads and we build in a climate-adaptive manner, in order to be more resilient to weather extremes.
- (Choice to be made) Robust ecological connections are necessary to strengthen existing nature areas. The Nature Network Netherlands and the interlacing network of green and blue form the basis for this. Cross-regional and international connections still need attention in the longer term.
- (Choice to be made) In addition, we explore exactly what the design of climate-robust nature for the long term entails and how nature can be designed to be as climate-adaptive as possible. We do this from the realization that there are many uncertainties surrounding the influence of climate change in relation to nature development and biodiversity.

Perspective for agriculture

- (Made choice) For agriculture, several targets and frameworks already exist to reduce impacts on climate, nature and water quality. For example, the NPLG sets emission reduction targets for agriculture regarding nitrogen, CO_2 and nitrous oxide and methane. We also have the action plan 'Growth of organic production and consumption', which fulfills the ambition to use 15% of the agricultural land for organic agriculture by 2030.
- (Made choice) We seize opportunities for new crops that can contribute to this transition and an economically strong sector (including bio-based cultivation, saline and wet crops, fiber crops from Dutch soil).
- (Made choice) We also ask (agricultural) entrepreneurs to adapt to the changing circumstances in the area concerned. Sufficient freshwater supply from the main water system can no longer be anticipated. Freshwater availability will therefore increasingly become a regional and entrepreneurial responsibility, whether or not in a regional context.
- (Choice to be made) Spatial frameworks based on the physical conditions of the water and soil system and the nature, water and climate challenges on site aimed at a perspective for agriculture partly with a view to food security and the diversity of Dutch agriculture.
- (Choice made) We use the Assessment Framework for careful handling of agricultural land to give the importance and value of agricultural land a place in spatial considerations.
- (Choice to be made) We formulate preconditions regarding intersections and/or urban development that affect the regional coherence between water, soil, nature and agriculture.

- (Choice to be put on the agenda) We are exploring the development of instruments to support the transition of agriculture, both financially and operationally. These could include instruments that allow new applicants for space on agricultural land (in the event of a change of function) to make a financial contribution to the transition, which could be used for improving agricultural structure, exchanging parcels of land or taking nature restoration measures.

Agricultural focus areas

- (Choice made) The National Rural Area Program (NPLG) identifies priority areas where, viewed from the perspective of physical conditions and water, climate and nature challenges, a major and urgent commitment to system restoration is necessary. These are the peat meadow areas, transitional areas around nitrogen-sensitive Natura 2000 areas and the buffer zones around vulnerable stream valleys. Groundwater protection areas have also already been designated where groundwater quality must be protected.
- (In addition to these choices, we bring these areas together under the denominator 'agricultural focus areas'. We do this from the awareness that these are areas with complementary area-specific tasks, which also require a complementary approach.
- (Choice to be made) In addition, we will use the agricultural focus areas for an intensified effort to integrate agriculture and nature. Here agriculture will operate more extensively with more room for agricultural nature management, organic farming and the provision of ecosystem services and social services to meet local nature, water and climate challenges. We also ask provinces to achieve 10% green-blue veining by 2030. This is not a hard target, but it will give direction so that the green-blue meander will contribute as much as possible to the tasks to be realized here in the short term. Function combinations with recreation, the energy transition, defense and small-scale housing are here in service of the necessary transition and other agricultural land use, by creating new earning capacity for agricultural entrepreneurs.

Greenhouse horticulture

- (Made choice) The ambition for greenhouse horticulture is to be climate neutral by 2040. This means making the sector circular, with zero discharge on water and no greenhouse gas emissions. Clustering is already part of the approach to reduce the sector's impact on the environment and landscape quality. The Assessment Framework for Climate Adaptive Built Environment encourages a climate-adaptive design of these clusters, for example by combining clustering with the creation of an interlacing network of green and blue to preserve the sponginess of the soil.
- (Choice to be made) In addition to this choice, we are committed to further clustering and intensification at locations with sufficient availability of renewable energy sources. New greenhouse horticulture clusters can be developed at locations near electolysers and industrial centers and where geothermal heat is available. In addition, the linking of heat networks for the built environment and greenhouse horticulture can provide added value, making it an obvious choice of location to position greenhouse horticulture between a heat source and a residential area.
- (Choice to be made) In addition, we are committed to digitization, automation and robotization to make the sector more efficient and sustainable and reduce dependence on labor.

Building-based animal husbandry

- (Made choice) For building-based livestock farming, frameworks have already been established regarding odor nuisance, air quality (particulate matter) and risk of zoonoses and animal diseases (distance standards between farms and to homes) that place restrictions on the concentration of animals and the relocation or expansion of farms. The livestock industry is also bound by reduction targets regarding nitrogen, CO_2 , nitrous oxide and methane that will limit the size of the livestock population. It is therefore foreseeable that the Dutch livestock industry will decrease in size in the coming decades.
- (Choice to be made) In addition to these choices, we want to provide future prospects for perennial farms by bringing together the chains for feed, residue streams, building-based animal husbandry and processing as well as possible. This benefits the environment, the

agricultural structure and animal welfare. Part of this approach is that we make the best possible use of the most suitable, existing locations for building-related livestock farming for permanent farms. We use the autonomous contraction of the sector to gradually move toward the most suitable locations, where space for building-related livestock farming will be preserved.

Area-based approach based on regional water and soil system

- (Made choice) The Water and Soil Stewardship letter announced that we want the water and soil system to be more guiding in spatial developments and on-site land use.
- (Choice to be made) Together with the provinces, we are exploring an approach to arrive at an integral description of the main water system and the regional water and soil systems with which we can unambiguously determine the conditions - present and future. We relate the conditions and challenges per subarea and the interrelationships between areas to the agricultural and nature perspective on the ground, so that land use and nature development can actually be adapted to the physical conditions of the water and soil system.

Choices about water

- (Made choice) We ask all water users to take into account and take their own measures to be more resistant to periods of extreme drought, water shortages and nuisance and salinization, for example by adapting land use or business operations. The goal is to save and retain freshwater regionally and to adapt land use in time. We therefore ask regions to draw up a coherent strategy for this. Restrictions will apply to groundwater extraction via regional groundwater ceilings and preferential order.
- (We minimize the supply of water from outside the area. The provinces and water boards will use area processes to retain and store as much of the area's own water as possible. This will ensure that as much fresh water as possible remains available for level-setting and preventing salinization. External supply will still be necessary, particularly during periods of drought.
- (Choice made) We are committed to large-scale restoration of stream valleys on sandy soils to improve water quality and infiltration. The starting point here is the development of buffer zones of 100 to 250 meters on both sides of the stream. In this way we not only achieve the goals for water quality (from the WFD and the Nitrates Directive) but we can also realize other goals (such as nature, green-blue veining and water storage).
- (Choice made) We safeguard the option of using the IJsselmeer and Markermeer to store more water (water safety) and create a larger freshwater buffer (water availability) by raising the level and/or allowing it to drop further, and in relation to the consideration of discharge distribution in the main water system between the Rhine tributaries and the IJssel. Building outside the dikes or land reclamation in the IJsselmeer region is not permitted.
- (Made choice) We preserve and reserve enough space for the river to increase its discharge and storage capacity. These reservation areas are safeguarded from permanent construction; temporary functions may be allowed under conditions.
- (Made choice) From program IRM, we are working to improve the location of the river bottom and this will reduce desiccation of nature and agricultural areas.
- (Made choice) Continue to construct (peak) water storage.
- (Choice to be made) We deploy the main water system only as a buffer and do not invest in technical measures to bring water to areas that currently do not receive a supply of (fresh) water.
- (Choice to be made) We formulate with provinces and water boards the future conditions for the water and soil system that will guide regionally coherent development for agriculture and nature.

Choices about soil, subsoil and groundwater

- (Made choice) We want to achieve a vital soil. This means that in developments we make positive use of the soil and that in the design and use, the condition of the soil is improved as much as possible. We prevent contamination of groundwater and preserve the present sealing and filtering soil layers. We focus on infiltration and increasing the sponginess of areas to ensure greater storage capacity in surface and groundwater.
- (Made choice) We manage our agricultural lands sustainably. We preserve farmland with measures to reduce contaminants and strive for additional carbon sequestration. We counter leaching of nutrients and chemical pollution to ensure (drinking) water availability. Measures are developed for management of agricultural lands in terms of equipment, nutrients, plant protection products, etc.
- (Made choice) The State is asking provinces to make a firm commitment to grassland conservation to reduce soil degradation.
- (Choice made) In the low moorland areas, we move toward a groundwater level of 20 cm to 40 cm below ground level, depending on soil composition, water system conditions and the needs of the area. This is a groundwater level that must be maintained year-round. This prevents irreversible oxidation of peat and preserves valuable agricultural land for the future as well. In doing so, we minimize land subsidence and greenhouse gas emissions are reduced.
- (Made choice) We raise groundwater levels in the high sandy soils by possibly 10 cm to 50 cm. This will combat desiccation in the high sandy soils. We also limit groundwater withdrawals in and around Natura 2000 areas of high sandy soils to prevent desiccation.
- (Choice made) There are restrictions on groundwater extraction through regional groundwater ceilings and preferential sequences (e.g., for irrigation on high sandy soils).

Movement toward a climate-neutral and circular society

Urgency and tasks

In this movement, we look at the tasks for energy, raw materials and the economy, the related development towards a sustainable energy supply and a high-quality and circular economy, and their interrelationships. This development has a major impact on existing spatial structures and systems. Therefore, in this movement we look at (spatial) preconditions necessary for these transitions: among others, the networks for transportation of energy, goods and raw materials and the digital networks. In doing so, we take into account a healthy, safe living environment and the water and soil system. These preconditions affect existing spatial structures and systems and require a transition. In this "Movement 2" we therefore focus on part of the economy, namely the economy in particular in port-industrial areas and (large-scale) business parks and the logistics networks. The urban economy is part of the movement towards strong cities, towns and regions throughout the Netherlands.

The current quality
Our country has fully benefited from globalization thanks to its open economy and favorable location. Thanks in part to its good infrastructure and excellent international accessibility, our country is prosperous and has an attractive entrepreneurial and (international) business climate. We in the Netherlands have become accustomed to security of supply of energy, raw materials and products. Today, the Internet allows us to buy and have products delivered worldwide, and raw materials are available for businesses to produce all sorts of things. We have also always had enough energy to heat our homes and run businesses at any given time. The Netherlands has one of the most reliable electricity grids in the world and has benefited from cheap natural gas from the Groningen soil for decades. We also have many networks by rail, road, water, air, underground, and digital infrastructure to connect our country with the rest of Europe and the world.

In addition to our knowledge-intensive urban areas, port and industrial areas and business parks are important drivers of Dutch prosperity and employment. The regions with the mainports of Rotterdam, Schiphol and Brainport are international hubs for international flows of goods, talent and technology. We can build on the existing networks for energy and transport. These networks form national and international connections between different clusters. These are places where many economic activities converge, such as business parks and industrial areas. Thanks to this strong starting position, a diverse economy has grown here from raw materials processing, high-tech industry, manufacturing, trade and distribution to business services.

Assignments

Strategic autonomy
Our economy is closely linked to other countries. This has brought much prosperity. However, the firm anchoring of the Netherlands in the global economy makes our country and Europe vulnerable to geopolitical unrest. For example, geopolitical unrest puts pressure on the supply of raw materials and products. We are therefore paying more attention to maintaining strategic stocks, such as food, critical materials and raw materials. In addition, this requires a strategic reconsideration of our dependence on suppliers and maintaining strategic economic activities, at the national and European level.

Energy Security
Geopolitical changes have made us realize how vulnerable an energy system is. We cannot afford to depend on energy sources outside Europe, whose security of supply we cannot guarantee. To continue to guarantee security of supply, we as the Netherlands and Europe will have to meet our own energy needs more than we do now, although it is expected that significant imports of energy will continue to be necessary in the long term.

Planetary boundaries
We are running up against our planetary limits. The transition to a climate-neutral and circular society is also necessary for this. Climate neutral means that our activities do not contribute to global warming, as agreed in the Climate Agreement. This requires, among other things, changes in the energy supply, from fossil fuels to sources such as solar, wind and nuclear energy. In a circular society, existing materials and products are shared, reused, repaired, refurbished and recycled as long as possible to preserve value, prevent waste and reduce resource use. A circular economy contributes to combating climate change, a cleaner(er) environment and habitat, restoration of biodiversity and greater security of supply of raw materials.

Networking
We are continuously working to improve our networks for transporting goods, energy and digital information. The energy transition and the circular transition are going to cause us to use our networks differently and more intensively. For example, the high pressure on the energy grid is causing grid congestion, which means that in large parts of our country, new homes, businesses and schools cannot simply be connected or existing businesses cannot become more sustainable or expand. In addition, we also know that in a circular society, more use will be made of road and rail to transport goods that will not go to waste but will be repaired or reused elsewhere. This while the current networks are already heavily used. In addition, we use more and more digital infrastructure, consisting of cables and data centers, which will also become increasingly important in the future.

Water and soil
The availability of freshwater will become less and less self-evident. Rising temperatures and an accumulation of tasks (water shortage, flooding, water safety, declining water quality) will create bottlenecks in more and more places and for more and more functions. Many economic functions depend directly or indirectly on water and soil for raw materials, energy or cooling. In moving toward a circular economy and making industry more sustainable, the role of the water and soil system must be included. This means that industry and the energy sector must prepare for the fact that freshwater supplies will come under pressure during dry summers.
For soil, it is about proper soil protection, preventing the direct spread of harmful substances to soil and groundwater and indirect spread through emissions and deposition.
Pollution risks surrounding the introduction of new substances must be properly monitored and countered. For the deep and shallow subsurface, commitment to sustainable use of the subsurface (such as geothermal energy for power generation) while protecting strategic groundwater resources, soil and groundwater quality and drinking water reserves is increasingly urgent given the economic functions associated with them. Decreasing water discharge in summer will cause more frequent problems with vessel depths with current trench depths and impact water transportation. In addition, developments must take into account sea level rise, sufficient space around the flood defenses and climate adaptive design of new and existing built-up areas. When replacing and laying new cables and pipelines that cross rivers, erosion of riverbeds must be taken into account. It is necessary to lay them at sufficient depth.

Broad prosperity and spatial quality

Prosperity has increased in the Netherlands in recent years, but there are major differences both between and within regions. In addition, we see that economic growth is not everywhere accompanied by sufficient infrastructure for energy, mobility and employment. The transitions to a climate-neutral and circular society potentially have a significant impact on the lives of the inhabitants of the Netherlands, but the transitions are also of great importance for broad prosperity in our country. Differences in livelihoods are increasing throughout the Netherlands and the quality of the living environment is under pressure. In certain areas, industry and transportation have a negative effect on health and environmental safety. Finally, there are the effects on spatial quality and heritage values.

Like many other tasks facing the Netherlands, the new developments in the (circular) economy, energy supply and networks lead to a greater and different demand for space. They also have a major impact on existing activities and use of space. However, there is still much uncertainty about the direction and impact of these transitions, which calls for adaptive policy. Dealing with these challenges offers the opportunity to improve the balance between people, ecology and economy throughout the Netherlands. It offers the chance to preserve and strengthen existing strengths. Moreover, they also provide the opportunity to take new directions and to make future-proof choices. A healthier and safer living environment provides a more attractive business climate for sustainable companies. By creating a clear spatial vision for the Netherlands, we give direction to future developments, while maintaining adaptability.

Points from the spatial proposals of the provinces and the development perspectives of the NOVEX areas on the Movement toward a climate-neutral and circular society

- Provinces ask the national government to create clarity about the desired spatial-economic course in the future in a spatial-economic vision with clear statements and structural national choices and a smart specialization of (complementary) clusters, also internati- onally.
- There is a lack of clarity about the transition path to, and future visions for, a circular economy. Provinces are calling for a national vision of what transition steps are needed, with a coherent approach to major challenges involved and clarity on the consequences of this transition.
- The energy infrastructure is also identified by provinces as an important precondition for spatial-economic development. Provinces are thus asking for a national vision on the generation and distribution of energy and heat infrastructure, with clear statements and structuring choices and careful incorporation. Specifically, clarity is requested regarding: landfall locations for offshore wind energy, locations for renewable energy generation (after 2030), connection to the hydrogen backbone.
- At the same time, many provinces are concerned about the landscape impact of energy infrastructure.
- In addition, the provinces are raising questions about resolving grid congestion.

Points from PBL and CRa's reflections on the provinces' spatial proposals on the Movement toward a climate neutral and circular society

The Netherlands Environmental Assessment Agency (PBL) indicates that the energy and (circular) economy networks lack a long-term vision. For circular economy there is no political choice now, but a choice for a social exploration along which path the goal, 100% circular in 2050, can be achieved.

The College of Governmental Advisors (CRa) notes that the provincial proposals are still strongly based on facilitating the current economic system, with the existing sectors, the current locations of industrial clusters and the related infrastructure. The CRa argues that investments made from the public sector should also be invested in the public domain as much as possible. A structuring choice here is, in the transition to a circular economy, no longer to invest in companies themselves, but particularly in the areas where economic activities take place. A vision is needed that does not limp along two tracks, but clearly indicates how the transition will be made. The CRa notes that the Netherlands does not stand alone, but has a position within the European and global context. The CRa argues that it is important to gain insight into the workings of those transnational relationships on which relationships cooperation with other European countries should be intensified.

Direction for the future: the movement we want to initiate

Where do we want to go

We are working towards a future-proof economy that is innovative, sustainable and circular with a strong position of the Netherlands in a resilient Europe. The economy allows society to participate and benefit from the broad prosperity that is created. Our guiding principle here is no passing on; we would rather have green and clean industry here than gray polluting industry elsewhere. We also want to guarantee security of supply in the longer term, which is why it is necessary to sustainably provide sufficient energy, critical raw materials and products. A sustainable and circular economy aimed at broad prosperity must be supported by appropriate networks for energy, goods and raw materials and digital networks. Thanks to its strategic location, the Netherlands can build on its logistics function and play a central role within Europe and as a hub in the transitions to a sustainable energy supply, clean transport and the circular economy. We will make full use of the opportunities that the existing clusters and networks provide for this in the future, striving to improve the broad prosperity of the entire Netherlands. In doing so, we will seek a new balance between the developments needed for a future-proof economy, local work opportunity, their use of space and the quality of the environment, in which health and safety, among others, play an important role.

Spatial image for 2050

The way our transportation and energy networks and major economic clusters are laid out in 2050 will seem largely familiar. Most high-voltage power lines, highways and rail lines are in the same place as today. Nor have large industrial clusters changed their locations. This system in 2050 is much more of a logically coherent and functioning whole. What is there now has been used to bundle and cluster smarter, gave direction to regional economic development and how we shaped energy transition and the development of the (circular) economy.

On a national scale, we have strengthened the five major energy-intensive industry clusters. Here are the seaports: Eemshaven, IJmond, Rotterdam and Vlissingen, energy comes a s h o r e from the sea and energy is converted and stored. Around Chemelot in South Limburg there is a clustering of high-quality chemical industry. These large clusters for energy and industry form nodes in an international network of corridors for the transport of goods and raw materials and energy carriers. These corridors run from the IJmond, Rotterdam port and Vlissingen towards the east and southeast. The corridors are supplemented by pipelines for transport of energy carriers. The hydrogen backbone, which in a large circle connects the most important places

of hydrogen generation and use, and the Delta Rhine Corridor from the Port of Rotterdam, through the Moerdijk to South Limburg and the Ruhr. Regions are served by an upgraded high-voltage network. All these networks and clusters are in turn part of a larger Northwest European system for energy, transport and economy and thus also function across borders.

Connections and clusters support the urban and economic development of the regions. Everywhere we strive for ecosystems where companies and educational and knowledge institutions reinforce each other. Existing companies and knowledge institutions offer every reason for this. Think of metal in IJmond, chemistry in Rotterdam and South Limburg, high-tech in Southeast Brabant and electronics and synthetic fibers in Twente. Where possible in fruitful exchange with the more urban-oriented economy of tech, media, design and trade. The development of these regions matches as closely as possible the opportunities offered by the networks and nodes on those networks.

The same applies to the generation and use of energy. For this we look at what suits the landscape, the opportunities in the subsoil and the characteristics of the economy and urbanization. Regionally, decentralized systems are developing that are well connected to the national system. Based on their location near clusters and networks for transport and energy, regions offer the possibility for distinctive economic development, in which we build on the opportunities that already exist and respond to the innovations and techniques of the future.

Clustering also means no longer making space everywhere for every demander. Availability of energy becomes more decisive for the location of business activity. Something similar applies to large-scale logistics functions, which are concentrated near the main corridors for transporting goods. This also reduces the negative impact on the living environment, such as on health, safety risks and spatial quality. In this way we are building regions with room to work, a strong economy and sustainable energy, but also with a high-quality living environment that is healthy and safe.

New direction for a sustainable energy system

The energy system is essential to our well-being and prosperity in our society. How we live, work, travel and produce is largely determined by the energy system. Our current way of living together and our prosperity are largely determined by the fossil energy system we built in the last century. The energy system of the future must enable the Netherlands to be sustainably economically powerful. It is also about reducing dependence on other countries outside the EU in order to protect the security of supply and affordability of energy. Making the energy supply more sustainable is necessary for this.

In order to make the step to a climate-neutral society, the expansion and strengthening of our sustainable energy network is in full swing. In the National Energy System Plan (NPE), the government describes how the Netherlands is developing an energy system appropriate for a climate-neutral society. We want an affordable, reliable, safe, sustainable, equitable and private energy system now and in the future. Therefore, we are going to focus more on bringing together energy demanders and -providers. This is how we make the best use of networks. Where necessary, networks must be strengthened and expanded. We make the choices for this in conjunction with the management of spatial-economic developments, such as housing, business activity, etc. This makes energy an integral part of spatial planning. This makes energy an integral part of spatial planning.

We are putting maximum effort into ensuring sufficient supply of energy and timely availability of energy networks with the growth of renewable energy generation, development of imports and robust expansion of infrastructure to enable sustainable demand. Electricity forms the backbone of the future energy system for all of the Netherlands. In the short term up to 2030, we largely meet the increasing demand for electricity by expanding large-scale wind energy generation in the North Sea and regional energy generation. Current grid capacity constraints and impacts on spatial developments show the need for substantial expansion of our electricity infrastructure. This applies to both regional and national networks and represents a challenge for the period up to 2030, but also beyond. For the long term, preparations have begun for two new nuclear power plants and large-scale energy production at sea is being expanded. We intend to continue generating onshore wind and solar energy and green gas production. We also want to make the most of opportunities for (collective) heat, including geothermal energy, and work on scaling up, for example, hydrogen production, storage, and import and export. Hydrogen will play a selective but important system role, particularly in industry and (heavy) mobility.

At the same time, we are focusing on saving energy demand and setting priorities for the deployment of different types of sustainable energy carriers for activities and sectors. For energy, infrastructure and sustainable energy carriers are scarce for the time being due to shortages of space, raw materials and labor. From a system perspective, scarce sustainable energy is deployed where it has the most social added value and no good alternatives are available. Spatial aspects are also important in this consideration.

The anticipated development of the energy system

- We are committed to increasing the generation of **wind energy at sea**. Its landfall will take place mainly in the large energy-intensive industrial clusters on the coast, but possibly also in other places in the Netherlands including the energy-intensive industrial cluster in South Limburg.
  In the places where the generated wind energy comes ashore, some of the energy is consumed directly. In addition, much space is needed for storage and conversion because not all electricity can be fed into the grid at the same time, and because there is a need for hydrogen for industry, among other things. Consider space needed for electrolyzers, batteries and controllable power plants. These are utility functions for the entire country and for this, along with converter stations and high voltage stations, space is needed at landfall locations. Lack of space in these specific locations may be one of the bottlenecks to timely realization of offshore wind energy and onshore energy infrastructure.
- For **onshore wind and solar** generation, we prioritize the realization of 35 TWh (billion kilowatt hours) until 2030 and the fulfillment of the bids from the Regional Energy Strategies (RES) above 35 TWh as much as possible. It is important to continue scaling up production of CO_2 - free energy on land after 2030.
- At least until 2035, we will use green **hydrogen** primarily to make industry and mobility more sustainable. We situate large-scale electrolysis primarily around the landing of offshore wind energy in order to limit the expansion of electricity networks. One of the issues here is also freshwater availability. The national hydrogen transport network (back- bone) will connect the five industrial clusters, the underground hydrogen storage and the Netherlands with abroad. As such, the national transportation network will not directly connect all companies that want or need to use hydrogen to become sustainable and future hydrogen production projects. The supply of hydrogen is expected to be limited at least until 2030/2035, thereby affecting regional demand and the need for regional grid infrastructure.
- Increased production of **green gas** is desirable with a view to making sectors that cannot be made sustainable by other means. These include parts of the built environment, industry and agriculture. The goal is to produce 2 billion cubic meters of green gas by 2030. After 2030, depending on policy goals yet to be determined for after 2030, this production may increase further.

- In addition, preparations are underway for the construction of two new **nuclear power plants** for large-scale electricity generation. By 2040, Small Modular Reactors (SMR) may also become deployable for the regional energy system. The national framework to properly make these choices at the regional scale is being developed through the Program Approach SMRs, with knowledge of and in collaboration with the regions. Finally, a roadmap under the National Radioactive Waste Program for a final disposal of radioactive waste is being developed. This should lead to a site selection for final disposal of the radioactive waste.
- Smart use of **heat sources** (geothermal, waste heat, solar thermal and aquathermy) can reduce space pressure and pressure on the electricity system. It is important to increase the use of collective heat networks. Where deployment on these is not reasonably affordable or feasible, other options such as all-electric, hybrid heat pumps and green gas can be considered.

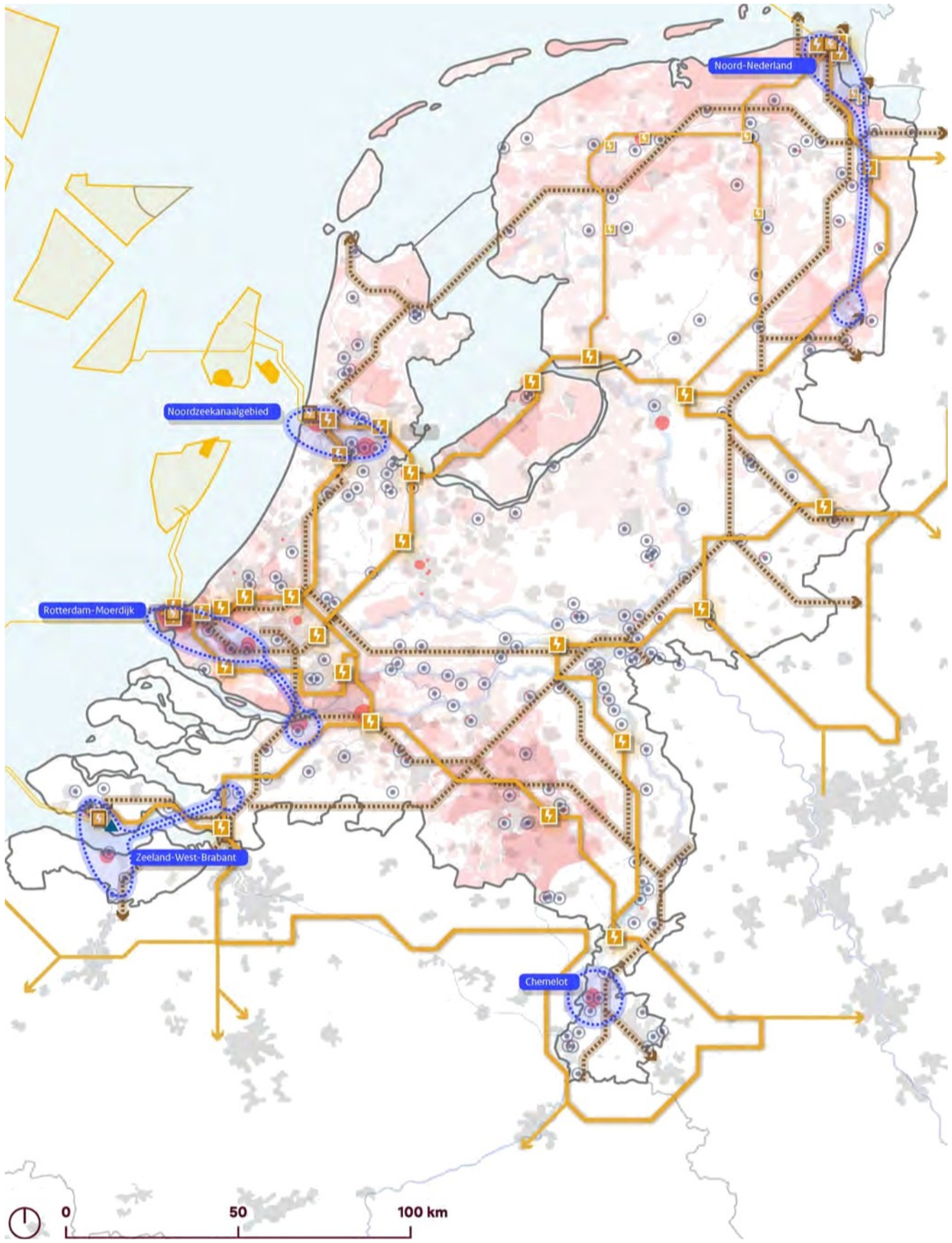
Spatial elaboration

A sustainable energy system requires more space than the fossil fuel system. We will produce energy more often in the Netherlands and above ground. Sustainable production also has more spatial distribution and production fluctuations, requiring transport, storage, conversion and controllable capacity. Furthermore, investments are needed on the demand side to be able to use the renewable sources, such as charging infrastructure and heat pumps. The environmental and safety impacts of energy generation, conversion, transmission, use and storage also have spatial impacts. This demands a lot from our networks. The fossil system is gradually transitioning into the sustainable system, which also temporarily requires more space.

From final images of a future climate-neutral energy system and the space requirements that go with it, we determine what this already requires of our spatial programming. Through the Energy Main Structure Program we plan for new developments and changing energy needs for the national components of the energy system and determine smart locations. The early consideration of the availability and spatial impact of the energy infrastructure when planning spatial functions, such as a new residential area or business park, is of great importance. This can ensure that the energy infrastructure is used more efficiently and effectively and that its implementation is accelerated. The incorporation of energy infrastructure into existing built-up areas and the landscape is also often difficult, where the combination option with other tasks offers an opportunity to realize multiple measures simultaneously. There are also issues concerning the water and soil system, including the availability of fresh water and space in the deep and shallow subsoil. Where spatial integration used to be the final piece of an energy project, space is now becoming the starting point.

Instead of planning project by project, we can look at the area as a whole and over time to see where which function fits best, also considering the impact on the energy system. This means that, given the scale of the energy task and the impact on the living environment, a different way of working is required of governments in which spatial issues and energy issues are brought together. This involves, on the one hand, anticipating the space requirements of necessary infrastructure for the longer term and, on the other, spatially steering developments that are desirable both for the energy system and for the efficient use of space. For example, we direct the bringing together of energy demanders and suppliers and the locations for new energy functions for the storage and conversion of energy. We do this to make optimal use of the available space on the networks. This is also known as 'energy planning'. Ultimately, changes must also be carefully accommodated spatially, with an eye for a healthy and safe living environment.

Energy - current **situation**



National structures
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Five industry- and energy-intensive clusters
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--' Pipeline strip(taken from Structural Vision Pipelines) A
Nuclear power plant(Borssele)

North Sea
w Wind farms in operation
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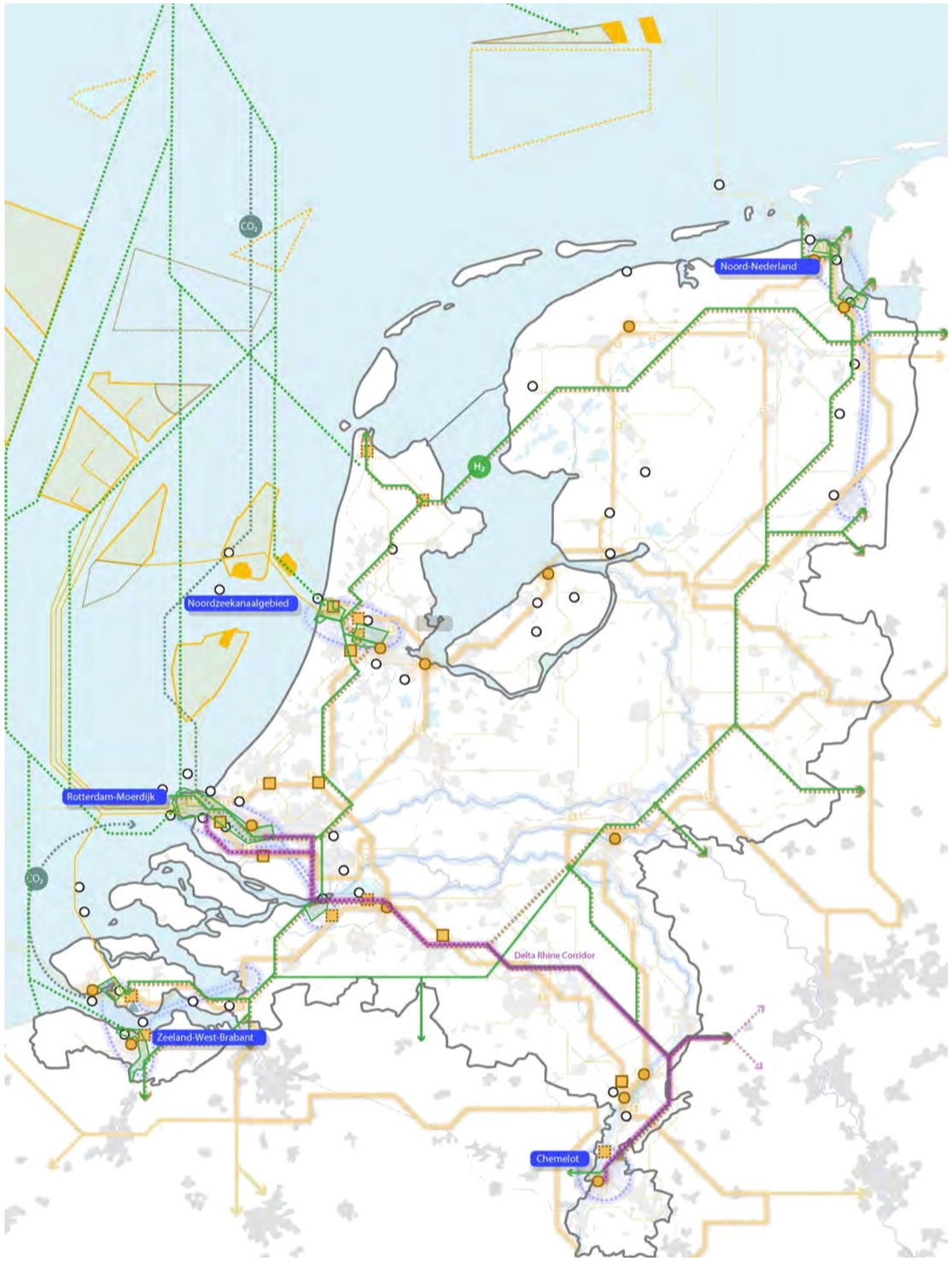

Energy - choices made

National lcnodes and infrastructure

É* Five industrial and energy intensive clusters Designation area large-scale electrolysis (source: PEH)

O Designation area large-scale power generation

--' Reconfirm pipeline strip reservation

Hydrogen backbone

—— Delca Rhine Corridor

0 Projeȼt locations(rural projects in the region - derived from Survey Map National Energy Infrastructure Projects)

North Sea

. .....Exploratory abstract COI network.

. .....Indicative routes hydrogen pipelines

Direct current cables at sea Wind energy areas in the North Sea

Existing wind farms Designated

Designated under construction/procedure

-.'"'.; Wind energy search areas

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(potential) Landfall sites wind from sea

Location known

B Landfall sites to be investigated.

Sources: *Overzichfitaart* Motionoïe *Energy in#astiuauurproje0en,* Conrepr NRD VAWOZ salt-so4o, Progr0mm0 North Sea

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New direction for an innovative, sustainable and circular economy

We are committed to a future-proof economy that is innovative, sustainable and circular, with a strong position of the Netherlands in a resilient Europe. In addition, we want society to actively participate and benefit from the broad prosperity that is created. We need a strong and competitive business community to maintain our collective facilities, to guarantee our level of prosperity and to realize the transitions. That is why we want to handle space for business activity in a conscious manner and facilitate companies that contribute to the future economy of the Netherlands where possible.

In the future economy of the Netherlands, we want to create maximum economic, social, ecological and social value per hour worked, within planetary limits. This involves, for example, the reduction of emissions, the sustainable use of (primary) raw materials that are renewable and the sustainable use of other scarce inputs, such as fresh water. The focus is on sufficient high-quality business locations for knowledge-intensive industry and services, the design and facilitation of a circular and carbon-neutral industry, a good integration of large-scale business establishments (including cluster 6, ETS-compliant companies) and sufficient establishment opportunities for small and medium-sized enterprises.

One aspect of the transition to a sustainable economy is the agreement to achieve a circular economy by 2050. The circular economy contributes to combating climate change, a cleaner environment and cleaner living conditions, restoration of biodiversity and greater security of supply of raw materials. The transition to a circular economy focuses on four strate- gies: a reduction in the use of raw materials, the substitution of raw materials (replacing primary raw materials with secondary raw materials and sustainable bio- raw materials), extending the lifespan of products that therefore need to be replaced less quickly and, finally, the high-quality processing of products at the end of their lifespan, reusing the components of the products.

Environmental categories
Businesses are classified according to the potential environmental nuisance they cause, into odor, noise, dust and external safety. For each component, this leads to a distance that must be kept from other sensitive functions such as housing. Based on that distance, businesses are assigned to an environmental category. The environmental categories are numbered from 1 to 6, with subcategories such as 3.1, 4.2 and so on. Companies in environmental category 1 have barely any environmental pollution such as offices, and companies in environmental category 6 cause the most environmental pollution such as a nuclear power plant. We speak of high environmental category (HMC) at 4, 5 and 6. But companies in environmental category 3 are also difficult to mix with sensitive functions.

The work sites

We see that different types of work locations are very important for the movement towards an innova- tive, sustainable and circular economy:

- **The port and industry clusters** are crucial for a successful climate and energy transition of basic industry. Energy-intensive industry is concentrated in five clusters of national importance: Rotterdam-Moerdijk, North Sea Canal Area, North Netherlands, Chemelot and Zeeland-West Brabant. The port and industry clusters will contribute to achieving our national
  CO_2 target and livability in the Netherlands, and at the same time are of great importance to our current and future prosperity. These industry clusters are a source of direct and indirect employment. RGD, innovation and productivity growth are essential for the climate and energy transition. Even when we have a circular economy, these areas remain crucial. After all, they are needed for the large-scale processing, including storage and transshipment, of raw materials and

materials. To facilitate this development towards a circular economy, additional (environmental) space is needed in and around the port and industrial areas. In this way these areas can make a lasting contribution to the demand for more open strategic autonomy, the circular transition, energy transition and the sustainability of existing industry and new industry. With this safeguarding the increasing social attention for a healthy and safe living environment.

- **Local and regional business parks** will remain an important place in the long term for small and medium-sized enterprises (SMEs), industry outside the five clusters (cluster 6) and the transition to a circular economy. This requires (affordable) space for construction and manufacturing companies, for example. Moreover, in particular in the vicinity of large(r) cities, there is a permanent need for practical employment. Many SMEs are located on business parks that are under increasing pressure to be transformed into residential areas. Because of the housing challenge, the environmental space of such business parks is also under pressure. Renewed attention to the existing space for business activity and its redevelopment is needed. In addition to local business parks, the circular economy will also require space in residential areas, near public transport hubs and shopping areas. In order to enable and encourage repair, collection and sharing of products at the lowest possible scale.
- **Campuses** are important physical locations within the extensive landscape of Dutch research and innovation ecosystems. To keep innovating, these locations, where companies and knowledge institutions work in collaboration with governments on research and the further development of new technologies, are important. Innovation contributes to the transition to a fossil-free and circular economy, productivity growth and broad prosperity. In addition, campuses are physical places that offer high-quality location opportunities for knowledge-intensive activity and for (the joint use of) research facilities, such as lab, clean room and test facilities and experimentation space.
- A vital and future-proof (regional) economy requires sufficient space for **large-scale business locations**. We can use these development sites to further develop positions in value chains, become more strategically autonomous, fitting the regional and provincial ecosystems. Qualitatively appropriate space for large-scale manufacturing companies, (circular) building, manufacturing and plants for renewable energy production is becoming scarce. This while the demand for large-scale space remains present, prompted by the sustainability of industry (circular and energy), digitalization, housing and our purchasing behavior. To ensure that large-scale business establishments and distribution centers with quality are realized in the right place, agreements have been made with provinces and laid down in a policy line. This means expansion of business parks only when the added value to society has been demonstrated, reuse of existing locations where possible, clustering along international corridors and careful and multiple design for new construction.

The data traffic system

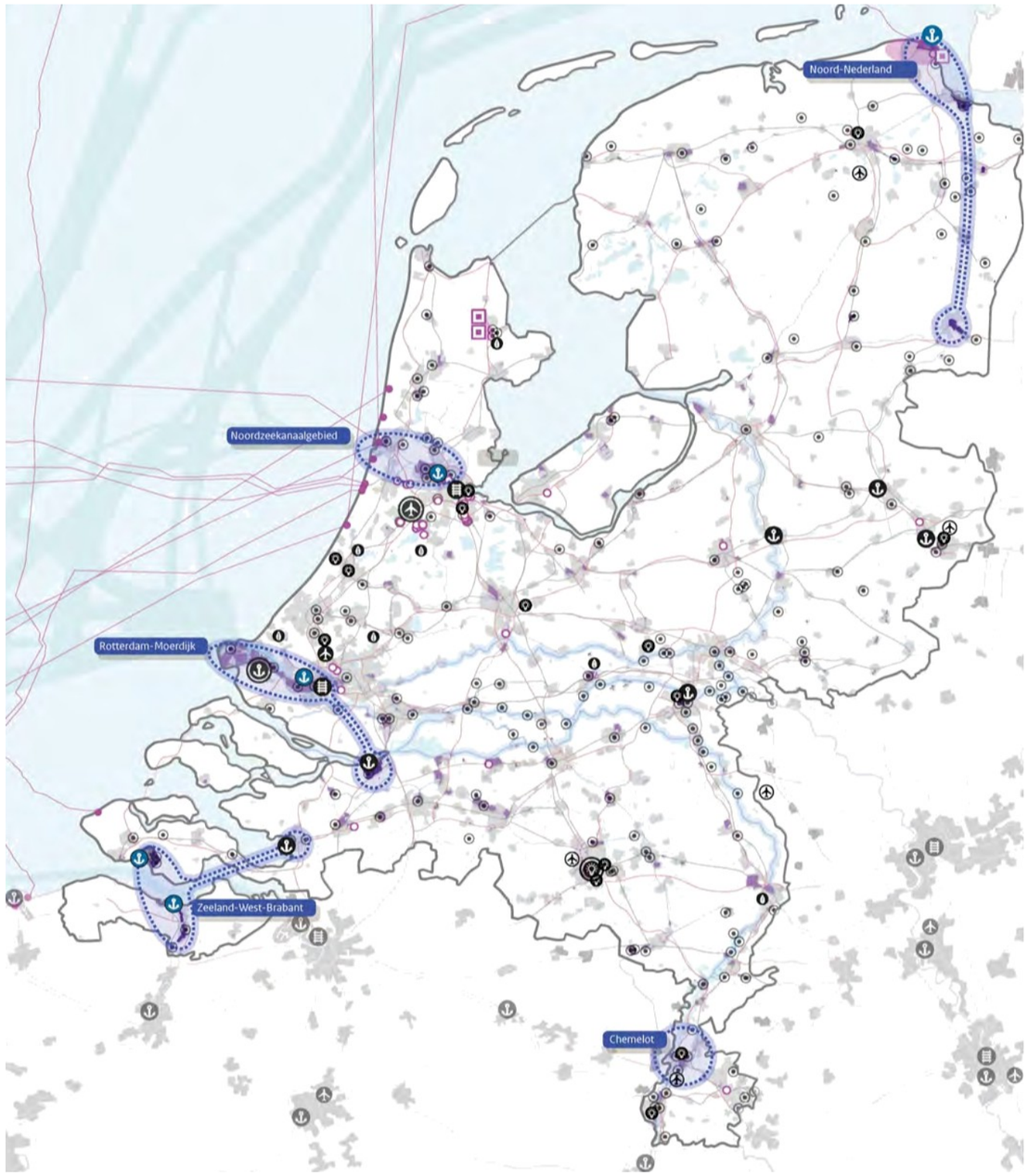
- Our **digital infrastructure** is essential for our digitized society. For example, it is crucial for the current and future economic earning capacity of the Netherlands. In addition, the digital infrastructure contributes greatly to the broad prosperity of our country, for example to social interests such as sustainability, security and inclusiveness. Digitalization offers opportunities to respond to and grow along with future social needs. This requires that sufficient space is provided for the development of a safe and high quality digital infrastructure. The digital infrastructure functions as an ecosystem. Each link in this ecosystem, such as sea cables, data centers, Internet nodes, hosting and cloud service providers, is necessary for it to function. Moreover, they reinforce each other's local presence. We no longer allow new *hyperscale* data centers, with the exception of two areas.

Spatial elaboration

The transition to an innovative, sustainable and circular economy requires the preservation and better utilization of existing work locations. At the same time, we see that the demand for space for economy is growing due to the transitions and the autonomous growth of the economy. In addition, in the transition phase to a circular economy, more (structural) (environmental) space is also needed for circular economic activities. Because the linear and circular economic systems temporarily coexist, (temporary) sliding space is also needed for activity.

In the circular economy, we need space for collection, logistics, production, repair, processing and use to link raw material flows, return flows, production chains, processing of biobased building materials, repair and use into a circular system. These different links need to be given a place and connected. Some places already exist, such as major port and industrial sites and waste processing sites. We also need to look at the raw materials we extract domestically. We aim to reduce the use of primary building materials. But spatial reservations are still needed for the extraction of sand, gravel and clay, especially for coastal defense (also in the longer term), dyke reinforcement, infrastructure development and housing.

Moreover, the places where traditionally only economic functions were located are now also used by other space demands. Such as by the landfall and conversion of energy in port areas and by housing construction on or directly near urban industrial sites. This puts further pressure on space for work locations and the transition to a future-proof and circular economy. We therefore choose to more actively protect existing work locations, make more intensive use of them and make them more sustainable. Here we are also looking at strategic expansion opportunities for economic functions, especially if existing work locations make way for other functions.



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Economy - current **situation**

This map shows the industrial, energy and maEerial-intensive economy in business parks and campuses. The urban economy is not shown on this map.

Clusters and nodes
. Five industry- and energy-intensive clusters
gg ['4ainports NL (port, airport, brainport)
0 Greenports
O 0 TEN-T airport (core/extended network)
§ TEN-T port (core network)
0 Seaports
0 TEN-T rail-road terminal (core work)

HMC Business parks HMC
category q
HMC category §
HMC category 6

Campuses
Campus category 'adult'
(8FOn:lnrl0v0tieSp0tte 2O2)

Sixth 'lustre Companies
'¿-/' Sixth cluster of industry
(Source: Sixth 'lUster on dose Y00 COI in EU ETS.
Nede/london £missionoutput. VDM)

Digital infrastructure
Hyperscale data centers (indicated are current three locations + exception areas where expansion is allowed) DaEacenters
>§ooom°
nternational submarine data cables + landing points (cables continue over land, these are not shown on the map)
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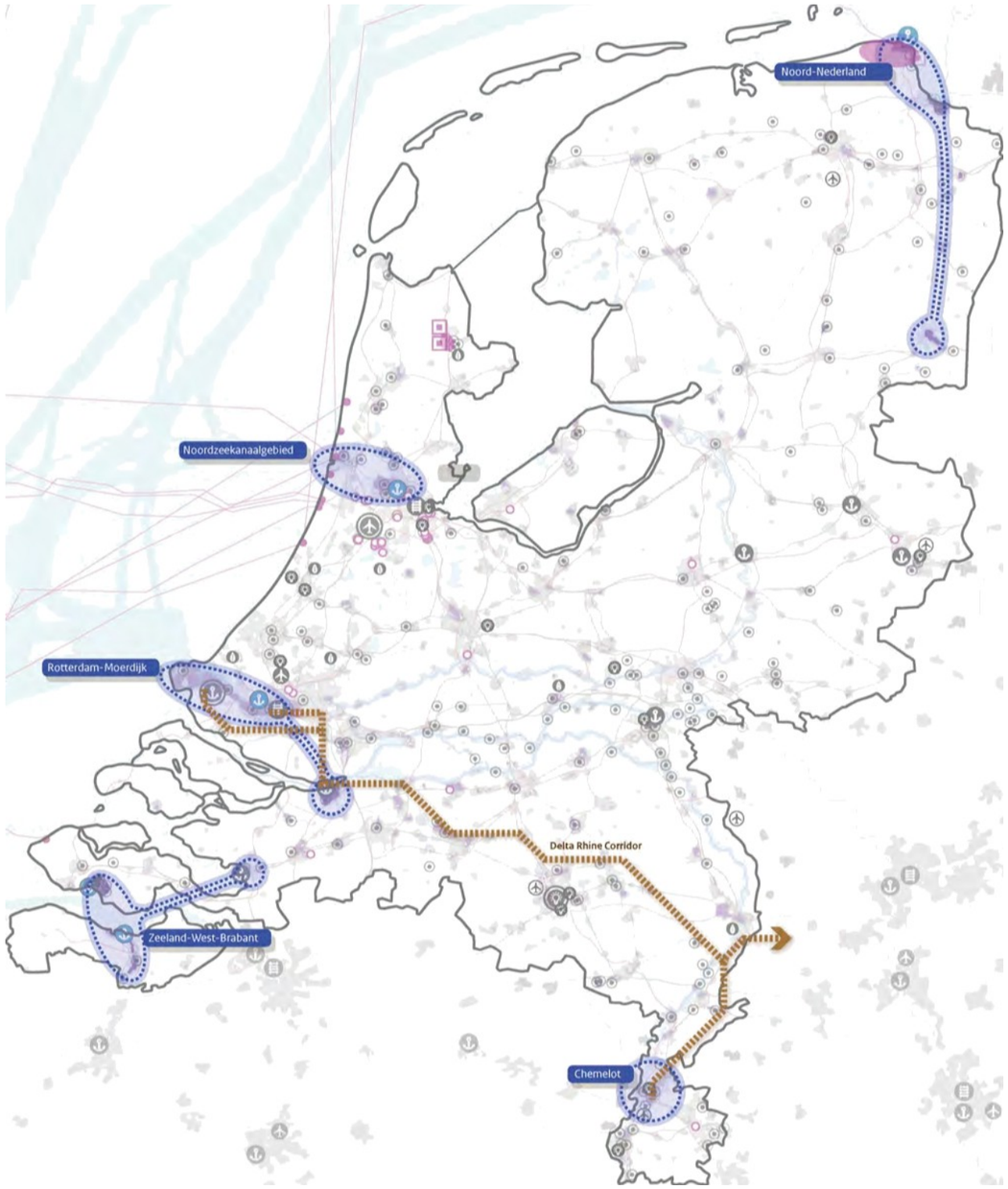
Economy - choices made



Five industry- and energy-intensive clusters
DelEa Rhine Corridor
Exception areas where Hyperscale DaEacenters expansion is allowed

Underlying map
Card|agen from 'Economy - current situation'

0 s0 10o km

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New direction for transportation of for goods and raw materials

Freight transport is crucial for energy transition, the circular economy and our trade economy, among other things. By freight transport we mean all the transport of goods, products and raw materials needed for energy supply and (circular) economy. We are moving towards sustainable, international networks for transport by rail, water, road and pipeline. With the premise that the security of supply of vital goods is guaranteed at all times, because we know that this is crucial for the earning capacity of the Netherlands.

The freight transportation system

For the transportation of goods, we are committed to a multimodal freight transport system that supports the local, regional, national and intercontinental system. In this system, each modality has its own role. **Rail** and **inland waterways** are suitable for moving most large flows of bulk goods between industrial clusters and abroad. Because many goods can be carried per move, these are space-efficient modes. Rail lines and waterways are limited in their ability to transport goods to all customers. At the same time, the **truck** continues to play a crucial role in transporting goods that cannot be moved in bulk, or where this is not desirable. In addition, the truck is essential for delivering goods to end users, over short distances or when the destination is not accessible by rail or inland waterway. A network of **multimodal terminals** is needed for good interchange between modes of transport, such as transferring goods from barges to trucks

Pipelines have an important role to play in the future. Pipelines offer opportunities for space-efficient and safe transport, especially for environmentally harmful or hazardous substances. The energy transition will lead to more transport of hydrogen and hydrogen carriers such as ammonia. If properly constructed and maintained, transport via pipelines is safe. However, it is necessary to take into account the organization of the subsurface as well as the bearing capacity and water level. Because, unlike above-ground modes of transport, the networks are closed, there is no interaction with other traffic. The pipeline is an important modality in facilitating energy transition. Transport through pipelines can also result in limiting or even reducing transport flows on other modes, creating space in other locations for other important tasks, such as housing or urban development along railroads.

Directly along transport networks, noise or (harmful) emissions and ensuring safety put a strain on the available space. Networks therefore also have an indirect demand for space. In view of the health and safety of residents, the use of space along networks must be appropriate. This indirect demand for space is kept to a minimum. A categorization of networks can help here. Differentiating networks into a limited number of categories according to type of function, use and the spatial characteristics of the environment helps to make sharper choices to steer desirable use. The goal is to make short-term choices that contribute to the desired future and limit the use of space along networks.

The regions with the **mainports** of Rotterdam, Schiphol and Brainport are international hubs for international flows of goods, talent and technology. Our **(air) ports** are central nodes in global systems, making them important for the Dutch economy. The **seaports** with their good hinterland connections are distinctive factors in our country's business climate. For decades, we as the state have invested in port development and landside access. At the same time, the scarcity of infrastructure capacity requires us to look strategically at the further development of "Holland's distribution country. European countries guarantee free movement of each other's goods and services. Germany is partly dependent on the Netherlands for the supply of goods through its ports. We are committed to strengthening cooperation with our neighbors, such as stimulating cooperation between ports in northwestern Europe, while a l s o considering the impact of those transport flows on the environment along the infrastructure. In doing so, each

(air) port occupies a specific position in line with the (existing) networks for transport to and from the (air) port. Investments in networks needed for the cross-border transport of people and goods are better coordinated with neighboring countries. Hereby, shifting off is avoided as much as possible.

Spatial elaboration

The function of a network varies by location. A clear categorization and definition of the specific function of a network per location contributes to the further structuring of the network. Categorization of networks clarifies which choices can be made in the area of spatial development and can thus contribute to a future-proof layout of the Netherlands. For example, adapting a network with an urban character can help identify suitable locations for urbanization and guide the selection of locations for clustering industry. This ensures that all networks contribute to the more efficient design of our economy and the continuous improvement of a healthy and safe living environment.

Each modality has its advantages and disadvantages. We are committed to encouraging the right modality at the right place and time. Within cities or business clusters we focus on space-efficient modes of transport. This system requires transfer points, for example from the train to the bicycle or (shared) car, or from a barge to the truck. Space must remain at strategically located locations to establish or maintain these multimodal nodes. In addition, we actively pursue good links between national, regional and local networks (e.g. at nodes).

Much is still unknown about the volumes of energy carriers, goods and raw materials we need for the transition to a climate-neutral and circular society. Energy-intensive industry is often located in ports and near the important corridors, so new energy carriers and raw materials there can connect relatively easily to the existing infrastructure. For the energy-intensive economy and industry that are not located in ports, (underground) hinterland transport of energy carriers will be necessary to realize the sustainability task at hand. For reasons of external safety and the need to minimize the burden on networks, the underground transport of raw materials is preferred, and the transport of new energy carriers is preferably handled by pipeline. Pipeline transport has limitations: it must involve the transport of large volumes between fixed locations. The above-ground transport of hazardous substances cannot therefore disappear completely. In addition, choices must be made about which locations can be connected and which cannot.

With transportation, it is important to pay attention to a fair regional distribution of benefits and burdens. For example, freight transport also leads to positive economic effects, such as employment, in regions with logistics hubs. In contrast, other regions through which traffic primarily passes face the negative impact on a healthy and safe living environment.

Freight transportation - current situation

TEN-T networks* and nodes
e TEN-T airport (core/extended network) TEN-T port (core/extended network)
0 @ TEN-T rail-road terminal (core network) Main rail links (core network TEN-T) Main road links (core network TEN-T)
- - Main water links (core TEN-T network) Pipeline reservation area (from Energy Main Structure Program)

*The bernnetwerb TEN-T is the network dpt in zoso must comply with all European *o(spro#en*. 0on the #ooFt stoon also nodes from the *comprehensive* network, these must comply in zosoand the f U-o{spr0ben.

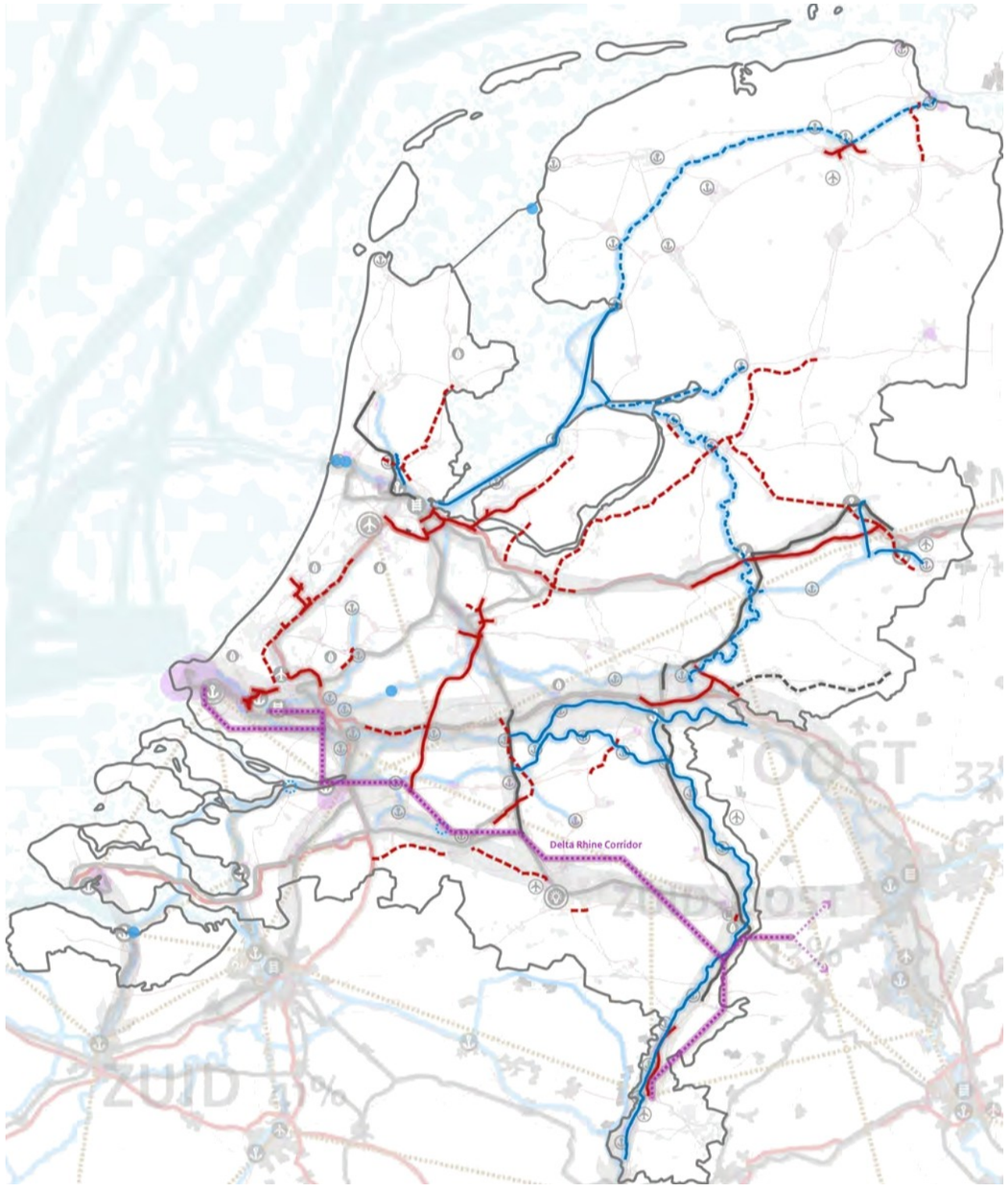
**Percentages by freight r0Fridor are Offtaken from the Background Ropportope *SA* Freight transportation *(2021)*
Integral

Other **nodes/clusters**
O Greenports Shipping routes XXL Logistics

0 50 100 km

The Species zn| based on /élt ei/jAe i0jmie on 0asis von current Itennsi *and insights.* They further igt ewefrtt inliet *process* noarde 0rNv erg-Nota Ruimte.

Freight transportation - choices made



MIRT
MIRT Railway (under construction/in planning phase or exploration) MIRT Road (under construction/in planning phase or exploration)
MIRT Waterway (under construction/ in planning phase or exploration)

MIEK
Delta Rhine Corridor

0 50 100 km

DeAd onne zn.J based on{ïæl eitljke inlbrmot ie on ‘asis von current Ïennsi *and insights. They* are further *developed* in *the process* towards the OmN¥ erg-Nota Ruimi e.

Water and soil guiding

Soil and subsoil

The demand for underground and above-ground space is highly interconnected, especially as systems become more frequently interconnected. In order to use underground heat capacity more effectively and sustainably, more subsurface direction is needed. In urban areas and the built environment, there is an increase in the number of ground source heat systems. The energy transition and the changing demand for heating and cooling are social challenges that require space above ground as well as underground. Geothermal energy is an important source of heat. Extracting heat and drinking water cannot always be done at the same locations. A balance must be found between protecting drinking water reserves and utilizing the potential for geothermal energy. In accordance with the principle of "doing justice to scarcity", we are committed to multiple use of space wherever possible. In addition, geothermal energy can only be used if it meets the conditions of safe and responsible mining. The application of geothermal energy is now mainly for greenhouse horticulture, industry and businesses. In the future, this source will also be used for homes.

Freshwater availability

The availability of freshwater will be less and less obvious. Rising temperatures, among other things, will reduce water quality and the availability of clean freshwater. This will impact the cooling and discharge capabilities of industry, data centers and power plants. The policy framework for (new) water consumers and with regional groundwater abstraction ceilings will further determine which party is allowed to abstract water from which source and at what times this is permissible. Reducing drinking water consumption by a 20% reduction by large consumers is necessary. These goals are already included in the Water and Soil Stewardship Program and are elaborated in the National Plan of Action for Drinking Water Conservation. On top of this, the circular use of fresh water and heat, and diversification of sources are needed to cope with water shortages and discharge problems now and in the future. The transition to a sustainable energy supply also results in increasing water demand. With large-scale electrolysis, the amount of freshwater needed for production and cooling is large. The location of large-scale electrolysis partly depends on the availability (and quality) of cooling water. One possibility is to locate large-scale electrolysers in coastal areas where brackish or seawater is widely available for cooling.

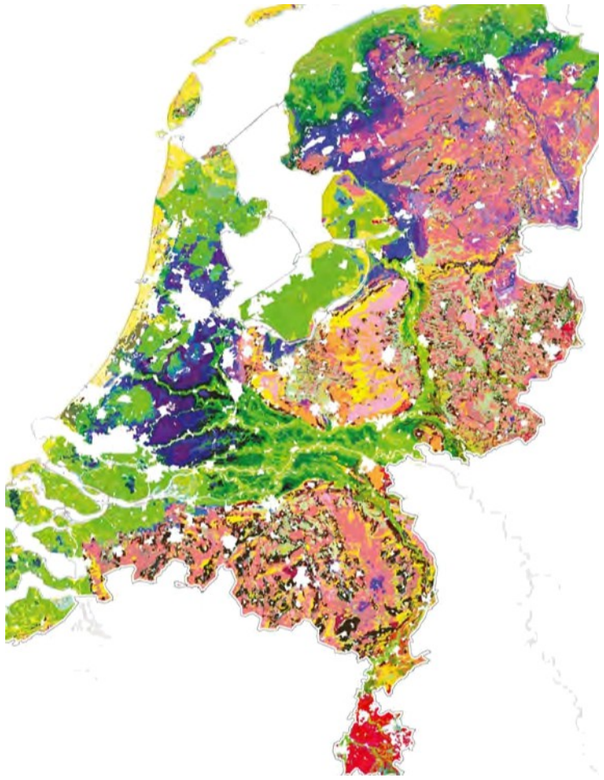
Water safety and flooding

When investing in existing energy-intensive coastal industrial clusters, it is necessary to take sea level rise into account during the life of the investment. This can mean increased construction, or reducing the vulnerability of the investment through smart design of buildings, (critical) infrastructure and/or installations. A lower water discharge combined with sea level rise also has an impact on salinization in the ports and the need for temporary closure of the locks or lock restrictions. In more places in the Netherlands, the increasing likelihood of flooding due to cluster showers, among other things, also requires choices to be made, such as designing critical infrastructure with sufficient climate resistance. It is also necessary to maintain sufficient space around the dikes and rivers for future expansion possibilities.

North Sea

It also looks at the availability of space at sea for renewable energy generation, among other things. The policy ambition for offshore wind energy is 50GW in 2040 and 70GW in 2050. The condition is that the rollout of offshore wind fits within the ecological carrying capacity of the North Sea. The issue is both spatial and ecological compatibility. Further consideration seems necessary in relation to other forms of energy generation, nature, shipping, food production, sand extraction and fisheries. In addition, it is important that the Ministry of Defense is given room for military exercises and that the cultural heritage on the seabed is preserved. Developments in the North Sea must take into account the (future) extractability of sand for coastal defense in the future.

Water and soil guiding movement toward climate-neutral and circular society



Water availability

Freshwater is no longer naturally available **everywhere** Increasing

salinization

Greater var iations of river runoff and
resulting drought and flooding and impacts
on water distribution and quality

Areas legally protected for the
current or future extraction **of drinking water**

_____ Provincial groundwater protection areas

-'''''''t Supplemental Strategic Reserves (ASVs)

National Groundwater Reserves (NGRs)

Water safety and nuisance

Water safety and flooding

Adequate space needed around flood defenses
for future strengthening

',°,° For now, no seaward coastal expansion

No building in floodplains and IJsselmeer area

Areas with a flood probability
": oo at >zocm water depth*

",ÊÊÊÊÊÊÊÊThe riparian zone and
reserying zone for inland space
rivers*.

Areas with wetter conditions Search areas of

peatland for level elevation

In accordance with Class U in the StrTr"rgsücol!honJP/in*,sperspcrtir[Slcrhto/{P's v.'oterove'lost c.n oms!ro+z'fngen in the Spatial aKvegingskader klimaaLzdaptive gebouv.'environment. '"- As part of program IRh1, the spatial reservation will be updated 'orden

Soil conditions

Consider opportunities and constraints from local soil conditions

Peatlands

E Mocious soils

Sandy soils

.t River clay soils

/f, Sea clay soils

Brook valley

soils Loamy

soils Loess

soils

These maps show the relevant components uiE the waEer and soil system for the spatial str aEegy within this movement.

De kaarten zijn geboseerd op feitelijke informatie, op basis van huidige kennis en inzichten. Ze worden verder uitgewerkt in het proces naar de Ontwerp-Nota Ruimte.

Preliminary draft Nota
Ruimte

The spatial strategy towards 2050

We are committed to a coherent development of energy, economy and mobility, linking the various networks and clusters and making the best possible use of them. In this way, energy sources and space- and energy-intensive functions are considered in conjunction and supply and demand are brought together as much as possible. The existing system for energy, economy and freight transport with networks, clusters and transfer points offers a good basis for this.

The spatial strategy that we use here consists of four spatial principles that we apply at three levels of scale. The movement towards a sustainable and circular society requires efforts at **local** (scale level of the neighborhood and business park), **regional** (logically connected regions) and (**inter**)**national** scale level (the national networks and clusters and international exchange). An integral strategy for these scales, in which the scales are aligned and mutually reinforcing brings the ambition of climate neutral and circular closer.

The four spatial principles form the basis for the spatial elaboration of the movement we are embarking on. They give further substance to the three guiding principles in the National Spatial Strategy (do not pass on, multiple use of space, area characteristics central) and make them specific to this movement:

- Conserve energy and resources wherever possible;
- Optimize supply and demand in conjunction;
- Better utilize and protect the existing;
- Strategic expansion.

The principles are not sequential. They are applied at all three scales described later.

Four spatial principles

Saving energy and resource use wherever possible

We are committed to energy and resource conservation because reducing the demand for energy, raw materials and resources results in reduced spatial impact. In addition, we strengthen our strategic autonomy by reducing dependence on others. In addition, we avoid passing on problems elsewhere. For the economy, this involves a lower demand for products by consumers, for example by extending the life span of products, and the better utilization and reuse of raw materials and materials by producers. For energy, it involves, for example, properly insulating homes, encouraging modal shift (think: from car to train) and changing (production) processes so that less energy is needed. Sometimes, however, further savings are not technically or financially feasible. Moreover, savings will not lead to a reduction in the use of space everywhere because the demand for electricity, raw materials and materials will grow as a result of demographic and economic development, among other things.

Optimize supply and demand in conjunction

To use the available space efficiently, we look at supply and demand together. This means that we examine, for example, where energy is generated on a large scale and where companies with a high demand for energy can best be located, and vice versa. But also at the local level we encourage residential areas and business parks to exchange energy. This also applies to raw materials and goods: where do they come from and what is the best place to process or reuse them and can we then ensure that transport takes place over the smallest possible distance. By choosing and distributing sharply in this way, we optimize the relationship between supply and demand and reduce the spatial impact across the country. However, this may mean that in some places the demand for space or the impact on space and the living environment is actually high. Among other things, the
water and soil system impacts opportunities for balancing supply and demand,

the opportunities for heat in an area, for example, depend in part on the possibilities for geothermal energy in relation to drilling through groundwater protection areas and water catchment areas, also the opportunities for electrolyzers depend in part on the availability of sufficient water.

Better utilize and protect the existing

We will better utilize and protect existing (environmental) space. The transition to a sustainable and circular society requires substantial (environmental) space in business parks and on networks and transfer points. Therefore, protecting and making better use of the existing (environmental) space forms the basis for development space into the future. By doing so, we make optimal use of the existing space and reduce the demand for new space for industry and (energy) infrastructure. We will make better use of the existing industrial sites and ports by using space more intensively. We will do this by stimulating multiple use of space, such as using company roofs for parking or generating energy. In addition, we encourage companies to make the most intensive use possible of multi-level building. We will also look at how to make better use of unused environmental space. This also means that redevelopment or transformation of existing business parks is necessary to enable more intensive use. We are also going to make better use of the existing networks. For example, the infrastructure is set up for peak times during the day, while at other times it is underutilized. By spreading the use of networks more widely, we can use them more intensively. We can also look at bundling of flows and efficient use of transshipment points. By focusing on this, we also ensure minimal impact on health, environmental safety and quality of life.

Strategic expansion

We know that with the current (environmental) space we do not provide enough room for economic growth and transitions. Even with conservation, supply and demand in conjunction and the optimal use of the existing, the growth of the economy, the transition to a circular economy and the development to a sustainable energy system are expected to require structurally more space in the long term.
There will also be a long transition phase where the linear and circular systems coexist. This also requires (temporarily) additional space. Therefore, strategic expansion is also necessary, based on a broad consideration: looking for suitable places for expansion from the perspective of coherence between the energy system, economic development, space on the networks and broader spatial and social aspects.

Optimizing at three scales

The movement towards a sustainable and circular society requires efforts on a **local**, **regional** and (**inter**)**national** scale. We envision a strategy at these scales, aimed at making the most of opportunities as well as strengthening different areas in the Netherlands. At the scale levels we apply the four spatial principles.

Optimizing at the local scale

It is important to make what can be done locally possible as much as possible locally. We want to provide opportunities for this nationally. This starts with making as much effort as possible locally to save energy and raw materials.

For energy, it is important to generate and use as much energy as possible locally. To this end, we use the combination opportunities that neighborhoods and business parks, for example, offer for a closed system of generation and use of energy as much as possible, but not without connection to the regional network to maintain security of supply. Locally, it is also about thinking intelligently about the placement of energy supply and demand. In particular with new housing developments and charging infrastructure to enable necessary sustainability in the mobility sector. By taking into account earlier

take into account capacity on the grid, additional line infrastructure and delays in the energy transition can be avoided. This also applies to flex functions in the energy system. For example, system batteries can function as a utility function provided they are in the right place in the grid. If system batteries are realized in the wrong place in the grid, they exacerbate local grid congestion. Locating system batteries spatially in the right place can prevent batteries from further burdening the g r i d or unnecessarily expanding the grid. Through 'energy hubs' the pressure on the energy system can be limited.

For the development towards a circular economy, it is important to collect, reuse and share as much as possible locally. Also for repair and recycling, it is relevant to see what can be organized locally and what can be done more efficiently at other scales. We are committed to making the best use and more intensive use of local business parks for activity. This includes cluster 6 companies (scattered across the country in the food industry, ceramics, paper industry and a number of smaller industries) and small and medium-sized enterprises (SMEs), as well as the transition to a circular economy. An important part of this is the need to deal more carefully with the existing (environmental) space in business parks and ports. Not only are business parks and ports important locations for employment and the realization of added value and innovations. They are also important locations to facilitate the transition to a sustainable and circular economy. Sufficient environmental space is essential for this. For the more intensive use of places, we are looking at height (multiple layers), environmental space, double use of space and the combination with nature-inclusive and climate-adaptive design, among other things.

It is important to link these developments to local characteristics and identity and the various transitions (including climate adaptive, sustainable and nature-inclusive) that come together in the design of places. In addition, space in the shallow subsurface must be taken into account.

Optimizing on a regional scale

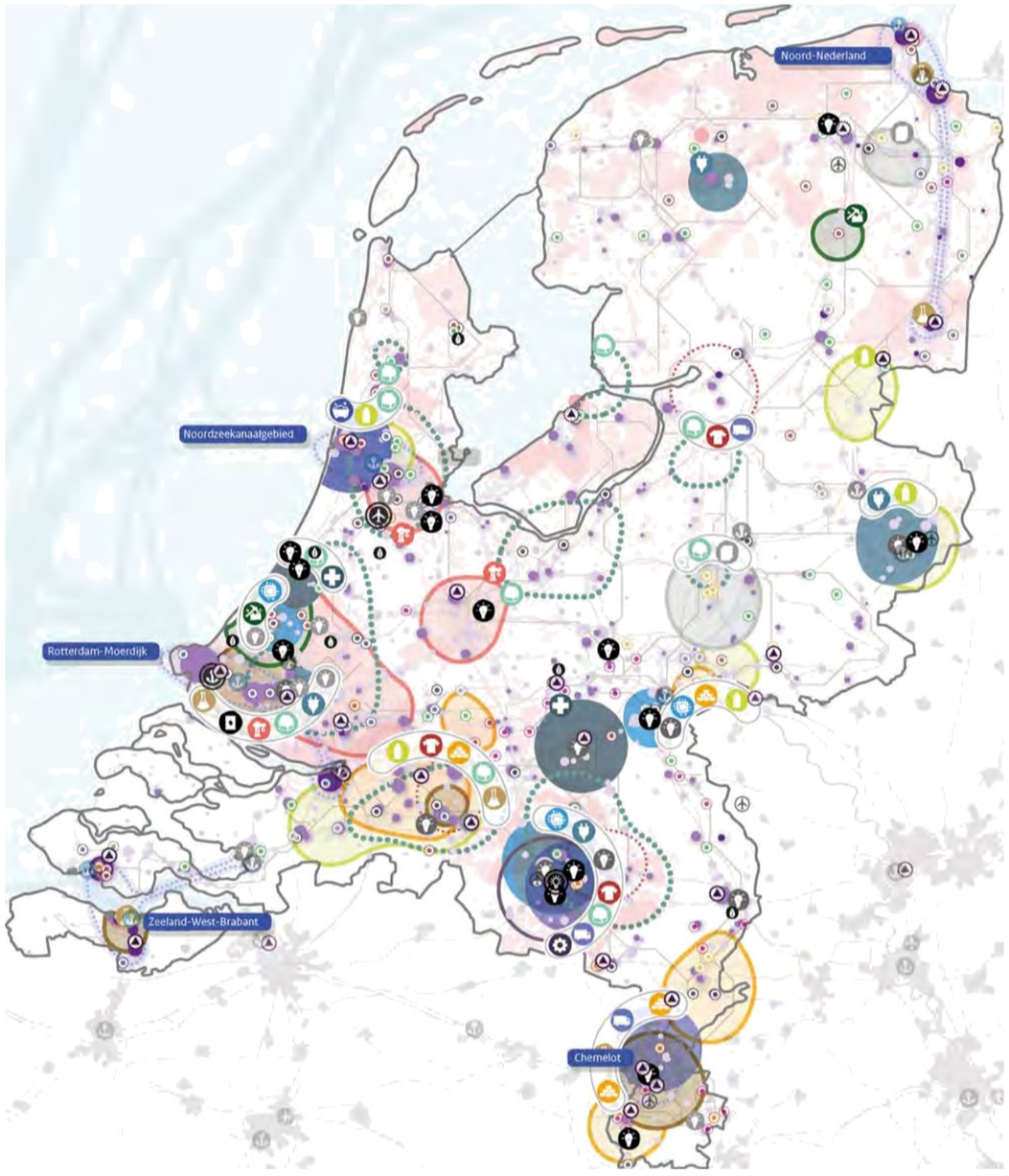
It is regionally important to set up the most efficient system possible by bringing the supply and demand of energy and activity together as closely as possible. This will also reduce the negative impact on the living environment (health, safety and quality of life). If we organize the decentralized system as well as possible, the national system can also function as effectively as possible with the least possible impact on space. To do this, we need insight into the regional economic characteristics, the opportunities for energy in regions and the preconditions that contribute to their coherent development. On this basis we can, together with the regions, give direction to the development of the regional network for energy and (circular) economy.
Thereby, the cohesion between the regional networks and the national network is essential to exchange goods, raw materials and/or energy. This requires cooperation between the state and the region, which will work together to achieve this.

Because of scarcity, it is important to sharply choose which energy carrier to deploy for what and how to strategically utilize and expand the networks. This concerns, for example, the opportunities for expanding the generation of electricity on land with wind and solar based on the Preferred Solar Order and matching the spatial characteristics of a region. In addition, we want to focus more on utilizing available heat sources (geothermal, waste heat, solar thermal and aquathermy) and collective heat systems to reduce space pressure and pressure on the electricity system.
It also involves, for example, consideration for the possible deployment of SMRs in the regional energy system in the longer term. To properly consider SMRs, the choice of location, grid integration, the supply of raw materials and the storage, transport and processing of waste are important, as are safety and the social consequences. And it involves, for example, choices about connection possibilities of companies with a demand for hydrogen (including companies from the sixth cluster) to the hydrogen backbone.

For the (circular) economy, we look at the characteristics of regional economic ecosystems. In this way, we determine where activities fit best and what preconditions are necessary for this, in relation to energy availability, mobility networks and environmental space, among other things.
Part of this also includes a strategy for the sustainable and circular development of cluster 6. Specifically, the ETS-regulated companies in cluster 6, which are spread throughout the Netherlands, play a role in determining the route to sustainability and circularity. Cluster 6 companies are often the larger industries in the region, often located on business parks, where the spatial requirements and type of energy infrastructure can also determine the surrounding environment.
Smaller companies in the same business park can benefit from the strategies of these cluster 6 companies and the same approach to climate neutral business. We are therefore looking more than before at the specific characteristics and qualities of different areas. The availability of business parks with high environmental categories is crucial here. Some activities can only take place at a location with a higher environmental category and/or it is important that they are located at a location that is multimodally accessible and/or there is a specific energy demand.
In addition, there are advantages to clustering for some circular companies because they can use each other's residual raw material streams or share facilities or equipment.
For the transition to a circular economy, it is important to better understand the optimal scale level for closing chains of the different economic sectors. Here it is also important to look at proximity in freight transport, with short and clustered chains from production to distribution for consumption and reuse or waste. We want to better align the location and use of logistics hubs with networks and the environment, thus avoiding congestion or nuisance.

From the point of view of the water and soil system, a number of considerations are important when making choices about considering supply and demand together. Among other things, it is important to maintain sufficient space around the dikes for future expansion. It is also important to weigh the choice of location for electrolysis and industry in relation to the availability of fresh water for production and cooling.
In addition, we must and weigh the opportunities for utilizing heat in the underground in relation to drinking water protection areas.

Movement toward harnessing and strengthening regional opportunities for economic ecosystems and a sustainable energy system



0 50 100 km

In this map, we present elements from the themes of energy, (regional) economy and freight transport to provide insight into the relationship between regional economic ecosystems and the opportunities and constraints from energy, mobility networks and waEer and soil. This map explicitly shows only part of the economy, i.e. the part we discuss in 8e motion z. The map |shows the current situation, but focuses specifically on part of the economy, i.e. the priority product chains, large energy consumers and crucial infrastructure for the transition to a circular economy. In doing so, the map provides a starEpunE for discussions about regional development directions, mutual regional coherence and the relationships doc the national network.

The selection of sectors and chains was made based on the priority product chains named in the National Circular Economy Program. The (economic) ecosystems were then depicted on the basis of "heatmaps" that were created based on concentrations of the NKB (o-z 9 jobs) and large companies ('*so jobs) clusters IaA see. In the movement mapE stack these different heaEmaps and add icons to them.
We also identify the locations of High Environmental Category (q, §, 6) business parks. These are sites of strategic importance for the development of the above production chains.
In addition, we bring into focus the "sixth cluster": companies that will be (future) major consumers of renewable energy.
Finally, we late the campuses, which are an indispensable part of ecosystems.

Ecosystems
Pegiorole ecosystems von companies based on the oontol *beans in* SMEs t -* 9 **--n and large companies ï'-so öonen) *in* speri#e#e *sectors.*

Food Foodstuffs Basic materials Rubber and plastics Paper
Non-metallic
Extraction of delfstoffen,olie and gas
Chemistry
Consumer durables Construction
Textiles and apparel
Manufacture
Computers and electronics
Electric MeEal
Products
Transportation equipment
Pharmaceutical
Manufacturing machinery
{Brop: LIS/t)

Sixth Cluster
Companies Metallurgical Industry
Oil and gas exploration companies
Chemical industry Food industry
Ceramic industry Paper and cardboard industry
Asphalt and building materials
ICT companies
Other
fB source: Sixth Cluster *on* öosis von CO, ïn EU £7S,
Dutch Emissions Authority, VDM

Campuses and universities
Campus (mature, growing, developing)
(8ron: lnnovotiespotter 2ozy)

Clusters and nodes
Five industry- and energy-intensive clusters
Mainports ML (port, airport, brainport)
O Greenports
@ @ T£N-T airport (core/extended network) TEN-T port (core network)
Seaports

HMC **Business parks**
GF00/te von the 'ir#els posed on the surface HNtC category q
@ HNtC category § HMC category 6
@ Business parks with trimodal connectivity (water, rail, road)
(Source: IBTS)

Energy
okV network
Geothermal potential
(Source: *AnalysisfiiaOrten t)PRES* obv *Thermogis* TNO) MT residual heat sources f8ron: £ Wormteotlos
-Jo MWth
o-Joo MWth
oo-boo MWth
> oo MWEh

The Species are based on ßeit eJijAe ßmtie, on ßosis von current Itennsi and insights.
They are v9dr er Ulligewe/ ftt inlieti prores neo rde Draft Space Note.

Optimizing at national scale in international context

In conjunction with the local and regional systems, it is necessary to determine how we utilize and strategically expand the clusters and networks of the national system as efficiently as possible. This includes choices about which energy carrier fits and can fit in which place. In doing so, we can provide national opportunities for economic development in regions and choices are made that cannot be made within regions. In doing so, we are focusing nationally on a selective number of national clusters and corridors to provide space for (economic) developments and the transition to a sustainable energy system. This includes, for example, the development space for economic sectors of national importance, such as the knowledge and maritime manufacturing industries. The Netherlands is in close relationship with surrounding countries when it comes to goods transport flows, partly as a result of the transition to circular economies. As a result, exchanges within energy networks are listening ever more closely.

The five energy-intensive industry clusters (Rotterdam-Moerdijk, North Sea Canal Area, North Netherlands, Chemelot and Zeeland-West Brabant) have an important role nationally and internationally in the transition to a sustainable and circular society. Here, wind energy generated at sea is brought ashore and used. It is converted into hydrogen, while hydrogen carriers such as ammonia and LOHCs (organic liquids that can bind and release hydrogen) are imported and converted. Thus, the transition of industry is taking shape and space must be made for the circular economy. In the places where energy carriers (wind, hydrogen, ammonia, LOHCs) come ashore, a lot of space is needed for storage and conversion because not all the electricity generated can always be fed into the grid at the same time. Consider space for electroly- sers, batteries and controllable power plants. We situate large-scale electrolysis primarily around the landing of offshore wind energy in order to limit the expansion of electricity grids, to be able to supply existing industry directly with hydrogen (linking supply and demand) and to utilize the opportunities of saline and brackish water for process and/or cooling water.

The five industry clusters are also of great importance in a circular economy because of the possibilities of (chemical) processing of goods into new, almost primary raw materials (cradle-to-cradle). To make this possible, it is necessary to have sufficient space for storage of goods to be recycled and the logistics surrounding those processes require sufficient availability of road, waterway, tube, rail and transshipment points, both nationally and internationally. Lack of space in these specific places can be one of the bottlenecks to timely realization of the ambitions around climate neutral and circular. This requires a complementary approach in which efforts are made to intensify and prioritize, but where necessary and possible proactively reserve new space. National government, port companies and co-governments have a role in this. At these selective and strategic locations, expansion will be necessary in some cases. Expansion here prevents additional space for line infrastructure or environmental space for large-scale energy and industrial functions elsewhere. We are also looking at sliding space for transitions, which may become (partially) available for other functions in the future.

We want to make the best possible use of these five energy-intensive clusters in the future and take into account as much as possible their negative impact and prevention on the living environment. Therefore, in principle, there will be no new residential development plans directly in the vicinity of these clusters, which will therefore be situated against the environmental contours. We are investigating the possibility of buffering and zoning between the environmental contours of these existing clusters and existing and new housing locations. Another possibility is that in the spatial development and design of these clusters, the placement of new companies with the largest environmental contours at locations within the cluster that are furthest away from housing development is steered. However, sliding space is needed to do this, and for existing businesses this does not provide relief.

In the energy transition, we are reusing the existing space currently used for the fossil system. For example, sustainable power plants will soon be located at the sites of gas and coal-fired plants, and we are reusing portions of the gas grid for hydrogen transport. Also, existing

High-voltage connections will be upgraded wherever possible. In the longer term, too, we aim to anticipate, from a planning point of view, space for the necessary expansion of energy networks. The spatial assessment and incorporation of new high-voltage connections is done with an eye to quality of life, nature, spatial quality and protected cultural heritage. To this end, principles such as bundling and combining infrastructure are applied.

In the future, we will make the best possible use of existing networks. The limited space means that we have to be selective in where we can expand or construct the networks. Moreover, the networks are often designed for peak times during the day. By ensuring that the networks are used more efficiently during the day, we can make better use of these networks. We choose to cluster economic developments that make extensive use of the networks, such as large-scale distribution centers or greenports, at locations where the networks converge and where there is room to use these networks more intensively. These are mainly the places that are easily accessible nationally and internationally and where several modalities converge, such as train, water and road, and where there is also sufficient energy infrastructure. This makes the existing networks structural for spatial economic development and the choices that have to be made for this and the impact that this has on the future demand for mobility. It is important there to also use the transfer points between these networks as efficiently as possible.

The **UNESCO World Heritage Hollandse Waterlinies** is located in and near the busiest urban areas of the Netherlands. In this characteristic area with forts, dikes, forbidding circles and open inundation plains, space is also needed for electricity transmission, recreation, greenery, urban development and mobility. Respecting the exceptional universal value of the Hollandse Waterlinie world heritage requires a careful and predictable approach to integral spatial considerations. At an early stage we look at what developments are planned, what the impact is on the exceptional universal value and what alternative locations, solution directions and adaptations are that do not have an impact on the heritage values or can reinforce the exceptional universal value. The national government looks at the sum of developments in an area over a longer period of time. The effect of one development can be overlooked; the cumulation of several separate developments often has a greater effect. Together with the other governments, the national government maps out the various tasks, interests and solution directions in time, works to keep the Netherlands future-proof and passes on heritage to future generations. The spatial arrangements, Beautiful Netherlands and spatial design are instruments that are deployed.

,.'" Movement toward utilizing and strengthening the national system of clusters and corridors

On this map, we visualize the main(inter)national corridors and clusters. It concerns the (inter) national networks for energy and freight transport (raw materials and products), and to the five industrial and energy-intensive clusters. The map includes the stacking of choices already made such as the f*tIRT and the MIEK program and highlights a number of potential national multimodal translagpunlng points (stral:egically located locations accessed by both road, water and rail). The two movement maps together I show the see consistency between regional and national developments.

Economy
@ Five industry and energy intensive clusters + key sectors
is Chemistry
@ Electricity generation
o Manufacture of metal products @
Transpox agents

TEM-T networks" an nodes
€$ @ TEN-T airport (core/extended network)
e **zN-T port (core/extended network)**
jg@ TEN-T rail-road terminal (core network/ extended network)
@@@ * '*P
------ Main rail links (TEN-T)
Main road links(TEN-T)
- Main water connections (TEN-T).
ifi' Potential national transshipment points (tri-modal hubs - accessed by road, rail tn wat'

*The #ernnetworkwerä 7rN-Tie liet network dot in zoyo aan olie *Europese* o/spro#en moet voldoen. 0p *öe* Aoa tstaanooA #ftooppvnfen vit liet uitgebreide netwerk dae *moeten* in *zo$o aan* de EU-ogproêenvoldozn.

Energy (einsiwation after PEH/ptIEI¢)
- Weighted y8o kV netwerl'
0 $8a kV stations
0 Large-scale electricity generation
@ Landfall Wind at Sea (combination of existing, VAWOZ zoyo and search locations from draft NRD 2O$1-2Oz|O)
Hydrogen backbone
Delta Rhine Corridor
COI network (North Sea) Wind energy areas (North Sea)
o Project locations(rural projects in the region - taken fromiE Survey Map National Energy Infrastructure
projects}
Designation area large-scale electrolysis (source: PEH).

arten zijn gebas rden verder u feitelijke infoc> ie, gewerkt in he proces ig de basis van twerp-No ige kennis en inzichten. imte.

Choices

Overarching choices

Energy

- (Choice made) The State is facilitating the Delta Rhine Corridor project in order to realize new underground infrastructure between the Port of Rotterdam, Chemelot and the German hinterland. In the National Energy System Plan, we have already made the choice to focus on saving as much energy as possible, maximizing the supply and timely availability of sufficient energy infrastructure. The NPE provides the development perspective for the energy system 2050, which includes linking the various energy carriers to the most appropriate sectors and activities.

Choices for optimizing at the local scale

Energy

- (Choice made) We have, with the Municipal Instruments Heat Transition Act, given municipalities the ability to make local rules for implementing the transition from natural gas to renewable forms of energy.
- (Made choice) In the Soil and Subsoil program, we recognize the need for taking more direction on the shallow subsoil.
- (Choice made) We adopt the preferred order of solar energy generation in order to avoid putting solar panels on agricultural and natural land when they are not needed.
- (Choice to be made) We choose to enable local systems for smart exchange between generation, storage and off-take. And relatedly, further boosting energy production within built-up areas.
- (Choice to be put on the agenda) We are exploring what tools can be used to enable those local systems for smart exchange and flexibility between generation, storage and off-take.
- (Choice to be agendized) We are exploring how to flesh out how to take more direction on the shallow subsurface.

(Circular) Economy

- (Choice made) We choose to protect, better utilize and make sustainable local business parks for the benefit of cluster 6 companies and SMEs, among others.
- (Choice to be made) We choose to protect existing water- and quay-based business sites and business parks with a higher environmental category and to make better use of the environmental space partly in view of both the energy and circular transition.
- (Choice to be made) We choose to focus more on retaining or developing business locations at logistics hubs, shopping centers and in residential areas focused on repair, sharing, reuse and recycling for the transition to a circular economy.
- (Choice to agendize) We are exploring whether and what tools can be used to protect and better utilize local business parks and environmental space.
- (Choice to be put on the agenda) We explore how the better utilization of business parks can go hand in hand with the transitions that come together at that location, the guideline for their design (including climate-adaptive and nature-inclusive) and the tools that are already available for that purpose.

Choices for optimizing at the regional scale

Energy

- (Made choice) The National Regional Energy Strategies (RES) program is working on the task of renewable generation on land until 2030.
- (Choices made) The NPE establishes that increased onshore energy production is necessary beyond 2030 (current RES task).
- (Made choice) An energy (system) vision will be drawn up in all provinces in the coming years. An energy vision indicates, for the medium and longer term, which energy demand exists, which energy carriers will be used for this purpose, and what this requires of the energy infrastructure in the province.
- (Made choice) From the provincial energy visions follows the Provincial Multiyear Energy and Climate Infrastructure Program (pMIEK), which includes medium- and long-term programming and prioritization of regional energy infrastructure.
- (Choice to be made) We choose to make agreements with other governments about the development of the (decentralized) energy system after 2030 on the basis of the NPE. This development will be coordinated in conjunction with insight into the regional opportunities for demand, supply and networks, the regional economic development direction and the connection with the national system. This also means that this is broader than just electricity generation and that we, as the national government, give more direction to the regional elaboration. This is reflected in the inter-governmental agreements within the framework of the energy system.
- (Choice to be made) We see opportunities for using heat to reduce the impact on space and electricity networks. Therefore, we are committed to collective heat networks, only where deployment on these is not reasonably affordable or feasible can other options be considered.
- (Choice to be made) We are exploring with co-governments ways to accelerate the spatial incorporation of green gas production projects, and how they can then be part of the decentralized energy system.
- (Choice to be made) We formulate spatial principles and considerations with calculation to the expansion of pipeline networks, for example when connecting more geographically dispersed companies with hydrogen demand.
- (Choice to be made) For the purpose of accelerating implementation, spatial plans for residential development and charging infrastructure will be tested against grid capacity and possible expansion of electricity grids, so that this can be included in the consideration for locations and grid expansion. This will require better data-driven policies, both on the side of grid operators and energy supply, and on the side of demand.
- (Choice to be made) We choose to align the direction of solutions for grid congestion in the short term with long-term strategy by: expanding and prioritizing the networks and preparing for the future through dimensioning. All this in a smart local system of exchange, generation and storage and by better matching supply and demand.
- (To be made/chosen) We choose to increase the opportunities for governments to direct the efficient use and development of the energy system under the Environment Act, and explore how to give substance to this.
- (Choice to be put on the agenda) We are exploring the opportunities for directing more use of available heat sources on a regional scale and the instruments that might be needed for this in addition to the Municipal Instruments Heat Transition Act.
- (Choice to be agendized) We are reviewing how best to protect the soil archive when making choices about the construction of underground infrastructure.

(Circular) economy

- (Choice to be made) We choose to preserve and make better use of water and quay-bound business parks and business parks with a high environmental category (HMC) and multimodal transport possibilities (accessible by water, rail and road), waterfront business parks with environmental space, port and industrial areas because of their potential role for the (circular) economy.

- (Choice to be made) In addition, we want to make better use of existing environmental contours by using the available high environmental category sites only for new activities that actually need the environmental space.
- (Choice to be made) We choose - together with the co-governments - to map regional economic ecosystems in conjunction with regional opportunities for various energy sources (for heat, electricity and hydrogen). In doing so, we will explore ways in which we can stimulate regional economic development by steering for preconditions.
- (Choice to be put on the agenda) We are exploring what tools we can use to support the commitment to protect and better utilize strategic business parks.
- (Choice to be put on the agenda) We are exploring which instruments can be used for the targeted strengthening of regional economic (circular) ecosystems.

Freight transport

- (Choice made) The mobility vision formulates three possible accessibility goals for freight transport: either a basic level of accessibility (guaranteeing the supply of essential goods), or maximum facilitation of the need for accessibility, or accessibility geared to the need for freight transport arising from regional development. We explore in consultation with social partners the usefulness and necessity of (a combination of) the outlined variants in accessibility goals for freight transport.

Choices for optimizing at the national scale

Energy

- (Made choice) With the National Program Energy Main Structure (PEH) we anticipate the space needed for the energy main structure and give spatial direction to the various national components of the energy system on land. The national government directs the large-scale expansion of national energy networks through national energy projects, both on land and at sea. The incorporation of energy infrastructure is done with attention to spatial quality.
- (Choice made) The PEH confirms the choice of large-scale offshore energy generation, landfall at the national coastal industrial clusters, exploring feasibility of deep landfall to Chemelot and realizing the associated space for the transition of these energy-intensive clusters to sustainable and circular.
- (Made choice) A national hydrogen transport network will connect the five energy-intensive clusters, underground hydrogen storage and the Netherlands with foreign countries. This will be realized by reusing and replacing existing (gas) pipelines and building new ones at specific locations.
- (Choice made) In the National Energy System Plan, the choice was made to use hydrogen for the time being to make industry, (heavy) mobility and the electricity sector more sustainable.
- (Made choice) Preparation for the construction of two new nuclear power plants for large-scale electricity generation has begun. In addition, an update report of the safeguard policy has been prepared for the procedure of these two new nuclear power plants.
- (Choice made) The government is taking more control of the deep subsurface through the Sustainable Use of the Deep Subsurface (DGDO) program. This program includes in which areas on land which mining activities may, may not, or may under certain conditions take place. These include the incorporation of energy storage, geothermal energy, gas, salt and oil extraction on land.
- (Choice to be made) Water availability over time is a relevant factor for the type of electrolysis system (for production and cooling) and location choice. For example, we see opportunities for utilizing salt and brackish water, of which there is no shortage.
- (Choices to be made) We guarantee sufficient space in the North Sea as an (inter)national energy hub for the growth to 70 GW of wind energy at sea, with possible conversion to hydrogen (using electricity or from hydrogen carriers, such as LOHCs or ammonia) and the necessary pipelines and cables and storage. We are also exploring the possibilities for interconnection with neighboring North Sea countries and the possibility of (hydrogen) energy hubs at sea. We consider

in relation to sand mining, shipping, food extraction, nature and fisheries, among others, and do so in international coordination.
- (Choice to be made) Additional landfall locations will be determined through the 2031-2040 Exploratory Landfall Wind at Sea (pVAWOZ) program.
- (Choice to be made) We opt for more intensive enforcement of existing spatial reservations for energy infrastructure, so that strategic expansion remains possible in the longer term and security of supply can thus be guaranteed.
- (Choice to be made) We choose to avoid, where possible, above-ground transportation of hazardous substances (ammonia/hydrogen) that will arise as part of the energy transition, and instead enable transportation of hazardous substances by pipelines. The preferred carrier/chain/modality here depends very much on the type of end use, quantity and end use location.
- (Choice to agendize) We explore tools that allow for more intensive enforcement of existing spatial reservations for energy infrastructure.
- (Choice to be agendized) Going forward, we will develop the locations where we proactively plan for anticipated necessary expansion of energy capital structure. This could include spatial reservations for expansion of connections and stations, energy storage and -conversion functions and possibly also regionally at the level for key load pockets (connection points between the regional and national high-voltage grid, which relieve regional networks).

(Circular) Economy
- (Made choice) In the Space for Economy Program, it was decided that the existing space for economic activities will be used optimally. In addition, economic activities of national importance have been identified in this program.
- (Choice made) In accordance with the policy line in the approach Grip op grote bedrijfsvestigingen, new locations for large-scale business establishments are only facilitated by provinces if these companies have a demonstrable regional economic added value and contribute to social tasks. It has also been explored whether better utilization of existing business parks offers opportunities. In addition, the transport demand of large business locations must match the capacity of networks over which this transport demand is handled.
- (Choice made) It has been decided that no new hyperscale data centers will be allowed outside the two designated exception areas. Development of smaller data centers will remain possible. This leaves room for development of the digital infrastructure to maintain and strengthen the position of the Netherlands as a digital hub in Europe.
- (Choice made) The national government will prepare a national spatial-economic exploration so that national and regional ambitions can come together and be programmed in conjunction.
- (Choice to be made) We choose to draw up a long-term strategy for the five energy-intensive clusters, appropriate to the crucial functions of the cluster for the national system for energy and (circular) economy. To this end, we examine how much and what kind of space is needed for the sustainability of industry in the clusters.
- (Choice to be made) In addition, in cooperation with fellow governments, we will examine where we want to allow growth of (environmental) space in and around the industrial clusters for functions with a high environmental category for the benefit of energy transition, circular transition and making industry more sustainable. Port and industrial functions and large-scale energy functions will be given priority over other functions in and around the large industrial clusters. This also includes measures and instruments that are necessary with regard to the liveability in the environment for national projects with a high spatial impact.
- (Choice to be made) We choose not to plan new residential development in or on the edges of the five industrial clusters that may constrain (environmental) space for economic activities, such as circular economy. Where possible, we buffer or zone to limit negative impacts on the living environment. To this end, we examine the impact of such contours on the housing challenge in these areas.

- (Choice to be made) We choose to cluster international large-scale distribution in a selective number of places, and develop a national cluster strategy for the incorporation of large-scale business establishments. We do this in conjunction with choices for (inter)national corridors and transshipment points for goods, raw materials and energy: bundling networks and utilizing the right modalities and limiting the impact on the living environment.
- (To Agenda) We put on the agenda the need for a national spatial economic vision that focuses on the future economy that creates added value for all of the Netherlands.
- (Choice to Agenda) We explore spatial reservations for expansion needed for the circular economy.

Networks for goods

- (Choice made) The State is committed to further encouraging transport via pipelines in a multimodal freight transport system and is mapping its spatial impact, including above ground.
- (Choice made) The State is facilitating the Delta Rhine Corridor project, to create a new bundle of pipelines and underground cables for electricity transmission between the Port of Rotterdam, Chemelot and the German hinterland.
- (Choice to be made) The State sees that above-ground transportation of hazardous materials by water, rail and road will continue to be necessary, but wants to keep it to a minimum.
- (Choice to be put on the agenda) As a result of the new energy carriers (ammonia, LOHCs) and the energy transition as a whole, more space is needed for production, storage, transshipment and conversion, as well as for the safety of those processes. Transportation, storage and production is safe through measures throughout the safety chain (sufficient distance, mitigation of effects, source measures, safety control, repression). We explore strategic reservations for sufficient space, including utility and necessity for expansion.
- (Choice to be put on the agenda) National elaboration of corridors and transshipment points for system of goods and logistics (also in relation to environment, health, safety, quality of life), with a strategy for transition to a more sustainable mobility, especially for multimodal goods transport system with attention to the living environment, cultural landscape, resilience, circular return flows and digitalization.
- (Choice to be agendized) We are exploring options to control the type of energy or hydrogen carriers (LOHC/ammonia/hydrogen gas), the locations of import, storage and processing, and the use of alternative hinterland transportation modes (pipeline, water, rail, road).

Water and soil choices

Choices about water

- (Made choice) We ask all water users to take into account and take their own measures to be more resistant to periods of extreme drought, water shortages and nuisance and salinization, for example by adapting land use or business operations. The goal is to save and retain freshwater regionally and to adapt land use in time. We therefore ask regions to draw up a coherent strategy for this. Restrictions will apply to groundwater extraction via regional groundwater ceilings and preferential order.
- (Made choice) We protect groundwater extraction areas (ASV, borehole-free zones, groundwater protection areas and water catchment areas) and expand the number of areas where drinking water can be extracted to meet increasing drinking water demand (NGR).
- (Choice to be made) We work toward new and diverse sources of drinking water so that we ensure sufficient sources of good quality drinking water.
- (Choice to be agendized) For use of "process and cooling water," the application of salt or brackish water in saline areas is being considered.
- (Choice to Agenda) We develop a policy framework for "new water demanders" and explore options for utilizing fresh surface water for drinking water extraction (in wet periods).

- (Choice made) For new construction, the choice of location is determined on the basis of the Assessment Framework for the climate-adaptive built environment. New buildings are built climate proof, according to the Green and Climate Adaptive Built Environment Yardstick. This includes elements such as the risk of flooding and subsidence.
- (Made choice) We maintain and update spatial reservations to further strengthen primary flood defenses in the future.
- (Made choice) Investments in existing or to be developed vital objects that are part of the vital infrastructure take flood risks into account. In other words, when choosing a location, flood risks are considered and the design is at least aimed at preventing failure in case of (heavy) flooding and at quick recovery after a flood.
- (Choice made) There are spatial reservations for sand extraction (in the North Sea) for the purpose of maintaining the coastal foundation and water safety. For the management of the coastal foundation the choice has been made to preserve sand and unhindered transport/transfer of sand along and across the coast. We therefore work according to the principle of soft where possible, hard where necessary.

Choices about soil, subsoil and groundwater

- (Choice to be made) We aim to reduce the use of primary building materials. Spatial reservations for the extraction of sand, gravel and clay for housing, and the development of infrastructure and sand extraction North Sea to maintain coastal safety for the long term remain necessary. An integral assessment has yet to be made for this.
- (Choice made) We protect (physical, chemical and biological) soil and (ground) water quality when utilizing the subsurface for energy transition and underground infrastructure. We must counteract pollution risks around the commissioning of new substances.
- (Choice to be made) New industrial activity must take into account fewer opportunities for groundwater abstraction and (cooling) water discharges and stricter soil protection regulations.
- (Choice to be made) Spatial planning of the subsurface must ensure the enabling of soil energy systems and geothermal energy in balance with the quality and quantity of soil, subsurface and groundwater. We continue and reassess the approach to existing and diffuse soil contamination to reduce risks to people and the environment. We mitigate the risks of soil contamination in an area-based approach to existing and diffuse contamination.
- (Made choice) We want to achieve a vital soil. This means that we make positive use of the soil in developments and that in the design and use, the condition of the soil is improved as much as possible. We reduce soil disturbance and reuse soil as much as possible. We prevent contamination of groundwater and preserve existing sealing and filtering soil layers. We focus on infiltration and increase sponginess in areas to ensure greater storage capacity in surface and groundwater.
- (Made choice) Responsible use of secondary soil and building materials is necessary to prevent landfill and reduce the use of primary raw materials.

Movement toward strong cities, towns and regions nationwide

Urgency and tasks

Analysis

The Netherlands is a country with very different regions, all with their own identities and spatial characteristics. What they have in common is an average high quality of life. Within the greater whole of our country, the regions fulfill their own role. They are highly *complementary*. What applies to the regions also applies to Dutch cities. These also clearly have their own quality and strength. They are usually closely intertwined with their wider environment. They function as clear coherent systems with nearby cities and villages. Most Dutch people live, work, relax and move daily in such a regionally coherent daily urban system. They often feel closely connected to it. Especially in times of change, people need more than ever a living environment with recognizable identity.

The distinctive quality of cities and towns is also economically significant. Our country is an international leader in several economic sectors, such as specialized and digital services, high-tech, food and logistics services. This strong economy depends in part on a good business climate for both people and businesses. Although there are regional and local differences, our regions and cities generally have a good business climate, with a good level of amenities and attractive neighborhoods and often culturally and historically valuable city and village centers. The cities and villages are also surrounded by rural areas with a varied palette of heritage, landscapes and natural areas. Because all regions contain vital urban cores, there is a high degree of proximity between living, working, facilities and greenery.

In the western Netherlands lies the Randstad, a highly urbanized area, with the four major cities and a number of medium-sized cities. The Randstad is the demographic and economic center of gravity of the Netherlands and houses the most important (inter)national facilities and mainports. In a band to the east and south of the Randstad are regions composed of medium-sized cities with attractive, often green living environments. Zwolle, Deventer, Apeldoorn, Arnhem, Nijmegen, 's-Hertogenbosch, Tilburg and Breda form the center cities of these regions. For specialized employment and facilities, these regions are partly focused on the large cities in the Randstad. At a greater distance we find a number of more independently functioning urban regions. These are the regions of Groningen-Assen, Twente and South Limburg. Eindhoven, as the third main port focused on technology, is also part of this. The dynamics in these regions differ, but the degree of urbanity and spatial structure is similar. Most cities have an industrial past and they are all embedded in valuable landscapes and natural areas. Finally, scattered throughout the country are regions with smaller cores and villages. In these regions the population density is much lower, there is less employment and there are fewer facilities. At the same time, these regions are often attractive for tourism and recreation.

Thus, our country does not have one dominant metropolis. Larger and medium-sized cities are relatively evenly distributed throughout the country. Together they form a multi-core urban network Netherlands. This spatial structure accommodates a diverse and resilient economy. It is therefore a strength. At the same time, in today's economy, companies and their employees are increasingly concentrated in a limited number of larger metropolitan regions. We also see this concentration trend in our country.

Daily urban systems

Deze kaart laat het percentage zien van de beroepsbevolking in elke woongemeente dat pendelt naar het werk in een andere gemeente, en geeft in het verlengde daarvan de dagelijkse stedelijke systemen weer. De donkerste lijnen vertegenwoordigen de grootste afhankelijkheden (meer dan 40%). Lichtere lijnen duiden op mildere afhankelijkheden (5-10%).

Op basis van de absolute aantallen woon-werkverkeer blijkt dat de Randstad als een samenhangend ruimtelijk systeem steeds meer werkelijkheid is geworden. Regio's in de band rondom de Randstad, zoals de Brabantse Stedenrij, Arnhem-Nijmegen en Zwolle, zijn meer regionaal georiënteerd en minder structureel samenhangend met de Randstad en aangrenzende regio's. Regio's verder naar het noorden, oosten en zuiden, zoals Groningen-Assen, Twente en Zuid-Limburg, functioneren nog meer losstaand van de bredere stedelijke structuur.

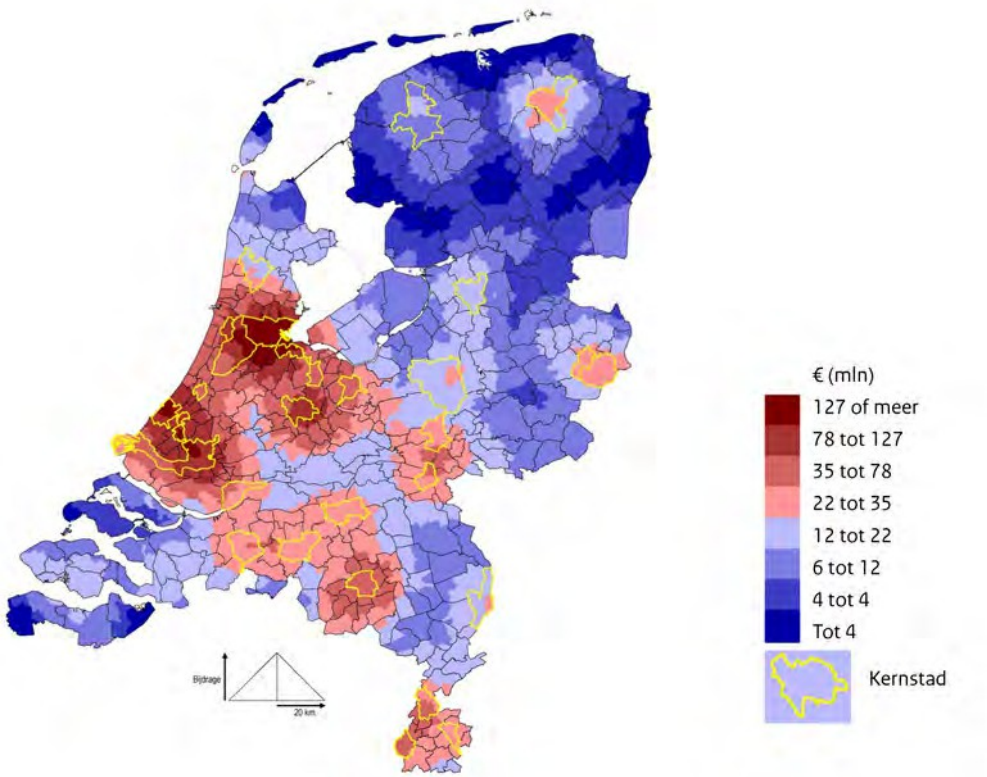
De kaarten zijn gebaseerd op feitelijke informatie, op basis van huidige kennis en inzichten. Ze worden verder uitgewerkt in het proces naar de Ontwerp-Nota Ruimte.

In recent years, our country's population has grown much faster than before. This is largely due to labor migration. This migration surplus is mainly related to the strong development of the Dutch economy, which has generated many new jobs in recent decades. This attracts people from all over Europe and the world. Some of these are specialist jobs, for example in the semiconductor industry in the Eindhoven region or at international institutions in The Hague, and some are practical or unskilled work, such as in greenhouse horticulture or the distribution sector. Although employment has grown in all regions, a limited number of urban areas have had an excessive share of job growth. As a result, an imbalance is beginning to emerge in the Netherlands between dynamic cities and regions and areas that are growing more slowly or even stagnating.

The strongest growth and clustering of driving economy, innovation and knowledge workers takes place in the metropolitan regions of Amsterdam, Utrecht and Eindhoven. As a result, these regions are the economic engines of our country. But the size of the local housing stock, facilities, infrastructure networks and supply of green space have not kept pace with the rapid growth. A huge shortage of housing has developed here, causing purchase prices and especially rents to rise very sharply. Moreover, within these cities by no means all neighborhoods and residents are benefiting from this development. As a result, the preconditions for a pleasant, healthy and safe living environment with equal opportunities for all and room to develop are under pressure.

Spatial distribution of value added per square kilometer in 2022

Value added in euros per square kilometer gives an impression of concentration of jobs, combined with value added per job.
Source: LISA Foundation/Bureau Louter



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At the same time and partly as a result of this strong concentration, we see an expansion of dynamic urban regions. A series of strategically conveniently located regions are hitching a ride on the trend to concentrate the economy and people in the above cities. They offer an attractive and more affordable living and housing environment and provide space for more extensive urban functions and businesses. This is the case, among others, in Zwolle, Stedendriehoek, Arnhem-Nijmegen-Foodvalley and the Brabant city row. However, the regional economy tends to lag behind this growing residential function, resulting in more and longer daily travel movements towards the economic growth areas. One of the regions very conveniently located to the three fast-growing metropolitan regions is the Southern Randstad. This area is the demographic and economic center of gravity of the Netherlands in numbers, but economic dynamism here has long been less than might be expected based on its current size. Moreover, this region has a number of sectors where restructuring is expected in the long term, due in part to the transition to a climate-neutral and circular economy. For this change, a strong region with education, qualified personnel, knowledge institutions, SMEs and attractive living environments is a prerequisite.

As the advisory report Every Region Counts showed, there are regions experiencing low broad prosperity. These regions are often more distant from the most economically dynamic areas, combined with specific characteristics such as border location, aging population, sparse population or a stagnant economy. This situation is not new, but the differences with more dynamic regions have been increasing in recent years. This plays out, among others, in North and Southeast Friesland, Southeast Drenthe, North and East Groningen, Southeast Drenthe, the Kop van Noord-Holland, Twente,

the Achterhoek, Zeeland Flanders and South Limburg. At the same time, these regions differ greatly from one another. Some have a more rural character and therein also lies their distinctive strength. Other regions such as Groningen-Assen, Twente and South Limburg are highly urbanized, have metropolitan facilities, leading knowledge institutions and a sizeable regional economy.

Assignments

To be able to continue to live pleasantly in our country in 2050 and beyond, the Dutch regions are faced with major and urgent development challenges. These tasks are partly generic and partly regionally specific. The quality of the living environment and health require attention everywhere, public spaces must be made climate-proof and nature-inclusive, homes and business premises must be made more sustainable and the electricity supply must be put in order. But tasks relating to water and soil, pollution, nature restoration, the space needed for living, working and facilities, the development of mobility, environmental effects, pressure on facilities and greenery can be very different locally. Consider, for example, the effects of airports on the immediate surroundings. Or the urgent housing shortage in many large cities. These regional and local challenges are always connected to national challenges. For example, when it comes to how regions can complement each other economically, national choices about the design of the energy network or the development of national mobility networks.

Living

The Netherlands currently has nearly 18 million residents. That's a 1.2 million more than a decade ago. According to the Central Bureau of Statistics, the population may continue to grow to 20.6 million by 2050. This growth translates, among other things, into a demand for more space for living, working, facilities, mobility and greenery. In addition, the demographic structure of our country is also changing. Our population is aging, with a higher proportion of elderly people, who are also living longer and longer. On January 1, 2023, 20.2% of our population will be 65 years of age or older, compared to only 12.8% in 1990.

Partly due to an aging population, the Netherlands has an increasing number of one- and two-person households. These trends are expected to continue in the coming decades. In 2050, elderly people and younger single people will make up an even larger part of the population than they do now. This development makes other demands on the housing stock, the facilities on offer and the design and use of the living environment. A living environment that largely already exists and often has a high heritage value. In addition, the aging population reinforces the importance of a good care infrastructure.

As a result, the demand for types of housing and the type of living environment is different than in the past. Housing must match demand in type and price and be near easily accessible work locations and amenities. The severe shortage of affordable housing in the right place is already preventing large groups of people from finding suitable housing. In addition, many regions have a qualitative challenge. The existing housing stock does not always meet demand and is otherwise outdated. Restructuring and adding additional housing types are tasks. Besides more housing, population growth also requires space for work, facilities, infrastructure for mobility and energy, water, nature and greenery. Housing development near national highways and nuisance and polluting functions, for example, increases the effects of nuisance and pollution in many places.

Economics

A strong and competitive business community is needed to maintain our collective facilities, to guarantee the level of prosperity and to realize transitions and adaptations to a changing climate. New economic growth sectors, such as the digital economy and high-tech industry, set very specific conditions for location, including for retaining and attracting talent. Some economic sectors, in which the Netherlands and Europe have traditionally been strong, and in which we now earn our money, are under pressure. It is important that we find space for companies and their employees, but space is becoming scarcer and the demand for it is only increasing. That calls for sharper choices,

based on added value and regional differentiation. To guarantee a good business climate and the future earning capacity of the Netherlands, we must provide the spatial conditions for an innovative, sustainable and resilient economy that benefits society as a whole. In addition to business parks and high-density urban locations, this also involves research and innovation campuses, where knowledge development, education and innovative enterprise go hand in hand with more green space, facilities and possibly with specific types of housing.

Mobility

Population growth and increased travel create local mobility bottlenecks. In these places, there is more passenger and freight traffic than the infrastructure can handle and safety risks arise. In other places, on the contrary, there is still room in the mobility system. Our cities and regions can only function as a coherent whole thanks to national road and rail networks. A reliable multimodal network that robustly connects all regions in the Netherlands requires national commitment to maintaining and limited expansion of the infrastructure. The major nodes also form our important (future) connection to international networks that link us with the rest of Europe and the world. Consider, for example, the fast rail connections, with stations where international trains stop, and the airports. But also conveniently located highway junctions. In the future, we will gear spatial developments much more to places where this suits the capacity and quality of the networks.

On the contrary, some regions face accessibility bottlenecks because there are too few people and thus displacements to maintain the local amenity level and mobility network. The proximity of facilities such as healthcare, education and culture is under pressure there. This is sometimes due to decreasing supply of public transport connections, but also due to increasing costs of mobility. This includes, on the one hand, rural areas, where the distance to facilities is so great that a car is required to reach your daily destinations. On the other hand, there are urban areas, where greatly increased employment and the growing population are pushing the capacity of networks to their limits. Here people are increasingly opting for space-efficient forms of mobility: cycling and public transport. This creates a mobility mismatch between car-dependent rural and car-free urban areas.

Broad prosperity, health and environmental quality of life

There are large differences in health between population groups and between regions. The living environment plays a role in this, as it affects our health both positively and negatively. People have to deal with several environmental factors simultaneously in their living environment. These jointly determine the quality of the living environment. This environmental quality is not equally distributed throughout the Netherlands; there are major differences between neighborhoods and areas in the extent to which the environment stimulates or hinders people's health. In less prosperous neighborhoods, a combination of factors unfavorable to health occurs more often. This involves a combination of aspects of the physical environment, the level of facilities and/or social factors. In addition, there are differences in the impact that the living environment has on people. Some people are more sensitive to environmental factors in their immediate environment; this makes them vulnerable to these influences. The Netherlands has major social developments and transitions that converge in the living environment and affect our health. Important trends in the field of living environment are the large housing task, climate change, damage to nature and biodiversity, polluting emissions and transitions in agriculture, mobility, circular economy and energy. Trends in demographics and health are aging, the increase in obesity due to lack of exercise and unhealthy diet, loneliness and pressure on mental health and health disparities.

Due to population growth and increasing car use, noise pollution is increasing. Also, meeting the legal air quality standards from 2030 is not guaranteed if we continue to grow the way we have in the past. An actual improvement in the quality of the living environment requires more than the formal environmental standards. Desirable is a living environment that

residents from air pollution, noise and odor pollution, heat and infectious diseases, which invites a healthy lifestyle with exercise, play, sports, meeting and relaxation and which makes it possible for everyone to participate in society. In every region there should be sufficient space for sports and healthcare facilities. In some parts of our country it is difficult to find enough practice rooms for doctors and in other parts there is not enough healthcare personnel. In addition, the aging population is going to demand more from our healthcare infrastructure in the coming decades.

Sufficient green space in and around the city contributes to better physical and mental health. In addition, creating green networks and green links for recreation and sports helps to combat socioeconomic health disparities. More people want to use the same amount of space for recreation, which affects protected natural areas. Growth in tourism adds to this. Biodiversity is also under pressure in the urban area due to increasing population and climate change. The challenge here is to work towards a transition to a nature-inclusive built environment in which at least the basic quality of nature is achieved, which will bring us closer to achieving the objectives of the Birds and Habitats Directives. Strengthening and preserving the green networks and water structures requires connecting multiple scale levels, from the building to the landscape around the city. This calls for continuous green and water structures from built to unbuilt areas.

Dealing with climate change

Greening cities and nature-inclusive development also helps deal with the effects of climate change. Among other things, by capturing water and cooling on hot days. We are already experiencing more and more negative effects of climate change. Climate change means more weather extremes and that requires adaptation of the built environment.

Climate change and increasing pressure on our water and soil system means that preconditions must be set for where and how urbanization takes place. In some places there is a strong sensitivity to subsidence. For example, the future availability of drinking water is a bottleneck in some places, and in some places space will be needed in the future for the storage and disposal of water. In addition, in the future we will increasingly have to deal with local nuisance from peak showers, high water, heat and drought. All this places demands on the way we develop, (re)design and manage our environment. In addition, we must protect and utilize the existing identities and qualities of these areas. There are also places where new urbanization is not desirable, such as in the floodplains along the main water system and outside the dikes in the IJsselmeer region. Other locations are not suitable without major investments, such as on very soft soils or locations with a very high risk of flooding.

Energy supply

A shortage of grid capacity is already ensuring that in some places new businesses, facilities and homes can no longer be connected to the energy grid for electricity and heat as a matter of course. Choices regarding urbanization can contribute significantly to energy conservation, mobility reduction and sustainability. The national infrastructure for the transportation of energy, goods and people thus has a structuring effect on the spatial planning of the Netherlands and the use of space at different levels of scale.

The question is how do we provide space for more people, strengthen earning capacity and at the same time improve the quality of life. By 2050, regional development and urbanization cannot simply fall back on familiar solutions and practices. We face increasing weather extremes, declining biodiversity and a simultaneous partially different demand for more space for the economy, processing goods and raw materials and national defense.

Points from the spatial proposals and development perspectives of the provinces' NOVEX areas on the Movement toward strong cities, villages and regions nationwide.

- Provinces ask for confirmation of the choice of current locations for urbanization for shorter and medium term. Given urbanization pressures in several areas that are not currently part of an urbanization strategy, provinces do request a reorientation of the Netherlands Urban Network (SNN) with room for some new urbanization locations.
- The NOVEX development perspectives call for attention to the space for urbanization in relation to the mainports, proximity of living, working, facilities and greenery, mobility transition and climate adaptation, new urbanization as a lever for existing urban areas, vitality and livability of small cores, among other things.
- With regard to dilemmas between freight transport and urbanization tasks (both in the variant freight transport versus passenger transport on the same track and in the transport of hazardous substances and the risks this entails versus urbanization tasks), provinces are asking for passenger transport to be given priority over freight transport. And to explore together with the national government, after growth, the nature and extent of flows of hazardous substances by rail.
- Finally, provinces are asking for a national vision for housing development beyond 2030 to achieve housing deals, including on environmental and nature requirements and room for local customization.

Points from PBL and CRa's reflections on provincial spatial proposals on the Movement toward strong cities, villages and regions across the Netherlands.
Netherlands Environmental Assessment Agency (PBL): In livable cities and regions, the national and provincial governments have a reasonably shared view on numbers of housing to be built until 2030. But a coherent urbanization vision is lacking. Government funding is also needed to provide the necessary preconditions for housing construction, such as infrastructure, employment and green space.

College of State Advisors (CRa): The housing task should be considered more broadly than just expanding the stock. Virtually all provinces pay attention to the broad socio-societal tasks involved. An important aspect of ensuring livable and healthy cities and regions is ensuring sufficient and high-quality green space in and around the residential environment. The CRa endorses the notion of PBL that it is up to the national government to draw up a statutory green space standard and link resources and instruments to it.

Direction for the future

Towards 2050 and 2100 we want to use and strengthen the qualities and existing potentials in all Dutch regions, cities and villages much more than before, based on the pursuit of broad prosperity: a good balance between ecological, economic and social aspects. We are moving towards strong cities, villages and regions throughout the Netherlands. This requires integral development of the built-up area, existing and new. By 2050, the regional development of our country will be more balanced. This applies both to the various regions internally and to the regions themselves. To this end, we want to cleverly use and guide autonomous developments. This produces a spatial picture in which all regions and cities have an appropriate place in the greater whole and make a distinctive contribution. We strive for a high degree of complementarity, in which the whole is more than the sum of its parts. To this end, we want to broaden and strengthen the spatial-economic base of our country.
Less unilaterally focused on a few high-dynamic regions, but with an appropriate and where possible larger role for other parts of our country. The water and soil challenges are guiding this.

Spatial image for 2050
In 2050, all cities, regions and villages collectively form an urban network Netherlands, which in turn is part of the larger Northwest European urban system. Within the urban network Netherlands, however, there remains a wide variation in types of cities and urban regions. From metropolitan regions consisting of a large center city and thus
connected cores and regional landscape parks, through regional networks of medium-sized cities to smaller regional cores. Good green-blue connections are present in all regions. Within all these types of regions, centrally located mobility nodes form the main connection points with the urban network as a whole. Around these nodes are concentrations of employment, facilities and housing. Good mutual and international connections between the regions are indispensable for functioning as a whole and taking advantage of the benefits of scale and complementarity. The future spatial picture connects as much as possible to major existing national corridors of national highways, railroads and energy. In places where governments jointly decide to develop further, but where the infrastructure is insufficiently equipped for this, a joint decision can be made to extend these networks.

Toward 2050, the relative center of urbanization in our country will shift toward the north, east and south. This means that a number of regions, which currently have a small share in the urbanization challenge, will grow more strongly. To make this possible, we want to make use of the autonomous trend that population growth is also increasingly taking place in a band around the Randstad. In 2050 we have used this trend of concentration and expansion of the urban core area of our country to strengthen the economic strength of our metropolitan regions and also allow economic growth to take place in regions where this is not yet happening autonomously. The Randstad and the Bandstad of urban areas that surrounds it from Zwolle via the Stedendriehoek, Arnhem-Nijmegen-Foodvalley and the Brabant urban row will form a more coherent system. At a greater distance from this are the regions of Groningen- Assen, Twente, Eindhoven and South Limburg. These develop on the basis of distinctive spatial-economic profiles and position themselves emphatically across borders. Throughout the Netherlands, smaller-scale development contributes to strengthening vital regional cores.

More cohesion between the Randstad and the Band City certainly does not mean that these cities and their regional cores grow together. Nor do we want one-sided dependency relationships to develop. Living and working should remain in balance as much as possible. New growth regions elsewhere in the country retain their own character. Identity, heritage and landscape value are indispensable for the quality of city and village. We therefore strengthen the existing qualities of cities, villages and landscapes. Especially if there is new development and densification in existing built-up areas.

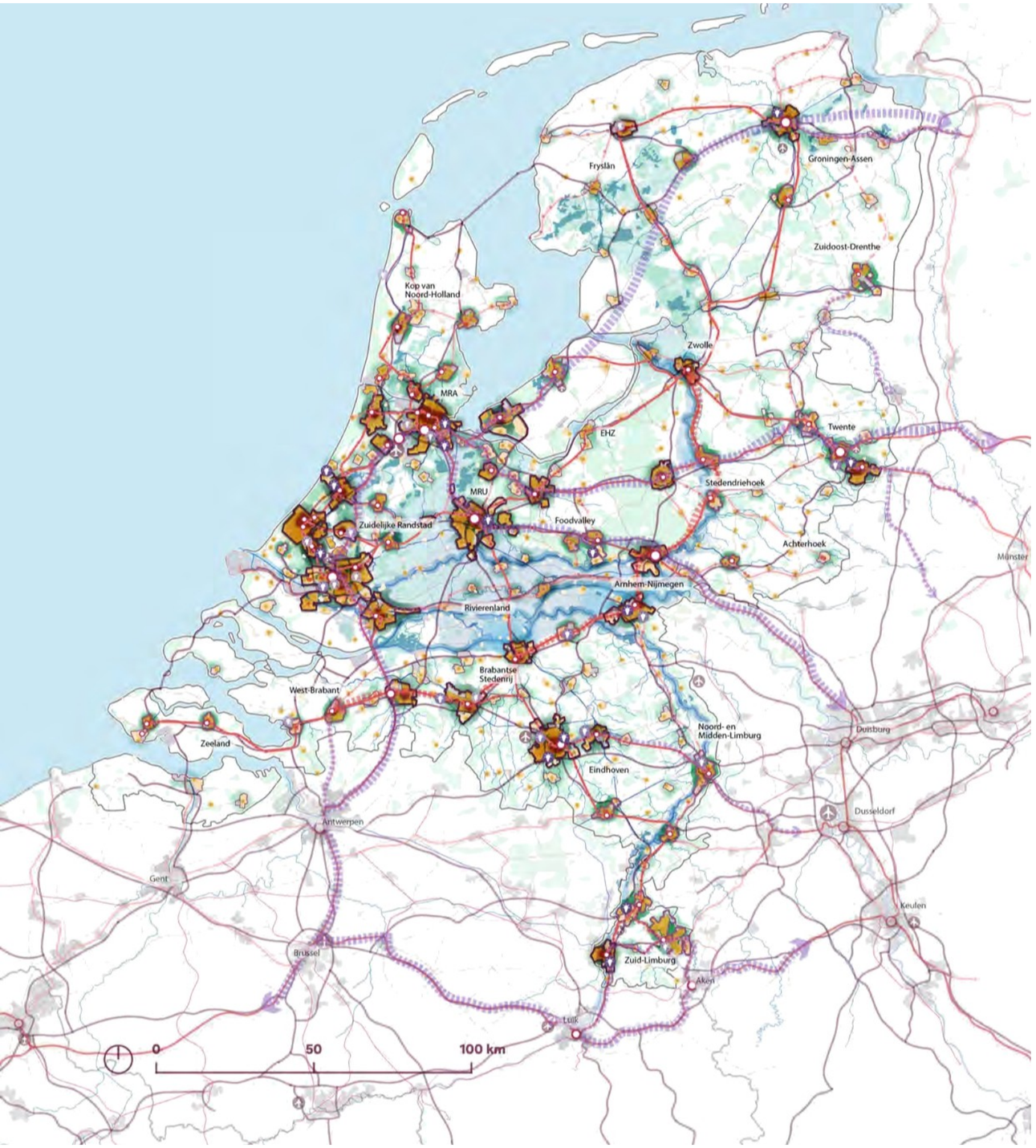
In the four major cities and their surrounding metropolitan regions, this involves more high urban quality in living, working, facilities and green spaces. This will meet the demand for location environments for the metropolitan specialist service sector and its employees. This can be done by densification, infill development and smart function combinations, mainly within the existing built-up area, so that existing neighborhoods also benefit from what we are adding. This requires extra attention to safe and healthy streets and squares, with more space for walking, cycling, meeting, playing and sports. This urban quality cannot be achieved without a substantial quality impulse in the green areas in and around the city. We bring the effects of air and sea ports, industrial and greenhouse clusters more in balance with the quality of the living environment.
This may mean reducing nuisance from noise, odor or other harmful emissions and maintaining safety contours, but equally it may mean protecting existing environmental space for businesses and the growing circular economy. We also maintain sufficient space for urban business activity, mixed with other functions if possible.
Nature, water and soil issues in and around major cities we take advantage of to enhance recreational function

of landscapes. Urban edges and regional landscape parks become new fronts to the landscape by making connections and breaking down barriers.

In the Bandstad around the Randstad there is room, in line with the current quality, for quieter living and working environments. We will create these as much as possible in and otherwise directly adjacent to the cities. Living and
works are more balanced, however, so that these cities are less dependent on the economic dynamics in the Randstad. New urban environments here will also be more compact than is currently the standard. In part this can be done by densification and transformation in post-war neighborhoods. This is in line with demographic developments and the expected demand for other types of housing and living environments. New housing, facilities and workplaces we make as much as possible on and near easily accessible locations. These are places where it is easy to switch between car, shared car, public transport and (shared) bike. In this way we use space on the existing infrastructure and ensure proximity between living, working and facilities. Also in the mostly medium-sized cities of the Bandstad we want tasks in the existing urban area to hitch a ride on what we add new. The extent to which there is room for growth in and near the cities in the Bandstad depends very much on the limitations and opportunities arising from water and soil issues and from nature and landscape. Especially for cities in areas prone to flooding and flooding, we want to reserve sufficient space for water. This applies in any case to the surroundings of Zwolle, Arnhem and Nijmegen and Den Bosch.

At a greater distance from the increasingly cohesive Randstad-Bandstad are urban regions in 2050, which have developed on the basis of the current mass in population, a regionally distinctive economic potential and the already present top facilities for knowledge, higher education and culture. The development of the Eindhoven metropolitan region is an example of how a region based on a distinctive economic profile can gain great added value for our country. And also how such a region can then take a much larger share in national development tasks and allow its wider surroundings to benefit as well. By 2050, we want Groningen-Assen, Twente and Zuid-Limburg to have developed into dynamic regions with a strong and distinctive economy and a large share of the urbanization challenge. In doing so, we explicitly seek connections with cities and regions across the border. In addition to quantitative tasks, these regions also have a major qualitative task. Many of the cities in these regions still lack the establishment conditions for a specialized urban economy and its employees. This can be provided by smart transformation, densification and the mixing of living and working. The relatively quiet and green character of many neighborhoods in these cities will not change as a result. However, new (high)urbanity will be added, from which existing areas can also benefit. With the construction of the Lely Line and Lower Saxony Line, there may also be opportunities for initiating more extensive urban development in the Frisian cities and Emmen in the longer term.

Smaller regional cores and villages throughout the Netherlands will grow in their own way, responding to local needs and matching their characteristics. In this way we strengthen the support base for facilities and public transportation. This can be done through small-scale infill development and expansion or by using the renewal of existing housing and working areas to meet changing demand. For example, to new forms of housing for the elderly and young people, so that there is also a movement in the existing housing stock that benefits families. Or by restructuring and intensifying existing business premises and industrial parks.



Movement toward distinctive development of regions in a strong urban network

On this map we outline a **spatial** picture of the regions, cities and villages in z-s- This picture consists of different types of cores, from center cities to smaller cores. The different cores are filled in with possible future living-working environments. In the system of railroad lines and national highways, we distinguish between **connections with a** regional, national or international function. Besides the direction for urbanization, we outline the contramal of landscape and nature and the conditions related to urbanization from the water and soil system. The classification into types of cores, **commuting** silos and the mobility system is based on an analysis of daily urban systems (regional), positioned within an urban network Netherlands (interregional/national), which in turn is part of the larger Northwest European urban system (international).

The typological classification yan cities, villages and cores follows from a study of the structure of the various daily urban systems and the way they connect to the national urban system of the Netherlands. The typology of a city or core influences the development tasks and
-possibilities. For example, a center city requires a certain presence of a (high-)urban living/working environment and a matching mobility profile. This classification is indicative and part of further research with the regions.
The categorization of the mobility networks follows the way of thinking introduced with the Toekomstperspectief Hoofdwegennet (Future Perspective Main Road Network) and complements it with a categorization for the rail network. This results in a subdivision of regional networks, interregional networks (collectively the urban network Netherlands) and international networks (the connection with the rest of Northwest Europe).
Potential new connections have been penciled in, such as the Lely Line and Lower Saxony Line, which can provide opportunity for better connection between regions, cross-border development of specific regions af the international connectivity.
The urban fringe zones form the direct green-blue contramal around the cities and cores. These are drawn in indicatively, with different colors for the different types of cities and cores.

Structure of daily urban system fiefs (Indicative):

Center cities or cores in metropolitan region
Regional cores
Small area cores
Vital cores and villages

Indicative onMik healing of urban environments.
(mix living,weri'en and amenities):

High-urban center environment + add high-rise urban quality(in all Center Cities)
Urban center environment + add urban quality(in all Regional cores)
Urban residential area + quality impulse existing built-up area (-95 -*965,*96d-J9go)
Leeper residential areas + concentration strategy for small regional centers and vital cores Business park
Campus(mature, growing, developing)

Regional neMarks (unlocking regions).

Track (S['rifitefkWality)
Provincial road network National/inter-regional networks Rail (IC quality)
National highway
network IC connection
Band City

Border crossing networks International rail (HSL/ICE quality) Regional cross-border connection Airports

Green in and around the city **(from region to plot):** (regional) landscape parks (transition areas siad- I6nd for recreation, water storage and nature with green-blue connections between city and I6nd, among others)

Water and soil guiding: Peatland: humidify for counteracting COI emissions and subsidence
sufficient space for the great rivers
Stream valleys: large-scale restoration
Reserve sufficient space for water in relation to urbanization

General underlay
Protected Nature
(Natura zooo, **Netherlands Nature Network)**

The Species zn) based on l'ait e.ijke inlórmat ï e., on ôosis von current llennis *and Insights. They* are further elaborated iniiet prores neo rde Draft Space Note.

General principles

In working toward the spatial image for 2050 outlined above, we apply a number of general principles. Focused on the efficient use of scarce space, the smart combination of functions and connecting to the characteristics of regions.

Proximity shortens distances between living, working and amenity and limits mobility

We develop living, working, green spaces and amenities in close proximity to each other. We work to formulate accessibility goals to maintain accessibility to jobs and amenities for diverse groups. Proximity is also increased by compact development in easily accessible locations. In this way, we make optimal use of existing infrastructure, limit extra mobility and encourage a transition from car to public transport, cycling and walking. At the same time, we reduce the use of space and ensure lower energy consumption. This supports the transition to sustainable, healthy and safe mobility, a healthy living environment and more equal opportunities for all. Increasing population density increases support for more easily accessible facilities such as schools, libraries and sports facilities and public transportation. Growing pressure on space does require monitoring a balance between protecting and utilizing.

New development contributes to a recognizable identity and good quality of living environment

Every region, city and village has its own qualities, culture and values that determine regional and local identity. These qualities, culture and values are used to improve and strengthen the spatial quality and form the foundation for tackling the related tasks. Creating a recognizable, healthy and safe living environment is a precondition for the well-being of the population. New development must give an impulse to the quality of the living environment. Because many of the tasks will affect the existing built-up area and the layout of landscapes, attention must be paid to the protection, preservation and development of the cultural-historical value. This certainly applies to protected heritage, including UNESCO World Heritage sites.

But built heritage in a general sense offers many opportunities for repurposing and basis for new area identity. Ultimately, this in turn can help generate support for the great change our country faces.

New development is a flywheel for strengthening existing built-up area

The same goes for the possibility of allowing the existing built-up area to benefit from developments. What we add new helps to initiate transitions and make the existing connected to future developments. Especially the neighborhoods built between 1950 and 1965 are currently in need of a quality impulse. In the coming decades, neighborhoods built between 1965 and 1990 will also face major renewal challenges. Transformation of these neighborhoods is probably even more complex than in the neighborhoods from the reconstruction period. At the same time, there are opportunities to take an integrated approach. The addition of new types of housing and more facilities can go hand in hand with the preservation of existing qualities, making existing housing and commercial buildings more sustainable and suitable for life-span planning. The public space can be made more sustainable by making it climate-adaptive and nature-inclusive, with more space for walking and cycling. In this way we promote human and animal health and create a living environment that invites people to meet.

New directions for urbanization and regional development

Sufficient and suitable housing

The 35 concluded regional housing deals include agreements to build nearly one million housing units through 2035. Also designated are 17 large-scale NOVEX housing sites[4] , together accounting for

[4] MRA West, MRA East, Port City Amsterdam, Old Line Leiden-Dordrecht, Rotterdam Oostflank, The Hague CID Binckhorst, Eindhoven Internationale Knoop XL, Rail Zones Breda, Tilburg and Den Bosch, Utrecht Groot Merwede, Rail and A1 Zone Amersfoort, Arnhem-Oost, Nijmegen Canal Zone, Nijmegen Stationsgebied, Foodvalley, Spoorzone Zwolle, Groningen Suikerunieterrein and Groningen Stadshavens

for approximately 288,000 new housing units through 2030. These areas are part of the urbanization strategies of the seven NOVEX urbanization areas[5] . With the implementation of these agreements, we realize sufficient housing in the short term. The population forecast shows that even after 2030 there will be a need for a substantial number of additional housing units. If we also want to realize sufficient new housing after 2030, it is necessary to start looking for good housing locations now, from small ('street addition') to large. The challenge is to develop locations where proximity is created between living, working and facilities and that offer an opportunity to add quality for new and existing residents, matching the regional need.

Because of the large number of housing units needed, it is not enough just to add housing through small projects scattered throughout the Netherlands. New large-scale housing locations are also needed in the longer term. The realization of large-scale housing locations can add substantial numbers of homes. It also contributes to efficient use of space, continuity in building and the unloading of a multitude of private investments. Everywhere in our country there is a need for new housing, which is why we are committed to building housing throughout the country, in line with the desired identity and demographic and economic development of the region and in line with the expected housing shortage. In principle, new large-scale housing locations are conceivable in all regions. We are specifically looking at new potential urbanization areas in the north, east and south of the country. Within these, we are exploring new search areas for large-scale housing development, namely:

- Expansion of the Brabant City Line;
- Stedendriehoek (Apeldoorn, Deventer, Zutphen);
- Twente Region;
- Northern, central and southern Limburg (along intercity stations);
- The Groningen-Assen region with an extension to Emmen;
- The Frisian cities.

The nature and character of the above search areas vary. The precise choice for the next round of large-scale housing locations will follow in the final National Spatial Policy Document. This will be based in part on the differentiated long-term development strategy for different types of regions. There are also many opportunities in the existing urbanization areas for after 2030, both in terms of intensification within the seventeen areas and in terms of expansion adjacent to them.

Spatial conditions for the economy

Over the past decade, the Netherlands has grown rapidly economically. Economic growth has not descended evenly across the country. A limited number of urban regions have had an above-average share in this economic growth. Driving activity in the knowledge economy is developing and concentrating particularly strongly in Amsterdam, Utrecht and Eindhoven. Particularly in areas at the edges of the country, we see that business activity grows less and, if dependent on the supply of highly educated knowledge workers, sometimes migrates away to the rapidly growing urban regions. There are also areas where transitions (such as energy transition) are a major challenge and where restructuring is needed. This is the case, among others, in areas that have relied heavily on energy-intensive basic industry over the past century, such as South Holland.

We are working towards a national spatial-economic vision for the whole of the Netherlands. We will have to make trade-offs and pay attention to regional differentiation. In the future economy of the Netherlands, we want to create maximum economic, social, ecological and social value per hour worked, within the planetary boundaries. Choices within the vision will take into account people, innovation, a strong and resilient EU, networks, sustainability and broad prosperity. As outlined, economic tasks differ between urban regions in the Netherlands. Therefore, the

[5] Amsterdam Metropolitan Region, Southern Randstad, Urban Brabant, Utrecht Metropolitan Region, Arnhem-Nijmegen-Foodvalley, Zwolle Region and Groningen-Assen Region

regional knock-on effects of the national spatial-economic main structure will be worked out with the region.

Aligning mobility and spatial development
We have a robust mobility system in the Netherlands. The accessibility of economic and social facilities by different modalities is paramount. Each mode of transport has its own strength (the right mode at the right place and time). In order to make optimal use of scarce space, the optimal use of modalities appropriate to the spatial situation is sought for travel within densely populated areas (such as cities). In city centers, with high densities of living, working and facilities, walking, cycling and public transport (bus, streetcar, metro) are preferred. For travel between centers of urban areas, rail transport is preferred. For trips in areas with lower densities or criss-cross relations, cycling for short distances and car for longer distances remain dominant. In this way we achieve an optimal balance between accessibility, livability and (traffic) safety.

The coming years will see significant investment in the network. Among other things, agreements have been made to improve the mobility needed to facilitate urbanization at large-scale housing locations. At the same time, we know that in the longer term, due to the growing population, choices will again be needed for maintaining, optimizing and expanding mobility. In order to make the best use of scarce space, we are focusing on optimal use of modalities that fit the spatial situation. We are shifting the focus from dealing with infrastructure bottlenecks to accessibility goals. Within these goals, we will examine from a broad and integral perspective what is needed in each region to maintain or strengthen accessibility. This involves a broad look at common forms of mobility, partial transport and transport on demand, as well as spatial policy. The right mobility in the right place is the starting point. Extra attention is paid to linking different forms of mobility by means of hubs. With this we achieve an optimal balance between accessibility, livability, health and (traffic) safety.

In order to organize the space in the Netherlands as efficiently as possible and to minimize the effects on the living environment and the climate, only very few new connections are expected to be built in addition to existing agreements or current exploratory studies and research within the Multi-Year Programme for Infrastructure and Transport (MIRT). Current connections will be maintained or improved wherever possible. Expansion of existing capacity and the construction of new routes is possible if this is done in close cooperation with other departments and/or other authorities, and is necessary in view of economic, industrial and demographic development. In addition, sufficient permit space, resources and labor capacity are important preconditions and the growing task of maintaining our networks must be taken into sharp consideration.

A green and healthy living environment design
An attractive, clean and exercise-friendly living environment, with sufficient green space in and around the city, is crucial throughout the Netherlands. It is crucial for promoting health, recreational opportunities, restoring nature, enhancing the quality of landscape, nature and heritage, preserving and strengthening the identity and attractiveness of the city and dealing with the consequences of climate change. Increasing the amount of green space in and around the city and strengthening the connection between built-up and rural areas are necessary to ensure a pleasant life in the future. The challenge for green space differs per area and depends on future developments in the areas of housing, work and facilities. The challenge for green space differs per region and is reflected in the urbanization strategies. Green and blue should grow along with the cities and villages to provide sufficient recreational opportunities. In the realization of this task, it is also important to take into account places where there are sources or factors that can have a negative impact on the environment.

can have an effect on health, for example through air pollution, heat, noise and/or odor pollution, and to keep a sufficient distance from these.

This requires an increase in green space in the city (horizontal/vertical, public/private, at ground level/higher), in parallel with urbanization. Sufficient accessible green space must also be available around the city, in the form of existing natural and recreational areas, accessible agricultural areas and regional landscape parks. Greenery in and around the city also plays an important role in the realization of green-blue veining. Regional landscape parks are transitional areas between city and countryside with functions for recreation, nature and water storage. Part of these are green-blue connections between city and country that connect to water and green links in the rural area. The city and the green areas around the city are connected by networks, some of which can also serve as regional walking and cycling routes.

Cities also contribute to nature tasks and the strengthening of biodiversity. In a number of transitional areas between urban and rural areas there is a transition task to future-proof agriculture. This transition represents an opportunity to use the areas in such a way that they contribute to food production, recreation and Basic Quality Nature. Finally, there is a relationship with the approach to a climate-adaptive built environment: green measures are often cheaper in the long run than 'gray' measures and also contribute to dealing with heat, drought and water nuisance and to a healthier, more biodiverse and attractive living environment. The task can differ considerably per region and within regions: sometimes there is already a lot of space for recreation, but the accessibility or quality of nature leaves much to be desired. Some neighborhoods are already quite climate-adaptive and nature-inclusive, while in others there is a major climate challenge.

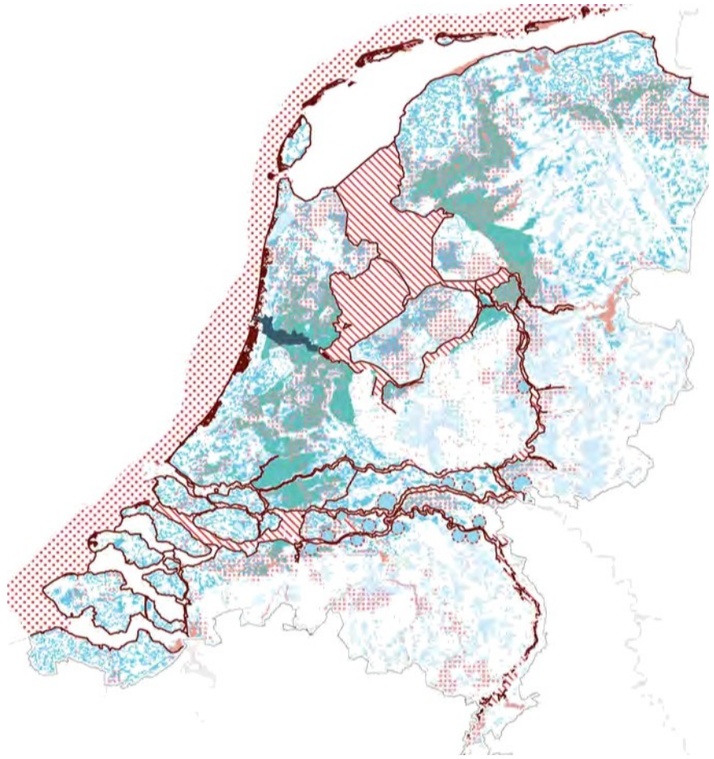
Water and soil

Optimizations within the water system are not sufficient to meet the challenges. That is why water and soil are guiding spatial choices, including choices regarding urbanization. We use the Assessment Framework for Climate Adaptive Built Environment to make climate-proof location choices for new built developments and we use the Measure for Green and Climate Adaptive Built Environment to design new spatial developments in a climate-adaptive manner. The availability of fresh water and drinking water is not always self-evident in an increasing number of regions. Further population growth requires new and diverse drinking water sources in the regions. On top of this, in the future we will need more space for the drainage and storage of water so that we can better cope with dry and wet periods. In the floodplains (covered by the Major Rivers Policy Line) and the IJsselmeer, we will no longer allow new construction. This way we make our rivers more climate proof and prevent increasing damage. Furthermore, we must reserve space around primary flood defenses so that they can be expanded in the future.
In anticipation of pronouncements in the Integrated River Management (IRM) program, it is wise to keep space free in the event of (future) bottlenecks in the discharge of water from the major rivers near cities.

With the goal of a vital soil, we protect valuable uncovered soils. The national government is working with municipalities and provinces to limit unnecessary land use. In the design and layout of the built environment, space is used as efficiently as possible; soil is covered, disturbed, compacted and excavated as little as possible, and where possible restored. Soil is reused on site. We continue and recalibrate the approach to existing and diffuse soil pollution and develop it in an area-specific approach. In this way we preserve and promote valuable soils and maintain the sponge effect of the soil. All these choices we work out further, together with the region, as part of ongoing programs. The subsurface is crowded and becoming increasingly crowded. Limited underground space is a bottleneck for drinking water and energy supply, for housing construction and for the development of the circular economy. Work or infrastructure in the subsurface touches archaeological values. Organizing the living environment both above and below ground requires 4D direction and planning to facilitate both energy and groundwater extraction and underground infrastructure.

Water and soil guiding movement toward strong cities, towns and regions nationwide

These maps show the relevant components from the water and soil system for the spatial strategy within this movement.



Water availability

Drinking water availability and expanding reserve areas are indeed an important issue, but not yet included in existing policies or elaborated in map.

Water safety and nuisance

Taking into account(space for) water safety and flooding

Adequate space needed around flood defenses for future reinforcement

-. -.- No seaward cusExtension for now

No building in floodplains and IJsselmeer area

Do not build or modify in areas with flood probability > : oo at >zo cm water depth*

Banks and reservation zone for " inland space rivers**

Overstripable areas with a probability < : .ooo

Areas with wetter conditions 2ook areas peatland

for level elevation

"In accordance with class o in the Sluringsficn "hon#Jfngmersegrt efslcrhtoÏ]'rrs worero r/osr and oHepitrgmingert in ftet Spatial consideration framework klÎmaatadaptive built environment. "" As part of program IRM, the r uteJijke reservation will be updated.

Soil conditions

Consider opportunities and constraints from local soil conditions Peat soils

Courageous soils

j Sandy soils

River clay soils Sea clay

soils Brook valley soils

Loamy soils LÖssoils

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Spatial strategy

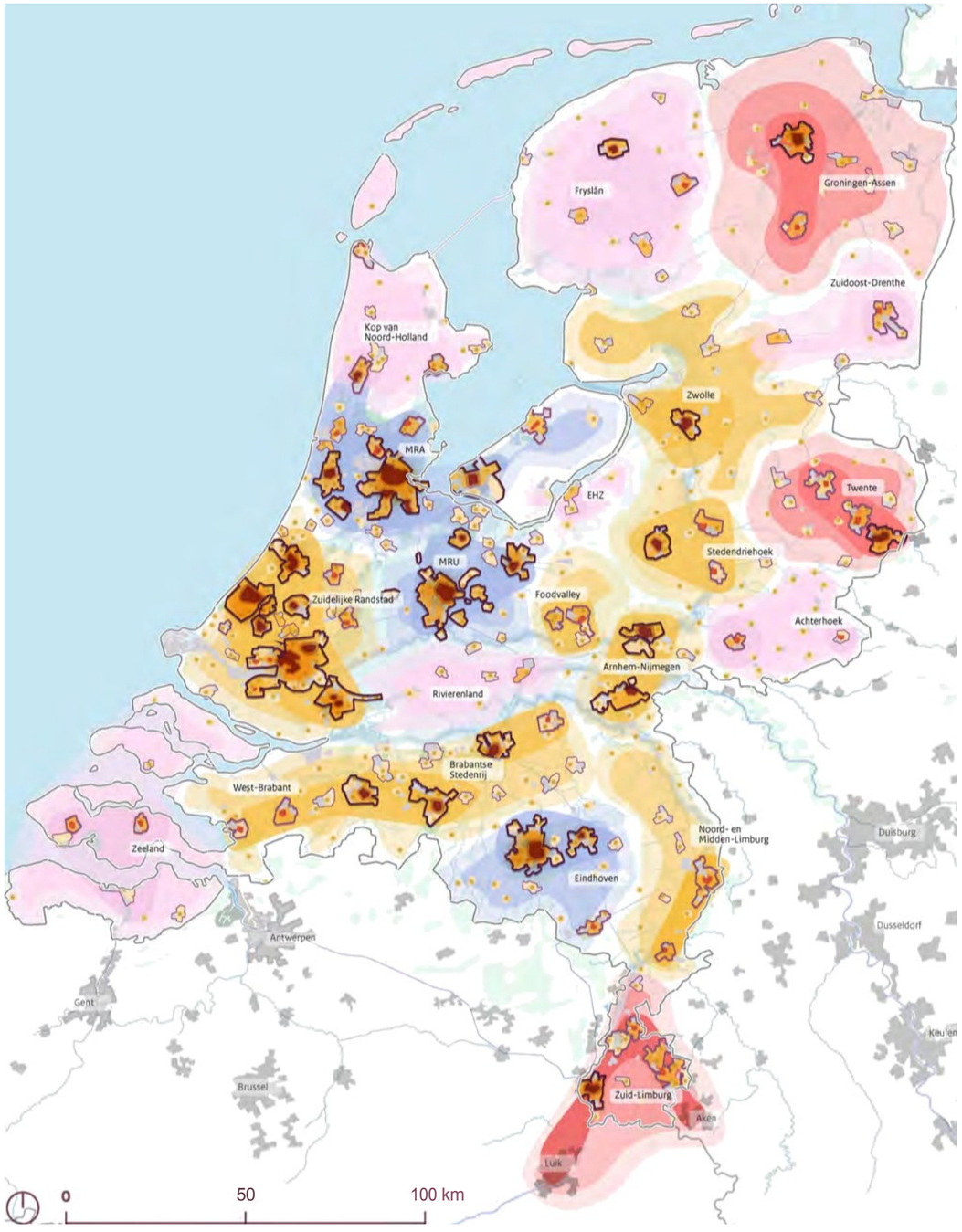
Realizing the outlined spatial picture for 2050 requires a regionally specific effort. In addition, the national government is working to strengthen the structure of urban network Netherlands in a northwest European context.

Spatial strategy for distinctive regional development

We strive in all regions of the Netherlands for a good balance between living, working, facilities and greenery. With the right mobility in the right place. And designed on the basis of the water and soil system. Not every region is the same. Each region has its own characteristics, challenges, ambitions and associated development. As an elaboration of the National Spatial Strategy, we will continue the existing efforts in urbanization areas and broaden them to an integral urbanization with efforts on economic development and greenery in and around the city, based on the water and soil system, with attention for existing and new cultural and landscape qualities. In addition, we will expand the urban network of the Netherlands and appoint new urbanization areas, in which national and regional governments will work together to achieve a balanced development of the region. In lee regions, the national government seeks cooperation to enable smaller-scale development, as well as facilities and strengthening of the local economy.

This requires a regionally differentiated strategy. Each region has its own qualities, characteristics and challenges in terms of socioeconomic aspects, population development and economic added value, the location in relation to other regions in the Netherlands urban network, the water and soil system and the value of landscape, nature and heritage. The challenge of growth in all regions requires efforts to preserve and strengthen green and blue functions. Increasing spatial pressure is also increasing pressure on green space in and around the city. For each region we will work this out in more detail as part of an integrated urbanization strategy.

The four strategies all require an active role by the national government, in cooperation with provinces, municipalities and water boards. This means a targeted deployment of instruments and resources which we will elaborate in more detail towards the draft National Spatial Strategy.



Spatial strategy for distinctive regional **development**

This map provides an overall layout of our country with four distinctive strategies for regional development.

Structure of daily urban systems (Indicative):
Center cities or cores in metropolitan region
0 Regional cores
Small regional
cores
Vital cores and villages

Indicative development of urban environments (mix living, working and facilities): W +
High urban center environment + add high urban quality (in all Center Cities)
V -i- Urban center environment + add urban quality (in all Regional cores)
Urban residential area + quality impulse existing built-up area (Jgs - g-s. 96s-*99)
- Leeper residential areas + concentration strategy for small regional centers and vital cores
Business park

Spatial strategy for distinctive regional development Vitalize
Jnitiate Stimulate
Accommodate

The Maanen are based on§ i Iztlje.lt in{ómior ic.on gasis of current knowledge and insights.
They areve' d'uitgeuwf tlinhel proac.to theO /ht ¥e /p- Nota AuitzMe.

Vitalize

We *vitalize* lee regions such as Fryslân, Achterhoek, Southeast Drenthe, Noord-Holland Noord, Rivierenland and Zeeland, matching their specific characteristics and qualities. In these regions, strengthening existing structures and accommodating the autonomous population development is paramount. As a result, the task is more qualitative in nature, aimed at maintaining and strengthening a pleasant, healthy and livable environment.

First, it is important to ensure sufficient suitable and affordable housing, appropriate to changing demographics and future employment, right down to the smallest cores. Also to be considered is adding appropriate housing supply to retain talent for the region. In a number of these regions, the task is to restructure the existing housing stock to bring it back up to current standards. Where necessary, housing will be added through densification within cores and 'street addition'. If longer-term housing demand is still uncertain, a flexible shell of housing can help meet demand. It is important to add suitable housing in close proximity to facilities so that the elderly can live independently for as long as possible, within their own network. And with affordable housing, we offer young people the opportunity to continue living in their village.

Through small-scale infill development and streets and neighborhoods "added to it," we lay the foundation for maintaining and strengthening facilities and social structures. Besides housing, it is also about adding an appropriate amount of work locations, for example, small-scale business space and function combi nations of living, working and facilities. Small projects, which together have a positive effect on local and regional broad prosperity. We also focus in these areas on maintaining and renewing existing business activity. We want employment to develop in balance with the working population. First of all by tackling existing business parks, aimed at a healthy working environment, a better business climate, greening and sustainability.

This includes appropriate center areas with a diversity of amenities, where people can meet and stay. Companies can reinforce each other by being located near each other. Vitality can be enhanced through the proximity of activity, facilities and greenery. At the same time as addressing the urban area through restructuring and making residential and working areas more sustainable, a quality improvement of the greenery in and around the city and village can be achieved. We are committed to concentrating regional and supra-regional facilities in one regional core city in order to create a powerful, vital core and maintain facilities for the region. This will limit distances to facilities throughout the Netherlands and keep all regions attractive as places of business.

Initiate

We *initiate* distinctive spatial-economic development in regions at a greater distance from the economic core area, such as Groningen-Assen, Twente and South Limburg. In time, these regions could receive a considerably larger share of the urbanization challenges than would be obvious based on current size and autonomous growth alone. The Groningen-Assen region is already energetically implementing its urbanization strategy. We see greater development potential here in the longer term. Construction of the Lelyline can further support this potential. In addition to Groningen-Assen, there are opportunities in Twente and, in the longer term, in South Limburg for a greater role in the urbanization task, in line with regional economic development. In Twente, the national government and the region are already working on an urbanization strategy. It may be possible to anticipate further urbanization by adding a flexible shell of housing.

We are working in these regions to develop complete regions, cities and villages. This means a balanced development of living, working, facilities, mobility and green spaces. The basis for this must be laid in an independent and distinctive spatial-economic development, to which the national government and the regions are committed for a long period. In the short term, efforts are already needed in the

existing built-up area, such as restructuring and making the housing stock more sustainable. There is also an autonomous housing need in these regions. These include missing forms of urban housing and housing for the elderly. This can be met in the shorter term by focusing on concentration and densification. This also provides opportunities for the climate-adaptive, nature-inclusive and healthy design of the urban area.

The regions where we want to initiate stronger growth have clear strengths. They are well connected to the (inter)national infrastructure, both on a regional and European scale. The location and regional connections offer opportunities for further development, including through cross-border cooperation. The regions have a high quality of life, thanks in part to attractive landscapes and larger cities with rich amenities. Groningen-Assen, Twente and Zuid-Limburg also have well-organized knowledge and innovation ecosystems that provide opportunities for additional economic development. Thus, through a long-term commitment with special attention to the economic development of Groningen and North Drenthe as an attractive place to live, work, learn and invest.

In South Limburg and Twente, the universities attract relatively large numbers of international students. This increases the attractiveness and thus the vitality of the regions. The internationalization of higher education in the region can have positive effects on the regional labor market and/or the regional knowledge infrastructure. But uncontrolled internationalization can also bring negative consequences, such as reduced accessibility for Dutch students from the region, pressure on educational capacity and housing problems. At the same time, it is proving difficult to retain the talent. To initiate a complete development in these regions, it is especially necessary to focus on adding and retaining economic functions. This requires additional efforts. This requires an integral approach and cooperation between governments, business and higher education. An extra impulse in the field of economy in these regions can yield many benefits: strengthening social cohesion, utilizing the labor potential and maintaining the level of prosperity.

Depending on the task in each region, the exact effort will vary. In all cases, healthy growth requires efforts on parallel tracks, in which the economic potential of the region is further strengthened and grows along with the growth of the number of housing units, an appropriate level of facilities and green and blue. We want to work this out with the regions in an integral urbanization strategy. This strategy will also indicate how the challenge of green space outside the city will develop from the various functions of green space and what efforts are required. We believe it is important that the green space challenge around the city is developed regionally in conjunction with the efforts in the rural area.

A decision on the construction of the Lely Line and Lower Saxony Line will eventually follow. If a decision is made to realize these lines, long-term opportunities for more extensive urban development in the Frisian cities and in Emmen will follow.

Encourage

We *encourage* spatial-economic development and restructuring in regions that are strategically located in relation to economically dynamic areas. The aim is for them to develop further in the future into more complete regions with a balanced mix of living, working, facilities and green space. The regions we stimulate are located centrally in the urban network and have a strong mix of living and working and the presence of higher education. They already have autonomous growth and are therefore logical places to build housing. These regions require a stronger commitment to economic development in order to continue to grow in balance. These are the Brabant urban region, the Arnhem-Nijmegen-Foodvalley region, the Stedendriehoek (Apeldoorn-Deventer-Zutphen), Zwolle and the North Limburg region.

This also includes the Southern Randstad. Although this region belongs to the high urban core area of our country, the economic dynamism lags behind and in many places there is an accumulation of socio-economic issues. The existing spatial system of residential environments, working areas and infrastructure requires a broad commitment to restructuring, with attention to improving the physical and social quality of the living environment. In the first 15 to 20 years, the main task will be to realize the ambitions and tasks already set for housing and urbanization. In the longer term, too, there is still plenty of potential for urbanization in the Southern Randstad. But the form this takes will have to be aimed at making the area future-proof, both spatially and economically, and must relate to, among other things, the preservation of environmental space in port and industrial areas. In doing so, the Southern Randstad has an important task to realize additional green space and further develop existing green space.
Here there are opportunities in combining the water and soil tasks in the Green Heart, with the extra space needed for recreational green space.

We are already working with most of these regions to implement urbanization through a development perspective or implementation agenda for a NOVEX urbanization area. For the Stedendriehoek and Limburg cities, we will work with the regions on an urbanization strategy. The regional commitment to further urbanization depends on opportunities and constraints from water, soil, agriculture, heritage, nature and mobility. In many of the regions mentioned here, there is still room in the mobility system to accommodate relocations. On the networks within and in the direction of the Randstad, however, bottlenecks are likely to occur soon. Partly for this reason, a firmer commitment to the economy is also needed in these regions. After all, the starting point is to limit travel over longer distances. We make optimal use of the available space in the mobility system through more concentrated urbanization around mobility hubs, stimulating the use of public transport and, for shorter distances, walking and cycling.

A broad palette of employment opportunities, for both theoretically and practically skilled workers, can strengthen economic dynamics. Economic development extends beyond our own needs and also offers opportunities for supra-regional developments. First, we are committed to securing and making better use of existing space for business activity. In addition, the addition of extra space for business activity is possible, based on an unambiguous and clear spatial structure for business locations, office locations and commercial facilities.

Accommodation
We *accommodate* the strong autonomous trend toward concentration of people and economy in the Metropolitan regions of Amsterdam, Utrecht and Eindhoven. The growth of these regions is indispensable for maintaining Dutch earning capacity in the longer term. After all, these are the most economically dynamic regions, where, thanks to agglomeration advantages, employment is growing strongly and there are many jobs per inhabitant, with high economic added value. But accommodating does not mean we can accommodate everything. And certainly not in the way we used to. The pressure on space and livability is simply too great in these regions. The starting point is space-efficient urbanization with sufficient space for work and facilities, improvement of infrastructure for mobility and energy, spatial quality, heritage, a healthy and safe living environment and greenery in and around the city.

Because of the rapid growth in jobs, the housing task in these regions is large. We want to accommodate most of this within the boundaries of the existing built-up areas of the large cities and the regional cores. If we opt for smart densification and transformation, there is still room in the longer term to add substantial housing in the current economic growth regions.

However, space in cities is scarce. This calls for taking advantage of densification opportunities in post-logy neighborhoods and around mobility nodes, and where possible transforming unilaterally or extensively used urban areas. Also indispensable is the more effective and efficient use of

business parks. It is necessary to look closely at opportunities for function change and -mixing and renewal, making sites suitable for the jobs of the future. Preserving and creating space for the circular economy are new challenges on these sites. At the same time, it is important that sufficient practical jobs are available nearby and that the connection between living and working remains well secured. That is why efforts are being made to develop, intensify and maintain the existing acreage of business parks, so that an appropriate supply is available in time to maintain or strengthen the economic dynamics in the region.

Urbanization should relate in location and scale to opportunities and constraints of the water and soil system. Especially in vulnerable and valuable landscapes, such as the peat meadow area, the water lines and deep polders, around Amsterdam and Utrecht, this means limited opportunities for suburban development. Here we are also looking for balance with the mainports and greenports, with a less negative impact on the living environment.

Urbanization preferably takes place in places that are easily accessible by public transportation. But smart planning along existing infrastructure alone is not enough. In these regions, the mobility system cannot always keep up with growth. Therefore, agreements have been made to invest heavily in the mobility network in these regions in the coming years. In addition, walking and cycling will play a more important role. Electric cycling will also become more important on a regional scale. A layout of the cities that focuses more on walking, cycling and public transport again offers opportunities for densification, for example along traffic routes that change function.

Population growth increases pressure on parks, recreational and natural areas outside the city, social and cultural facilities, and energy networks. Catching up on green quality is needed. This includes protecting and developing the larger green and blue structures into regional landscape parks, such as the 'scheggen' in Amsterdam. These regions also have a health challenge, such as protection against (cumulative) air and noise pollution.

Spatial strategy for connected regions in European context

Together, the multi-core system throughout the Netherlands forms the Urban Network Netherlands. As described in the previous section, each region has its own development potential and task, with which they all play their own role in strengthening the network as a whole. In 2050, urban regions in the Netherlands complement each other in economic profile and supply of types of residential environments, thus reinforcing each other. At a higher scale level, the Netherlands urban network is part of the Northwest European network of world-leading metropolitan regions of Paris, London, Brussels and Frankfurt. These are only a few hours away and are connected to the Netherlands via high-speed rail lines and the European main road network.

To strengthen the Netherlands' urban network as a whole and reinforce its position within Northwest Europe, we are committed to good interregional and international connections between urban regions within the Netherlands and internationally. The mainports are important international hubs for flows of goods, people and technology. To further integrate the urban network Netherlands and strengthen its international position, it is necessary to accelerate and improve (inter)national connections. Within the Netherlands urban network, the focus is on regular railroads for travel between cities, towards the metropolises in Northwest Europe on high-speed trains. For connections with metropolises worldwide, aviation remains most important. In places where opportunities for public transport and active mobility are insufficient, the car continues to play an important role.

To ensure the accessibility of facilities and work within limited space, categorizing networks can help make the best use of existing capacity. Categorizing networks into a limited number of categories by function, use and area type

can help in making targeted choices for new housing locations and clustering of industry. Freight corridors, including their safety contours, are also part of this consideration. This helps to make sharper choices and to steer on desirable use, in a way that improves the accessibility of facilities and work, but also explicitly aims to improve environmental quality, safety and health.

Metropolitan hubs, such as city centers near train stations and mainport Schiphol, are the focal points on this (inter)national network. We connect metropolitan nodes and concentrate housing, employment and major facilities in the vicinity of (inter)national train stations. In this way, mass is created around the nodes and the cities benefit optimally from the urban network as a whole. New connections, such as the Lely Line and the Lower Saxony Line, can ensure that the regions of Groningen, the Frisian cities and Emmen are better connected and become part of the Netherlands urban network, creating new development potential there as well.

With regard to aviation, we are committed to a balanced development in which trade-offs must be made between safety, international accessibility, climate and a healthy living environment. The pursuit of broad prosperity is at the heart of this. Schiphol is the national airport and remains the most important hub for air traffic in the Netherlands. Improving international rail transport helps to provide an alternative with a smaller environmental impact for flying to international destinations that are a relatively short distance away. In this context, the improvement and expansion of high-speed trains will be studied for the future. In the medium term, electric aircraft will additionally be considered for this purpose. The regional airports of Rotterdam, Groningen, Eindhoven, Maastricht and Lelystad (in the future) have future prospects if they are of importance to the region, distinctive in terms of supply and complementary to Schiphol. Given the rise of unmanned aviation (such as drones) and scarcity that threatens to occur in the air, it is important that airside and landside use be coordinated.

Overview of choices

Choices about new urbanization

- (Made choice) Through 2030, we have concluded regional housing deals with regional partners, leading to the realization of nearly one million housing units (Housing Construction Program).
- (Made choice) For the seven NOVEX urbanization areas we have drawn up integral urbanization strategies or development perspectives towards 2040 with regional partners. Seventeen large-scale NOVEX housing locations have been designated within these NOVEX areas. With the aid of an implementation agenda and regional investment agenda, we will carry out the tasks in these regions. This means substantial addition of housing, employment, accompanying infrastructure, mobility measures and green and blue development. And with the substantive expansion aimed at themes such as climate adaptation, energy, (circular) economy, the mobility transition, a healthy and safe living environment, greenery in and around the city, cultural heritage and UNESCO World Heritage, viewed in relation to 'water and soil management'.
- (Made choice) Water and soil are guiding spatial developments (Policy letter Water and soil guiding):
  - Site selection for new urbanization is based on the Assessment Framework for Climate Adaptive Built Environment and design of new urbanization is based on the Measure of Green and Climate Adaptive Built Environment.
  - New urbanization takes into account the space needed for water storage and drainage in the river area and the space needed for future dike reinforcements.
  - No new urbanization will take place in the floodplains. No land reclamation is taking place in the IJsselmeer region and no construction outside the dikes for the purpose of urbanization. Advanced agreements on expansion projects are honored.

  - In urbanization and infrastructure, we strive for the most efficient use of space, cover the soil as little as possible and restore the soil where possible. We strengthen the control of the organization of the subsoil.
- (Choice to be made) We will continue the cooperation in the current NOVEX urbanization areas (MRA, Utrecht-Amersfoort, Groningen-Assen, Zwolle, Arnhem-Nijmegen-Foodvalley, Zuidelijke Randstad, Brabantse Stedenrij) with full energy. We will continue to work on the existing urbanization strategies or development perspectives for the seven NOVEX urbanization areas, with a stronger focus on additional housing, green areas in and around the city, protection and use of (world) heritage and spatial quality, growth of facilities and economic development.
- (Choice to be made) With a number of regions (including Twente, Stedendriehoek and Limburg) we will work on new integral urbanization strategies aimed at substantial balanced urban development. For this it is necessary to further strengthen the economic potential of the region and let this go hand in hand with the growth of the number of housing units and a matching level of facilities.
- (Choice to be made) We designate new large-scale housing locations, partly on the basis of a differentiated long-term development strategy for different types of regions, appropriate to their demographic and economic development. This will be worked out together with the regions, within existing and new urbanization areas and possibly outside them.
- (Choice to be made) We enable small- and medium-scale housing locations (including "street in" and "street out") in areas with more limited housing needs, complementing the existing stock. We are committed within the region to concentration within one center city. The initiative for this lies with the co-governments.
- (Choice to be made) In accordance with the Environment Act and the NOVI, the national policy for heritage and the living environment focuses on involving heritage in developments at an early stage in order to preserve and utilize heritage. The national government is working out a more detailed approach to this, including specifically addressing the preservation of the exceptional universal value of world heritage.
- (Choice to put on the agenda) We will work out a differentiated approach to housing development, appropriate to the strategy chosen for the distinctive regions. Based on this, we will work on a next round of housing deals, appropriate to local need and desired development potential.
- (Choice to Agenda) We are working on a strategy for aligning electricity and heat networks and potable water availability with spatial developments, such as housing developments, business parks, charging infrastructure and energy generation.
- (Choice to be put on the agenda) We examine where mobility networks offer room for further urbanization, with an emphasis on minimizing additional burden on existing mobility networks.
- (Choice to Agenda) We are exploring where more capacity is needed in the mobility network over time to continue to provide accessibility.

Choices about the existing built-up area

- (Made choice) With a comprehensive approach, we focus on improving livability and safety, especially in urban focus neighborhoods (National Livability and Safety Program).
- (Choice made) We develop a coherent long-term strategy for regions with a task for vitality that includes attention to regional earning capacity, amenities, regional accessibility, quality of life, restructuring and heritage (Every Region Counts).
- (Made choice) In the current NOVEX urbanization areas, we have agreed that new developments also strengthen the existing built-up area.
- (Choice to be made) We focus on transitions in existing urban areas, including housing construction, greening, sustainability and climate adaptation. We use the densification of existing cities for these transition tasks. In some areas (for example, socioeconomically weaker areas) this will require a greater active commitment than in areas with strong economic growth.

- (Choice to be made) We are committed to a future-proof housing stock that qualitatively meets regional needs. This sometimes calls for restructuring, sometimes for the specific addition of certain types of housing.
- (Choice to be put on the agenda) After the current efforts to future-proof pre-war and reconstruction neighborhoods, efforts are needed in the long term to future-proof neighborhoods built after 1965 (Post-65 areas), with special attention to growth centers, heritage and green space.

Choices about mobility system development

- (Made choice) We implement the agreements made under MIRT, including restarting (in time) paused projects (MIRT).
- (Made choice) We are committed to the "right modality at the right place and time. This means that in urban areas walking, cycling and public transport are preferred, between cities the train is preferred and in rural areas the car retains an important function. We are working towards integral accessibility goals (Mobility Vision 2050).
- (Choice to be made) Regarding aviation, the future course is "smart and sustainable. A new balance is needed between quality of the living environment and quality of the network of inter-national connections. The starting point is to move flights from locations where the environment is relatively affected by noise pollution to airports where the environment is less affected.
- (Choice to be made) Future choices regarding accessibility, including investment decisions, we make on the basis of accessibility goals. These choices are about a coordinated development of urbanization and mobility (proximity), location policy of facilities and investments in infrastructure. These accessibility goals are formulated in collaboration with the regions and fit the development strategy for each region and the existing and desired spatial structure of a region.
- (Choice to be made) We differentiate and divide the networks into a limited number of catego- ries according to type of function, use and the spatial characteristics of the environment. This helps to make sharper choices and guide desirable uses. For example, adapting a network with an urban character can help improve the quality of the living environment and identify suitable locations for urbanization, and steer locations for clustering of industry.
- (Choice to be put on the agenda) We examine choices regarding the mobility system needed to strengthen the urban network Netherlands as a whole and internationally: development of aviation, international accessibility by rail and road, connections between regions throughout the Netherlands such as the Lelyline and Lower Saxony Line.
- (Choice to be put on the agenda) The position of regional airports: Rotterdam, Groningen, Eindhoven, Maastricht and Lelystad (future) have future prospects if they are of importance to the region, distinctive in terms of supply and complementary to Schiphol. We are studying the improvement and expansion of international rail transport, as an alternative to flying to international destinations that are a relatively short distance away.

Choices on a future-proof urban and regional economy

- (Made choice) We provide space for economy in cities and villages. This includes driving/knowledge economy (high-density business locations and knowledge campuses/innovation districts), urban economy/productive environments (local SMEs) and local circular economy (Space for Economy Program).
- (Made choice) We protect, intensify and make sustainable existing, urban business parks and campuses, partly for the circular economy and knowledge economy (Space for Economy Program).
- (Choice to be made) We develop a main economic structure and spatial-economic exploration with a focus on added value, regional differentiation and sustainability. Matching the developments in the areas of people, innovation, strong and resilient EU, networks, sustainability and broad prosperity.

- (Choice to be made) For this, it is necessary to choose a regionally differentiated commitment to economic development, as a regional elaboration of the above-mentioned main economic structure and appropriate to the development perspective or urbanization strategy per region.
- (Choice to be put on the agenda) We are exploring which instruments can be used for the targeted strengthening of regional economic (circular) ecosystems.
- (Choice to be put on the agenda) We will make a long-term spatial-economic vision and, based on this, we will visualize required packages of measures to strengthen regional economic ecosystems: area- and sector-specific, from a national spatial vision of economic development.

Choices about greenery in and around the city

- (Made choice) We are committed to increasing the supply of green space in the city and strengthening the connection with the landscape and nature outside the city. The task varies per urban area and depends on foreseen developments.
- (Made choice) We are investigating a green standard as a (legal) instrument to be secured for amount of green space.
- (Choice made) We offer fellow governments the guidebook Green In and Around the City (GIOS) in order to manage green issues in an unambiguous manner.
- (Choice to be made) Green space grows, not only quantitatively, but also qualitatively along with urbanization. We will focus on green space in the city and on providing sufficient accessible green space around the city, such as existing and new nature reserves and recreational areas, accessible agricultural areas and urban-rural connections through green-blue networks. For green space around the city we will elaborate the instrument regional landscape park and in which regions this instrument can be applied.
- (Choice to be agendized) We are investigating whether the required interventions under Water and Soil Stewardship in the rural area (including space for water storage and drainage, elevated water level set-up and other water and soil measures) can be utilized to benefit the recreational value of the landscape.

Choices about water

- (Choice made) For new buildings, the choice of location is determined on the basis of the Assessment Framework for the climate-adaptive built environment. New buildings are built climate-proof, according to the national Measure for a green and climate-adaptive built environment. This includes elements such as the risk of flooding and subsidence.
- (Made choice) We maintain and update spatial reservations to further strengthen primary flood defenses in the future.
- (Made choice) Using supra-regional stress tests to assess vulnerability to extreme precipitation. Reserve 5-10% space in deep polders for water storage. Avoid development on land suitable for infiltration.
- (Made choice) New vital and vulnerable infrastructure and functions avoid places with excessive flood risk.
- (Choice made) We safeguard the national freshwater buffer IJsselmeer, Markermeer and the Randmeren: we maintain the spatial reservations for level change IJsselmeer Region and NZK. There will be no land reclamation in the IJsselmeer region and no construction outside the dikes. Advanced agreements on expansion projects will be respected.
- (Made choice) Treatment capacity of WWTPs should be considered in site selection for large-scale housing development and urbanization.
- (Choice to be made) Drinking water availability should be a prerequisite for new housing developments and pressure on the water system a guiding factor in site selection for housing developments.
- (Choice to Agenda) We explore options for utilizing fresh surface water for drinking water extraction (during wet periods).

Choices about soil, subsoil and groundwater

- (Choice made) In existing urban areas, a choice must be made as to how damage caused by subsidence will be dealt with. This can be done, for example, by investing in better groundwater management or by replacing damage-prone elements by soil subsidence-proof alternatives. These choices will be further addressed and elaborated in the program Soil, Subsoil and Groundwater and for housing specifically in the National Approach to Foundation Problems of the Ministry of the Interior and Kingdom Relations.
- (Made choice) We want to achieve a vital soil. This means that we make positive use of the soil in developments and that in the design and use, the condition of the soil is improved as much as possible. We reduce soil disturbance and reuse soil as much as possible. We prevent contamination of groundwater and preserve existing sealing and filtering soil layers. We focus on infiltration and increase sponginess in areas to ensure greater storage capacity in surface and groundwater.
- (Made choice) We strive for the most efficient use of space in urbanization and infrastructure, cover the soil as little as possible and restore the soil wherever possible. In this way, we preserve and promote valuable soils and maintain the sponge effect of soil. The urban environment becomes more liveable if there is less heat stress, fresh water is better retained during droughts and there is less flooding during peak showers. We achieve this by restoring the soil, reusing as much soil as possible in situ or at a high quality level, and focusing on (indigenous) urban green space.
- (Choice made) We continue and recalibrate the approach to existing and diffuse soil contamination to reduce risks to people and the environment. We reduce the risks of soil contamination and develop this in an area-based approach to existing and diffuse contamination.
- (Choice to be put on the agenda) We explore additional efforts to free up land through remediation of contaminated areas such as landfills.

Theme: Defense

Urgency and tasks

Freedom, security and prosperity cannot be taken for granted. Europe's security has been under pressure since Russia's invasion of Ukraine in 2022. The global security situation is worsening due to the effects of climate change, hybrid threats, institutional distrust, increasing resource scarcity and migration. Even a country like the Netherlands is closer to war than it has been in a long time. Large-scale military conflicts have again become conceivable. The Netherlands urgently needs to be prepared for these threats, even in the short term.

Defense's focus has therefore become even more than before on the main task of "protecting its own territory and that of allies. After the Cold War, the focus on this main task has declined to a level where, in the face of the current threat, Defense is unable to guarantee national security, and that of allies. Carrying out this main task requires a transformation into an armed force that is combat-ready, rapidly deployable, interoperable and scalable, as well as having a robust continuation capability. The consequence of this transformation is that in the future the armed forces will be more explicitly present in the physical environment. As the armed forces grow, so too will the need for space to practice and train, both abroad and in the Netherlands. The recent lessons from the Ukraine conflict show that more and sometimes different exercises are needed, with more focus on a large-scale conflict.

Being ready to defend one's own territory and that of allies requires, also in light of modern - often hybrid - warfare, practicing with increasingly larger units and with integrated action. These are much larger units than the expeditionary units appropriate to the other main tasks of Defense. Because of their size, it is not realistic to practice at these higher scales within the Netherlands. Therefore, in order to fulfill its constitutional tasks, the Dutch armed forces depend heavily on cooperation with its allies. The Dutch armed forces operates to a very large extent - about half of all its activities - abroad, with units and support personnel. Airmen, for example, are trained almost entirely in the U.S., the land forces operate in close cooperation with NATO allies in Germany and are active in the Baltic states in the NATO context, and naval vessels operate almost all over the world (including in the Baltic and Mediterranean Seas). Besides the fact that practicing abroad is very important for the Dutch armed forces, there are also disadvantages. It places a great burden on military personnel, who are often structurally active abroad for long periods of time. It puts a strain on relationships and (family) life in the Netherlands. This has a negative effect on the attractiveness of the Ministry of Defense as an employer, leads to unfilled vacancies and affects the defensibility of the country.

In the European network, the Netherlands is also an important landfall and transit point for military mobility. It is important for Defense to be able to protect these vital infrastructures in both wartime and peacetime. Defense has recently invested in more modern and space-using equipment. In several places, therefore, Defense needs more physical space and more environmental space.

Opportunities abroad are maximized, but space is still needed in the Netherlands. For activities that must take place in the Netherlands for strategic reasons, for example, space is needed in the Netherlands. Opportunities for this on existing defense sites are being investigated. The efficient use of existing infrastructure and space is preferable to seeking an entirely new location. Whether it is possible to expand activities and realize projects at existing locations depends on the activity and on the specific location and situation. The distribution of the costs and benefits of defense activities across the Netherlands may also be a reason to move to a new location for certain activities.

New direction

The shift in main tasks requires the Dutch armed forces to be deployable not only abroad, inside and outside Europe, but also on its own territory. Allied cooperation, in both NATO and EU contexts, requires ready units in the Netherlands to meet international obligations, but also for tasks in the Netherlands and for logistical capacity within the Netherlands. Joint protection within the NATO partnership also means being present in each other's space, and having the infrastructure set up accordingly. This means more frequent exercises - including with allies - in the Netherlands, and training. There will also be more frequent exercises in the built environment. It is crucial for the defense of one's own and allied territory that Dutch units are also able to act in the Netherlands in large-scale operations.

The greater threat, and corresponding mode of warfare in allied cooperation, requires large-scale unit maneuvering and integrated training, including in the Netherlands. Realistic training for large-scale military operations is not easily possible with current defense capabilities within the Netherlands. Equipment must also be available on this large scale. But more space is also needed in the Netherlands for training on smaller scales. The size of training grounds is too small for the required mode of operation, and operation with new means.
Defense at these scales must also be able to practice at multiple locations simultaneously. Increasing activities in Dutch territory then also necessitates protection of associated equipment. Increasing activities in the Netherlands also means that more accommodation, education, training and exercise locations are needed in the Netherlands. Additional space in the Netherlands is needed to enable small-scale, large-scale and integrated exercises on its own territory.

However, spatial tasks in the Netherlands are more complicated than 30 years ago. The Netherlands is fuller. Space is scarcer. Besides safety, the quality of life and the living environment must also be protected, even in the longer term. Defense specifically has 13 needs that can land at multiple locations in the Netherlands, and whose spatial integration therefore requires supra-regional consideration. In addition, space is needed for 44 needs that are linked to 31 specific locations because, for example, they are not possible at other locations (the Vliehors is such a unique location).

Spatial strategy

The choice of where the needs of Defence can be spatially fitted within the Netherlands depends on a number of factors. The effective and efficient operation of the armed forces is paramount, but support in the area, the possibilities and limitations from an environmental and living environment perspective, costs and speed of realization are also important. The logical spatial coherence of defense activities and locations is also a determining factor when considering new and expanded locations. In incorporating the choices made into the space and living environment in an area, the consideration principles of the National Environmental Vision (NOVI) are applied, and the Ministry of Defense strives for efficient use of space and for combining functions where there are synergy opportunities.

Defense space needs are not unrelated, nor are they unrelated to existing defense capacity. Many defense activities are spatially related (for example, stationing of helicopters and low-flying areas at no more than half an hour's flying time, and dispersion of radars for a national coverage). There is also a hierarchy in, for example, training areas. Areas with unique (e.g. natural) conditions are scarce, and therefore more important than areas with less scarce characteristics. This also applies to sites where combined land, water and air exercises can be conducted. Defense's use of space is not a "shotgun blast.

The spatial cohesion in existing and planned activities is worked out in a main spatial structure for Defense, both in text and on maps. This main structure brings together the activities of Defense in four aspects that are also mutually related and require proximity (for example, infrastructure and other tasks). Superimposed, these sub-structures form the overall picture of Defense's space requirements. Site selection for new needs is considered from this main structure, among others.

The first element of the main structure is the *infrastructure for military aviation*. The protection of Dutch airspace requires a comprehensive infrastructure and distribution of airfields across the country. This is to effectively cover Dutch airspace if it is invaded, and because of spreading vulnerability. The main structure takes into account intensification of fighter flying, and temporary storage of aircraft of allies. A specific new need concerns the construction of an unpaved airstrip for tactical air transport.
This requires close cooperation between Air Force and Army units. A nationwide network of radar installations (part of NATO network) forms the core of information provision for both fighters and helicopters. This supports the deployment of these aircraft by providing essential data, such as airspace monitoring and enemy detection. Air defense subinfrastructure also includes the defense pipeline network for fueling airfields.

The second element of the main structure is the space needed for *(integrated) training and stationing of units*. This main structure includes the barracks of units, and exercise areas and exercise facilities in their vicinity. Modern warfare, and thus also exercise, requires interplay between the various armed forces components, and training of this integrated operation, in increasing size of units, and with exercise areas of various sizes. Units need larger exercise areas due to entry of new assets. In addition, areas are needed for exercises in urbanized areas, in amphibious operations and with firing and jumping (heavier) ammunition. Reinforcement and concentration of support units (medical, logistics, information) is also part of this sub-structure. Integrated training involves the cooperation of various land-based units, with or without combat support from the sea and or from the air, with aircraft, helicopters and drones. Included in the main structure are low-flying areas that are in close proximity to units, and areas for stationing that are as close to them as possible to avoid nuisance.

The third element of the main structure is the space needed for *military transport routes and storage capacity*. This main structure contains the crucial links for transportation and locations for storage (which also continue abroad), also in view of the role of the Netherlands in the framework of the so-called *Host Nation Support* (HNS). The Netherlands is important in the NATO context for transit of military equipment. This entails storage of materiel and ammunition. Reducing vulnerability and increasing mobility in the Netherlands requires several alternative transport routes. Ammunition is stored on a large scale, but also in the form of '*Rapidly Deployable Capacity*' (SIC). Transport axes and storage locations must naturally connect. The transport routes used in these cases include the TEN-T network, and the hazardous materials routing, which is subject to regulation. Data connections are also part of this sub-infrastructure. The spatial impact of these is limited, however, but essential for Defense and the choice of where Defense establishes itself in some cases.

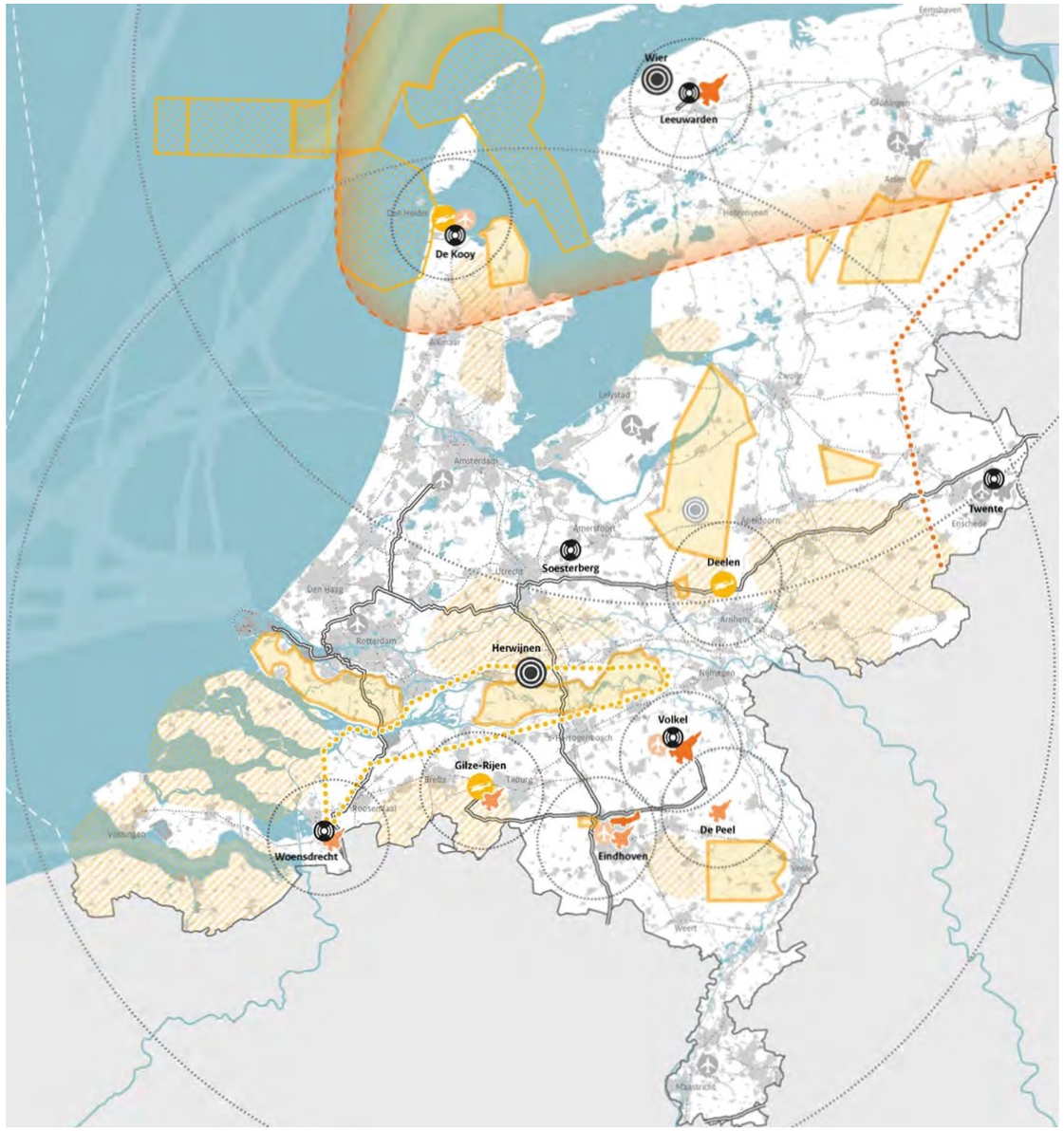
The fourth element of the main structure contains the space needed in the *North Sea*. The Dutch North Sea is essential for Defense, but is increasingly becoming a full and intensively used part of the Netherlands. The North Sea contains critical infrastructure such as data cables and energy supply infrastructure, and has a European external border. Security measures are being

scaled up, and must also be practiced. There are areas for shooting exercises, flying exercises and mine clearing exercises. Modern exercise, such as flying (unmanned) helicopters, requires space. And the exercise areas require corridors to them.

Taken together, the elements of the main structure form a picture of the space needed by Defense to carry out its activities in the Netherlands. Space in the Netherlands is scarce, and there are several interests and structures that also require space, and which overlap with the main structure of Defense, such as energy transition and areas where large-scale housing construction is necessary. Precisely because of scarcity, it is important to be mindful of opportunities to combine land take. Military training areas can contribute to other social needs. Consider quiet areas for nature development, groundwater storage, and civilian co-use of airports. These are all possibilities at both existing and new sites. Function combination helps to ensure that the use of space by Defense, including indirectly through environmental effects, is efficient. Where possible, we contribute to other functions, such as the protection of cultural heritage, at existing sites and in expansions. The sites and ambitions of the Ministry of Defense explicitly offer opportunities for combinations in the areas of nature and biodiversity, water and soil, energy and sustainability.

Identifying the need for space, balancing the need for space for Defense against the other tasks and securing the new use of space by Defense are central to the National Program Space for Defense (NPRD). The cabinet is expected to lay down the final location choices in late 2024/early 2025. There are additional space requirements from the Ministry of Defense that legally follow a different route than the Space for Defense program, but which are mentioned in the policy vision for this program. This concerns spatial needs in, for example, the Dutch Caribbean, above the North Sea and needs in medium and upper airspace.

The spatial impact of Defense can sometimes be combined with other space requests, but the activities can also rub shoulders with other activities and developments. Below is the connection to the three main movements.



Infrastructure for military aviation

Jatht planes

Existing military airport for fighter aircraft

Existing military airport / possibility for co-use fighter aircraft Civil airport /

investigation for co-use fighter aircraft

Existing military airport with civilian co-use (wor Volkel this involves stationing ambulance helicopter)

• ' - Low flight path fighter aircraft (existing low flight path o for fighter aircraft) Training

area |fighter aircraft

Helicopters

Existing military airport Low flight path

helicopters Low flight area helicopters

(existing)

Search area for new low flying area helicopters

Mixed practice Exercise area

(existing)

Radar installations

.t" " RadarinsEallaEies Wier and Herwij nen (future)

Existing radar installation Nieuw- Milligen, being phased out

Ï@ MASS radars

Radar military airports Outer-Horizontal

Defense Pipeline

—— Pipeline

Other

+-c-* Air transport

Civilian airport

Space for(integrated) **exercise and** alloying of units

Practice

Exercise areas Vlieland, Reek, ISK and ASK-West Area for integrated exercise.

Other practice area Shooting area/unsafe zone Marine practice area

extensive site-specific needs

@ Enlarging exercise area de Haar. Assen t4oOha)

@ Enlargement ASK, Elburg ($ooha}

@ Enlargement OT Oirschotse heide (eooha)

Practice in varurbanized area

Étn new location

X One or more of the practice areas

O ,elikapter base

Intensify existing helicopter landing sites

0 expand helicopter landing sites on practice areas

Amphibious practice

Existing amphibious exercise area

Expand training sites landing vehicles, including deep infiltration capability Expand training sites landing vehicles, including option for Live firing from vehicles

Jumping Ground

O Expansion of existing springïerrein Reek

: Construction of a new, larger site near engineer units

I¢azemes

0 Army Barracks

O Screw up and concentrate on one/two existing Defense sites '$

Reinforce and concentrate on one new Defense Location

Stationing and conidors unmaritime **helicopters and** drones **for cargo**

Sl:ationing drones

'$— Direct flight path to and from practice areas / Deelen

— flight path along shipping lanes

— Avoiding sensitive areas as much as possible

Gabieds division into security regions

R/'4C North - q$ Mechanized Brigade(Havelte)

RfflC West/ I tidden - JJ Air Mobile Brigade (Schaarsbergen)

ROC South - 1y Light Brigade(Oirschot)

Military transport routes and storage capacity

Transport

Track

Highway Inland

Waterway Pipeline

HNS port search sites Shipping route

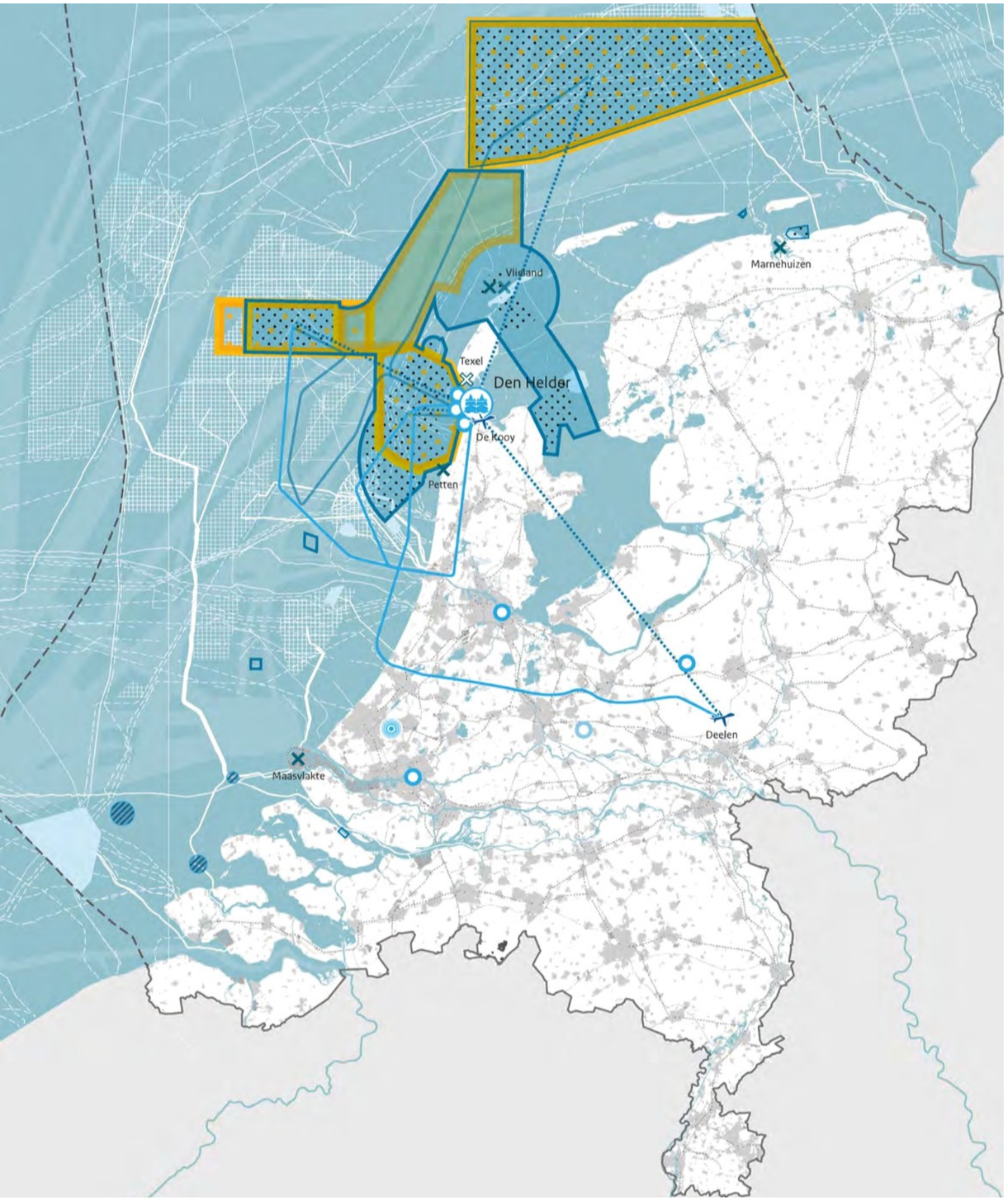
O Airport

Raccordement track

Storage

Additional large-scale ammunition storage site

New mUnition storage SIC



RuimEe on the North Sea

Practice

Fleet Base

Marine Barracks

North Sea-Wadden Sea military zone

Clearance zone

Mines clearance exercise

area Sonar test site Mud site/

unsafe zone Low flying area

helicopters Exercise area

Amphibis<h practicing

Existing amphibious exercise area

Expand training sites landlngs vehicles, including deep infiltration capability

Expand training sites landing vehicles, including option for Live firing from vehicles

Stationing and corridors unmanned maritime helicopters and drones for cargo

Stationing drones

Direct flight path to and from practice areas / Deelen

VliegrouEe along shipping lanes

Avoiding sensitive areas as much as possible

Critical infrastructure

Electricity cables Pipe

lines Data connections

Wind farms Future wind

farms Shipping route

Connection to movement 1

Defense owns more than 26,000 acres of training grounds. Because of the size of the area, Defense is able to make a large contribution to nature goals. These generally large areas that are closed to the public are not only necessary for training and carrying out operational tasks, but also provide peace and space for nature. The Ministry of Defense has traditionally been accustomed to taking the existing nature into account as much as possible in its management and use, and strengthening it where possible. Military use has created a unique dynamic on several sites, with nature that is unique to the Netherlands. More than 17,000 hectares of defence grounds form part of the Netherlands Nature Network (NNN) and more than 15,000 hectares belong to the
Natura 2000 areas. In addition, special ecological values are present on defense sites that are not enshrined in legislation but are of great importance to the overall quality of Dutch nature. This makes Defense one of the largest nature managers in the Netherlands. The main method of increasing biodiversity on defense sites is to make nature more robust. With its nature policy, the Ministry of Defense is committed to nature conservation, development and restoration, creating local strategic (growth) capacity for Defense. In determining the suitability of expansion opportunities, Defense takes vulnerable natural areas into account.

The Netherlands faces the great challenge of achieving a transition to future-proof agriculture and reducing emissions such as nitrogen. The Ministry of Defense wants to contribute where possible to solving the nitrogen problem by taking this task into account in the area processes. If the Ministry of Defense needs extra nitrogen space, combinations and win-win situations with other tasks in the area will preferably be sought. In mitigation, the aim is to use no more than necessary and to release any surplus space to nature or other tasks.
Defense can also contribute to agricultural transition in other ways. Expansion of activities can contribute to a more convenient subdivision pattern in an area (for example, a dirt strip) or in the contour around it. Expansion of Defense activities can also help maintain vitality in areas where agriculture is under pressure.

In necessary spatial developments, the Ministry of Defense looks at design principles that are guiding from Water and Soil, such as: not passing on to future generations and other areas, a vital soil, and dealing with flooding, drought and soil in conjunction. The Ministry of Defense also complies with the guidelines of the EU Soil Strategy, the EQD obligations, the Water Framework Directive and the Climate Agreement. At its sites, the Ministry of Defense takes into account the burden on soil and water and strives, in cooperation with other governments and site management organizations, to achieve healthy soils at all its sites in 2050. Even when expanding activities, both at existing and new sites, "water and soil steering" is one of the selection criteria for why a particular area is or is not suitable for a particular space requirement.

Expanding space for defense activities may clash with the tasks for agriculture and nature because keeping areas open for low-flying may cause noise pollution for animals in sensitive natural areas.

Connection to movement 2

In terms of sustainability, Defense is committed to improving both the organization and its environment, innovating, achieving operational benefits and reducing CO_2 emissions and dependence on fossil fuels. This enhances Defense's self-reliance, ties in with the global fight against climate change and is part of a broader drive toward circularity, in line with the Netherlands' ambition to have a fully circular economy by 2050. In emergencies, the continued availability of energy is a *mission critical* aspect for Defense. Therefore, Defense wants to become energy independent in its deployment and operations. We are committed to measures that reduce energy independence and footprint. By investing in these ambitions and working together with the Regional Energy Strategy (RES) regions, Defense can contribute to the energy transition of the Netherlands. Where it is possible and safe to do so, space is provided for generating and storing sustainable energy on its own sites and buildings. This contributes to the energy independence and energy transition of the environment. However, due to safety regulations, this is not always and everywhere possible. Take-off and landing routes and the use of radars impose restrictions on the development possibilities of wind turbines. Defense is committed to minimizing these restrictions in consultation with the environment and stakeholders.

As part of the Climate Agreement, the Department of Defense is using its buildings, grounds and surrounding area to generate and store renewable energy. This is done not only for its own use but also, where possible, for the benefit of the surrounding community. Defense is involved in government-wide programs such as Solar on Government Roofs and Generation of Energy on Government Land. This leads to a better mix of energy sources, which can generate energy independently. This allows Defense to have energy available even when some energy systems fail. To this end, we are also looking at small-scale electricity networks that can function independently, whether or not linked to a national electricity network.

Defense activities encourage local facilities and support activities, for example, by attracting knowledge and innovation, for example, for unmanned helicopters and unmanned drones. Large-scale mobility corridors are also used as military transport routes. Own generation can also help reduce congestion on national and regional energy grids.

The incorporation of wind turbines and high-voltage lines is not compatible with low-flying areas and radar restriction zones. In the seaports, the tasks for the energy infrastructure (landing, conversion and storage of sustainable energy) and the Defense Department's expansion task come together, because Defense is looking for space for Host Nation Support. This results in pressure on the available framework space without expansion of port areas and that external safety zones of different activities (think of hydrogen production and storage) do not overlap.

Connection to movement 3

The tasks for strong cities, villages and regions may clash with the task of expanding space for Defense. More aircraft and helicopters can lead to more noise pollution near cities and villages. Similarly, the expansion of housing and business activity may clash with the expansion needs of Defense. Besides flying, this can result from, for example, new locations for ammunition storage or practicing with explosives (including associated safety circles).

The movement toward strong cities, towns and regions can, in fact, also benefit from Defense activities. This is because of the direct and indirect employment generated by the presence of Defense in a region. For small cores and villages, this supports economic vitality, livability and local amenity levels, even in areas where agricultural transition may put pressure on an area's vitality.

Choices made

The NOVI shows the current space requirements of the Defense Department. As a result of the deteriorating security situation, the armed forces must be able to be deployed faster, more often and for longer. In recent years, significant investments have been made in Defense to repair, modernize, renew and expand military capabilities. The space needed for the transformation to increase readiness and deployability, strengthen the combat power in a targeted way and improve the agility of the organization is outlined in the Notitie Reikwijdte en Detailniveau (NRD) that has been drawn up for the National Defense Space Program and the accompanying Environmental Impact Assessment (Plan EIA).[6] This NRD for the National Defense Space Program (NPRD) outlines the minimum amount of extra space needed to properly carry out defense tasks.

Choices to be made

With the national policy vision NPRD, the cabinet will decide later this year, early next year on the preferred alternatives for, among others, the 13 needs that require supra-regional consideration. These preferred alternatives, which have been weighed against other tasks in the Netherlands, will subsequently land in the National Spatial Strategy. Spatial tasks in the Netherlands are more complicated than 30 years ago. The Netherlands is busier and space is scarcer. Besides safety, the quality of life and the living environment must also be protected, also in the longer term.

Choices to be put on the agenda

With the war in Ukraine and the increasing threat in Europe, there is a growing awareness that the Netherlands must prepare for armed conflict. It is not inconceivable that with respect to the Defense budget, a higher deployment will be required at some point. This will then result in a different use of space.

[6] House of Representatives, session 2023-2024, 36 124, no. 38

Theme: Cultural heritage and landscape

The Netherlands is characterized by a varied and valued ensemble of cities, villages, landscapes, water and nature, in which spatial developments from different periods come together. We are facing an operation comparable in scale to the reconstruction after World War II. But our country is much fuller than it was then. Instead of working on a *tabula rasa,* we are working on a *tabula scripta*, an already described sheet. Development is thus mainly renewing and transfor- mation of what is already there and protecting what we want to pass on. With everything we add or change, we intervene in historically grown spatial and social structures. In order to gain social support for the transformation of cultural heritage, care is needed.

The cultural-historical legacy still gives meaning to our existence today and largely determines the quality of our living environment and communities. It also forms an indispensable part of new spatial quality. We see the heritage qualities at the neighborhood and district level, in the (cultural) landscape and in larger contexts such as, for example, a world heritage site like the Dutch Water Lines. Cultural heritage partly determines the identity of the Netherlands and its communities.

Reflection Planning Office for the Living Environment (PBL).
The provinces are asking the national government to entrench good environmental quality. This should become part of all national programs. The Government should also indicate how to deal with the inevitable deterioration of landscape values due to the necessary transitions and major tasks facing the Netherlands. Provinces are calling for landscape values to be reinforced in programs and projects at all levels, and for environmental quality to be guaranteed as a precondition for new developments by means of legally enforceable instruments.

In accordance with the Environment Act and the NOVI, national policy on heritage and the living environment focuses on the early involvement of heritage in developments in order to preserve heritage. The national government is working out a more detailed approach to this, including a specific focus on the preservation of the exceptional universal value of world heritage. We *protect* cultural heritage and our valuable landscapes. And existing values offer inspiration and can be *used* to find new solutions and create new spatial quality.

Protect

Basis of protection of cultural heritage and landscapes are the Florence, Granada, Valletta and UNESCO World Heritage Conventions.

Cultural heritage

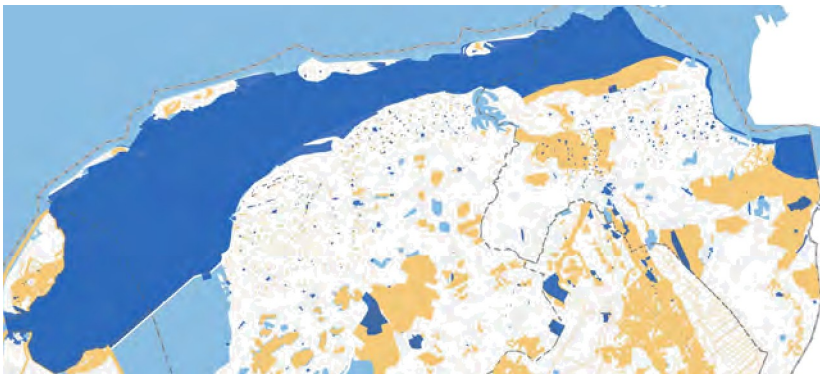
It is of national importance to safeguard the identity and core qualities of city, country and region. This is expressed in the protection of valuable and vulnerable landscapes and built-up areas. For (urban) growth, densification and transformation, unique landscape and urban planning structures and objects, cultural landscapes (or parts thereof), archaeological monuments, built or constructed green monuments, protected city and village sites and world heritage and reconstruction areas of national importance are taken into account at an early stage. We respect the internationally recognized exceptional universal value of world heritage with a careful and predictable approach to integral spatial considerations.

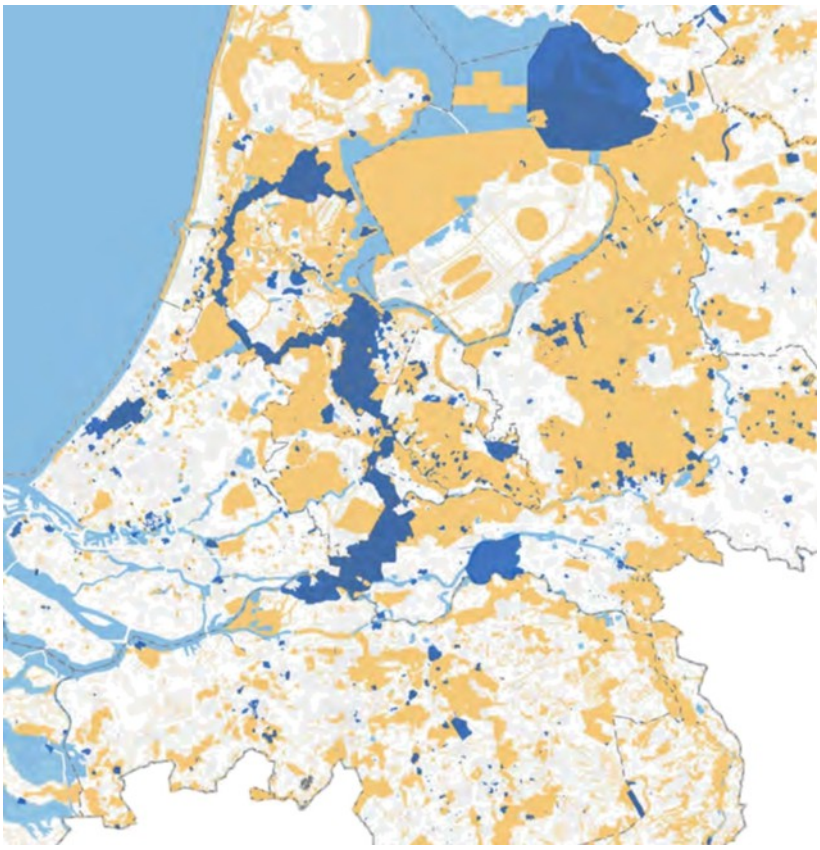
The central government has specifically established a system for archaeology in accordance with the Valletta Convention (in the Environment and Heritage Act, among others) in which preservation in the original place (in situ) is the starting point. Given these requirements, the jump in scale of work, and the urgency of rapidly constructing structures and underground connections, a coordinated approach to archaeology needs to be developed. This is especially important in Movements 2 and 3 because of the large-scale expansion of energy facilities and large-scale residential construction.

By analogy with a nature-inclusive society, we strive for a heritage-inclusive society in which cultural heritage is included as an integral part of (project) developments from different domains in society.

Valuable Landscapes

The Netherlands has a number of very unique landscapes from a cultural-historical point of view. The interaction between man and nature is still emphatically visible in these cultural landscapes today. The landscape is not static, but these unique landscapes also transform over time. Under the European Landscape Convention, the national government has systemic responsibility for landscape. Together with the provinces, the national government implements this national interest; the provinces are also systemically responsible. The role of the national government in this interest is to create the (legal) preconditions to maintain cultural heritage and landscape and natural qualities for the long term. We do this both generically, by focusing on good landscape quality, and specifically for unique landscapes. Some landscapes are so valuable that they require an extra effort. Policy has already been worked out for some of these areas (e.g. world heritage sites and reconstruction areas). In addition, within the framework of the main structure of cultural heritage and landscape, the Government will explore the possibilities for additional efforts for a select number of unique cultural landscapes or landscape elements, such as a coordinated approach and/or protection to pass on the identity and recognizability to future generations.





National conservation areas and provincial heritage and landscape policies

Dere map shows verschi1land e heritage and landscape regimes on based on national and provincial policies (ind icative).

State Protection

Prpvinciaa I heritage and landscape policy (indicative)

De kaarten zijn gebaseerd op feitelijke informatie, op basis van huidige kennis en inzichten
Ze worden verder uitgewerkt in het proces naar de Ontwerp-Nota Ruimte.

Valuable cultural landscapes

This Icaart is an inventory of valuable landscapes based on national policies of the past four decades.

De kaarten zijn gebaseerd op feitelijke informatie, op basis van huidige kennis en inzichten. Ze worden verder uitgewerkt in het proces naar de Ontwerp-Nota Ruimte.

Utilize

Our cultural heritage can play an important role in spatial transitions. For example, vacant monuments such as farms and churches can play a role in finding space for housing and new activities while serving as a carrier for development of new residential areas. Thus, we utilize the past and connect spatial development to characteristics and identity of areas with, among other things, the use of area biographies and the Heritage Deal program.

Various means can be used for this purpose. One example is the development of development-oriented area biographies and design strategies as part of spatial planning. Because of their scale, accumulation and speed, today's transition tasks also mean a partly unprecedented transition task for heritage. It is therefore necessary to work on a more overarching idea about the deployment of cultural heritage in the larger movements towards 2050. This could be done in a manner similar to the Belvedere Memorandum, which gave direction to the deployment of heritage values during the implementation of the Fourth Memorandum on Spatial Planning Extra (VINEX).

Strengthen

The Davos Declaration signed by the Netherlands calls for social challenges to be seized as an opportunity to increase or at least maintain the quality of the environment. The challenge is to combine development with strengthening the values to be protected, such as culture, cultural heritage, landscape, health and environmental quality: development and quality of the living environment are two sides of the same coin.

Connection to movement 1

The transition of rural areas will have major implications for use and design of landscape- pen, and the communities therein. Some of these landscapes we protect from too great influences. Not everything can go everywhere. However, it also offers opportunities to utilize existing heritage values, protect them and develop new business models. This can be done, for example, by restoring landscape structures and elements, such as wooded banks, canals and streams. This requires the early involvement of heritage in the analysis of tasking and solution directions. In some cases water and soil issues will also drastically change the appearance of landscapes. Think of the effects of increasing water levels in the peat meadow area or the use of new crops to deal with salinization. In these cases too, existing heritage values can serve as inspiration for careful new designs and we add new qualities to the landscape.

Connection to movement 2

The Dutch landscape is crisscrossed by networks for energy, transportation and economy. These networks are essential to society but can clash with heritage values such as archaeological sites. Especially where world heritage sites are concerned, we are bound by the treaty obligations associated with them. Expansion of energy networks requires careful incorporation through design and layout, in line with the cultural-historical identity of the landscape, town and village and archaeology. The national government is committed to involving heritage in developments at an early stage in order to preserve heritage. The national government is working out a more detailed approach to this, including specifically addressing the preservation of the exceptional universal value of world heritage and the approach to archaeology. Instruments such as the area biography can help. By cleverly combining functions and through efficient use of space, the impact of some functions can be kept to a minimum or even lead to new distinctive quality. The strategy from movement 2 to focus, among other things, on reducing the demand for energy, goods and materials also contributes to minimizing new intersections with valuable landscapes.

Connection to movement 3

The regional development task affects heritage at different scales: the building, the neighborhood, the city as a whole and the region. In major regional and national development tasks, we want to ensure that the existing is reinforced by the new. At the same time, adding so many new homes, workplaces and cultural facilities, and making the living environment climate-proof, and healthy and safe cannot be done without major changes. Besides a quantitative task, this is also a qualitative one. These tasks require multiple use of space, creativity, care and coordination. Building on and using existing heritage values and using spatial design are indispensable ingredients for creating new spatial quality and preserving historically relevant values. The national government is elaborating a further heritage approach for utilization and protection and will specifically address, among other things, the preservation of the exceptional universal value of world heritage. In addition, there are two other important reasons to take identity and cultural heritage as a starting point for regional development: support base and distinctive quality.
Cultural heritage provides character and in this way supports the identity of neighborhood, district, city, village or hamlet and landscape. It offers people something to hold on to and contributes to a pleasant living environment.

We want to shape the major changes toward 2050 with society, in a way that is recognizable, fits local needs and opportunities, and is supported by citizens and communities. 'Recognizable and local' is distinctive and ensures that our regions remain themselves and add something unique to the whole. This keeps our country an attractive and richly varied collection of places that you can feel connected to as a resident.

Integration and elaboration of water and soil, the three movements and the intersecting themes

Water and soil and the three movements have been worked out in parallel and connected. With that, the elaborations fit well together and we take advantage of opportunities by connecting them. Examples are:

- Looking at regional economic ecosystems and regional opportunities for energy. The development and strategy for development in Movement 2 supports the regional development for urbanization in Movement 3. The strengthening of economic development in certain regions can be linked to the growth of those regions for housing and facilities, among other things.
- The regional elaborations for agriculture and nature based on the restored water and soil system offer opportunities for strengthening quality and identity, which is an important value for increasing the quality of life in the different types of regions in Movement 3.

But we also see issues in specific areas that require further choices, precisely because tasks from the three movements accumulate in specific areas. These dilemmas and the implications for choices in the three movements and for water and soil have been the subject of interdepartmental and intergovernmental discussions. They include:

- The ambition for urbanization in the various urban regions in Brabant in relation to increased transport of goods, raw materials, energy on corridors and space for nodes/clusters of large-scale business parks and transhipment. Urbanization here also clashes in some places with the expansion of training areas for Defense helicopters. Additional choices are needed to provide solutions for this. For example, the choice to transport hazardous materials through pipelines as much as possible. But there are also choices yet to be made, such as about the expansion of training areas for Defense.
- The development of mainports and energy-intensive clusters in relation to the development of urbanization and health, quality of life, environmental quality and environmental safety for current and new residents. Sufficient space is needed for the tasks that come together in the clusters and the development of the mainports, even in areas with high urbanization pressure. These include North Sea Port District, North Sea Canal Area, Rotterdam Port/Moerdijk, Eemshaven, Chemelot, Schiphol and Rotterdam-The Hague Airport. Choices are needed about selective growth, zoning and buffering around these areas so that there is as much room as possible for housing development and the impact on the living environment is as low as possible. And choices are needed about new housing locations that take this into account.

Further elaboration and concretization will take place in the Draft National Spatial Policy Document, in close cooperation between all the departments involved. Challenges only really come together at the regional scale level, which is why we are also committed to a coherent elaboration with the decentralized governments. There are a number of specific areas where we as the national government have extra responsibility: IJsselmeer, North Sea, Southwest Delta, Wadden Sea.

The choices from the three movements will be worked out into a national spatial main structure in the Draft Spatial Memorandum. The national spatial main structure provides a spatial translation of the vision and the movements we want to implement, with the choices, the guiding statements and the outlook for 2030, 2050 and 2100, respectively. These are then elaborated for each sectoral, spatial theme. Such elaborations will also be made for Defense and Cultural Heritage.
The National Spatial Framework is indispensable for spatial guidance based on the vision. The maps help translate national choices at the local scale level.

Steering and instrumentation

As the National Environmental Vision, the National Spatial Strategy is the instrument for weighing up choices for the physical living environment at the national level in coherence. A National Environmental Vision is binding for the national government and guiding the administrative actions of other governments. The National Spatial Strategy will replace the current National Environmental Vision (NOVI). In order to realize the policy objectives set out in the Spatial Memorandum, the choices will be elaborated in current and new programs, projects and, if necessary to safeguard a national interest, in rules, which will be directly reflected in provincial environmental regulations, water board regulations, project decisions or environmental plans. In doing so, we leave sufficient room and opportunities for decentralized considerations and area-specific solutions.
Of course, existing laws and regulations are the starting point here.

Under the Environment Act, the national government bears responsibility for national interests, for national laws and regulations and EU regulations and agreements from international treaties. Furthermore, the State is responsible for the non-provincial and municipal area in the North Sea. By virtue of the subsidiarity principle, it is up to the central government to act when tasks or powers cannot be carried out efficiently and effectively by provinces or municipalities. For the time being, there is no reason to i n c l u d e proposals to change the national interests in the Spatial Planning Policy Document, but the national government will continue to examine whether the national role needs to be adjusted in order to manage tasks that transcend provincial and/or national borders. The instruction rule *hyperscale* data centers is a concrete example of how the national government has taken its responsibility in a task that transcends the scale level of municipalities and provinces.

In the preliminary draft National Spatial Policy Document, the choice is made to preserve and, where possible, improve the spatial quality of our living environment in a Netherlands without major differences in quality of life and space. The aim is to translate this choice in the Spatial Memorandum into concrete tasks that will be tackled and implemented in coherence at different levels of scale. By making choices in time, the national government makes clear which transitions it has in mind, outlines development paths, and enables co-governments, the market and society to take them into account.

This then also requires an integral coordination of goals, instruments and financing. It is precisely in this area that there is still much to be gained. This will be fleshed out in the National Spatial Strategy itself. The ambition is that the Spatial Memorandum will soon have an implementation agenda in which the government will provide an overview of how it will work with government, society and the market to implement the movements outlined in this preliminary draft. Naturally, this will build on the existing cooperation structure and instruments.

Coherence and integrality

The preliminary draft indicates the choices that the State makes or agendizes in context. These structuring choices are the starting point of a policy cycle. From the point of view of giving direction, policy and frameworks are made that will be leading for the concrete implementation in projects. These projects also have their own cycle and use of instruments. Managing (the quality of) the living environment means above all arriving at integral considerations, combining sectoral goals and maintaining consistency in implementation. In all phases of both the policy cycle and the project cycle, this way of managing requires interaction between government, market parties and society and requires coherence in the approach to challenges and the deployment of instruments and resources.

Directing space means working together and shaping space in dialogue at all levels of scale: working across scales, being in tune with those directly involved, making choices to deploy the right instruments for the right purpose, with a view to making an impact at specific levels of scale. Roughly speaking, we can distinguish three levels of scale at which we are currently implementing the

cooperation in the policy cycle of spatial policy, and where this coordination and cooperation is already taking place, and will soon be strengthened in the implementation agenda of the National Spatial Strategy.

Cooperation at the national level

To ensure cohesion and integrality at the national level, the National Spatial Strategy is being developed as a product of interdepartmental cooperation. The ministers involved bear joint responsibility. The current National Environmental Vision, the Spatial Planning Letter, the outline memorandum, the current national programs and the provincial spatial proposals form the starting point[7] . The choices made in the various national programs under the NOVI[8] are brought together, coordinated and integrated in the National Spatial Strategy. Choices arising from the policy brief Water and Soil Steering are at the basis of choices concerning agriculture, nature or housing in the Spatial Planning Policy Document. Also, building on the current programs and trajectories, we have explored new solution directions and drawn up action perspectives for the longer term. Finally, in the Plan EIA process for the National Spatial Strategy, the options are tested for their effects on the living environment on the basis of four development variants. Of course within the framework of (inter)national laws and regulations.

The National Spatial Policy Document will thus soon form the framework for the further development and implementation of these and new programs, which will also have their repercussions at the decentralized level. The choices in the Spatial Memorandum and those on the agenda will be made in mutual coherence. To achieve this, cooperation between ministries at the national level will be continued at both the administrative and administrative level, and spatially relevant sectoral policy will be considered and managed integrally as much as possible. The existing cooperative structures, coordinated from a Directorate General for Spatial Planning, support this.

Choices in the National Spatial Strategy will be translated into national main spatial structures. Establishing these main structures is a way to give direction to choices at a decentralized level and supports the choice of the formal instruments to be used. We stimulate and guarantee the effect and implementation of the Spatial Memorandum by means of partnerships and (administrative) agreements, in national programs, by using the legal instruments, and by the smart deployment of investments, knowledge, design, supervision and enforcement. We want to ensure a good effect in municipal and provincial environmental visions and municipal environmental plans and in implementation. That is why we are adding manuals[9] and underlying spatial data for implementation to the map images in the National Spatial Strategy. National government, co-governments, society and the market can use these.

Working together at the regional level

Many spatial choices cannot and should not be made at the national level, but rather at the regional level. It is precisely at that level of scale that sectoral tasks can be better linked and tailored to the specific wishes, needs and characteristics of the area. The NOVEX program has reshaped the cooperation between the national government, provinces, water boards and municipalities in both the development and implementation of environmental policy. The national government has asked the provinces to what extent adjustments to provincial and national policy are necessary to achieve the national goals for environmental policy. The provincial proposals reveal the spatial dilemmas and issues facing the 12 provinces. The national government is using the provincial proposals now and the spatial arrangements later when making choices.

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[7] States General, 2019-2020 session, 34 682, no. 53. House of Representatives, 2021-2022 session, 34 682, no. 92. House of Representatives, session 2023-2024, 29 435, no. 264

[8] House of Representatives, session 2023-2024, 36 124, no. 38

[9] The first 8 manuals were published on May 23, 2024: https://www.mooinederland.nu/longread/8-manuals-on-area-level

In NOVEX areas, all governments and relevant partners work intensively and on an equal footing on development perspectives, implementation and regional investment agendas. In the seven NOVEX urbanization areas, for example, several ministries and co-governments are working together on large and integral building assignments in which issues of housing, accessibility, soil and water, energy and climate, greenery and recreation play a role and various public and private parties are involved. The development perspectives are also used together with the provincial proposals when making choices in the National Spatial Strategy.

The program Mooi Nederland has boosted learning and innovation with spatial design professionals using the three guiding principles as a starting point for developing spatial quality. The manuals Mooi Nederland have been drawn up in cooperation with alliances of relevant parties. This collaboration will be given further substance in the coming years with concrete workshops, where quality is worked on across the scales.

With this approach, the partnership between the state, other governments and society has been strengthened and the state gives substance to its directorial role. The governance of area development is not the same everywhere and is sometimes still in a learning and experimentation phase. This also involves core values of strong governance, such as investing in mutual cooperation, searching for an appropriate distribution of tasks and powers, and a proper balance between ambition, tasks, resources and implementation, as well as organizing citizen involvement and democratic legitimacy.

Policy implementation and development will be strengthened in this spirit, whereby the improved practicability of policy, strengthening the power to realize, regional ownership and room for learning, experimenting and innovating will be continuously addressed. It will also examine how the insights, knowledge and skills of actors other than government bodies can be better utilized, so that society, market parties and government bodies work together on the development of the Netherlands and the realization force is strengthened. With this, the government wants to implement the line that the Council for the Environment and Infrastructure advises with regard to policy and implementation[10] . The participation process of the Spatial Memorandum was set up in the spirit of the Environment Act (see chapter Participation).

Area-based (collaborative) work

In practice, the realization of many movements will eventually take place in a large number of area and project developments. That is where the Netherlands will be reshaped and rearranged. That is where houses are built, roads are constructed or landscapes are laid out. At the level of project and area development, concrete choices are made about the design and layout of space. Often, these project and area developments take shape through a public-private partnership. The municipality often takes the lead, but area developments are also commissioned by the national government, provinces or water boards.

Good environmental quality is established as a social goal in the Environment Act. The health dimension of environmental quality is framed by existing environmental regulations. The promotion of spatial quality as well as broader environmental quality are central to the National Vision for the Development of the Netherlands. All interventions in our physical living environment have an impact on the spatial quality of our (urban) landscape. To this end, the national government has developed a quality approach[11] , intended for all parties working on spatial tasks in areas.
For example, the transition of agriculture and nature, the energy transition, the construction of work sites, dry and wet infrastructure, and the development of our cities.

The essence of this quality approach is to bring into dialogue the spatial quality that partners aim for together. What environmental quality is and what is needed to preserve or strengthen it

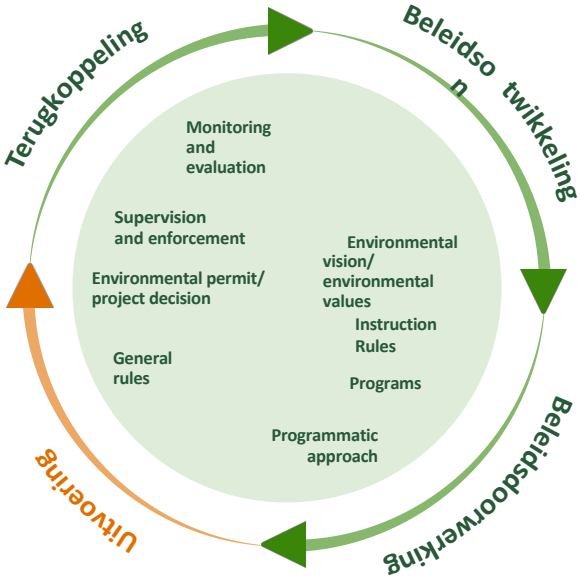
[10] House of Representatives, session 2023-2024, 29 362, no. 354
[11] Ministry of the Interior and Kingdom Relations, On the Road with Vitruvius. To appear.

differs from area to area and place to place. By connecting tasks, people and places with an ambition to preserve or strengthen the quality of an area with each project, we can guarantee a pleasant living environment in the future. This dialogue is part of policy-making and planning processes as well as implementation projects at all scales. Ultimately, it is the people themselves who give the quality dialogue and the execution of projects the necessary inspiration and ensure the quality of the environment.

Instruments

The national government will deploy various instruments to f o r c e f u l l y implement the direction and movement from the National Spatial Strategy. The Environment Act offers the national government a broad arsenal of legal possibilities. In the policy cycle, the various components (policy development, implementation and feedback) are linked to instruments in the Environment Act and to supporting resources such as administrative agreements, money, knowledge or design. For this adaptive-cyclical approach, it is essential that there is good interaction between the various components of the policy cycle. To make this possible, firm process management is needed, both at the level of the policy cycle itself and at the interdepartmental and intergovernmental level by the Minister of the Interior and Kingdom Relations. Below we briefly describe which instruments we will use for each phase of the policy cycle in order to translate the movements from the National Spatial Strategy, and how we intend to guarantee the coherence and integrality of steering on objectives and instruments between the various levels of scale (national, regional and area-based). In the National Spatial Strategy itself we will link instruments and choices to the movements.

Policy cycle



Policy Development

New tasks requiring an integrated approach are explored on an ongoing basis and at different scales. *Monitoring* (biannually) and *evaluation* (four-yearly) also form a basis for change. New and supplementary choices can arise from ongoing national programs, which are implemented by the various departments under the NOVI. Once the Nota Ruimte is in force, the ongoing programs will automatically be programs under the new National Environmental Vision, the Nota Ruimte. Necessary adjustments to the National Spatial Strategy.

are reported to the House of Representatives annually by means of a progress letter. In the run-up to a more fundamental revision of the National Environmental Vision, the Spatial Memorandum, the national government is examining with provinces the extent to which adjustments to provincial and national policy are necessary to achieve national goals for environmental policy. Provinces and the national government make mutual administrative agreements in the spatial arrangement. The arrangements are a means to shape the cooperation between the national and provincial governments in the area of spatial planning. Because agreements in spatial arrangements concern both choices for the National Environmental Vision and related choices in provincial environmental visions, iterative work is being done towards both spatial arrangements and a National Environmental Vision. In order to make effective and practicable policy, the knowledge and expertise of executive parties, municipal authorities, water boards and social organizations will be involved in policy development where necessary.

At the same time, many policies that affect the physical living environment also arise from agreements made in European policy and European laws and regulations. On the one hand, cooperation in the European Union is a powerful means for several countries to achieve common goals and a uniform approach to, for example, nature, the environment, agriculture and the economy. European objectives for the living environment tie in with our own objectives and thus offer opportunities to achieve our own objectives by making use of the many European initiatives and innovation and research programs. On the other hand, a number of EU initiatives relevant to environmental policy, such as the energy policy or the zero-pollution strategy, seem to reduce the scope for national governments to fit European choices into the national context. Both in decision-making and in the implementation of European policy, it is important to keep an eye on the balance between ambitions, tasks, resources and implementation power.

Policy Implementation

The program is the instrument to elaborate parts of the policy from the environmental vision, to link it to sectoral policy and to concretize it for implementation. The nature of the task may require the amendment or tightening of regulations or the inclusion of norms for climate adaptation or Water and Soil Stewardship as highlighted in provincial proposals. A program details how, with what measures and resources, the policy intentions will be achieved. Programs can focus on specific themes or on an area. One option for an area-oriented program is an inter-governmental designed program, which is binding on all governments involved, facilitating coordinated and area-oriented efforts. The ministers involved bear joint responsibility. The responsibility of a national program lies with the first-responsible minister-per- soon. The degree and method of involvement varies per program. If the national government wishes to legally safeguard the effect of the National Spatial Strategy policy in environmental visions, environmental regulations, water board regulations and environmental plans, it will use instruction rules (Quality of the Living Environment Decree, the Bkl). We will investigate a green standard as an instrument to (legally) guarantee the amount of green space.

The national and provincial governments are jointly responsible for the progress of the agreements made in the *spatial arrangement*. The cooperation focuses on the spatial effects of national programs in provinces and NOVEX areas and developments that interfere with or facilitate the realization of national programs. This makes the agreements in the spatial arrangements of great importance for the effect and implementation of the National Spatial Policy Document, and they therefore also form an important part of the Implementation Agenda. The NOVEX program gives shape to this cooperation. When no progress can be made because national choices are still lacking, this is reason to work on adjusting the national environmental policy. With the focus on cooperation between the national and provincial governments, we put the provinces more firmly in their role as area directors.

In *NOVEX areas* there are area developments where the tasks of the national government, province(s), municipality(ies) and water board(s) accumulate to such an extent that an area-specific planning and prioritization of tasks is required.

necessary. In these areas, the authorities involved are working closely together according to a new area- and task-oriented working method. In each of the sixteen NOVEX areas, a joint State-region governance set up. It is possible that in the cooperation between the national and provincial governments more areas will emerge where similar stacks of tasks occur. Each NOVEX area will produce a development perspective, an implementation agenda and associated regional investment agenda. The final development perspectives will be adopted administratively before summer 2024.
The regional investment agenda, development perspective and implementation agenda should provide guidance for governments and private parties to invest.

The elaboration of the Nota Ruimte policy for the large waters takes place in the area agendas for the IJsselmeer Region[12] , the South Western Delta[13] , the Wadden Region[14] and the North Sea program[15] . The area agendas and the North Sea program contain a picture of the future that gives direction to 2050. They also contain a joint knowledge, innovation and implementation agenda for measures and projects. In doing so, the national government works together with partners in the region - co-governments, interest groups, citizens, knowledge institutes and the business community.

In order to strengthen spatial quality, the national government also supports the quality dialogue in various ways, with the aforementioned manuals Mooi Nederland, the Action Agenda for Spatial Design, the Basic Infrastructure for Culture and an exploration of a national network of local master builders.

Policy Implementation

The Environment Act has several instruments for implementation, including the instruction rules in the Quality of the Living Environment Decree (Bkl), the general national rules in the Building Works Decree (Bbl) and the Environmental Activities Decree (Bal), programs, the project decision and the environmental permit. With instruction rules and instructions, the State can directly intervene in the environmental ordinance and the environmental plan and thus in their implementation. Only then do initiators actually have to deal with government policy and its regulations. For those parts of the policy where the central government itself is responsible for implementation, the project decision instrument is mainly used.

The structural nature of the tasks in the environment domain requires a structural deployment of resources, strengthening of the implementation power at area level and continuity in the organizational structure. The national government wants to manage the realization of spatial tasks at provincial and area level in partnership by making reciprocal administrative agreements in the form of spatial arrangements and implementation agendas and by organizing national resources for area management (money and land). This could include regional investment agendas, existing and new investment resources and (government) land. The modernization of *land policy*[16] is part of the commitment. In addition to its policy role in land policy, the central government is reflecting on its role as a party in the land market in the realization of national tasks.

The national government drives innovations to improve the quality of the living environment. On the one hand, this is done through numerous sectoral incentive schemes, implemented by the Rijksdienst voor Ondernemend Nederland (RVO) or other organizations. With exploratory research at the national and international level, supported by the Spatial Design Action Program, we try to gain early insight into the consequences for the physical living environment of new developments, success and failure factors for the effective implementation of policy, in goal attainment and in the operation of system and instruments.

[12] https://platformijsselmeergebied.nl/
[13] https://www.zwdelta.nl/
[14] https://agendavoorhetwaddengebied2050.waddenzee.nl/
[15] https://www.noordzeeloket.nl/beleid/programma-noordzee-2022-2027/
[16] House of Representatives, session 2021-2022, 34 682, no. 92. House of Representatives, session year 2023-2024, 34 682, no. 189

Feedback
In the system of the Environment Act, assessment takes place after the fact. Although the plan monitor allows some estimation of the effects of spatial plans in the future, given the scope, coherence and urgency of the tasks and the need to act as one government, the Minister of the Interior and Kingdom Relations will explore, in consultation with the provinces, how the inter-governmental coordination of environmental policy can be further improved. Additional efforts to safeguard and enforce spatial reservations are also under consideration.

The National Spatial Planning Monitor monitors the effects of policy every two years. The Plan Monitor also looks at expected developments in vulnerable areas every two years. In addition, the evaluation of the national environmental vision takes place every four years. The evaluations and monitoring are reported periodically to the House of Representatives.

Preconditions

Finally, the implementation of the National Spatial Strategy requires the safeguarding of important preconditions to make the interplay between government, market and society and between policy and implementation successful. These preconditions are primarily the availability and provision of knowledge and current and accessible data and the stimulation of design-based (research). Working on the basis of scientific analysis, design and data makes policy based on research, imagination and facts in addition to political and social priorities. The scope of the environmental policy calls for a good organization of the learning capacity of national government and other parties involved in environmental policy in order to arrive at a truly adaptive and executable policy document.

We are working on a better view of the Netherlands by organizing spatial information in such a way that it provides an integrated, three-dimensional image of the living environment. An image that is available to everyone and that can be zoomed in and out as needed. We facilitate cooperation at local, regional and national level by working from a shared information position in the various phases of the policy process and literally bring the connection between the scale levels and tasks into focus. Connecting this picture with numerous additional data, interpretations and (applied) models creates a so-called digital twin. This tool enables us to make forecasts and simulate the consequences of possible interventions. To make working on the basis of digital twins possible, we strengthen the entire chain of spatial information provision. All this requires good agreements, standards and digital facilities. The vision Zicht op Nederland and the associated work agenda[17] elaborate on this target image and what is needed to achieve it. In this way we can increase the pace of the reconstruction of the Netherlands, reduce the associated costs and support participation in policy-making and implementation.

Different situations and different moments in the policy cycle each require different knowledge and approaches. Sometimes the strategic and independent view of planning agencies is needed, sometimes the more specialized view of public knowledge organizations or universities, sometimes just a regional view or one from practice. Sometimes there is a need for research, sometimes for design, sometimes data alone are sufficient. A good organization of the learning capacity and a good design of the knowledge infrastructure are therefore essential to be able to build policy on a good knowledge base. In the Spatial Policy Document, we will outline the elements of an interdepartmental knowledge program to enable structured interrogation of the various knowledge institutions and to provide the necessary objective knowledge base. This will identify themes for research, design and data in which the departments will work together to take it a step further.

[17] House of Representatives, session 2023-2024, 29 435, no. 266

Finally, working on good learning environments requires imagination. For the movements from the Nota Ruimte to take hold, it is necessary to work on concrete spatial designs jointly at many levels, and with many parties. Fortunately, we can harness the power of a strong design sector in the Netherlands. The sector, united in the Platform Ontwerp NL we will continue to deploy, also in the implementation of the National Spatial Strategy. In this we will cooperate intensively with decentralized governments and the market. Through the Action Program Spatial Design, the government will continue to strengthen the use of spatial design in social tasks. The action program is part of the national spatial planning and cultural policy. Part of this is the Board of State Advisors. In addition, the Stimulation Fund for the Creative Industry implements the part of the action agenda that relates to supporting the use of design in local and regional initiatives. Finally, the Ministry of Education, Culture and Science (OCW) supports the basic infrastructure by funding the New Institute and the International Architecture Biennale Rotterdam (IABR), among other things.

Participation

Get involved and think with the new Nota Ruimte

Participation is an important carrier under the Environment Act and thus of the trajectory to arrive at the Nota Ruimte. The Environment Act requires a new way of working together. A different way of working that accompanies wishes from society and assumes cooperation with all parties involved. Moreover, the cooperation to arrive at the Nota Ruimte must be justified afterwards.

Together with the outline memorandum Nota Ruimte, the participation plan "Doe en denk mee met de nieuwe Nota Ruimte"[18] was published in October 2023. In it, everyone was invited to participate and think along with the plans for the future layout of the Netherlands. Participation means involving stakeholders, residents, civil society organizations and businesses, in making plans. When they contribute their ideas, it enriches the government's plans. There are legal and non-legal participation moments in the participation process.

The preliminary draft provides an additional opportunity to organize participation with various stakeholders. Because the preliminary draft is a document without legal status, these are non-legal participation opportunities. This chapter complements the participation plan. The results of the various participation moments are involved in the preparation of the final (draft)
Nota Ruimte.

Outcomes Space consultation 'in the minister's chair'
Between November 27, 2023 and January 14, 2024, 9,553 residents (18 years and older) participated in the Spatial Consultation to help think about plans for the future layout of the Netherlands. In a low-threshold manner, participants were asked in a digital environment to "sit in the minister's chair. Participants were asked to indicate what the government should take into account when allocating space and for which space applicants more or less space should be made.

What is striking is that there is a high degree of unanimity among the respondents when it comes to the goals and principles of the Outline Memorandum on Spatial Planning. There are little to no substantial differences by region or residential area of the participants. This supports the vision for all of the Netherlands, with a better balance for the joys and burdens between different regions. The differences between citizens stem more from their personal values regarding their relationship with government than from geographic location. However, there is a clear top three, namely:

1. Provide adequate facilities in all regions;
2. Provide a healthy, clean and safe living environment;
3. Solve problems now and don't pass them on to our children and grandchildren.

In addition, the importance of protecting historic villages, towns and landscapes and the uniqueness of regions was emphasized, as was the finding of suitable locations for development in keeping with the water and soil in those places. While participants in the space consultation were fairly unanimous when it came to goals and principles, there was a clearer difference when it came to the distribution of space. The general conclusion is that compared to the current situation, the respondents give more space to nature, housing, sustainable agriculture and water. They do this by reducing space for conventional agriculture in particular.

[18] Lower House, session year 2023-2024, 29 435, no. 264, appendix Participation plan 'Do and think along with the new National Spatial Strategy'

In addition, industry, defense and infrastructure could also do with a little less space, according to the participant. The amount of space taken up by energy and recreation remains almost the same.

A decrease in the space occupation of certain space claimants does not mean that people consider these subjects less important. What sometimes also plays a role is that the participants are unfamiliar with the dual function of certain space claimants. This concerns, for example, the natural areas managed by the Ministry of Defense. Socio-economic importance is not at issue. What matters to the participants are the spatial consequences of certain issues. By organizing things smarter and differently, the use of space could be reduced. The question is also asked whether we in the Netherlands should facilitate all facets of these space demanders. How do we see the Netherlands of the future and what choices should we make together?

Dialogue with civil society organizations and businesses

Like the outline memorandum, we also want to discuss the preliminary draft with civil society organizations and businesses. We will do this through the Consultative Body for the Physical Living Environment (OFL). The OFL is a platform that shapes the interaction between central government and society on major social issues in the physical living environment (www.overlegorgaanfysiekeleefomgeving.nl).

In addition to the meeting of the OFL, separate participation moments will also be organized, or existing opportunities will be used to discuss specific themes in more detail with social organizations and businesses. Given the great influence of spatial choices on the rural area, careful and specific attention will also be paid to the organizations involved in the perspective of the agricultural and horticultural sector.

Dialogue with provinces, municipalities and water boards

Provinces, municipalities and water boards know the local context best and can indicate what the Nota Ruimte means at the local level. They have different roles here. First of all, they have a responsibility towards inhabitants: they represent them. In addition, they have their own, administrative, responsibility in inter-governmental consultations. As creator, implementer and enforcer of (local) spatial policy, they have their tasks and responsibilities in the organization of the physical living environment.

In coordination with the NOVEX program, we want to use the months of September and October 2024, through intensive consultation with (the umbrella organizations of) provinces, municipalities and water boards, to discuss the choices described in the preliminary draft at provincial or regional level. In addition, we want to discuss how to move from a preliminary draft to the draft National Spatial Strategy and the implementation agenda that will be drawn up.

Dialogue and cooperation with implementing organizations

Besides the co-governments, the (national) implementing organizations also have an important role in the implementation of the National Spatial Strategy. From the preliminary draft to the Draft Spatial Memorandum and then towards an implementation agenda, we work together with the (national) implementing organizations. To shape this cooperation, the Rli's report Uitvoering aan zet will provide a number of important frameworks.

Dialogue with knowledge institutions

In preparing the preliminary draft, use was made of the insights of (knowledge) institutions, such as, for example, the Netherlands Environmental Assessment Agency (PBL), the Council for the Environment and Infrastructure (Rli) and the College of Government Advisors (CRa). These insights are expressed in the various publications of the various (knowledge) institutions and commissions. It is also important to be in dialogue with universities and the knowledge institutions about developments in the living environment. This dialogue is conducted, among other things, in the Broad Consultation on Spatial Planning. The purpose of the Broad Consultation is to generate critical thinking and to advise and reflect on the vision, strategic choices and

instruments with which to give substance to the governing role in the spatial domain. This is mainly focused on the preparation of the new National Spatial Strategy.

Webinar

In addition to the dialogues mentioned above, we plan to organize a webinar after summer 2024 to inform a wide audience of interested parties about the preliminary design.

Participation in national programs

Not only in the context of the Nota Ruimte does a participation process take place. This happens for the various national programs. These are both area- and theme-oriented. Separate (decision-making) processes have been set up for these programs, each with its own dynamics. And each also with its own participation. This participation is primarily intended to enrich the program in question.
At the same time, the sum total of the various participation processes provides a complementary picture of how residents view the spatial planning of the Netherlands. What common threads can be identified? And what can we learn from the different approaches and participation moments (best practice)? The proposal is to visualize these threads in preparation for the draft National Spatial Strategy.

Participation is continuous process

There have been several moments of participation over the past year. The Lower House was informed of these by letter dated April 18, 2024[19] . Citizens, and this actually applies to all parties, would like to be involved in the spatial planning of the Netherlands. This applies at the national level and especially also at the local level. By being in constant dialogue with the various parties during the process, all the pros and cons of the choices to be made are put on the table early on. The various interests become clear by talking to each other. Participation therefore also increases understanding and acceptance of the plans.

Participation also does not stop with the delivery of the final Nota Ruimte and national programs. It is a continuous process. It is important to continue the conversation about the organization of the Netherlands on a structural basis. The space consultation, citizen and youth perspectives offer several recommendations for this. Recommendations from the participation processes of the individual national programs are also involved.

Justification document Nota Ruimte

Participation will be the subject of a justification document when the National Spatial Strategy is adopted. This will state how stakeholders participated, which parties were involved and what was done with the input.

[19] House of Representatives, session 2023-2024, 34 682, no. 191

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