



OECD Territorial Reviews

NETHERLANDS



OECD Territorial Reviews: Netherlands 2014

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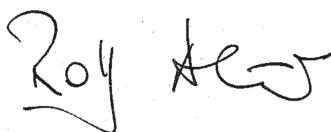
Foreword

Policies for growth, jobs, equity and environmental sustainability have greater impact when they recognise the different economic and social realities where people live and work. National governments are thus challenged to rethink how to harness the potential of different types of cities and regions to prepare for the future. Policies for regions and cities can generate opportunities for skills development, investment and innovation, and directly contribute to improving quality of life. Such policies actively complement traditional macro and structural approaches in enhancing national performance.

OECD Ministers endorsed this policy framework on 5-6 December 2013, during the meeting “Regions and Cities: Where Policy and People Meet” in Marseille. In particular, they endorsed the design of a national urban policy framework to address the economic, social and environmental needs and opportunities in cities of all sizes and the need to develop new data, policy and governance tools that enable governments to better fit policies to places, thereby promoting policy action at the relevant scale, including for key sectors, such as innovation, water and transport.

Under this context the *OECD National Territorial Reviews: Netherlands* for the first time examined sub-national trends and performance with a new analytical tool, the functional urban areas (FUA) in addition to assessing sub-national policies and governance challenges. The case of the Netherlands is unique in the OECD given that there is no explicit and comprehensive regional policy framework at the national level and no explicit national urban policy framework. In contrast there is a national infrastructure policy and a newly created Top-Sector Innovation Policy at the national level. These sector policies indeed have an impact on regional development in addition to European Policies and policies undertaken by subnational governments. *OECD Territorial Reviews: Netherlands* is therefore an interesting experiment and case for discussion among OECD member countries.

This review was undertaken under the auspices of the Territorial Development Policy Committee (TDPC), created in 1999 as a unique forum for international exchange and debate. The TDPC has developed a number of activities, including a series of national Territorial Reviews. These studies follow a standard methodology and common conceptual framework, allowing countries to share their experiences and disseminate information on good practices.



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Acronyms and abbreviations

AWBZ	Algemene Wet Bijzondere Ziektekosten/Exceptional Medical Expenses Insurance Act
BERD	Business Expenditure in Research and Development
BRO	Besluit Ruimtelijke Ordening/Spatial Planning Decree
CAP	Common Agricultural Policy
CBRIS	Cross-Border Regional Innovation System
CBS	Centraal Bureau voor de Statistiek/Statistics Netherlands
CEMR	Council of European Municipalities and Regions (CEMR).
CPB	Centraal Planbureau/Netherlands Bureau for Economic Policy Analysis
CIT	Centres for Innovative Craftsmanship
CPI	Consumer Price Index
EGTS	European Grouping of Territorial Co-operation
ERDF	European Regional Development Fund
ESF	European Social Fund
EC	European Commission
EU	European Union
FES	Fonds Economische Structuurversterking/Economic Structure Enhancement Fund
FUA	Functional Urban Area
HBO	Hoger Beroepsonderwijs/Higher Professional Education
HTSM	High Technology Systems and Materials
ICT	Information and Communication Technology
IMF	International Monetary Fund
IPO	Inter-Provinciaal Overleg/Association of Provinces of the Netherlands (IPO)
IPR	Investment Premium Regulation
ISD	Intergemeentelijke sociale diensten/inter-municipal social services

KIBS	Knowledge Intensive Business Services
KNAW	Koninklijke Nederlandse Akademie van Wetenschappen/Royal Netherlands Academy for Arts and Science
LTI	Leading Technology Institutes
MBO	Middelbaar Beroepsonderwijs/middle-level applied education
MEZ	Ministerie van Economische Zaken/Ministry of Economic Affairs
MIRT	Meerjarenplan Infrastructuur, Ruimte en Transport/Multi-year Plan for Infrastructure, Spatial Planning and Transport
NMCA	National Market and Capacity Analysis
NOW	Netherlands organisation for scientific research
OP	Operational Programme
PCT	Patent Co-operation Treaty
PIAAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
PBL	Planbureau voor de Leefomgeving/Netherlands Environmental Assessment Agency
RAI	Regional Authority Index
RDA	Regional Development Agencies
RIS3	Research and Innovation for Smart Specialisation Strategy
ROC	Regionaal Opleidingencentrum/Regional Education Centres
RRAAM	Rijk-Regioprogramma Amsterdam Almere Markermeer/State and Regional Programme for Amsterdam, Almere, and Markermeer
SIA	Stichting Innovatie Alliantie/Foundation Innovation Alliance
SMASH	Structuurvisie Mainport Amsterdam Schiphol Haarlemmermeer/Structural Mainport Amsterdam Schiphol Haarlemmermeer
SME	Small and Medium Size Enterprise
SVIR	Structuurvisie Infrastructuur en Ruimte/National Policy Structure for Infrastructure and Spatial Planning
TKI	Top consortia for Knowledge and Innovation
TL2	Territorial Level 2
TL3	Territorial Level 3
TNO	Toegepast Natuurwetenschappelijk Onderzoek/Netherlands Organisation for Applied Scientific Research

UvW	Unie van Waterschappen/Association of Dutch Water Authorities
VNG	Vereniging van Nederlandse Gemeenten/Association of Dutch Municipalities (VNG)
WBSO	Wet Bevordering Speur- en Ontwikkelingswerk/law for the promotion of R&D activities
WGR	Wet Gemeenschappelijke Regelingen/Joint Regulations Act
WMO	Wet maatschappelijke ondersteuning/Social support act

Executive summary

Main findings

The Netherlands has a rich urban structure that could benefit more from agglomeration and regional development

The Netherlands is a small and densely populated country with a rich urban structure. Cities and in particular functional urban areas are key pillars of the Dutch economy hosting almost 75% of the national population. The structure of cities comprises a rich and very polycentric urban structure in the Netherlands. This is a key strength for the Netherlands given that OECD countries with more polycentric urban systems are found to have higher per capita GDP. Nevertheless agglomeration benefits are lower than in OECD member countries. Similarly, in the 5 largest functional urban areas in the Netherlands (i.e. Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven) the agglomeration benefits and labour productivity growth are lower than across OECD FUAs of similar size. Nonetheless the largest FUAs are attracting population at a similar rate as comparable FUAs in the OECD. Therefore there is need to ensure that the growth in population transforms into agglomeration benefits.

Improving the policy framework for regional development

The Netherlands currently does not have an explicit and comprehensive regional policy framework at the national level. Similarly, there is no explicit national urban policy framework. These features are in contrast to the trend present in many OECD member countries. At the national level there is an explicit infrastructure policy and a newly created Top-Sector Innovation Policy. These sector policies have an impact on the performance of regions in addition to European Policies and policies undertaken by subnational governments. There is a need to better integrate these various policies to ensure the potential complementarity gains are realised and avoid counterproductive outcomes.

Finding the right scale for further strengthening decentralisation

The Dutch subnational governance system is undergoing a broad reform with the aim of helping simplify, clarify, rebalance and decentralise further the Dutch institutional system along the idea of better governance. This reform aims at bringing the government closer to the citizens and improving the use of resources and public service delivery, attaining better quality of government and enhancing greater accountability and transparency. In addition it is believed that efficiency gains could be attained by deepening decentralisation because the policies, services and investment can be tailored to the local context. The decentralisation reform reinforces the provincial role in regional development and the municipal role in social and welfare services. Subnational governments will face important challenges: they are expected to develop capacities

to perform more tasks - and better - with less money. This requires a reorganisation in the local delivery of public services. The territorial reform aims at reducing fragmentation by promoting re-scaling of subnational governments at the provincial level and the local level. At the provincial level, a merger approach from coercion is considered for three provinces and a bottom-up process for the remaining nine provinces. At the municipal level re-scaling efforts are considering a mixed approach between voluntary mergers and inter-municipal co-operation.

Key recommendations

Strengthening agglomeration benefits

- There is a need to create a National Urban Policy Framework, currently lacking in the Netherlands to ensure that policies are aligned to the relevant economic scale, thus improving economies of agglomeration.
- Economies of agglomeration in the Netherlands can also be enhanced by improving connectivity between functional urban areas.
- Regional Development strategies should build upon functional urban areas.
- Effective and efficient governance mechanisms should be implemented to take into consideration the specific needs of the functional urban areas.

Improving the policy framework for regional development

- A more structured and institutionalised network of stakeholders, would improve vertical co-ordination by facilitating alignment of national and regional interests.
- The *National Policy Strategy for Infrastructure and Spatial Planning* needs to further take into account the input and participation of all provinces in the definition of national priorities.
- The Top-Sector Innovation policy should be better aligned to the EU smart specialisation agenda and to the regional cluster policy.

Finding the right scale for further strengthening decentralisation

- In the context of decentralisation, the government should take into account a medium and long time horizon for its implementation, provide assistance and training to municipalities in coping with the new decentralised functions and ensure the active involvement of citizens and other local stakeholders.
- Decentralisation reforms should include a broad fiscal reform which provides more income and spending autonomy to the subnational governments, including a tax and grant reforms, the introduction of new schemes to mobilise private financing and a reassessment of the equalisation system.
- Rescaling provinces and municipalities through mergers or co-operation would improve their performance in the more decentralised context. For provinces, further enhancing their strategic role in regional development and co-ordination will also improve their competitiveness.

Assessment and Recommendations

The Netherlands has a rich urban structure that could benefit more from agglomeration and regional development

- The Netherlands is a small and densely populated country with a rich urban structure.*** Cities and their areas of expansion beyond administrative borders (defined as functional urban area, FUAs) are key pillars of the Dutch economy hosting almost 75% of the national population. Despite having the second highest population density in the OECD, the Netherlands' economic and demographic concentration is lower than other densely-populated countries such as Japan and Korea. Interregional inequality is also quite low in the Netherlands. These trends are mainly driven by the country's rich and polycentric urban structure (meaning it has a number of large cities instead of one or two megacities). The five largest urban areas – Rotterdam, Amsterdam, The Hague, Utrecht and Eindhoven – host a little over one-third of the national population and contribute to the same proportion of national GDP. Medium and smaller FUAs are also important pillars of the national economy. They are spread across the entire territory, although the largest FUAs tend to be located in the west and the medium FUAs in the east of the country. Each province contains at least one FUA, and in almost all provinces FUAs are home to more than 70% of the provincial population.
- One of the Netherlands' potentials is its rich and polycentric network of urban areas.*** The Netherlands has four important population growth poles: Amsterdam, The Hague and the Eindhoven FUAs. While the largest FUAs are growing faster than the smaller ones, there is no sign that population is becoming more concentrated across the country, unlike the situation in 80% of OECD countries. This is due to the Netherlands' balanced city structure – one of the most balanced in the OECD – in which medium and smaller FUAs have an equal share of population as the larger FUAs. The population of cities will indeed grow in the next coming years, but this growth is also visible in cities outside the Randstad (for example in the cities of Zwolle and Groningen). This is a key strength: those OECD countries with more polycentric urban systems tend to have a higher average GDP per capita. The presence a wide number of metropolitan areas also means that a greater share of the national territory may benefit from proximity to a major city.
- Nevertheless there is increasing concern for the economic performance of some regions.*** Some regions have weathered the crisis better than. The effects of the global financial crisis have been particularly severe in the Netherlands with a differentiated impact across Dutch regions. Inequality among regions will face upward pressures in the coming years. In terms of innovation, Drenthe, Zeeland, Friesland and Flevoland display important gaps in R&D expenditures. To no surprise three of them underperformed in terms of GDP per capita over the period prior to the crisis (1995-2007). This calls for region-specific measures to strengthen the most vulnerable Dutch regions and the network as a whole.

Improving the policy framework for regional development

- ***There is currently no national framework for regional policy in the Netherlands.*** The central government has changed the focus of the development policy, abandoning the explicit engagement in the regional development policy. The government recently abandoned the explicit regional policy of the Peaks in the Delta and replaced it by the Enterprise Policy which includes generic policy as well as a policy specifically for innovative sectors in which the Netherlands excels globally rather than on the area-specific strengths of regions. This change was partly driven by the need to priorities resources in a tight fiscal environment brought by the aftermath of the 2008 global financial crisis and current difficulties in the recovery phase. The main feature of this policy is refocusing on few key sectors rather than spreading resources over the whole territory. The new policy also aims at supporting enterprises across the Netherlands. The resources for regional development programmes are therefore expected to come from other institutions, such as the provinces and the municipal governments, the EU programmes, and other forms of co-operation that would involve the private sector (Public-Private Partnerships).
- ***Similarly, there is no explicit national urban policy framework in the Netherlands.*** As in other OECD countries, the Netherlands' current urban development policies are focusing on cities' problems rather than their potentials. The current urban policies are managed by the Ministry of Interior and Kingdom Relations focusing on deprived neighbourhoods and broadly include housing, education, labour market, health and safety. Although these policies can have a profound effect on urban development, there is currently no explicit national urban policy framework in the Netherlands with a holistic and strategic focus aimed at enhancing the growth potential of FUAs.
- ***In contrast there is an explicit spatial and infrastructure policy at the national level.*** Since June 2012 the National Policy Strategy for Infrastructure and Spatial Planning (SVIR) is in force. This plan represents a strategic agenda for spatial planning policies. One of the aims is laying down the baseline programme of investments. The SVIR sets out a list of national priorities to be followed by the central administration (various ministerial departments and government agencies). A related instrument, the Multi-Year Plan for Infrastructure, Spatial Planning and Transport (MIRT), is an investment programme set up by the national government with the goal to improve the coherence between investments in spatial planning, economic development, mobility and liveability at the national level. Overall, infrastructure and accessibility is adequate in the majority of regions.
- ***In terms of innovation, there has been an important change in recent years with the adoption of Top Sector Policy.*** In 2010, the central Government launched a new enterprise policy with special consideration for nine top sectors. The policy is a comprehensive approach including generic policy addressing the burden of regulation, the need for qualified staff and good interaction between education and the labour market, funding options for SME's, IT policy, a financial incentive system, and a level playing field for businesses. In addition, there are policies specifically for innovative sectors in a strong export position: the "top sectors", hence the name Top Sector Policy. The Top Sectors approach attempts to bring simplicity, clarity and coherence to a very fragmented innovation landscape by providing strong top-down steering at the national level. At the same time it aims at supporting bottom-up co-operation among sectors, scientific institutions and government. The innovation programmes within Top Sectors are administered by 19 public-private partnerships, the Top Consortia for Knowledge and Innovation (TKIs). The main generic support for innovation comes through the fiscal

instruments for innovation. The fiscal instruments are well-designed, allowing innovators to gain approval in advance for planned activity, and then providing relief to mitigate some of the uncertainties of R&D work. The Top Sector policy aims broader than innovation, by e.g. supporting human capital and internationalization.

- ***In this context aligning the various policies in the Netherlands could enhance regional development.*** Economic activity in the Netherlands has an important geographic dimension. Specialisation in terms of value added has increased over the past decade. The main “ports” and “valleys” have a strong regional dimension. Key factors driving their competitiveness are the strong links between higher education institutions, and the public sector with private actors. Therefore sectors can build upon the strength of regions and in turn regions can benefit from enhancing the competitiveness of sectors through jobs and higher wages. There are strong mutual gains, and therefore it is crucial that both strategies would complement each other. An effective policy mix means addressing new divisions and finding smart ways to make the most of complementarities between different policy areas. The main-ports and brain-ports are indeed strong assets for the Netherlands, as well as its rich system of cities. Both can play a key role in supporting the innovative strength of firms and clusters across the country and connecting them to wider global innovation networks.

Strengthening multi-level governance

- ***The Dutch multi-level governance system is unique when compared to OECD member countries.*** It comprises two tiers of subnational government with general competencies (12 provinces and 403 municipalities as of 1st January 2014) but also a functional decentralised tier with more specialised competencies (23 Regional Water Authorities). All three tiers have deliberative assemblies, which are elected by direct universal suffrage. They have an autonomous power of regulation and administration of their own internal affairs as well as a taxing power. This system also includes numerous formal and informal network-based collaborative arrangements to jointly provide public services across administrative boundaries. In particular, there are around 700 inter-municipal co-operation structures concluded under the Joint Regulations Act (WGR), mainly active in the employment and social services as well as public transport. These municipal arrangements include eight metropolitan entities, the so-called “city-regions”, created in 1995 and more formally in 2005 by the WGR+ Act, which group 112 municipalities and 6.5 million inhabitants. In addition, there are several functional areas that provide co-ordination in specific policy areas between subnational and central governments services (e.g. safety regions, preventive healthcare regions, etc.) as well as forms of horizontal co-operation among municipalities or among provinces, or both (e.g. Northern Netherlands Provinces Alliance, Metropolitan Region Rotterdam-The Hague), including cross-borders forms of co-operation with German and Belgian partners. Finally, the subnational level also comprises de-concentrated central government agencies which are controlled and financed by central government units and have a local function (regional labour market offices, regional police services or regional healthcare services).
- ***The Dutch multi-level government system has a mixed nature, between autonomy and dependence from the central government.*** In the Netherlands, there has been a continuing trend of decentralisation over the long run. Since the 1950’s, government functions and services have gradually decentralised to lower levels. Subnational governments are powerful and strong, according to the constitution. They have competences to issue own legislative acts affecting their territories and many responsibilities in the delivery of a wide range of local public services. Nevertheless the central government can intervene in the governance,

functioning and financing of subnational governments thus limiting the autonomy of the subnational government. Both municipalities and provinces have limited fiscal powers. In 2012, more than 70% of Dutch subnational government revenue comes from transfers, 15% come from tariffs and fees, 3% from assets and only 9% are derived from taxes. Subnational tax revenues represent 1.5% of GDP (against 16.3% in the OECD) and 6.6% of public tax revenues in 2012, one of the lowest shares in the OECD (33.2% on average). The Netherlands is the country with the third highest fiscal imbalance in 2012 among OECD countries as only 9% of subnational expenditure is financed by tax revenue.

- ***The Dutch subnational government system is unbalanced, between strong municipalities and weak regional level.*** One of the peculiarities of the Dutch territorial governance system is its resemblance to an ‘hourglass’ structure, where the regional level remains squeezed between the central and municipal levels. Provinces, despite deep historical roots, do not have many competences and tend to have a weaker role than municipalities. They have some difficulties to assert their power despite recent decentralisation aiming at strengthening their role. It is reflected in the number of provincial employees (almost 14 times less than in municipalities) and their budget: representing 1% of GDP and 11% of total subnational government expenditure, provincial expenditures are significantly smaller than those of municipalities (10% of GDP and almost $\frac{3}{4}$ of the total). The expenditure per capita is EUR 550, i.e. significantly lower than the Swiss cantons and Canadian provinces (which exceeds EUR 8 000), between 3 to 5 times smaller than the Swedish counties or Italian regions and at the same level as Mexican States or French Regions. However, provinces have several competences which do not require much funding. Moreover, provincial expenditure has grown by 50% in nominal terms between 2007 and 2012 following the transfer of new duties over the recent years. Provinces also have more autonomous revenues than municipalities: taxes, user charges and other income provide 66% of provincial revenues, against 46% of municipal revenues.

*Finding the right scale for further
strengthening decentralisation*

- ***The central government recovery plan, which includes various measures such as fiscal consolidation, stimulating innovation and sub-national institutional reform, has an important impact on sub-national governments.*** The direct effects of the economic crisis on subnational finance, combined with the impact of consolidation measures adopted by the central government, has reduced resources available to national and subnational government tiers. Their overall financial situation deteriorated in 2008 and their deficit increased sharply. Since 2010 however, subnational government demonstrated a certain capacity to adapt to stressing and changing circumstances. They cut back on goods and services, reduced staff spending and contracted sharply their investments. On the revenue side, they offset the decrease in central government grants by increasing tax rates and user charges (within certain limits however) but, above all, by selling their assets, in particular provincial and municipal shares in energy companies. As a result, the stabilization of revenue combined with lower spending contributed to reducing the subnational deficit.
- ***The Dutch subnational governance system is undergoing a broad reform.*** A reform of public administration can help simplify, clarify, rebalance and decentralise further the Dutch institutional system along the idea of better governance. Decentralisation in the Netherlands aims at bringing the government closer to the citizens and improving the use of resources and public service delivery, attaining better quality of government and enhancing greater accountability and transparency. It is believed that efficiency could be attained by deepening decentralisation

because the policies, services and investment can be tailored to the local context. Efficiency gains are estimated around 5 -25 % for the new services provided by municipalities, which will be required to tailor services to the needs of citizens. Municipalities will face important challenges: they are expected to develop capacities to perform more tasks - and better - with less money. In addition, since the Dutch welfare state is under increasing pressure, subnational government are expected to perform additional tasks but with fewer resources. This requires a reorganisation in the local delivery of public services. Thus, the Dutch reform is not only about decentralisation but also transformation of the public tasks. In this context, the Dutch government has launched a subnational government reform which has two main components: an institutional reform - i.e. a further strengthening the process of decentralisation - and a territorial reform - i.e. re-scaling subnational government administrative boundaries in order they better match their functions. These two components are closely related and appear to be two sides of the same coin, the territorial reform being partly driven by the decentralisation reform.

- ***The decentralisation reform reinforces the provincial role in regional development and the municipal role in social and welfare services.*** The reform is focused on strengthening the role of provinces on core competencies, encompassing tasks only in the *spatial-economic domain* (i.e. spatial planning, traffic and transport), regional economic development, nature conservation as well as culture. The goal is to reinforce provincial co-ordination at the territorial and local level particularly with municipalities. Provinces will also take over most of the competences of city-regions (spatial planning, transport, economic affairs, housing, etc.). According to the current legislative proposal the city-regions will be abolished by January 2015, except for the transport authorities in Amsterdam-Almere and Rotterdam-The Hague. At the same time, provincial social tasks, in particular youth care, will be transferred to the municipalities. Decentralising tasks to municipalities has been a continuous trend in the Netherlands. The present government is determined to continue this process by transferring new social welfare functions to the municipal level by 2015 in an integrated approach: youth health care to be moved on from the national and provincial levels, long-term care as well as new tasks related to labour welfare policies. To finance these new social responsibilities, the government plans to set-up a “social sub-fund”, integrated in the Municipalities Fund and which will be implemented through a mix and balanced approach between autonomy (no compartmentalisation within the sub-fund between the different categories of social expenditures) and control (establishment of spending rules during a transitional period).
- ***The decentralisation reform is inducing both up-scaling and re-scaling of territorial entities.*** The territorial reform aims at reducing fragmentation by promoting re-scaling of subnational governments. This is based on various rationales, including reaching “effective” administrative size (i.e. with functional relevance), economies of scale and scope, efficiency gains, economic performance, search for better quality of services, etc. In particular, the provision of some services with high fixed costs (such as network services) requires a scale of production that is large enough to be economically feasible. OECD work in this area finds evidence that vertical fragmentation (i.e. the number of sub-national tiers in a given territory) reduces the economic performance of the territory. The effects of the global economic crisis as well as the on-going decentralisation reform in the Netherlands are additional factors push towards further measures since there are doubts about the capacity of subnational governments to deliver satisfactory services. Therefore, the success of the decentralisation reform will largely depend on the way it is implemented and on the capacity of provinces and municipalities to deliver the new functions with the allocated financial resources and their actual human and administrative capacities. The issue of size does not arise in the same terms in the case of provinces and municipalities. Moreover, options can differ according to the level of government but also according to the

specificities of the territory, in particular its urban or rural characteristics. In practice, there are two choices for re-scaling between amalgamation (up-scaling) and promotion of inter-governmental co-operation, so-called “trans-scaling”, each solution having its pros and cons.

- ***Re-scaling the provincial level: the merger approach from coercion for three provinces and bottom-up process for the other nine provinces.*** Several attempts to reform the provinces have been made, but with limited success until now. Provinces can be considered as relatively small in comparison to other OECD regions, in terms of area and population. The 150 years old provincial boundaries are no longer in line with the social and economic functional areas (community patterns, urbanisation, water management, sustainability, land use, economic development, etc.). The second main reason for up-scaling provinces is the will to create stronger and more effective provincial governments with a clear added-value, political clout and co-ordination role vis-à-vis stronger – and larger – municipalities. This reform should be also understood against the background of the long-standing debate on the consolidation of the regional tiers to establish regions capable of competing with other regions at European and international levels. In a context where the European Union is funnelling its policies and funds increasingly towards the regions, transforming provinces in more robust administrative regional partners can be considered all the more necessary. The Dutch government plans to merge the three provinces of Utrecht, Flevoland and Noord-Holland to build a larger province called the “North Wing Province by January 2016. The potential benefits of amalgamation appear clearly visible – even it is sometimes contested locally – as these three province share many common features. Their territories form an inter-connected urban system which is acknowledged also by the presence of the Amsterdam FUA. In the other provinces, the Dutch central government intends to enact mergers of provinces gradually on a bottom-up basis. The “North Wing Province” example will be a first step in a process of forming fewer, larger and more effective provinces within a longer process, taking into account specific characteristics and policy challenges of each area.
- ***Re-scaling the municipal level: a mixed approach between voluntary mergers and inter-municipal co-operation.*** Municipalities are not in the same situation as the provinces: they have been involved in a continuous process of amalgamation. Over the years this process has led to a gradual but significant drop in their number, from 1 209 in 1850 to just 403 in January 2014 (i.e. a reduction to one-third). As a result, the average population of Dutch municipalities rose to 41 125 inhabitants in 2012, which is not small by international standards (the OECD average municipal size is 9 115 inhabitants in 2012). According to the municipal fragmentation index (number of municipalities per thousand inhabitants), the Netherlands fragmentation is amongst the lowest in OECD countries: 2.4 compared to an OECD average of 11 municipalities per thousand inhabitants. There are still small size municipalities: 37 % of municipalities have less than 20 000 inhabitants and 9% less than 10 000 inhabitants. Municipalities differ also in terms of financial and human capacities: one third of them manage a budget of less than EUR 40 million; 37% have less than 20 000 inhabitants and employ only 11% of total municipal staff. Therefore, the recent decentralisation process, and above all the upcoming financial transfers, is now a great concern for small municipalities which are not always sufficiently equipped to deal with new responsibilities. In particular, their managerial, administrative and financial capacities represent an important source of concern. All these factors push for a municipal re-scaling, with two options: merging or trans-scaling (i.e. pooling public services into larger inter-municipal entities). Since the first decentralisation measures in 2007, several small municipalities already decided to merge or conclude joint municipal arrangements to deal with the challenges of the new administrative powers.

Key recommendations

(1) There is a need to create a National Urban Policy Framework, currently lacking in the Netherlands to ensure that policies are aligned to the relevant economic scale, thus improving economies of agglomeration.

Although agglomeration benefits are present in Dutch TL3 regions with higher labour productivity, they are lower than in OECD member countries. Similarly, in the 5 largest FUAs in the Netherlands (i.e. Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven) the economic premium and labour productivity growth are lower than across OECD FUAs of similar size (more than 500 000 inhabitants). Nonetheless the largest FUAs are attracting population at a similar rate as comparable FUAs in the OECD. Therefore there is need to ensure that the growth in population transforms into agglomeration benefits.

Cities and urban areas in the Netherlands can benefit from better aligning policies to the relevant economic scale (FUAs) to ensure policy complementarities are realised and improve coherence in governance at this scale. Furthermore the fact that 75% of the Dutch population lives in FUAs and no single FUA is dominant, requires a holistic urban policy framework that can better target policies at this geographic unit, ensuring the benefits of agglomeration are not overcome by its costs, and that synergies amongst the various urban areas are attained. There is a need to create a National Urban Policy framework, which currently does not exist in the Netherlands.

(2) Economies of agglomeration in the Netherlands can also be enhanced by improving connectivity between functional urban areas.

Although connectivity is not a necessary substitute for agglomeration benefits, cities and urban areas can increase their competitiveness by increasing proximity to each other and benefit from “borrow” agglomeration. Recent studies show that a doubling of the population living in urban areas within a 300 km radius, increases productivity of the city in the centre by 1% to 1.5%. This applies especially to the largest FUAs in the Netherlands which are concentrated geographically in the west of the country and in close proximity to each other. In the case of the Netherlands there are three main areas that can enhance borrowed agglomeration benefits:

- Enhancing connectivity amongst the largest FUAs in the west of the country. Although connectivity is already quite good amongst the largest cities, combining agglomeration effects can help improve international competitiveness, especially amongst Amsterdam, The Hague, Rotterdam, and Utrecht which are in close proximity to each other. Especially since these largest FUAs are not sufficiently large when compared to international standard.
- Ensure that the rest of the city structure remains well connected to each other and to the largest FUAs located in the west of the country to enhance and facilitate the “borrow” agglomeration effects to the remaining FUAs.

- Improve connectivity of cross-border labour markets and the connectivity of FUAs located in the east of the country to German cities.

(3) Regional Development strategies should build upon FUAs.

There are potentials for economic growth in all Dutch regions. The competitiveness of regions (i.e. provinces) largely depends on the presence and performance of FUAs. This suggests that regional development strategies should take into account the key role of FUAs. Provincial and local governments should exploit the growth potential of FUAs by favouring internal mobility, better aligning governance structures in metropolitan areas, and exploiting complementarities between rural and urban areas.

(4) A more structured and institutionalised network of stakeholders, would improve vertical co-ordination by facilitating alignment of national and regional interests.

The creation of regional ambassadors is important to increase synergies between the central and local polices, but it is not sufficient. In order to achieve these goals the Ministry of Economic Affairs (MEZ) has created five regional ambassadors. The role of regional ambassadors is to facilitate co-operation between the central and regional governments, finding synergies between central and regional policies, creating a network between political and administrative actors and leading business actors in each region. The necessity to establish a link between national and regional policies is crucial for achieving a balanced regional development outcome. The presence of regional ambassadors can help with this process, but the strategy seems to be based exclusively on personal relationships. Therefore the network can suffer from a change of ambassador. A more structured and institutionalised type of network can better serve the goal of establishing a long term relationship between central and the local actors.

(5) The National Policy Strategy for Infrastructure and Spatial Planning needs to further take into account the input and participation of all provinces in the definition of national priorities.

The current policy framework already takes into account the concerns of provinces. Nonetheless some provinces suggest that their interaction with the central government could be further enhanced in the preparation of national plans. It is important that the mechanism put in place for the definition of national strategic plans allows for the needs and concerns of all regions and local clusters to be represented, so that the definition of the national goals and strategy would not overlook potential sources of growth and competitiveness.

(6) Peripheral regions should exploit cross-border relations to enhance their performance.

Improving labour mobility and linkages between peripheral regions close to the borders could bring important benefits to border towns. Policies which facilitate the learning of a foreign language, provide tailor-made information on the welfare and labour system in the respective countries, co-ordinating investments in cross-border transportation systems, harmonise labour regulations, foment the co-operation between educational institutes across the border can strengthen cross-border linkages. Cross-border linkages and co-operation are also important for innovation policy. Although developing a strategic perspective on innovation is difficult across borders, joint efforts from actors across the borders can help build critical mass, share priorities and facilitate spill-over effects.

(7) The Top-Sector Innovation policy should be better aligned to the EU smart specialisation agenda.

The Top-Sector policy should better integrate EU programmes into their agendas. There are strong potential complementarities to synchronise the Top-Sector policy – which aims at building upon the existing strengths of core sectors – with the EU smart specialisation agenda – which aims at increasing diversification, promoting new linkages, synergies and spill-overs around the areas of relative strength of regions. The rich network of connections in the Netherlands and polycentric city-structure provide the country with good pre-existing conditions to diffuse knowledge across actors and geography. Furthermore aligning the available financing from both policies can build on scale effects.

(8) Regional and Top Sector incentives for innovation should be better co-ordinated.

The Top-Sector policy has strong potential complementarity with the regional cluster policy and regional development strategies. The Dutch economy is sometimes described through the lenses of “ports” and “valleys”, which are spatially located. These ports and valleys are often considered as the main engines of national growth. Top Sector Policy is highly connected to strengthening the “ports” and “valley” clusters, which are differentiate geographically. Top-Sector policy will need to take into account the region-specific context to provide more effective incentives. Furthermore there is a risk that the Top-Sector policy is perceived by local and regional actors as bureaucratic and mediated through an action planning process. A stronger representation of regional (e.g. provincial) interest in the committees driving the Top-Sector agenda (TKIs) can better align national and regional interests. The lack of an explicit regional development policy emphasises the importance of co-ordinating firms’ incentives, which can come from multiple sources including the Top Sector policy, spatial policy and the local level. This would avoid that incentives from one policy are offset by other policies.

(9) In the context of decentralisation, the government should take into account a medium and long time horizon for its implementation, provide assistance and training to municipalities in coping with the new decentralised functions and ensure the active involvement of citizens and other local stakeholders.

The OECD countries' experience in decentralisation reforms show that expenditure savings and better services to citizens are rarely achieved in the short term. The decentralisation of tasks to provinces and municipalities carries a time dimension and a learning curve. Subnational governments might not have the necessary financial, managerial, human and technical capacity to manage those new functions. Building capacity requires time. This suggests that the decentralisation reform should take into account a broader time-horizon which allows actors to adjust to the new tasks and functions.

In many cases, a process of experimentation and learning will be necessary. The decentralisation policy will require adaptability and flexibility over the short term to ensure it is fine-tuned over the medium and long term. The definition of indicators and monitoring are key instruments facilitating this task.

Decentralisation reforms should be accompanied by efforts to build administrative capacity. It is necessary that the central government as well as the provinces and subnational government associations, implement programmes of information and training for municipal staff and elected representatives. Municipalities should also be encouraged to exchange experiences and examples of best practices in order to improve the quality of services and the efficient use of resources across the Netherlands. The new programme "municipalities of the future" is a good move in that direction and other initiatives should be supported.

A decentralisation process that involves the participation of citizens and other local stakeholders by sharing information and facilitating consultation, will ensure that the process will be transparent, the outcome will be fair, and reinforces trust and support of the public opinion. In the short run and under some circumstances the decentralisation reform may deliver below expectations. Initially it is unlikely that the reform will increase the quality of services and reduce costs. Citizens may encounter problems in the provision of services due to the adjustment process and building of capacity. Therefore their involvement is necessary to explain and communicate with the different stakeholders on the long-term objectives and expected outcomes of the reform and the further steps necessary for success.

(10) Decentralisation reforms should include a broad fiscal reform.

A more comprehensive fiscal reform is needed to complement the decentralisation reform. The fiscal reform should include a grant reform (reduction of spending constraints), a tax reform (increase in the share of revenues coming from fees or taxes, through new own-sources taxes or tax sharing) and the introduction of new schemes to mobilise private actors and financing institutions allowing to diversify

sources of funding and strengthen capacities (public-private partnerships, mobilisation of institutional investors such as pension funds). As decentralisation may reinforce further inequalities among provinces and among municipalities, a fiscal reform should also provide the opportunity to reassess and improve the equalisation system in order to promote equity and solidarity while keeping the balance between local autonomy and control.

(11) The strategic role of the provinces should be enhanced further to increase the performance of regions.

The capacity of the provinces to play a new role in the multi-level governance system remains a concern. Particularly, the capacity of provinces to undertake the newly assigned areas of competences and their role of intermediaries between municipal and central government, while having few financial and operational resources. A key step will be a further strengthening of their strategic role by putting them at the heart of the new multi-level governance system. It could be envisaged to reinforce provincial powers, to transfer new competences and to enhance fiscal capacities of the new provinces. In particular, provinces could also become key players in coping with some of the challenges of the Top-Sector policy. Their role in regional investment could be reinforced as well as in the managing of EU structural funds to enhance their performance and competitiveness across the Netherlands and internationally. The role of the provinces vis-à-vis metropolitan areas should be clarified.

(12) The national government should address co-ordination challenges emerging from the asymmetric governance structure.

The gradualist approach to provincial mergers chosen in the Netherlands can be a first step in a process of forming fewer and larger and more effective provinces. This can create, in the end, scope for learning, fine-tuning the reform, and fostering consensus. However, this situation can create an asymmetrical governance structure, implying major co-ordination challenges. Therefore, besides the coercion for the North Wing, the central government should continue the dialogue with the other provinces on how to strengthen provincial government.

(13) The national government should provide incentives for municipalities to co-operate.

Currently the Dutch government considers that voluntary inter-municipal co-operation is preferable to compulsory schemes. Co-operation should remain an option for all municipalities as it can help overcome the capacity gaps, and thus offers an alternative to amalgamation. Inter-municipal co-operation could also be a first step to merging. To that end, the central government should envisage implementing incentives for co-operation as well as mechanisms ensuring accountability and democratic legitimacy.

(14) The national government should encourage mechanisms of governance for FUAs.

Even if the abolition of city-regions in their present form is consistent with the global architecture of the government reform, the governance of metropolitan areas remains a challenge. Two evaluation reports on city-regions published in 2009 and 2010 were globally positive. Some specific solutions may continue to be necessary at the level of FUAs, in order to manage complex issues at the right economic and social scales. In addition to transport and spatial planning issue, the FUAs can also be the relevant scale to manage collectively social and employment services which will become major tasks of Dutch municipalities. Therefore, effective and efficient governance mechanisms should be implemented to take into consideration the specific needs of the FUAs. The central government should encourage co-operation at the scale of FUAs between the municipalities concerned but also with the provinces, in particular in the field of spatial planning and transport which will become a provincial responsibility in the new division of powers. The provinces could share or delegate some of their responsibilities to inter-municipal co-operation structures through co-operative agreements (e.g. the Regio Groningen-Assen, a voluntary urban co-operation platform, straddling borders of the two provinces of Groningen and Drenthe and gathering the two provincial governments and 12 municipalities).

Chapter 1

Regional development trends in the Netherlands

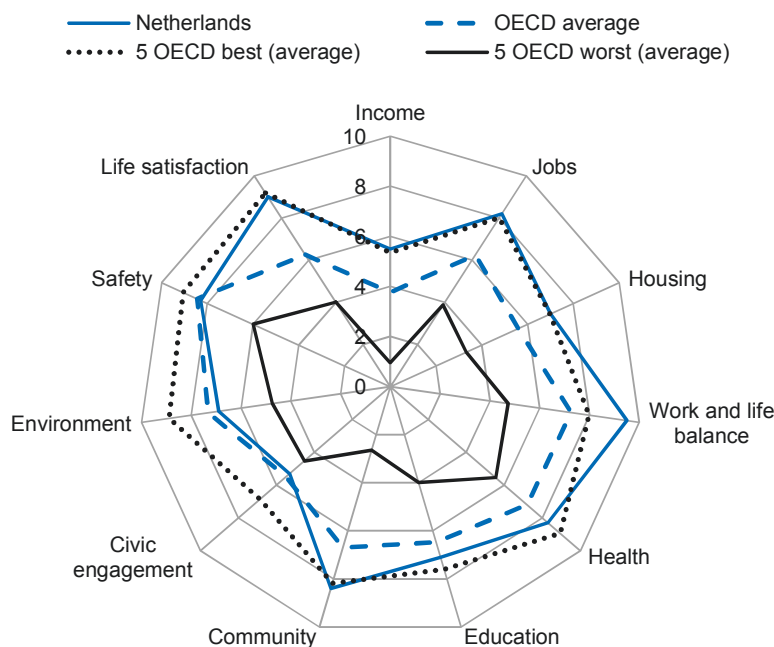
This chapter provides a diagnosis of the main sub-national trends in the Netherlands distinguishing between the period leading to the global financial crisis in 2008 and the period afterwards. The analysis focuses on the performance of Functional Urban Areas (FUAs) and provinces in the Netherlands with respect to other FUAs and regions in OECD countries. This chapter has four broad sections. The first focuses on the main macro-economic economic strengths and challenges. The section that follows measures the main sub-national characteristics in the Netherlands capturing the degree of concentration, the degree of inequality, the characteristic of urban city structure and the main areas of population growth and decline. Section 3 benchmarks the performance of FUAs and provinces in the Netherlands vis-à-vis FUAs of similar size and TL3 regions in the OECD respectively. The last and final section measures the main drivers of growth, particularly productivity growth at the sub-national level focusing on the agglomeration effects, human capital, infrastructure and accessibility and innovation.

The Netherlands' macroeconomic performance

This section summarises the main macroeconomic trends and challenges of the Dutch economy, paying special attention to the impact of the global financial crisis, and the long term factor of economic growth. The macroeconomic situation provides the general framework for the analysis of the Dutch economy, which serves as a basis for the analysis at the territorial level. The Dutch economy has been traditionally very competitive among OECD countries. The effects of the crisis however have brought new challenges, especially during the second shock from 2011 onwards. The economy is still facing the effects of a process macroeconomic consolidation with difficulties in providing access to credit and public spending being curbed. The government has put in place a comprehensive recovery plan with important implication at the sub-national level including decentralisation, institutional simplification, more efficient delivery of goods and services and enhancing innovation. In this framework, regions are important players in the recovery by ensuring they maximise their growth potential, improve efficiency in the provision of goods and services and exploit potential complementarities.

A first glance to the Dutch economy can be grasped from the OECD better life index, which shows a country with the highest standards of living in almost all domains. The comparison of such indicators with the OECD average shows that the Netherlands is performing quite well being above or in line with the OECD average for most of the indicators. They are particularly well performing with respect to work and life balance and life satisfaction, while they are in line with the OECD average in terms of safety, environment and civic engagement.

Figure 1.1. The OECD Better Life Index, 2013



Note: Each well-being dimension is measured by one to three indicators from the OECD Better Life indicator set. Normalized indicators are averaged with equal weights. Indicators are normalised by re-scaling (linearly) to be from 0 (worst) to 10 (best).

Source: OECD Better Life Index, www.betterlifeindex.org (accessed on 14 December 2013).

Macroeconomic indicators are traditionally strong for the Dutch economy. The country has one of the highest GDP per capita among OECD countries; high employment rate and above-average labour productivity. The quality of education is also above the OECD average, as shown by the results of the Programme for International Student Assessment (PISA) scores, and the recent Programme for the International Assessment of Adult Competencies (PIAAC) survey. Research and innovation is well developed, with a return in terms of patent and innovative firms quite high with respect to the resources devoted to R&D. The Netherlands is a very open economy with a level of exports over GDP above the OECD average, and above that of countries of similar size, such as Denmark. Finally, on the government side, the level of debt over GDP is below the average of the EURO area, and the perceived quality of the government is much higher than in other countries.

Recent trends, however, raise some concerns. Recovery from the global financial crises has been weak, with growth performance below the OECD average. After a weak recovery in 2010, the growth of GDP has been negative almost uninterruptedly since mid-2011. The unemployment rate, although still below the EU average, has experienced a worryingly increase since the financial crises in 2008, with quarterly data for 2013 higher than the previous decade. Furthermore, the increase in unemployment is larger for workers with tertiary education than for workers with secondary or primary education (although the level of unemployment is still higher for low educated people). There are also long-term concerns regarding population aging that might lead to a shrinking of the labour force.

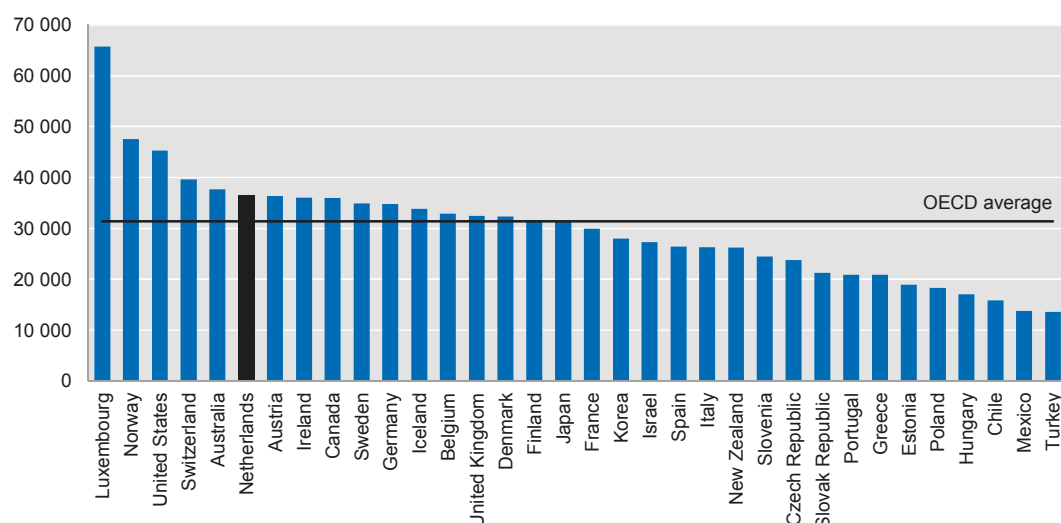
The current crisis of the banking sector, exacerbated by the collapse of the real estate market, has led to a squeeze of credit, mainly affecting SMEs – as noted by the European Commission (European Commission, 2012) and the recent OECD survey (OECD, forthcoming). Banks are still undergoing a process of restructuring of their balance sheets, that is likely to negatively affect the access to credit in the near future (OECD, forthcoming).

Macroeconomic and structural indicators reveals a positive outlook of the Dutch economy

The Netherlands enjoys above average standards of living. In 2011, per capita GDP expressed in constant 2005 USD (Figure 1.2) ranked sixth amongst OECD member countries, surpassing the GDP per capita of Germany, France, United Kingdom, and Denmark.

Labour productivity is higher than the OECD average. High levels of education and skills are important drivers of the high levels of productivity in the Netherlands. GDP per hour worked expressed in constant USD, shows a steady increase keeping Dutch productivity above most OECD countries (Figure 1.3). Productivity levels were higher than in the US prior to the crisis in 2007. After the dip in the crisis and the slight recovery in 2010, there is a downward pattern more pronounced than in other countries.

Figure 1.2. GDP per capita in constant 2005 USD, 2012

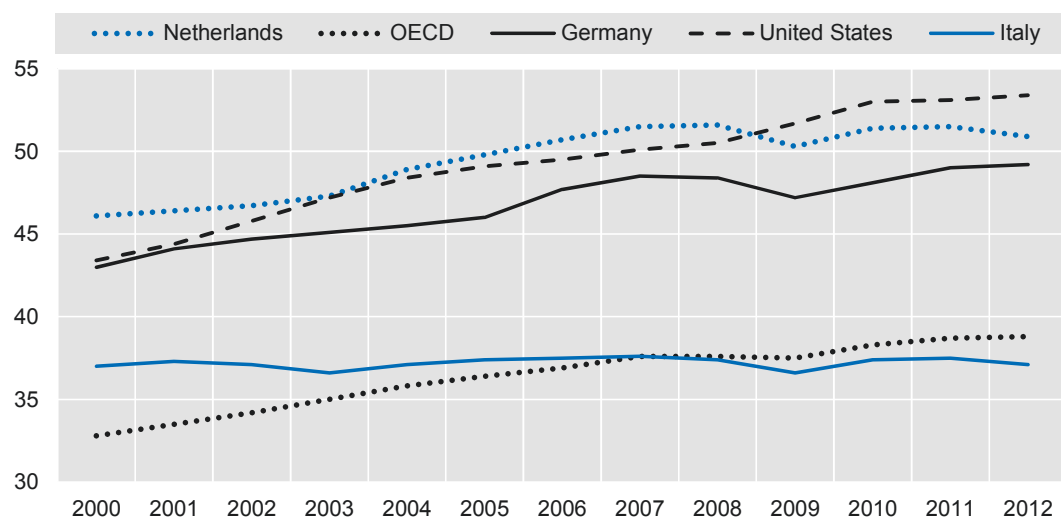


Note: GDP measured according to expenditure approach. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), National Accounts (database), <http://dx.doi.org/10.1787/na-data-en> (accessed on 8 November 2013).

Figure 1.3. Labour productivity

GDP per hour worked in PPP, 2005

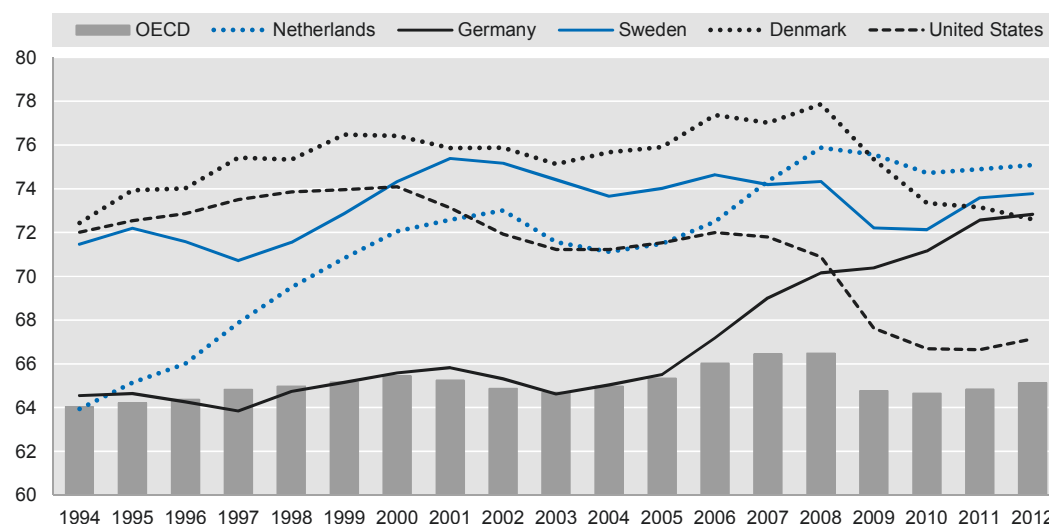


Source: OECD (2013), "Labour productivity growth in the total economy", *OECD.Stat*, (database) <http://dx.doi.org/10.1787/data-00285-en> (accessed on 7 November 2013).

Employment rates in the Netherlands are higher than in the OECD and have been increasing before the crisis period. The employment rate (employment to population

ratio) increased significantly by 11 percentage points over the period 1994-2012, standing at 75.1% in 2012, one of the highest in OECD countries, well above the USA and just above the levels of Germany, Sweden and Denmark. Notwithstanding this fact, average working hours are comparatively low by international comparison. After an important acceleration between 2004 and 2007, the employment rate has remained constant during the financial and economic crisis and the subsequent years (2008-2012). These figures show a resilient economy which was able to cope with the first years of the economic crisis, at least in terms of employment.

Figure 1.4. Dynamics of the employment rate



Note: The bars represent the average employment rate in OECD countries.

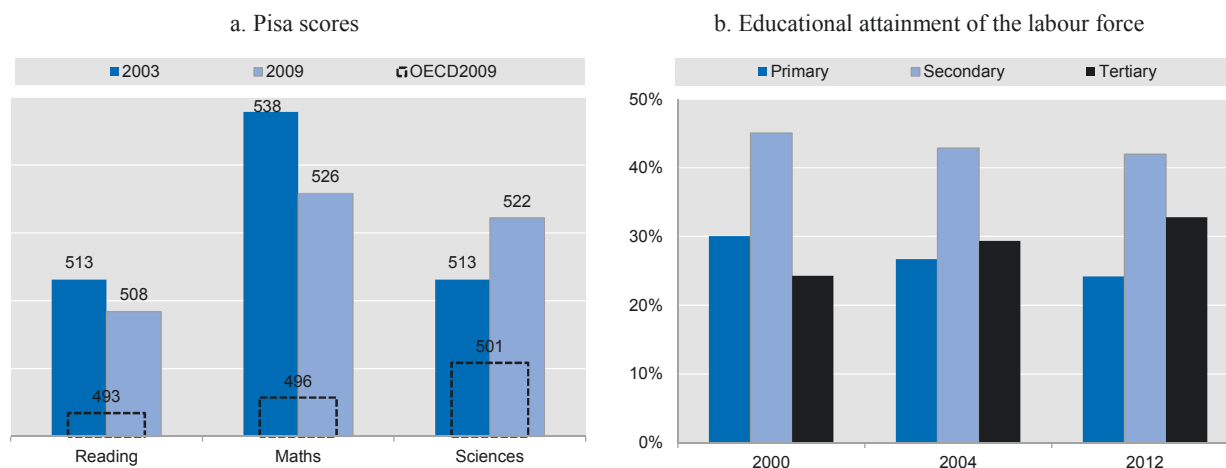
Source: OECD (2013), "OECD Country Statistical Profiles", *OECD.Stat*, (database) <http://dx.doi.org/10.1787/data-00285-en> (accessed on 7 November 2013).

Human capital indicators are strong in the Netherlands in terms of education, skills and labour force with tertiary education:

- PISA scores in the Netherlands are above the OECD average (Figure 1.6), with particularly good results in mathematics, followed by science and reading. The comparison of the results between 2003 and 2009, show a deterioration of the results, except for science (Figure 1.5a). Both reading and mathematical scores dropped in absolute terms despite remaining above the OECD average, in particular mathematics, dropping from 9% above the average to 6%.
- The share of workers with tertiary education increased from 24.2% in 2000, to 32.8% in 2012. At the same time the share of workers whose highest attained degree is primary education declined from 30% to 24.2%. It is interesting to note that since 2004 the share of population with tertiary education is larger than the share of workers with primary education. The share of workers with tertiary education is larger than the OECD average for the all period 2000-2012.
- In term of the PIACC survey, population in the age range 16-24 score significantly above the average in literacy and numeracy skills. In both domains, younger adults score higher than their older counterparts (55-65 year-olds). Only 6.7% of the adult

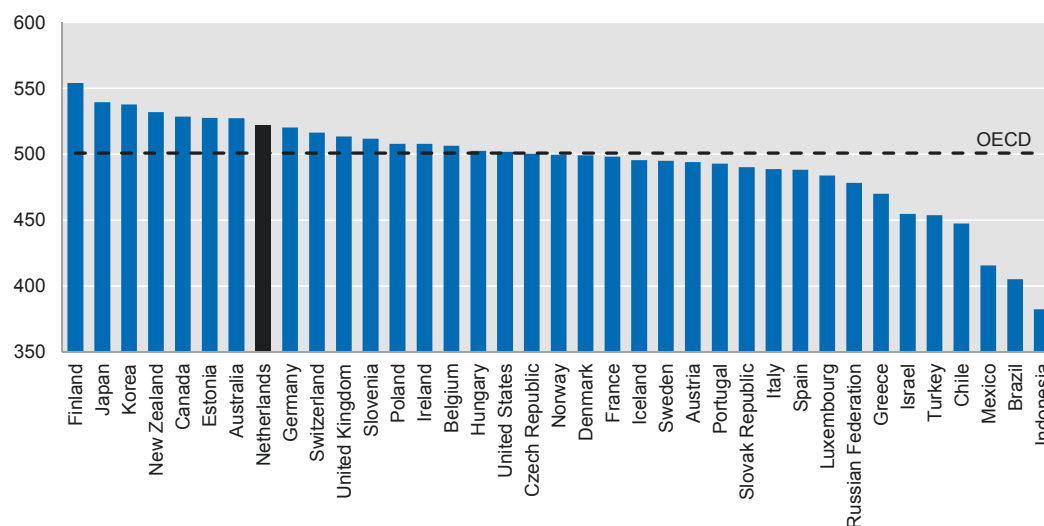
population (16-65 year-olds) report no prior experience with computers or lack very basic computer skills, and 42% of the adult population score at the highest level in problem solving of technology-rich environments, a proportion significantly above the average of the OECD countries participating in the PIAAC survey. Overall the Netherlands ranked the third highest in literacy and the fourth highest in numeracy (Figure 1.7).

Figure 1.5. **PISA scores and education attainment of the labour force in the Netherlands**



Source: OECD (2009), PISA 2009 (database) <http://dx.doi.org/10.1787/888932343342> (accessed on 20 November 2013) and Eurostat <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/> (accessed on 17 October 2013).

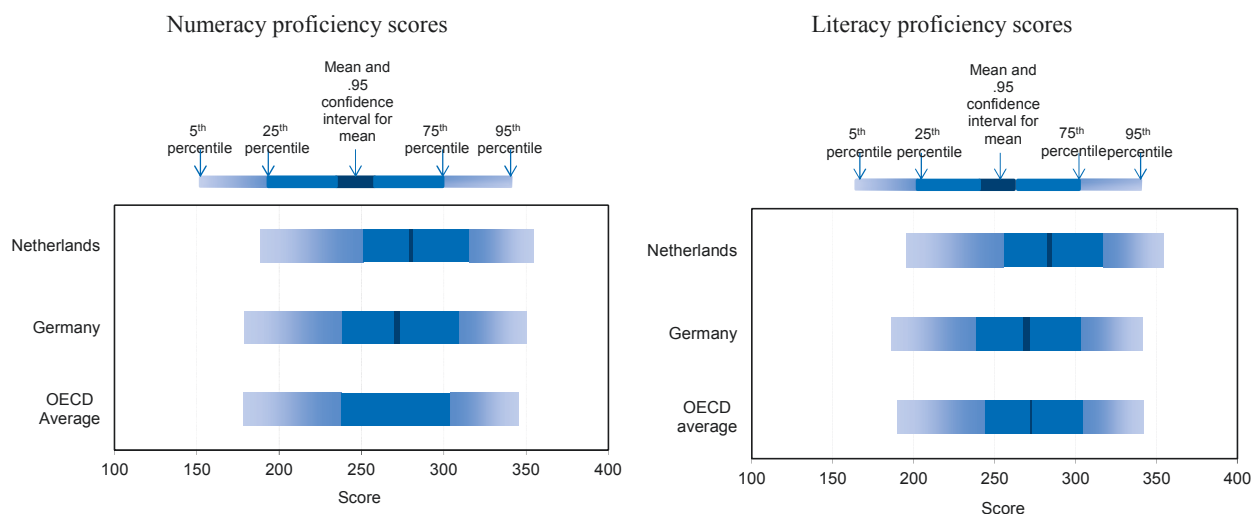
Figure 1.6. **Comparison with other countries, PISA science scale, 2009**



Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2009), PISA 2009 (database) <http://dx.doi.org/10.1787/888932343342> (accessed on 20 November 2013).

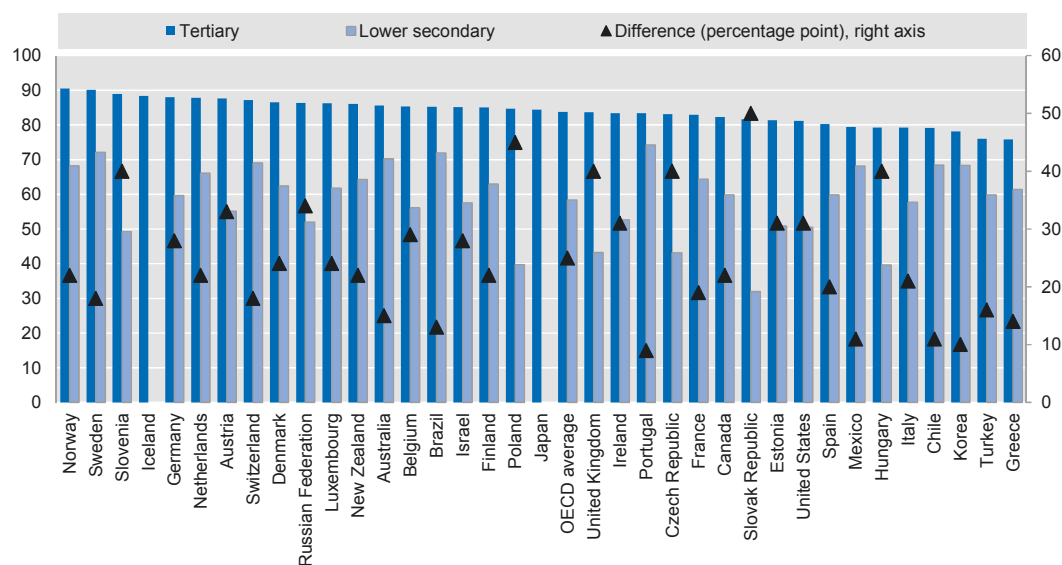
Figure 1.7. Skills PIAAC survey, 2012



Source: OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264204256-en>.

Tertiary education attainments yield better employment prospects in the Netherlands than in OECD countries. The employment rate of workers with tertiary education is 22 percentage points higher than the employment rate of workers with upper secondary education. Nevertheless the employment prospect of secondary education is relatively high when compared to OECD countries.

Figure 1.8. Employment by education attainment, 2011

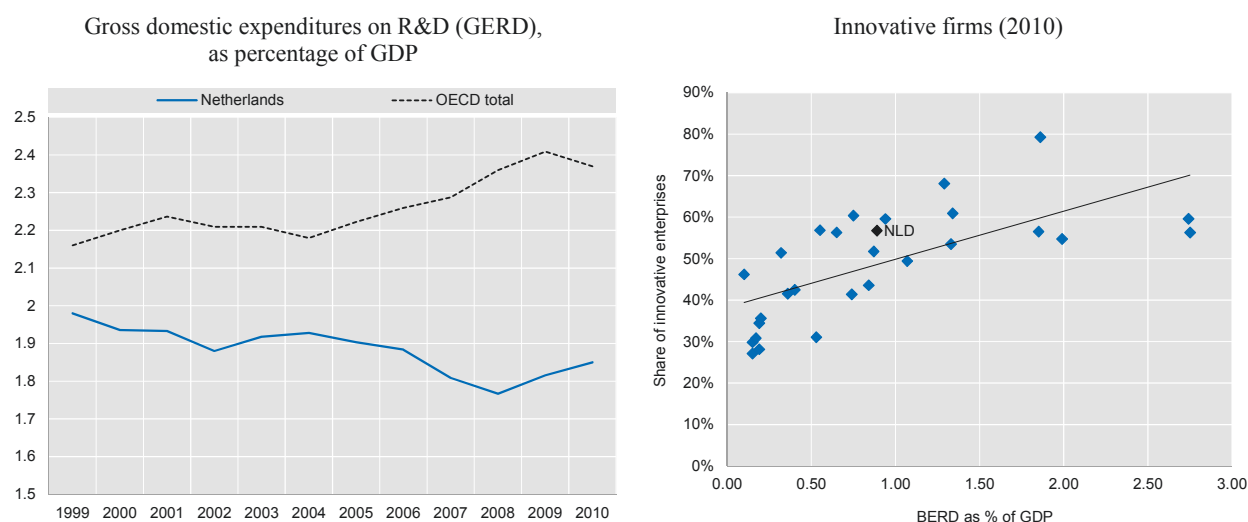


Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), *OECD Education at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2013-en>.

Despite the decline of R&D expenditures in recent years, the Netherlands has a well-performing knowledge economy relative to investments. In 2010 the level of gross domestic expenditures in R&D (GERD) stood at close to 1.9% of GDP, compared to an OECD average of about 2.4%. The GERD value for the Netherlands has been declining with respect to the OECD average during the last decade (Figure 1.9); in 1999 the Netherlands GERD was 0.18 percentage points lower than the OECD level and in 2010 the gap widened to 0.52 percentage points. Despite the decline in resources devoted to innovation, the share of innovative enterprises in the Netherlands, a proxy for innovation output, remains above the OECD average (56%) in 2010. This suggests that the Dutch innovation systems fares relatively well in returns to innovation.

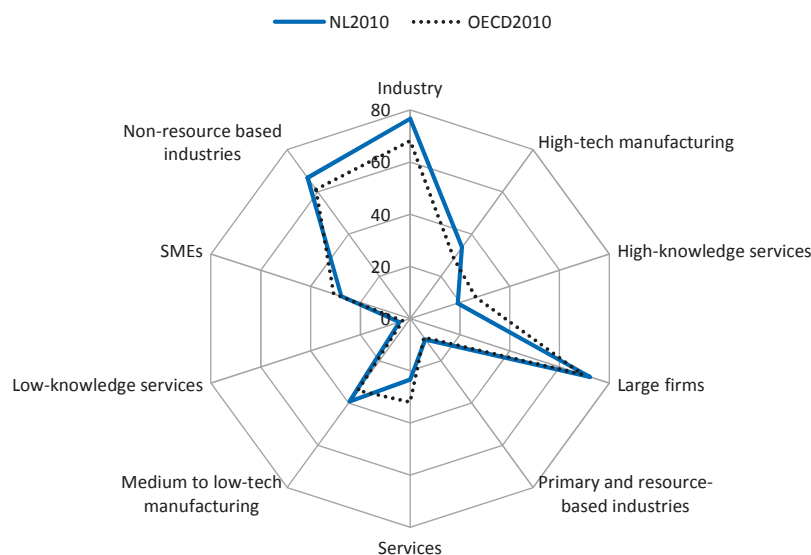
Figure 1.9. **Return of investment in R&D**



Source: OECD (2012), "Main Science and Technology Indicators", *OECD Science, Technology and R&D Statistics* (database), OECD, Paris, <http://dx.doi.org/10.1787/data-00182-en> (accessed on 26 February 2014).

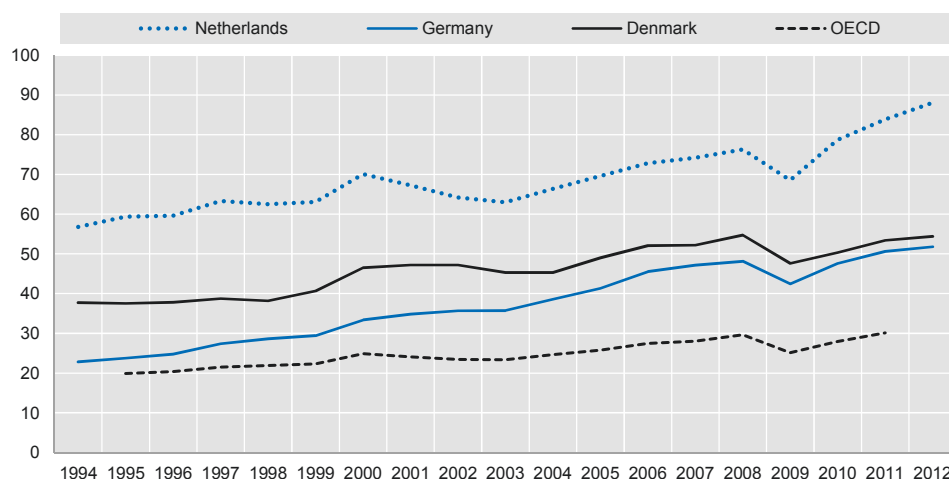
The share of GERD financed by the public sector is larger in the Netherlands than the OECD average. Although R&D investment in relation to GDP is lower in the Netherlands, the composition of GERD as a proportion of public investment in the Netherlands remains higher than the average of the OECD countries.

Large manufacturing firms play a prominent role in the composition of the Business Enterprises Expenditures in R&D (BERD) average. The BERD is leveraged by strong links with academia in the Netherlands. The higher education sector produces world-class science and the relative number of patents (Patent Co-operation Treaty, PCT) filed by universities and public labs is slightly above the OECD median (OECD, 2012a).

Figure 1.10. **Structural composition of BERD, 2010**

Source: OECD (2012), "Main Science and Technology Indicators", *OECD Science, Technology and R&D Statistics* (database), OECD, Paris, <http://dx.doi.org/10.1787/data-00182-en> (accessed on 26 February 2014).

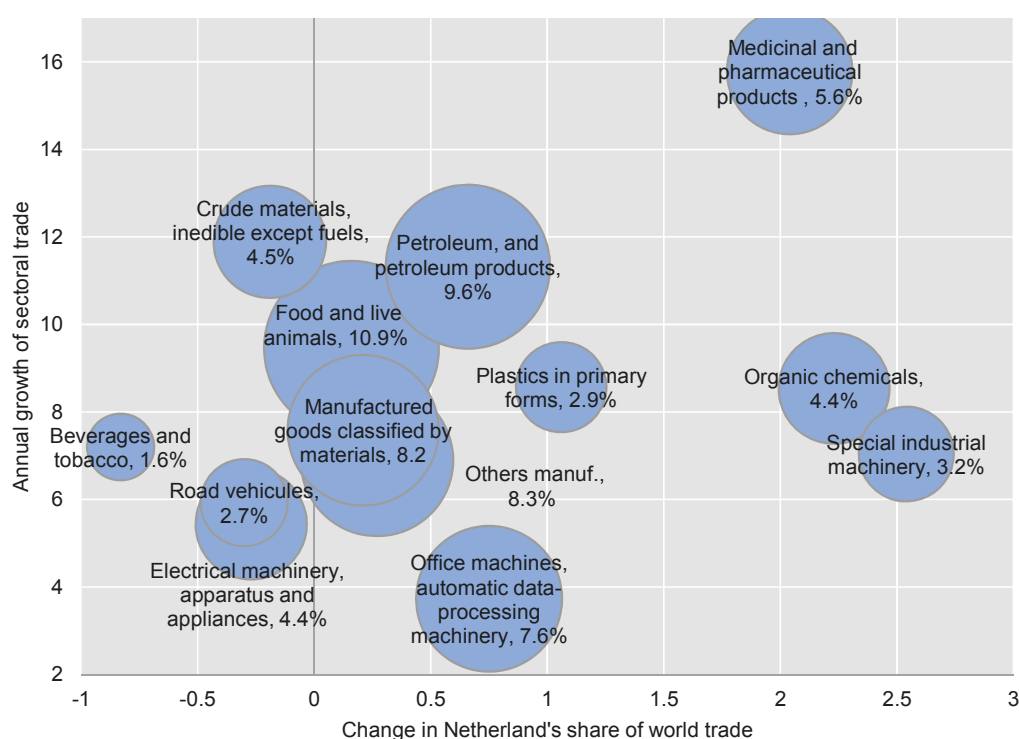
Despite the crisis the Dutch economy, remains one of the most open economies in OECD countries. The export of goods and services as a proportion of GDP is often used as a proxy of openness to international market. In 2011 exports accounted for 82.5% of GDP, more than double the OECD average and higher than both Denmark and Germany. The global financial crisis has not hindered the increasing trend of exports of goods and services (Figure 1.11). After the decline in 2009, triggered by the drop in international trade (see Baldwin, 2009), the share of exports on GDP has returned to the previous increasing trend.

Figure 1.11. **Export of goods and services as share of GDP**

Source: OECD (2013), "OECD Country Statistical Profiles", *OECD.Stat*, (database) <http://dx.doi.org/10.1787/data-00285-en> (accessed on 7 November 2013).

Manufactured goods (16.5%), food and live animals (10.9%), and petroleum (9.6%) are the core export sectors in the Netherlands. The best performing sector, in the decade 2000-2010, was the medical and pharmaceutical sector, increasing the Dutch share on the world exports by 2%; mainly due to an annual growth of almost 16%. The performance of the organic-chemical sector is quite remarkable too; the Dutch share on the world exports increased by 2.2%. The sector of special industrial machinery increased by 2.5% its share on the world exports. In 2010, these three sectors combined represented 13.2% of all Dutch exports. The sectors¹ identified in the Top Sector Policy (see Chapter 2) are important drivers of the composition of exports.

Figure 1.12. **Export sector composition, 2000-10**



Note: The size of the bubbles represents the share of the sector in total Dutch export.

Source: OECD (forthcoming), *OECD Economic Surveys: Netherlands 2014*, OECD Publishing, Paris, http://dx.doi.org/10.1787/eco_surveys-nld-2012-en.

Recent trends reveal areas of concern

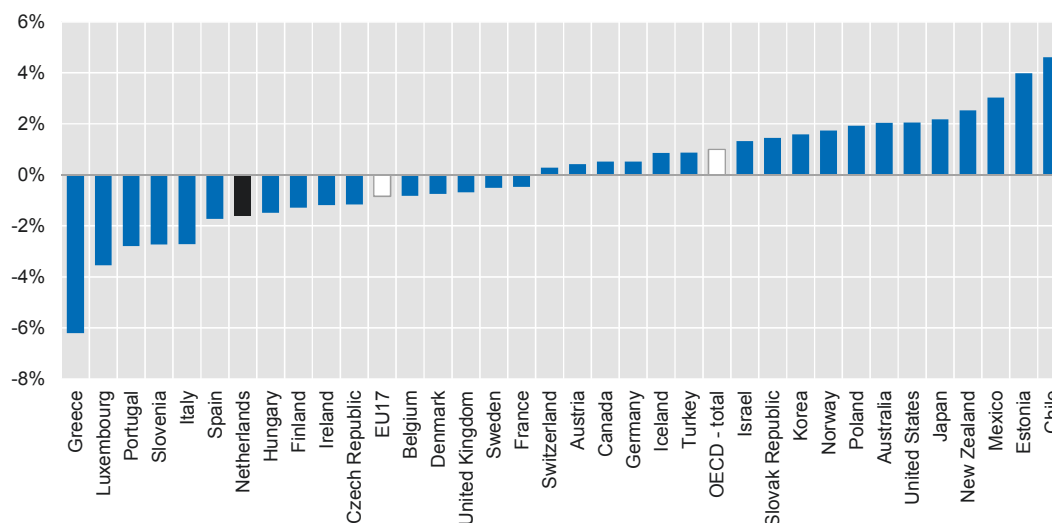
Despite the good overall performance in traditional indicators there are areas of concern. At the national level there is concern for public finances, as the government is currently running a deficit that can surpass the 3% limit imposed by the EU Stability and Growth Pact. The banking sector is still undergoing a process of restructuring which adds strains to the economy. In the long run, population ageing raises some concerns for the labour market and potential growth.

The effects of the global financial crisis have been particularly severe for the Dutch economy. The economy has been in recession since mid-2012. On-going fiscal

consolidation and household deleveraging holds back internal demand, and growth is too weak to prevent a further rise of the unemployment rate. Despite the weak performance of the economy, the Consumer Price Index (CPI) edged up under the influence of high energy prices, reaching 2½ per cent in early 2012. Inflation is expected to fall after a VAT-related spike in early 2013. Forward-looking indicators suggest that economic weakness is likely to continue.

Figure 1.13. **GDP per capita growth in OECD countries, 2011-12**

Values in constant USD 2005



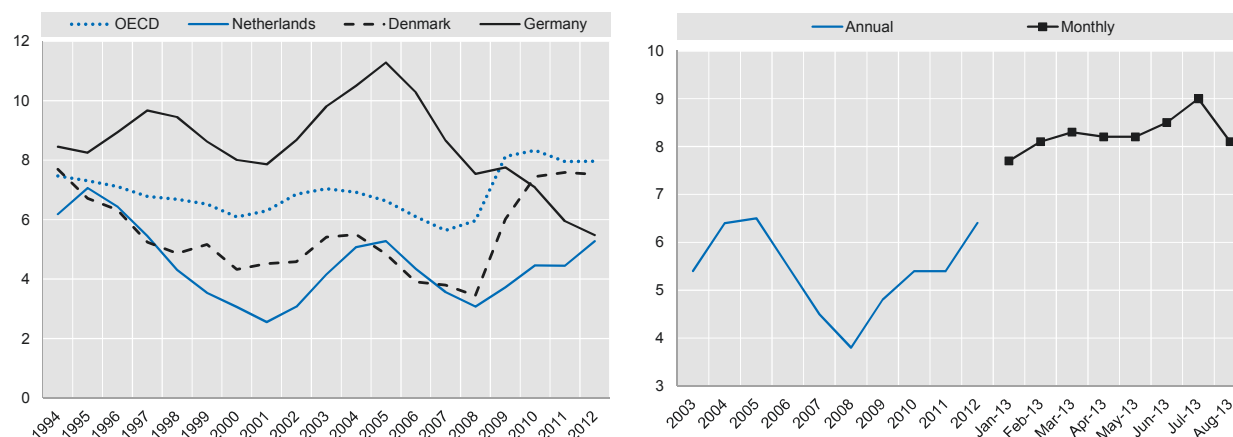
Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), "Gross domestic product", *OECD.Stat*, (database) <http://dx.doi.org/10.1787/data-00285-en> (accessed on 11 October 2013).

The productivity premium with respect to the OECD standards in the Netherlands has been declining in recent years. The labour productivity gap of the Dutch economy above OECD average has been reducing in the last 12 years; from producing USD 13.3 per hour worked more than the average of the OECD member countries to USD 12.1 in 2012. The main drop occurred as a consequence of the global financial crisis. Labour productivity in the Netherlands is high, but experienced an important drop during the 2009 crisis and the 2011 recession.

Despite the high levels of employment and tradition low unemployment in the Netherlands, recent data display an important rise in the unemployment rate. Figure 1.14 shows a positive decreasing trend before the crisis from 6.5% in 2005 to below 4% in 2008. This trend is reversed in recent years, reaching again the value of 6.5% in 2012. Furthermore, the quarterly figures for 2013 suggest a worsening of this negative trend. The unemployment rate in the month of July 2013 already reached 9% of the labour force.

Figure 1.14. Evolution of the Dutch unemployment rate



Note: Only the LFS (left graph) is comparable internationally. Domestic monthly data on unemployment statistics (right graph) are only comparable nationally.

Source: OECD (2013), "OECD Country Statistical Profiles", *OECD.Stat*, (database) <http://dx.doi.org/10.1787/data-00285-en> (accessed on 7 November 2013) and CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

The rise of unemployment is occurring across all levels of educational attainments. In 2011, the unemployment rate of workers with low education was close to 5.5%, while the unemployment rate of the high educated workers was 2.75%. Examining the growth rates, however, it appears that the crisis affected more the upper secondary and tertiary educated workers than the low educated – although the levels are still below the 2005 levels for all categories (Table 1.1). Between 2008 and 2011, the main increase in the unemployment rate occurred for the low educated people recording an increase of 2 percentage points. In contrast the unemployment rate for high educated (tertiary) workers increased by 1.2 percentage point. Nonetheless in relative terms unemployment rate for the high educated represents a growth rate of 75% and for the low educated 59%. Although the unemployment rate of tertiary educated workers is still lower than other workers after the crisis, the increase in unemployment of tertiary educated workers during the crisis (in 2011 was 75.26% higher than in 2008) is particularly worrisome indicating that the effects of crisis go beyond shedding low skilled workers during the shocks and therefore can become structural in the medium term if they are not absorbed back in to labour markets.

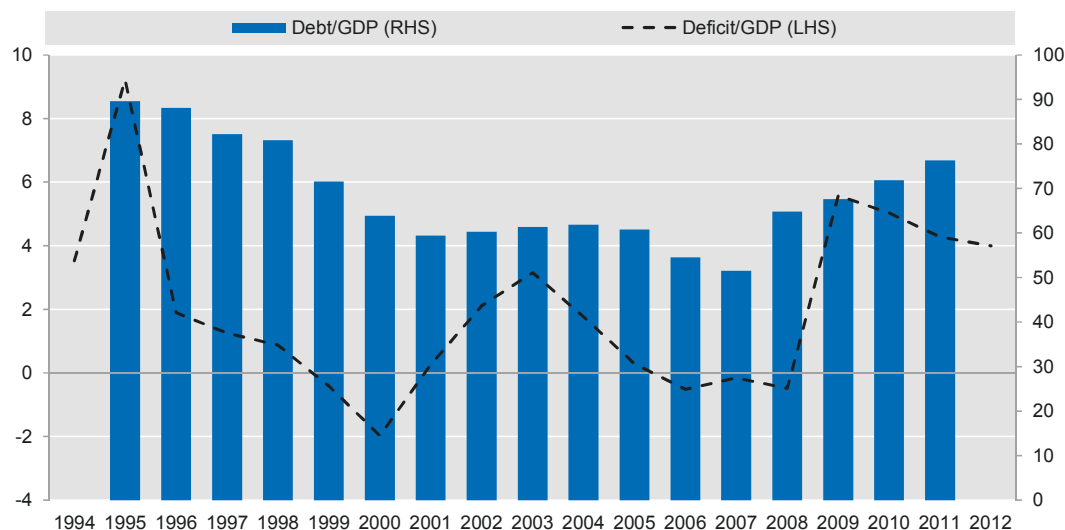
Table 1.1. Unemployment rate by education attainment of adults of working age (25-64)

	Levels			Growth rates	
	2005	2008	2011	2005-08	2008-11
Below upper secondary	5.85	3.43	5.44	-41.42%	58.72%
Upper secondary	4.09	2.12	3.81	-48.19%	80.10%
Tertiary	2.83	1.57	2.75	-44.57%	75.26%

Source: OECD (2013), *OECD Education at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2013-en>.

The government budget has been under stress during the past years. In the period 1996-2007, the deficit was under control leading to a decrease in the level of debt. The financial crises changed this trend with an increase of the debt/GDP ratio and a level of deficit above the 3% limit set by the EU Stability and Growth Pact. The last available data show a deficit/GDP ratio of 4% (2012), and a public debt-to-GDP ratio of 71% (2012). In order to comply with the Stability and Growth Pact, a restrictive fiscal policy has been implemented since 2011. The fiscal consolidation is assumed to continue throughout 2013 and 2014, in line with planned structural improvements in the budget.

Figure 1.15. **Main government indicators**



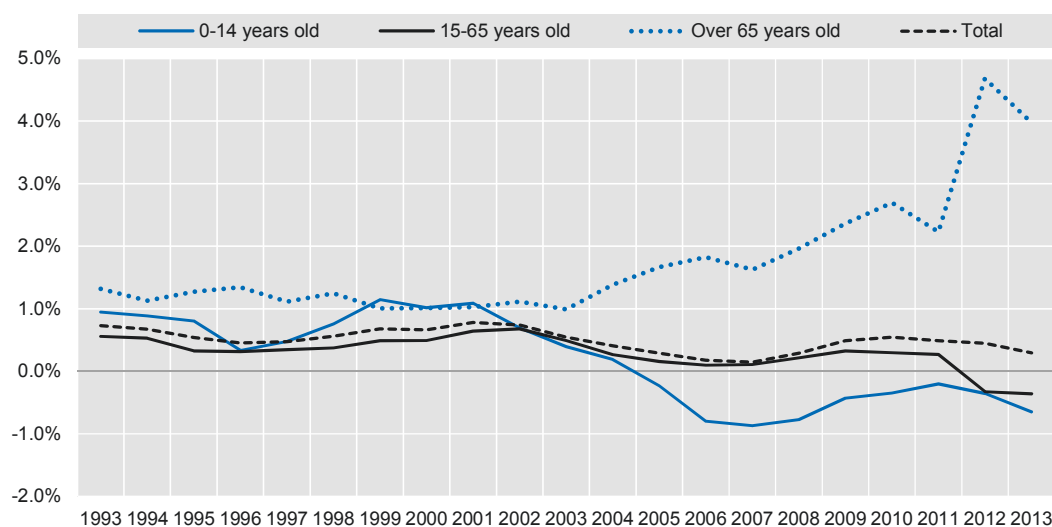
Source: OECD (2013), "OECD Country Statistical Profiles", *OECD.Stat*, (database) <http://dx.doi.org/10.1787/data-00285-en> (accessed on 7 November 2013).

Access to credit for businesses remains an important bottleneck for the Dutch recovery. According to an International Monetary Fund (IMF) country report 13/115 (May 2013), the drop in house market contributed to the stress of the banking system. Banks were heavily exposed to the real estate sector and overly reliant on wholesale financing.² As a result, the need to consolidate balance sheets has hindered the access to credit. This has important consequences for small and medium size enterprises (SMEs) in accessing credit as documented in a recent report by EC (European Commission, 2012). SMEs are indeed experiencing more difficulty in access to credit than similar firms in other EU economies, particularly worrying is the share of bank loans applications rejected.³ Furthermore, the mark-up for small loans (up to EUR 1 million) for Dutch SMEs was 32%, compared to 19% for the European Union.

Finally long terms challenges are brought by the ageing of the population and shrinking of the labour force. In terms of population structure, in the year 2011 almost 67% of the national population is working age population (15-65), while the share of youngsters (0-15) is slightly larger than the share of elderly (more than 65), accounting for 17.45% and 15.58%, respectively. Although the share of young people is still larger than the share of elderly people, the dynamics of each component of the population shows a worrying trend. As shown in Figure 1.16, the growth rates of youth population is gradually declining, in particular the growth rate dropped from 1% in 2001 to a negative value in 2005 (and subsequent years). During the same period, the grow rate of elderly

population accelerated from nearly 1% in 2001 to more than 2% in 2011. The percentage of old (65+) compared to the working population (15-65) lies between the OECD and EU average at present time, but is expected to surpass the EU average in 2023 (Martinez-Fernandez et al., 2013).

Figure 1.16. Long-term population growth by age groups, 1993-2013



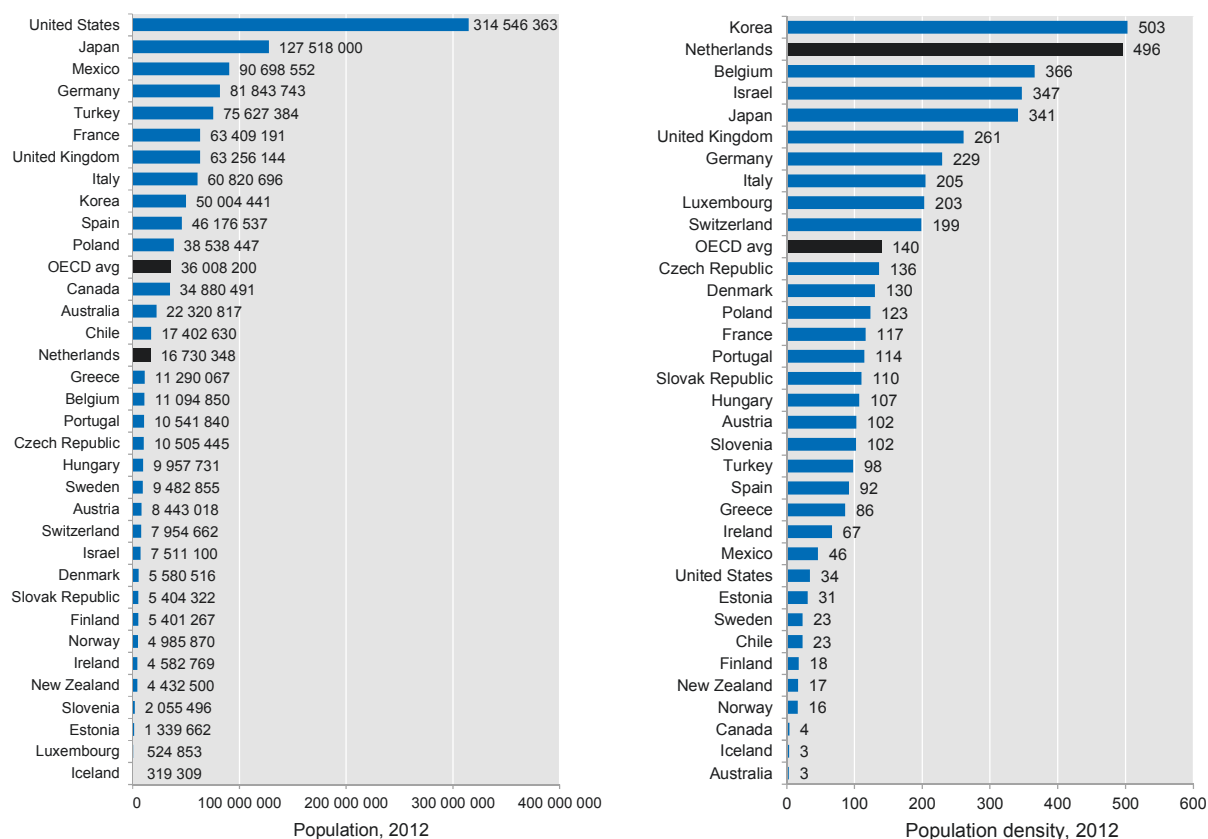
Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

In sum, the Netherlands is still recovering from the global financial crises, which triggered a drop in GDP in 2008 during the first shock and a drop in 2011 during the second shock. The Dutch economy has been particularly vulnerable to the second shock that can translate into possible structural problems in the medium and long term if not addressed adequately. The government's recovery plan, which includes various measures such as fiscal consolidation, stimulating innovation and sub-national institutional reform has an important sub-national dimension. The recovery phase can also benefit from the contribution of all regions in this process, a better use of resources and more efficient provision of goods and services. The following sections will first provide the main features of sub-national characteristics in the Netherlands, then it will diagnose the performance of regions over medium and long term, followed by an analysis measuring geographic dimension of the crisis and finally the section will provide a framework for exploiting the growth potential of all regions.

Administrative areas and regions

The Netherlands is a small, densely-populated country. With 16.7 million inhabitants in 2012, it is the 15th most populated country in the OECD. At the same time, in terms of surface area (33.7 million square kilometres), it is the fifth smallest country after Belgium, Israel, Slovenia and Luxembourg (Figure 1.17). Its small size and relatively large population make it the second most densely populated country in the OECD after Korea (Figure 1.17). About 17% of the entire land area has been reclaimed from the sea or lakes; half of the land in the Netherlands is below sea level, protected by dikes to prevent flooding.

Figure 1.17. Population density and surface area, OECD countries, 2012



Note: Mexico and Australia data refer to 2010 and 2011 respectively. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

The Netherlands has a variety of regional categories for different purposes. There are two sub-national tiers of government: provinces and municipalities. In 2013 there were 12 provinces and 403 municipalities. The Netherlands is also divided into 23 Regional Water Authorities (as of January 2014) and the status of the former 8 city regions are further discussed in Chapter 3.

For statistical purposes the OECD divides member country regions into two territorial levels: TL3 (small regions) and TL2 (large regions; see Annex 1.A1). All the territorial units are defined within national borders and in most of the cases correspond to administrative regions. Regions at the lower level (TL3) are contained within the higher level (TL2). The Dutch provinces correspond to OECD TL3 regions, although the provinces are significantly larger than the average TL3 region. The population size of provinces is more than twice that of TL3 regions on average. Provinces also produce more than double the average output of TL3 regions. However, they are significantly smaller than the German *lander* – around one-quarter of their population and GDP – but slightly bigger than the Danish *regioner* (Table 1.2).

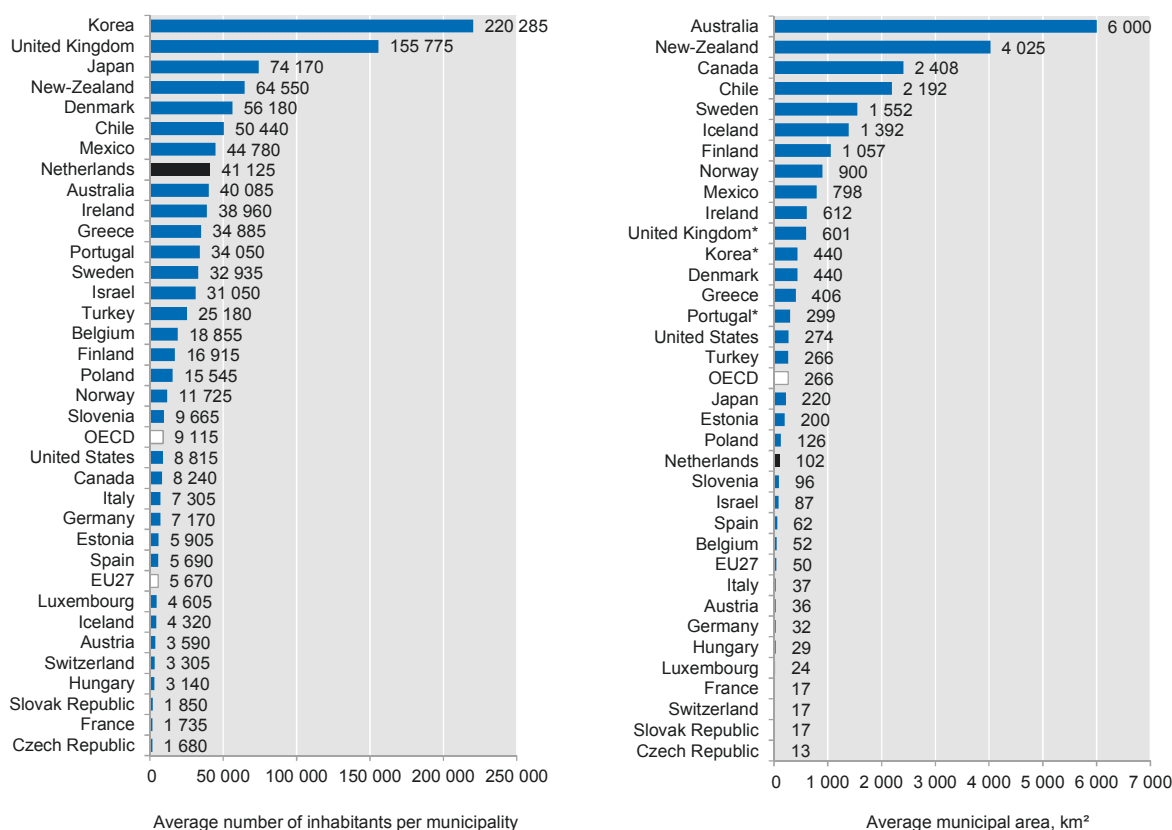
Table 1.2. Surface area, population and GDP among TL3 OECD regions, 2009

		Surface area	Population	GDP
Dutch TL3 regions (provinces)	Average	2 815	1 381 249	49 861
	Median	2 656	1 126 523	35 984
OECD TL3	Average	19 575	687 263	22 010
	Median	5 372	335 163	10 837
Germany (<i>Länder</i>)	Average	22 319	5 138 615	164 705
	Median	20 147	3 126 814	96 950
Denmark (<i>regioner</i>)	Average	8 620	1 106 948	34 440
	Median	7 933	1 200 277	35 128

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Municipalities in the Netherlands have above average population but below average surface area. With an average of 41 125 inhabitants in 2012, the Netherlands' municipalities hosted approximately four times more people on average than in the OECD (Figure 1.18). Yet their average surface area (102 square kilometres) is less than half of the average municipality in the OECD. The Netherlands has 2.4 municipalities for every 100 000 inhabitants, significantly below the OECD average value of 11.

Figure 1.18. Average municipality populations and surface area in the OECD, 2012



Note: * Existence of a sub-municipal administrative level in Korea, Portugal and United Kingdom.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), "Sub-national governments in OECD countries: Key data (brochure)", OECD, Paris, www.oecd.org/regional/regional-policy.

Urbanisation is quite advanced in the Netherlands. Like most OECD countries over the past century, the Netherlands has been undergoing a process of urbanisation. This is partly driven by the modernisation of the agricultural sector – which is reducing the number of rural inhabitants – as well as by the growth of the service sector. According to the OECD typology, classifying TL3 regions as predominantly urban, intermediate or predominantly rural (Annex 1.A1), none of the Dutch TL3 regions is defined as predominantly rural, seven are predominantly urban and five are intermediate. Urban regions were home to 86% of the national population in 2010 and intermediate ones to the remaining 14%.

Functional urban areas

There are advantages and disadvantages of policies that reflect administrative boundaries. Advantages include the ease of gathering statistics, as well as of holding elected officials accountable within a clearly defined electorate. However disadvantages are that an arbitrary definition of a territory often does not correspond to real patterns of life, job markets and business flows. It is no surprise that cities' administrative boundaries rarely encompass the entire built-up area. This mismatch between functional and administrative boundaries can raise challenges for co-ordinating policies and can overlook potential synergies.

As a response to this challenge, a collaboration between the OECD and the EU has led to a new approach for classifying urban areas (Box 1.1). The aim is to compare the key functional areas among OECD countries in terms of their economic activity. By applying the same definition and criterion method it insures international comparability and permits to monitor urban development within and across OECD countries (Annex 1.A2). It also differentiates FUAs of different sizes providing new tools to better understand urban dynamics of different sizes. This work is developing at a time when the urban agenda is at the heart of policy debate in many OECD countries. Thus, redefining what is urban responds to a need of governments for evidence to design better policies for different types of urban areas (OECD, 2012e).

The OECD FUA taxonomy reveals that in 2012 there were 35 FUAs in the Netherlands, hosting 12.3 million inhabitants or 74% of the national population. This percentage was higher than the OECD average, and is only surpassed by four other OECD countries (Table 1.3).

Box 1.1. Functional urban areas

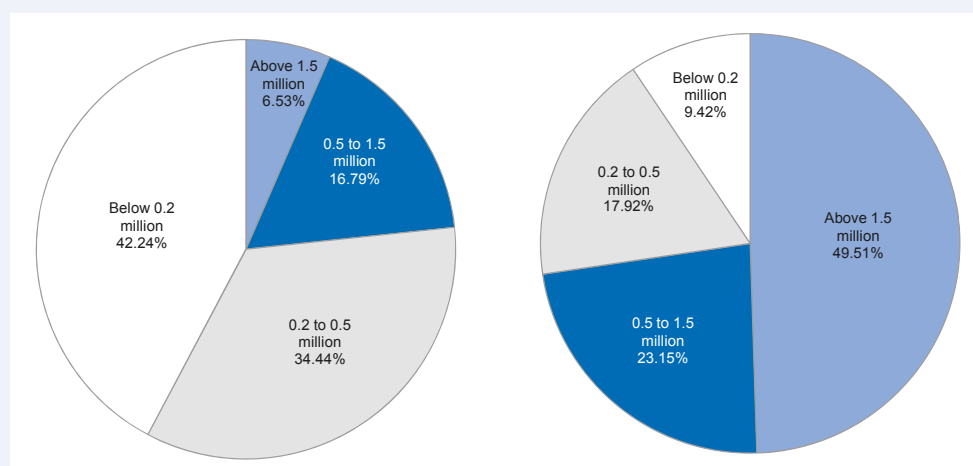
Cities are important generators of wealth, employment and productivity. Moreover, large agglomerations are key players of transnational flows and act as essential spatial nodes in the global economy. Policies for infrastructure, transportation, housing, schools, culture and recreation are more likely to be complementary when they target functional areas rather than administrative borders. This is why the OECD/EU collaboration has come up with the concept of functional urban areas (FUAs). These extend beyond administrative boundaries, reflecting the economic geography of where people live and work. FUAs are self-contained economic units characterised by high levels of labour linkages and other economic interactions. Defining urban areas as functional economic units can better map policies to the relevant economic areas. FUAs include both urban cores and their hinterlands. The latter are defined using information on commuting flows from the surrounding regions. Therefore the *hinterlands* are highly integrated labour markets for the *urban cores*.

Applying this methodology to 29 OECD countries identifies 1 179 FUAs with at least 50 000 inhabitants. The share of national population in FUAs ranges from 85% in Korea to less than 40% in Slovenia and the Slovak Republic.

Population distribution within functional urban areas, 2012

Number of FUAs by population size

Urban population share by FUA size



Source: OECD (2012), *Redefining Urban: A New Way to Measure Metropolitan Areas*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264174108-en>.

Table 1.3. OECD population living in functional urban areas, 2012

Country	Total population	% of national population	Number of functional urban areas
Korea	43 316 990	87%	45
Luxembourg	436 308	83%	1
Japan	99 535 286	78%	76
United Kingdom	46 876 023	74%	101
Netherlands	12 388 123	74%	35
Chile	12 745 119	73%	26
Canada	25 501 595	73%	34
Spain	31 925 818	69%	76
United States	215 171 557	69%	262
OECD 29 (total)	762 591 707	67%	1 179
France	41 421 986	65%	83
Mexico	72 560 224	65%	77
Germany	52 151 696	64%	109
OECD 29 (average)	26 296 266	60%	41
Belgium	6 554 869	59%	11
Austria	4 877 899	58%	6
Switzerland	4 469 076	56%	10
Ireland	2 554 821	56%	5
Portugal	5 848 843	55%	13
Estonia	742 860	55%	3
Poland	21 103 513	55%	58
Denmark	3 054 845	55%	4
Sweden	5 057 691	53%	12
Finland	2 830 124	52%	7
Italy	30 721 201	51%	74
Hungary	5 026 453	50%	10
Greece	5 543 737	49%	9
Norway	2 368 967	48%	6
Czech Republic	4 951 914	47%	16
Slovenia	820 060	40%	2
Slovak Republic	2 034 109	38%	8

Source: OECD (2013), “Metropolitan regions”, *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed on 26 February 2014).

The number of FUAs in the Netherlands reveals a polycentric city structure (Figure 1.19). Indeed the 35 FUAs identified in the Netherlands is quite numerous with respect to total population. The ratio of FUAs to total national population expressed in millions in the Netherlands is 2.95, the fourth highest in the OECD and almost double the OECD average (1.61). This is a key strength for the Netherlands given that OECD countries with more polycentric urban systems (i.e. those with a number of large cities instead of concentration in one or two megacities) are found to have higher per capita GDP. With a larger number of major metropolitan areas, a greater part of the national territory may benefit from proximity to a major city. Moreover, the presence of several big cities may reduce the likelihood that a shock in

any one place could seriously damage national performance. Analyses at regional level, though, point to the benefits of concentration – at smaller geographic scales. Indeed a more dispersed urban structure inside regions seems to be associated with poorer growth.

Box 1.2. The Randstad region

The Randstad is commonly understood to be the urban area in the western Netherlands. It comprises the largest Dutch cities (Amsterdam, Rotterdam, The Hague and Utrecht), as well as several medium-sized cities. Geographically, the region consists of a green area in its centre (known as the Green Heart) surrounded by a semicircle of urban conurbations, without any strict geographical boundary.

The Randstad remains an elusive concept given that it has no official boundaries and it does not correspond to any administrative boundaries or a functional urban area (FUA). An important function of the name Randstad is to promote the attractiveness of this larger area internationally by branding it with a recognisable name.

The Randstad hosts approximately 44% of the national population contained in 18 of the 49 FUAs present in the Netherlands. It is indeed a complex urban network home to the four largest Dutch FUAs – Amsterdam, The Hague, Utrecht, Rotterdam – and 14 small and medium-sized FUAs. Around 52% of the national FUA population live in the Randstad region.

The complex urban structure suggests that the Randstad cannot be considered to be one single functional urban area, rather it contains a system of large, medium and small cities in addition to the presence of a wide number of rural areas.

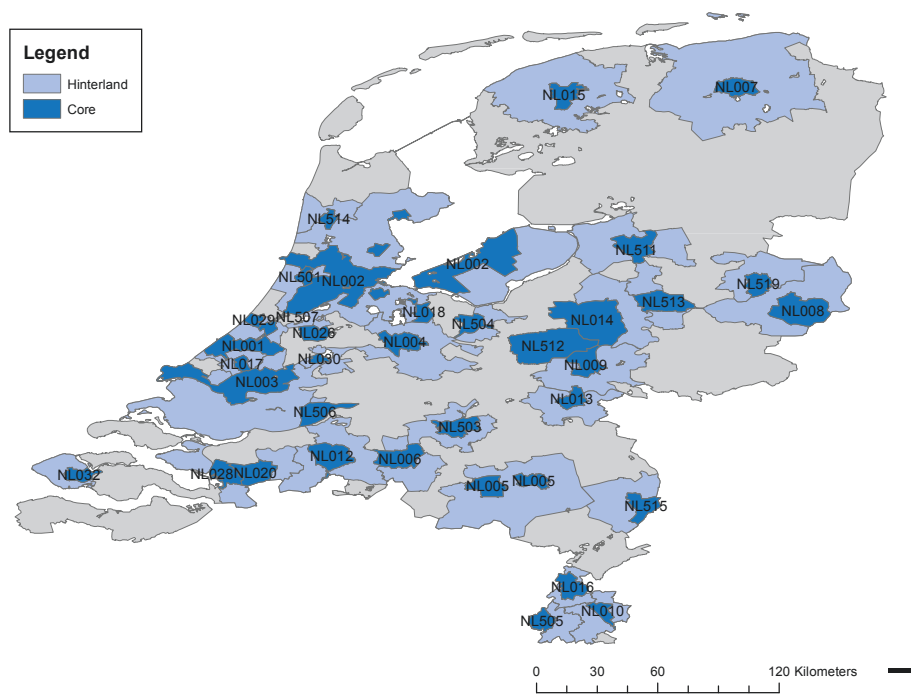
The Randstad area



Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

Source: OECD (2007), *OECD Territorial Reviews: Randstad Holland, Netherlands 2007*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264007932-en>.

Figure 1.19. Functional urban areas in the Netherlands



Notes: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

NL002: Amsterdam; NL003: Rotterdam; NL001: The Hague; NL004: Utrecht; NL005: Eindhoven; NL007: Groningen; NL008: Enschede; NL009: Arnhem; NL012: Breda; NL013: Nijmegen; NL010: Heerlen; NL006: Tilburg; NL503: 's-Hertogenbosch; NL511: Zwolle; NL015: Leeuwarden; NL014: Apeldoorn; NL514: Alkmaar; NL504: Amersfoort; NL505: Maastricht; NL515: Venlo; NL507: Leiden; NL016: Sittard-Geleen; NL506: Dordrecht; NL501: Haarlem; NL519: Almelo; NL020: Roosendaal; NL513: Deventer; NL032: Middelburg; NL028: Bergen op Zoom; NL017: Delft; NL512: Ede; NL030: Gouda; NL018: Hilversum; NL026: Alphen aan den Rijn; NL029: Katwijk (for further information see Annex 1.A2).

The city structure is also quite balanced, with second tier FUAs playing an important role. Amsterdam is the largest FUA, hosting 2.4 million inhabitants in 2012 (14% of the total population). This is followed by four FUAs of between 500 000 and 1.5 million people: Rotterdam, The Hague, Utrecht and Eindhoven (altogether 23% of the total population). However, contrary to the belief that the bulk of the population lives in these five largest regions, the combined population living in small and urban areas is larger: 11 FUAs of between 200 000 and 500 000 people account for 21% of the total population and 19 of below 200 000 host 16% (Table 1.4).

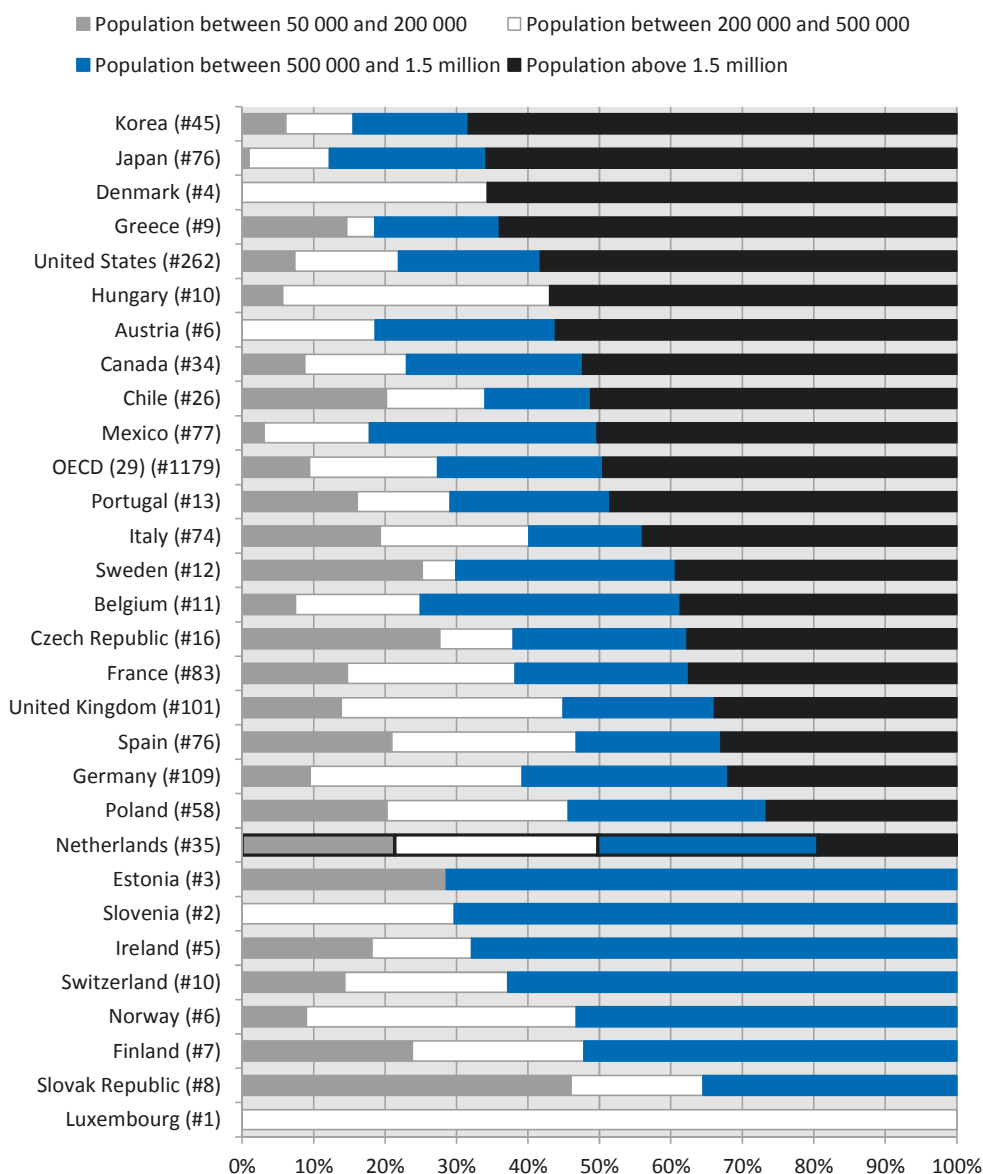
Table 1.4. Functional urban areas in the Netherlands, 2012

With a population of:	Functional urban area	Average population	Total population	Share of national
> 1.5 million	1	2 406 043	2 406 043	14%
0.5-1.5 million	4	953 921	3 815 684	23%
0.2-0.5 million	11	320 185	3 522 035	21%
< 0.2 million	19	139 177	2 644 361	16%
Total functional urban area	35		12 388 123	74%
Total national population			16 730 348	100%

Source: OECD (2013), "Metropolitan regions", *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed on 26 February 2014).

The city-structure in the Netherlands is relatively balanced with respect to OECD standards (Figure 1.20). The share of population living in FUAs with less than 500 000 inhabitants (37%) is above the OECD average (18%), while the share living in the largest FUAs (above 1.5 million) is below OECD average (14% and 33% respectively). This reveals a well-established polycentric urban network, similar to Poland and Germany. This suggests that medium and smaller functional urban areas play an important role in aggregate growth.⁴

Figure 1.20. Distribution of population by city size, 2012



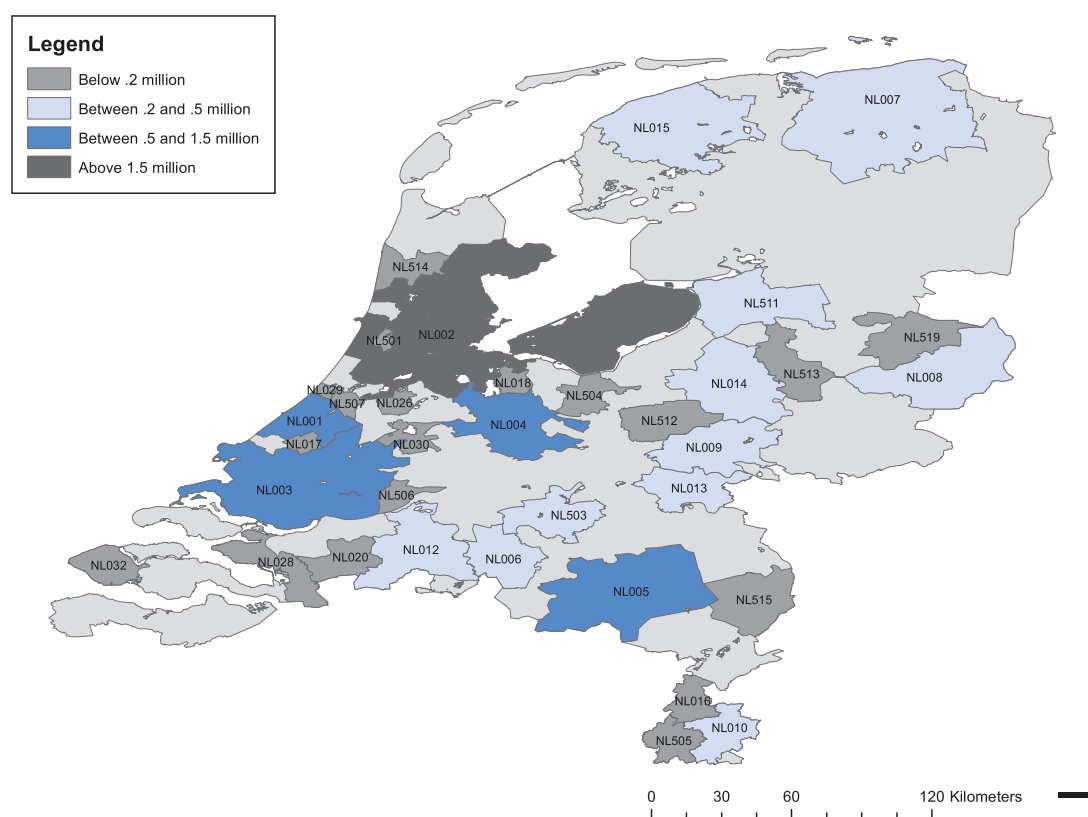
Note: Turkey is included with values referring to the national definition of 16 metropolitan municipalities; comparability with other countries is, therefore, limited.

Source: OECD (2013), "Metropolitan regions", *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed on 26 February 2014).

The polycentric Dutch urban system is characterised by several big cities located in the west of the country led by The Hague, Rotterdam and Amsterdam, and second tier cities in the east, including Heerlen, Nijmegen, Arnhem, Apeldoorn and Groningen. Both of these urban structures are in close proximity of a network of smaller FUAs located close to the central hubs. For example, The Hague and Rotterdam are surrounded by nine smaller FUAs (Katwijk, Leiden, Delft, Gouda, Dordrecht, Breda, Roosendaal, Bergen op Zoom and Middelburg). Similarly, second tier and small cities in the east are surrounded by smaller FUAs, such as Heerlen, Sittard-Geleen and Maastricht and Enschede and Almelo (Figure 1.21).

Figure 1.21. **Location and size of functional urban areas in the Netherlands**

Population data, 2008



Notes: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

NL002: Amsterdam; NL003: Rotterdam; NL001: The Hague; NL004: Utrecht; NL005: Eindhoven; NL007: Groningen; NL008: Enschede; NL009: Arnhem; NL012: Breda; NL013: Nijmegen; NL010: Heerlen; NL006: Tilburg; NL503: 's-Hertogenbosch; NL511: Zwolle; NL015: Leeuwarden; NL014: Apeldoorn; NL514: Alkmaar; NL504: Amersfoort; NL505: Maastricht; NL515: Venlo; NL507: Leiden; NL016: Sittard-Geleen; NL506: Dordrecht; NL501: Haarlem; NL519: Almelo; NL020: Roosendaal; NL513: Deventer; NL032: Middelburg; NL028: Bergen op Zoom; NL017: Delft; NL512: Ede; NL030: Gouda; NL018: Hilversum; NL026: Alphen aan den Rijn; NL029: Katwijk.

Dutch provinces contain a rich variety of urban structures, revealed by mapping the FUAs into provincial administrative areas (Table 1.5). All provinces – with the exception of Gelderland, Friesland, Zeeland and Drenthe – have at least 70% of their population living in FUAs, with the highest share in Noord-Holland (88%), Zuid-Holland (87%) and Flevoland (82%). Other patterns include the following:

- Gelderland and Zuid-Holland each contain 10 FUAs within their administrative borders, while Drenthe, Friesland and Flevoland only contain one FUA each.
- The 10 FUA within Gelderland represent a relatively low share of the population (58%) in total, while Flevoland has only one FUA (Amsterdam), but it accounts for 82% of the population.
- The number of contained FUAs varies from eight in Zuid-Holland to none in Flevoland.⁵ In fact, Flevoland accounts for only 12% of the population of Amsterdam FUA, while the remaining 88% fall under other provinces.
- Friesland, Zeeland and Drenthe have less than 40% of their inhabitants living in FUAs, partly due to more agricultural activity. Zeeland's low proportion can also partly be explained by geographic constraints - there are a large number of water bodies in the province.

Table 1.5. **Functional urban areas and TL3 regions (provinces) in the Netherlands**

TL3 region	TL3 code	Number of functional urban areas	% of TL3 population	Number of contained functional urban areas
Noord-Holland	NL32	4	88%	1
Zuid-Holland	NL33	10	87%	8
Flevoland	NL23	1	82%	0
Overijssel	NL21	4	78%	1
Limburg (NL)	NL42	6	74%	4
Noord-Brabant	NL41	7	74%	4
Utrecht	NL31	4	73%	0
Groningen	NL11	1	70%	0
Gelderland	NL22	10	58%	3
Friesland	NL12	1	37%	1
Zeeland	NL34	2	36%	1
Drenthe	NL13	1	13%	0

Note: A contained FUA is one in which the entire FUA population resides within the province boundary.

Source: OECD (2013), "Metropolitan regions", *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed on 26 February 2014).

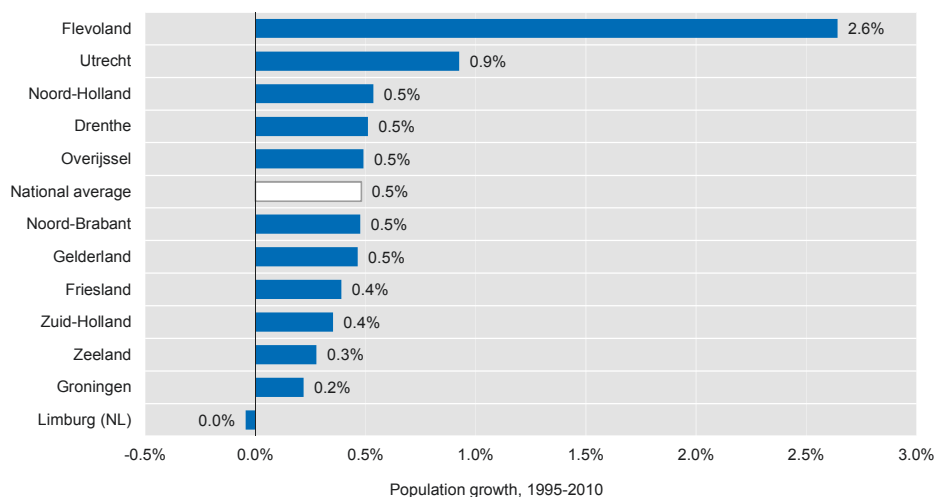
Population growth is evenly spread

Population growth is spread quite uniformly across the entire country. Between 1995 and 2010, the Netherlands' population increased by almost half a percentage point every year (0.48%), surpassing the OECD's average population growth rate (0.35%). The key population growth drivers are migration followed by more stable birth and mortality rates. The largest increase has taken place in the regions of Flevoland (2.6%) and Utrecht (0.92%) and the lowest in Limburg (-0.04%) and Groningen (0.22%).

Despite the emergence of four important growth poles, population growth is spread quite uniformly across the entire country. An analysis of population growth at the municipal level reveals four important growth poles, where growth rates surpass 3.5% (Figure 1.23). Two are part of the Amsterdam FUA, another is part of The Hague FUA and the fourth is part of

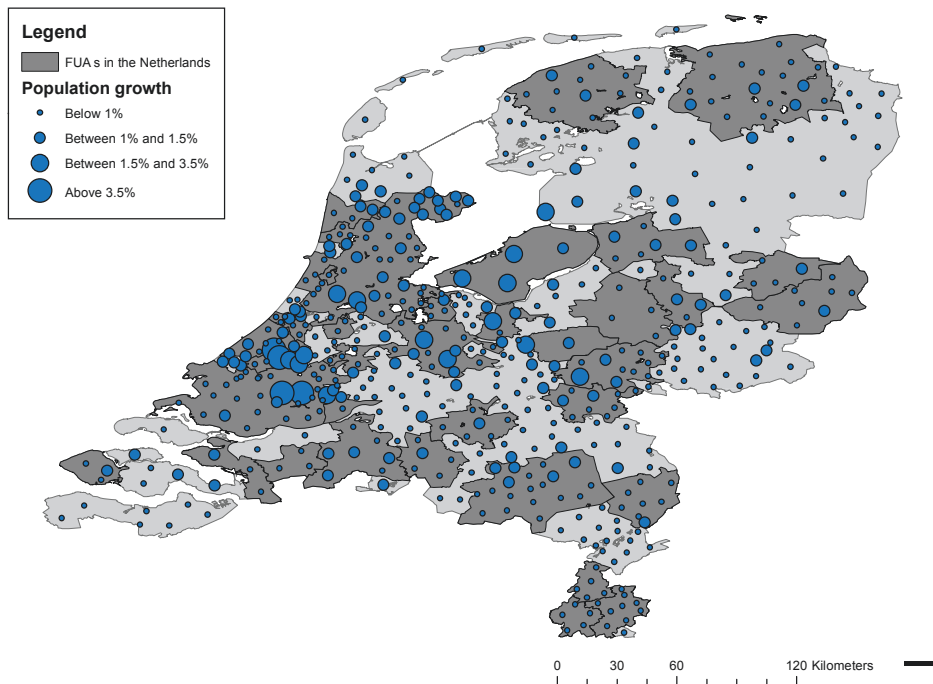
Eindhoven. Outside these growth poles there emerges a quite uniform pattern of population growth across the entire country with three geographic areas display lower population dynamics; south of Zeeland, south of Limburg and north of Groningen.

Figure 1.22. **Annual population growth among Dutch provinces, 1995-2010**



Source: OECD (2013), “Metropolitan regions”, *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed on 26 February 2014).

Figure 1.23. **Population growth at municipal level, 2001-12**

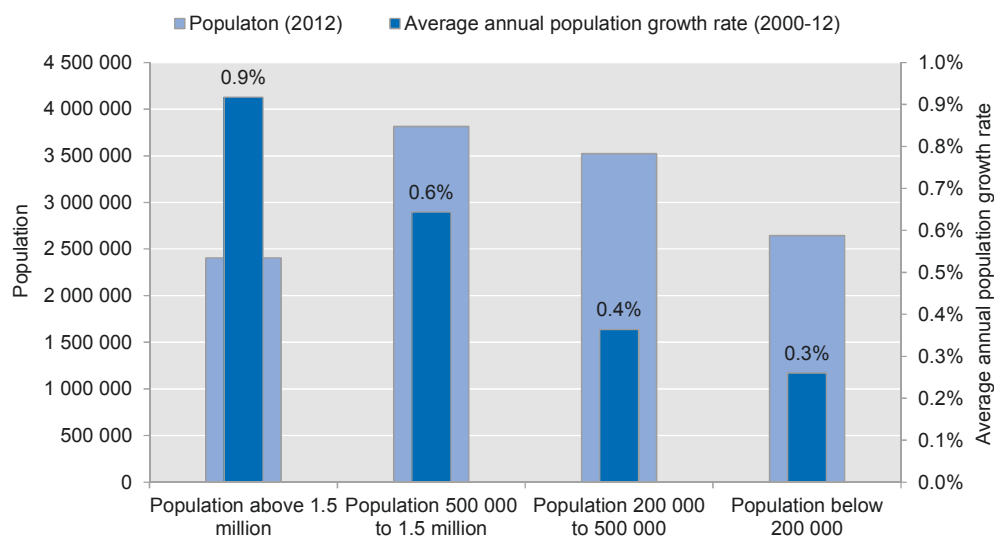


Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

Source: OECD (2013), “Metropolitan regions”, *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed on 26 February 2014).

The largest FUAs in the Netherlands tend to be more dynamic in terms of population growth than the medium and smaller ones. The rate of population growth in FUAs of less than 200 000 people is three times lower than for FUAs with more than 500 000 inhabitants (Figure 1.24). Population growth in FUAs of between 200 000 and 500 000 is also half as fast as the larger FUAs.

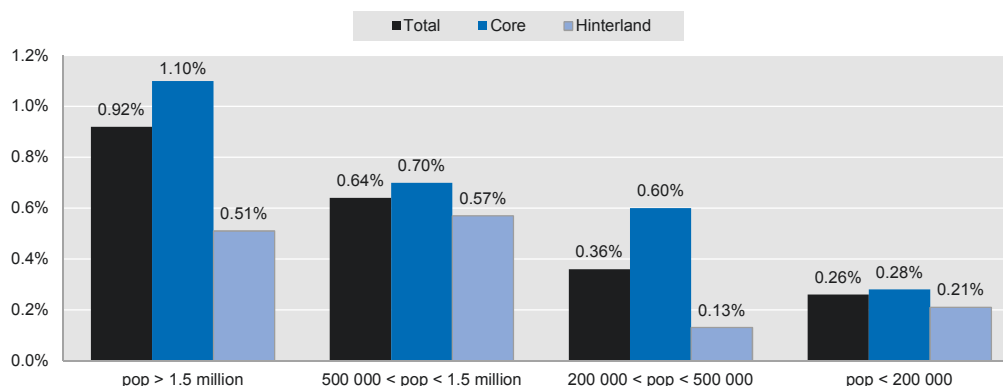
Figure 1.24. **Population growth in the Netherlands' 35 functional urban areas**



Source: OECD (2013), "Metropolitan regions", *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed on 26 February 2014).

With the exception of FUAs below 200 000, population is growing faster in the FUA core than in the periphery. This trend runs counter to that observed in the majority of OECD countries, where FUAs of all sizes are experiencing a process of sub-urbanisation, meaning that the periphery is growing faster than the core (OECD, 2012e). Figure 1.25 highlights that the most dynamic cities in terms of urban population show an increase of their population in the core areas.

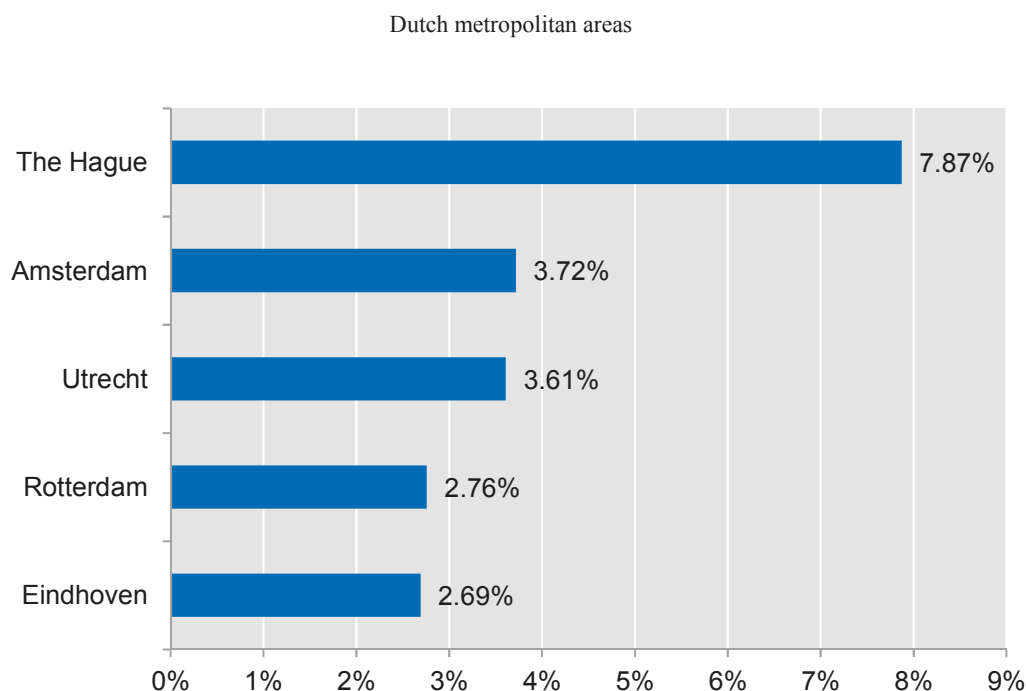
Figure 1.25. **Population growth in the core and periphery in 35 Dutch FUAs, 2001-12**



Source: OECD (2013), "Metropolitan regions", *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/data-00531-en> (accessed on 26 February 2014).

In the past decade, many metropolitan areas have continued increasing their built-up areas, at a pace even faster than population growth. Urban sprawl, measured as the percentage change in the built-up area “available” per person, is only available for five Dutch FUAs. From 2000-2006, the indicator among Dutch metropolitan areas stood at 3.8% on average. Among the five largest FUAs, The Hague recorded the largest value in the urban sprawl index. Eindhoven, in contrast, recorded the lowest (Figure 1.26).

Figure 1.26. **Urban sprawl index in Dutch metropolitan areas, 2000-06**



Notes: The urban sprawl index measures the growth in built-up area over time adjusted for the growth in population. When the population changes, the index measures the increase in the built-up area over time relative to a benchmark where the built-up area would have increased in line with population growth. The index is equal to zero when both population and the built-up area are stable over time. It is larger (smaller) than zero when the growth of the built-up area is greater (smaller) than the growth of population, i.e. the density of the metropolitan area has decreased (increased).

Period used for the calculation 2000-06 with the exception of Japanese urban land 1997-2006, and United States urban land 2002-06. Canada, Chile, Korea and Mexico are not included due to lack of data on urban land for two points in time.

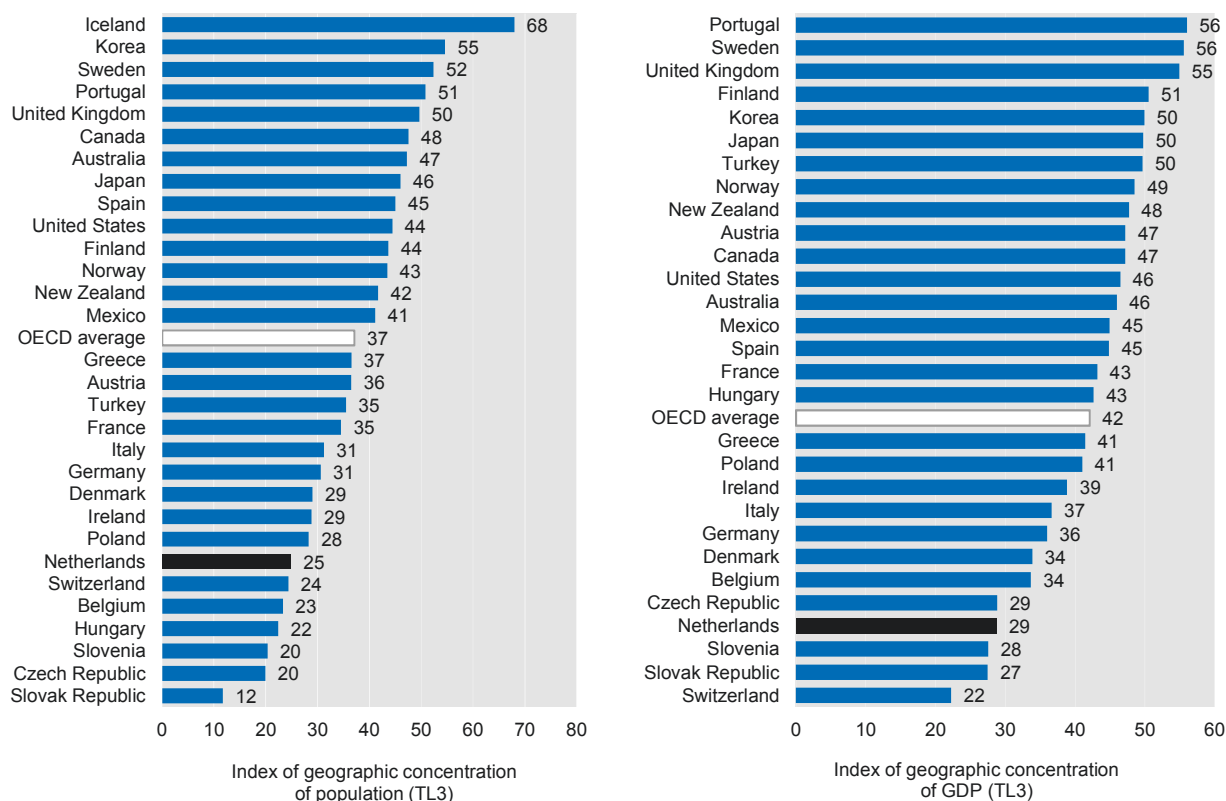
Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

Economic activity and settlement patterns are quite dispersed

The polycentric city structure and relatively balanced distribution of settlement patterns in the Netherlands has an effect on overall level of economic concentration in the country and among the provinces. The province of Zuid-Holland – home to the Rotterdam FUA – produces 21% of national GDP. This is only slightly above the 19% produced by Noord-Holland, home to Amsterdam’s FUA. According to the geographic

concentration index (see Annex 1.A4), economic activity and settlement patterns are relatively dispersed in the Netherlands when compared to the OECD average (Figure 1.27).

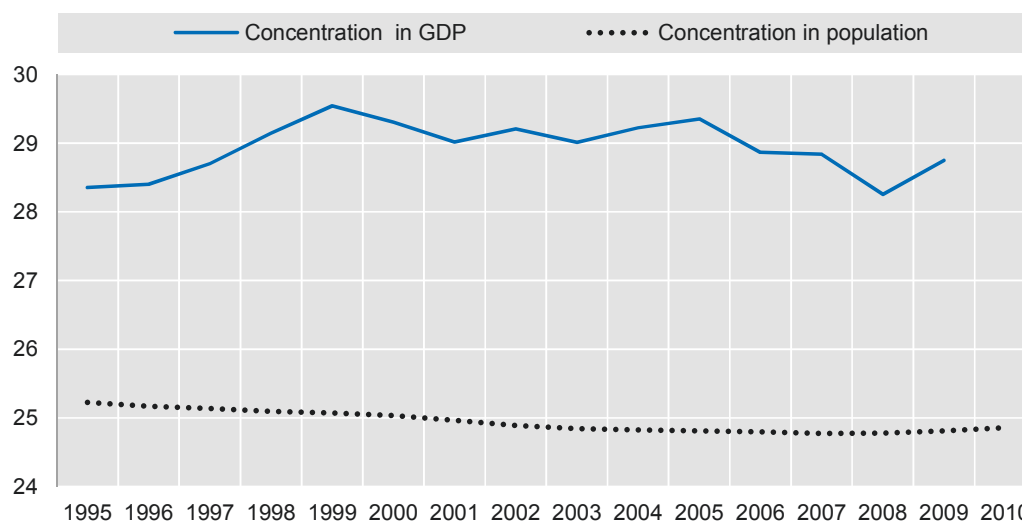
Figure 1.27. **Concentration of population and GDP in OECD countries, 2011**



Note: Turkey's GDP value refers to 2001. The methodology for calculating the index is explained in Annex 1.A4.

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

As in most OECD countries, concentration in economic activity is higher than in settlements, reflecting agglomeration effects. According to the concentration index – which ranges from 0-100 – the concentration of settlement patterns gradually decreased from 25.2 in 1995 to 24.8 in 2009 (Figure 1.28). This trend is counter to that in OECD countries: around 80% experienced an increase in the demographic concentration. Meanwhile the concentration of economic activity fluctuated over this period. This decline in concentration of settlement patterns can be explained by the polycentric urban structure in the Netherlands and the dynamic growth of the smaller FUAs, which are spread out across the entire territory.

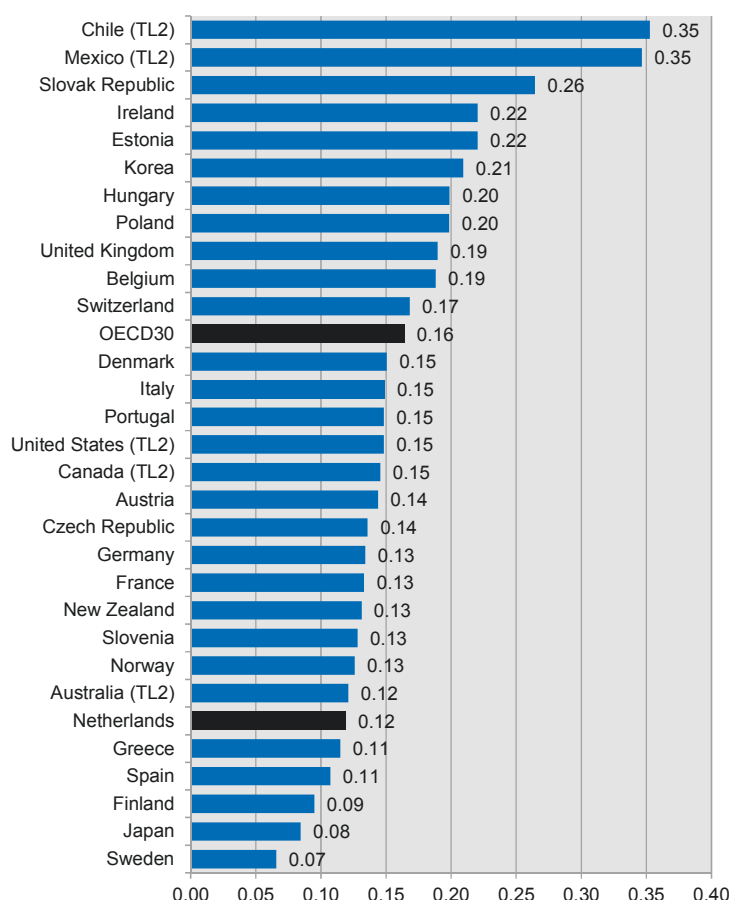
Figure 1.28. **Geographic index of population and GDP in the Netherlands, 1995-2011**

Note: Turkey's GDP value refers to 2001. The methodology for calculating the index is explained in Annex 1.A4.

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Regional inequality is low, but increasing

Inter-regional inequality in the Netherlands is below the OECD average. In 2010, inequality in GDP per capita among TL3 regions (e.g. provinces in the Netherlands), was lower in the Netherlands than the OECD average (Figure 1.29). An important factor behind this low level of regional inequality is the balanced and polycentric urban structure in the Netherlands.

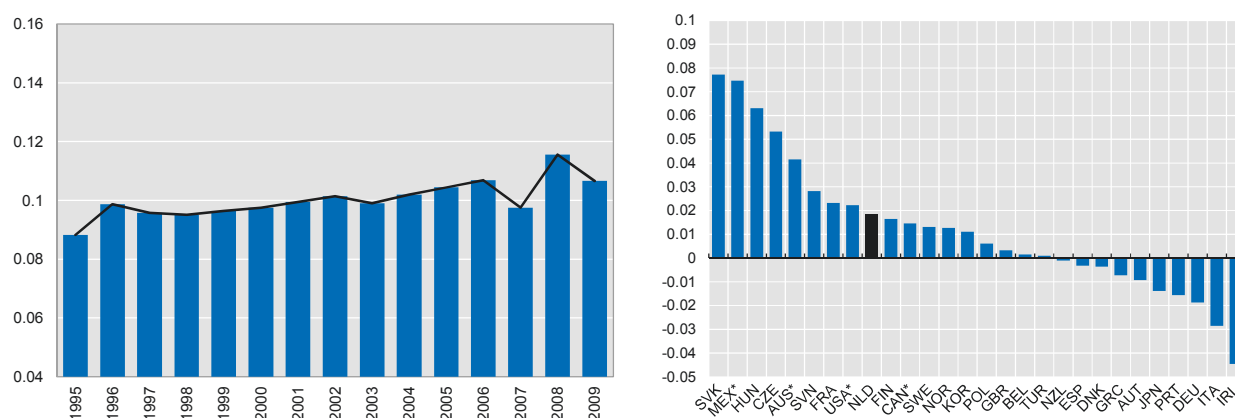
Figure 1.29. **Inequality in GDP per capita among TL3 regions in OECD countries, 2010**

Note: Turkey's value refers to 2001. The methodology for calculating the index is explained in Annex 1.A4.

Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

Despite its low level, inter-regional inequality in the Netherlands started to increase marginally in 1995, and has speeded up since 2004 (although inequality declined in 2009, right after the crisis). In 2010 the increase in the Netherlands' inequality was the ninth largest in the OECD (Figure 1.30), similar to Finland, Canada and the United States. Territorial inequalities are not always negative: they can be explained by positive externalities of agglomeration economies occurring in specific regions and operating as drivers of the national economy. We examine these forces in the next section.

Figure 1.30. **Change in inequality in GDP per capita among TL3 regions in the Netherlands and in OECD countries, 2010**



Note: * refers to TL2 regions since GDP data in these countries are not available at TL3. The methodology for calculating the index is explained in Annex 1.A4.

Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

All regions are contributing to growth

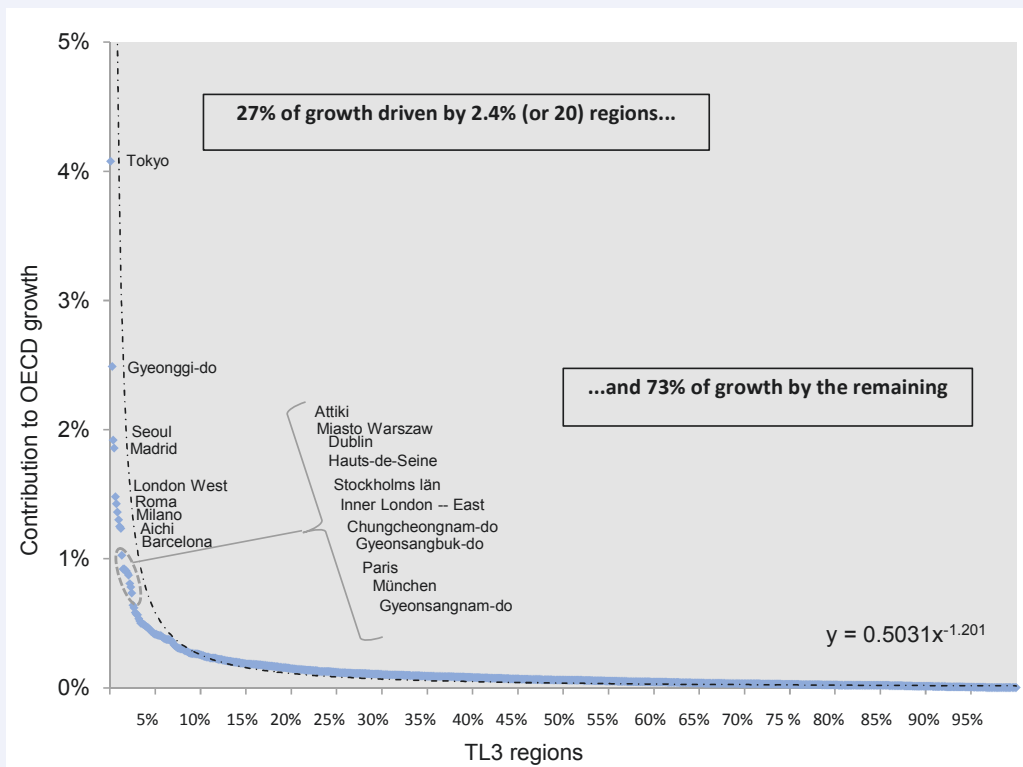
National growth depends on the contribution of all regions. Contributions of regions to aggregate growth depend on the size and performance of regions; meaning how large is the regional economy and how it has been growing over a given time period. Contributions to aggregate growth among OECD TL2 and TL3 regions follow a general pattern: approximately one-third of aggregate growth is driven by very few (big hub) regions which make a disproportionate contribution, while the remaining two-thirds comes from a large number of smaller regions, which do not contribute much individually (Box 1.3). Understanding regional contributions in the Netherlands is particularly relevant given the balanced city structure and variety of urban centres.

Box 1.3. How regions contribute to aggregate growth in the OECD

Among OECD TL2 and TL3 regions, a few large regions contribute disproportionately to aggregate growth, while many small individual regions contribute only marginally on an individual basis. Nevertheless, because the number of these smaller regions is very large and the decay of their contribution to growth is slow (generating a fat tail distribution), their cumulative contribution is around two-thirds of aggregate growth. During the period 1995-2007, 27% of OECD GDP growth was explained by only 2.4% of OECD TL3 regions. The distribution of growth rates by size follows a non-monotonic pattern, with the largest concentration of above average regional growth rates being concentrated for middle-sized regions. Overall the great heterogeneity suggests there are opportunities for growth in all types of regions.

Box 1.3. How regions contribute to aggregate growth in the OECD (*cont.*)

Contributions of TL3 regions to OECD growth, 1995-2007



Source: OECD (2011), *OECD Regional Outlook 2011: Building Resilient Regions for Stronger Economies*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264120983-en>.

FUAs also tend to follow this pattern. The 268 largest FUAs contributed on average to over half of the total OECD growth between 2000 and 2008. The few large FUAs include Seoul Incheon (Korea), which contributed the most, followed by New York (US), London (UK), Los Angeles (US), Tokyo (Japan) and Paris (France). In all, the top 20 OECD FUAs contributed to 25% of the aggregate OECD growth during this period. The remaining 92% of the OECD FUAs contributed to 75% of aggregate growth, even though individual contributions were below 0.5% of the GDP OECD growth.

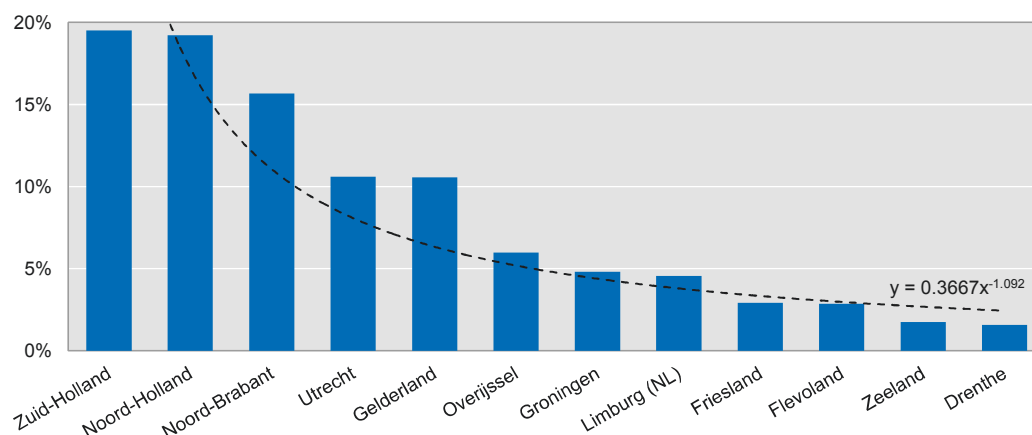
Source: OECD (2011), *OECD Regional Outlook 2011: Building Resilient Regions for Stronger Economies*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264120983-en>; OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

Dutch provinces are more balanced in their contributions than the OECD average

Unlike the trend observed in many OECD countries, regional contribution to national growth in the Netherlands does not appear to be dominated by a single region (e.g. province). Instead it is primarily driven by five provinces: Zuid-Holland, Noord-Holland, Noord-Brabant, Utrecht and Gelderland, which together contribute to 75% of national growth (Figure 1.31). No single province contributes more than 20% to

aggregate growth, a much lower proportion than typically observed in OECD countries. Indeed this balanced pattern is reinforced through lower value of the estimated coefficient of growth contributions in the Netherlands (1.1) than in the OECD as a whole (1.3).

Figure 1.31. **How the Netherlands' provinces drive national growth, 1995-2009**

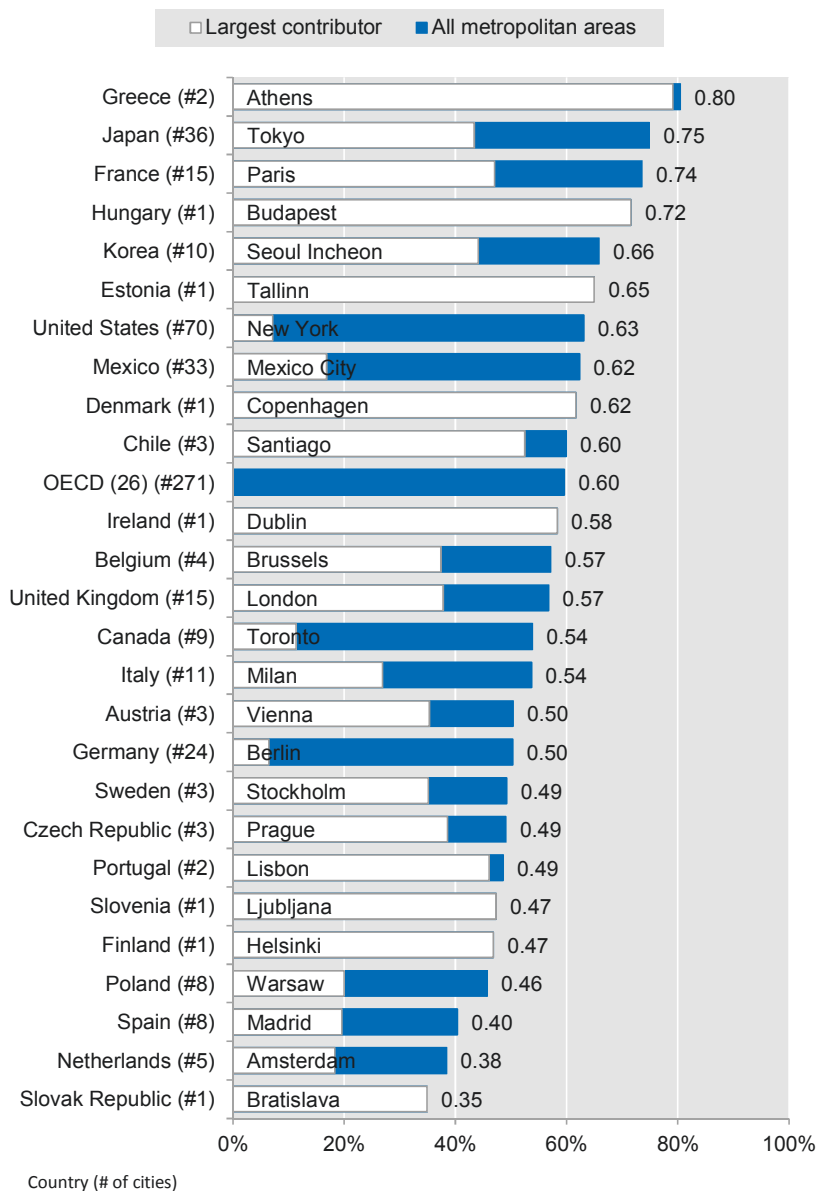


Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Dutch FUAs also make a more balanced contribution to growth

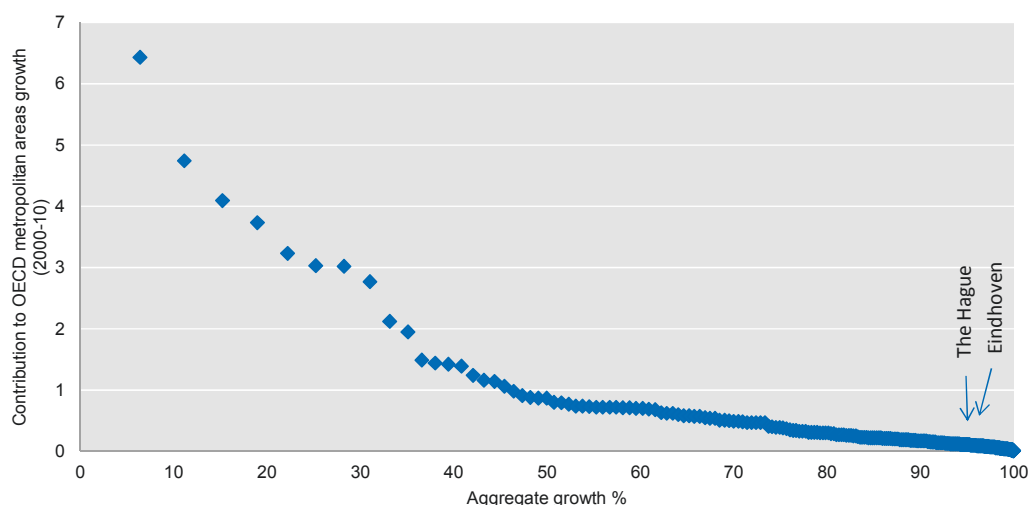
The Netherlands' five largest FUAs (Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven) contributed collectively to 38% of national growth between 2000 and 2010, with Amsterdam alone contributing 18%. These contributions are much lower than typically observed in OECD countries (Figure 1.32), highlighting the important role played by medium and smaller FUAs in the Dutch economy. OECD-wide, the FUA making the highest contribution to national growth, Athens, accounted for 79% of national growth. In Japan, France, Hungary and Korea, FUAs of over 500 000 people contributed to over 65% of national growth.

The contribution made by each of the Netherlands' five FUAs to OECD growth is relatively small. The largest contributor – Amsterdam – does not figure amongst the leading contributors to OECD growth. The aggregate contribution of the five is comparable to the contribution of a single FUA such as Phoenix in the US (Figure 1.33). Furthermore, their combined contribution is about the same as the combined contribution of three provinces: Noord-Brabant, Gelderland and Overijssel.

Figure 1.32. **Percentage of GDP contribution to national growth, 2000-10**

Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

Figure 1.33. How functional urban areas contribute to OECD GDP growth, 2000-08



Source: OECD (2013), *OECD Regions at a Glance 2013*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2013-en.

This analysis highlights how the Dutch economy is not dominated by any particular FUA or region due to its rich polycentric urban structure. This polycentricity also induces the low levels of concentration and low levels of inequality in the Netherlands. The next section asks how regions and FUAs have performed over the long term and how they have fared during the crisis.

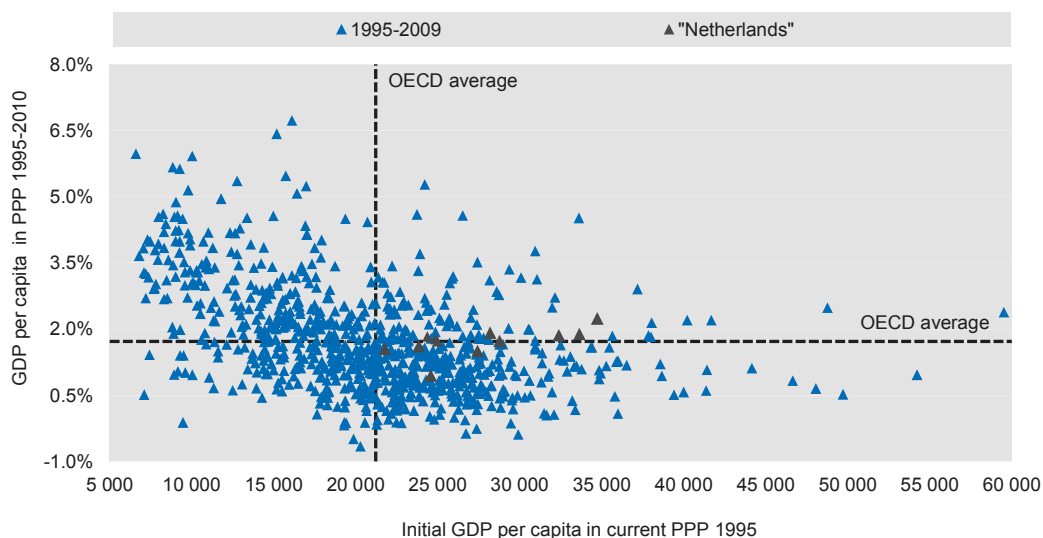
How are the Netherlands' regions and functional urban areas performing?

This section first focuses on regions' performance between 1995 and 2010. It then compares the pre-crisis period (up to 2007) with the period covering the first and second shocks of the crisis (2008-present). Finally it compares regional performance in terms of GDP, productivity and labour market outcomes with national and OECD trends.

Above average GDP per capita but slower growth

All Dutch regions have GDP per capita that is above the OECD TL3 regional average. Over the 15 years between 1995 and 2010, the GDP per capita for five Dutch provinces – Limburg, Zuid-Holland, Noord-Brabant, Flevoland and Groningen – grew faster than other OECD TL3 regions (Figure 1.34). The remaining seven were below average in their growth, particularly Drenthe, Zeeland and Friesland.

Figure 1.34. How GDP per capita has grown in TL3 regions, 1995-2010

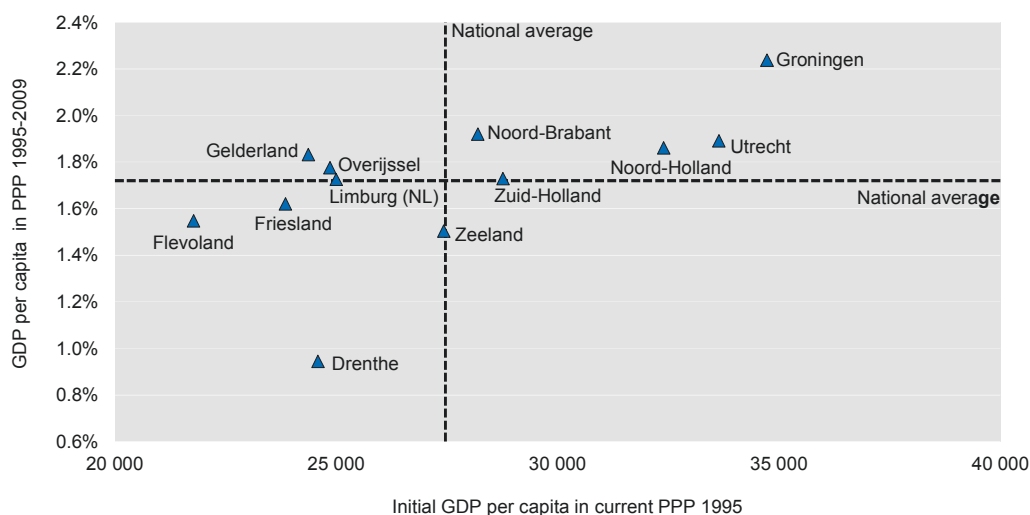


Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Dutch urban regions tended to be more dynamic than intermediate ones between 1995 and 2007 on average, but both types of regions grew more slowly than the OECD average. Prior to the crisis (1995-2007) three predominantly urban regions (Limburg, Zuid-Holland, and Noord-Brabant) exhibited above-OECD average rates of GDP growth per capita. Among the five Dutch intermediate regions, only two (Flevoland and Groningen) surpassed the OECD average growth rate. On average urban Dutch regions grew faster (2.3% vs. 2%) than intermediate regions, although both types in aggregate were surpassed by OECD rates.

The gap between richer and poorer Dutch regions grew during the pre-crisis period. All Dutch regions with high levels of GDP per capita surpassed the average rate of growth between 1995 and 2007, while all but two regions with lower levels of GDP per capita – Flevoland and Limburg – fell further behind (Figure 1.35).

Figure 1.35. Variable growth rates in richer and poorer Dutch TL3 regions, 1995-2007



Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

The regional picture of productivity and productivity growth is bleak, particularly for urban regions. The Randstad Holland Territorial Review (OECD, 2007) already identified a lower labour productivity growth in this larger region than in Munich or Stockholm over the 2000 decade. Pre-crisis, average productivity for all Dutch urban regions was lower than the OECD urban region average (Table 1.6). Only three urban regions (Zuid-Holland, Noord-Holland and Utrecht) recorded a higher productivity than the average among OECD urban regions. In terms of growth, only two Dutch regions (Flevoland and Groningen) performed above the productivity growth of OECD TL3 regions during that period. More worrying was that all Dutch urban regions underperformed in their productivity growth rates. Particularly striking were the low productivity growth rates in Utrecht, Noord Holland, Overijssel and Drenthe (the latter is an intermediate region). Drenthe appeared to suffer from important structural problems, according to these trends.

Table 1.6. Growth rates in GDP per capita and GDP per worker in Dutch TL3 regions, 1995-2007

	GDP per capita		Labour productivity	
	2007	gr 1995-2007	2007	gr 1995-2007
Predominantly urban (PU) regions				
Limburg	33 522	2.47%	67 728	1.09%
Zuid-Holland	38 569	2.47%	74 866	0.98%
Noord-Brabant	37 328	2.36%	71 785	0.93%
Noord-Holland	42 628	2.31%	79 918	0.50%
Utrecht	44 195	2.30%	81 986	0.16%
Gelderland	31 639	2.20%	60 911	0.64%
Overijssel	32 101	2.15%	62 564	0.57%
Dutch average urban (PU) regions	37 140	2.32%	71 394	0.69%
OECD average urban (PU) regions	30 390	2.35%	73 432	1.35%
Intermediate (IN) regions				
Flevoland	29 116	2.45%	56 602	1.68%
Groningen	46 208	2.41%	91 589	2.35%
Friesland	30 207	1.99%	60 528	0.83%
Zeeland	34 347	1.89%	69 074	1.23%
Drenthe	29 284	1.47%	59 499	0.01%
Dutch average intermediate (IN) regions	33 832	2.04%	67 458	1.22%
OECD average intermediate (IN) TL3 regions	23 740	2.23%	60 439	1.17%
Dutch average TL3 regions	35 762	2.21%	69 754	0.91%
OECD average TL3 regions	24 599	2.35%	62 287	1.34%

Note: Labour productivity at the regional level is defined as GDP per employee at the place of work.

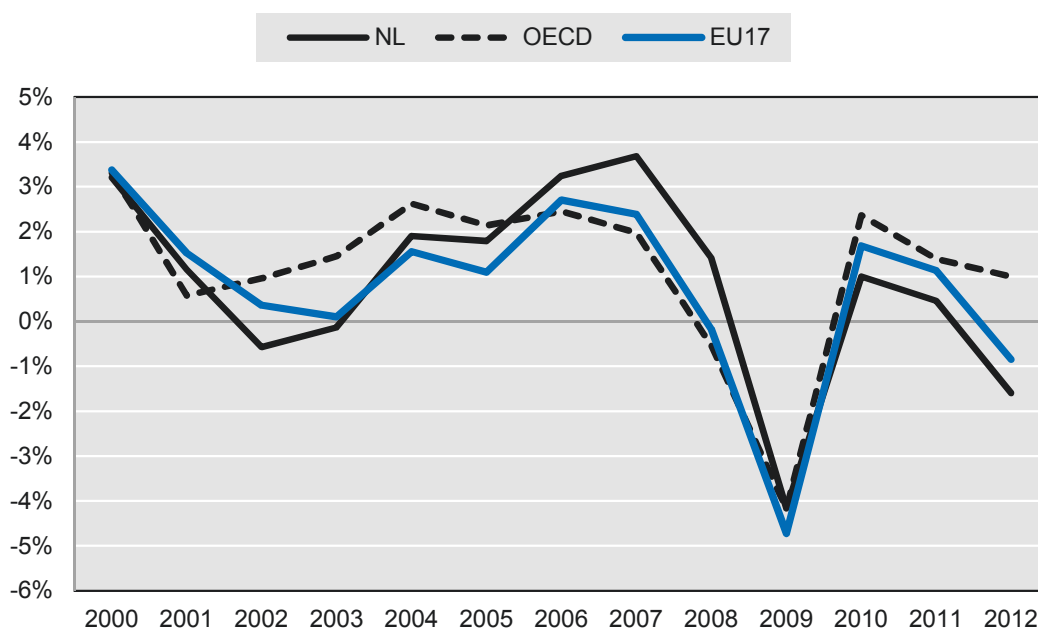
Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

The impact of the crisis has been uneven

The Dutch economy has been particularly vulnerable to the effects of the global financial crisis, especially the second shock. During the first shock the Dutch economy contracted by 3.7% in GDP, less than the average in OECD member countries (4.4%). In contrast the effects of the second shock were more severe for the Dutch economy than in the average OECD country (Figure 1.36).

Figure 1.36. **The effects of the global crises on the Netherlands, 2000-12**

GDP per capita in PPP constant USD



Source: OECD (2013), "Gross domestic product", *OECD.Stat*, (database) <http://dx.doi.org/10.1787/data-00285-en> (accessed on 11 October 2013).

How did the global financial crisis affect Dutch regions? Due to the three-year time lag in the availability of GDP data at the regional level, the analysis can only measure the effects of first shock (and recovery) among Dutch regions from 2007-2010 and not the effects of the second shock (2010-2012). Nevertheless given that regional data on labour markets are available up to 2012, the analysis examines the effects among Dutch regions during the first and the second shocks (2007-12).

The analysis measuring the effects of the crisis on the GDP output of regions show a marked variation among Dutch regions. Some regions weathered the effects of the first shock better while others recovered more quickly. The aggregate growth in the Netherlands was close to zero between 2007 and 2010. In broad terms there are four groups of regions (Table 1.7):

- The first experienced resilience to the initial shock and a swift recovery above 2%. These include Groningen and Overijssel. An outlier is Utrecht displaying resilience to the first shock but a modest recovery (0.3%).

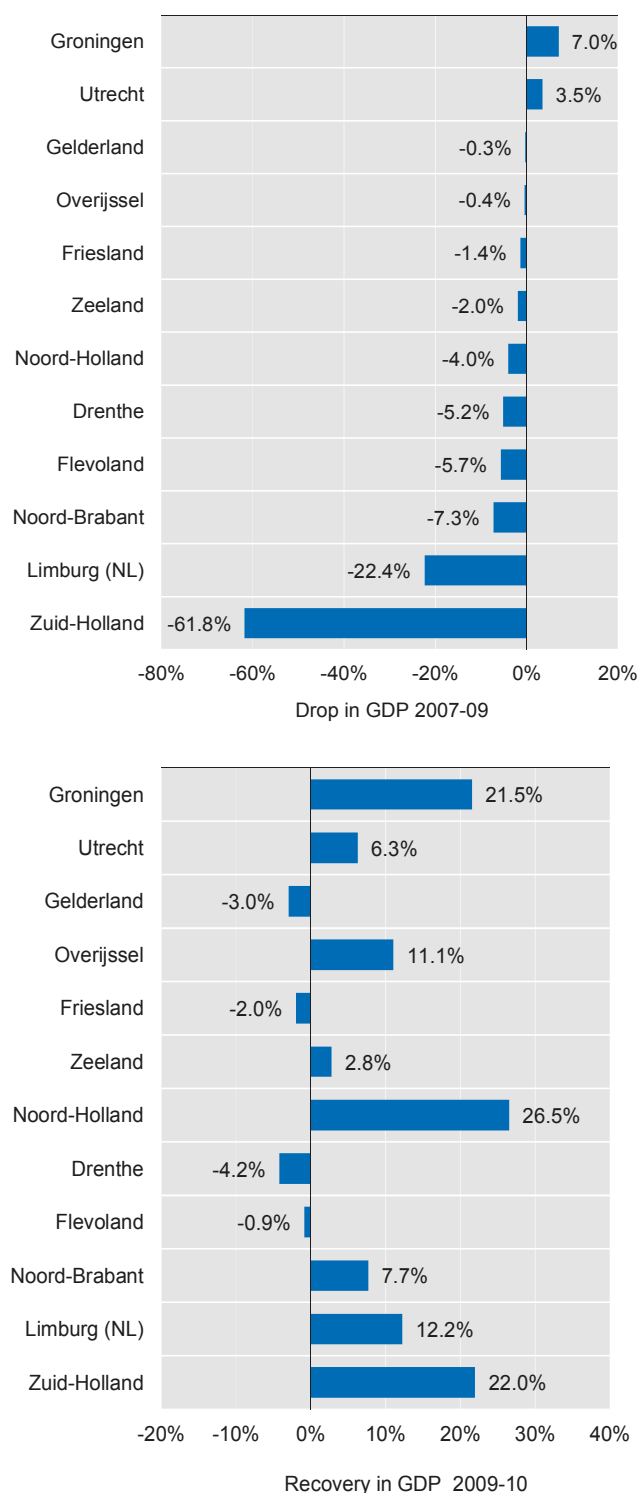
- The second displayed vulnerability to the initial shock but displayed a swift recovery above 2%. This group includes Noord-Holland, Zeeland, Noord-Brabant and Limburg.
- The third displayed vulnerability to the initial shock but modest recovery below 2% and includes Gelderland, Friesland, Zuid Holland, and Flevoland.
- The fourth group includes Drenthe displaying vulnerability to the first shock and no recovery.

Table 1.7. **The variable effects of the crisis on the Dutch TL3 regions, 2007-10**

	Yearly growth			Compound growth	
	2007-08	2008-09	2009-10	2007-09	2007-10
Groningen	18.6%	-12.5%	6.9%	3.7%	10.9%
Overijssel	3.0%	-1.8%	2.0%	1.1%	3.1%
Noord-Holland	0.9%	-2.4%	3.8%	-1.5%	2.2%
Utrecht	0.5%	1.1%	0.3%	1.6%	1.9%
Zeeland	3.5%	-6.5%	4.2%	-3.2%	0.8%
Noord-Brabant	1.4%	-3.5%	2.4%	-2.2%	0.1%
Gelderland	1.3%	-2.5%	0.6%	-1.1%	-0.6%
Friesland	0.9%	-3.4%	0.8%	-2.6%	-1.8%
Limburg (NL)	-0.3%	-5.2%	3.6%	-5.5%	-2.1%
Zuid-Holland	0.3%	-4.7%	1.9%	-4.4%	-2.6%
Flevoland	-1.8%	-5.7%	1.7%	-7.5%	-5.9%
Drenthe	0.8%	-5.9%	-1.7%	-5.1%	-6.7%
Netherlands	1.7%	-3.7%	2.3%	-2.1%	0.2%

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Around 85% of the national decline during 2007-09 was driven by just two regions: Zuid-Holland and Limburg. This can be explained by both regions' strong links to international markets and consequent vulnerability to the collapse in external trade. Interestingly, both regions recovered quite rapidly the following year (2009/10), enabling them to contribute to 35% of the Dutch recovery (Figure 1.37). In addition to these two regions, the national recovery was also primarily driven by Groningen, Overijssel and especially Noord-Holland. The latter region alone contributed to more than 24% of national growth and displayed much stronger resilience to the crisis than its neighbour Zuid-Holland. The resilience of Groningen, Overijssel and Zeeland could also be explained by cross-border effects. Drenthe, Gelderland and Friesland appear to have been the most vulnerable Dutch regions to the first shock.

Figure 1.37. **Crisis and recovery amongst the Dutch TL3 regions, 2007-10**

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

When considering the impact on GDP per capita, the less urbanised regions (intermediate regions in OECD terminology) appear to have been more vulnerable than urban regions. Table 1.8 displays GDP per capita growth rates in two periods: 2007-09 and 2007-2010. While the impact over the former period can be benchmarked to OECD TL3 regions, lack of data means the latter can only be compared only nationally. It shows that the regions which saw the greatest impact on their GDP per capita over 2007-09 were Flevoland, Limburg, Zuid-Holland and Drenthe.

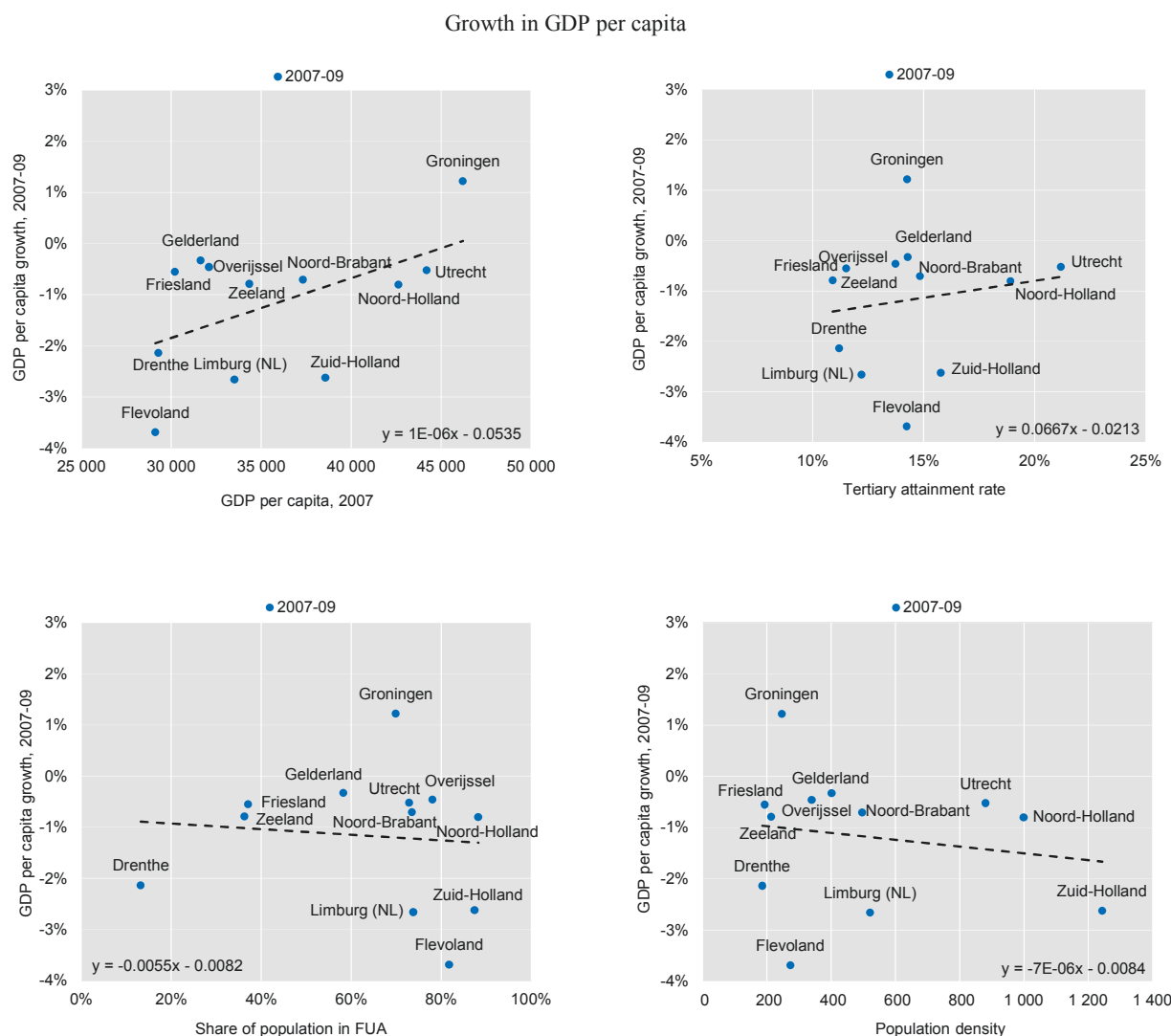
Table 1.8. Effects of the crisis on GDP per capita, Dutch TL3 regions, 2007-10

	GDP per capita 2007	Growth in GDP per capita	
		2007-09	2007-10
OECD TL3 average (unweighted)	27 043	-2.13%	..
Netherlands average (unweighted)	35 762	-1.17%	-0.45
Groningen	46 208	1.22%	3.32
Gelderland	31 639	-0.33%	-0.52
Overijssel	32 101	-0.46%	0.62
Utrecht	44 195	-0.52%	-0.22
Friesland	30 207	-0.55%	-0.81
Noord-Brabant	37 328	-0.71%	-0.30
Zeeland	34 347	-0.79%	0.19
Noord-Holland	42 628	-0.81%	0.01
Drenthe	29 284	-2.14%	-2.61
Zuid-Holland	38 569	-2.62%	-1.37
Limburg (NL)	33 522	-2.66%	-0.55
Flevoland	29 116	-3.69%	-3.15
Netherlands average in (PU) regions	37 140	-1.16%	-0.33
Netherlands average in (IN) regions	33 832	-1.19%	-0.61

Note: PU: predominantly urban regions; IN: intermediate regions.

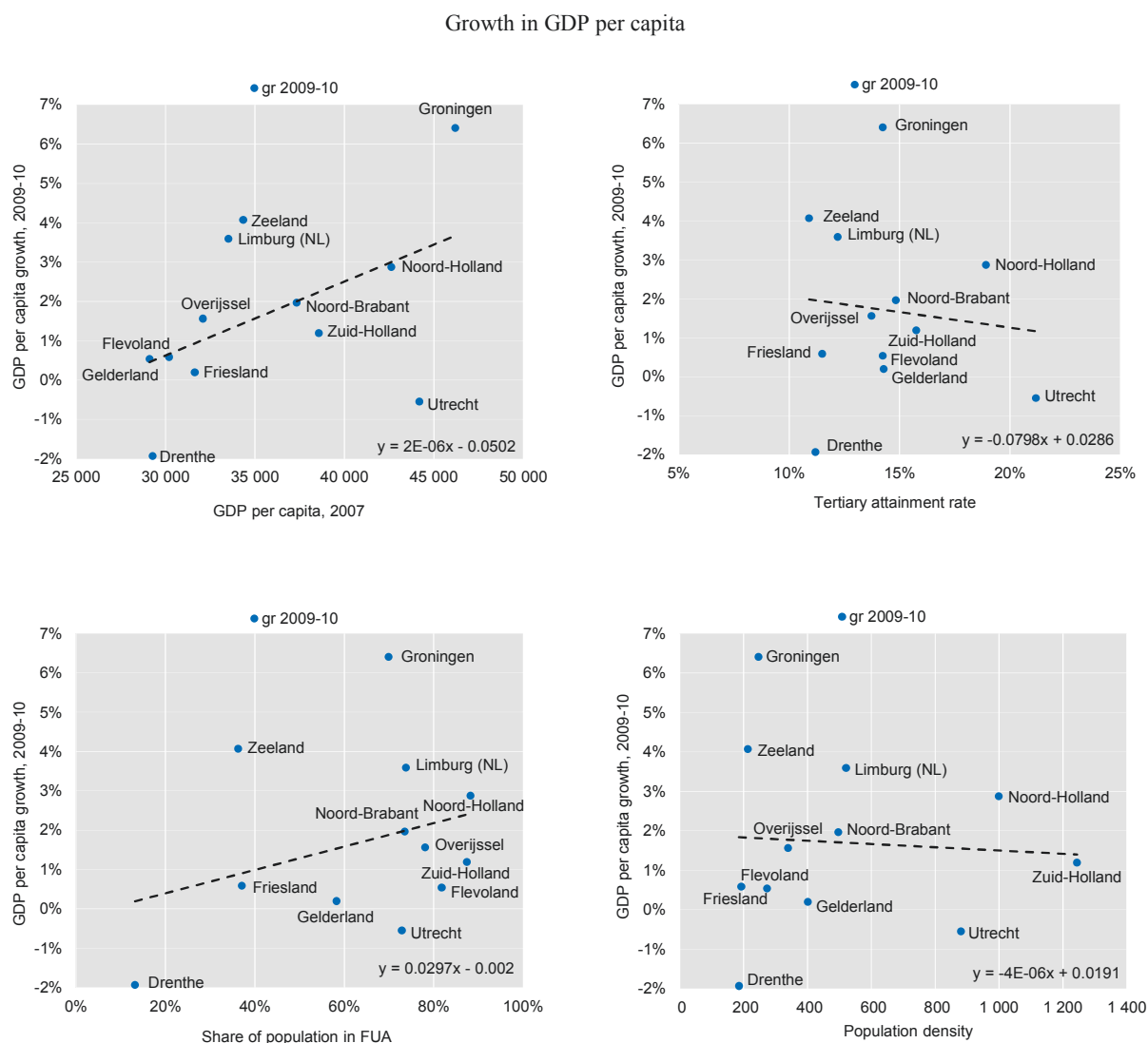
Source: Based on data from OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014) and CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed 8 November 2013).

What are the ingredients of resilience and vulnerability? Our analysis suggests that high income levels coupled with a large share of highly-skilled workers ensured resilience in GDP per capita growth (Figure 1.38). The most vulnerable regions – Limburg, Drenthe and Flevoland – had lower levels of GDP per capita and highly-skilled workers than the more resilient regions of Utrecht, Noord Holland and Noord Brabant. In addition, more densely population regions appear to have been more vulnerable to the first shock given their stronger ties to international markets. Regions with a higher share of population living in FUAs were also more vulnerable.

Figure 1.38. **How income, education, population density and urbanisation affect resilience, 2007-09**

Source: Based on data from OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014) and CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed 8 November 2013).

What are the ingredients of strong recovery? Regions with higher GDP per capita and a greater share of their population living in FUAs appear to recover faster in terms of GDP per capita growth (Figure 1.39). The ingredients of resilience to the first shock – population density and a highly-skilled workforce – do not appear to be associated with a faster recovery. The latter (i.e. human capital), one of the key drivers of regional growth is also associated with resilience but not with recovery. Higher GDP per capita aids both resilience and recovery, perhaps because it gives a region the extra cushioning to withstand the shock and free up and mobilise resources in the recovery phase. It is interesting to observe the stronger positive relationship between recovery (of regions) and share of population living in FUAs than between recovery and population density. This indicates that FUAs create stronger capacity to remobilise resources.

Figure 1.39. **How income, education, population density and urbanisation affect recovery, 2009-10**

Source: Based on data from OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014) and CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed 8 November 2013).

In sum, extrapolating these patterns over the medium and long term suggests that not all Dutch regions have the same capacity to recover and withstand shocks. In particular Flevoland and Drenthe experienced vulnerability to the first shock and faced more difficulties in the recovery phase. Given that these regions have the lowest income levels in the Netherlands; inequality among regions might face upward pressure in the coming years. More importantly, the strong polycentric urban network present in the Netherlands might become more vulnerable as a whole when part of the network faces difficulties in the recovery. This calls for region-specific measures to strengthen the most vulnerable Dutch regions and the network as a whole. The following section examines the effects of the crisis on regional labour markets.

The Dutch labour market was particularly vulnerable to the second shock

Unlike GDP data, regional labour market data are available up to 2012, allowing a comparison of the global financial crisis on regional labour markets. The GDP effects of the crisis on Dutch labour markets tend to have a one-year lag. During the first shock (2008/09), unemployment only increased by 0.6 percentage points (pp), significantly below the jobless rise occurring in OECD labour markets (Table 1.9). In 2009/10, the Dutch economy started to recover from the first shock, but the labour market still remained vulnerable, with unemployment increasing by just over 1 pp. At the same time OECD labour markets stabilised. The Dutch unemployment rate only stabilised the following year (2010/11) before suffering a severe setback in 2011/12 (unemployment increased by 0.83pp). Yet unemployment was then falling across the OECD.

Table 1.9. Effects of the crisis on regional unemployment, 2007-2010

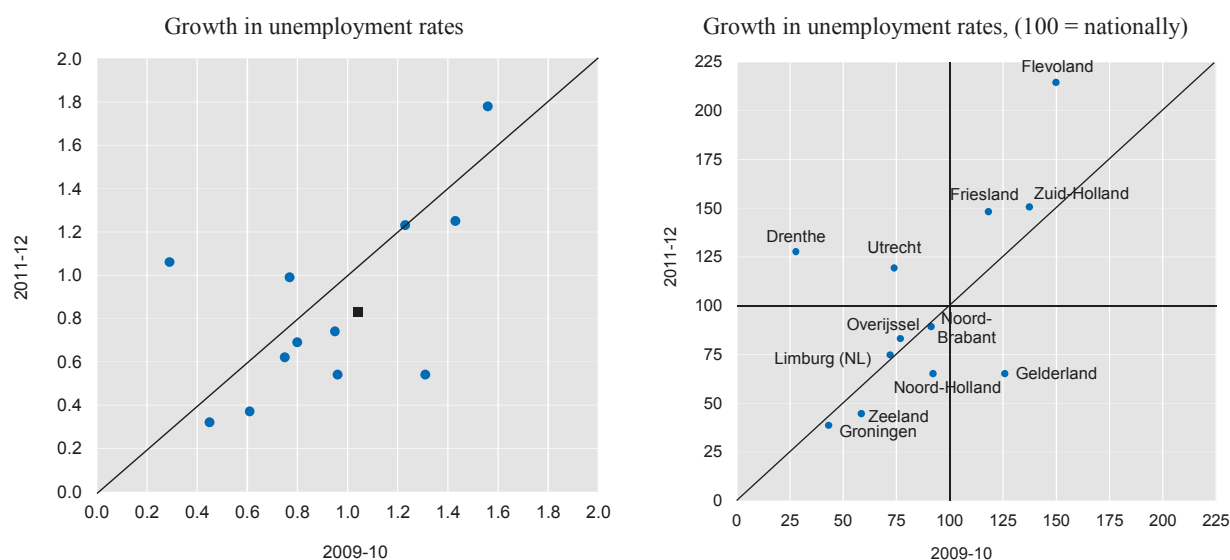
	Unemployment rate		Yearly percentage point change in unemployment rate					Compounded change	
	2007	2012	2007-08	2008-09	2009-10	2010-11	2011-12	2008-10	2010-12
Zeeland	2.07	3.12	0.67	-0.63	0.61	0.03	0.37	-0.02	0.4
Drenthe	3.7	5.7	-0.14	0.64	0.29	0.15	1.06	0.93	1.21
Groningen	4.87	6.21	-0.88	0.85	0.45	0.6	0.32	1.3	0.92
Gelderland	2.74	4.78	-0.15	0.16	1.31	0.18	0.54	1.47	0.72
Utrecht	2.65	4.75	-0.6	0.84	0.77	0.1	0.99	1.61	1.09
Noord-Holland	2.94	4.98	-0.39	0.69	0.96	0.24	0.54	1.65	0.78
Limburg (NL)	3.92	4.87	-0.52	0.97	0.75	-0.87	0.62	1.72	-0.25
Flevoland	4.04	6.6	-0.66	0.28	1.56	-0.4	1.78	1.84	1.38
Overijssel	3.23	5.08	-0.66	1.04	0.8	-0.02	0.69	1.84	0.67
Noord-Brabant	2.78	4.71	-0.44	0.91	0.95	-0.23	0.74	1.86	0.51
Friesland	3.14	5.74	-0.27	0.67	1.23	-0.26	1.23	1.9	0.97
Zuid-Holland	3.5	6.31	-0.51	0.62	1.43	0.02	1.25	2.05	1.27
Netherlands	3.18	5.27	-0.43	0.66	1.04	-0.01	0.83	1.70	0.82
OECD average	5.64	7.96	0.33	2.17	0.19	-0.37	0.01	2.36	-0.37

Note: Data on Dutch regional unemployment rate differ between the *OECD Regional Database* and CBS Database.

Source: Based on data from OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Among regions, the employment effects of both shocks were quite similar, with the exception of three regions – Gelderland, Utrecht and Drenthe (Figure 1.40). Gelderland's labour markets appears more resilient to the second shock than the first, unlike Utrecht and Flevoland, which seemed to be more vulnerable to the second than the first shock. Friesland and Flevoland, having already been hit by the first shock, became even more vulnerable to the second shock.

Figure 1.40. Effects of the first and second shocks on regional unemployment

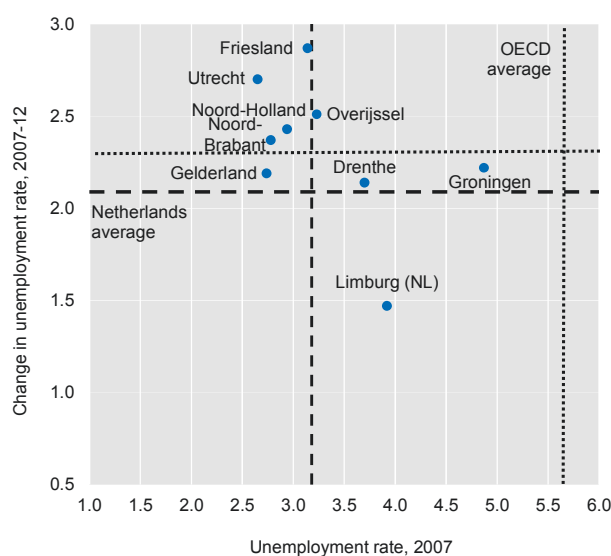


Note: The black dot is the national average.

Source: Based on data from OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

The unemployment rate in Flevoland, Zuid-Holland and Friesland almost doubled between 2007 and 2012 (Figure 1.41), although it was still below the average unemployment rate in the OECD (8%). In 2012, Flevoland recorded the highest increase in unemployment rate among all Dutch regions (6.6%), surpassing Zuid-Holland (6.3%) and Groningen (6.2%). In 2012 total unemployment in Zuid-Holland represented 25% of national unemployment; this region alone contributed to 28% of the national unemployment increase over 2007-12.

Figure 1.41. Effects of the crises on regional unemployment rates, 2007-12

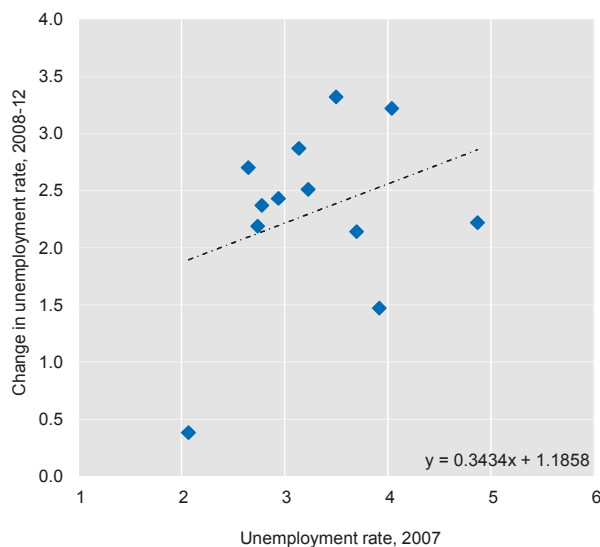


Note: Data for OECD average is computed from the national OECD statistical database. Data for regional and the average for the Netherlands are taken from the *OECD Regional Database*.

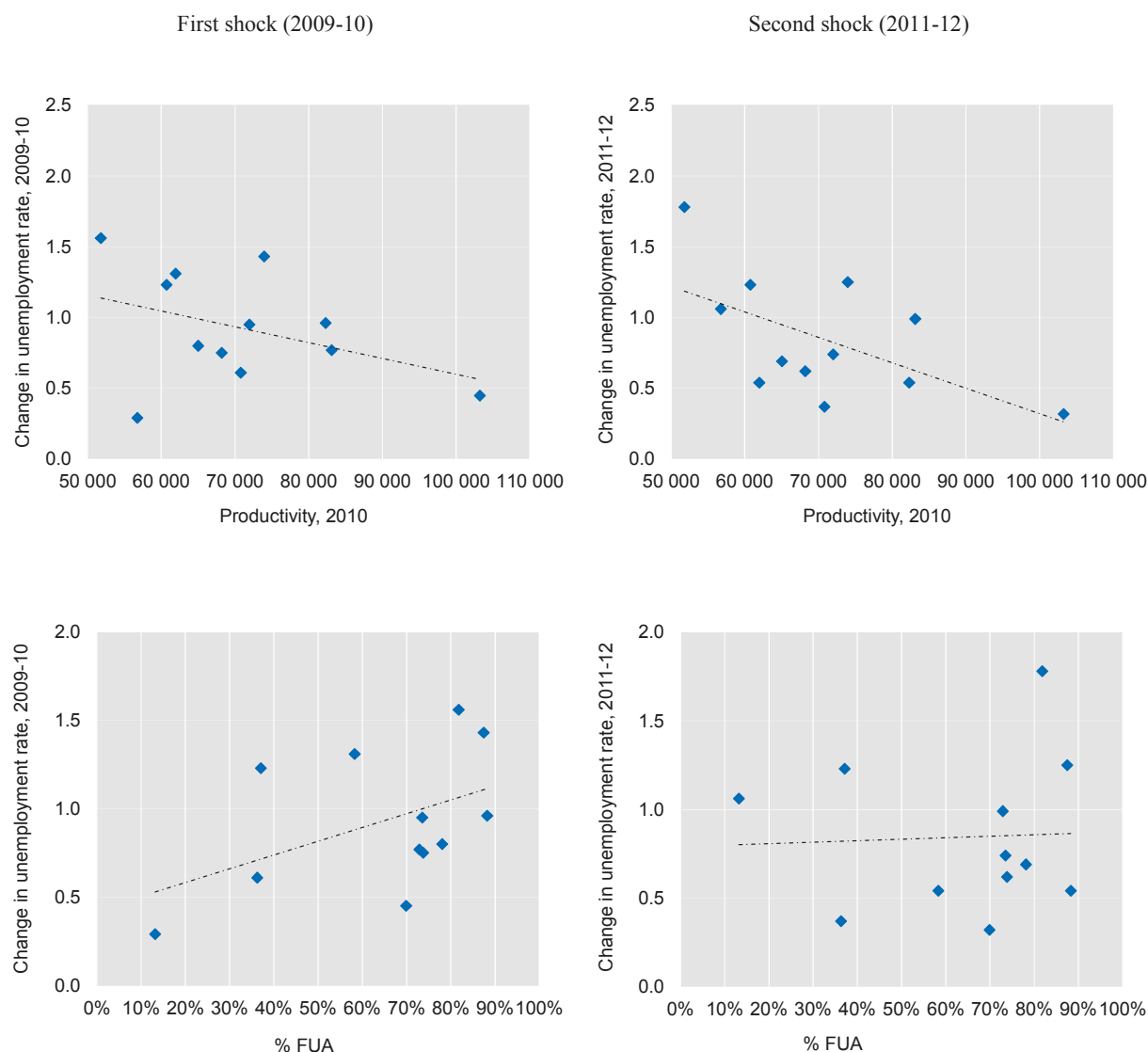
Source: Based on data from OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014)

Between 2008 and 2012, the Dutch unemployment rate virtually doubled (from 2.7% to 5.3%). Regions with higher rates of unemployment before the 2007 crisis appear more vulnerable (Figure 1.42). Examining the effects over the first and second shock shows that Dutch regions with a higher share of population living in in FUAs (Figure 1.43) appear more vulnerable to the first shock – this latter effect can be explained by such regions' strong international ties – while during the second shock there is no correlation. Regions with higher labour productivity appear more resilient to both the first and second shock of the crisis (Figure 1.43).

Figure 1.42. **How unemployment levels affect regional labour market resilience, 2008-12**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Figure 1.43. **How productivity and population density affect regional labour market resilience**

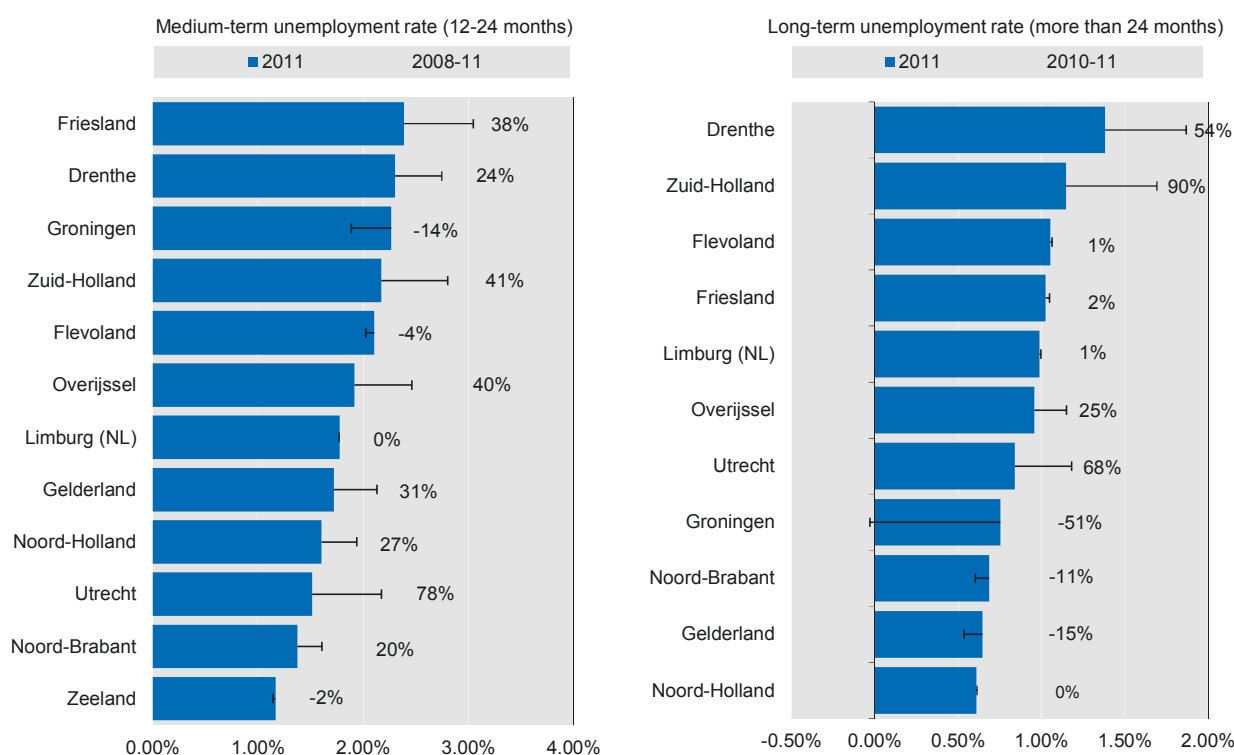
Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

There is a visible difference between the effects of the first and the second shock on Dutch regional labour markets, with the first more strongly related to temporary factors and the second to structural ones. Poor unemployment outcomes in the first shock – primarily caused by a trade collapse in international markets – were strongly related to population density and the share of inhabitants living in FUAs. It therefore had a stronger impact on employment in densely-populated areas. However, in the second shock unemployment rates increased more in regions with lower productivity.

The crisis also has an effect on long-term unemployment. On average across Dutch regions, medium-term unemployment increased by 23% between 2008 and

2011. In all but four regions – Groningen, Flevoland, Limburg and Zeeland – it increased considerably during the crisis (Figure 1.44). Worse-hit were Utrecht (78%), Overijssel (40%), Zuid-Holland (41%) and Friesland (38%). Zuid-Holland and Drenthe are also experiencing a considerable rise in long-term unemployment, by 90% and 68%, followed by Drenthe. Particularly worrisome is the increase observed in Zuid-Netherlands, adding the bulk (90%) of the country's new long-term unemployment in 2010-2012. In 2011 this region represented almost 30% of the country's long-term unemployed.

Figure 1.44. **Medium and long-term unemployment rates, 2008-11**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed 8 November 2013).

What are the drivers of regional growth in the Netherlands?

Recent OECD analysis identifies several key drivers of growth that are common to all OECD regions (Box 1.4). These drivers, also called “framework conditions”, are largely endogenous to the region and include agglomeration effects, sectoral specialisation, human capital, accessibility and infrastructure, innovation and institutional factors. Regions vary in their mix of assets and comparative advantages. Nonetheless the OECD studies find evidence that sustainable growth rates only occur when regions mobilise their endogenous assets instead of depending on transfers and subsidies.

Box 1.4. Why an integrated approach is essential for regional growth

OECD analysis of the determinants of growth at the regional level identifies a number of critical drivers, including infrastructure, human capital, innovation and agglomeration (OECD, 2009). Perhaps the most important findings are (1) that the key factors are largely endogenous, i.e. they can be addressed by policy (as opposed to natural endowments or physical geography); and (2) that these endogenous factors complement each other, suggesting the need for an integrated approach:

- Improvements in infrastructure at the regional level do not automatically lead to higher growth. Such investments need to be combined with improvements in education and innovation. This suggests that it could be useful to co-ordinate policies for building human capital, enhancing innovation and providing physical infrastructure. The effects of infrastructure investment appear to last around 3-5 years.
- Human capital – both the presence of high-skilled workers in the regional workforce and the absence of low skilled workers – appears to be the most robust supporter of growth in all types of regions. The effects of improvements in human capital also appear to last around five years.
- The third critical element is innovation (measured in terms of its science and technology components). Innovation appears to produce positive effects over a longer time span, approximately ten years.
- Economies of agglomeration also have a positive impact on growth, although they are neither necessary nor sufficient to ensure sustained growth rates.

What is clear in these studies is the importance of endogenous elements for growth at regional level, instead of depending on transfers and subsidies. A follow-up study (OECD, 2012) combining quantitative analysis and qualitative case studies (23) reinforces these results and highlights the importance of policy and institutional factors:

- Investing in less-developed regions makes good economic sense, given their growth potential. Policies targeted at less developed regions should not merely be advocated on social grounds; these regions have a great deal to contribute to national growth as long as their own assets are nurtured.
- A pro-growth, rather than a subsidy-based policy stance, is the most beneficial and sustainable approach. In the long run, it also helps build a fairer society. It can avoid dependency, rent-seeking behaviour and high remedial costs in the future.

The combined analysis points to a number of policy levers to enhance the effectiveness of regional policy:

- Policies that increase the skills of low-skilled workers may be as important for growth as policies aimed at expanding higher education. The “drag” effect on growth of a large low-skilled population appears as one of the most critical factors in less developed regions.
- Infrastructure does not appear to be the binding constraint for the great majority of regions. Thus policies targeting infrastructure are not usually the most effective tools for strengthening growth in underdeveloped regions. Yet given that the gains from improvements in infrastructure are higher (at the margin) makes them important instruments if co-ordinated with other policies.

Box 1.4. Why an integrated approach is essential for regional growth (cont.)

- Innovation is not a bottleneck for growth, but appears to be a critical pillar for advanced regions.
- How policy makers frame the challenges they face does matter. A self-conscious shift towards a growth-oriented policy framework is very often a part of the recipe for success. As long as policy makers focus on exogenous sources of support for a region (“levelling up” policies), growth is unlikely to take off and actors are likely to focus on the appropriation of rents from external sources.
- Institutional factors are also critical. Formal and informal institutions that facilitate negotiation and dialogue among key actors in order to mobilise and integrate them into the development process are vital, as are those that enhance policy continuity. At times, the challenge is to create institutions that strengthen the region’s “voice” in dealing with other regions and countries and those that foster linkages among the private, public and education sectors.

In sum, the OECD work calls for including geography and place-based factors into the structural policy agenda to increase the growth potential of countries. In addition, place-based policies also have the capacity to create a more inclusive and fairer society through their ability to mobilise local actors and ensure they are involved and engaged in the development process.

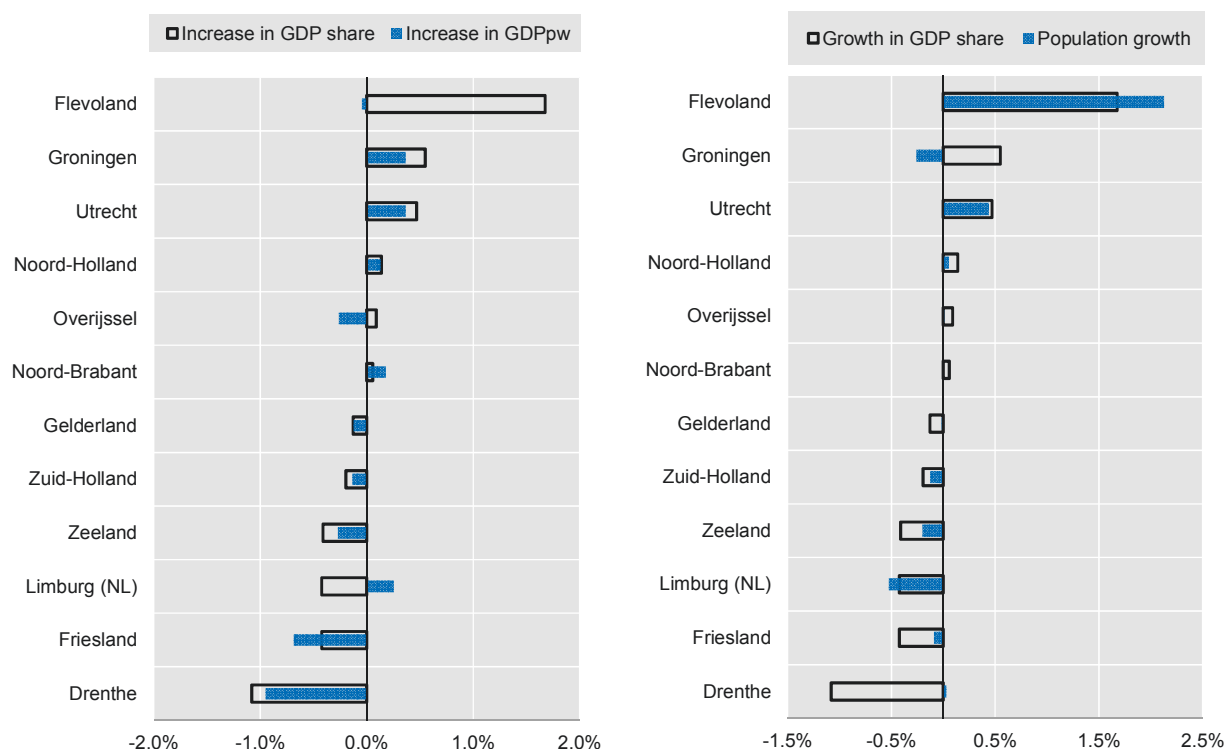
Source: OECD (2009), *How Regions Grow: Trends and Analysis*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264039469-en>; and OECD (2012), *Promoting Growth in All Regions*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264174634-en>.

This section examines the key factors for growth at the regional level based on the analysis in the previous section. It starts by examining the components of economic growth using an accounting growth decomposition tool and then it analyses the key components of growth described in the previous box.

Labour productivity appears to be a key driver of performance

Growth rates can be broken down by productivity, labour market and demographic factors using an accounting framework (described in Annex 1.A3). This method enables an examination of the individual components of growth (measured both as GDP per capita and growth) for a given time period and sample of countries or regions.

Growth in labour productivity appears to be the key driver of performance in Dutch regions. The decomposition of GDP growth between 1995 and 2010 reveals that six regions – Flevoland, Groningen, Utrecht, Noord-Holland, Overijssel and Noord-Brabant – increased their relative shares of GDP and that productivity growth was the key driver for all except for Flevoland and Limburg Figure 1.45. GDP gains in Flevoland were mainly driven by population increases, while the GDP declines in Limburg matched population decline. From this analysis, it emerges that differences in GDP outcomes are highly dependent on labour productivity. Therefore the low productivity growth observed among Dutch regions before the crisis period, relative to OECD TL3 regions, is of serious concern for sustainable GDP growth in the medium and long term.

Figure 1.45. **Regional productivity, population and performance, 1995-2010**

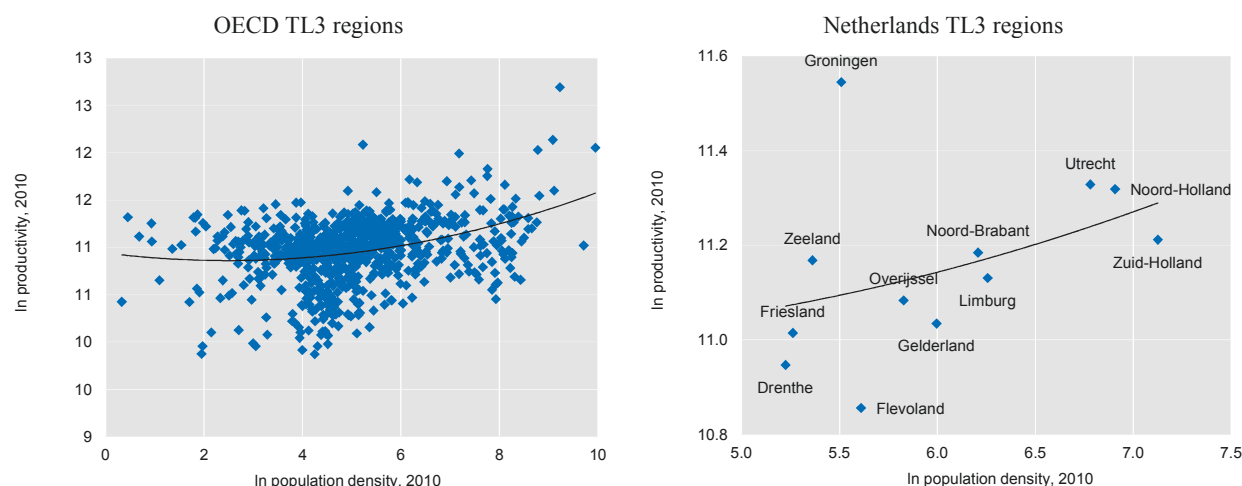
Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Labour productivity in turn depends on a wide range of key elements such as the level of human capital, agglomeration effects, innovation intensity, accessibility and connectivity and institutional factors. Some of these are discussed below.

Agglomeration benefits are present in the Netherlands but less concentrated in few urban areas...

“Economies of agglomeration” is the term used to describe how firms like to locate close to other firms and to densely populated areas due to lower transportation costs, proximity to markets and wider availability of labour supply. People also tend to be attracted to densely populated areas for the wider availability of job opportunities, goods and services. These mutually reinforcing forces yield important economic premium for both consumers and firms: economies of scale, a better matching and functioning of labour markets, spill-over effects and more technological intensity. It is no surprise that productivity, and therefore wages, tend to be higher in densely populated areas. These benefits however, must be weighed against the costs of densely populated areas such as congestion, negative social effects of possible oversupply of labour, higher land prices, rising inequality and environmental pressures. The net impact varies from one urban area to another (Ahrend et al., forthcoming).

Dutch regions with higher density of population tend to have higher levels of productivity with the exception of Groningen. This trend is also present among OECD TL3 regions. These agglomeration benefits which tend to occur in more densely populated areas can bring an economic premium manifested in higher levels of productivity or average income levels in these areas (Figure 1.46).

Figure 1.46. **Benefits of economies of agglomeration in the Netherlands, 2010**

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Despite the presence of positive agglomeration benefits in the Netherlands, the magnitude of these, in comparison to other OECD member countries, is lower in relative terms (relative to other Dutch regions/FUAs) and in absolute terms (when compared to OECD TL3 regions and to FUAs above 500 000). These lower benefits might just be a reflection of the polycentric city structure in the Netherlands, meaning the agglomeration benefits are less concentrated in the largest FUAs and more spread-out across the entire network of FUAs.

The economic premium of agglomeration benefits in Dutch regions is significantly lower than among OECD TL3 regions on average. GDP per capita in predominantly urban regions in the Netherlands is around 4% higher than the national average and around 9% higher than in intermediate regions. These relative gains are significantly lower than in OECD TL3 regions (Table 1.10). Urban regions surpass the average GDP per capita by 24% and the average GDP per capita of intermediate regions by 28%. These gaps are similar in terms of productivity with a lower premium in Dutch regions as typically observed in OECD regions.

Table 1.10. **The economic premium in the Netherlands and OECD-wide**

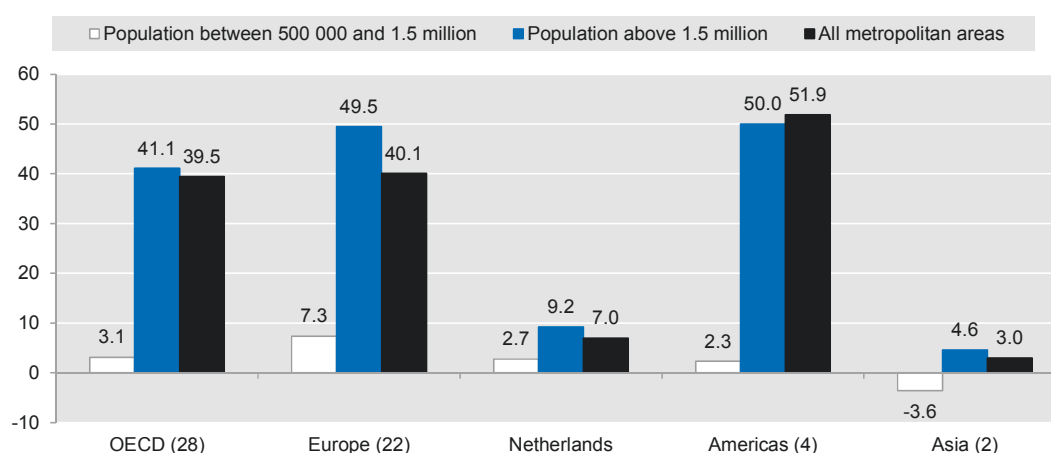
	Netherlands	OECD
GDP per capita in PU regions, 2010	36 766	30 390
Ratio PU to all regions	104%	124%
Ratio PU to IN regions	109%	128%
Productivity in PU regions, 2010	72 370	72 136
Ratio PU to all regions	102%	118%
Ratio PU to IN regions	105%	122%

Note: IN: intermediate regions; PU: predominantly urban regions.

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

The economic premium for the five largest Dutch FUAs is also below OECD averages (Figure 1.47). The gap in GDP per capita between Dutch FUAs above 500 000 and the rest of the economy is 7%, slightly higher than the premium in predominantly urban regions (4%), and significantly lower than among OECD FUAs (around 40%). Amsterdam enjoys a higher economic premium (9.2%) than the average premium of the four Dutch FUAs (2.7%) between 500 000 and one million. What is surprising is the lower gap between Amsterdam's premium to that present in the four metropolitan areas in the Netherlands (around three times higher). The polycentric and balanced city structure in the Netherlands might explain this lower gap and in OECD, Europe and America.

Figure 1.47. **GDP per capita gap between the functional urban areas and the rest of the economy, 2010**



Note: These figures are subject to revision due to a methodological update of the estimated GDP values.

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Although labour productivity in the 5 largest FUAs in the Netherlands (i.e. Amsterdam, Rotterdam, The Hague, Utrecht and Eindhoven) is lower than across OECD FUAs of similar size, (e.g. hosting more than 500 000 inhabitants), the 5 FUAs are more productive than the national and the OECD average. The lower level of labour productivity vis-à-vis OECD FUAs could be driven by the high proportion of part-time employees⁶ in the Netherlands, which has been rising in recent years as a result of the global financial crisis. A second explanation of the lower productivity levels can simply reflect the Dutch polycentric city-structure spreading the agglomeration benefits across a larger number of FUA's and consequently concentrating them less in its largest cities.

Table 1.11. **Labour productivity in five Dutch functional urban areas, 2010**

	Labour productivity (constant prices and constant PPPs)	Per capita GDP (constant prices and constant PPPs)
Netherlands FUA large (>1.5 million)	78 255	39 596
Netherlands FUA metro (500 000-1.5 million)	74 134	37 508
Netherlands (country)	72 754	36 740
OECD 19 (FUA) ¹	84 654	38 566
OECD (28 countries) ²	73 760	33 288

Note: Labour productivity is computed by the ratio GDP in constant prices and in constant PPPs to total employment at place of work. 1. Only countries where FUAs have been delimited are included except for Switzerland, Germany, Denmark, Italy, Norway, Slovenia, United Kingdom, Mexico and Japan are not included due to lack on comparable years. 2. Switzerland, Norway, Mexico, Turkey, Israel and New Zealand are not included.

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Labour productivity growth in the five largest FUAs in the Netherlands is significantly lower (0.6% in Amsterdam and 0.43 in the remaining 4) than in the OECD (1.1% nationally and 0.99% in FUAs) and in the Netherlands as a whole (0.74%) over 2000-2010. At the same time GDP per capita grew at a lower rate than the national and OECD rate of growth, in contrast to population (0.91%) which surpassed the national growth rate (0.44%) and was close to the OECD average rate of population growth (0.93% for FUAs). Although there might be a potential bias in measuring labour productivity in the Netherlands, as discussed previously, this potential bias will not affect growth rates. Furthermore the lower productivity growth over 2000-10 in the Dutch largest FUAs could in principles be driven by the vulnerability of densely populated areas to the effects of the crisis, however given that this phenomenon is also present across the OECD, and the productivity growth in the OECD is more than double on average than in the Dutch FUAs, suggests that there is scope for improving the performance of the largest FUAs in the Netherlands to remain competitive at the international scale.

Table 1.12. **Labour productivity growth in five Dutch FUAs, 2000-10**

	Growth rate labour productivity	Growth rate per capita GDP	Growth rate population
Netherlands FUA large (>1.5 million)	0.60%	0.75%	0.91%
Netherlands FUA metro (500 000-1.5 million)	0.43%	0.54%	0.63%
Netherlands (country)	0.74%	0.93%	0.44%
OECD 19 (FUA) ¹	1.10%	1.00%	0.93%
OECD (28 countries) ²	0.99%	1.00%	0.59%

Note: Labour productivity is computed by the ratio GDP in constant prices and in constant PPPs to total employment at place of work. Growth rate refers to annual average growth rates. 1. Only countries where FUAs have been delimited are included except for Switzerland, Germany, Denmark, Italy, Norway, Slovenia, United Kingdom, Mexico and Japan are not included due to lack on comparable years. 2. Japan (2001-2010) while Switzerland, Norway, Mexico, Turkey, Israel and New Zealand are not included.

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

The polycentric city structure in the Netherlands brings economic advantages. Analysis across OECD countries highlights the benefits of polycentric city-structure. It is not only the size of cities, but also their spatial distribution that matters. Countries with more polycentric systems, i.e. systems of large cities instead of a small number of megacities, are found to have higher per capita GDP (Brezzi and Veneri, forthcoming). The reason could be that, with a larger number of metropolitan areas, a bigger part of the territory benefits from being close to at least one of them compared to, for example, a situation where one megacity combines the population of all those metropolitan areas. Simply put, in polycentric city-structures the benefits of agglomerations are more spread across the territory and consequently workers will have less pressure and incentives to move to the few cities where agglomeration benefits and associated opportunities are present, given that these are also available across a wide number of regions.

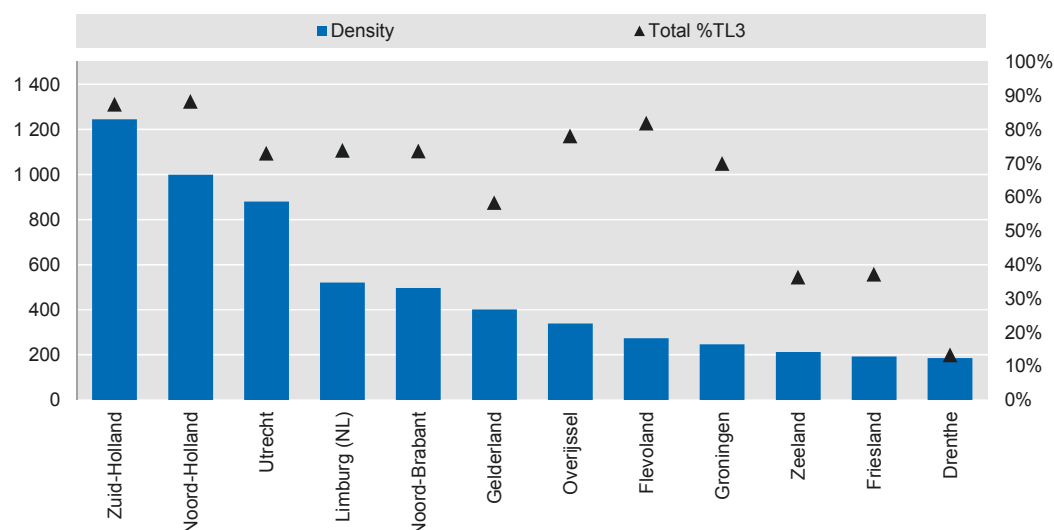
The fact that polycentric city-structures spread the agglomeration benefits across a wider number of cities, however, can reflect the lower performance of the largest FUAs in the Netherlands vis-à-vis the OECD. Nevertheless this also implies that there is scope for improving the performance of these large FUAs in the Netherlands particularly for improving competitiveness internationally.

Reducing the distance further amongst the largest FUAs is one possible option, especially given that the largest FUAs in the Netherlands are concentrated geographically in the west of the country and in close proximity to each other. Recent OECD research suggests that cities can also “borrow” agglomeration from neighbouring cities. For a doubling of the population living – at a given distance – in urban areas within a 300 km radius, the productivity of the city in the centre increases by between 1% and 1.5% (Ahrend et al., forthcoming). This may also explain why productivity in US cities generally increases more strongly with city size than in European countries. Basically, smaller cities in Europe are not that much disadvantaged, as they can simply “borrow” agglomeration from neighbouring cities. Given distances, this is much harder in the United States. Therefore in the Netherlands one option to further the distance among its largest FUAs is through further enhancing connectivity.

In sum the polycentric city-structure brings benefits and opportunities for the Netherlands. While there is a need to improve the performance and productivity of its largest FUAs – particularly since they appear to perform below OECD standards – say through enhancing their connectivity amongst each other and to international markets, there is also the need to ensure that the rest of the city structure remains well connected to each other and to the largest FUAs to ensure that they also benefit from the “borrow” agglomeration effects just described.

FUAs are important drivers of regional growth in the Netherlands

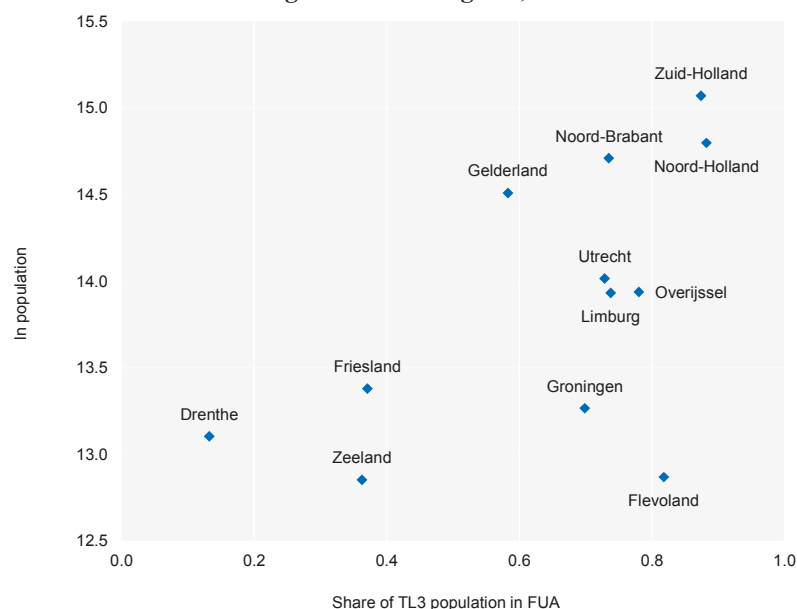
Population density of Dutch provinces is associated with the presence of FUAs, share of population living in FUAs and the number of *self-contained* FUAs. Dutch regions with the highest and lowest population density are related to the share of the population residing in FUAs. Nevertheless, given the differences in city-structures, there are a number of regions with a similar share of population living in FUAs – Utrecht, Limburg, Noord-Brabant, Overijssel, Flevoland and Groningen – with different population density (Figure 1.48). The determining factor appears to be the number of self-contained FUAs in these 6 regions: the higher the number of self-contained regions, the higher the population density. This suggests that (a) cities of different sizes and (b) the number of FUA within the border of the provinces play an important role.

Figure 1.48. **Density and share of population living in Dutch functional urban areas, 2010**

Note: In parenthesis is the number of “self-contained FUAs” in each region meaning all the boundaries of the FUA are contained within the provincial boundary.

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

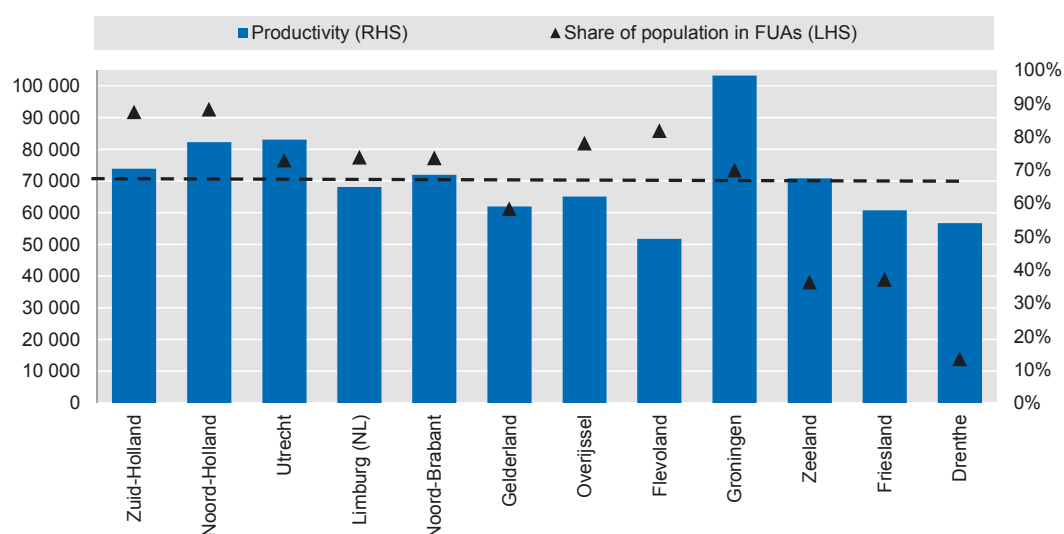
Small Dutch TL3 regions also have large shares of their population in FUAs. The relationship between total population size and the share of population living in FUAs is complex. Among provinces with more than 70% of its population in FUAs there is a mixed picture with some provinces amongst the most populated in the Netherlands and others the least populated.

Figure 1.49. **Total population and share of population living in functional urban areas among Dutch TL3 regions, 2010**

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Productivity is higher in those Dutch regions with a large share of population in FUAs (Figure 1.50). The five most productive regions in the Netherlands – Groningen, Utrecht, Noord-Holland and Zuid-Holland – all have at least 70% of their population living in FUAs. Some of the regions with the lowest productivity – Flevoland, Drenthe, Friesland and Gelderland – have less than 60% of their population living in FUAs. The exception is Flevoland, whose low productivity could be explained by a potential measurement bias; an important share of the Flevoland workforce belongs to the Amsterdam FUA and consequently may contribute to the productivity of either Utrecht or Noord-Holland provinces. The share of total population in Flevoland living in the Amsterdam FUA is 82%, representing 12% of the Amsterdam FUA.

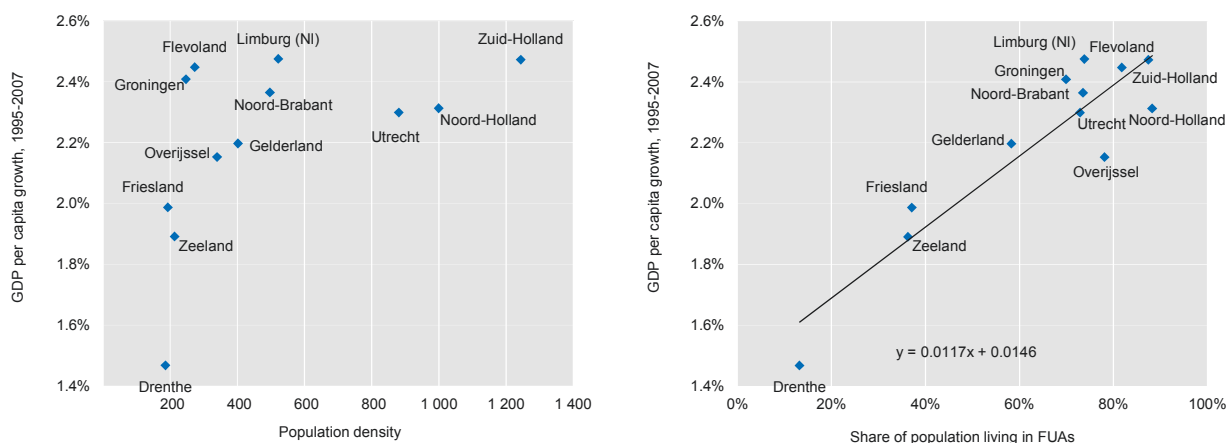
Figure 1.50. **Regional productivity and share of population living in functional urban areas, 2010**



Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

The share of people living in FUAs in the Netherlands is a key driver of regional competitiveness and growth. Agglomerations bring both benefits and costs, therefore the net effect – or performance – of FUAs and urban regions tends to vary. In the Netherlands over the decade leading to the crisis, the three most densely populated regions (Zuid-Holland, Noord-Holland and Utrecht) all performed very well. In the rest of regions, however the relationship between density and growth is not very clear with low populated regions on the one hand performing quite well (Flevoland and Limburg) while others were less competitive (Drenthe and Zeeland). There is a much stronger relationship between the share of population living in FUAs and GDP per capita growth (Figure 1.51). This suggests that cities of all sizes indeed matter for overall competitiveness. Small and medium-size cities play an equally important role for their respective provinces as do the larger cities in the Netherlands.

Figure 1.51. **Links between population density, functional urban areas and GDP per capita growth, 1995-2007**



Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Cities in the Netherlands also strongly and positively affect the prosperity and well-being of nearby rural places (Box 1.5). Productive and prosperous metropolises can contribute to enhancing the performance of less advanced places and play a key role in advancing the productivity frontier. Smaller cities serve as market towns and centres of service provision for surrounding rural areas. Moreover, non-urban regions close to cities (especially to large cities) tend to be more prosperous and have experienced higher economic growth in recent decades than regions that are more remote from urban centres.

Box 1.5. Proximity to cities and economic growth

Large metropolitan areas are important drivers of economic activity within countries and typically have the highest per capita GDP of all regions within a country. However, the economic effects of large metropolitan areas are not confined to their borders. They also play important roles for economic activity in surrounding regions. Their size and economic strength implies that they are key markets for many firms in rural areas. Even firms that do not directly sell to metropolitan areas rely on them due to their function as hubs for long-distance travel or because providers of highly specialised business-to-business services can predominantly be found within them. Therefore, large metropolitan areas form the geographical focal point of economic activity even for regions that are a considerable distance away.

Ahrend and Schumann (forthcoming) estimate the relation between distance to metropolitan areas and economic growth. It turns out that the actual travel time required to reach a metropolitan area is a better predictor of economic growth than aerial distance. Travel time indicates the time required to travel by car from the centre of a region to the centre of the closest large metropolitan area and is obtained from Google Maps. In contrast to aerial distance, travel time also accounts for factors such as the state of transport infrastructure and geographical characteristics that affect car traffic.

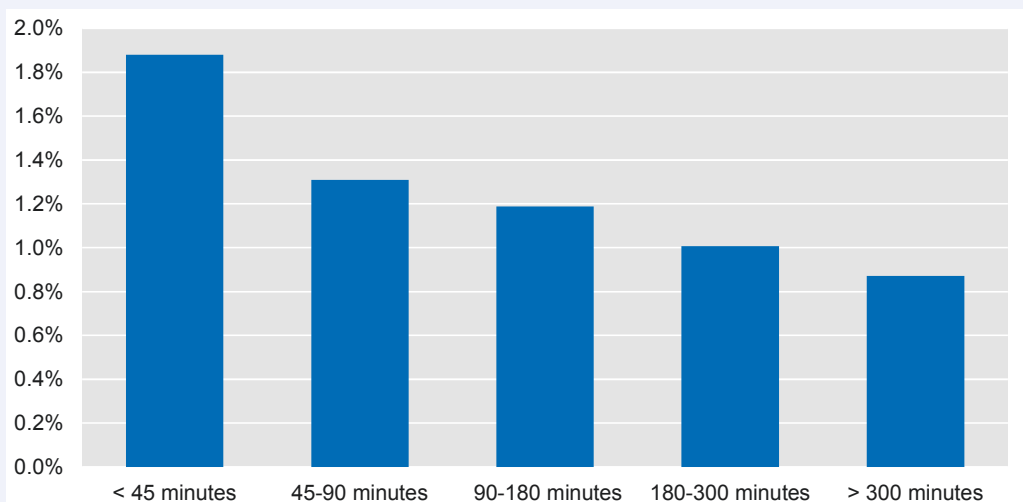
Box 1.5. Proximity to cities and economic growth (*cont.*)

Between 1995 and 2010, longer travel time to metropolitan areas has been associated with a significantly lower growth of per capita GDP at the regional level. The effect is most pronounced when it comes to distance to very large metropolitan areas with more than 2 000 000 inhabitants. However, it is also visible for distance to smaller metropolitan areas.

The marginal effect of an additional minute in travel time is greatest at short distances to metropolitan areas. It becomes continuously weaker for larger travel times. Beyond 300 minutes the correlation between travel time and per capita GDP growth disappears. However, this is well beyond the travel times encountered in the Netherlands. There, the average travel time to the centre of a metropolitan area above 2 000 000 inhabitants varies from just 18 minutes to 106 minutes. This is below the average of European OECD regions and implies that most regions are at a distance to metropolitan areas at which the correlation between travel time and economic growth is strongest.

The figure below shows the results of a regression of yearly growth rates on a set of dummy variables for the respective travel time brackets (including initial per capita GDP levels and a set of country fixed-effects as control variables). The data covers TL3 regions from 18 OECD countries over the 1995-2010 period. The graph shows average yearly growth rates for each group of regions conditional on the control variables. It illustrates that regions within 45 minutes of a metropolitan area with more than 2 000 000 inhabitants grew on average by 1.8% per year. The growth rate is almost half a percentage point higher than the growth rate of regions within 45 to 90 minutes of metropolitan areas of the same size. See Ahrend and Schumann (forthcoming) for further details.

Effect of growth rates on TL3 regions close to metropolitan areas



Source: Ahrend, R. and A. Schumann (forthcoming), “Does regional growth depend on closeness to urban centres? The role of economic and geographic distance”, *OECD Regional Development Working Papers*, OECD Publishing, Paris.

Agglomeration benefits are present in Dutch TL3 regions in terms of higher labour productivity. Indeed the share of a region's population living in FUAs is a key determinant of productivity and competitiveness, rather than population density per se. Thus, the smaller provinces in terms of population size can also reap the agglomeration benefits as long as an important share of their population lives in FUAs. Nevertheless, despite these positive trends, when comparing the agglomeration benefits in the Netherlands with respect to OECD standards, there is room to further deepen these benefits since they are significantly lower in terms of productivity growth rates in urban regions and in terms of agglomeration premium in Dutch urban regions and in FUAs. Improving the performance of Dutch functional urban areas has the potential to enhance national competitiveness given the rich urban network and spill-over effects to adjacent rural regions.

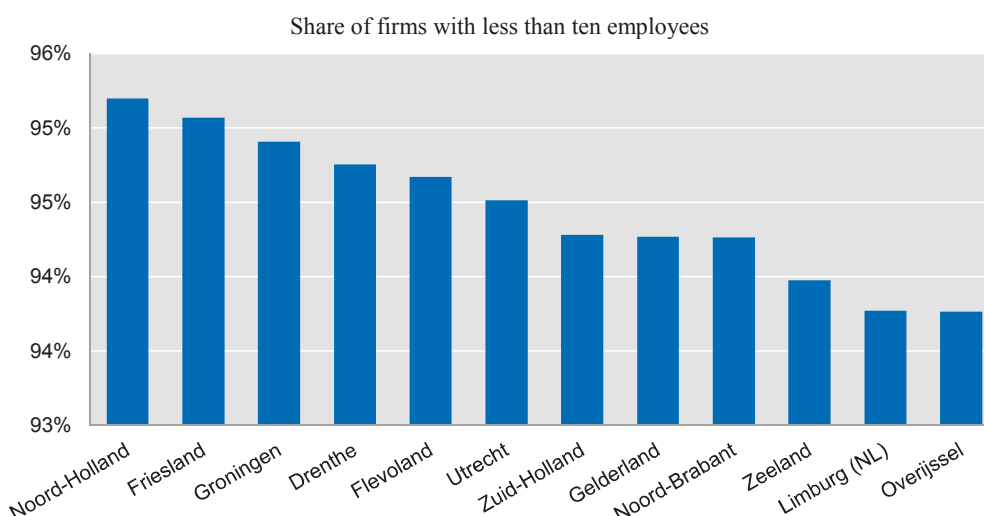
Economic structure of Dutch TL3 regions

Economic activity in the Netherlands has a strong geographic dimension. The key sectors of competitiveness in the Netherlands, also called with “ports” and “valleys” (Box 1.6), have a strong spatial dimension. Indeed one of the key factors driving the competitiveness of these sectors is the strong links between public institutions, knowledge centres and the private sector. Both regions and sectors benefit mutually from strong links: regions will benefit as a whole when sectors are highly competitive, and sectors will benefit when the enabling factors present in regions (i.e. skills, labour market, accessibility, institutions) are adequate and adapted to their needs.

Small and medium-sized enterprises play an outsized role

Small and medium-sized enterprises (SMEs) play a significant role in the Dutch economy. In 2011, the share of value added produced by SMEs was 63.2%, higher than the EU27 average (58.1%). In terms of employment, the share of workers in SMEs is 65.4%, (Eurostat). The difficulty in accessing credit for SMEs in the Netherlands (see first section), is therefore of relevance for the whole economy.

The distribution of small firms (less than 10 employees) across Dutch provinces yields a mixed picture, with highly productive and less productive regions containing similar shares. Small firms made up more than 95% of all firms in two of the most productive regions – Noord-Holland and Groningen (Figure 1.52). However, Friesland and Drenthe, two of the least productive Dutch regions, also contain a high share of small firms.

Figure 1.52. **Business structure by province, 2013**

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

Agriculture, manufacturing, energy, and financial intermediation have a clear spatial dimension. The analysis of gross value added (GVA) produced in each province shows that Noord-Holland and Utrecht specialise in financial services, while Zuid-Holland specialises in oil refining; Flevoland and Friesland in agricultural activities; Groningen in energy production (i.e. mining and quarrying); and the rest of the regions in a wide range of manufacturing activities (Table 1.13). Indeed the strong sectorial specialisation reflects the spatial dimension of the main ports and valleys in the Netherlands (see Box 1.6).

Table 1.13. **Sectoral specialisation in terms of value added, 2007**

Province	Sector	Specialisation index
Groningen	Mining and quarrying	10.41
Zeeland	DG chemical products	6.28
Overijssel	DH rubber and plastic products	3.9
Zuid-Holland	DF coke, refined petroleum, nuclear fuel	3.82
Limburg (NL)	DG chemical products	2.92
Friesland	A+B agriculture, hunting, forestry, fishing	2.56
Noord-Brabant	DM manufacture of transport equipment	2.54
Drenthe	DL electrical and optical equipment	2.51
Flevoland	A+B agriculture, hunting, forestry, fishing	2.38
Gelderland	DB+DC textile and leather products	1.95
Noord-Holland	J financial intermediation	1.75
Utrecht	J financial intermediation	1.67

Note: The index of specialisation for each sector is the ratio between the sector weight in the provincial gross value added, and the weight of the same sector in the national gross value added. It indicates the importance of the sector in the Dutch economy. A value above 1 implies that the province is more specialised in that sector than the rest of the economy. The table displays for each province the sector with the highest specialisation index in 2007. Sectors are classified according to the one digit ISIC except of the manufacturing sector which is based on the two-digit ISIC.

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

Box 1.6. The geographic dimension of Dutch “ports” and “valleys”

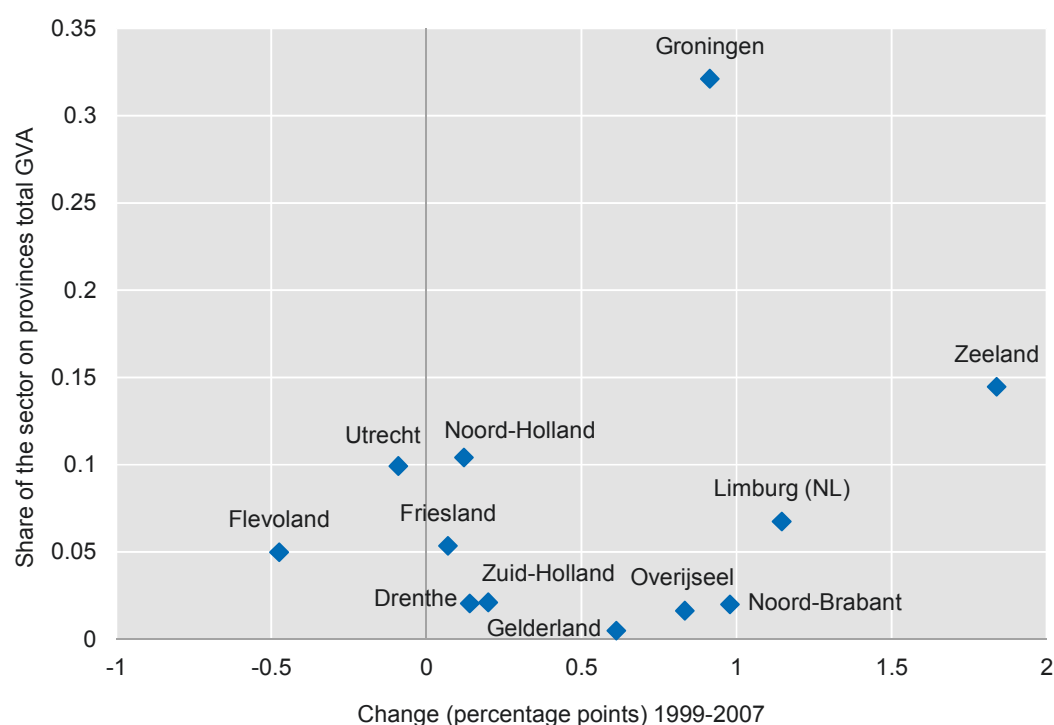
The Dutch economy is sometimes described through the lenses of “ports” and “valleys”, which are spatially located:

- The main ports are the sea port of Rotterdam (one of the biggest in the world, and the “front door” to the European market), Seaports Amsterdam (the fourth port in Europe and the second in terms of value added) and Schiphol airport in the province of Noord-Holland, near Amsterdam. This area is also known as the Randstad region (see Chapter 2). These ports are connected to the rest of the country, and indeed the rest of Europe, through an effective infrastructure network which exploits both terrestrial and fluvial routes.
- The green ports are mainly located in the provinces of Noord-Holland, Zuid-Holland, Limburg and Noord-Brabant. They are based on the agro-food sector and employ a considerable amount of innovative and high-tech production methods. The green ports contribute to an important share of total Dutch exports.
- Brainport is located around the city of Eindhoven and is one of the main high-tech hubs in Europe and consists of a well-integrated network of high innovative companies, universities and public institutions.
- The energy valley, located in the province of Groningen, consists of a system of companies that produce energy through both traditional and innovative systems. An important share of the total value-added in the region is produced by the energy valley.
- The food valley in the province in Gelderland consists of a well-integrated network of international food companies, research institutes and universities. The aim is to create conditions for food manufacturers and knowledge institutes to work together and join their efforts in developing new and innovating food concepts.
- The health valley also located in Gelderland, and aims to link knowledge in biomedical and healthcare sectors. It represents an opportunity for the region to create an environment in which businesses and care institutions can operate in an innovative way.

In all these structures there is a strong component of co-operation among public institutions, knowledge institutions, and businesses.

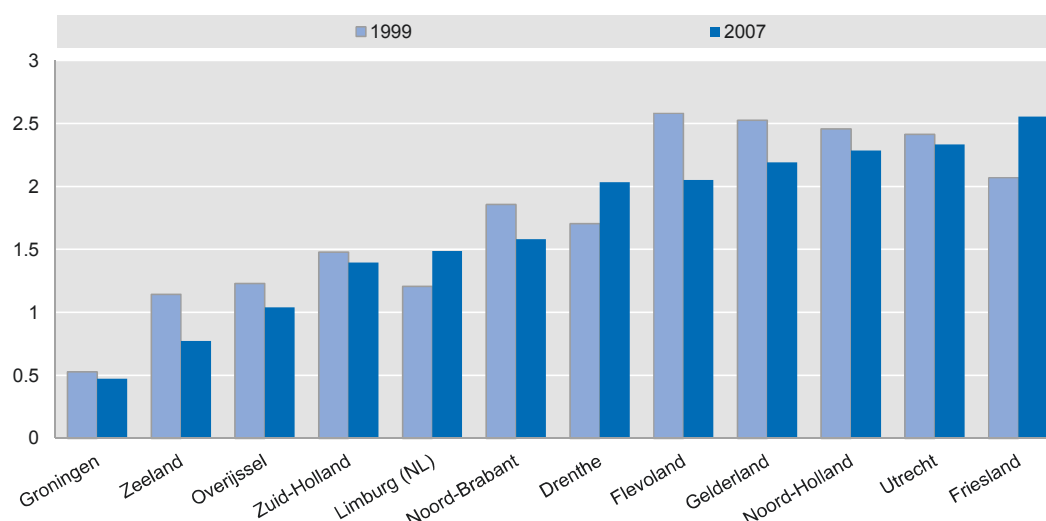
In most of the provinces the degree of specialisation, measured in gross value added, increased between 1999 and 2007, most significantly in Zeeland (Figure 1.53). By contrast, specialisation decreased in Utrecht and Flevoland. In just four provinces, the specialist sector accounts for more than 10% of the province’s gross value added: Utrecht, Noord-Holland, Zeeland, and Groningen.

Figure 1.53. **Changes in gross value added specialisation and importance for the provincial economy**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

All but three Dutch regions – Groningen, Zeeland and Overijssel – have a similar degree of diversification, measured as the variability of the specialisation index for each industrial sector. Figure 1.54 shows Groningen to be the least diversified region, as its GVA comes mainly from one sector, while Noord-Holland, Utrecht, and Friesland are the most diversified. Furthermore, South-Holland appears to be more specialised than Noord-Holland.

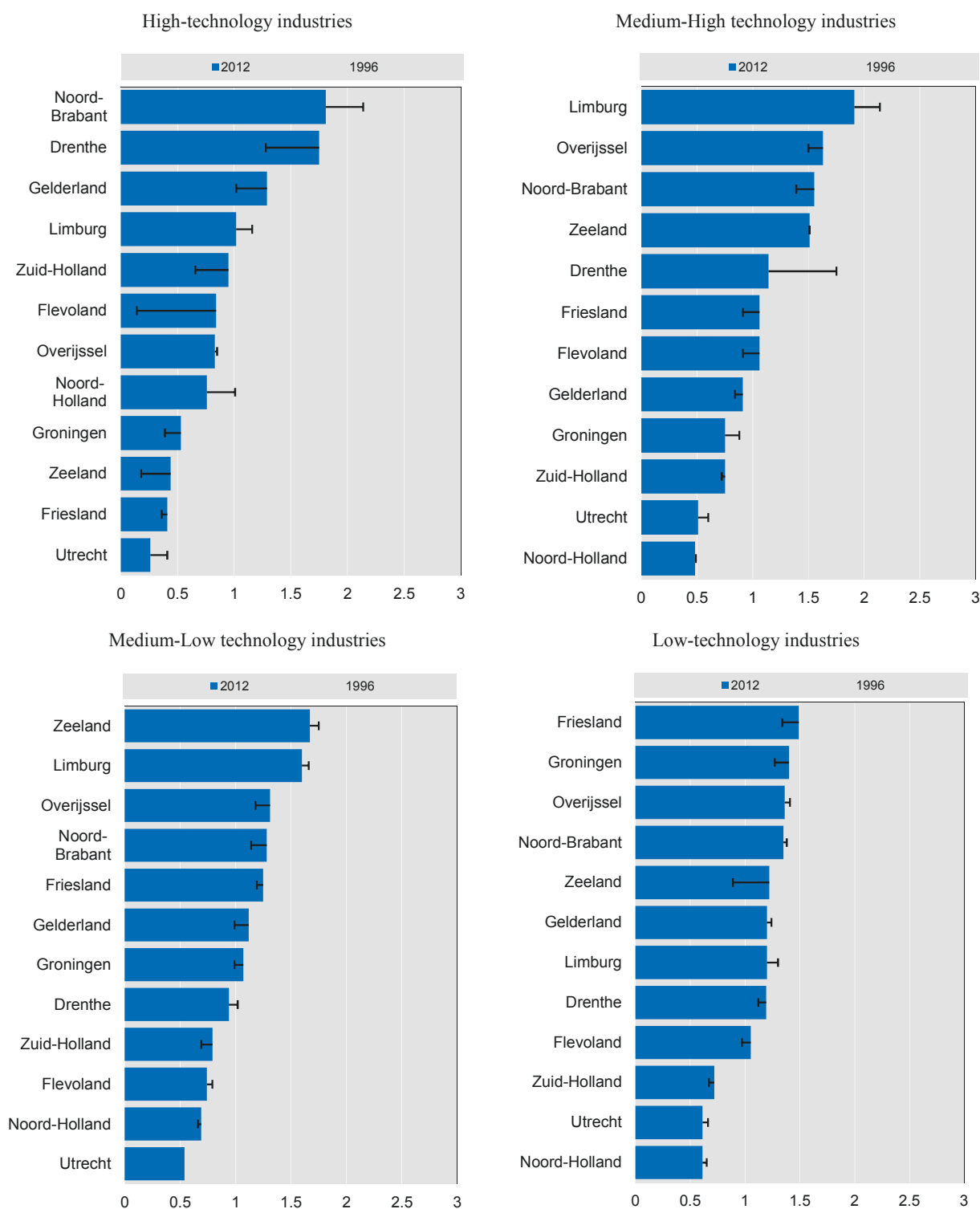
Figure 1.54. **Diversification of the provincial economies, 1999 and 2007**

Note: The standard deviation is calculated as the difference from the mean of the sectoral specialisation values for each province. A small standard deviation reflects few differences in the specialisation values (when the values are all the same the standard deviation is zero). The values in the graph show the inverse of this index, thus the degree of diversification of the economy.

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

There is more variation in employment specialisation in high-tech industries among Dutch provinces than among medium-and low tech industries. The index of specialisation in employment among high tech, medium-high tech, medium-low tech and low-tech industries (Figure 1.55), highlights the following:

- Noord-Brabant's high-tech industry is the most specialised, followed by Drenthe and Gelderland. The increase in employment specialisation over the past decade in Drenthe is a positive development, although it has yet to bear fruit in terms of value added.
- Limburg is the most specialised province in medium-high tech; Zeeland is the most specialised in medium-low tech; and Friesland in low-tech.
- The provinces of Noord-Holland and Utrecht are the least specialised in all four categories.

Figure 1.55. **Employment specialisation, 1996 and 2012**

Note: The employment specialisation index is calculated as the ratio between the weight of the sector in the specific province (employment in the sector over total employment in the province) and the national weight of the sector (employment in the sector over total employment calculated at the national level).

Source: Calculations provided by the Netherlands Environmental Assessment Agency (PBL).

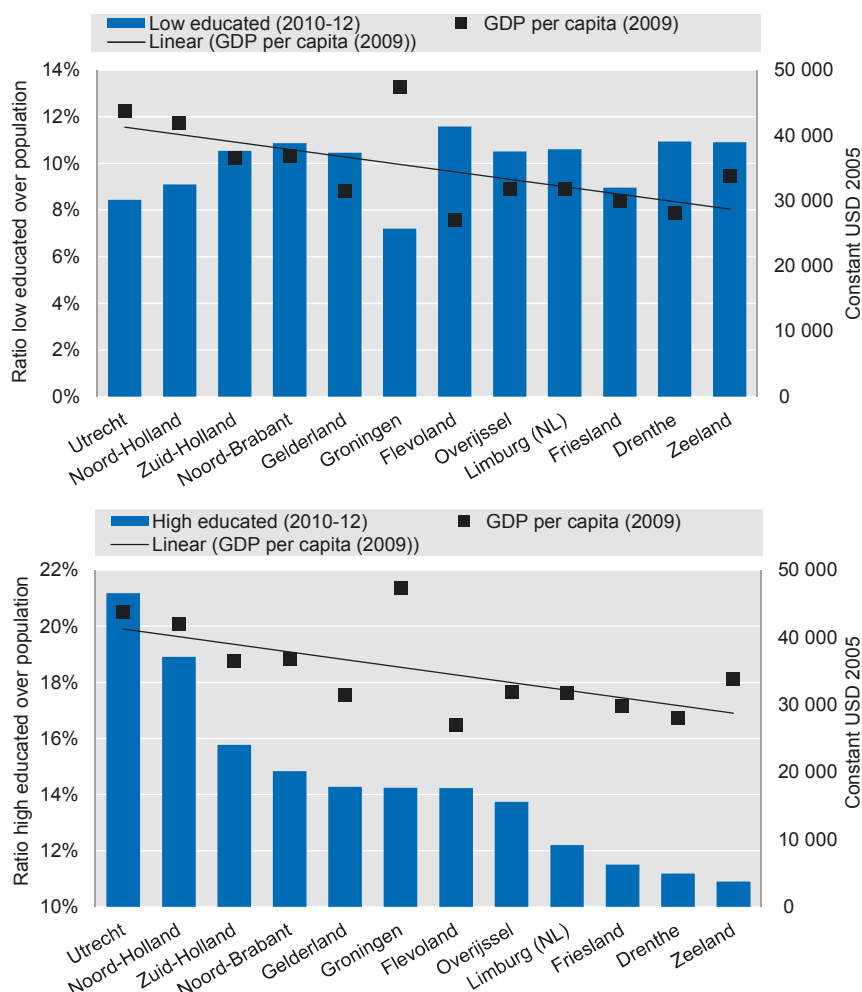
In sum economic activity in the Netherlands has an important geographic dimension. Specialisation in terms of value added has increased over the past decade. The main “ports” and “valleys” have a strong regional dimension. Key factors driving the competitiveness of sectors are the strong links between higher education institutions, the public sector with private actors. Therefore sectors can build upon the strength of regions and in turn regions – and the wellbeing of its inhabitants – can benefit from enhancing the competitiveness of sectors through jobs and higher wages. There are strong mutual gains, and therefore it is imperative that both strategies are tuned towards the same goals as discussed in Chapter 2. Furthermore, regions with a higher degree of specialisation appeared more robust to the first shock and recovered more quickly.

Human capital is key for growth and resilience

The higher the level of education attainment of the labour force the higher the productivity, and thus the economic performance of countries and regions. Indeed human capital appears to be the most important factor influencing the performance of OECD regions over the medium and long term. Both the presence of highly-skilled workers and the absence of low-skilled workers have a positive influence on regional growth (Box 1.4). As we saw in the previous section, regions with a higher share of skilled workers were more resilient to the global financial crisis.

Although the level of educational attainment and skills in the Netherlands is among the highest in the OECD, there are important regional variations. Utrecht and Noord-Holland have significantly higher shares of highly-educated workers in their population. In contrast, Zeeland, Drenthe and Friesland lag behind the other regions, with much lower shares of highly-educated workers. The share of workers with tertiary education in Utrecht is almost double that of Zeeland (Figure 1.56).

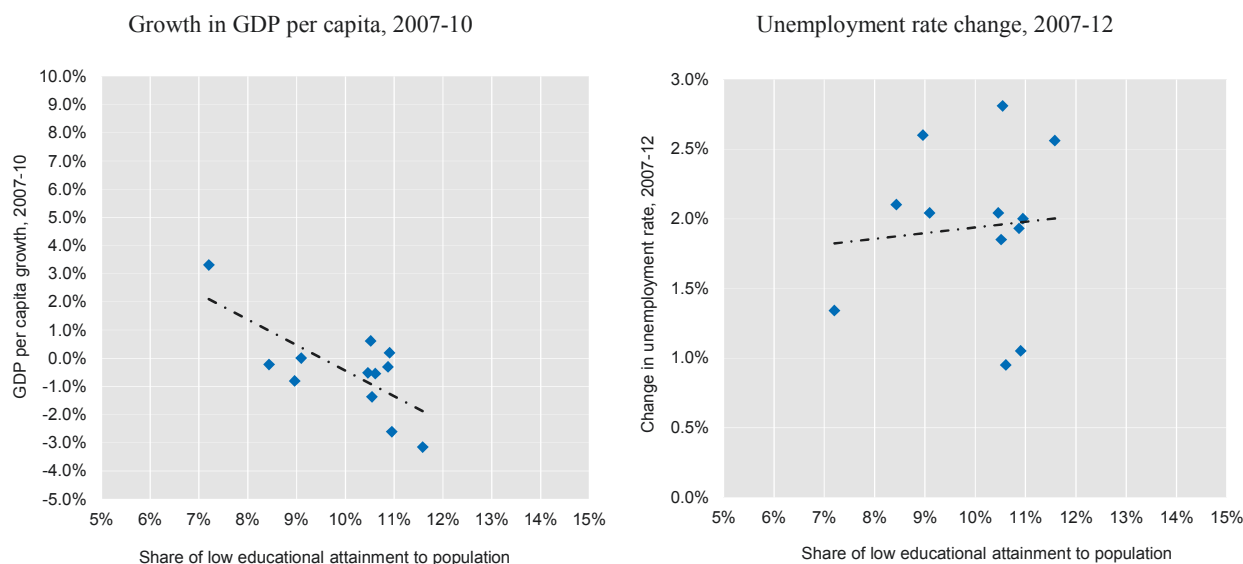
There is less regional variation in less-educated workers: the ratio of low educated workers to population ranges between 8 and 12%, while the ratio of high educated workers over population ranges from 11% to 21% (Figure 1.56). This variability has important implications for regional response to economic crises.

Figure 1.56. **Regional share of highly and less-educated workers to population, 2012**

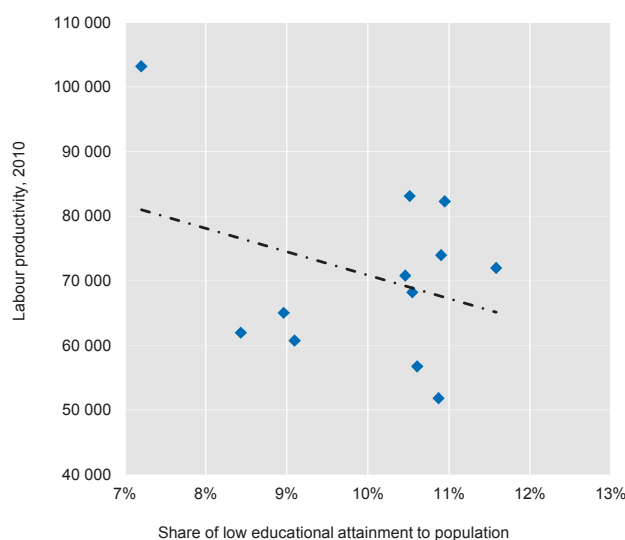
Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

Regional employment specialisation in high-tech sectors is not necessarily related to higher shares of highly-educated workers. In fact, Noord-Brabant comes behind Utrecht, Noord and Zuid Holland in terms of human capital. Utrecht and Noord-Holland, with the largest share of high-skilled workers are most specialised in financial services. This suggests that a significant share of high skilled workers is employed in service related activities.

High levels of GDP per capita and productivity are highly correlated with the share of highly-educated workers. Similarly, Dutch regions with a low share of less-skilled workers enjoy higher levels of GDP per capita and productivity in the long term. They are also more resilient to shocks such as the recent global financial crisis (Figures 1.57). In fact those regions with a higher share of low skilled workers suffered a larger decline in GDP per capita between 2007 and 2010 and a larger increase in unemployment during the first and second shock (2007-12).

Figure 1.57. **Impacts on regional resilience of a large share of less-educated workers during the crisis**

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Figure 1.58. **Educational attainment and labour productivity, 2010**

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

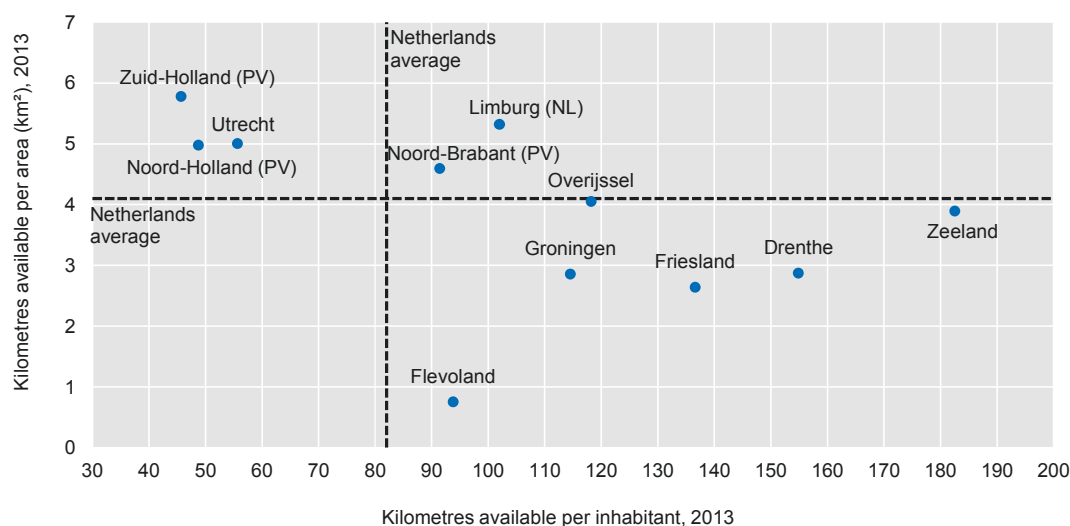
This section finds an important link between levels of human capital and regional performance. The share of highly-skilled workers in Dutch regions varies more than in low-skilled workers. Regions would unleash both short and long-term benefits from increasing their shares of highly-skilled workers.

Infrastructure and accessibility drive good performance

Infrastructure and accessibility – both internally and to external markets – are important for the performance of the Netherlands, its FUAs and regions, but only if accompanied by adequate investment in human capital and innovative activities (Box 1.4). In fact, if undertaken in isolation, they can produce unintended negative consequences, such as “leaking by linking” (OECD, 2009a, 2012a).⁷

Accessibly and connectivity are particularly interesting issues for Dutch provinces, given their proximity to major EU markets. Three of the Netherlands’ most populated regions, Zuid-Holland, Utrecht and Noord-Holland, have too few kilometres of road given the size of their populations (Figure 1.59). The four other regions – Flevoland, Groningen, Friesland and Drenthe – have less kilometres of road in proportion to their surface area, but not given the size of their population.

Figure 1.59. **Kilometres of road per inhabitant and per square kilometre of Dutch TL3 regions, 2013**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

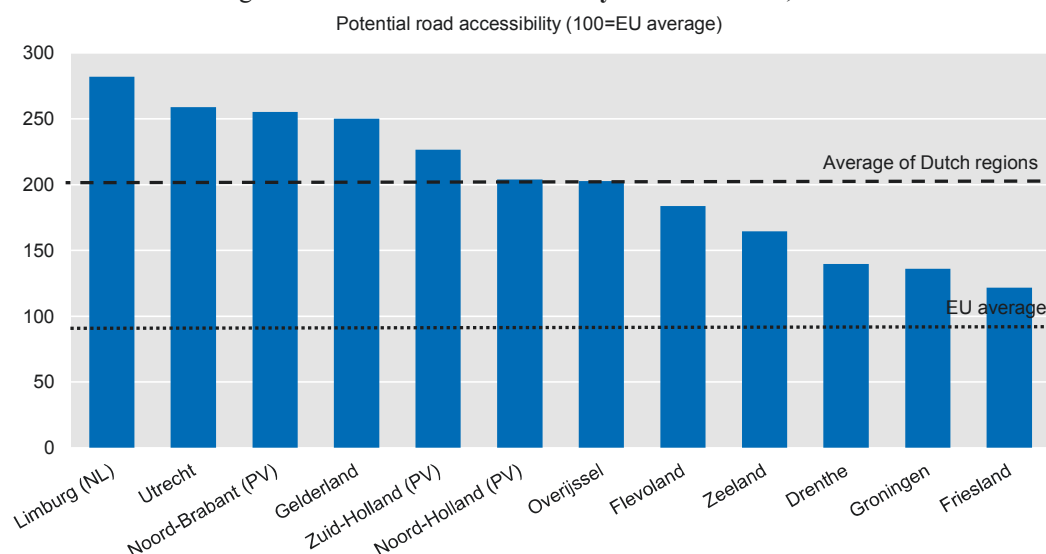
The composition of road infrastructure varies significantly among Dutch regions. Utrecht, Zuid-Holland and Noord-Holland enjoy the highest share of motorways in their road infrastructure, Flevoland, Groningen and Friesland have the highest share of provincial roads, while Noord-Brabant, Limburg, Overijssel and Zuid-Holland have the highest share of municipal roads (Table 1.14).

Table 1.14. **Regional distribution of motorways, municipal and provincial roads**

	Municipal	Provinces	Motorways
Utrecht	88.6	5.5	5.9
Zuid-Holland	91.0	4.3	4.7
Noord-Holland	90.5	4.9	4.6
Flevoland	82.1	13.7	4.2
Noord-Brabant	93.6	2.6	3.8
Friesland	88.8	7.5	3.6
Gelderland	89.9	6.7	3.4
Drenthe	90.0	6.8	3.2
Groningen	88.1	8.7	3.2
Limburg (NL)	92.7	4.1	3.1
Zeeland	89.8	7.1	3.1
Overijssel	91.1	6.3	2.6
Netherlands	90.6	5.6	3.8

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

Compared to other EU regions, all Dutch regions have above-average road accessibility to European markets (measured in terms of travel time). However, there are marked differences among the Dutch regions. The northern regions of Drenthe, Groningen and Friesland have around half the accessibility potential to EU markets than Limburg, Utrecht, Noord-Brabant and Gelderland (Figure 1.60), which is explainable given their geographic location. It is interesting to observe the better road accessibility in Utrecht than in Noord-Brabant, despite the latter being closer to European markets.

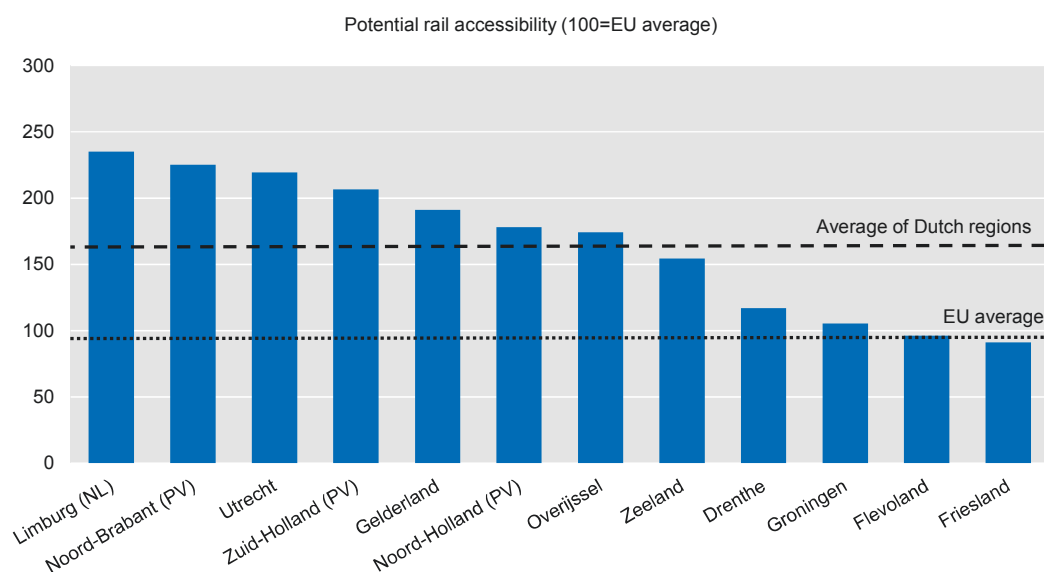
Figure 1.60. **Road accessibility to EU markets, 2006**

Note: The indicator measures accessibility to potential markets in travel time by road using an inverse weighted GDP matrix to all EU regions. The weighting rule applies the inverse distance for travel time. Potential rail access thus measures all the people that can be reached from a given region to all other regions in the EU. The higher the index the more accessibility in the region.

Source: Based on data from on data from European Commission.

The pattern for rail accessibility to potential EU markets is similar, although some northern Dutch regions – especially Flevoland and Friesland – are both below the EU average (Figure 1.61). The lower rail accessibility of these regions, as in the case of road accessibility, is explainable given their remote geographic location. The combined population share of the three northern regions (Friesland, Flevoland and Groningen) only represents 10% of the national population. Moreover, when comparing border regions to regions in Germany, economic activities in Dutch regions are less concentrated and urban areas are less densely populated than for example the Ruhrgebiet. Therefore, the costs of expanding infrastructure towards Dutch northern regions will have to be gauged against the overall benefits in these regions and their expected traffic flows. In the case of Flevoland, accessibility has been improved since the end of 2012 with the opening of the Hanzelijn (Lelystad-Zwolle) providing with more direct rail connections from Flevoland towards the northern part of the Netherlands.

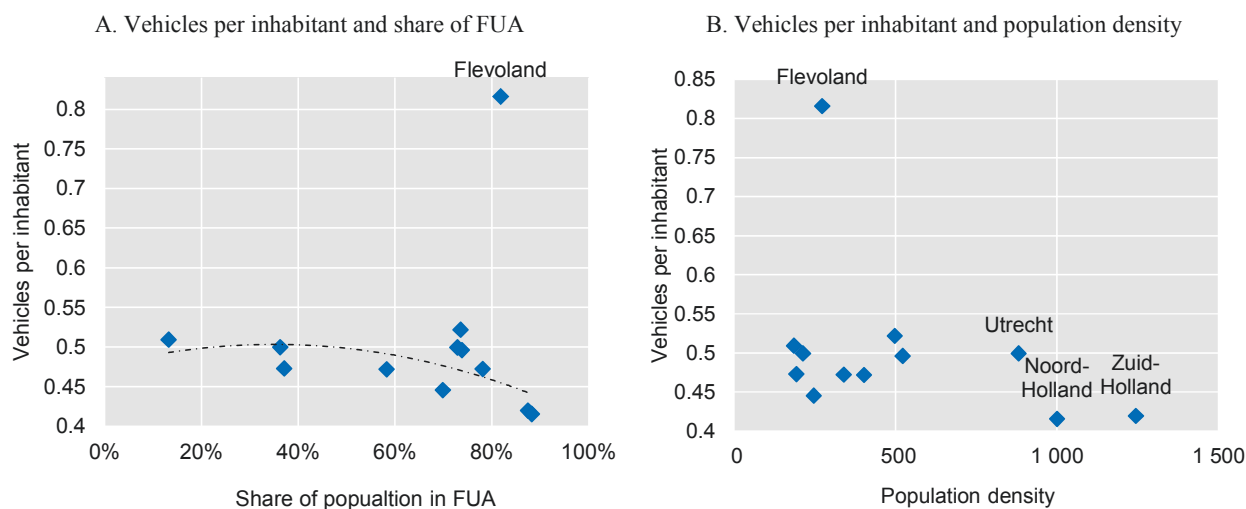
Figure 1.61. Rail accessibility to EU markets, 2006



Note: The indicator measures accessibility to potential markets in travel time by rail using an inverse weighted GDP matrix to all EU regions. The weighting rule applies the inverse distance for travel time. Potential rail access thus measures all the people that can be reached from a given region to all other regions in the EU. The higher the index the more accessibility in the region.

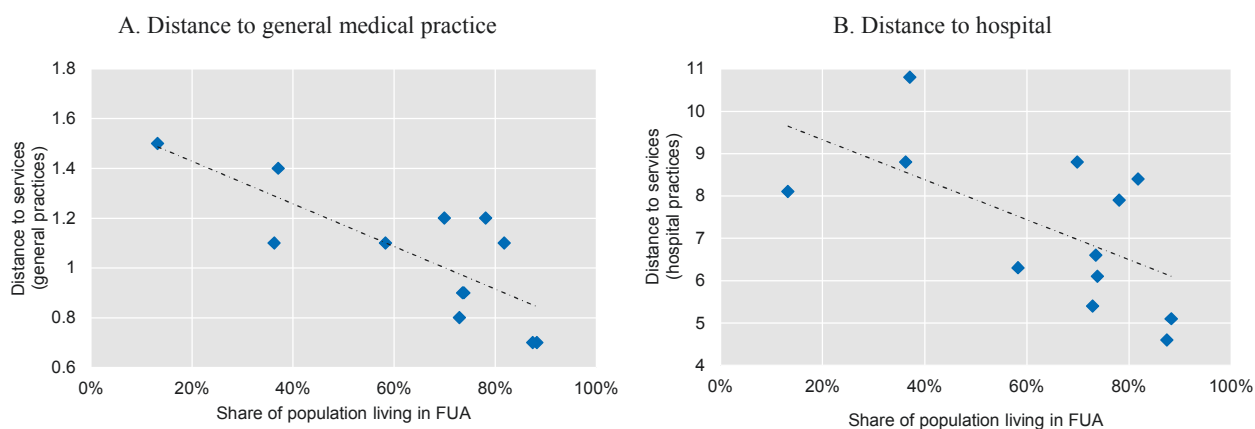
Source: Based on data from on data from European Commission.

Among Dutch regions – with the exception of Flevoland – the higher the share of the population living in an FUA, the lower the use of vehicles per capita (Figure 1.62). This trend has important environmental implications and is likely driven by the higher use of public transport within FUAs. However, it is interesting that this correlation is less clear when comparing population density with vehicles per inhabitant (Figure 1.62).

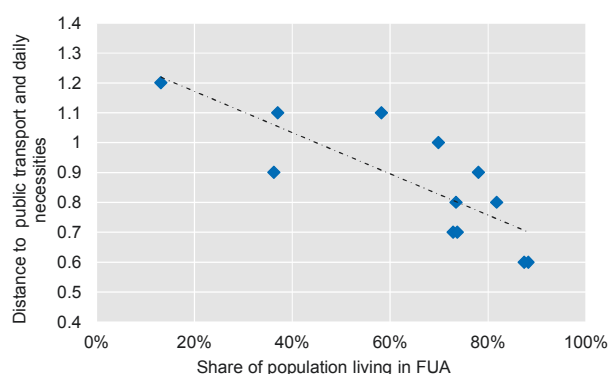
Figure 1.62. **Vehicles per inhabitant and population in functional urban areas, 2013**

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

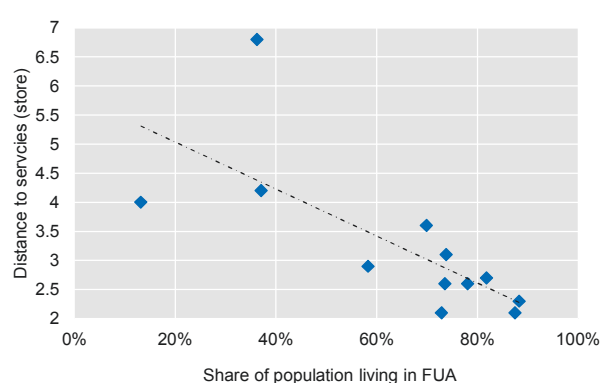
Accessibility to goods and services is also related to the presence of FUAs as expected. From an economic point of view, the higher the share of inhabitants contained in an FUA the more cost efficient it will be to provide goods and services. In the Netherlands there is a strong linear relationship between the share of population living in FUAs and the average distance to a wide range of goods and services. These include distance to health services (general medical practices and hospitals), transportation services and shops. The higher the share of inhabitants living in an FUA, the lower the average distances travelled (Figure 1.63). This positive relationship is also present between population density and distance to services.

Figure 1.63. **How functional urban areas influence service accessibility, 2013**

C. Distance to public transport and daily necessities foodstuff



D. Distance to shops

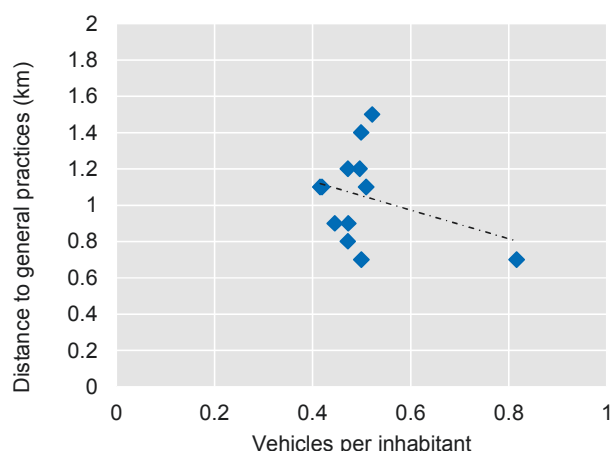


Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

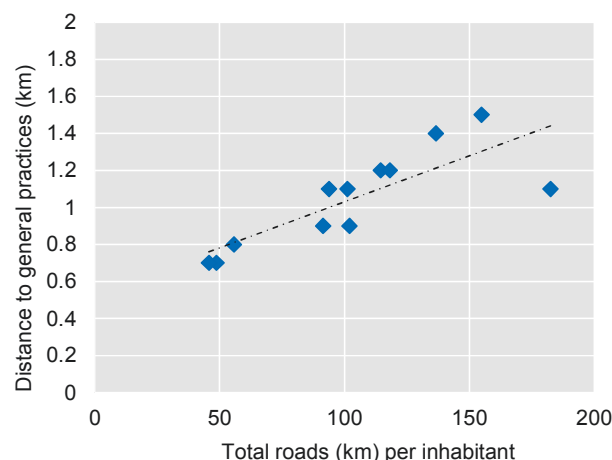
Better accessibility to goods and services is not related to the number of vehicles per inhabitant or to the total kilometres of road per inhabitant. The greater the road kilometre per inhabitant, the greater the distance needed to travel to access services. Neither does the number of vehicles per inhabitant appear to be related to the distance travelled to general services (Figure 1.64).

Figure 1.64. The relationship between accessibility, vehicles and length of roads, 2013

A. Distance to services (general practices) and vehicles per inhabitant



B. Distance to services (general practices) and km per inhabitant



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

In sum, all Dutch regions are well connected to European markets in terms of road accessibility. In terms of rail, although accessibility is lower in two Dutch regions – Flevoland and Friesland – with below EU-average connectivity to European markets, this can be explained due to their remote geographic location. Important differences are present in the composition of road infrastructure. Three regions have more than double the share of motorways to total road kilometres than Overijssel, the region with the lowest

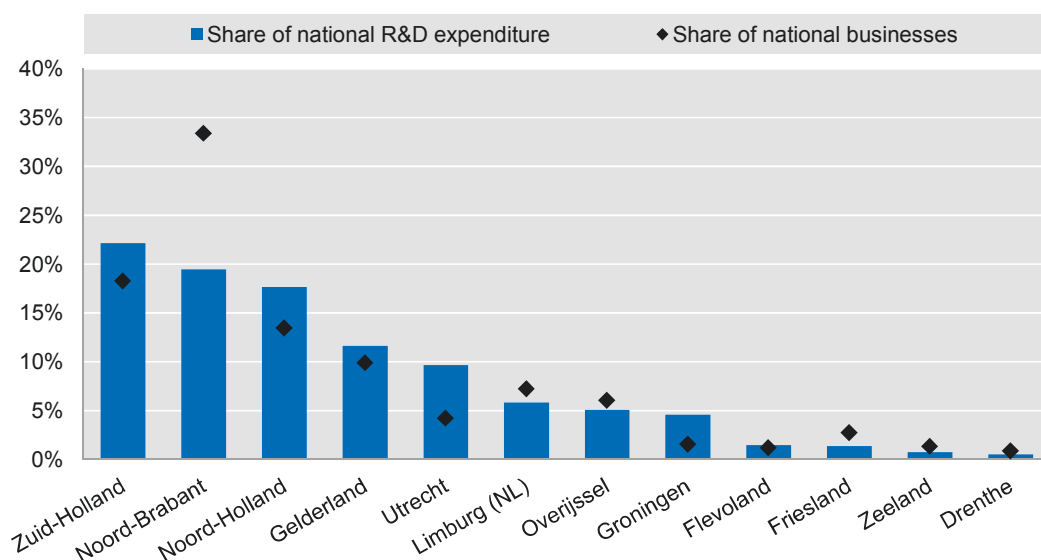
share. In terms of internal connectivity, regions with a higher share of their population living in FUAs tend to have lower vehicles per inhabitant and better accessibility to goods and services. Finally better accessibility of goods and services is not related to more vehicles per inhabitant and to more kilometres per inhabitants. On the contrary regions with more kilometres per inhabitants appears to be travel longer distances to services.

Innovation is important for long-term growth

Innovation is an important driver of growth. Indeed for regions with high levels of income per capita and productivity (e.g. closer to the production possibility frontier), innovation appears to be one of the main determinants of growth (Box 1.4). Thus innovation is particularly relevant for boosting the long-term performance of Dutch regions, given their high levels of GDP per capita. The current government has prioritised innovation intensity through its newly created Top Sector Policy (see Chapter 2).

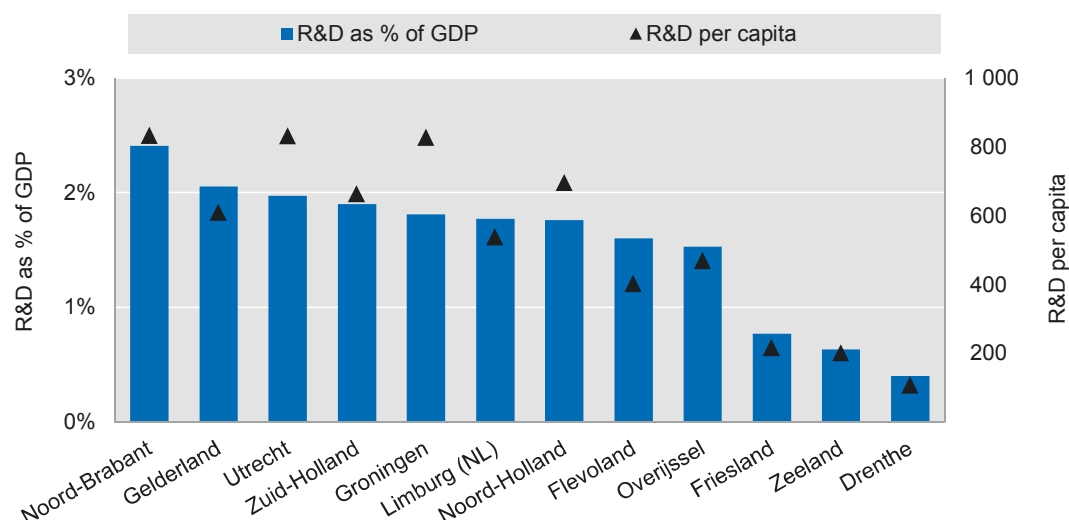
The Netherlands is characterised by a high level of innovation generated by the economy. At the provincial level this is reflected by the amount and intensity of research and development (R&D) expenditure and the number of patents produced. In absolute terms most R&D expenditure takes place in the provinces of Zuid-Holland, Noord-Brabant, and Noord-Holland. These three provinces accounted for almost 60% of R&D expenditure in 2009 and enjoy the highest participation by the private sector in innovative activities. In contrast Flevoland, Friesland, Zeeland, and Drenthe jointly accounted for only 4% of total Dutch R&D expenditure in 2009.

Figure 1.65. **Regional share in government and private R&D investment, 2009**



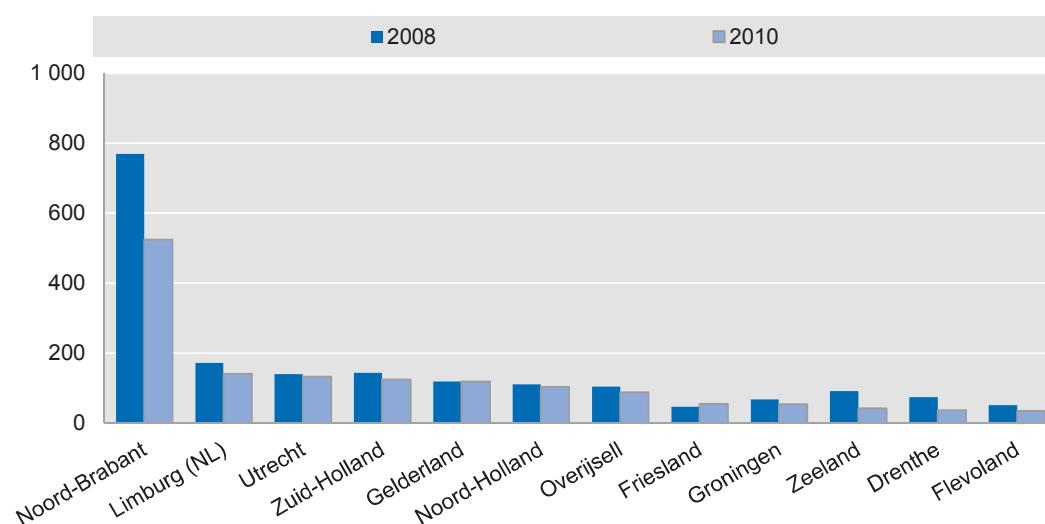
Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Noord-Brabant leads the pack in its intensity of R&D (expenditure as a share of GDP and per capita; Figure 1.66). Friesland, Zeeland, and Drenthe are at the other end of the scale. These three regions also recorded the lowest rate of GDP per capita growth during the pre-crisis period (1995-2007), which perhaps underlines the importance of innovative activity in medium and long-term performance.

Figure 1.66. **Research and development intensity**

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

The province of Noord-Brabant leads the field even more convincingly when it comes to patent applications (Figure 1.67). This is because not all R&D expenditure generates patented innovations; part of the innovative activity involves process innovations and quality improvement of existing products. A comparison of 2008 and 2010 shows a general decrease of patents in all provinces, and a closing of the gap with Noord-Brabant.

Figure 1.67. **Patent applications per million inhabitants, 2008 and 2010**

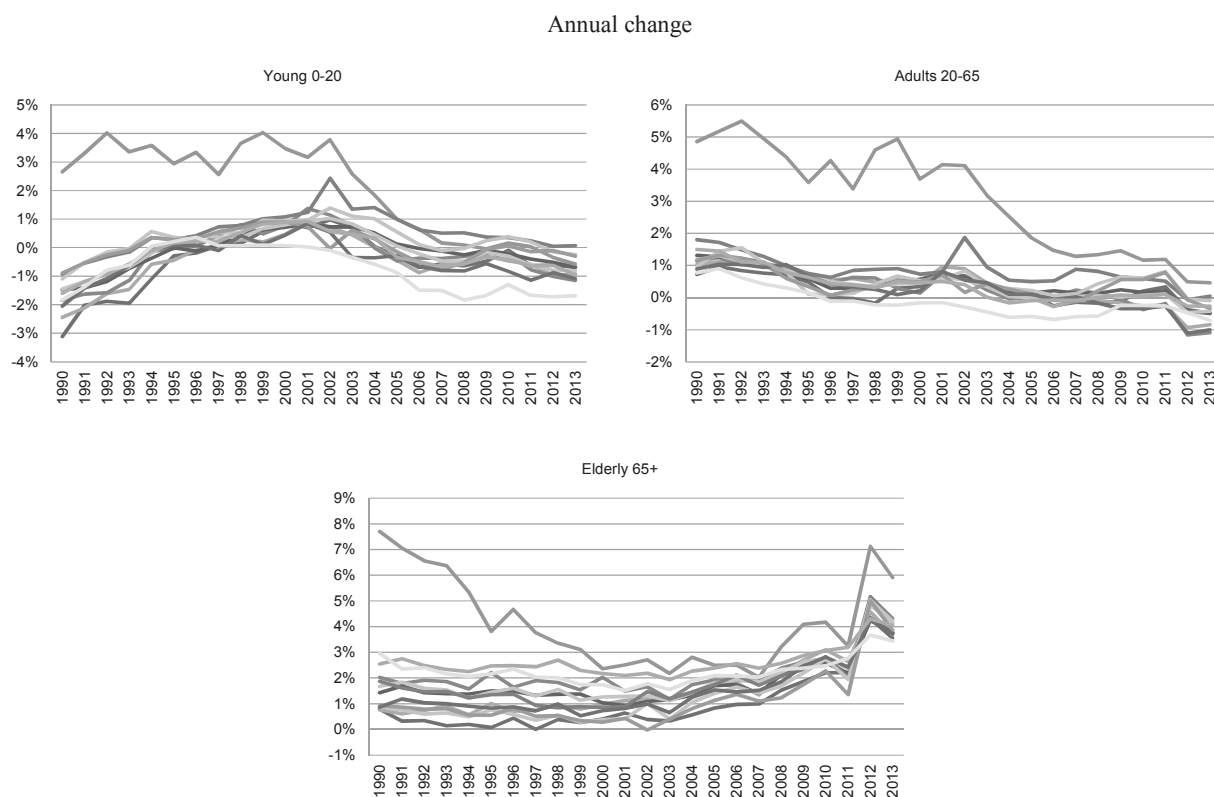
Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013) and OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

An ageing population brings challenges

As in most OECD countries, an ageing population is of concern for the Netherlands. The demographic evolution of a country represents an important indicator of the potential for long term economic development. An ageing population is a big concern for two reasons: (1) the future contraction of the working age population; and (2) the increase of resources required for care of the elderly and social welfare programmes.

Dutch regions show in general a constant trend of population growth over past decades. In recent years however, Dutch regions have seen a downward trend in youth population and an upward trend in the elderly population. Both trends will reinforce the fall in the working age population which began in 2011 (bottom graph Figure 1.68). The shrinking of the Dutch labour market brings important challenges to a wide range of areas. On the one hand the shrinking of the labour force brings important challenges to labour market performance and sustainable growth rates, and on the other the ageing of the population represents rising costs in the provision of health services. Indeed studies extrapolating population growth dynamics (Martinez et al., 2013 and PBL & CBS, 2011) reveal that these challenges will have a differentiated effects and particular acute in peripheral regions of Groningen, Drenthe, Limburg and Zeeland.

Figure 1.68. **Population trends by age group, 1990-2013**



Note: Each of the lines represents one of the 12 Dutch provinces.

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

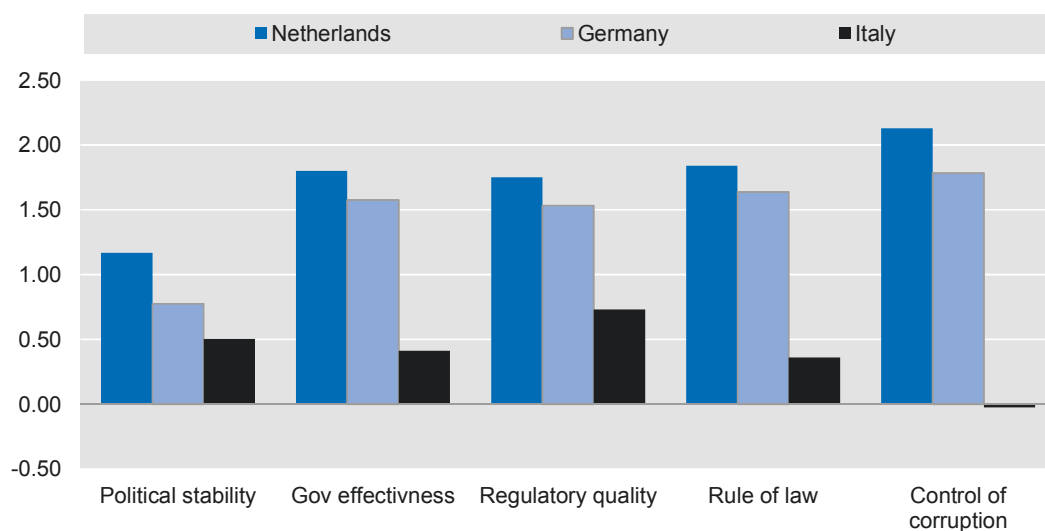
In sum, the shrinking of the labour force is a concern for all Dutch regions. In broad terms these trends have impacts on the labour force and on the provision of services to elderly people, especially in those regions with the lowest accessibility to health services.

Citizens rate governance quality and trust highly

Institutional factors are important for regional growth across the OECD (Box 1.4). For example, Putnam (1993) argues that the difference in economic development between the south and the north of Italy can be explained by different levels of social capital.⁸ In his words, spontaneous co-operation is easier when citizens trust each other and expect reciprocity. This is clearly an important element that can facilitate co-operation.

The quality of institutions is perceived as very good by Dutch citizens. The Netherlands scores at the top of the ranking in the main indicators of governance. It scores particularly highly on rule of law and control of corruption, both fundamental for creating a sound business environment.

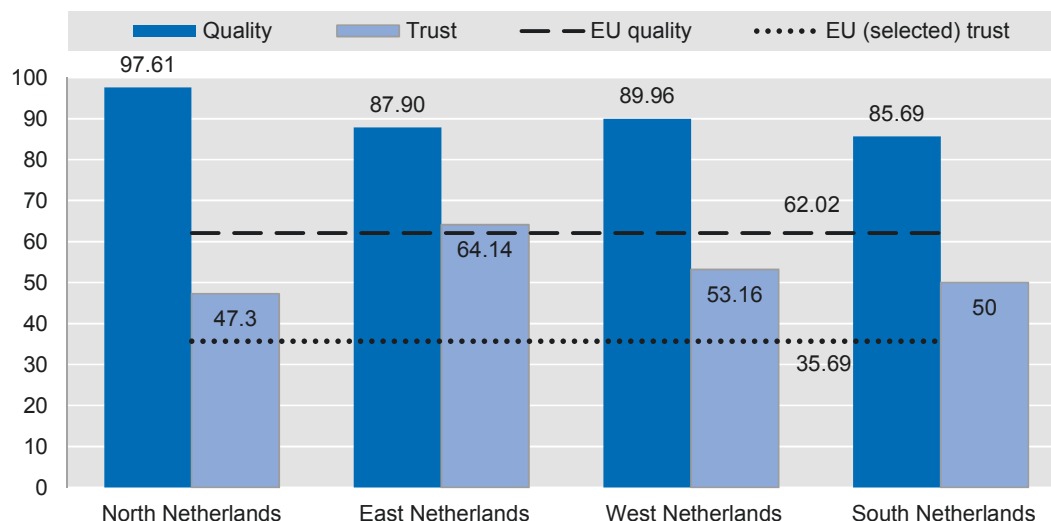
Figure 1.69. **Quality of governance indicators, 2012**



Source: World Bank, Worldwide Governance Indicators (WGI) project <http://info.worldbank.org/governance/wgi/index.aspx#home> (accessed on 19 November 2013)

The Netherlands is characterised by a high indicator of government quality.⁹ Data for this index are only available at the TL2 level for a number of European regions. However, all Dutch TL2 regions depict significantly higher values in all Dutch provinces than the EU average in terms of quality of governance (Figure 1.70). Furthermore there are no significant differences amongst the Dutch TL2 regions indicating that overall there are no important institutional gaps. The indicator of reciprocal trust is also above the average in every TL2 region compared to a selection of EU countries. Interestingly, North-Holland has the highest indicator of governance quality and the lowest indicator of reciprocal trust. In fact, there does not seem to be much correlation between quality of governance and reciprocal trust.

Figure 1.70. Quality of government and level of trust



Note: The quality of governance (QOG) indexes are derived from surveys of a sample of citizens in every region. The quality indicator ranges from 0 to 100, and represents a synthesis of specific indicators of quality, and the quality of governance indicator collected by the World Bank. The indicator of trust is based on survey questions conducted by the World Value Survey, and represent the answer to the question: Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people? More information about the survey is available in the webpage of the Quality of Government Institute at the University of Gothenburg (www.qog.pol.gu.se).

Source: Based on University of Gothenburg (2013), Quality of Government Institute <http://www.qog.pol.gu.se/data/datadownloads/> (accessed on 30 October 2013).

A recent OECD study shows that rural-urban partnerships are important for economic development (OECD, 2013k). The research included a case study of the BrabanStad partnership in Noord-Brabant. One of the main success factors of this partnership was a strong belief by the actors involved in co-operating to solve problems. Overall the quality of governance in the Netherlands is quite high; however Chapter 3 investigates further the role of institutional factors, paying particular attention to multi-level governance, the recent trends of decentralisation, up-scaling of provinces and mergers of municipalities.

Notes

1. The top sectors are: agri-food; chemicals; creative industry; energy; head offices; high tech; horticulture; life sciences and health; logistics; water.
2. Wholesale financing (or funding) refers to deposits provided by other financial institutions or government bodies. They are more volatile than traditional deposits because the institutions behind them are very reactive to changes in the economic environment (i.e. international interest rate and risk grading). The Dutch banking system by relying heavily on this type of financing is badly exposed to external shocks.
3. The value of the indicator for the Dutch economy is almost the double of the average value for EU economies (European Commission, 2012).
4. Data for FUAs below 500 000 are only available for population.
5. A contained FUA is one in which the entire FUA population resides within the province boundary.
6. When not correcting for the share of part-time worker, measured labour productivity will be lower than the true value.
7. These effects occur when infrastructure investments are undertaken in underdeveloped regions without adequate attention to other critical areas. This can induce firms to take advantage of the better infrastructure to leave the region and supply goods and services to it from elsewhere at lower transport costs.
8. Putnam defines social capital as “features of social organisation, such as trust, norms, and networks that can improve efficiency of society by facilitating co-ordination actions” (Putnam, 1993: 163).
9. The quality of governance indexes are derived from surveys of a sample of citizens in every region. Quality is an indicator that ranges from 0 to 100, and represents a synthesis of specific indicators of quality, and the quality of governance indicator collected by the World Bank. The indicator of trust is based on survey questions conducted by the World Value Survey, and represent the answer to the question: Generally speaking, would you say that most people can be trusted or that you can’t be too careful in dealing with people? More information about the survey is available in the webpage of the Quality of Government Institute at the University of Gothenburg (www.qog.pol.gu.se).

Annex 1.A1

OECD regional classification and typology

Regional grids

In any analytical study at sub-national level, defining the territorial unit is of prime importance, as the word *region* can mean very different things both within and among countries. In order to have a measure that is comparable, the OECD has developed a regional typology for classifying regions within each member country.

The classification is based on two territorial levels. The higher level (Territorial Level 2 – TL2) consists of 335 large regions, while the lower level (Territorial Level 3 – TL3) is composed of 1 679 small regions. All the regions are defined within national borders and in most cases correspond to administrative regions. Each TL3 region is contained within a TL2 region.

This classification – which, for European countries, is largely consistent with the Eurostat classification – helps to compare regions at the same territorial level. Indeed these two levels, which are officially established and relatively stable in all member countries, are used as a framework for implementing regional policies in most countries. In Slovenia TL3 regions corresponds to 12 statistical regions.

OECD regional typology

The OECD typology classifies TL3 regions as predominantly urban, predominantly rural and intermediate. This typology, based on the percentage of regional population living in rural or urban communities, allows for meaningful comparisons among regions of the same type and level. The OECD regional typology is based on three criteria. The first identifies rural communities (*kommun* in Sweden) according to population density. A community is defined as rural if its population density is below 150 inhabitants per square kilometre (500 inhabitants for Japan to account for the fact that its national population exceeds 300 inhabitants per square kilometre). The second criterion classifies regions according to the percentage of population living in rural communities. Thus, a TL3 region is classified as:

- predominantly rural (rural), if more than 50% of its population lives in rural communities.
- predominantly urban (urban), if less than 15% of the population lives in rural communities.
- intermediate, if the share of population living in rural communities is between 15% and 50%.

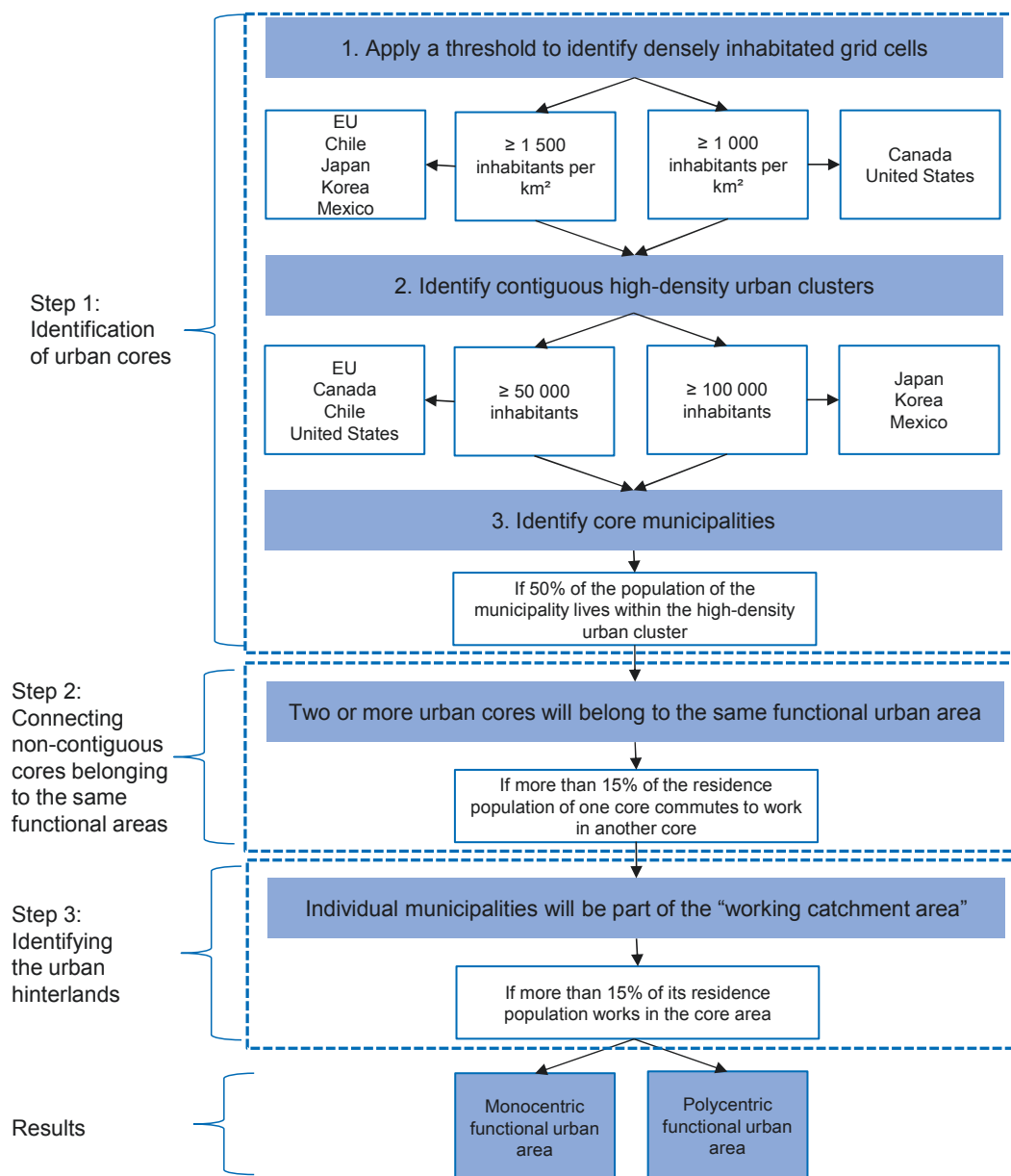
The third criterion is based on the size of the urban centres. Accordingly:

- A region that would be classified as rural on the basis of the general rule is classified as intermediate if it has an urban centre of more than 200 000 inhabitants (500 000 for Japan) representing no less than 25% of the regional population.
- A region that would be classified as intermediate on the basis of the general rule is classified as predominantly urban if it has a urban centre of more than 500 000 inhabitants (1 000 000 for Japan) representing no less than 25% of the regional population.

Annex 1.A2

Defining OECD functional urban areas

Figure 1.A2.1. Procedure for defining functional urban areas in OECD countries



Source: Based on OECD (2012), *Redefining "Urban": A New Way to Measure Metropolitan Areas*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264174108-en>.

Table 1.A2.1. **Functional urban areas in the Netherlands and population size**

Number	FUA code	FUA name	Population	Number	FUA code	FUA name	Population
1	NL002	Amsterdam	2 210 410	18	NL504	Amersfoort	193 576
2	NL003	Rotterdam	1 469 110	19	NL505	Maastricht	186 104
3	NL001	The Hague	820 021	20	NL515	Venlo	184 715
4	NL004	Utrecht	714 185	21	NL507	Leiden	172 977
5	NL005	Eindhoven	693 033	22	NL016	Sittard-Geleen	168 215
6	NL007	Groningen	458 686	23	NL506	Dordrecht	150 107
7	NL008	Enschede	390 388	24	NL501	Haarlem	148 373
8	NL009	Arnhem	382 752	25	NL519	Almelo	147 135
9	NL012	Breda	333 757	26	NL020	Roosendaal	128 851
10	NL013	Nijmegen	289 165	27	NL513	Deventer	120 623
11	NL010	Heerlen	282 697	28	NL032	Middelburg	112 231
12	NL006	Tilburg	281 151	29	NL028	Bergen	110 579
13	NL503	Den Bosch	261 478	30	NL017	Delft	107 242
14	NL511	Zwolle	237 524	31	NL512	Ede	102 401
15	NL015	Leeuwarden	233 870	32	NL030	Gouda	102 383
16	NL014	Apeldoorn	232 141	33	NL018	Hilversum	100 750
17	NL514	Alkmaar	194 441	34	NL026	Alphen	79 234
				35	NL029	Katwijk	59 569
Total							9 484 809

Annex 1.A3

Methodology for decomposing the factors of growth

Using a growth-accounting framework, both GDP and GDP per capita can be decomposed into three and four components receptively. The first decomposing method allows us to better understand the overall performance of regions and the latter with respect to its population in relative terms. We first start with decomposing GDP per capita into the following three components: productivity, employment rate and activity rate according to the following equation:

$$\frac{GDP_i}{P_i} = \frac{GDP_i}{E_i} * \frac{E_i}{WA_i} * \frac{WA_i}{P_i}$$

where P , E , and WA stand, respectively, for population, employment and working age (15-64) population. Therefore, GDP per capita of region i is a function of its GDP per worker (GDP_i/E_i), its employment rate (E_i/WA_i – the share of the working-age population in employment) and its age-activity rate (WA_i/P_i – the ratio of working-age to total population). The regional decomposed values, can be compared to national values, allow to measure gaps. Analysing their evolution over time (in log terms) allows to better capture a dynamic picture of each region. We plot the gaps for each of the 11 regions in the Netherlands over the period 100

GDP in turn can be decomposed as follows: The GDP share of region i in country j can be expressed as:

$$\frac{GDP_i}{GDP_j} = \frac{GDP_i/E_i}{GDP_j/E_j} * \frac{E_i/LF_i}{E_j/LF_j} * \frac{LF_i/WA_i}{LF_j/WA_j} * \frac{WA_i/P_i}{WA_j/P_j} * \frac{P_i}{P_j} \quad (2)$$

where P , E , LF and WA stand, respectively, for population, employment, labour force and working age (15-64) population. Therefore the GDP share of region i in country j is a function of its productivity, employment rate, participation rate, age-activity rate and population, relative to, respectively, the productivity, employment rate, participation rate, age-activity rate and population of its country defined as the following:

Productivity is defined as GDP per worker (GDP/E), where employment is measured at the place of work.

The employment rate is defined as the percent of labour force that is employed (E/LF), where the labour force is the number of employed plus the number of unemployed.

The participation rate is the ratio between the labour force and the working age population (LF/WA), where the working age population in the ages 15 to 64.

The activity rate is the population in the working age class (ages 15 to 64) as a percent of the total population.

By substituting equation 2 into equation 1, taking the logarithm and differentiating it, one obtains:

$$(g_i - g_j) = (g_{p,i} - g_{p,j}) + (g_{e,i} - g_{e,j}) + (g_{lf,i} - g_{lf,j}) + (g_{wa,i} - g_{wa,j}) + (g_{p,i} - g_{p,j}) \quad (3)$$

or, equivalently

Difference in GDP growth between region <i>i</i> and the country <i>j</i>	=	Growth difference in GDP per worker between region <i>i</i> and country <i>j</i>	+	Growth difference in the employment rate between region <i>i</i> and country <i>j</i>	+	Growth difference in the participation rate between region <i>i</i> and country <i>j</i>	+	Growth difference in the activity rate between region <i>i</i> and country <i>j</i>	+	Growth difference in population between region <i>i</i> and country <i>j</i>
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Figure 1.A3.1. Performance of Dutch regions, employment and participation rate growth, 1995-2009

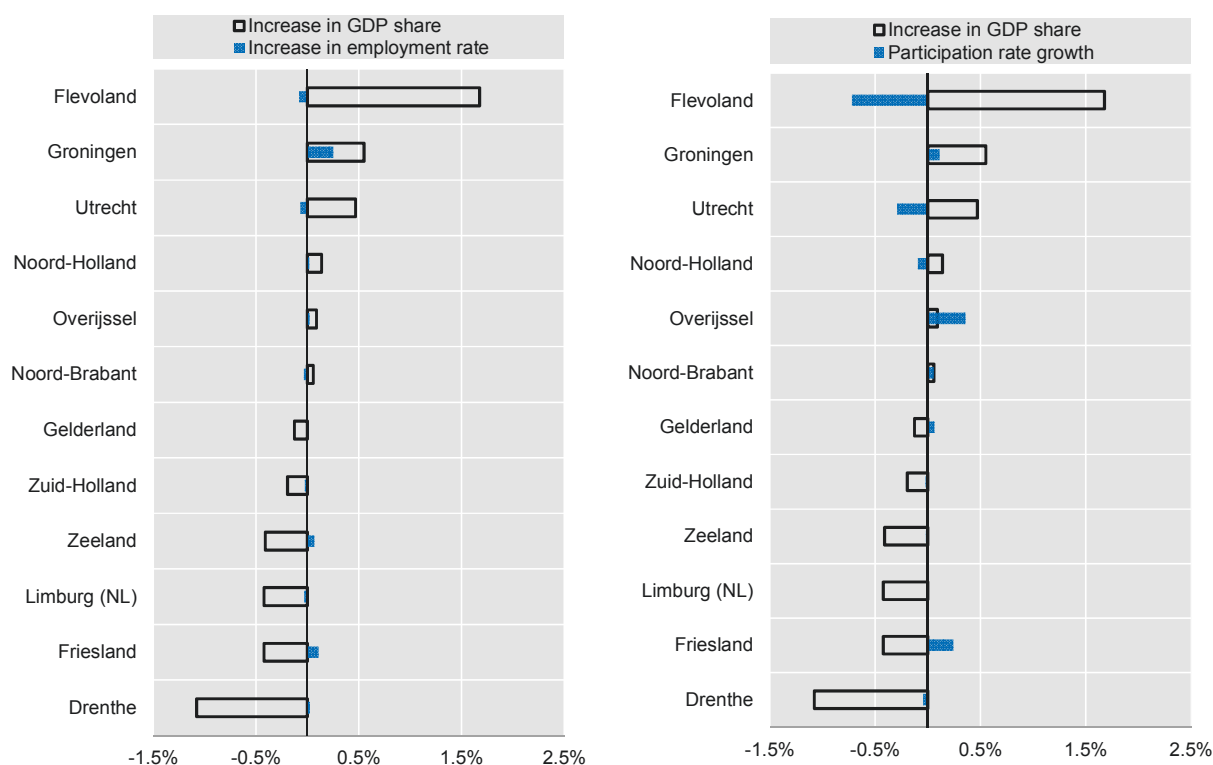


Figure 1.A3.2. Performance of Dutch regions and changes in activity rates, 1995-2009

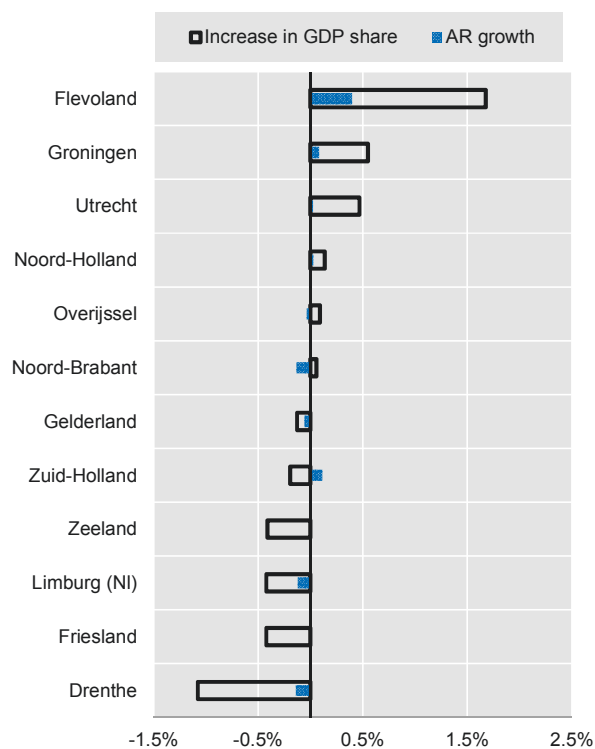


Table 1.A3.1. Decomposing GDP per capita in Dutch provinces, 1995-2009

year	Groningen				Friesland				Drenthe				Overijssel			
	GDP pc	prod	ER	AR	GDP pc	prod	ER	AR	GDP pc	prod	ER	AR	GDP pc	prod	ER	AR
1995	123%	137%	89%	101%	84%	93%	93%	97%	87%	91%	97%	98%	88%	94%	94%	99%
1996	128%	139%	91%	101%	83%	91%	94%	98%	86%	92%	95%	98%	88%	93%	95%	99%
1997	124%	133%	92%	101%	83%	90%	94%	98%	85%	89%	97%	98%	87%	93%	95%	99%
1998	114%	124%	91%	101%	83%	88%	96%	98%	82%	89%	94%	98%	87%	91%	97%	99%
1999	107%	114%	93%	101%	81%	89%	93%	98%	80%	86%	95%	98%	87%	90%	98%	99%
2000	112%	119%	93%	101%	83%	87%	96%	98%	81%	85%	97%	97%	88%	90%	98%	99%
2001	117%	126%	92%	101%	83%	88%	96%	98%	81%	84%	98%	97%	88%	91%	98%	99%
2002	116%	125%	91%	101%	81%	85%	96%	98%	80%	84%	98%	97%	87%	91%	97%	99%
2003	119%	128%	92%	101%	82%	86%	97%	98%	79%	82%	99%	97%	87%	90%	98%	99%
2004	118%	125%	93%	102%	80%	85%	96%	98%	78%	83%	96%	97%	87%	90%	97%	99%
2005	123%	133%	91%	102%	81%	84%	98%	98%	79%	86%	95%	97%	86%	89%	99%	98%
2006	132%	142%	91%	102%	81%	86%	96%	98%	78%	83%	97%	97%	86%	89%	97%	98%
2007	124%	129%	95%	102%	81%	85%	98%	98%	79%	84%	97%	97%	86%	89%	99%	98%
2008	146%	154%	92%	102%	81%	83%	99%	98%	78%	82%	99%	96%	87%	89%	100%	98%
2009	133%	142%	92%	102%	81%	83%	100%	98%	76%	81%	98%	96%	89%	92%	99%	98%
2010	139%	144%	94%	102%	80%	84%	98%	97%	74%	79%	97%	96%	89%	91%	100%	98%
var (95-06) ln	12.2%	5.5%	5.5%	1.2%	-5.0%	-10.3%	5.3%	0.0%	-16.6%	-14.2%	-0.3%	-2.1%	1.2%	-3.9%	5.7%	-0.5%

year	Gelderland				Flevoland				Utrecht				Noord-Holland			
	GDP pc	prod	ER	AR	GDP pc	prod	ER	AR	GDP pc	prod	ER	AR	GDP pc	prod	ER	AR
1995	86%	87%	99%	100%	77%	70%	113%	97%	119%	109%	109%	101%	115%	109%	104%	101%
1996	86%	86%	100%	100%	74%	71%	107%	97%	121%	111%	109%	101%	115%	110%	103%	101%
1997	86%	87%	99%	100%	75%	69%	112%	98%	120%	114%	104%	101%	116%	112%	102%	101%
1998	86%	87%	99%	100%	74%	67%	113%	98%	124%	116%	105%	101%	117%	111%	103%	101%
1999	86%	87%	99%	99%	75%	72%	106%	99%	127%	118%	106%	101%	116%	113%	102%	101%
2000	86%	87%	100%	99%	73%	71%	105%	99%	125%	117%	106%	101%	115%	110%	103%	101%
2001	86%	87%	100%	99%	74%	73%	103%	100%	127%	119%	106%	101%	114%	108%	104%	101%
2002	85%	86%	100%	99%	73%	71%	103%	100%	125%	120%	103%	101%	118%	112%	104%	101%
2003	85%	86%	99%	99%	75%	73%	103%	101%	123%	117%	103%	101%	118%	112%	104%	101%
2004	84%	86%	99%	99%	75%	71%	104%	101%	122%	116%	104%	101%	118%	112%	104%	101%
2005	84%	86%	98%	99%	74%	71%	103%	101%	121%	114%	105%	101%	118%	113%	103%	101%
2006	85%	85%	101%	99%	77%	76%	101%	102%	119%	113%	104%	101%	116%	111%	102%	101%
2007	85%	86%	100%	99%	78%	76%	101%	102%	119%	112%	105%	101%	115%	111%	102%	101%
2008	85%	86%	100%	99%	75%	71%	103%	102%	117%	112%	103%	101%	114%	109%	103%	101%
2009	86%	87%	100%	99%	73%	70%	102%	102%	122%	116%	104%	101%	115%	110%	103%	102%
2010	85%	86%	100%	99%	72%	70%	100%	103%	120%	115%	103%	101%	116%	111%	103%	102%
var (95-06) ln	-1.7%	-1.9%	1.1%	-0.9%	-6.8%	-0.7%	-12.0%	6.0%	0.4%	5.5%	-5.4%	0.4%	1.3%	2.0%	-1.1%	0.4%

year	Zuid-Holland				Zeeland				Noord-Brabant				Limburg (NL)			
	GDP pc	prod	ER	AR	GDP pc	prod	ER	AR	GDP pc	prod	ER	AR	GDP pc	prod	ER	AR
1995	102%	103%	100%	99%	97%	101%	100%	96%	100%	97%	101%	102%	88%	91%	96%	101%
1996	102%	102%	100%	99%	94%	98%	100%	96%	100%	98%	100%	102%	87%	90%	96%	101%
1997	102%	101%	101%	99%	90%	94%	99%	96%	101%	98%	101%	102%	88%	90%	97%	101%
1998	103%	102%	101%	99%	88%	96%	96%	96%	100%	98%	100%	101%	90%	94%	94%	101%
1999	102%	101%	102%	99%	86%	91%	99%	96%	102%	100%	100%	101%	91%	94%	96%	101%
2000	102%	103%	100%	100%	87%	96%	94%	96%	102%	100%	101%	101%	89%	93%	96%	101%
2001	102%	103%	100%	100%	86%	94%	95%	96%	101%	100%	101%	101%	89%	94%	95%	100%
2002	102%	102%	100%	100%	90%	94%	99%	96%	100%	98%	101%	101%	90%	95%	94%	100%
2003	102%	102%	100%	100%	91%	97%	98%	96%	100%	98%	101%	101%	89%	95%	94%	100%
2004	102%	102%	100%	100%	91%	96%	98%	96%	100%	99%	101%	100%	91%	95%	96%	100%
2005	103%	103%	100%	100%	89%	94%	99%	96%	101%	99%	101%	100%	89%	92%	96%	100%
2006	103%	102%	100%	100%	89%	92%	100%	96%	101%	100%	101%	100%	89%	93%	96%	100%
2007	104%	104%	99%	100%	92%	98%	98%	96%	100%	99%	101%	100%	90%	96%	94%	100%
2008	102%	103%	99%	101%	94%	100%	98%	96%	100%	99%	102%	100%	89%	94%	95%	100%
2009	101%	101%	99%	101%	92%	96%	100%	96%	100%	99%	101%	100%	88%	93%	95%	100%
2010	101%	101%	99%	101%	94%	97%	101%	96%	101%	100%	101%	100%	90%	95%	95%	100%
var (95-06) ln	-1.0%	-2.0%	-0.7%	1.7%	-3.1%	-4.0%	0.8%	0.1%	0.9%	2.7%	0.3%	-2.0%	1.5%	3.8%	-0.5%	-1.8%

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Annex 1.A4

Methodology for geographic concentration and regional inequality indexes

Calculation of the Geographic Concentration index measuring population and GDP

In Figure 1.27 and Figure 1.28 the Geographic Concentration index of population and GDP is defined as:

$$\left(\sum_{i=1}^N |p_i - a_i| / 2 \right) * 100$$

where p_i is the population and GDP share of region i , a_i is the area of region i as a percentage of the country area, N stands for the number of regions and $| \quad |$ indicates the absolute value.

The index lies between 0 (no concentration) and 1 (maximum concentration) in all countries and is suitable for international comparisons of geographic concentration.

Calculation of the Gini Index measuring regional inequality

In Figure 1.29 and Figure 1.30 regional disparities in GDP per capita are measured by an unweighted Gini index. The index is defined as:

$$GINI = \frac{2}{N-1} * \sum_{i=1}^{N-1} (F_i - Q_i)$$

where N is the number of regions, $F_i = \frac{i}{N}$; $Q_i = \frac{\sum_{j=1}^i y_j}{\sum_{j=1}^N y_j}$, and y_i is GDP per capita in

region i .

The index ranges between 0 (perfect equality: GDP per capita is the same in all regions) and 1 (perfect inequality: GDP per capita is nil in all region except one).

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Chapter 2

Exploiting policy complementarities for regional development in the Netherlands

The decision of the Dutch government to discontinue the Peaks in the Delta policy in 2010, represents the end of any explicit support for spatial economic development and overarching national framework for regional development policy. Similarly there is no explicit and overarching national urban policy framework. There are currently several policies affecting the regional level: the Top Sector Policy; the National Policy Strategy for Infrastructure and Spatial Planning; the regional development plans developed at the provincial level; and the EU programmes. There is a danger of disconnecting the regional and local development agenda from a comprehensive national vision of regional development. A key challenge for a successful territorial development policy will be ensuring that the various policies having an effect on the development of regions make the most of potential complementarities.

This chapter summarises the evolution of the regional policy in the Netherlands focusing on the role of spatial planning, infrastructure, and the strengthening role of provinces in this domain. It then focuses on the impact and the role of regions in the newly created Top-Sector Policy. The analysis also considers innovation in broader terms, examining additional domestic and European policies.

Introduction

Chapter 1 displays the presence of a rich urban-structure in the Netherlands in which no single urban area or region dominates over the others. The strength of the Dutch economy comes from the combined contribution of a variety of Functional Urban Areas (FUAs) and regions. Therefore maximising growth in all regions is critical for overall performance. The effects of the recent global financial crisis revealed a differentiated impact among Dutch regions, with some displaying more vulnerability than others. Therefore adapting policies to the context and characteristics of each region can better address their particular bottlenecks and build upon their strengths.

The central government has changed the focus of the development policy, abandoning the explicit engagement in the regional development policy. The government recently abandoned the explicit regional policy of the Peaks in the Delta and replaced it by the Enterprise Policy which includes generic policy as well as a policy specifically for innovative sectors in which the Netherlands excels globally rather than on the area-specific strengths of regions. This change was partly driven by the need to priorities resources in a tight fiscal environment brought by the aftermath of the 2008 global financial crisis and current difficulties in the recovery phase. The main feature of this policy is refocusing on few key sectors rather than spreading resources over the whole territory. The new policy also aims at supporting enterprises across the Netherlands. The resources for regional development programmes are therefore expected to come from other institutions, such as the provinces and the municipal governments, the EU programmes, and other forms of co-operation that would involve the private sector (Public-Private Partnerships).

As in other OECD countries, the Netherlands' current urban development policies are focusing on cities' problems rather than their potentials. The current urban policies are managed by the Ministry of Interior and Kingdom Relations focusing on deprived neighbourhoods and broadly include housing, education, labour market, health and safety. Although these policies can have a profound effect on urban development, there is currently no explicit national urban policy framework in the Netherlands with a holistic and strategic focus aimed at enhancing the growth potential of FUAs.

This chapter first summarises the evolution of regional policy in the Netherlands focusing on the role of spatial planning, infrastructure, and the strengthening role of provinces in this domain. It then focuses on the impact on and the role of regions in the newly created Top Sector policy. The analysis also considers innovation in broader terms, examining additional domestic and European policies. The presence of several policies with a potential impact at the regional level requires an understanding of the possible complementarities that should be taken into account when designing the policy.

Current regional policy in the Netherlands

The decision of the Dutch government to discontinue the Peaks in the Delta policy in 2010 represents the end of any explicit support for spatial economic development and overarching regional development policy framework. According to van der Zwet and Bachtler (2013) the central government is no longer trying to promote

development in all regions, focusing on the areas important for national competitiveness, defined as the “urban regions”, particularly around the main-ports, brain-port, and green-ports, and on regional development that benefits the country as a whole. Regional development elsewhere is seen as the responsibility of provinces and municipalities.

The shift to a sectorial approach was accompanied, in 2008, by the decentralisation of the responsibility for regional economic policy and spatial planning to the provincial and municipal level. This change in policy resulted in a split of responsibilities between national and regional actors, which required the creation of strategic agendas seeking to facilitate the interaction between national and local plans.

There are several national and local policies that affect regional development. At the national level there is the creation of a new sectoral policy, the Top Sector policy, which aims at facilitating innovation in well-established sectors which represent the main strengths of the Dutch economy. The spatial policy retains a central government element in the definition of the areas of intervention of national importance. Cross-border policies also have an impact on regional development. Finally, urban and rural policies have clear regional implications.

The recent change in the national government view on regional policy has also led to a discontinuation of central government funding for regional development. Until 2010 there were several funding streams for regional policy, for instance:

- the Economic Structure Enhancement Fund (FES), which was abolished with effect from 2012;
- the Investment Premium Regulation (IPR), abolished in 2011, was a national regional aid programme;
- the compensation fund for the three northern provinces has been in place since 2007, it mainly aims at addressing the accessibility issue of the northern provinces - the Ministry of Economic Affairs agreed to decentralise the fund at the provincial level, and in exchange provinces committed to use the funds to support the TOP sectors in the region.

The resources for regional development programmes are therefore expected to come from other institutions, such as the province and municipal governments, the EU programmes, and other forms of co-operation that would involve the private sector (Public-Private Partnerships).

The central government acknowledges the necessity to create synergies between central and regional policies and EU cohesion policy. This can be done by creating links and partnerships with regional actors. A part from the innovation policy the government also provides support to SMEs and to workers to adapt to a changing job market (Zwet and Bachtler, 2013).

In 2012 the Ministry of Economic Affairs (MEZ) adopted a Regional Spatial Strategic Agenda (RRSA) with the aim of linking the priorities of the central government to the regional dimension. In this document, which was re-evaluated in 2013, five main priorities emerge:

1. linking the initiatives and funding of the local authorities to the Top Sectors policy;
2. supporting spatial clusters, that is the main-ports, brain-port and green-ports strategies with the regions;
3. linking the national, regional, and EU policy through the 2014-20 national and cross-border programmes in part by integrating them with Horizon 2020 and the Top Sector approach;
4. reinforcement of the link between ecological and economic issues;
5. establishing close links with Ministry of Infrastructure to represent spatial dimensions of economic, energy and agricultural policy in the national spatial, mobility, water and environmental policies for which the ministry is responsible.

In order to achieve some of those goals the MEZ has created five Regional Ambassadors. The role of the Ambassadors is to facilitate co-operation between the central and regional governments, finding synergies between central and regional policies, creating a network between political and administrative actors and leading business actors in each region. In order to co-ordinate government sectoral policies with the regions, country is divided into five Areas (Landsparts): North, East, South-East, Randstad Northern Wing and Randstad South-Western Wing. The regional ambassadors do not have a large budget, their activity involves networking and establishing links between different funding streams. Each ambassador has a professional support team (5-10 people).

The creation of a network at the local level is supported by a programme of strategic meetings initiated with each of the given regions, involving the MEZ, provinces and municipalities to discuss national-regional co-ordination of economic development issues. The regional ambassadors act as representatives of the MEZ with a mandate to engage with the top levels of companies, provincial and local government administrations and other institutions. Some Top Sector Teams have indicated an interest in co-ordinating meetings with the regions to discuss how development priorities can best be aligned (van der Zwet and Bachtler, 2013).

The necessity to establish a link between national and regional policies is crucial for achieving a balanced regional development outcome. The presence of regional Ambassadors can help this process, but the strategy seems to be based exclusively on personal relationship. The network created by each Ambassador would depend on the personal relationship of the Ambassador with local stakeholders, and it would suffer in the event of a change in the person of the Ambassador. Perhaps a more structured type of network, less dependent on the personal relationship of the Ambassador can better serve the goal of establishing a long term relationship between the centre and the local actors.

The institutional framework for regional economic development also includes a long standing network of Regional Development Agencies (RDA) (*regionale Ontwikkelingsmaatschappijen*) with a remit to strengthening the regional economic structures. After the 2010 reforms, which changed the regional development approach, the RDAs were maintained (their role was mainly business development

and entrepreneurs support) with the further role of supporting top sector activities in the regions. The central government, however, has halved their budget (van der Zwet and Bachtler, 2013).

How has regional policy unfolded in the Netherlands?

Since the Second World War, territorial development policy in the Netherlands has been driven by policy interventions in four main domains: the national promotion of innovation, selective support for underperforming regions, the national planning framework and investments in spatial policy.

Over the long-term, however, Dutch territorial policy has followed a coherent evolution reflecting the perceived economic challenges at the time – from immediate post-war reconstruction, to a more recent focus on enhancing innovation. The evolution of the policies over the four periods is provided in Table 2.1 and the differentiated roles of regions and the central government are described in Table 2.2:

- **Post-war reconstruction.** The first post-war challenge was reconstruction, and in particular modernising the Dutch industrial base and restoring its competitiveness. Regional development policy at this time aimed to help regions that had not yet industrialised to connect better with the emerging Dutch industrial state. Spatial planning policy aimed to divert some of the growth in the booming core to the lagging periphery, whilst preserving the Netherlands' natural amenities. Loans were provided to business investing in new products, processes and techniques. Infrastructure investments focused on completing the land reclamations around the IJsselmeer – which created the province of Flevoland – and after the Great Floods of 1953, on building storm defences around the Delta area.
- **Addressing industrial decline and stagnation.** In the 1980s industrial policy evolved from state aid to failing national champions such as Fokker and DAF, towards explicitly encouraging innovation. This was occurred across all sectors via generic instruments, as well as in selected sectors with high growth potential. Regional development policy evolved towards employment creation in declining areas; subsidies for firm location and new business park developments; and experiments in technology transfer and co-operation between public and private research. Planning policy aimed to create 11 new urban centres outside the Randstad as new concentrated growth poles to prevent ribbon development and urban sprawl, reduce commuting and protect green space. Infrastructure policy sought to provide a comprehensive motorway network across the Netherlands which would ensure that all regions were attractive for new business investments.
- **Globalising.** This period (1990-2010) saw a radical change in policy emphasis to balance and spread growth by creating an economic core area and allowing other regions to benefit from it. Innovation policy therefore sought to create the most attractive market environment for investment in new technology areas mainly located in the core, reducing bureaucracy and supporting business innovation efforts. Regional development policy evolved towards providing national support to regional investment plans to create the necessary knowledge assets and partnerships for innovation-led growth. Spatial policy adopted a national growth pole approach focused on two “mainports”: the northern wing of Amsterdam supported by

Schiphol and the southern wing centred on the Rotterdam harbour area, both key hubs linking the Netherlands to the rest of the world. Infrastructure policy sought to upgrade and modernise these mainports, improve their external connectivity (such as the Betuwe freight line to the Ruhrgebeid in Germany), and improve connectivity between the Dutch regions and these global access points.

- ***Growing through decentralised innovation in sectors.*** The most recent change came in 2010, following the general elections. The newly elected government announced plans to simplify, devolve and liberalise a range of government policy domains. Innovation policy was consolidated around the idea of Top Sectors: ten industrial areas where the Dutch had a clear competitive advantage, including knowledge infrastructure, and which offered future employment growth opportunities. This decentralisation saw regional development policy devolved to the regions (see Chapter 3). The devolution was not accompanied by central funding; instead the goal was to co-ordinate regional and European funds to support regional innovation strengths and the Top Sectors. Reforms which began in 2008 had already decentralised spatial planning policy, splitting responsibilities between national and regional partners, and creating a strategic agenda for infrastructure investment seeking to facilitate economic growth and opportunities.

Table 2.1. **The evolution of territorial development policy in the post-war period**

Year	Innovation policy	Regional development policy	Spatial planning policy	Infrastructure policy
Reconstruction (1947-1970)	Investing in productivity gains by providing loans for innovation projects (TOK)	Addressing backward regions with regional development plans	Decentralised concentration – spreading growth beyond the Randstad	Land reclamation (Zuiderzee project) and sea protection (Deltawerken)
Addressing industrial decline (1970-1990)	Generic innovation subsidies for innovation, selective support for high potential sectors	Helping less favoured regions to develop conditions for growth and create employment	Preventing sprawl, reducing commuting creating new growth centres across country	Completing the motorway network and creating pan-national regional connectivity
Globalising (1990-2010)	Creating market conditions to stimulate innovation	Working with regional partnerships to invest in knowledge-based development	Polycentric urban development with mainports heading the hierarchy	Consolidating the main-ports, green-ports, brain-port, and technological valleys by connecting them to peripheral regions
Top sectors (2010-today)	Making public sector research investments dependent on exploitation plans	Co-ordinating regional (structural funds) investments to support Top Sectors	Decentralising national policy to provinces, creating a national strategic framework for intervention	Supporting development of mainports and Brainport Avenue, facilitating Top Sector access.

Table 2.2. Evolution of regional policy in the Netherlands in the post-war period

Netherlands	1947-1970 (Reconstruction)	1970-1990 (Reindustrialisation)	1990-2010 (Globalisation)	2010-today (Top Sectors)
National development strategy	Main priority Rebuilding the Netherlands – land reclamation & water protection alongside upgrading backward remote regions	Facilitating economic development in lagging regions, reducing development pressure on the Randstad core, spreading the benefits of growth	Improving Dutch competitiveness through strategic investment in world-leading infrastructure and creating the room for business to succeed	Stimulating competitiveness of key Dutch sectors by concentrating R&D support on sub-sectoral public-private partnerships
	Main economic growth model Stimulating competitive industry by encouraging investment in R&D, productivity upgrading whilst holding wages low	Encouraging economic growth, productivity investments by all business, channelling growth surplus to remote regions and regions suffering reindustrialisation	Supply side model creating competitive infrastructure; increasing intervention to support innovation (post-2003)	Stimulating sectors with highest R&D intensity to create new sectors, growth, jobs and competitiveness
	Phase Addressing backward regions: welfare plan for South East Drenthe, regional development plans (RDPs)	Creating institutional capacity (regional development agencies/ ROMs) in less successful regions to identify regional growth priorities	Highly selective national investments in core infrastructure, increasing excellence driven co-funded national/ regional innovation investments.	Aligning regional development institutions and structures to support Top Sector priorities
	Main objective/target Promoting growth in core regions, and encourage relocation of existing activities from core to peripheral regions	Helping less favoured regions to develop the conditions for growth and employment, avoiding congestion diseconomies in Randstad	Concentrating government investment in the main-ports, green-ports, brain-port, national landscape, national infrastructure, and ecological network system; increasing emphasis on using EU funds to stimulate innovation in less successful regions	Improving coherence of local/ regional strategies with national strategies, creating critical mass in Top Sectors
Regional development policy	Institutional arrangements Promotion of industrialisation of core local authorities (BIK) Stimulation of Industrial Location in Development Areas (SIO)	From 1973, restrictions on new developments in core regions Industrial Premium for Investment (IPR) ROMs as state/ province/ local agencies to create attract new inward investment	Compass programme for the north Netherlands. Pieken in de Delta programme. Structural Funds programmes	Top Teams (sectoral leadership teams) Top Consortia for Knowledge and Innovation (TKIs, sub-sectoral R&D&I planning organisations) EUR 1.5bn public resources from ministries, directly funded research organisations, Research Council (NWO), KNAW institutes
	Financial resources Subsidising new business locations and facilitating relocating	Regional Socio-Economic Policy (1981-85, 1986-1991) Support for industrial investments, state/ provinces providing guarantees for real estate investments in new business locations.	Regions without borders regional economic policy (1991-94) Space for regions (1995-2000) Pieken in de Delta (2004-2010)	

Dutch spatial planning and infrastructure policy

Spatial planning policy is one of the Netherlands' traditionally strong policy fields, reflecting the country's high population density, high levels of urbanisation and low-lying topography. Since WWII spatial planning has been focusing on urban agglomerations, with the first Plan for the West and First National Spatial Plan seeking to restrict and concentrate growth in the west, displacing employment and residential growth to the Dutch periphery. The Second Spatial Plan set out a radical vision for the Netherlands, to be implemented by 2000, and sought to accommodate population growth through "bundled de-concentration": creating new compact urban areas separated by green buffer zones. Both these plans were implemented exclusively through regulatory instruments and demarcating zones for development where activities were permitted (Faludi and van der Valk, 1990).

The Third National Spatial plan of 1972 saw an important shift whereby the government became an active player in the creation of new growth locations. This plan helped to set the basis for the Netherlands' current balanced polycentric spatial structure by diverting pressure from the capital cities into its hinterlands. The Third Spatial Plan was based on a detailed understanding of the Netherlands' spatial structure amid population growth and fears of both urban overcrowding and overspill.

The 1972 plan introduced a set of instruments which allowed local authorities to give financial incentives to new growth centre developments in particular locations on the basis of integrated local plans. Twenty municipalities were granted these powers, exclusively in the west and south of the Netherlands. The result was that these growth centres became destinations for urban flight. Therefore the decision was taken in 1988 to halt this approach and to increase urban concentrations by creating new residential and employment locations within the main Randstad cities rather than at their outer edges.

Planning policy changed direction once again in 1988, with the Fourth National Spatial Plan. This laid the accent much more on configuring the Dutch territory to reflect its global ambitions centred on the two main-ports. The focus of the strategy was on economic growth through a well-structured urban hierarchy, headed by the Randstad, supported by the "brain-port" Eindhoven and the green-ports, and with a third tier of city networks of national importance (Arnhem-Nijmegen, South Limburg, Twente, Groningen-Assen and later Brabant City). There was a concentration of development around the Randstad as an economic engine to drive territorial development across the rest of the Netherlands. Planning was used as a tool to maximise the benefits that these other regions received from the main-ports, brain-ports and green-ports. Two later amendments to the plan provided for more compact housing zones, extending the idea of the growth cores, based on negotiations between centre and local government.

In 2008, a series of reforms decentralised the Netherlands' spatial planning policy, splitting responsibilities between national and regional partners, and creating a strategic agenda for infrastructure investment seeking to facilitate economic growth and opportunities.

Figure 2.1. Location of the core growth areas under the third National Spatial Plan



Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

Source: Based on original map from Wikimedia commons,
<http://commons.wikimedia.org/wiki/File:Groeikernen.svg> (accessed on 12 February 2014).

The role of the SVIR programme in spatial planning

Since June 2012 the *National Policy Strategy for Infrastructure and Spatial Planning* (SVIR) is in force. The central government intends to bring spatial planning decision-making closer to the relevant stakeholders (individuals and private companies), delegating more power to local and provincial authorities (through decentralisation as the first option), and an increasing focus on users. The SVIR plan represents a strategic agenda for spatial planning policies. One of the aims is laying down the baseline programme of investments. The SVIR sets out a list of national priorities to be followed by the central administration (various ministerial departments and government agencies).¹

Currently, the national priority identifies three main goals to enhance Dutch competitiveness: (1) ensuring that spatial planning and infrastructure investment support the development of the main clusters (main-ports, brain-port, green-ports, and other urban regions), as well as the development of the country as a whole; (2) improving accessibility; (3) safeguarding the quality of the environment. The SVIR is by law self-binding for all national governmental bodies, but not for provinces and municipalities.

The implementation of the central government policy focuses on 13 areas of national interest, for which the central government will take responsibility and ensure the achievement of the planned results. The 13 areas are:

1. creating an outstanding spatial-economic structure, through an attractive business climate and good international accessibility to urban regions where key sectors are concentrated;
2. space for the main (sustainable) energy supply network and the energy transition;
3. space for the main pipeline network for the transport of hazardous and other substances;
4. efficient use of the sub-surface;
5. a robust main road, rail, and waterway network around and between the most important urban regions, including connections with the hinterland;
6. better use of the capacity of the main roads and waterway networks
7. maintenance of the main road, rail and waterway networks, to ensure an effective functioning of the mobility system
8. improve environmental quality (air, soil, water) and provide protection from noise pollution and external safety risks;
9. room for flood protection, sustainable drinking water supply and frameworks for climate-ready urban development and redevelopment;
10. room to preserve and strengthen nationally and internationally unique cultural heritage and natural values;
11. room for a national network of wildlife habitats to aid the survival and development of flora and fauna;
12. room for military sites and activities;
13. careful balancing and transparent decision-making in all spatial and infrastructural decisions.

Outside these 13 areas of national interest, local and regional authorities are able to take their own policy decisions, although they are expected to contribute to simplify and integrate spatial planning regulations. This will remove excessive layers of government and create scope for customised regional solutions. Responsibility for balancing urban and green areas at regional level is left to the provincial authorities. To this end, the central government has abolished the national landscape policy and reduced the number of nature management regimes.

The government also strengthened the cohesion between the various modes of transport and between spatial development and mobility. The introduction of a new

accessibility indicator allows more regionally tailored solutions. The municipal and inter-municipal co-ordination and implementation of urbanisation plans is left to local authorities working independently or in collaboration within provincial authorities. The Central government no longer dictates the course of urban planning. Only in the urban regions around major transport hubs and ports (Noordvleugel and Zuidvleugel) will central government agree the programming of urbanisation with local and regional authorities.

To promote the careful use of space, central government has included a ‘ladder’ to guide sustainable urbanisation in the Spatial Planning Decree (BRO). The available space should be used efficiently and excessive programming avoided. To achieve these aims, the Spatial Planning Decree (BRO) introduces a sustainable urbanisation ladder. The sustainable urbanisation ladder has three ‘rungs’:

1. The authorities concerned assess whether the intended development meets a regional, inter-local demand for industrial sites, offices, residential buildings, retail developments or other urban amenities that has not been met elsewhere. Besides a quantitative assessment (number of hectares, or number of homes), there must also be qualitative demand (e.g. an industrial site where a heavier environmental burden is permitted, or a specific type of living environment) at a regional scale. The appropriate regional scale is determined mainly by commuter traffic.
2. If the intended development meets a regional, inter-local need, the authorities concerned will assess whether it can be met in an urban area by restructuring or transforming existing locations.
3. If restructuring or transformation in an existing urban area offers insufficient potential for the regional, inter-local need to be met, the authorities concerned will assess whether it can be achieved in such a way that it can be accessed appropriately by multiple modes of transport. (SVIR, 2012)

Furthermore there are areas where building activity is prohibited by national regulations (for instance nature reserves, coastal areas and river banks) or by provincial regulations (for instance provincial nature reserves).²

Another instrument in relation to the SVIR is the Multi-Year Plan for Infrastructure, Spatial Planning and Transport (MIRT) is an investment programme set up by the national government. The MIRT aims to improve the coherence between investments in spatial planning, the economy, mobility and liveability at the national level. The rules laid down under the MIRT specify the main process steps for projects and programmes wishing to qualify for government funding. The involvement of local actors (provinces and municipalities) creates a need for co-ordination and co-operation between the two levels: national and sub-national. National and local officials meet annually to discuss a “regional agenda”, a shared vision by national and regional authorities. In this sense, the MIRT is a national programme which contributes to the regional agenda, providing long-term investment framework for the Netherlands and the regions. The MIRT programme formally extends beyond the life of a single parliament and therefore provides a coherent framework for ensuring consistency and concentration in investments. These operate on the basis of projects which progress through a series of phases including initiation, planning, realisation, completion and maintenance (see Table 2.4).

One of the problems with this approach is that the main document, the SVIR, is quite generic. Therefore for some areas with rather complex spatial problems more specific structural visions are made, for instance for the Schiphol area (SMASH), the southern part of the Randstad, the North sea, the Amsterdam area (RRAAM), sub-surface planning, wind-energy, pipelines. These structural visions are made in co-operation with regional and local authorities.

Box 2.1. Main clusters in the Netherlands

- Mainports: connection points for multiple transport networks which create opportunities for regional economic development, national and international economic competitiveness: Amsterdam-Schiphol (Randstad North Wing) and Rotterdam Seaport (Rotterdam South Wing).
- Brainport: the triple helix organised around the high-technology complex that emerged from Philips industries around Eindhoven.
- Greenports: physical locations where particular elements of agriculture and horticulture cluster. There are six greenports in the Netherlands: Westland-Oostland (greenhouses), Venlo (flowers, food & logistics), Alsmeer (cut flowers), Duin en Bollenstreek (bulbs and flowers), Boskoop (trees and bushes), and Enkhuizen (seeds and breeding).
- The energy valley, located in the province of Groningen, consists of a system of companies that produce energy through both traditional and innovative means. An important share of the total value added in the region is produced by the energy valley.
- The food valley is located in the province of Gelderland and consists of a well-integrated network of international food companies, research institutes and universities. The aim is to create conditions for food manufacturers and knowledge institutes to join forces for developing innovative food concepts.
- The health valley, also located in the province of Gelderland, aims to link knowledge in biomedical and healthcare sectors. It represents an opportunity for the region to create an environment in which businesses and care institutions can operate in an innovative way.

One of the targets of the current SVIR is to improve the national and international connectivity of “core” areas of the Netherlands (main-ports, green-ports, brain-port) and that are important for TOP sectors but which lie outside the core urban city network. SVIR gives the Ministry of Infrastructure and the Environment the discretion to invest in these locations as is deemed necessary to support Dutch competitiveness, as follows:

- Infrastructure investments to improve the connectivity of the mainports, brainports and greenports internationally, along core economic axes and to the Netherlands’ economic periphery.
- Physical developments of national importance for improving Dutch competitiveness: Zuidas, Amsterdam-Almere-Markermeer (RRAAM), Brainport Avenue, Rotterdam South, and the Utrecht Life Sciences cluster.

The national government tries to achieve integrated solutions on water safety, spatial planning and accessibility. The MIRT-project book lists the projects and programmes which are deemed necessary on a national level.³


Table 2.3. **Regional emphases for strategic infrastructure development**

Region	Key locations	Key interests
North West Netherlands	Amsterdam Metro Region (Schiphol Mainport, Harbour Area)	Preserving the economic strengths of the Netherlands' largest urban economy Managing scarce land: releasing land for housing & recreation in RRAAM Development of Schiphol and the Amsterdam Harbour area, particularly <i>Zuidas</i>
Utrecht	City of Utrecht	Centre of national transport networks (road, rail, water) Developing the region as a life sciences cluster 120 000 new and refurbished housing units by 2040
South West Holland (South Wing)	Rotterdam Mainport	Improving the port's international competitiveness Strengthening the primary waterways in the area Preserving the structure of the coastal area
Noord Brabant & Limburg	Brainport Eindhoven	Improving physical accessibility & connectivity with global R&D regions Improving regional attractiveness for (esp.) foreign businesses/employees Building 40 000 and refurbishing 30 000 housing units around Eindhoven
East Netherlands	Wageningen Arnhem-Nijmegen Twente	Improving connectivity and flows within hinterland regions to Germany Developing the logistics sector Supporting innovation around the three valleys (food, health, materials)
North Netherlands	Groningen Slogteren Gas Field	Sustaining the region's role as the link into European energy networks Strengthening the role of Energyport as a knowledge centre
South-West Delta	Zeeland	Preserving the Netherlands' water security and river through flow Strengthening coastal stability and resilience Strengthening primary waterways
North Sea coast	Waddenzee Islands Dutch territorial waters	Providing effective routes for shipping traffic through the Netherlands Permitting exploitation of marine resources, inc. wind energy and carbon capture Protecting coastal stability Protecting and preserving archaeological sites, including shipwrecks
Caribbean Islands	Dutch territorial waters in the Caribbean	Environmental protection Maintaining Military Marine Training Areas Protecting archaeological treasures including shipwrecks and submerged towns Providing effective & secure routes for shipping traffic

Source: Government of the Netherlands (n.d.), "Gebiedsontwikkeling per region", The Hague, www.rijksoverheid.nl/onderwerpen/ruimtelijke-ordening-en-gebiedsontwikkeling/gebiedsontwikkeling/gebiedsontwikkeling-per-regio.

Table 2.4. Criteria for selecting infrastructural projects with national funding (MIRT)

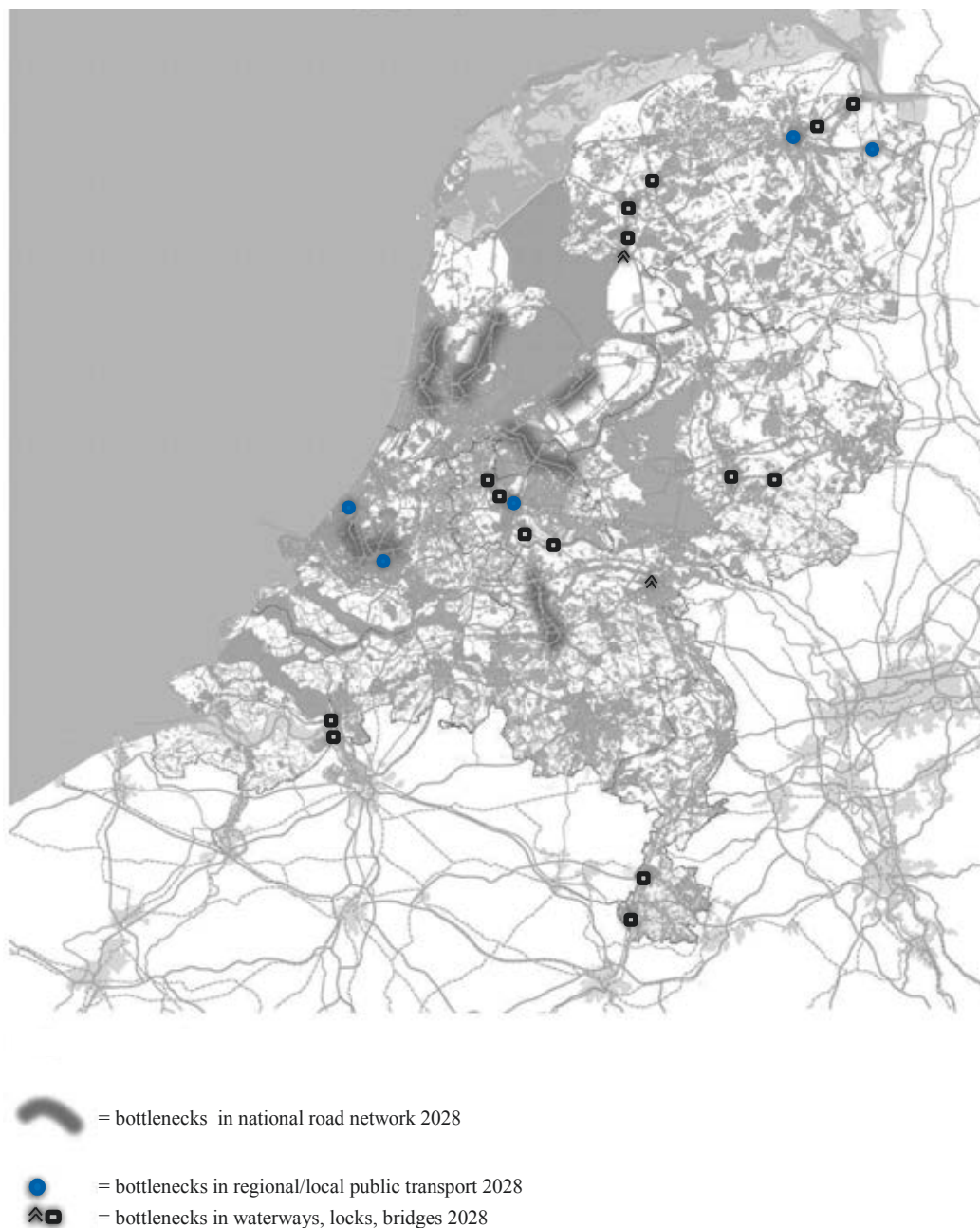
Bottleneck	Mentioned in government coalition agreement	Essential for safety and/or completion of the network	Economical costs/benefits	SVIR target: Contributing to a better (international) competitiveness	SVIR target: Contributing to better accessibility	SVIR target: Contributing to a better liveability and safety
+/-/0	+/-/0	+/-/0	+/-/0	+/-/0	+/-/0	+/-/0


 NMCA

Source: Based on data from the Ministry of Infrastructure and the Environment.

The Ministry of Infrastructure and the Environment has several criteria for selecting infrastructural projects to be (co-)funded by national government. One of them is the National Market and Capacity Analysis (NMCA). The NMCA investigates infrastructural bottlenecks. It indicates where infrastructure capacity is not expected to be sufficient to reach the goals of National Policy Strategy for Infrastructure and Spatial Planning (i.e. the target values for traveling time), taking into account the expected development of mobility. Figure 2.2 shows bottlenecks which are expected to occur on national roads, national waterways, and regional/local public transport in 2028 in the low economic growth scenario, provided that all projects of the MIRT project book 2014 have been implemented, including the High-Frequency Rail Transport Programme.⁴

Figure 2.2. **Bottlenecks National Market and Capacity Analysis (NMCA) low economic growth scenario 2028**



Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

Source: Provided by the Ministry of Infrastructure and the Environment.

The national policy for investment in infrastructures tends to prioritise investments in particular areas of the country, namely on the main-ports, brain-port, and green-ports and their hinterland-connections. The rationale, according to the Ministry, is related to the higher concentration of economic activities, and consequent higher density and

congestion (see Figure 2.2) in the western provinces of Noord Holland, Zuid Holland, and Utrecht. Around two thirds of the resources of the national government are devoted to these areas, while the remaining one third is spent on the rest of the country.

It is important that the definition of the SVIR and other national plans take into proper account the instances that come from all areas of the Netherlands. As shown in Chapter 1, the polycentric city structure brings benefits and opportunities for the Netherlands. While there is a need to improve the performance and productivity of its largest FUAs – particularly since they appear to perform below OECD standards – say through enhancing their connectivity amongst each other and to international markets, there is also the need to ensure that the rest of the city structure remains well connected to each other and to the largest FUAs, to ensure that they also benefit from the “borrowed” agglomeration effects described in Chapter 1.

In the current framework, some provinces have expressed their concern that the interaction with the central government could be further improved, since their needs are not sufficiently taken into consideration in the preparation of national plans. It is important that the mechanisms put in place for the definition of national strategic plans would allow for the needs and concerns of all regions and local clusters to be represented, so that the definition of the national goals and strategy would not overlook potential sources of growth and competitiveness for the all country.

In sum, this section reviews the current spatial planning and infrastructure investment policy in the Netherlands, highlighting the strengths and potential weaknesses of the system. In particular, the national government should facilitate co-ordination among several actors in order to better align decisions on spatial planning and infrastructure, given the responsibilities of each governmental layer involved.

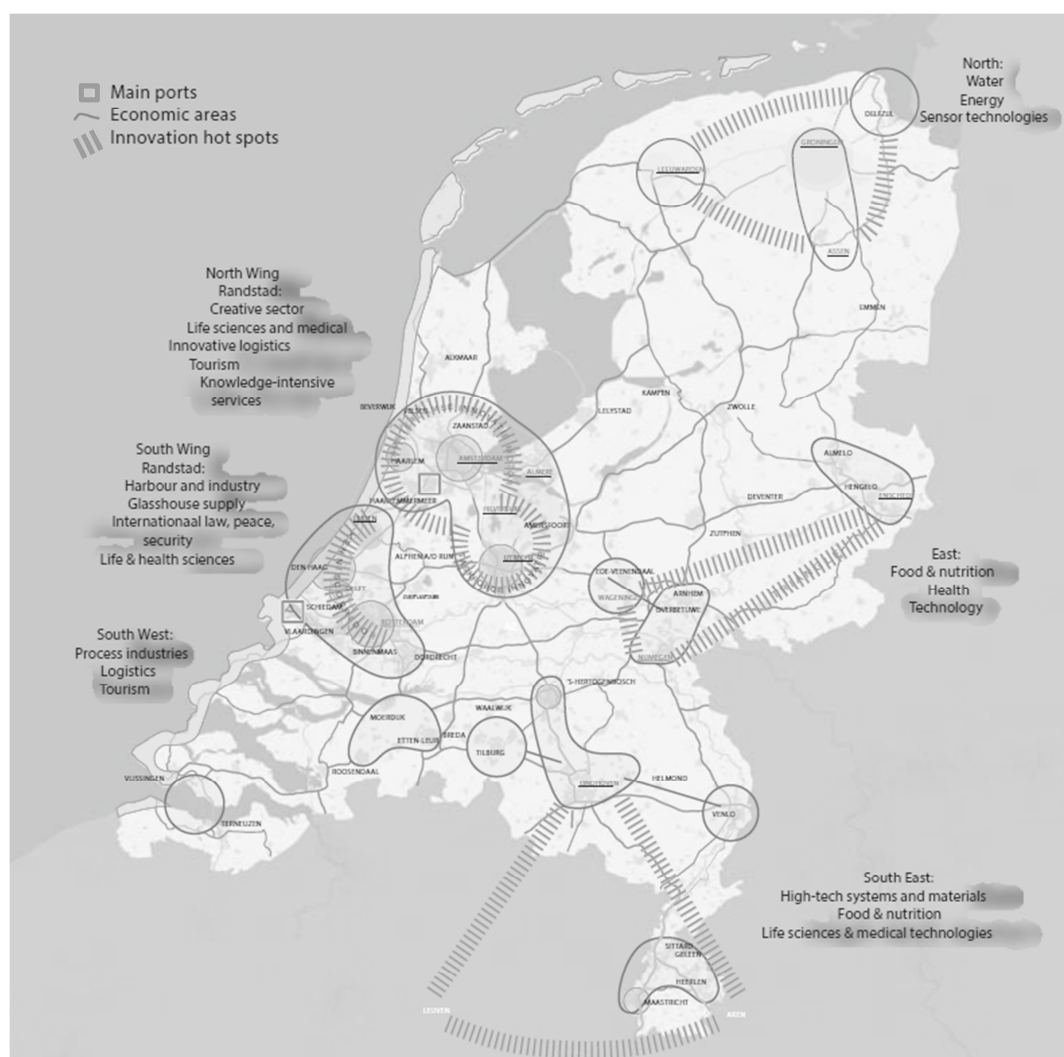
Innovation policy in the Netherlands

Dutch post-war innovation policy has focused on achieving balanced territorial development by building competitive high productivity industries with strong links to universities in a wide number of regions. A range of policies have been used to achieve this, mixing fiscal incentives, subsidies, investment capital, advice services, loan guarantees, risk/profit subsidies, and planning instruments. At the same time, the growing internationalisation of the world economy has benefited some regions of the Netherlands more than others. Whilst the north and east have suffered in their performance relative to the rest of the Dutch regions, the Randstad and the Eindhoven region in particular have developed dense clusters of high-technology businesses to take leading positions in global production networks. These clusters are embedded in wider national innovation systems spread across all Dutch regions, which until 2010 were supported by a national territorial innovation programme known as *Pieken in de Delta* (Geerding et al., 2010).

Peaks in the Delta Programme

The Peaks in the Delta programme divided the Netherlands into six regions, each with their own competitive strengths and clusters, economic core regions (cities) and strategic orientations (Figure 2.3). Partners in those regions came together to develop economic development strategies which identified growth opportunities and obstacles in their regional innovation systems. Projects were jointly funded by regional partners, European structural funds as well as the Ministry of Economic Affairs.

Figure 2.3. The spatial structure of Peaks in the Delta



Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

Source: Ministry of Economic Affairs (2006) “Pieken in de Delta”, www.regionalesamenwerking.amsterdam.nl/live/index.jsp?nav=310&loc=1223&det=25396 (accessed on 19 February 2014).

The Peaks in the Delta programme provided EUR 296m of central resources for regional innovation and territorial development policy between 2006 and 2010 (Table 2.5), with all funding matched directly by regional and European resources (Geerding et al., 2010). Therefore, along with the EUR 80m from the special programme for the northern Netherlands, there was a total of EUR 600m invested in this period between European structural funds, and national/ provincial resources. This was invested through regional strategies corresponding to the six Peaks regions. The aim was to incorporate the European operational programmes (corresponding to the four European funding regions; Section 2.1) with provincial investments co-ordinated at the regional level as well as between regional development agencies.

Table 2.5 The budget allocations for Peaks in the Delta, 2006-10

Region	Peaks budget EUR m	Share
North	80 ¹	--
North Randstad	94.7	32%
East	53.2	18%
South East	62.1	21%
South Randstad	68.0	23%
South West	17.7	6%
Total	296	100%

Note: 1. The north received EUR 80m under a separate programme for the north of the Netherlands.

Source: Based on data in Geerding, M. et al. (2010), “Pieken in de delta: evaluatie subsidieregeling”, Berenschot Consultants, The Hague (in Dutch).

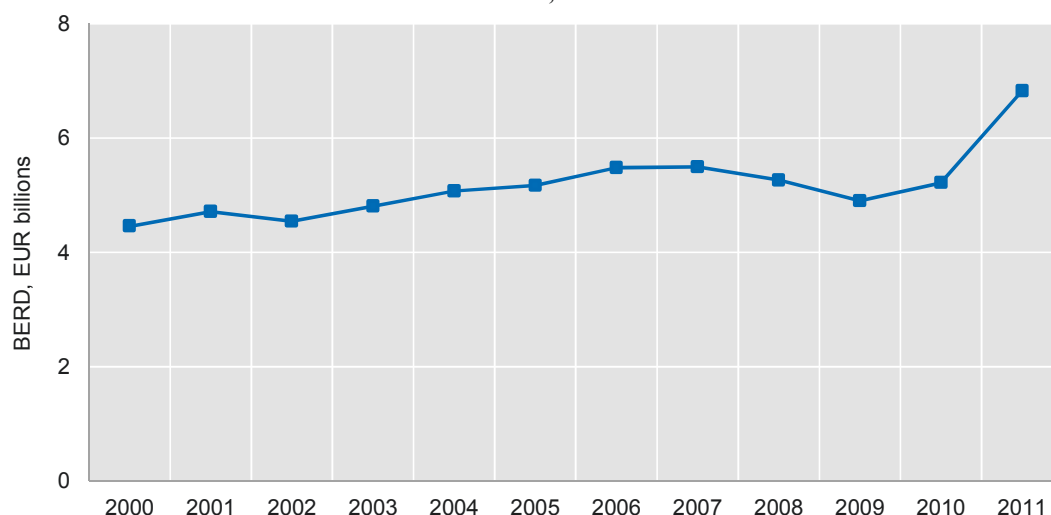
Table 2.6. Territorial implications of the Peaks in the Delta policy

Region	Provinces	Economic core areas	Action plans	Strategic objective	Target clusters (‘peaks’)
North Netherlands	Groningen, Friesland, Drenthe	Groningen	Linking the Randstad to North East Europe	Strengthening the region's international competitiveness by extending the clusters of national significance, namely energy, water, sensor technologies and agribusiness	Energy, water, sensor technologies and agribusiness
East Netherlands	Gelderland, Overijssel.	Twente, Arnhem- Nijmegen en Wageningen- Ede- Rhenen-Veenendaal.	Exploiting regional knowledge concentrations	Realising a significant growth of business investments and added value in three cluster areas, food & nutrition, health, and technology.	Food & nutrition, health, and technology
North Wing Randstad	Noord Holland, Utrecht Flevoland.	Northwing zone Kennemerland- Amsterdam-Almere); Utrecht-Amersfoort-’t Gooi.	Extending international service sector	Developing the North Wing as a European top region, by shifting the boundary conditions developing and attracting world leading economic activities	Creative sector, life sciences/ medical, innovative logistics, tourism, knowledge intensive services
South Wing Randstad	Zuid Holland.	South Wing (de zone Haaglanden- Rijnmond- Dordrecht).	From harbour city to global knowledge infrastructure	Developing the regional clusters and strengthening the international competitiveness of the region	Health & life sciences, harbour & industry, glasshouse supply, international law, peace, security
South West Netherlands	Zeeland, western Noord Brabant (Breda)	Sloehaven Canal Zone; A16-A4-zone (Moerdijk- Breda- Bergen- op- Zoom).	Exploiting strategic position at the mouth of the Delta	Exploring the unique location between the world harbours Rotterdam and Antwerp to become a top region for process industries, logistics and tourism	Process industries, logistics and tourism
South East Netherlands	The rest of Noord Brabant, Limburg.	South East Brabant de A2-zone (Den Bosch- Eindhoven-Helmond), Tilburg, Venlo, Maastricht-Heerlen.	Developing into a top technology region	Increasing the knowledge intensity of industry, commercially exploiting knowledge and know-how to improve European Innovation Scoreboard position	Life sciences/ medical, food & nutrition, high- technology systems and materials

Source: Ministry of Economic Affairs (2004) and Geerding, M. et al. (2010), “Pieken in de delta: evaluatie subsidieregeling”, Berenschot Consultants, The Hague (in Dutch).

This large injection of public funds coincided with stagnation in the amount of resources invested by the business sector. While business expenditure in R&D (BERD) increased (in 2010 prices) from EUR 3bn in 1993 to EUR 4.5bn in 2000, it then stagnated and remained approximately constant until 2008 (Figure 2.4). The onset of the global financial crisis marked a substantial decline in BERD levels, which fell for the first time in a decade to around EUR 5bn in 2009.

Figure 2.4. **Total business expenditures in research and development in the Netherlands, 2000-11**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 8 November 2013).

The number of businesses actively engaged in innovation has been falling consistently since 1994. Furthermore between 2000 and 2009, the number of firms with over ten employees reporting an innovation fell from a peak of 88% to 73% of all firms (at the same time the number of firms in this class fell from 18 000 to 14 000; Table 2.7). Together, these two trends suggested a shrinking of the Dutch R&D base along two dimensions: the volume of expenditure, and the number of innovating firms.

Table 2.7. **Innovative businesses in the Netherlands, 1994-2008**

Period	No. firms >10 FTE	% surveyed	No. completed innovations	% completed product innovations	% completed process innovations
1994-96	17 193	37	15 436	n/a	..
1996-98	19 381	40	16 687	84	59
1998-2000	18 346	34	17 081	88	58
2000-02	11 755	20	10 294	83	58
2002-04	14 450	25	13 770	70	71
2004-06	15 464	25	14 688	69	68
2006-08	14 152	25	13 301	73	67

Note: FTE refers to full-time equivalent.

Source: CBS, Central Bureau of Statistics (2012), *Monitor topsectoren: uitkomst eerste meting*, CBS, The Hague and Heerlen.

The reliance on annual discretionary spending rather than large multi-annual programmes meant a substantial loss of direct influence by central government in the direction of territorial innovation policies. In practice, the national government lacked the time to exert strong thematic steering, and relied on existing projects that regional partnerships already had prepared. Moreover, these programmes all had their own conditions, rules and time scales that made strategic integration on more than a project-wise basis challenging. There was concern within the national government that the proliferation of these strategies was facilitating spending agreements, rather than productively investing the available resources on promoting triple helix interaction and business innovation.⁵

The shocks brought by the global financial crisis put added pressure on the state budget, with the deficit in 2009 reaching 5% of GDP, well above the 3% limit of the EU grow and stability pact. The arrival of a new government in November 2010, which prioritised the consolidation of the budget by reducing state intervention, had both direct and indirect consequences for territorial policy. The most direct consequence has been the abolition of specific direct national funding for innovation policy. In 2010 it was decided to close the Peaks in the Delta programme, although a transitional fund of EUR 35m was created for a final round in 2011.

Refocusing innovation on Top Sectors

In 2010 – following the June 2010 elections – the Government launched its new enterprise policy with special consideration for nine top sectors, thereby replacing the Peaks in the Delta programme. The new enterprise policy is a comprehensive approach including generic policy addressing the burden of regulation, the need for qualified staff and good interaction between education and the labour market, funding options for SME's, IT policy, a financial and fiscal incentive system, and a level playing field for businesses. In addition, there are policies specifically for innovative sectors in a strong export position: the “top sectors”, hence the name Top Sector Policy.

The Top Sector policy seeks to focus support on those sectors making the most significant contribution to the Netherlands' knowledge economy. The focus is on a limited number of economic strengths with global competitive potential. The Top Sector policy elaborates on/build upon the so called “key areas approach” or areas of excellence introduced in 2004 to further strengthen sectors in which the Netherlands excels.⁶

In these sectors government focuses on raising competitiveness by promoting innovation, entrepreneurship and collaboration among business, universities and government. The name Top Sectors reflects the focus of the programme on the nine economically top themes: water, food, horticulture, high technology, life sciences, chemicals, energy, logistics and the creative industries (see Table 2.8). These sectors were chosen because they are (ELI, 2011b):

1. knowledge-intensive, with co-operation between business and knowledge institutes
2. export-oriented, with growth opportunities in new markets
3. subject to sector-specific regulation influencing innovation (e.g. medical ethical regulation in life sciences and biomaterial)
4. able to contribute to pressing social issues.

The importance of innovation was signalled by merging governmental responsibilities for agriculture and economic affairs in a newly named single Ministry for the Economy, Agriculture and Innovation (ELI, *Economische Zaken, Landbouw & Innovatie*).⁷ The Top Sector approach therefore seeks to encourage co-ordination, partnership and long-term co-operation among government, business and universities. The policy described this as a new form of public-private partnership, similar to that taken by the Leading Technology Institutes (LTIs). Where the Top Sector policy differs from the LTIs is both in terms of the breadth of participation by business and knowledge institutions, but also in terms of the integral nature of the government intervention.

Table 2.8. The key indicators for the top sectors

	No. firms	GDP (EUR)	Net value added	Exports	R&D (EUR m)	Employees
Total Netherlands	1 124 405	11 402 23	526 176	371 541	5 218	6 718
Total Top Sectors	264 220	428 704	140 907	149 303	5 044	1 435
Sectoral scores						
Agro & food	59 050	72 578	16 217	23 853	402	213
Chemicals	2 150	90 389	14 819	28 431	737	80
Creative industry	97 020	22 627	9 715	661	21	148
Energy	1 270	54 997	26 740	15 109	645	47
High tech systems & materials	64 120	94 887	31 665	41 469	2 578	444
Life sciences & health	2 290	12 616	2 640	7 156	671	39
Transport & storage	23 820	59 090	28 473	18 141	113	335
Horticulture & propagation	18 460	19 116	9 209	14 466	169	130
Water	2 820	25 444	8 491	4 348	468	87
Further subdivisions						
Functional logistics		125 836	55 028			813
Glasshouses		21 100	8 773	14 149		118

Source: CBS, Central Bureau of Statistics (2012), *Monitor topsectoren: uitkomst eerste meting*, CBS, The Hague and Heerlen.

The Top Sectors currently account for around one-third of the Dutch economy when measured in terms of employment, value added and numbers of firms. They are responsible for around 40% of both production and exports. Where the Top Sectors make the most significant contribution is that they conduct 96% of all Dutch business R&D.⁸ Figures available from WBSO (The *Wet Bevordering Speur - en Ontwikkelingswerk* refers to the Law for the Promotion of R&D activities, see Box 2.2) suggest that innovation activities are spread much more evenly across sectors than R&D (which is disproportionately concentrated in high-technology materials, electronics and chemicals).

Each of the Top Sectors has a responsible ministry which co-ordinates activities. Thus, the Ministry of Health oversees life sciences, the Ministry of Education Culture and Science the creative industries sector, and the Infrastructure Ministry oversees both logistics and water. The remaining sectors are overseen by Economic Affairs (which also incorporates agriculture). Each ministry makes an additional direct contribution to the sector plans through their existing R&D investments, totalling EUR 270m a year.

The Top Sectors approach attempts to bring simplicity, clarity and coherence to a very fragmented innovation landscape by providing strong top-down steering at the national level. The innovation programmes within Top Sectors are administered by 19 public-private partnerships, the Top Consortia for Knowledge and Innovation (TKIs).

TKIs are open platforms involving all interested parties in the sector willing to invest cash in R&D activities under a common programme. These consortia design collective programmes consisting entirely of members' resources (both cash and in-kind), and then submit them to the government. These plans are evaluated, and on the basis of the planned expenditure they are eligible for a fiscal subsidy equivalent to the tax relief the individual expenditures would accrue, the so-called *TKI-toeslag* (TKI supplement).

Composition and financing of Top Sectors

The approach aims to use very limited subsidies in a smart and focused way to steer a range of other public expenditures and at the same time raise the overall level of business R&D expenditure. The TKI supplement is dependent on the total private income invested in collective research programmes. At the same time, there is a matching requirement that a certain proportion of public basic and applied research is also integrated into these programmes. The bulk of funding for the research and innovation budget continues to go into basic research via the universities and research council, as well as the R&D budgets of the national ministries (see Figure 2.6). The Top Sector approach seeks to steer more of that research by making it conditional on its alignment with the TKIs' priorities. EUR 350m of Research Council funding and EUR 250m of knowledge research institute funding is allocated under these conditions (about 40% of the total).⁹

The main generic support for innovation comes through the fiscal instruments for innovation (Box 2.2). The fiscal instruments are well-designed, allowing innovators to gain approval in advance for planned activity, and then providing relief to mitigate some of the uncertainties of R&D work, both in terms of up-front incurred costs (WBSO, RDA), but also providing specific incentives to generate sales from intellectual property (such as "Innovation Box"). TKIs also provide for additional subsidies for innovation and knowledge exchange activities, with a particular accent on SME participation. These are distributed through the Ministry of Economic Affairs (Box 2.2).

Box 2.2. Fiscal instruments and subsidies for innovation

The *Wet Bevordering Speur- en Ontwikkelingswerk* (WBSO, the Law for the Promotion of R&D activities) provides a tax credit for businesses for the payroll taxes associated with hiring R&D personnel. In 2012 this scheme saw tax relief given to 2 200 businesses – 97% of the beneficiaries were SMEs. Total R&D eligible expenditures – EUR 3.9 bn, EUR 850 m tax relief granted, EUR 735 m claimed.

There is also a range of subsidies and awards administered through the Ministry of Economic Affairs each year. These are split between generic innovation subsidies, for which every firm is in principle eligible; and targeted innovation subsidies, which fund projects aligned with the Top Sectors and the Innovation Contracts of the TKIs. Some of these specific subsidies form part of the TKIs and are used to allocate the subsidies from the TKI supplement. Some of these are more loosely aligned with the top sectors, such as Small Business Innovation Research (SBIR), where of the three programmes, two clearly fall under TKIs, whilst one (Soldier of the Future) is aligned to the Ministry of Defence.

Box 2.2. Fiscal instruments and subsidies for innovation (*cont.*)

Generic innovation subsidies

- R&D Relief I (WBSO): relief on payroll taxes for employment associated with R&D activities.
- R&D Relief II (RDA): relief from income or corporation tax for costs incurred on from innovation expenditure.
- RDA Relief III (Innovation Box): relief on profit tax for net profits directly (at least 30%) traceable to recognised R&D projects or patents in the last three years.
- Subsidy for Innovation Facing Research Programmes: subsidy for co-operative research between businesses and firms within a programmed area under chosen thematic areas (2010-14).
- Eurostars: subsidy for high technology SMEs to establish international collaboration in risky co-operation projects.
- SME Innovation Funds: innovation funds, seed capital and venture capital for eligible innovation SMEs.
- King William Prize: awarded every other year to one large firm and one SME to reward entrepreneurship.
- Innovation performance contracts: 10-20 companies that work together in regional or sectoral clusters to develop collective innovation, partnership and knowledge exchange projects.
- SME innovation stimulation: a series of instruments to help SMEs with innovation (Knowledge vouchers, Feasibility studies, R&D projects, Innovation Performance Contracts, Inbound Secondments, Network activities, Innovation consultants).

Innovation subsidies focused on the TOP sectors

- SME Top sector stimulation: a series of instruments to help SMEs get involved with Top Sector activities (Knowledge vouchers, Feasibility studies, R&D projects, Innovation Performance Contracts, Inbound Secondments, Network activities, Innovation consultants).
- Innovation programmes: subsidies for knowledge institutions and businesses to work individually or together on innovations in programmed areas.
- SME Agro-food valorisation pilot: support for SMEs in Agrofood for feasibility studies, industrial research and experimental development.
- Small business innovation research (SBIR): support for innovation activities (feasibility studies and product development) in chosen thematic areas (e.g. under Energy: making the Dutch gas network more flexible).
- Tender for the Energy Top Sector: research, development and innovation programme for the seven energy top sector TKIs.
- Dinalogic Conversion factory: support for SMEs to work with TU/e on short-term logistics R&D problems.
- Innovation Vouchers Electric Mobility: EUR 5000 for firm to work with knowledge institution on project in eligible area.
- LiveWire Prize: business advice for technological entrepreneurs – the best firm emerging from the process wins a prize.
- Partners for International business (PIB): working with top-sector groups seeking to expand into a particular land, helping to reduce the trade and market access barriers.

Source: Agentschap NL (2013), *Onderneem, bespaar en innoveer. De overheid helpt*, Agentschap NL, The Hague, January, www.agentschapnl.nl/sites/default/files/Overzicht%20MKB%20regelingen%20AgentschapNL_0.pdf.

The Dutch government has made considerable effort to ensure that the programmes are designed and implemented to maximise participation by SMEs. The actors involved in each of the of the top sectors (top teams) all include representatives from the SME sector, and the top sectors and TKIs work hard to engage with SMEs in drawing up their multi-annual research programmes and Innovation Contracts. The TKIs all have dedicated SME advisors within the Syntens organisation,¹⁰ with a mission both to help SMEs that approach them to be involved as well as to actively seek out SMEs that could potentially get involved.

Under the existing SME Stimulation Instruments, each Top Sector has been provided a specific resource allocation for supporting eligible activities.¹¹ Each TKI decides the extent to which it wishes to use each of these instruments:

- the high technology systems and materials (HTSM), logistics and the creative sectors have decided not to use feasibility studies
- HTSM are not using innovation consultants
- no top sector is using Innovation Performance Contracts.

A total of EUR 20m was made available for these SME specific top-sector subsidies in 2013; applications are made through the Ministry of Economic Affairs in accordance with decisions of the TKIs within the overall guidelines of the SME Innovation Stimulation subsidy. Further promotion of SME involvement comes through the use of dedicated business advisors to link SMEs more strongly into the programmes. These advisors respond to firms outside the programme who wish to access knowledge emerging from the research, as well as actively seeking SMEs with particular kinds of knowledge to participate in consortia and projects.

Despite the efforts to involve SME's into Top-Sectors, there have been some difficulties in this process brought mainly by tight credit environment and the need to overcome the administrative barriers in accessing Top Sector eligibility criteria. In the first case SME's face larger difficulties in accessing credit than big firms, and the in the latter case SME's must overcome the information gap and the steep learning curve brought by the new set of rules. This issue is noticed by Dutch government and for 2014 measures have been taken to involve SME's more in the TopSectorpolicy.

The Top Sector approach includes a separate series of measures seeking to reduce the barriers to innovation and entrepreneurship imposed by government regulations. The initial plan was to reduce administrative pressures on firms and sole traders by 10% in 2012 with respect to 2010, and thereafter a reduction of 5% every year. This was to be achieved by reducing the complexity of salary taxes, simplifying rules for new businesses, reducing the statistical burden, simplifying environmental regulations and introducing streamline corporate governance rules. Entrepreneurship was to be promoted by improving access to finance, improving business advice, and encouraging the use of external knowledge in business innovation processes.

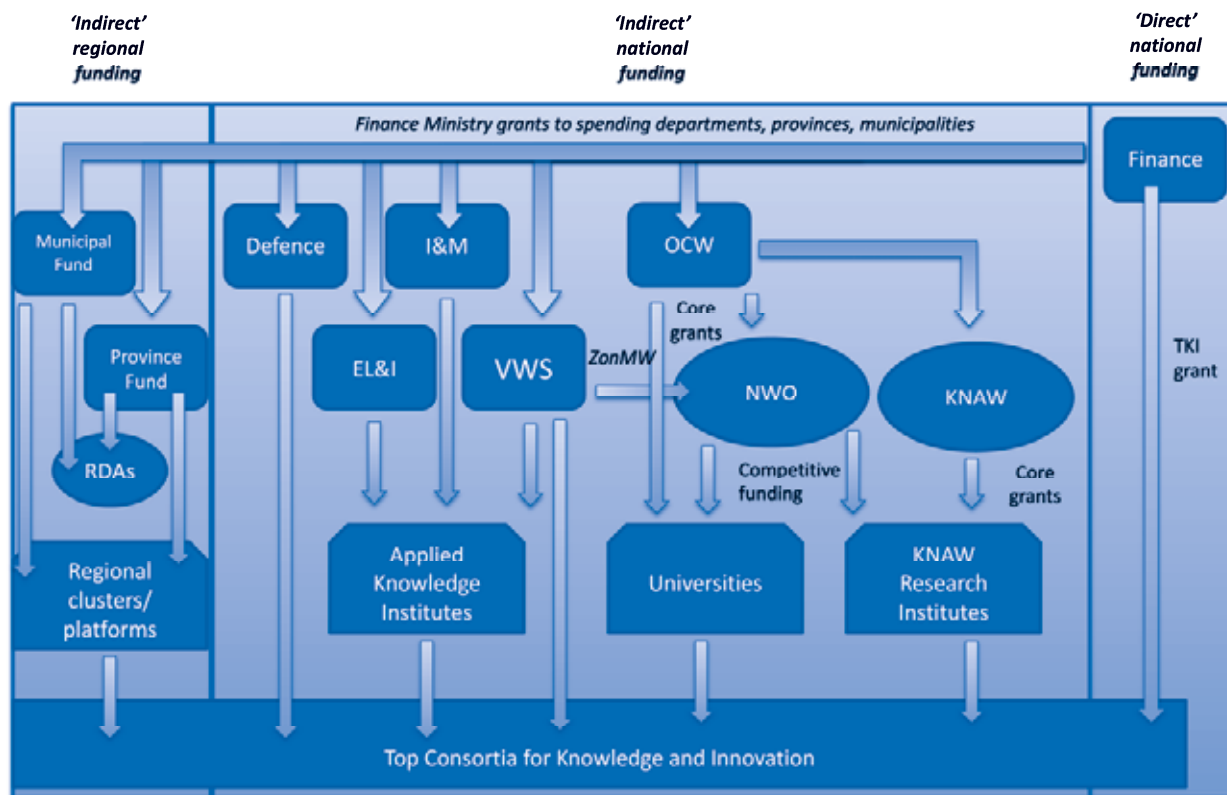
The TKIs receive three kinds of public funding:

1. An annual TKI supplement from the Ministry of Economic Affairs, depending on total private sector contributions realised within the multi-annual research programmes.
2. Funding from other national science, technology and innovation funders. This includes the research and innovation expenditures of other departments, including Health, Infrastructure and Education, Culture & Science. It also includes investments in other institutions that participate in the research programmes, including the Royal Netherlands Academy of Arts and Science (KNAW) Research Institutes, applied research institutes, and universities. A substantial element of the multi-annual research programme (currently over 60%) is funded from these sources.
3. Regional contributions where regional clusters and platforms are aligned with Top Sectors.

The latter two funding streams come to the TKIs via rather convoluted routes involving institutions that have their own policy and stakeholder networks. This is further complicated by the fact that the regional actors also have their own resources. All Dutch regions are currently eligible in some measure for European Structural Funds: some provinces and municipalities also have their own free resources derived from the sales of utilities companies (see Chapter 3). The effect is that a range of stakeholders and funders bring their own resources to the programme, and national control is restricted to overseeing the collective research programmes (the Innovation Contracts) and approving the non-central expenditure (the TKI supplement). All other public expenditure is in effect “pre-controlled” by the requirements of these other public funders, either the European Commission’s requirement to spend funds within an administrative territory, or the requirements of the Netherlands Organisation for Scientific Research (NWOs) for scientific excellence in allocating research grants.

Figure 2.6 highlights the fact that there is a clear regional dimension to the Top Sector policy, and that it is not a simple relationship – Top Sector activities have regional consequences. What the Top Sectors can achieve through the Innovation Contracts is at least partly dependent on public funding decisions. One-third of all funding within the Innovation Contracts comes from public institutions, while two-thirds comes from the business sector. Therefore effective delivery by the Top Sectors is at least dependent on maximising the contributions that regions can and are willing to make as this provides opportunities for regions to stimulate their own development.

Figure 2.5. Public funding arrangements for TKIs



The 2010 proposal included an outline budget for the Top Sector policy EUR 1.5 bn of public resources. These come from the ministries; directly funded research organisations, such as TNO (Netherlands Organisation for Applied Scientific Research); the leading technology institutes and the agricultural research centres (Figure 2.5). With the provision that this included some resources already allocated in departmental budgets for the period, this represented a substantial resource allocation, and one which was in line with the plan to create a cross-departmental approach. One interesting development was that the NWO (the Netherlands Organisation for Scientific Research) and the KNAW (The Royal Netherlands Academy of Arts and Sciences) would be compelled to use a share of their existing budget for investments directly aligned with the Top Sectors. The policy noted that these resources would be allocated to ensure alignment with the sector plans and business investments, but would still follow the standard scientific method of allocation on the basis of scientific quality and anticipated dissemination and impact.

Table 2.9. Available resources for the Top Sector policy, 2011 vision

	2013	2014	2015	2016	2017	Dep.
I National, generic						
A1. Entrepreneurship and Innovation	165	96	108	77	58	
Innovation fund MKB+	165	96	108	77	58	EZ
A2. Fiscal measures	1.073	1.066	1.097	993	978	
RDA	375	302	449	345	340	EZ/FIN
WBSO	698	764	648	648	638	EZ/FIN
A3 International	176	224	254	255	254	
International business and development co-operation ¹	166	215	245	246	245	BuZa
International business	10	9	9	9	9	BuZa
II National, specific for top sectors						
B. Knowledge and Innovation	735	820	822	774	760	
NWO part top sectors ²	135	210	275	275	275	OCW/EZ
KNAW part top sectors	22	22	22	22	22	OCW
Applied research (TNO, GTI's, DLO)	216	206	201	179	176	EZ, DEF
TKI surcharge	56	102	111	123	131	EZ
SME Innovation Stimulation Top sectors	22	21	14	14	14	EZ
Co-financing EU e.g. H2020 ³	7	12	28	43	54	EZ
STW	22	22	22	22	22	EZ
Other knowledge and innovation	209	180	105	50	22	EZ
Profiling knowledge institution	46	44	44	44	44	OCW
C. Education and Labour market	53	45	44	27	10	
Professional masters	7	7	7	7	7	OCW
Centre for Innovative Craftsmanship	5	5	5	3	3	OCW/EZ
Stimulating beta en technology	20	13	12	0	nnb	OCW
Centres of expertise	20	20	20	17	nnb	OCW
D. Specific contributions ministries	270	235	255	233	211	
VWS: Life Sciences & Healthcare	87	63	50	59	43	VWS
EZ: Energy-innovation (excl. ECN)	100	79	83,8	54,2	49,2	EZ
EZ: Food + horticulture	35	38	46	45	44	EZ
I&M: Logistics	5	16	24	24	24	I&M
I&M: Water	13	12	24	24	24	I&M
OCW: Creative industry	11	11	11	11	11	OCW
Defence	16	16	16	16	16	DEF
V&J e.a.: Cyber security ⁴	3	0	0	0	0	V&J, BZK, EZ, Def
Total national	2.517	2.506	2.595	2.359	2.272	

Notes: 1. Dutch Good Growth Fund is not included. 2. Including EUR 50 mln as mentioned in TK 27 406 nr. 198. (*rijksbegroting*). 3. Co-financing for European programmes, such as Horizon 2020. 4. For Cyber security each year the budget for top sectors is calculated, that is why it is put on zero.

Source: Ministry of Economic Affairs, Agriculture and Innovation (EL&I) (2011), *Bedrijfslevenbeleid*, Letter to the Tweede Kamer, Dossier 32 637, Nr. 1, EL&I, The Hague.

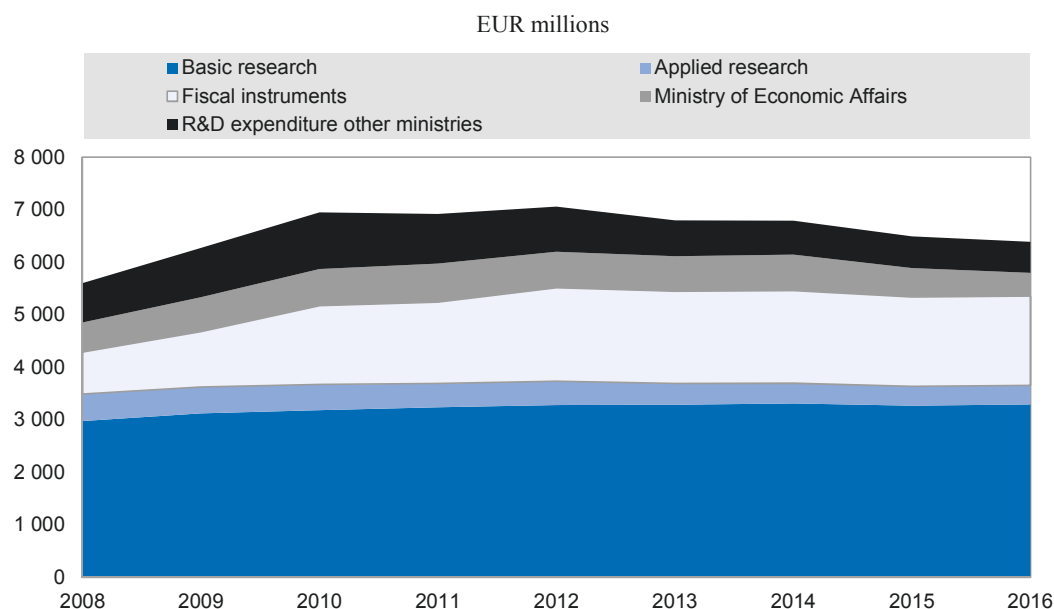
Table 2.10. Multi-annual oversight of innovation and research budgets, 2008-16

EUR millions									
Year	2008	2009	2010	2011	2012	2013	2014	2015	2016
Basic research budget	2 975	3 122	3 183	3 234	3 280	3 282	3 309	3 269	3 293
inc. direct financing from Education Ministry	2 434	2 458	2 500	2 578	2 572	2 587	2 622	2 637	2 663
inc. financing from research councils and foundations	541	664	683	656	708	695	687	632	630
Applied research	512	503	488	455	453	407	384	368	361
Fiscal Instruments	797	1 054	1 497	1 546	1 777	1 753	1 765	1 698	1 698
inc. WBSO reliefs	447	704	872	921	902	753	733	733	733
inc. R&D reliefs	..	..	..	..	250	375	500	500	500
inc. Innovatiebox (tax reliefs for innovation-derived profits)	350	350	625	625	625	625	625	625	625
Economic Affairs Ministry expenditures	566	654	701	738	687	668	683	548	444
inc. TKI subsidy	..	..	..	..	90	200	200	200	5
R&D expenditures other ministries	751	936	1 077	939	858	686	644	606	589
inc. Relevant for Top sectors	..	..	..	..	130	131	125	126	132
Subsidy Reduction Target effect	..	..	..	..	..	..	-54	-60	-60
inc. Economic Affairs Ministry	..	..	..	..	..	..	-46	-52	-52
inc. Other departments	..	..	..	..	..	..	-8	-8	-8
Total	5 601	6 269	6 946	6 912	7 055	6 796	6 731	6 429	6 325
Abolition of sector specific PBOs	..	..	..	..	..	..	-47	-47	-47

Note: .. Not available.

Source: Ministry of Economic Affairs (2012), *Bedrijfslevenbeleid*, Letter to the Tweede Kamer, Dossier 32 637, Nr. 47, 4 December, The Hague, <https://zoek.officielebekendmakingen.nl/kst-32637-47.html>.

Figure 2.6. Dutch Innovation and Research budget, 2008-16



Source: Based on data in Ministry of Economic Affairs (2012), *Bedrijfslevenbeleid*, Letter to the Tweede Kamer, Dossier 32 637, Nr. 47, 4 December, The Hague, <https://zoek.officielebekendmakingen.nl/kst-32637-47.html>.

Making connections for innovation

There is a very strong orientation within the Top Sector approach to supporting a particular element of the innovation “pipeline”: innovations in the pre-competitive stage. The TKIs have followed a technology road-mapping approach which identifies new market opportunities and co-ordinates firms evolving in those areas. The multi-annual programmes seek then to move the idea from a pre-competitive stage to a pre-market stage. At this point, the responsibility for development passes to individual firms that can develop and launch particular products and services: for SMEs, Top Sectors policy also includes a series of instruments that can assist with the product development and launch phases.

The research projects are organised as public-private partnerships, following in the successful footsteps of the Leading Technology Institutes. This approach relies on both firms and public research institutions having individual interests in the research projects, and a clear underlying rationale for why collaboration is more important than competition. The pre-competitive phase of product development is a period in which particular technologies have potential, but the costs of configuring the product and users are beyond the capacities of companies. Once the product idea has been developed and there is a clear group of users as potential customers, the development then moves to a pre-market phase. In this phase, business interests shift to ensuring that they are able to profit individually from the innovation (favouring competition over collaboration).

Firms work together to establish the boundary conditions and the feasibility of individual product ideas which can then be taken forward by individual firms. These pre-competitive collective activities involve participants sharing knowledge in return for a

right to use the knowledge and innovation which emerges from the project. This approach encourages very particular roles for participants in the consortia:

- The leaders of the consortium are (usually large) firms who will eventually individually develop products in the pre-market phase.
- Second tier firms, often SMEs, are niche suppliers who develop particular elements of solutions for the systems integrating firms or supporting services necessary or enabled by the new products.
- Universities and knowledge institutions are providers of applied knowledge; using their knowledge and developing new knowledge where appropriate to help the lead firms solve the problems that arise in the course of establishing these individual businesses cases.

Although the Top Sector programme is not the only source of funding for Universities and research institutes, there is a risk that research programmes would become too market oriented. There is a risk that this emphasis on the pre-competitive phase detaches fundamental and basic research from the Dutch science base, and reduces the capacity of Dutch industry to exploit and benefit from this new knowledge through more radical innovations. Whilst this might make sense in a short-term perspective, there is the risk of short-term innovation performance being at the cost of developing innovative new sectors, which instead emerge where there is support for earlier phases of the knowledge exploitation process.

The abovementioned risks are alleviated by the financial resources devoted to fundamental research through other channels. The Netherlands finances around EUR 625 million for fundamental research each year, through various programmes.

The skills dimension of the Top Sectors

Despite very high participation rates in higher education and overall good performance in human capital indicators (see Chapter 1), there is concern amongst policy-makers that the Dutch education system could be further improved to better align with the needs of the knowledge society. The Top Sectors policy is well crafted in that it includes both a skills dimension and an R&D&I dimension. The skills dimension is provided through the Human Capital Agendas, in which plans are developed for specialised vocation centres to serve each top sector. These centres are at both higher (HBO) and further (MBO) levels and tasked with developing courses which are oriented towards the top sectors' future workforce needs. These centres operate as partnerships of existing knowledge institutions, firms and public actors to create new educational activities which seek to improve the innovation performance of the top sectors.

The Human Capital Agenda for the Netherlands has followed a parallel process to that of the TKIs: at the same time as the TKIs were developing Innovation Contracts, the Masterplan for Technical Education (*Masterplan Bèta en Technologie*)¹² was written to address the top sectors' shortage of human capital. The regional dimension came through very strongly in the master plan, noting that it was important to build on existing regional partnerships of businesses and education institutions, such as those successfully promoted by the *Stichting Innovatie Alliantie* (SIA) in previous years. A central element of this was in promoting regional differentiation in the educational provision by vocational centres (MBO/ HBO level), with each top sector creating its own regional centres of expertise.

Each Top Sector has developed its own Human Capital Agenda within the framework of the master-plan. These have each developed a series of themes of importance for the sector, and subsequently developed plans for realising those goals. One of the main delivery items is the establishment of two kinds of centres, Centres of Excellence, corresponding to the universities of applied science (HBO) and the Centres for Innovative Craftsmanship (CIT; see Box 2.3) within further education colleges.

These centres are being created within structures that are already heavily regionalised; HBOs are already actively engaged with their regional business through the work of SIA, whilst MBO education is organised on a regional level. Each of the Centres of Excellence and Innovative Craftsmanship is located in a single region, although they may involve education institutions and firms located outside the region.

Box 2.3. An example of Human Capital Agendas promoting innovative approaches to vocational learning in healthcare

An example of Centre for Innovative Craftsmanship (CIT) is the CIT in health care technologies, located in the province of Limburg. Created on the bases of the previous Lifetec centre, it focuses on non-medical and nursing activities (e.g. providing care for elderly or disabled people). The CIT main aim is to bring firms and MBO institutions together, in order to give individuals the necessary skills to use emerging non-clinical care technologies such as remote monitoring, home-base care, and electronic patient records. The CIT offers a range of courses at the vocational MBO level, including new modules in existing courses for health sector workers; developing a new Care Technician course; continuing education for existing health care employees; continuing education for teachers on the relevant courses; and developing new supervisory forms for work placements in the care sector. The CIT has also developed a new concept of working and learning in care: involving MBO students in applied research and business R&D projects; and working with schools and social media to publicise health care occupations.

Source: Centre for Innovative Craftsmanship (2012), “CIT Technology in Care Business Plan”.

The education programmes developed inside the top sector policy risk to be too focused on specific sectors (indeed, each of the top sectors), leading to a pillarisation of ideas, with the risk that the idea of “new skills for innovation” will be simplified into “creating new courses for top sector jobs”. This would only address one of the human capital needs of top sectors, creating sufficient numbers of employees, rather than the broader strategic vision.

A key issue for the Centres of Excellence is in ensuring that they are aware of the latest developments in the Top Sectors, and that their own expertise remains relevant as these sectors evolve and TKIs create new knowledge. Otherwise the HBO Centres will fail to adapt to the paradigmatic shifts and simply train people for today’s innovation needs rather than those of the future.

Effectively realising the ambitions of the CITs to contribute to innovation will require staff skill levels to be upgraded while also developing mechanisms for staff and students of Regional Education Centres (ROCs) to become meaningfully involved in research projects. ROCs provide middle vocational education but do not have any kind of research capacity, although one of the implicit ambitions of the Human Capital Agenda is to create some kind of business innovation capacity. The example of the Health and Technology CIT (Box 2.3) notes that students and staff will be involved in work placements and projects involving businesses.

Given the lack of existing research capacity within ROCs and the lack of theoretical education for those on MBO trajectories, such meaningful involvement is not a trivial issue. The position of Applied Professors within UASs (“Lectoren”) was developed as a new kind of employment position to help the UASs develop their research capacity. The idea of the position was developed experimentally over a ten year period: funding was provided to recruit people, and then their achievements were evaluated; the positive evaluations led to an expansion of the scheme. In parallel with this, an expertise centre for Lectoren was created to co-ordinate the investments across the UASs (*Stichting Innovatie Alliantie*); at the same time, UASs and University bodies agreed collectively that they would work to ensure as many of their staff as possible achieved Ph.D. qualifications, to give them the basis for this research activity.

These Human Capital Agendas are primarily concerned with ensuring there are sufficiently highly trained people to fill the engineer, technician and craft posts that are anticipated to emerge as a result of the successful Top Sector policy. However, the most important issue in terms of stimulating innovation and entrepreneurship is high level human capital with the knowledge of how to integrate technical, business, commercial and market knowledge to bring new ideas successfully into new markets. Therefore there is a need to ensure that there are the appropriate high-level skills to allow the support for emerging high-technology businesses implementing potentially disruptive, radical technologies with world-leading market potential.

A key issue here is the availability of knowledge-intensive business services (KIBS), consultancy and R&D businesses that provide emerging innovators and entrepreneurs with the necessary support and skills to improve their overall innovation performance. In some sectors, notably transport and infrastructure, there is a very strong KIBS sector involving leading world-class firms. In other areas, services and knowledge are more generic. But the development of firms with the knowledge of how to support innovative micro-businesses and SMEs is going to be a critical factor in determining where new technologies developed through the TKI programmes are eventually exploited.

Dutch territorial economic development remains constrained by a wider set of human capital problems beyond the Top Sectors, and even beyond the manufacturing and engineering sectors. Human capital – and its efficient utilisation – is a general requirement of effective regional economic development. The Netherlands suffers from a series of mismatches between supply and demand; the Top Sector policy is an intervention on the demand side for high-level technical skills, and the Human Capital agenda tries to fill this. However, there is a problem that labour market demand is weakest outside the Top Sectors, and there is therefore the risk that the approach fails to create economic opportunities to help workers back to work in the more peripheral regions of the Netherlands.

Although most of the job creation is in the core regions, in the peripheral regions there are growth poles creating employment, for example around Groningen and Assen. These peripheral regions have a lower exposure to the Top Sectors, and therefore there is a risk that national employment policy is overly focused on meeting the skills needs of core regions, and therefore not taking advantage of the potential of peripheral regions and second tier cities.

The Dutch vocational educational curriculum could better integrate the educational and the workforce dimension. Firms who wish to train staff face the problem that there is no dual system where the students work in the company whilst also receiving education. This makes the marginal cost to business of arranging training a vocation staff member around EUR 70 000, paying two years of college fees and two years of minimum wage. Compared with this it is much cheaper for the firms to hire graduates, and this means that there is a

displacement effect where graduates are doing jobs that technicians could conceivably do. This further hinders the emergence of a progressive labour market with a much more nuanced graduation in roles between operators and engineers.

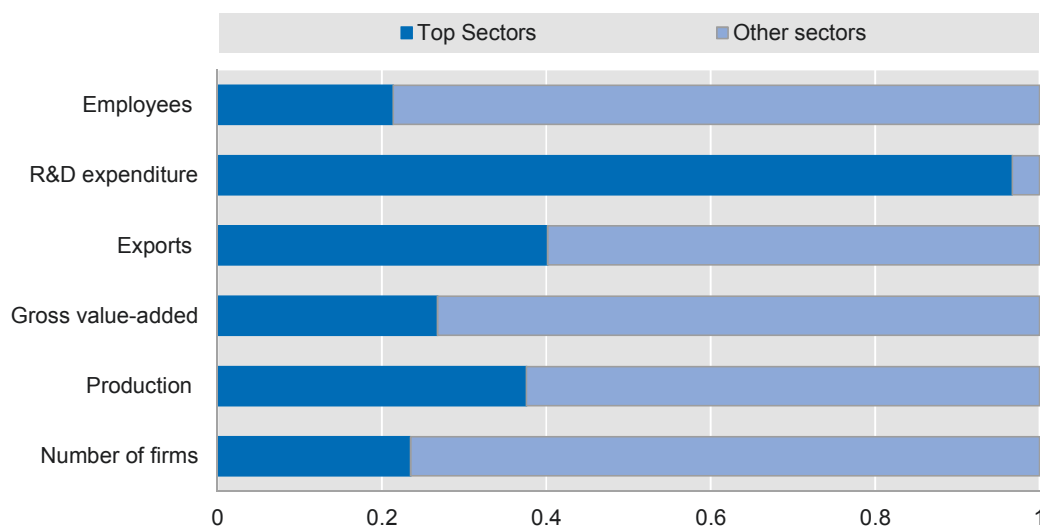
More flexibility in lifelong learning could facilitate matching skills with the needs of firms. The Dutch education system selects students aged 12 into rigid streams that are relatively difficult and time-consuming to move ex-post. Thus people who are not necessarily academically oriented aged 12 can find it difficult to acquire an appropriate education if their aptitudes increase by adulthood.¹³ The Open University of the Netherlands does offer adult university and HBO education, although their non-university offer is very limited. There are also concerns in terms of second qualifications, because there are only a very limited number of initial educations that are offered on a part-time basis. Therefore people who wish to retrain must be able to commit to and finance long term full time study programmes.

How are Top Sectors performing today?

The list of Top Sectors will be continually under review and updated as applicable. This updating will be based on their fulfilment of the following key conditions: a coherent and well-organised sector, high R&D expenditures and opportunities for export and employment growth. The main agency for this monitoring to date has been the Agency Statistics Netherlands (*Centraal Bureau voor de Statistiek*, CBS), contracted by the Ministry of Economic Affairs to undertake periodic statistical monitoring.

The results of the first assessment were published in 2012, updating the figures used by the ministry in 2010 to choose the top sectors. These key indicators demonstrate that the nine chosen sectors continue to account for substantial proportions of Dutch employment, output, value added and exports (Figure 2.7). The report also showed that the top sectors accounted for almost all of the Dutch business expenditure on R&D (Table 2.11).

Figure 2.7. **Share of the Top Sectors in the Dutch economic performance indicators**



Source: CBS, Central Bureau of Statistics (2012), *Monitor topsectoren: uitkomst eerste meting*, CBS, The Hague and Heerlen.

Table 2.11. State of the Top Sectors, 2010

	Top Sector*	Notable activities	% GDP (2008)	GERD €m (2008)	% GDP (2010)	BERD €m (2010)	Ministry
1	Agro-food	Agrofood sector: a range of arable and pastoral food chains, Wageningen Food Valley	4.4	0.5 (inc. TS1)	3.1	0.4	EL&I
2	Horticulture/propagation	Plant breeding, horticulture, flowers and bulbs, Greenports	1.4	0.5 (inc. TS1)	1.8	0.2	EL&I
3	High tech materials & systems	High technology materials & systems, Brainport, nanotechnology, automobiles, aerospace, agriculture, security, steel	6.7	4.2	6.0	2.6	EL&I
4	Energy	Increasing energy efficiency, the international gas market (the energy crossroads), Energy Valley	3.4	2.1	5.1	0.6	EL&I
5	Logistics	International supply chains, management of key infrastructures, innovation in shipping and air transport, Mainports & hinterland connections/	3.4	0.2	5.4	0.1	I&M
6	Creative industry	Architecture, fashion, digital games, industrial design, media	1.6	0.2	1.8	0.0	OCW
7	Life sciences	Vaccines, diagnosis, pharmaceuticals, biomedical materials, preventative technologies across human and animal health, Bio Science Park Leiden, Health Valley	3.7	2.1	0.5	0.7	VWS
8	Chemicals	Petrochemicals, chemical feedstocks, fine chemicals, Maintenance Valley	2.2	1.7	2.8	0.7	EL&I
9	Water	Water and flood protection technology, maritime construction, water resource management, water cleaning technologies.	0.4	0.3	1.6	0.5	I&M

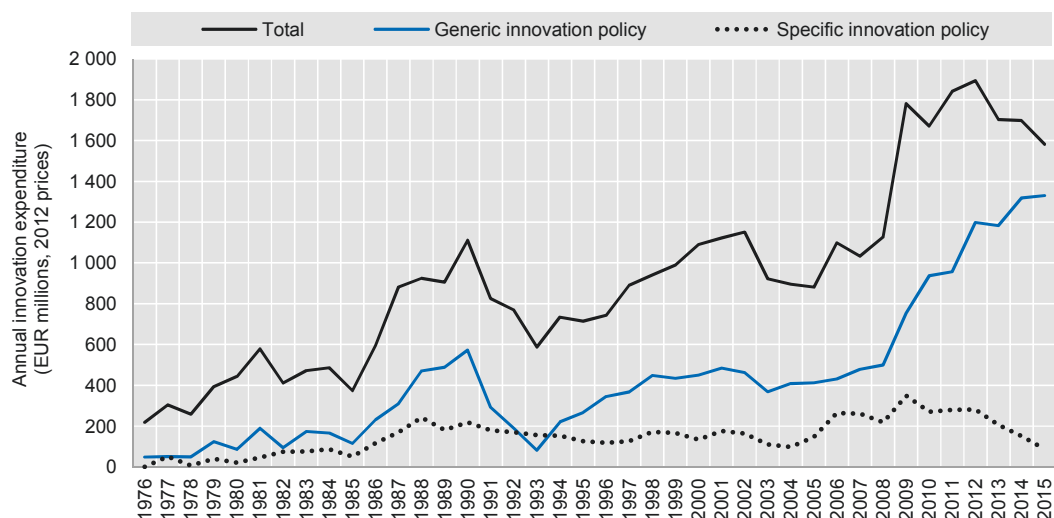
Notes: There is now a Top Sector for Head Offices, justified on the grounds that the Netherlands has a competitive position in international office activities, and having headquarters or higher order in the Netherlands can be an important reason for firms in all sectors to invest in R&D. The Head Offices functioning has therefore been added as a special category, with its own top team.

EL&I – Economic Affairs, I&M: Infrastructure & Environment, OCW – Education, Culture, Science, VWS – Health.

Source: Based on data from Ministry of Economic Affairs, Agriculture and Innovation (EL&I) (2011), *Bedrijfslevenbeleid*, Letter to the Tweede Kamer, Dossier 32 637, Nr. 1, EL&I, The Hague.

In the last five years, there have been substantial increases in the numbers of firms applying for and receiving the credit under the WBSO instrument (Figure 2.9), and an increase in the number of full time equivalent employment (FTEs from 62 400 (2008) to 79 500 (2012), with a comparable increase in (tax deducted) salary expenditures on R&D from EUR 2.5bn (2008) to EUR 3.8bn (2012). In 2012 13 900 businesses were eligible for RDA; 98% of beneficiaries were SMEs. There were 21 700 applications approved. Total R&D expenditures for eligible costs were EUR 2 bn, and EUR 814m in corporate tax allowances were granted on income tax and social costs (Ministry of Economic Affairs 2013).¹⁴

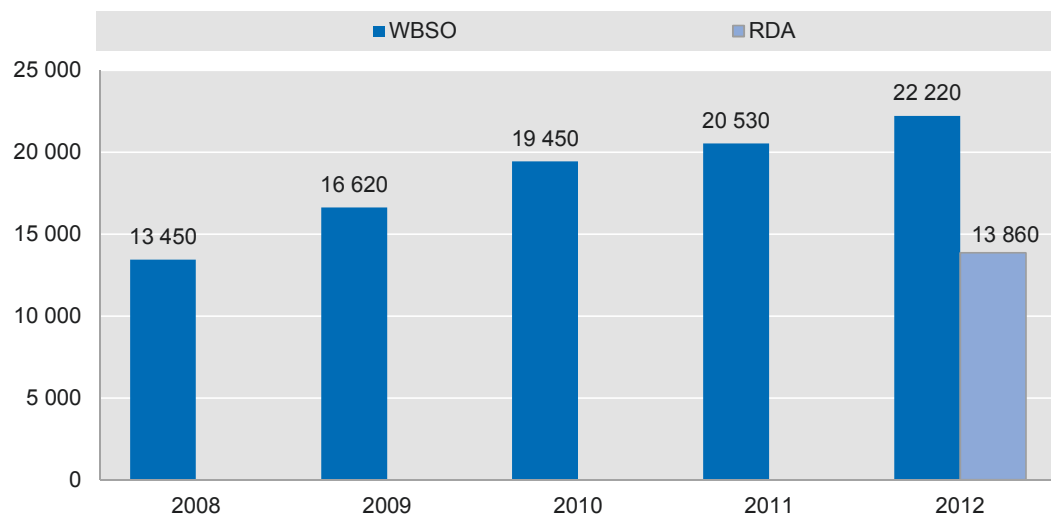
Figure 2.8. Public expenditure for innovation policy (2012 prices)



Source: Based on data from Velzing, E.J. (2013), “Innovatiepolitiek – Een reconstructie van het innovatiebeleid van het ministerie van Economische Zaken van 1976 tot en met 2010” [Innovation Politics - A reconstruction of innovation policy from the Dutch Ministry of Economic Affairs from 1976 to 2010], Eburon, Delft.

In the current context of the crisis, with a tight fiscal situation, the trends in business R&D expenditures showed a decline during the period 2007-09. Nevertheless, there was a notable surge in investment, which saw both expenditure and effort recover by 2010 the lost position and increase by around 15% from its pre-crisis peak. This suggests that the overall environment for R&D in Dutch businesses has improved, even accounting for the crisis.

Figure 2.9. Evolution in granted applications for WBSO relief, 2008-12



Source: Agentschap NL (2013), *Onderneem, bespaar en innoveer. De overheid helpt*, Agentschap NL, The Hague, January, www.agentschapnl.nl/sites/default/files/Overzicht%20MKB%20regelingen%20AgentschapNL_0.pdf.

As highlighted above Top Sectors must further involve SMEs. Although SMEs are important users of the Top Sector's financial instruments with 97% of applications being made by the SME sector. SMEs they account for an even larger share (99.7%) of Dutch businesses, and therefore there is some underrepresentation of SMEs in the population of innovating businesses. Partly this is an eligibility issue, with the various regulations favouring activities that can easily be described as R&D, such as investments, patents and employee time. SMEs are not always clearly able to distinguish these in practice.

There is a disconnect between the fiscal instruments and the top sectors which could usefully be addressed (although it is the fiscal law which is used to finance the TKIs as a collective WBSO rule). The fiscal rules are being used by a much larger number of firms than are involved in the top sectors (although the top sectors are likely to involve the majority of innovation expenditures as these expenditures are concentrated in large firms). Nevertheless, ensuring that the top sectors retain their salience will depend on the extent to which they can draw on this pool of other innovating companies to commercialise emerging ideas, as well as to create new technological opportunities and combinations.

Implications of Top Sector policy for innovation

The Top Sector policy clearly builds on past successes within innovation policy, and addresses some of the weaknesses in previous policies effectively by:

- Using collaboration very effectively, extending to the sectoral level positive Dutch experiences with public-private partnerships in the Top Technology Institutions and joint research programming (OECD, 2004).
- Providing a clear focus for industrial research programmes, and ensuring that higher education research feels strong user pressures to make research available.
- Using fiscal instruments in ingenious ways – the public-private partnerships have to agree jointly-funded research programmes which are then eligible for tax breaks that provide headroom for further investment programmes.
- Creating effective mechanisms for involving SMEs in Top Sector activities and earmarking resources within each investment programme for SME capacity building.
- Drawing on good generic instruments to stimulate investment in highly innovative near-to-market innovation activities regardless of sector (subsidies, fiscal incentives and risk/profit sharing instruments).

Although Top Sectors currently represent the public face of Dutch innovation policy, the approach is only one – albeit important – element of a much broader and much wider policy mix. The attempts to avoid further bureaucratic complication, and to simplify some of the administrative complexity that had arisen over the preceding ten years, are welcome.

Nevertheless the introduction of the Top Sector approach may inadvertently create some obstacles to effective R&D&I policy arrangements. The Top Sector approach is primarily focused on technologies, whilst economic development requires the implementation of technologies in particular contexts. This means that the success of the policy is dependent as much on the absorption capacity of particular places, and the efforts made to translate innovation, as on the creation of new technologies themselves.

The Top Sector policy is primarily focused on a particular stage of the technology valorisation process, between pre-commercial and pre-market research. In the pre-commercial stage, firms are unwilling to invest in basic research because of uncertainties over whether there will be commercial applications for the technology. In the pre-market stage, firms are unwilling to invest in applied research and development because of uncertainty over whether a particular commercial application will be profitable. But by encouraging universities and public knowledge research institutes to align their basic research around firms' needs in these stages, there is a risk that in the medium term, when new technological challenges emerge in other technological fields outside the Top Sectors, there could be a mismatch between basic research capacity and the applied research needs.

Top Sectors are currently co-ordinated by those who are spending their resources in innovation on these fields. Whilst this covers the vast majority of current innovators, it is clear that they will not include the interests of firms not currently active in those areas. Although some of these firms will emerge within existing paradigms, the TKI approach might not have the capacity to cope with disruptive technologies that challenge the interests of substantial numbers of their members. A key objective for the Top Sectors should be to ensure openness to new technologies, ideas, approaches and firms, as they emerge. The focus on the current needs of the industry should not preclude the creation of an appropriate infrastructure environment that will allow new innovations/sectors to flourish.

Territorial implications of Top Sector policy

The Top Sectors policy has implicit and explicit territorial consequences. Despite the positive aspects of the Top Sector policy outlined above, the way the policy has been introduced creates a challenging policy environment for effective and integrated territorial development policy. The policy is explicitly non-spatial, with the aim to support activities with the correct profile (global reach, high innovation potential, and R&D spend) wherever they are located in the Netherlands. Nevertheless, the policy has acquired a spatial component by concentrating on the locations where the top sectors as currently defined are located.

Although this should not matter for territorial development, it is problematic because the Top Sectors are not just important for innovation policy – a number of other government departments have to follow them. The infrastructure development policy concentrates investments of national significance on the mainports and greenports, effectively focusing national infrastructure investment to the Randstad and the Eindhoven sub-region of Noord Brabant. At the national level, there should be further consideration of how to connect the rest of the Netherlands to these core economic territories.

This brings with it a range of risks and threatens both territorial development across the Netherlands as well as the long-term sustainability of the Top Sectors policy:

- Peripheral regions are less effectively connected to the core regions, even where they are competitive nodes in national clusters, for example nanotechnology in Twente or Energy in Groningen.
- Congestion is encouraged in the core regions (a perennial problem in the Netherlands as a small country) which increase the costs of doing business for Dutch companies, as well as undermining their international competitiveness.
- Interaction within the national clusters and other areas of the countries may be undermined (as noted in the analysis of accessibility, in chapter 1); in particular, knowledge flows outside the clusters located in the Randstad region may stimulate new technology areas.

A key issue in making the TOP-sectoren policy succeed is in ensuring that national decision-making bodies are able to sustain a well-informed position of technological capacity in emerging clusters in their regions. Spatial policy implicitly recognises that these second tier clusters, in Twente, Arnhem-Nijmegen, Wageningen, Brabantstad and Groningen are important. But nationally focused methodologies searching for national peaks of existing strength are not well positioned to identify emerging technological strengths. The focus of the Top Sectors on the mainports, brainports and greenports hinders smoothly integrating emerging innovations into the wider Top Sector Policy.

In some areas there has been an effective joining up of these regional and national issues. The energy sector in Groningen and the nanotechnology sector in the Twente have both been able on some level to create effective synergies between the national and local levels. Those regions which have managed this are those that have managed to build up strong and enduring triple helix activities in the last decade. There is a clear need for a policy to ensure that the synergies between regional triple helix organisations and these national public private partnerships are continually developing, and ensure that there is a strong and reinforcing set of synergies between regional clusters and national sectors.

The role of the European Union in regional development

Regional policy in the Netherlands has been highly influenced by European policy, because of its increasing importance as a source of funding and its requirement for locally-matched funding. EU policy continues to exert an influence on the extent to which the centre is able to control the proliferation of regional innovation activities and integrate them for national critical mass. Its structural funds are administered through operational programmes, and in the case of the Netherlands these correspond to four *landsdelen* regions corresponding to the EU NUTS1¹⁵ classification (North, East, West and South Netherlands).

Since the mid-1990s, regional partnerships have increasingly aligned their strategies with European programming documents to maximise their absorption of the available funding. Until 2000, the Netherlands received funding for regional development from the EU under three headings:

1. Objective 1 for poor regions (Flevoland, which qualified because of very limited local productive activity).
2. Objective 2 for declining industrial regions (Groningen, Twente and South Limburg).
3. Objective 5b for rural regions (Noordoost Polder, Friesland, Groningen and Drenthe).

From 2000, Flevoland lost its Objective 1 status, and the remaining regions qualified for either continuing or phasing out subsidies. From 2007, the entire country was eligible for access to funding under the Competitiveness and Employment Objective (Box 2.4). The aim of this objective was to stimulate innovation-driven growth across the EU, and therefore any region that was not otherwise eligible for funding could access this funding. Each of the four EU regions developed their own Operational Programmes (OPs), which followed a consistent set of objectives agreed at the national level, although there were very different allocations between the budget heads (Table 2.12). Nevertheless, all four OPs invested more than 48% of all their resources in innovation activities, the figure reaching 58.3% in the east of the Netherlands.

Table 2.12 **European Community funding for operational programmes in the Netherlands, 2007-13**

EUR millions				
Heading/regions (NUTS1)	Northern Netherlands	Eastern Netherlands	Western Netherlands	Southern Netherlands
Knowledge economy, entrepreneurship and innovation	49.2	58.3	47.9	50.0
Attractive regions	23.5	27.6	17.4	24.4
The urban dimension	23.5	10.5	31.5	21.6
Technical assistance	3.8	3.6	3.2	4.0
Total EU contribution (EUR million)	169	161	311	185.9

Source: Based on data from on data from the European Commission.

EU policies remain an important policy tool for Dutch regions. Reforms to the EU Structural Funds have been profoundly influential in shaping the current approach to regional policy in the Netherlands. Following the 1989 reform of the Structural Funds according to five key principles (subsidiarity, transparency, additionally, programming and concentration), the Netherlands established regionally oriented structures that were suitable for working with the Structural Funds. EU policies in the Netherlands target and are implemented in four large regions: North, East, South and West.

The two main EU tools implemented during the 1997-2013 programming period include the European Regional Development Fund (ERDF) and the European Territorial Co-operation. The former (ERDF) has added value, and has proven to be effective in developing the economic growth potential in the Netherlands focusing primarily on innovation, knowledge development, employment and training. The programme has supported more than 20 000 small and medium-sized enterprises (SMEs) and 3 000 start-ups, with stakeholder from the four regions (North, East, South and West) playing a key role in close co-operation with the private sector and universities.

Despite the positive outcome, there is room for improvement. For instance, participation bears a high administrative burden which tends to exclude certain companies and institutions. In addition there is also room for co-operation between funds. At the European level particularly between ERDF and the European Social

Fund (ESF) and the national level between national policies and the European cohesion funds.

Given the Netherlands unique geographic position along two of Europe's major rivers and hence with strong economic and logistical links with its neighbouring countries, the European Territorial Co-operation programme and cross border initiatives are key for the Netherlands. Indeed strong co-operation efforts have been devoted to this area with almost all the ERDF resources for current ETC-programmes committed to cross-border initiatives. At the national level, efforts have attempted to connect EU programmes with regional economic strengths and national economic priorities including the current Topsector policy, with the co-financing of innovative projects as Bio Base Europe, Hydrogen-Net, Megetronica, BioMyMedics and 3I.

Indeed the European policy impact on the Dutch regional policy is not confined to process but it also covers content, particularly the increasing focus on innovation as a major driver of regional policy. It has been increasingly recognised that the competitiveness of places is shaped by their capacity to foster innovation, an interactive process that takes place within knowledge networks and depends on the ability of regional partners to work together on region-specific strategies. This area is strength in the Netherlands given its polycentric urban structure and strong tradition to co-operate amongst private, public and research in formal and informal channels. A key challenge and an area with strong potential is the capacity to exploit synergies and better connect EU policy of smart specialisation with national innovation efforts in top-sector policy and regional policy.

The main task of the new programming period covering 2014-20 is implementing the Europe 2020 strategy for smart, sustainable and inclusive growth. At the outset of the new programming period, 2014-20, the Ministry for Economy and innovation, at the time of drafting this review, is advancing in the elaboration of the so called Partnerships Agreements. With 11 EU thematic objectives for the 4 funds (ERDF, European Territorial Agenda, ESF and European Agricultural Fund for Rural Development) and a limited budget, the current government has identified 3 main priority areas for investment:

- innovation and competitiveness of small and medium-sized enterprises (SMEs)
- economy that is environmentally friendly and resource-efficient.
- increasing jobs.

The ERDF for the period 2014-20 amounts to EUR 507 million. An important novelty in the new programming period is the elaboration of Operation Programs (OPs), with regions now requiring to use smart specialisation strategies as a building block for their OP's in close co-operation with the private sector and universities (e.g. triple helix). The new programming period also places a greater emphasis on enhancing innovation; around three quarters of ERDF funds allocated in this area target the phase between research and commercialisation. There is also a prioritisation in environmental goals allocating around a quarter of ERDF funds to a low-carbon economy in particular renewable energy and energy efficiency.

The European Territorial Co-operation agenda allocate EUR 389 million in the new programming period. The Dutch ministry for economy and innovation aims at maximising the synergies in this domain and therefore is proposing two key changes: (1) a strong focus on innovation and low carbon economy to foster the links with the ERDF-

programme, along with enhancing labour mobility to strengthen cross border human capital agendas; (2) connecting cross-border programmes with smart specialisation strategies. This more strategic approach helps to achieve complementarities with other EU policies and with national policies.

The ESF budget is considerably less in the new programming period – totalling EUR 450 million with just over half of the budget for the current programming period and a fourth of the period before that. With the reduced budget and looming effects of the crisis, the Dutch government aims to maximise impact and effectiveness allocating the budget in the so-called horizontal themes are under EU regulation mandatory elements of the ESF programme 2014-20, as follows:

- most of the budget (70%) to municipalities for active inclusion of people with a distance to the labour market. In the short and medium term, a large number of people are facing difficulties entering the labour market and/or barely participate in society. The economic crisis and its consequences over the next few years, is laying a major mortgage on this vulnerable group.
- 20% of the budget is allocated to the theme “sustainable employability workers” targeting long term challenges of population ageing and longer working hours.
- 5% is reserved for integrated area development by the G4.
- the remaining 5% is used for implementation costs and for transnational co-operation, social innovation, ensuring equal opportunities and the fight against discrimination.

The European Agricultural Fund for Rural Development allocates EUR 607 million in the new programming period. The European objectives of the birds and habitats directives, the nitrates directive and the water framework directive are of great importance. The Dutch government participates with POP3 contributions to international goals in the field of nature, environment and water. In addition to these it aims with POP3 to also contribute to a competitive, innovative, sustainable and future-proof agricultural sector by focusing on climate, energy, environment, animal welfare, food quality and safety, animal and plant health and spatial planning, aligning POP3 to the EU2020 strategy. POP3 is a nationwide approach completed by the provinces and complemented by the central government, promoting a level playing field. The provinces provide most of the necessary national co-financing for POP3, complemented by co-financing of the regional water authorities. In consultation with the provinces the following themes have been targeted to focus POP3 in the 2014-20 period:

- enhancing innovation, sustainability and competitiveness
- young farmers
- nature and landscape
- improving water quality
- LEADER programme.

With regional development being passed to the provinces as an unfunded mandate, the EU Structural Funds have acquired importance as one main source of additional funding for regional and innovation programmes.

Box 2.4. The evolution of social cohesion in EU regional development policy

The EU is a federation of states (27 to date) that have gradually achieved economic and financial integration. Instruments to address regional economic and social imbalances have existed in the European Community since the beginning of economic integration. The European Social Fund was created in 1958, while the European Fund for Regional Development (EFRD) was introduced in 1975. However, it was only in 1988 that the European Cohesion Policy was introduced as a structured policy at the EU level to orient and plan programmes for development in partnership with states and regions of the EU. A particularly important element was the introduction of geographical concentration, a limited number of objective criteria determining which regions would be financed.

The European Cohesion Policy has been marked by four major planning periods, financed by four rounds of structural funds: 1989-93; 1994-99; 2000-06 and 2007-13. The Cohesion Policy is seen as a necessary complement to the growth and competitiveness strategy. Implementation showed that measures targeted to more disadvantaged areas can make the difference to local, but also to national development goals. In more than 20 years of policy implementation, the priorities and mechanisms for regional policy evolved according to lessons learnt from experience and to changes in overall EU strategy and priorities.

The increasing importance of the regional development agenda for the EU is indicated by the rising amount of resources devoted to it. Today, more than one-third of the EU budget is allocated to the social cohesion agenda. This is a key pillar of the growth strategy, since it helps to target investments in areas where active state interventions are needed, because market forces alone would not provide sufficient incentives. It contributes to investments in infrastructure, human capital, modernisation and diversification of production structures to boost growth and quality job creation in a balanced way through the territories of member countries. The priorities of regional development policy have also evolved from targeting infrastructure gaps to investments in innovation and environmental sustainability, which account for more than half of the total EU social cohesion budget today.

The EU growth agenda for 2007-13 has two pillars: the innovation agenda, “Competitiveness for Growth and Employment” actions, and the regional development agenda, “Cohesion for Growth and Employment”. These two lines of action are complementary and respond to the challenge of increasing the EU’s competitiveness by boosting the European economy and creating better jobs. The cohesion agenda has three main objectives: convergence, competitiveness and employment, and territorial co-operation. It targets all European regions but in a differentiated way, and it is financed by the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund.

Smart specialisation

One of the main aims of the Top Sector policy is to enhance innovation intensity in the Netherlands as a whole. How do these efforts match with the efforts of the regions and additional policies in the domain of innovation, such as the recently adopted EU policy of smart specialisation?

The European Union has adopted the principle of smart specialisation as the basis for its territorial development policies in its Europe 2020 strategy, which defines a ten-year growth strategy for its member countries.¹⁶ The idea of smart specialisation emerged out of work by the European Union, the OECD and other intergovernmental bodies on the drivers of territorial development. This found that regional economic policy was most

effective when focused on supporting a limited number of sectors with global innovative potential that also drew on existing related regional economic strengths. From 2014, all European Operational Programmes for the Structural Funds are required to be based on a RIS3 (Research and Innovation for Smart Specialisation Strategy) as a prior condition for the grant of funding (see Box 2.5).

Box 2.5. What is smart specialisation

The main principles of the EU's smart specialisation framework can be summarised as follows:

- Concentration of public investments in R&D and knowledge on particular activities is crucial for regions/countries that are not leaders in any of the major science or technology domains. Past policies tended to spread “knowledge investment” too thinly (e.g. high education and vocational training, public and private R&D), not making much of an impact in any one area. However, concentration in the smart specialisation context is about focusing knowledge investments on activities – business functions carried out by firms which range from the conception of a product to its end use and beyond (e.g. design, production, marketing, distribution and support to the final consumer) (Porter, 1986; Gereffi et al., 2001). These activities (e.g. goods or services) may be undertaken by a single firm or divided among different (supplier) firms and be concentrated within one location or spread out over global value chains (OECD, 2012a). The emerging feature of many of these activities is that they increasingly cut across established sectors and industries.
- Smart specialisation relies on an entrepreneurial process of discovery that can reveal domains of economic activity where a country or region excels or has the potential to excel in the future. It empowers entrepreneurs who are able to combine the necessary knowledge about science, technology and engineering with knowledge of market growth and potential in order to identify the most promising activities. In this learning process, entrepreneurial actors have to play the leading role in discovering promising areas of future specialisation, because the needed adaptations to local skills, materials, environmental conditions, and market access conditions are unlikely to be able to draw on codified, publicly shared knowledge, and instead will entail gathering localised information and the formation of social capital assets. One implication for policy makers is that this requires ensuring policy tools to collect the entrepreneurial knowledge embedded in the region to transform it into policy priorities. In this context, entrepreneurial actors are not only the people creating new companies, but also innovators in established companies, in academia or in the public sector.
- Specialised diversification: specialisation in selected activities that provide comparative advantage based on differentiation of their operations and products in global markets.
- The specific properties of general purpose technologies (GPTs) underlie the logic of smart specialisation. Invention of a GPT extends the frontier of invention possibilities for the whole economy, while the “co-invention of applications” changes the production function of a particular sector. GPTs are important for upgrading upstream and downstream of the value chain. The leading regions invest in the invention of a GPT or the combination of different GPTs (e.g. bioinformatics). Regions do not need to “lead” in these technologies to benefit. In fact, follower regions often are better advised to invest in the “co-invention of applications” around a GPT. Benefiting from GPTs generally also requires alignment with education and training policies in order to build capacity.

Box 2.5. What is smart specialisation (*cont.*)

- Smart specialisation strategies are interlinked through complementary activities at horizontal level and require horizontal policy co-ordination. But they are in particular co-defined by the “vertical” alignment of entrepreneurial activity, partnering in clusters, regional development strategy and interregional and international arrangements that all are part of a multi-level governance structure for smart specialisation. Setting common goals therefore constitutes a powerful governance mechanism for the vertical alignment of these strategies, without jeopardising a market-oriented process of resource allocation. This multi-level governance co-ordination requires the synchronisation of both national strategies with regional strategies and the synchronisation of different regional strategies (e.g. innovation strategies, research strategies, industrial strategies), to support regional priorities.
- Structural change is a driver of economic growth. Smart specialisation aims to accelerate structural change by encouraging the transformation of economic activities from a structural perspective. It may in some cases mean modernising existing industries or enabling lagging sectors to improve their competitiveness through the adoption of ICTs, but for frontrunner countries it can also mean developing new areas at the edge of the technological frontier.

Source: OECD (2012), “Draft synthesis report on innovation-driven growth in regions: The role of smart specialisation”, OECD, Paris, December, https://community.oecd.org/servlet/JiveServlet/download/20683-37253/Final_Draft_SmSp_OECD_EC291112.pdf; Porter, M.E. (1986), “Competitive Advantage – Creating and Sustaining Superior Performance”, Harvard University Press and Gereffi, G., J. Humphrey, R. Kaplinsky and T. Sturgeon (2001), “Globalisation, Value Chains and Development”, IDS Bulletin, Vol. 32, No 3, pp.1-8.

The adoption of the principle of smart specialisation has affected how OPs have been drawn up in the Netherlands. Each region must now prepare an OP and a RIS3 as the basis for their regional expenditures. Each RIS3 must be developed through a regional process of entrepreneurial discovery (see Box 2.5) involving a wide range of stakeholders identifying potential future areas for growth. These RIS3 strategies are intended to shape not only European funding, but also other sources of territorial funding relevant to innovation, competitiveness and economic development.

The Ministry of Economic Affairs took a strong co-ordinating role in the preparation of the Netherlands’ OPs in the spring and summer of 2013. The ministry issued guidance to the regions to focus their OPs on 3 of the 11 thematic objectives for the Structural Funds,¹⁷ and also on particular sub-thematic objectives. These in part reflect the EC’s position paper which sets out its orientation towards negotiations with Dutch regions for the structural funds for the programming period 2014-20 (European Commission, 2012). Only the West of the Netherlands has deviated from this position, allocating funds to sustainable mobility and employability as well as innovation and energy transition. The post-2010 regional policy is therefore strongly steered by the centre, although there is no direct funding nationally for the activities within the regional development plans.

Each of the four NUTS 1 regions – North, East, West and South Netherlands – has produced a smart specialisation strategy in according with European funding regulations. From 2014 onwards, regions will only receive funds if they fulfil a number of ex ante criteria (so-called ex ante conditionality). Each of these four regions has drawn up their own RIS3 strategy to meet the ex ante conditionality criteria, and as the basis of their Operational Programmes. This further raises questions about the extent to which these

can be regarded as centrally steered, and clearly the space for regional integration of national innovation activities remains influenced by conditions set and decisions taken at the level of the NUTS 1 region corresponding to *landsdeel*.

There is a risk that the link between regional and national clusters remains bureaucratic and mediated through an action planning process, such as the RIS3 and Regional Operational Programmes. However, these regional programmes will interpret those regional strengths through an exclusively regional perspective. Therefore regional micro-clusters can create a new national innovative strength by augmenting an existing national cluster, as in the case of HTSM Healthcare, where the national cluster is dominated by Eindhoven and Philips, but local clusters in Twente and Delft have created new opportunities. SMEs and micro-businesses have worked co-operatively with Philips around developing new applications, products and markets, thereby creating new national strengths.

The requirements of the post-2013 Structural Funds are that they are focused on a very limited number of interventions, and in the case of the Netherlands, direction from the national level has seen this restricted to two areas: the promotion of innovation and in ICT. Whilst these are critically important issues for innovation across the Netherlands, not all territorial economic development is driven by innovation and ICTs.

Because of the need for matched funds for RIS3 activities, there is the risk that providing matching funds reduces the overall resources available for other (non-innovation based) territorial economic development interventions. A good example of this can be seen in the labour market. There remains a substantial territorial issue of labour market mismatch, with too many highly skilled jobs being created for a relatively low-skilled unemployed workforce. The solution to that problem is not just up-skilling unemployed workers, but also ensuring there is increased and balanced territorial demand for low-skilled occupations nationally. This requires a range of parallel supply-side interventions helping to link low-skilled workers with jobs through placements and intermediate labour market projects. But there are few bodies active and willing to fund these kinds of interventions, particularly with the increasing responsibilities devolved to provinces and municipalities.

The operational programmes (the funding plans underlying Structural Funds) will become important regional documents, and provide resources and incentives to help municipalities and Provinces fund joined up regional economic development. At the same time, there is a need to ensure that sub-national economic development partnerships retain the capacity to take a wider perspective than merely facilitating positive conditions for investment.

With regional development being passed to the provinces as an unfunded mandate, the Structural Funds have acquired an additional importance as one main source of additional funding for innovation programmes. Whilst the Peaks in the Delta programme provided EUR 296m (between 2006 and 2010), the Structural Funds will provide EUR 1.25bn of Community Resource for the Netherlands in the next programming period (2014-20). Of this sum, EUR 930m will be available for regional OPs, and the remainder for trans-European and cross border co-operation, which will be matched against Provincial level expenditures.

The four *Landsdelen* have devoted substantial efforts to writing RIS3 strategies and operational programmes allocating funding to innovation measures. This raises the additional co-ordination problem that the RIS3 documents exist in parallel to the strategic

documents through which the Top Sectors policy operates (Innovation Contracts and Human Capital Agendas). Whilst it might be possible to co-ordinate between these on a project-wise basis, this does undermine the capacity for a strategic co-ordination between the three and ensuring that there is a single coherent action programme in the regions that supports European regional development aims as well as Top Sector aims.

Cross-border policy

A recent report from PBL and CBS (2011), which focuses on demographic trends for the next three decades, shows a declining workforce and shrinking labour market for all Dutch regions. In the near future the problem of a shrinking labour market is mainly confined in regions at the border with Belgium and Germany. The report highlights how some areas (municipalities) will suffer more than others for the ageing of the population which put a pressure both in terms of future economic development (because of the reduction of the working age population) and on the social and health programmes that need to refocus on an aging population.

A promising government policy to tackle the problem of peripheral regions is to exploit the potential gains from cross-border relationship. Improving labour mobility in these areas could benefit cities in both sides of the border, as in many cases the local labour market goes beyond the administrative borders (Martinez-Fernandez et al., 2013). The aim of these programmes would be to improve labour mobility across borders, by removing some of the institutional barriers, and also by strengthening economic clusters across borders. Likewise cross-border co-operation can enhance innovation in the region (OECD, 2013a).

A part from the involvement of the national and sub-central government bodies, programmes of cross-border co-operation can be financed by the EU programmes (e.g. INTERREG-type funding).

The OECD report (Martinez-Fernandez et al., 2013) investigates the possible measure to deal with the demographic decline and the shrinking labour market in some peripheral regions (the OECD study focused on the provinces of Groningen, Drenthe, Limburg, and Zeeland). The report highlights the importance of co-ordination between national and local policies, and the possibility to exploit cross-border labour migration. Reducing border barriers has a positive impact on labour markets of neighbouring regions. This has clearly more importance for the region of Limburg than the north of the Netherlands.

Box 2.6. Taskforce cross-border collaboration

An example of an initiative in this case is the Taskforce Cross-border collaboration, which is a joint initiative of the Netherlands, Germany and Belgium. It covers joint activities in innovation, co-ordination of structural funds, infrastructure, and labour markets. For improving cross-border labour market matching, better information channels, co-ordinated recognitions of diplomas, joint educational facilities, and removing institutional barriers to mortgages of cross-border commuters, are examples of joint activities.

Source: Martinez-Fernandez, C., et al. (2013), “Demographic change in the Netherlands: Strategies for resilient labour markets”, *OECD Local Economic and Employment Development (LEED) Working Papers*, No. 2013/13, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5k3xnhvzhmxn-en>.

The report highlights the importance that cross-border labour markets may have for border regions. It is important to exchange views and experiences between labour market institutions on both sides and to facilitate the diffusion of information and communication about possibilities and opportunities. It is also important to remove institutional obstacles and invest together in knowledge development.

A recent study of the local labour market in the province of Limburg maintains that the removal of border barriers would contribute to the economic development of the province of Limburg (Martinez-Fernandez et al., 2013). The work emphasises that the creation of a cross-border labour market requires policies which facilitate: learning of a neighbouring language (in the case of Limburg, it would be German and French languages); provide tailor-made information on the welfare and labour system in the country; investments in cross-border public transports; further harmonisation of labour regulations; the co-operation between educational institutes across the border; and, finally, facilitate co-operation in the organisation of cultural events (the candidacy of Maastricht for capital of culture 2018 was backed by neighbouring cities in Germany and Belgium).

In order to facilitate the cross-border interaction the availability of infrastructures are important. Those infrastructures should favour the daily commuting of people from one side to the other of the border. This allows to exploits the benefits of a unique local labour market and co-operation with companies and institutions on the other side of the border.

Collaboration across borders is important also in terms of innovation policy. A recent OECD report (OECD, 2013a) identifies the conditions that make cross-border co-operation for innovation important. Although developing a strategic perspective on innovation is difficult within an international cross-border perspective, concerted effort from actors on across borders can help to build critical mass, shared priorities and positive spill-overs. The OECD research project – *Regions and innovation: collaborating across borders* – is based on six case studies including the Top Technology-ELAt Region (Netherlands-Belgium-Germany), has focused on lessons and frameworks for supporting cross-border innovation policies, strategies and instruments. With around half of the Dutch population (49%) living in border provinces (Groningen, Drenthe, Overijssel, Gelderland, Zeeland, Nord Brabant and Limburg) such Cross-Border Regional Innovation Systems (CBRISs) plays an increasingly important role in raising The Netherlands' innovation performance as well as OECD members more widely. The main lessons for building effective CBRISs based on the report are:

- Start by producing basic data: map institutional actors and competencies present in cross-border regions, to make it clear to actors in CBRISs where there are opportunities for cross-border innovation collaboration that make sense to them.
- Only pursue the cross-border element when it makes sense: its purpose is easily accessing knowledge located across a border to stimulate innovation; there must always be a strong business case for those innovation activities.
- Allow flexibility in intervention areas: innovation takes places within functional regions, and functional cross-border regions necessarily have mismatched administrative units, therefore there are needs for workarounds to allow shared innovation.
- Do not underestimate the importance of hard and soft factors: transport infrastructure, contacts, shared cultures, and reasons to interact all help to 'lubricate' building CBRISs.

An important factor in constructing cross-border regional advantage is in building an effective institutional structure for the CBRIS (see Box 2.7). Cross-border mobilisation can help to kick-start cross border innovation governance committees. Cross border mobilisation typically involves:

- Creating cross-border collaboration as a regional issue: local partners in the private and civil sectors have often already identified strong reasons for co-operation, and their voices can help persuade policy-makers that this issue matters.
- Identify how national governments can help: some binding constraints to cross-border collaboration can only be removed by national policy-makers.
- Understand where the long-term value of collaboration lies: although innovation projects are useful steps on a journey towards cross-border collaboration, they should all lead towards building a shared innovation space where ideas are valorised.
- Engage non-governmental actors in governance: public bodies can provide a secretariat from cross-border innovation committees, but legitimacy, popularity and success comes by involving others as participants and observers.

Box 2.7. Examples of cross-border innovation governance committees

- **The Oresund Committee** is the main governance body for the Oresund region. It is a forum for voluntary political co-operation established in 1993 on the initiative of Swedish and Danish politicians on both sides of the border. It is a political interest organisation that promotes co-operation across the Sound at all levels and safeguards the interest of the Oresund Region to the national parliaments of Sweden and Denmark. The Oresund Committee and its Secretariat of around eight employees is financed through contributions from its members, the size of the contribution being calculated according to the number of inhabitants in the respective participating municipality or region. Additional funding is provided by the Nordic Council of Ministers and some other external sources.
- **CENTROPE**, on the basis of the Kittsee Declaration of 2003, works jointly towards the creation of the Central European Region in this four-country quadrangle. CENTROPE is a joint initiative of three Austrian Land, 2 regions in the Slovak Republic, one in the Czech Republic and two in Hungary as well as several key cities. The CENTROPE Steering Committee and the CENTROPE Agency guide the development process and are responsible for its operative implementation. The Steering Committee is a forum for discussion regarding the goals of co-operation in the Central European Region and the form these efforts should take. This is the central body of the CENTROPE project; maintaining close contacts with the political level, its presidency rotates every six months between the four participating countries. Analyses of the Centrope in the past have noted weak cross-border governance due to imbalances in partner abilities to lead, engage and finance cross-border projects.
- **The Bothnian Arc Association** (two staff) plays a co-ordination and facilitator role. The main public stakeholders of the association are member municipalities, in part because the footprint of the area is often only a small part of the associated regions. National and regional authorities, holding decision power and budgets in innovation matters, are not on the Board.

Source: OECD (2013), *Regions and Innovation: Collaborating Across Borders*, OECD Reviews of Regional Innovation, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264205307-en>.

Policy instruments have different degrees of success in policy areas. Instruments that tended to work include those supporting linkages between firms and knowledge institutions across the border, cluster-related efforts to support competencies in common areas, and shared access to certain science facilities. Innovation vouchers and joint research were also used. Innovation projects in highly regulated sectors (including related to health systems or energy provision), as well as common branding efforts, which raise political sensibilities, were generally less successful. Mixed results were observed for broad university collaborations, however arrangements that focus on specific areas of complementary expertise were easier to implement. Other cross-border instruments are being explored, such as with respect to financing and public procurement.

- Develop effective strategies and policy intelligence: good strategies are based on robust understanding of the partners who can benefit from cross-border co-operation, and what the barriers are to that co-operation.
- Use a ‘smart mix’ of interventions: there are many instruments which can benefit from a cross-border dimension,
- Mainstream cross-border elements in innovation instruments: ‘virtual common pots’ allow funds to stop at the border but meet funds on the other side in ways invisible to beneficiaries
- Exploit opportunities in the border: borders create access opportunities to new markets and can stimulate new kinds of innovation (see figure below).
- Publicise successful innovation examples: concrete, successful projects can build popular enthusiasm and help develop ‘soft’ cultural factors which deepen the CBRIS strength.

National urban and rural policy section

Urban policy

The Netherlands is a small and very densely populated OECD country with a very rich and polycentric urban structure (see Chapter 1). Indeed cities in the Netherlands are critical to national economic, social and environmental performance. As shown in Chapter 1, cities are home to 74% of the Dutch population and account for an equal or even larger share of output. The complex urban structure and strong presence of a large number of cities suggests that cities are hubs for job creation, innovation and growth. Yet they are also places where governments face policy challenges, including concentrations of infrastructure bottlenecks, unemployment, high levels of pollution and difficulties in the provision of key services.

Urban regions in the Netherlands display lower productivity growth than OECD regions on average. Furthermore the economic premium associated with agglomeration effects in Dutch urban regions and in FUAs is also lower than across the OECD. This represents a huge challenge and a tremendous untapped opportunity: enhancing the dynamism of Dutch urban centres could, on its own, have a profound effect on aggregate performance and might also generate positive spill-overs for neighbouring regions and rural areas. Therefore getting policies for cities “right” is critical to create the conditions for a better life for most Dutch citizens and to facilitate the achievement of national goals with respect to growth, inclusion and environmental sustainability.

Currently there is no explicit national urban policy framework in the Netherlands. As is the case in some other OECD countries, the Netherlands' current policies related to urban development focus on cities' problems¹⁸ rather than their potentials. Similar to France's urban policy (*politique de la ville*), the Strong Communities Action Plan targets the challenges faced by deprived urban neighbourhoods. The country lacks a more integrated strategic plan designed to exploit the growth potential of cities and to co-ordinate the policies and actions between national and city-level policies. Moreover, policies of national importance such as top-sector, infrastructure or EU policies with strong implications for cities are currently not seen through an "urban lens". Although a very wide range of national policies can have a profound effect on urban development, there is currently no systematic strategy and policy in place assessing this impact (see for instance Section 2.2 on infrastructure policy). Some OECD countries have begun to move in this direction. Chile and Mexico, for instance, two highly urbanised OECD countries, approved a national urban policy framework to guide housing and urban development as recently as 2013.

Cities in the Netherlands should address the following challenges that are also common to many OECD cities:

- Challenges brought by increasing inequality. Wage and income inequality in cities tends to be greater than in non-urban places, and this gap is growing. Inequality in cities has been rising faster than overall inequality across regions and countries in recent decades across the OECD. Moreover, in many countries there appears to be a positive relationship between city size and inequality: larger cities tend to be richer but also more unequal. This holds true even after controlling for industrial structure and the skill composition of the workforce. Such a development gives particular cause for concern when seen against the backdrop of demographic trends towards greater concentration of population and activity in larger cities (as seen in Chapter 1, population in the five largest FUAs tend to grow faster than other areas).
- Challenges brought by urban sprawl. As seen in Chapter 1 urban sprawl in the Netherlands as in the majority of OECD metropolitan areas is on the rise. Growth on the urban periphery exceeds growth in the urban core. While urban expansion is a normal response to economic development and population growth, uncontrolled expansion characterised by low density, segregated land use and insufficient infrastructure is in many cities counteracting the potential benefits of urbanisation.
- Challenges to maintain and improve accessibility. In the Netherlands public transport solutions in cities can deepen labour markets and reduce commuting time and costs for workers (productivity and well-being), reduce greenhouse gas emissions (environmental sustainability), and increase access to jobs, education, healthcare and recreation (social sustainability) – all of which serve to enhance liveability. Indeed Dutch FUAs already support lower vehicles per capita and provide more accessibility to goods and services, compared to which countries. Along daily commuting needs for the labour market, it is important to strengthen the connection between cities. As discussed in chapter 1, agglomeration benefits can be "borrowed", it is not necessary to agglomerate people in the same urban space, as the benefits of agglomeration can be achieved by better connecting existing urban centres. This will require joint efforts amongst different levels of government.

Box 2.8. National Urban Policy Review of Korea

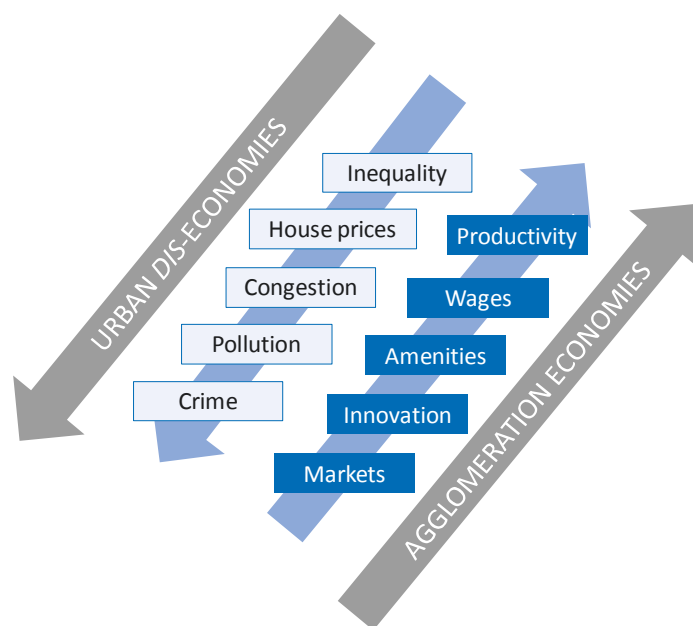
The *National Urban Policy Review of Korea* assesses Korea's approach to sustainable urban development as expressed in its recent urban policy reform and national green growth agenda. The government has responded to the economic, environmental and social challenges that have resulted from Korea's rapid urbanisation process with, on the one hand, urban policy reform based on qualitative urban management and urban competitiveness and, on the other hand, the adoption of a National Strategy for Green Growth that emphasises the role of cities in achieving stronger environmental and economic outcomes.

The Review proposes a series of recommendations designed to advance Korea's sustainable urban policy approach, which include (i) developing a comprehensive, multi-sectoral approach to urban development that is tailored to the different needs of urban areas, (ii) closing the gaps between expected and actual outcomes in urban planning, (iii) maximising economic efficiency in the building and transportation sectors and (iv) improving policy co-ordination across public agencies.

Source: OECD (2012), *OECD Urban Policy Reviews, Korea 2012*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264174153-en>.

Urban policies can be efficient in mitigating the negative effects of agglomerations. While productivity, wages, and the availability of many important amenities generally increase with city size, so do in many cases pollution, housing prices, congestion, inequality and crime (Figure 2.10). These negative effects of agglomeration can, however, be substantially mitigated by national and city-level policies, that ensure access to jobs and employment, equal opportunities in education, decent housing, adequate healthcare, efficient transport and safe neighbourhoods. An example of a National Urban Policy Review recently conducted by the OECD is presented in Box 2.8.

Figure 2.10. Forces of attraction and repulsion shape flows in and out of urban areas



Source: OECD (forthcoming), *OECD Regional Outlook 2014: Regions and Cities – Where Policies and People Meet*, OECD Publishing, Paris.

Cities and national governments cannot address competitiveness challenges in isolation. The largest cities in the Netherlands compete across international frontiers for trade, investment and skilled labour. For instance, a comprehensive study on regional competitiveness in European countries (Thissen et al., 2013), shows the main competitors of Dutch regions and clusters among other European areas. Yet most labour markets are local. Responses to labour-market challenges thus require significant local input, even where programmes are national in scope. Effective co-ordination of labour-market policies among national and urban-level governments is therefore important. Similarly, aspects of skills development and infrastructure provision that affect the economic attractiveness of cities can only be addressed via co-ordinated action across levels of government. This will require enhancing vertical co-ordination.

Policy coherence across levels of government is essential if cities are to function well, and requires national leadership. To a great extent, national governments establish the ground rules for cities. National (and, in some federal systems, state/provincial) legislation typically defines cities' responsibilities, powers and, crucially, revenue sources. Attention to the basic legislative framework for cities is essential but it is too often overlooked. Fiscal frameworks, in particular, may create powerful incentives for city leaders that contradict other national policy priorities, e.g. when the tax system makes green-field development more attractive to cities than infill, or homeownership more attractive than rental, potentially limited labour mobility.

Improving the liability and performance of cities is connected to enhancing the quality of life in cities. Policies fostering economic growth, environmental sustainability and inclusion can also contribute to urban quality of life. Yet the reverse is also true: steps to improve liveability, by, for example, encouraging the supply of good-quality mixed-income housing, creating attractive urban amenities and public spaces, or adapting cities to population ageing, can enhance liveability while also contributing to these other socio-economic goals.

Nonetheless, despite the potential and significant benefits to be achieved by a more integrated, cross-cutting approach to urban policy, achieving real co-ordination across sectoral policies is a challenge for most national governments in light of the complex array of institutions involved. A review of OECD member countries in mid-2013 found that the average government had 6.7 ministries or national-level departments or agencies with explicit urban policy functions; many had 8 or more. In the Netherlands, there are two ministries with primary urban functions, namely the Ministry of Interior and Kingdom Relations, and the Ministry for Infrastructure and Environment. The former is responsible (among other issues) for housing policy, while the latter is responsible for infrastructure development that affects the accessibility of cities. There are also four other ministries with a more peripheral impact on urban policy: Ministry of Health and Welfare, Ministry of Education, Ministry of Finance, Ministry of Social Affairs and Employment.

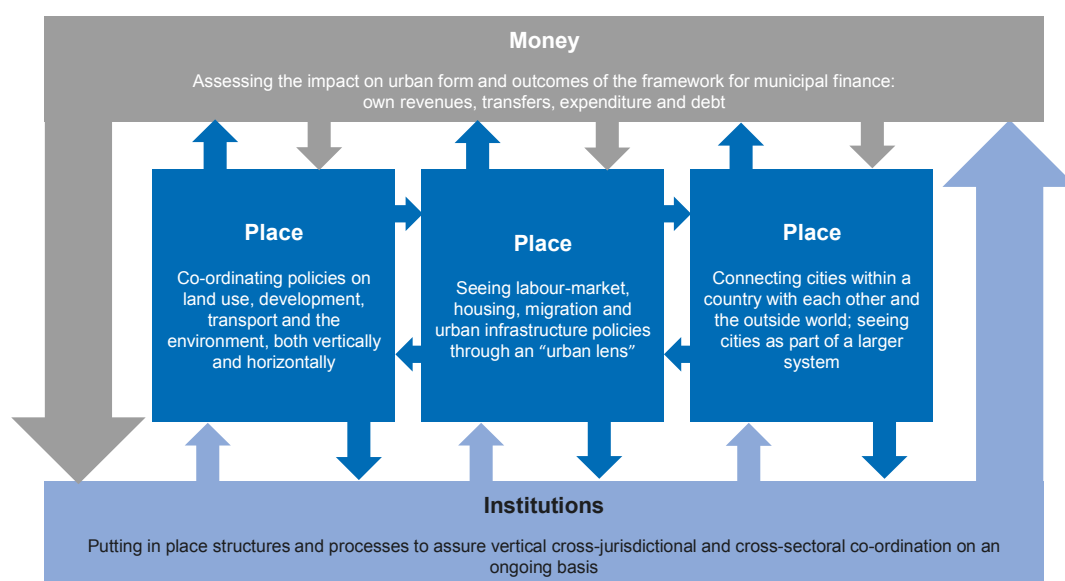
The Netherlands could benefit from a diagnostic framework that encompasses two distinct, although particularly overlapping types of policies:

- Policies where a degree of national government involvement is necessary such as in or national transport infrastructure planning or environmental policies and
- Policy domains that could, in principle, be left entirely to Dutch cities or other sub-national governments but in which the national governments intervenes for reasons of efficiency and/or equity (e.g. housing).

The potential gains in this area for the Netherlands are quite strong. Achieving policy coherence for urban development may require enhancing communication among those charged with explicitly “urban” dossiers, but also to consider a wider range of sectoral policies with an urban impact. This should facilitate greater coherence across national sectoral policies and contribute to greater coherence between national and city-level initiatives, thereby strengthening the impact of both.

The OECD approach to National Urban policy is guided by the analysis of the interaction between places, people, and institutions in order to achieve the best performance in terms of development and liveability. The scheme in Figure 2.11, shows the reciprocal interaction of different aspects of urban policies.

Figure 2.11. **Urban policy interactions**



Source: OECD (forthcoming), *OECD Regional Outlook 2014: Regions and Cities – Where Policies and People Meet*, OECD Publishing, Paris.

The OECD has recently started a research on metropolitan governance (Box 2.9), that shows a wide variety of institutional approaches in OECD countries. In some countries there are specific governing bodies in charge of some of the tasks of the metropolitan area (such as transports and road infrastructure), while in others the responsibilities lay on each individual municipality which is part of the same metropolitan area.

Box 2.9. Examples of metropolitan governance

Canada

Despite Canada having only nine metropolitan areas, it is possible to identify at least four different approaches to metropolitan governance in the country. Some areas do not have any metropolitan area governance body; some have voluntary associations of local governments that serve only as policy exchange forums. In other cases, the association of governments serves as a planning organisation and in two metropolitan areas the governance body has far-reaching powers in service delivery and spatial planning.

Two metropolitan areas in the English speaking part of Canada do not have any metropolitan area governance bodies (Toronto and Hamilton). Three metropolitan areas have government arrangements based on associations of local governments. For Winnipeg, the **Partnership for the Manitoba Capital Region** serves exclusively as forum for policy exchange. The **Calgary Regional Partnership** also provides spatial plans on a voluntary basis to its members, whereas the **Capital Region Board** in Edmonton has the power to approve municipal land use plans besides providing its own plans. In all three cases, elected representatives from municipalities and **First Nations** form the leadership of the associations. Their budgets are in the range of a few million Canadian Dollars.

In contrast to the previous three cases, **Metro Vancouver** has drastically expanded rights and responsibilities. It provides water and sewerage and waste disposal to its residents, manages public housing and works in spatial planning and regional development. It has a staff of 1 300 and a budget of more than CAD 600 million. Despite being a very large organisation, **Metro Vancouver** is essentially organised as an association of local governments with elected representatives from member jurisdictions at its head. Within the OECD, it is one of the largest organisations of its kind.

Montreal and Quebec – the two metropolitan areas in the French speaking parts of Canada – have metropolitan area governance bodies that are established by state law. The **Communauté métropolitaine de Québec** has powers mainly in land use planning and strategic transport planning and a relatively small budget of around CAD 3 million. The **Communauté métropolitaine de Montréal** is active on a much wider field that also includes waste management, social housing and environmental issues. It has a budget of more than CAD 100 million.

A special case is the **National Capitol Commission** that forms the metropolitan area governance body for the Canadian capitol Ottawa-Gatineau. As a **crown corporation**, it is directly accountable to the national parliament. It was founded in 1958 with the goal of implementing a drastic overhaul of the Ottawa region. It is responsible for places of national interest, events, tourism and culture. While it has relatively few powers, it is also responsible for federally owned land in the metropolitan area. As the federal government is the largest landowner in the region, this implies considerable influence.

Sectoral authorities for transport exist in the three largest Canadian metropolitan areas Vancouver, Toronto and Montréal. The Toronto transit authority covers also the Hamilton metropolitan area. Furthermore, Winnipeg has a small transit authority.

Box 2.9. Examples of metropolitan governance (*cont.*)

France

Compared to many other OECD countries, France has an institutionalised and relatively homogenous approach to metropolitan area governance. At its core is the **communauté urbaine**. A **communauté urbaine** is a body dedicated to inter-municipal co-operation and is defined by national law. It can be created in metropolitan areas with more than 450 000 inhabitants. Currently, every metropolitan area in France except for the capital, Paris, is covered by one.

The first **communautés urbaines** in its current form were created in the late 1960s in Lyon, Bordeaux, Strasbourg and Lille. Where **communautés urbaines** exist, they take over extensive responsibilities in areas such as transportation, spatial planning, regional development and water provision. Besides the tasks that are specified by law, municipalities within a **communauté urbaine** can agree to transfer further tasks to it.

Communautés urbaines are headed by a president that is elected by an assembly of representatives. The representatives used to be elected by the legislatures of member municipalities, but will be directly elected from 2014 onwards. Corresponding to the large set of responsibilities of **communautés urbaines**, their yearly budgets are large. They range from several hundred million Euros to several billion Euros. This is equivalent of between EUR 1 000 and EUR 2 000 per capita. Staff numbers are between 1 000 employees and 7 000 employees.

An exception to the predominant system of metropolitan area governance has been Paris, which currently has no governance structures that are comparable to other French metropolitan areas. **Paris métropole** is a voluntary association of local governments that serves as a policy exchange forum for the inner parts of the metropolitan area. It has characteristics that are similar to many voluntary associations of local governments that serve primarily as policy exchange forums and a relatively small budget of approximately EUR two million.

However, at the end of 2013 a new law was passed that stipulates the creation of a body of inter-municipal co-operation for the greater Paris area in 2016. The same law also extends the territory that is covered by the **communautés urbaines** of Lyon and Marseille and grants them additional powers.

Paris and most of the larger metropolitan areas in France are covered by sectoral authorities for public transport. Among the smaller metropolitan areas, such sectoral authorities are less common.

Sweden

Sweden has three metropolitan areas; Stockholm, Gothenburg and Malmö. In all three metropolitan areas, voluntary associations of local governments exist. Furthermore, in the case of Stockholm and Malmö, the respective counties (*Län*) correspond closely to the extent of the metropolitan areas and assume some of the functions of dedicated metropolitan area governance bodies.

Box 2.9. Examples of metropolitan governance (cont.)

The county council (Landsting) is the second tier of local government in Sweden, mainly responsible for healthcare. Furthermore, in each county, a county administrative board (Länsstyrelse) exists. They are part of the national government and have the objective of co-ordinating policies within a county with national objectives. In many counties Regional Co-ordination Bodies, political organisations called **Region** or **Regionförbund**, exist and they are responsible in the field of regional development. However, in some cases, like the counties where Gothenburg and Malmö are situated, the county council is responsible for regional development, and in a few cases, as in the county of Stockholm, the county administrative board is responsible.

None of these organisations are a dedicated metropolitan area governance body. Nevertheless, due the close overlap of their jurisdictions with the metropolitan areas, at least partly in Stockholm and Malmö, they play an important role in the metropolitan area governance. For example, the county councils of Stockholm and Malmö are both responsible for public transport. The county administrative boards are responsible for environmental issues among other issues. In Västra Götaland the County Council is responsible for public transportation and regional development including business development (“aid schemes” or “financial support/grants” to companies). In Skåne the County Council is responsible for public transportation and regional development including business development. In Stockholm, the County Administrative Board is responsible for regional development including business development and the county council is responsible for public transportation.

In contrast, there is no close overlap between the Gothenburg metropolitan area and the county. Gothenburg is located in the county Västra Götaland, which is around eight times larger than the metropolitan area and has 80% more inhabitants.

Possibly for this reason, Gothenburg has the most active association of local governments of all three metropolitan areas. (*Göteborgsregionens Kommunalförbund*). It was founded in 2001 through a bottom up initiative of local governments in the region. Its structure is similar to that of other voluntary associations of local governments that have agreed on a voluntary co-operation. It works on a wide range of topics (such as local labour markets, environmental issues, social services and regional development). For a purely voluntary association of local governments, it has a large staff of 160 people and a yearly budget of approximately SEK 300 million. It receives its funding primarily from fees it charges for its services. The corresponding associations of Stockholm and Malmö have a staff, which is less than half the size and are funded by membership fees, which are calculated as a share of the total revenues of the member municipalities.

Source: Ahrend, R. and A. Schumann (forthcoming), “Approaches to metropolitan area governance: A country overview”, *OECD Regional Development Working Papers*, OECD Publishing, Paris.

Rural policy and links with urban

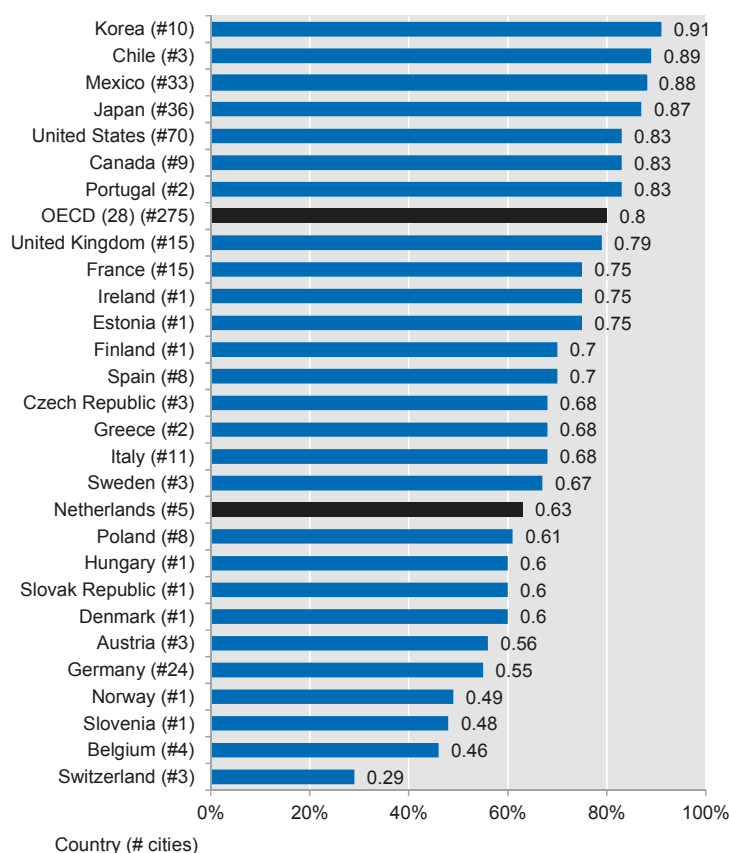
According to the FUA definition presented in Chapter 1, the Netherlands is one of the most urbanised country in the OECD with 74% of national population living in FUAs. The OECD typology however, which classifies TL3 regions (e.g. provinces) as predominantly urban, intermediate and predominantly rural, does not have classify any

predominantly rural regions for the Netherlands. Nonetheless, at a lower aggregation level the Netherlands indeed does have different types of rural areas.

In broad terms there are three types in OECD member countries: (1) rural areas inside the FUA boundaries (2) rural remote areas and (3) rural areas close to cities. Thus in the Netherlands at lower levels of aggregation the share of national population living in these three types of regions is as follows:

- Amongst the 74% of inhabitants living in FUA, 63% of them live in the urban core (representing 46% of the total population) and around 37% (20% of the national population) live in intermediate and rural areas inside FUA boundaries.
- In the remaining 26% of population living outside of FUAs, the majority of rural areas are in close proximity to cities and only a very small share live in rural remote areas. This is due to the flat topography, small territory of the country, and polycentric city structure ensuring that no territory is far removed from one or more cities.

Figure 2.12. **Share of metropolitan area population in the urban core by country, 2012**



Thus in the Netherlands, as in all OECD member countries, there is a rural policy directed at rural areas (OECD, 2008a). The main visions and objectives for rural development in the Netherlands have been shaped in recent years as follows:

- The main objectives of the rural development policy are laid down in the *Agenda voor een Vitaal Platteland* (Agenda for a Living Countryside) which was adopted by Parliament in 2004. A living countryside is determined by (a) a flourishing rural economy, (b) good living conditions, (c) a lively social structure and a strong rural identity, (d) a sound, functioning ecosystem and an attractive landscape.

- In September 2005 the Dutch Government published *Kiezen voor Landbouw*, its vision for agriculture for the years to come. The document described the trends and developments ahead that would have an impact on agriculture and highlighted the importance of the agrocluster for the Dutch economy. The main challenges for agriculture included:
 - creating new concepts for production, processing and marketing of agricultural products and commodities, in terms of physical products and green services and other products in collaboration with other links in the chain;
 - reducing the environmental pressure from agriculture and maintaining a cultural landscape highly valued by society.
- The Dutch government published “*Houtskoolschets toekomst Europees Landbouwbeleid 2020*” in September 2008. This was a long-term vision describing the ambition of a competitive and market-oriented Dutch and European agricultural sector, able to produce competitively without generic aid aimed at maintaining and strengthening the sector’s current position on the internal and global markets. To achieve this the government seeks to (a) invest in the sector’s competitiveness and sustainability through the input of knowledge and innovation; (b) create a public emergency facility for cases of serious market disruption due to climatic events, or events of a phyto-sanitary or veterinary nature (risk management).

In the long term vision, direct aid in the agriculture sector would, after a time, be converted into a system of market-oriented rewards for farmers or other rural area entrepreneurs with agricultural activities, for the visible realisation and conservation of values appreciated by society (e.g. nature, environment, landscape and/or animal welfare).

The Rural Development Programmes in the Netherlands (2000-06, 2007-13 2014-20) are highly linked to EU regulations particular to the EU Common Agricultural Policy (CAP). The second programme (2007-13) focused on four areas in line with the four axes of measures laid down in the rural development regulation. The third programme is focused on innovation and sustainability.

To maintain a strong competitive position innovation and sustainability are of utmost importance for the agricultural sector. Given the tension on the Dutch countryside between the large-scale and intensive agriculture on the one hand and environment, landscape and society on the other hand, challenges for rural policy in Netherlands especially are to stimulate agricultural production methods with fewer external effects for environment, landscape and society, but where the agriculture remains competitive.

Therefore the Netherlands would contribute with the Third Rural Development Programme to international goals in the field of nature, environment and water. The European objectives of the Birds and Habitats Directives, the nitrates Directive and the Water framework Directive are of great importance. The Netherlands wants the Third Rural development programme to contribute to a competitive, innovative, sustainable and future-proof agricultural sector by betting on themes such as climate, energy, environment, animal welfare, food quality and safety, animal and plant health and spatial planning. This is how the programme will contribute to the EU2020 strategy for smart, sustainable and inclusive growth.

CAP in the Netherlands has been linked to objectives with respect to nature and landscape and in the view of the Dutch, they should be re-oriented towards compensating farmers for the environmental services they provide. The Dutch Outlook European Agricultural Policy 2020, released in 2008 by the national government, proposes a phasing out of income support for farmers until 2020 and transformation of this support into payments for green/blue services and for areas with high societal value.

- The areas of high societal value are considered to be areas that are important within the light of their nature, landscape and environmental values, and where agriculture contributes to the maintenance or restoration of these values.
- Dutch areas fulfilling these criteria include the twenty National Landscapes and the Natura 2000-areas. In all national landscapes (except one) agriculture represents more than 60% of the land use and thus fulfils an important responsibility in maintaining the landscape. Environmental services that are suggested include services to improve soil management, environmental quality, biodiversity, nature preservation and biological agriculture.

According to the EU Commission, the current key challenges faced by the CAP in the 2014-20 Programme include:

- food security and retaining agricultural production capacity;
- the environment and climate change, reducing burden and finding solutions;
- territorial development, at an economic and social level.

The Dutch government emphasises the competitiveness, sustainability and innovative power of the agricultural sector and aims at strengthening it to enhance the sector's market orientation for greater food security, and to support sustainable businesses to meet challenges in the field of the environment, climate change, water, biodiversity and animal health. Under the new programme the government wishes to remunerate farmers for managing nature and landscape and for providing services over and above the statutory requirements, for instance in animal welfare or water and nature management services. The Government also attaches great importance to simplifying, deregulating and reducing the administrative burden to stimulate entrepreneurship and reduce the government's implementation and control.

Rural development policy is also highly connected to the regional development policy which is the responsibility of the 12 provincial governments.

Several programmes have been set up for the preservation of landscapes (such as *Agenda Landschap*, and *Project Mooi Nederland*). Rural development policies have been used to preserve landscapes and nature reserves. Provinces have attempted to achieve their targets for nature development (ecological main structure), but at relatively high cost, as they have acquired land at high prices. Limited use has been made of alternative instruments, such as environmental schemes for private land owners, in which many countries, in particular Austria, have been more active.

Given that rural areas in the Netherlands are highly integrated or in close proximity with urban areas, policies have stressed the need to concentrate urbanisation in urban areas, to stimulate inner-city development and to limit sprawl in line with the efforts to preserve landscapes and nature reserves. This close proximity however, suggests that there is scope to further integrate urban and rural policies to ensure mutual potential benefits are realised.

The Rural Urban Partnership (RURBAN) work of the OECD (OECD, 2013b) starts from the recognition that urban and rural are different, but there are important connections between them. Irrespective of the size of the region, there are many links in the form of: labour market flows, business interactions, delivery of public services, transportation and utility connections, and co-ordination of government decisions. Where these links are well managed, both urban and rural territories perform better in terms of economic growth and enjoy a higher quality of life. An important part of this process is having appropriate definitions recognising the areas with high interrelations.

Box 2.10. Urban and rural linkages vary among types of regions

The OECD has recently completed a study of the types of relations that exist between rural and urban areas where they come together at the peri-urban fringe. The review looks at a variety of interactions including: labour flows, housing choices, public service linkages, environmental service linkages and government co-operation. Because the nature of these linkages vary a lot by the size and types of urban agglomeration three broad situations were examined. The first is where there is a large primate city that dominates a surrounding hinterland. The second is a less populated intermediate region where there is typically a system of cities that collectively form a polycentric urban core. The third is an even smaller population region where there are no cities of significant size and most urban places are tightly connected to a surrounding rural economy.

In highly urbanised regions there are typically large internal commuting flows, often from lower cost housing rural suburbs outside the urban core into the core for work, but in some cases in both directions. In some cities, like London, higher income individuals may live in peri-urban areas and commute in to the core while lower income individuals live in relatively cheap urban housing and work in lower paying sectors that locate within the region but outside the core. Rural residents clearly benefit from access to business and public services in the urban core and from the greater variety of retail establishments. On the other hand, urban residents value the green space and other environmental amenities available in nearby rural areas. Crucially, both urban and rural parts of the region perform better if there is relatively strong collaboration between local governments.

In intermediate regions the balance of contribution to the local economy from urban and rural territories is more equal. Because there is no single dominant urban centre there is often a degree of specialisation among urban places and nearby rural areas. For example, some places will be manufacturing centres, others provide higher education or health care, and other may host major retail centres. The result can be an agglomeration that provides a high quality life for all. However this is the ideal outcome. In other intermediate regions there is little co-operation and places seek to be self-sufficient. In these situations duplication and inefficiencies can make both rural and urban regions worse off.

In the most rural regions there are only small urban centres that provide a limited variety of goods and services. A major role of these urban places is to act as market towns for a surrounding rural economy. If the industries for the rural territory are successful the urban area is also successful, but the without a strong rural economy there is little economic activity in the urban areas. These regions are typically specialized in natural resource extraction and first stage processing. The towns can provide housing both for workers who leave for a rural location to work on a farm or in a mine, and they can be the site for processing activities such as a fruit and vegetable packing plant or an ore refining facility.

In OECD countries the majority of the rural population lives in relatively close proximity to urban centres, but the RURBAN study demonstrates that while they live near a city and are influenced by it their life style and economic role differs from those of city residents. Rural and urban areas have complementary functions, but the nature of these functions varies with the size of the urban region.

Source: OECD (2013), *Rural-Urban Partnerships: An Integrated Approach to Economic Development*, OECD Publishing, Paris, <http://dx.doi.org/10.178/9789264204812-en>.

In sum, rural policy in the Netherlands has important implications beyond just the agricultural sector and the preservation of green spaces, particularly for the development of FUAs. Programmes and actions in the agricultural sectors need to be better connected to other policies that land at the territorial level, analysed in this Chapter, to avoid this policy to operation in a silos. The integration of urban and rural areas requires a well-integrated set of policies that are able to stimulate mutually beneficial improvements. Recognising and defining these mixed spaces with high interactions – both rural areas inside FUAs and rural areas close to cities – can facilitate better co-ordination of urban and rural policies.

Towards a smart policy mix for Dutch regional economic development

The previous section highlighted the need to find mechanisms to better formalise and co-ordinate between the national and regional policy networks and instruments including the Top Sectors and regional Triple Helix organisations. Although there is some co-ordination among the various networks, the government needs to find a way to better integrate between national and regional needs, and in particular ensure that regional clusters contribute more effectively to national sectors. This task will involve tailoring a range of policy areas to best ensure complementarity and synergy between the national and sub national levels, including infrastructure investments, the way European structural funds are implemented, and the cross-border dimension.

Currently, there is no explicit regional policy framework at the national level, in the Netherlands. The recent adoption of the top-sector policy and abandonment of the Peaks and the Delta programme has prioritised a policy focusing on sectors rather than on regions. The main objective was to focus resources on key sectors rather than spreading them across regions, in a time of tight national budget constraint and need to jumpstart economic activity and accelerate the recovery of the crisis.

The Top Sector policy as well as the main industrial clusters, also known as the “ports” and “valleys” are not a-spatial, however. As the Top Sector policy advances into its implementation phase, there is need to better adapt the policy at the regional level and ensure local and regional conditions are aligned with national efforts. As depicted in Chapter 1, cities play a key role in the Netherlands and represent a tremendous untapped opportunity given the polycentric city-structure and high degree of urbanisation. Furthermore, infrastructure policies and European level policies also have a strong spatial impact; therefore, there is a need to align policy tools to ensure potential complementarities are reached.

An effective policy mix implies addressing new divisions and finding smart ways to make the most of complementarities between different policy areas. Current approaches risk turning back the clock to the 1990s mentality which viewed spending in core regions as an investment, while spending on periphery as compensation. The main-ports and brain-ports are indeed strong assets for the Netherlands as a whole, but so is its rich system of cities. Both can play a key role in supporting the innovative strength of firms and clusters across the country and connecting them to wider global innovation networks. There are strong gains in synchronising the Top Sector policy, which aims at building upon the existing strengths, with the EU Smart Specialisation Agenda which aims at

diffusing innovation, taking advantage of the innovation potential of cities and rich network of connections to diffuse knowledge.

Getting the most out of regional policy in the Netherlands

Almost all OECD countries have spatial economic disparities. In the long post-war period policies have typically attempted to level out those imbalances, focusing on compensatory tools. The increasing globalisation and deregulation of economies around the world, have accentuated the concerns that policies benefiting less successful places might undercut the competitive potential of leading economic centres. Therefore, many OECD member countries have reformed their regional policies, focusing on tools to improve the competitiveness. Indeed, there is an increasing recognition that effective regional policy involves creating the best environment for economic development across a territory.

It is increasingly common to refer to the former and latter types of policies as the old and the new place-based policies, respectively. These policies have evolved from an emphasis on spatial imbalances to complementary policies designed to support growth; from policies based on subsidies to promoting investments; and from targeting short-term problems to long-term and sustainable solutions (Box 2.11).

Box 2.11. Recent trends in OECD regional policy

Regional policy in the first decades following the Second World War relied mainly on the use of external financial support to correct imbalances in regional development. This period of rapid industrialisation was characterised by relatively strong growth, fiscal expansion and low unemployment. The principal goals were greater equity and balanced growth to be achieved through wealth redistribution via financial transfers by national government; large-scale public investments in physical infrastructure; and inducements (via subsidies or tax breaks) to firms to relocate to specific places. During the 1970s and early 1980s, successive economic shocks and changes in the global economy led to pockets of unemployment in many countries; regional policy evolved rapidly to address this new challenge.

In sum, regional policies in the earlier phases essentially relied on targeting subsidies at the poorest regions to support infrastructure and public services and to induce firms to remain in or relocate to such areas. Attempts were also made to protect local jobs by keeping dying industrial sectors alive, despite their inevitable decline. Such measures often distorted markets and harmed the development chances of the regions in the medium and long term. In many cases they displaced activity more than they contributed to growth. These government responses often failed to reduce inequality and often had unintended consequences, such as creating a culture of dependency in recipient regions.

In response to these mixed results, the emphasis of regional policies in many countries evolved from a top-down compensatory policy towards lagging regions towards a broader family of policies defining new objectives, new units of intervention, new strategies and new actors (see table).

Box 2.11. Recent trends in OECD regional policy (cont.)**Old and modern regional policy in OECD countries**

	Traditional regional policies	New paradigm
Objectives	Balancing economic performance by temporarily compensating for disparities	Tapping under-utilised regional potential for competitiveness
Strategies	Sectoral approach	Integrated development projects
Tools	Subsidies and state aid	Soft and hard infrastructure
Actors	Central government	Different levels of government
Unit of analysis	Administrative regions	Functional regions
	Redistributing from leading to lagging regions	Building competitive regions to bring together actors and targeting key local assets

Source: OECD (2009), *Regions Matter: Economic Recovery, Innovation and Sustainable Growth*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264076525-en>; OECD (2010), *Regional Development Policies in OECD Countries*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264087255-en>.

In this sense the current bundle of policies, in particular the Top Sector policy, are a mix of the old regional paradigm and the modern regional policy in OECD countries (Table 2.13). The Netherlands has long used fiscal instruments (e.g. tax breaks) to stimulate R&D (such as the WBSO, launched in 1994). Whilst its objectives are to maximise global competitiveness rather than to compensate for failure in other areas, it remains underdeveloped or rooted in the old paradigm in the following ways:

- It is a sectoral approach, although the sectors were not necessarily chosen at the central level, they represent as much strong policy networks around the central government as they do innovative clusters.
- Interventions are based on administrative rather than functional boundaries, the subsidies listed in Box 2.2 are only available to firms in a given province and not necessarily in a functional area.
- Economic growth in the core is not used to stimulate change in the periphery, or to co-ordinate among actors at the different levels.

Table 2.13. **Old and modern regional policy: Where does the Netherlands stand?**

	Netherlands in 2013	Old or New Paradigm?
Objectives	Supporting concentrations of excellence with innovation potential to create new growth sectors. Provinces 'encouraged' to align own policies with Top Sector approach	Partly new paradigm, but also partly rooted in laissez faire approach, insufficient emphasis of encouraging growth in all regions to be new paradigm
Unit of intervention	The industrial sub-sector (the Consortia responsible for the Innovation Contracts)	Old paradigm – regional policy is led by regional partnerships which correspond to provincial/ local boundaries and EU NUTS regions
Strategies	Public-private partnerships with capacity to shape investments from wide range of actors	Old paradigm: clearly a sectoral approach.
Tools	Investments in sub-sectoral R&D&I programmes across the Netherlands to stimulate new technological developments, using tax credits for R&D	New paradigm: based entirely on a mix of tax credits for businesses, incentives for government bodies to fund desirable activities, move away from subsidies, and use of profit capture elements within
Actors	Notionally TKIs' strategies should shape investments from a wide range of national and sub-national partners	Policy so far implemented remains primarily a national policy, with insufficient co-ordination with regional strengths that do not fall under what Top Sectors identified.

A further step in the evolution of the OECD approach to regional policy has been to promote growth opportunities in all regions, not just in a few growth poles. This new growth model treats the entire territorial structure as a single integrated system. It is often called the distributed growth model based on recent evidence of the importance of middle-sized regions and the combined contribution of many smaller regions for national growth (OECD, 2011). In this distributed growth model, the role of cities is critical. In the same way that large cities are important for national growth and core regions, medium and smaller cities are equally important for second tier and peripheral regions. In this view, a focus on successful core regions is not sufficient to optimise national economic performance. It is necessary to strike a balance between allowing successful places to thrive while creating the conditions to allow peripheral and declining places to share in the benefits of growth focusing on the role of cities and their potential impact on their respective regions. For these reasons, complementary policies and co-ordination are critical.

Accordingly the OECD recommends regional policy to promote growth in all regions (Box 2.12), even where developmental gaps between core and peripheral regions are higher than in the Netherlands. The polycentric nature of the Dutch economy implies that policy makers should not underestimate the contribution of peripheral regions to national innovation and competitiveness. Applying a one-size-fits-all approach at the national level, may overlook growth potentials within all regions.

Box 2.12. Promoting growth in all regions

Why should governments invest in underdeveloped regions rather than just focusing on a few main engines of growth? Do such regions have anything to offer to the rest of the country? Very underdeveloped regions can often impose high costs on national budgets. For example, regions characterised by high and rising elderly and jobless dependency ratios may see their young and highly skilled workers leave in search of opportunities elsewhere. Such regions can develop a dependency culture – waiting for support from the national level – rather than exploiting their own resources. For these reasons, less developed regions are often seen as a drag on national performance, rather than as potential assets. There has been a tendency to argue that such regions possess no growth potential.

Recent OECD work which combined statistical analysis and 23 regional case studies across the OECD between 1995 and 2007 provides fresh insights. This shows that this simplistic view is simply not correct and has left significant potential for growth untapped. It offers evidence to help policy makers rethink the objectives and instruments of regional development and improve its impact on national economic and social well-being:

- Investing in less-developed regions makes good economic sense and should not be seen merely as social support. These regions have a great deal to contribute to national growth as long as their assets are nurtured. Between 1995 and 2007 less developed regions contributed to 43% of aggregate growth. Furthermore predominantly rural regions have, on average, enjoyed faster growth than intermediate or predominantly urban regions. Therefore there is growth potential in all types of regions.
- A pro-growth, rather than a subsidy-based policy stance, is the most beneficial and sustainable approach. In the long run, it also helps build a fairer society. It can prevent dependency, rent-seeking behaviour and high remedial costs in the future.
- Policies that increase the skills of low-skilled workers are critical. Programmes and actions that reduce the proportion of low-skilled workers may be as important for growth as policies aimed at expanding higher education.
- Policies targeting infrastructure are not usually the most effective tools for strengthening growth in underdeveloped regions; infrastructure does not appear to be the binding constraint for the great majority of regions. Yet given that the gains from improvements in infrastructure are higher (at the margin) in underdeveloped regions than in advanced ones, infrastructure packages can be important instruments if they are co-ordinated with other policies.
- Policy packages have more impact than individual policy measures because they allow for capitalising on policy synergies and co-ordination across related domains.
- How policy makers frame the challenges they face does matter. The case studies suggest that a self-conscious shift towards a growth-oriented policy framework is very often a part of the recipe for success. As long as policy makers focus on exogenous sources of support for a region, growth is unlikely to take off and actors are likely to focus on the appropriation of funds from external sources.
- Formal and informal institutions that bring together and integrate key actors into the development process are vital for enhancing policy continuity. The challenge is to create institutions that strengthen the region's "voice" in dealing with other regions and countries and for making links among the private, public and education sectors.

Source: OECD (2012), *Promoting Growth in All Regions*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264174634-en>.

A critical issue for advancing towards a modern regional policy is ensuring effective complementarity between the different policies and between second-tier regional clusters and the core. Policy complementarity means having a clear vision of how to integrate the contribution of all regions to overall innovativeness and competitiveness, as well as how to integrate national and sub-national policy domains.

The need for policy complementarity

The first key challenge is to identify the possible complementarities between different policies and to design specific instruments to promote the synergies between them (Box 2.13). For the Netherlands, complementarity gains are possible both at the national and subnational level. The latter will be further explored in Chapter 3.

Box 2.13. Policy complementarity: What is it and how does it work?

The concept of policy complementarity refers to the mutually reinforcing impact of different actions on a given policy outcome. Policies can be complementary because they support the achievement of a given target from different angles. For example, production development policy, innovation policy and trade policy all support the competitiveness of national industry. Alternatively, a policy in one domain can reinforce the impact of another policy.

Sequencing is also important in policy complementarity. Some policies are best put in place simultaneously. For example, innovation, industrial and trade policies must be synchronised to address the issue of industrial competitiveness from all angles. Other policies realise their synergies in a sequential way. For example investments in broadband infrastructure need to be followed up with specific policies on access and diffusing those services to the population.

Complementarities between policies can be “latent”, but can be triggered by specific governance arrangements, for example mechanisms that facilitate co-ordination across levels of government (vertical co-ordination) can help attain complementarity across policies from various levels. Alternatively, they can be induced, by combining different policies through conditionality schemes, or when the complementarities are the result of strategic planning. Employment generation opportunities, for example, can be attached to direct cash transfers to support the inclusion of poor people in production so that they can avoid dependency on income transfers.

Policy complementarities can also be spontaneous when they appear as positive side-effects of independent actions of ministries or bodies.

In the current policy framework, the OECD identified six key policy areas with an impact on regional and local economic development. These policies, summarised in Table 2.14, include the Top Sector policy, the Infrastructure and Spatial Planning policy, the Regional and Cluster policy, the EU Structural Fund programme, the cross-border linkages programme, and the potential national urban policy. Given that all these policies affect the regional level, the gains of complementarity are thus higher at the regional than the national or European level. There are different degrees of complementarities among these policies; Table 2.14 shows the possible complementarities in a bilateral comparison.

Table 2.14. Areas for potential complementarities in six policy areas for the Netherlands

	Top Sector	Infrastructure	Regional policy (clusters)	Urban policy	EU Structural Funds	Cross-border
Top Sector						
Infrastructure	**					
Regional policy (clusters)	***	***				
Urban policy	***	***	**			
EU Structural Funds	***	*	**	**		
Cross-border	*	**	*	**	**	

Note: ***=strong potential complementarity, **= potential complementarity, *= weak potential complementarity.

Complementarities in Top Sector policy

Given the potential gains identified between top sector policy and regional policies, there is a risk not to reap all the benefits given that the former is a national/sectoral policy and the latter is a spatial policy defined at the regional level. Furthermore regional policies in the current setting also include actions by provinces. An important share of representatives from the TKIs will likely belong to a common geographic location. Therefore, there is a risk that the TKIs will operate in parallel with other regional objectives, rather than working with them. There is also a need to ensure that efforts designed in the Top Sector policy do not work against the provincial efforts aiming at enhancing regional development. This will require co-ordinating the top-down with the bottom up approach.

Given that innovation has a strong urban dimension, integrating top-sector policy with the urban dimension is also relevant. The current structure already allows integrating Top Sector policy with specific cities through the top teams (TKI). There is however a need to better integrate the Top Sector policy within a National Urban Policy framework, that considers the entire system of cities as a whole. For example, companies that refer to the logistic top sector are located in more than one city and might benefit from an overarching urban policy. Equally important is the high tech sector which relies on higher educational facilities. These can be located in a number of cities rather than just focusing in one. Thus a differentiated approach can reinforce and strengthen the Top Sector policy.

There are very strong potential complementarities between the Top Sector policy and EU smart specialisation. Aligning the available financing from both policies can build on scale effects. The main aim of the Top Sector policy is to strengthen the areas of international comparative advantage. Many of these are also the strength of various regions (e.g. brain-port in Noord Brabant or energy valley in Groningen). The purpose of smart specialisation is to diversify around the comparative advantage of regions; in other words, to diffuse knowledge over sectors.

These benefits also extend to other policy areas. For instance, the Top Sector policy networks appear to be dominated by the largest Dutch innovators, such as Philips and DSM, predominantly located in the Netherlands' core regions. At the same time, regional economic development policy networks are dominated by a different network of actors, including representatives from provinces, municipalities, regional micro-clusters and educational

centres. Where there is good integration between these policy networks – for example in the high technology systems and materials (HTSM) sector – then a more territorially nuanced Top Sector programme emerges that builds on regional strengths and smart specialisation.

There is also a need to improve the linkages between TKI representatives with generic innovation activities in the regions, including activities funded by the EU (smart specialisation) to ensure spill-over effects are internalised. Interesting examples of aligning regional with national priorities in the United Kingdom and in Denmark are presented in Box 2.14 and 2.15.

Box 2.14. Aligning regional and national innovation priorities in the United Kingdom

The traditionally unitary governance structure of the UK has seen science and innovation policy operating as an exclusively national policy, with decisions taken according to national interests. De-industrialisation in the northern and western regions, along with the rise of the greater South East and London functional area as a global mega-city region has seen an increasing concentration of the UK's RTDI capacity in this greater South East region. Science and innovation policy therefore has a strong territorial bias, with public science, technology and innovation investments predominantly flowing into the Golden Triangle region between London, Oxford and Cambridge.

This began to change slowly from 1998 with the creation of eight regional development agencies in England, devolution to Scotland and Wales from 1999, and the creation of a London Development Agency as part of the office of the Mayor of London from 2000. The Parliamentary Committee on Science and Technology, in their 2001 report "Are we realising our potential", welcomed the introduction of a regional dimension to national innovation policy through regional innovation and cluster funds administered through the regional development agencies (RDAs). However, the national science and innovation system remained primarily oriented towards London with a tendency to regard the Golden Triangle as the natural location. This came to the fore when a decision by the national Government to overturn the siting of a new high-energy laboratory (the DIAMOND synchrotron) in the North West of England, sparked a regional campaign for greater recognition of science potential outside the 'Golden Triangle'. This campaign evolved into a regional science council for the North West of England, quickly followed suit by other regions in the north of England, the North East and Yorkshire & the Humber.

By the mid-2000s, the three northern Regions had evolved a sophisticated architecture of science and innovation policy. There were regional science and innovation strategies, integrated within the wider Regional Economic Strategies funded by the regional development agencies. These were also integrated with the European Structural Funds operational programmes, with the majority of regional science and innovation projects being co-funded between universities, RDAs, the structural funds and regional business. RDAs took over responsibility for formerly national level innovation programmes, such as the proof of concept and prototype funds (SMART and STRIDE), as well as developing new instruments such as innovation vouchers. The regional university consortia in the North East even developed a regional university technology transfer centre, Knowledge House, (Benneworth and Sanderson, 2009).

The national level responded, ensuring that new investments in science and technology were directed to supporting regional capacity, such as the Faraday Centre programme for intermediary institutions. The national university funding council (HEFCE) provided support for regional and business engagement, as well as the regional university consortia. The Technology Strategy Board was created in 2007 to create a national technology and innovation policy building excellence and synergies between leading nationally- and regionally-funded activities.

Box 2.14. Aligning regional and national innovation priorities in the United Kingdom (*cont.*)

The 2008 Innovation White Paper continued to develop this national-regional interface, balancing between investing across all the regions and ensuring excellence for national success. The experiment built up over a decade a capacity to ensure that national investments both benefited as well as drew upon technological and scientific strengths across England that were not necessarily linked to Golden Triangle Centres national policy networks. The experiment also revealed the weakness of creating innovation policy capacity in a volatile institutional environment. One of the first acts of the incoming 2010 UK government was to remove with immediate effect the statutory responsibility of the regional tier of government, including for economic development and innovation policy. This included the immediate wind-down and later closure of the RDAs. As the SIC had been strongly driven by particular RDAs, this immediately curtailed SIC inputs to national innovation policy pressures. They were replaced by 39 Local Economic Partnerships, created between municipalities and businesses at the inter-municipality level, which drew up plans for local economic development. LEPs also bid for a £1.4bn Regional Growth Fund, allocated competitively by the Ministry for Business Innovation and Skills.

Source: OECD (2008), *OECD Reviews of Regional Innovation, North of England, United Kingdom 2008*, OECD Reviews of Regional Innovation, OECD Publishing, Paris, <http://dx.doi.org/doi:10.1787/9789264048942-en> and Benneworth, P. and Sanderson, A. (2009), “Building institutional capacity for HEI regional engagement in a sparse innovation environment: A case study of Knowledge House” *Higher Education Management and Policy*, March 2009; and Bailey, D. et al. (2010), “Memorandum of evidence on local enterprise partnerships”, *Memorandum of Evidence to House of Commons Select Committee on Business, Innovation and Skills*, Local Enterprise Partnerships, London.

Box 2.15. National and regional priorities in Denmark: The case of Southern and Central Denmark

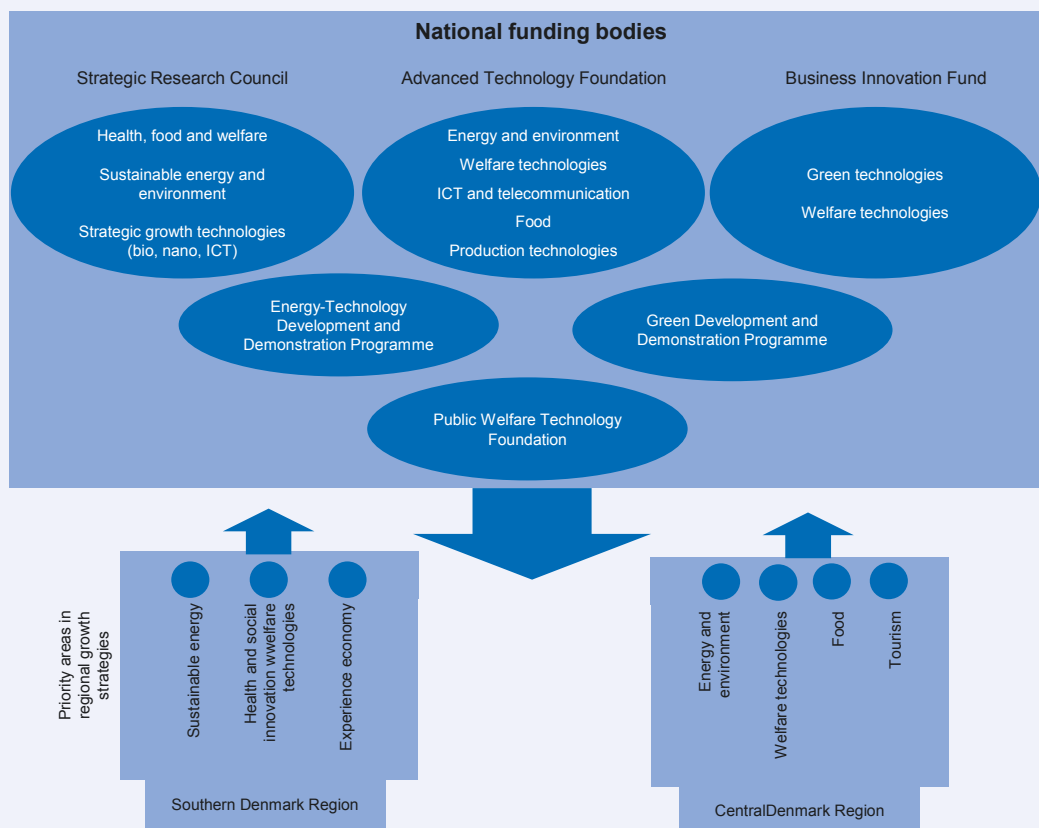
Denmark has recently overhauled its approach to regional innovation policy-making as part of a wider public sector reforms involving municipal and provincial mergers. The 14 counties (the sub-national layer) and 271 municipalities were merged in 2007 into 5 regions and 98 municipalities. Danish innovation policy has a strongly national flavour, emphasising the importance of supporting the Danish national innovation system. There are national research foundations and councils investing in basic and applied research, alongside two foundations, two funds and a council supporting technological development and innovation.

The Danish Growth Council gives advice to the Danish Government to support economic growth in Denmark, choosing a limited number of themes to support. It also has a formal mandate to ensure collaboration between the national and regional strategies for economic growth and economic development. By aligning national and regional economic development strategies (without making one subordinate to the other), this process ensures that Denmark has a strong national innovation system built on distinctive regional innovation profiles.

Each of these new regions has its own regional growth forum (RGF), which are public-private partnerships for growth (plus one for the semi-autonomous Bornholm Island, part of the capital region). These boards of 20 members are appointed by the elected regional councils for a 4 year period, covering elected members of region and municipalities, business, higher education, research and trade universities. These RGFs have technical advisory secretariats which support the Forums, which meet six times a year. The chairs of these 6 RGFs at the same time also participate in the Danish Growth Council ensuring that there is co-ordination between the two different levels.

Box 2.15. National and regional priorities in Denmark: The case of Southern and Central Denmark (cont.)

Alignment of national and regional prioritised technologies and industries



There is a further layer of strategic co-ordination between the centre and the RGFs: the Ministry of Business & Growth manages this, and other ministries and the six RGFs are also involved. MBG oversees the development of non-binding partnership agreements between the central government and each RGF, that include specific undertakings that the two sides attempt to progress. They function as a kind of ‘speed dating’ between regions and Ministries, to identify possible joint actions which are finalised in bureaucratic procedures. These agreements become relatively “light” documents of mutual intent: the purpose of the process is to promote a journey, allowing Ministries to promote their regional agendas and find regional support and capacity to implement their policies. A separate agreement is made between the RGFs and the Danish Council for Technology and Innovation to create co-ordination, coherence and synergy between regional and national innovation efforts.

Source: OECD (2012), *Promoting Growth in All Regions*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264174634-en>.

Complementarities in urban and regional policies

As previously mentioned there is no national framework for urban policy in the Netherlands. Nevertheless, urban policies are mainly conducted at the local level (land use regulation) and within the Ministry of the Interior and Kingdom Relations (housing policy).

In this setting, a national urban policy framework could build upon the interactions between medium and small FUAs (and their regions) and the largest FUAs (and their regions). The search for “high points” in the national economy has led to a misguided belief that the second-tier FUAs have little innovation potential. Policy complementarity needs to capitalise on the advantages offered by the main-ports, brain-port, green-ports, valleys and related activities, in order to position firms more competitively in global value chains. For instance,

- common knowledge resources, a pool of suppliers, customers and partners who can interact cheaply and communicate regularly to exchange knowledge and innovative ideas;
- infrastructure resources, transport, communications and logistics infrastructure that supports core business processes, including innovation;
- shared support resources, concentrations of high quality resources as inputs to innovation processes, from innovation support services (patenting, consultancy, technological services) to a shared labour market.

Some of these advantages are generic and apply across all sectors. For instance the presence of large cities with strong knowledge-intensive business services (KIBS) help to support innovation in all sectors. Likewise, good transport infrastructures benefit all firms and not just those innovating. Nevertheless, some of these benefits are highly specific to particular sectors and arise from dense contact networks between firms, creating competitive advantages and facilitating innovation in that sector only. Given that the Top Sectors approach focuses on innovation in highly specialised niches, these new regional knowledge communities emerging in these specific value chains provide additional benefits than those creating generic innovation advantages from which all firms can benefit.

Global competitiveness has a spatial component. Firms compete within global knowledge chains and production networks, and their strength in those global networks in part derives from local advantages and cities. But not all the core clusters are located in the core regions, and it is clear that there are important top sector micro-clusters outside the Randstad and Brainport located around medium and smaller FUAs.

These centres might not look important when viewed from a national level, but the strength of the individual Top Sectors as a whole depends on specialisations at the regional, city level and local level, particularly given the presence of a polycentric urban city-structure. There is a risk of assuming that concentration only involves absolute mass rather than relative innovation specialisation. The top sectors are indeed concentrated in the west of the Netherlands, but when measured by relative specialisation, regions and their respective FUAs outside this central core become equally important as shown in Chapter 1. These local clusters of knowledge add variety and can help drive entrepreneurial discovery; in turn they can be important economic drivers in their own regions.

A smart policy mix therefore ensures that firms across the Netherlands have access to these local clusters of knowledge resources, wherever individual firms are located, without trying to replicate local clusters across the Netherlands. As seen in Chapter 1 the presence of FUAs is an important condition for economic development and competitiveness.

The need for a strategic overview in top sector policy

A strategic approach is needed to ensure complementarity gains are realised. Currently, almost every region, province and municipality is developing its own ideas for knowledge and innovation campuses. There is a need to encourage local and regional actors to conceive their knowledge activities within a national knowledge ecosystem. Giving well-designed regional knowledge activities the chance to participate in national networks and benefit from national funding will provide a sharp stimulus for sub-national policy makers to allocate their resources only to activities of potentially national significance.

A mechanism needs to be found to ensure strategic oversight of activities, the capacity to steer activities within the projects, and continuing integration across these different thematic silos. There are some cases where these problems have been avoided; one example is the creation of a cross-TKI programme on solar energy systems involving the solar and energy in the built environment TKIs within the energy Top Sector. But this case also highlights the tangled governance involved, requiring a special arrangement above the 19 TKIs. Therefore the aim of the policy to overcome the complexity of the innovation system must be weighed against the risk of creating an inflexible system that hinders innovations in areas outside the Top Sectors.

There is a clear role for regional actors to identify new areas innovation, and link them with activities in the top sectors. In some areas where regional platforms and top sectors overlap this is already happening. For example, with high technology system material in Twente, energy in Groningen, and water in Leeuwarden. However, there is a risk that those regional platforms that do not map directly across to the TKIs are regarded as merely clusters of local significance. But these local clusters may contain expertise and activity that has the potential to open new opportunities of national economic significance to an existing TKI or top sector.

The Innovation Performance Contracts offer a useful mechanism to bring together these regional micro-clusters of businesses to explore the technological and commercial feasibility of new innovative areas. The Top Sector plans need to be kept under continuous review to maximise the technological and knowledge spill-overs from other domains into the sectors and TKIs. The various instruments in place – WBSO, IPC and TKI – need to ensure a pipeline of progression from individual innovation to top-sectors via micro-clusters at the regional scale.

Notes

1. A graphical representation of the National Policy Strategy for Infrastructure and Spatial Planning of the Netherlands (SVIR) is available at the following web link: www.government.nl/documents-and-publications/publications/2013/07/24/summary-national-policy-strategy-for-infrastructure-and-spatial-planning.html.
2. In July 2013, a proposal for further integration of the laws on the physical environment, including land use, spatial planning infrastructure, water systems, water, nature, soil, air, landscape, cultural heritage, and public works, was sent to the Council of State for advice. This on-going legislative process is expected to be completed with the adoption of an Environmental Planning Act in 2018.
3. A graphical representation of the MIRT Project Book for 2014 is available at the following weblink: http://mirt2014.mirtprojectenboek.nl/Images/Nationale_Ruimtelijke_Hoofdstructuur_%202014_tcm340-345031.pdf.
4. A graphical representation of the infrastructure projects to be implemented by 2020 is available at the following weblink: http://mirt2014.mirtprojectenboek.nl/mirt_2014/project_en_programmabladen/project_kaarten/.
5. The concept of the triple helix of university-industry-government relationships initiated in the 1990s interprets the shift from a dominating industry-government dyad in the industrial society to a growing triadic relationship between university-industry-government in the knowledge society.
6. The following areas of excellence were identified: flowers and food, high tech systems and materials, chemicals and energy, logistics and services, creative industry, life sciences and health, water, pensions and social security, The Hague International City of Law, Peace and Security, air and aerospace and social innovation agenda.
7. Although the name Economic Affairs was re-adopted following the formation of another new government in November 2012.
8. At the same time, it is necessary to acknowledge that there are limitations in using R&D as a shorthand to refer to R&D&I, and it is not immediately clear what percentage of all Dutch innovating firms fall within the top sectors.
9. The 2012 Coalition agreement included a provision for an additional €100m funding for basic/ fundamental research within the TKIs. This is not included in the table and graph below.
10. The Syntens agency was established in 1987 to support high-technology SMEs with innovation.
11. The instruments are Knowledge vouchers, Feasibility studies, R&D projects, Innovation Performance Contracts, Inbound Secondments, Network activities, Innovation consultants.
12. For more information see: www.topsectoren.nl/publicaties.html/publication/10-masterplan-b-ta-en-technologie.
13. Those streamed into secondary middle vocational (MAVO) aged 12 will be 20 before they start higher vocational education(HB) , whilst those streamed into secondary higher vocational (HAVO) reach HBO at age 17. Likewise, HAVO students are

forced to do one year at HBO to reach university; because both their secondary and tertiary education is vocational rather than theoretically oriented, these students have much greater difficulties in converting and so drop-out rates are much higher. A higher scientific secondary education (VWO) pupil who chooses to go to HBO will take in principle one year extra to get a university bachelor (four year HBO bachelor plus university pre-master's course) but again the issue of the additional theory of the university education can create additional barriers.

14. For more information see: www.agentschapnl.nl/content/rapport-focus-op-speur-en-ontwikkelingswerk-van-de-wbsorda-2012.
15. The NUTS classification (Nomenclature of territorial units for statistics) is a hierarchical system for dividing up the economic territory of the EU for the purpose of: (1) the collection, development and harmonisation of EU regional statistics, (2) Socio-economic analyses of the regions and (3) Framing of EU regional policies (http://epp.eurostat.ec.europa.eu/portal/page/portal/nuts_nomenclature/introduction).
16. For more information see: http://ec.europa.eu/europe2020/index_en.htm.
17. The three priorities chosen by the Ministry are (1) strengthening research, technological development and innovation; (2) enhancing access to, and use and quality of, information and communication technologies; and (3) supporting the shift towards a low-carbon economy in all sectors.
18. Current urban policies managed by the Ministry of Interior and Kingdom Relations broadly include housing, spatial development, transport, and the relations between the central government and the other levels of government: provinces, municipalities and water authorities. The urban policy covers the 31 large and medium-sized cities, the so-called G31 municipalities, which include Amsterdam, The Hague, Rotterdam and Utrecht (the G4 municipalities).

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Chapter 3

Multi-level governance challenges in the Netherlands

The aim of this chapter is to investigate the role of the subnational government structure in the Netherlands paying particular attention to the subnational government reform which is taking place. This reform has two main components which are closely interconnected: a decentralisation reform and a territorial reform. These are the two sides of the same coin, as the second one is partly driven by the first one. It entails a major overhaul of the administrative tiers and their functions, with a decentralisation of additional functions to municipalities, complete elimination of the city-regions and transfer of their competences to provinces whose competences have been strengthened in recent years. The decentralisation process is combined with efforts to consolidate both the provincial and municipal governments through voluntary mergers (up-scaling) or co-operation (trans-scaling).

The chapter has four sections. The first provides an overview of the subnational government set up in the Netherlands, identifying the main strengths and weaknesses. The second section addresses the Dutch decentralisation reform which has been on-going for several years but which entered a new phase recently, catalysed by the crisis and fiscal consolidation measures. This section also examines the recent trends in this area in contrast to the experience of other OECD member countries. The third section reviews the different re-scaling options offered to provinces and municipalities, including mergers and other forms of collaboration, and assesses the benefits and the shortcomings of the various solutions. The fourth section identifies the possible gaps and key challenges and provides recommendations to successfully carry out the subnational government reform process in the Netherlands.

How is governance organised in the Netherlands?

The Dutch institutional system is complex. Below the national level of government it comprises two tiers of subnational government (provinces and municipalities), one functional tier (regional water authorities) and a myriad of formal and network-based collaborative arrangements. The Dutch decentralised system still has a paradoxical nature, with several features revealing the strong presence of the central government at the local level, limiting the autonomy of the subnational government, in particular their competences and finances. However, the Dutch multi-level governance system draws its strength from the predominant political culture emphasising collaboration and consensus from well-developed vertical and horizontal linkages. This rich network represents an asset for the implementation of the subnational government reform, even it requires efforts to align and co-ordinate the complex interactions.

General overview of the Dutch institutional system

The Netherlands, part of the Kingdom of the Netherlands,¹ is a parliamentary constitutional monarchy. The country has a particularly complex and unusual government system (see Box 3.1.) The Dutch Constitution of 1848 established a decentralised unitary state (Chapter 7, articles 123 to 133) consisting of the government, the parliament (the States-General) and the subnational government level (see Box 3.1).

The subnational level comprises two tiers of government with general competencies, the provinces (*provincies*) and the municipalities (*gemeenten*), as well as a functional layer comprising the regional water authorities (*waterschappen*).

The provinces are one of the oldest institutions in the Netherlands, and their number and size remained constant for centuries. By contrast, the municipal landscape has undergone profound changes over the years following a continuous process of amalgamations. As of January 2014, there are 403 municipalities (compared with 811 in 1980). The 23 regional water authorities manage the country's elaborate system of dykes and polders. They are responsible for the operation and management of regional water systems, flood defence, water quality, wastewater transport and treatment as well as muskrat and coypu control (see Box 3.2).

All three have deliberative assemblies, which are elected by direct universal suffrage. They have an autonomous power of regulation and administration of their own internal affairs. For the provinces and municipalities, these are based on a territorial division and general competencies ("territorial decentralisation") and for the regional water authorities on a functional division and more specialised competencies ("functional decentralisation"). These subnational authorities also have the power to raise taxes. The Netherlands belong to a group of 18 countries within the OECD which has two tiers of subnational governments with general competencies (see Box 3.3).

There is no hierarchy between the three categories of subnational government: each tier is equivalent to each other, their autonomy being embedded in the Constitution (Article 124-1). However, there are several interdependent links with multiple interactions. Therefore, again through Article 124-2 of the Constitution, the government may ask for co-operation from the subnational government in executing national policies (*medebewind*). In addition, "inter-administrative supervision" is well developed. In particular, provinces have financial and legal control over the municipalities (notably in the domain of land planning where they approve the municipal land use plan) as well as over regional water authorities.

Box 3.1. The Dutch institutional system

The Constitution (*Grondwet*) establishing a parliamentary constitutional monarchy was adopted in 1814. It has been amended since then several times, most recently in 2010.

The executive power

The government consists of the King and the ministers. The monarch is the head of state. The Constitution has laid down that the ministers, not the monarch, are responsible for acts of government and the ministers are accountable to parliament for government policy (*ministeriële verantwoordelijkheid*).

Today, there are 11 ministries, each headed by a minister, some supported by one state secretary. One of them is also Prime Minister (minister of General Affairs) and another one is deputy Prime Minister (minister Asscher, who is minister for Social Affairs and Employment in the Cabinet Rutte II). The ministers and state secretaries constitute the Cabinet. Ministers or state secretaries cannot also be members of parliament. The civil service is politically neutral. Each ministry is headed by a civil servant secretary-general. Policy must be adopted collectively. Policy making is based on a network of ministerial committees, ultimately reporting to the Cabinet, which meets weekly. Policy and legislative proposals go to the relevant ministerial committees, after discussions at official level.

The legislative power

The parliament (the State-General or *Staten-Generaal*) has two chambers. It consists of a Lower House (the House of Representatives or *Tweede Kamer*) and an Upper House (the Senate or *Eerste Kamer*). The 150 members of the House of Representatives are directly elected by popular vote for four-year terms. The 75 members of the Senate are indirectly elected by the provincial councils for four-year terms. Elections are based on a system of proportional representation, under which each party is allocated a number of seats in the parliament corresponding to the proportion of the overall vote won by that party. The Constitution explicitly states that both chambers represent the entire people of the Netherlands. The members shall not be bound by a mandate or instructions when casting their votes.

The main functions of the House of Representatives are to act as co-legislator and to check whether the government is carrying out its duties properly. They have the right to submit bills or to propose amendments to government bills. The Senate also scrutinises legislation but can only accept or reject draft legislation in its entirety. The legislative process can be protracted, and, on average, it takes two years for a bill to become law. Bills are often amended during their passage through the parliament. There is a structure of standing, general and theme committees.

Because of the large number of political parties resulting from this system, the country is always governed by coalitions. There is currently a coalition majority in the House of Representatives.

Coalition agreements

Each government works on the basis of coalition agreements (*coalitieakkoord*) which set the policy framework for the four years of the electoral cycle, and annual budget plans. Together these generate proposals for policy/legislation.

Box 3.1. The Dutch institutional system (*cont.*)

The judiciary

The Dutch judicial system is based on the traditions of continental Europe, with a codified law and a written Constitution.

The court system consists of 19 district courts, 4 appeal courts, special tribunals and a supreme court which is the highest court in the fields of civil, criminal and tax law in the Netherlands and which is responsible for hearing appeals in cassation.

Administrative appeals are heard by the administrative branch of the courts. The Administrative Jurisdiction Division of the Council of State (*Raad van State*) is the country's highest general administrative court for most of the administrative appeals. It hears appeals lodged by members of the public or companies against decisions or orders given by municipal, provincial or central government.

Other High Councils of State

Apart from the Senate and the House of Representatives, the Netherlands has three other "High Councils of State" whose independence is guaranteed in the Constitution:

- The Netherlands Court of Audit role is to assess and improve the regularity, efficiency, effectiveness and integrity of the State of the Netherlands and the institutions associated with it, both central government (i.e. the ministries) and organisations and agencies that operate at arm's length from central government. The Court of Audit is not entitled to audit how subnational governments spend public money (except for the use of EU grants). By law, these authorities are responsible for auditing their own finances and have their own audit offices.
- The National Ombudsman is an independent intermediary between individual citizens and the public administration, including the ministries and their different departments, but also other administrative authorities, the police, regional water authorities, provinces and municipalities.
- The Council of State, already mentioned as the highest administrative court (see above), is also an independent advisory body to the government and parliament on legislation and governance. This task is carried out by the Advisory Division. Therefore, it must be consulted by the cabinet on proposed legislation before a bill is submitted to parliament. Although opinions of the Council of States are not binding, the cabinet is required to react and formulate a report (*nader rapport*) which proposes that the bill should or should not be submitted to the House of Representatives. It may also contain amendments to the bill. Therefore, the Council of State often plays a significant role in the ensuing debate in Parliament.

Regulatory agencies

There are broadly three types of regulatory agency, generally linked to a parent ministry: enforcement inspectorates; autonomous administrative bodies whose tasks generally require the strict and independent application of regulations in individual cases; and agencies for industry and the professions, with statutory powers over and agencies for industry and the professions, with statutory powers over their members, the employer/employee Social and Economic Council being the most important.

Box 3.1. The Dutch institutional system (*cont.*)

Subnational level of government

The Netherlands is a decentralised unitary state divided at the subnational level into provinces, municipalities and regional water authorities. Each province and municipality has its own deliberative council elected by popular vote: the provincial council (*Provinciale Staten*) and the municipal council (*Gemeenteraad*). Both councils elect the members of their executive council which are collegial boards (*collegiaal bestuur*): the Deputy States (*Gedeputeerde Staten*) for the provinces and the Burgomaster and the Court of Aldermen (*College van Burgemeester en Wethouders*) for the municipalities. Provincial executive councils are chaired by a provincial governor, the so-called King's Commissioner (*Commissaris van de Koning*) while municipal executive councils are chaired by a mayor (*Burgemeester*). The King's Commissioners and the mayors are formally appointed by Royal Decree (*de Kroon*), but their appointment is based on a recommendation of the provincial and municipal deliberative councils. The King's Commissioner and the mayor also chair their deliberative councils. They both also have an autonomous role as a "national administrative entity".

Since the "dualism reform" (Act of 7 March 2002 for the municipalities and Act of 12 March 2003 for the provinces), there has been a clear-cut separation of powers between the deliberative council and the executive bodies. A member of the executive council (either *Gedeputeerde* or *Wethouder*) can no longer also be a member of the parliament. The "dualisation" of the municipal and provincial governments has strengthened the administration system of subnational government.

Provincial and municipal authorities have important implementation and enforcement functions, including inspections, especially in physical and environmental planning, and in licensing, based on regulations laid down by central government. They have limited powers to make their own regulations (by-laws) on matters that directly affect them, but they may also make additional regulations within the framework of national regulations.

The centrepiece of the co-operation between the subnational and central level is an agreement ("*Bestuursakkoord*") between the central government with the Association of Netherlands Municipalities (*Vereniging van Nederlandse Gemeenten* - VNG), the Association of Provincial Authorities (IPO – *Inter-Provinciaal Overleg*) and the Association of Regional Water Authorities (UvW - *Unie van Waterschappen*).

Co-ordination between subnational government and central government is guided by the Provinces Act (*Provinciewet*) and the Municipalities Act (*Gemeentewet*).

Source: Adapted from OECD (2010d), *Better Regulation in Europe: Netherlands 2010*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264084568-en>.

Box 3.2. The regional water authorities – a functional layer of government

The Dutch Constitution includes a provision for regional water boards. They are an historical feature of the Dutch administrative system, reflecting the country's particular relationship with water. A large proportion of the country's territory has been reclaimed from the sea and lies below sea level, making it extremely vulnerable to coastal flooding and requiring careful management of the water infrastructure.

Box 3.2. The regional water authorities – a functional layer of government (cont.)

As early as the 13th century, some of the oldest Dutch institutions were created for the maintenance of the dykes, the Regional Water Authorities. In the last 50 years, important water governance reforms have consolidated the robust legal and policy framework for the water sector. The 23 regional water authorities (as of January 2014) deal with flood control, surface water quantity and quality, treatment of waste water, musk rat and coypu control. These activities are for 95% funded through their own taxes and levies: a waste water treatment levy for the cost of waste water treatment, a water systems levy to cover the costs of ‘dry feet’ and to provide sufficient and clean surface water, and a pollution levy for direct discharges in to surfaces waters.

Regional Water Authorities co-operate on regular basis with the Provinces (integrated spatial and environmental planning, supervise regional water authorities, develop groundwater plans and regulations) and Municipalities (spatial planning at the local level, deal with sewerage collection system, urban drainage and storm water collection in urban areas) for policy coherence and because of some water management tasks which Provinces and Municipalities execute.

Their territory ranges from 410 km² to 2 000 km² and as they are delineated by dykes and rivers, they cross other administrative boundaries. The Regional Water Authorities spend EUR 2 790 million (2012) a year on their water management tasks (42% of the total expenditures on water management by the Dutch government) and employ about 10 500 people.

The governing bodies of regional water authorities consist of a general assembly, an executive assembly and a chairperson (at the same hierarchical level as a mayor), who is appointed by the Monarch, making it a relatively independent position *vis-à-vis* the board. Through a rather complicated and fast-evolving combined system of direct and indirect elections, the regional water authority assembly consists of representatives of the so-called general task interests (the residents) as well as of representatives of the so-called specific task interests (farmers, companies, and managers of forests and nature reserves) who bear a substantial part of the costs). In addition to this formal representation of stakeholders within the general assembly, regional water authorities involve stakeholders in local project implementation. This is arguably the least politicised tier in the Dutch governance system and sparks relatively little interest among citizens.

The role of regional water authorities has long been debated in the Netherlands. Despite the globally positive assessment of the capacity of these historic community-based institutions to sustain the existence of the Dutch close to or below sea level, recent administrative reforms may jeopardise their future. The questioning of these functional democracies with specific taxation powers, in a highly centralised fiscal system, led to an ambition in the coalition agreement of this government to merge them with the provinces into five “national areas” by 2025.

The Regional Water Authorities have shown capacity to evolve and adjust to changing circumstances based on a voluntary and bottom up approach. They have merged from around 2 650 in 1950 to 23 now. The reasons for this revolution were threefold. First and foremost, the North Sea flood of 1953 led to a wave of mergers. Second, in 1970, the Surface Water (Pollution) Act added the obligation of management of water quality which led to further increase in scale. Thereby the construction and management of waste water treatment plants certainly required robust financial resources. Finally the national policy to integrate the management of water quality and quantity led to the last wave of mergers, to form so called ‘all in’ Regional Water Authorities (van Rijswick and Havekes, 2012)

Regional water authorities’ interests are represented by the Association of Regional Water Authorities - *Unie van Waterschappen*.

Source: OECD (2014), *Water Governance in the Netherlands: Fit for the Future?*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264102637-en>; and van Rijswick, H.F.M.W. and H.J.M. Havekes (2012), *European and Dutch Water Law*, Europa Law Publishing.

Box 3.3. Subnational government structure in the OECD countries

The multi-level governance structure of countries varies considerably in the OECD, with 9 federal states and 25 unitary states. Among OECD member countries, only eight have three subnational government tiers: the regional/federated level, the intermediary level and the municipal level. 18 countries have the same structure as the Netherlands with two subnational tiers (regions and municipalities) and eight countries have only one subnational tier.

Number of subnational governments* in the OECD in 2012-13

2012-13	Municipal level	Intermediary level	Regional or state level	Total number of subnational governments
Federations and quasi-federations				
Australia	565		8	573
Austria	2 354		9	2 363
Belgium	589	10	6	605
Canada	4 147		13	4 160
Germany	11 327	295	16	11 638
Mexico	2 457		32	2 489
Spain	8 116	52	17	8 185
Switzerland	2 408		26	2 434
United States	35 879	3 031	50	38 960
Unitary countries				
Chile	345		15	360
Czech Republic	6 253		14	6 267
Denmark	98		5	103
Estonia	226			226
Finland	320			320
France	36 700	101	27	36 828
Greece	325		13	338
Hungary	3 177		19	3 196
Iceland	74			74
Ireland	114			114
Israel	254			254
Italy	8 092	110	20	8 222
Japan	1 719		47	1 766
Korea	227		17	244
Luxembourg	106			106
Netherlands**	408		12	420
New Zealand	67		11	78
Norway	428		18	446
Poland	2 479	380	16	2 875
Portugal***	308		2	310
Slovak Republic	2 927		8	2 935
Slovenia	211			211
Sweden	290		21	311
Turkey	2 950		81	3 031
United Kingdom	406	28	3	437
OECD34	136 346	4 007	526	140 879

Notes: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law. * Includes only subnational government with general competencies. **Netherlands: 403 municipalities as of 1 January 2014. *** The regional level in Portugal includes only two overseas regions: Madeira and Azores.

Source: OECD (2013), "Subnational governments in OECD countries: Key data (brochure)", OECD, Paris, www.oecd.org/regional/regional-policy.

In addition to these administrative tiers of government, a myriad of formal and network-based collaborative arrangements between the subnational authorities has emerged over the last decades to jointly provide public services across the administrative boundaries.

Under the Joint Regulations Act (*Wet Gemeenschappelijke Regelingen* or WGR Act) adopted in 1950 and amended several times since, municipalities, provinces, regional water authorities, and other public bodies and legal entities can co-operate with one another for joint provision of public services.² In 2010, there were around 700 municipal public arrangements concluded under the WGR Act (Berenschot Consultants, 2010).

In 1995, and formally in November 2005 with the new WGR Act, inter-municipal co-operation became compulsory for the then seven metropolitan areas (now eight³), the so-called WGR-plus regions (*stadsregio's* or *WGR-plusregio's*). These entities encompass a large city (e.g. Amsterdam, Utrecht, The Hague) and its surrounding municipalities forming a common urban system. The city-regions are governed by councils comprising delegates of the municipalities involved and the voting system is designed in a way to avoid an excessive predominance of the largest city. The law prescribes co-operation among municipalities for the provision of particular types of services, in particular transport (the most important area of competence), spatial planning, housing, infrastructure and economic affairs. Moreover, some metropolitan regions are also active in other policy areas such as child welfare, health, safety and environment (Stadsregio's, 2010).

The subnational level also comprises de-concentrated central government agencies which are controlled and financed by central government units and have a local function. They cover areas which span across boundaries of the subnational governments. Examples of such institutions are government services like regional labour market offices, regional police services⁴ or regional healthcare services.

The paradoxical nature of the Dutch decentralised system

The Dutch government system remains paradoxical (OECD, 2007), even if it has evolved over recent years as a result of continuous decentralisation processes. On the one hand, subnational governments (especially municipalities) are powerful and strong. They have considerable administrations, many responsibilities and a substantial budget and, as a general principle, the local and regional levels enjoy autonomy. On the other hand, the Dutch multi-governance system still has some characteristics of a centralised state. In fact, the central government has the power – seldom used however – to intervene in the governance and functioning of subnational governments, in particular through the system of subnational government financing.

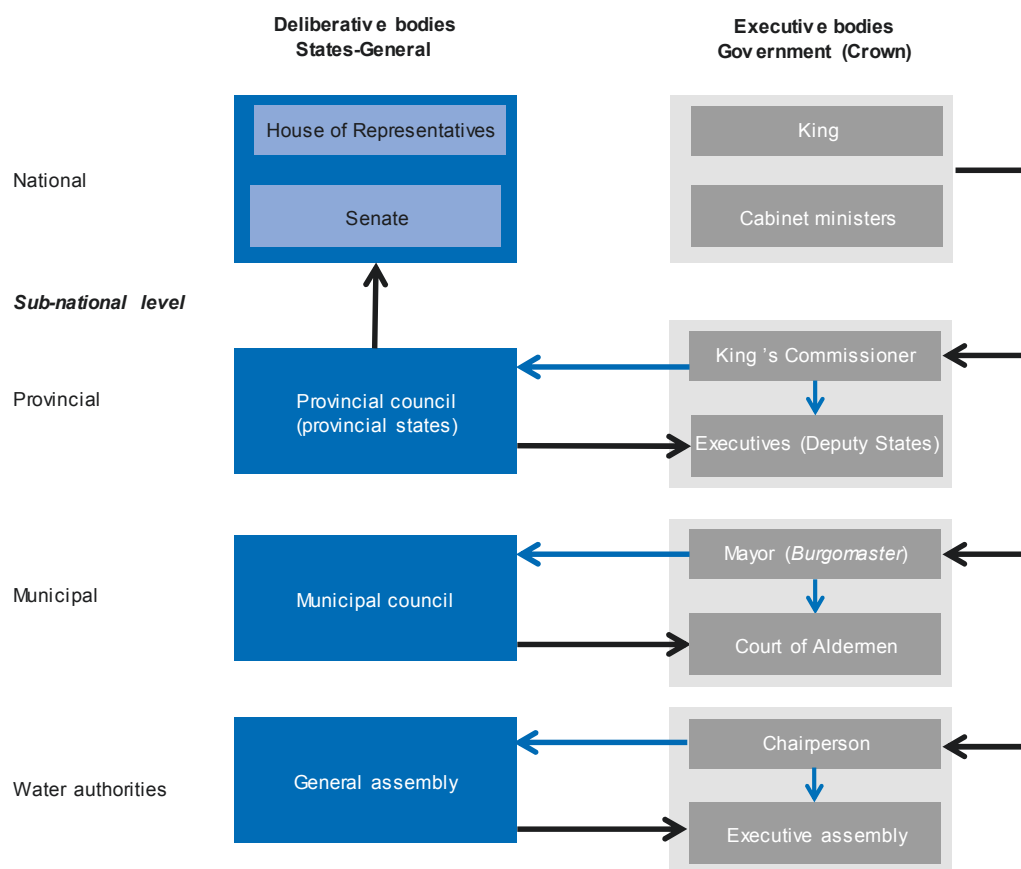
Heads of the provincial assembly and municipal mayor are appointed by central government

Figure 3.1 shows the structure of the Dutch institutional system. As Box 3.1 describes, each province has an elected provincial council which is the deliberative body and which is elected every four years by proportional representation. The provincial executive bodies consist of the King's Commissioner and the Deputy States. The King's Commissioner is appointed by Royal Decree for a period of six years in conformity with Article 131 of the Constitution based on the recommendation of the provincial council. Members of the provincial executive are traditionally chosen by the provincial council from among its members for a period of four years. As well as chairing both the

provincial council (without voting rights) and the executive (with voting rights), the King's Commissioner is charged with duties on behalf of central government. In particular, the King's Commissioner makes recommendations to the Minister of the Interior and Kingdom Relations on the appointment of mayors of his or her province.

At the municipal level, the deliberative body is the municipal council which represents the entire population of the municipality. Councillors are elected every four years by proportional representation. Like the King's Commissioners, mayors are appointed by the central government, based on a recommendation given by the municipal council. They chair both the municipal councils (without voting rights) and the executive college of aldermen (where their vote can be decisive).

Figure 3.1. **Organisational chart of the Dutch institutional system**



Note: see Box 3.2 for more details on regional water authorities.

Source: OECD elaboration from Council of Europe (2008), "Structure and operation of local and regional democracy in the Netherlands", report prepared with the Ministry of the Interior and Kingdom Relations, adopted by the European Committee on Local and Regional Democracy on 28 November 2008.

The central government can interfere at any time at the subnational level

Although provinces and municipalities have extensive autonomy and general competence to issue legislative acts affecting their territories and to deliver a range of services, the central government can interfere at any time. Subnational governments have their own competences but they also exercise some competences jointly with the

central government according to the joint-management system (*medebewind*) written into the Constitution. As part of this system, the central government can ask the subnational government to implement public actions it considers a priority. The exercise of these responsibilities is mandatory and controlled by the central government. In this manner, the central government can avoid major differences in local service provision.

The division of competences between the different government levels reflects these close interactions as well as imbalances between the municipalities and the provinces.

One of the peculiarities of the Dutch territorial governance system is its “hourglass” character, where the regional level is squeezed between two strong central and local levels of government. Another characteristic is that many areas of competences are shared between the three levels. Central government is generally responsible for tasks concerning Dutch society as a whole. This implies a responsibility for the system of justice (courts and public prosecution), defence, foreign affairs, tax collection and infrastructure (in a wide sense). Central government also provides general guidelines for future development and operates directly at the local and regional levels through a large number of central government agencies. Municipal government is seen as the main provider of public services to the citizens. The main function of the province is to translate central government plans into its territory.

Provinces mainly focus on the development of the regional territory. Key areas include spatial planning and urban development (see Table 3.1). On the basis of a general plan provided by the central government (SVIR as described in Chapter 2), the provincial assembly prepares plans for spatial development which contains general guidelines for municipal planning about where to locate housing, agriculture, natural environment, company grounds, roads, etc., while the provincial executive council endorses land-use plans drafted by municipalities. Therefore, provinces play a co-ordinating role in spatial planning and have some degree of control over municipal land policy. The other key provincial responsibilities are traffic and transport (development and maintenance of transport infrastructure, in particular provincial roads, regional public transport, etc.), economic development (regional development, agriculture and rural development, facilitating public-private partnerships, stimulating entrepreneurships, etc.), environment (drafting and implementing environmental protection plans) and nature preservation, promotion of tourism and cultural activities in the territory and social housing (allocation of quotas and the distribution of grants to municipalities). Provinces are also involved in welfare, in particular youth policy which will be transferred to municipalities by 2015.

Despite their limited roles in some areas, the provinces play a key role in vertical co-ordination, bringing together a wide network of formal and informal stakeholders from different levels of government. They also ensure the quality and consistency of public administration by supervising lower levels of government, in particular, the financial oversight of municipalities and regional water authorities. Provincial representatives are involved in setting long-term strategies in economic policy and transport and act as intermediaries between the central government and municipalities to implement national priorities.

Table 3.1. Division of tasks between the municipalities and provinces

	Municipalities	Provinces
Education	<ul style="list-style-type: none"> – Establishment and maintenance of primary and secondary education – Supervision/implementation of the obligatory education act (<i>leerplichtwet</i>) 	
Vocational training policy	<ul style="list-style-type: none"> – Establishment and maintenance of schools – Adult education (programming, financing) 	
Social policy	<ul style="list-style-type: none"> – Social assistance: social welfare, welfare payments, social services administration – Elderly and child care (tasks being decentralised in the current reform – cf. Social Support Act - Wmo) – Social integration of people with disabilities (<i>tasks being decentralised in the current reform</i> – cf. Social Support Act - Wmo) – Youth assistance and welfare services – Social integration of foreigners 	<ul style="list-style-type: none"> – Youth policy: financing youth organisations, Youth and child protection, youth probation and youth care (scheduled to be transferred to municipalities by 2015 – cf. Youth Act)
Employment	<ul style="list-style-type: none"> – Social assistance and local employment schemes – Access, participation to the labour market – Back to work programme: reintegration into the labour market, including for young disabled (<i>tasks being decentralised in the current reform</i> – cf. Participation Act) – Training – Stimulation of entrepreneurship 	<ul style="list-style-type: none"> – Functional regional boards for employment services
Spatial planning	<ul style="list-style-type: none"> – Drawing up land-use plans – Planning permissions – Urban planning, development and regeneration 	<ul style="list-style-type: none"> – Drawing up regional plans – Endorsement of municipal land-use plans
Housing	<ul style="list-style-type: none"> – Building and management of social housing and municipal land 	<ul style="list-style-type: none"> – Allocation of quotas (social housing) and municipal subsidies
Economic development	<ul style="list-style-type: none"> – Local economic development 	<ul style="list-style-type: none"> – Regional economic development – Agriculture and rural development Partnership between public authorities and businesses – Regional marketing to attract business – Stimulation of entrepreneurship
Transport	<ul style="list-style-type: none"> – Local roads and bicycle lanes – Local public transport and schools buses – Local traffic – Drivers licenses – Maritime transport – Inland water transport and infrastructure – Parking arrangements – Traffic signs and lights 	<ul style="list-style-type: none"> – Provincial roads – Regional public transport – Regional traffic, railways and infrastructure – Inland water transport and infrastructure

Table 3.1. **Division of tasks between the municipalities and provinces** (*cont.*)

	Municipalities	Provinces
Environment	<ul style="list-style-type: none"> – Waste management and recycling – Water: sewerage collection and waste water transport, Urban drainage – Environmental police – Soil protection and cleaning – Public lightening – Collect and processing of domestic and industrial waste 	<ul style="list-style-type: none"> – Environmental protection plan and policies (e.g. Natura2000) – Water (groundwater plans and regulation, primary flood defence structures) – Energy and climate, renewable energy – Air quality – Soil protection and cleaning – Noise – Production and transport of hazardous materials – Safety, preservation, grant of licenses and supervision of municipal environmental policies
Culture, recreation and sport	<ul style="list-style-type: none"> – Tourism strategies and policies at local level – Financing of cultural activities – Development and maintenance of cultural facilities and recreational areas – Local sport policies and subsidies 	<ul style="list-style-type: none"> – Promotion of the region and co-ordination of touristic local policies – Environmental and recreational planning – Financial support of cultural activities if it exceeds local interest – Protection of cultural heritage – Provincial museums – Regional broadcasters (scheduled to be transferred to central government by 2015)
Public health	<ul style="list-style-type: none"> – Municipal medical services (vaccination, prevention, hygiene) – Youth health care – Elderly health care – Long-term care (tasks being decentralised in the current reform cf. Exceptional Medical Expenses Insurance Act or AWBZ) 	
Public order and safety	<ul style="list-style-type: none"> – Public order in the municipality and relationships with police forces – Criminality prevention – Favour public safety 	
Public administration	<ul style="list-style-type: none"> – Administrative services (marriage, birth, etc.) 	<ul style="list-style-type: none"> – Supervision of municipal finance and regional water authorities

Source: OECD and Ministry of Interior and Kingdom Relations elaboration based on data in Committee of the Regions (2012), *Division of Powers between the European Union, the Member States and Regional and Local Authorities*, Committee of the Regions, European Union, Brussels.

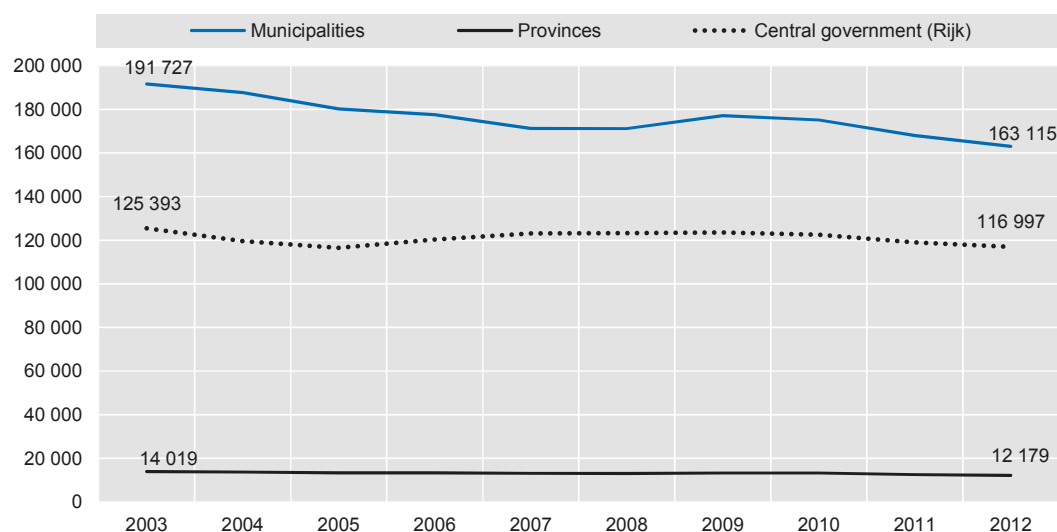
Municipalities in the Netherlands have a wide range of competences (see Table 3.1) and their domains of intervention have become more diverse over time. In fact, the powers of local government have steadily increased since the 19th century resulting from a continuous process of decentralisation. Today, municipalities prepare land-use plans, issue planning permission and manage public lands. Although municipalities formally share spatial planning and urban development responsibilities with the provinces, in reality the largest municipalities have a major role in these fields. Municipalities also deal

with employment policy and social welfare, and are involved in developing and maintaining social housing. In addition, they deal with public order and safety in collaboration with the national police. Municipalities are responsible for construction and maintenance of local roads as well as the provision of local public transport. Other competences include primary and secondary education, promotion of culture and recreation. New responsibilities – which have been decentralised from the central government or reallocated from the provinces – include youth health care, long-term care (home assistance and home care for mildly mentally handicapped and elderly people) and employment support for young disabled people. The increasing number of municipal responsibilities has prompted discussions on amalgamating and ensuring greater co-operation between municipalities in order to increase their capacity to deliver these policies.

Subnational and central government staff

Municipalities employed more than 163 000 staff in 2012, compared with around 12 000 employees in the provinces. These figures have decreased greatly over the last decade, despite the increases in competences. Staffing levels have fallen 15% for the municipalities and -13% for the provinces.

Figure 3.2. **Number of public staff in central government, municipalities and provinces, 2003-12**

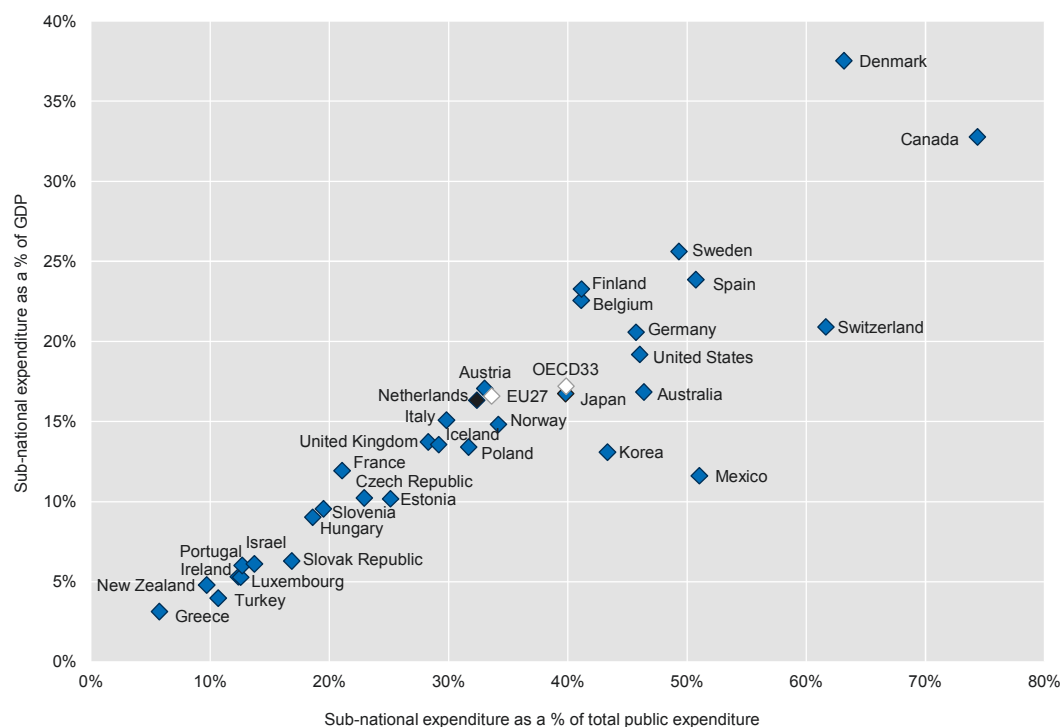


Source: Based on data from Ministry of Interior and Kingdom Relations, Kennisbank Arbeidszaken Publieke Sector.

Despite significant budgets, subnational government fiscal autonomy remains low

The share of public expenditure by subnational governments in the Netherlands is in line with the OECD and EU27 averages. In 2012, subnational expenditures accounted for 32.4% of the total Dutch government expenditures and 16.3% of GDP. Netherlands is slightly below the OECD average (39.9% and 17.2% respectively) but in line with the EU27 average (33.6% and 16.6%) (Figure 3.3).

Figure 3.3. Subnational government expenditure as a % of total public expenditure and GDP, 2012

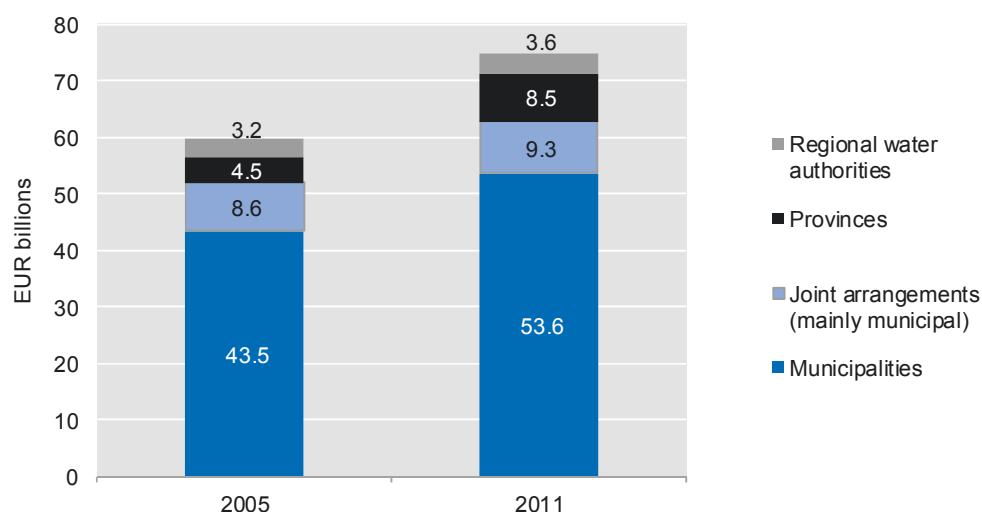


Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), “Sub-national governments in OECD countries: Key data (brochure)”, OECD, Paris, www.oecd.org/regional/regional-policy.

Total expenditures by Dutch municipalities is significantly higher than by provinces. In 2011, municipal expenditures were almost EUR 54 billion and around 10% of GDP. This represented almost three-quarters of total expenditure from regional water authorities, provinces, municipalities and joint arrangements (see Figure 3.4). Joint arrangements, which are mainly inter-municipal co-operation entities, made up 12% of the total, ahead of provinces (EUR 9 billion; 11% of the total and over 1% of GDP).

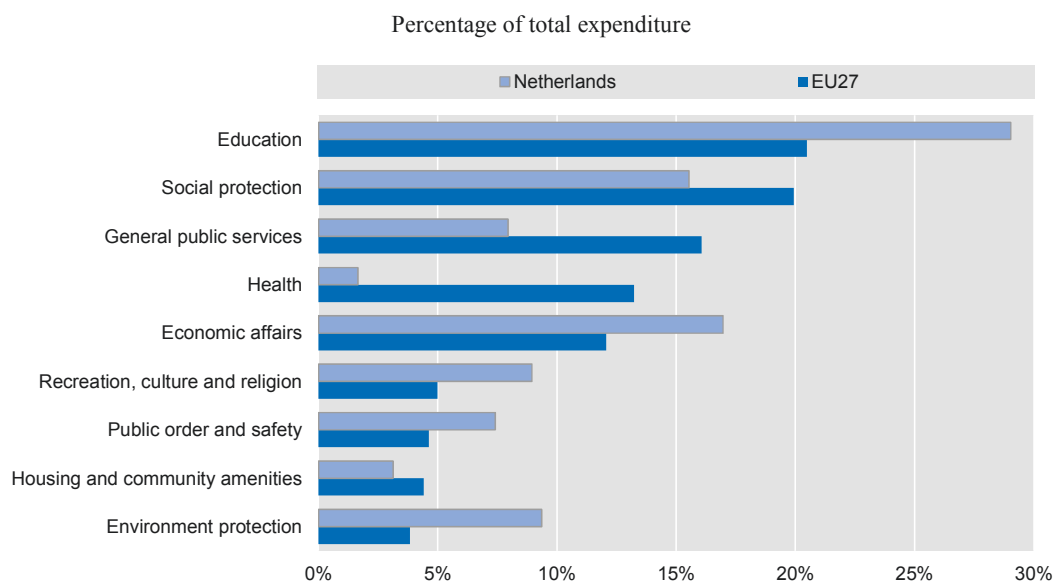
Figure 3.4. Breakdown of subnational government expenditure by type of actor



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

The main areas of intervention of Dutch subnational governments according to expenditure are education (29% of subnational expenditure in the Netherlands, compared with 20% in the EU27 on average), economic affairs including transport (17% vs. 12%), social protection (16% vs. 20%), environmental protection (9% vs. 4%), and recreation and culture.

Figure 3.5. Breakdown of subnational government expenditure by economic function (COFOG) in the EU27 and in the Netherlands, 2011



Source: Based on data from OECD (2013), National Accounts (database), <http://dx.doi.org/10.1787/na-data-en> (accessed on 8 November 2013) and Eurostat <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/> (accessed on 17 October 2013).

The breakdown of expenditure by economic functions and tiers of government shows that municipalities spent about one-quarter of their budget on welfare and social services in 2012, including employment benefits and services (see Figure 3.6). The second largest expenditure item (excluding finance and universal service) is spatial planning and housing, in particular developing land for new building projects (Allers, 2011). Health and environment (waste and sewerage), local road traffic, public transport and parking as well as culture and recreation represent around 8-9% of municipal budgets each.

The biggest expenditure item for the provinces is regional road traffic and public transport, accounting for around 25% of overall spending (see Figure 3.7). Welfare (mainly youth services which will be decentralised in 2015, see above) is another major category of expenditure consuming about 19% of the overall budget. Recreation and nature (regional parks, protected areas) is the third largest budget item.

As a result of the on-going decentralisation reform and the shift of youth care services from the provinces to the municipalities, the share of the welfare expenditure of the provinces will likely drop significantly in the coming years, while that of the municipalities will likely rise.

Figure 3.6. Breakdown of municipal expenditure by economic function (2012, %)

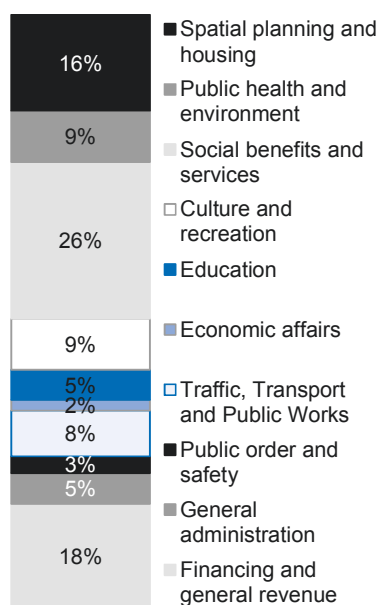
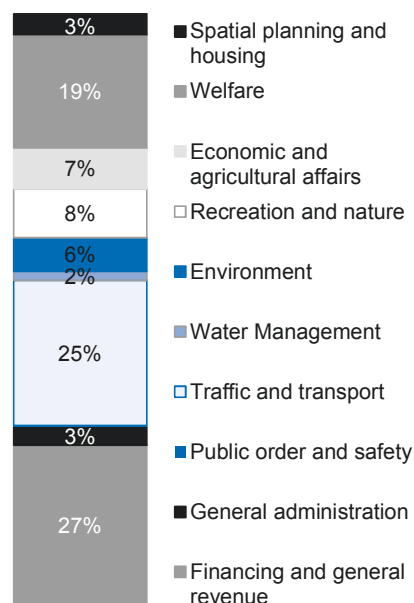


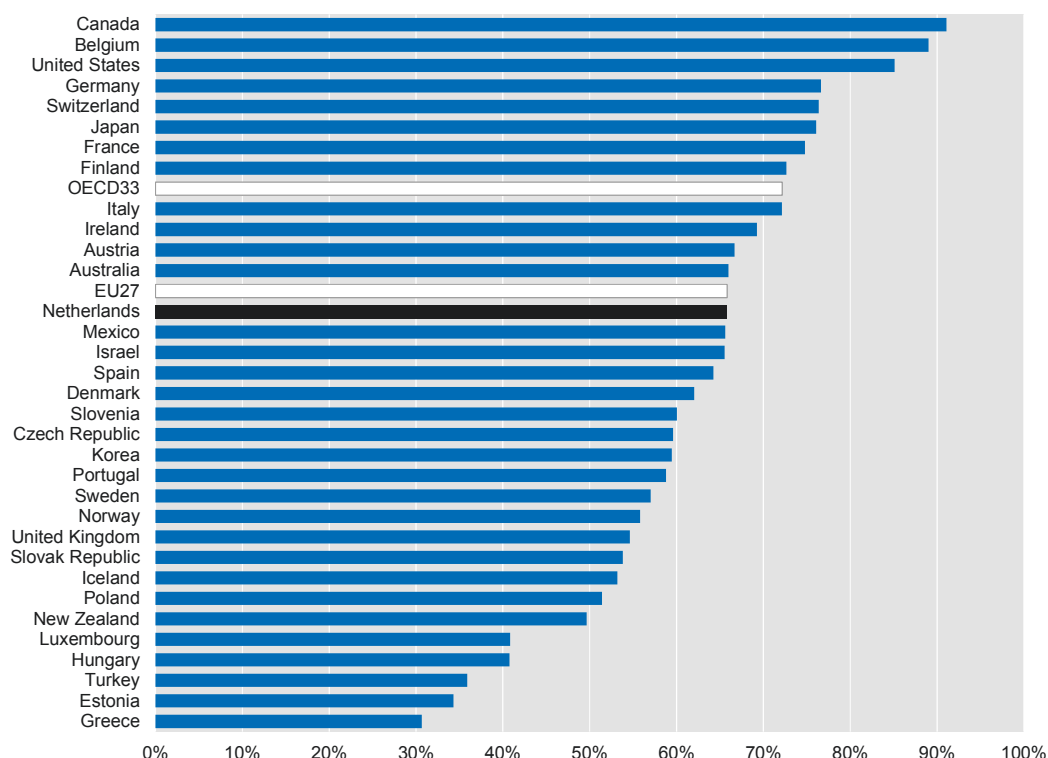
Figure 3.7. Breakdown of provincial expenditure by economic function (2012, %)



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

Dutch subnational governments play a key role in public investment: their direct capital expenditure represented 2.1% of GDP in 2012, above the OECD and EU27 averages of 1.9% and 1.5% respectively. In 2012, 65.8% of direct public investment in the Netherlands was carried out by subnational governments, which is lower than the OECD average of 72.2% but exactly the same as the EU27 average (Figure 3.8). The share of direct public investment as a percentage of total subnational government spending is 13.1%, higher than the OECD and EU averages of 11.2%.

Figure 3.8. Subnational direct public investment as a % of total direct public investment, 2012



Note: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), “Sub-national governments in OECD countries: Key data (brochure)”, OECD, Paris, www.oecd.org/regional/regional-policy.

Provinces have a major role as public investors: one-third of their expenditure is dedicated to investment (around EUR 2.8 billion in 2012). For the municipalities, 18% of expenditure was investment in 2012 (i.e. around EUR 10 billion).

On their own, however, spending levels may not reflect the degree of autonomy subnational governments have to make financial decisions if they do not capture their autonomy to manage those resources. This is particularly true for Netherlands: despite relatively high levels of subnational expenditure, an important share of expenditure is steered or dictated by central government. Although the Dutch subnational governments may have limited autonomy regarding the choice of how expenses are allocated in some areas and have less degree of decision-making power than expected, it is a widely accepted financial system between the layers of government, based on an overall understanding for equity requirements and social challenges.

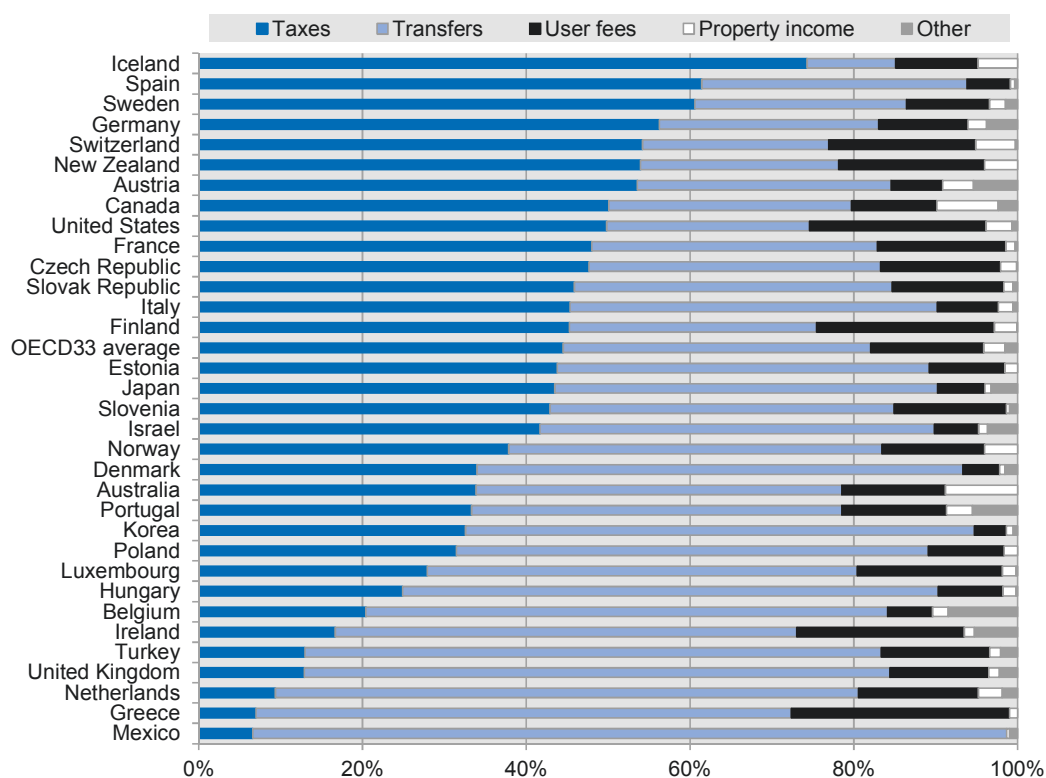
The Netherlands has one of the lowest levels of fiscal autonomy at the subnational level when compared with OECD and EU countries, especially at the municipal level; the regional water authorities have more autonomous revenues as they are most entirely funded by their own taxes and levies (see Box 3.2). More than 70% of Dutch subnational government revenue comes from transfers (grants and subsidies), 15% from tariffs and fees, 3% from assets (financial and non-financial) and only 9% from

taxes (shared and own-source taxes). This gives Dutch subnational governments the same financing profile as Greece, Ireland, Mexico, Turkey and the United Kingdom where subnational governments remain dependent upon central government transfers (see Figure 3.9).

The Law on Financial Relations (*Financiële Verhoudingswet*) from 1996 provides the basis for transfers of funding from the central government to the provinces and municipalities, which constitute a separate heading of the national budget. As in most OECD countries, transfers are redistributive, allowing for equalisation between municipalities. This is intended to enable all Dutch municipalities to deliver comparable standards of public services. Municipalities with high costs, e.g. because of expensive infrastructure or social deprivation, will obtain relatively more funding. Up to 60 factors determine the outcome, including demographics (e.g. number of inhabitants, proportions of young and elderly people, inhabitants belonging to ethnic minorities, and pupils), policy (e.g. number of applicants for social services), wealth (e.g. value of real estate, number of households with low income, differences in tax capacities) and physical factors (e.g. land area, water surface). Municipalities with relatively little opportunity to raise taxes will also obtain relatively more funding. As a result the big cities receive more funding per inhabitant to cater for their higher welfare spending needs (Bos, 2013). A similar equalisation scheme is applied when allocating funds between provinces. In 2012 a new distribution of the Provinces Fund was introduced, provinces with large benefits from the privatisation of energy companies getting a smaller share, partially balancing inequality.

In addition, in the case of Netherlands, earmarked grants – as opposed to general grants – remain important despite the reduction of their number and of the amounts involved, from 500 in the 1980s to 136 in 2006 and 37 in 2011 (Dexia-collective work, 2008; Allers, 2011) in the process of gradual fiscal decentralisation. Earmarked grants are allocated for specific tasks or projects and come with guidelines and stricter controls, reducing subnational governments' decision-making powers. These transfers fall within a number of policy areas, including social protection, public transport, water management, security and public safety, and art and recreation. In 2006, the biggest share of earmarked transfers (58%), in the Netherlands, went to finance social protection policies, followed by grants to education (13% of earmarked grants), and environmental protection (10%).

Figure 3.9. Categories of subnational government revenue, 2012

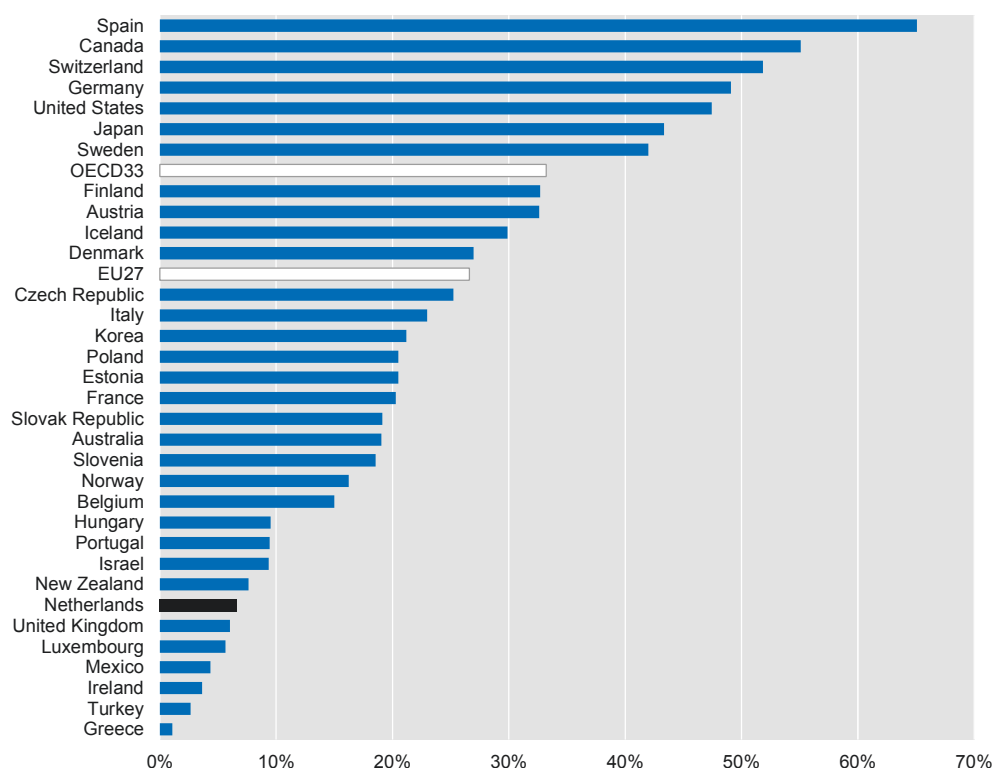


Notes: Tax revenues comprise both owned tax revenue and shared tax revenue. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), "Sub-national governments in OECD countries: Key data (brochure)", OECD, Paris, www.oecd.org/regional/regional-policy.

Netherlands scores very low in terms of the share of subnational tax revenues of total public tax revenue. At 6.6% in 2012, it is one of the lowest in the OECD, well below the OECD average of 33.2% in 2012 (Figure 3.10).

Figure 3.10. Subnational tax revenue as a % of public tax revenue, 2012

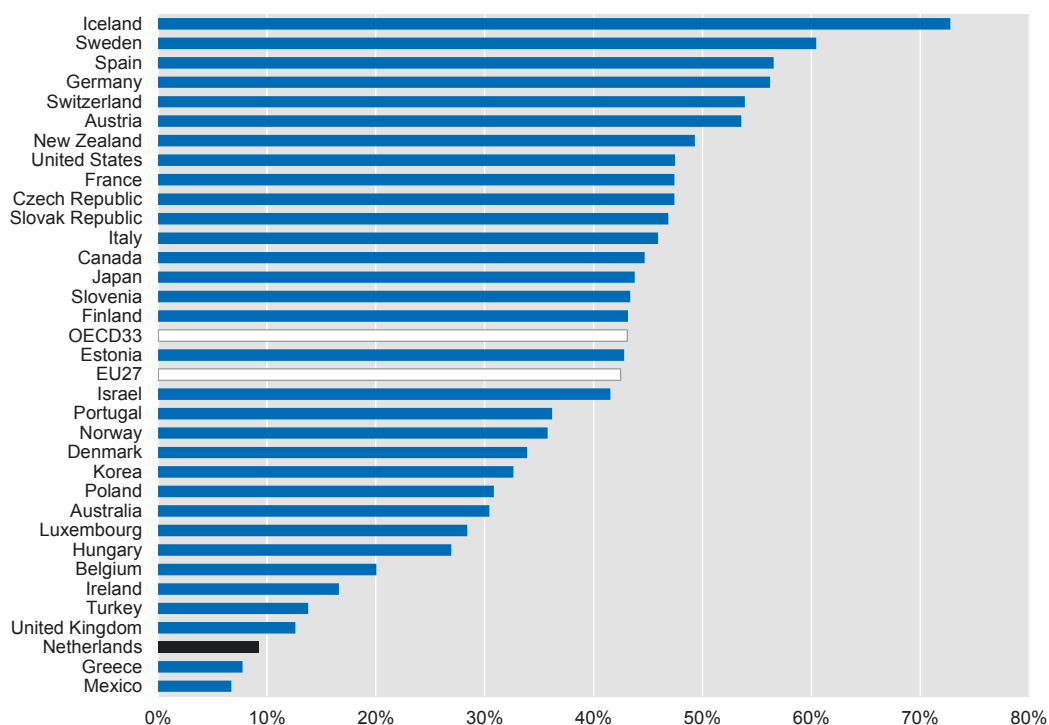


Notes: Tax revenues comprise both owned tax revenue and shared tax revenue. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), “Sub-national governments in OECD countries: Key data (brochure)”, OECD, Paris, www.oecd.org/regional/regional-policy.

There is a strong asymmetry between the level of expenditure and the level of resources which are not derived from central government transfers (tax, tariffs and assets), and in particular between expenditure and tax revenue. Only 9% of subnational expenditure is financed by tax revenue in the Netherlands, compared with 42%-43% for the OECD and EU27 areas. The Netherlands has the third highest such fiscal imbalance in 2012 among OECD countries (Figure 3.11).

Figure 3.11. **Fiscal imbalance among OECD countries at the subnational level**
(subnational tax revenue as a % of subnational government revenue, 2012)

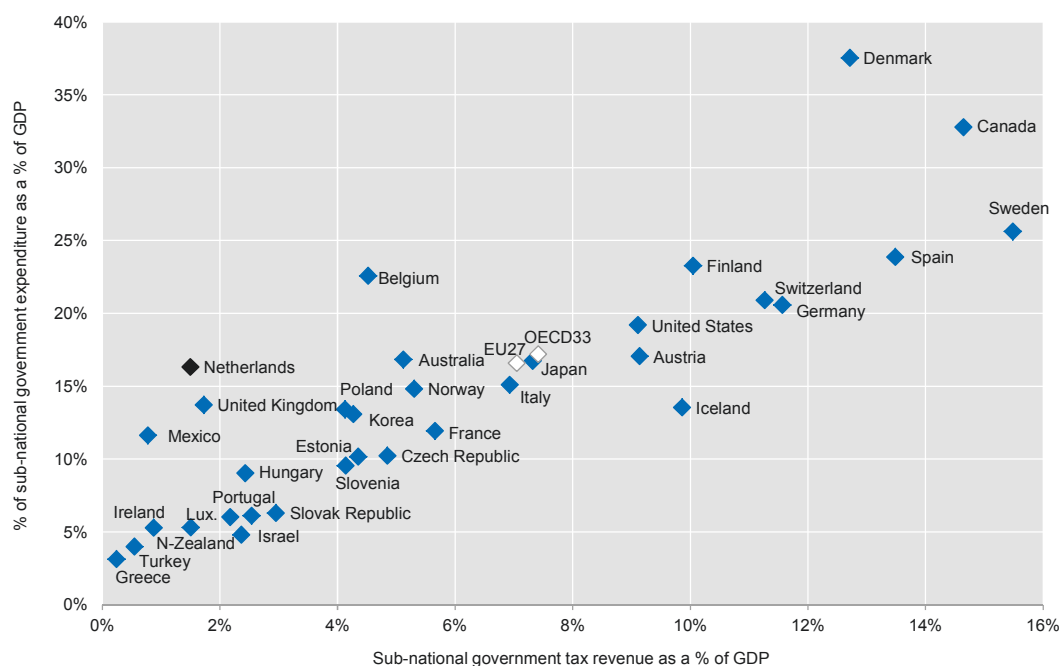


Notes: Tax revenues comprise both owned tax revenue and shared tax revenue. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), “Sub-national governments in OECD countries: Key data (brochure)”, OECD, Paris, www.oecd.org/regional/regional-policy.

Similarly, subnational government tax revenue represented 1.5% of GDP in the Netherlands in 2012 while subnational expenditure amounted to 16.3% of GDP (Figure 3.12).

Figure 3.12. Subnational government expenditure and tax revenue as a % of GDP, 2012



Notes: Tax revenues comprise both owned tax revenue and shared tax revenue. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), "Sub-national governments in OECD countries: Key data (brochure)", OECD, Paris, www.oecd.org/regional/regional-policy.

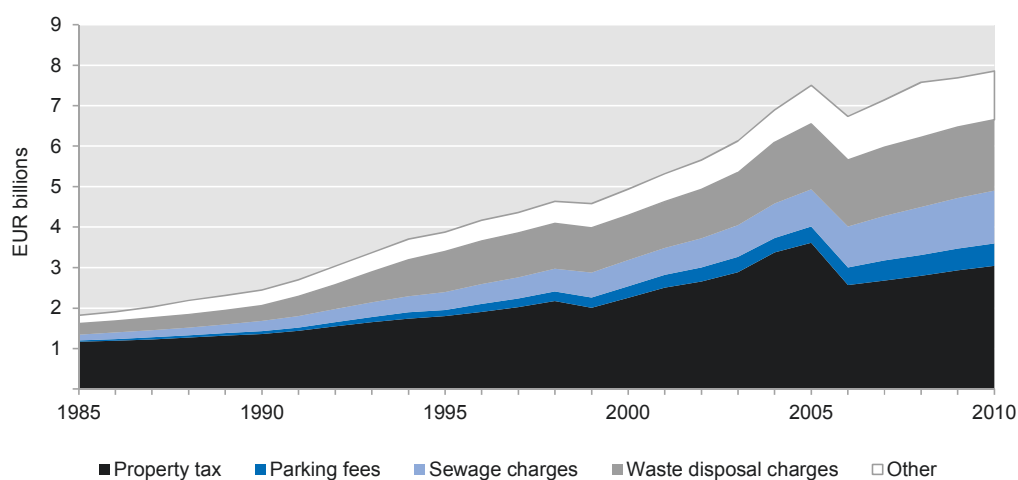
Provinces have more autonomous resources than the municipalities

Municipalities' revenue comes mainly from transfers from central government. In 2011, grants represented 54% of municipal revenue (Allers, 2013; Figure 3.14), broken down into specific grants (18% of revenue) and general grants (36% in 2011), in particular from the Municipalities Fund (*Gemeentefonds*). This represents a dramatic fall in the proportion of specific, earmarked grants: in 1990 they represented 61% of municipal revenue in 1990 while the share of general grants was just 27%. With the trend of decentralisation to municipalities during the 1990s, a greater share of transfers was offered in the form of general grants, giving the municipalities a freedom to decide on the allocation of the resources. The size of the Municipalities Fund is indexed to the trend rate of central government expenditure. It is an equalising grant redistributed among municipalities according to about 60 criteria, an allocation system considered to be one of the most complicated in the world but reflecting the Dutch attachment to equity (Allers, 2013). The objective of the equalisation system is to enable municipalities to provide an equal level of services to the population everywhere on the Dutch territory while maintaining a reasonable tax burden and equivalent tax rates.

The second source of municipal revenue is "other income" (31% in 2011), i.e. income from property and market activities. The share of municipal levies and taxes has risen from 5% in 1985 to 15% in 2011, showing that gradual decentralisation of revenues has allowed municipalities to generate modest autonomous revenues (see Figure 3.13). In 2011, user charges represented around 7.5% of municipal revenue (coming mainly from sewerage, waste disposal and building permits) and local taxes (property tax, parking fees, tourist tax, dog tax,

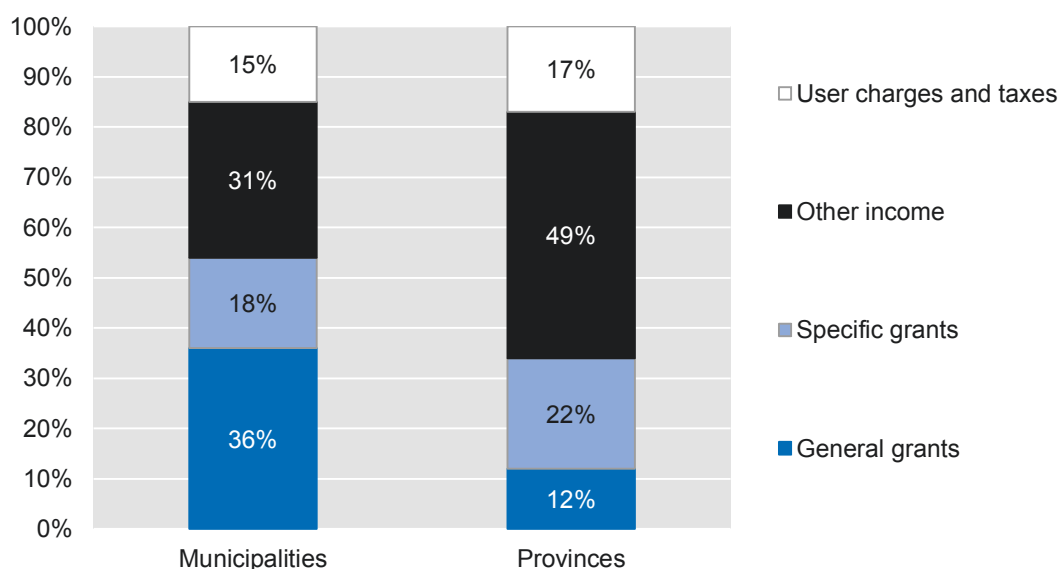
sufferance tax, a tax paid for the use of municipal land, etc.), around 7.5%. Property tax (OZB), paid by owners and users on residential and non-residential properties,⁵ is the main municipal tax, providing 77% of tax revenue and 39% of the combined user charges and tax revenue.

Figure 3.13. **Changes in municipal levies and fees between 1995 and 2010**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

Figure 3.14. **Revenue of municipalities and provinces by category**



Source: Calculated based on data in Allers (2013), “Decentralization with national standards. The case of the Netherlands”, in J. Kim, J. Lotz and N. Jørgen Mau (eds.), *Balance Between Decentralisation and Merit: The Copenhagen Workshop 2011*, The Korea Institute of Public Finance and the Danish Ministry for Economic Affairs and the Interior, pp. 119-130, (municipalities, data as of 2011); Staat van Bestuur (2012), Ministry of the Interior and Kingdom Relations, (provinces, data as of 2012).

For the provinces, transfers from the central government represented 34% of provincial revenue in 2012 (Figure 3.14): 12% from the general grant i.e. the Provinces Fund (*Provinciefonds*) and 22% from specific grants for tasks they carry out under the Dutch principle of “co-government” or *medebewind* (Staat van Bestuur, 2012). As with the Municipalities Fund, the size of the Provinces Fund is indexed to the trend rate of central government expenditure. It is redistributed among the provinces on the basis of an equalisation system, using geographic and demographic criteria (land and water areas, population density, etc.). Taxation and user charges represent 17% of provincial revenue coming mainly from a surcharge on the motor vehicle tax, and groundwater and environmental fees. The surcharge on the motor vehicle tax represents 98% of provincial tax and fees revenue. However, the main source of revenue is “other income” (49%), mainly dividends from utility companies, in particular energy companies. The introduction of tradable emission rights for carbon dioxide (CO₂) resulted in high profits for power companies which are redistributed as dividends to provinces. However, as shareholdings vary a lot between provinces, this source of revenue varies also greatly between the provinces. These own resources have increased sharply in recent years.

Despite this growing degree of fiscal autonomy for municipalities and provinces (more autonomous revenues, less earmarked grants and fewer constraints to use them), they remain constrained. Municipalities have little leeway over user charges (e.g. sewerage and waste disposal), as user charges cannot exceed budgeted costs. Moreover, they have a limited ability to levy taxes. The taxes subnational governments can levy are restricted to those listed in the Provinces Act and the Municipalities Act. They have the power to set their rates but only within limits are established by the central government. For example, the government imposes a “macro-norm” limit on property tax. In 2013, all municipalities together were allowed to increase their income from property tax by 2.76% in 2013 and 2.45% in 2014. The provincial surtax on motor-vehicle is also capped and the maximum rate is set by central government and adjusted annually in accordance with changes in national income. Moreover, central government can decide exemptions which affect subnational taxes (for example, until 2013, clean and low-energy cars were exempt from motor vehicle tax). In addition, although municipalities are free, in theory, to choose local service levels and associated tax rates, deviation from the norm (i.e. the level of taxation of neighbouring municipalities) is under scrutiny by the population and pressure groups and only tolerated to a limited extent. Benchmarking of municipal taxation and services levels have resulted in a “harmonisation” of municipal tax rates, with municipalities tending to imitate each other (Allers and Elhorst, 2011).

In summary, despite the progress of decentralisation, provinces and municipalities rely significantly on national transfers. Tax policy remains in the control of central government. Their low level of own resources and the amount of functions they need to perform, produces a strong fiscal imbalance. Only a small part of expenditure is financed with own taxes. This limits the ability of subnational governments to react to economic shocks and other unexpected events. In practice however, recent history has shown the capacity of subnational governments to adapt to changing circumstances. Moreover, as a last resort, municipalities facing financial distress can use, when certain conditions are met, the instrument of “Artikel 12”, which provides extra funding from the Municipalities Fund.

Despite their dependence on transfers, the wealth of provinces varies considerable and in turn their ability to finance projects. Therefore the tight fiscal budget brought by the global financial crisis might have asymmetric effects in the capacity of provinces to perform their tasks, including the newly decentralised ones.

The importance of vertical and horizontal links in the Netherlands

The Dutch multi-level governance system draws its strength from the predominant political culture emphasising collaboration and consensus, the so-called “polder-model”, as well as well-developed vertical and horizontal links.

A consensus culture: the polder-model

The politically, economically and socially rooted Dutch consensus culture has been defining characteristics of the Dutch political system for centuries. It involves political decisions being taken through deliberation and bargaining between a wide range of stakeholders. While this characteristic of the political culture may result in lengthy decision-making, it allows for fair and widely accepted policy solutions to be found that enjoy broad support and respect interests of the various groups. The consensus culture is reflected in the high level of trust (reciprocal trust) that characterises the Dutch society with respect to other countries (see Chapter 1). The level of trust is an index of a high social capital which helps reduce transaction costs.

The Dutch polder-model remains the backbone of the system of multi-level governance in the Netherlands which relies on close collaboration between actors operating at different levels and within different sectors. The Dutch collaborative culture enables building trust and social capital between the various actors, vital ingredients for effective delivery of policies in a multi-level context requiring close collaboration across the levels of government and with a variety of stakeholders.

The Dutch multi-level governance system is characterised by a myriad of vertical and horizontal co-operation arrangements, reflecting this collaborative culture as well as a flexible and pragmatic approach to seeking joint responses to policy problems crossing administrative boundaries. Co-ordination is key, especially when policies overlap or have strong potential for complementarity, which is often the case in the Netherlands, for example for territorial and urban planning.

In this context, vertical co-operation among the various tiers of government, and horizontal co-operation across departments can avoid overlapping policies, internalise spill-overs, and generally play a crucial role in effective multi-level government for promoting economic and social development (OECD, 2009a). This section examines the co-operation opportunities and challenges in the Dutch set-up.

Vertical co-ordination

In the Netherlands, vertical co-ordination refers to the interactions among municipal, provincial, national, and supra-national governments (e.g. the EU). Vertical co-ordination is mainly ensured by the provinces, which play a co-ordinating role for municipalities in a range of policies including spatial planning, within the general guidelines of the central government. Although there are many channels through which institutions co-operate, the role of provinces is to provide coherence and to align national objectives with local and regional ones.

On the country level, the government associations of the provinces, municipalities and regional water authorities (see Box 3.4) represent those levels in negotiations with the central government. One of the main acts of these associations is to negotiate a political agreement with the cabinet, called the “*Bestuursakkoord*”. This agreement serves as a joint work programme. This novel arrangement gives municipalities, provinces and regional water authorities a say in the broad lines of programmes and plans that directly affect them.

Box 3.4. Subnational government associations: The interface between central and subnational government

Established in 1912 by 28 Dutch cities, the Association of Dutch Municipalities (VNG) has brought together all the Dutch municipalities since the 1950s. Its purpose is to represent the collective voice of the municipalities to central government and other institutions. The VNG puts an emphasis on mutual learning and exchange of experiences among the municipalities. Its highest decision-making body is the General Assembly, which gathers more than 3 000 representatives of municipalities at annual sessions. The VNG’s daily business is run by the board, which includes 11 representatives of local officials: mayors, aldermen, councillors, and administrative personnel. Specific matters are tackled by specialised standing policy committees. The VNG has also set up Provincial Departments in each of the Dutch provinces with the aim of bringing municipalities’ interests to the provincial level, negotiating with provincial authorities and sharing information on issues arising in the provinces. In addition, the VNG represents the Dutch municipalities in supranational bodies, such as the EU Committee of the Regions and the Council of European Municipalities and Regions (CEMR).

The Association of Provinces of the Netherlands (IPO) plays a similar role to the VNG, although it caters to the needs of the provinces. Its main mission is to represent the interests of the provinces in national and EU policy processes. Like the VNG, the IPO also serves as a platform for exchange of information and best practice among the provinces.

The Association of Dutch Water Authorities (UvW) is the umbrella organisation of 23 regional water authorities in the Netherlands. The Association promotes the interests of its members both at a national and at an international level. A majority of the policies with an impact on the core functions of the regional water authorities is made by the EU, which is why an effective promotion of interests in Europe is of the utmost importance. Apart from the promotion of interests, the Association advises the member regional water authorities, draws up guidelines and model regulations and model plans and supports them with the implementation of European regulations. The Association participates in water management research and supports international projects set up by its members. Finally, as an employers’ organisation the Association conducts negotiations with the central organisation of civil servants about binding terms of employment for regional water authority personnel.

For some specific functions, the central government can implement specific vertical co-ordination instruments. For example, the Ministry for Economic Affairs has appointed five “regional ambassadors” to deal with economic development as well as agriculture and nature issues in the provinces. They form an informal link between the minister and the regional and local authorities, businesses and civil society organisations.

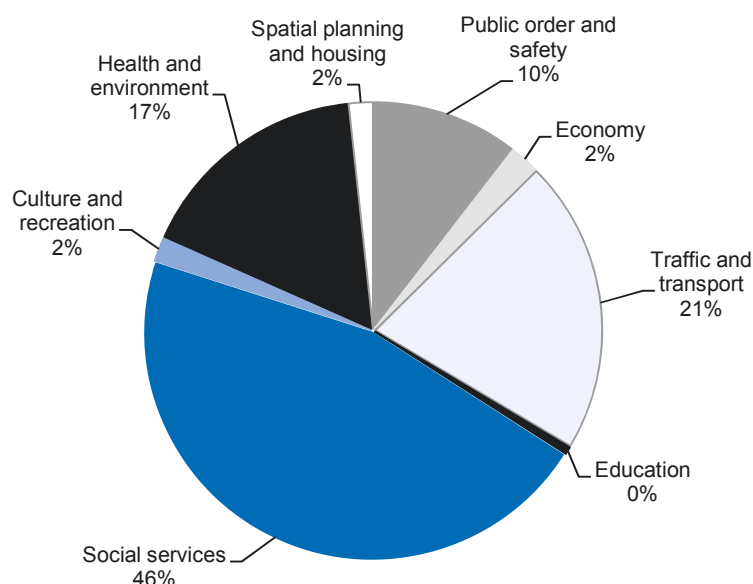
Horizontal co-ordination: a myriad of co-operation platforms and networks

Schemes promoting voluntary inter-municipal co-operation in the Netherlands were initiated as early as 1930. In 1950 the scope for this activity was broadened by the Joint Provisions Act. As a result, special-purpose inter-municipal arrangements boomed across the country (Hulst, 2005), to such an extent that the need for better regulation for these structures rapidly arose. In fact, the large number of inter-municipal structures with different functions and covering diverse territories, led to the administrative organisation becoming highly fragmented. Moreover, the decision-making lacked transparency and accountability, offering the elected municipal authorities a possibility to escape direct political control through these entities.

The 1985 Joint Regulations Act substantially amended the 1950 regime by strengthening the democratic legitimacy and transparency of decision-making and rationalising the inter-municipal co-operation landscape (Hulst and van Montfort, 2007). The Act required the provinces to divide their territory into functionally coherent regions and forced municipalities to integrate their co-operative arrangements into integrated multi-purpose joint authorities governed by the municipal councils of the member municipalities (an obligation then formally abolished in 2005). This reform overcame inter-municipal fragmentation: the number of single-purpose arrangements dropped from 1 500 to 659 between 1985 and 1990, with the bulk of the other arrangements being integrated in 95 multi-purpose joint authorities (Pröpper et al., 2005). Inter-municipal co-operation is more generally a voluntary matter although in some cases some co-operation is mandatory, in particular for vital public services such as fire brigades and ambulance transport. The most common areas of co-operation under the Joint Provisions Act are fire-fighting, disaster contingency plans, waste disposal, the provision of ambulance services and social services (Council of Europe, 2008).

Today, there are around 700 inter-municipal arrangements under public law. The key driver for inter-municipal co-operation is now the increasing transfer of tasks from central government to local authorities, in particular in the employment and social sector. In fact, inter-municipal co-operation gained impetus in 2004 with the new Work and Social Security Act which decentralised a number of tasks to local government, in particular employment services. To comply with these new responsibilities and manage the associated finance, many municipalities decided to join forces by creating new co-operation structures. For example, there are 31 inter-municipal social services (*Intergemeentelijke sociale diensten – ISD*) combining 107 municipalities. However, the growth in inter-municipal expenditure is not limited to these two aspects. The introduction of shared service centres has also led to an increase in shared spending on public service desks and in education and culture (Sociaal en Cultureel Planbureau, 2012). Figure 3.15 shows that in 2011, social services expenditure was the main item of these joint arrangements, representing 46% of expenditure (with employment services accounting for 70% of social expenditures) followed by traffic, transport and water (mainly public transport); health (public health, ambulance, youth and family centres); and environment (waste, environmental protection).

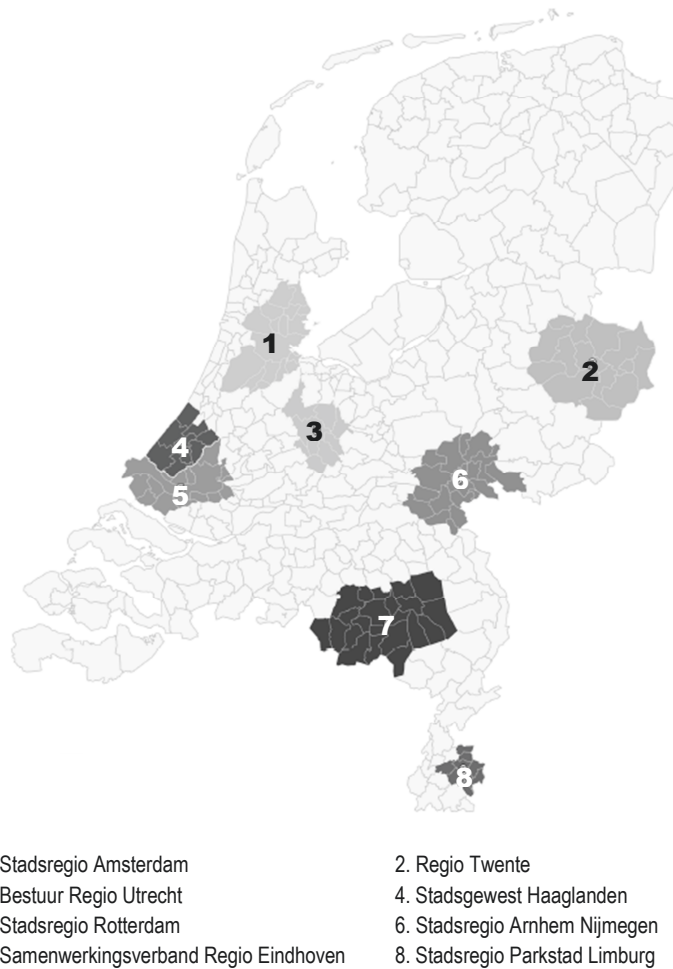
Figure 3.15. Breakdown of joint arrangements expenditure by economic functions, 2011



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

One particular feature of inter-municipal co-operation is the city-regions which were created in 1995, and more formally in 2005 thanks to the WGR+ Act (see above). Deadlocks in negotiations on investment in commercial or residential centres and transport infrastructure had been particularly difficult to overcome in large metropolitan areas such as Amsterdam, Rotterdam or The Hague. In the 1990s, in response to the shortcomings of voluntary co-operation among municipalities in large urban areas due to the reluctance of the municipalities to give up their autonomy and divergent interests (Hulst, 2005), the Dutch government embarked on a reform aimed at creating more effective mandatory co-operation structures in the wider urban areas surrounding cities. The municipalities in metropolitan areas were invited to form special inter-municipal entities with competences in regional planning and co-ordination powers in the areas of social housing, infrastructure, transport and urban development policy. These new entities were also granted additional financial resources for projects in various fields of activity. What differentiated them from the pre-existing inter-municipal corporations was that once the municipalities agree to join the corporation, their co-operation is mandatory and regulated by law. As will be discussed later, however, a reform is under way which will eliminate the eight existing inter-municipal co-operation after 1 January 2015.

Figure 3.16. The eight city-regions in the Netherlands

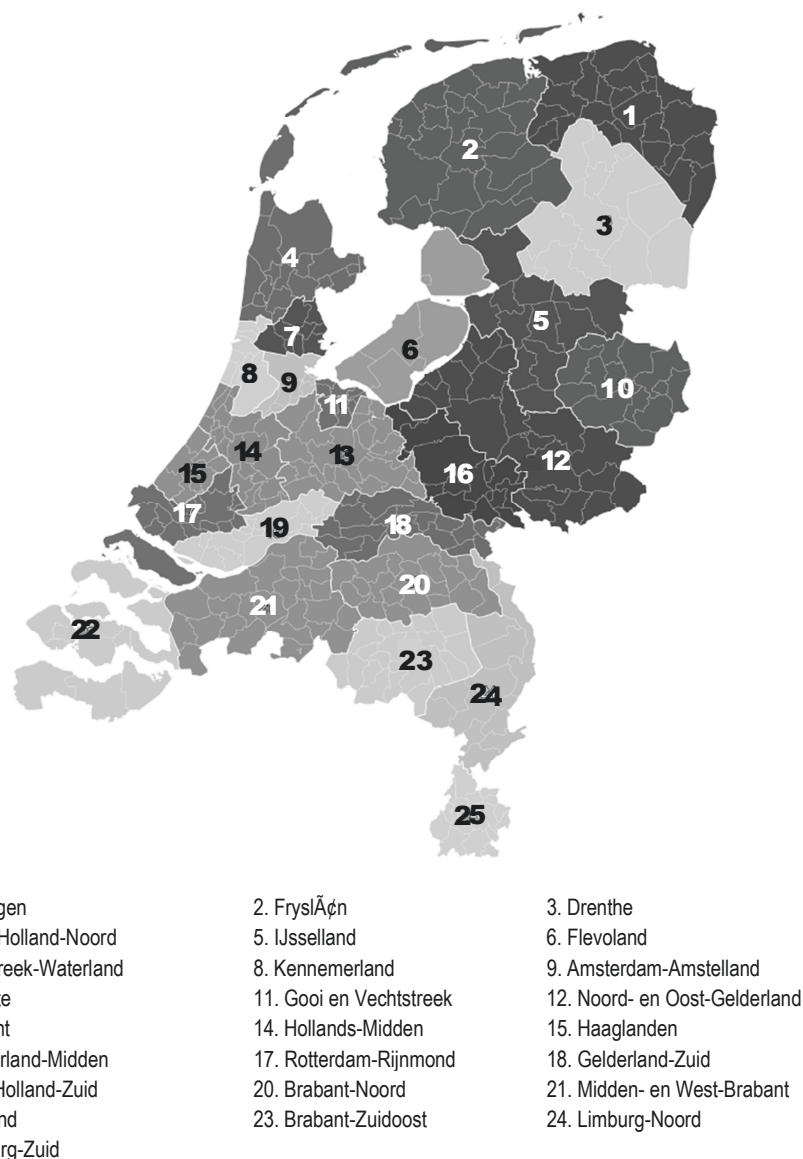


Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

Source: Ministry of the Interior and Kingdom Relations, generated by RegioAtlas, www.regioatlas.nl (accessed on 23 February 2014).

In addition to these inter-municipal arrangements, there are several functional areas that provide co-ordination in specific policy areas. For instance, there are 25 safety regions for dealing with issues such as fire fighting, disaster management and public order (see Figure 3.17), organised and financed by the municipalities (Bos, 2013). These entities rely on co-operation between the municipalities and the specialised central government's services, for example fire brigades or health care units. Four of the eight city-regions have the same boundaries as their safety regions. There are also police regions, with territorial boundaries which are similar to those of the safety regions. However, unlike the safety regions, they are financed and supervised by the central government. Lastly, there are 27 functional regions to co-ordinate preventive healthcare delivered by municipalities.

Figure 3.17. The 25 safety regions in the Netherlands



Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

Source: Ministry of the Interior and Kingdom Relations, generated by RegioAtlas, www.regioatlas.nl (accessed on 23 February 2014).

There are also well-established formal forms of horizontal co-operation among provinces. For instance, Gelderland has been involved in co-operation with Noord-Brabant to support the life sciences cluster. In other cases, provinces can share a Regional Development Agency (ROM) or co-operate on the implementation of the EU Structural Funds and formulation of a joint Smart Specialisation Strategy for Southern Netherlands. Another example is the horizontal collaboration platform of the Northern Netherlands Provinces Alliance. It brings together the provinces of Friesland, Groningen and Drenthe, with the aim of formulating a

joint economic policy and common positions for the purpose of lobbying in The Hague and in Brussels. This alliance also includes several municipalities.

The Dutch multi-level governance structure also involves associations bringing together representatives of municipalities and provinces, providing a less formal platform for co-ordination. Entities such as the Metropolitan Region Rotterdam-The Hague or the Amsterdam Metropolitan Area play an important role in facilitating horizontal co-operation and establishing joint strategies and policy initiatives for metropolitan areas. The municipalities also collaborate on a regular basis with the provinces on economic development strategies through other channels, as illustrated by the case of the collaboration between Limburg Province and Venlo and other municipalities on the Greenport cluster, or issues such as spatial planning to ensure co-ordination between planning policies.

Informal channels of co-operation provide flexibility. In the Randstad, for instance, municipalities are engaged in forms of co-operation at several levels: i) the city-region level; ii) the so-called wing-level (the north and south ‘wing’ of the Randstad); and iii) the Randstad as a whole (OECD, 2007), which represents the joint interests of the Dutch provinces Noord-Holland, Zuid-Holland, Utrecht, and Flevoland in Brussels in order to influence European Union policy, establish co-operation with other European regions and secure European subsidies.⁶ In practice, however, the boundaries between those formalised arrangements can be transgressed to address a specific policy issue in a more effective way. For example, in some cases, collaboration between municipalities goes beyond the city-region. An example is the on-going collaboration between the municipality of Wageningen and the city-region Arnhem Nijmegen. Nonetheless, given the reluctance of the provinces to use their powers to enforce co-operation within those formalised units, their effectiveness depends mostly on the willingness of the municipalities to compromise and work together. In some cases, tensions and conflicts of interests were reported, making it difficult to develop common regional strategies (OECD, 2007).

Finally, provinces and municipalities also have effective cross-border forms of collaboration with German and Flemish subnational governments. The southern provinces of Noord-Brabant and Limburg have an extensive track record of working together with partners in Belgium (Flanders) and Germany in the field of innovation in the high-tech sectors (see Nauwelaers et al., 2013). One of the flagship cross-border projects in the south of the Netherlands is the Top-Technology-Cluster, bringing Dutch, Belgian and German territorial authorities, knowledge providers and businesses to provide a platform for cross-border business collaboration, particularly among small and medium-sized enterprises (SMEs).⁷ Northern provinces are also actively engaged in forms of cross-border collaboration such as in Groningen with its German partners in the energy sector. The city-region of Parkstad Limburg is working with its German partners, in particular Städteregion Aachen, to develop a common strategy for economic development and international positioning of the entire cross-border region. This co-operation could be formalised in a European Grouping of Territorial Co-operation (EGTS).

In short, the Dutch territorial administration is quite flexible, comprising of a number of formal and informal co-operation structures. This rich network represents an asset for implementing the local government reform, but requires efforts to align and co-ordinate the complex interactions.

On-going decentralisation reform in the Netherlands

The Dutch government is in the process of implementing a comprehensive subnational government reform. It has two components which are closely interconnected: the first one is

an institutional reform (decentralisation, i.e. re-allocation of competences between levels of government and reinforcement of subnational responsibilities) and the second one is a territorial reorganisation (re-scaling of provinces and municipalities). The territorial reform is partly driven by the decentralisation reform, as the increasing amount of functions delegated to subnational tiers of government increase the pressure for increasing the scale of both provinces and municipalities.

The decentralisation process is not new in the Netherlands. It has been a continuous trend for several years, based on the idea of better governance and that the allocation of tasks and functions to the right levels of government is crucial for the efficient use of resources and the creation of an environment conducive to social and economic development. Therefore, since the 1950s government functions and services have gradually been decentralised in the Netherlands. However, the decentralisation process has accelerated recently. Since the 2007-10 Coalition Agreement and the 2010 Coalition Agreement (VVD, CDA), several tasks and powers have been decentralised to provinces and municipalities and greater autonomy has been given. In 2012, a new impetus was given to this process by the new Coalition Agreement (VVD, PvdA) “Building the bridges”. Decentralisation is now particularly high on the Dutch agenda.

The first two parts of this section analyse the drivers of the current decentralising reform: i) the search for better governance and service delivery by bringing power closer to the citizens and increasing efficiency; and ii) the effects of the global crisis and the resulting fiscal pressures. The push towards a more efficient use of resources is also driven by fiscal consolidation measures, after the global financial crisis severely hit the Dutch economy. It requires the government to provide services in a more efficient way in order to meet the stricter budget constraint, in particular the 3% ratio between budget deficit and GDP, required by the Eurozone Growth and Stability Pact. The third part will describe the main features of the decentralisation reform as it is envisaged today, i.e. clarifying the multi-level governance structure by assigning the provincial level a role of steering regional economic development, and the municipal level a role of provider of local public goods, including social and welfare services.

Box 3.5. What is decentralisation?

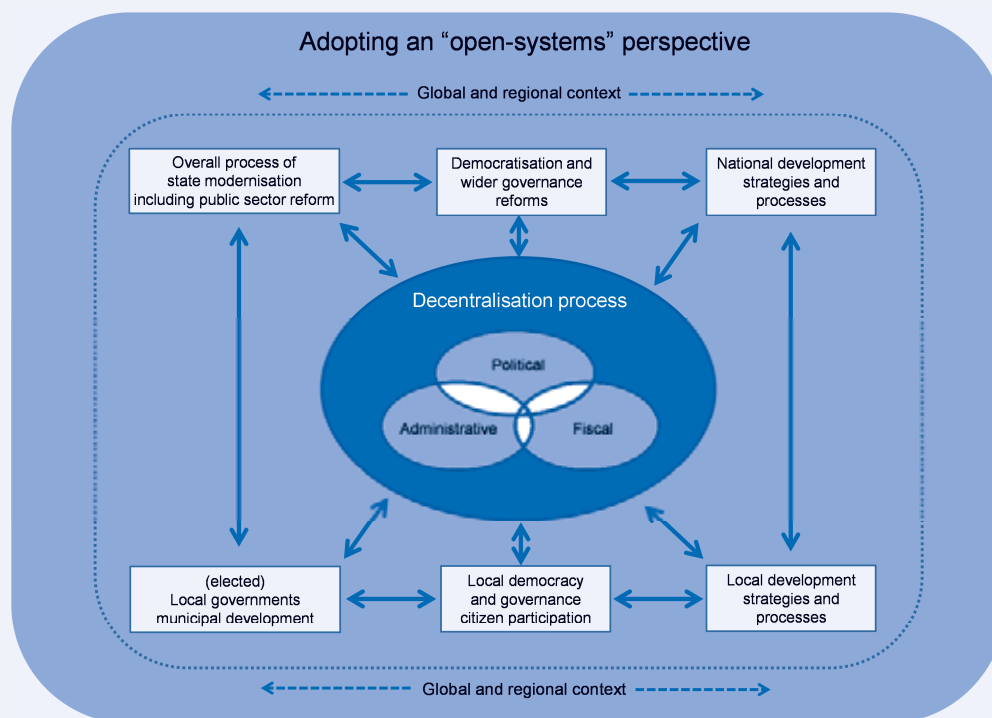
Decentralisation is a process which consists of transferring a range of powers, competences and resources from central government to elected subnational governments. The term “decentralisation” generally includes three aspects which are interconnected: political, administrative and fiscal:

Political decentralisation involves a new distribution of powers according to the subsidiarity principle, with the objective of strengthening democratic legitimacy.

Administrative decentralisation involves a reorganisation and clear assignment of tasks and functions between territorial levels to improve the effectiveness, efficiency and transparency of the administration over all national territory.

Fiscal decentralisation involves delegating taxing and spending responsibility to subnational tiers of government. In this case, the degree of decentralisation depends on both the amount of resources delegated and the autonomy in managing such resources. For instance, autonomy is greater if the local government can decide the tax base, the tax rate and the allocation of spending.

Box 3.5. What is decentralisation? (cont.)



Source: European Commission, EuropeAid (2007), “Supporting decentralisation, and local governance in third countries”, *Tools and Methods Series*.

An “open-systems” perspective should be adopted when designing, implementing and assessing decentralisation processes. It means that the linkages between these three core dimensions (political, administrative and fiscal) should be considered to ensure effective decentralisation. All three dimensions are complementary and interdependent. Therefore, the outcomes of decentralisation reform depend on how the different elements of the reform are connected. Two major challenges arise: i) finding the right balance between the three dimensions; and ii) finding the right sequencing, i.e. deciding when to deal with each dimension on the course of a long-term decentralisation process.

The last decade has seen a strong move towards the decentralisation of fiscal and administrative powers to subnational governments across a wide range of countries. The main goal of many of these reforms was increased efficiency in service provision and a better use of public resources. At the core of this approach is the idea that local government can better satisfy certain needs of the population than the central administration. In reality (and in theory), things are more complex, and there is no universal consensus on the optimal structure of multi-level governance. More or less identical decentralisation reforms may – and sometimes do – have very different impacts in different countries.

Source: EuropeAid (2008), *European Charter on Development Co-operation in Support of Local Governance*, European Commission, Brussels.

Decentralisation as the foundation of better governance and service delivery

Decentralisation is put forward in a range of countries across the world, as well as in the Netherlands, as a means to reach goals such as efficient public service delivery, better quality of government, improved local democracy and greater accountability.

Indeed, decentralisation has the potential to offer many advantages. One of the main arguments used to support decentralisation reforms is that devolving competences in public policies to the authorities governing smaller jurisdictions ensures that resources are used in a more efficient way because the policies, services and investment can be tailored to the local context. Such customisation, in turn, allows actual local needs to be addressed in a targeted way, thus ensuring better results on the ground. For instance, it can allow for a more effective provision of public services in remote areas, the interests of which could be neglected in a centralised system. There are also economic theoretical arguments in favour of decentralisation, for example the fact that decentralisation creates scope for more efficient and effective public services delivery by stimulating competition between the subnational authorities, which in turn favour innovations (see Box 3.6).

In the case of the Netherlands, since the Dutch welfare state is under increasing pressure, subnational governments are expected to perform more tasks but with fewer resources, which will require a reorganisation of the way in which they deliver public services. Thus, the Dutch reform is not only about decentralisation but also transformation of the public tasks.

Decentralisation is also often associated with such benefits as advancement of democracy, by establishing additional checks and balances for the central government's power and by encouraging local citizen participation. In addition, decentralisation can ensure better responsiveness to citizens' needs, by moving the decision-making process closer to them. Last but not least, decentralisation is also widely seen as a means to ensure greater political accountability and transparency.

While decentralisation may offer many opportunities for countries over the world, it also entails risks (see Box 3.6). Decentralisation is not a panacea for any type of problem, while it does not always deliver on the promise of better expected efficiency and administrative and political gains. Under some circumstances, decentralisation may produce perverse effects (Prud'homme, 1995; Charbit and Michalun, 2009). As a result, to counteract these risks and make the most of the decentralisation process, countries have to face the implementation challenges.

Box 3.6. Decentralisation: Opportunities and risks

Decentralisation is first and foremost a political issue. It has its fervent supporters but also its detractors, each demonstrating pros and cons against decentralisation. It seems that an in-depth reflection on the rationale and effects of decentralisation is needed as well as a pragmatic approach. Decentralisation offers many opportunities but also entails risks. In fact, they tend to be two faces of the same coin as they mirror each other. Therefore, it seems necessary to accept and anticipate the risks and opportunities when engaging in such a process while taking on board lessons from the experience of other OECD countries.

How to capture decentralisation opportunities while avoiding risks? The outcomes of a decentralisation reform will depend to a large extent on the national historical, cultural and political contexts as well as on the ways in which it is designed, implemented, carefully planned and evaluated as well as adjusted. In fact, decentralisation is also a learning process and is not set in stone once and for all. Permanent adjustments are necessary to correct potential deviations.

Box 3.6. Decentralisation: opportunities and risks (cont.)

Opportunities	Risks
Efficiency: public policies and services delivery	
<p>More place-based policies and better service delivery:</p> <ul style="list-style-type: none"> – Better match local needs and preference. – More flexibility and reactivity. – Stimulation of competition which in turn favour innovation, search for performance. – Room for experimentation. – Lower costs. – Mobilisation of the comparative advantages of local enterprises and the local non-profit sector. – Mobilisation of local resources (in case of tax decentralisation and local user charges and fees). 	<p>Deterioration of service delivery:</p> <ul style="list-style-type: none"> – Diseconomies of scale (especially if local government are small), which may also affect service quality. – Inefficient scale of production for some services with high fixed costs (such as network services) which need a scale of production large enough to be economical. – Duplication and overlapping of competences and services. – Lack of human and technical capacities and financial resources of subnational governments (own and transferred) to take on mandates, resulting in bad service delivery. – External effects: citizens and businesses may shop around to neighbouring jurisdictions to get better services at no costs to them. – Inequity in accessing services and local differences in levels of services (scope and quality). – Increased competition between subnational governments, in particular tax competition, having negative effects.
Representation: political governance	
<p>Democratic governance:</p> <ul style="list-style-type: none"> – Integrating needs and interests of the citizens, civil society organisations and local enterprises. – Opportunities for more participation, involvement and debate with the people and local actors as well as negotiation capacity and conflict settlement. – Granting a certain autonomy and political integration to minorities. – Accountability and transparency. 	<p>Local politics and “bad local governance”:</p> <ul style="list-style-type: none"> – Elite and local interest groups capturing the process. – Insufficient transparency and accountability mechanisms. – Insufficient participation and involvement of citizens and local actors’ (through elections or other schemes). – Corruption.
National unity	
<p>National integration:</p> <ul style="list-style-type: none"> – Can reach a more equal distribution of national resources. – Dispersion of political power in a vertical way. – Common decision or planning bodies or the common execution of tasks. – National diversity can thus be realised in national unity. 	<p>Local tensions - moves for separation:</p> <ul style="list-style-type: none"> – Increased disparities between jurisdictions and less solidarity between regions and communities. – Lack of support and effective cross-level co-ordination mechanisms, in particular with central government. – Contradictory effects of subnational and national policies. – More complex governance structure imposing more co-ordination and higher transactions costs. – Risk of joint decision traps (Scharpf, 1998) due to the increased number of veto players that renders co-ordination and reaching decisions acceptable to all the actors involved difficult. – More difficulty in ensuring policy coherence: national policies, public finance governance (public investment, control of public debt, etc.).
<p><i>Source:</i> Adapted from Steinich, M. (2000), “Monitoring and Evaluating Support to Decentralisation: Challenges and Dilemmas”, <i>ECDPM Discussion Paper</i>, No. 19, Maastricht; European Commission, EuropeAid (2007), “Supporting decentralisation, and local governance in third countries”, <i>Tools and Methods Series</i>.</p>	

Lessons for the Netherlands from other countries

Public governance reforms are common in OECD and EU countries. There is quite a variety of subnational government structures, with some countries more decentralised than

others and with a different formal structure (see Box 3.3). In many OECD countries, reforms were planned during a period of good economic performance, which allowed the central government to devote financial resources to the process of decentralisation. By contrast, the recent wave of reforms in the Netherlands has been against the backdrop of tight budget constraints and decentralisation has had the implicit goal of reducing the central budget.

This is similar to the Italian process of decentralisation. Although it started before the global financial crises, it was then embraced to address a problem linked with fiscal resources and consolidation of the government budget (see Box 3.7).

Box 3.7. Italian fiscal federalism reform

The Italian multi-level governance system consists of three subnational government tiers: regions, provinces, and municipalities. The Italian state is unitary but recognises the autonomy of these subnational bodies, and since the 1990s a process of decentralisation has affected their fiscal, administrative and political structure. This process culminated in 2001 with a constitutional amendment that explicitly set up a multi-layered governance system identifying a role for regions, provinces, municipalities and metropolitan cities. The regions and municipalities however seem to have a prominent role in terms of functions and decision powers.

The process of decentralisation has been quite asymmetric, delegating functions to the subnational tiers without delegating fiscal autonomy. The Law No. 42 of 2009 set up the legal framework to increase the revenue autonomy of the subnational tiers of government. One of the main achievements of the law is the substitution of the principle of “historical spending assessment” with the “standard cost assessment” method.

The main idea was to construct a system for the provision of “basic” services to the population based on:

- Definition of essential levels of service provision (LEPs in Italian), which represents a standard level of the services that should be assured across the Italian territory.
- Definition of the standard cost for the provision of each service.
- Aggregating the costs for all services provided by a given subnational tier of government.
- Calculating the own revenue of each subnational tier of government.
- Determining the net transfer as the difference between these two amounts.

The law, however, only sets out the principles, postponing the actual definition of standard costs to subsequent laws and decrees which have still not been issued by the government. While all subnational tiers of government favour the decentralisation process, there are strong differences over the actual implementation. In particular, the definition of equalisation funds and the standard costs definition create a lot of tension between rich and poor subnational tiers of government.

The government seems to be adopting the strategy of gradually introducing changes in order to avoid any disruption of services in those subnational governments that are not providing them in an efficient way.

Source: Piperno (2012), Implementing fiscal decentralization in Italy between crisis and austerity: Challenges ahead, Perspectives on Federalism, Vol. 4, issue 3, 2012.

In 2007, Denmark implemented a comprehensive reform of its public administration. The Danish subnational government structure is similar to the Dutch one. In both countries, the decentralisation reform aims to provide the intermediate level of government (counties and provinces, respectively) with functions related to regional economic development, while municipalities deal with services to the people (see Box 3.8). As in the Netherlands, the Danish reform process also involved a territorial reform which has led to a significant reduction in the number of both intermediate levels of government and municipalities. The allocation of functions, therefore, follows also a redefinition of their jurisdiction by increasing their size.

Box 3.8. Danish local government reform

The Danish government implemented a local government reform in 2007 based on three main pillars:

- A new map of Denmark. The number of municipalities was reduced from 271 to 98 through mergers, resulting in an average size of 56 000 inhabitants per municipality. Fourteen counties were eliminated and replaced by five new regions.
- A new distribution of tasks between levels of government.
 - A number of tasks were transferred from the counties, leaving the municipalities responsible for handling most welfare tasks. Municipal responsibilities include: social services, child care, compulsory education, special education for adults, rehabilitation and long-term care for the elderly, preventive health care, nature and environmental planning, local business services, promotion of tourism, participation in regional transport companies, maintenance of the local road network, libraries, schools of music, local sports and cultural facilities, and a responsibility for employment, shared with the central government.
 - The new regions took over responsibility for health care from the counties, including hospitals and public health insurance covering general practitioners and specialists, pharmaceuticals, etc. The regions also have a number of tasks involving regional development.
 - The central government was given a clearer role in overseeing efficiency in the provision of municipal and regional services. Employment services became a responsibility shared with municipalities, and responsibility for upper secondary schools was re-allocated to the central government. Tax collection was also transferred to the central government, as well as part of collective transport and road maintenance and it assumed an increased role in nature and environmental planning. Finally, responsibility for culture was transferred to the central government (in practice, subsidising a number of private cultural institutions of national character).
- A new financial and equalisation system.
 - The number of taxation levels was reduced from three to two, since the regions, unlike the counties, no longer have the authority to impose taxes. Their revenues consist of block grants and activity-based funding from the central government and the municipalities. In addition, in order to ensure that the local government reform does not result in changes in the distribution of the cost burden between the municipalities, a reform of the grant and equalisation system was carried out, which takes into account the new distribution of tasks.

Source: Dexia-collective work (2008), "Subnational governments in the European Union: Organisation, responsibilities and finance"; Blöchliger, H. and Vammalle C. (2012), "Going Beyond a Zero-sum Game: Reforming Fiscal Relations", eJournal of Tax Research.

The Swedish case represents an example of a bottom-up process of decentralisation and scaling up (see Box 3.9). Unlike many countries that embarked on a process of decentralisation, the Swedish government did not impose a single model, leaving each region free to experiment. In this sense, the process of decentralisation that started in the late 1990s can be defined as asymmetric federalism, and took place in successive waves (OECD, 2010b). This asymmetric process has the advantage of creating a kind of laboratory of federalism, where some areas can be considered as “pilot regions” and test the efficacy of the new institutional structure, and serve as both an example and a bench mark for other regions.

Box 3.9. Reform in Sweden

Until the late 1990s, the County Administrative Boards (*Länsstyrelse*) in each county in Sweden were responsible for regional development. The boards are government agencies and consequently a representative of the national government in the region.⁸ They do still exist in all counties and have many responsibilities other than regional development. On the regional level there are also directly elected regional assemblies, the County Councils (*Landsting*). Their main responsibility is healthcare.

During 1996 and 1997, the government presented several reform proposals to the Parliament. This led to a trial period in four Swedish counties, aiming at developing new ways to co-operate on regional development policies. The trial period was supposed to last until the end of 2002. The trial period was organised in different ways, but one thing was in common to all counties: the responsibility for co-ordinating regional development was transferred from the County Administrative Boards to regional political organisations.

Co-ordination in regional development included:

- regional development planning
- control of funds for development
- planning of and decision-making on the regional infrastructure plans

In 1997, two counties merged forming the new Region Skåne (*Skåne län*). One year later, Region Västra Götaland (*Västra Götalands län*) was formed by merging three counties (with the exception of some municipalities transferred to other counties).

After a proposition in 2001 and a decision by the parliament in 2002, the trial period was prolonged until 2006 for the counties of Skåne and Västra Götaland. In other counties, this decision opened up the possibility of creating indirectly elected Regional Co-ordination Bodies. All municipalities within the county must agree and apply to form an alliance. In these organisations, the municipalities consequently have a strong position. In all cases, the County Council in the county is also a member, but it is not mandatory. Regional Co-ordination Bodies were formed in a number of counties, including the former pilot counties of Kalmar and Gotland (they kept more responsibility due to their former status as pilot counties than the new ones got). In 2004 a proposition from the government and a decision in the parliament prolonged the trial period in Skåne and Västra Götaland until the end of 2010.

Box 3.9. Reform in Sweden (cont.)

After a proposition and a decision by the parliament in 2010, the responsibilities and status of the counties of Skåne and Västra Götaland were made permanent and the same responsibilities and status were given to the County of Halland and municipality of Gotland (which has the responsibilities of a county council). Currently, the responsibility of co-ordinating regional development and growth policies is allocated in the following way:

- County Administrative Boards, i.e. government agencies in four counties.
- Regional Co-ordination Bodies (*Samverkansorgan*) known as “region” or “*regionförbund*” in 13 counties. There is one exception however since they are not responsible for the “aid schemes” or “financial support/grants” to companies. In these counties the County Administrative Boards are still responsible for this.
- Three County Councils (*Landsting*) and one municipality (*kommun*) which they call themselves “Region”.

Some studies suggest the need for larger and consequently fewer regions in Sweden. The government allows a bottom-up approach to further initiatives of regionalisation. One recent development is a process to transfer the responsibility of co-ordinating regional development and growth from Regional Co-ordination Bodies to County Councils. This transfer will take place in six counties from 1st January, 2015.

A parallel process concerning regional development policies is the new model of co-operation between national and regional levels within the cultural policy (*Samverkansmodellen*). Since 2011, almost 20% of the national budget is distributed to counties on the basis of both national goals and regional priorities.

Source: Based on data from Ministry of Enterprise, Energy and Communications of Sweden and OECD (2010), OECD Territorial Reviews: Sweden 2010, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264081888-en>.

Decentralisation as a response to the global financial crisis and tight fiscal resources

The deterioration of the economy and public finance in the Netherlands

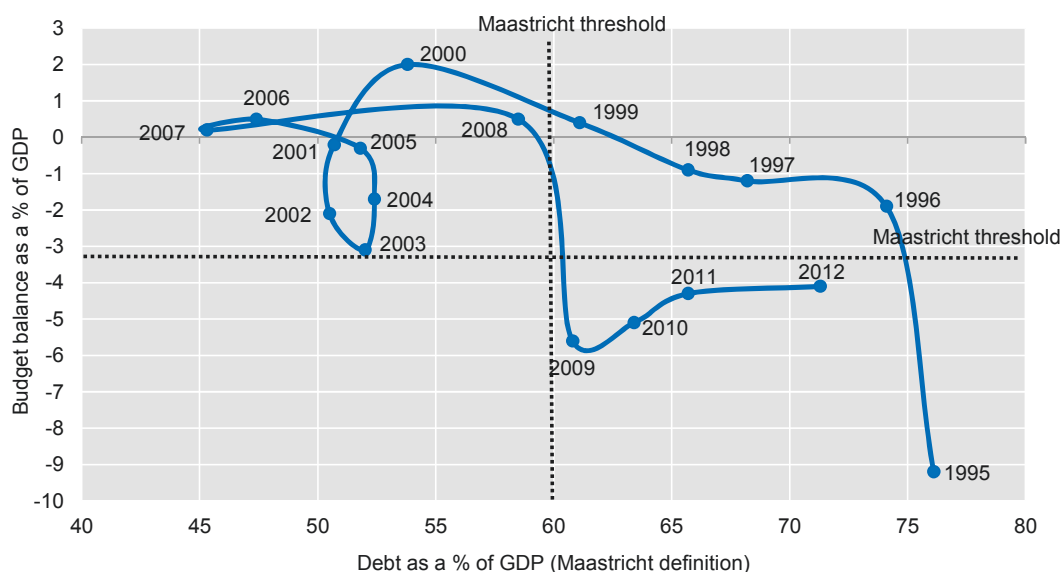
As in other OECD countries, public administration reforms are strongly driven by the economic situation and budgetary pressures. In fact, the global financial crisis has negatively affected the Dutch economy, triggering an economic recession, with a negative impact on jobs (see Chapter 1). After a weak recovery in 2010, GDP growth has been almost continually negative since mid-2011. The unemployment rate, although still below the EU average, increased from 3.1% in 2008 to 6.7% in 2013 (Eurostat, 2014).

The government budget has been under stress in recent years. Between 1996 and 2007 the deficit was under control and its level of debt was decreasing (see Figure 3.18). The financial crises in 2008 changed this, and saw an increase of the debt/GDP ratio and a level of deficit above the Maastricht thresholds of 60% for the debt and 3% for the deficit. The latest available data (2012) show a deficit/GDP ratio of 4.1% and a public debt-to-GDP ratio of 71.3% (see Figure 3.18).

A restrictive fiscal policy has been implemented since 2011 in order to comply with the stability and growth pact (see Chapter 1). The 2012 Coalition agreement Cabinet Rutte-Asscher has confirmed fiscal consolidation measures, aimed at producing net savings of EUR 16 billion.

This new fiscal policy has a strong impact on subnational government in several ways: i) a decrease in revenue resulting from a sharp drop in central government grants; ii) an increase in expenditure resulting from transfers of charges from central government; and iii) at the same time, new budgetary rules, agreed in the Coalition Agreement and the Sustainable Public Finances Bill (*Wet Houdbare Overheidsfinanciën*) stipulate that the state and subnational government bodies must make similar efforts to comply with public finance targets (i.e. the realisation of a near-balanced budget in the medium term) In the context of the 3% limit, national government, municipalities, provinces and regional water authorities have agreed a maximum deficit for the local governments of 0.5% of te GDP for 2013, 2014 and 2015.

Figure 3.18. **Movement in budget balance and public debt as a % of GDP in the Netherlands, 1995-2012**



Source: OECD (2013), National Accounts (database), <http://dx.doi.org/10.1787/na-data-en> (accessed on 8 November 2013).

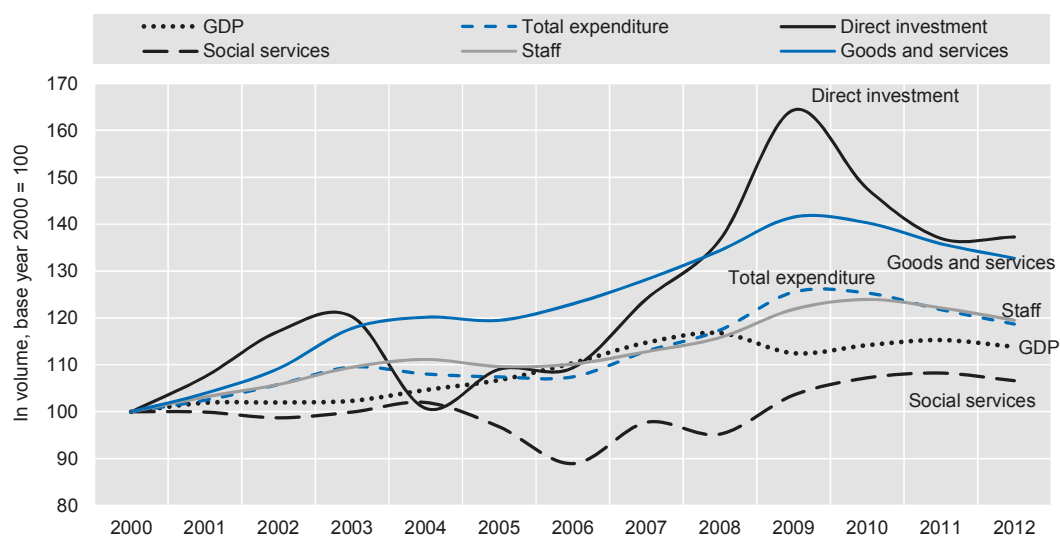
Subnational government finances are affected by successive rounds of crisis

The direct effects of the economic crisis on subnational finance, combined with the impacts of consolidation measures adopted by the central government, have deeply affected subnational governments. The financial situation of subnational governments has deteriorated since 2007, even though it was less dramatic than in other OECD countries such as Iceland, Norway, Portugal, Spain and the United Kingdom.

The subnational tiers of government have been affected by the crisis and consolidation measures in several ways.

On the expenditure side, expenditures rose sharply in the first phase of the crisis, i.e. until 2010 (see Figure 3.19). The social fallout of the economic crisis (the increase in the number of people applying for unemployment benefits and for social and welfare programmes) as well as the decentralisation of new social responsibilities (home care under the new Social Support Act, which was introduced in 2007, and sheltered employment, introduced in 2008), added new expenditure items to municipalities which resulted in a substantial increase of spending. Other spending was very buoyant, such as staff expenditure and direct investment, which was particularly robust in the last two years of counter-cyclical economic stimulus in 2008 and 2009 due to the heavy involvement of local authorities in the recovery plan, and thanks also to the strong support of the central government. From 2010, subnational spending started to decline. Subnational governments cut back on goods and services and reduced staff spending (cost savings on hiring external staff). The continuing growth of municipal spending on social benefits was brought to a standstill in 2012, even if costs for social security benefits are still higher. Moreover, direct investment contracted every year since 2010, as in many OECD countries. Subnational direct investment in the Netherlands fell by 5.8% per year in real terms between 2009 and 2012, compared with falls of 7.1% per year in the EU27. This trend confirms the traditional role of public investment as an adjustment variable in times of fiscal consolidation but is a great concern for the future.

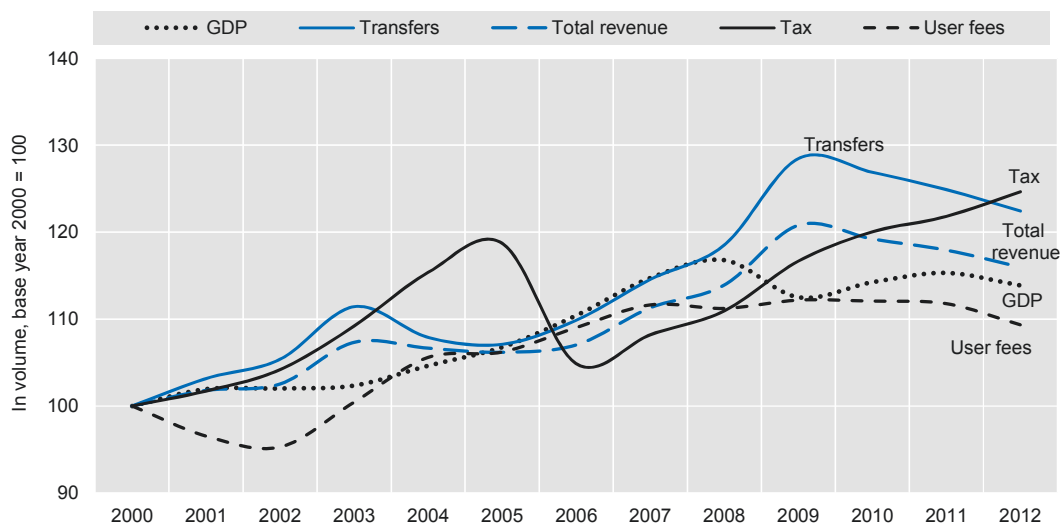
Figure 3.19. **Change in subnational government expenditure in the Netherlands, 2000-12**



On the revenue side, subnational government revenue started to decrease in 2010 (Figure 3.20), mainly because, as with the great majority of OECD countries, central government reduced its transfers. The increase in funding accompanying the transfers of new responsibilities, did not compensate this global drop in grants. At the same time, income from taxation and other sources of revenue decreased, especially those which are more sensitive to the economic situation. The crisis in the housing market and the consequent lower demand for development land means that municipalities could no longer rely on land sales for raising revenue and rental income and fees for building permits also fell. To offset this decrease, subnational government increased their tax rates and user charges, the central government having temporarily raised the ceilings. Although they have limited room to act in this area, the result has been an increase in tax revenue of

2.3% per year in real terms since 2006, when tax revenue fell sharply due to the abolition of the property tax for the occupants of dwellings.

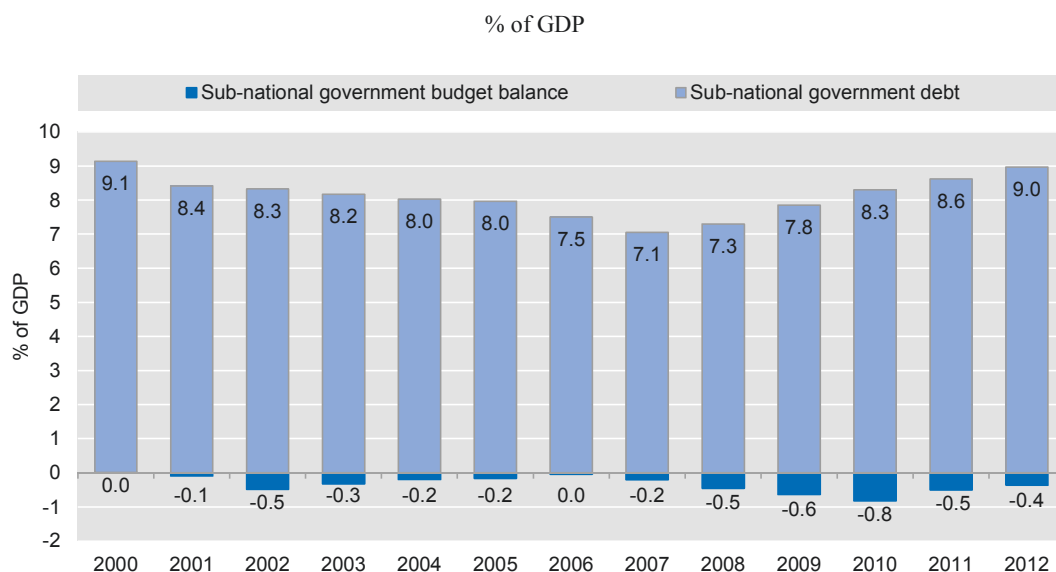
Figure 3.20. **Change in subnational government revenue in the Netherlands, 2000-12**



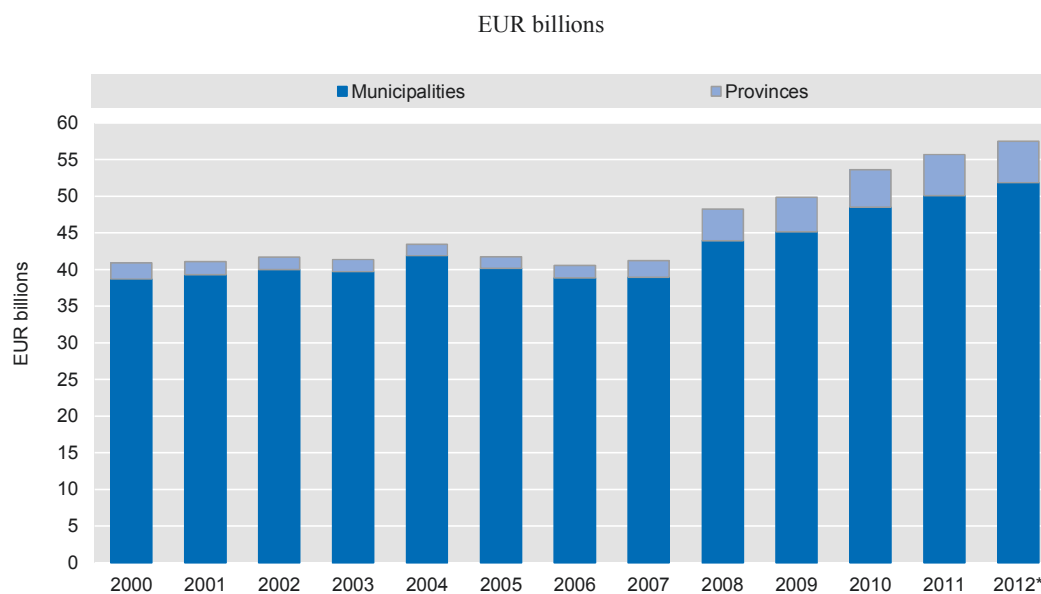
Source: OECD (2013), National Accounts (database), <http://dx.doi.org/10.1787/na-data-en> (accessed on 8 November 2013).

Some governments realised one-off gains by selling their assets. For example, the sale of energy companies Nuon and Essent in 2009 brought in more than EUR 13 billion for the provinces and EUR 5.7 billion for municipalities (CBS, 2010). This resource has been particularly useful for filling financial shortfalls in the current time of austerity. Additional capital has been deposited in bank accounts or invested in bonds but in many cases it has been used to invest in projects or was deposited in special revolving funds for investment. For example, Limburg supported its healthcare cluster and the GreenPort through this fund. In the province of Overijssel, municipal and provincial authorities together invested in a unique project called *Investeren met gemeenten*, which made it possible to realise a large number of projects earlier than originally planned. Amsterdam invested in the North/South underground railway line and in land sale projects which were delayed due to the economic recession (CBS, 2012). But, these privatisations also mean a reduction of future income coming from dividends.

Subnational governments' budget balances, which were at equilibrium in 2007, turned into a deficit in 2008 which steadily increased until 2010 (see Figure 3.21). Since then, the stabilisation of revenue combined with lower spending contributed to reducing the subnational deficit from 0.8% of GDP in 2010 to 0.4% in 2012. Despite this, it seems that for 2013, the total anticipated deficit for all levels of subnational government, will be higher and will exceed the limit of 0.5% of GDP previously agreed with central government (CBS, 2013). The subnational government debt has grown sharply to 9% of GDP in 2012, compared with 7.1% in 2007. Municipal debt represents the lion's share of this subnational debt, totalling around EUR 50 billion, compared with a total provincial debt of around EUR 6 billion (see Figure 3.22). Both municipal and provincial debts have increased strongly since 2008.

Figure 3.21. **Change in subnational government budget balance and debt, 2000-12**

Source: OECD (2013), National Accounts (database), <http://dx.doi.org/10.1787/na-data-en> (accessed on 8 November 2013).

Figure 3.22. **Municipal and provincial debts, 2000-12**

Note: 2012*: preliminary.

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014)

The central government has also introduced a new measure aimed at reducing the public debt: treasury banking for subnational government. Through this measure, which started in the second half of 2013, subnational governments are under the obligation to transfer excess liquidity on a daily basis to the Ministry of Finance, and more particularly the Dutch State Treasury Agency (Dutch State Treasury Agency). Local government will not be able to borrow from the Treasury. The goal of this measure, apart from reducing the funding needs thanks to these deposits, is also a further reduction of market risks and counterparty exposure for local government. By bringing local government into the central Treasury, it is expected that an estimated EUR 6 billion (1% of GDP) will be consolidated in 2013. In the long run, this measure should diminish public debt by around 3% of GDP thanks to these inflows lowering the external borrowing requirements of the Treasury (Dutch State Treasury Agency, 2013).

Increasing disparities between subnational governments

Regional inequalities between regions are low in the Netherlands, especially compared to other EU and OECD countries. However, the economic and financial crisis affected the Dutch regions in an uneven way with some regions proving more resilient than others, increasing disparities between them (see Chapter 1).

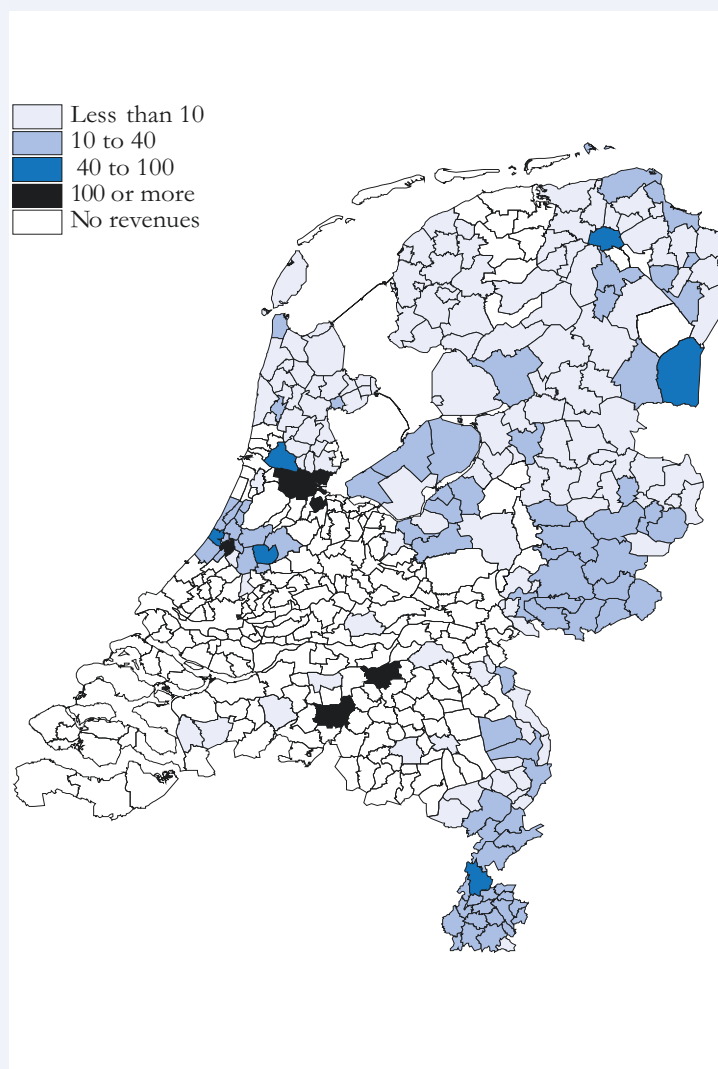
The same occurred for subnational governments. Generally speaking, there are no substantial disparities in the budgets of provinces and municipalities across the country, thanks to the equalisation mechanisms of the Municipalities and Provinces Funds (see above). However, subnational government have not all been hit by the crisis in the same way. Consolidation measures have also had different impacts on different provinces or municipalities, which also reacted differently. Provinces and municipalities with shrinking and ageing populations (in particular, Zeeland, Groningen, Drenthe and Limburg) are seen as more and more at a disadvantage with an eroded tax base, more expensive local services and specific demands related to ageing populations, etc. (see Chapter 1 and Martinez-Fernandez et al., 2013).⁹ Disparities therefore tended to increase with the crisis, but it was the privatisation of energy companies, in which the local authorities were majority shareholders, which particularly exacerbated these disparities. Since not all of the provinces and municipalities had shares in energy companies that could be privatised, some provinces and municipalities benefitted more than others and some did not benefit at all (see Box 3.10). Some provincial governments received substantial additional revenues, such as Noord-Brabant, Gelderland, Overijssel, Limburg, Friesland or Groningen. In order to partially balance these inequalities, the government decided in 2012 to reduce the amount of the Provinces Fund allocated to those provinces which largely benefited from the privatisation of energy companies.

Box 3.10. The sales of Nuon and Essent: Impact on the municipalities

In 2009, 216 municipalities together received the first EUR 3.2 billion for the sale of Nuon and Essent shares; 60% of these municipalities received less than EUR 10 million and more than 35% received between EUR 10 and 40 million. The remaining 5% received EUR 40 million or more (CBS, July 2012).

Revenues of the sale Nuon and Essent shares broken down by municipality, 2009

EUR millions

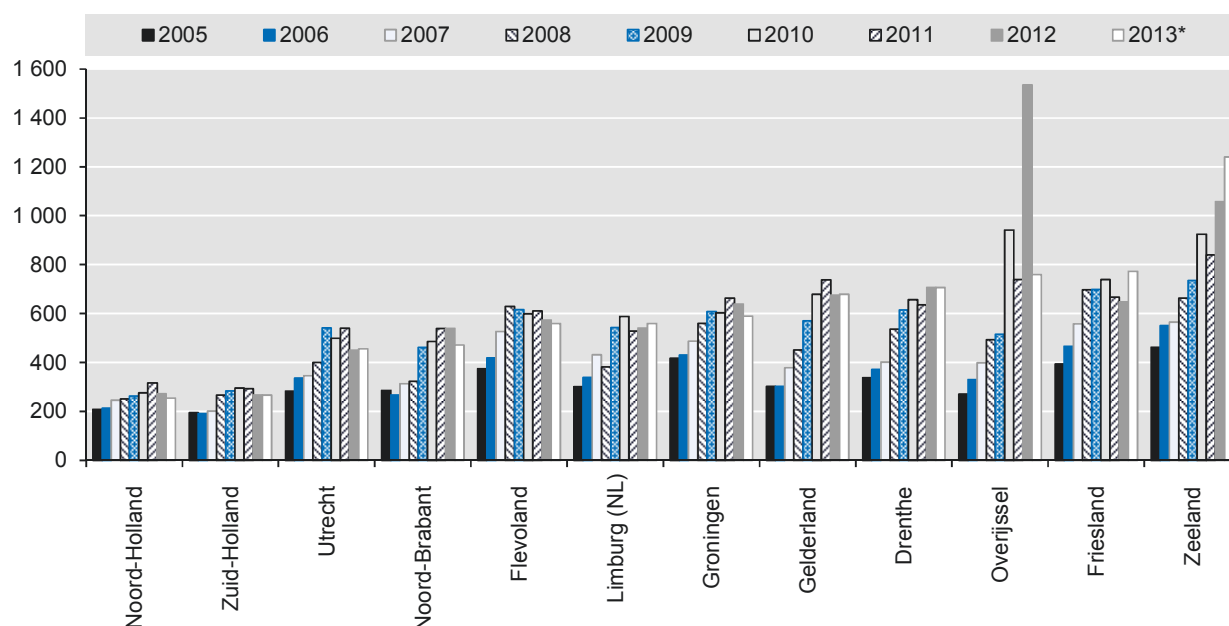


Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

Figure 3.23. Revenue of Dutch provinces 2005-13

EUR per inhabitant



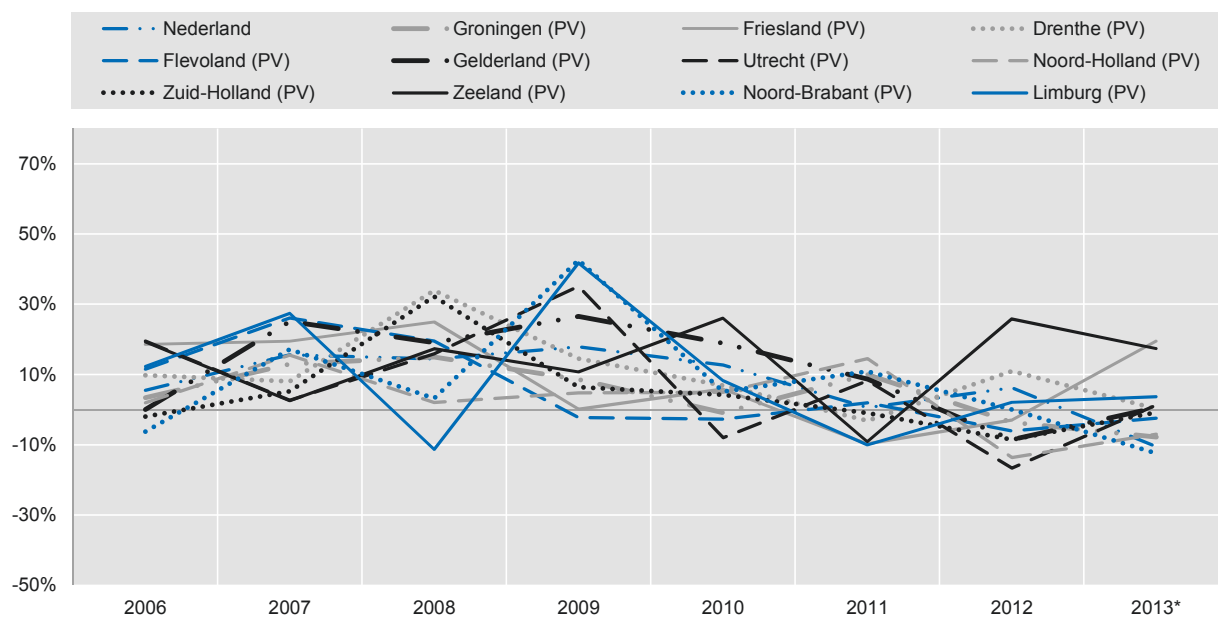
Note: 2013*: preliminary.

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

A closer look at the trends reveals: i) the growth rate in the variation of revenue per capita in the provinces, has declined since 2005 (see Figure 3.24) and ii) the differences in per capita revenues among the provinces has increased since 2005 in comparison to the national average (see Figure 3.25). As a result, in 2013, the revenue of Overijssel, Friesland, and Zeeland surpassed the national average by more than 50% (and that of Zeeland by 156%), while the revenue of Zuid-Holland and Noord-Holland were more than 45% below the national average. Utrecht and Noord-Brabant which were once slightly above the national average are now below.

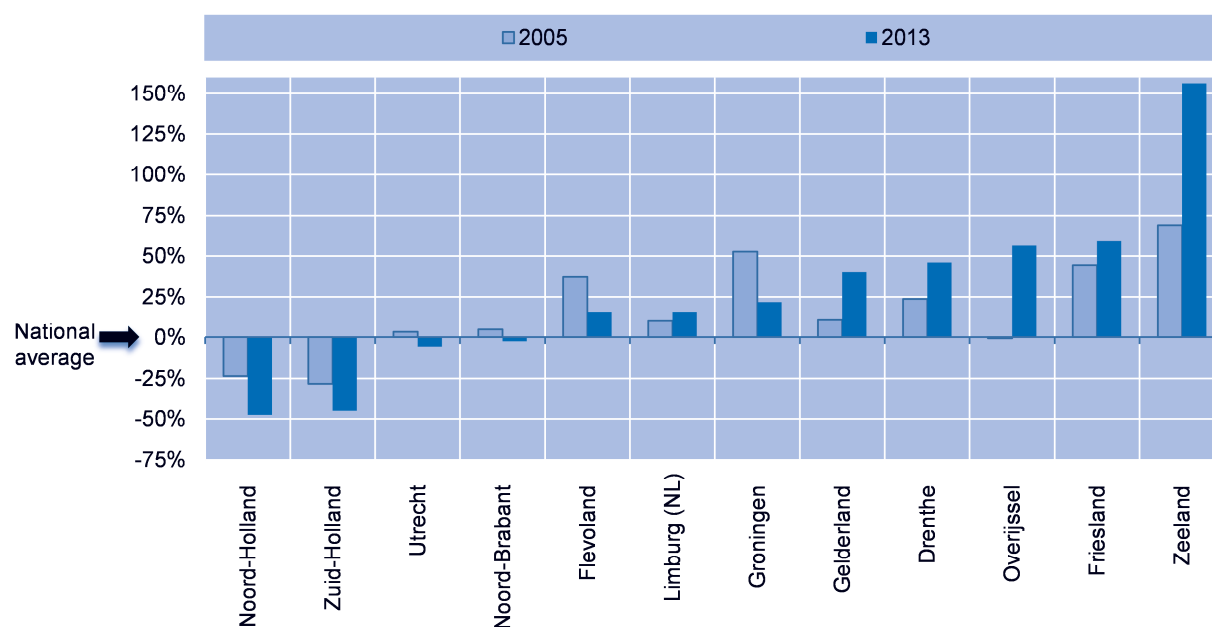
This suggests that the transfers from the central government (the main source of revenue for provinces and municipalities) are not preventing the increasing disparity in per capita revenues.

Figure 3.24. Annual percentage variation of per capita revenues in Dutch provinces, 2005-13



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

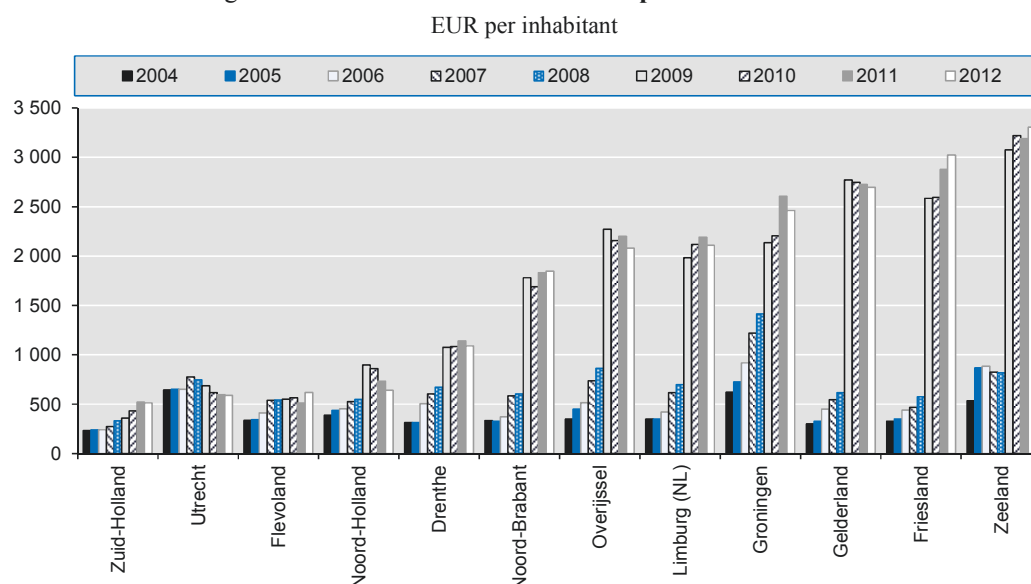
Figure 3.25. Revenue per capita to national average among Dutch provinces, 2005 and 2013 (%)



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

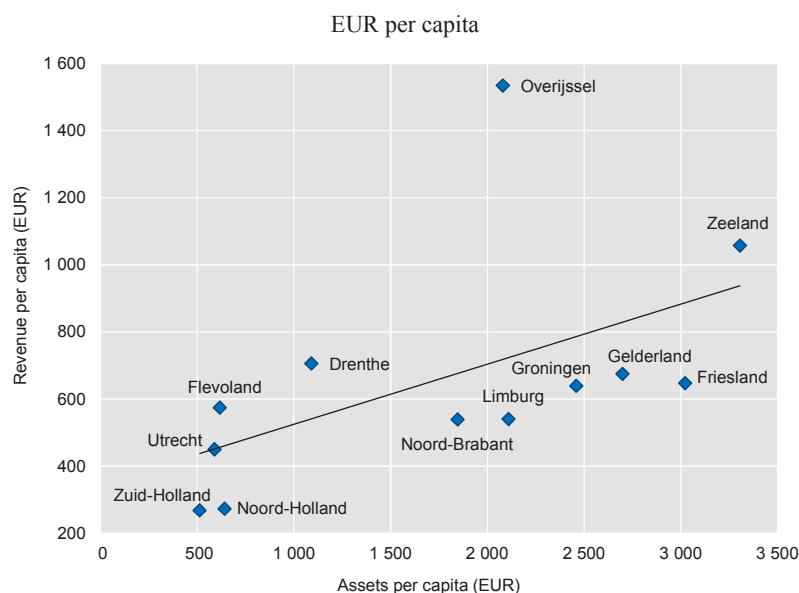
The differences between provinces emerge more clearly when comparing provincial total assets per capita, and their growth since 2004. Gaps between provinces are important and they increased dramatically in 2009, after the privatisation of energy companies. Some provinces enjoy now larger reserves, allowing them to fund significant regional innovation and economic development instruments.

Figure 3.26. **Total assets of Dutch provinces 2004-12**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

Figure 3.27. **Revenue per capita and total assets of Dutch provinces, 2012**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014)

In conclusion, the financial situation of Dutch subnational governments has worsened over the recent years. If fiscal balances have improving since 2010, it came at the cost of drastic cuts in social and welfare services. Moreover, this improvement has been to the detriment of direct investment. If this drop in investment were to continue, it could have negative long-term consequences for national economic growth and societal well-being. It could also threaten subnational government assets, whose values could be eroded by a long-term disinvestment (OECD, 2013d).

This financial situation has brought tensions to all levels of governments, putting pressures on the subnational budgets, both on the expenditure and revenue sides. It may also become problematic for the implementation of the new wave of reforms.

Moreover, the increasing disparities between the subnational governments raise some concerns about the success of the ongoing decentralisation. They could create an obstacle to the successful implementation of reform. The uneven distribution of resources could be problematic for provinces and municipalities with fewer resources to properly manage the new decentralised tasks. The financially weaker provinces would find it more challenging to implement infrastructure building and maintenance, as well as implementing innovation policies at the regional level, particularly as they have few of their own resources (see Chapter 2). On the other hand, these reforms could also provide the opportunity to mitigate these risks through collaboration or amalgamation as well as to implement appropriate mechanisms which will reduce these inequalities.

Finally, the increasing disparity may affect one of the strengths of the Dutch economy, identified in Chapter 1: its rich polycentric urban network with a wide range of formal and informal actors. Indeed due to the high connectivity and integration of the network, a weak performance of certain regions can have an effect on the rest of the network and consequently the overall.

Main features of the decentralisation reform in the Netherlands

The Dutch decentralisation reform aims to re-allocate competences between the different levels of government, in particular by re-enforcing provincial and municipal responsibilities and by establishing simpler and clearer division of responsibilities between the different public actors, avoiding the overlapping of functions.

The first part of this section describes how the government intends to strengthen the provincial level by increasing its responsibility for policies such as spatial planning, infrastructure and transport, while reducing its role in functions related to social welfare. The second part describes how the changes aim to give municipalities exclusive responsibility for youth health care and other welfare programmes associated with labour support. The third part considers the city-regions and the central government's decision to abolish the eight existing WGR-plus regions in its quest for simplification.

Giving a new role to the provinces by reinforcing their core competencies on regional planning and development

The debate on establishing stronger regional level of government dates back to the 1950s. Many discussions took place stressing the need of stronger regional governments to co-ordinate policies at the local level with the capacity to implement certain national policies. This resulted in a series of proposals for creating new regional institutions (such as the Geelhoed Commission, Kok Commission, and the Holland Eight) but these proposals have

not been translated into concrete reforms (Hulst, 2005). Provincial functions, however, have changed quite a bit during the last century.

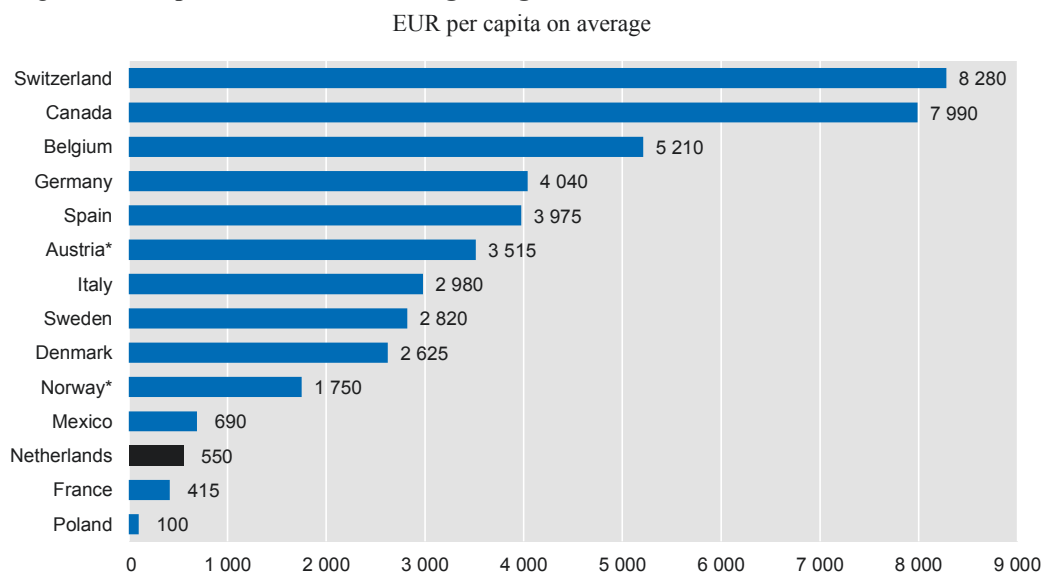
Today, the Dutch government is undertaking a new reform which confirms this long-term ambition. It aims at revitalising and strengthening the role of the provinces with more focused powers while reducing their number and reinforcing their position in the institutional setting, mostly in relation to the stronger and larger municipalities.

The starting point of this reform is the relative weakness of the provincial governments.

As already mentioned, one of the particularities of the Dutch territorial governance system is its “hourglass” character, where the regional (provincial) level is squeezed between two strong central and local levels of government and unable to assert its power.

In fact, provinces do not have many competencies. Currently, their main responsibilities are traffic and transport, environmental protection, regional economic development, spatial planning, recreation and nature as well as welfare (youth services that will be decentralised to the municipalities as of January 2015). Apart from youth services, these tasks do not involve much funding. This is reflected in the small size of provincial budgets, in comparison with the municipalities, but also in comparison with other OECD regions (see Figure 3.28). In 2012, Dutch provinces spent EUR 550 per capita compared with more than EUR 8 000 in Switzerland and in Canada. If we compare with other unitary states, the economic weight of provincial governments is between three to five times smaller than Swedish and Norwegian counties or Danish and Italian regions. It is equivalent to those of Mexican states or French regions.

Figure 3.28. **Expenditure of the states/regional governments in selected OECD countries, 2012**



Notes: Austria excluding Vienna; Norway excluding Oslo.

Source: OECD elaboration from national sources.

Another international comparison, the Regional Authority Index, found that the authority of Dutch provinces is around the average and above the median value (see Box 3.11).

Box 3.11. Regional Authority Index: Measuring regionalisation

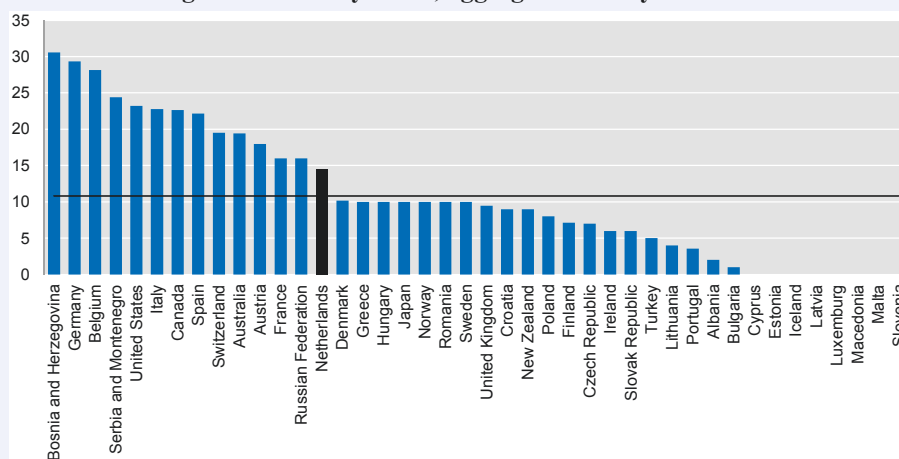
The Regional Authority Index (RAI) is one of the most frequently used tools for measuring and comparing the degree of regionalisation and the power of subnational units of government. The RAI measures the authority of regional governments across 42 democratic or quasi-democratic states (including 29 OECD member countries) covering the period from 1950 to 2006 (NB the RAI is currently being updated).

The index uses two sets of indicators to measure regional authority. The first set consists of four indicators for the authority exercised by the regional government over the people in its jurisdiction: institutional depth, policy scope, fiscal autonomy and representation. The second set of accounts for the authority exercised by the regional government over central government policy decisions: law making, executive control, fiscal control and constitutional reform. The RAI is calculated as the sum of the two sets of indicators, representing the synthesis of the administrative, fiscal and political power of the intermediate level of government. The index comprises a data set containing the annual scores in these dimensions at the regional level, as well as an aggregated data set with scores at the country level. Thus, the RAI indicators represent a useful complement to the OECD fiscal decentralisation data base, which focuses on fiscal dimensions.

The dataset encompasses subnational government levels with an average population of 150 000 or more. A region is defined as a territory i) having a single, continuous, and non-intersecting boundary; ii) a set of legislative and executive institutions responsible for authoritative decision-making; and iii) intermediate between local and national government. For the Netherlands data are available for the provinces. In some countries data are available for more than one regional tier, for example in France they are available for Corse, regions and intermediaries governments (*Départements*).

The role of Dutch provinces, according to the RAI, is around the average and above the median value when compared internationally. The Dutch aggregate score was 14.5 for 2006 – a similar level to other decentralised states such as Greece, Hungary, Norway and Sweden. The Dutch provinces are neither exceptionally powerful nor amongst the least autonomous.

The regional authority index, aggregate country scores in 2006



Notes: 1. The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law. 2. Note by Turkey: The information in this document with reference to “Cyprus” relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”. 3. Note by all the European Union member states of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Source: Calculated based on data in Liesbet et al. (2010), *The Rise of Regional Authority: A Comparative Study of 42 Democracies (1950-2006)*, Routledge, London, www.unc.edu/~gwmarks/data_ra.php.

In addition to limited competencies, it must be noted that, according to some Dutch scholars, the provinces “are systematically passed over and neglected with regard to the development and implementation of new policies”. For instance, although the Spatial Planning Act (1962) instructed provinces to develop long-term spatial plans and to supervise local structure and zoning plans, their power is constrained between the central government that “makes provincial planning subordinate to its own national planning” and the municipalities not taking, in some cases, the provincial plans seriously enough, as the provinces lack the powers to coerce them (De Vries, van der Wagt and Maas, 2008). In large cities and city-regions, provinces’ responsibility for spatial planning can also be only “formal” because the municipal governments take over spatial planning tasks in practice (even if the provinces have strong instruments to intervene if a municipality take a decision contrary to the spatial planning policy). In some cases, provincial planning served only to allocate financial resources to local government, reducing the provincial authorities’ role to that of intermediary between the local and central levels (Hulst, 2005). Therefore, the goal of the reform is to strengthen their position as a regional co-ordinator in spatial planning and regional economy. Bigger provinces would facilitate co-ordination of municipal policies in this field while avoiding disruptive competition between municipalities, such as a race to the bottom in order to attract businesses.

However, the role of the provinces should not be underestimated. The provincial role has been recently strengthened thanks to transfers of competencies over recent years, including cultural and archaeology heritage in 2009, management of “Investment Budget Urban renewal” (ISV3) resources in 2011, spatial planning and regional economy in 2011 (reinforcing the provincial role in order to ensure more consistency and integrated approach between housing, water, transportation, climate, energy, environment and cultural heritage at the regional level), provincial archives in 2013, and nature policy and protection of threatened species in 2014.

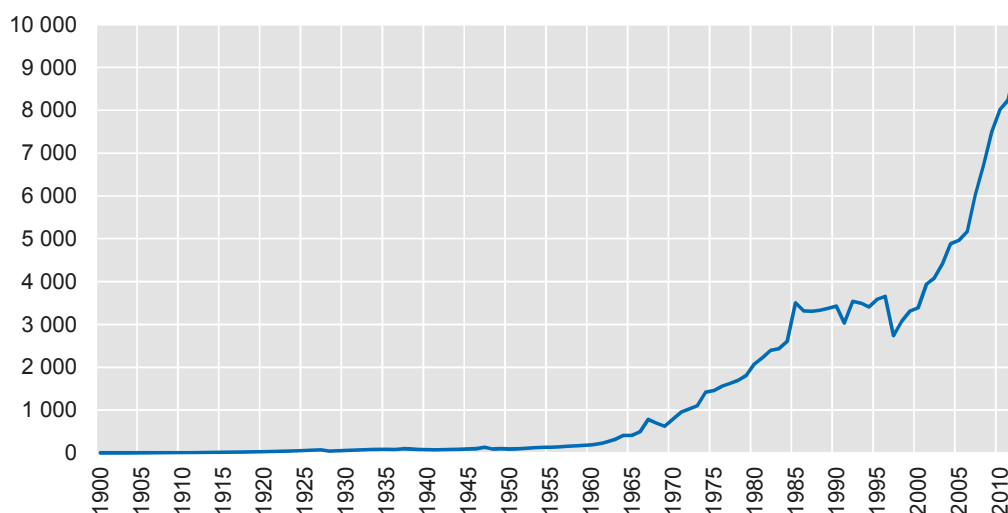
Moreover, with the enactment of the Revitalisation Generic Supervision Act in 2012, provinces are responsible for the inter-administrative supervision of municipalities and regional water authorities. This means that monitoring of the environment, construction, safety, regional planning, housing and monuments have been transferred to the provinces.

Moreover, provinces are to take a new role in the new innovation policy. The recent recognition of the need to strengthen the territorial dimension of the innovation policy (see Chapter 2) involved entrusting the provinces with the task of linking the essentially centralised and sectoral policy to the clusters and economic actors on the ground. Hence, the provinces play an important strategic and brokerage role in the reformed Top Sectors policy, which further increases their standing. Some other tasks have also been recently transferred to the provinces, for example in the field of preservation of cultural and historical monuments (since 2012) or, in the field of nature conservation (the responsibility for financing nature areas was decentralised in 2011 and parts of different central government entities such as Dienst Landelijk Gebied, Dienst Regelingen, Nieuwe Voedsel- en Warenautoriteit will be transferred to the provinces by 2015). Apart from these new duties, more autonomy and a greater role have been given to the provinces in terms of spatial planning, ensuring that all municipal plans match the lines of the provincial plan.

The continuous increase in tasks is reflected in the growth in provincial expenditure with a strong acceleration since 2007 (see Figure 3.29). Provincial expenditure grew by 50% between 2007 and 2012, including 10% in 2012.

Figure 3.29. **Provincial expenditure, 1900-2012**

EUR million, in nominal terms



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

The reinforcement of the role of the provinces in the governance of the spatial-economic domain follows the National Policy Strategy for Infrastructure and Spatial Planning “Making the Netherlands competitive, accessible, liveable and safe”. The provinces’ role should be strengthened in the field of spatial environment, traffic and transport, regional economy, the natural environment as well as culture.

As the central government has decided to abolish the eight city-regions (see below), provinces should take back most of their competences, in particular in spatial planning, transport, economic affairs and housing. Provinces will therefore have exclusive say over transport and roads after the abolition of the city-regions, which had been responsible for transport in their regions since 2005. There will be however two exceptions in the areas of Amsterdam-Almere and Rotterdam-The Hague where “transport regions” will be installed to manage public transport and infrastructure.

The strategy also foresees the integration of the regional water authorities into the new provincial administration. This should be a long term (2025) and initially bottom-up process.

In parallel, several provincial responsibilities will be transferred to other layers. In particular, youth care (12% of provincial expenditure in 2012) will be transferred in January 2015 to the municipalities, which are designated as the level which should deal with services that have a direct impact on citizens’ welfare. In the media sector, the control of regional broadcasters such as RTV Oost and Omrop Fryslân – a task undertaken by the provinces since 2006 – will be recentralised and integrated into national broadcasts as of January 2014.

Through this reform, the central government intends to strengthen and refocus the provinces on their core competencies, reinforcing the provincial co-ordination role, in particular with regard to municipalities.

Municipalities are expected to do more and better with less

Decentralising tasks to municipalities has been a continuous trend in the Netherlands. In the last decade, several responsibilities have already been transferred, especially in the social sector. These include home care under the Social Support Act introduced in 2007 and sheltered employment in 2008.

The present government is determined to continue this process. The ‘new’ decentralisation reform will mainly transfer social functions to the municipal level by 2015.

Aiming at an integrated approach, it covers three areas of government policy:

- Youth health care (governed by the Youth Act). The administrative and financial responsibilities for youth health care will be moved down from the national and provincial level to the municipal level. This function includes a wide range of services for children and families, ranging from universal and preventive services to specialised interventions focused on particular groups, such as mentally disabled young people or young disabled people with working capacity. These services will be added to the already broad competencies in welfare policies entrusted to municipalities in previous waves of decentralisation.
- Long-term care (Social Support Act). Several components of the Exceptional Medical Expenses Act (AWBZ) and personal care should be transferred to the Social Support Act (Wmo). As a result, several responsibilities for long-term elderly and disabled care would be given to the municipalities. However, the precise content of the transferred tasks is still being discussed in the Parliament and Senate at the time of writing this report. The exact type of policies that the municipality can implement in this sector are quite varied; the government hopes that decentralisation would allow each municipality to choose the best mix of policies according to the needs of the population in their jurisdiction.
- Labour welfare policies (Participation Act - *Participatiewet*). According to the project, municipalities – already responsible for welfare policies related to the labour market – will have to help a larger group to find jobs as they will have to support young disabled with working capacity, to facilitate the inclusion of young disabled people into the work force. In that manner, municipalities would take the lead in public employment services, in association with the employers, trade unions and the UWV. However, it should be noted that the precise content of the transferred tasks is also still under discussion at the Parliament and the Senate at the time of writing.

These reforms are expected to improve the quality of social services for elderly, disabled and all chronically ill people. They will enable municipalities to use their local knowledge to provide more customised and tailor-made interventions. It will also allow different types of care services to become more integrated. For example, target groups of a number of the various social services already offered by municipalities overlap with those of the youth welfare services (CPB, 2013).

The reform is not only about decentralisation, but also about transforming the way in which services are provided. Social welfare services are generally characterised by economies of scope rather than economies of scale. This is because there are no large fixed costs to pay in order to provide the services, therefore the scale of provision does not affect costs; the satisfaction of individuals depends more on the mix of services provided to support a difficult personal situation, as in the case of disabled or elderly people. Municipalities are not expected simply to replicate the services provided by the central government and the provincial administration, but rather to reorganise the way in which they deliver them to make them more responsive to the needs of the population.

The rationale behind the decision to decentralise social welfare functions to municipalities is in line with the general trend of a reduction in welfare state expenditure by central government while giving citizens a greater role in welfare policies. This vision is reinforced by the budget constraints in the wake of the global financial crises. In this context of budgetary squeeze, municipalities are expected to restructure the provision of social welfare services in such a way as to save resources and contribute to the national budget consolidation strategy.

In theory, any transferred mandatory responsibility must be financially compensated for. In practice, as local government is supposed to be more efficient than central government for certain tasks, in particular in the social domain (which has indeed been confirmed over recent years, see Box 3.12), the central government tends to transfer to municipalities less funding to finance these tasks than the budget it was managing before the decentralisation. Municipalities are expected to generate efficiency gains of around 5%-25 %. For example, for long term care, the coalition agreement 2011-15 explicitly states that only 75% of central government funding will be transferred to the municipalities.

Box 3.12. Balancing efficiency gains and quality: The decentralisation of home help

Home help for domestic activities (e.g. house cleaning, cooking) was decentralised to municipalities in 2007 by the new Social Assistance Act (Wmo), which provides support services to people in vulnerable situations. Municipalities are given a non-earmarked budget and have a large degree of freedom over how to organise help. They assess patients' needs and purchase help for them. Because the budgets are not earmarked, municipalities bear financial risks on home help, giving them incentives to bargain intensively with help providers. The resulting spur in competition has helped reducing the average price of an hour of help by more than 20% from 2005 to 2008. Prices subsequently recovered, but they still stand below pre-decentralisation levels (van der Torre et al., 2011).

Overall, municipalities were able to save EUR 150 million in 2007 out of a EUR 1.2 billion budget (distributed on the basis of historical spending) and collected EUR 200 million of co-payments, generating EUR 350 million for other spending purposes.

The consequences on the quality of home help have been a source of debate, with 40% of clients reporting a quality deterioration following the decentralisation. However, high quality standards have apparently been maintained, as patients still award home help an average score of 8 out of 10 (de Klerk et al., 2010).

Source: Schut et al. (2013), "Health care reform and long-term care in the Netherlands", *OECD Economics Department Working Papers*, N° 1 010, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5k4dlw04vx0n-en>.

With these new transfers, municipalities face a major challenge: they will have to develop capacities to perform more tasks with less money.

To finance these new social responsibilities, the government plans to set-up a "social sub-fund", integrated into the Municipalities Fund. It will receive resources from various national budgets: the participation budget, resources for social support (Wmo) and resources for the implementation of the Youth Act.

In the design of this sub-fund, the government has sought a balance between providing policy freedom to municipalities so that they can deliver local solutions, and the need to establish certain safeguards that contribute to a successful implementation in the first transition years.

The government has adopted a balanced approach between autonomy and control. On the one hand, in order to ensure freedom and customisation, the sub-fund will not be compartmentalised in order to provide municipalities with more room for manoeuvre. According to the Netherlands Bureau for Economic Policy Analysis (CPB, 2013), this absence of partitioning will lead to an integrated and efficient implementation of the new Social Support Act, the Youth Act and the Participation Act. On the other hand, safeguards will be established in the first phase and some constraints will be exercised in order to monitor the implementation and make any necessary adjustments. The central government will therefore impose spending terms which will be removed after three years. During this temporary phase, resources will be earmarked to finance only social responsibilities and provided through a separate budget article in the Municipalities Fund. Municipalities will be responsible for the management of these expenditures (horizontal accountability) and for any financial deficits in the social domain which may occur. In this manner, the fact that municipalities will bear the risks of implementation is considered by CPB as an incentive for more efficiency. Each year, municipalities will have to provide to the central government a report on the way the resources are spent.

The social sub-fund will come into effect on 1 January 2015, unless the transfers of tasks are not yet effective. In 2015, the distribution of the youth and Wmo budgets will take place on the basis of historical data. As of 2016, this will gradually move to an objective allocation model. After the transition period of three years, the sub-fund will be fully integrated within the Municipalities Fund without restrictions.

Abolishing the city-regions

Today, there are 8 major metropolitan areas comprising a total of 112 municipalities and 6.5 million inhabitants and representing, in 2010, an average budget of EUR 354 per inhabitant (see Figure 3.16 and Table 3.2).

Table 3.2. **The city regions in 2010**

Name	Number of municipalities	Number of inhabitants	Inhabitants of inner-city as a % of city region	% of provincial population	Budget (expenditure in millions EUR)	Budget per inhabitant (EUR)
Stadsregio Amsterdam	16	1 391 247	54% (Amsterdam)	51% (Noord-Holland)	769	553
Stadsregio Rotterdam	15	1 186 011	50% (Rotterdam)	33% (Zuid-Holland)	615	518
Stadsgewest Haaglanden	9	1 008 348	48% (The Haag)	28% (Zuid-Holland)	535	531
Bestuur Regio Utrecht (BRU)	9	611 867	48% (Utrecht)	49% (Utrecht)	91	148
Samenwerkingsverband Regio Eindhoven (SRE)	21	732 793	29% (Eindhoven)	30% (Noord-Brabant)	122	167
Arnhem Nijmegen Stadsregio	20	728 443	20% (Arnhem) 22% (Nijmegen)	36% (Gelderland)	111	152
Regio Twente	14	623 613	25% (Enschede)	55% (Overijssel)	52	83
Parkstad-Limburg	7	237 643	38% (Heerlen)	21% (Limburg)	12	52
Total	112	6 519 965			2 307	354

Source: Based on Ministry of the Interior and Kingdom Relations (2010), *Rapport Plussen en Minnen. Evaluatie van de Wgr-plus*, Publication No. 3969, August 2010, Parliamentary Papers II 2010/11, The Hague.

Current reforms plan to eliminate the eight existing city-regions from 1 January 2015. Their tasks related to infrastructure and public transport will go to the provinces. Their other tasks will revert either to the provinces if they fall with provincial competences or to the municipalities, if these tasks were initially transferred voluntarily by the municipalities to the city-regions.

There will be two exceptions in the areas of Amsterdam-Almere and Rotterdam-The Hague, those with the biggest cities at their heart, where two transport regions will be installed. These entities will take over the tasks concerning traffic and public transport legally carried out by the three city-regions concerned and will be new entities, not a continuation of previous city-regions. In these areas, the government will assign the financial resources of the Traffic and Transport Policy Funding (BDU) previously provided to the three city-regions to the two new transport regions. The government expects that the provinces and municipalities will organise themselves to establish co-operation platforms.

The reasons behind this decision are diverse:

- To simplify the multi-level governance structure of the Netherlands by eliminating a “quasi-tier” of government that lacks democratic legitimacy and clear accountability for the public services and policies they delivered.
- City-regions are in competition with provinces where they are located. In some provinces, the population of the city-regions accounts for half or more of the provincial population, as in the case of the city-regions of Amsterdam, those of Rotterdam and the Hague (aggregated), Regio Twente or Utrecht (see Table 3.2). The majority of the provinces are in favour of the abolition of the City-Regions (IPO, 2012).
- The city-regions’ complex network of collaborative arrangements between municipalities may involve risks of administrative overload and duplication when jurisdictions overlap, for example the overlapping jurisdiction of the city-region of Amsterdam, the North Wing and the Province of Noord-Holland, which all have responsibilities for physical infrastructure (OECD, 2007).
- The strengthening the provinces, through a reinforcement of some responsibilities also carried out by the city-regions, should lead to the abolition of city-regions to avoid the risk of duplication and overlapping.
- The existing geographic boundaries of city-regions are not necessarily relevant, as is the case for example for the city-regions of Rotterdam and The Hague. As a matter of fact, 24 municipalities of the metropolitan region of Rotterdam-The Hague have decided to join forces when the two city-regions will be abolished. They plan to create a new co-operation structure, the Metropolitan Region Rotterdam The Hague (*Metropoolregio Rotterdam Den Haag*).
- While city-regions have proven effective in delivering their services, their capacity to co-ordinate local policies and to provide a platform for regional planning remained limited due to the reluctance of the municipal authorities to give up their autonomy (Hulst, 2005). In this context, regional co-ordination and planning has to rely on consensus, which can be

difficult to reach due to the divergent interests of the municipalities involved (however, decisions are reached by majority voting in order to avoid deadlock on every decision).

- Although the city-regions were given powers to co-ordinate local policies and planning, in practice regional plans have not been always implemented. In some city-regions, municipalities remain reluctant to limit their autonomy over spending as a result of joint decision-making in regional corporations. A further obstacle is the preference for proportional disbursement of resources among the municipalities involved (Hulst, 2005). In the case of Amsterdam, for example, given the conflicts of interests, the regional plans were little more than a cumulative list of investment wishes by the municipalities that ignored the actual regional challenges and investment needs (Hulst, 2005). In this way, the Dutch city-regions faced some of the common trade-offs in metropolitan governance: between local autonomy and regional decision-making power, between metropolitan ambition and regional egalitarianism and between leadership and consensus seeking (OECD, 2007).
- The democratic legitimacy of these co-operation structures is deemed insufficient in view of the extent of their competences.
- Finally, the government considers that voluntary co-operation is preferable to compulsory scheme. It stresses the fact that the municipalities always have the possibility to recreate an inter-municipal co-operation structure at the level of the metropolitan area, using the WGR regulatory framework, but on a voluntary basis and only to perform municipal tasks. Some forms of co-operation between provinces and municipalities will be also possible, on the model of the Regio Groningen-Assen, a platform of co-operation created at the scale of the functional urban area, straddling borders of the two provinces of Groningen and Drenthe (see Box 3.13).

However, it should be noted that two evaluation reports on city-regions were globally positive. The first one, commissioned in 2009 by the Association of Dutch Municipalities and prepared by the Commission Nijpels, was entitled “The Silent Power: The need for city-regions”. It concluded that the urban regions generally operate satisfactorily. Besides compulsory tasks devoted by law, the status of city-region offers a natural basis and an adequate tool for further co-operation and co-ordination on optional matters. The report underlined the added-value brought by the city-regions in areas such as innovation (Twente), economic development (Eindhoven) or social policy (Parkstad Limburg). The second report (Ministry of Interior and Kingdom Relations, 2010), entitled “Pluses and Minuses: Evaluation of the Wgr-plus law”, also concluded that the WGR+ regions work well and play an important role in the achievement of a regional dynamics. It may also be noted that the Advisory Division of the Council of State gave a negative opinion of the government proposal to abolish the city-regions. It considered that a structurally sound justification was lacking and believes that the government should reconsider removing the city-regions without adequate replacement. (Council of State of the Netherlands, 2012).

The OECD has also acknowledged the positive role played by the city-regions since their creation. In several reports, the organisation recommended that the governance mechanism of city-regions could be strengthened and improved by providing them with more instruments and funding and rolling them out to other metropolitan areas in the Netherlands (OECD 2008, OECD 2010c).

Even if the abolition of city-regions in their present form can be considered consistent with the global architecture of the government reform, the governance of metropolitan areas remains a challenge, as it will be discussed below. Some specific solutions at the level of functional metropolitan areas may still be needed. There is a need for such forms of co-

operation between several administrative bodies to manage complex issues at the right economic and social scales.

Box 3.13. The Groningen-Assen Regional Alliance: a voluntary urban co-operation platform

The partners in the Groningen-Assen Region alliance are the two provinces of Drenthe and Groningen, and the municipalities of Assen, Bedum, Groningen, Haren, Hoogezand-Sappemeer, Leek, Noordenveld, Slochteren, Ten Boer, Tynaarlo, Winsum and Zuidhorn. Groningen is the capital of the Province of Groningen while Assen, situated 30 kilometres to the south of Groningen, is the provincial capital of Drenthe. The region area is 1 100 km² and has a population of 450 000 inhabitants and supports 220 000 jobs. The concept of a “T-structure” is commonly used to schematically represent this region. Groningen occupies the central point of the T and is connected via major roads and railways to the other three main urbanised areas in the region – Hoogezand-Sappemeer, Leek/Roden and Assen - that form the extremities of the T.

Co-operation started in 1996 when the national government asked the city of Groningen to collaborate with the surrounding municipalities, so that the best locations could be found for new housing developments. With its partners, Groningen developed in 1996 a document presenting their strategic view for joint spatial development: “Region Vision 2030” (*Regiovisie 2030*). It was updated in 2005, under the name Growing in Public Space (*Groeien in ruimte*). The key role of this co-operation platform is to achieve an effective regional planning. It has been designed to address housing issues, regional public transport improvements, business parks and natural network management. Four regional programmes are linked to this vision: Accessibility, Economy, Housing & RegioPark.

One of the special features of this regional alliance is that the partners co-operate on a voluntary basis. The current agreement was signed in 2004 and will remain in effect up to 1 January 2030. The governing structure comprises the Groningen-Assen Region Steering Group which monitors the strategy. The implementation of the four programmes is monitored by the partners' Portfolio Holders, the different tasks being largely executed by the partners themselves. There are also a quality assurance team composed of experts (leading architects, urban planners, etc.) as well as a programme office which is in charge of the daily management of the co-operation platform. The regional alliance also co-operates with partners such as businesses, knowledge and educational institutions, housing associations, regional water authorities, nature organisations and civil society.

To fund their activities, a special fund has been implemented: the “Regiofondsen”, made up each year from the financial contributions of the different partners and supplemented by central government and European grants. This financing scheme allows the region to have its own independence and assure a certain degree of commitment to get the job done by the stakeholders. The investment programme amounts to approximately EUR 1.5 billion up to the year 2020.

In the new spatial strategy of 2004, the Groningen-Assen Regional Alliance has been designated as one of six national urban network regions for the Netherlands. For the period 2010-20, as a National Urban Network, the Groningen-Assen region has made agreements with the central government which concern, among other things, housing tasks, integral area development and topical subjects, such as sustainability and demographic developments.

Source: Groningen-Assen Regional Alliance, www.regiogroningenassen.nl; Pirart, F. (2008), “Policies against urban sprawl in the changing Dutch planning context, Groningen case: From a monocentric compact city policy towards a new urbanisation path between intensification and expansion”, Master thesis, University of Groningen, Netherlands.

Ongoing territorial reform in the Netherlands: The re-scaling challenge

Territorial reform aims generally at reducing fragmentation by promoting re-scaling of subnational governments. They may have various rationales behind the territorial reform, including economic performance (see Box 3.14), financial reasons and the search for better quality of services. The effects of the global economic crisis as well as the ongoing decentralisation of functions at the provincial and municipal level in the Netherlands are additional factors since they have raised doubts about the capacity of subnational governments to deliver satisfactory services.

It is often considered that fragmentation (i.e. a great number of small units, whether at the municipal or regional level) imply more administrative overheads and a risk of duplication of expenses. Small subnational governments tend to have fewer resources at their disposal, which limits their ability to provide decentralised public services.

Merging or pooling public services into larger entities is widely considered to promote economies of scale. It increases the size of facilities and helps to reduce these costs and share them more equitably. Larger units have the capacity to perform more functions and do it in a more effective and efficient way. Moreover, larger subnational governments can result in less income disparities. Finally, consolidation through mergers or co-operation helps to reduce the mismatch between administrative boundaries and the catchment areas of services, which allows for more effective delivery of these services. This also reduces the incentives for free-riding for example where citizens use public services provided by one municipality while paying taxes in another municipality.

However, the rationales and solutions can be different according to the different tiers of subnational government, as is the case in the Netherlands. The issue of size does not arise in the same terms in the case of provinces and municipalities. Moreover, options can differ according to the level of government and the specifics of the territory, in particular its urban or rural characteristics. There is no simple recipe for re-scaling.

In practice, there are two choices: amalgamation (up-scaling) and promotion of inter-governmental co-operation, so-called “trans-scaling” (LocRef Network, 2013). Each solution has its pros and cons. Mergers allows for more effective and efficient co-ordination of services, while ensuring clearer accountability than in the case of collaboration between smaller units as well as a more streamlined and efficient decision-making process (Bahl and Linn, 1992).

The following section will discuss the proposed provincial and municipal territorial reforms in the light of the different perspectives on subnational re-scaling presented in the literature and in the OECD countries. The first two parts focus on the provincial and municipal territorial reforms. The third draws on experiences of up-scaling and trans-scaling in other OECD countries, as they may offer guidance in choosing the most optimal approach for addressing the provincial and municipal re-scaling challenges in the Netherlands.

Box 3.14. Vertical and horizontal fragmentation and regional economic performance

The economic performance of TL2 areas depends on the socio-economic characteristics of the territory. The level of human capital and innovation influences growth in regional GDP. The institutional environment is also important given that it provides firms with a sound environment to thrive and make long-term investments. In this work, the focus is on institutional fragmentation at the TL2 level. The number of subnational tiers of government represents a form of vertical fragmentation, while the number of government bodies of the same level (municipalities in our work) represents an index of horizontal fragmentation. In this setting, the analysis studies the relationship between the economic growth of TL2 areas and the level of fragmentation, taking into account the share of people living in rural areas (rural index). The empirical analysis based on 250 TL2 regions in OECD countries shows the important interaction between the institutional fragmentation and the rural index, which determines the way in which fragmentation actually affects economic growth in the area.

The result of the empirical analysis indeed show:

- a negative impact of both horizontal and vertical fragmentation on regional economic growth. Interestingly, both negative effects tend to phase out with an increase in rurality;
- the impact of horizontal fragmentation becomes positive for TL2 areas where most of the population live in rural areas;
- the negative impact of vertical fragmentation fades away when there is a larger share of population living in rural areas. The empirical analysis shows that the institutional impact on the economic performance is more significant in periods of recession than in other periods.

Source: Bartolini, D (forthcoming), “Administrative fragmentation and performance of TL2 regions”, *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming.

Re-scaling the provincial level: the merger approach

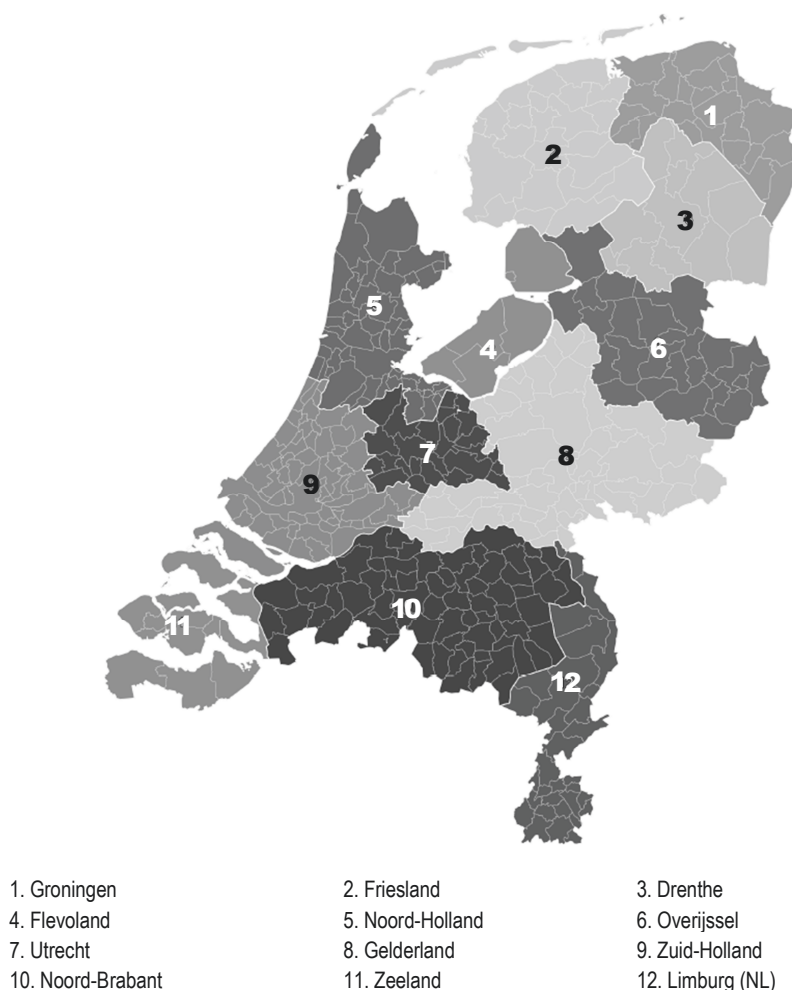
The territorial structure of the 12 provinces has undergone few changes over the past decades, as they actually pre-date the creation of the Netherlands as a country. Only Flevoland was recently created, in 1986. They vary a lot in size, in terms of area (from 1 449 km² to 5 749 km²), population (from 381 000 inhabitants to more than 3,5 million inhabitants) and of number of municipalities (from 6 municipalities in Flevoland to 67 municipalities in Zuid-Holland and Noord-Brabant), as shown in Table 3.3.

Table 3.3. The provinces in the Netherlands in 2013

1 January 2013	Area (km ²)	Population	Number of inhabitants/km ²	Number of municipalities
Drenthe	2 680	489 918	183	12
Flevoland	2 412	398 441	165	6
Friesland	5 749	646 862	113	27
Gelderland	5 136	2 015 791	392	56
Groningen	2 960	581 705	197	23
Limburg	2 209	1 121 891	508	33
Noord-Brabant	5 082	2 471 011	486	67
Noord-Holland	4 091	2 724 300	666	53
Overijssel	3 421	1 139 350	333	25
Zuid-Holland	3 419	3 563 935	1042	67
Utrecht	1 449	1 245 294	859	26
Zeeland	2 933	381 077	130	13

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

Figure 3.30. Map of the provinces in 2013



Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map. The display of the map may differ according to the angle of projection.

Source: Ministry of the Interior and Kingdom Relations, RegioAtlas, www.regioatlas.nl (accessed on 23 February 2014).

The Dutch government's new provincial reform aims not just to strengthen the role of the provinces but also to reduce their current number to around five bigger regions. At the moment, one merger is planned: the merger of the provinces of Utrecht, Flevoland and Noord-Holland. The central government supports the gradual mergers of the other provinces as a bottom-up process, taking into account the specific characteristics and policy challenges of each area.

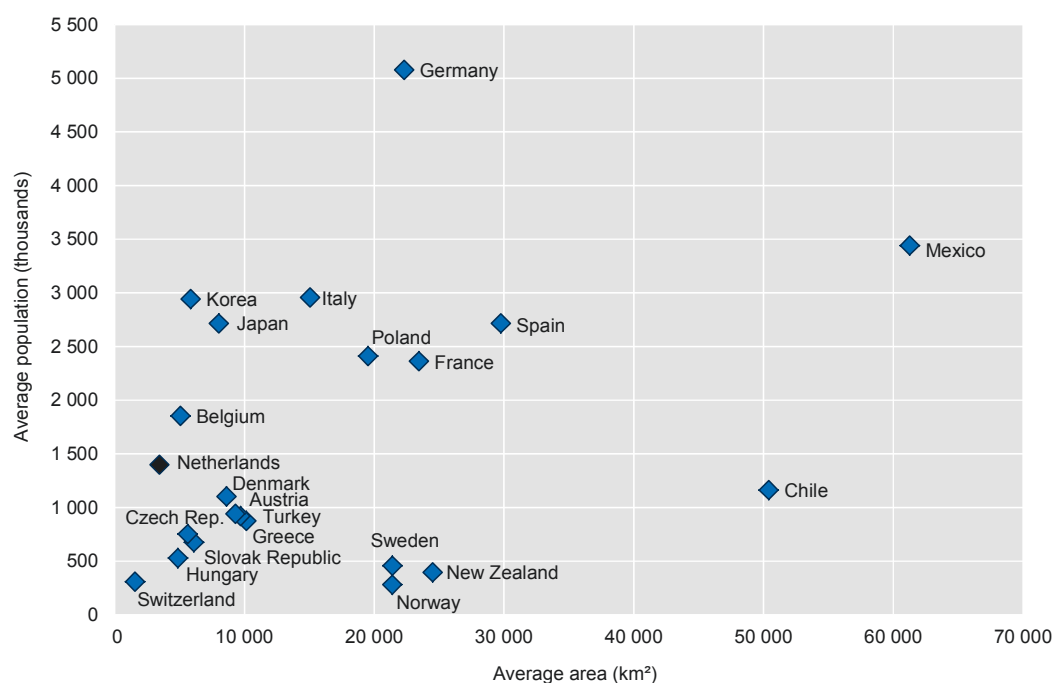
The motivations behind this reform can be summarised as the relatively small size of the Dutch provinces and, above all, their weaknesses. Creating stronger and more efficient provincial governments seems to be the main objective of the reform.

The relatively small size of the provinces

Comparing Dutch provinces with other OECD countries with similar tiers of subnational government reveals that Dutch provinces are among the smaller in terms of average area but not so small in terms of average population (see Figure 3.31). They are

more populous on average terms than peer regions from Denmark, Sweden and even federated states in Austria and Switzerland. However, the Dutch provinces are below the EU27 and OECD averages. In addition, some provinces are also losing population.

Figure 3.31. **Geographic and demographic size of regions in the OECD in 2012**



Note: Regional data for United States, United Kingdom, Canada and Australia are not included in the graph.

Source: Based on data in OECD (2013), “Subnational governments in OECD countries: Key data (brochure)”, OECD, Paris, www.oecd.org/regional/regional-policy.

In terms of GDP, the average and median value for Dutch provinces is higher than the OECD sub-sample, and much higher than the values for Denmark and Sweden (see Table 3.4).

Table 3.4. **Dutch provinces compared to OECD intermediate levels of government, 2010**

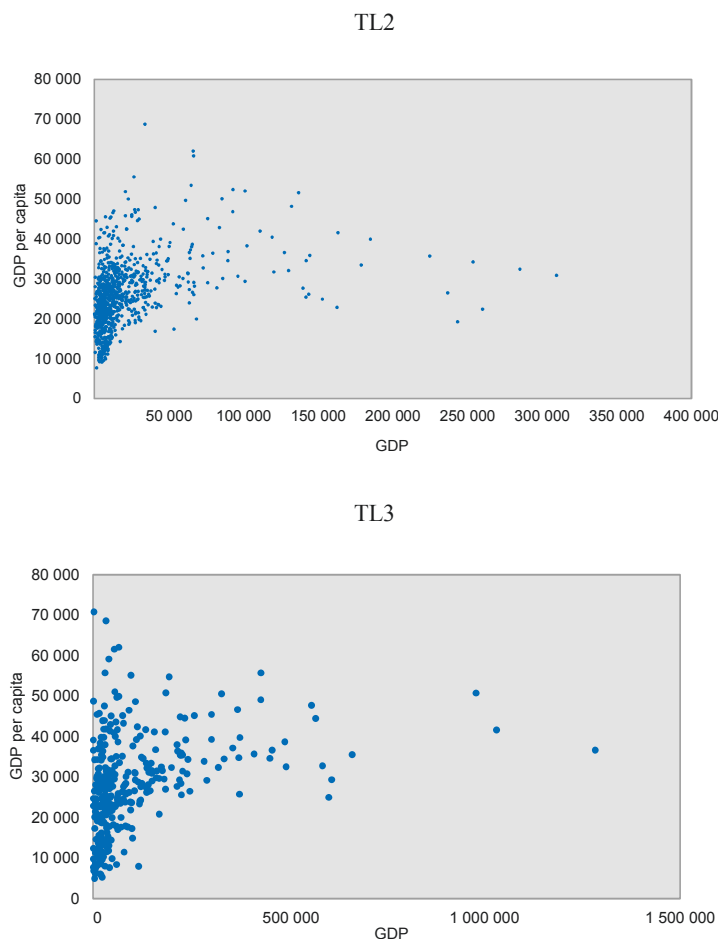
	Number		GDP (USD millions)	Population (millions)
Netherlands	12	Average	50 629	1.381
		Median	36 903	1.127
Denmark	5	Average	34 768	1.107
		Median	34 726	1.2
Sweden	20	Average	15 250	0.448
		Median	8 228	0.273
OECD	368	Average	40 358	1.42
		Median	16 656	0.638

Note: GDP average does not include Turkey; data for Norway are from 2007.

Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Comparing the size of regions' GDP and their performance in terms of GDP per capita, does not appear to indicate a clear positive relationship. Indeed there is a mixed picture for both TL2 and TL3 OECD regions. Figure 3.32 appears to suggest that there is no strong correlation between size and successful performance. Nevertheless, the larger regions are never amongst the worst performing. At the same time, there is large variation in the performance of smaller and medium-sized regions suggesting that benefits are only present beyond a certain scale. Furthermore, there are a number of successfully small and medium-sized regions.

Figure 3.32. **Size and performance amongst TL2 and TL3 OECD regions, 2009**



Source: OECD (2013), *OECD Regional Statistics* (database), <http://dx.doi.org/10.1787/region-data-en> (accessed on 26 February 2014).

Following the new responsibilities given to the provinces, the central government considers it necessary to build larger regions able to manage these new competences linked to the spatial-economic domain. The 150 year-old provincial boundaries are no longer in line with the social and economic functional areas (commuting patterns, urbanisation, water management, sustainability, land use, economic development, etc.) and therefore are not very efficient for managing the new tasks.

The weaknesses of provinces

The second main reason for up-scaling provinces is the will to create stronger and more effective provincial governments.

Increasing the size of the provinces will permit them to anticipate the impact of the ongoing municipal reorganisation. The increasing size of municipalities, as well as increasing inter-municipal co-operation (municipal arrangements and functional regions for safety and health care), implies an increasing internalisation of local external effects and reduces the role for provinces. Therefore, the rationale behind up-scaling is to maintain the balance between the provincial area and municipalities, to give them a clear added-value in comparison to municipalities, to reinforce their political clout with regard to municipalities and to consolidate the provincial inter-administrative co-ordination and supervisory role (Bos, 2010).

The central government also considers that up-scaling would permit the reduction of complexity. It will reduce the number of public actors and thus avoid duplication of tasks, rationalise, pool resources, make cost savings, reduce bureaucracy and increase efficiency.

The provincial territorial reform should be also understood against the background of the long-standing debate on the consolidation of the regional tiers to establish regions capable of competing with other European regions. Up-scaling would provide the necessary size to compete at the international and European levels as well as to build strong and balanced partnerships with other regions. Provinces could also become stronger partners for trade and industry, in particular international businesses, as well as more robust administrative partners in relation to central government. Finally, in a context where the European Union is funnelling its policies and funds increasingly towards the regions, this reform is considered all the more necessary.

However, it should be stressed that the rationale for merging provinces may be different according to the characteristics of each province, in particular their rural or urban character.

Content of the provincial re-scaling reform: towards larger provinces through mergers

At the moment only one provincial merger is planned: the merger of the provinces of Utrecht, Flevoland and Noord-Holland to build a larger province called the “North Wing Province” (*Noordvleugel*) by January 2016. The new province will cover almost 8 000 km² and 4.4 million inhabitants and will regroup 85 municipalities. These three provinces share many common features and their territories form an inter-connected urban system, with many citizens commuting across the provincial boundaries. This is acknowledged also by the presence of the Amsterdam Functional Urban Area) which spans the borders of the three provinces. In this case, the potential benefits of amalgamation are clearly visible, even if not all provincial governments and population concerned share this view (see below). For instance, a clear benefit comes from the more effective spatial planning by the up-scaled provincial government with jurisdiction over the entire commuting area of the Amsterdam Functional Urban Area.

The Dutch central government intends to enact mergers of the other provinces gradually and as a bottom-up process. It is the current cabinet’s ambition that the example of the “North Wing Province” will be the first step in a process of forming fewer, larger and more effective provinces, taking into account specific characteristics and policy

challenges of each area. Such approach was also adopted by the Swedish government, encouraging a bottom-up amalgamation of counties to create bigger regions since the 1990s (see Box 3.15).

Resistance to the provincial reform

The intention to reduce the number of provinces is controversial and resisted by some of the provincial authorities. This resistance rests on a solid historical background – provinces are one of the most ancient institution in the Netherlands – and a consequent strong sense of identity shared by the local population. The general lack of enthusiasm towards the mergers is also supported by a widely shared conviction, based on the Dutch experience, that efficiency gains can be achieved through co-operation. As a result of this opposition, to date the preferred solution to territorial fragmentation at the provincial level has been inter-governmental co-operation.

Provincial reactions have been very diverse, with no consensus between the 12 provinces on the provincial reform, as shown during the written consultation phase and the position papers submitted by the different provinces. The position of the three provinces of the “North Wing” vary, the most critical being Flevoland and the most positive Noord-Holland, which seems relatively sympathetic to the idea of mergers to reap the benefits of economies of scale and formalise existing collaboration. Utrecht opted for a neutral position. Limburg and Friesland reject provincial up-scaling mainly because of the perceived loss of autonomy and regional identity. One of the arguments against mergers is that by creating larger provinces the identification of citizens with their province would be diluted, which in turn would further decrease the already low turnout at the provincial elections. For the provincial authorities in Friesland, a province with a particularly strong regional identity and their own language, any merger is considered an unacceptable option. Zuid-Holland, Overijssel and Gelderland appear to be more positively critical: the provincial officials do not really see the problems or the need for up-scaling but they are willing to discuss it under certain conditions. In some provinces that have acquired substantial capital from selling their energy companies, such as Noord-Brabant, Limburg or Gelderland, provincial officials fear that amalgamation would result in this capital being taken away from them and used to support investment elsewhere, for instance in the Randstad. Finally, the provinces of Groningen and Drenthe tend to be the more open to potential future mergers. Provincial officials tend to be pragmatic about the potential future mergers since they are already co-operating in several areas where functional links exist (e.g. public transport to cater to an effectively integrated labour market). This reform would then formalise already existing collaboration. In its letter to the government of October 2013, the Association of Provinces, IPO, also stressed the fact that wide differences between the provinces should be taken into account and that cultural and regional identities are a deciding factor.

In the midst of divergent positions and interests among the provinces, the IPO encounters some difficulty in fostering a common position. Even though the IPO apparently represents the unified voice of the provinces, in practice divergent preferences quickly come to the surface and in many cases the central government has reluctantly had to negotiate issues directly with individual provinces rather than their association. The bargaining power of the provinces is considerably lower than it would be if their preferences were effectively voiced through the IPO. The co-ordination of the interests of provinces is increasingly difficult due to their divergent interests, priorities and economic power.

Box 3.15. Learning from the Swedish bottom-up approach to decentralisation

The Swedish territorial governance system used to be characterised by an “hour glass” structure, with strong actors at the central and local levels, and weak authorities at the intermediate level, but the greater emphasis on the regional scale for the management of the EU Structural Funds created momentum for a reform. Therefore, Sweden launched a rather singular regional reform process whereby asymmetric and bottom-up regionalisation was enacted as a gradual and experimental process allowing for learning from the results of pilot initiatives. Two pilot regions with elected regional authorities were established, and recently made permanent. This involved merging two counties to form the new Region Skåne in 1997, followed by the merging three counties to form the Region Västra Götaland (with the exception of some municipalities transferred to other counties) (see Box 3.9 for more details).

The reform created a heterogeneous regional map. Regional development policies are implemented by:

- 4 Counties: 3 County Councils (Landsting) and 1 municipality (kommun) they call themselves “Region”, (including the two said pilot regions);
- 13 Counties: Regional Co-ordination Bodies (Samverkansorgan). They call themselves “region” or “regionförbund”;
- 4 Counties: County Administrative Boards (Länsstyrelse) i.e. Government Agencies.

Such a heterogeneous and experimental approach has created scope for learning, fine-tuning the reform and fostering consensus. Thus it is bottom up and democratic and it can help overcome the difficulties in mustering support for the reform across the whole country and allow the best solutions to be identified through trial and error. Therefore, it could be a source of inspiration for the Dutch government. In fact, the gradualist approach to provincial mergers chosen in the Netherlands, with the planned merger of Utrecht, Flevoland and Noord-Holland, appears to tread on the similar path as the Swedish reform in the late 1990s. However, the Swedish case also provides a warning against the drawbacks of this approach. The asymmetrical and confusing governance structure that emerged in Sweden as a result of this experimental and bottom-up approach implies a major policy co-ordination challenge. In addition, experimental and gradual reforms tend to be lengthy and costly, while creating the risk of unclear role of different bodies in certain tasks.

Source: Swedish Ministry of Enterprise Energy and Communication and OECD (2010), *Making Reform Happen: Lessons from OECD Countries*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264086296-en>.

What are the other options for re-scaling for provinces?

Co-operation is not limited to the municipal level; other levels of government, such as the provinces, may establish co-operative agreements, something already well developed in the Netherlands, and some provinces would prefer this option to merger because it safeguards their autonomy. However, in some cases horizontal co-operation can be hampered by identity. Drenthe and Groningen engage in close collaboration on public transport policy by establishing a Public Transport Bureau for Groningen and Drenthe, framing the daily co-operation on the management of the bus network and dealing with common public procurement for both provinces and Groningen city. The province of Friesland is not involved in such co-operative ventures, preferring to deliver public transport on its own, which may be linked with its strong regional identity and its frequently stressed desire to remain autonomous. However, the sense of identity did not preclude three provinces from collaborating within the Northern Provinces Alliance, a body with the aim to foster

collaboration on economic issues as well as to develop joint positions for the purpose of lobbying in The Hague and in Brussels.

In the OECD, there are some examples of well-developed inter-regional co-operation. For example, the Swiss cantons are encouraged to engage in a range of co-operative agreements (*concordats*) in order to overcome the limitations associated with their relatively small size (Bochsler, 2009). The use of such bilateral or multilateral agreements has been increasing in recent years, thus becoming a key feature of the Swiss “horizontal federalism”. This process is supported by the federal government, which aims to promote regional co-operation in nine policy areas. Thus, cantons have the possibility of requesting the intervention of the federal government in order to force a reluctant canton to participate in a regional agreement.

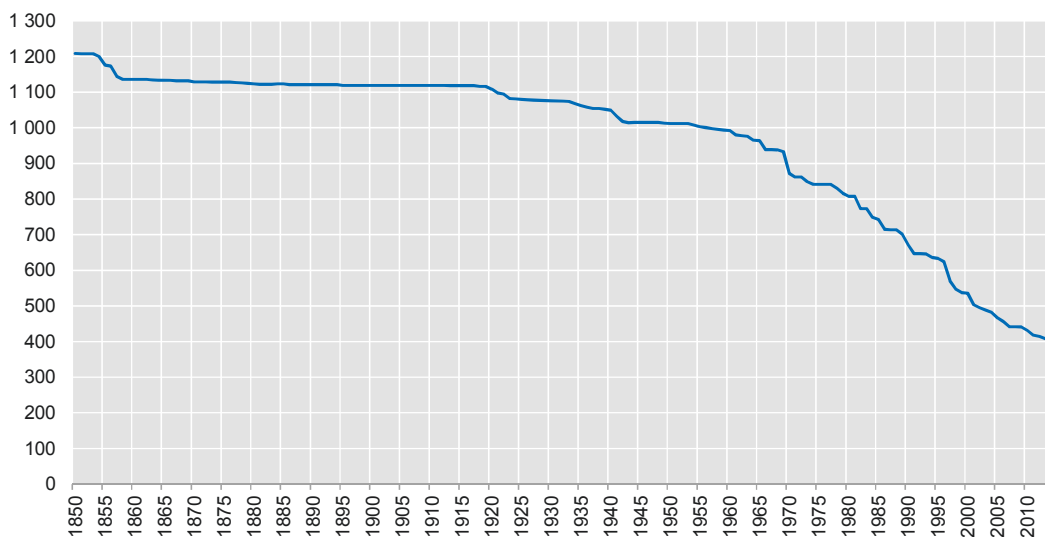
Re-scaling the municipal level: A mixed approach

The rationale for re-scaling of municipalities is to increase administrative capacity and pool resources to allow for more efficient public service delivery. To what extent is the size of Dutch municipalities a concern today? What are the different options to attain the right scale? There is currently a mixed approach in the Netherlands, which offers the choice between voluntary amalgamations and inter-municipal co-operation, while the government is developing a Policy Framework to encourage bottom-up mergers.

The average size of the Dutch municipalities has been increasing regularly over the years

In contrast to the provinces, whose organisation remained stable, the municipal landscape has undergone profound changes over the years. In particular, the number of municipalities has decreased over time as a result of several waves of amalgamation. The number of municipalities has declined, from 1 209 in 1850 to 403 in January 2014 with a decreasing trend becoming steeper from the 1970s (913 municipalities in 1970 and 811 municipalities 10 years later) (Bos, 2013). Since then, mergers have occurred almost every year (see Figure 3.33).

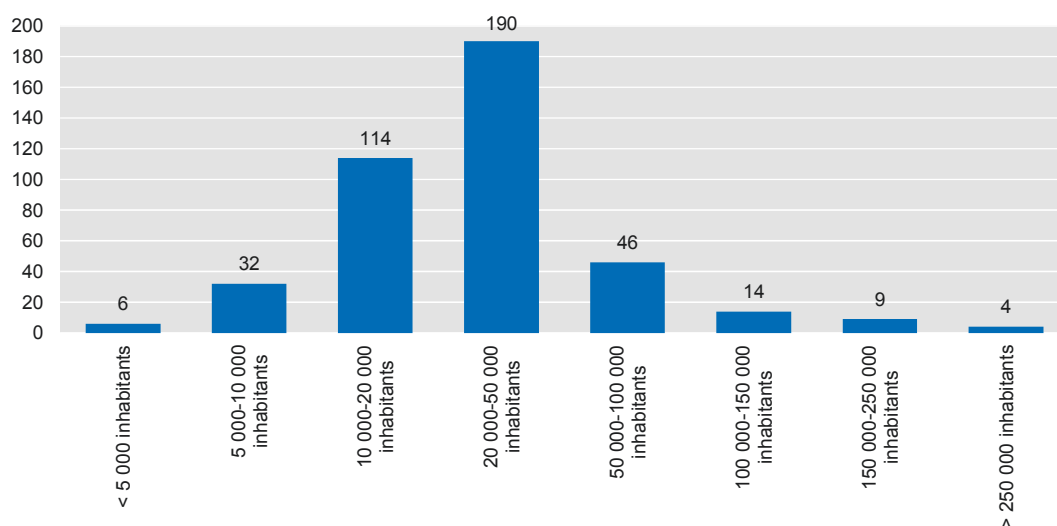
Figure 3.33. **Number of municipalities in the Netherlands, 1850-2014**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

This gradual reduction has involved a gradual increase in average population size: in 1988 the average population of municipalities was slightly above 20 000 inhabitants, with three-quarters of municipalities below the average threshold. In 2012, after the latest mergers, the average population of the Dutch municipalities rose to 41 125. Only 37% of municipalities have less than 20 000 inhabitants and just 9% have less than 10 000 inhabitants (Figure 3.34). Nearly half have between 20 000 and 50 000 inhabitants, while 27 municipalities have over 100 000 inhabitants.

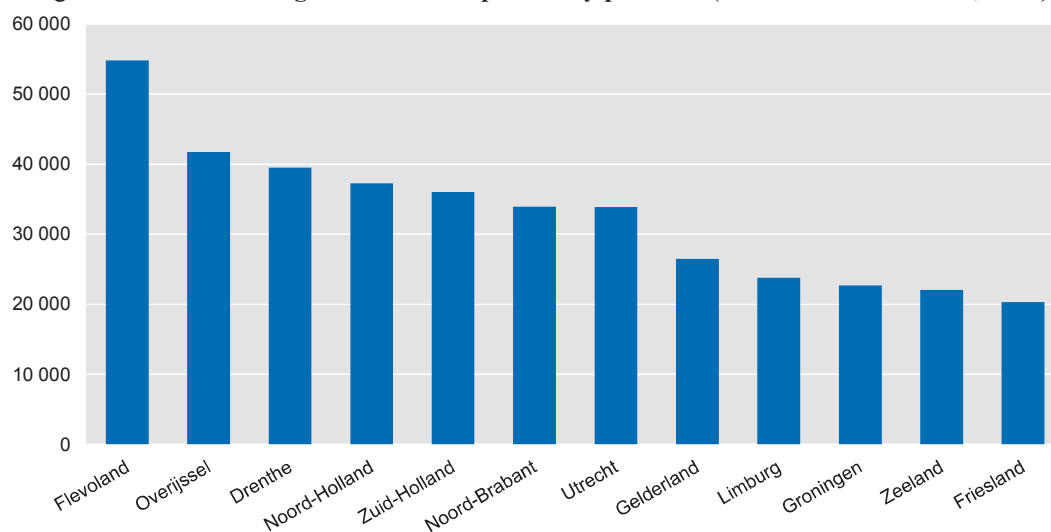
Figure 3.34. **Municipal distribution by size, 2012**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

Examining the distribution of municipalities by province and average size displays a geographic pattern. The smaller municipalities in terms of population size are mainly concentrated in the north of the Netherlands in the provinces of Friesland and Groningen, and in the south in Zeeland and Limburg (see Figures 3.35 and 3.36).

Figure 3.35. **Average size of municipalities by province (number of inhabitants, 2012)**



Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

Figure 3.36. The location of the less populated municipalities in 2009



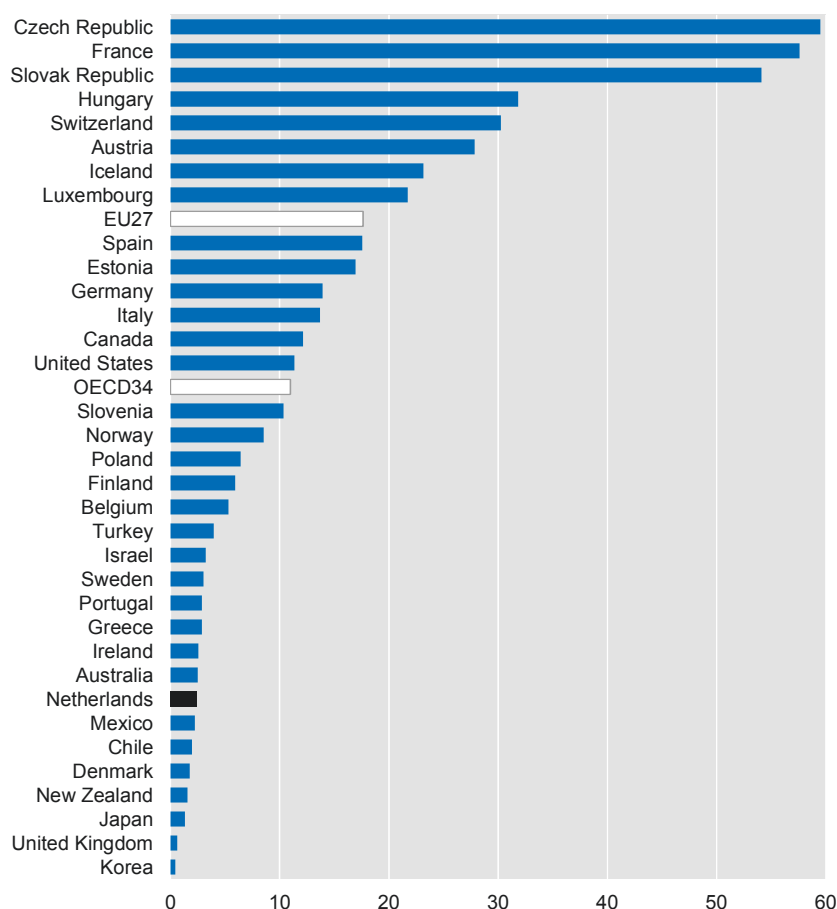
Note: This map is for illustrative purposes and is without prejudice to the status of or sovereignty over any territory covered by this map.

Source: CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014); map taken from Bos, F. (2013), “Economic theory and four centuries of fiscal decentralisation in the Netherlands”, OECD Journal on Budgeting, Vol. 12/2, pp. 1-54, OECD Publishing, Paris, <http://dx.doi.org/10.1787/budget-12-5k8zpd5cczd8>.

Dutch municipalities are not particularly small by international standards

Compared to the OECD average municipality size of 9 115 people, Dutch municipalities are relatively populous (see Figure 3.37). There are only seven OECD member countries (Chile, Denmark, Japan, Korea, Mexico, New Zealand and the United Kingdom) having a greater average population at the lowest territorial tier (see Chapter 1). Therefore, when looking at the municipal fragmentation index (the number of municipalities per thousand inhabitants), the Netherlands is among the lowest in the OECD with an index of 2.4 compared with the OECD average of 11 and the EU27 average of 17.6 (Figure 3.37).

Figure 3.37. Average number of municipalities per 100 000 inhabitants in the OECD, 2012

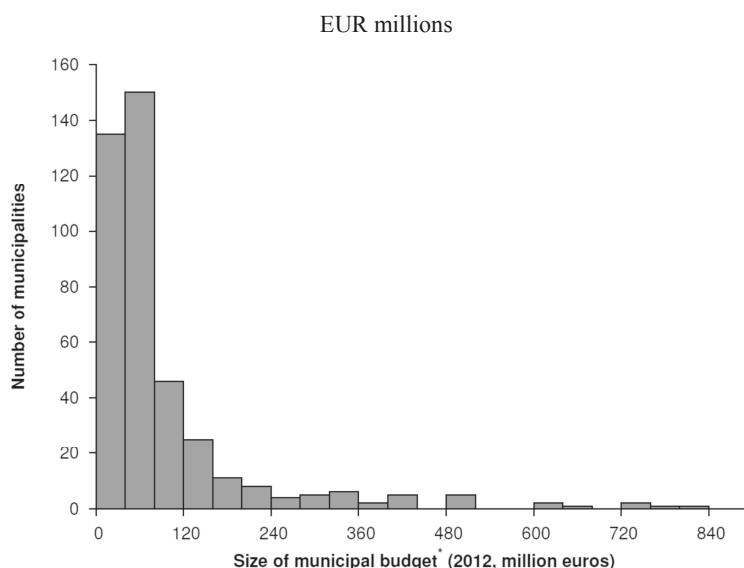


Notes: The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Source: OECD (2013), “Sub-national governments in OECD countries: Key data (brochure)”, OECD, Paris, www.oecd.org/regional/regional-policy.

However, there are some disparities between municipalities in terms of financial and human capacities.

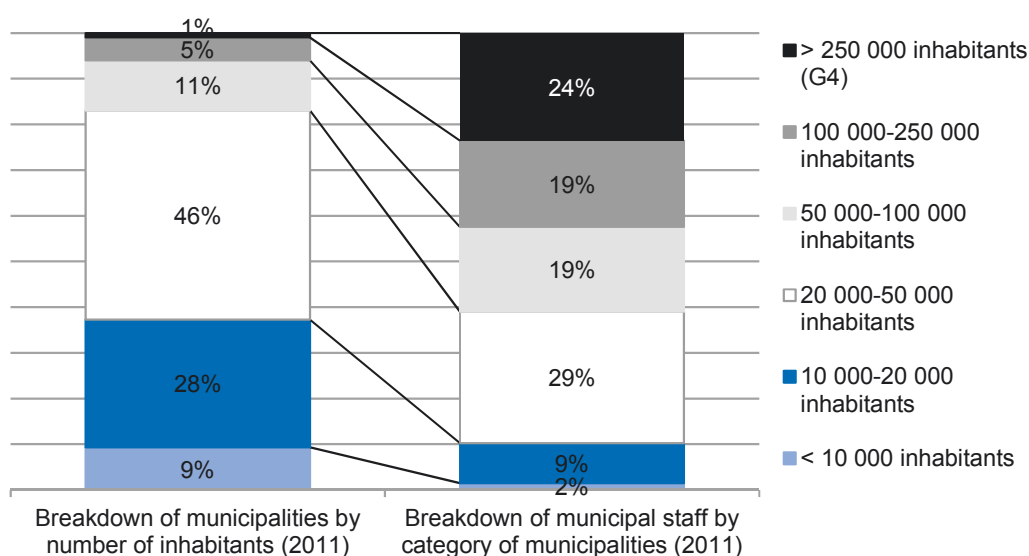
In 2012, the four largest municipalities, Utrecht, The Hague, Rotterdam and Amsterdam, accounted for 25% of all municipal expenditure, at more than EUR 13 billion. At the other end of the scale, 285 municipalities, 70% of Dutch municipalities, spent less than EUR 80 million each in 2012 and 135 municipalities (one third), less than EUR 40 million (see Figure 3.38).

Figure 3.38. **Distribution of municipalities according to their level of expenditure, 2012**

Note: *: Utrecht, The Hague, Rotterdam and Amsterdam are not represented on the graph.

Source: Based on data from CBS, Central Bureau of Statistics, The Hague and Heerlen, www.cbs.nl/en-GB/menu/home/default.htm (accessed on 14 January 2014).

In 2011, 17% of municipalities (the larger ones, i.e. with more than 50 000 inhabitants) employed 61% of all municipal staff. By contrast, 37% of municipalities (those having less than 20 000 inhabitants) employed just 11% of municipal staff (see Figure 3.39).

Figure 3.39. **Breakdown of municipalities staff by category of municipalities, 2011**

Source: Based on data in A+O fonds Gemeenten (2012), *Monitor Gemeenten 2011, Personeel in Perspectief*, A+O fonds Gemeenten, The Hague.

New push factors for re-scaling municipalities in the Netherlands

While Dutch municipalities are not particularly small by international standards (see above), there is a long-standing debate in the Netherlands about amalgamating municipalities in order to take advantage of economies of scale and scope and efficiency gains in public services as well as to be able to execute their administrative power (*bestuurskracht*). This debate has also been very lively in the OECD and EU countries in past decades (see Box 3.16).

In the Netherlands, the decentralisation reform has reignited the debate on the right size for municipalities, and has become the main driver of the territorial reorganisation. Municipalities, especially the smaller ones, will face major challenges performing their new mandatory social functions adequately. Small municipalities may not have the capacity to deal with these new responsibilities, in particular the managerial, administrative and financial capacities. After the first decentralisation measures in 2007, several small municipalities needed to reorganise themselves on a more suitable scale to carry out these additional tasks, deciding to merge or conclude joint municipal arrangements.

Box 3.16. Austerity and municipal mergers in EU and OECD countries

In the past decades, many OECD countries have implemented administrative territorial reforms, radically changing the municipal landscape (Dexia, 2012).

Merger policies started in the 1950s in Austria (which halved the number of municipalities) and in Sweden (which divided them by more than eight). In the years that followed, municipal merger movements drastically reduced the number of municipalities in Denmark in 1970 (divided by five), in West Germany in the 1960s and 1970s, in Belgium in 1975 (divided by four), in Lithuania in 1994 (divided by ten), in Greece in 1997 (divided by six). In Japan, a second round of municipal mergers was carried out in 1999 (*Heisei no Daigappei*), after a first series of amalgamations that took place in 1953; the number of local entities was reduced from 3 232 to 1 719.

More recently, Denmark reduced its number of municipalities from 271 to 98 in 2007 (see Box 3.8) and Latvia from 524 to 119 in 2009. In Turkey, the number of municipalities was reduced from 3 225 to 2 950 after a reform in 2008 and will be decreased from 2 950 to 1 395 after March 2014 local government elections. In Luxembourg, the government launched a merger policy in 2009, intending to reduce the number of municipalities from 116 to 71 by 2017, with the critical mass of a municipality being set at a minimum of 3 000 inhabitants as set out by the government's territorial reorganisation programme.

Beside these large and rapid reforms, several countries reduced their number of local entities progressively over time, often in a piecemeal fashion rather than radical amalgamations programmes. These included the Netherlands but also Australia, Canada, Germany, Iceland, Norway, Switzerland and the UK. In Finland with the PARAS reform introduced in 2007 progressively reduced the number of municipalities from 431 in 2006 to 336 in 2011 (see Box 3.22).

The current context of crisis and tight budget policies has given such reforms a further impetus, with municipal merger policies picking up as austerity measures bite. For many governments, it has been an opportunity to step up the movement toward reorganising municipalities, with the goal of rationalising and pooling resources to increase the efficiency of local public action and save costs.

Box 3.16. Austerity and municipal mergers in EU and OECD countries (*cont.*)

A striking example of this is the *Kallikratis* plan implemented in Greece in 2011 in the context of austerity measures and pressure from the “Troika” (the European Commission, European Central Bank and International Monetary Fund), that resulted in a drastic reduction of the number of municipalities from 1 034 to 325. The functions of the new municipalities remained unchanged, but they received additional financial and human resources.

Likewise, the German Land of Saxony-Anhalt launched a reform that reduced the number of municipalities from 840 to roughly 220; at the same time the whole of Germany has seen a 7% decrease in municipalities between 2007 and 2011 (from 12 456 to 11 553).

There are other upcoming subnational amalgamation programmes in OECD countries, but many are still being discussed at the national and state level. In Estonia, municipal amalgamations were announced by government, aiming to ultimately reach a number of municipalities between 30 and 50, instead of 226. Finland is on a path towards further municipal amalgamations through the “New Municipality 2017” programme. In Hungary, the new constitution (2012) allows forced local amalgamations. In Ireland, a proposal for territorial reorganisation was proposed by the central government in late 2012. The 114 local authorities will be replaced by 31 new entities. In the United Kingdom, the Local Government Reform in Northern Ireland will reduce the number of county councils from 26 to 11 in 2015. In Spain, the projected Law for Rationalisation and Sustainability of the Local Administration, currently under discussion in the parliament, envisages mergers of municipalities of less than 5 000 inhabitants, which represent 84% of Spanish municipalities.

Source: OECD (forthcoming), *OECD Regional Outlook 2014: Regions and Cities – Where Policies and People Meet*, OECD Publishing, Paris; Dexia-collective work (2008), “Subnational governments in the European Union: Organisation, responsibilities and finance”, Dexia Editions, Paris; Dexia (2012), Subnational public finance in the European Union, Dexia, Paris, July, http://www.dexia-creditlocal.fr/collectivites-locales/expertise/europe-international/Documents/Note%20UE%202012/Note_EU_2012_eng.pdf.

Another recent key incentive for mergers on top of the effect of the global financial crisis on municipal budgets, is the additional stress brought by an ageing population (see Box 3.17) and a shrinking labour market (see Chapter 1). Greater charges and constrained revenues make some municipalities more receptive to the up-scaling option. In some of the northern provinces, where demographic trends are a source of concern, municipalities tend also to be more open to mergers.

Box 3.17. Population ageing and municipal mergers across the OECD

The shrinking population in the north of the Netherlands is creating additional pressure for up-scaling subnational governments in order to deliver public services more effectively and efficiently. Similar challenges are faced by regions in other countries of the OECD. In Sweden, in sparsely-populated regions such as Småland, out-migration and an ageing population have made it difficult to sustain public service provision. Despite the realisation of the need to address this challenge through inter-municipal co-operation in public service provision, progress in promoting it has been limited due to a range of impediments. A more successful example of a policy to address the spiralling costs of service provision as a result of shrinking population is the recent municipal merger policy in Brandenburg, Germany. Since 2011, in order to streamline public service provision the Land has been encouraging mergers by offering grants of EUR 50 000 for merging some administrative functions and of EUR 500 000 for complete mergers. This has led a number of municipalities to amalgamate.

Source: OECD (2013), *Investing Together: Working Effectively Across Levels of Government*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264197022-en>.

Different options for re-scaling municipalities: up-scaling or trans-scaling

Initially, the original proposal of the central government in the 2012 Coalition Agreement was to set a minimum population target for the mergers at 100 000 inhabitants in the long term. It was however specified that this minimum number of inhabitants could be adjusted to reflect the different population densities of different parts of the country. Municipalities can still have the option of co-operating with neighbouring municipalities. Since the decentralisation of new functions in 2007, while several Dutch municipalities decided to merge to tackle the challenge of implementing their new administrative powers, others decided to co-operate through municipal arrangements, sometimes as an intermediate step. Similar mixed approaches are also used elsewhere in the OECD, such as in Switzerland (Box 3.18).

The amalgamation policy in the Netherlands has always been implemented from the bottom up, i.e. on a voluntary basis. To that end, the central government has approved a “Policy Framework for Municipal Redivision”. It will be effective for amalgamations taking place as of January 2016. Until then, merger proposals will continue to be assessed based on the previous Policy Framework adopted in 2011.

The new policy framework will give the provincial government a greater role in the municipal amalgamation process than in the current one (see Box 3.19). In fact, as the discussion about mergers of municipalities is supposed to take place at the provincial level, the provinces can play the role of “moderator” and guide the debate that might lead to municipal reorganisation. They can suggest some municipalities merge if there is an economic rationale for this. Should municipalities decide to go ahead with the merger, provincial authorities can provide technical assistance in this process and play the role of brokers. The Ministry of Interior and Kingdom Relations also has an important role to play and can offer its support to municipalities.

The provincial government is responsible for sending the merger proposal to the central government which will assess it and convert it into a bill if it is assessed positively. If the proposal is rejected by the government, the province and the municipalities have to prepare a new proposal.

The policy framework formulates the criteria used for assessing the merger proposals, broken down into five main categories: i) public support (from all municipalities involved, the province and inhabitants); ii) internal consistency of the newly formed municipality and internal organisation through villages and community councils; iii) administrative and financial power; iv) balanced regional relations, in particular with the other municipalities; and v) sustainability.

The central government has improved existing grants from the Municipality Fund to merging municipalities. Newly formed municipalities will obtain a temporary merger grant from the Municipalities Fund to compensate them for extra costs, known as “friction costs”. This is to cover additional temporary expenses that would not have been incurred without redivision. The merger grant will be paid over a period of five years and consists of an extra 25% of the initial amount in the year before the actual merger, 40% of the initial amount in the first year after the merger and 20% of the initial amount in the three following years.

As in the case of provincial mergers, the level of consensus for up-scaling reforms varies across municipalities in the Netherlands. Some municipalities accept it as inevitable to cope with the enlargement of their responsibilities. For example, discussions are underway to foster consensus on the amalgamation of existing municipalities into six

municipalities in the province of Groningen, with the aim of strengthening the role of cities in the Energy Valley. By contrast, other municipalities are strongly opposed to amalgamations and prefer to preserve existing co-operative arrangements as a way to overcome problems in the delivery of services, while retaining their autonomy and identity. In Friesland for example, there is also a strong sense of identity at the municipal level, which makes the debate on municipal mergers particularly tense, even if the discussions means they gain more support in the end.

Box 3.18. Dealing with municipal fragmentation in Switzerland

In Switzerland municipalities tend to be very small – their average population size in 2003 was 2 501 inhabitants. To address the challenge of effective public service provision, the Swiss municipalities opt for both amalgamation and voluntary co-operation. In the previous decade, amalgamation was often chosen as an approach to increase the efficiency of public service provision in small and weakly performing municipalities. Today, however, amalgamations are gaining momentum in the majority of the Swiss cantons, either as bottom-up initiatives or a joint cantonal-communal effort. In many cases, the cantons encourage mergers by providing financial incentives. Between 1900 and 1950, the number of communes decreased by 63, between 1990 and 1995 by 46 and between 1995 and 2000 by 76. Since 2000, the number of communes has declined by 263. In 2009 the amalgamation trend picked up with a considerable number of mergers being enacted and leading to a decrease of the number of municipalities by 79 to 2 636 communes.

In most municipalities and in metropolitan areas, such as Zurich and Geneva, voluntary co-operation arrangements are also in place and are promoted by the cantons. Swiss local authorities co-operate on specific issues, such as energy or waste services, and establish joint decision-making bodies composed of their delegates. This pragmatic and network-based model of urban governance offers a high degree of flexibility and overcomes the fragmentation characterising the Swiss territorial system. In some cases, such as Geneva, this model also makes it possible to extend the joint provision of services across the border to French municipalities.

Research indicates that the financial impacts of the mergers are mixed. Generally, in the past mergers saw an upward levelling by the weakest municipalities to reach the performance level of the previously largest and most efficiently performing municipality. However, in around 50% of cases, the mergers have increased municipal debt as a result of increasing post-merger investment. That said, in the other half of municipalities surveyed, debt decreased after the merger thanks to cost savings. Likewise, about 30% of merged municipalities had to increase taxes to finance the improvement in service quality, but in 30% taxes were reduced.

Voluntary collaboration among Swiss municipalities has also tended to boost the effectiveness of service provision, while stimulating efforts to enhance the qualifications of the employees and have positive effects on their motivation. Nevertheless, as in the case of mergers, it is difficult to assess whether they allow for efficiency gains. In many co-operative arrangements, the costs for the participating municipalities remained unchanged or increased as a result of the expansion of the scope of the services offered. Moreover, voluntary collaboration also tended to involve complex decision-making structures, increasing the costs of co-ordination.

Source: Steiner, R. (2003), “The causes, spread and effects of inter-municipal co-operation and municipal mergers in Switzerland”, *Public Management Review*, No. 5, Vol. 4, pp. 551-571.

Box 3.19. Reinforcing the role of provincial governments in municipal mergers

The new Policy Framework for municipal redivision reinforces the role of the province in supporting municipal mergers on their territory. The provincial level of government already plays an important role in the municipal amalgamation process. For instance in Drenthe Province, a wave of municipal mergers took place in the early 2000s, reducing the number of municipalities in the province to 12, with the smallest having 15 000 inhabitants. The mergers were supported by the provincial government, which helped to overcome any reluctance. The province of Groningen created a visiting committee to prepare a report on how the mergers could be carried out, setting the framework for the debate that should guide the municipalities in this processes.

Up-scaling or trans-scaling: lessons from international experience

Lessons from up-scaling

The merger of municipalities is the most straightforward solution as it eliminates the fragmentation problem by simply increasing the size and administrative capacities of subnational governments.

There are several approaches to implementing amalgamation

These range from hard measures, such as coercion, to soft ones such as financial incentives or bottom-up experimentation. Few countries use a coercive approach to implementing amalgamation. One example is Denmark, where central government imposed mergers by dictating strict conditions and leaving no room for municipalities to influence the process. In what was dubbed a “controlled voluntary process”, central government gave the municipalities six months to prepare their merger plans before 1 January 2005, with the implicit threat of intervening and imposing mergers from above in cases of non-compliance. In a surprisingly smooth process, the plans were prepared and accepted by the central government in a cross-party political agreement in parliament in March 2005. There were only a couple of cases of opposition to mergers, which were nonetheless resolved within months and the amalgamation plan was finally agreed in the summer of 2005. The reform was deemed a success, and by January 2007 the new system was implemented with no disruption in public services to citizens (see Box 3.20 and Blöchliger and Vammalle, 2012).

Box 3.20. Lessons from the Danish reform

What made it possible for Denmark to enact its merger policy in such a swift and relatively smooth way? The answer seems to lie in the municipal elections which were looming in November 2005, combined with of several other factors.

The reform process benefitted from strong personal commitment and political leadership from the ministers of interior and of health.

Widespread public hearings preceding the reform helped to muster support by creating a sense of ownership among local leaders.

The amalgamation reform gained additional impetus by being bundled with a wider reform of territorial governance, including the redesign of the regional tier, redefinition of the tasks and responsibilities across the levels of government, and a reform of the fiscal equalisation scheme for the municipalities. Thus, the decentralisation of additional competences and the enhancement of the fiscal situation in the cases of some municipalities made it easier for local leaders, who might otherwise have feared the loss of positions and importance, to accept the mergers. Those local politicians who would stay within the local government after the merger would find themselves in stronger units with larger budgets.

Government largely overcame local officials' resistance by offering safeguards and guarantees, such as that no public official would be fired in the first year of implementation of the reform and that local budgets would be increased adequately to deliver the new tasks ("funds follow the tasks" rule), while keeping the promise of not increasing local taxes after the reform (OECD, 2010).

These lessons could be useful for municipal mergers in other countries. The Danish reform illustrates that a two-stage process is an effective approach to enacting amalgamation. First, a set of criteria is imposed upon the subnational governments (e.g. minimum population size) and then, a bottom-up re-organisation process is encouraged through different incentives. The success of such an approach, however, appears to depend on the presence of a consensual culture and the credibility of the central government's determination to enact, and if necessary, impose the reform. An alternative approach is to first encourage inter-governmental co-operation, which helps to build trust and linkages between the actors from different jurisdictions, before pushing forward with compulsory up-scaling (Swianiewicz, 2010).

Source: OECD (2010), *Making Reform Happen: Lessons from OECD Countries*, OECD Publishing, Paris, <http://dx.doi.org/10.1789/9789264086296-en> and Swianiewicz, P. (2010), "If territorial fragmentation is a problem, is amalgamation a solution? An East European perspective", *Local Government Studies*, No. 36, pp. 183-203.

Several countries have used incentives to encourage voluntary mergers. In Finland, for instance, the government has been offering financial incentives for mergers of municipalities since the 1970s (Box 3.22). Similarly, the Norwegian government provides partial reimbursement of merger costs and additional infrastructure grants, with assistance for preparing the ground for mergers. There is also financial support for research into the consequences of a merger and grants for enhancing inter-municipal dialogue and information sharing.

In Japan, a first wave of municipal mergers took place in the 1950s with the aim of a minimum target size of 8 000 inhabitants per municipality. In 1999 the government opted for

a voluntary merger policy, albeit with a target of reducing the overall number of municipalities to 1 000. Mergers were encouraged through a mixture of temporary incentives which were made available until 2005. These included financial incentives (grants and tax advantages) and measures to mitigate the resistance to mergers such as the guarantee to maintain the seats of local assembly members, a local tax “freeze” and the use of new organisational structures to enhance local representation (OECD, 2006).

Switzerland – where it is some cantons, rather than national government, promoting amalgamation of municipalities (Box 3.18) – offers an idea of how Dutch provinces could act as a broker in municipal mergers. The cantons tend to combine financial incentives with guidance and technical assistance in the merger process (Steiner and Reist, 2008; Dafflon, 2012). Thus, the majority of cantons offer a general financial assistance for the merging communes (e.g. a fixed sum per inhabitant) as well as special grants for conducting an evaluation of the potential merger and to finance the merger of communal bureaucracies. In addition, the majority of the cantons provide tailored advisory services, and offer free estimations of the financial implications of mergers and other instructional tools (e.g. sample documents, guidelines for mergers) for communes considering amalgamation.

Such a combination of financial and advisory assistance for municipal mergers has a significant impact on promoting amalgamation (Steiner and Reist, 2008). In addition, some empirical analysis indicates that financially weaker municipalities were the most responsive to the incentives to merge. Therefore, in order to facilitate and encourage voluntary mergers at the provincial and municipal level, it is important to combine financial incentives with technical assistance (provided either by the central or regional government) for assessing the impact of amalgamation on the budget of the new municipality.

The OECD experience shows that municipal amalgamation is not always economically and democratically effective

There is considerable uncertainty about whether amalgamation actually produces economies of scale. One of the main lessons from international experience is that the benefits of mergers do not always materialise or are overshadowed by shortcomings. A review of the literature reveals mixed results (Byrnes and Dollery, 2002). Only 8% of the studies found economies of scale, while 24% indicate diseconomies of scale, and 29% found evidence of both economies and diseconomies of scale. For instance, in Switzerland half of the cases of municipal mergers show an increase in expenditures (see Box 3.18). Detecting the presence of economies of scale in the provision of public services at the subnational level and identifying the optimal size of the unit are difficult tasks.

The possibility of reaping economies of scale from amalgamations may depend on the size of the municipalities and the density of the development. A study on the amalgamations of 29 municipalities in Ontario, Canada did find evidence of positive effects in terms of lower expenditure on municipal services, but only in cases where a relatively big town merged with smaller municipalities (Kushner and Siegel, 2005). By contrast, in cases where the merged municipalities were of similar size, no such positive effects were observed. Moreover, the case of Ontario also illustrates that there is little evidence of economies of scale in large municipalities. A study of economies of scale in fire and police services in 445 municipalities in the same Canadian province showed that the relationship between size of the population and costs are U-shaped, with the cost minimised for populations of about 20 000 inhabitants for the former and 45 000 for the latter (Found, 2012). Research on economies of scale in Finnish municipalities shows similar trends. Large municipalities tend to show lower cost efficiency than smaller ones in the delivery of services such as basic welfare or education,

while the optimal size of the municipalities for the best cost efficiency was found to be between 20 000 and 40 000 inhabitants (Moisio, Loikkanen, and Oulasvirta 2010). Moreover, research focusing on municipal amalgamations in the US indicated that while efficiencies could be gained by increasing the size of cities, they occurred only in cases where the mergers led to an increase of density of development. Where mergers resulted in more spread-out development the costs of service delivery increased (Edwards and Xiao, 2009).

Economies of scale are easier to reap for capital-intensive services requiring infrastructural investment and maintenance, such as water management¹⁰ or public transport. By contrast, their existence is questionable in more labour-intensive services, such as policing, social services, education or healthcare (Slack and Bird, 2013).

A further factor that may hinder the efficiency gains of scaling up is the incentive to overspend in the wake of the merger. The case of the recent merging of municipalities in Denmark illustrates this risk (Box 3.21).

Box 3.21. Costly mergers in Denmark

In 2007, the Municipal Reform Act simultaneously reduced the number of municipalities from 271 to 98 and replaced 14 counties with 5 larger regions. As a result, the average size of the population at the local level increased dramatically, from 19 900 to 55 200 inhabitants (see Box 3.8).

A study by Blom-Hansen (2009) demonstrated that the municipal mergers in Denmark resulted in an increase of expenditure. This is because municipalities participating in a merger tend to take advantage of the opportunity to increase their spending shortly before the merger, so that the associated liability will be shared between all the taxpayers of the merging municipalities (common pool resource problem). In other words, the last-minute increase of spending would no longer be the sole problem of one municipality, but a shared one as its costs would be borne by the new amalgamated unit. This last-minute spending was concentrated in the areas of capital expenditure and the maintenance of local infrastructure such as roads, bicycle paths or town squares, which are amongst the most visible expenditures. The extent of this phenomenon, as Blom-Hansen suggests, depends on whether the central government takes action to impose spending limits in the run up to the mergers; this limit helped to reduce the scale of overspending in the Danish case. It also depends on the existence of trust and shared norms among municipal leaders such as responsibility and long-term thinking that help to avoid irresponsible public spending.

Source: Blom-Hansen, J. (2010), “Municipal amalgamations and common pool problems: The Danish local government reform in 2007”, *Scandinavian Political Studies*, No. 33, pp. 51-73.

When municipalities with different service and wage levels merge, expenditure tends to increase. While the number of municipal politicians and higher-level bureaucrats may be reduced by the merger, lower-paid employees are likely to demand a pay increase to match the pay and benefits of their peers in the merged municipalities. In the Canadian fire departments in newly merged municipalities, wage increases outweighed the cost saving (Slack and Bird, 2013). In Toronto, where a merger to create a single-tier structure for the city was enacted in 1998, the expenditures on fire departments, waste disposal, and parks and recreation all increased after the merger, which may be the result of a similar phenomenon (Slack and Bird, 2013). The experience was similar in Japan, where the number of municipalities was reduced from 3 232 in 1999 to 1 820 in 2006 to enhance the efficiency of local government, promote further decentralisation and address the unfavourable fiscal situation at the central and subnational level (OECD, 2006). However, even though the

mergers were expected to allow for savings in the long term, a rise in expenditure, at least in medium term, was anticipated due to the high costs of integrating operations in the areas such as information systems or infrastructure development.

The international experience shows that amalgamation may create problems, especially when conducted among heterogeneous entities. In the Netherlands, this might be a concern at the provincial level, as some provinces are richer than others, and at the municipal level, where there may be differences in size and population density.

Besides economic efficiency considerations, another concern with municipal mergers is that they may hinder accountability and democracy and make it harder for people's voices to be heard. Local governments tend to be "closer to citizens", who can more easily participate in public meetings, hearings, elections, and establish direct contacts with officials (Faguet, 2004, 2011). Conversely, larger local government units not only appear more distant from citizens, but access to those larger bureaucracies is also more likely to be dominated by powerful special interest groups (Bish, 2001).

Another frequent problem with municipal mergers is that they are often seen as a threat to local identity and historical legacies. In Japan, an inability to agree on a name for a new municipality, the location of the local government headquarters, or even the date of the merger led to great opposition (OECD, 2006). Similarly, in France and Luxembourg strong reluctance on the part of local leaders to amalgamate resulted in watering down and slow progress in their application. In Italy, plans to eliminate municipalities with less than 1 000 inhabitants introduced as part of the government's austerity package in 2011 were abandoned as a result of opposition by local leaders. Closer inter-municipal co-operation was put forward as a more acceptable alternative (Dexia, 2012).

Box 3.22. Voluntary amalgamation in Finland

The Project to Restructure Local Government and Services, called the PARAS reform, consists of two main elements: the payment of grants for voluntary mergers of municipalities, and the restructuring of public service delivery. These incentives will last until 2013.

To promote municipal mergers, grants are offered to merging municipalities. Municipalities are free to choose whether to merge or not and to select their merging partners. The amount of the grant depends on the number of municipalities merging, the size of the municipality after the merger, and the initial size of the merging municipalities.

The reform also aims to restructure public service delivery by creating larger units to deliver public services. Different population requirements were thus established for different public services (for example, a minimum population base of 20 000 had to be reached to provide primary health care and associated social services, and a population base of 50 000 was required for vocational basic education). Municipalities can reach these population targets either by merging, or by co-operating with other municipalities in the delivery of these services. In cases where a partnership area is formed, a new joint municipal body must be established for the management of the relevant tasks.

Some flexibility is allowed based on whether municipalities are located on an island of the archipelago or in a remote location, as well as on linguistic and cultural features.

The biggest urban regions – i.e. the four local authorities in the Helsinki Metropolitan Area, and 16 other cities in other parts of Finland with their neighbouring municipalities (102 municipalities in total) – had to draw up co-operation plans. These plans had to resolve matters such as land use, housing and transportation and provision of services across municipal boundaries.

Source: Blöchliger, H. and Vammalle C. (2012), "Going Beyond a Zero-sum Game: Reforming Fiscal Relations", *eJournal of Tax Research*, Vol. 10, No. 1, pp 49-64.

Tran-scaling through inter-municipal co-operation: A widespread alternative to amalgamation

Amalgamation is not the only option for plugging municipalities' capacity gaps. Another arrangement, which is widespread in the OECD, is to establish a co-operation agreement with other (usually neighbouring) municipalities to jointly provide services and public goods. There are many types of such agreements in the OECD countries, which vary in the degree of integration of the municipal government, from the strongest form of integration to the softest: i) supra-municipal authorities, which represent the most integrated form, relying on the constitution of a supra-municipal tier of government to which functions are delegated; ii) generic co-operative agreements, with a wide scope of intervention but without any delegation of powers; and iii) single or multi-purpose co-operative agreements. The latter involves a limited transfer of administrative power, and usually the function is still implemented by each municipality, it is only the management that is jointly agreed (see for instance Slack and Bird, 2013; OECD, 2013b).

Observing inter-municipal co-operation practices in the OECD shows that each type of collaboration has its strengths and weaknesses. In general, inter-municipal co-operation allows for efficiency gains; however, in practice these positive effects are not always clear. For example, benefits were observed in Spain, where a study of cost efficiency in jointly managed waste collection in 186 municipalities found that cost savings were particularly important in small municipalities – 20% in towns with less than 20 000 inhabitants and 22% in towns with less than 10 000 inhabitants (Bel, 2011). But, in France, even if inter-municipal co-operation has yielded some efficiency gains, particularly in the areas of public infrastructure, it has also generated additional costs for the participating municipalities due to the operating costs of the inter-communal governance structures, overlapping functions and the increasing wages of personnel transferred from the municipalities (OECD, 2006).

Supra-municipal authorities can work well for certain functions

Inter-municipal co-operation may involve establishing a supra-municipal governing body, encompassing the territory of all municipalities in the agreement (see Box 3.23). The main feature of this approach is that municipalities decide to devolve responsibility for some functions to a third body on a permanent basis. This new body represents another layer of government and is usually responsible for functions that affect all the municipalities involved. This approach allows them to internalise externalities in the management of the services, and take on functions that could benefit from economies of scale, such as utility services and transport infrastructure. Municipalities usually fund the supra-municipal authority to perform the required tasks.

This solution allows municipalities to retain their identity and those functions that either do not require a larger scale of production or do not affect neighbouring municipalities. The political cost is that the authority of each municipality is diluted and depends on their negotiating skills. A trade-off emerges between matching of local preferences and efficient scale of production (and internalisation of externalities). An important drawback of this solution is the lack of transparency in accountability. There is a potential confusion among taxpayers about who is responsible for what, as the responsibility is diluted among all municipalities participating in the agreement (Slack and Bird, 2013).

Delegating functions to a supra-municipal authority works best where people's preferences are homogeneous. However, preferences vary depending on the type of

service involved. For instance, in terms of utilities such as water provision, sewage treatment, and gas and electricity provision, preferences tend to be quite homogeneous as the services are quite standard (Bartolini and Fiorillo, 2010). In contrast, welfare and health care service preferences may be different, and depend on the age structure. Municipalities with more elderly people may prefer a different type of service from municipalities where most of the people are young. This is particularly relevant for the Dutch decentralisation reform, where care services are being transferred to municipalities.

Box 3.23. Examples of well-integrated inter-municipal co-operation structures

Several OECD countries have this two-tier system in place. For example, in Canada, Metro Vancouver delivers services such as water, sewerage, waste management and housing to the 24 municipalities included within its boundaries. Metro Vancouver is governed by three boards (one for general regional issues, one for water management, and one for sewerage and drainage issues) with directors appointed by the local councils. Another example is the metropolitan region of Barcelona where in 2011 a voluntary association of municipalities was replaced by a Metropolitan Council comprising all of the mayors of the municipalities and 90 councillors, a Governing Committee and a President elected by the Council from among the mayors (Slack and Bird, 2013).

In France, inter-municipal co-operation structures are well-established, in particular groupings of municipalities with their own sources of tax revenue. There are three main types of these co-operation structures: “communities of municipalities” bringing together small rural municipalities (less than 50 000 inhabitants), “town communities” (between 50 000 and 500 000 inhabitants) and “urban communities” for urban areas with a population of 500,000 inhabitants or more. These groups constitute public establishments for inter-communal co-operation (EPCI) and are governed by delegates of municipal councils. They levy taxes to finance powers transferred to them by the municipalities, which can be mandatory responsibilities imposed by law or optional tasks (depending on the wishes of the municipality members). In addition to own-source tax revenue, the central government provides them with a basic grant as well as a special inter-municipal grant. A recent territorial reform launched in 2013 has established new metropolitan governance structures based on inter-municipal co-operation.

Source: Slack, E. and R. Bird (2013), “Merging municipalities: Is bigger better?”, *IMFG Papers on Municipal Finance and Governance*, Institute on Municipal Finance and Governance, Toronto, Canada.

Generic co-operation agreements

A generic co-operation agreement is a lighter and less formalised commitment than a supra-municipal body (see Box 3.24). Municipalities retain full responsibility for the implementation of policies, but these are decided in a co-operative way. Such an agreement may involve the creation of an area-wide body based on voluntary co-operation between existing units of local government in the agglomeration with no permanent, independent institutional status (Sharpe, 1995).

The main advantage of this approach is the relative ease with which arrangements can be established, removed or changed (Slack and Bird, 2013; OECD, 2013b). There are various ways of organising co-operation between municipalities, in particular regarding the scope of jointly provided services and the resources to fund the activity (e.g. taxation, transfers from the participating municipalities or user fees). The choice is usually entirely

left to the municipalities and depends on the type of function. For instance, for transport and other utilities user fees may represent an important source of funding, while welfare policies are mainly financed through central transfers.

Generic co-operative agreements may take a more or less structured form. Typically, there are no binding tools that prevent municipalities from defecting, and the relationship with citizens and other levels of government tends to remain minimal (OECD, 2013b). This is frequently the case, for example in the US, where most co-operative arrangements are loosely structured, without an overseeing special purpose bodies.

Box 3.24. Examples of generic co-operation agreements

The Czech Republic is characterised by a high number of municipalities and strong opposition to any amalgamation process. It adopted a flexible solution for pooling municipal resources and the joint provision of public services. The problem with these agreements is the lack of own resources, which means uncertainty in the availability of funds for their activities.

A similar approach to overcoming local government fragmentation has been adopted in Hungary, where “micro-regional” associations were introduced to facilitate the access of citizens to public services (Pfeil, 2010). The micro-regions were formed voluntarily and encouraged through financial incentives. The number of municipalities involved ranges between 2 and 65, usually with a large town dominating the agreement. Joint delivery through the micro-regional associations is mandatory for some public services, such as education, social services or healthcare, reflecting the concern of the government for the provision of similar services to the population regardless of their location. Some evidence suggests that the added value of the micro-regional associations is mainly the promotion of strategic regional thinking and co-operation, especially when supported by a government grant for common planning. However, it remains unclear whether the Hungarian micro-regions can exploit economies of scale, as the actual joint service provision depends on the willingness of the local authorities to co-operate, which varies across the associations. For this reason, some Hungarian municipalities choose to merge rather than form an association.

Source: Pfeil, E.S. (2010), “Hungarian public service reform: Multipurpose microregional associations”, in Swianiewicz, P. (ed.), *Territorial Consolidation Reforms in Europe*, Open Society Institute, Budapest, pp. 255-264.

Co-operative agreements among subnational governments have the merit of allowing the co-operating units to retain their autonomy in spending and taxing decisions, while favouring economies of scale in service delivery and addressing spill-over problems.

One of the main concerns with this approach are the costs of negotiating an agreement, which are particularly high when the participating administrations have different policy objectives or when they differ on the issues linked with redistribution. Less structured co-operative arrangements may be effective in ensuring co-ordination and efficiencies for narrowly defined services, but make it difficult to foster co-ordination across different policy sectors within the wider region and can be prone to litigation and conflicts of interests (Slack and Bird, 2013). Moreover, light and informal co-operation structures tend to offer low leverage capacity on upper levels of government (OECD, 2013b). Enacting voluntary co-operation implies transaction costs and, in cases where more formalised structures are put in place, the often a complicated organisational-managerial setting can slow down decision-making processes (Swianiewicz, 2010).

There can also be asymmetries of power between the participating authorities. The bigger units will have more weight in the bargaining processes and are able to ensure that their interests prevail over those of the smaller ones. While such asymmetries are typical for co-operative arrangements involving a large city and the surrounding smaller municipalities, they may also come to the fore in case of mergers of Dutch provinces with different sizes, economic power and political clout. Overall, the efficiency of inter-municipal co-operation depends on a range of factors including the number of participating municipalities, the extent of the transaction costs, and, critically, the characteristics of the public good in question (Bartolini and Fiorillo, 2011).

Special purpose co-operation arrangements can make sense in some cases

Single and multi-purpose co-operation bodies are usually established to deal with specific services such as water or waste management, planning, transport or education. In Germany regional transport associations (*Verkehrsverbund*) exist in almost every metropolitan area and bring together municipalities, transport authorities and several levels of government. One example is the Rhein-Main-*Verkehrsverbund* around Frankfurt-am-Main. This gathers together 15 counties, 11 cities and the Land of Hesse. An example of a multi-purpose co-operation body is the Chicago Metropolitan Agency for Planning (CMAP), established in 2005 as a result of a merger between the Chicago Area Transportation Study (CATS) and the Northeastern Illinois Planning Commission (NIPC). The institution is responsible for transport, land use planning, housing and economic development in the Chicago urban area.

The advantages of special purpose bodies is that they tend to be more independent from political influence, they have a more specialised and expert workforce, they can collect user fees to finance investment (Bahl and Linn, 1992), and they allow for existing municipalities to be maintained (OECD, 2013b). The main disadvantage is that their narrow specialisation makes it difficult to co-ordinate interrelated policies and investment across policy sectors (Slack and Bird, 2013). In addition, their proliferation creates a diffuse system of governance that is confusing for citizens (Kitchen, 1993) and which reduces political accountability (Bird, 1995; OECD 2013b). In cases where such bodies are not funded entirely by user fees, there is no clear link between their expenditures and the taxing powers of the local authorities that fund them, which further blurs accountability.

Box 3.25. Different forms of co-operation can be combined in the same area

In the Netherlands, two-tier structures and generic co-operation are often combined. The Amsterdam region is an example of the mixture between the two approaches; the Stadsregio Amsterdam (Amsterdam City Region) is a formalised partnership of municipalities co-ordinating several policies spanning across municipal boundaries, governed by a Regional Council. The council comprises representatives of 16 municipalities, although the City of Amsterdam plays a predominant role. The council appoints the Executive Board. The key competence of Stadsregio Amsterdam is provision of public transport; however, it also deals with other policy areas such as spatial planning and housing, infrastructure and economic affairs. In addition to this two-tier structure, there is also Metropoolregio Amsterdam (Amsterdam Metropolitan Area), an association covering a wider territory and comprising 36 municipalities, the provinces of Noord-Holland and Flevoland and the Stadsregio Amsterdam. The association co-ordinates policies of its members in the fields of spatial planning (Platform Planning), transport (Platform Accessibility Amsterdam Metropolitan Area), and economic affairs (Platform Regional Economic Structure).

The OECD experience shows that there are a range of ways to encourage inter-municipal co-operation, from hard to soft measure.

As in the case of mergers, governments use several policies to encourage co-operation between subnational governments. In fact, horizontal inter-governmental co-operation can be politically difficult to implement, as compromises need to be fostered on the particular interests of the units involved, which in turn may have consequences for the personal ambitions and careers of the local leaders and officials. It is noteworthy that, in the successful cases of France and Finland, a strong system of financial incentives drive the collaborative behaviour of municipalities, making it questionable whether they are actually voluntary (Swianiewicz, 2010).

The first way of developing inter-municipal co-operation is legal coercion by imposing it to municipalities. For example, there are legal requirements to collaborate, such as in Mexico where the planning law explicitly prescribes collaboration across states. Another example is the WGR+ Act in the Netherlands that made it compulsory in 2005 for municipalities in specific regions to co-operate on the provision of specific services. In France, the new metropolitan status for the largest urban areas has been imposed by a law adopted in December 2013.

Financial incentives are soft incentives, especially when it comes in the form of not obtaining funds to provide the required services if the municipality refuse to merge. Such solutions were put forward, for instance, in Estonia, Norway and Spain, where the central governments offered additional funds for joint public investment proposals. In France, the government offers special grants for inter-municipal co-operation. The Slovenian government finances 50% of municipal staff costs if they establish joint municipal management bodies. In Switzerland, almost 30% of the transfers are reserved for inter-cantonal investment initiatives. Finally, hard incentives for collaboration are often used as part of the EU cohesion policy, as in the case of Portugal where EU funds are used to offer financial assistance for establishing and implementing joint territorial development plans covering several municipalities (OECD, 2013a).

A distinctive approach was adopted in the region of Brandenburg (Germany) where the Land has identified 16 growing cores, mainly around the best performing municipalities, for focusing incentives for co-operation. Financial funding is then offered to joint projects that have the greatest growth potential and in which several municipalities co-operate matching the central government transfer with their own resources.

Although legal coercion and financial incentives are the most common method to push for co-operation, the importance of other soft measures should not be underestimated. These measures include supporting dialogue and networking among the subnational governments, and platforms for exchange of good practice. Examples of measures promoting such information sharing can be found, among others, in Canada, United States, and Norway. In the latter country, soft and hard measures are combined, so that inter-municipal co-operation is supported through financial incentives, but also through sharing successful strategies via conferences and the construction of an open database of collaborative initiatives (OECD, 2013a).

However, while offering financial incentives for co-operation may be the necessary condition to effectively stimulate it, it is not a sufficient one. Thus, recent OECD work pointed to the need to foster a collaborative culture among subnational governments and to build the capacity to engage in horizontal and vertical collaboration (OECD, 2013a).

Possible gaps and key challenges for the Dutch subnational government reform

The previous sections focused on the current subnational government reform in the Netherlands. It showed that reform, catalysed by the crisis and fiscal consolidation measures, entails a major overhaul of the administrative tiers and their functions, with a decentralisation of additional functions to municipalities, complete elimination of the city-regions and transfer of their competences to provinces, combined with efforts to consolidate both the provincial and municipal governments through mergers (up-scaling) or co-operation (trans-scaling). At the same time, the tight fiscal context also makes the subnational government reform more challenging.

The international experience shows that these types of reforms also entail risks that should be underestimated. It also shows that different parameters can be taken into account and integrated into the reforms to ensure their success.

In the case of the Netherlands, despite the strengths of the Dutch multi-level governmental system, stemming from deeply rooted collaborative culture and well-developed networks for horizontal and vertical co-ordination and co-operation, there are also several challenges for effective multi-level governance.

The subnational government reform is expected to be challenging and difficult to implement, in particular the territorial side of the reform which is met with resistance by both some of the local authorities and citizens that are unsure about the final outcome and fear to lose voice and sense of identity. Enacting large-scale administrative reforms requires strong leadership and political commitment to face a series of challenges, such as the need to overcome information gaps and developing a clear roadmap for reform, steering support for the reform among citizens and civil servants alike who may prefer to maintain the status quo (Table 3.5).

Table 3.5. **Public administration reform challenges and possible policy tools**

Key challenges	Possible policy tools
<ul style="list-style-type: none"> – Bridging information gaps and developing a clear roadmap with measurable intermediary targets and final outcomes. – Creating support for the reform: citizens and civil servants. – Building on leadership and political commitment to the reform. – Overcoming resistance to change and creating ownership feeling for reforms. – Capacity and knowledge. – Avoiding policy reversals. – Evaluating reform and assessing success. 	<ul style="list-style-type: none"> – Independent systems of expertise and preliminary evaluations. – International organisations. – Public debates and consultation strategies. – Seize the moment: take advantage of crises. – Mediation bodies (unions, associations, etc.). – Clear electoral mandates. – Compensating losers of reforms. – Implementing complementary reforms. – Contracts and experimentation. – Training plans and public administration schools. – Communication. – Evaluation mechanisms. – Independent and permanent institutions. – Ombudsmen and high-level committees.

Source: OECD (2010), *Making Reform Happen: Lessons from OECD Countries*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264086296-en>.

Possible gaps and challenges for the decentralisation reform

It is important to understand the main features of the decentralisation reform: what types of powers are decentralised? To which level? How should subnational governments be financed? How should local administrators be selected? How will co-ordination be assured across levels of government? How can adequate levels of service provision be assured across the country, despite sometimes large differences in local resources and capacities? These are among the key questions that make the difference between a successful and an inadequate decentralisation reform. Other important factors concern the characteristics of the country in terms of business environment, trust in governmental institutions and in fellow citizens, and the constitutional structure.

Box 3.26. The OECD approach to multi-level governance challenges

The relationship among levels of government resulting from decentralisation is characterised by mutual dependence, since it is impossible to have a complete separation of policy responsibilities and outcomes among levels of government. It is a complex relationship, simultaneously vertical, across different levels of government, horizontal, among the same level of government, and networked. Governments must therefore bridge a series of challenges or “gaps” between levels, both vertically and horizontally.

These gaps include notably the **fiscal capacity** of governments to meet obligations, **information asymmetries** between levels of government, gaps in **administrative responsibility**, with administrative borders not corresponding to functional economic and social areas at the subnational level, gaps in **policy design**, when line ministries take purely vertical approaches to cross-sectoral regulation that can require co-design of implementation at the local level and often a **lack of human, or infrastructure resources** to deliver services and design strategies. Countries may experience these gaps to a greater or lesser degree, but given the mutual dependence that arises from decentralisation, and the network-like dynamics of multi-level governance, countries are likely to face them simultaneously.

Mutual dependence across levels of government: multi-level governance challenges/gaps in OECD member countries

Types of challenges/gaps	Co-ordination challenges/gaps
Funding	Unstable or insufficient revenues undermining effective implementation of responsibilities at the subnational level or for shared competences => Need for shared financing mechanisms.
Administrative	Occurs when the administrative scale for investment does not correspond with functional relevance, as in the case of municipal fragmentation => Need for instruments for reaching “effective size” (co-ordination tools among subnational units; mergers).
Policy	Results when line ministries take purely vertical approaches to cross-sectoral policies to be territorially implemented => Need for mechanisms to create multi-dimensional/systemic approaches and to exercise political leadership and commitment.
Information	Asymmetries of information (quantity, quality, type) between different stakeholders, either voluntary or not => Need for instruments for revealing and sharing information.
Capacity	Arises when there is a lack of human, knowledge or infrastructural resources available to carry out tasks and to design relevant strategies for local development => Need for instruments to build local capacity.
Objective	Exists when different rationales among national and subnational policy makers create obstacles for adopting convergent targets. Can lead to policy coherence problems and contradictory objectives across investment strategies => Need for instruments to align objectives.
Accountability	Reflects difficulties in ensuring the transparency of practices across different constituencies and levels of government. Also concerns possible integrity challenges for policy makers involved in the management of investment => Need for institutional quality instruments => Need for instruments to strengthen the integrity framework at the local level (focus on public procurement) => Need for instruments to enhance citizens' involvement.

Box 3.26. The OECD approach to multi-level governance challenges (*cont.*)

OECD member and non-member countries are increasingly developing and using a wide variety of mechanisms to help bridge these gaps and improve the coherence of multi-level policy making. These mechanisms may be “binding”, such as legal mechanisms, or “soft”, such as platforms for discussion, and they must be sufficiently flexible to allow for territorially specific policies. Involvement of subnational governments in policy-making takes time, but medium- to long-term benefits should outweigh the costs of co-ordination.

Source: Charbit, C. and M. Michalun (2009), “Mind the gaps: Managing mutual dependence in relations among levels of government”, *OECD Working Papers on Public Governance*, No. 14, OECD Publishing, Paris, <http://dx.doi.org/10.1787/221253707200>; Charbit, C. (2011), “Governance of public policies in decentralised contexts: The multi-level approach”, *OECD Regional Development Working Papers*, No. 2011/04, OECD Publishing, Paris, <http://dx.doi.org/10.1787/5kg883pkxkxhc-en>.

Decentralisation involves a range of implementation challenges. For the municipalities, meeting the targets of both expenditure savings and a better match of policies to citizens’ preferences, is quite ambitious in the short term. Moreover, under some circumstances decentralisation may also produce perverse effects while not always delivering on the promise of better efficiency, and administrative and political gains.

The capacity challenge

One of the main problems a government faces when it decides to decentralise functions to the lower levels, is whether the local government has the capacity to manage those new functions or whether they lack the necessary human resources to manage complex tasks that were previously managed at the central level. For instance, decentralisation may not bring the expected efficiency gains in cases where the subnational authorities lack the capacity to responsibly manage their budgetary and fiscal affairs and to efficiently deliver public service (see Box 3.26 for a gap analysis). Among capacity challenges one of the most important is the vertical and horizontal co-ordination among subnational tiers of government.

In the Netherlands, municipalities face a series of challenges in implementing the new services, and not all of them may be able immediately to provide the best mix of services with limited resources. This is particularly the case for smaller municipalities. Given the complexity of social policy and the need to reduce expenditure, questions arise concerning the financial and managerial capacity of some municipalities to efficiently and effectively deliver a decentralised youth care policy. This lack of capacity in some municipalities is one of the main motivations for re-scaling through co-operation or mergers.

In addition, in many cases, a process of experimentation and learning is necessary. In order to deliver on their promises, decentralisation reforms need to be accompanied by efforts to build administrative capacity and an overall robust network of institutions at all levels of government (Dabla-Norris, 2006). Even if, these efforts can be costly and time-consuming, the central government – as well as the provinces and subnational government associations – must implement information and training programmes for municipal staff and elected representatives. Municipalities should be also encouraged to

exchange experiences and examples of best practices in order to improve the quality of services and the efficient use of resources across the Netherlands. The programme “Municipalities of the future” is a good move and other initiatives should be supported (see Box 3.27).

In that perspective, it is important to keep in mind that the decentralisation of tasks to provinces and municipalities carries a time dimension. Subnational tiers of government need time to build capacity and learn how to provide services and implement policies efficiently. In the case of care services, there is a learning curve that requires the public administration to acquire information on the best mix of services to meet their citizens’ needs. Therefore, it is unlikely that the reform will increase the quality of services and reduce costs in the short term. The definition of indicators and monitoring are key instruments facilitating this task.

Box 3.27. Municipalities of the future: Developing capacities and sharing best practice

In the area of reinforcing municipal capacities and best practice sharing, the programme “Municipalities of the Future”,¹ also so called “transformation programme” launched at 1 July 2013 is a good move. Implemented by the Ministry of Interior and Kingdom Relations, it has the objective to support municipalities in the transition process and to help them to cope with their new responsibilities, in particular in the social sector (youth, health care and employment). The ambition is to bring together all initiatives and developments within this field, so that they can reinforce each other. “Municipalities of the Future” provides a platform for shared vision and scenario development and for sharing experiences, expertise and networks. A pool of experts can help municipalities upon request in the specific areas (financial, legal, etc.) as well as the VNG (Association of Dutch Municipalities) and several ministries.

Note: For more information on the programme “Municipalities for the Future” see <http://gemeentenvandetoekomst.nl>.

The funding challenge for provinces and municipalities

Dutch provinces and municipalities have one of the lowest levels of local fiscal autonomy in both the OECD and the EU. As we have seen, financial transfers from central government supply the bulk of provincial and municipal budgets in the Netherlands. Today, most of the money comes as general transfers, as the number of earmarked grants has decreased substantially over the past years. However, earmarked grants still represent around 20% of revenue of Dutch municipalities and provinces, still restricting their spending autonomy. Despite their many functions, only a small portion of subnational expenditures is financed through taxes and fees. Tax policy remains in the control of central government. Such transfer systems are difficult to manage for the central level and create growing dependence at the subnational level.

A low level of own resources could be a concern because it inhibits the region from reacting to external shocks and other unexpected events appropriately. These may affect regions in different ways (for example, a sudden drop in labour supply because of the crisis of a sector in which a region is highly specialised).

Moreover, a large fiscal imbalance may lead to morally hazardous types of behaviour where the local administration has no incentive to use resources in the most efficient way, because it relies on the external transfers from the central government (see Box 3.28). The way in which resources are provided is also critical, for example to reduce moral hazard and provide incentives for efficient use of resources.

Fiscal imbalances also reduce accountability towards the citizens because a poor quality of the service provided can be attributed to external conditions such as lack of resources.

Box 3.28. Moral hazard

Moral hazard is an economic problem which arises when economic agents do not pay for the consequences of their actions or inactions. In these circumstance, an incentive scheme that transfers part of the risk to the agent can overcome the problem. The terminology originates in the insurance sector, and it is used to define the lack of incentive to take care of objects that have been insured. In this case the consequences of any accident are passed on to the insurance company. For this reason, insurance contracts are structured in a way to reduce the moral hazard problem. Most recently, the debate on the global financial crises and the role of central government in “saving” financial institution from bankruptcy has focused on the moral hazard that may arise from those policies. The administrators of financial institutions have a strong incentive to finance risky project if the associated high risk of failure is covered by the government (or other institutions).

In the same vein, subnational governments may undertake expensive and risky projects, not caring about the efficient use of resources because in case of failure the central government will intervene saving the local government from a default. The moral hazard incentive is based on the acknowledgment that the costs for risky projects conducted at the local level will be borne by the entire country. Therefore, subnational tiers of government may tend to accumulate debt because they anticipate that the burden will be shared with the rest of the country. By contrast whenever the government (central or local) finances projects through taxes, there is an implicit incentive to use them in the best way, otherwise it may encounter problems in the next election.

Source: Mas-Colell, A., M.D. Whinston and J.R. Green (1995), *Microeconomic Theory*, Oxford University Press.

In the case of municipalities, the continuous decentralisation of an increasing number of public services to the local level, combined with the current economic crisis and the funding municipal model, exacerbates the risk of a funding gap which may hamper the capacity of subnational governments to effectively perform their duties. The dependence of the subnational level from the central level will be growing with increasing transfers.

The financing of new allocated functions in the decentralisation process is a key element for success. On the one hand, the current reform does partly contemplate the way in which provinces and municipalities are financed, e.g. new financial allocation models are developed in order to execute the social tasks. By monitoring the social subfund for three years, in the end an optimal design can be created. On the other hand, the new municipal sub-fund for financing the transfer of social tasks does not modify the funding

model of Dutch subnational government. Therefore, a more comprehensive financial reform could accompany the decentralisation reform. It could comprise:

- Grants reform:
 - Since the budget of subnational tiers of government largely depends on central government transfers, central government must quantify how much resources these administrations need in adequate manner (see Box 3.29). The fact that municipalities may not entirely be offset by equivalent financial resources can cause difficulties. There are several methods to calculate the funding levels which the Dutch government could consider. Also, the indexation method to determine the evolution of grants each year (based today on the trend of central government expenditure) could be revised, as it can have perverse effects.
 - The new transfer systems will be particularly difficult to manage for the central level. It may be necessary to simplify it.
 - Assessing equalisation rules (see below).
 - The policy of reducing the number of earmarked transfers should continue as well as giving more room for manoeuvre in their use. The implementation of the sub-fund is a step in the right direction.
- A tax reform by increasing the share of own-source taxes or fees. Recent empirical evidence confirms that imbalances between taxing power and spending obligations are associated with weaker general government fiscal balances and lower economic growth. Dealing with such imbalances and finding appropriate ways of giving subnational governments more tax powers is probably one of the central issues in achieving stable and sustainable decentralisation. Local taxation rights and well-designed central/sub-central tax sharing are a powerful ingredient of functioning intergovernmental fiscal frameworks. Decentralised tax frameworks must be well designed and well co-ordinated with other elements of the fiscal framework – such as equalisation – if they are to be beneficial for a country (OECD, 2013f). New municipal taxes could be envisaged in addition to the property tax. For the provinces, the main tax is the surcharge on the national car registration tax, which is not linked to the resources need to provide the services by the province.
- Schemes to mobilise private actors and financing institutions to diversify sources of funding and strengthen capacities (public-private partnerships, mobilisation of institutional investors such as pension funds).

Box 3.29. Calculating funding levels

There are several approaches for calculating the cost of public services (Steffensen, 2010):

- Looking at historical data. This is the easiest and most common way to establish the costs of a service – the only information needed is the previous year(s) budget. However, it is not really appealing for the decentralisation process in the Netherlands as the aim of the reform is to save resources and cut spending. Furthermore, it does not take into consideration the different socio-economic conditions and administrative capacity of municipalities, so that funding may be enough in one place but not in another. The most important shortcoming, however, is the absence of any incentive to improve the efficient use of resources. As municipalities receive funding based on previous year spending, they have an incentive to increase spending so as to obtain more resources.
- Looking at the costs of similar functions in other countries and using them to estimate the likely cost of providing the services. This methodology, however, suffers from the drawback that economic and social conditions differ across countries, and the mix of services is never identical. However, it can provide a yardstick for comparing the standards and costs of similar services and can be used to guide the choices of the Municipalities Fund.
- Using standard cost methodology in conjunction with the international comparison. This is the most promising approach, but only in the medium-long term. Standard cost methodology and data envelopment analysis (DEA) is based on a statistical analysis of the costs of providing services in several areas of the country; the main characteristic is the identification of the best mix of inputs and outputs – the one that uses the least amount of resources to produce a given level of output. Comparing several combinations of outputs and inputs used by local government providers of public goods will serve as a benchmark for real local government producers. The main idea is that if one public body can produce a level of services equal to Y, using resources X, than any public body can do the same. If they do not then they are not using resources in the most efficient way. The key assumption here is constant returns to scale – thus no efficiency gains can be obtained by increasing the size of production. This implies that this methodology does not take into account possible economies of scale that have to do with the size of the jurisdiction (and will be dealt with in the next section). Another drawback is that it is not possible to determine the efficient use of resources if no local council has ever provided the service.
- Another possible mechanism to encourage efficient resource use by municipalities is to provide the local government with a fixed amount of transfers for a given number of years, and subsequently revise the sum. This methodology has the advantage in that the administration would be encouraged to make savings as any “saved” resource could be allocated to other projects. There are, however, some problems with this methodology. The initial sum of money may not be enough to cover the services needed and may create a situation in which some local governments are able to provide the service while others are not. Secondly, the national government will only benefit from the efficiency gains at the end of the period. As a result, the longer the interval between the revisions, the lower is the benefit for the central government. On the other hand the shorter the interval between revisions, the lower the incentive for the local government to invest time and resources in being more efficient.

Box 3.29. Calculating funding levels (cont.)

Methods to finance the local provision of services by transfers from the central government:

Methods	Key features
Historical costs	Simple implementation, but no incentive to be efficient
International comparison	Simple implementation but foreign experience does not automatically apply to domestic issues
Standard cost methodology	More complicated to implement but provides incentives to use resources efficiently
Fixed transfer	Powerful incentive, but risk of not reaching a minimum level of quality across different subnational tiers of government

Source: Based on Steffensen J. (2010), Performance-Based Grant Systems –Concept and International Experiences, UNCDF.

Preserving subnational government investment capacities

In the context of the reform, the central government should ensure that municipalities are not crushed under the weight of current expenditure, caused by social spending. Municipalities should keep their leeway to invest locally. The provinces should also be strengthened in their role as regional investor and their investment capacity could be preserved and even enlarged.

In fact, public investment is declining in the Netherlands as well as in the OECD while public investment shapes choices about where people live and work, and thus their quality of life. Public investment represents one of the most potentially growth-enhancing forms of public expenditure, and may serve as a catalyst for private investment. More effective public investment has a critical role to play in addressing inequalities, rebuilding trust, restoring growth and enhancing well-being. How to do more with less? The OECD has identified 12 principles for public investment to maximise its benefits at subnational level, which are worth taking into account (see Box 3.30).

Box 3.30. OECD principles for public investment

OECD principles developed by the Territorial Development Policy Committee offer a whole-of-government approach that addresses the shared responsibility across levels of government to achieve better public investment outcomes. They emphasise the crucial contributions that all levels of government can make to sustainable development and long-term inclusive growth. The subnational dimension of public investments is critical:

- OECD countries spent over USD 1.2 trillion in public investment in 2012. The scale of public investment, overall around 2.7% of OECD GDP and 15% of total investment, masks different levels across and within countries, where that investment may be up to 15% or more of regional GDP. On average, approximately 62% of public investment occurs sub-nationally among OECD countries (72% when weighted by country), i.e. 2% of OECD GDP.
- Subnational public investment accounted for 11.2% of subnational expenditure in the OECD area in 2012. Public investment shapes choices about where people live and work, and thus their quality of life. Public investment represents one of the most potentially growth-enhancing forms of public expenditure, and may serve as a catalyst to help leverage private investment. More effective public investment has a critical role to play to address inequalities, rebuild trust, restore growth and enhance well-being.
- Since 2010, consolidation strategies have reduced the resources for public investment, even as private investment in many countries continued to contract. On average in the OECD, subnational public investment declined by 13% since 2009. There is notable but uneven return to growth among OECD economies, but for many, fiscal constraints remain tight. All levels of government will have to contribute to doing better with less.

Therefore the impact of public investment depends on how governments manage it.

- Designing investment strategies that tap into regional and local competitive advantages can unlock growth potential of regions, thus contributing to better national performance.
- Effective public investment requires substantial *co-ordination* among national and subnational levels of government.
- A combination of investments in hard and soft infrastructure in integrated strategies is needed to maximize long-term sustainable growth.
- Strengthening regional and local governance capacities from the selection of projects to their execution is particularly crucial to enhance investment outcomes.
- All regions can bolster capacity, not only lagging ones: what differs is the type of challenges to be addressed. Countries and regions should identify binding constraints in terms of governance capacities and priorities reforms.

OECD member countries should take steps to ensure that national and subnational levels of government effectively utilise resources dedicated to public investment for territorial development in accordance with the Principles set out below:

Pillar I: Co-ordinate public investment across levels of government and policies.

1. Invest using an integrated strategy tailored to different places.
2. Adopt effective co-ordination instruments across national and subnational governments.
3. Co-ordinate among subnational governments to invest at the relevant scale.

Box 3.30. OECD principles for public investment (*cont.*)

Pillar II: Strengthen capacities for public investment and promote policy learning across levels of government.

4. Assess upfront long-term impacts and risks of public investment.
5. Encourage stakeholder involvement throughout the investment cycle.
6. Mobilise private actors and financing institutions to diversify sources of funding and strengthen capacities.
7. Reinforce the expertise of public officials and institutions throughout the investment cycle.
8. Focus on results and promote learning.

Pillar III: Ensure sound framework conditions for public investment at all levels of government.

9. Develop a fiscal framework adapted to the investment objectives pursued.
10. Require sound, transparent financial management.
11. Promote transparency and strategic use of public procurement at all levels of government.
12. Strive for quality and consistency in regulatory systems across levels of government.

Source: OECD (2014), “Recommendation on Effective Public Investment: Helping Governments Assess Their Investment Capacity”, www.oecd.org/gov/regional-policy/recommendation-effective-public-investment-across-levels-of-government.htm.

A new role for the provinces?

Provinces are to take a more central role under the present reform. Since 2003, several central governments tasks have already been transferred to the provinces. In 2015, they will have exclusive say over regional traffic and transport after the abolition of the city regions, except in the Rotterdam and Amsterdam areas. In parallel, their social competences will be transferred from provinces to the municipalities, refocusing provincial competences on spatial planning, economic development and sustainability.

However, the actual size of the provinces may rapidly become a concern as the current 150-year-old boundaries do not correspond to economic and social functional areas. The small size of provinces raises issues of competitiveness and regional growth. Territorial fragmentation at the province level can jeopardise the implementation of major investment projects while they are vested, in the same time, with larger responsibilities in this field.

Therefore, it seems that one condition of success of the decentralisation reform of the provinces will be whether it can reduce the mismatch between administrative and functional regions through re-scaling policies (mergers or horizontal co-operation), as it is envisaged for the future “North Wing” province.

For the future, a second step could be envisaged consisting in further strengthening the strategic role of the provinces in order to put them at the heart of the new multi-level governance system, instead of being squeezed between stronger municipalities, central government and the European Union. New competences and enforcement powers could be transferred to the provinces and their fiscal capacities could be enhanced.

The provincial role in innovation policy is an additional concern. Provinces could become key players in helping resolve some of the challenges of the Top Sector policy. But today, the complex governance system for the policy adds to the vertical co-ordination challenges. So-called regional ambassadors play a pivotal role in the contacts and communication between the ministry of Economic Affairs on the one hand, and the administrative, social, business and knowledge networks on the other hand. The aim is to link regional initiatives to policy (objectives) of the ministry – including the Enterprise Policy – and to bring together parties to stimulate cross-overs. However, there are only five ambassadors operating in five regions: North (provinces of Groningen, Friesland and Drenthe), East (provinces of Overijssel and Gelderland), Northwest (provinces of Noord-Holland, Utrecht and Flevoland), Southwest (provinces of Zuid-Holland and Zeeland and the western part of the province Noord-Brabant) and Southeast (province of Limburg and the eastern part of the province Noord-Brabant). Whether they can effectively feed back the information and preferences from the provinces to the central government depends on their personal connections with the provincial leaders and capacity to steer the dialogue between them.

Better co-operation between the central government and the provinces on the one hand, and between the provinces and the local level on the other will ensure that existing industrial clusters and the firms within them benefit from the policy. Thus, the provinces' task in the innovation policy is to "join the dots" by bringing together a range of local actors and stakeholders, such as businesses, municipalities, and knowledge providers.

They can enhance Top Sector policy complementarities by better integrating the actions and resources of Top Sector activities into provincial development plans. This role is key, given that municipalities are too small to internalise the spill-over effects of innovation policies. They can also share information and reduce the bureaucratic barriers of Top Sector policies (particularly burdensome for SMEs) by providing technical assistance and information offices. This collaboration aims at designing common strategies for nurturing innovation in the Top Sectors within the province and, given the current scarcity of domestic funding, taking advantage of the EU Structural Funds to support those efforts (Chapter 2). As a matter of fact, their role in regional investment could be reinforced as well as in the managing of EU structural funds.

However, a concern is the ability of provinces today to have the capacity to integrate the newly assigned areas of competences and their role of intermediaries between municipality and the central government while they have few financial and operational resources.

The role of the provinces with regards to metropolitan areas should be discussed further. In many countries, the recent development of metropolitan regions in many countries has created a co-ordination problem with intermediate levels of government squeezed between the powerful metropolitan administration and the central government. In the Netherlands, this is the case for the metropolitan areas of Amsterdam and Rotterdam/The Hague, where the role of the provincial government is small. From this perspective the provincial up-scaling in Noord-Holland, Flevoland and Utrecht is a logical step, considering the metropolitan region of Amsterdam. In France, the metropolitan city of Lyon overlaps with the administration of the Rhône department. They are going to merge partially in the framework of the new metropolitan law as of 2013. In Italy, there is a similar problem where some provinces are

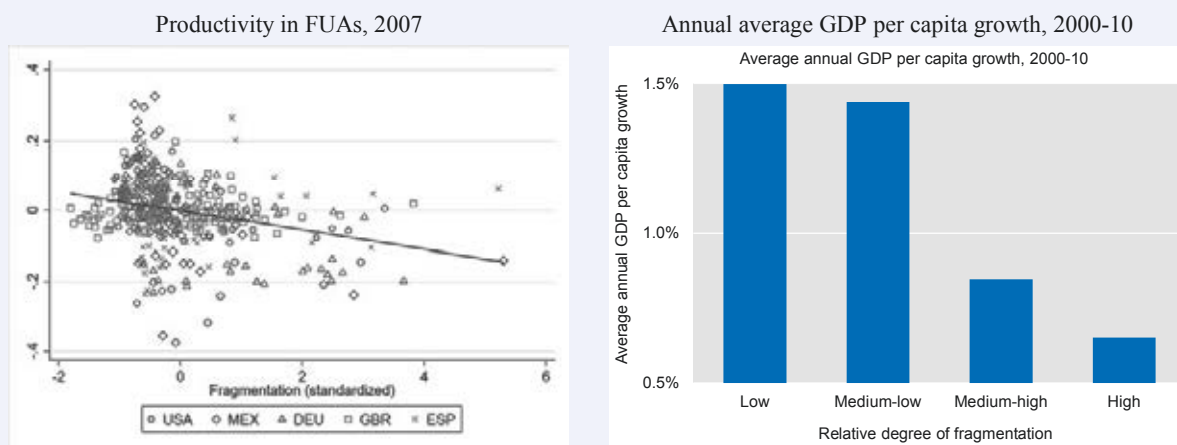
compressed between the metropolitan cities and the regional governments, as it is the case for example for the province of Milan. The new Italian reform on the “metropolitan cities” is envisaging to merge, when appropriate, provinces and metropolitan cities.

These examples show that the role of intermediate tiers of government and the consequent vertical co-operation is quite complex and should be adapted to the particular territorial structures, in particular to the urban or rural characteristics. Provinces have *de facto*, different roles in different regions. In regions where there are strong urban centres their role is limited and overlaps with that of the main cities. In regions, characterised by small municipalities the role of the province is more important. OECD work in this area indeed finds evidence that vertical fragmentation (i.e. the number of subnational tiers in a given territory) appears to reduce the economic performance of the territory (see Box 3.31).

Box 3.31. The price of fragmentation

Cities outgrow their administrative boundaries. The Functional Urban Area of Amsterdam, for example, consists of 57 municipalities, and, as of 2012, less than one-third of its population actually lived in the city of Amsterdam. Such a mismatch between economic and administrative reality can adversely affect economic productivity and growth. The figures below show that there is a negative relationship between the degree of administrative fragmentation (measured as the number of municipalities per 100 000 inhabitants and standardised for each country) and economic productivity.

The impact of fragmentation on productivity and growth



Source: Ahrend, R. et al. (forthcoming), “What Makes Cities More Productive? Evidence on the Role of Urban Governance from 5 OECD Countries”, *OECD Regional Development Working Papers*, OECD Publishing, Paris.

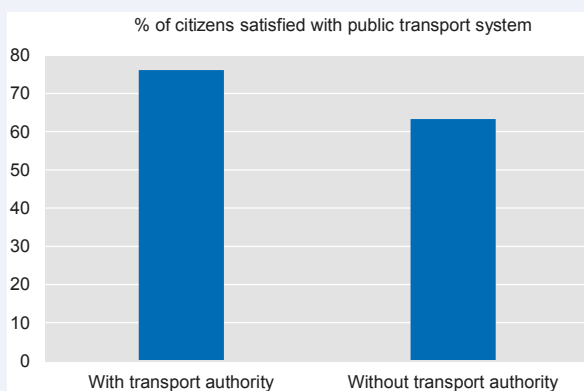
Fragmentation affects productivity and growth for several reasons. The degree of complexity of co-ordinated action rises with the number of actors, i.e. with administrative fragmentation. Policies in areas such as infrastructure and (public) transport planning, as well as business and environmental regulation require not only co-ordination across different levels of government, but also horizontal co-ordination across numerous local administrations. The mismatch between the economic and administrative boundary is highlighted by Cheshire and Gordon (1996), who hypothesise that growth promoting policies that have benefit spill-overs in the surrounding areas can hamper investment by individual municipalities.

Ahrend et al. (forthcoming) estimate the impact of fragmentation on productivity in metropolitan areas. For a given population size, a metropolitan area with twice the number of municipalities shows around 5%-6% lower productivity than those with fewer. The presence of a governance body that facilitates co-ordination between municipalities reduces that penalty to half its size. Governance bodies are likely to be particularly important for outcomes in public transport and land use. For example, citizens are more satisfied with the public transport system of their metropolitan area if this system is run by a transport authority, and urban sprawl is lower in metropolitan areas that have a governance body (see figures below).

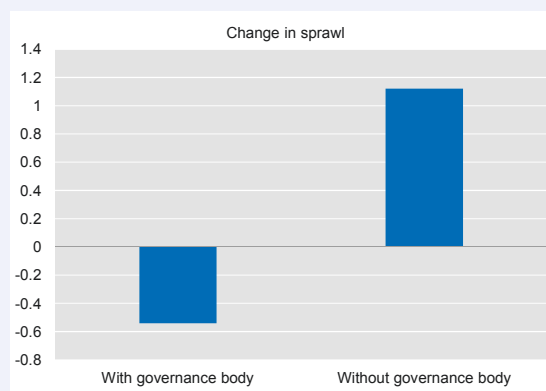
Box 3.31. The price of fragmentation (*cont.*)

Governance institutions and selected outcomes

Transport authorities and satisfaction with public transport



Central governance bodies and urban sprawl



* Controlling for country fixed effects.

Source: Ahrend, R., C. Gamper and A. Schumann (forthcoming), “The OECD Metropolitan Governance Survey: A quantitative description of governance structures in large urban areas”, *OECD Regional Development Working Papers*, OECD Publishing, Paris, forthcoming and Cheshire, P.C. and I.R. Gordon (1996), “Territorial competition and the logic of collective (in)action”, *International Journal of Urban and Regional Research*, Vol. 20, pp. 89-107.

Interestingly this negative effect is mitigated in rural regions with low density of population (see Box 3.14).

The inequality challenge

Disparities between territories and between subnational governments are increasing in the Netherlands. Deepening the decentralisation may reinforce further inequalities across the national territory as it has been observed in several OECD countries (Spain, Italy, France, etc.). In fact, regional development disparities can increase as a result of decentralisation particularly in cases where the reforms are not accompanied by transfers of additional funds, horizontal and vertical equalisation mechanisms and provision of institutional and technical support for the subnational governments in carrying out their new tasks (Rodriguez-Pose and Gill, 2003).

Today, the Netherlands has a sophisticated system of equalisation through governmental grants, resulting from a strong egalitarian tradition which aims at ensuring equity. However, it has not been efficient enough to prevent widening disparities in the recent years. Moreover, it is challenged by the new transfers of tasks in the social sector. Therefore, the decentralisation reform could also provide the opportunity to reassess and improve the way grants are redistributed in order to promote equity and solidarity between the provinces and the municipalities.

Moreover, decentralisation may lead to different service levels across the national territory (Allers, 2011). In order to ensure equal access to local services and a minimum level of quality, the central government will have to develop national norms

and standards. It will be challenging in several respects: defining the services and the norms to apply, ensuring their financing at the local level while they are defined at the national level and keeping the balance between local autonomy and control.

Possible gaps and challenges for the re-scaling reform

The decentralisation of functions to the provincial and municipal level has raised doubts about the capacity of subnational governments to provide those services. In response, central government has decided to promote further the merging of these units on a bottom-up basis, to avoid the risk of fragmentation affecting service delivery and to increase efficiency. This administrative reform is expected to be challenging and difficult to implement, as it is being met with resistance from both local authorities and citizens who are unsure about the impacts and fear a loss of voice and sense of identity.

This chapter has reviewed the evidence on the pros and cons of each approach and has found that, in general:

- Amalgamation is not always more efficient and can undermine accountability, voice and identity.
- Mandatory mergers can proceed smoothly under the right conditions, but incentives for voluntary mergers are more popular.
- Supra-municipal authorities can be an effective alternative to merging for certain functions.

In practice, in the Netherlands, the problems are different for the municipalities and the provinces.

Provincial mergers

The intention to reduce the number of provinces is not without controversy and resisted by some of the provincial authorities. Wide differences between the provinces should be taken into account in the process, in particular their rural and urban characters. Solutions for merging provinces may be different according to the characteristics and needs of the territory of each province. There is no “one size fits all” governance solution for all regions with different structural conditions. Demographic, economic, territorial and cultural differences across regions matter and have to be taken into consideration to design an optimal governance framework at the regional level. The OECD experience shows that such as asymmetric approach is increasingly adopted for various reasons in France, Italy, Spain and the United Kingdom. There can also be other reasons for asymmetric decentralisation, such as the need to take account of various territorial, political or cultural situations. For example, Finland, France and Portugal have specific arrangements for the governance of islands. The Council of Europe also acknowledges this principle: “the same levels of local and regional administration need not exist everywhere in the state; competences of local and regional authorities of the same level may differ”¹¹ (OECD, 2010b). Therefore, the asymmetric principle may also apply to the questions of the size of regions and the mergers of provinces, with large regions coexisting with

smaller ones. In the Netherlands, provincial governments play different roles across the different areas of the Netherlands (Bos, 2013). Those located in urban regions such as the Randstad tend to be overshadowed by the major cities, being powerful nodes of governance with direct access to the central government. By contrast, provinces with smaller municipalities play a more prominent role in the co-ordination of municipal activities and promotion of economic development.

The gradualist approach to provincial mergers chosen in the Netherlands with the planned merger of Utrecht, Flevoland and Noord-Holland can be a first step in a process of forming fewer and larger and more effective provinces. This can create, in the end, scope for learning, fine tuning the reform, and fostering consensus. Thus, it can help overcome the difficulties in mustering support for the reform across all of the national territory and proceed through trial and error to identify the best solutions. However, the Swedish case also provides a warning against the drawbacks of this approach, creating an asymmetrical governance where the experimental and bottom-up approach implies a major policy co-ordination challenge. In addition, gradual reforms tend to be lengthy and costly, while creating a risk of unclear role of different bodies in certain tasks.

However, for the short term, there are other options for re-scaling for provinces through co-operative such as the Northern Provinces Alliance. They can serve also as a first step towards mergers. It could be supported by the central government such as in Switzerland where the use of such bilateral or multi-lateral agreements has been increasing in recent years, thus becoming a key feature of the Swiss ‘horizontal federalism.

Municipal re-scaling

There is considerable uncertainty about whether amalgamation actually produces economies of scale, at least in the short term. One of the main lessons from international experience is that the benefits of mergers do not always materialise or can be overshadowed by shortcomings.

A further factor that may even hinder the efficiency gains of scaling up is the incentive to overspend in the wake of the merger, as shown by the Danish example. Thus, it is worth considering this potential risk and accompanying the up-scaling reform with measures to control pre-merger spending.

Moreover, the international experience shows that amalgamation may create problems, especially when conducted among heterogeneous entities because when service and wage levels vary too much, it tends to increase expenditures.

The information challenge

Strong leadership and political commitment will be needed to push through the territorial administrative reform. This will need to be backed up by action to overcome information gaps and a clear roadmap for reform to steer support among those citizens and civil servants alike who may prefer to maintain the status quo.

The democratic and identity challenge

Besides efficiency considerations, another concern with municipal mergers is that they may hinder voice and accountability.

There is a paradox in the Dutch local government reform. On the one hand, decentralisation reform is partly driven by the desire to move decision-making to the lowest possible level of government and allow optimum control by the citizens. Local governments tend to be “closer to citizens”, who can more easily participate in public meetings, hearings, elections, and establish direct contacts with officials (Faguet, 2004, 2011). But, on the other hand, the merger policy, which will result from decentralisation, will lead to create larger municipalities which will distance the citizens from the decision-making process (Allers, 2011). Moreover, local government units not only appear more distant from citizens, but access to those larger bureaucracies is also more likely to be dominated by powerful special interest groups (Bish, 2001).

Amalgamation is often seen as a threat to local identity and historical legacies. In fact, it is perceived to come at the costs of losing the identity of the merging municipalities and a risk of under representation of small municipalities that merge with larger ones. In the Netherlands, where local identities and local self-government traditions are particularly strong in some areas, similar problems are bound to complicate or even prevent some municipal and provincial mergers.

One way of ensuring more local democracy would be to envisage the election by universal suffrage of the mayor and the King’s Commissioner. Changing the way they are appointed is envisaged by the central government. Such type of reform would make sense in the context of larger subnational government with increased responsibilities.

Another way of overcoming identity and proximity problems could be to keep (or create) the former municipal administration as a sub-municipal structure (i.e. as a local de-concentrated units/offices (like parishes in the UK, or *freguesias* in Portugal). This would increase the representativeness of local stakeholders, better address their needs and maintain the local identity. It seems that it is in the intention of the Dutch government, as there is already a relatively structured sub-municipal level. In 2012, it contained almost 2 200 villages and community councils which are legal entities organised according to public law (Sections 83-84 of the Municipalities Act) or according to private law (as an association or foundation). Reinforcing this level could be a mean to safeguard proximity and enhance local democracy (see Box 3.32). The downside to this option is the risk of increasing co-ordination problems and the complexity of the administrative structure.

Box 3.32. Villages and community councils in the Netherlands: Safeguarding proximity and enhancing local democracy

In 2012, 53% of Dutch municipalities had at least one village council or one community council. Most of the municipalities (71%) which have merged and have redrawn boundaries count village or community councils. The average number per municipality is around 6 or 7 village OR community councils, and around 14 to 15 where there are village AND community councils.

A survey conducted among municipalities reveals that the most important functions of these localities are “to lobby and to represent the local community within the municipality” and “to serve as a platform for initiatives coming from the local population” and local democracy. Councils thus fulfil a dialogue function back and forth between the neighbourhood (residents) and municipality. Local issues (quality of life in the community and stimulating the capacity for self-help) are also at the heart of this process. General opinion about the councils is positive, notwithstanding that significant differences exist between the various councils (the degree to which they are representative of the community, displayed activity, the quality of the councillors, etc.). However, owing to the natural entity that they constitute, village councils often appeared to function better than community councils in terms of representing the residents of a narrowly defined area.

Village and community councils can be organised according to public law (Sections 83-84 of the Municipalities Act) or according to private law (as an association or foundation). In the former instance, the initiative rests with the municipality, while in the latter instance it rests with citizens. In practice, the great majority adopts a form governed by private law; naturally enough, it follows that such councils are set up by the citizens involved and not by the municipality. Many arrangements between the municipality and the localities are organised informally and in an accommodating fashion; a solid collaborative approach remains in place, but this lacks a rigid framework. Municipal subsidies do constitute an important source of income for the councils as a whole. Most of the councils’ members are appointed by the foundation or association itself. In those councils where elections are held, these usually take place during annual meetings or in the event of a member’s resignation or retirement. The average term of office is three to four years. They have limited powers at their disposal relating chiefly to matters that closely concern citizens and that have been delegated to them by the municipal authorities. They are accountable to the municipal authorities.

In the framework of the current reforms, the Cabinet is investigating the possibilities of expanding the use of village and community councils and is entering into dialogue with municipalities on the subject. In that regard, the intention is not to create a new tier of government but to favour “robust local democracy” as increase in scale may lead to physical distance and administration widening. The new policy framework includes the option to institute more village and community councils. Assistance will be offered to facilitate the setting up of village and community councils.

Source: van Naem (2013), “Village and community councils in the Netherlands” (*Dorps- en wijkraden in Nederland*), report prepared for the Ministry of the Interior and Kingdom Relations, The Hague, April.

The implementation challenge

Based on the policy framework for municipal re-division which serves as a guidance paper, the provincial governments may assist the municipalities in the merger process by providing guidance and playing the role of a neutral broker. Such assistance can indeed be vital for the success of voluntary amalgamation, as evidenced for instance by the case of municipal mergers in Switzerland (see Box 3.18).

Inter-municipal co-operation could be also encouraged but also simplified

Co-operation should remain an option for all municipalities. Co-operative solution accommodates the long-standing tradition of inter-municipal co-operation in the Netherlands and it can be a solution to overcome the limitations of small municipalities and to ensure efficiency gains while retaining autonomy and identity. It could be also encouraged as a first step to merging. Moreover, inter-municipal co-operation, using the established networks and collaboration platforms, can help overcome the capacity gaps and thus offers an alternative to amalgamation (CPB, 2013), a possibility that has also been acknowledged by the government. In that perspective, the central government could envisage implementing incentives for co-operation.

However, it appears that Dutch municipalities are involved in number of co-operative arrangements and other informal co-operation. Such a dense and overlapping network of collaborative arrangements is challenging in terms of making horizontal co-ordination effective. There is also a risk of an unfunded mandate that can have a potential adverse effect on the overall network. This risk is particularly serious with the fiscal pressures brought by the global financial crisis and the decentralisation of additional tasks to provinces and municipalities. Finally, it makes it difficult for citizens and municipal councils to distinguish responsibilities therefore reducing accountability and democratic legitimacy. The inter-municipal co-operation landscape has become in some cases itself fragmented. A simplification of the inter-municipal co-operation could be encouraged.

A further challenge in horizontal co-operation is the lack of clear accountability for the public services and policies delivered through inter-governmental co-operation. Effectiveness and accountability could be enhanced through appropriate arrangements (representation of municipalities in the inter-municipal deliberative and executive reflecting or not the balance of power, decision-making procedures, citizen's participation through citizen's councils, communication to the public, etc.)

Abolishing city regions will create challenges

The OECD considers that it is necessary to take into consideration the specific needs of the functional urban areas in terms of governance, as it is the case in most OECD countries where reforms are multiplying for improving the governance of urban areas, in particular for the larger ones (see Box 3.33). There is a need for such forms of co-operation between several administrative bodies to reduce fragmentation and manage complex issues at the right economic and social scales. The functional urban areas, particularly for large and metropolitan areas, are the adequate scale to

address transport and spatial planning issues. Moreover, in the particular context of the Dutch decentralisation reform, FUAs can be also the relevant scale to manage collectively social and employment services which will become major tasks of the municipalities, allowing them to gain economies of scale and scope. It is all the more relevant that functional urban areas tend to concentrate high unemployment and social tensions in addition to concentrating 74% of Dutch population (see Chapter 2).

Several reasons for abolishing the city-regions are relevant, despite positive assessments made by the central government in 2010, the Association of Dutch Municipalities and the OECD. However, this measure has not been welcomed among all municipalities involved in the city-regions.

Some specific solutions may continue to be necessary at the level of functional urban areas, in urbanised provinces but also in the other provinces where there was no city-region and where an effective governance framework for city-region issues was lacking (OECD, 2008). At least, it seems necessary that the central government encourage (eventually through incentives) horizontal co-operation between the municipalities at the scale of functional urban areas through governance arrangements (horizontal co-operation).

Co-operation between the inter-municipal co-operation structures and the province should be also encouraged (vertical co-operation), in particular in the field of spatial planning and transport which will be only a provincial responsibility in the new division of powers. It means that the provinces could share or delegate some of their responsibilities to inter-municipal co-operation structures through co-operative agreements when they are organised at the right functional urban scale, all the more when FUAs straddles several provinces such as in the Groningen-Assen example (see Box 3.13).

What can OECD-wide experience bring to the Netherlands in resolving the city governance challenge? Some form of co-operation will be important given the rich and polycentric city structure of the Netherlands. Governance schemes should adapt to the different needs of the wide range of large, medium and small metropolitan areas, including rural parts of functional urban areas (see Box 3.33) as several have an important share of rural municipalities as their members. Such co-operation structures at the level of FUAs could also ensure better linkages between rural and urban areas and become a vehicle for co-operation between cities and their rural fringes.

Box 3.33. Recent metropolitan governance reform in the OECD countries

There is a trend towards recognition of metropolitan areas and the reinforcement of inter-municipal co-operation with additional competencies. Many OECD countries have introduced programmes in order to establish or reform metropolitan entities, hence setting specific measures for their governance.

In Denmark, the local government reform of 2007 has given a special status to the Greater Copenhagen; in Turkey, the status of metropolitan municipalities has been attributed to 30 large urban areas (16 in the 1980s and 14 new ones after March 2014 local government elections); In Korea, Seoul and the 6 metropolitan areas with more than one million inhabitants are accorded, as “metropolitan cities” the same status as that of the larger and more populous provinces. In the Portugal, the central government has established in 1991 the status of “metropolitan areas” for Lisbon and Porto, a status reformed in 2003 and 2008.

Since the 2008 crisis, there has been an acceleration of metropolitan reforms. The objective is to find the “right scale”, that is to say the most consistent and relevant scale for metropolitan strategic competences. The context is clearly the search for efficiency of public action and also the optimisation of public spending.

- Finland: in the framework of the local government reform “New Municipality 2017”, the metropolitan area of Helsinki should be granted a specific statute, a scenario in play for several years now.
- New Zealand: eight regional, city and district councils were amalgamated to form the Auckland Council in 2010. A Unitary Plan was established for the new entity, which stipulates development policies and replaces the previous seven district plans.
- France: a Law on the modernisation of territorial public action and on affirmation/strengthening of metropolitan cities has been adopted in December 2013, creating new governance structures for Paris-Île-de-France, Grand Lyon and Aix-Marseille-Provence metropolis (the 3 larger French metropolitan areas) as well as for 11 other metropolitan areas of more 400 000 inhabitants. For these later (metropolis of “common law”), competences will be reinforced in the field of economic development, housing, environment, roads and social action, following an agreement with the “département » in which they are situated. For the metropolitan areas of Paris, Lyon and Aix-Marseille-Provence, an ad-hoc status has been prepared for each of them depending on their own characteristics and needs (an innovation of this law and, more globally, of the French way of doing laws). Their competences will be substantially reinforced as well as their tax integration and equalization mechanisms.
- Italy: metropolitan cities have been planned since 1990; a special statute was granted to Rome and to 9 metropolitan cities, the latest in 2009. However, they remain mostly on paper. According to a new project of law, metropolitan cities (*Città metropolitane*) should replace provinces in 10 major urban centers from 2015 onwards, and be granted a specific statute. Specific financing will be integrated in the new EU structural funds programming documents.
- In England, the ‘City Deals’ scheme allocates new competencies and specific funding to the biggest cities provided that they consolidate their governance structures.
- In Australia, various Australian States have launched metropolitan reforms. For example, in June 2011, the State of Western Australia has commissioned a group of experts (Metropolitan Local Government Review Panel) with the task of conducting an evaluation of the Perth metropolitan governance. The report, released in 2012-13, has developed 30 recommendations that were the subject of a public consultation in the summer of 2013. A committee (Metropolitan Reform Implementation Committee) is now in charge of the implementation of the reform of metropolitan governance.

Similar reform were introduced in Ireland, with the establishment of the Dublin Regional Authority governed by an elected Mayor and having responsibilities for a wide range of public services such as water, waste, transport, housing, regional development and in Greece where metropolitan regions were established in the areas of Attica and Thessaloniki to deliver such policies as transport and communications, environmental protection, or spatial planning.

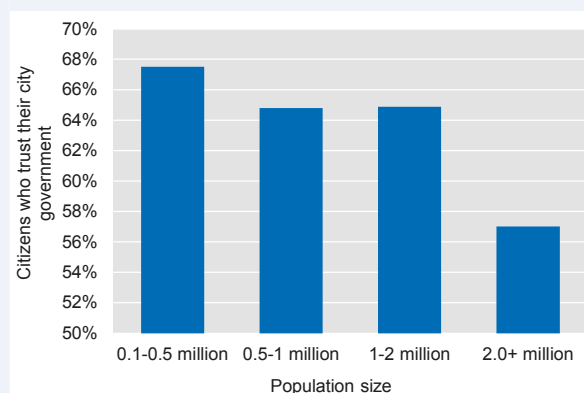
Source: Dexia (2012), “Subnational public finance in the European Union”, Dexia, Paris, July, www.dexia.com/EN/news/in_short/Documents/NDCE_july_2011_EN.pdf; OECD (2013), “Towards more inclusive growth in the metropolitan area of Aix-Marseille: International insights”, OECD, Paris.

Box 3.34. Better governance for OECD functional urban and metropolitan areas

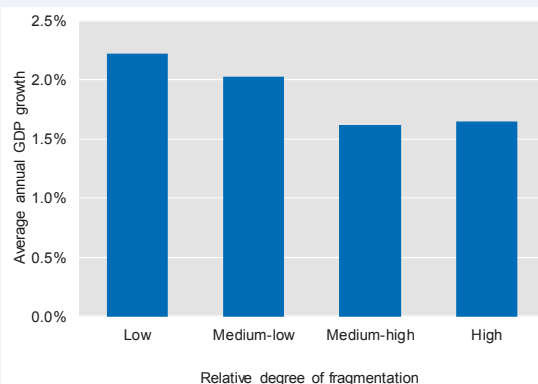
- **Many metropolitan areas are highly fragmented.** As cities have been expanding, today's metropolitan boundaries rarely match historically determined administrative structures, leading to administrative fragmentation. The number of municipalities per 100 000 inhabitants can vary by a factor of 50 across OECD countries.
- **Administrative fragmentation can hamper growth.** Less fragmented metropolitan areas have experienced stronger growth than more fragmented ones in the same country (Figure y).
- **Larger cities suffer from lower trust.** The average level of citizens' trust in their city government declines sharply with city size, possibly reflecting eroding effectiveness of existing governance structures with city size (Figure x).

The larger the city, the lower the trust

% of citizens who trust their city government, by population size (EU)



The more fragmented, the lower the growth



- **Many OECD countries have set up mechanisms for metropolitan governance.** Over two-thirds of the more than 200 metropolitan areas analysed by the OECD have established a specific body that organises responsibilities among various public authorities within the area (metropolitan governance bodies).
- **The type and scope of metropolitan governance bodies varies greatly across metropolitan areas.** Most metropolitan governance bodies cover spatial planning, transport and regional development, besides other functions. Even governance bodies with comparable functions show considerable diversity in terms of powers, composition, budget, and staff.

a) Informal/soft co-ordination. Lightly institutionalised platforms for information sharing and consultation, often with no enforcement tools.



b) Inter-municipal authorities. Sharing responsibilities and costs for the provision of one or more public services key for urban development.



c) Supra-municipal authorities. An additional layer above municipalities, either elected or not.



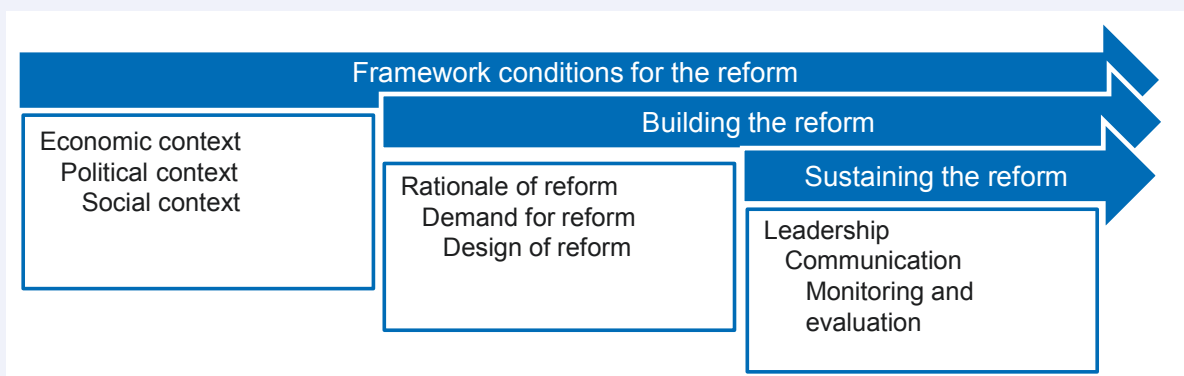
d) Special status of “metropolitan cities”. Upgrade into a special status for cities that exceed a legally defined population threshold.



Box 3.34. Better governance for OECD functional urban and metropolitan areas (*cont.*)

- More than half of analysed OECD metropolitan areas are using informal co-ordination, whereas about one quarter has set up inter-municipal authorities. Supra-municipal authorities and special “metropolitan cities” are much less common. Two or more models sometimes coexist in the same country. In general, the larger the metropolitan area, the more stringent its choice of metropolitan governance.
- Areas with a metropolitan governance body report less urban sprawl and higher satisfaction of citizens with the public transport system.
- When selecting a specific governance model, governments are invited to assess how fit it is to meet the challenges at hand:
 - Challenge to *co-ordinate* policies both horizontally and vertically;
 - Challenge to *act* (in terms of budget, staff, etc.);
 - Challenge to generate *trust* among stakeholders.

The process of reforming metropolitan governance is as important as the choice of the model itself: The acceptance of a specific metropolitan governance model by all actors involved determines its effectiveness, highlighting the importance of the reform process. The OECD calls for continuous dialogue among different levels of government and stakeholders over time, taking into account the framework conditions for the reform, steps to build the reform, and measures to sustain the reform over time.



Guidelines for metropolitan governance reforms

- Identify a common cause for collaboration and build on (as well as communicate) successful collaboration outcomes.
- Develop metropolitan leadership and/or ownership.
- Empower and engage stakeholders at an early stage, and ensure accountability and transparency.
- Strengthen the evidence base and track progress.
- Provide (or secure) sources of financing.
- Balance clear time frames and flexibility.

Notes

1. The Kingdom of the Netherlands consists of four autonomous countries: the Netherlands, Aruba, Curaçao and Saint Martin. The last three countries, together with the three special municipalities of Bonaire, Sint Eustatius and Saba, make up the Caribbean Parts of the Kingdom. Overseas territories have substantial autonomy and special arrangements. On 10 October 2010, Curaçao and Saint Martin became autonomous countries. Bonaire, St Eustatius and Saba became special municipalities of the Netherlands. More information: www.government.nl/issues/caribbean-parts-of-the-kingdom.
2. In addition to this co-operation based on public law, the Municipalities Act and the Provinces Acts allow co-operation on a private law basis if it serves the public interest. It can take the form of a foundation, a company limited by shares, a private company with limited capability or an association. Co-operation is based on a contract or an administrative agreement. There were 1 022 arrangements based on private law in 2010 (Berenschot Consultants, 2010).
3. In 2006, municipalities located in the eastern part of South Limburg decided to use the legal option offered by the WGR+ framework to create a city-region, called “Parkstad Limburg”. This voluntary metropolitan co-operation has the same structure and operation as the others but it does not receive grants from the central government for traffic and transport. Its competences are not specified in special laws.
4. On 1 January 2013, the former 25 regional police forces and the Dutch police service became a single national police force.
5. Since 2006, owners of residential properties only have to pay owner’s tax. Tax assessment is based on the property value (WOZ-waarde) as at January 1 of each tax year.
6. See www.randstadregion.eu, the web site the Regio Randstadt.
7. See www.ttc-innovation.eu (accessed 28 October 2013).
8. See www.lansstyrelsen.se (accessed on 20 January 2014).
9. However, both the Municipalities Fund and the Provinces Fund include factors compensating the shrinking of the population.
10. Dutch water management has long been acknowledged as a global reference though pressing and emerging challenges call for some adjustment on the who does what. See OECD (2014b), Water Governance in the Netherlands: Fit for the Future?
11. Recommendation Rec(2004)12 of the Council of Europe’s Committee of Ministers to member states on the processes of reform of boundaries and/or structure of local and regional authorities.

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