



Using well-being indicators for policy making:

Region of the North of the Netherlands,
Netherlands



Using well-being indicators for policy making: North of the Netherlands

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Executive summary

Overview of well-being outcomes in the North of the Netherlands

- The North of the Netherlands enjoys high levels of well-being compared with other OECD regions. It ranks particularly high in terms of jobs, safety, access to services and civic engagement, with high institutional quality. However, frequent earthquakes due to gas extraction raise a major concern.
- Compared with other Dutch regions, the North of the Netherlands has lower outcomes in jobs, education and income. Ageing and depopulation in the smaller, most remote areas challenge their liveability.

Framework for measuring well-being in the North of the Netherlands

- There is no single regional strategy for well-being but several initiatives in the fields of innovation (Research and Innovation Strategy for Smart Specialisation – RIS3, bringing together the provinces of Friesland, Groningen and Drenthe), health (Healthy Ageing Network in the North of the Netherlands) and environment (Wadden Sea Long-Term Ecosystem Research project).

Strengths and opportunities for using well-being metrics in the North of the Netherlands

- The North of the Netherlands enjoys a wealth of sophisticated data (including micro data) related with a wide range of well-being issues, at municipal and provincial scales (albeit not at a harmonised regional scale).
- There is growing social and political awareness of the importance of the well-being agenda.
- The region has accumulated a good experience of dialogue and collaboration among a diverse range of stakeholders in the preparation of the RIS3.

Challenges and constraints for using well-being metrics in the North of the Netherlands

- Well-being measurement and initiatives remain fragmented into provincial or local initiatives and sectoral silos.
- There is limited use of well-being data to inform and guide policy, and a lack of political commitment towards achieving measurable objectives of well-being.

What's next?

- There is a need for more effective collaboration among the three provinces and for further involvement from municipalities, which will play a stronger role in well-being policy after the decentralisation reform.
- Citizens need to be informed and consulted more proactively in the identification, design and implementation of a coherent regional well-being strategy.

Introduction¹

Regional well-being metrics can help OECD regions to improve the design and delivery of public policy: *i*) providing a comprehensive picture of material and immaterial conditions of life on the ground; *ii*) raising social awareness; *iii*) highlighting possible areas for policy prioritisation; and *iv*) helping to improve coherence across economic, social and environmental policies through more effective co-ordination and citizen engagement (Box 1). This case study on the North of the Netherlands illustrates how the region, through diverse yet often unconnected channels, has developed a regional well-being metrics that could be strengthened and better exploited to guide regional development policy.

Box 1. How can measuring regional well-being improve policy making?

Well-being metrics can improve the design and delivery of policies in regions and cities in four respects.

First, they provide a comprehensive picture of material conditions and quality of life in regions, making it possible to assess whether economic growth translates into better non-economic outcomes (whether in health, environmental quality, education, etc.) and whether progress is shared across population groups and places. Spatial concentration of advantages or disadvantages varies sharply at various territorial scales, and different sources of inequality can reinforce one another, locking households and communities into circumstances that make it particularly hard for them to improve their life chances.

Second, well-being metrics can raise social awareness of policy objectives or specific issues, promote policy change and increase governments' accountability.

Third, they can help prioritise policy measures, pinpointing where improvements are needed. Knowledge of local conditions can also help policy makers identify potential synergies that policies can leverage and better understand citizens' preferences.

Fourth, well-being metrics can improve policy coherence. Many key interactions among sectoral policies are location specific. For instance, integrating land-use, transport and economic development planning can contribute to outcomes that are greener (increasing reliance on public transport), more equitable (improving access to labour markets for disadvantaged areas) and more efficient (reducing congestion, commuting times, etc.). The complementarities among different strands of policy are likely to be most evident – and the trade-offs among them most readily manageable – in specific places. More coherent policies can be designed and implemented through effective co-ordination across different levels of government and jurisdictions. Policy makers also need to engage citizens in policy design (to understand their needs) and implementation (to use citizens' capacity to bring change), which, in turn, can increase the legitimacy of policies and public support of policy objectives. Designing coherent policies requires policy makers to consider the trade-offs and complementarities involved in both the objectives they hope to target and the channels employed.

Source: OECD (2014), *How's Life in Your Region?*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264217416-en>.

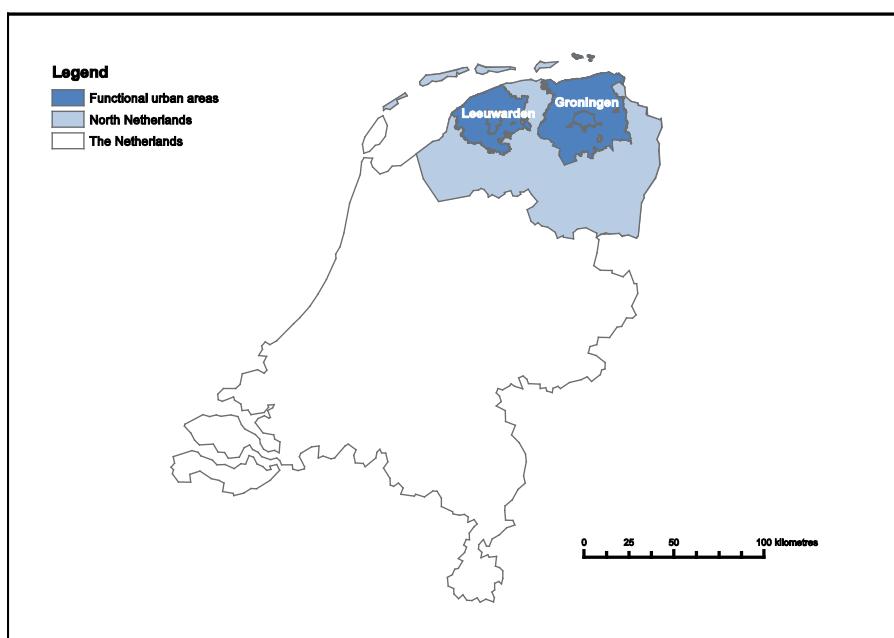
This case study is organised in three sections. First, it offers an overview of well-being outcomes in the North of the Netherlands, according to the OECD *How's Life in Your Region* framework complemented with further indicators. Second, it analyses the strengths and weaknesses of the well-being metrics developed by the North of the Netherlands for measuring regional well-being. Third, it explores how regional well-being indicators are being used for policy design and implementation in the North of the Netherlands. It concludes with a summary of lessons from the experience of the North of the Netherlands for other OECD regions and puts forward a set of possible guidelines for strengthening the regional well-being measurement initiative.

Overview of well-being outcomes in the North of the Netherlands

The North of the Netherlands is located in the north-eastern part of the Netherlands. It is one of the four large regions in the country (Territorial Level 2). It borders with the German region of Lower Saxony on the east and with the North Sea. With 1.72 million inhabitants, the North of the Netherlands is the smallest region in the country. Classified as an intermediate region in the OECD territorial typology, the region is home to two major cities, Groningen and Leeuwarden, which sit at the core of larger functional urban areas (FUAs) of around 480 000 and 240 000 inhabitants respectively in 2012 (Figure 1). The North of the Netherlands is the least urbanised region in the country, with many rural areas located between and around the two FUAs.

The region of the North of the Netherlands consists of three provinces (Groningen, Friesland and Drenthe), which host 62 municipalities (Box 2). The three provinces work together in the Northern Provinces Alliances (SNN), a joint agency whose specific functions are discussed more in detail later in this report.

Figure 1. The region of the North of 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.

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

The North of the Netherlands' well-being outcomes have been assessed along the nine dimensions of the OECD Regional Well-Being Framework. These nine dimensions are classified in two pillars, namely material conditions (income, jobs and housing) and quality of life (health, education, environmental quality, access to services, safety and civic engagement). The North of the Netherlands scores high in international comparisons in many well-being dimensions. Outcomes for civic engagement, health, jobs, safety and access to services are higher than the OECD average (Figure 2). It should be

acknowledged, however, that levels of access to services differ across areas within the region. In contrast, income, education and environmental outcomes – the latter measured by exposure to PM_{2.5} – are lower than the OECD average.

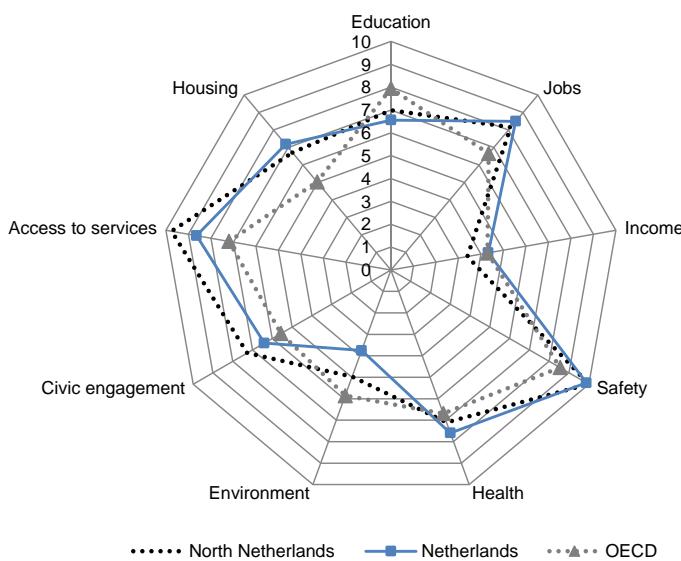
Box 2. The North of the Netherlands: Territorial and institutional overview

Under the OECD territorial classification, the North of the Netherlands is classified as a Territorial Level 2 (TL2) region, which represents the first administrative layer after the national government in most OECD countries. However, the North of the Netherlands has no elected government. The Northern Provinces Alliances (SNN) mainly operates as a management authority for European funding and a co-ordination platform in policy fields that are managed at the provincial level.

The next administrative layer is the province, which is classified as a Territorial Level 3 (TL3) by the OECD and as NUTS-2 by the European Union. The province is the first sub-national tier of government and is directly elected by citizens. The three provinces of Groningen, Friesland and Drenthe are all represented in the SNN. Dutch provinces are more than twice as large as the average OECD TL3 region in terms of population and output. However, they are significantly smaller than the German *Länder* and slightly bigger than the Danish *regioner* (OECD, 2014a).

The lowest administrative layer in the Netherlands is the municipality. In January 2014, there were 403 municipalities in the Netherlands. Municipalities work together in different legal forms for numerous policy and implementation matters, including social assistance, re-integration, work schemes for disabled, household caring, etc. During the last six decades, the Netherlands underwent a progressive but substantial reduction in the number of municipalities, which has more than halved in number since 1950. As a result of the various municipal reforms, Dutch municipalities are now the 8th largest in the OECD, with more than 40 000 inhabitants per municipality on average.

Despite the high average level of well-being, living conditions in the North of the Netherlands do not seem to have improved during the last decade. With respect to the early 2000s, the relative position of the Northern Netherlands *vis-à-vis* the other 361 OECD regions declined or stagnated in most of the well-being dimensions for which this information was available. Table 1 provides a first snapshot of well-being outcomes using a limited set of indicators. The following sections offer a more detailed picture of well-being in the North of the Netherlands for each dimension.

Figure 2. Well-being outcomes in the North of the Netherlands

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Note: Each well-being dimension is measured by one to two indicators from the *OECD Regional Database*. Indicators have been normalised to range between 0 (worst) and 10 (best) according to the following formula: (indicator value – minimum value)/(maximum value – minimum value) multiplied by 10. All OECD TL2 regions are considered in the calculations for the identification of maximum and minimum values. The value for “Netherlands” refers to the average of the four TL2 regions in the Netherlands. The value for “OECD” refers to the average of all OECD regions.

Source: OECD (2014), *Regional Well-Being* (database), www.oecdregionalwellbeing.org; <http://dx.doi.org/10.1787/region-data-en>.

Table 1. How does the North of the Netherlands rank in well-being dimensions within the Netherlands and among OECD regions?

	Score (out of 10)	Rank among 4 Netherlands regions	Rank among 362 OECD regions	Evolution of score relative to OECD regions between 2000 and 2010	Indicator used
Income	3.4	4	Bottom 41%	..	Household disposable income
Jobs	8.2	4	Top 24%	Declined	– Employment rate – Unemployment rate
Housing	6.7	3	Top 28%	..	Number of rooms per person
Health	7.1	4	Top 43%	..	– Mortality rate – Life expectancy
Education	7.0	2	Bottom 38%	(break in time series)	Labour force with at least a secondary education
Environment	5.0	1	Bottom 41%	Stagnated	Air quality (PM _{2.5})
Access to services	9.7	1	Top 8%	Declined	Households' broadband access
Safety	10.0	1	Top 1%	Stagnated	Murder rate
Civic engagement	7.3	2	Top 31%	Declined	Voter turnout

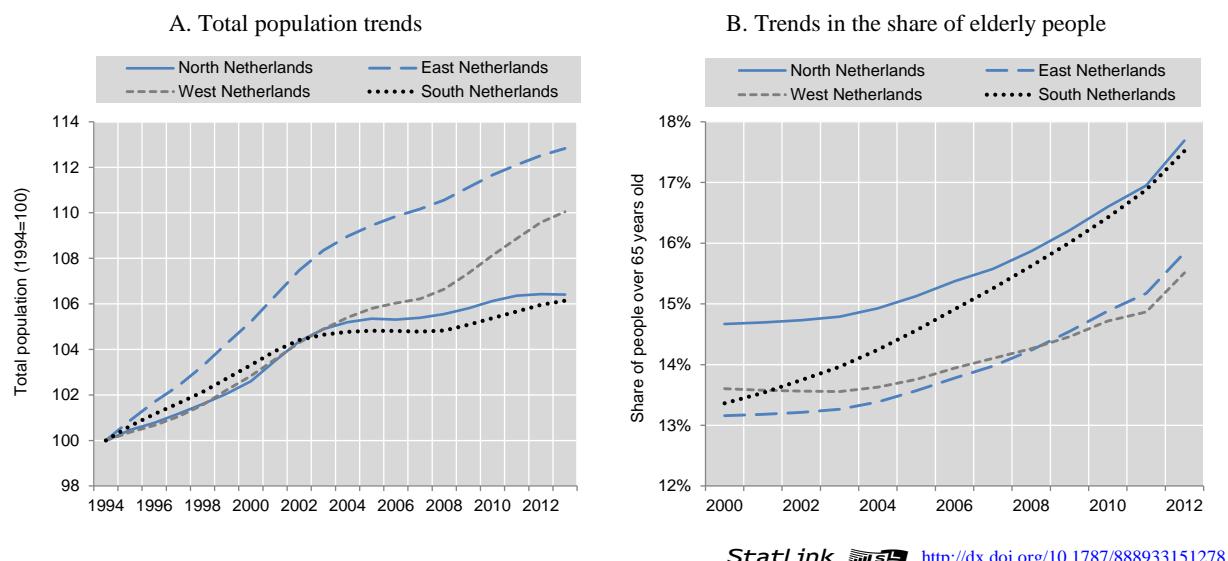
Note: .. Missing value or not available.

Source: OECD (2014), *Regional Well-Being* (database), www.oecdregionalwellbeing.org; <http://dx.doi.org/10.1787/region-data-en>.

Population is sorting in the largest urban centres

In a medium- to long-time horizon, population trends may give an insight on the level of well-being in different places within a country. By “voting with their feet”, people reveal their preference for specific locations, which will then experience population increases through positive net migration rates (Faggian et al., 2012). Between 1994 and 2012, total population in the North of the Netherlands grew by 6.4% (Figure 3). This trend confirms that there is no overall demographic decline in the region, although population growth has been lower than the national average (9.4%). Since the mid-2000s, however, population has been stagnating in the North of the Netherlands. While all Dutch regions have experienced demographic ageing during the same period, the North of the Netherlands has also had the highest share of elderly people in the country (Figure 3). This might be connected to the relatively stronger rural nature of the region, which can represent a disadvantage to those of working age who tend to sort in cities, especially the largest ones.

Figure 3. Demographic trends in Dutch regions



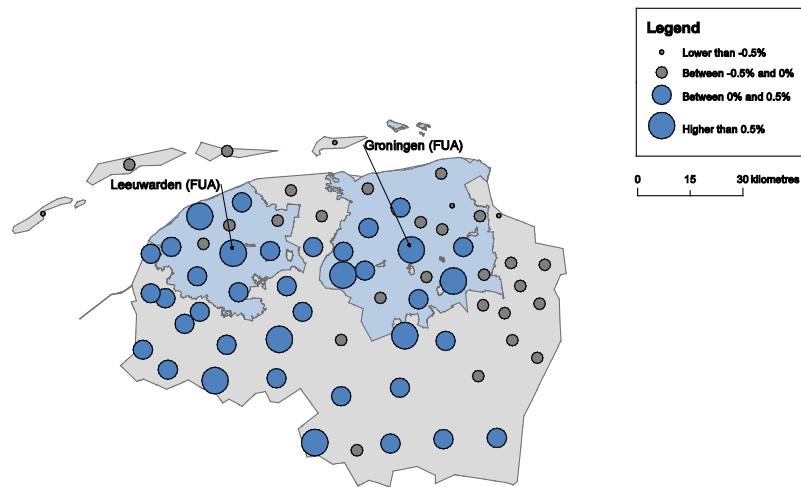
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Source: OECD (2014), *Regional Well-Being* (database), www.oecdregionalwellbeing.org; <http://dx.doi.org/10.1787/region-data-en>.

Despite stable demographic trends in the North of the Netherlands as a whole, some specific areas of the region have been going through population decline. There is selective internal migration towards urban centres which offer relatively higher education levels and job opportunities, while more remote areas are on the decline (Van Dijk et al., 2013). Many municipalities in the north-eastern part of the region at the border with Germany and on the northern coast have been losing population during the last decade (Figure 4). This decline also occurred in some municipalities within the FUA of Groningen, within the direct influence of the major city of the region. This confirms the results of previous research, which suggested that between 2001 and 2011, cities in the Netherlands became more centralised, with stronger population increase in core municipalities rather than in peripheral ones, as opposed to what happens in most OECD countries (Veneri, forthcoming). In addition, population growth between 2001 and 2011 was stronger in relatively more populous (and denser) municipalities, as well as in those

that were relatively closer to the cities of Groningen and Leeuwarden (Figure 5). Recent research has, however, documented positive migration trends in less popular rural municipalities in the North of the Netherlands, where popularity is measured through housing prices (Bijker, 2013). The factors underlying positive migration flows towards rural areas include the possibility to afford a larger house, access to ICT broadband services as well as good access to a nearby city (Helbich and Leitner, 2009).

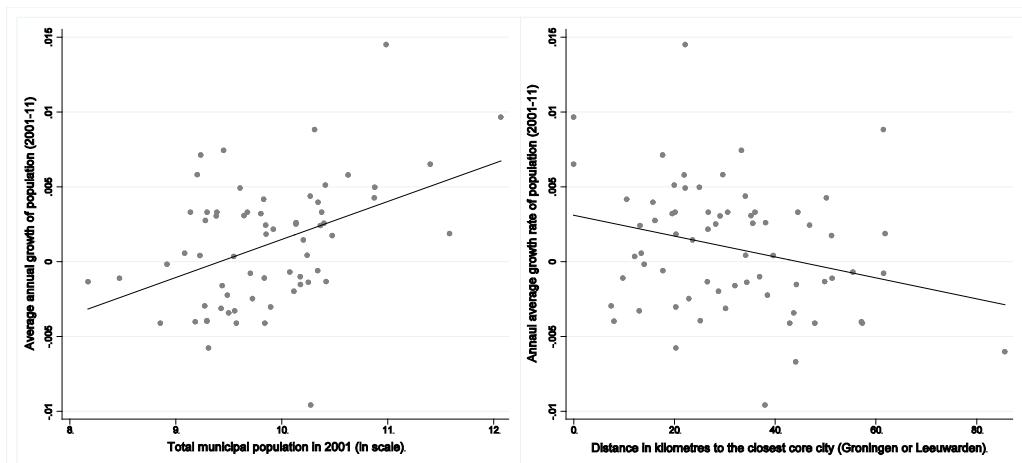
Figure 4. Change in population in the municipalities of the North of the Netherlands, 2001-11



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: calculations based on CBS data.

Figure 5. Correlation of population growth with municipal size and distance to the closest core city in the municipalities of the North of the Netherlands, 2001-11



StatLink <http://dx.doi.org/10.1787/888933151288>

Note: Distances are computed as point-to-point distances in kilometres using x-y geographical co-ordinates. Changing municipal boundaries have been adjusted on with GIS tools by using population grid with 1-km² detail.

Source: OECD calculations based on CBS data.

Income levels are lower than the OECD average, but also come with low inequality

Disposable or market income provides information on what individuals or family can or cannot afford and whether they are able to satisfy their basic needs. The average household disposable income in the North of the Netherlands is about USD 27 000, lower than both the OECD and the Dutch averages. It is the lowest income among Dutch regions, although regional disparities are not particularly high in the Netherlands compared with other OECD countries. The link between income well-being and inequality is complex. When inequality is seen as arising from differences in effort, it could be seen as a signal of increased opportunities and positively affect well-being. At the same time, inequality, together with high poverty levels, can reduce well-being if it is associated with greater social conflicts and higher political instability or sub-optimal investments in human capital (Alesina and Perotti, 1996). Compared to the national average, the North of the Netherlands has a low level of inequality and a higher poverty rate, although it is much lower than the OECD average.

Well-being not only depends on the level of income, but also on its distribution. The economic literature on subjective well-being has pointed out that the relationship between income and life satisfaction is positive but diminishing, implying that progressive taxation (that redistributes income from richer to poorer individuals) might increase overall well-being (Chapple et al., 2009). In the North of the Netherlands, the Gini index² of post-tax income is 0.26, the lowest in the country, but the share of households with an income lower than 60% of the national median disposable income (headcount ratio) is 15%, the highest in the country. When looking at the pre- and post-tax income distribution and at the variation in inequality and poverty, both indicators decrease more in the North of the Netherlands than in other Dutch regions, suggesting that the fiscal system is particularly effective in reducing disparity and poverty in the North of the Netherlands.

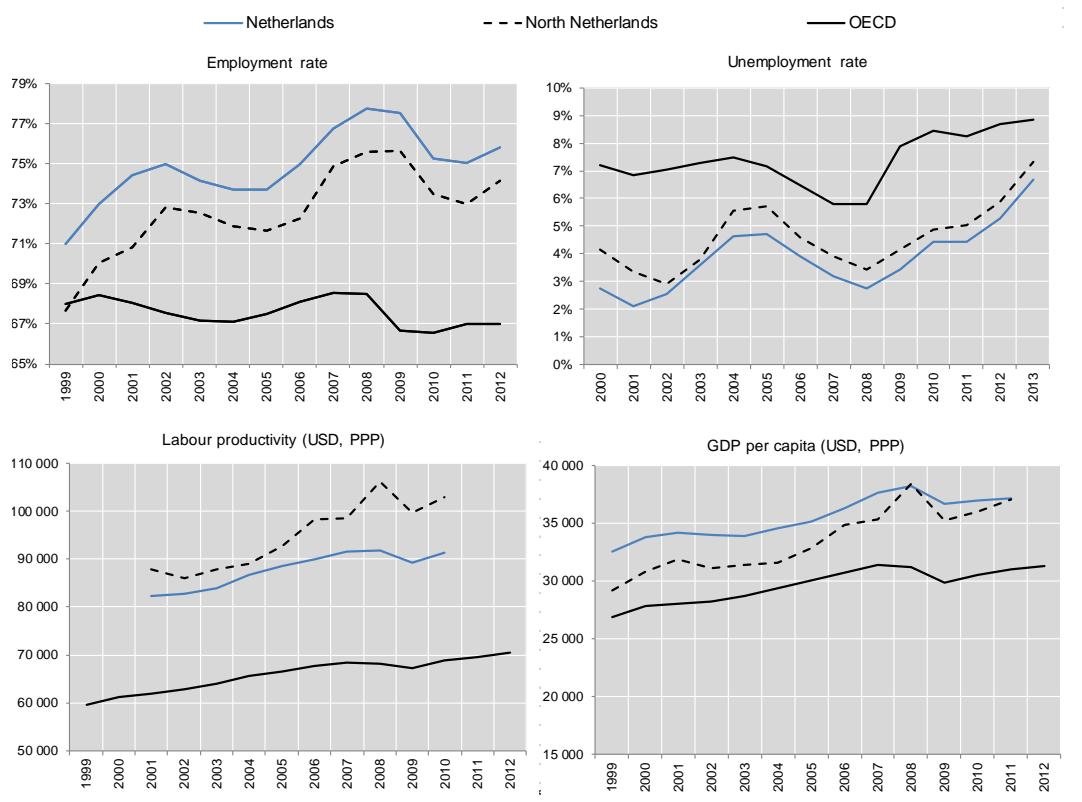
Employment outcomes stand below the national average

The availability of jobs and their quality is crucial for several aspects of people's well-being. Besides its role as generator of income, having a job is also important for other dimensions of quality of life, such as feeling satisfied with life, having social connections, keeping one's skills updated and developing new ones. Previous research demonstrated that being employed improves health, but the inverse relationship (being healthy increases the chances to be employed) was also found to be at work (Ross and Mirowsky, 1995). In addition, good employment outcomes in a place can have positive external effects, such as a higher political stability (OECD, 2011a).

Like all other Dutch regions, the North of the Netherlands has higher employment outcomes than the OECD average (Figure 6). Both in terms of unemployment rates and employment rates, the region ranks high internationally (top 24% among OECD regions), but it also ranks the lowest among the Dutch regions. At the same time, unemployment rates differ substantially within the North of the Netherlands. They range from 3% in the COROP³ of South-Western Friesland to 11% in North Friesland and 13% in the rest of Groningen in 2012. Since 1999, employment rates in the North of the Netherlands followed the same trend of the country as a whole, but consistently 1.5 percentage points lower (Figure 6). The employment rate is another valuable indicator of well-being and it considers key aspects of the labour market, such as the participation rate, which is also a driver of labour productivity. Levels of gross domestic product (GDP) per worker in the

North of Netherlands appear higher than the national average, although this is explained by the fact that both GDP and employment statistics include the natural gas extraction sector. For most of the other sectors, levels of productivity were below the national average during the period taken into account. Previous work on regional productivity in the Netherlands showed that the large regional disparities in terms of labour productivity between 1990 and 2001 could be explained to a significant extent by the disparities in labour participation rates (Broersma and Van Dijk, 2005). Furthermore, slow productivity growth in the Netherlands between 1995 and 2002 was particularly concentrated in the core economic regions comprising the Randstad and surrounding areas, and seems to have been caused by slow multifactor productivity growth. A substantial part of this slow multifactor productivity growth can be explained by the fact that positive agglomeration advantages are overruled by negative congestion effects caused by traffic jams (Broersma and Van Dijk, 2008).

Figure 6. Trends in employment outcomes, labour productivity and GDP per capita



StatLink <http://dx.doi.org/10.1787/888933151299>

Source: OECD (2014), *OECD Regional Statistics* (database), <http://dx.doi.org/region-data-en>.

Employment outcomes can also reflect the demographic composition of the population. Population ageing is a more relevant indicator than the overall population trend in terms of the North of the Netherlands's regional resilience and labour market performance. The effects of ageing on the region's macroeconomic performance may be hidden, especially during the years of the crisis, due to the relative stability of transfers (e.g. pensions). However, worsening trends in the labour market can be challenging, especially for less mobile and less skilled people, and generate social exclusion.

Housing conditions are better than the national and OECD averages

Housing conditions are an important determinant of life situation and well-being. It is even more important in the Netherlands as a recent study on the country's well-being shows that “the highest records of life satisfaction are reported for regions where the levels of good health and home ownership are higher” (Pellenbarg and Van Steen, 2011: 628). The relevance of this dimension is confirmed by its inclusion in the Life Situation Index computed since 1974 by the Netherlands Institute for Social Research (SCP) (Boelhouwer, 2010).⁴ The North of the Netherlands has good housing conditions: the region ranks second in the national ranking in terms of the number of rooms per person. With an average of two rooms per person, citizens living in the North of the Netherlands are also better off than the OECD average and the region is in the top 30% of OECD regions.

Educational attainments remain lower than the national and OECD averages

Education affects individual well-being both directly and indirectly. Besides being a valuable good per se, it is also positively related with other material and non-material dimensions of individual well-being. Employability and income prospects are higher for better educated individuals. Education is also positively related with health levels (Cutler and Llersas-Muney, 2006) and it favours social inclusion and political participation (Milligan et al., 2003). Through all these channels, education generates positive externalities, thereby increasing social well-being. The skill endowment affects the competitiveness potential and growth prospects of a region, together with its attractiveness. This, in turn, may generate positive incentives for individuals to stay longer in education and acquire higher skills, thus creating a virtuous circle.

Among the four regions of the Netherlands, the North of the Netherlands had the lowest share of workforce with at least a secondary education in 2013. In the region, 28.5% of the workforce had tertiary educational attainments in 2013, 7 percentage points lower than the region with the highest share in the country (Western Netherlands). Considering how average educational attainments have changed since 2000, the North of the Netherlands has followed the national path, characterised by a stable increase. However, the North of the Netherlands was not able to fill the gap that separates it from the national average. These regional differences can also help explain some characteristics of the labour market and of individual behaviour. Different educational attainments in the Netherlands have been found to be associated with different patterns in daily trips for working reasons. For example, highly educated workers tend to commute further distances and to use more public means of transport as well as bicycles, and this holds true even after controlling for income and other individual characteristics (Groot et al., 2012).

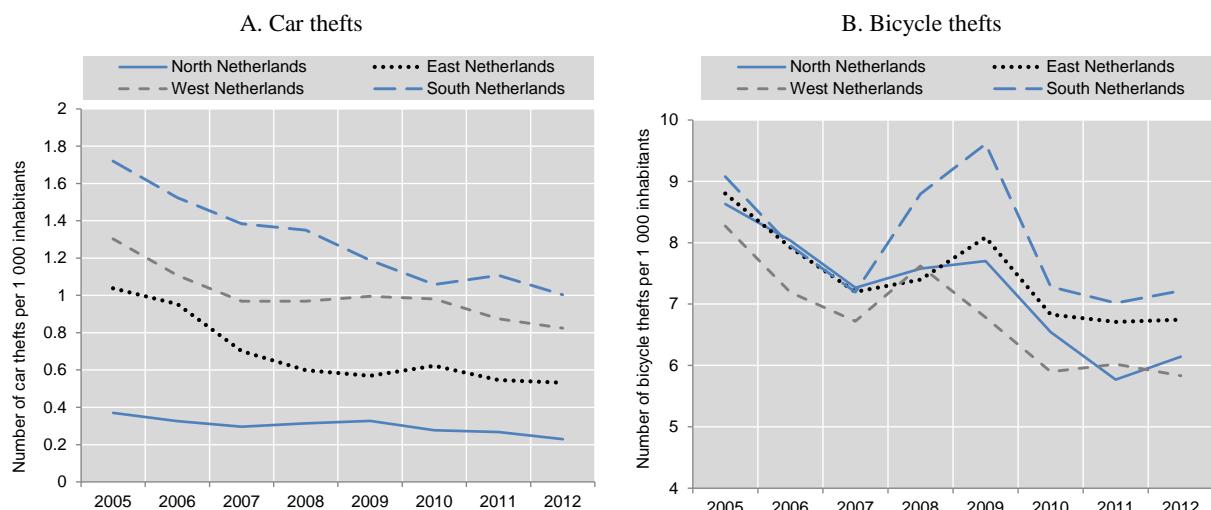
The North of the Netherlands is a safe region to live in

The extent to which people feel safe and protected from personal harm or crime strongly affects their quality of life. Personal safety is important in itself, but also because it can have strong interdependencies with other well-being dimensions. Previous research showed that crime rates are negatively associated to job accessibility and to levels of schooling (Gaigné and Zenou, 2013; Lochner and Moretti, 2004; Machin et al., 2011). In addition, low levels of safety can yield individual and social costs that potentially affect the socio-economic conditions in a place. Besides physical health and private security costs, attempts to measure the economic and social costs of crime should include several

external effects, such as the erosion of human and social capital, a worsening business climate and a high allocation of public resources away from more productive uses. Indicators of security are also increasingly included in international measurements of competitiveness, such as in the *Global Competitiveness Report* of the World Economic Forum.

As for other dimensions of quality of life, measuring safety outcomes is not necessarily an easy task. The extent to which a region is safe can be assessed from different angles and with respect to different phenomena that might threaten people's security. A first consideration is that one single indicator might be not enough for a comprehensive measurement and a joint use of both objective and perception indicators can be useful. While the former make it possible to monitor the actual safety conditions in an area, the latter can better grasp how people feel and how their quality of life might be affected. The Netherlands has very high levels of safety. In terms of murder rate, it is the fourth safest country in the OECD and the North of the Netherlands is the safest region in the country (0.4 murders per 100 000 inhabitants). As far as perception measures are concerned, people in the North of the Netherlands feel safer in their domestic environment than people in the other regions. According to data from Statistics Netherlands (CBS),⁵ 7% of people in the North of the Netherlands occasionally feel unsafe at home and 13% feel unsafe when they are at home alone, against higher values of these indicators in other regions (10% and 18%, respectively in Southern Netherlands). Similarly, 30% of the residents in the North of the Netherlands leave valuable items at home to avoid the risk of being mugged, versus 40% of people in the Southern Netherlands. The North of the Netherlands ranks high also in other aspects of safety. For example, car thefts per 1 000 inhabitants are the lowest in the country and have been decreasing since 2005 (Figure 7A). Almost the same can be shown for bicycle thefts, which have been lower than the national average in the last years (Figure 7B).

Figure 7. Number of vehicle thefts per 1 000 inhabitants in the Netherlands



StatLink <http://dx.doi.org/10.1787/888933151309>

Source: OECD (2014), *OECD Regional Statistics* (database), <http://dx.doi.org/region-data-en>.

Health outcomes are strong, in line with the national average

Health outcomes are strong in the North of the Netherlands. In 2012, the region registered a life expectancy at birth of 80.8 years, in line with the national average and with western European countries. Among OECD countries, the Netherlands has the 13th best health outcomes and the 3rd lowest regional disparities in terms of life expectancy and mortality rate.⁶ Healthy lifestyles and prevention are major contributors to such positive outcomes (OECD, 2012b). Self-reported obesity has increased significantly in the Netherlands over the last 20 years, but average levels remain well below those in the OECD.⁷ In the whole country, less than 20% of people reported less than good health conditions in 2013 and this share has been stable during the last six years.

Health outcomes are strongly connected to other outcomes. Good health is a crucial condition for an individual to have access to jobs and to earn higher income. Education levels are usually positively associated to better health and the Netherlands is no exception in this regard. Cross-dimensional indicators can help assess how two dimensions of well-being interact. According to CBS data, for example, a 30 year old woman with higher education in the Netherlands is expected to live 45.5 years in conditions of good health (and 56.3 years in total), as opposed to only 27.5 years (and 50.3 in total) if she had no more than a primary education.⁸

Health policy has had effective outcomes, but it has been costly. In 2011, private and public spending in healthcare amounted to 11.9% of GDP in the Netherlands, against an average of 9.5% in the OECD (OECD, 2014b). OECD projections pointed out that these figures might rise significantly without adequate policy actions (De la Maisonneuve and Oliveira Martins, 2013). Population ageing may put further pressure on the healthcare system, especially in the North of the Netherlands. Since the mid-2000s, the Netherlands has been undergoing a process of reform of the healthcare system, which aims at containing its costs and introducing more competition, giving a more important role to the private sector and moving towards a more market-based system (OECD, 2012b).

The level of service provision is high, but the most remote areas contemplate future challenges

Access to services is a key aspect of well-being and probably the most dependent on the place where individuals live. To increase their skill endowment, to fulfil their medical needs or to increase their quality of life, just to mention some examples, individuals must have access to schools, hospitals (or other medical centres), and other cultural and natural amenities. Accessibility of services includes three dimensions: physical accessibility, meaning not only the service provision but also the possibility for individuals to reach the places where services are provided; economic accessibility refers to the economic affordability of services; and, finally, institutional accessibility requires the absence of legal barriers that deny access to services to specific subgroups of individuals.

The number of physicians *per capita* represents an example of access to fulfilling basic needs, while access to broadband connection is an example of a service that increases quality of life. In the North of the Netherlands, the number of physicians per 1 000 persons is 2.8, which puts the region second in the national ranking. With 85% of households having access to broadband connection, the North of the Netherlands is also the best performing region in terms of access to IT services. Then again, it is noteworthy that regional coverage of broadband access is still a challenge, particularly in peripheral areas in the north, and an important issue for regional policy priorities and investments in

full broadband coverage. Furthermore, such high standards in access to services may be threatened by the ongoing decentralisation process that comes together with a budget cut in social services. These factors could have a negative impact, especially in sparsely populated areas or in those that have a higher share of elderly people, where a reduction in the supply of certain services (such as schools) is more likely to happen.

Earthquakes from natural gas extraction raise a major environmental concern

A current major environmental concern in the North of the Netherlands is the increase of earthquakes in the areas where natural gas is extracted from soil. These areas include part of all three provinces composing the North of the Netherlands and are hence a compelling issue for the whole region. The frequent occurrence of earthquakes has direct negative effects on people's well-being, both in the short and long run (Van der Voort and Vanclay, 2015). It directly affects personal security and other material conditions, for example through the deterioration of housing outcomes due to damages to dwellings and the subsequent depreciation of property values. Although a compensation scheme for property damages exists, the frequency of earthquakes also decreases the liveability, attractiveness and economic prospects of the affected areas, which are already relatively weak in terms of socio-economic structure. National and regional interests might also be difficult to align, as gas production is a major contributor to the national budget while representing a threat to the region's sustainability. Although gas extraction has already slowed down, increasing and heavier earthquakes are expected in the future. A report by the Dutch State Supervision of Mines (SSM) argued that frequent earthquakes in the North of the Netherlands are the consequence of increased gas production since 2013 and that only a drastic reduction could reduce the risk of earthquakes in the Groningen gas field (Muntendam-Bos and De Waal, 2013). The Dutch government is aware of the situation and, after having commissioned several studies on the topic, it implemented measures for about EUR 1.18 billion between 2014 and 2018 in order to improve liveability, safety and economic conditions in the extraction areas. Such measures include a targeted reduction of gas extraction, a large-scale preventive reinforcement of the built environment (housing, infrastructure, etc.) and a boost to economic activity in the region. The latter consists in promoting tourism in new areas of cultural heritage, encouraging local energy generation, and investing in fast Internet and smart grids in rural areas.⁹

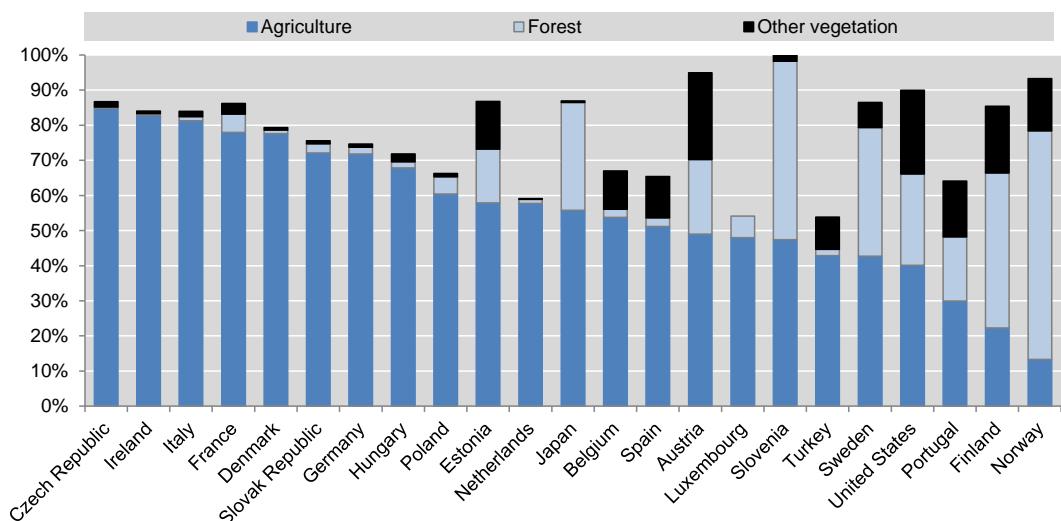
Since the 1950s, the discovery of major supplies of natural gas transformed the economy of the North of the Netherlands towards energy-intensive activities, such as metal and petrochemical industries. Connected to the presence of these activities, but also to traffic congestion and other factors, air quality currently represents a concern in the North of the Netherlands, especially in the most densely urbanised areas. OECD estimations of PM_{2.5} concentration show that the region is worse off in terms of air quality than the OECD average, though the PM_{2.5} concentration is lower than the national value. For many years, the development of energy-intensive activities in the North of the Netherlands yielded increasing emissions of CO₂ and SO₂ in the atmosphere (Koren et al., 2013). While SO₂ emissions have been decreasing since the 1970s, CO₂ emissions have been stable during the last 40 years (Koren et al., 2013).

With respect to its landscape values and natural amenities, the North of the Netherlands is an attractive touristic region. Its major points of interests are the wetlands, the Frisian lakes and the Wadden Sea, as well as various national landscape areas that are part of Natura 2000, an EU initiative for policy on nature and biodiversity.¹⁰ These natural amenities can represent a direct environmental outcome for people's well-being. A subjective appreciation from residents on the natural amenities was made by a team of

scholars from the Netherlands Environmental Assessment Agency and the Universities of Groningen and Wageningen through a web-based survey called Hotspotmonitor (De Vries et al., 2013). This initiative allows clusters of highly valuable places to be identified directly by people participating in the survey and it has been applied to OECD functional urban areas (Sijtsma and Daams, 2014) (see Box 4 in the following section).

Connected with natural amenities, another environmental issue in the North of the Netherlands is the prevention and limitation of biodiversity loss. The Wadden area is a nationally relevant area for natural environment, but it conflicts sometimes with other economic activities, such as fisheries and coal-fuelled plants. In addition, the intensive use of land in agriculture often conflicts with the willingness to preserve natural areas. According to the data from Corinne Land Cover, between 2000 and 2006, almost all the newly developed land for urban uses was converted from agriculture (Figure 8). Various governmental structures are in place in the Netherlands to balance these types of trade-offs. A key issue is the effective use of knowledge, which is provided by different institutions, including the Netherlands Environmental Assessment Agency.

Figure 8. Share of urban land converted from agriculture, forest and grassland, 2000-06



StatLink <http://dx.doi.org/10.1787/888933151317>

Source: OECD (2011), *OECD Regions at a Glance 2011*, OECD Publishing, Paris, http://dx.doi.org/10.1787/reg_glance-2011-en.

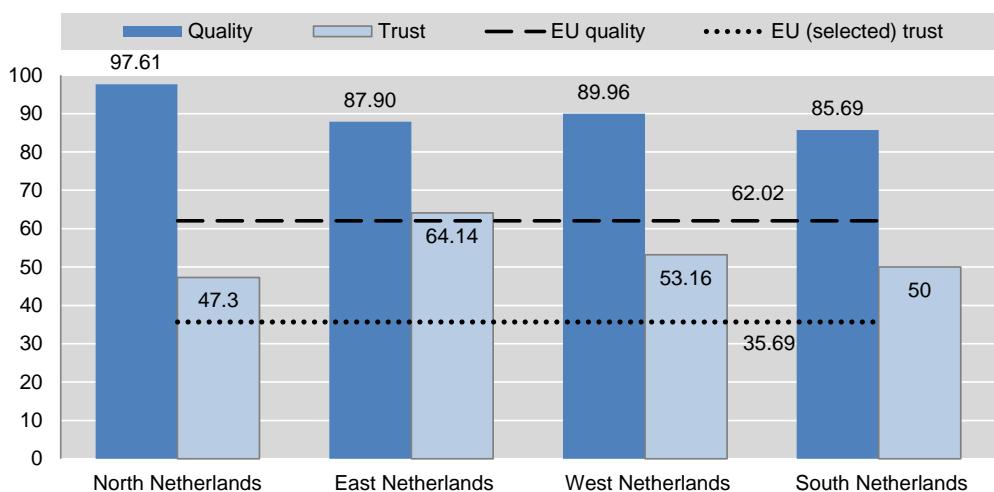
Citizens show high levels of civic engagement

Civic engagement is not only one dimension of well-being, it is a crucial determinant for shaping the political agenda and implementing actions that affect all the other dimensions. By participating in the political processes and debates, people express their voice and contribute to the functioning of society. There are different ways to measure civic engagement. One straightforward indicator is voter turnout, which gives a direct assessment of the extent to which people participate in political life. This indicator was 76.3% in 2013 and put the North of the Netherlands above both the national and the OECD averages.

High levels of civic engagement in the North of the Netherlands come together with a high quality of governance. According to the Index of Quality of Governance developed

by the University of Gothenburg, the North of the Netherlands ranks very high, both above the national and the European averages (Figure 9). Yet regional differences within the country are not very high, indicating that there are no major institutional gaps across regions in the Netherlands. At the national level, according to the Worldwide Governance Indicators of the World Bank, the Netherlands scores very high on the main indicators of governance, including control of corruption and rule of law. These are also crucial factors for creating an environment that favours business and prosperity. Quite surprisingly, the indicators of quality of governance mentioned above do not seem correlated with trust levels (OECD, 2014a). While people in the North of the Netherlands have the highest civic engagement and governance quality in the country, the region also registers the lowest levels of trust, although the latter remain higher than the European average (Figure 9).

Figure 9. Quality of governance and level of trust



StatLink <http://dx.doi.org/10.1787/888933151322>

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 represents 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).

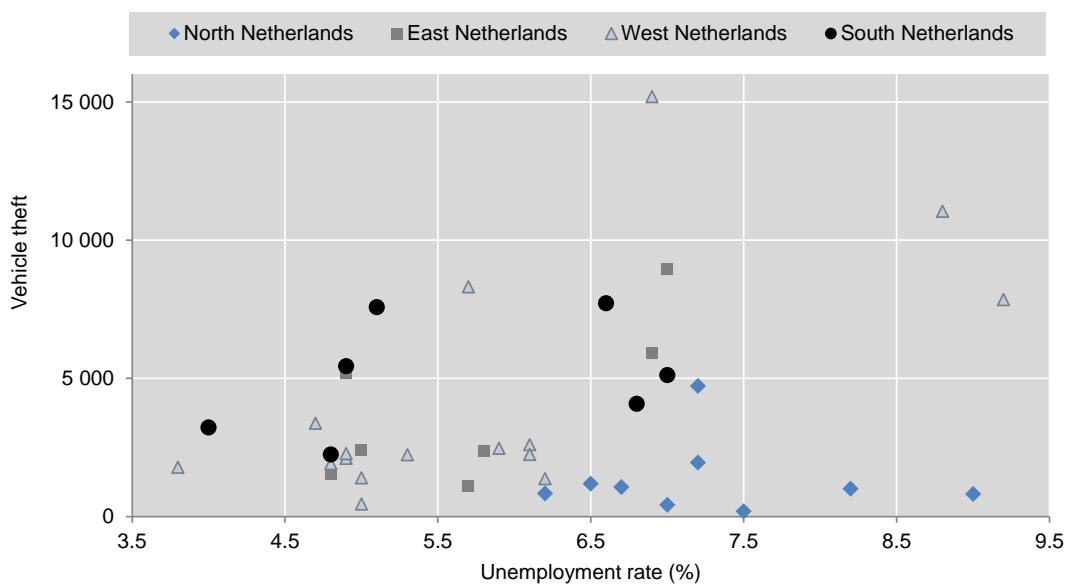
Source: OECD (2014), *OECD Territorial Reviews: Netherlands 2014*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264209527-en>.

Interaction among well-being indicators

Local conditions affect people's well-being. However, “it is not the space per se that produces regional variation of well-being” (Pellenborg and Van Steen, 2011: 627). It is more likely that regional inequalities in well-being are driven both by differences in the level of well-being dimensions and in their interactions. The inter-relation between well-being dimensions is widely acknowledged. For example, household disposable income and safety are associated with employment outcomes; civic engagement, labour market participation and health status are influenced by the level of education; and so on.

Material and non-material dimensions of well-being affect each other. A labour market outcome, such as the unemployment rate, can affect future economic development, but also civic engagement and levels of safety. The North of the Netherlands shows a peculiar pattern in this respect. It is the safest region in the country in terms of murder rate and number of vehicle thefts, but it also shows the highest unemployment rate. Figure 10 plots unemployment rates and the number of vehicle thefts in 2012 for the 40 COROP Dutch regions. The relationship appears to be weaker in the North of the Netherlands (represented by blue diamonds). COROP regions in the North of the Netherlands show a lower number of vehicle thefts than those observed in regions that have comparable levels of unemployment, like agglomerations 's Gravenhage and Groot-Rijnmond in West Netherlands (triangles). In most cases, they perform even better than some regions that have a lower unemployment rate.

Figure 10. Interaction between vehicle theft and unemployment rates at COROP level, 2012



StatLink <http://dx.doi.org/10.1787/888933151333>

Note: Data on the unemployment rate in Delfzijl en omgeving in the North of the Netherlands refer to 2010.

Source: Authors' elaborations based on data from Statistics Netherlands.

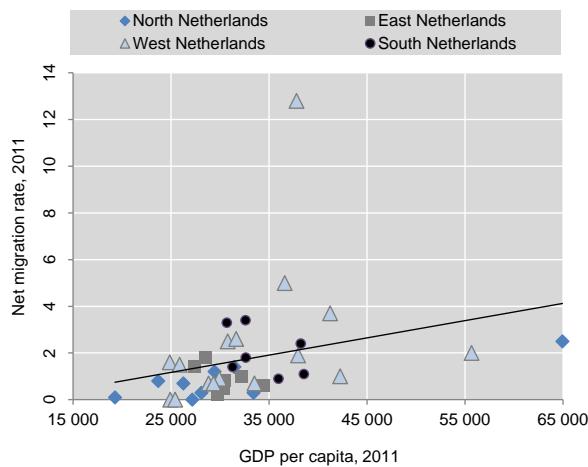
One of the main challenges the North of the Netherlands needs to face is related to the ageing process that comes together with population decline. Due to the link between the two phenomena, it is difficult to assess which one is the main driver of the observed demographic changes. Both trends could affect well-being directly or indirectly. Being a “less attractive”, sparsely populated area could yield relatively negative development perspectives; income levels tend to decrease and so does the supply of services. This, in turn, could foster a negative migration process. Better educated individuals could decide to migrate in more populated and economically active areas of the country, where job opportunities, income prospects and the supply of services are better.

A possible way to measure the attractiveness of a region is to consider the net migration rate, i.e. the difference between immigrants and emigrants per 1 000 inhabitants (Figure 11). Panel A shows that COROP regions in the North and West of the Netherlands (represented by blue diamonds and triangles, respectively) exhibit a positive

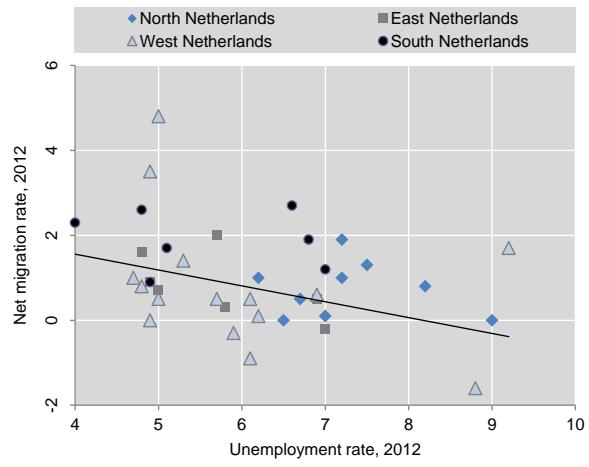
relationship between the net migration rate and GDP per capita, while the relationship seems reversed in the remaining two regions. In COROP regions in the North of the Netherlands, as well as in the rest of the country, the relationship between the net migration and the unemployment rates is negative. Panel B shows that in four cases out of nine, for given unemployment rates, the net migration rate in the North of the Netherlands is higher than that in other regions of the country.

Figure 11. Net migration rate, GDP per capita and unemployment rate in COROP regions

A. Migration and GDP in COROP regions, 2011



B. Migration and unemployment in COROP regions, 2012



StatLink <http://dx.doi.org/10.1787/888933151345>

Note: Data on the unemployment rate in Delfzijl en omgeving in the North of the Netherlands refer to 2010.

Source: Authors' elaborations based on data from Statistics Netherlands.

Framework for measuring well-being in the North of the Netherlands

While the North of the Netherlands enjoys relatively high overall levels of well-being compared with the OECD average, the region has had no explicit strategy for measuring well-being or further improving it. However, both at national and regional levels, a variety of autonomous initiatives provide extensive data and research on different dimensions related to well-being (income, jobs, housing, health, environment, etc.), which will be briefly reviewed in the following sections.

A variety of national initiatives for measuring well-being

Measuring quality of life has a long tradition in the Netherlands. Statistics Netherlands provides a very advanced data infrastructure, including registry micro-data. Several other institutions also offer comprehensive data sets at diverse territorial scales, either in the form of indices or through sectoral indicators.

One of the most long-standing initiatives for monitoring people's well-being is the Life Situation Index, published annually by the Netherlands Institute for Social Research (SCP) since 1974. The Life Situation Index covers eight dimensions: housing, health, ownership of consumer goods, socio-cultural leisure activities, mobility, social participation, sports and holiday patterns (Table 2). The conceptual framework of the index also takes into account other determinants, such as the environment and public services. The index is built on the basis of subjective assessments of the individual situation. According to studies that mapped the index at the NUTS 3 level (Pellenbarg and van Steen, 2011), the North of the Netherlands registers relatively high values. The SCP also compares the national Life Situation Index results with those of other countries, as part of the International Society for Quality of Life Studies.¹¹ In addition, the SCP carries out other surveys that focus on different themes or different types of territories, such as the annual Social State of the Netherlands, the State of Rural Villages and the Status Development of Districts in the Netherlands.

Table 2. The Life Situation Index of the Netherlands Institute for Social Research

Dimension	Indicators
Housing	<ul style="list-style-type: none"> - Type of home - Owner-occupied or rented - Number of rooms - Surface area of the living room
Health	<ul style="list-style-type: none"> - Hindered in carrying out household activities - Hindered in carrying out leisure-time activities
Ownership of durable consumer goods	<ul style="list-style-type: none"> - Number of household items - Amount of hobby equipment
Socio-cultural leisure activities	<ul style="list-style-type: none"> - Number of socio-cultural activities - Number of hobbies - Diversity of membership of associations
Mobility	<ul style="list-style-type: none"> - Possession of a car - Possession of public transport season ticket
Social participation	<ul style="list-style-type: none"> - Voluntary work - Social isolation
Sports	<ul style="list-style-type: none"> - Number of times doing sport per week - Number of sports practiced
Holidays	<ul style="list-style-type: none"> - Been on holiday in the past 12 months - Been on holiday abroad

Source: Netherlands Institute for Social Research (SCP).

Major national agencies also collect and disseminate sectoral data on different dimensions of well-being. For example, the Netherlands Environmental Assessment Agency (PBL) investigates physical, social and economic indicators in a Compendium for the Living Environment.¹² Another example is the National Institute for Public Health and the Environment (RIVM), which publishes a National Public Health Atlas.¹³ In addition, annual publications with a large set of indicators on the socio-economic and residential characteristics of the 50 largest municipalities are published by *Atlas voor Gemeenten*¹⁴ and *Economische Toplocaties en Waar willen we Wonen* by Bureau Louter.¹⁵

An attempt to assess people's lives in an integrated way was introduced through the Liveability Monitor. Against the backdrop of population decline, the Dutch Ministry of Interior has built a liveability score that combines data on housing, demographics, services, safety, public space and green spaces at a small territorial scale (streets, communities, postal codes).¹⁶ Local governments participating in the government's urban policy, which was launched in 1995, monitored physical, social and safety conditions in their neighbourhoods through residential surveys called "Liveability and Safety Monitors". Dutch housing associations also used tenants' panel data to check on quality of life in the areas where their property was located and to guide their investment programmes. In 2007, a joint survey called the Safety Monitor (from the Departments of the Interior, Royal Relations and Justice and the CBS) was introduced to bring together questions on fear of crime, victimisation, neighbourhood problems and the functioning of the police at the national, regional and local levels.

As part of urban regeneration policy, the then Ministry for Housing, Communities and Integration launched the Action Plan for Empowered Neighbourhoods (*Actieplan Krachtwijken*) in 2007. A total of 40 priority neighbourhoods (*krachtwijken*) were selected across 18 large municipalities on the basis of high problem scores in unemployment, liveability and safety, as well as an ageing housing stock. The original plan aimed to improve housing, employment, education, social integration and safety over the course of a decade. This was scheduled to be financed through a combination of government funding and contributions from housing associations that had no housing stock in the selected neighbourhoods. However, the plan received funding for only four years and the contribution from housing associations was scrapped in 2011.

Another index, the Sustainable City Index built by the Sustainable Society Foundation, provides well-being data at municipal level for all municipalities in the Netherlands. It covers three main dimensions: human, environmental and economic well-being (Table 3). The index uses spatially aggregated information at a very fine territorial resolution. However, it does not contain any data on individual situations, given that surveys need be carried out on a very large sample to obtain a statistically significant empirical basis. Many of the municipalities in the three provinces display very high scores in the fields of education, safety, air, water and renewable energy. In contrast, they perform lower than the Dutch average in social security, youth unemployment and financial resilience.

Table 3. The Sustainable City Index

Dimensions		Indicators
Human well-being	Basic needs	- Income (share of persons in private households with income higher than 105% of social minimum)
		- Education (share of early school leavers in secondary vocational education)
		- Social security (social security benefits per 1 000 inhabitants)
	Personal development	- Gender equality (share of employed women of all women of working age)
		- Health (share of adults over 20 years with severe obesity and children between 2 and 20 years with obesity)
		- Sport (share of population between 6 and 79 years participating in sports)
	Social development	- Civic participation (turnout in local elections 2010)
		- Safety (recorded crimes per 1 000 inhabitants)
Environmental well-being	Nature and environment	- Water (biological quality of surface water)
		- Air (annual average concentration of NO ₂ and PM ₁₀)
	Climate and energy	- Nature (natural quality of the land and water surfaces)
		- Energy consumption (average household consumption of electricity and gas)
Economic well-being	Natural resources	- Renewable energy (production of renewable electricity)
		- Consumption (non-recycled household waste)
	Economy	- Youth unemployment (share of unemployed persons 16-22 years old)
		- Financial resilience (municipal equity-debt capacity and average property tax rate)

Source: Sustainable Society Foundation, www.ssfindex.com and www.gdindex.nl/gdi/indicatoren (accessed on 27 April 2014).

Three main strands of regional initiatives in the North of the Netherlands

At the sub-national level, each of the three provinces forming the North of the Netherlands runs its own well-being measurement system. For example, the province of Drenthe has a statutory foundation called Stamm, which provides research, training and knowledge sharing on diverse areas including the local economy, education, health and lifestyles.¹⁷ Concerning the province of Friesland, its website states that the first core task of the provincial administration is the “promotion of the prosperity and well-being of its inhabitants”. The province funds the *Monitor Fryslân*, a digital database of municipal statistics from both national and provincial sources.¹⁸ It does not provide a well-being index, but users can easily display various aggregated data on income, unemployment, social security and participation under the form of figures and maps on line. The province of Friesland is also a partner of the Partoer Foundation,¹⁹ a research bureau for socio-economic issues. In the province of Groningen, the Agency for Social Research for Groningen²⁰ operates a database on the following policy areas: population, health, labour and income, education, safety, welfare, housing, social participation and liveability. The database contains both data from Statistics Netherlands and regional or local data updated annually. Examples of regional and local data include provincial forecasts on demography, health profiles and figures on safety. The agency also carries out research on youth, healthcare and vulnerable groups, and quality of life. Since 2013, the agency manages the Groningen Panel, a sample of approximately 1 750 citizens over 18 years old. About five times a year, the panel is asked to share their thoughts on such issues as social participation, accessibility and quality of facilities, availability of care services, mobility and perception of safety.²¹ The data produced by the three provinces stop at the respective provincial boundaries and are not standardised in terms of methodology and indicators.

Although there is no unified well-being initiative at the level of the North of the Netherlands, three main pillars of initiatives that cover the region have emerged in recent years. The three pillars relate to innovation (with the Research and Innovation for Smart Specialisation Strategy [RIS3] of the North of the Netherlands), health (with the Healthy Ageing Network of the North of the Netherlands) and environment (with the Waddensee project). The following sections review each of these initiatives, putting them into the perspective of the OECD regional well-being dimensions (Table 4) and framework (Table 5).

Table 4. OECD regional well-being dimensions and well-being initiatives in the North of the Netherlands

OECD regional well-being dimensions	Initiatives in the North of the Netherlands		
	RIS3	Healthy Ageing	Waddensee project
Income	X		X
Jobs	X		X
Housing			X
Education	X		
Environment	X (water, energy)		X
Health	X (healthy ageing)	X	
Safety			
Access to services	X (water)		
Civic engagement			

Source: Authors' own work.

Table 5. OECD regional well-being framework applied to some measurement initiatives in the North of the Netherlands

	RIS3	Healthy Ageing	Wadden Sea project
Mix of individual and territorial characteristics			Monitoring the place-based aspects of environmental and societal progress, including public perceptions of well-being and quality of life
Outcome indicators	"Results-oriented" approach Operational Agenda set up specific goals to be achieved between 2014 and 2016 25% of the investment needs to be made by 1 January 2016	Overall objective of adding more years of healthy life but no specific quantitative target	
Multi-dimensionality (material and non-material conditions)	Four societal challenges: 1. Health, demography and welfare 2. Food security, sustainable agriculture and bio-economy 3. Reliable, clean and efficient energy 4. Clean, safe water Five key clusters: 1. Agri-food 2. Healthy ageing 3. Energy 4. Water technology 5. Sensor systems	Five themes have been identified within the Healthy Ageing Network of the North of the Netherlands (HANN): 1. Life sciences 2. Food and nutrition 3. Medical technology 4. Care and cure 5. Healthy lifestyle	Integrating ecological, social and economic knowledge on the Wadden Sea area
Distribution across the region	Attention given to the divide and linkages between urban and rural areas		Across the coastline
Citizens, governance and institutions	Quadruple helix between government, private sector, knowledge institutes and other social stakeholders		Analysis of public perception through Hotspotmonitor tool
Complementarities and trade-offs	"Composite needs, composite solutions", "cross-over" approach		
Dynamics of well-being, resilience and sustainability	Monitoring and evaluation approach	LifeLines programme over a 30-year period	Long-term measurement and use for sustainable development objectives

Source: Authors' own work.

Innovation and well-being

Following the impetus of the European Commission, the North of the Netherlands has developed a regional innovation strategy that aims to achieve overarching regional development strategic goals.

There is currently no explicit national framework for regional policy in the Netherlands (OECD, 2014a). After abandoning the Peaks in the Delta Programme in 2010, the government adopted instead the Enterprise Policy, which includes generic policy (e.g. addressing the burden of regulation) and a specific policy for nine innovative sectors that have a strong global export potential (i.e. water, agro-food, horticulture and propagation, high-tech systems and materials, life sciences and health, chemicals, energy, logistics, and creative industry). The latter policy, called the Top Sector Policy, is administered through 19 public-private partnerships (Top Consortia for Knowledge and Innovation, or TKIs) that design collective R&D programmes and apply for government fiscal subsidies.

At the same time, the European Union is promoting the concept of “smart specialisation” as the basis for its EU 2020 strategy, encouraging a focus on a limited set of sectors with global innovative potential that draw on existing regional strengths. From 2014, all operational programmes for EU Structural Funds are required to be based on a Research and Innovation for Smart Specialisation Strategy (RIS3) in order to receive funding. All four NUTS 1 regions of the Netherlands (*Landsdelen* of North, East, West and South) have devoted substantial time and efforts to writing their RIS3 strategies in order to meet the EU’s *ex ante* conditionality criteria.

The North of the Netherlands produced its RIS3 2014-20 in 2013 and the corresponding RIS3 Operational Agenda in 2014. It followed the “entrepreneurial process of discovery” advocated by the European Commission, which empowers entrepreneurial actors (including firms, higher education institutions, public research institutes, independent innovators) to identify the region’s most promising areas of future specialisation (European Commission, 2012). While the RIS3 is not an explicit regional well-being strategy, the Northern Netherlands Alliance (SNN, Box 3) considers it as a regional development strategy. Preparations for the strategy brought the three provinces together in a rare momentum for collaboration and exchange of viewpoints. With regard to the OECD Regional Well-being framework, the RIS3 presents the following characteristics:

- Multidimensionality. The RIS3 focuses on addressing four societal challenges that cover different aspects of well-being: health, demography and welfare; food security, sustainable agriculture and bio-economy; reliable, clean and efficient energy; and clean, safe water. For this purpose, it has identified five main clusters as a sound foundation of the region’s innovation potential for the future: agri-food; healthy ageing; energy; water technology; and sensor systems.
- Distributional aspects. The RIS3 not only covers the entire region, but it draws attention explicitly to the disparities that exist between the region’s urban areas (growing and attracting young population) and rural areas (often going through in demographic and economic decline). It also underlines that “urban and rural areas are tightly connected” (SNN, 2013).

- Explicit consideration of complementarities and trade-offs between different dimensions. The RIS3 promotes a “cross-over approach”, which calls for addressing “composite needs” through “composite solutions” (SNN, 2013). The RIS3 points out that the challenges of contemporary society are multi-faceted and solutions cannot be found in any single industrial sector or perspective. An integrated approach calls for weaving knowledge from different sectors, notably the five main clusters identified above. Specific examples of cross-over projects supported by the RIS3 include a Carbohydrate Competence Centre, a new expertise centre bringing together agri-business, healthy ageing and energy competences. Another example is a new sanitation system put in place in the Sneek residential area of Noorderhoek (232 new houses), which brings in water technology. Finally, the Fall Prevention project aims to reduce the incidence of falling accidents in the elderly population. Besides bringing together healthy ageing and high-tech sensor systems competences, it also offers an example of a cross-border project, as it involves collaboration with the hospital of Oldenburg in Germany.
- Citizens, governance and institutions. Following the guidelines from the European Commission, the governance of the RIS3 process promotes a quadruple helix approach, which brings together the government, the private sector, knowledge institutes and other social stakeholders. It was a process of co-creation based on intensive consultation of societal stakeholders. The process was led by the Taskforce RIS3 of the North of the Netherlands. The taskforce consists of representatives of the three provinces, the four main cities (Groningen, Leeuwarden, Emmen and Assen), the University of Groningen, institutions for applied sciences and secondary vocational education, and the Confederation of Industry and Employers. The taskforce will operate until October 2014 and meets on a monthly basis following an agenda set by their advisory group, which is composed of senior level regional development experts from the SNN and taskforce member institutions. The agenda was also shaped by the interactive processes put in place to form the RIS3 Operational Agenda with a wide range of actors involved. The proceedings of the taskforce and intermediate results, drafts and final versions are available on the website of the taskforce (www.snn.eu/ris3).
- Dynamics, resilience and sustainability. The RIS3 advocates for building a “Northern Netherlands Index” for a composite monitoring system that includes both quantitative and qualitative indicators. On the quantitative side, the SNN proposed to consult with the other Dutch regions and Statistics Netherlands to make use of regional surveys already conducted (such as the labour market survey), the regionalised Top Sector indicators from Statistics Netherlands, the Community Innovation Survey and other tools. The qualitative indicators could focus on the degree to which the RIS3 has advanced innovation and collaboration, the degree to which the RIS3 is experienced as a true participation strategy, and the impact the strategy has on the residents of the North of the Netherlands.

Box 3. The Northern Netherlands Alliance (SNN)

In 1992, the three provinces of Drenthe, Friesland and Groningen set up a joint agency called the Northern Netherlands Alliance (*Samenwerkingsverband Noord-Nederland*, SNN). The SNN office is located in Groningen and employs about 70 employees. The four major cities of Groningen, Leeuwarden, Assen and Emmen have played an important advisory role within the SNN since 2007.

Four major roles

The SNN serves as an administrative organisation, a managing authority, a lobby organisation and a network organisation:

1. Administrative organisation. The three Northern provinces and the four large cities in the region co-ordinate their spatial planning and economic strategies within the context of the alliance. This is accomplished under the rotating chairmanship of the three King's Commissioners. The SNN also looks for opportunities across the border and different joint ventures are established with Northwest Germany (Lower Saxony), Northeast Europe and Northwest Russia.
2. Managing authority. The SNN has been designated as a managing authority for EU regional development funding. In this capacity, it administers and allocates central government and European Union subsidies that are meant to strengthen the economy. These subsidies are provided for specific programming periods. For example, more than EUR 375 million has been provided during the 2007-13 programming period. Subsidies are used to finance large infrastructure and innovation projects, as well as incentive schemes for small businesses in the region.
3. Lobby organisation. Through the SNN, the three provinces and the four large cities present a unified voice when dealing with the central government and the European Union. They have a shared agenda and stand up for the interests of the North of the Netherlands.
4. Network organisation. The SNN facilitates networking between government agencies, knowledge institutions and intermediary organisations in the North of the Netherlands. It also facilitates foreign investment into the region and is establishing contacts with similar agencies across the border in Denmark and in Germany.

Governance of the SNN

The SNN Executive Committee consists of the three King's Commissioners, two members from each of the three provincial executives and the mayors of the four large cities in the region. The Management Committee consists of the Executive Committee and three members from each of the three provincial councils. The matters addressed by the SNN are discussed by two administrative committees: an Economic Affairs Committee and an Urban Development and Mobility Committee. The Programme Committee, first appointed in 2012, consists of 35 members: the SNN Executive Committee and representatives of knowledge institutions, businesses, cluster organisations and public organisations. The Programme Committee draws up a shared implementation agenda every year.

Source: SNN (www.snn.eu).

In order to make the RIS3 fully operational, the following issues will need to be clarified:

- Defining outcome indicators, baselines and targets. The RIS3 acknowledges that “any strategy aimed at providing innovative solutions to societal challenges will have to specify, at the very least, the societal effects the strategy aims to achieve”. It mentions the need to define what will have been achieved in terms of food security and healthcare, for example. It also recognises the need to set specific and accountable targets in terms of employment and growth. The RIS3 provides examples such as: employment, the degree to which knowledge created by knowledge institutions is actually translated into products and services, the degree to which smaller and larger companies collaborate on the basis of their respective strong points, the investment to result ratio (value for money) and export growth. The RIS3 is careful in recalling that targets should be related to subjects that can be actually influenced by the RIS3 and its related programmes. The operational agenda of the RIS3 is expected to set specific targets to be achieved between 2014 and 2020, including a first set of objectives (25% of total investment) to be met by 1 January 2016. At this stage, however, it is not clear yet how the RIS3 will be deployed in terms of selecting projects and financing their implementation. The operational agenda is named the Northern Innovation Agenda (NIA) and it is currently in progress. The taskforce is working on an explicit operational programme with a financial plan. Once the NIA is completed, it will be sent for assessment to the European Commission, together with the RIS3. A final version and an English translation are planned to be made available by November 2014.
- Strengthening the link between the RIS3 and regional well-being objectives. While the RIS3 addresses several dimensions that contribute to well-being (including food, health and public services such as water), its primary rationale consists in promoting innovative business opportunities rather than in improving the regional population’s well-being. The extent to which the RIS3 targets, monitors and serves specific well-being goals remains to be clarified and put in practice.

Health and well-being

As described above, the North of the Netherlands is confronted with important demographic transitions, including population decline and an ageing society. In this context, the recent decentralisation reform in the Netherlands has planned to shift major responsibilities related to youth healthcare, long-term care and labour welfare to municipalities by 2015. Health and age-related topics are therefore particularly high on the region’s policy agenda. The SNN has launched a knowledge and development cluster in the field of healthy ageing. Promoting healthy ageing not only consists in improving the health of the elderly and ageing population, but in adding more years of healthy life by pushing the occurrence of disease a few years further during the life course. Therefore, it focuses on prevention throughout the chain of services over the life cycle. The Healthy Ageing Network of the North of the Netherlands (HANN) was established to foster and streamline the urgency ensuing from the demographic transitions and to enable all societal stakeholders to meet and together develop innovations.

HANN plays a key role in the region’s governance. It acts as an intermediary between research (including the University Medical Centre of Groningen, UMCG), medical institutions and business units. It combines a focus on improving quality of life

for ageing people and an economic perspective to minimise the social burden of healthcare and to search for economic innovation in this field. Within the network, the private sector, government organisations and knowledge institutions are brought together in a systematic collaborative approach to ensure better quality of life in old age while creating substantial new economic and social activities. HANNN is financed 60% by the three provinces of the SNN and 40% by other contributors (university, companies and healthcare companies).

Bridging several themes and actors related with health has been a core concern of HANNN. Five themes or programmes have been identified within its work: life sciences, food and nutrition, medical technology, care and cure, and healthy life style. Creating awareness of healthy ageing locally, regionally and at the EU level through meetings, social events and symposiums was among the first achievements of HANNN. These activities have been very successful in helping entrepreneurs of small and medium-sized enterprises (SMEs) identify opportunities to set up collaboration with local knowledge institutes such as the Hanze University of Applied Sciences, the Hanze Institute of Technology, the University of Groningen (RUG) and the UMCG. More and more regional care institutes such as hospitals and nursing homes as well as municipal public health and social services authorities team up. Collaboration and exchange with ScanBalt and similar network organisations within Europe have also been set up. In the next phase, HANNN will shift emphasis from networking activities to actual brokering for and between the network partners. Several networks that are particularly active in the care sector in the region, such as Care Innovation Forum (ZIF) and the National Programme Elderly Care North (NPO North), are also aiming to integrate their activities with HANNN.

The Healthy Ageing agenda and the associated HANNN network of research-based private sector and public sector partners offers the possibility to examine well-being in place from the perspective of health-related features. Actions and initiatives are promoted which link health-related science to lifestyle decisions and education and are intended to be targeted at the level of both individuals and communities. Co-financed by the European Union and the Dutch Ministry of Economic Affairs, the SNN has created a major health database called the *Healthy Ageing Monitor*. The central question is why some people develop a chronic illness relatively early in life while others remain vital and healthy into old age. A large-scale research programme, called LifeLines, investigates the complex combination of factors that influence the occurrence of chronic disorders such as asthma, diabetes or kidney disease (Box 4).

The work of the HANNN team was instrumental in ensuring that Healthy Ageing was one of the key elements in the EU flagship programme Innovation Union. In terms of EU Cohesion Policy and other similar funding possibilities, the Healthy Ageing data assembled and the networks built in the North of the Netherlands offer the possibility for an innovative use of European Social Fund (ESF) funding streams, which would link health-related initiatives with education-related actions. Such social inclusion interventions may also open possibilities for new social innovations.

A potential limit of the HANNN initiative in terms of promoting well-being outcomes is that it does not aim to reach specific health targets over time (e.g. how many years of healthy life should be added to an average citizen's life course by which year). In contrast, HANNN does agree on economic targets with each of the three provinces in different industrial sectors (such as food and tourism). This suggests that improving health outcomes is not necessarily the primary objective of the initiative. Better combining

economic and well-being objectives may help integrate the HANN initiative within a broader regional development strategy that improves citizens' quality of life and future opportunities.

Box 4. The LifeLines Programme: A long-term and preventive approach to health well-being

The basic scientific assumption is that the influence of factors of chronic diseases and the way in which they act upon one another can only be understood by a broad based monitoring of the health of a large population from different generations, over a long period of time. Within the LifeLines research programme, over a period of 30 years, 165 000 residents of the North of the Netherlands will be monitored, from children via parents through to grandparents. This three-generation approach is a pioneering study that involves an unprecedented number of life aspects, from heredity and lifestyle through physical and social factors. Participants are called in for an examination once every five years. During this examination at set times, they are asked to complete detailed questionnaires about their medical records, their habits concerning diet, smoking, lifestyle, use of medicines, etc. In addition, various parameters are measured including blood pressure, weight, height, lung function, heart function and blood and urine values. The baseline phase has just been completed and the follow up phase is about to start.

The results of LifeLines are expected to lead to a faster identification of diseases, discovering new treatment or even preventing different chronic disorders. The challenge of staying healthy longer through innovation calls for fundamental breakthroughs in core areas that determine sickness and health, in particular in the field of life sciences, food and nutrition, medical technology, care and cure, and healthy lifestyle.

The *Lifelines database* opens the enormous opportunity to study a broad scope of genetic, biomedical, environmental and psychosocial factors in relation to healthy ageing, disease development and general well-being. Actions based on campaigns and publicity have been initiated and various pilot projects are already underway.

Environment and well-being

The North of the Netherlands pursues an important socio-economic-environmental agenda revolving around the Wadden Sea. The Wadden Sea is a low-depth marine ecosystem spreading from the North of the Netherlands along the northwest German coastline and into the region of Southern Denmark (also participating as a case study in this OECD project and sharing many socio-economic issues with the North of the Netherlands). Tourism is a major pillar of the region's employment. The region was designated as a UNESCO World Heritage area in 2009. It is, however, threatened by dredging of shipping routes, natural gas and salt mining activities, allochthonous species and several coal-fired power plants and harbour activities just outside its boundaries. Managing this fragile ecosystem while promoting broad-based local development requires several factors, ranging from an adequate application of multidisciplinary scientific knowledge and the search for entrepreneurial and innovative opportunities, to embedding these dimensions in the local cultural context and building appropriate cross-border and cross-thematic governance arrangements.

The Wadden Sea Long-Term Ecosystem Research (WaLTER) project started in 2010 as an integrated monitoring plan for the main environmental and managerial issues that are relevant to the Wadden Sea area, including biodiversity, migratory birds, rise in sea level, fisheries, recreation and industrial activities. The project is managed by the Royal Netherlands Institute for Sea Research (NIOZ) and is carried out by a partnership among

different institutions: NIOZ; the Common Wadden Sea Secretariat; the Institute for Marine Resources and Ecosystem Studies (IMARES) of the Wageningen University and Research Centre; Radboud University Nijmegen; the University of Groningen and the Dutch Centre for Field Ornithology (SOVON) – together with Natuurmonumenten (Society for Nature Conservation); Staatsbosbeheer (Dutch Forestry Commission); the province of Friesland; NAM (Dutch oil company); the Dutch Ministry of Economic Affairs, Agriculture and Innovation; and the Ministry of Infrastructure and the Environment. The project is funded by the Waddenfonds, a joint fund between the provinces of Friesland, Groningen and North Holland. A website dedicated to the project was set up in 2011 (www.walterproject.nl) to make accessible to the public a package of integrated ecological and social economic knowledge on the area. The website includes practical stories of people living in, working in, studying or managing the Wadden Sea area, as well as maps and links to the six “work packages” of the implementing partners on specific issues. The purpose is to encourage the joint interpretation and use of such data in making policy decisions, preferably at the trilateral level in order to promote a balanced sustainable development of both the ecological and socio-economic system. The Common Wadden Sea Secretariat (CWSS) and the Wadden Sea Forum (WSF) have started with trilateral monitoring and policy initiatives, but trilateral comparisons are complicated because statistical data and definitions differ between countries, especially with regard to socio-economic data (Philippart, 2014; Sijtsma et al. 2014).

More specifically, the University of Groningen, in conjunction with the Wadden Academy,²² is undertaking a series of research projects aimed at monitoring the place-based aspects of environmental and societal progress, including public perceptions of well-being and quality of life. In particular, several measurement tools were developed: the Hotspotmonitor, the Threat-weighted Ecological Quality Area (T-EQA) and a GIS model of territorial competitiveness.

First, the Hotspotmonitor is an interactive GIS tool that measures people's appreciation of nature (e.g. aesthetic or recreational) through the attractiveness of places. The Hotspotmonitor does not aim at measuring quality of life itself, like other indices with several indicators do, but it integrates survey data on subjective appraisal of natural amenities and land-use data to produce comparative measures of environmental quality in cities in Denmark, Germany and the Netherlands, where natural amenities are identified through the survey responses (Box 5). Furthermore, it acts as an advocate for a fragile ecosystem and cherished tourist destination, giving a voice to the region in the debate.

Second, the University of Groningen together with the Netherlands Environmental Assessment Agency (PBL) developed the Threat-weighted Ecological Quality Area (T-EQA), which measures ecosystem areas (in hectares, or square kilometres) and assesses their quality and their degree of threat using species data (Sijtsma et al., 2011). While the protection of biodiversity is an increasing public concern, it is difficult to find clear-cut indicators to measure it. Ecologists often use the term biodiversity to describe the well-being of nature itself. Biological diversity, or biodiversity, is the variety of life on earth, within species, between species and across ecosystems. The United Nations Convention on Biodiversity (CBD) uses a large set of indicators to monitor trends in biodiversity (European Environmental Agency, 2010). The most commonly used indicators are the area of natural or semi-natural ecosystems and the numbers of species living within them.

Third, the University of Groningen developed a GIS model to assess the competitiveness of different geographical areas (Daams and Sijtsma, 2013; Sijtsma et al.,

2012a). The model was developed for the North of the Netherlands and is currently being developed into an online version for the Wadden area within the WaLTER project, aimed at ecological and socio-economic monitoring of the Wadden area.

Box 5. Measuring environmental quality through subjective indicators: The Hotspot Monitor initiative

The Hotspot Monitor (HSM) is an online survey tool that measures people's appreciation for natural areas. It was produced by a team of scholars co-ordinated by the University of Groningen and builds on the widely used Google Maps tool. The tool was developed in co-operation with the Netherlands Environmental Assessment Agency (PBL) and Wageningen University.

The central question for respondents in the HSM survey is: Which places do you find very attractive, valuable or important, and why? The only condition required of places to be considered in the survey is that they should be green and/or include water or nature. Based on these questions, the HSM survey measures each respondent's perception of natural spaces' amenity value on a local scale (2 kilometres from the respondent's home), regional scale (20 kilometres from home), national and international scale. For each scale, HSM survey respondents are asked to mark a single natural space they perceive as highly valuable. The database now includes the places of some 5 000 people, marking their local, regional and national preferred places.

The survey output includes point-location xy co-ordinates of the markers that respondents have placed to pinpoint natural areas (on both land and water), as well as the xy co-ordinates of their (approximate) living location. On the basis of the location markers for the respondent, clusters of natural amenities are identified. A cluster is a natural area in which HSM markers are more concentrated than would be expected if these were evenly distributed across space. Clusters of natural amenities with national relevance are identified in three European countries: Denmark, Germany and the Netherlands. Clusters are calculated per country, using only national HSM markers located in the observed country and cited by respondents of that country.

Matching the data from HSM with the geographical boundaries of the OECD cities (functional urban areas, or FUAs), it is possible to compute indicators of perceived environmental quality at city level. With respect to measures that are based on natural land-use data, HSM allows the identification of indicators to be based on people's preferences, without assuming constant well-being by type of land. For example, a meaningful and straightforward indicator based on HSM is the proximity to a natural hotspot of national relevance (*distHSM*), computed (inversely) in terms of Euclidean distance. This proximity accounts for the actual spatial distribution of people across the whole urban territory, by weighting by the amount of population living in each cell of a 1 square-kilometre population grid.

Looking at a population's average distance to the closest natural amenity (*distHSM*), it is possible, for example, to rank all the cities in the three countries considered, on the basis of their higher or lower level of natural amenities. Top cities by country are reported in the table below.

Cities (FUA) with the highest natural amenities		
Germany	Denmark	Netherlands
1. Solingen	1. Copenhagen	1. Maastricht
2. Heidelberg	2. Aarhus	2. Katwijk
3. Konstanz	3. Aalborg	3. Ede

Note: Ranking is based on the population-weighted distance to the closest natural amenity (*distHSM*).

Source: OECD (2014), *How's Life in Your Region? Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264217416-en>.

The North of the Netherlands therefore enjoys a set of sophisticated measurement tools that can contribute valuable information on the status of environmental well-being in the region. Such tools provide a multidisciplinary basis for promoting common understanding of key issues and could be further exploited to support participatory governance processes among different stakeholders. For example, they could help design local development programmes specifically tailored to the unique context of the region, using Common Strategic Framework (CSF) funding sources available from the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF), in tandem with the European Regional Development Fund (ERDF) and the European Social Fund (ESF) funding streams.

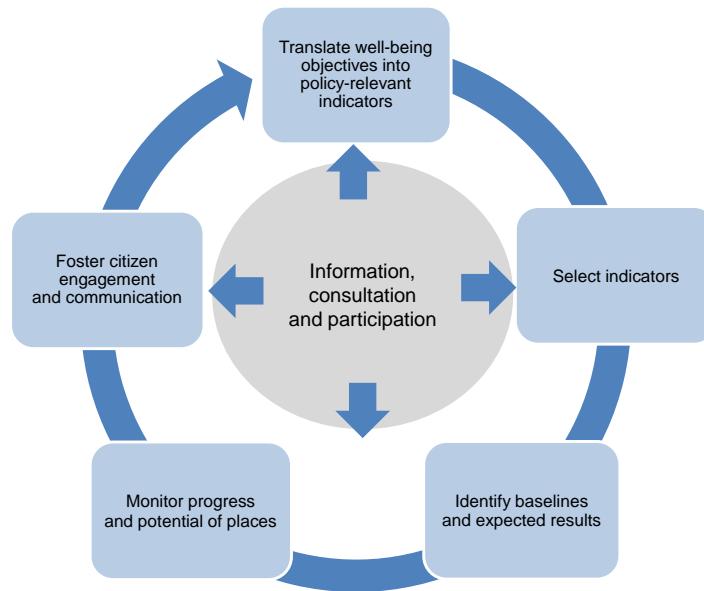
In a more advanced phase of policy making, other tools are also available in the region and could be further applied to evaluate policy options within a democratic participatory process to balance different interests and foster accountability. For example, the University of Groningen has developed a mixed method evaluation approach that combines environmental impact assessments (EIA) and cost-benefit analysis (CBA). The mixed method is known as multi criteria cost benefit analysis (MCCBA) (Sijtsma, 2006; Sijtsma et al., 2011). The MCCBA aims to present both the monetary as well as the non-monetary impacts of policies. While it follows the analytical rigor of a CBA, it also allows for understandable ratio scale metrics of broader well-being impact, such as the impact on health and nature-related well-being.

In a longer term perspective, the region of the North of the Netherlands could better link its work on the Wadden Sea with the broader policy agenda of sustainability and resilience. Like most European regions, the North of the Netherlands aims to contribute to the Europe 2020 strategy and is home to a number of initiatives that go in this direction. For example, the SNN elaborated a position paper as an input to the Europe 2020 objectives. The University of Groningen is a major promoter of the topic of resilience in the region. In 2013, the Groningen Research Institute for the Study of Culture sponsored a workshop on Citizens' Resilience in Times of Crisis. Embedded in the 7th Research Framework of the EU, the aim of the workshop was to foster a proactive democratic debate between citizens and political leaders to strengthen community linkages in times of crises. The topic of resilience is also being promoted by other actors outside government. For example, the festival "Let's Gro" in autumn 2013 stimulated open discussions about the future of Groningen and offered an opportunity for employees from the energy sector to discuss resilience with citizens from the municipality. Although the topic of resilience thus attracts policy attention and a large number of actors, a joint regional strategy to co-ordinate these different activities and a shared understanding of resilience and sustainability is currently lacking.

Using well-being indicators for policy making in the North of the Netherlands

Building a common well-being agenda at the regional level requires several steps, which involve putting in place concrete mechanisms for promoting information, consultation and participation throughout the cycle (Figure 12). In the North of the Netherlands, a diversity of data, policies and financial resources related to well-being exist and are sometimes even substantial (especially in terms of data), but they remain fragmented, with no effective co-ordination instrument or entity.

Figure 12. Regional well-being measurement cycle: A possible sequencing of steps



Source: OECD (2014), *How's Life in Your Region? Measuring Regional and Local Well-Being for Policy Making*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264217416-en>.

Defining a set of agreed well-being objectives across the region

Although the three provinces concur on the importance of well-being, and key institutions such as the University of Groningen are actively developing measurement tools and knowledge, all relevant stakeholders are yet to agree on a clearly defined set of well-being policy objectives for the entire region. This calls for two major steps:

- Selecting a common set of regional well-being indicators. Despite the richness of the existing well-being related data infrastructure, the current lack of harmonisation and comparability across the different data sets makes it difficult to exploit and interpret the data. Implementing the proposal to build a composite monitoring system for the entire region of the North of the Netherlands, put forward in the RIS3, may help in this regard. It would allow collecting, reviewing and selecting the most relevant quantitative and qualitative data, drawing from all of the three pillars reviewed in the previous section (innovation, environment and health), but also other existing sources. The RIS3 also has the merit of pointing explicitly to the need of adopting a multi-sectoral approach to understanding and addressing modern societal challenges. Constructing a set of cross-dimensional indicators, which cut across several dimensions of well-being (such as

employment and safety, as discussed earlier), could be a valuable step in making this “cross-over” approach fully operational in the North of the Netherlands and promote collaboration between different policy sectors.

- Identifying baselines and expected results. There is a need to delineate clearly where the North of the Netherlands wants to go (desired outcomes), the starting point (baselines) and a concrete idea of what success would look like (targets) (Box 6). Baselines and targets help trace the impact of specific policy actions, make citizens more easily aware of progress towards the desired outcomes and hold the decision makers accountable. Both objective socio-economic indicators and subjective perception data provide useful information in defining baselines and targets. In particular, when perception remains unaltered despite quantitative evidence, local authorities may be encouraged to reconsider and adjust the policy intervention at stake. Taking stock of the currently available indicators and building on collaboration dynamics already set in motion through the RIS3, the Healthy Ageing initiative and the Wadden Sea agenda, the region could conduct a comprehensive consultation process to identify collectively what the regional community considers to be its main needs and goals for the future.

Box 6. Policy outcomes, baselines, targets and a few notes of caution

Defining clear and precise desired outcomes – i.e. the desired result of a policy intervention – requires establishing baseline data and identifying targets.

The existence of baseline data is a critical precondition for the evaluation of policy impact. A baseline is defined as the value of a result indicator at the beginning of the programming period before a given policy intervention is undertaken (e.g. the share of school drop-outs in a region). Realistic baselines can be difficult to pinpoint, but may be readily available from statistical or administrative data. In some cases, typically in the case of subjective perception indicators, it needs to be generated, for example by surveys. Baselines should be selected for a specific point in time, based on the data gathered to inform the policy orientation, and/or as close as possible to the implementation date of the policy.

Similarly, identifying targets provides powerful impetus for encouraging improvement, but it remains a challenging exercise. Targets can be defined as a concrete goal that states the degree of achievement that is expected with respect to an associated policy intervention. While an ideal measurement cycle would involve choosing a target within a determined time horizon, the characteristics of the policy cycle make it difficult to identify when results will be detectable. Typically, results might materialise only after the specific policy cycle has been completed. Setting precise values to be achieved for each indicator requires, at a minimum, an overall assessment of the current situation and of the feasibility of the objectives, the involvement of the scientific community, and extensive consultation with citizens and other stakeholders from civil society.

There is certainly a debate regarding targets. Target setting may promote perverse incentives or system gaming (e.g. teaching to the test), while it may also assist in policy measurement and adjustment (e.g. identifying if students are learning the skills necessary). Fundamentally, however, the issue is not whether baselines and targets are bad or distorting. Rather, it is a matter of how targets or other measurements are set and utilised. Are they measuring outputs or outcomes? Are they used as a performance measure that is often employed to evaluate the results of a person’s performance (e.g. a high performing teacher is one whose students all score in the upper quintile of standardised tests) or are they measuring the performance of a policy (e.g. levels of academic achievement after introducing a policy that focuses on teacher training, education and motivation)? In the former, it is arguable that they are measuring output (the number of students passing a test); in the latter, they are measuring outcomes (is academic achievement rising based on qualitative and quantitative evaluation).

Box 6. Policy outcomes, baselines, targets, and a few notes of caution (cont.)

The following insights can help orient the debate on setting targets:

- decide whether to define a range of target values or a single target value for each indicator
- consider the possibility of setting intermediate and final targets
- combine quantitative and qualitative targets
- establish a realistic time frame informed by comparable historical benchmarks
- determine whether to link targets with budgetary incentives or not.

Source: Adapted from OECD (2014), *How's Life in Your Region? Measuring Regional and Local Well-Being for Policy Making*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264217416-en>.

In doing so, care has to be taken to strike a balance when developing indicators, as too many targets might introduce confusion into the measurement system and result in fuzzy communication of results (OECD, 2014c). International experience suggests that when policy targets are not defined by law, they may also be defined at the sub-national level, based on empirical information, such as in the example of accessibility of some key public services in Germany (Box 7). However, in many dimensions of well-being, a socially acceptable quantitative threshold often remains difficult to define. For example, the amount of a monthly welfare allowance may be set in political discourse, but not a specific share of eligible households. This is why agreeing on a set of common standards implies a thorough process of consultation and dialogue – especially when taking into account the important differences in living standards across urban and rural areas in the case of the North of the Netherlands. Experiences from other OECD regions, such as the province of Rome (Italy), the state of Morelos (Mexico) and the region of Wallonia (Belgium) may offer inspiring examples of how regional governments have conducted a consultation process with different groups of stakeholders to prioritise the most important well-being dimensions and indicators that reflect specific local challenges (Box 8).

Box 7. Defining the accessibility of public services in Germany

In the federal system of Germany, the 16 *Länder* have strong competences in spatial planning. National targets are therefore difficult to set, but some exceptions exist. For example, the national act concerning post offices states that every municipality with more 2 000 inhabitants must have a post office. Furthermore, a post office has to be reachable within 2 kilometres of contiguous built-up areas in municipalities with more than 4 000 inhabitants, and every 80 km² in counties.

At the state level, for example, the former plan of the *Land* of Mecklenburg-Western Pomerania for hospitals stated that a primary healthcare hospital with gynaecology, internal medicine and surgery services should be reachable within 25 to 30 minutes. However, in times of restricted financial resources, a political decision was made to no longer define a specific radius, and the current plan of the *Land* now only mentions “within a reasonable distance”.

At the county level, empirical information can also provide the basis for an administrative decision regarding the accessibility of public services. For example, the county of Northeim in Lower Saxony (as well as some other counties) subsidises transport tickets for students if the school closest to their home is at least 3.3 kilometres away (for primary school) and 5.8 kilometres away (for secondary school).

Box 8. Engaging citizens to identify well-being dimensions in Rome, Morelos and Wallonia

Province of Rome (Italy)

The provincial government of Rome developed a well-being strategy in 2011 to take a more systematic approach to policy action. Its aim was to support a new model of territorial development for inclusive growth and to create an information system of well-being indicators to better understand disparities across areas in the province and inequalities among people. The provincial government engaged a civil society organisation, Lunaria/Sbilanciamoci!, to monitor the strategy planning exercise and identify indicators for developing policies that could help smooth out local inequalities. Various groups contributed to the development of well-being indicators, including a Steering Committee composed of representatives from the province's administration, Sbilanciamoci!; the Province of Rome Statistical Office; Provinciattiva Spa; a scientific commission including experts on well-being indicators; and citizens and civil society. This form of active consultation, drawing upon diverse stakeholders, is a core component of the well-being measurement cycle and filters through the entire sequencing process.

Citizen consultation was considered a keystone for building the legitimacy of the well-being measures, and the process emphasised building dialogue around the scientific and cultural purposes of the project. The idea was to enhance the role of citizens in defining the development model, elaborating associated public policies and supporting local-level programme implementation. The consultation process included meetings organised by local governments to gather input on the strategic choices for the region, events hosted by civil society organisations, and workshops and forums organised by academia (universities and schools). Feedback on key concerns regarding well-being was solicited and gathered to help prioritise and determine the scale of intervention. Community surveys were used to build consensus around strategic choices and build citizen involvement, which was reported as a challenge. However, once citizens did get involved, the province was able to identify how citizens ranked the different well-being dimensions, putting waste and pollution, land consumption, public services, labour and health in the top five citizen concerns. As a means to communicate results and further engage citizens, the province developed an active web tool where citizens could select the well-being dimensions most significant to them, giving the administration more insight into citizens' priorities. Additional channels targeted to communicating results included public meetings, traditional media (i.e. print and television) and other media, such as books, workshops and written reports. An open data portal was also made available for the first year, but due to budget constraints, it is no longer operational in 2014.

Morelos (Mexico)

The state of Morelos has conducted an extensive consultation process to prioritise a set of well-being dimensions consonant with the objectives of the state's *Nueva Vision* strategy and to choose a few indicators to monitor such dimensions, using statistical information already collected by the National Institute of Statistics and Geography. The state of Morelos, under the direction of the state Ministry of Finance, has been shaping the well-being agenda through an increasing involvement of civil society, institutional stakeholders and the scientific community. Preparations for the State Development Plan (PED) engaged many different actors, through a hearing process, meetings and forums. This dialogue involved several community committees (*comités comunitarios*), groups of local citizens, often headed by mayors of municipalities, which help identify and prioritise the needs of a given community in various sectors. Although the state government has not allocated specific resources to promote the participation of civil society, it has involved community committees in various phases of the policy cycle. For example, the health committee participated directly in the definition of the goals elaborated in the PED, and the education sector in the state was consulted to account for the main educational needs of local residents. The state has also organised citizen consultation forums.

Box 8. Engaging citizens to identify well-being dimensions in Rome, Morelos and Wallonia (cont.)

Region of Wallonia (Belgium)

In 2013-14, the Walloon Institute for Evaluation, Prospective and Statistics (IWEPS) developed an index of conditions of well-being at the level of the 262 municipalities of the Wallonia Region, building the well-being criteria from the consultation of more than 1 200 citizens. This approach focused on what matters most to citizens in terms of well-being, taking into account the territorial diversity across municipalities and across different social groups within each municipality, including those people who do not often speak out. The experience highlighted the many facets of well-being far beyond material conditions and was based on the SPIRAL (Societal Progress Indicators and Responsibilities for All) methodology from the Council of Europe. In total, 16 000 opinions of citizens were statistically summarised into 58 indicators that are available across the 262 Walloon municipalities, describing 50 dimensions of well-being that are then aggregated into 8 families.

In the search of a balance between the wide diversity of ideas expressed and the pragmatic requirements of measurement, the choice of indicators was based both on semantic meaning and statistical relevance. However, at this stage, it was difficult to translate all the inputs received from the citizen consultation into quantitative indicators, notably concerning individual and subjective components, for example. This first proposed measurement is therefore to be seen like a measurement of the conditions of well-being, focusing on the quality of the living environment in the broad sense, which generates conditions that are more or less favourable to the emergence of an individual and collective state of well-being. Subsequent exercises would include a survey to address the components that were missing in this first exercise.

Source: OECD (2014), “Province of Rome (Italy)”, in OECD (2014), *How’s Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris; OECD (2014), “State of Morelos (Mexico)”, in OECD (2014), *How’s Life in Your Region?: Measuring Regional and Local Well-being for Policy Making*, OECD Publishing, Paris; IWEPS, www.iweps.be/indicateurs-complementaires-au-pib-lindice-des-conditions-de-bien-etre-icbe.

Strengthening political commitment and citizen engagement

In contrast with other OECD case study regions, a substantial part of the regional well-being metrics in the North of the Netherlands has been developed in the academia (e.g. University of Groningen) and is also introduced in the economic sphere (e.g. Healthy Ageing). While the involvement of the scientific and business spheres constitutes a clear advantage, the engagement of both the political level and citizens are critical in establishing the democratic legitimacy of the regional well-being initiative.

Although all three provinces show interest in promoting well-being, the association of the three provinces could play a stronger role in co-ordinating their individual initiatives and implementing a common well-being strategy that could coin the future of the entire region. In its current setting, the SNN focuses on “strengthening the economic position” of the provinces as stated on its website. It regards itself mainly as a subsidy provider, lobbies for the region externally and gives priority to expanding outward relations (in the international and national network) rather than tightening internal ties (between the three provinces).

The SNN could build on the experience it has accumulated so far with the preparations for the RIS3, as a valuable basis for internal co-ordination and agenda setting in terms of well-being. Together with the RIS3, the movement for Healthy Ageing (one of the RIS3 key themes) and the Wadden Sea initiative also provide core rallying

themes that could be brought together under a common overarching regional well-being strategy that embraces both material (economic) objectives and broader societal (non-economic) objectives. In terms of healthy ageing, for example, there has already been evidence that a societal move towards better quality of life can lead to new economic activities. According to the municipality of Groningen, the public co-financing of EUR 750 000 that has been contributed since 2011 has induced an investment of over EUR 14 million from further parties, leading to a creation of more than 100 new jobs in the region.²³

The SNN could therefore act as an intermediary for better co-ordinating the data production, research and policy interventions for well-being issues among the three provinces in order to prevent overlaps and facilitate synergies. More effective collaboration through the SNN would also help strengthen the individual provinces, which, despite their relatively high level of financial resources, have seen their status questioned through the recent decentralisation reform and the debate on provincial mergers. For example, the government had initially planned to merge the provinces of North Holland, Utrecht and Flevoland into a single province (Noordvleugel). However, very recently, the Minister of Interior decided to withdraw these proposals due to strong opposition. A stronger alliance between provinces could contribute to reinforcing the quadruple helix governance approach for broader regional development, encompassing economic prosperity as well as citizen well-being. Municipalities will also need to play a more active role given their new responsibilities in key aspects of well-being. In this regard, the Healthy Ageing Network of the North of the Netherlands (HANN) could also help bridge the SNN and municipalities, for which HANN is considering developing more effective mechanisms to bring them in the network. Several local initiatives are currently conducted at the level of municipalities or villages, and could be brought under one roof for higher visibility and effectiveness. For example, the Stichting Welzijn Midden-Drenthe²⁴ offers community-based services in 25 villages, focusing on local education, social and cultural activities for all age groups with special attention for children and youth, well-being of the elderly, demographic change and rural development. The Stichting is currently not a member of HANN but might be one example of such local initiatives that could become federated within the network.

Fostering citizen engagement on regional well-being issues remains a key task in the North of the Netherlands. In this context, the Healthy Ageing Monitor might offer a useful starting point for launching a communication campaign and develop participation tools. The monitor benefits from a rather unique approach, a fine spatial resolution, and lends itself to an easy, attractive visualisation of well-being data for a broad public (for example, through eye-catching maps on the regional population's dietary habits, which could be successfully disseminated in the press and in social media). Not only collecting information, but giving it back from the monitor to citizens in a two-way process (Box 9) can help bring well-being into the public debate and launch the conversation about what matters most to the community in the North of the Netherlands.

Box 9. Three main stages of citizen engagement

- Citizen information: Information is conveyed in one direction only, from the government to the public. There is no involvement of the public (e.g. public feedback is not required or specifically solicited) and no mechanisms through which citizens are invited to react. Providing information is a critical first stage of more open and transparent government. Communicating information to citizens on decision making, policy development and implementation puts governments in a position to be scrutinised and builds citizen trust. Informing citizens helps educate them about their rights and entitlements and can communicate the rationale, objectives and achievement of government. This is important for ensuring buy-in to changes and reforms and for providing a platform from which citizens can engage with government. Examples of techniques used for citizen information include setting up websites and granting access to public records and data.
- Citizen consultation: Information is conveyed from the public to the government, following a process the government initiates: it provides information and invites citizens to contribute their views and opinions. The main purpose of citizen consultation is to improve decision making, by ensuring that the views and experience of those affected are considered, that innovative and creative options are taken into account and that new arrangements are workable. Examples include public opinion surveys, focus groups, workshops/seminars, public hearings and public comment on draft legislation.
- Citizen participation and empowerment: Information is exchanged “two ways”, between the public and the government, through a dialogue into which the opinions of both parties feed. Citizen participation and empowerment require a relationship founded on the principle of partnership. It recognises the autonomous capacity of citizens to discuss and generate policy options; it requires governments to share the agenda-setting power and to commit to taking into account policy proposals generated jointly in reaching a final decision. Finally, it requires citizens to accept greater responsibility for their role in policy making that accompanies greater rights of participation. Examples of participatory decision making and participatory budgeting include citizen juries and citizen forums.

Source: OECD (2014), *How's Life in Your Region? Measuring Regional and Local Well-Being for Policy Making*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264217416-en>.

Conclusion and future steps

The experience of the North of the Netherlands offers the following key insights for OECD regions:

- Although the North of the Netherlands ranks relatively high on many well-being dimensions in international comparison, sustaining its competitiveness and liveability in the medium to long term call for an integrated package of policy interventions that exploit cross-sectoral synergies.
- Despite a particularly rich data infrastructure and good institutions, the use of such indicators in policy making remains rather limited. In the absence of an overall strategy, initiatives for measuring and promoting well-being are fragmented into several streams and across many different actors, with no coherent vision for the entire region.
- The regional well-being metrics developed in the region has benefited from exceptionally strong involvement of the research community and, to a lesser but increasing extent, from the business sector, but remains little used in policy making – which makes it underexploited knowledge at a time of major transitions in terms of demographic/health issues or governance issues.

Future steps to strengthen the initiative could therefore include the following actions:

- Develop an overarching strategy for well-being at regional level, building on existing initiatives and strengthening their link with overall well-being objectives. This would require a collective process of dialogue and consultation to review, harmonise and prioritise well-being indicators, identify baselines and expected outcomes, and strive for cross-sectoral synergies.
- Strengthen the political commitment on the regional well-being agenda. More effective co-ordination between the three provinces and stronger involvement of municipalities could help design tools to monitor whether the region is moving in the right direction on the topics that matter most to the community, and make the most of scarce resources in a context of recent institutional reform that calls for more efficient public investment.
- Promote citizen engagement on regional well-being issues. Broadening communication from a simple one-way flow of information to a two-way dialogue could build momentum for action, increase accountability and trust, as well as facilitate policy adjustments where necessary.

Notes

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2. The Gini Index is a concentration measure commonly used to measure inequality in the distribution of income. It ranges between 0 and 1. The closer it is to 1, the higher the concentration of income, and hence the level of inequality.
3. A COROP region is a regional area within the Netherlands. These regions are used for analytical purposes by, among others, Statistics Netherlands. The Dutch abbreviation stands for *Coördinatiecommissie Regionaal Onderzoeksprogramma*, literally the Co-ordination Commission Regional Research Programme.
4. The Life Situation Index is computed in order to provide an overview of the life satisfaction of the Dutch population and consists of a combination of indicators in eight domains: housing, health, sports, (social) participation, socio-cultural leisure activities, the ownership of durable consumer goods, holidays and mobility.
5. Source: www.cbs.nl/en-GB/menu/themas/veiligheid-recht/publicaties/artikelen/archief/2014/2014-4095-wm.htm (last accessed in July 2014).
6. Source: OECD (2014f).
7. Source: www.cbs.nl/en-GB/menu/themas/gezondheid-welzijn/publicaties/artikelen/archief/2011/2011-3514-wm.htm (last accessed in July 2014).
8. Source: www.cbs.nl/en-GB/menu/themas/gezondheid-welzijn/cijfers/extra/vesterende-gezonde-levensverwachting.htm (last accessed in July 2014).
9. Source: Letter to the House of Representatives about the consequences of gas extraction in Groningen by the Minister of Economic Affairs, available at: www.government.nl/documents-and-publications/parliamentary-documents/2014/01/17/gas-extraction-in-groningen.html.
10. Source: http://ec.europa.eu/environment/natura2000/index_en.htm.
11. See the International Society for Quality of Life Studies at: www.isqols.org.

12. See www.compendiumvoordeleefomgeving.nl.
13. See www.zorgatlas.nl.
14. See www.atlasvoorgemeenten.nl.
15. See www.bureaulouter.nl.
16. See www.leefbaarometer.nl and www.atlasleefomgeving.nl/home.
17. See www.stamm.nl.
18. See www.monitorfryslan.nl.
19. See www.partoer.nl.
20. See <http://sociaalplanbureaugroningen.nl>.
21. Results of the panel studies can be found online at: [www.sociaalplanbureaugroningen.nl/resultaten](http://sociaalplanbureaugroningen.nl/resultaten).
22. The Wadden Academy was established in 2008 as an institution of the Dutch Royal Academy of Arts and Sciences (KNAW). The Wadden Academy has the task of providing a sound multi-disciplinary scientific basis for the management of the natural and social values represented by the Wadden Sea Region.
23. See www.hannn.eu/en/70/a-hundred-new-jobs-at-healthy-ageing-and-energy-in-groningen.
24. See www.welzijnmiddendrenthe.nl.

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