

NV Bank Nederlandse Gemeenten (BNG Bank) Sustainability Bond 2017

Sustainability Framework Document for
Best-in-Class Municipality Investment

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Contents

Summary	5
1 Scope and objectives	7
2 Growing role of urban sustainability	11
2.1 The triple P approach and the SDGs	11
2.2 Growing role of sustainability in The Netherlands	12
2.3 The position of Dutch municipalities in the wider EU context	13
2.4 Current efforts to monitor city sustainability	14
3 Methodology	17
3.1 The Telos Method of measuring sustainability	17
3.2 Municipal reorganizations	20
3.3 Changes in indicator set	20
4 Eligibility / Sustainability criteria	23
5 Eligible Municipalities	25
5.1 Quantitative types	25
5.2 Qualitative types	26
6 Selection process	33
7 Performance reporting	39
8 References	41
ANNEXES	45
A Elected Sustainable Municipalities 2017 ranked by their sustainability score	47



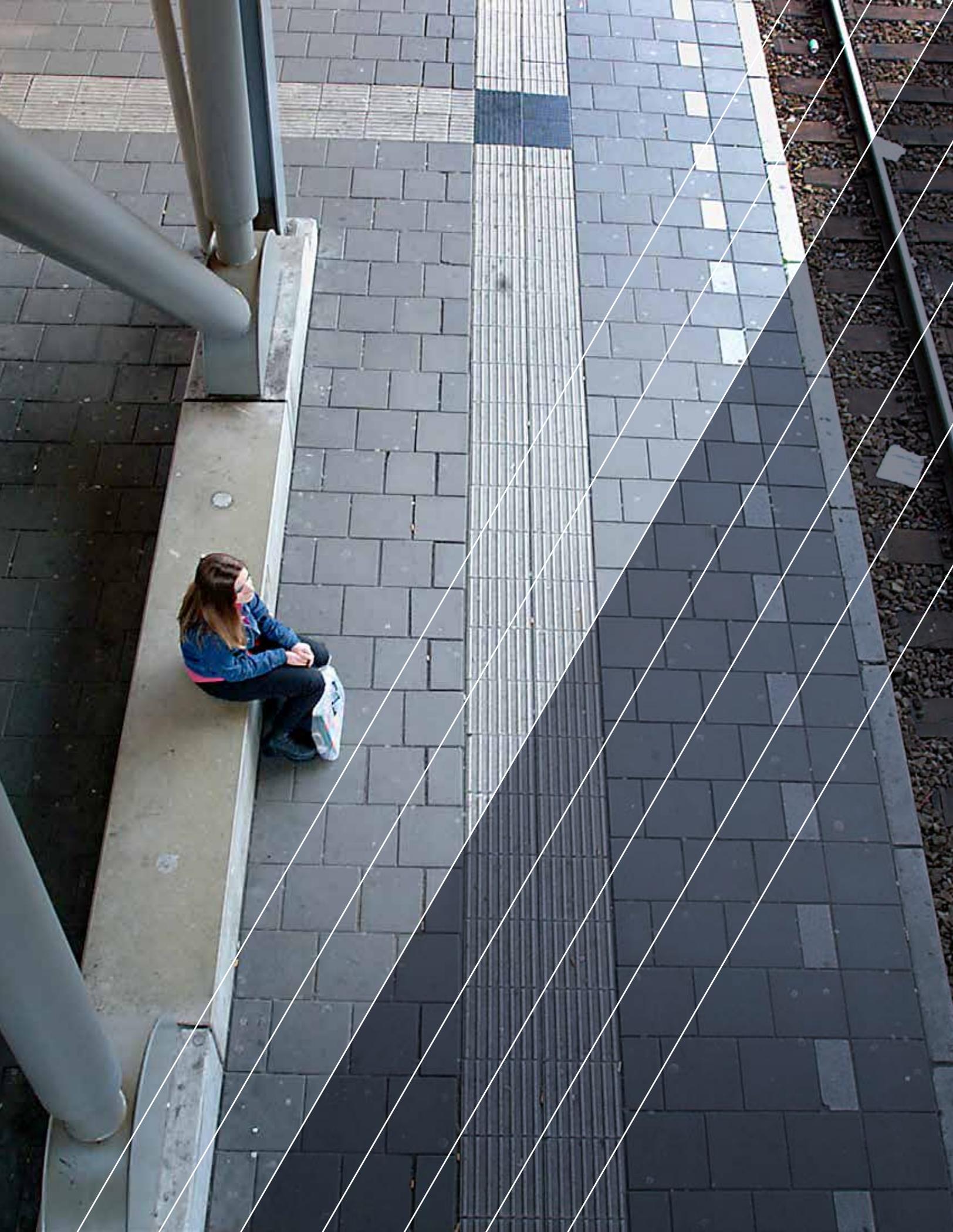
Summary

NV Bank Nederlandse Gemeenten (BNG Bank) asked Telos, of Tilburg University, to develop a Sustainability Bond Framework to promote BNG Bank's investment in the best-in-class of sustainable municipalities in the Netherlands in 2017. For these bonds the so-called Sustainability Bond Guidelines apply.

Telos developed similar frameworks in 2014, 2015 and 2016 for BNG Bank, using the methodology applied in its annual Dutch National Monitor Sustainable Municipalities. In the monitor all Dutch municipalities are assessed. For the BNG Bank Sustainability Bond of 2017, Telos has developed a new framework that is adapted to the further developed methodology of the National Monitor, published September 2017, and its outcome. This methodology is an operationalization of a similar approach known as the European Reference Framework for Sustainable Cities (RFSC) and is closely related to the 2015 Sustainable Development Goals of the UN. The latter are primarily designed to assess nations, but many goals and indicators can be translated to the municipal level. The Framework is based on a detailed comparison of all 388 Dutch municipalities using 109 scientific indicators for the ecological, social and economic domains of sustainability. The quantitative data are derived from reliable public sources.

Moreover, the Dutch National Monitor Sustainable Municipalities 2017 categorizes 14 types of municipalities to reflect e.g. size, historical and geographical differences in developmental challenges. The Framework presents, out of the 388 Dutch municipalities, a list of 115 municipalities, which are the top-15 best-in-class municipalities for the 14 types of municipalities involved. These 115 municipalities are the Elected Municipalities for a BNG Bank Sustainability Bond 2017.

Finally, a structure for the yearly performance reporting is presented.



1 Scope and objectives

In 2014 BNG Bank asked Telos, Tilburg University, to help create a 'Socially Responsible Investment' (SRI) or what was originally called a 'Green Bond' framework to support investments made by BNG Bank in the top class of sustainable municipalities in the Netherlands. This framework should be consistent with what are recently called the Green Bond Principles and Social Bond Principles, which are in their combination defined as Sustainability Bonds (SBs). For SBs the Sustainability Bond Guidelines (SBG) apply. These acknowledge the application of the "use of proceeds" bond concept to bonds financing Green projects and Social projects. Sustainability Bond Guidelines (2017) provide transparency and disclosure to this market segment. A Sustainability Bond is a normal bond with specific use-of-proceeds requirements, namely for sustainable projects or borrowers, resulting in improved sustainability performance.

The first principle of SBs is that there must be a clear definition of the relevant criteria. Telos issues yearly a National monitor for sustainable municipalities originally at the request of the Dutch Ministry of Infrastructure and Environment. This National monitor includes a framework and data that provide a useful source for the requirements of BNG Bank in defining its criteria for the SB. The last National monitor was issued September 2017 (Zoeteman et al., 2017). The 2017 National monitor covered all 388 municipalities and applied 109 indicators for the economic, ecological and social-cultural aspects of sustainability. Furthermore, 14 types of municipalities were discerned including small, medium-sized and large municipalities and several qualitative types such as agricultural, industrial, historical, tourist, etc.

This document describes the Framework for a 2017 BNG Bank SB for municipalities.

Telos is part of the Tilburg School of Economics and Management of Tilburg University. It is an independent academic research institute, which specializes in operationalizing sustainable development in regional and urban initiatives. Established in 1999, its work concentrates on innovative designs for the facilitation and monitoring of sustainable development processes. Telos takes an integrated view of sustainability monitoring which not only includes environmental sustainability but also economic and social sustainability. The data for this type of 'public accounting' used in sustainability monitoring as carried out by Telos come from some 25 official public sources, such as Statistics Netherlands (CBS), the Netherlands Environmental Assessment Agency (PBL) and the Netherlands Institute for Social Research (SCP), and many others.

This report provides an outline of the above-mentioned Framework for BNG Bank's 2017 Sustainability Bond. Section 2 describes the concept of a sustainable municipality, the policy context in the Netherlands and the

EU, and likely future societal developments in relation to sustainable cities. Section 3 presents the methodology that Telos uses to monitor municipal sustainability and its rationale. Section 4 discusses the way in which municipalities have been selected, the data used, and the best-in-class approach as a fair way to value the different individual challenges that municipalities have to face when improving municipal sustainability. Section 5 presents the results of the sustainability scores for each type of municipality. In Section 6, the overall result is presented by means of a list of Elected Sustainable Municipalities. Subsequently, Section 7 discusses future performance reporting.



2 Growing role of urban sustainability

2.1 The triple P approach and the SDGs

The concept of sustainable development, launched in 1987 by the UN Brundtland Commission in its report *Our Common Future*, gained further momentum when the United Nations (2015) adopted September 2015 new 2030 Global Sustainable Development Goals (SDGs). Furthermore, the New Urban Agenda of the UN Habitat III (2016) Conference in Quito also emphasized the need to develop cities in a sustainable way. These international agreements envisage a move towards responsible environmental performance on the part of nations, businesses and cities as well as towards an economic and social performance that results in greater prosperity for all (Zoeteman, 2012). ICLEI (Local Governments for Sustainability, 2017) has defined sustainable municipalities as:

'Cities (that) work towards an environmentally, socially, and economically healthy and resilient habitat for existing populations, without compromising the ability of future generations to experience the same.'

Its essence is characterized as the 'triple P' (People, Prosperity and Planet) approach, which integrates these three elements in all initiatives on the territory of a municipality or nation by generating 'inclusive green growth' (OECD, 2017). Although the emphasis is still on activities that affect our climate and environment, cities are gradually moving to investment projects and policy initiatives where reducing environmental pressure is coupled with improving long-term economic profitability and social performance. In a Sustainable City, all three P's of people, planet and prosperity are in balance and benefit of initiatives at the same time.

SUSTAINABLE DEVELOPMENT GOALS



Figure 2.1 Sustainable Development Goals (Source: United Nations)

The United Nations SDGs include a set of 17 Global Goals which cover, more categorized from a policy than from a scientific point of view, urgent tasks to be addressed by national governments, local authorities and private actors. A detailed analysis of the differences and overlap between the Triple P approach, used in the National monitor sustainable municipalities, and the 17 Goals of the SDGs shows that a large part of the indicators are the same but for some goals clear differences occur. Goal 14 on seas and oceans is not included because this is not relevant for municipalities, and goal 5 on gender issues and 17 on partnerships are poorly represented. Social inequality, goal 10, as such is not an angle from which issues have been framed very often in the past in the Netherlands. Governance issues, as implemented by partnerships, have explicitly not yet been included in the Triple P approach, amongst others because of the different nature of this domain and because comparable data are difficult to collect.

The result of the comparison of the SDGs with the Triple P approach followed so far in the Dutch National monitor is that some minor adaptations in the set-up and types of indicators may be implemented in the coming years. But the basic structure of the Triple P model will be kept as it better represents a structure that can be founded and explored scientifically.

2.2 Growing role of sustainability in The Netherlands

The Netherlands has a long tradition of national policy planning that values environmental improvement while simultaneously building long-term economic strength and improving social-cultural conditions. This is reflected in its earlier mentioned national agencies for Economic Planning (CPB), Social-Cultural Planning (SCP) and Environmental Planning (PBL). The Dutch government has given priority to sustainability and green growth

(Regeerakkoord, 2012) and will do so probably in the Agreement for the new government starting in the second half of 2017.

It has recently been recognized, that many issues are better addressed by local authorities than at the national level. The Dutch government has therefore started a process of decentralizing many of its activities to promote sustainability at the municipal level. Furthermore, it has established covenants with societal actors to forge major transformations in the national governance structures that have an impact on sustainable development. A recent example is a major covenant on climate change measures (SER, 2013), in which 40 organizations, including the VNG Association of Dutch Municipalities, have agreed to implement the transition towards a CO₂-neutral society by saving energy and introducing clean technologies and climate measures. These commitments have a long-term horizon and are likely to be retained or further strengthened by future governments, given EU commitments and the Climate agreement of Paris of 2015.

The Dutch EU presidency of the first part of 2016 has chosen the Urban Agenda as one of its priorities, resulting on 30 May 2016 in the signing of the Pact of Amsterdam (2016) by European Ministers responsible for Urban Matters. It formed the basis for EU partnerships through the 'Pact of Amsterdam' on subjects such as inclusion of migrants and refugees, air quality, urban poverty, housing, circular economy, etc. In the context of the Dutch EU presidency the Ministry for Internal Affairs and Kingdom Relations has supported Telos to develop an EU sustainable cities monitor (Zoeteman et al, 2016), which was published April 2016 and can be used interactively through www.sustainablecitiesbenchmark.eu.

In addition, the Covenant of Mayors (2017) strongly promotes sustainable energy solutions to combat climate change in European and Dutch cities.

2.3 The position of Dutch municipalities in the wider EU context

The Netherlands is a densely populated and wealthy region within the EU. The Dutch population contributes 3.3% to the total EU population, while the surface area of the country is only 0.9% of the total EU surface. Its GDP contributes 4.3% to the total GDP of the EU. The high population density and high economic output, in combination with its location in a delta of several larger European rivers, defines to a large extent the specific sustainability challenges of municipalities in the Netherlands. The Dutch have struggled to gain land from the sea; spatial planning and water safety therefore have been a high policy priority for centuries. An additional characteristic of Dutch municipalities is their relative large number and small size.

Most municipalities in the Netherlands are rather small to very small. Among the total of 388 municipalities, the main group of 140 municipalities has a population size of 25,000-50,000, while some 180

municipalities in the Netherlands have less than 25,000 inhabitants. This shows that the metropolis type of sustainability problems, as can be found in Paris, London, Rome, Hamburg, Vienna and Barcelona, which are all above 1 million inhabitants, are less likely to be as intense in the largest cities of the Netherlands.

Yet, other factors than size, such as GDP/capita, yearly diminishing population size, sea harbor activities, industrial history, tourism, etc. are also important from a sustainability point of view. Dutch villages and cities are characterized by high specialization in an environment of close neighbors and the need to offer their population a high potential of environmental, social and economic qualities.

2.4 Current efforts to monitor city sustainability

As shown above, sustainability monitoring of cities is being explored only recently. Sub-aspects of sustainability monitoring, including climate and environmental issues, have been best developed. Separately, socio-economic developments have traditionally been measured and reported. However, an integrated environmental, economic and social monitoring is not yet systematically taking place (Zoeteman et al., 2015). Several, mostly voluntary, initiatives for more or less integrated sustainability monitoring of European cities are underway. An example is the Reference Framework for European Sustainable Cities (RFSC, 2016), an online toolkit to help cities promote and enhance their work on integrated sustainable urban development that was initiated since the Leipzig Charter of May 2007 by amongst others the Member States and the European Commission (EC).

A longer pursued broad monitoring instrument at European urban level is the Urban Audit, carried out by EUROSTAT (2017) for EC DG Regional and Urban Policy with the help of amongst others the national statistics organizations. The Urban Audit assesses socio-economic urban conditions across cities in the EU and for this purpose collects data every two to three years to help 'improve the attractiveness of regions and cities as one of the priorities targeted by the renewed Lisbon Strategy and the EU's strategic guidelines for cohesion policy for 2007-2013'. In 2009, 329 variables were collected for 323 EU cities. However, not all Member States have fulfilled their commitments to provide data. Parallel to the Urban Audit a perception survey was conducted in 75 cities in the EU-27 in December 2006 and again in later years. The outcome is published in EUROSTAT's Regional Yearbooks. Together with the websites of cities themselves and environmental data collected by the European Environment Agency (2017) in Copenhagen, the Urban Audit data are at present main sources of publicly available data on sustainability of EU cities.

The International Standardization Organization is taking initiatives to help standardize the collection and assessment of sustainability data of municipalities (ISO, 2017). The OECD (2017) has also collected urban data in the context of its annual Green Growth Forum meetings since 2009.

As a result of the SDGs an 'explosion' of national and urban monitoring activities seem to result (e.g. Sachs et al. 2016).

These examples show that monitoring of urban sustainability is gaining more attention recently and it may be expected that its quality will increase the coming years.



3 Methodology

3.1 The Telos Method of measuring sustainability

As said before, our monitoring instrument is based on the three P's of sustainability, people, planet and prosperity. The three P's are conceptualized as relatively the socio-cultural capital, the ecological capital and the economic capital. The different aspects of which a capital is composed, are described by stocks. For example, the socio-cultural capital is composed of the stocks such as 'Social and Economic Participation', 'Arts and Culture' and 'Health'. The ecological capital consists of stocks such as 'Soil', 'Water' and 'Air', and the economic capital consists of stocks such as 'Labor', 'Competitiveness' and 'Infrastructure and Mobility'. In total, there are 19 stocks divided over the three capitals. The selection of these nineteen stocks is based on scientific research and years of experience and knowledge of measuring sustainability.

Every stock in the monitoring method, has one or more sustainability requirements. Examples of these requirements are 'The air is clean' (air stock), 'everybody has access to education facilities' (education stock) or 'all energy should come from renewable energy sources' (energy stock).

The next step is to measure for every municipality separately, to what extent they live up to these requirements. For that, 109 indicators are used. Every stock with its requirements can consist of multiple indicators. For example, the requirement 'all energy should come from renewable energy sources' in the energy stock, can be measured by the indicators 'energy generated by solar panels, or 'total amount of power generated from windmills'.

By means of norms, the indicator values are calculated to indicator scores. The scores are basically percentages, ranging from 0 to 100, which stand for the extent to which the requirements are met. So in other words the % goal achievement. When these indicator scores are calculated, they can be summed up to stock scores. All indicators within a stock weigh equally amongst each other. After that the stock scores can be merged into capital scores, in which all stocks within a capital have the same weight. In the end, the capital scores can be added up to the total sustainability score of a municipality. This 'total sustainability score' gives the average percentage of goal achievements of all the included sustainability requirements.

The recalculation of the indicator values into indicator scores through norms, makes it possible to compare municipalities of different size, density, composition, etc. with each other on sustainability.

The final result is that for all 388 municipalities an overall sustainability score has been calculated, varying between 0-100% achievement of the integrated sustainability goals.

TELOS SUSTAINABILITY MONITOR METHOD

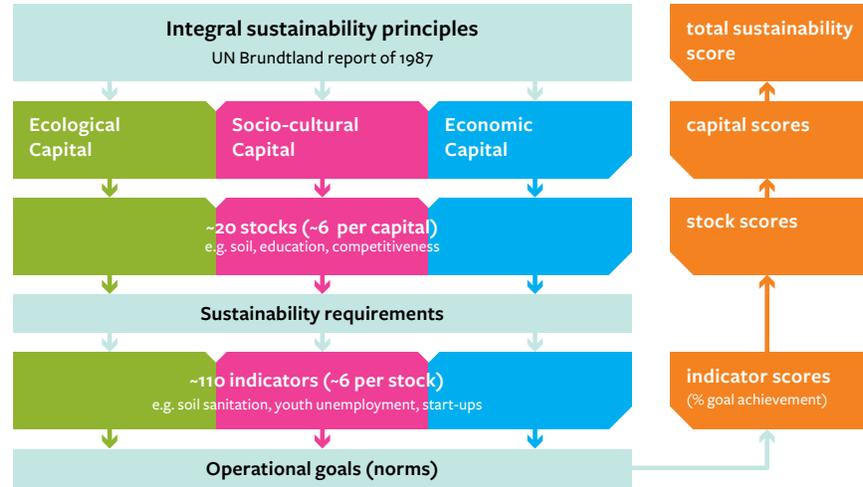


Figure 3.1 Overview of the Telos Sustainability Monitor method

An overview of all the stocks and indicators used in this study is shown in table 3.1. Quantitative data for the 109 indicators have been collected from public official sources and are specified in the 'National monitor sustainable municipalities 2017' report, referred to earlier. More information on this report and on the telos method for measuring sustainability can be found on www.telos.nl.

Table 3.1 The three pillars (capitals), the 19 themes and the 109 indicators used for quantitative monitoring

CAPITALS & STOCKS	INDICATORS
ECOLOGICAL CAPITAL	
Soil	Contaminated sites with unacceptable human risks, contaminated sites with high ecological risks, contaminated sites with high distribution risks, Manure- Nitrogen quantity produced, Manure- Phosphorous quantity produced, Soil sealing
Air	Emission of CO ₂ , Emission of NO _x , Emission of Particulate Matter (PM _{2.5}), Emission of Volatile Organic Substances, Concentration NO _x , Concentration of Ozone, Concentration of PM _{2.5}
Annoyance and Emergencies	Noise intensity, Noise annoyance, Light intensity during the night, Annoyance by odors, Risk of road transport of dangerous chemicals, Land surface with a 10 ⁻⁶ risk contour, Earthquakes, Floods
Water	Ecological quality of surface water, Chemical quality of surface water, Nitrogen emissions to surface water, Phosphorous emissions to surface water, Drinking-water quality
Nature and Landscape	Share of forest and natural area, Distance of public green, Distance to inland recreational water, Biodiversity total, Biodiversity red list species
Energy and Climate	Wind energy, Solar energy, Average natural gas consumption households, Average electricity consumption households, Energy label houses, Average natural gas consumption businesses, Average electricity consumption businesses
Resources and Waste	Household waste, residual waste, Organic waste, Paper and cardboard waste, Packaging glass, Plastics
SOCIAL-CULTURAL CAPITAL	
Social Participation	Cohesion, Volunteers, Turnout municipal elections, Turnout national elections, Informal care
Economic Participation	Financial assets household, Long lasting unemployment, Social assistance, Poor households
Arts and Culture	Distance to performing arts, National monuments, Municipal monuments, Distance to museum, Protected city/village views
Health	Insufficient exercise, Risky behavior, Distance to GP practice, Quality of hospitals, Distance to hospital, Life expectancy, Assessment of own health, Chronically sick people, Confused people
Safety	Violent crimes, Crimes against property, Youth crime, Vandalism, Road safety, Feeling of insecurity
Residential Environment	Housing deficit, Distance to daily goods and services, Satisfaction with living environment, Satisfaction with shops, Mutations in number of residents Satisfaction with dwelling
Education	Youth unemployment, Distance to elementary schools, Distance to secondary education schools, Early school leavers, Real-time to diploma, Final examination mark, Education level population
ECONOMIC CAPITAL	
Labor	Employment function, Human resources exploitation, Unemployment, Rejuvenation and ageing, Incapacity for work
Spatial Local Conditions for Businesses	Stock business parks, Net/gross area ratio business parks, Share out of date business parks, Vacant office space, Vacant retail space
Competitiveness	Share starters, Bankruptcies, Gross Regional Product per capita, Share nationally promoted (top) sectors, Fast growing businesses

Infrastructure and Mobility	Access to public railway transport, Access to main roads, Number of charging stations for electric cars, Share of clean cars
Knowledge	Share highly educated people, Capacity science education/ higher vocational education, High- and medium tech employment, Creative industry employment

3.2 Municipal reorganizations

In 2016, there were 390 Dutch municipalities. Due to recent municipal reorganizations, the total number of Dutch municipalities has decreased to 388. In comparison to last year's report 'Socially Responsible Investment Bond 2016', there has been one municipal reorganization.

The municipalities 'Schijndel', 'Sint-Oedenrode' and 'Veghel' have been merged into the municipality 'Meerijstad'.

3.3 Changes in indicator set

Every year, the set of indicators is evaluated and refined to the latest data availability and scientific insights. In this way Telos makes sure that the instrument stays up-to-date. This year five indicators were added to the dataset, and one indicator was removed. The following indicators were added:

- Satisfaction with dwelling, in the stock Residential Environment.
- Soil sealing, in the stock Soil.
- Contaminated sites with high ecological risks, in the stock soil.
- Contaminated sites with high distribution risks, in the stock soil.
- Total amount of household waste, in the stock Resources and Waste.

Compared to the 2016 edition, one indicator has been deleted due to a lack of data:

- Mixed sewerage system, from the stock Water.



4 Eligibility / Sustainability criteria

Sustainability criteria for selecting municipalities have been defined in this Framework in the same broad sense as in the Dutch National monitor sustainable municipalities 2017, including not only climate and other green investments, but also social and economic initiatives.

Telos recognized from the beginning disadvantages of ranking municipalities using a standard set of sustainability goals, which does not take into account different historic and geographical backgrounds. Municipalities have quite different sustainability challenges. Telos therefore designed an approach that compensates for the limitations of simply ranking cities using their sustainability score. This approach is based on the application of so-called city typologies. A city type characterizes a typical sustainability feature of a group of cities that has far-reaching consequences for a number of sustainability indicators such as a historic environmental pollution level, a certain proportion of the population working in low wage jobs, the role of immigrants, the level of education, the diversity of economic sectors, and so on. In the National monitor 2017, 14 types of cities are described. Three are based on city size: small, middle-sized and large municipalities, and 11 are qualitative ones: 'Agricultural', 'Center', 'Former industrial', 'Green', 'Growth', 'Historic', 'New Town', 'Residential', 'Shrink', 'Tourist' and 'Work' cities. This typology is similar to the typology used for the 2015 and 2016 Frameworks. It will also be the basis for the selection of best-in-class municipalities in this Framework report as described in Section 5. The criteria used to define the characteristics of the different types of municipalities are specified in the National monitor 2017 (Zoeteman et al. 2017, p 70). These criteria and types are tailor-made for the Dutch situation. In an EU context, types would be partially different or defined by deviating criteria.

Text



5 Eligible Municipalities

Based on the 14 types of municipalities mentioned in section 4, the best-ranking 15 municipalities for each type of municipality in the National monitor 2017 will be presented below.

5.1 Quantitative types

Three quantitative types are presented: small (<50.000 inhabitants), mid-sized and large (>100.000 inhabitants) municipalities. Below the best-in-class scoring municipalities for each type are listed with their total sustainability score.

SMALL MUNICIPALITIES 2017		
1	Midden-Delfland	59.9
2	Bunnik	58.1
3	Rozendaal	57.8
4	Vught	57.8
5	Bloemendaal	57.4
6	Wageningen	57.3
7	Montfoort	57.0
8	Hatterm	56.9
9	Voorst	56.8
10	Blaricum	56.7
11	Woudenberg	56.7
12	Dalfsen	56.5
13	Veere	56.5
14	Kapelle	56.4
15	Oegstgeest	56.4

MID-SIZED MUNICIPALITIES 2017		
1	Kampen	55.6
2	Gooise Meren	53.9
3	Katwijk	53.4
4	Barneveld	53.2
5	Woerden	53.2
6	Amstelveen	53.0
7	Veenendaal	52.4
8	Zeist	51.7

9	Hilversum	51.6
10	Pijnacker-Nootdorp	51.4
11	Lansingerland	51.2
12	Stichtse Vecht	50.8
13	Leidschendam-Voorburg	50.7
14	Meerijstad	50.7
15	Krimpenerwaard	50.6

LARGE MUNICIPALITIES 2017

1	Delft	54.8
2	Westland	53.8
3	Utrecht (gemeente)	53.4
4	Ede	52.9
5	Haarlem	52.0
6	Amersfoort	51.9
7	Leiden	51.9
8	Apeldoorn	51.7
9	Groningen (gemeente)	51.3
10	Eindhoven	50.9
11	Breda	50.8
12	Zwolle	50.7
13	Nijmegen	50.1
14	Arnhem	49.9
15	Amsterdam	49.3

5.2 Qualitative types

The 11 qualitative types with their best-in-class municipalities will be presented in alphabetical order.

AGRICULTURAL MUNICIPALITIES 2017

1	Midden-Delfland	59.9
2	Bunnik	58.1
3	Montfoort	57.0
4	Voorst	56.8
5	Dalfsen	56.5
6	Renswoude	56.2
7	Eijsden-Margraten	55.8
8	Oudewater	55.6
9	Dinkelland	55.3
10	Bronckhorst	54.9
11	Boekel	54.8

12	Aalten	54.5
13	Olst-Wijhe	54.4
14	Zoeterwoude	54.4
15	Wierden	54.3

CENTER MUNICIPALITIES 2017

1	Castricum	55.7
2	Delft	54.8
3	Gooise Meren	53.9
4	Westland	53.8
5	Utrecht (gemeente)	53.4
6	Katwijk	53.4
7	Middelburg (Z.)	53.4
8	Ede	52.9
9	Haarlem	52.0
10	Leiden	51.9
11	Apeldoorn	51.7
12	Hilversum	51.6
13	Groningen (gemeente)	51.3
14	Eindhoven	50.9
15	Huizen	50.9

FORMER INDUSTRIAL MUNICIPALITIES 2017

1	Hatterr	56.9
2	Waalre	55.9
3	Putten	55.6
4	Nuener, Gerwen en Nederwetten	55.1
5	Rijssen-Holten	55.1
6	Bladel	55.0
7	Best	54.8
8	Wierden	54.3
9	Oostzaan	54.3
10	Culemborg	54.1
11	Voerendaal	53.6
12	Reusel-De Mierden	53.4
13	Hellendoorn	53.1
14	Weesp	53.0
15	Haaksbergen	52.8

GREEN MUNICIPALITIES 2017		
1	Rozendaal	57.8
2	Bloemendaal	57.4
3	Heeze-Leende	56.3
4	Waalre	55.9
5	Putten	55.6
6	Baarn	55.6
7	Noordwijk	54.9
8	Utrechtse Heuvelrug	54.7
9	Nunspeet	54.6
10	Laren (NH.)	54.5
11	Wassenaar	54.3
12	Bergen (NH.)	54.1
13	Ermelo	54.1
14	Mook en Middelaar	53.9
15	Leusden	53.8

GROWTH MUNICIPALITIES 2017		
1	Midden-Delfland	59.9
2	Bunnik	58.1
3	Wageningen	57.3
4	Blaricum	56.7
5	Woudenberg	56.7
6	Dalfsen	56.5
7	Kapelle	56.4
8	Oegstgeest	56.4
9	Voorschoten	56.3
10	Renswoude	56.2
11	Putten	55.6
12	Kampen	55.6
13	Houten	55.2
14	Nijkerk	55.1
15	Scherpenzeel	55.1

HISTORIC MUNICIPALITIES 2017		
1	Eijsden-Margraten	55.8
2	Kampen	55.6
3	Oudewater	55.6
4	Vlieland	55.3
5	Bronckhorst	54.9
6	Waterland	54.9
7	Delft	54.8
8	Ameland	54.5

9	Zuidhorn	54.2
10	Lopik	54.1
11	Staphorst	53.7
12	Schiermonnikoog	53.5
13	Utrecht (gemeente)	53.4
14	Middelburg (Z.)	53.4
15	Weesp	53.0

RESIDENTIAL MUNICIPALITIES 2017

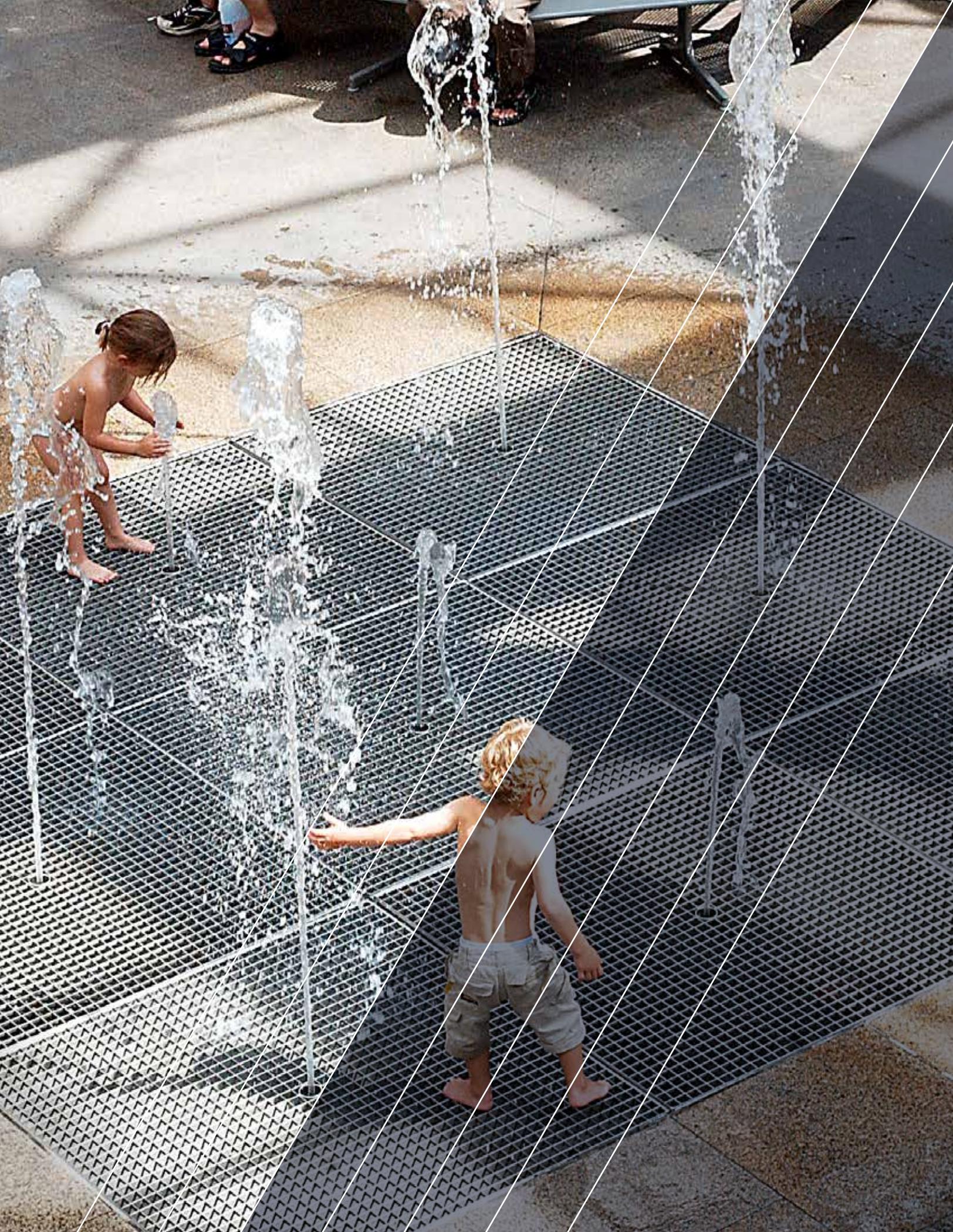
1	Rozendaal	57.8
2	Bloemendaal	57.4
3	Voorschoten	56.3
4	Wijk bij Duurstede	56.1
5	Waalre	55.9
6	Eijsden-Margraten	55.8
7	Castricum	55.7
8	Sint-Michiëlsgestel	55.4
9	Heumen	55.2
10	Waterland	54.9
11	Langedijk	54.4
12	Uitgeest	54.4
13	Wierden	54.3
14	Zuidhorn	54.2
15	Buren	53.9

SHRINK MUNICIPALITIES 2017

1	Vlieland	55.3
2	Bronckhorst	54.9
3	Bergen (NH.)	54.1
4	Mook en Middelaar	53.9
5	Grave	53.7
6	Voerendaal	53.6
7	Berkelland	52.4
8	Winsum	52.2
9	Schinnen	51.9
10	Valkenburg aan de Geul	51.8
11	Gulpen-Wittern	51.7
12	Meerssen	50.9
13	Leudal	50.8
14	Dantumadiel	50.5
15	Strijen	50.5

TOURIST MUNICIPALITIES 2017		
1	Bloemendaal	57.4
2	Veere	56.5
3	Eijsden-Margraten	55.8
4	Terschelling	55.4
5	Vlieland	55.3
6	Waterland	54.9
7	Noordwijk	54.9
8	Hilvarenbeek	54.9
9	Ameland	54.5
10	Oostzaan	54.3
11	Wassenaar	54.3
12	Bergen (NH.)	54.1
13	Mook en Middelaar	53.9
14	Voerendaal	53.6
15	Schiermonnikoog	53.5

WORK MUNICIPALITIES 2017		
1	Wageningen	57.3
2	Noordwijk	54.9
3	Best	54.8
4	Ermelo	54.1
5	Westland	53.8
6	Geldermalsen	53.6
7	Utrecht (gemeente)	53.4
8	Barneveld	53.2
9	Amstelveen	53
10	Son en Breugel	52.1
11	Goes	52.1
12	Amersfoort	51.9
13	Leiden	51.9
14	Apeldoorn	51.7
15	Zeist	51.7



6 Selection process

From the eligible municipalities shown in Section 5, a final list of Elected Sustainable Municipalities is derived as will be presented in this section. Table 6.1 shows this list, which is based on a compilation of the top-15 best-in-class municipalities of the 14 municipal types presented in section 5. The table shows the scores and the number of municipality types for which the municipality classified.

In principle, this list should include $14 \times 15 = 210$ municipalities. However, a number of municipalities qualify for more than one type. When this is taken into account, a final list of 115 Elected Sustainable Municipalities results. This selection represents 34% of the total number of Dutch municipalities. With two exceptions (Amsterdam and Arnhem), all selected municipalities score 50% or higher on total sustainability.

Tabel 6.1 List of Elected Sustainable Municipalities for the 2017 BNG Sustainability Bond in alphabetical order (also see Annex 1 for a score based ranking)

NR	ELECTED BEST-IN-CLASS MUNICIPALITY	NUMBER OF RELEVANT TYPES	TOTAL SUSTAINABILITY SCORE
1	Aalten	2	54.5
2	Ameland	3	54.5
3	Amersfoort	4	51.9
4	Amstelveen	4	53.0
5	Amsterdam	6	49.3
6	Apeldoorn	4	51.7
7	Arnhem	6	49.9
8	Baarn	2	55.6
9	Barneveld	5	53.2
10	Bergen (NH.)	4	54.1
11	Berkelland	3	52.4
12	Best	4	54.8
13	Bladel	3	55.0
14	Blaricum	2	56.7
15	Bloemendaal	4	57.4
16	Boekel	4	54.8
17	Breda	4	50.8
18	Bronckhorst	4	54.9
19	Bunnik	3	58.1
20	Buren	3	53.9
21	Castricum	3	55.7
22	Culemborg	3	54.1
23	Dalfsen	3	56.5

Tabel 6.1 List of Elected Sustainable Municipalities for the 2017 BNG Sustainability Bond in alphabetical order (also see Annex 1 for a score based ranking)

NR	ELECTED BEST-IN-CLASS MUNICIPALITY	NUMBER OF RELEVANT TYPES	TOTAL SUSTAINABILITY SCORE
24	Dantumadiel	4	50.5
25	Delft	4	54.8
26	Dinkelland	2	55.3
27	Ede	5	52.9
28	Eijsden-Margraten	5	55.8
29	Eindhoven	5	50.9
30	Ermelo	3	54.1
31	Geldermalsen	3	53.6
32	Goes	2	52.1
33	Gooise Meren	2	53.9
34	Grave	3	53.7
35	Groningen (gemeente)	5	51.3
36	Gulpen-Wittem	6	51.7
37	Haaksbergen	2	52.8
38	Haarlem	4	52.0
39	Hatterm	2	56.9
40	Heeze-Leende	2	56.3
41	Hellendoorn	2	53.1
42	Heumen	3	55.2
43	Hilvarenbeek	2	54.9
44	Hilversum	5	51.6
45	Houten	3	55.2
46	Huizen	3	50.9
47	Kampen	3	55.6
48	Kapelle	2	56.4
49	Katwijk	3	53.4
50	Krimpenerwaard	2	50.6
51	Langedijk	4	54.4
52	Lansingerland	3	51.2
53	Laren (NH.)	2	54.5
54	Leiden	5	51.9
55	Leidschendam-Voorburg	1	50.7
56	Leudal	4	50.8
57	Leusden	2	53.8
58	Lopik	3	54.1
59	Meerssen	5	50.9
60	Meerijstad	2	50.7
61	Middelburg (Z.)	4	53.4
62	Midden-Delfland	4	59.9
63	Montfoort	2	57.0
64	Mook en Middelaar	5	53.9

Tabel 6.1 List of Elected Sustainable Municipalities for the 2017 BNG Sustainability Bond in alphabetical order (also see Annex 1 for a score based ranking)

NR	ELECTED BEST-IN-CLASS MUNICIPALITY	NUMBER OF RELEVANT TYPES	TOTAL SUSTAINABILITY SCORE
65	Nijkerk	3	55.1
66	Nijmegen	5	50.1
67	Noordwijk	4	54.9
68	Nuenen, Gerwen en Nederwetten	3	55.1
69	Nunspeet	2	54.6
70	Oegstgeest	3	56.4
71	Olst-Wijhe	2	54.4
72	Oostzaan	4	54.3
73	Oudewater	3	55.6
74	Pijnacker-Nootdorp	4	51.4
75	Putten	4	55.6
76	Renswoude	4	56.2
77	Reusel-De Mierden	3	53.4
78	Rijssen-Holten	2	55.1
79	Rozendaal	3	57.8
80	Scherpenzeel	2	55.1
81	Schiermonnikoog	4	53.5
82	Schinnen	5	51.9
83	Sint-Michielsgestel	2	55.4
84	Son en Breugel	3	52.1
85	Staphorst	3	53.7
86	Stichtse Vecht	1	50.8
87	Strijen	2	50.5
88	Terschelling	2	55.4
89	Teylingen	2	56.0
90	Uitgeest	4	54.4
91	Utrecht (gemeente)	6	53.4
92	Utrechtse Heuvelrug	2	54.7
93	Valkenburg aan de Geul	3	51.8
94	Veenendaal	3	52.4
95	Veere	2	56.5
96	Vlieland	4	55.3
97	Voerendaal	6	53.6
98	Voorschoten	3	56.3
99	Voorst	2	56.8
100	Vught	1	57.8
101	Waalre	4	55.9
102	Wageningen	3	57.3
103	Wassenaar	3	54.3
104	Waterland	4	54.9
105	Weesp	4	53.0

Tabel 6.1 List of Elected Sustainable Municipalities for the 2017 BNG Sustainability Bond in alphabetical order (also see Annex 1 for a score based ranking)

NR	ELECTED BEST-IN-CLASS MUNICIPALITY	NUMBER OF RELEVANT TYPES	TOTAL SUSTAINABILITY SCORE
106	Westland	5	53.8
107	Wierden	4	54.3
108	Wijk bij Duurstede	3	56.1
109	Winsum	5	52.2
110	Woerden	4	53.2
111	Woudenberg	3	56.7
112	Zeist	3	51.7
113	Zoeterwoude	2	54.4
114	Zuidhorn	4	54.2
115	Zwolle	5	50.7



7 Performance reporting

Telos will prepare annually for BNG Bank a Performance or Impact Report to investors. This report will give an update on the sustainability scores of the 115 Elected Municipalities for the 2017 BNG Bank Sustainability Bond showing:

- performance of the group of Elected Municipalities compared to the previous year(s);
- a list of Elected Municipalities showing the largest improvement or reduction in overall score and an indication of the main causes for these results;
- performance of the group of Elected Municipalities in comparison with the total group of Dutch Municipalities;
- more detailed performance reporting on changes for the group of Elected Municipalities at a more detailed level of interest such as e.g. CO₂-emission.

In order to improve the sustainability score, municipalities can use the framework provided for the Sustainability Bond to select best performing investments and practices, such as:

- allowing a common language and decision framework in the municipal executive board and city council by measuring economic, social and environmental goals on a same basis;
- learning, by benchmarking own performance with performance of municipalities with a similar typology, to apply proven sustainability practices or avoid less productive approaches;
- shaping all major projects and initiatives from a sustainability point of view by optimizing projects and initiatives for economic as well as environmental and social performance, e.g. by applying in an early phase a PPP-scan;
- allowing room for sustainability optimization in procurement and during permitting procedures for new buildings,(re)constructions, etc.;
- forming coalitions and alliances with parties concerned (other municipalities, businesses, NGOs, co-investors, etc.) to develop innovative best possible solutions for sustainability challenges of the municipality;
- building trust by open communication practices showing performance changes on the broad issues of municipal sustainability.



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Annexes

A Elected Sustainable Municipalities 2017 ranked by their sustainability score

NR	ELECTED BEST-IN-CLASS MUNICIPALITY	TOTAL SUSTAINABILITY SCORE 2017
1	Midden-Delfland	59.9
2	Bunnik	58.1
3	Rozendaal	57.8
4	Vught	57.8
5	Bloemendaal	57.4
6	Wageningen	57.3
7	Montfoort	57.0
8	Hatterem	56.9
9	Voorst	56.8
10	Blaricum	56.7
11	Woudenberg	56.7
12	Dalfsen	56.5
13	Veere	56.5
14	Kapelle	56.4
15	Oegstgeest	56.4
16	Heeze-Leende	56.3
17	Voorschoten	56.3
18	Renswoude	56.2
19	Wijk bij Duurstede	56.1
20	Teylingen	56.0
21	Waalre	55.9
22	Eijsden-Margraten	55.8
23	Castricum	55.7
24	Baarn	55.6
25	Kampen	55.6
26	Oudewater	55.6
27	Putten	55.6
28	Sint-Michielsgestel	55.4
29	Terschelling	55.4
30	Dinkelland	55.3
31	Vlieland	55.3
32	Heumen	55.2
33	Houten	55.2

NR	ELECTED BEST-IN-CLASS MUNICIPALITY	TOTAL SUSTAINABILITY SCORE 2017
34	Nijkerk	55.1
35	Nuenen, Gerwen en Nederwetten	55.1
36	Rijssen-Holten	55.1
37	Scherpenzeel	55.1
38	Bladel	55.0
39	Bronckhorst	54.9
40	Hilvarenbeek	54.9
41	Noordwijk	54.9
42	Waterland	54.9
43	Best	54.8
44	Boekel	54.8
45	Delft	54.8
46	Utrechtse Heuvelrug	54.7
47	Nunspeet	54.6
48	Aalten	54.5
49	Ameland	54.5
50	Laren (NH.)	54.5
51	Langedijk	54.4
52	Olst-Wijhe	54.4
53	Uitgeest	54.4
54	Zoeterwoude	54.4
55	Oostzaan	54.3
56	Wassenaar	54.3
57	Wierden	54.3
58	Zuidhorn	54.2
59	Bergen (NH.)	54.1
60	Culemborg	54.1
61	Ermelo	54.1
62	Lopik	54.1
63	Buren	53.9
64	Gooise Meren	53.9
65	Mook en Middelaar	53.9
66	Leusden	53.8
67	Westland	53.8
68	Grave	53.7
69	Staphorst	53.7
70	Geldermalsen	53.6
71	Voerendaal	53.6
72	Schiermonnikoog	53.5
73	Katwijk	53.4
74	Middelburg (Z.)	53.4
75	Reusel-De Mierden	53.4
76	Utrecht (gemeente)	53.4

NR	ELECTED BEST-IN-CLASS MUNICIPALITY	TOTAL SUSTAINABILITY SCORE 2017
77	Barneveld	53.2
78	Woerden	53.2
79	Hellendoorn	53.1
80	Amstelveen	53.0
81	Weesp	53.0
82	Ede	52.9
83	Haaksbergen	52.8
84	Berkelland	52.4
85	Veenendaal	52.4
86	Winsum	52.2
87	Goes	52.1
88	Son en Breugel	52.1
89	Haarlem	52.0
90	Amersfoort	51.9
91	Leiden	51.9
92	Schinnen	51.9
93	Valkenburg aan de Geul	51.8
94	Apeldoorn	51.7
95	Gulpen-Wittem	51.7
96	Zeist	51.7
97	Hilversum	51.6
98	Pijnacker-Nootdorp	51.4
99	Groningen (gemeente)	51.3
100	Lansingerland	51.2
101	Eindhoven	50.9
102	Huizen	50.9
103	Meerssen	50.9
104	Breda	50.8
105	Leudal	50.8
106	Stichtse Vecht	50.8
107	Leidschendam-Voorburg	50.7
108	Meerijstad	50.7
109	Zwolle	50.7
110	Krimpenerwaard	50.6
111	Dantumadiel	50.5
112	Strijen	50.5
113	Nijmegen	50.1
114	Arnhem	49.9
115	Amsterdam	49.3