NV Bank Nederlandse Gemeenten (BNG Bank) Socially Responsible Investment Bond 2016

Sustainability Framework document for Best in Class Municipality Investment

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Summary

NV Bank Nederlandse Gemeenten (BNG Bank) asked Telos, of Tilburg University, to develop a Socially Responsible Investment (SRI) Bond framework to promote BNG Bank's investment in the best in class of sustainable municipalities in the Netherlands in 2016.
Telos developed similar frameworks in 2014 and 2015 for BNG Bank, using the methodology applied in its annual Dutch National Monitor of Sustainable Municipalities. For the BNG Bank SRI Bond of 2016, Telos has developed a new framework that is adapted to the further developed methodology of the National Monitor, published 26 September 2016, and its outcome. This methodology is an operationalization of a similar approach known as the European Reference Framework for Sustainable Cities (RFSC). It is based on a detailed comparison of all 390 Dutch municipalities using 105 scientific indicators for which quantitative data are available from reliable public sources.

Moreover, the Dutch National Monitor of Sustainable Municipalities 2016 categorizes 14 types of municipalities to reflect e.g. size, historical and geographical differences in developmental challenges. The Framework presents, out of the 390 Dutch municipalities, a list of 107 municipalities, which are the top-15 best-in-class municipalities for the14 types of municipalities involved.

Furthermore, a structure for yearly performance reporting is presented.

1 Scope and objectives

BNG Bank asked Telos, Tilburg University, to help create a ‘Socially Responsible Investment' (SRI) or ‘Green Bond' framework to support investments made by BNG Bank in the top class of sustainable municipalities in the Netherlands. This framework is consistent with the Green Bond Principles (2016), which are voluntary Process Guidelines for issuing Green Bonds, established in January 2014 by a group of international banks. A SRI 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 green bonds is that there must be a clear definition of the relevant criteria. BNG Bank asked Telos for the first time in 2014 to develop a document to describe the sustainability criteria that Telos would use to assess the sustainability of Dutch cities. In March 2014, Telos published a National Monitor for Sustainable Municipalities 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 “Sustainability Bond”. The Framework for BNG Bank’s first SRI bond of October 2014 helped investors and other stakeholders to understand these criteria. In 2015, Telos published an updated National Monitor Sustainable Municipalities, which contained several changes. The number of municipalities in the Netherlands changed from 403 to 393 and the number of indicators was expanded from 90 to 107. Furthermore, the typology of municipalities was refined from 8 until 14. Because of these changes the Framework for selecting best-in-class municipalities for a 2015 BNG bank SRI bond had to be adapted. In 2016, the third National Monitor Sustainable Municipalities was published (Zoeteman et al., 2016b). Changes had to be made in the number of indicators, resulting in an overall number of 105 indicators, while the number of Dutch municipalities decreased from 393 to 390. The number of municipality types was not changed. This document describes the adapted Framework for a 2016 BNG Bank SRI bond 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 2000, 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 official public sources such as Statistics Netherlands (CBS), the Netherlands Environmental Assessment Agency (PBL) and the Netherlands Institute for Social Research (SCP), all located in The Hague.

This report provides an outline of the above-mentioned Framework for BNG Bank's 2016 “Sustainability Bond”. Section 2 describes the concept of a sustainable municipality, the policy context in the Netherlands and the EU, and likely societal developments in relation to sustainable cities in the coming years. 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

The triple P approach

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 emphasizes 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) (2015) 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, Profit 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, 2015). 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 profit are in balance and benefit of initiatives at the same time.

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). At

present, it is translating the new UN Sustainable Development Goals (SDGs) to national policy actions.
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 CO_2-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.
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. The aim is to launch 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, 2016a), which was published April 2016 and can be used interactively through www.sustainablecitiesbenchmark.eu.

In addition, the Covenant of Mayors (2016) strongly promotes sustainable energy solutions to combat climate change in European and Dutch cities.

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 extend 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. An inventory of the distribution of city sizes in the EU has been made by Dijkstra and Poelman (2012). Cities are defined in this EC-OECD study as municipalities with more than 50,000 inhabitants. An overview of the results of their study is presented in table 1, in which corresponding data for Dutch cities have been added.

Table 1 City types (sizes in population) in the EU (Dijkstra and Poelman, 2012, Zoeteman et al., 2015b)

Type	Population Sizes	Number of EU Cities	Number of Dutch Cities
Small	50,000 – 100,000	410	44
Medium	100,000 – 250,000	261	27
Large	250,000 – 500,000	71	1
XLarge	500,000 – 1,000,000	38	3
XXLarge	1,000,000 – 5,000,000	24	0
Global City	more than 5,000,000	2	0
Total		**806**	**75**

The comparison, given in table 1, shows that the Netherlands has relatively few cities of 250,000 - 500,000 inhabitants (only Utrecht) and no cities at all of more than 1 million inhabitants. Its three largest cities are Amsterdam, Rotterdam and The Hague. Sometimes these three cities are regarded as forming a metropolis of about 2 million inhabitants, with a green center (heart) that is left open.
Most municipalities in the Netherlands are rather small to very small. Among the total of 390 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.

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 (2016) 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 (2016) 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, 2016). The OECD (2016) 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

The public accounting methodology used by Telos is developed since 2000 and is strongly related to a later developed similar approach known as the mentioned EU RFSC. It is based on a detailed comparison of municipalities using 105 scientific indicators for which quantitative data are available from reliable public sources. The EU RFSC also applies the 'triple-P' approach. Each 'P' can be composed of some five to seven sustainability themes.
The Planet pillar may consist of themes such as Soil, Water, Air, Nature and Landscape, Raw (waste) materials, Energy and Climate, Annoyance and Emergencies. The People pillar can be composed of themes such as Social and Economic Participation, Arts and Culture, Health, Safety, Residential Environment, and Education (primary and secondary). The Profit pillar may consist of Labor, Spatial Local Conditions for Businesses, Competitiveness, Infrastructure and Mobility, Knowledge. The themes themselves are based on specific indicators such as CO_2- and NO_x-emissions for the theme Air, the use of solar and wind power for the theme Energy and Climate, and so on. The RFSC tool adds a fourth pillar of Governance (Zoeteman et al., 2011) to the other three. The RFSC does not prescribe any specific indicators or sustainability goals, as it is a voluntary web tool that can help individual cities to organize their sustainability strategy and its implementation by applying the monitoring tool.

The method Telos developed since 2000 and applied in its Dutch National Monitor Sustainable Municipalities is based on similar principles to the RFSC approach (Hermans et al., 2011; Mommaas and Eweg, 2011; Zoeteman, 2012). However, the governance pillar is not included because data on governance aspects of municipalities are not generally available now. The RFSC web tool allows its users to define their own sustainability goals and indicators. The disadvantage of this element is that cities cannot be compared to one another. Furthermore, it is in practice rather difficult to collect relevant and comparable data for cities. Because Telos wanted to study differences and common factors among municipalities, Telos made the monitoring method more specific and concrete. It applied the instrument in such a way that for each theme and subsequently for each indicator, sustainability goals were defined and applied. The outcome of the monitor was therefore determined by the detailed sustainability requirements that Telos formulated as goals for each indicator (figure 1).

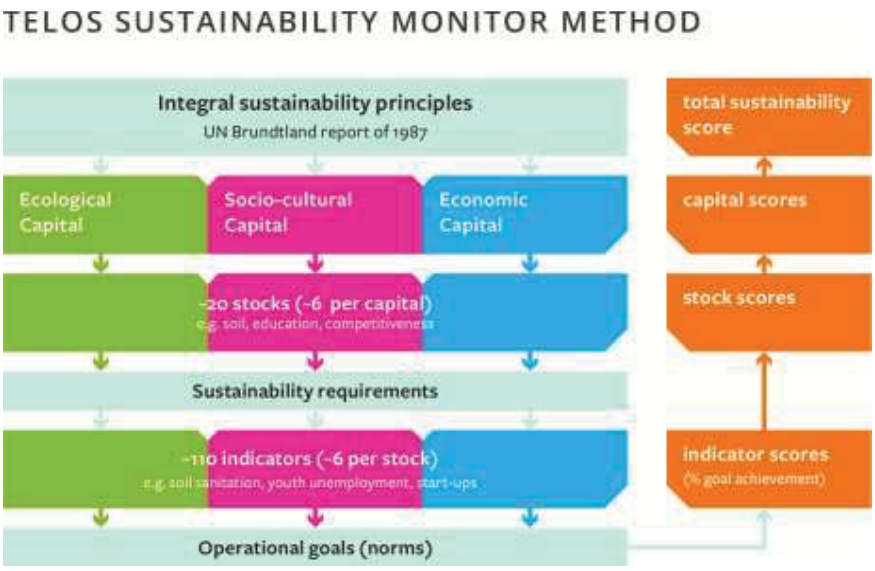

Figure 1 Overview of the Telos Sustainability Monitor method

Table 2 gives an overview of the indicators used. Quantitative data for the 105 indicators have been collected from public official sources and are specified in the National Monitor report, referred to earlier.

Table 2 The three pillars (capitals), the 19 themes and the 105 indicators used for quantitative monitoring

THEME	INDICATORS
ECOLOGICAL CAPITAL	
Soil	Urgent sites with unacceptable human risks, Manure- Nitrogen quantity produced, Manure- Phosphorous quantity produced
Air	Emission of CO_2, Emission of NOx, Emission of Particulate Matter (PM2.5), Emission of Volatile Organic Substances, Concentration NOx, Concentration of Ozone, Concentration of PM2.5
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, Mixed sewerage system
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, Organic waste, Paper and cardboard waste, Packaging glass, Plastic
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
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

The actual value for each indicator (e.g. capacity of solar power installed on roofs, or % of wind power in total energy supply of municipality) is compared with its sustainability goal and subsequently the achievement percentage of the goal is calculated. The sustainability goals are derived by Telos from EU and national regulations and experiences with municipal practices. The achievement percentages are subsequently combined per theme resulting in a theme achievement percentage. Figure 2 shows an example of a diagram of the six indicators within the Energy and Climate theme of a Dutch city. The higher the achievement percentage the longer the pie piece.

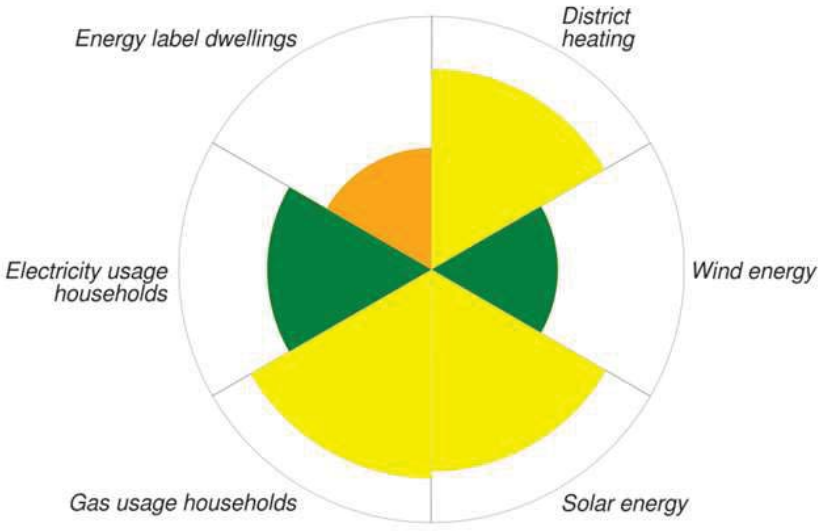

Figure 2 Example of a pie-diagram showing the sustainability score (0-100%) of the six 'Energy and Climate theme' indicators for a Dutch city

The average theme scores are subsequently added to calculate the average score for a sustainability capital. Finally, the average score of the total of the three capitals is calculated as the overall sustainability score of a municipality (Figure 1 and 3).

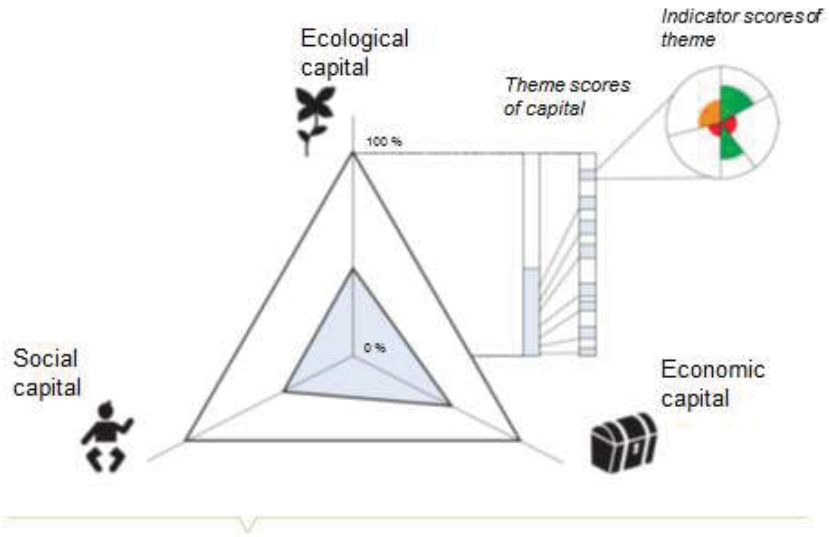

Figure 3 The aggregation of indicator scores to theme scores, capital scores and overall sustainability score

The overview of all 19 theme scores for a city can also be used to benchmark cities among each other and with a group of cities. Figure 4 shows for example how the theme scores for a major Dutch city compare to the average scores of the 390 municipalities in the Netherlands.

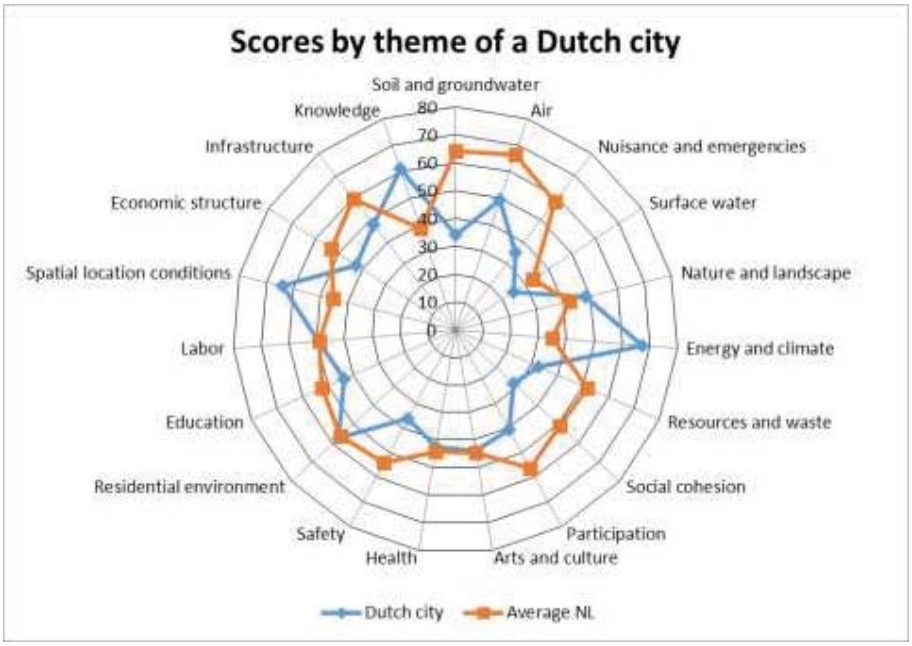

Figure 4 Illustrative example of theme scores for a Dutch city in comparison with the average outcome of all Dutch municipalities

A Factsheet provides for each of the 105 indicators the technical specifications of the indicator, etc., as well as the year of data collection. These Factsheets are available in Dutch at the Telos website www.telos.nl under "Nationale monitor duurzame gemeenten 2016: Factsheets". See for an example of a Factsheet Annex 1 of this report. The sources and year of collection of data are summarized in Annex 3 of the National Monitor report 2016.

The final result is that for all 390 municipalities an overall sustainability score has been calculated, varying between in principle 0-100% (in practice between 39-58%) achievement of the integrated sustainability goals.

4 Eligibility / SRI criteria

SRI Criteria for sustainable municipalities have been defined in this Framework in the same broad sense as in the Dutch National Monitor Sustainable Municipalities 2016, including not only climate and other green investments, but also socio-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 2016, 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’, ‘Living’, ‘New Town’, ‘Shrink’, ‘Tourist’ and ‘Work’ cities. This typology is similar to the typology used for the 2015 Framework. 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 Report 2016 (Zoeteman et al. 2016b, p 81). 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.

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 2016 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 2016

1	Midden-Delfland	57.8
2	Rozendaal	57.7
3	Laren (NH.)	57.4
4	Blaricum	57.2
5	Bloemendaal	57.2
6	Oegstgeest	56.8
7	Bunnik	56.6
8	Scherpenzeel	56.1
9	Vught	56.0
10	Houten	55.9
11	Veere	55.4
12	Wageningen	55.4
13	Castricum	55.3
14	Haren	55.3
15	Dalfsen	55.2

Mid-sized Municipalities 2016

1	Gooise Meren	54.6
2	Kampen	53.3
3	Katwijk	52.7
4	Amstelveen	52.5
5	Hilversum	52.4
6	Pijnacker-Nootdorp	52.3
7	Woerden	52.3
8	Zeist	51.9
9	Barneveld	51.8
10	Veenendaal	51.6
11	Lansingerland	51.1
12	Deventer	50.6
13	Heerenveen	50.6
14	Stichtse Vecht	50.4
15	Nieuwegein	50.3

Large Municipalities 2016

1	Delft	54.7
2	Westland	54.0
3	Zwolle	52.9
4	Ede	52.8
5	Groningen (gemeente)	52.7
6	Apeldoorn	52.3
7	Utrecht (gemeente)	52.2
8	Amersfoort	51.6
9	Leiden	51.3
10	Nijmegen	50.9
11	Eindhoven	50.8
12	Haarlem	50.4
13	Breda	50.3
14	Arnhem	50.0
15	Amsterdam	50.0

5.2 Qualitative types

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

Agricultural Municipalities 2016

1	Midden-Delfland	57.8
2	Bunnik	56.6
3	Dalfsen	55.2
4	Eijsden-Margraten	54.5
5	Renswoude	54.0
6	Voorst	53.9
7	Zoeterwoude	53.5
8	Eemnes	53.5
9	Montfoort	53.4
10	Sint-Michielsgestel	53.4
11	Sint Anthonis	53.3
12	Wierden	53.2
13	Oudewater	53.2
14	Boekel	53.1
15	Olst-Wijhe	52.6

Center Municipalities 2016

1	Castricum	55.3
2	Delft	54.7
3	Gooise Meren	54.6
4	Westland	54.0
5	Zwolle	52.9
6	Ede	52.8
7	Katwijk	52.7
8	Groningen (gemeente)	52.7
9	Hilversum	52.4
10	Apeldoorn	52.3
11	Utrecht (gemeente)	52.2
12	Leudal	51.9

13	Middelburg (Z.)	51.8
14	Huizen	51.8
15	Leiden	51.3

Former Industrial Municipalities 2016

1	Nuenen, Gerwen en Nederwetten	55.1
2	Hattem	54.9
3	Oostzaan	54.7
4	Bladel	54.6
5	Hendrik-Ido-Ambacht	54.0
6	Culemborg	53.9
7	Waalre	53.9
8	Rijssen-Holten	53.8
9	Wierden	53.2
10	Putten	52.9
11	Best	52.8
12	Schinnen	52.5
13	Sliedrecht	52.3
14	Landsmeer	52.3
15	Hellendoorn	52.0

Green Municipalities 2016

1	Rozendaal	57.7
2	Laren (NH.)	57.4
3	Bloemendaal	57.2
4	Noordwijk	55.2
5	Baarn	54.6
6	Leusden	54.3
7	Mook en Middelaar	54.1
8	Waalre	53.9
9	Utrechtse Heuvelrug	53.8
10	Heeze-Leende	53.6
11	Oirschot	53.2

12	Elburg	53.0
13	Putten	52.9
14	Ede	52.8
15	Nunspeet	52.6

Growth Municipalities 2016

1	Midden-Delfland	57.8
2	Oegstgeest	56.8
3	Scherpenzeel	56.1
4	Houten	55.9
5	Wageningen	55.4
6	Voorschoten	55.2
7	Delft	54.7
8	Kapelle	54.6
9	Woudenberg	54.0
10	Hendrik-Ido-Ambacht	54.0
11	Renswoude	54.0
12	Westland	54.0
13	Langedijk	53.6
14	Noordwijkerhout	53.2
15	Uitgeest	53.1

Historic Municipalities 2016

1	Veere	55.4
2	Delft	54.7
3	Eijsden-Margraten	54.5
4	Vlieland	53.9
5	Waterland	53.5
6	Kampen	53.3
7	Oudewater	53.2
8	Utrecht (gemeente)	52.2
9	Lopik	52.2
10	Middelburg (Z.)	51.8

11	Schiermonnikoog	51.7
12	Leiden	51.3
13	Weesp	51.3
14	Ameland	51.3
15	Bronckhorst	51.1

Residential Municipalities 2016

1	Rozendaal	57.7
2	Bloemendaal	57.2
3	Oegstgeest	56.8
4	Castricum	55.3
5	Voorschoten	55.2
6	Heumen	54.6
7	Eijsden-Margraten	54.5
8	Wijk bij Duurstede	54.3
9	Mook en Middelaar	54.1
10	Hendrik-Ido-Ambacht	54.0
11	Grave	54.0
12	Langedijk	53.6
13	Waterland	53.5
14	Eemnes	53.5
15	Sint-Michielsgestel	53.4

New Town Municipalities 2016

1	Midden-Delfland	57.8
2	Oegstgeest	56.8
3	Houten	55.9
4	Oostzaan	54.7
5	Heumen	54.6
6	Woudenberg	54.0
7	Hendrik-Ido-Ambacht	54.0
8	Renswoude	54.0
9	Teylingen	54.0

10	Culemborg	53.9
11	Langedijk	53.6
12	Eemnes	53.5
13	Uitgeest	53.1
14	Boekel	53.1
15	Zwolle	52.9

Shrink Municipalities 2016

1	Laren (NH.)	57.4
2	Castricum	55.3
3	Nuenen, Gerwen en Nederwetten	55.1
4	Heumen	54.6
5	Mook en Middelaar	54.1
6	Horst aan de Maas	54.1
7	Teylingen	54.0
8	Vlieland	53.9
9	Utrechtse Heuvelrug	53.8
10	Zoeterwoude	53.5
11	Schinnen	52.5
12	Haaren	52.4
13	Boxmeer	51.8
14	Voerendaal	51.7
15	Schiermonnikoog	51.7

Tourist Municipalities 2016

1	Rozendaal	57.7
2	Veere	55.4
3	Wageningen	55.4
4	Noordwijk	55.2
5	Delft	54.7
6	Eijsden-Margraten	54.5
7	Mook en Middelaar	54.1
8	Horst aan de Maas	54.1

9	Vlieland	53.9
10	Waterland	53.5
11	Zwolle	52.9
12	Groningen (gemeente)	52.7
13	Utrecht (gemeente)	52.2
14	Middelburg (Z.)	51.8
15	Schiermonnikoog	51.7

Work Municipalities 2016

1	Zwolle	52.9
2	Groningen (gemeente)	52.7
3	Hilversum	52.4
4	Apeldoorn	52.3
5	Utrecht (gemeente)	52.2
6	Ermelo	52.1
7	Zeist	51.9
8	Middelburg (Z.)	51.8
9	Barneveld	51.8
10	Boxmeer	51.8
11	Amersfoort	51.6
12	Diemen	51.1
13	Veghel	51.0
14	Nijmegen	50.9
15	Eindhoven	50.8

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 3 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 14x15=210 municipalities. However, a number of municipalities qualify for more than one type. When this is taken into account, a final list of 107 Elected Sustainable Municipalities results. This selection represents 27% of the total number of Dutch municipalities. All 107 municipalities score 50% or higher on sustainability. From these 107 Elected Municipalities for the 2016 BNG Bank Sustainability bond 52 were also elected in 2015. This illustrates a rather large dynamic in developments over the years.

Table 3 List of Elected Sustainable Municipalities for the 2016 BNG SRI Bond in alphabetical order (also see Annex 2 for a score based ranking)

Nr	Elected best-in-class municipality	Number of relevant types	Total sustainability score
1	Ameland	1	51.3
2	Amersfoort	2	51.6
3	Amstelveen	1	52.5
4	Amsterdam	1	50.0
5	Apeldoorn	3	52.3
6	Arnhem	1	50.0
7	Baarn	1	54.6
8	Barneveld	2	51.8
9	Best	1	52.8
10	Bladel	1	54.6

11	Blaricum	1	57.2
12	Bloemendaal	3	57.2
13	Boekel	2	53.1
14	Boxmeer	2	51.8
15	Breda	1	50.3
16	Bronckhorst	1	51.1
17	Bunnik	2	56.6
18	Castricum	4	55.3
19	Culemborg	2	53.9
20	Dalfsen	2	55.2
21	Delft	5	54.7
22	Deventer	1	50.6
23	Diemen	1	51.1
24	Ede	3	52.8
25	Eemnes	3	53.5
26	Eijsden-Margraten	4	54.5
27	Eindhoven	2	50.8
28	Elburg	1	53.0
29	Ermelo	1	52.1
30	Gooise Meren	2	54.6
31	Grave	1	54.0
32	Groningen (gemeente)	4	52.7
33	Haaren	1	52.4
34	Haarlem	1	50.4
35	Haren	1	55.3
36	Hattem	1	54.9
37	Heerenveen	1	50.6
38	Heeze-Leende	1	53.6
39	Hellendoorn	1	52.0
40	Hendrik-Ido-Ambacht	4	54.0
41	Heumen	3	54.6
42	Hilversum	3	52.4
43	Horst aan de Maas	2	54.1
44	Houten	3	55.9

45	Huizen	1	51.8
46	Kampen	2	53.3
47	Kapelle	1	54.6
48	Katwijk	2	52.7
49	Landsmeer	1	52.3
50	Langedijk	3	53.6
51	Lansingerland	1	51.1
52	Laren (NH.)	3	57.4
53	Leiden	3	51.3
54	Leudal	1	51.9
55	Leusden	1	54.3
56	Lopik	1	52.2
57	Middelburg (Z.)	4	51.8
58	Midden-Delfland	4	57.8
59	Montfoort	1	53.4
60	Mook en Middelaar	4	54.1
61	Nieuwegein	1	50.3
62	Nijmegen	2	50.9
63	Noordwijk	2	55.2
64	Noordwijkerhout	1	53.2
65	Nuenen, Gerwen en Nederwetten	2	55.1
66	Nunspeet	1	52.6
67	Oegstgeest	4	56.8
68	Oirschot	1	53.2
69	Olst-Wijhe	1	52.6
70	Oostzaan	2	54.7
71	Oudewater	2	53.2
72	Pijnacker-Nootdorp	1	52.3
73	Putten	2	52.9
74	Renswoude	3	54.0
75	Rijssen-Holten	1	53.8
76	Rozendaal	4	57.7
77	Scherpenzeel	2	56.1
78	Schiermonnikoog	3	51.7

79	Schinnen	2	52.5
80	Sint Anthonis	1	53.3
81	Sint-Michielsgestel	2	53.4
82	Sliedrecht	1	52.3
83	Stichtse Vecht	1	50.4
84	Teylingen	2	54.0
85	Uitgeest	2	53.1
86	Utrecht (gemeente)	5	52.2
87	Utrechtse Heuvelrug	2	53.8
88	Veenendaal	1	51.6
89	Veere	3	55.4
90	Veghel	1	51.0
91	Vlieland	3	53.9
92	Voerendaal	1	51.7
93	Voorschoten	2	55.2
94	Voorst	1	53.9
95	Vught	1	56.0
96	Waalre	2	53.9
97	Wageningen	3	55.4
98	Waterland	3	53.5
99	Weesp	1	51.3
100	Westland	3	54.0
101	Wierden	2	53.2
102	Wijk bij Duurstede	1	54.3
103	Woerden	1	52.3
104	Woudenberg	2	54.0
105	Zeist	2	51.9
106	Zoeterwoude	2	53.5
107	Zwolle	5	52.9

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 107 Elected Municipalities for the 2016 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 the level of the three P's, selected themes and selected impact indicators of interest (e.g. CO_2-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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Annex 1: Factsheet example for Solar energy use indicator

Indicator	3	**Solar energy**
Stock / Theme		Energy and climate
Requirement		All consumed energy is generated from a renewable energy source
Color code		Red

Description indicator
Installed capacity solar energy within a municipality per square kilometer.

Relationship with requirement
Within the region, energy is generated by an alternative method that does not emit CO2 and does not deplete fossil fuels. One of the methods to generate energy from a renewable energy source is via solar power.

Unit	Kwh / km^2
Aggregation level	Municipality
Weighting	14.29
Direction	+
Norm Red	< 0.05
Norm Orange	0.05 – 0.24
Norm Green	0.24 – 0.48
Norm Gold	> 0.48
Year of data	2015

Annex 2: Elected Sustainable Municipalities 2016 ranked by their sustainability score

Nr	Elected best-in-class municipality	Total sustainability score 2016
1	Midden-Delfland	57.8
2	Rozendaal	57.7
3	Laren (NH.)	57.4
4	Blaricum	57.2
5	Bloemendaal	57.2
6	Oegstgeest	56.8
7	Bunnik	56.6
8	Scherpenzeel	56.1
9	Vught	56.0
10	Houten	55.9
11	Veere	55.4
12	Wageningen	55.4
13	Castricum	55.3
14	Haren	55.3
15	Dalfsen	55.2
16	Noordwijk	55.2
17	Voorschoten	55.2
18	Nuenen, Gerwen en Nederwetten	55.1
19	Hattem	54.9
20	Oostzaan	54.7
21	Delft	54.7
22	Heumen	54.6
23	Baarn	54.6
24	Bladel	54.6
25	Gooise Meren	54.6
26	Kapelle	54.6
27	Eijsden-Margraten	54.5
28	Leusden	54.3
29	Wijk bij Duurstede	54.3
30	Mook en Middelaar	54.1

31	Horst aan de Maas	54.1
32	Woudenberg	54.0
33	Grave	54.0
34	Hendrik-Ido-Ambacht	54.0
35	Renswoude	54.0
36	Westland	54.0
37	Teylingen	54.0
38	Culemborg	53.9
39	Vlieland	53.9
40	Voorst	53.9
41	Waalre	53.9
42	Rijssen-Holten	53.8
43	Utrechtse Heuvelrug	53.8
44	Heeze-Leende	53.6
45	Langedijk	53.6
46	Waterland	53.5
47	Zoeterwoude	53.5
48	Eemnes	53.5
49	Montfoort	53.4
50	Sint-Michielsgestel	53.4
51	Kampen	53.3
52	Sint Anthonis	53.3
53	Noordwijkerhout	53.2
54	Wierden	53.2
55	Oirschot	53.2
56	Oudewater	53.2
57	Uitgeest	53.1
58	Boekel	53.1
59	Elburg	53.0
60	Putten	52.9
61	Zwolle	52.9
62	Best	52.8
63	Ede	52.8
64	Groningen (gemeente)	52.7

65	Katwijk	52.7
66	Olst-Wijhe	52.6
67	Nunspeet	52.6
68	Amstelveen	52.5
69	Schinnen	52.5
70	Hilversum	52.4
71	Haaren	52.4
72	Pijnacker-Nootdorp	52.3
73	Sliedrecht	52.3
74	Landsmeer	52.3
75	Woerden	52.3
76	Apeldoorn	52.3
77	Lopik	52.2
78	Utrecht (gemeente)	52.2
79	Ermelo	52.1
80	Hellendoorn	52.0
81	Leudal	51.9
82	Zeist	51.9
83	Barneveld	51.8
84	Boxmeer	51.8
85	Huizen	51.8
86	Middelburg (Z.)	51.8
87	Voerendaal	51.7
88	Schiermonnikoog	51.7
89	Veenendaal	51.6
90	Amersfoort	51.6
91	Leiden	51.3
92	Weesp	51.3
93	Ameland	51.3
94	Bronckhorst	51.1
95	Diemen	51.1
96	Lansingerland	51.1
97	Veghel	51.0
98	Nijmegen	50.9

99	Eindhoven	50.8
100	Deventer	50.6
101	Heerenveen	50.6
102	Haarlem	50.4
103	Stichtse Vecht	50.4
104	Nieuwegein	50.3
105	Breda	50.3
106	Amsterdam	50.0
107	Arnhem	50.0