5th Performance Report of Elected Dutch Municipalities of BNG Bank Sustainability Bond of November 2019

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Executive summary

On the 20th of November 2019, BNG Bank launched its sixth Sustainability Bond, a new 10-year benchmark with a volume of €750 million. The Framework document for the BNG Bank Sustainability Bond 2019 was provided to BNG Bank by Het PON & Telos on the 7th of October 2019, describing the selection process of best-in-class Dutch municipalities eligible for the bond. The same selection of sustainable best-in-class municipalities was used to issue another sustainability bond, concerning an AUD 400 million sustainability bond which also has its maturity date on the 20th of November 2029.

An important quality indicator of the bond is the 'Use of proceeds reporting (UPR)'. BNG Bank intends to include in the UPR a yearly impact report, during the period 2020–2029, based on updated data for the sustainability scores of all Dutch municipalities. The update will give insight in the changes in sustainability scores of the group of 114 elected municipalities compared to the total group of 342 Dutch municipalities. BNG Bank asked Het PON & Telos to provide the annual impact reports for this bond, based on the annual National Monitor Sustainable Municipalities. This performance report is the fifth impact report of the 2019 Sustainability Bonds, covering the years 2019-2024.

In conclusion, the elected municipalities continued to outperform the total group of municipalities, by 2.4 percentage points (51.6 vs. 49.2) over the period 2019-2024 as can be seen in Table 1. Both groups of municipalities show an improvement in the overall score of more than 2 percentage points between 2019 and 2024. The scores of all three underlying capitals developed in a similar way for both groups. This year, the largest improvements occurred for the economic capital (4.3 and 4.4 percentage points). The socio-cultural capital declined for both groups, by 0.8 vs. 0.7 percentage points.

Table 1 Sustainability scores of 114 elected municipalities and of the total group of 342 Dutch municipalities in 2024 compared to 2019

Sustainability capital	Elected 2019	Total 2019	Elected 2024	Total 2024	Elected: Difference 2019-2024	Total: Difference 2019-2024[1]
Total	**49.3**	**47.0**	**51.6**	**49.2**	**2.2**	**2.3**
Socio-cultural	53.7	50.7	52.9	50.0	-0.8	-0.7
Ecological	45.0	42.8	48.2	45.9	3.2	3.1
Economic	49.4	47.4	53.7	51.8	4.3	4.4

The scores of municipalities are rather dynamic from year to year, although some major differences and (dis)advantages among municipalities are of a structural nature. The elected municipality that achieved the largest improvement in sustainability score over the reporting period is Rheden, with an improvement of 4.9 percentage points. Four municipalities show a decline and the score of two municipalities did not change when comparing 2019 and 2024.

Amsterdam, Wageningen, Utrecht and Hattum have the highest (and only) reductions in CO_2 emissions between 2021 and 2020. All other municipalities show an increase in CO_2

[1] The calculated differences can be 0.1 percentage point higher or lower due to rounding differences in the calculation. This is the case for all calculated differences in the report.

emissions. The largest increase was found in Vlieland, followed by Rozendaal, Schiermonnikoog and Terschelling.

Comparison over the 2019-2024 period shows that the performance of most goals improved (SDG 1, 5, 7, 8, 9, 10, 12, 13, 14, 15, and 16). The largest improvements are achieved for SDGs 1 No Poverty and SDG 7 Affordable and Clean Energy. Other SDGs show a fallback (SDGs 2, 3, 4, and 11), the largest decline can be seen for SDG 11 Sustainable Cities and Communities. These improvements and declines per SDG are similar for both groups of municipalities. When comparing the 2024 scores, the elected municipalities still outperform the total group for 14 out of the 15 measured goals.

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1 Introduction

Het PON & Telos provided BNG Bank on the 7th of October 2019 with a framework document[2] describing the sustainability criteria and selection process for best-in-class Dutch municipalities to be considered for the BNG Bank Sustainability Bond 2019. Het PON & Telos developed this framework based on the National Monitor of Sustainable Municipalities 2019, which was first produced in 2014 on behalf of the Dutch Ministry of Infrastructure and the Environment. On the 20th of November 2019, BNG Bank launched its sixth Sustainability Bond, a new 10-year benchmark with a volume of €750 million.[3]

During the period 2020-2029, BNG Bank intends to publish an annual UPR based on updated data for the sustainability scores of all Dutch municipalities. The update will provide insight into the changes in the sustainability scores of the group of 114 elected municipalities compared to the total group of 342 Dutch municipalities.
In addition to this impact report, other aspects are relevant for the UPR, such as the types of investment projects, governance aspects related to the sustainability performance of municipalities, etc. These aspects are not included in this assessment by Het PON & Telos, as such data are not yet available in sufficient detail.

BNG Bank asked Het PON & Telos to provide the annual impact reports for these bonds, based on the annual National Monitor Sustainable Municipalities. This performance report is the fifth impact report of the 2019 Sustainability Bonds, covering the years 2019-2024. It describes how the performance is assessed and the overall results of the comparison over the years 2019-2024, including the impact on CO_2 emissions. In addition, this report provides insights into the development of elected municipalities in relation to the UN Sustainable Development Goals (SDGs).

Version impact report	Issue date
1	December 2020[4]
2	December 2021[5]
3	Oktober 2022[6]
4	July 2023[7]

[2] https://www.bngbank.com/-/media/Project/CBB/BNG-Bank-COM/Documents/Sustainability-Bond-for-Dutch-municipalities-Framework-2019.PDF?la=en&rev=5b6abc3cbf8c4aa0b39f4022444093b3&hash=BC6D295FAEE031CA6C4C65CDD977BD73
[3] https://www.bngbank.com/Funding/ESG-Bonds
[4] Report can be requested from BNG bank
[5] Ibid
[6] Ibid
[7] Ibid

2 Description of activities

2.1 Update of database

In order to be able to produce an impact report for 2024 of the municipalities elected for the BNG Bank Sustainable Municipality Bond of 2019, the main activity was to update the data for the sustainability assessment of Dutch municipalities used in the National Monitor Sustainable Municipalities 2019. The monitor is based on the UN and EU concept of sustainable development, which means that three dimensions of development are considered equally important: socio-cultural, ecological and economic. These three 'capitals' are subdivided into themes, called 'stocks', which are operationalized through the measurement of 'indicators'. It is based on the Triple P (People, Prosperity, and Planet) approach used in the 1987 UN Brundtland Commission report and used by Het PON & Telos in its National Monitor.

The updating activities include:

1. Motivation of new sustainability stocks, indicators, and goals for indicators to reflect new scientific knowledge and practical developments
2. Generating or acquiring the most recent data from open public sources for the indicators used in the National Monitor Sustainable Municipalities
3. Harmonizing with national monitoring activities by third parties on thematic issues such as climate, mobility, health, etc.
4. Adapting to the results of municipal reorganizations, which are constantly leading to larger municipalities and a lower total number of municipalities.

The National Monitor Sustainable Municipalities 2019 has identified 14 types of municipalities. These 14 types were used for the framework of the BNG Bank Sustainability Bond of 2019 and form the basis of this performance report.

The indicator values are measured against the sustainability goals, which are described more detailed in the method report.[8] The Sustainability Goals were developed independently of the UN Sustainable Development Goals (SDGs) or Global Goals, which were agreed in 2015. A detailed analysis of the comparability and differences by Het PON & Telos, as described in the 2017 National Monitor[9], has shown that these goals are similar. It should be considered that the UN SDGs were mainly developed for nation states and include global commons, such as the oceans, which are not relevant at the municipality level of the Netherlands. Furthermore, the SDGs have a political rather than a scientific framework.

2.2 Assessment of performance of elected sustainable municipalities

Based on the updated Database, sustainability performance of 114 elected municipalities in 2019 will be evaluated and discussed. The group of elected municipalities, described in

[8] www.hetpon-telos.nl/methodreport2024

[9] Bastiaan Zoeteman, John Dagevos, Rens Mulder, Corné Wentink, Naomi Hoven, Christien Visser, 2017, Nationale Monitor Duurzame Gemeenten 2017, Document number 17.170, Telos, Tilburg University, 29 September; http://www.telos.nl/publicaties/publicatiesrapporten/default.aspx#folder=894859

the Framework of the BNG Bank Sustainability Bond of October 2019, has been selected by identifying the 15 best scoring municipalities for each of 14 types of cities, such as 'agricultural', 'old industrial', 'shrinking', etc. municipalities. The 114 elected municipalities have been selected out of the total number of 355 municipalities in the Netherlands in 2019. Since then, the number of municipalities has decreased due to reorganizations within municipalities. In 2024, there are only 342 municipalities left. However, the total group of elected municipalities remained the same as none of the rearranged municipalities were elected in 2019.

Furthermore, the number of indicators has been partly expanded due to new possibilities, and partly reduced due to a lack of continuous data collection, resulting in 127 indicators now compared to 132 in 2019. Such changes need to be taken into account when comparing this fifth Performance Report to previous editions. To ensure a fair comparison over the years within this edition, scores for previous years have been recalculated based on the current set of indicators. A description of all indicators included in the 2024 framework and a description of which indicators have been added, removed or altered compared to last year can be found in Annex C. The reader is referred to this year's Method report.[10] For the details of the amendments made in the calculation of the sustainability scores.

The assessment in this report includes:

1. A comparison of the sustainability scores of the elected municipalities with the total group of Dutch municipalities for 2024 and 2019.
2. A comparison of the sustainability scores of the elected municipalities between 2024 and 2019, including:
    a. total scores
    b. capital scores
    c. stock scores
    d. indicator scores where appropriate.
3. A list of elected municipalities, which show the largest improvement or reduction in overall score and in CO2 emissions.
4. An overview of the development on the SDGs of the elected municipalities between 2019 and 2024.

The results of these activities are presented in the following chapters. Finally, the overall changes observed for the 2019–2024 reporting period are discussed.

[10] www.hetpon-telos.nl/methodreport2024

3 Results of the update and comparison of 2019 and 2024 results

3.1 National Monitor Sustainable Municipalities 2024

In June 2024, Het PON & Telos has completed the data collection for the National Monitor Sustainable Municipalities 2024. With the outcome of this monitor, the results of the Sustainability Bonds 2019 can be assessed. The scores for previous years have been recalculated based on the set of indicators used in 2024 to ensure a fair comparison over the years. Due to this recalculation, the results sometimes differ from those presented in the 2019 framework document. The main results are presented in Table 3.1.

Table 3.1 Sustainability performance (score 0-100) of the total group of Dutch municipalities in 2019-2024

Sustainability capital	2019	2020	2021	2022	2023	2024
Total	**47.0**	**47.4**	**48.1**	**48.4**	**49.0**	**49.2**
Socio-cultural	50.7	50.2	50.8	50.4	50.9	50.0
Ecological	42.8	43.2	44.2	44.5	44.7	45.9
Economic	47.4	48.7	49.3	50.3	51.4	51.8

Over the 2019-2024 period, the average overall sustainability score improved from 47.0 to 49.2 (on a scale 0-100). The underlying economic and ecological capital improved, while the socio-cultural capital declined. The improvement of the economic capital was 4.4 percentage points and the ecological capital improved by 3.1 percentage points. The socio-cultural capital decreased from 50.7 to 50.0, which is the lowest score since 2019. One explanation is the COVID19 pandemic, which upended many people's lives in health, social and economic participation.

3.2 General characteristics of elected municipalities for the BNG Bank Sustainability Bond 2019

The group of elected municipalities represents the sum of the highest scoring municipalities in each of the 14 types of municipalities considered. They are therefore not a representative sample of the total group of Dutch municipalities. This is illustrated in Table 3.2, using the size of the municipality as a criterion.

Table 3.2 Size distribution of the group elected and all Dutch municipalities

Municipality size (Number of inhabitants)	Total number of municipalities in the Netherlands	Total number of municipalities in elected group
Fewer than 50,000	250 (73.1%)	83 (72.8%)
50,000-100,000	60 (17.5%)	15 (13.2%)
More than 100,000	32 (9.4%)	16 (14.0%)

As Table 3.2 shows, the size distribution of the elected group of municipalities differs from the average distribution in the country. The small municipalities are under-represented, and the large municipalities are over-represented in the elected group, but the differences are very small. This has to be taken into account when comparing the result for the elected group with the total group of municipalities.

3.3 General performance of elected municipalities compared to the total group of Dutch municipalities

BNG Bank has chosen to allocate the proceeds of the Sustainability Bond to the best performing municipalities in their class for a number of reasons. These include:

- Highlighting the importance of sustainable development for municipalities,
- Enabling investors who wish to see their capital used for investments in municipalities that have experience in improving sustainability
- Raising awareness of successful strategies used in high scoring municipalities.

Against this background, it would be welcome if the group of elected municipalities outperformed the total group of municipalities over the years, but it may not be that simple to conclude. The best performing municipalities may not have as much scope for further improvement as low performing municipalities, which can improve their performance more easily.

Table 3.3 gives a summary of the overall differences between 2019 and 2024 for the total group of Dutch municipalities and the group of elected municipalities. The main takeaway is that elected municipalities continued to outperform the total group of municipalities, by 2.4 percentage points (51.6 vs. 49.2). Both groups of municipalities show an improvement in the overall score of more than 2 percentage points between 2019 and 2024. The scores of all three underlying capitals developed in a similar way for both groups. This year, the largest improvements occurred for the economic capital (4.3 and 4.4 percentage points), where the total group improved slightly more than the elected group. The socio-cultural capital declined for both groups, by 0.8 vs. 0.7 percentage points.

In the next paragraph, the more detailed stock scores are considered.

Table 3.3 Sustainability performance of elected municipalities and of the total group of Dutch municipalities in 2019 compared to 2024

Sustainability capital	Elected 2019	Total 2019	Elected 2024	Total 2024	Elected: Difference* 2019-2024	Total: Difference* 2019-2024[11]
Total	**49.3**	**47.0**	**51.6**	**49.2**	**2.2**	**2.3**
Socio-cultural	53.7	50.7	52.9	50.0	-0.8	-0.7
Ecological	45.0	42.8	48.2	45.9	3.2	3.1
Economic	49.4	47.4	53.7	51.8	4.3	4.4

* Percentage points

[11] The calculated differences can be 0.1 percentage point higher or lower due to rounding during the calculation. This is the case for all calculated differences in the report.

3.4 Changes in stock scores of elected and the total group of municipalities

A closer look at the level of stocks, see Table 3.4, shows that differences between the years show a similar pattern in both groups of municipalities.

Table 3.4 Differences in sustainability performance scores (percentage points) of stocks between 2019 and 2024 for the group of elected municipalities and all Dutch municipalities

Sustainability stock	Difference 2019-2024 of 114 elected municipalities	Difference 2019-2024 of all 342 municipalities
Socio-cultural	-0.8	-0.7
Arts & culture	-1.9	-2.0
Economic participation	11.2	12.8
Education	-2.2	-1.8
Health	-2.8	-3.8
Housing	-3.4	-2.7
Political participation	-4.1	-4.6
Residential environment	-1.8	-2.7
Safety	4.3	4.3
Social participation	-6.2	-6.1
Ecological	3.2	3.1
Air	2.7	2.5
Annoyance & external safety	-0.2	-0.2
Energy	12.0	12.1
Nature & landscape[12]		
Soil	2.0	1.5
Resources & waste	5.3	5.2
Water	0.8	0.7
Economic	4.2	4.4
Competitiveness	4.8	5.8
Infrastructure & mobility	8.3	7.3
Knowledge	3.2	3.3
Labour	7.4	7.7
Spatial location conditions	-2.5	-1.9

[12] Due to limited availability of data, a comparison in time is not possible for this stock

Socio-cultural stocks

Most of the underlying stocks of the socio-cultural capital declined between 2019 and 2024, explaining the decline in capital score. For both groups of municipalities, the largest declines are seen for 'Social participation', and 'Political Participation'. However, not all stocks declined: 'Economic participation' improved very strongly, and 'Safety' improved as well. The total group of municipalities improved more for 'Economic Participation' (11.2 vs. 12.8 percentage points).

Ecological stocks

Again, the group of elected municipalities shows a similar pattern of stock development as the total group of municipalities. The differences in the degree of development between the two groups of municipalities are small. The largest improvements over the period 2019-2024 are for the stocks 'Energy' (12.0 vs. 12.1 percentage points) and 'Resources & waste' (5.3 vs. 5.2 percentage points). The only stock which score decreased slightly between 2019 and 2024 is 'Annoyance & external safety' with a decrease of 0.2 percentage points for both groups.

Economic stocks

As with the other stocks, both groups of municipalities show a similar pattern of development between 2019 and 2024 for the economic stocks. The largest improvements were for the stocks 'Infrastructure & mobility' (8.3 vs. 7.3 percentage points) and 'Labour' (7.4 and 7.7 percentage points). The other stocks within this capital also show strong improvements, with the exception of the stock 'Spatial location conditions'. This is the only stock that decreased by 2.5 percentage points for the group of elected municipalities vs. 1.9 percentage points for the total group. Overall, the total group of municipalities improved slightly more than the elected group of municipalities.

4 Elected municipalities with the largest improvement or reduction in sustainability performance score in 2019-2024 depending by typology

This chapter discusses in more detail the improvements or reductions in the overall sustainability performance score of individual elected municipalities. The assessment will be presented for each of the 14 types of municipalities identified in the framework of the BNG Bank Sustainability Bond of 2019: agricultural-, centre, green-, growth-, historic-, old industrial-, mid-sized-, New Town-, shrink-, small-, residential-, tourist-, work- and 100,000plus municipalities. The list of best-in-class municipalities for each type will be presented as described in the framework document. As mentioned above, the 2019 scores have been recalculated based on the set of indicators used in 2024 to ensure a fair comparison over the years.

4.1 Elected agricultural municipalities

Table 4.1 presents the 15 best-in-class agricultural municipalities, their reconstructed 2019 scores and the 2024 scores for total sustainability. The scores of all these elected agricultural municipalities have improved over time, except for Midden-Delfland (-1.5 percentage points). The municipalities Voorst, Raalte and Tynaarlo improved the most between 2019 and 2024. Overall, the elected agricultural municipalities improved on average by 2.5 percentage points since 2019.

Table 4.1 Developments in total sustainability performance scores (0-100) of elected agricultural municipalities between 2019 and 2024

Agricultural municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Voorst	49.6	53.7	4.1
Raalte	50.8	54.8	4.0
Tynaarlo	51.3	54.7	3.4
Lochem	50.7	53.6	2.9
Dalfsen	53.4	56.4	2.9
Wijk bij Duurstede	51.4	54.2	2.9
Hof van Twente	49.9	52.7	2.8
Eemnes	48.4	51.1	2.7
Dinkelland	52.4	54.9	2.4
Winterswijk	50.0	52.4	2.4
Oost Gelre	52.3	54.6	2.3
Staphorst	53.8	56.1	2.3
Bunnik	52.2	54.1	1.9
Kampen	50.4	52.2	1.7
Midden-Delfland	51.2	49.8	-1.5
Average	51.2	53.7	2.5

*Percentage points

4.2 Elected centre municipalities

As Table 4.2 shows, all elected centre municipalities have improved their sustainability score between 2019 and 2024, with an average improvement of 2.5 percentage points. The municipality Zwolle improved the most, followed by Deventer.

Table 4.2 Developments in total sustainability performance scores (0-100) of elected centre municipalities between 2019 and 2024

Centre municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Zwolle	48.9	52.6	3.6
Deventer	49.3	52.7	3.4
Hilversum	47.0	50.1	3.1
Apeldoorn	50.3	53.4	3.1
Ede	50.3	53.2	2.9
Nijmegen	51.2	54.0	2.8
Delft	49.6	52.3	2.7
Castricum	49.0	51.5	2.5
Utrecht	49.8	52.2	2.4
Huizen	47.2	49.6	2.3
Leiden	46.7	49.0	2.3
Haarlem	49.2	51.3	2.1
Groningen	48.4	50.0	1.6
Gooise Meren	46.4	47.8	1.4
Amsterdam	46.4	47.6	1.2
Average	48.6	51.1	2.5

* Percentage points

4.3 Elected green municipalities

The elected green municipalities improved their sustainability score by 2.1 percentage points on average between 2019 and 2024. As can be seen in Table 4.3, Leusden improved its score most (by 4.4 percentage points). The only elected municipality that shows a (slight) decline in sustainability score is Mook en Middelaar (-0.1 percentage points).

Table 4.3 Developments in total sustainability performance scores (0-100) of elected green municipalities between 2019 and 2024

Green municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Leusden	51.8	56.3	4.4
Soest	48.6	52.1	3.5
Hilversum	47.0	50.1	3.1
Heerde	50.0	52.9	2.9
Hellendoorn	50.6	53.4	2.8
Heeze-Leende	50.8	53.1	2.3
Bloemendaal	52.0	54.1	2.1
Nunspeet	51.0	53.1	2.1
Schiermonnikoog	48.5	50.4	1.9
Waalre	50.7	52.4	1.8
Ermelo	52.0	53.6	1.6
Vlieland	52.7	54.2	1.5
Ameland	50.0	50.7	0.6
Rozendaal	53.5	53.7	0.2
Mook en Middelaar	51.9	51.8	-0.1
Average	50.7	52.8	2.1

* Percentage points

4.4 Elected growth municipalities

The elected growth municipalities show an average improvement of 1.9 percentage points over the last few years, see Table 4.4. The largest improvement was realized by Leusden (4.4 percentage points). Midden-Delfland and Urk show a decline of 1.5 and 0.3 percentage points respectively.

Table 4.4 Developments in total sustainability performance scores (0-100) of elected growth municipalities between 2019 and 2024

Growth municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Leusden	51.8	56.3	4.4
Zwolle	48.9	52.6	3.6
Dalfsen	53.4	56.4	2.9
Nijmegen	51.2	54.0	2.8
Voorschoten	51.1	53.8	2.7
Delft	49.6	52.3	2.7
Wageningen	53.5	55.9	2.4
Heeze-Leende	50.8	53.1	2.3
Bloemendaal	52.0	54.1	2.1
Bunnik	52.2	54.1	1.9
Houten	51.8	52.8	1.0
Ameland	50.0	50.7	0.6
Rozendaal	53.5	53.7	0.2
Urk	51.5	51.2	-0.3
Midden-Delfland	51.2	49.8	-1.5
Average	51.5	53.4	1.9

* Percentage points

4.5 Elected historic municipalities

The average improvement in the sustainability score of elected historic municipalities was 2.1 percentage points between 2019 and 2024. As can be seen in Table 4.5, all elected historic municipalities have improved or maintained their scores over these years. The largest improvement was realized by Rheden (4.9 percentage points), followed by Hilversum (3.1 percentage points).

Table 4.5 Developments in total sustainability performance scores (0-100) of elected historic municipalities between 2019 and 2024

Historic municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Rheden	48.3	53.2	4.9
Hilversum	47.0	50.1	3.1
Bronckhorst	51.0	53.7	2.7
Delft	49.6	52.3	2.7
Molenlanden	47.4	50.1	2.7
Utrecht	49.8	52.2	2.4
Leiden	46.7	49.0	2.3
Staphorst	53.8	56.1	2.3
Schiermonnikoog	48.5	50.4	1.9
Kampen	50.4	52.2	1.7
Vlieland	52.7	54.2	1.5
Amsterdam	46.4	47.6	1.2
Eijsden-Margraten	49.4	50.4	1.0
Ameland	50.0	50.7	0.6
Waterland	49.2	49.2	0.0
Average	49.3	51.4	2.1

* Percentage points

4.6 Elected mid-sized municipalities

Table 4.6 shows that elected mid-sized municipalities improved their sustainability score on average by 2.6 percentage points between 2019 and 2024. All municipalities in this group improved their scores over these years. The largest improvement was realized by Doetinchem with an increase of 4.0 percentage points.

Table 4.6 Developments in total sustainability performance scores (0-100) of elected mid-sized municipalities between 2019 and 2024

Mid-sized municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Doetinchem	46.6	50.6	4.0
Assen	47.7	51.2	3.5
Heerenveen	47.6	51.0	3.4
Deventer	49.3	52.7	3.4
Hilversum	47.0	50.1	3.1
Woerden	48.4	51.4	3.0
Krimpenerwaard	47.8	50.7	2.9
Westerkwartier	47.9	50.8	2.9
Gouda	46.4	49.3	2.9
Barneveld	49.3	52.0	2.7
Katwijk	49.2	51.1	1.9
Kampen	50.4	52.2	1.7
Gooise Meren	46.4	47.8	1.4
Stichtse Vecht	45.9	47.2	1.2
Amstelveen	49.4	50.4	1.1
Average	48.0	50.6	2.6

*Percentage points

4.7 Elected New Town municipalities

Elected New Town municipalities improved their score on average by 1.8 percentage points over the years 2019-2024 (see Table 4.7). Of these municipalities, Overbetuwe improved most, by 3.6 percentage points. Two municipalities in this group show a decline. Midden-Delfland declined by 1.5 and Urk by 0.3 percentage points.

Table 4.7 Developments in total sustainability performance scores (0-100) of elected New-Town municipalities between 2019 and 2024

New Town municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Overbetuwe	47.2	50.8	3.6
Nijkerk	49.4	52.7	3.3
Culemborg	49.3	52.6	3.3
Zeewolde	47.8	50.8	2.9
Amersfoort	49.8	52.5	2.7
Eemnes	48.4	51.1	2.7
Harderwijk	49.5	52.0	2.5
Woudenberg	50.8	52.7	2.0
Tubbergen	49.2	51.1	1.8
IJsselstein	49.3	50.7	1.5
Aalsmeer	48.5	49.6	1.2
Heumen	52.1	53.2	1.1
Houten	51.8	52.8	1.0
Urk	51.5	51.2	-0.3
Midden-Delfland	51.2	49.8	-1.5
Average	49.7	51.6	1.8

*Percentage points

4.8 Elected old industrial municipalities

Elected old industrial municipalities scored on average 2.4 percentage points higher over the reporting period, as shown in Table 4.8. All municipalities in this group improved their score between 2019-2024. Oldenzaal has improved the most (4.1 percentage points), followed by Oisterwijk and Losser.

Table 4.8 Developments in total sustainability performance scores (0-100) of elected old industrial municipalities between 2019 and 2024

Old industrial municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Oldenzaal	48.7	52.8	4.1
Oisterwijk	48.3	52.1	3.8
Losser	48.4	52.1	3.7
Borne	48.6	52.2	3.5
Culemborg	49.3	52.6	3.3
Haaksbergen	49.9	52.7	2.8
Hellendoorn	50.6	53.4	2.8
Rijssen-Holten	51.2	53.0	1.9
Best	48.7	50.5	1.8
Waalre	50.7	52.4	1.8
Wierden	51.0	52.6	1.5
Putten	49.2	50.5	1.3
Bergeijk	50.8	52.1	1.3
Hattem	51.3	52.5	1.2
Bladel	51.9	52.8	0.9
Average	49.9	52.3	2.4

* Percentage points

4.9 Elected residential municipalities

As Table 4.9 shows, the average improvement in sustainability score of elected residential municipalities is 1.6 percentage points over the period 2019-2024. Hendrik-Ido-Ambacht improved its score the most in these years, with an improvement of 3.9 percentage points. Not all municipalities in this group realized an improvement. The score of the municipality Waterland remained the same, and the scores of Mook en Middelaar and Reusel-de-Mierden declined by 0.1 and 0.7 percentage points respectively.

Table 4.9 Developments in total sustainability performance scores (0-100) of elected residential municipalities between 2019 and 2024

Residential municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Hendrik-Ido-Ambacht	46.8	50.7	3.9
Borne	48.6	52.2	3.5
Wijk bij Duurstede	51.4	54.2	2.9
Voorschoten	51.1	53.8	2.7
Castricum	49.0	51.5	2.5
Bloemendaal	52.0	54.1	2.1
Sint-Michielsgestel	49.1	50.9	1.8
Waalre	50.7	52.4	1.8
Landsmeer	46.2	47.5	1.3
Heumen	52.1	53.2	1.1
Eijsden-Margraten	49.4	50.4	1.0
Rozendaal	53.5	53.7	0.2
Waterland	49.2	49.2	0.0
Mook en Middelaar	51.9	51.8	-0.1
Reusel-De Mierden	53.6	52.9	-0.7
Average	50.3	51.9	1.6

* Percentage points

4.10 Elected shrink municipalities

As far as elected shrink municipalities are concerned, it is found that their sustainability score improved on average by 1.9 percentage points between 2019 and 2024, see Table 4.10. Beekdaelen shows the largest improvement, with an increase in sustainability score of 4.0 percentage points. Mook en Middelaar is the only elected shrink municipality that shows a decline.

Table 4.10 Developments in total sustainability performance scores (0-100) of elected shrink municipalities between 2019 and 2024

Shrink municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Beekdaelen	44.9	48.9	4.0
Brummen	49.3	52.6	3.3
Berkelland	49.1	52.2	3.0
Bronckhorst	51.0	53.7	2.7
Voerendaal	46.2	48.9	2.7
Gulpen-Wittem	47.5	49.8	2.3
Leudal	45.5	47.7	2.2
Bergen (NH.)	48.4	50.4	2.0
Westervoort	46.5	48.4	1.9
Valkenburg aan de Geul	48.3	50.1	1.8
Roerdalen	44.5	45.6	1.1
Stein (L.)	46.5	47.5	1.0
Laren (NH.)	47.7	48.5	0.8
Meerssen	48.9	49.1	0.1
Mook en Middelaar	51.9	51.8	-0.1
Average	47.8	49.7	1.9

* Percentage points

4.11 Elected small municipalities

The group of elected small municipalities has improved its sustainability score on average by 1.4 percentage points since 2019, see Table 4.11. The largest improvement was realized by Leusden (4.4 percentage points). Within this group, three municipalities show a decline in sustainability score, being Midden-Delfland, Urk, and Mook en Middelaar.

Table 4.11 Developments in total sustainability performance scores (0-100) of elected small municipalities between 2019 and 2024

Small municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Leusden	51.8	56.3	4.4
Tynaarlo	51.3	54.7	3.4
Dalfsen	53.4	56.4	2.9
Wageningen	53.5	55.9	2.4
Bloemendaal	52.0	54.1	2.1
Bunnik	52.2	54.1	1.9
Schiermonnikoog	48.5	50.4	1.9
Heumen	52.1	53.2	1.1
Houten	51.8	52.8	1.0
Ameland	50.0	50.7	0.6
Noordenveld	51.2	51.7	0.5
Rozendaal	53.5	53.7	0.2
Mook en Middelaar	51.9	51.8	-0.1
Urk	51.5	51.2	-0.3
Midden-Delfland	51.2	49.8	-1.5
Average	51.7	53.1	1.4

* Percentage points

4.12 Elected tourist municipalities

The sustainability score of the elected tourist municipalities has improved on average by 1.5 percentage point between 2019 and 2024. Steenwijkerland shows the largest improvement in this period, namely 3.6 percentage points, see Table 4.12. Not all municipalities in this group realized an improvement. The sustainability score of the municipality Waterland remained the same while Mook en Middelaar shows a decline.

Table 4.12 Developments in total sustainability performance scores (0-100) of elected tourist municipalities between 2019 and 2024

Tourist municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Steenwijkerland	49.3	52.9	3.6
Terschelling	50.0	52.5	2.5
Leiden	46.7	49.0	2.3
Bergen (NH.)	48.4	50.4	2.0
Schiermonnikoog	48.5	50.4	1.9
Hilvarenbeek	51.4	53.0	1.6
Westerveld	47.7	49.3	1.6
Groningen	48.4	50.0	1.6
Vlieland	52.7	54.2	1.5
Bergeijk	50.8	52.1	1.3
Amsterdam	46.4	47.6	1.2
Eijsden-Margraten	49.4	50.4	1.0
Ameland	50.0	50.7	0.6
Waterland	49.2	49.2	0.0
Mook en Middelaar	51.9	51.8	-0.1
Average	49.4	50.9	1.5

* Percentage points

4.13 Elected work municipalities

The average improvement in the sustainability score of the elected work municipalities is 2.4 percentage point in the last few years, as illustrated in Table 4.13. The largest improvements were realized by Oldenzaal and Zwolle (4.1 and 3.6 percentage points respectively), while the score of Ouder-Amstel remained the same in the period 2019-2024.

Table 4.13 Developments in total sustainability performance scores (0-100) of elected work municipalities between 2019 and 2024

Work municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Oldenzaal	48.7	52.8	4.1
Zwolle	48.9	52.6	3.6
Deventer	49.3	52.7	3.4
Hilversum	47.0	50.1	3.1
Woerden	48.4	51.4	3.0
Nijmegen	51.2	54.0	2.8
Delft	49.6	52.3	2.7
Utrecht	49.8	52.2	2.4
Oost Gelre	52.3	54.6	2.3
Leiden	46.7	49.0	2.3
Nunspeet	51.0	53.1	2.1
Rijssen-Holten	51.2	53.0	1.9
Groningen	48.4	50.0	1.6
Amsterdam	46.4	47.6	1.2
Ouder-Amstel	47.0	47.0	0.0
Average	49.1	51.5	2.4

* Percentage points

4.14 Elected 100,000plus municipalities

The, for Dutch dimensions, relative large elected 100,000plus municipalities show on average an improvement in sustainability score of 2.5 percentage points from 2019 to 2024, as listed in Table 4.14. All municipalities within this group show an improvement in sustainability score. The largest improvement is realized by Zwolle (3.6 percentage points).

Table 4.14 Developments in total sustainability performance scores (0-100) of elected 100,000plus municipalities between 2019 and 2024

100,000plus municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Zwolle	48.9	52.6	3.6
Apeldoorn	50.3	53.4	3.1
Ede	50.3	53.2	2.9
Nijmegen	51.2	54.0	2.8
Arnhem	47.5	50.2	2.8
Amersfoort	49.8	52.5	2.7
Eindhoven	47.4	50.1	2.7
Delft	49.6	52.3	2.7
Utrecht	49.8	52.2	2.4
Almere	45.4	47.7	2.3
Leiden	46.7	49.0	2.3
Haarlem	49.2	51.3	2.1
's-Hertogenbosch	47.5	49.2	1.7
Groningen	48.4	50.0	1.6
Amsterdam	46.4	47.6	1.2
Average	48.6	51.0	2.5

* Percentage points

4.15 Summary of score developments of elected municipalities per typology

Table 4.15 gives an overview of the average performance of the 14 types of elected municipalities. The highest average sustainability score in 2024 was realized by agricultural municipalities (53.7). The highest average improvement was realized by mid-sized municipalities, namely 2.6 percentage points between 2019 and 2024. Despite achieving the largest improvement, the average sustainability score of this group was among the lowest compared to other typologies in both 2019 and 2024.

Table 4.15 Changes in total sustainability performance scores (0-100) of 14 types of elected municipalities between 2019 and 2024

Type of municipality	Sustainability score 2019	Sustainability score 2024	Difference*
Mid-sized municipalities	48.0	50.6	2.6
Centre municipality	48.6	51.1	2.5
Agricultural municipalities	51.2	53.7	2.5
100.000plus municipalities	48.6	51.0	2.5
Work municipalities	49.1	51.5	2.4
Former industrial municipalities	49.9	52.3	2.4
Historic municipalities	49.3	51.4	2.1
Green municipalities	50.7	52.8	2.1
Shrink municipalities	47.8	49.7	1.9
Growth municipalities	51.5	53.4	1.9
New Town municipalities	49.7	51.6	1.8
Residential municipalities	50.3	51.9	1.6
Touristic municipalities	49.4	50.9	1.5
Small municipalities	51.7	53.1	1.4

* Percentage points

4.16 General outcome of improving and regressing elected municipalities

Among the elected municipalities, all but six municipalities realized an improvement in sustainability score between 2019 and 2024, see Annex A.

Table 5.1 shows the ten elected municipalities that improved their sustainability score the most between 2019 and 2024. Among all municipalities, Rheden improved its sustainability score the most in the reporting period, with an increase of 4.9 percentage points. Table 5.2 shows the elected municipalities whose sustainability score declined the most or improved the least. Four municipalities show a decline and the score of two municipalities did not change.

Table 5.1 The ten elected municipalities whose sustainability performance score (0-100) has improved most in the period 2019-2024

Elected municipality	Typology	Total score 2019	Total score 2024	Difference*
Rheden	Historic	48.3	53.2	4.9
Leusden	Small, Green, Growth	51.8	56.3	4.4
Voorst	Agricultural	49.6	53.7	4.1
Oldenzaal	Former industrial, Work	48.7	52.8	4.1
Doetinchem	Medium	46.6	50.6	4.0
Beekdaelen	Shrink	44.9	48.9	4.0
Raalte	Agricultural	50.8	54.8	4.0
Hendrik-Ido-Ambacht	Residential	46.8	50.7	3.9
Oisterwijk	Former industrial	48.3	52.1	3.8
Losser	Former industrial	48.4	52.1	3.7

* Percentage points

Table 5.2 The ten elected municipalities whose sustainability performance score (0-100) has improved least or declined most in the period 2019-2024

Municipality	Typology	Total score 2019	Total score 2024	Difference*
Midden-Delfland	Small, Agricultural, Growth, New town	51.2	49.8	-1.5
Reusel-De Mierden	Residential	53.6	52.9	-0.7
Urk	Small, Growth, New town	51.5	51.2	-0.3
Mook en Middelaar	Small, Green, Residential, Shrink, Tourist	51.9	51.8	-0.1
Waterland	Historic, Residential, Tourist	49.2	49.2	0.0
Ouder-Amstel	Work	47.0	47.0	0.0
Meerssen	Shrink	48.9	49.1	0.1
Rozendaal	Small, Green, Growth, Residential	53.5	53.7	0.2
Noordenveld	Small	51.2	51.7	0.5
Ameland	Small, Green, Growth, Historic, Tourist	50.0	50.7	0.6

* Percentage points

5 Performance of elected municipalities in terms of their CO_2 emission scores

This chapter describes the performance of the elected municipalities in terms of CO_2 emissions. Although these emissions are included as an indicator in the ecological capital, this chapter highlight these emissions as an element of particular interest., as they are often the key factor for investors in green bond and sustainability bonds.

5.1 Developments of CO_2 emissions of elected municipalities

In this section, the outcome of the CO_2 emission assessment of elected municipalities will be discussed. This is one of the key transitions to which national governments have committed themselves in the framework of the UN Climate Change Convention and particularly since the 2015 Paris Agreement. Individual municipalities have made similar commitments, e.g. through the framework of the Covenant of Mayors to combat climate change. In the Netherlands, the Association of Dutch Municipalities (VNG) has signed an agreement in 2013 with the national government and other parties to substantially reduce CO_2 emissions in the following years. In 2019, the national government signed the climate agreement to commit to the ambitious goals.

Data on the CO_2 emissions of each municipality are available on the web-portal of the Dutch Emissions Authority. This authority calculates the CO_2 emissions every five years, including the two most recent years. At this moment, data are available for 1990-2015 in a five-year interval, supplemented by the two most recent years in their database (2020 and 2021). In this impact report, the reduction over the two most recent years has been used. To give a more detailed picture, this impact report uses a different approach by showing the raw emission data instead of the calculated sustainability score for CO_2 emissions.

As can be seen in Table 5.3, the group of elected municipalities achieved a reduction in CO_2 emissions of 32.3% over the period 1990-2021 and 30.8% over the period 2010-2021. However, the CO_2 emissions of this group increased by 3.7% between 2020 and 2021. The total group of municipalities also increased their CO_2 emissions over this period, by 3.9%.

Table 5.3 Developments of CO_2 emissions in different time periods of the elected municipalities and the total group of municipalities

Considered group of municipalities	1990-2021	2010-2021	2020-2021
Elected (114)	-32.3%	-30.8%	3.7%
Others	8.4%	-9.9%	3.9%
Total (342)	-2.0%	-14.5%	3.9%

Table 5.4 shows that Amsterdam, Wageningen, Utrecht and Hattum have the highest (and only) reductions in CO_2 emissions between 2021 and 2020. All other municipalities show an increase in CO_2 emissions. The largest increase was found in Vlieland, followed by Rozendaal, Schiermonnikoog and Terschelling. This is mainly due to a large increase in the absolute number of kilograms for the Wadden Islands. As these are relatively small areas,

this substantial increase is immediately relatively high. On the contrary, in absolute terms of kg the increase is lower than in most other Dutch municipalities. The changes in CO_2 emissions over the last two years for all elected municipalities are given in Annex B

Table 5.4 Ten elected municipalities with the largest reduction (or smallest increase; first two columns) and the largest increase in CO_2 emissions between 2020 and 2021 (last two columns)

Elected municipality	Emission change between measuring years 2020 and 2021	Elected municipality	Emission change between measuring years 2020 and 2021
Amsterdam	-2.4	Vlieland	56.4
Wageningen	-1.8	Rozendaal	27.3
Utrecht	-1.3	Schiermonnikoog	25.9
Hattem	-0.6	Terschelling	24.7
Nijmegen	0.0	Ameland	15.5
Leiden	0.1	Aalsmeer	12.7
Delft	0.8	Hilversum	12.6
Groningen	1.4	Westervoort	12.4
Zwolle	1.7	Bergen (NH.)	12.1
Apeldoorn	2.5	Haaksbergen	10.9

6 SDG scores

In the earlier 2018 framework report, a method was introduced to measure the achievement of the 2015 UN Sustainable Development Goals (SDGs). Showing the impact of societal activities in terms of their contribution to the SDGs has become very important for many organizations and particularly for banks and pension funds. These organizations have been active since 2015 to develop a so-called 'taxonomy on Sustainable Development Investments (SDIs)' which translates the SDGs into investable opportunities from the perspective of Asset Owners[13].

An elaborated description of the methodology used to calculate the SDG scores can be found in the Method report 2024[14]. In essence, elements of the sustainability scores are aggregated in a way which is consistent with the definitions of the SDGs.

6.1 Progress of the elected municipalities towards the SDGs

Comparison over the period 2019-2024 shows that the performance of the elected municipalities on most goals improved (SDG 1, 5, 7, 8, 9, 10, 12, 13, 14, 15, and 16). The largest improvements are achieved for SDG 1 No Poverty and SDG 7 Affordable and Clean Energy. Other SDGs show a fallback (SDG 2, 3, 4, and 11), the largest decline can be seen for SDG 11 Sustainable Cities and Communities. SDG 5 Gender Equality, with a score of 62.0, has the highest score in 2024. The results per SDG over the years are listed in Table 6.1.

[8] https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en

[14] www.hetpon-telos.nl/methodreport2024

Table 6.1 SDG scores (0-100) for the group of elected and the total group of municipalities for 2019-2024

SDG	Group	2019	2020	2021	2022	2023	2024	Difference* 2019-2024
1. No Poverty	Elected	43.7	46.8	50.2	50.4	54.9	56.6	12.9
	Total	39.5	43.0	46.3	46.5	50.9	53.1	13.6
2. Zero Hunger	Elected	53.2	53.1	52.9	52.9	52.5	52.0	-1.3
	Total	52.7	52.6	52.5	52.5	52.2	51.5	-1.2
3. Good Health and Well-being	Elected	53.0	52.5	52.0	50.5	50.0	49.8	-3.2
	Total	50.6	49.8	49.6	47.7	47.2	46.8	-3.8
4. Quality Education	Elected	54.8	54.5	54.3	55.7	55.3	52.6	-2.2
	Total	51.6	51.2	50.8	52.7	52.2	49.9	-1.8
5. Gender Equality	Elected	58.7	59.1	59.7	61.7	62.1	62.0	3.3
	Total	57.6	58.2	58.7	60.9	61.1	60.6	3.0
7. Affordable and Clean Energy	Elected	39.2	41.0	43.5	45.3	46.1	49.0	9.8
	Total	38.4	40.3	42.9	44.7	45.5	48.5	10.1
8. Decent Work and Economic Growth	Elected	50.5	52.4	50.3	51.9	54.6	55.1	4.5
	Total	49.4	51.0	48.8	50.9	53.6	53.9	4.5
9. Industry, Innovation and Infrastructure	Elected	40.0	42.5	43.9	43.9	45.0	46.7	6.8
	Total	39.1	41.4	42.5	42.8	44.0	45.6	6.4
10. Reduced Inequalities	Elected	60.4	60.7	59.8	59.6	60.2	60.5	0.1
	Total	60.7	61.2	60.3	60.2	60.9	61.3	0.6
11. Sustainable Cities and Communities	Elected	55.6	52.7	53.8	50.7	51.2	51.1	-4.5
	Total	53.1	50.5	51.5	48.4	49.1	49.0	-4.1
12. Responsible Consumption and Production	Elected	38.0	39.4	40.0	38.5	40.3	43.3	5.3
	Total	35.8	36.7	37.7	36.8	38.4	41.1	5.2
13. Climate Action	Elected	48.4	48.8	49.8	49.7	49.5	50.0	1.6
	Total	46.9	47.3	48.2	48.2	47.9	48.4	1.5
14. Life below Water	Elected	39.6	40.1	40.1	40.3	40.0	40.3	0.7
	Total	38.1	38.5	38.4	38.4	38.3	38.6	0.5
15. Life on Land	Elected	47.0	46.7	47.6	47.8	47.4	48.2	1.2
	Total	43.6	43.2	44.0	44.0	43.7	44.4	0.8
16. Peace, Justice and Strong Institutions	Elected	54.8	55.3	55.5	57.1	57.0	55.8	1.0
	Total	51.1	51.3	51.2	53.6	53.6	52.1	1.0

*Percentage points

As can be seen in Table 6.1, SDG 6 Clean Water and Sanitation and SDG 17 Partnerships for the Goals are not included, as they could not be measured due to a lack of data or because they are not relevant to the municipalities.

6.2 Differences between the elected and the total group of municipalities on the SDGs

For all SDGs, the group of elected municipalities developed in the same way as the total group of municipalities in the period 2019-2024. Both groups achieved similar improvements or reductions for every goal. Between 2019 and 2024, SDGs 1 and 7

improved the most, for both the total group and the elected group. The scores on SDGs 2, 3, 4, and 11 decreased for both groups of municipalities.

Even though both groups show similar developments, the performance of the group of elected municipalities deviates from the total group of municipalities. The group of elected municipalities outperforms the total group of municipalities for 14 out of the 15 measured goals in 2024. The largest difference in the 2024 scores can be found for SDG 15 Life on Land, where the group of elected municipalities scores 3.8 percentage points higher compared to the total group. The total group outperforms the elected group on only one goal, being SDG 10 Reduced Inequalities by 0.8 percentage points.

More information about the method of analyses on the SDGs can be found in the 2024 Method report for municipalities[15].

[15] www.hetpon-telos.nl/methodreport2024

7 Discussion and overview of the results of the 2019-2024 assessment period

In conclusion, the elected municipalities continued to outperform the total group of municipalities, by 2.4 percentage points (51.6 vs. 49.2) over the period 2019-2024. Both groups of municipalities show an improvement in the overall score of more than 2 percentage points between 2019 and 2024. The scores of all three underlying capitals developed in a similar way for both groups. This year, the largest improvements occurred for the economic capital (4.3 and 4.4 percentage points), where the total group improved slightly more than the elected group. The socio-cultural capital declined for both groups, by 0.8 vs. 0.7 percentage points.

The scores of municipalities are rather dynamic from year to year, although some major differences and (dis)advantages among municipalities are of a structural nature. The elected municipality that achieved the largest improvement in sustainability score over the reporting period is Rheden, with an improvement of 4.9 percentage points. Four municipalities show a decline and the score of two municipalities did not change when comparing 2019 and 2024.

A closer look at the CO_2 emissions shows that the group of elected municipalities achieved a reduction in CO_2 emissions of 32.3% over the period 1990-2021 and 30.8% over the period 2010-2021. However, the CO_2 emissions of this group increased by 3.7% between 2020 and 2021. Amsterdam, Wageningen, Utrecht and Hattum have the highest (and only) reductions in CO_2 emissions between 2021 and 2020. All other municipalities show an increase in CO_2 emissions. The largest increase was found in Vlieland, followed by Rozendaal, Schiermonnikoog and Terschelling.

Comparison over the 2019-2024 period shows that the performance of most goals improved (SDG 1, 5, 7, 8, 9, 10, 12, 13, 14, 15, and 16). The largest improvements are achieved for SDGs 1 No Poverty and SDG 7 Affordable and Clean Energy. Other SDGs show a fallback (SDGs 2, 3, 4, and 11), the largest decline can be seen for SDG 11 Sustainable Cities and Communities. These improvements and declines per SDG are similar for both groups of municipalities. When comparing the 2024 scores, the elected municipalities still outperform the total group for 14 out of the 15 measured goals. The total group outperforms the elected group on only one goal, being SDG 10 Reduced Inequalities by 0.8 percentage points.

It is not always the municipality with the highest score in a given category that improves its score the most in the following year. The advantage of a high sustainability score can be turned into a (temporary) disadvantage. Yet, the differences in position on a scoring list and the magnitude of improvement or deterioration from year to year provide relevant incentives for municipalities to better understand their position, learn from each other, reduce vulnerabilities and develop new approaches to existing and emerging challenges. Impact reporting of sustainability bonds stimulates elected and other municipalities to invest proceeds from the bonds and other resources in the most effective operational and innovative structural activities to improve sustainability.

Annex A: Overview of the differences in total sustainability performance scores (0-100) in 2019 and 2024 for all 114 elected municipalities

Municipality	Total sustainability score 2019	Total sustainability score 2024	Difference 2019-2024
Rheden	48.3	53.2	4.9
Leusden	51.8	56.3	4.4
Voorst	49.6	53.7	4.1
Oldenzaal	48.7	52.8	4.1
Doetinchem	46.6	50.6	4.0
Beekdaelen	44.9	48.9	4.0
Raalte	50.8	54.8	4.0
Hendrik-Ido-Ambacht	46.8	50.7	3.9
Oisterwijk	48.3	52.1	3.8
Losser	48.4	52.1	3.7
Overbetuwe	47.2	50.8	3.6
Zwolle	48.9	52.6	3.6
Steenwijkerland	49.3	52.9	3.6
Borne	48.6	52.2	3.5
Soest	48.6	52.1	3.5
Assen	47.7	51.2	3.5
Heerenveen	47.6	51.0	3.4
Deventer	49.3	52.7	3.4
Tynaarlo	51.3	54.7	3.4
Nijkerk	49.4	52.7	3.3
Brummen	49.3	52.6	3.3
Culemborg	49.3	52.6	3.3
Hilversum	47.0	50.1	3.1
Apeldoorn	50.3	53.4	3.1
Woerden	48.4	51.4	3.0
Berkelland	49.1	52.2	3.0
Lochem	50.7	53.6	2.9
Zeewolde	47.8	50.8	2.9
Dalfsen	53.4	56.4	2.9
Krimpenerwaard	47.8	50.7	2.9
Westerkwartier	47.9	50.8	2.9
Gouda	46.4	49.3	2.9
Ede	50.3	53.2	2.9
Heerde	50.0	52.9	2.9
Wijk bij Duurstede	51.4	54.2	2.9
Nijmegen	51.2	54.0	2.8

Municipality	Total sustainability score 2019	Total sustainability score 2024	Difference 2019-2024
Haaksbergen	49.9	52.7	2.8
Hellendoorn	50.6	53.4	2.8
Arnhem	47.5	50.2	2.8
Hof van Twente	49.9	52.7	2.8
Bronckhorst	51.0	53.7	2.7
Amersfoort	49.8	52.5	2.7
Voorschoten	51.1	53.8	2.7
Voerendaal	46.2	48.9	2.7
Barneveld	49.3	52.0	2.7
Eindhoven	47.4	50.1	2.7
Delft	49.6	52.3	2.7
Eemnes	48.4	51.1	2.7
Molenlanden	47.4	50.1	2.7
Castricum	49.0	51.5	2.5
Terschelling	50.0	52.5	2.5
Harderwijk	49.5	52.0	2.5
Dinkelland	52.4	54.9	2.4
Utrecht	49.8	52.2	2.4
Wageningen	53.5	55.9	2.4
Winterswijk	50.0	52.4	2.4
Heeze-Leende	50.8	53.1	2.3
Huizen	47.2	49.6	2.3
Oost Gelre	52.3	54.6	2.3
Almere	45.4	47.7	2.3
Leiden	46.7	49.0	2.3
Gulpen-Wittem	47.5	49.8	2.3
Staphorst	53.8	56.1	2.3
Leudal	45.5	47.7	2.2
Bloemendaal	52.0	54.1	2.1
Nunspeet	51.0	53.1	2.1
Haarlem	49.2	51.3	2.1
Bergen (NH.)	48.4	50.4	2.0
Woudenberg	50.8	52.7	2.0
Katwijk	49.2	51.1	1.9
Westervoort	46.5	48.4	1.9
Bunnik	52.2	54.1	1.9
Schiermonnikoog	48.5	50.4	1.9
Rijssen-Holten	51.2	53.0	1.9
Sint-Michielsgestel	49.1	50.9	1.8
Tubbergen	49.2	51.1	1.8
Valkenburg aan de Geul	48.3	50.1	1.8

Municipality	Total sustainability score 2019	Total sustainability score 2024	Difference 2019-2024
Best	48.7	50.5	1.8
Waalre	50.7	52.4	1.8
's-Hertogenbosch	47.5	49.2	1.7
Kampen	50.4	52.2	1.7
Hilvarenbeek	51.4	53.0	1.6
Westerveld	47.7	49.3	1.6
Groningen	48.4	50.0	1.6
Ermelo	52.0	53.6	1.6
Wierden	51.0	52.6	1.5
Vlieland	52.7	54.2	1.5
IJsselstein	49.3	50.7	1.5
Gooise Meren	46.4	47.8	1.4
Putten	49.2	50.5	1.3
Bergeijk	50.8	52.1	1.3
Landsmeer	46.2	47.5	1.3
Stichtse Vecht	45.9	47.2	1.2
Hattem	51.3	52.5	1.2
Amsterdam	46.4	47.6	1.2
Aalsmeer	48.5	49.6	1.2
Amstelveen	49.4	50.4	1.1
Roerdalen	44.5	45.6	1.1
Heumen	52.1	53.2	1.1
Stein (L.)	46.5	47.5	1.0
Eijsden-Margraten	49.4	50.4	1.0
Houten	51.8	52.8	1.0
Bladel	51.9	52.8	0.9
Laren (NH.)	47.7	48.5	0.8
Ameland	50.0	50.7	0.6
Noordenveld	51.2	51.7	0.5
Rozendaal	53.5	53.7	0.2
Meerssen	48.9	49.1	0.1
Ouder-Amstel	47.0	47.0	0.0
Waterland	49.2	49.2	0.0
Mook en Middelaar	51.9	51.8	-0.1
Urk	51.5	51.2	-0.3
Reusel-De Mierden	53.6	52.9	-0.7
Midden-Delfland	51.2	49.8	-1.5

Annex B: Overview of the changes in CO_2 emissions in 2020-2021 for all elected municipalities

Elected municipality	Typology	% Difference 2020-2021
Amsterdam	Large, Centre, Historic, Tourist, Work	-2.4
Wageningen	Small, Growth	-1.8
Utrecht	Large, Centre, Historic, Work	-1.3
Hattem	Former industrial	-0.6
Nijmegen	Large, Centre, Growth, Work	0.0
Leiden	Large, Centre, Historic, Tourist, Work	0.1
Delft	Large, Centre, Growth, Historic, Work	0.8
Groningen	Large, Centre, Tourist, Work	1.4
Zwolle	Large, Centre, Growth, Work	1.7
Apeldoorn	Large, Centre	2.5
Brummen	Shrink	2.5
Ermelo	Green	2.5
Barneveld	Medium	2.7
Assen	Medium	2.9
Leusden	Small, Green, Growth	3.0
Oost Gelre	Agricultural, Work	3.0
Bunnik	Small, Agricultural, Growth	3.3
Overbetuwe	New town	3.4
Woudenberg	New town	3.6
Putten	Former industrial	3.7
Molenlanden	Historic	3.9
Lochem	Agricultural	4.2
Leudal	Shrink	4.2
Berkelland	Shrink	4.3
Voorst	Agricultural	4.4
Stichtse Vecht	Medium	4.4
Tubbergen	New town	4.4
Eindhoven	Large	4.5
Amersfoort	Large, New town	4.5
Raalte	Agricultural	4.6
Woerden	Medium, Work	4.7
Zeewolde	New town	4.8
Waterland	Historic, Residential, Tourist	4.8
Tynaarlo	Small, Agricultural	4.9
Gouda	Medium	4.9
Gooise Meren	Medium, Centre	5.2
Krimpenerwaard	Medium	5.2
Sint-Michielsgestel	Residential	5.2

Elected municipality	Typology	% Difference 2020-2021
Eemnes	Agricultural, New town	5.3
Soest	Green	5.4
Ede	Large, Centre	5.6
Doetinchem	Medium	5.6
Staphorst	Agricultural, Historic	5.7
Dalfsen	Small, Agricultural, Growth	5.9
Almere	Large	6.0
Westerkwartier	Medium	6.1
Huizen	Centre	6.1
Heerde	Green	6.2
Heumen	Small, New town, Residential	6.4
Losser	Former industrial	6.4
Katwijk	Medium	6.5
Oldenzaal	Former industrial, Work	6.5
Hof van Twente	Agricultural	6.6
Nijkerk	New town	6.6
Houten	Small, Growth, New town	6.7
Roerdalen	Shrink	6.7
Dinkelland	Agricultural	6.9
Heeze-Leende	Green, Growth	7.0
Oisterwijk	Former industrial	7.0
Midden-Delfland	Small, Agricultural, Growth, New town	7.0
Harderwijk	New town	7.0
Heerenveen	Medium	7.1
Arnhem	Large	7.1
Deventer	Medium, Centre, Work	7.1
Laren (NH.)	Shrink	7.2
Best	Former industrial	7.4
Culemborg	Former industrial, New town	7.5
Bronckhorst	Historic, Shrink	7.7
's-Hertogenbosch	Large	7.7
Reusel-De Mierden	Residential	7.8
Wierden	Former industrial	7.8
Hilvarenbeek	Tourist	7.8
Rijssen-Holten	Former industrial, Work	8.0
Beekdaelen	Shrink	8.0
Borne	Former industrial, Residential	8.0
Meerssen	Shrink	8.1
Noordenveld	Small	8.2
Gulpen-Wittem	Shrink	8.4
Bloemendaal	Small, Green, Growth, Residential	8.4
Valkenburg aan de Geul	Shrink	8.5

Elected municipality	Typology	% Difference 2020-2021
Voerendaal	Shrink	8.5
Eijsden-Margraten	Historic, Residential, Tourist	8.6
Rheden	Historic	8.7
Kampen	Medium, Agricultural, Historic	8.8
Steenwijkerland	Tourist	8.9
Ouder-Amstel	Work	9.0
Amstelveen	Medium	9.2
Castricum	Centre, Residential	9.2
Landsmeer	Residential	9.2
Urk	Small, Growth, New town	9.3
Hellendoorn	Former industrial, Green	9.5
Haarlem	Large, Centre	9.5
Wijk bij Duurstede	Agricultural, Residential	9.5
Winterswijk	Agricultural	9.6
Waalre	Former industrial, Green, Residential	9.6
Hendrik-Ido-Ambacht	Residential	9.8
Voorschoten	Growth, Residential	9.9
Westerveld	Tourist	9.9
Bladel	Former industrial	10.0
Mook en Middelaar	Small, Green, Residential, Shrink, Tourist	10.1
Nunspeet	Green, Work	10.3
Stein (L.)	Shrink	10.5
IJsselstein	New town	10.6
Bergeijk	Former industrial, Tourist	10.7
Haaksbergen	Former industrial	10.9
Bergen (NH.)	Shrink, Tourist	12.1
Westervoort	Shrink	12.4
Hilversum	Medium, Centre, Green, Historic, Work	12.6
Aalsmeer	New town	12.7
Ameland	Small, Green, Growth, Historic, Tourist	15.5
Terschelling	Tourist	24.7
Schiermonnikoog	Small, Green, Historic, Tourist	25.9
Rozendaal	Small, Green, Growth, Residential	27.3
Vlieland	Green, Historic, Tourist	56.4

Annex C: Description of indicators used for this framework

Adjustments in indicator set

Adjustments to the dataset and framework can occur on an annual basis. Changes in data availability, new scientific evidence, and policy changes are examples of reasons for reviewing or adjusting the framework. As the data sets should be comparable across reporting years, adjustments are reconstructed for the previous years.

In terms of stocks, one change compared to last year is that the stock 'Healthy lifestyle' has been merged with the stock 'Health'.

Within the dataset used for this report, three different types of changes were implemented. Some indicators have been added, some have been removed from the analysis and some have been changed in definition. This year, we have taken a close look at the indicators in the framework, which has resulted in several adjustments to the dataset. The main reason for adjusting the framework is to align it more closely with the impact indicators as presented in the ICMA guidebook. An overview of the adjustments is described below.

Added indicators

- The indicator 'Distance to library' has been added to the stock 'Arts & culture'.
- The indicator 'VMBO-T final exam results' has been added to the stock 'Education'.
- Within the stock 'Health', the indicators 'Mental health' and 'Vaccination rate' have been added.
- The indicator 'Affordable rental housing' has been added to the 'Housing' stock.
- The indicator 'Energy consumption mobility' has been added to the 'Energy' stock.
- The indicators 'Bulky household residual waste' and 'Fine household residual waste' have been added to the stock 'Resources & waste'.

Changed indicators

- Within the stock 'Health', the indicators 'Severe obesity', 'Alcohol' and 'Smoking' have been merged into the indicator 'Risky behaviour'. The indicator 'Chronically ill' has been changed to 'Long-term sick and limited' due to new insights.
- Within the stock 'Safety', the indicators 'Violence' and 'Sexual offences' have been merged into 'Violence and sexual offences'. The indicator 'Child abuse' has been changed to 'Domestic violence'.
- The definition of the indicator 'Flooding' has changed as we used a new data source.

Removed indicators

- The indicators ‘Cultural landscape’ and ‘Festivals’ have been removed from the stock ‘Arts & culture’ as for both indicators, the data have not been updated for a while.
- The indicators ‘Satisfaction with primary school’ and ‘Satisfaction with secondary school’ have been removed from the stock ‘Education’ due to poor data quality. The indicator ‘No study delay’ has been removed from the stock ‘Education’ as well
- The indicators ‘Drugs use’ and ‘Mental health care costs’ have been removed from the stock ‘Health’, due to new insights.
- The indicators ‘Transaction speed’ and ‘Housing shortage’ have been removed from the stock ‘Housing’.
- The indicators ‘Politically active’, ‘Turnout of provincial council elections’ and ‘Turnout European elections’ have been removed from the stock ‘Political participation’, due to insufficient data updates.
- The indicator ‘Satisfaction with retail’ has been removed from the stock ‘Residential environment’, due to insufficient data updates.
- The indicator ‘Active in association’ has been removed from the stock ‘Social participation’, due to poor data quality.
- The indicator ‘Fiberglass connections’ has been removed from the stock ‘Infrastructure & mobility’. The Netherlands is at this point in time sufficiently connected to fiberglass.
- The indicator ‘Young population’ has been removed from the stock ‘Labour’
- ‘Landscape aesthetic value’ has been removed from the stock ‘Nature and Landscape’ as it has not been updated for some time.
- The indicators ‘Hazardous waste’, ‘Organic waste’, ‘Paper and cardboard waste’ and ‘Plastic, metal and beverage packaging waste’ have been removed from the stock ‘Resources & waste’, due to new insights.
- The indicator ‘Quality of swimming water’ has been removed from the stock ‘Water’.

An overview of all the capitals, stocks and indicators can be found in the next table.

Table A.1 All capitals, the underlying stocks and underlying indicators used in the 2024 framework.

Capital	Stock	Indicator	Description	Unit	Aggregation
Socio-cultural	Arts & culture	Distance to library	Average distance per inhabitant to a library.	km	Municipality
Socio-cultural	Arts & culture	Distance to museums	Average distance per inhabitant to a museum.	km	Municipality
Socio-cultural	Arts & culture	Distance to performing arts & cinema's	Average distance per inhabitant to for instance a theatre or cinema.	km	Municipality
Socio-cultural	Arts & culture	Municipal monuments	Number of municipal monuments.	Count per 1.000 inhabitants	Municipality
Socio-cultural	Arts & culture	National monuments	Number of national monuments per 1,000 inhabitants.	Count	Municipality
Socio-cultural	Arts & culture	Protected town and village sites	Designated protected town and village sites.	Count	Municipality
Socio-cultural	Economic participation	Debt restructuring	Percentage of residents with a debt rescheduling administrator.	Number per 100 inhabitants	Municipality
Socio-cultural	Economic participation	Disposable income	Average disposable income per household.	1.000 Euro	Municipality
Socio-cultural	Economic participation	Financial buffer	Percentage of households with sufficient financial reserves.	Percentage	Municipality
Socio-cultural	Economic participation	Financial struggle	Percentage of people (>18 years) who reported having difficulties making ends meet in the last 12 months.	Percentage	Municipality
Socio-cultural	Economic participation	Government support	Average number of inhabitants receiving state benefits.	Percentage	Municipality
Socio-cultural	Economic participation	Long term debts	Share of households with a debt of €1000,- or more for at least 3 consecutive years.	Percentage	Municipality
Socio-cultural	Economic participation	Long-term poor households	Share of households with an income to 105% of the social minimum over a span of at least 4 years.	Percentage	Municipality
Socio-cultural	Education	Distance to elementary school	Average distance per inhabitant to the closest elementary school.	km	Municipality
Socio-cultural	Education	Distance to secondary education	Average distance per inhabitant to a school for secondary education.	km	Municipality
Socio-cultural	Education	Distance to vocational college	Average distance per inhabitant to vocational college.	km	Municipality
Socio-cultural	Education	Lower educated people	The total share of lower educated people.	Percentage	Municipality
Socio-cultural	Education	School dropout rate	The share of people that leaves the education circuit without a diploma.	Percentage	Municipality

Capital	Stock	Indicator	Description	Unit	Aggregation
Socio-cultural	Education	VMBO-T final exam results	The average final examination mark for the subjects Dutch, English and Mathematics for VMBO-T.	Grade	Municipality
Socio-cultural	Health	Distance to general practitioner	Average distance per inhabitant to a general practitioner.	km	Municipality
Socio-cultural	Health	Distance to hospital	Average distance per inhabitant to a hospital.	km	Municipality
Socio-cultural	Health	Exercise friendly environment	Exercise friendly environment consists of several sub indicators (amount of public sport accommodations, sport -and playfields, sport, play and exercise areas, routes, rural area, distance to recreational facilities) that together make up the score for exercise friendly environment.	Score	Municipality
Socio-cultural	Health	Healthcare costs	Average healthcare costs (basic and specialized) per inhabitant.	Euro	Municipality
Socio-cultural	Health	Hospital quality	Quality score of hospitals.	Score (0-4	Hospitals
Socio-cultural	Health	Insufficient exercise	Share of the inhabitants not meeting the requirements for sufficient physical activity.	Percentage	Municipality
Socio-cultural	Health	Life expectancy	Life expectancy at birth.	Year	Municipality
Socio-cultural	Health	Long-term sick and limited	The percentage of people aged 18 and over who have a long-term illness and are limited due to health problems.	Percentage	Municipality
Socio-cultural	Health	Medicine use	The average medicine use per inhabitant.	Count	Municipality
Socio-cultural	Health	Mental health	Percentage of people with mental health problems scoring 60 or below 60 on the Mental Health Inventory (MHI).	Percentage	Municipality
Socio-cultural	Health	Perceived health	Percentage of inhabitants who rate their own health as 'good' or 'very good'.	Percentage	Municipality
Socio-cultural	Health	Risky behaviour	Average percentage of excessive alcohol consumption, smoking and severe obesity.	Percentage	Municipality
Socio-cultural	Health	Stress	Percentage of people aged 18 or 18+ who have experienced (a lot of) stress in the past 4 weeks.	Percentage	Municipality
Socio-cultural	Health	Vaccination rate	The percentage of 2-year-olds without vaccination.	Percentage	Municipality

Capital	Stock	Indicator	Description	Unit	Aggregation
Socio-cultural	Housing	Affordable owned housing	Percentage of affordable owned housing. The affordability threshold is determined by 4.5 times the gross median income per household for the year in question.	Percentage	Municipality
Socio-cultural	Housing	Affordable rental housing	Paid rent for social housing minus ineligible service costs.	Percentage	Municipality
Socio-cultural	Housing	Home satisfaction	Percentage of the population that is satisfied or very satisfied with their home.	Percentage	Municipality
Socio-cultural	Housing	Vacant properties	Share of empty homes.	Percentage	Municipality
Socio-cultural	Political participation	Trust in institutions	Percentage of people aged 15 and over who trust three institutions (House of Representatives, police, and judges).	Percentage	Municipality
Socio-cultural	Political participation	Turnout House of Representatives elections	The average turnout in the House of Representatives elections.	Percentage	Municipality
Socio-cultural	Political participation	Turnout municipal elections	The average turnout at municipal elections.	Percentage	Municipality
Socio-cultural	Residential environment	Distance to daily groceries and provisions	Average distance per inhabitant to a supermarket or other store for daily groceries and provisions.	km	Municipality
Socio-cultural	Residential environment	Noise disturbance neighbours	Percentage of residents experiencing excessive noise disturbance from neighbours.	Percentage	Municipality
Socio-cultural	Residential environment	Noise disturbance traffic	Percentage of the population that experiences severe noise disturbance due to traffic, airplanes or trains.	Percentage	Municipality
Socio-cultural	Residential environment	Satisfaction with living conditions	Percentage of the population that is satisfied or very satisfied with their living conditions.	Percentage	Municipality
Socio-cultural	Safety	Domestic violence	The number of cases with reports of domestic violence per 100,000 inhabitants. This includes: child abuse, violence against parents, (ex-)partner violence, elder abuse (over 65) and others.	Number per 100,000 inhabitants	Municipality
Socio-cultural	Safety	Feeling unsafe	Percentage of inhabitants that sometimes or often feels unsafe.	Percentage	Municipality and police teams
Socio-cultural	Safety	Property crimes	Annual number of property crimes registered by the police per 1,000 inhabitants.	Number per 1.000 inhabitants	Municipality
Socio-cultural	Safety	Traffic safety	The number of traffic accidents per kilometre road.	Traffic accidents per km road	Municipality

Capital	Stock	Indicator	Description	Unit	Aggregation
Socio-cultural	Safety	Vandalism	The number of crimes of vandalism registered by the police per 1,000 inhabitants.	Number per 1.000 inhabitants	Municipality
Socio-cultural	Safety	Violence and sexual offences	The number of registered violent and sexual offences per 1,000 inhabitants.	Number per 1,000 inhabitants	Municipality
Socio-cultural	Safety	Youth crime	Referrals of youths (aged 12 to 17) to the bureau for youth criminal per 10.000 inhabitants.	Number per 10,000 inhabitants	Municipality
Socio-cultural	Social participation	Loneliness	Percentage of population with a high emotional or social loneliness score (adults over 19).	Percentage	Municipality
Socio-cultural	Social participation	Social cohesion	A score that indicates the social cohesion within a certain region.	Score (1-10)	Municipality and police teams
Socio-cultural	Social participation	Social relations	Percentage of population that regularly is in contact with friends, family or neighbours.	Percentage	Municipality
Socio-cultural	Social participation	Trust in others	Proportion of people aged 15 and older who agree with the statement that most people are generally trustworthy.	Percentage	Municipality
Socio-cultural	Social participation	Volunteering	The share of people that was enrolled in any form of volunteer work.	Percentage	Municipality
Economy	Competitiveness	Business closures	The percentage of closures out of the total number of business establishments.	Percentage	Municipality
Economy	Competitiveness	Gross regional product	The total regional production divided by the number of inhabitants resulting in a regional version of gross domestic product (GDP).	Euro	COROP
Economy	Competitiveness	Starting companies	Share of starting companies.	Percentage	Municipality
Economy	Infrastructure & mobility	Accessibility business parks	Accessibility to business parks through parking, rail and water access.	Score	Business parks
Economy	Infrastructure & mobility	Charging stations	Total number of (semi-)public charging stations for electronic vehicles.	Number per 1.000 cars	Municipality
Economy	Infrastructure & mobility	Distance to main road	Average distance per inhabitant to the nearest main road.	km	Municipality
Economy	Infrastructure & mobility	Distance to public transport (bus, tram, metro)	Average distance per inhabitant to a bus, metro or tram stop.	metre	Municipality
Economy	Infrastructure & mobility	Distance to train station	Average distance per inhabitant to a train station.	km	Municipality
Economy	Infrastructure & mobility	Electric business vehicles	Share of fossil free business cars (electric, plug in hybrid or full hybrid).	Percentage	Municipality

Capital	Stock	Indicator	Description	Unit	Aggregation
Economy	Infrastructure & mobility	Perceived bicycle environment	The perceived bicycle environment is determined through a couple of indicators: ability to cycle for 8- and 80-year-olds, experience, maintenance, network, infrastructure, detour factor, roundabouts, 50 km/h roads and urban density.	Score	Municipality
Economy	Infrastructure & mobility	Privately owned electric vehicles	Share of fossil free privately owned vehicles (electric, plug in hybrid or full hybrid).	Percentage	Municipality
Economy	Infrastructure & mobility	Traffic jams	Congestion severity in minutes per year per kilometre of national and provincial roads at COROP level.	Minutes/ year	COROP
Economy	Knowledge	Highly educated people	Share of highly educated population (15-75 years).	Percentage	Municipality
Economy	Knowledge	High-medium Tech	Percentage of employees working in the high and medium tech sector relative to the labour force.	Percentage	Municipality
Economy	Knowledge	WO-HBO students	The percentage of inhabitants studying at WO or HBO level.	Percentage	Municipality
Economy	Labour	Demographic pressure	The ratio of the number of persons aged 0 to 20 years and 65 years or older to those in the so-called “productive” age group of 20 to 65 years old.	Percentage	Municipality
Economy	Labour	Employment opportunities	The number of jobs relative to the number of people between 15 and 75 years old (the active labour force).	Percentage	Municipality
Economy	Labour	Inability to work	Percentage of the population that is unable to work due to a disability and is therefore experiencing ‘loss of earning capacity’.	Percentage	Municipality
Economy	Labour	Net labour force participation	The share of people in the population (15-75 years old) that are active in the labour force.	Percentage	Municipality
Economy	Labour	Unemployment rate	Percentage of unemployed people in the potential labour force.	Percentage	Municipality
Economy	Labour	Youth unemployment	Unemployment rate of young people aged 15 to 25.	Percentage	Municipality
Economy	Spatial location conditions	Business park stock	Percentage of business parks that can be issued immediately compared to the total (gross) area of business parks.	Percentage	Business parks

Capital	Stock	Indicator	Description	Unit	Aggregation
Economy	Spatial location conditions	Deprecated business parks	Percentage of deprecated business parks compared to the total (gross) area of business parks.	Percentage	Business parks
Economy	Spatial location conditions	Net gross ratio business park	Ratio of business area to the issued land area of the business park.	Percentage	Business parks
Economy	Spatial location conditions	Office vacancy	Share of vacant offices.	Percentage	Municipality
Economy	Spatial location conditions	Vacant retail space	Share of vacant retail space.	Percentage	Municipality
Ecology	Air	Ammonia emissions	Emission of ammonia per inhabitant.	kg/ inhabitant	Municipality
Ecology	Air	CO_2 emissions	Emission of CO_2 per inhabitant.	kg/ inhabitant	Municipality
Ecology	Air	Emission of volatile organic substances	Emission of volatile organic substances per inhabitant.	kg/ inhabitant	Municipality
Ecology	Air	Methane emissions	Emission of methane per inhabitant.	kg/ inhabitant	Municipality
Ecology	Air	Nitrogen concentration	The average concentration of nitrogen in the air.	µg/m^3	Surface area
Ecology	Air	Nitrogen emissions	Emission of nitrogen per inhabitant.	kg/ inhabitant	Municipality
Ecology	Air	Ozone concentration	The average concentration of ozone in the air.	µg/m^3	Surface area
Ecology	Air	Particulate matter concentration	The average concentration of particulate matter (PM2.5) in the air.	µg/m^3	Surface area
Ecology	Air	Particulate matter emissions	Emission of particulate matter per inhabitant.	kg/ inhabitant	Municipality
Ecology	Annoyance & external safety	10-6 Risk contour	Proportion of land area covered by a 10-6 risk contour.	Percentage	Surface area
Ecology	Annoyance & external safety	Flooding	The average maximum water depth that can occur at a given location due to intense rainfall (140 mm of rainfall in 2 hours. These showers occur on average once every 1,000 years at a given location under the current climate).	Cm	Surface area
Ecology	Annoyance & external safety	Heat stress	Average annual temperature difference due to the heat island effect.	°C	Surface area
Ecology	Annoyance & external safety	Light intensity	Annual emission of artificial light.	nanoWatts/ cm2/sr	Surface area
Ecology	Annoyance & external safety	Noise intensity	Percentage of land area affected by noise levels of 55 dB or more.	Percentage	Surface area
Ecology	Annoyance & external safety	Risk of flooding	Number of probable victims in case of a flood with a medium chance.	Number of probable victims	Surface area
Ecology	Energy	Electricity consumption households	Electricity consumption households.	kWh	Municipality

Capital	Stock	Indicator	Description	Unit	Aggregation
Ecology	Energy	Electricity consumption industry	Electricity consumption industry.	kWh /employee	Municipality
Ecology	Energy	Energy consumption mobility	CO_2 emissions Traffic and transport excl. electricity consumption traffic (fossil fuels).	Tonnes of CO_2	Municipality
Ecology	Energy	Energy label homes	Percentage of homes with energy label B or higher.	Percentage	Municipality
Ecology	Energy	Energy label utility buildings	Percentage of utility buildings with energy label B or higher.	Percentage	Municipality
Ecology	Energy	Gas consumption households	Average gas consumption households in m3 gas.	m^3	Municipality
Ecology	Energy	Gas consumption industry	Average gas consumption industry in m3 gas equivalents per employee.	m^3 /employee	Municipality
Ecology	Energy	Renewable energy	Percentage of renewable energy per municipality.	Percentage	Municipality
Ecology	Energy	Solar energy	The capacity of solar panels (homes and businesses) divided by the total area of a municipality.	kW/km^2	Municipality
Ecology	Energy	Wind energy	The capacity of wind energy on land.	MW	Municipality
Ecology	Nature and landscape	Protected natural area	The percentage of protected nature reserves (Natura 2000, Nature Network Netherlands, National Park).	Percentage	Surface area
Ecology	Nature and landscape	Public green space	Percentage of the area of a municipality that is covered by low greenery, excluding agriculture.	Percentage	Municipality
Ecology	Nature and landscape	Public trees	Percentage of the area of a municipality that is covered with trees, excluding agriculture.	Percentage	Municipality
Ecology	Nature and landscape	Red list species	Red list species observed in a municipality over a period 10 years.	Count/km2	Surface area
Ecology	Nature and landscape	Species diversity	Total number of species observed in the area over a 10-year period.	Count/km2	Surface area
Ecology	Resources & waste	Bulky household residual waste	Residual waste not separately collected that is too large or heavy to be disposed of in the same way as household residual waste.	kg/ inhabitant	Municipality
Ecology	Resources & waste	Fine household residual waste	Fine household residual waste.	kg/ inhabitant	Municipality
Ecology	Resources & waste	Separation of bulky household waste	Share of separated bulky household waste.	Percentage	Municipality
Ecology	Resources & waste	Separation of fine household waste	Share of separated fine household waste.	Percentage	Municipality

Capital	Stock	Indicator	Description	Unit	Aggregation
Ecology	Resources & waste	Total amount of waste	Total amount of waste in kg/per inhabitant.	kg/ inhabitant	Municipality
Ecology	Soil	Nitrogen deposition	The 95th percentile of nitrogen deposition.	mol/ha/ year	Surface area
Ecology	Soil	Salinisation	The area percentage where salinisation occurs in the upper 5 m of the soil.	Percentage	Surface area
Ecology	Soil	Soil subsidence	The percentage of areas with subsidence greater than 2 mm/year.	Percentage	Surface area
Ecology	Soil	Surface hardening	Percentage of surface area that is hardened.	Percentage	Surface area
Ecology	Water	Fish stock	Percentage of water bodies whose quality is at least good.	Percentage	Water bodies
Ecology	Water	Macro fauna	Percentage of water bodies whose quality is at least good.	Percentage	Water bodies
Ecology	Water	Nitrogen emissions to water	Average emission of nitrogen (on surface water), per hectare of surface area of municipality.	kg/ha	Water bodies
Ecology	Water	Other toxic substances	Percentage of water bodies whose quality is at least good.	Percentage	Water bodies
Ecology	Water	Phosphorous emissions on water	Average emission of phosphorus (on surface water), per hectare of surface area of municipality.	kg/ha	Water bodies
Ecology	Water	Physio-chemical quality WFD	Percentage of water bodies whose quality is at least good.	Percentage	Water bodies
Ecology	Water	Water flora	Percentage of water bodies whose quality is at least good.	Percentage	Water bodies
Ecology	Water	WFD priority substances	Percentage of water bodies whose quality is at least good.	Percentage	Water bodies

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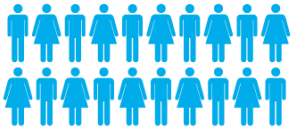
OPGERICHT IN
1947

GEVESTIGD IN
TILBURG

KENNISONDERNEMING
STICHTING ZONDER WINSTOOGMERK

AANTAL MEDEWERKERS

35



INTENSIEVE SAMENWERKINGEN
MET UNIVERSEITEN EN ANDERE KENNISINSTELLINGEN

EXPERTISE

- PARTICIPATIE & GOVERNANCE
- WOON- & LEEFOMGEVING
- DUURZAAMHEIDSTRANSITIES
- SOCIAAL DOMEIN & ARBEID
- CULTUUR & ERFGOED
- DUURZAAMHEIDSIMPACT
- DATA EN METHODEN

ONZE OPDRACHTGEVERS

- PROVINCIES
- GEMEENTEN
- ZORG- EN WELZIJNSINSTELLINGEN
- FONDSEN
- BANKEN

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About Het PON & Telos

Improving social decision-making

Het PON & Telos is a social knowledge organisation at the heart of society. We consider it our mission to improve social decision-making. We do this by linking scientific knowledge to practical knowledge. In this process every voice counts! We collect, investigate, analyse, and interpret opinions and facts using stimulating approaches and innovative methods. In doing so, we are always focused on sustainable development: the harmonious connection between social, environmental and economic objectives. In this way we contribute to the quality of society at large, now and in the future.

With a multidisciplinary and creative team of nearly 30 research consultants, we work mainly for local and regional authorities in the Netherlands, but also for corporate bodies, banks, care and welfare institutions, funds, and social organisations. We work closely with civic organisations and other knowledge institutions and are an official partner of Tilburg University. We use our knowledge and insights to advise initiators, policymakers and managers. This enables them to make informed choices and give a positive impulse to the society of tomorrow.

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