



4th Performance Report of Elected Dutch Municipalities of BNG Bank Sustainability Bond of November 2019

July 2023

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Executive summary

November 2019, BNG Bank launched its sixth Sustainability Bond, a new EUR 750 million | 0.05%, 10-year benchmark. Additionally, a second AUD 400 million, 10-year bond was issued based on the same selection of sustainable municipalities in 2019. Both bonds are due November 20th, 2029. The Framework document for the BNG Bank Sustainability Bond 2019 was provided to BNG Bank by Telos -Tilburg University- on 7 October 2019, describing the selection process of best-in-class Dutch municipalities eligible for the bond.

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 2019–2029, 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 municipalities of the Netherlands. BNG Bank asked Telos -Tilburg University- to provide the yearly impact reports for this bond, based on its yearly National Monitor Sustainable Municipalities. This performance report is the fourth impact report of the 2019 Sustainability Bonds, covering the years 2019-2023.

The Elected Municipalities continued to outperform the total group of municipalities with 2.2 percentage points (52.6 vs 50.4), as listed in table 1. Both groups of municipalities show an improvement of the overall score with 2.5 and 2.6 percentage points. Largest improvements occurred this year for the economic capital (3.7/3.4 percentage points) while those for the socio-cultural capital and ecological capital were smaller (2.3/2.4 and 1.9/1.6 percentage points).

Table 1 Sustainability scores of 114 elected municipalities and of the total group of 342 Dutch municipalities in 2023 compared to 2019

Sustainability capital	Elected 2019	Total 2019	Elected 2023	Total 2023	Elected: Difference 2019-2023	Total: Difference 2019-2023
Total	50.0	47.9	52.6	50.4	2.5	2.6
Socio-cultural	49.9	47.4	52.2	49.8	2.3	2.4
Ecological	49.9	48.1	51.8	49.7	1.9	1.6
Economic	50.3	48.1	53.7	51.8	3.4	3.7

A closer look at the CO2 reductions shows that the group of Elected Municipalities realized a reduction in CO2 emissions over the last two years; the CO2 emissions decreased with 13.1%.

Scores of municipalities are rather dynamic from year to year, although major differences and advantages among municipalities are of a structural nature. In the reporting period Elected Municipalities Rheden, Leusden, Oisterwijk, Wierden and Hellendoorn were able to improve their total sustainability score most with at least 4.0 percentage points. Schiermonnikoog was the only municipality that showed a small reduction in sustainability score among Elected Municipalities.

Comparison over the years 2019 and 2023, as shown in table 6.1, makes clear that the performance of twelve goals improved slightly or substantially (Goals 1, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14 and 16), but other showed a small decrease or stayed the same

(Goals 2, 11 and 15). The performance of the group of elected municipalities deviates for some goals from the total group of municipalities. The total group outperforms the elected group on 8 out of the 16 measured goals, but the differences become smaller.

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1 Introduction

At the request of BNG Bank, Telos - Tilburg University, has provided a Framework document on 7 October 2019 to BNG Bank¹ that describes the sustainability criteria and selection process of best-in-class Dutch municipalities eligible for a BNG Bank Sustainability Bond 2019. Telos developed this framework based on its National Monitor of Sustainable Municipalities 2019, from which the 6th edition was presented in November 2019. The National Monitor of Sustainable Municipalities was produced for the first time in 2014 on behalf of the Dutch Ministry for Infrastructure and Environment. November 20, 2019, BNG Bank launched its sixth Sustainability Bond, a new EUR 750 million, 10-year benchmark².

Additionally, a second AUD 400 million, 10-year bond was issued based on the same selection of sustainable municipalities in 2019. Both bonds are due November 20th, 2029. An important quality indicator of these bonds is the 'Use of proceeds reporting (UPR)'. BNG Bank intends to include in the UPR a yearly impact report, during the period 2019 – 2029, based on updated data for the sustainability scores of all the 342 Dutch municipalities. The update will give insight in the changes in sustainability scores of the group of 114 Elected Municipalities. Besides this impact report, other aspects are relevant for UPR, such as types of investment projects, governance aspects in relation to the sustainability performance of municipalities, etc. These other aspects are not included in this assessment by Telos, because such data are not yet available in sufficient detail.

BNG Bank has asked Telos to provide the yearly updating of the database over the years 2019-2029 and report on the annual changes in scores of the Elected Municipalities. This is the fourth of such reports on the 2019 bonds, covering the period 2019-2023. It describes how the performance is assessed, the general outcome of the comparison over the years 2019-2023, including the impact on CO₂-emissions. Additionally, this report gives insights in the development of the elected municipalities on the UN Sustainable Development Goals (SDGs).

¹ <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>

² <https://www.bngbank.com/funding/sustainability-bond>

2 Description of activities

2.1 Update of database

The main activity to be able to produce an impact report for 2023 on the municipalities elected for the BNG Bank sustainable municipalities bond of 2019 was to update the database for the sustainability assessment of Dutch municipalities used in the National Monitor Sustainable Municipalities 2023. The monitor is basically designed on the basis of the UN and EU concept of sustainable development, which implies that three dimensions of development are considered of equal importance: economic, socio-cultural and ecological. Each of these three ‘capitals’ are subdivided into themes, called ‘stocks’, which are operationalized by measuring ‘indicators’. Indicator values are assessed against sustainability goals, as described in more detail in the National Monitor report. These sustainability goals have been designed independently from the later agreed UN Sustainable Development Goals (SDGs) or Global Goals in 2015. A detailed analysis of the comparability and differences by Telos, as described in the National Monitor of 2019³, has shown that these goals have a wide similarity.

The United Nations SDGs include a set of 17 Global Goals that cover, more categorized from a policy than from a scientific point of view, urgent tasks to be addressed by national governments, local authorities and private actors. A detailed analysis of the differences and overlaps between the triple P approach, used in this framework, and the 17 Goals of the SDGs shows that a large part of the indicators is the same but for some goals clear differences occur. Goal 14 on seas and oceans is for example not included because this is not relevant for municipalities. Governance issues, as implemented by partnerships, have explicitly not yet been included in the triple P approach, amongst others because of the different nature of this domain and because comparable data are difficult to collect. The basic structure of the triple P model will be kept as leading in this impact report, as it better represents a structure that can be founded and explored scientifically. Like in the 2019 framework report, the relevant indicators will also be used to assess the progress on the SDGs for the municipalities.

The updating activities include:

1. Motivation of new sustainability stocks, indicators and goals for indicators to meet new scientific insights and practical developments.
2. Generating most recent data for the indicators used in the National Monitor Sustainable Municipalities from open public sources or by acquiring them.
3. Eventual reassessment of city typology (this was not needed in the recent version of the Monitor).
4. Harmonization with national monitoring activities by third parties on theme specific issues such as climate, mobility, health, etc.
5. Adjustment to the outcome of rearrangements, which are continuously resulting in larger municipality municipalities and a lower total number of municipalities.

³ <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>

The National Monitor Sustainable Municipalities 2019 discerned 14 city types. These 14 types have been used for the Framework of the BNG Bank Sustainability Bond of 2019 and are the basis for the performance report at hand.

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 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. In 2023, there were only 342 municipalities left due to rearrangements. 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 was partially expanded due to new possibilities but also reduced due to lack of continued data collection, resulting in 146 indicators now, compared to 132 in 2019. Such changes had to be included in the comparison between 2023 and 2019. Where needed new data for 2019 were separately collected and calculated. The reader is referred to the Method report for the 2023 BNG Bank Sustainability bond⁴, for the details of the amendments made in the calculation of the sustainability scores and how comparability between the years 2019 and 2023 was ascertained.

This assessment includes:

1. A comparison of sustainability scores of Elected Municipalities with the total group of Dutch municipalities for 2019 and 2023.
2. A comparison of sustainability scores for Elected Municipalities between 2019 and 2023, including:
 - a. overall scores
 - b. capital scores, and a selection of:
 - c. stock scores and where useful:
 - d. indicator scores.
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 Sustainable Development Goals (SDGs) of the elected municipalities between 2019 and 2023.

In the next chapters, the outcome of these activities is presented. Finally, the overall changes observed for reporting period 2019-2023 will be discussed.

⁴ www.hetpon-telos.nl/methodreport2023

3 Outcome of updating exercise and comparison of 2019 and 2023

3.1 National Monitor Sustainable Municipalities 2023

In November 2023, Het PON & Telos has completed the data collection for the National Monitor Sustainable Municipalities 2023. The major outcome is shown in table 3.1:

Table 3.1 Sustainability performance of the total group of Dutch municipalities in 2019-2023

Sustainability capital	2019	2020	2021	2022	2023
Total	47.86	48.64	49.82	50.23	50.42
Socio-cultural	47.43	48.22	48.48	49.30	49.79
Ecological	48.10	48.30	49.78	50.42	49.70
Economic	48.06	49.42	51.19	50.99	51.77

From 2019 to 2023 the average overall sustainability score improved from 47.86 till 50.42 percentage. This was due to improvements of all three capitals. The economic capital improved the most over the period 2019-2023, from 48.06% to 51.77%. The socio-cultural capital improved from 47.43% to 49.79% and the ecological capital improved from 48.10% to 49.70%

3.2 General characteristics of Elected Municipalities for the BNG Bank Sustainability Bond 2019

The group of Elected Municipalities represents the sum of 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 municipality size as criterion.

Table 3.2 Distribution of municipality sizes in the Netherlands and in the group of Elected

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 and midsize municipalities are underrepresented, while the large municipalities are overrepresented in de elected group. In case the outcome for the elected group is compared with the total group of municipalities this has to be taken into account.

3.3 General performance of Elected Municipalities compared to 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 as instrument for several reasons. These include:

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

It would be welcome, against this background, if the comparison between performance of the group of Elected Municipalities and the total group of Dutch municipalities would show that the Elected Municipalities outperform the others over the years. Yet, it may not be as simple as that. Best performing municipalities may not have as many opportunities left for further improvement as low performing municipalities, which can more easily improve their performance.

Table 3.3 gives a summary of the overall differences between 2019 and 2023 for the total group of Dutch municipalities and the group of Elected Municipalities. It shows that the general trend, an improvement of the overall score, happens in both groups (2.5/2.6 percentage points).

Table 3.3 Sustainability performance of Elected Municipalities and of the total group of Dutch municipalities in 2019 compared to 2023 (percentage points)

Sustainability capital	Elected 2019	Total 2019	Elected 2023	Total 2023	Elected: Difference 2019-2023	Total: Difference 2019-2023
Total	50.0	47.9	52.6	50.4	2.5	2.6
Socio-cultural	49.9	47.4	52.2	49.8	2.3	2.4
Ecological	49.9	48.1	51.8	49.7	1.9	1.6
Economic	50.3	48.1	53.7	51.8	3.4	3.7

The Elected Municipalities continued to outperform the total group of municipalities with 2.2 percentage points (52.6 vs 50.4), as listed in table 1. Both groups of municipalities show an improvement of the overall score with 2.5 and 2.6 percentage points. Largest improvements occurred this year for the economic capital (3.4/3.7 percentage points) and the socio-cultural capital (2.3/2.4) percentage points), while those ecological capital were smaller (1.9 and 1.6 percentage points).

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

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 scores (percentage points) of stocks between 2019 and 2023 for the group of elected Municipalities and all Dutch municipalities

Sustainability stock	Difference 2019-2023 of 114 Elected Municipalities	Difference 2019-2023 of all 342 municipalities
Socio-cultural		
Arts & culture	-0.2	-0.2
Economic participation	13.1	13.6
Education	0.2	0.3
Health	0.9	1.2
Housing	-2.5	-1.2
Lifestyle and health	2.5	2.5
Political Participation	5.2	4.2
Residential environment	-1.9	-1.8
Safety	6.9	6.9
Social participation	-1.4	-1.9
Ecological		
Air	2.4	2.2
Annoyance and External safety	0.1	0.0
Energy	4.5	4.6
Nature & landscape	0.0	0.0
Soil	1.9	0.6
Resources & waste	1.9	1.9
Water	2.4	2.0
Economic		
Competitiveness	4.2	4.9
Infrastructure & mobility	4.9	5.1
Knowledge	4.0	4.2
Labor	6.3	6.4
Spatial location conditions	-2.2	-2.1

Socio-cultural stocks

Most striking are the differences in improvement in the stock 'Economic participation': the elected groups score improved with 13.1 percentage points and the total group with 13.6 percentage points. The stock 'Safety' improved for both the elected group and the total group with 6.9 percentage points. The declines in 'Social participation', 'Residential environment', 'Housing', 'Education' and 'Arts & culture' are somewhat at odds with what might be expected in times of economic growth.

Ecological stocks

Also here, the group of Elected Municipalities shows a similar pattern as the total group of municipalities, with large improvements over the period 2019-2023 for the stocks of

'energy', 'water' and 'air'. Both groups also show an increase in 'soil'. However, the change is bigger for the elected municipalities. The stock 'Nature & landscape' stays similar for both groups.

Economic stocks

Elected Municipalities improved practically as much as the total group of municipalities. The biggest improvement is found in 'labor' while 'spatial location conditions' shows a decline.

4 Elected Municipalities showing largest improvement or reduction in sustainability score in 2019-2023 depending on city typology

In this chapter, a closer examination of the improvements or reductions in total sustainability score of individual Elected Municipalities will be discussed. The assessment will be presented for each of the 14 types of municipalities that are discerned in the Framework for the BNG Bank Sustainability Bond of 2019: agricultural-, center-, 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 in each type of municipalities will be presented as described in the framework document. The scores for 2019 have in this assessment been corrected for additional indicators used in 2023 to make them comparable with the 2019 data. The results are therefore sometimes differing from those given in the 2019 Framework document.

4.1 Elected agricultural municipalities

Table 4.1 presents the 15 best-in-class municipalities of the agricultural type, their reconstructed 2019 scores and the 2023 scores for total sustainability. Raalte improved the most in the period 2019-2023. Overall, the score of the group of elected agricultural municipalities improved 2.8 percentage point since 2019.

Table 4.1 Improvements and reductions in total sustainability scores of elected agricultural municipalities over 2019-2023

Agricultural municipality	Sustainability score 2019	Sustainability score 2023	Difference
Raalte	50.8	54.4	3.6
Dalfsen	52.0	55.4	3.4
Tynaarlo	51.7	55.0	3.3
Lochem	52.3	55.5	3.2
Staphorst	52.3	55.3	3.0
Wijk bij Duurstede	51.0	53.9	2.9
Dinkelland	52.6	55.5	2.9
Winterswijk	50.4	53.2	2.8
Voorst	51.0	53.7	2.7
Eemnes	47.9	50.5	2.6
Hof van Twente	51.2	53.7	2.5
Midden-Delfland	51.5	53.9	2.4
Bunnik	51.9	54.3	2.4
Kampen	51.1	53.1	2.0
Oost Gelre	52.0	53.9	1.9
Average	51.3	54.1	2.8

4.2 Elected center municipalities

As table 4.2 shows, all municipalities improved their score last year. Utrecht improved the most (3.6 percentage point), followed by Leiden and Ede.

Table 4.2 Improvements in total sustainability scores of elected center municipalities over 2019-2023

Center municipality	Sustainability score 2018	Sustainability score 2023	Difference
Utrecht (gemeente)	50.9	54.5	3.6
Leiden	48.4	51.8	3.4
Ede	51.0	54.1	3.1
Zwolle	50.8	53.8	3.0
Castricum	50.4	53.4	3.0
Hilversum	48.6	51.4	2.8
Haarlem	47.9	50.6	2.7
Nijmegen	52.1	54.6	2.5
Apeldoorn	51.9	54.4	2.5
Groningen (gemeente)	49.8	51.9	2.1
Deventer	50.7	52.6	1.9
Delft	50.3	52.1	1.8
Huizen	50.2	51.9	1.7
Amsterdam	47.3	48.7	1.4
Gooise Meren	49.3	50.2	0.9
Average	50.0	52.4	2.4

4.3 Elected green municipalities

Elected green municipalities on average improved with 2.4 percentage points. Zero municipalities show a decrease in their sustainability score between 2019-2023, as shown in Table 4.3. Leusden improved most with 4.9 percentage points.

Table 4.3 Improvements and reductions in total sustainability scores of elected green municipalities over 2019-2023

Green municipality	Sustainability score 2019	Sustainability score 2023	Difference
Leusden	52.1	57.0	4.9
Hellendoorn	49.6	53.9	4.3
Soest	49.5	53.5	4.0
Bloemendaal	51.6	55.2	3.6
Hilversum	48.6	51.4	2.8
Heeze-Leende	51.6	54.3	2.7
Waalre	51.1	53.4	2.3
Nunspeet	50.8	53.1	2.3
Heerde	51.3	53.1	1.8
Ameland	51.3	52.9	1.6

Vlieland	53.9	55.5	1.6
Ermelo	51.9	53.5	1.6
Mook en Middelaar	52.7	54.0	1.3
Rozendaal	50.9	52.0	1.1
Schiermonnikoog	51.1	51.0	-0.1
Average	51.2	53.6	2.4

4.4 Elected growth municipalities

The elected growth municipalities showed an improvement of 2.5 percentage points over the last two years. The highest improvement was found for Leusden, followed by Bloemendaal and Dalfsen.

Table 4.4 Improvements and reductions in total sustainability scores of elected growth municipalities over 2019-2023

Growth municipality	Sustainability score 2019	Sustainability score 2023	Difference
Leusden	52.1	57.0	4.9
Bloemendaal	51.6	55.2	3.6
Dalfsen	52.0	55.4	3.4
Houten	51.8	54.9	3.1
Zwolle	50.8	53.8	3.0
Heeze-Leende	51.6	54.3	2.7
Voorschoten	50.9	53.5	2.6
Nijmegen	52.1	54.6	2.5
Midden-Delfland	51.5	53.9	2.4
Bunnik	51.9	54.3	2.4
Delft	50.3	52.1	1.8
Wageningen	54.0	55.8	1.8
Ameland	51.3	52.9	1.6
Rozendaal	50.9	52.0	1.1
Urk	51.9	52.3	0.4
Average	51.6	54.1	2.5

4.5 Elected historic municipalities

Rheden, Utrecht and Leiden showed the largest improvement in their score over the last two years, with improvements of at least 3 percentage points. one municipality has decreased its sustainability score since 2019. The average score improved last year with 2.1 percentage points, as presented in Table 4.5.

Table 4.5 Improvements and reductions in total sustainability scores of elected historic municipalities over 2019-2023

Historic municipality	Sustainability score 2019	Sustainability score 2023	Difference
Rheden	48.5	53.7	5.2
Utrecht (gemeente)	50.9	54.5	3.6
Leiden	48.4	51.8	3.4
Staphorst	52.3	55.3	3.0
Hilversum	48.6	51.4	2.8
Molenlanden	50.3	52.8	2.5
Kampen	51.1	53.1	2.0
Bronckhorst	53.5	55.5	2.0
Delft	50.3	52.1	1.8
Ameland	51.3	52.9	1.6
Vlieland	53.9	55.5	1.6
Amsterdam	47.3	48.7	1.4
Eijsden-Margraten	49.8	50.8	1.0
Waterland	49.7	49.8	0.1
Schiermonnikoog	51.1	51.0	-0.1
Average	50.5	52.6	2.1

4.6 Elected mid-sized municipalities

Table 4.6 shows that mid-sized municipalities improved their sustainability score on average with 2.7 percentage points over the last two years. Heerenveen, Gouda and Westerkwartier improved their score most.

Table 4.6 Improvements and reductions in total sustainability scores of elected mid-sized municipalities over 2019-2023

Mid-sized municipality	Sustainability score 2019	Sustainability score 2023	Difference
Heerenveen	49.6	53.5	3.9
Gouda	47.2	51.1	3.9
Westerkwartier	48.8	52.6	3.8
Woerden	49.2	52.8	3.6
Assen	49.4	52.5	3.1
Barneveld	51.0	54.1	3.1
Hilversum	48.6	51.4	2.8
Katwijk	50.9	53.7	2.8
Krimpenerwaard	49.2	51.7	2.5
Stichtse Vecht	46.9	49.3	2.4
Doetinchem	48.7	50.8	2.1
Kampen	51.1	53.1	2.0
Deventer	50.7	52.6	1.9

Amstelveen	51.0	52.1	1.1
Gooise Meren	49.3	50.2	0.9
Average	49.4	52.1	2.7

4.7 Elected New Town municipalities

Elected New Town municipalities improved on average their score with 2.8 percentage points (see table 4.7). Amersfoort and Tubbergen both improved their score the most with 4.3 and 3.9 percentage points respectively.

Table 4.7 Improvements and reductions in total sustainability scores of elected New Town municipalities over 2019-2023

New Town municipality	Sustainability score 2019	Sustainability score 2023	Difference
Amersfoort	49.0	53.3	4.3
Tubbergen	48.8	52.7	3.9
Overbetuwe	47.0	50.3	3.3
Culemborg	49.7	52.9	3.2
Aalsmeer	49.3	52.5	3.2
Houten	51.8	54.9	3.1
IJsselstein	49.3	52.3	3.0
Woudenberg	51.4	54.3	2.9
Zeewolde	50.0	52.8	2.8
Nijkerk	50.5	53.2	2.7
Harderwijk	50.3	53.0	2.7
Eemnes	47.9	50.5	2.6
Midden-Delfland	51.5	53.9	2.4
Heumen	50.5	52.1	1.6
Urk	51.9	52.3	0.4
Average	49.9	52.7	2.8

4.8 Elected old industrial municipalities

Elected old industrial municipalities scored on average 3.2 percentage points higher over the reporting period, as shown in Table 4.8. Oisterwijk improved the most with 4.6 percentage points, followed by Wierden.

Table 4.8 Improvements and reductions in total sustainability scores of elected old industrial municipalities over 2019-2023

Old industrial municipality	Sustainability score 2019	Sustainability score 2023	Difference
Oisterwijk	48.7	53.3	4.6
Wierden	49.7	54.2	4.5
Oldenzaal	50.5	54.8	4.3
Hellendoorn	49.6	53.9	4.3
Losser	50.2	53.7	3.5
Haaksbergen	50.6	54.1	3.5
Rijssen-Holten	51.2	54.6	3.4
Culemborg	49.7	52.9	3.2
Best	49.4	52.3	2.9
Bladel	50.9	53.6	2.7
Bergeijk	51.0	53.6	2.6
Hatter	49.9	52.5	2.6
Borne	48.3	50.9	2.6
Waalre	51.1	53.4	2.3
Putten	50.0	51.4	1.4
Average	50.1	53.3	3.2

4.9 Elected residential municipalities

Residential municipalities on average improved its score with 1.8 percentage points since 2019, as can be seen in Table 4.9. Bloemendaal, Castricum, Wijk bij Duurstede, Voorschoten and Borne all increased their score with more than 2.5 percentage points over the past two years.

Table 4.9 Improvements and reductions in total sustainability scores of elected old industrial municipalities over 2019-2023

Residential municipality	Sustainability score 2019	Sustainability score 2023	Difference
Bloemendaal	51.6	55.2	3.6
Castricum	50.4	53.4	3.0
Wijk bij Duurstede	51.0	53.9	2.9
Voorschoten	50.9	53.5	2.6
Borne	48.3	50.9	2.6
Waalre	51.1	53.4	2.3
Reusel-De Mierden	51.6	53.5	1.9
Hendrik-Ido-Ambacht	49.9	51.6	1.7
Heumen	50.5	52.1	1.6
Mook en Middelaar	52.7	54.0	1.3
Rozendaal	50.9	52.0	1.1
Sint-Michielsgestel	49.7	50.8	1.1
Eijsden-Margraten	49.8	50.8	1.0

Landsmeer	46.9	47.7	0.8
Waterland	49.7	49.8	0.1
Average	50.3	52.2	1.8

4.10 Elected shrink municipalities

As far as elected shrink municipalities are concerned, it can be noticed that they improved 2.0 percentage points on average the last two years (see Table 4.10). Brummen improved the most with 3.7 percentage points, and zero municipalities show an overall decrease in sustainability score since 2019.

Table 4.10 Improvements and reductions in total sustainability scores of elected shrink municipalities over 2019-2023

Shrink municipality	Sustainability score 2019	Sustainability score 2023	Difference
Brummen	50.8	54.5	3.7
Beekdaelen	46.5	49.2	2.7
Leudal	47.8	50.4	2.6
Valkenburg aan de Geul	48.1	50.5	2.4
Berkelland	50.9	53.2	2.3
Bergen (NH.)	48.9	51.0	2.1
Gulpen-Wittem	46.6	48.7	2.1
Bronckhorst	53.5	55.5	2.0
Meerssen	48.3	50.2	1.9
Stein (L.)	46.6	48.3	1.7
Voerendaal	47.0	48.7	1.7
Laren (NH.)	48.1	49.6	1.5
Mook en Middelaar	52.7	54.0	1.3
Westervoort	45.8	47.1	1.3
Roerdalen	46.5	47.8	1.3
Average	48.5	50.6	2.0

4.11 Elected small municipalities

The group of small municipalities has improved its score over the period 2019-2023 by 2.1 percentage points, as shown in Table 4.11. Leusden leads this group by improving 4.9 percentage points, followed by Bloemendaal and Dalfsen.

Table 4.11 Improvements and reductions in total sustainability scores of elected old industrial municipalities over 2019-2023

Small municipality	Sustainability score 2019	Sustainability score 2023	Difference
Leusden	52.1	57.0	4.9
Bloemendaal	51.6	55.2	3.6
Dalfsen	52.0	55.4	3.4
Tynaarlo	51.7	55.0	3.3
Houten	51.8	54.9	3.1
Midden-Delfland	51.5	53.9	2.4
Bunnik	51.9	54.3	2.4
Wageningen	54.0	55.8	1.8
Ameland	51.3	52.9	1.6
Heumen	50.5	52.1	1.6
Mook en Middelaar	52.7	54.0	1.3
Noordenveld	52.2	53.4	1.2
Rozendaal	50.9	52.0	1.1
Urk	51.9	52.3	0.4
Schiermonnikoog	51.1	51.0	-0.1
Average	51.8	53.9	2.1

4.12 Elected tourist municipalities

The sustainability score of the elected tourist type of municipalities has improved on average 1.8 percentage points (see Table 4.12). The biggest improvement came from Leiden, followed by Steenwijkerland. One municipality shows a decrease in their sustainability score since 2019.

Table 4.12 Improvements and reductions in total sustainability scores of elected tourist municipalities over 2019-2023

Tourist municipality	Sustainability score 2019	Sustainability score 2023	Difference
Leiden	48.4	51.8	3.4
Steenwijkerland	49.8	53.0	3.2
Bergeijk	51.0	53.6	2.6
Westerveld	48.5	51.1	2.6
Hilvarenbeek	51.5	53.9	2.4
Terschelling	51.0	53.2	2.2
Bergen (NH.)	48.9	51.0	2.1
Groningen (gemeente)	49.8	51.9	2.1
Ameland	51.3	52.9	1.6
Vlieland	53.9	55.5	1.6
Amsterdam	47.3	48.7	1.4
Mook en Middelaar	52.7	54.0	1.3
Eijsden-Margraten	49.8	50.8	1.0

Waterland	49.7	49.8	0.1
Schiermonnikoog	51.1	51.0	-0.1
Average	50.3	52.1	1.8

4.13 Elected work municipalities

Elected work municipalities improved on average with 2.6 percentage points over the period 2019-2023, as illustrated in table 4.13. Oldenzaal improved the most with 4.3 percentage points, followed by Utrecht and Woerden.

Table 4.13 Improvements and reductions in total sustainability scores of elected work municipalities over 2019-2023

Work municipality	Sustainability score 2019	Sustainability score 2023	Difference
Oldenzaal	50.5	54.8	4.3
Utrecht	50.9	54.5	3.6
Woerden	49.2	52.8	3.6
Leiden	48.4	51.8	3.4
Rijssen-Holten	51.2	54.6	3.4
Zwolle	50.8	53.8	3.0
Hilversum	48.6	51.4	2.8
Nijmegen	52.1	54.6	2.5
Nunspeet	50.8	53.1	2.3
Groningen	49.8	51.9	2.1
Deventer	50.7	52.6	1.9
Oost Gelre	52.0	53.9	1.9
Delft	50.3	52.1	1.8
Ouder-Amstel	47.8	49.3	1.5
Amsterdam	47.3	48.7	1.4
Average	50.0	52.7	2.6

4.14 Elected 100,000plus municipalities

The, for Dutch dimensions, relatively large elected 100,000plus cities, on average improved their score with 2.6 percentage point. Amersfoort improved most, followed by Utrecht and Leiden.

Table 4.14 Improvements and reductions in total sustainability scores of elected 100,000plus over 2019-2023

100,000plus municipality	Sustainability score 2019	Sustainability score 2023	Difference
Amersfoort	49.0	53.3	4.3
Utrecht	50.9	54.5	3.6
Leiden	48.4	51.8	3.4
Ede	51.0	54.1	3.1
Zwolle	50.8	53.8	3.0
Eindhoven	49.6	52.6	3.0
Haarlem	47.9	50.6	2.7
's-Hertogenbosch	48.2	50.9	2.7
Nijmegen	52.1	54.6	2.5
Apeldoorn	51.9	54.4	2.5
Arnhem	49.3	51.5	2.2
Groningen	49.8	51.9	2.1
Delft	50.3	52.1	1.8
Amsterdam	47.3	48.7	1.4
Almere	48.1	49.4	1.3
Average	49.6	52.3	2.6

4.15 Summary of score changes of Elected Municipalities and their typology

Table 4.15 gives an overview of the average performance of the 14 groups of municipalities. The largest improvement in percentage points was found in former industrial municipalities. Highest sustainability scores were measured in growth municipalities (54.1 percentage points) and lowest in shrink municipalities (50.6 percentage points).

Table 4.15 Changes in total sustainability scores of 14 types of elected municipalities over 2019-2023

Type of municipality	Sustainability score 2019	Sustainability score 2023	Difference
Small municipalities	51.8	53.9	2.1
Mid-sized municipalities	49.4	52.1	2.7
100.000plus municipality	49.6	52.3	2.6
Agricultural municipality	51.3	54.1	2.8
Center municipality	50.0	52.4	2.4
Former industrial municipality	50.1	53.3	3.2
Green municipality	51.2	53.6	2.4
Growth municipalities	51.6	54.1	2.5
Historic municipalities	50.5	52.6	2.1
New Town municipality	49.9	52.7	2.8
Residential municipalities	50.3	52.2	1.8
Shrink municipality	48.5	50.6	2.0
Touristic municipalities	50.3	52.1	1.8
Work municipality	50.0	52.7	2.6

5 Overall outcome for Elected Municipalities including their CO2-emission scores in 2019–2023

This chapter presents a final overview of the performance of the Elected Municipalities, independent from their typology.

The green bonds were started by the World Bank to help promote the transition to a low carbon economy, in order to slow down further climate change. Considering this background, this chapter includes a description of the performance of the Elected Municipalities in relation to CO2-emissions. Although they are included as indicator in the ecological capital, this aspect will be highlighted as an element of special interest, being often the key factor for green bond and sustainability bond investors.

5.1 General outcome of improving and regressing Elected Municipalities

Among Elected Municipalities 99% had similar or higher sustainability scores in 2023 compared to 2019 (see also Annex 1).

Tables 5.1 and 5.2 show the elected Municipalities that showed the largest improvement or decrease in their sustainability score over time. The best performing municipality in this respect among Elected Municipalities is Rheden, followed by Leusden, Oisterwijk, Wierden and Hellendoorn.

Table 5.1 Ten Elected Municipalities improving sustainability score most in the period 2019–2023

Elected municipality	Typology	Total score 2019	Total score 2023	Difference
Rheden	Large, Centre, Historic, Tourist, Work	48.5	53.7	5.2
Leusden	Large, Centre, Historic, Tourist, Work	52.1	57	4.9
Oisterwijk	Large, Centre	48.7	53.3	4.6
Wierden	Small, Growth	49.7	54.2	4.5
Hellendoorn	Shrink, Tourist	49.6	53.9	4.3
Oldenzaal	Medium	50.5	54.8	4.3
Amersfoort	Residential	49	53.3	4.3
Soest	Medium	49.5	53.5	4
Tubbergen	Former industrial, Work	48.8	52.7	3.9
Heerenveen	Medium, Centre, Green, Historic, Work	49.6	53.5	3.9

The only reduction in sustainability score among Elected Municipalities was found in Schiermonnikoog.

Table 5.2 Ten Elected Municipalities with largest declining sustainability score in the period 2019-2023

Municipality	Typology	Total score 2019	Total score 2023	Difference
Schiermonnikoog	Small, Green, Growth, Historic, Tourist	51.1	51	-0.1
Waterland	Small, Green, Historic, Tourist	49.7	49.8	0.1
Urk	Tourist	51.9	52.3	0.4
Landsmeer	Small, Green, Growth, Residential	46.9	47.7	0.8
Gooise Meren	Shrink	49.3	50.2	0.9
Eijsden-Margraten	Former industrial	49.8	50.8	1
Sint-Michiëlsgestel	Residential	49.7	50.8	1.1
Amstelveen	Agricultural, Work	51	52.1	1.1
Rozendaal	Small, Green, Residential, Shrink, Tourist	50.9	52	1.1
Noordenveld	Small, Agricultural	52.2	53.4	1.2

5.2 CO₂-emission score performance of Elected Municipalities

Finally, the outcome of the CO₂-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. But also, individual municipalities have similar commitments, e.g., in 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 CO₂-emissions the coming years. New agreements are underway.

Data on CO₂ emissions are available for each municipality via the web-portal of the Dutch Emissions Authority. They calculate the CO₂ emissions every five years, including the most recent two years. At this moment, data are available for 1990-2015 in a five-year interval, supplemented with the two most recent years in their database (2019 and 2020). In this impact report, the reduction over the two most recent years has been used.

A closer look at the CO₂ reductions shows that the group of Elected Municipalities realized a reduction in CO₂ emissions over the last two years; the CO₂ emissions decreased with 13.1%. The outcome of this analysis is shown in table 5.3.

Table 5.3 CO2 reductions in different time periods of the Elected Municipalities and the total group of municipalities

Considered group of municipalities	1990-2019	2019-2020	2019-2020
Elected (114)	-34,5%	-33,3%	-13,1%
Others	4,7%	-13,5%	-4,6%
Total (352)	-5,3%	-17,8%	-6,2%

The highest reduction was found in Amsterdam, followed by Leiden, Haarlem and Wageningen. Table 5.4 shows that Ameland, Schiermonnikoog, Hilvarenbeek and Rozendaal noted the largest increase in CO2 emissions. CO2 emission changes for all municipalities over the last year are given in Annex 2.

Table 5.4 Ten Elected Municipalities with most and least reduction in CO2-emissions over the last year (equals measuring years 2018-2019)

Elected municipality	Emission change over measuring years 2018-2019	Elected municipality	Emission change over measuring years 2018-2019
Amsterdam	-35.9	Ameland	18.9
Leiden	-18.0	Schiermonnikoog	18.8
Haarlem	-17.2	Hilvarenbeek	10.0
Wageningen	-15.7	Rozendaal	6.7
Bergen (NH.)	-15.4	Westervoort	4.0
Assen	-15.2	Hattem	3.2
Landsmeer	-15.2	Reusel-De Mierden	3.0
Amstelveen	-14.7	Oost Gelre	2.6
Rijssen-Holten	-14.3	Mook en Middelaar	2.6
Hilversum	-14.3	Tynaarlo	2.0

6 SDGs scores

In the 2018 framework report, a method was introduced to measure the achievement of the 2015 UN Sustainable Development Goals (SDGs). Showing the impacts of societal activities in terms of their contribution to the SDGs, is recently becoming a must for many organizations and particularly for banks and pension funds. These have been active since 2015 to develop a so-called 'taxonomy on Sustainable Development Investments (SDIs)' that translates the SDGs into investable opportunities from the perspective of Asset Owners⁵.

An elaborated description of the methodology used to calculate the SDG scores can be found in the Method report 2023⁶. In essence it is based on aggregating elements of the sustainability scores in a way consistent with the definitions of the SDGs.

6.1 Progress of the elected municipalities towards the SDGs

Comparison over the years 2019 and 2023, as shown in table 6.1, makes clear that the performance of twelve goals improved slightly or substantially (Goals 1, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14 and 16), but other showed a small decrease or stayed the same (Goals 2, 11 and 15).

In general, table 6.1 shows that the municipalities improved their performance between 2019 and 2023 for 12 of the 15 goals measured

⁵ https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance_en

⁶ www.hetpon-telos.nl/methodreport2023

Table 6.1 SDG scores for elected (n=114) and all (n=342) municipalities 2019-2023

SDG	All municipalities (n=342)						Elected municipalities (n=114)					
	2019	2020	2021	2022	2023	Difference 2019-2023	2019	2020	2021	2022	2023	Difference 2019-2023
1. No Poverty	38.91	42.27	44.96	48.72	51.81	12.9	42.75	46.19	49.09	52.35	55.40	12.6
2. Zero Hunger	46.66	44.48	44.45	44.43	44.33	-2.3	47.98	45.53	45.48	45.49	45.35	-2.6
3. Good Health and Well-being	45.55	45.92	47.06	46.96	46.71	1.2	48.62	48.69	49.60	49.57	49.33	0.7
4. Quality Education	50.88	50.57	52.87	51.87	51.14	0.3	53.60	53.37	55.65	54.70	53.85	0.2
5. Gender Equality	55.75	56.86	57.69	59.08	59.81	4.1	56.68	57.62	58.51	59.24	60.57	3.9
6. Clean Water and Sanitation												
7. Affordable and Clean Energy	40.18	45.55	47.82	49.55	48.12	7.9	40.77	46.11	48.36	50.07	48.69	7.9
8. Decent Work and Economic Growth	49.93	51.29	52.05	51.17	51.99	2.1	51.02	52.68	53.49	52.36	52.90	1.9
9. Industry, Innovation and Infrastructure	41.00	41.92	44.52	44.93	45.85	4.8	43.14	44.19	46.79	46.96	47.77	4.6
10. Reduced Inequalities	52.28	51.87	52.04	51.95	52.95	0.7	53.04	52.42	52.56	52.39	53.30	0.3
11. Sustainable Cities and Communities	49.46	50.73	49.39	49.12	47.54	-1.9	51.05	52.67	51.34	51.10	49.46	-1.6
12. Responsible Consumption and Production	59.16	59.77	60.58	60.02	61.07	1.9	60.58	61.51	62.35	61.50	62.46	1.9
13. Climate Action	46.39	46.76	48.04	48.20	47.61	1.2	47.87	48.26	49.59	49.77	49.23	1.4
14. Life below Water	37.28	37.24	38.66	41.53	39.02	1.7	39.59	39.32	41.26	44.12	41.67	2.1
15. Life on Land	45.49	45.49	45.49	45.49	45.49	0.0	49.62	49.62	49.62	49.62	49.62	0.0
16. Peace, Justice and Strong Institutions	44.74	48.58	48.37	50.20	51.17	6.4	47.32	51.26	51.73	53.56	54.29	7.0
17. Partnerships for the Goals												

As shown in table 6.1, 2 of the 17 SDGs could not be measured because of lack of data, or because they are not relevant for municipalities. These are nr. 6 (Clean water and sanitation) and nr.17 (Partnerships for the Goals).

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

The performance of the group of elected municipalities deviates for some goals from the total group of municipalities. The total group outperforms the elected group on 8 out of the 16 measured goals, but the differences become smaller.

On 4 of the 16 goals the elected group of municipalities showed a greater improvement or a smaller decline in scores than the total group. For example, the elected group of municipalities showed an increase of 2.1 percentage points on goal 14 (Life below water), while the total group showed an increase of 1.7 percentage points on the same goal.

More information about the method of analyses on the SDGs can be found in the 2023 Method report for municipalities⁷.

⁷ www.hetpon-telos.nl/methodreport2023

7 Discussion and overview of outcome of assessment period 2019–2023

The end result shows that The Elected Municipalities continued to outperform the total group of municipalities with 2.2 percentage points (52.6 vs 50.4), as listed in table 1. Both groups of municipalities show an improvement of the overall score with 2.5 and 2.6 percentage points. Largest improvements occurred this year for the economic capital (3.7/3.4 percentage points) while those for the socio-cultural capital and ecological capital were smaller (2.3/2.4 and 1.9/1.6 percentage points).

A closer look at the CO2 reductions shows that the group of Elected Municipalities realized a reduction in CO2 emissions over the last two years; the CO2 emissions decreased with 13.1%.

Scores of municipalities are rather dynamic from year to year, although major differences and advantages among municipalities are of a structural nature. In the reporting period Elected Municipalities Rheden, Leusden, Oisterwijk, Wierden and Hellendoorn were able to improve their total sustainability score most with at least 4.0 percentage points. Schiermonnikoog was the only municipality that showed a small reduction in sustainability score among Elected Municipalities.

Comparison over the years 2019 and 2023, as shown in table 6.1, makes clear that the performance of twelve goals improved slightly or substantially (Goals 1, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14 and 16), but others showed a small decline or stayed the same (Goals 2, 11 and 15). The performance of the group of elected municipalities deviates for some goals from the total group of municipalities. The total group outperforms the elected group on 8 out of the 16 measured goals, but the differences become smaller. On 4 of the 16 goals the elected group of municipalities showed a greater improvement or a smaller decline in scores than the total group

It is not always the best scoring municipality in a certain class that shows the biggest improvement of its score in the next year. The advantage of a high score on sustainability may turn into a (temporary) disadvantage under certain circumstances. Yet, the differences in position on a scoring list and the magnitude of improvement or decrease 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 new challenges. Impact reporting of Sustainability Bonds stimulates elected and other municipalities to invest proceeds from the bonds and other resources in most effective operational and innovative structural activities to improve sustainability.

Annex A: Overview of the differences in total sustainability scores in 2019 and 2023 for all 114 Elected Municipalities

Municipality	Total sustainability score 2019	Total sustainability score 2023	Difference 2019-2023
Rheden	48.5	53.7	5.2
Leusden	52.1	57	4.9
Oisterwijk	48.7	53.3	4.6
Wierden	49.7	54.2	4.5
Hellendoorn	49.6	53.9	4.3
Oldenzaal	50.5	54.8	4.3
Amersfoort	49	53.3	4.3
Soest	49.5	53.5	4
Tubbergen	48.8	52.7	3.9
Heerenveen	49.6	53.5	3.9
Gouda	47.2	51.1	3.9
Westerkwartier	48.8	52.6	3.8
Brummen	50.8	54.5	3.7
Raalte	50.8	54.4	3.6
Utrecht (gemeente)	50.9	54.5	3.6
Bloemendaal	51.6	55.2	3.6
Woerden	49.2	52.8	3.6
Haaksbergen	50.6	54.1	3.5
Losser	50.2	53.7	3.5
Dalfsen	52	55.4	3.4
Leiden	48.4	51.8	3.4
Rijssen-Holten	51.2	54.6	3.4
Tynaarlo	51.7	55	3.3
Overbetuwe	47	50.3	3.3
Lochem	52.3	55.5	3.2
Aalsmeer	49.3	52.5	3.2
Steenwijkerland	49.8	53	3.2
Culemborg	49.7	52.9	3.2
Assen	49.4	52.5	3.1
Barneveld	51	54.1	3.1
Ede	51	54.1	3.1
Houten	51.8	54.9	3.1
Staphorst	52.3	55.3	3
Zwolle	50.8	53.8	3
IJsselstein	49.3	52.3	3
Castricum	50.4	53.4	3
Eindhoven	49.6	52.6	3

Woudenberg	51.4	54.3	2.9
Wijk bij Duurstede	51	53.9	2.9
Best	49.4	52.3	2.9
Dinkelland	52.6	55.5	2.9
Winterswijk	50.4	53.2	2.8
Katwijk	50.9	53.7	2.8
Zeewolde	50	52.8	2.8
Hilversum	48.6	51.4	2.8
Harderwijk	50.3	53	2.7
Nijkerk	50.5	53.2	2.7
Voorst	51	53.7	2.7
Haarlem	47.9	50.6	2.7
Bladel	50.9	53.6	2.7
Beekdaelen	46.5	49.2	2.7
's-Hertogenbosch	48.2	50.9	2.7
Heeze-Leende	51.6	54.3	2.7
Borne	48.3	50.9	2.6
Hatterum	49.9	52.5	2.6
Eemnes	47.9	50.5	2.6
Voorschoten	50.9	53.5	2.6
Leudal	47.8	50.4	2.6
Westerveld	48.5	51.1	2.6
Bergeijk	51	53.6	2.6
Apeldoorn	51.9	54.4	2.5
Nijmegen	52.1	54.6	2.5
Hof van Twente	51.2	53.7	2.5
Krimpenerwaard	49.2	51.7	2.5
Molenlanden	50.3	52.8	2.5
Bunnik	51.9	54.3	2.4
Hilvarenbeek	51.5	53.9	2.4
Valkenburg aan de Geul	48.1	50.5	2.4
Midden-Delfland	51.5	53.9	2.4
Stichtse Vecht	46.9	49.3	2.4
Nunspeet	50.8	53.1	2.3
Berkelland	50.9	53.2	2.3
Waalre	51.1	53.4	2.3
Terschelling	51	53.2	2.2
Arnhem	49.3	51.5	2.2
Groningen (gemeente)	49.8	51.9	2.1
Bergen (NH.)	48.9	51	2.1
Gulpen-Wittem	46.6	48.7	2.1
Doetinchem	48.7	50.8	2.1
Kampen	51.1	53.1	2

Bronckhorst	53.5	55.5	2
Meerssen	48.3	50.2	1.9
Deventer	50.7	52.6	1.9
Oost Gelre	52	53.9	1.9
Reusel-De Mierden	51.6	53.5	1.9
Heerde	51.3	53.1	1.8
Delft	50.3	52.1	1.8
Wageningen	54	55.8	1.8
Hendrik-Ido-Ambacht	49.9	51.6	1.7
Voerendaal	47	48.7	1.7
Huizen	50.2	51.9	1.7
Stein (L.)	46.6	48.3	1.7
Ameland	51.3	52.9	1.6
Vlieland	53.9	55.5	1.6
Ermelo	51.9	53.5	1.6
Heumen	50.5	52.1	1.6
Laren (NH.)	48.1	49.6	1.5
Ouder-Amstel	47.8	49.3	1.5
Amsterdam	47.3	48.7	1.4
Putten	50	51.4	1.4
Westervoort	45.8	47.1	1.3
Almere	48.1	49.4	1.3
Mook en Middelaar	52.7	54	1.3
Roerdalen	46.5	47.8	1.3
Noordenveld	52.2	53.4	1.2
Rozendaal	50.9	52	1.1
Amstelveen	51	52.1	1.1
Sint-Michielsgestel	49.7	50.8	1.1
Eijsden-Margraten	49.8	50.8	1
Gooise Meren	49.3	50.2	0.9
Landsmeer	46.9	47.7	0.8
Urk	51.9	52.3	0.4
Waterland	49.7	49.8	0.1
Schiermonnikoog	51.1	51	-0.1

Annex B: Overview of the changes in CO2-emissions in 2019-2020 for all Elected Municipalities

Elected municipality	Typology	% Difference 2019-2020
Amsterdam	Large. Centre. Historic. Tourist. Work	-35.9
Leiden	Large. Centre. Historic. Tourist. Work	-18.0
Haarlem	Large. Centre	-17.2
Wageningen	Small. Growth	-15.7
Bergen (NH.)	Shrink. Tourist	-15.4
Assen	Medium	-15.2
Landsmeer	Residential	-15.2
Amstelveen	Medium	-14.7
Rijssen-Holtén	Former industrial. Work	-14.3
Hilversum	Medium. Centre. Green. Historic. Work	-14.3
Nijmegen	Large. Centre. Growth. Work	-13.2
Soest	Green	-12.3
Woerden	Medium. Work	-12.2
Deventer	Medium. Centre. Work	-12.1
Bergeijk	Former industrial. Tourist	-11.5
Putten	Former industrial	-11.4
Voorschoten	Growth. Residential	-11.2
Gouda	Medium	-11.1
Groningen (gemeente)	Large. Centre. Tourist. Work	-10.9
Amersfoort	Large. New town	-10.5
Katwijk	Medium	-10.1
Valkenburg aan de Geul	Shrink	-9.9
Woudenberg	New town	-9.7
Harderwijk	New town	-9.6
Huizen	Centre	-9.5
Winterswijk	Agricultural	-9.4
Ouder-Amstel	Work	-9.2
Oldenzaal	Former industrial. Work	-9.1
Aalsmeer	New town	-9.0
Wijk bij Duurstede	Agricultural. Residential	-8.8
Zwolle	Large. Centre. Growth. Work	-8.8
IJsselstein	New town	-8.7
Eindhoven	Large	-8.4
Arnhem	Large	-8.3
Castricum	Centre. Residential	-8.3
Leusden	Small. Green. Growth	-7.9
Ede	Large. Centre	-7.6

Heerenveen	Medium	-7.4
Apeldoorn	Large. Centre	-7.3
Barneveld	Medium	-7.3
Stichtse Vecht	Medium	-7.2
Almere	Large	-7.2
Delft	Large. Centre. Growth. Historic. Work	-7.0
Culemborg	Former industrial. New town	-6.9
Nunspeet	Green. Work	-6.6
Voerendaal	Shrink	-6.1
Waterland	Historic. Residential. Tourist	-5.9
Meerssen	Shrink	-5.9
Hellendoorn	Former industrial. Green	-5.9
Dinkelland	Agricultural	-5.7
Stein (L.)	Shrink	-5.7
Ermelo	Green	-5.6
Eijsden-Margraten	Historic. Residential. Tourist	-5.0
Rheden	Historic	-5.0
Eemnes	Agricultural. New town	-4.9
Roerdalen	Shrink	-4.9
Molenlanden	Historic	-4.9
Heeze-Leende	Green. Growth	-4.7
's-Hertogenbosch	Large	-4.6
Leudal	Shrink	-4.5
Terschelling	Tourist	-4.4
Waalre	Former industrial. Green. Residential	-4.4
Westerkwartier	Medium	-4.4
Gulpen-Wittem	Shrink	-4.3
Tubbergen	New town	-4.1
Best	Former industrial	-4.1
Bladel	Former industrial	-4.1
Kampen	Medium. Agricultural. Historic	-3.9
Oisterwijk	Former industrial	-3.8
Urk	Small. Growth. New town	-3.8
Losser	Former industrial	-3.7
Bunnik	Small. Agricultural. Growth	-3.6
Hendrik-Ido-Ambacht	Residential	-3.5
Overbetuwe	New town	-3.3
Utrecht (gemeente)	Large. Centre. Historic. Work	-3.2
Bloemendaal	Small. Green. Growth. Residential	-2.9
Doetinchem	Medium	-2.7
Voorst	Agricultural	-2.6
Wierden	Former industrial	-2.5
Laren (NH.)	Shrink	-2.4

Vlieland	Green. Historic. Tourist	-2.4
Beekdaelen	Shrink	-2.1
Nijkerk	New town	-1.6
Heerde	Green	-1.5
Heumen	Small. New town. Residential	-1.4
Staphorst	Agricultural. Historic	-1.4
Hof van Twente	Agricultural	-1.4
Borne	Former industrial. Residential	-1.3
Dalfsen	Small. Agricultural. Growth	-1.3
Steenwijkerland	Tourist	-1.2
Westerveld	Tourist	-1.2
Lochem	Agricultural	-1.1
Gooise Meren	Medium. Centre	-1.1
Midden-Delfland	Small. Agricultural. Growth. New town	-1.0
Houten	Small. Growth. New town	-1.0
Bronckhorst	Historic. Shrink	-0.6
Berkelland	Shrink	-0.5
Raalte	Agricultural	0.0
Sint-Michielsgestel	Residential	0.1
Krimpenerwaard	Medium	0.2
Zeewolde	New town	0.2
Noordenveld	Small	1.6
Haaksbergen	Former industrial	1.9
Brummen	Shrink	2.0
Tynaarlo	Small. Agricultural	2.0
Mook en Middelaar	Small. Green. Residential. Shrink. Tourist	2.6
Oost Gelre	Agricultural. Work	2.6
Reusel-De Mierden	Residential	3.0
Hatterij	Former industrial	3.2
Westervoort	Shrink	4.0
Rozendaal	Small. Green. Growth. Residential	6.7
Hilvarenbeek	Tourist	10.0
Schiermonnikoog	Small. Green. Historic. Tourist	18.8
Ameland	Small. Green. Growth. Historic. Tourist	18.9

(Source: www.emissieregistratie.nl)

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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
- > FONDSSEN
- > BANKEN

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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