4th Performance Report of Elected Dutch Municipalities of BNG Bank Sustainability Bond of November 2020

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Executive summary

On the 24th of November 2020, BNG Bank launched its seventh Sustainability Bond, a new five-year benchmark with a volume of USD 1 billion. The Framework document for the BNG Bank Sustainability Bond 2020 was provided to BNG Bank by Het PON & Telos, 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 2021–2025, 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 111 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 fourth impact report of the 2020 Sustainability Bonds, covering the years 2020-2024.

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 2020-2024, as can be seen in Table 1. Both groups of municipalities show an improvement in the overall score between 2020 and 2024 of 1.7 vs. 1.8 percentage points respectively. 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 (2.9 and 3.1 percentage points), where the total group improved slightly more than the elected group. The socio-cultural capital declined for both groups, by 0.4 vs. 0.3 percentage points.

Table 1 Sustainability scores of 111 elected municipalities and of the total group of 342 Dutch municipalities in 2024 compared to 2020

Sustainability capital	Elected 2020	Total 2020	Elected 2024	Total 2024	Elected: Difference* 2020-2024	Total: Difference* 2020-2024[1]
Total	**48.1**	**45.6**	**51.7**	**49.2**	**3.6**	**3.6**
Socio-cultural	52.9	49.6	53.2	50.0	0.4	0.4
Ecological	44.1	42.3	47.9	45.9	3.8	3.6
Economic	47.3	44.9	54.0	51.8	6.7	6.9

*Percentage points

[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.

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 3.9 percentage points. Only five elected municipalities show a decrease in sustainability score. Reusel-de-Mierden and Midden-Delfland declined most, by 1.4 and 0.9 percentage points respectively.

Zutphen, Wageningen, and Utrecht 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 Schiermonnikoog and Terschelling.

Comparison over the period 2020-2024 shows that the performance of the elected municipalities on most goals improved (SDG 1, 5, 7, 8, 9, 12, 13, 14, 15, and 16). The largest improvements were achieved for SDG 1 No Poverty and SDG 7 Affordable and Clean Energy. Other SDGs show a fallback (SDG 2, 3, 4, 10, and 11), the largest decline can be seen for SDG 3 Good Health and Well-being. 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 13 out of the 15 measured goals.

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1 Introduction

At the request of BNG Bank, Het PON & Telos provided BNG Bank with a framework document[2] describing the sustainability criteria and selection process for the best-in-class Dutch municipalities to be considered for the BNG Bank Sustainability Bond 2020. Het PON & Telos developed this framework based on the National Monitor of Sustainable Municipalities 2020, which was first produced in 2014 on behalf of the Dutch Ministry of Infrastructure and the Environment. On the 24th of November 2020, BNG Bank launched its seventh Sustainability Bond, a new five-year benchmark with a volume of USD 1 billion. The bond has its maturity date on the 24th of November 2025.

During the period 2020-2025, 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 111 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 this bond, based on the annual National Monitor Sustainable Municipalities. This performance report is the fourth impact report of the 2020 Sustainability Bond, covering the years 2020-2024. It describes how performance is assessed and the overall results of the comparison for the years 2020-2024, 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 2021[3]
2	Oktober 2022[4]
3	July 2023[5]

[2] https://www.bngbank.com/-/media/Project/CBB/BNG-Bank-COM/Documents/Sustainability-Framework-2017.PDF?rev=8492231bb1c541c1b2add51dabd121f5
[3] Report can be requested from BNG bank
[4] Ibid
[5] Ibid

2 Description of activities

2.1 Update of database

In order to be able to produce an impact report for 2024 for the municipalities elected for the BNG Bank Sustainable Municipality Bond of 2020, the main activity was to update the data for the sustainability assessment of Dutch municipalities used in the National Monitor Sustainable Municipalities 2020. 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 2020 has identified 14 types of municipalities. These 14 types were used for the framework of the BNG Bank Sustainability Bond of 2020 and form the basis of this performance report.
Indicator values are measured against the sustainability goals, which are described in more detail in the methods report[6]. 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[7], 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 municipal level in 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, the sustainability performance of 111 elected municipalities in 2020 is assessed and discussed. The group of elected municipalities, described in the framework of the BNG Bank Sustainability Bond of October 2020, was selected by identifying the 15 municipalities with the best scores for each of the 14 types of

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

[7] 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

municipalities, such as 'agricultural', 'old industrial', 'shrinking', etc. Originally, 114 municipalities were selected from a total of 355 municipalities in the Netherlands in 2020. Since 2020, the number of municipalities has decreased due to reorganizations within municipalities. In 2024, there are only 342 municipalities left. This also influenced the selection of 114 municipalities for the 2020 bonds as well. The municipalities Grave, Langedijk, and Boxmeer are no longer independent entities. They are therefore no longer included in this performance report. This means that the group of elected municipalities now consists of 111 municipalities.

Furthermore, the number of indicators has been partly expanded due to new opportunities and partly reduced due to a lack of continuous data collection, resulting in 127 indicators now compared to 140 in 2020. Such changes must be taken into account when comparing this fourth Performance Report with previous editions. To ensure a fair comparison across years in this edition, scores for previous years have been recalculated based on the current set of indicators. A description of all the indicators included in the 2024 framework and a description of which indicators have been added, removed or changed since last year can be found in Annex C. The reader is referred to this year's methodology report.[8] For details of the amendments made to 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 2020.
2. A comparison of the sustainability scores of the elected municipalities between 2024 and 2020, 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 CO_2 emissions.
4. An overview of the development of the SDGs for the elected municipalities between 2024 and 2020.

The results of these activities are presented in the following chapters. Finally, the overall changes observed for the 2020–2024 reporting period are discussed.

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

3 Results of the update and comparison of 2020 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 Bond 2020 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 2020 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 2020-2024

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

Over the 2020-2024 period, the average overall sustainability score improved from 47.4 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 3.1 percentage points and the ecological capital improved by 2.7 percentage points. The socio-cultural capital decreased from 50.2 to 50.0, which is the lowest score since 2020. 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 2020

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%)	81 (73.0%)
50,000-100,000	60 (17.5%)	15 (13.5%)
More than 100,000	32 (9.4%)	15 (13.5%)

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 must 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. However, it may not be that simple. The best performing municipalities may not have as much scope for further improvement as lower performing municipalities, which can improve their performance more easily.

Table 3.3 summarises the overall differences between 2020 and 2024 for the total group of Dutch municipalities and the group of elected municipalities. The main finding is that elected municipalities continue 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 between 2020 and 2024 of 1.7 vs. 1.8 percentage points, respectively. The scores of all three underlying capitals developed in a similar way for both groups. This year, the largest improvement occurred for the economic capital (2.9 vs. 3.1 percentage points), where the total group improved slightly more than the elected group. The socio-cultural capital decreased for both groups, by 0.3 vs. 0.2 percentage points.

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

Table 3.3 Sustainability performance score (0-100) of elected municipalities and of the total group of Dutch municipalities in 2020 compared to 2024

Sustainability capital	Elected 2020	Total 2020	Elected 2024	Total 2024	Elected: Difference * 2020-2024	Total: Difference * 2020-2024[9]
Total	**49.9**	**47.4**	**51.6**	**49.2**	**1.7**	**1.8**
Socio-cultural	53.0	50.2	52.7	50.0	-0.4	-0.3
Ecological	45.9	43.2	48.4	45.9	2.6	2.7
Economic	50.8	48.7	53.7	51.8	2.9	3.1

*Percentage points

[9] 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 the differences between the years follow a similar pattern for both groups of municipalities.

Table 3.4 Differences in sustainability performance scores (percentage points) of stocks between 2020 and 2024 for the group of elected municipalities and all Dutch municipalities

Sustainability stock	Difference 2020-2024 of 111 elected municipalities	Difference 2020-2024 of all 342 municipalities
Socio-cultural	-0.4	-0.3
Arts & culture	-1.3	-1.3
Economic participation	8.8	8.8
Education	-1.8	-1.4
Health	-2.8	-3.0
Housing	-3.4	-2.8
Political participation	-4.7	-4.9
Residential environment	0.4	0.2
Safety	3.5	4.1
Social participation	-1.9	-2.0
Ecological	2.6	2.7
Air	1.9	2.0
Annoyance & external safety[10]		
Energy	9.6	9.9
Nature & landscape[11]		
Soil	2.7	2.2
Resources & waste	3.5	4.4
Water	0.3	0.3
Economic	2.9	3.1
Competitiveness	4.7	5.4
Infrastructure & mobility	4.8	4.6
Knowledge	2.5	2.6
Labour	4.6	4.8
Spatial location conditions	-2.1	-1.9

[10] Due to limited availability of data, a comparison in time is not possible for this stock
[11] 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 2020 and 2024, explaining the decrease in capital score. For both groups of municipalities, the largest declines are seen for 'Political participation', 'Health', and 'Housing'. However, not all stocks declined: 'Economic participation' improved very strongly, and 'Safety' and 'Residential environment' also improved. The total group of municipalities improved 0.6 percentage points more for the stock 'Safety' and declined 0.6 percentage points less for the stock 'Housing' than the elected group of municipalities.

Ecological stocks

Again, the group of elected municipalities shows a similar pattern of stock development as the total group of municipalities. The largest improvements over the period 2020-2024 are for the stocks 'Energy' (9.6 vs. 9.9 percentage points) and 'Resources & waste' (3.5 vs. 4.4 percentage points). None of the stocks decreased. The total group of municipalities improved 0.9 percentage points more for the stock 'Resources & waste', while the elected group of municipalities improved 0.5 percentage points more for the stock 'Soil'.

Economic stocks

As with the other stocks, both groups of municipalities show a similar pattern of development between 2020 and 2024 for the economic stocks. Most stocks within this capital show (strong) improvements, with the exception of the stock 'Spatial location conditions'. This is the only stock that decreased, with a decline of 2.1 percentage points for the group of elected municipalities vs. 1.9 percentage points for the total group. The total group of municipalities improved 0.7 percentage points more for the stock 'Competitiveness' than the elected group of municipalities.

4 Elected municipalities with the largest improvement or reduction in sustainability performance score in 2020-2024 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 2020: 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 2020 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 2020 scores, and the 2024 scores for total sustainability. The scores of all these elected agricultural municipalities have improved over time, except for Midden-Delfland (-0.9 percentage points). The municipalities Tynaarlo and Raalte improved the most between 2020 and 2024. Overall, the elected agricultural municipalities improved on average by 1.9 percentage points since 2020.

Table 4.1 Developments in total sustainability performance scores (0-100) of elected agricultural municipalities between 2020 and 2024

Agricultural municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Tynaarlo	51.3	54.7	3.5
Raalte	51.7	54.8	3.1
Hof van Twente	50.0	52.7	2.7
Oost Gelre	52.3	54.6	2.3
Dalfsen	54.2	56.4	2.2
Zwartewaterland	51.4	53.4	2.1
Berkelland	50.1	52.2	2.0
Bunnik	52.1	54.1	1.9
Dinkelland	53.0	54.9	1.9
Wijk bij Duurstede	52.4	54.2	1.8
Tubbergen	49.6	51.1	1.4
Staphorst	54.7	56.1	1.4
Wierden	51.8	52.6	0.7
Midden-Delfland	50.7	49.8	-0.9
Average	51.8	53.7	1.9

* Percentage points

4.2 Elected centre municipalities

As shown in Table 4.2, all elected centre municipalities have improved their total sustainability performance score over the period 2020-2024. The average improvement between 2020 and 2024 for these municipalities is 2.0 percentage points. Deventer shows the largest improvement of 3.1 percentage points.

Table 4.2 Developments in total sustainability performance scores (0-100) of elected centre municipalities between 2020 and 2024

Centre municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Deventer	49.6	52.7	3.1
Apeldoorn	50.4	53.4	3.0
Zwolle	49.6	52.6	2.9
Hilversum	47.3	50.1	2.9
Huizen	47.0	49.6	2.5
Arnhem	48.0	50.2	2.2
Nijmegen	51.8	54.0	2.2
Katwijk	49.1	51.1	2.0
Gouda	47.6	49.3	1.7
Groningen	48.3	50.0	1.7
Delft	50.7	52.3	1.5
Ede	51.7	53.2	1.5
Gooise Meren	46.2	47.8	1.5
Castricum	50.7	51.5	0.8
Utrecht	51.5	52.2	0.7
Average	49.3	51.3	2.0

* Percentage points

4.3 Elected green municipalities

The elected green municipalities improved their sustainability score by 1.6 percentage points on average between 2020 and 2024. As can be seen in Table 4.3, Leusden improved its score most (by 3.4 percentage points). All municipalities in this group managed to improve their sustainability score over the reporting period.

Table 4.3 Developments in total sustainability performance scores (0-100) of elected green municipalities between 2020 and 2024

Green municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Leusden	52.9	56.3	3.4
Terschelling	49.8	52.5	2.6
Elburg	51.6	53.9	2.3
Heeze-Leende	50.9	53.1	2.2
Ommen	52.2	54.3	2.2
Noordwijk	52.7	54.7	2.0
Nunspeet	51.1	53.1	2.0
Waalre	50.7	52.4	1.7
Bloemendaal	52.7	54.1	1.4
Vlieland	53.1	54.2	1.1
Hilvarenbeek	52.0	53.0	1.0
Westerveld	48.5	49.3	0.8
Putten	49.8	50.5	0.7
Mook en Middelaar	51.2	51.8	0.7
Bladel	52.7	52.8	0.1
Average	51.5	53.1	1.6

* Percentage points

4.4 Elected growth municipalities

The elected growth municipalities show an average improvement of 1.5 percentage points over the period 2020-2024, see Table 4.4. The largest improvement was realized by Leusden (3.4 percentage points). Not all municipalities improved their sustainability performance score. Urk and Woudenberg both show a decline of 0.1 percentage points, and Midden-Delfland declined by 0.9 percentage points.

Table 4.4 Developments in total sustainability performance scores (0-100) of elected growth municipalities between 2020 and 2024

Growth municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Leusden	52.9	56.3	3.4
Oegstgeest	51.2	53.8	2.6
Zeewolde	48.3	50.8	2.5
Heeze-Leende	50.9	53.1	2.2
Nijmegen	51.8	54.0	2.2
Noordwijk	52.7	54.7	2.0
Bunnik	52.1	54.1	1.9
Wageningen	54.1	55.9	1.8
Blaricum	49.9	51.5	1.7
Delft	50.7	52.3	1.5
Bloemendaal	52.7	54.1	1.4
Houten	52.1	52.8	0.6
Urk	51.3	51.2	-0.1
Woudenberg	52.9	52.7	-0.1
Midden-Delfland	50.7	49.8	-0.9
Average	51.6	53.1	1.5

* Percentage points

4.5 Elected historic municipalities

The average improvement in the sustainability score of elected historic municipalities was 1.8 percentage points between 2020 and 2024. As can be seen in Table 4.5, all elected historic municipalities improved their scores over these years. The largest improvement was realized by Rheden (3.9 percentage points), followed by Hilversum and Schiermonnikoog (both improved by 2.9 percentage points).

Table 4.5 Developments in total sustainability performance scores (0-100) of elected historic municipalities between 2020 and 2024

Historic municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Rheden	49.3	53.2	3.9
Hilversum	47.3	50.1	2.9
Schiermonnikoog	47.5	50.4	2.9
Zutphen	50.9	53.6	2.7
Arnhem	48.0	50.2	2.2
Molenlanden	48.3	50.1	1.7
Bronckhorst	52.0	53.7	1.7
Kampen	50.5	52.2	1.7
Delft	50.7	52.3	1.5
Staphorst	54.7	56.1	1.4
Leiden	47.7	49.0	1.3
Eijsden-Margraten	49.1	50.4	1.3
Vlieland	53.1	54.2	1.1
Utrecht	51.5	52.2	0.7
Ameland	50.6	50.7	0.1
Average	50.1	51.9	1.8

* Percentage points

4.6 Elected mid-sized municipalities

Table 4.6 shows that elected mid-sized municipalities improved their sustainability performance score on average by 1.8 percentage points between 2020 and 2024. None of the municipalities in this group show a decline in sustainability performance score. Heerenveen improved most in the reporting period (3.1 percentage points), followed by Hilversum (2.8 percentage points).

Table 4.6 Developments in total sustainability performance scores (0-100) of elected mid-sized municipalities between 2020 and 2024

Mid-sized municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Heerenveen	47.9	51.0	3.1
Hilversum	47.3	50.1	2.9
Barneveld	49.7	52.0	2.4
Hengelo	48.3	50.7	2.3
Woerden	49.3	51.4	2.1
Katwijk	49.1	51.1	2.0
Westerkwartier	48.8	50.8	2.0
Gouda	47.6	49.3	1.7
Kampen	50.5	52.2	1.7
Pijnacker-Nootdorp	48.7	50.3	1.6
Krimpenerwaard	49.2	50.7	1.6
Gooise Meren	46.2	47.8	1.5
Amstelveen	49.5	50.4	0.9
Houten	52.1	52.8	0.6
Altena	48.2	48.6	0.3
Average	48.8	50.6	1.8

* Percentage points

4.7 Elected New Town municipalities

Elected new town municipalities improved their score on average by 1.5 percentage points over the years 2020-2024 (see Table 4.7). Of these municipalities, Nijkerk improved most, by 3.4 percentage points. Not all municipalities improved their sustainability performance score. Urk and Woudenberg both show a decline of 0.1 percentage points, and Midden-Delfland declined by 0.9 percentage points.

Table 4.7 Developments in total sustainability performance scores (0-100) of elected new town municipalities between 2020 and 2024

New Town municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Nijkerk	49.3	52.7	3.4
Zwolle	49.6	52.6	2.9
Culemborg	49.8	52.6	2.8
Zeewolde	48.3	50.8	2.5
Barneveld	49.7	52.0	2.4
Harderwijk	49.6	52.0	2.4
Pijnacker-Nootdorp	48.7	50.3	1.6
Tubbergen	49.6	51.1	1.4
Heumen	51.8	53.2	1.4
Houten	52.1	52.8	0.6
Best	50.0	50.5	0.5
Urk	51.3	51.2	-0.1
Woudenberg	52.9	52.7	-0.1
Midden-Delfland	50.7	49.8	-0.9
Average	50.2	51.7	1.5

* Percentage points

4.8 Elected old industrial municipalities

Elected old industrial municipalities scored on average 1.4 percentage points higher over the period 2020-2024, as shown in Table 4.8. Oldenzaal has improved the most, followed by Hellendoorn and Culemborg. The scores of all the elected old industrial municipalities have improved over time.

Table 4.8 Developments in total sustainability performance scores (0-100) of elected old industrial municipalities between 2020 and 2024

Old industrial municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Oldenzaal	49.7	52.8	3.1
Hellendoorn	50.6	53.4	2.8
Culemborg	49.8	52.6	2.8
Losser	49.9	52.1	2.2
Valkenswaard	47.9	49.8	1.9
Waalre	50.7	52.4	1.7
Oisterwijk	50.7	52.1	1.4
Rijssen-Holten	51.8	53.0	1.2
Landsmeer	46.6	47.5	0.9
Haaksbergen	51.9	52.7	0.8
Wierden	51.8	52.6	0.7
Putten	49.8	50.5	0.7
Best	50.0	50.5	0.5
Bergeijk	51.9	52.1	0.3
Bladel	52.7	52.8	0.1
Average	50.4	51.8	1.4

* Percentage points

4.9 Elected residential municipalities

As shown in Table 4.9, the average improvement in the sustainability performance score of elected residential municipalities is 1.3 percentage points over the period 2020-2024. Borne improved its score the most in these years, with an improvement of 3.6 percentage points. Two municipalities in this group show a decline: the sustainability performance scores of Meerssen declined by 0.3 percentage points and that of Reusel-de-Mierden by 1.4 percentage points.

Table 4.9 Developments in total sustainability performance scores (0-100) of elected residential municipalities between 2020 and 2024

Residential municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Borne	48.6	52.2	3.6
Voorschoten	51.3	53.8	2.5
Hendrik-Ido-Ambacht	48.4	50.7	2.3
Wijk bij Duurstede	52.4	54.2	1.8
Waalre	50.7	52.4	1.7
Pijnacker-Nootdorp	48.7	50.3	1.6
Voerendaal	47.5	48.9	1.4
Bloemendaal	52.7	54.1	1.4
Eijsden-Margraten	49.1	50.4	1.3
Castricum	50.7	51.5	0.8
Waterland	48.4	49.2	0.8
Mook en Middelaar	51.2	51.8	0.7
Heemskerk	47.1	47.2	0.1
Meerssen	49.4	49.1	-0.3
Reusel-De Mierden	54.3	52.9	-1.4
Average	50.0	51.3	1.2

* Percentage points

4.10 Elected shrink municipalities

As far as the elected shrink municipalities are concerned, it has been found that their sustainability performance score improved on average by 1.4 percentage points between 2020 and 2024, see Table 4.10. Valkenburg aan de Geul shows the largest improvement, with an increase in sustainability score of 2.5 percentage points. Meerssen 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 2020 and 2024

Shrink municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Valkenburg aan de Geul	47.6	50.1	2.5
Gulpen-Wittem	47.5	49.8	2.3
Leudal	45.5	47.7	2.2
Berkelland	50.1	52.2	2.0
Echt-Susteren	44.3	46.2	1.9
Bronckhorst	52.0	53.7	1.7
Roerdalen	43.9	45.6	1.6
Bergen (L.)	44.5	45.9	1.4
Doesburg	47.8	49.0	1.2
Bergen (NH.)	49.3	50.4	1.1
Noardeast-Fryslând	45.8	46.5	0.7
Mook en Middelaar	51.2	51.8	0.7
Ooststellingwerf	45.1	45.3	0.2
Meerssen	49.4	49.1	-0.3
Average	47.4	48.8	1.4

* Percentage points

4.11 Elected small municipalities

The group of elected small municipalities has improved its sustainability performance score on average by 1.6 percentage points between 2020-2024, see Table 4.11. Tynaarlo and Leusden show the largest improvement (3.5 percentage points. Midden-Delfland is the only municipality in this group that shows a decline.

Table 4.11 Developments in total sustainability performance scores (0-100) of elected small municipalities between 2020 and 2024

Small municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Tynaarlo	51.3	54.7	3.5
Leusden	52.9	56.3	3.4
Hof van Twente	50.0	52.7	2.7
Oegstgeest	51.2	53.8	2.6
Heeze-Leende	50.9	53.1	2.2
Bunnik	52.1	54.1	1.9
Dinkelland	53.0	54.9	1.9
Wageningen	54.1	55.9	1.8
Bloemendaal	52.7	54.1	1.4
Lisse	50.8	52.1	1.3
Castricum	50.7	51.5	0.8
Putten	49.8	50.5	0.7
Mook en Middelaar	51.2	51.8	0.7
Noordenveld	51.4	51.7	0.3
Midden-Delfland	50.7	49.8	-0.9
Average	51.5	53.1	1.6

* Percentage points

4.12 Elected tourist municipalities

The sustainability performance score of the elected tourist municipalities has improved on average by 1.3 percentage points between 2020 and 2024. Schiermonnikoog shows the largest improvement in this period, namely 2.9 percentage points, see Table 4.12. All municipalities in this group show an improvement in sustainability performance score since 2020.

Table 4.12 Developments in total sustainability performance scores (0-100) of elected tourist municipalities between 2020 and 2024

Tourist municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Schiermonnikoog	47.5	50.4	2.9
Terschelling	49.8	52.5	2.6
Noordwijk	52.7	54.7	2.0
Veere	50.4	52.2	1.8
Steenwijkerland	51.2	52.9	1.7
Groningen	48.3	50.0	1.7
Bloemendaal	52.7	54.1	1.4
Bergen (NH.)	49.3	50.4	1.1
Vlieland	53.1	54.2	1.1
Hilvarenbeek	52.0	53.0	1.0
Westerveld	48.5	49.3	0.8
Mook en Middelaar	51.2	51.8	0.7
Utrecht	51.5	52.2	0.7
Bergeijk	51.9	52.1	0.3
Ameland	50.6	50.7	0.1
Average	50.7	52.0	1.3

* Percentage points

4.13 Elected work municipalities

The average improvement in the sustainability performance score of the elected work municipalities is 1.9 percentage point in the period 2020-2024, as shown in Table 4.13. The largest improvements were realized by Deventer and Oldenzaal, they both improved by 3.1 percentage points. All municipalities within this group show an improvement in sustainability performance score.

Table 4.13 Developments in total sustainability performance scores (0-100) of elected work municipalities between 2020 and 2024

Work municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Deventer	49.6	52.7	3.1
Oldenzaal	49.7	52.8	3.1
Apeldoorn	50.4	53.4	3.0
Oost Gelre	52.3	54.6	2.3
Nijmegen	51.8	54.0	2.2
Ermelo	51.5	53.6	2.1
Noordwijk	52.7	54.7	2.0
Nunspeet	51.1	53.1	2.0
Wageningen	54.1	55.9	1.8
Delft	50.7	52.3	1.5
Ede	51.7	53.2	1.5
Rijssen-Holten	51.8	53.0	1.2
Utrecht	51.5	52.2	0.7
Bladel	52.7	52.8	0.1
Average	51.5	53.5	1.9

* Percentage points

4.14 Elected 100,000plus municipalities

The, for Dutch dimensions, relatively large elected 100,000plus municipalities show on average an improvement in sustainability performance score of 2.0 percentage points from 2020 to 2024, as shown in Table 4.14. Deventer and Apeldoorn improved most, by 3.1 and 3.0 percentage points, respectively. None of the municipalities in this group show a decline in sustainability score.

Table 4.14 Developments in total sustainability performance scores (0-100) of elected 100,000plus between 2020 and 2024

100,000plus municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Deventer	49.6	52.7	3.1
Apeldoorn	50.4	53.4	3.0
Zwolle	49.6	52.6	2.9
Enschede	46.5	49.3	2.9
Arnhem	48.0	50.2	2.2
Nijmegen	51.8	54.0	2.2
Eindhoven	48.2	50.1	1.9
Almere	45.9	47.7	1.8
Groningen	48.3	50.0	1.7
Delft	50.7	52.3	1.5
Ede	51.7	53.2	1.5
Amersfoort	51.1	52.5	1.4
Haarlem	49.9	51.3	1.4
Leiden	47.7	49.0	1.3
Utrecht	51.5	52.2	0.7
Average	49.4	51.4	2.0

* 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 performance score in 2024 was realized by agricultural municipalities (53.7). The highest average improvement was realized by centre and 100,000plus municipalities, both improved by 2.0 percentage points between 2020 and 2024. The average score for shrink municipalities was the lowest in both 2020 and 2024.

Table 4.15 Changes in total sustainability performance scores (0-100) of 14 types of elected municipalities between 2020 and 2024

Type of municipality	Sustainability score 2020	Sustainability score 2024	Difference*
Centre municipalities	49.3	51.3	2.0
100.000plus municipalities	49.4	51.4	2.0
Work municipalities	51.5	53.5	1.9
Agricultural municipalities	51.8	53.7	1.9
Historic municipalities	50.1	51.9	1.8
Mid-sized municipalities	48.8	50.6	1.8
Green municipalities	51.5	53.1	1.6
Small municipalities	51.5	53.1	1.6
Growth municipalities	51.6	53.1	1.5
New Town municipalities	50.2	51.7	1.5
Former industrial municipalities	50.4	51.8	1.4
Shrink municipalities	47.4	48.8	1.4
Touristic municipalities	50.7	52.0	1.3
Residential municipalities	50.0	51.3	1.2

* Percentage points

4.16 General outcome of improving and regressing elected municipalities

Among the elected municipalities, all but five municipalities realized an improvement in their sustainability performance score between 2020 and 2024, see Annex A.

Table 5.1 shows the ten elected municipalities that improved their sustainability performance score the most between 2020 and 2024. Among all elected municipalities, Rheden improved its sustainability performance score the most in the period 2020-2024, with an increase of 3.9 percentage points. Table 5.2 shows the elected municipalities whose sustainability performance score declined the most or improved the least. Five municipalities show a decline in the period 2020-2024. Reusel-de-Mierden and Midden-Delfland declined most, by 1.4 and 0.9 percentage points, respectively.

Table 5.1 The ten elected municipalities whose sustainability performance score (0-100) has improved most in the period 2020-2024

Elected municipality	Typology	Total score 2020	Total score 2024	Difference*
Rheden	Small, Historic, Green	49.3	53.2	3.9
Borne	Small, Growth, Residential, Former industrial	48.6	52.2	3.6
Tynaarlo	Small, Agricultural	51.3	54.7	3.5
Leusden	Small, Growth, Green	52.9	56.3	3.4
Nijkerk	Small, Growth, New town, Work	49.3	52.7	3.4
Deventer	Large, Work, Centre	49.6	52.7	3.1
Heerenveen	Medium, Work, Agricultural	47.9	51.0	3.1
Oldenzaal	Small, Work, Former industrial	49.7	52.8	3.1
Raalte	Small, Agricultural	51.7	54.8	3.1
Apeldoorn	Large, Growth, Work, Green, Centre	50.4	53.4	3.0

* Percentage points

Table 5.2 The ten elected municipalities whose sustainability performance score (0-100) has declined most or improved least in the period 2020-2024

Municipality	Typology	Total score 2020	Total score 2024	Difference*
Reusel-De Mierden	Small, Residential, Green	54.3	52.9	-1.4
Midden-Delfland	Small, Growth, New town, Agricultural	50.7	49.8	-0.9
Meerssen	Small, Shrink, Residential, Tourist, Former industrial	49.4	49.1	-0.3
Woudenberg	Small, Growth, New town	52.9	52.7	-0.1
Urk	Small, Growth, New town	51.3	51.2	-0.1
Ameland	Small, Growth, Historic, Green, Tourist	50.6	50.7	0.1
Bladel	Small, Growth, Work, Green, Former industrial	52.7	52.8	0.1
Heemskerk	Small, Residential, Green, Centre	47.1	47.2	0.1
Ooststellingwerf	Small, Shrink	45.1	45.3	0.2
Bergeijk	Small, Tourist, Former industrial	51.9	52.1	0.3

* 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 under the framework of the UN Climate Change Convention and, in particular, 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 with the national government and other parties in 2013 to significantly 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. In order to provide a more detailed picture, this impact report uses a different approach by showing the raw emissions data instead of the calculated sustainability score for CO_2 emissions.

As shown in Table 5.3, the group of elected municipalities achieved a reduction in CO_2 emissions of 36.1% over the period 1990-2021 and 30.3% over the period 2010-2021. However, the CO_2 emissions of this group increased by 4.7% between 2020 and 2021. The total group of municipalities also increased their CO_2 emissions between 2020 and 2021, 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 (111)	-36.1%	-30.3%	4.7%
Others	8.0%	-11.0%	3.7%
Total (342)	-2.0%	-14.5%	3.9%

Table 5.4 shows that Zuthpen, Wageningen, and Utrecht 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 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 in relative terms 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
Zutphen	-4.5	Vlieland	56.4
Wageningen	-1.8	Schiermonnikoog	25.9
Utrecht	-1.3	Terschelling	24.7
Nijmegen	0.0	Ameland	15.5
Leiden	0.1	Lisse	12.7
Delft	0.8	Hilversum	12.6
Enschede	0.9	Bergen (NH.)	12.1
Elburg	1.3	Valkenswaard	11.1
Groningen	1.4	Haaksbergen	10.9
Zwolle	1.7	Zwartewaterland	10.8

6 SDG scores

In the previous 2018 framework reports, a methodology 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, especially banks and pension funds. Since 2015, banks and pension funds have been active in developing the so-called 'taxonomy on Sustainable Development Investments (SDIs)' which translates the SDGs into investable opportunities from the perspective of asset owners[12].

A detailed description of the methodology used to calculate the SDG scores can be found in the Methodology report 2024[13]. Essentially, the elements of the sustainability performance scores are aggregated in a way which that is consistent with the definitions of the SDGs.

6.1 Progress of the elected municipalities towards the SDGs

A comparison over the period 2020-2024 shows that the performance of the elected municipalities has improved for most of the goals (SDG 1, 5, 7, 8, 9, 12, 13, 14, 15, and 16). The largest improvements were achieved for SDG 1 No Poverty and SDG 7 Affordable and Clean Energy. Other SDGs show a decline (SDG 2, 3, 4, 10, and 11), the largest decline can be seen for SDG 3 Good Health and Well-being. SDG 5 Gender Equality, with a score of 61.4, has the highest score in 2024. The results per SDG over the years are listed in Table 6.1.

[12] https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en
[13] www.hetpon-telos.nl/methodreport2024

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

SDG	Group	2020	2021	2022	2023	2024	Difference* 2020-2024
1. No Poverty	Elected	46.4	49.9	50.0	54.5	56.3	9.8
	Total	43.0	46.3	46.5	50.9	53.1	10.1
2. Zero Hunger	Elected	51.9	51.8	51.8	51.4	50.9	-1.1
	Total	52.6	52.5	52.5	52.2	51.5	-1.1
3. Good Health and Well-being	Elected	52.2	51.8	50.4	49.8	49.4	-2.8
	Total	49.8	49.6	47.7	47.2	46.8	-3.0
4. Quality Education	Elected	53.9	53.7	55.0	54.9	52.1	-1.8
	Total	51.2	50.8	52.7	52.2	49.9	-1.4
5. Gender Equality	Elected	59.0	59.5	61.5	61.8	61.4	2.4
	Total	58.2	58.7	60.9	61.1	60.6	2.4
7. Affordable and Clean Energy	Elected	41.2	43.8	45.5	46.2	49.2	8.0
	Total	40.3	42.9	44.7	45.5	48.5	8.3
8. Decent Work and Economic Growth	Elected	52.4	50.3	52.0	54.8	55.2	2.8
	Total	51.0	48.8	50.9	53.6	53.9	2.9
9. Industry, Innovation and Infrastructure	Elected	42.3	43.7	43.9	45.0	46.6	4.3
	Total	41.4	42.5	42.8	44.0	45.6	4.1
10. Reduced Inequalities	Elected	60.6	59.8	59.7	60.3	60.5	-0.1
	Total	61.2	60.3	60.2	60.9	61.3	0.1
11. Sustainable Cities and Communities	Elected	52.8	54.0	50.8	51.4	51.2	-1.6
	Total	50.5	51.5	48.4	49.1	49.0	-1.5
12. Responsible Consumption and Production	Elected	40.0	40.6	39.1	41.0	43.6	3.5
	Total	36.7	37.7	36.8	38.4	41.1	4.4
13. Climate Action	Elected	49.4	50.3	50.3	50.0	50.5	1.0
	Total	47.3	48.2	48.2	47.9	48.4	1.1
14. Life below Water	Elected	39.6	39.6	39.6	39.3	39.6	0.0
	Total	38.5	38.4	38.4	38.3	38.6	0.2
15. Life on Land	Elected	47.2	48.1	48.3	48.0	48.8	1.6
	Total	43.2	44.0	44.0	43.7	44.4	1.2
16. Peace, Justice and Strong Institutions	Elected	55.5	55.6	57.3	56.8	55.7	0.3
	Total	51.3	51.2	53.6	53.6	52.1	0.8

*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 most SDGs, the group of elected municipalities developed in the same way as the total group of municipalities over the 2020-2024 period. Both groups achieved similar improvements or reductions for every goal, except for SDG 10 Reduced Inequalities. The group of elected municipalities show a slight decline for this goal, while the total group of municipalities show a slight improvement when comparing the score from 2020 to 2024.

Between 2020 and 2024, SDGs 1 and 7 improved the most, for both the total group and the elected group. The scores for SDGs 2, 3, 4, and 11 decreased for both groups of municipalities.

Even though both groups show similar trends, 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 13 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 4.3 percentage points higher than the total group. The total group outperforms the elected group on only two goals, being SDG 2 Zero Hunger and SDG 10 Reduced Inequalities.

More information about the method of analysis on the SDGs can be found in the 2024 methodology report for municipalities[14].

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

7 Discussion and overview of the results of the 2020-2024 assessment period

In conclusion, the elected municipalities continued to outperform the total group of municipalities based on the sustainability performance score, by 2.4 percentage points (51.6 vs. 49.2). Both groups of municipalities show an improvement in the overall score between 2020 and 2024 of 1.7 vs. 1.8 percentage points respectively. 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 (2.9 and 3.1 percentage points), where the total group improved slightly more than the elected group. The socio-cultural capital declined for both groups, by 0.3 vs. 0.2 percentage points.

Municipalities' scores are rather dynamic from year to year, although some major differences and (dis)advantages between municipalities are of a structural nature. The elected municipality that achieved the largest improvement in sustainability performance score over the reporting period is Rheden, with an improvement of 3.9 percentage points. Only five elected municipalities show a decrease in the sustainability performance score. Reusel-de-Mierden and Midden-Delfland declined most, by 1.4 and 0.9 percentage points, respectively.

A closer look at the CO_2 emissions shows that the group of elected municipalities achieved a reduction in CO_2 emissions of 36.1% over the period 1990-2021 and 30.3% over the period 2010-2021. However, the CO_2 emissions of this group increased by 4.7% between 2020 and 2021. Only three municipalities managed to reduce their CO_2 emissions in this period: Zutphen, Wageningen, and Utrecht. For all other municipalities the CO_2 emissions increased. The largest increase was found in Vlieland, followed by Schiermonnikoog and Terschelling.

A comparison over the period 2020-2024 shows that the performance of the elected municipalities on most goals improved (SDG 1, 5, 7, 8, 9, 12, 13, 14, 15, and 16). The largest improvements were achieved for SDG 1 No Poverty and SDG 7 Affordable and Clean Energy. Other SDGs show a decline (SDG 2, 3, 4, 10, and 11), the largest decline can be seen for SDG 3 Good Health and Well-being. 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 13 out of the 15 measured goals. The total group outperforms the elected group on only two goals, being SDG 2 Zero Hunger and SDG 10 Reduced Inequalities.

It is not always the municipality with the highest score in a given category that improves its sustainability performance score the most in the following year. The advantage of a high sustainability performance score can turn into a (temporary) disadvantage. However, the differences in position on a scoring list and the extend 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 stimulate elected and other municipalities to invest bond proceeds 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 2020 and 2024 for all 111 elected municipalities

Municipality	Total sustainability score 2020	Total sustainability score 2024	Difference 2020-2024*
Rheden	49.3	53.2	3.9
Borne	48.6	52.2	3.6
Tynaarlo	51.3	54.7	3.5
Leusden	52.9	56.3	3.4
Nijkerk	49.3	52.7	3.4
Deventer	49.6	52.7	3.1
Heerenveen	47.9	51.0	3.1
Oldenzaal	49.7	52.8	3.1
Raalte	51.7	54.8	3.1
Apeldoorn	50.4	53.4	3.0
Zwolle	49.6	52.6	2.9
Hilversum	47.3	50.1	2.9
Schiermonnikoog	47.5	50.4	2.9
Enschede	46.5	49.3	2.9
Hellendoorn	50.6	53.4	2.8
Culemborg	49.8	52.6	2.8
Zutphen	50.9	53.6	2.7
Hof van Twente	50.0	52.7	2.7
Terschelling	49.8	52.5	2.6
Oegstgeest	51.2	53.8	2.6
Huizen	47.0	49.6	2.5
Voorschoten	51.3	53.8	2.5
Valkenburg aan de Geul	47.6	50.1	2.5
Zeewolde	48.3	50.8	2.5
Barneveld	49.7	52.0	2.4
Harderwijk	49.6	52.0	2.4
Hengelo (O.)	48.3	50.7	2.3
Hendrik-Ido-Ambacht	48.4	50.7	2.3
Gulpen-Wittem	47.5	49.8	2.3
Elburg	51.6	53.9	2.3
Oost Gelre	52.3	54.6	2.3
Arnhem	48.0	50.2	2.2
Heeze-Leende	50.9	53.1	2.2
Nijmegen	51.8	54.0	2.2
Leudal	45.5	47.7	2.2
Dalfsen	54.2	56.4	2.2

Municipality	Total sustainability score 2020	Total sustainability score 2024	Difference 2020-2024*
Losser	49.9	52.1	2.2
Ommen	52.2	54.3	2.2
Woerden	49.3	51.4	2.1
Ermelo	51.5	53.6	2.1
Zwartewaterland	51.4	53.4	2.1
Berkelland	50.1	52.2	2.0
Katwijk	49.1	51.1	2.0
Noordwijk	52.7	54.7	2.0
Nunspeet	51.1	53.1	2.0
Westerkwartier	48.8	50.8	2.0
Bunnik	52.1	54.1	1.9
Valkenswaard	47.9	49.8	1.9
Eindhoven	48.2	50.1	1.9
Echt-Susteren	44.3	46.2	1.9
Dinkelland	53.0	54.9	1.9
Veere	50.4	52.2	1.8
Wijk bij Duurstede	52.4	54.2	1.8
Almere	45.9	47.7	1.8
Wageningen	54.1	55.9	1.8
Molenlanden	48.3	50.1	1.7
Steenwijkerland	51.2	52.9	1.7
Waalre	50.7	52.4	1.7
Bronckhorst	52.0	53.7	1.7
Gouda	47.6	49.3	1.7
Groningen	48.3	50.0	1.7
Kampen	50.5	52.2	1.7
Blaricum	49.9	51.5	1.7
Roerdalen	43.9	45.6	1.6
Pijnacker-Nootdorp	48.7	50.3	1.6
Krimpenerwaard	49.2	50.7	1.6
Delft	50.7	52.3	1.5
Ede	51.7	53.2	1.5
Gooise Meren	46.2	47.8	1.5
Tubbergen	49.6	51.1	1.4
Voerendaal	47.5	48.9	1.4
Bergen (L.)	44.5	45.9	1.4
Amersfoort	51.1	52.5	1.4
Bloemendaal	52.7	54.1	1.4
Heumen	51.8	53.2	1.4
Staphorst	54.7	56.1	1.4
Oisterwijk	50.7	52.1	1.4

Municipality	Total sustainability score 2020	Total sustainability score 2024	Difference 2020-2024*
Haarlem	49.9	51.3	1.4
Leiden	47.7	49.0	1.3
Lisse	50.8	52.1	1.3
Eijsden-Margraten	49.1	50.4	1.3
Rijssen-Holten	51.8	53.0	1.2
Doesburg	47.8	49.0	1.2
Bergen (NH.)	49.3	50.4	1.1
Vlieland	53.1	54.2	1.1
Hilvarenbeek	52.0	53.0	1.0
Amstelveen	49.5	50.4	0.9
Landsmeer	46.6	47.5	0.9
Westerveld	48.5	49.3	0.8
Haaksbergen	51.9	52.7	0.8
Castricum	50.7	51.5	0.8
Waterland	48.4	49.2	0.8
Wierden	51.8	52.6	0.7
Putten	49.8	50.5	0.7
Noardeast-Fryslân	45.8	46.5	0.7
Mook en Middelaar	51.2	51.8	0.7
Utrecht	51.5	52.2	0.7
Houten	52.1	52.8	0.6
Best	50.0	50.5	0.5
Altena	48.2	48.6	0.3
Noordenveld	51.4	51.7	0.3
Bergeijk	51.9	52.1	0.3
Ooststellingwerf	45.1	45.3	0.2
Heemskerk	47.1	47.2	0.1
Bladel	52.7	52.8	0.1
Ameland	50.6	50.7	0.1
Urk	51.3	51.2	-0.1
Woudenberg	52.9	52.7	-0.1
Meerssen	49.4	49.1	-0.3
Midden-Delfland	50.7	49.8	-0.9
Reusel-De Mierden	54.3	52.9	-1.4

*Percentage points

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

Elected municipality	Typology	% Difference 2020-2021
Zutphen	Small, Historic	-4.5
Wageningen	Small, Growth, Work	-1.8
Utrecht	Large, Growth, Historic, Work, Centre, Tourist	-1.3
Nijmegen	Large, Growth, Work, Centre	0.0
Leiden	Large, Growth, Historic, Work, Centre, Tourist	0.1
Delft	Large, Growth, Historic, Work, Centre	0.8
Enschede	Large, Work, Centre, Former industrial	0.9
Elburg	Small, Green	1.3
Groningen	Large, Growth, Work, Centre, Tourist	1.4
Zwolle	Large, Growth, New town, Work, Centre	1.7
Hengelo (O.)	Medium, Work, Former industrial	2.2
Apeldoorn	Large, Growth, Work, Green, Centre	2.5
Ermelo	Small, Work, Green	2.5
Barneveld	Medium, Growth, New town, Work, Green	2.7
Leusden	Small, Growth, Green	3.0
Oost Gelre	Small, Work, Agricultural	3.0
Bunnik	Small, Growth, Agricultural	3.3
Woudenberg	Small, Growth, New town	3.6
Ooststellingwerf	Small, Shrink	3.6
Putten	Small, Green, Former industrial	3.7
Molenlanden	Small, Historic, Agricultural	3.9
Leudal	Small, Shrink, Centre	4.2
Berkelland	Small, Shrink, Agricultural	4.3
Tubbergen	Small, New town, Agricultural	4.4
Eindhoven	Large, Growth, Work, Centre, Former industrial	4.5
Amersfoort	Large, Growth, New town, Work	4.5
Raalte	Small, Agricultural	4.6
Woerden	Medium, Growth, Work, Agricultural	4.7
Blaricum	Small, Growth	4.8
Zeewolde	Small, Growth, New town	4.8
Waterland	Small, Historic, Residential, Tourist	4.8
Tynaarlo	Small, Agricultural	4.9
Gouda	Medium, Centre	4.9
Oegstgeest	Small, Growth	5.1
Gooise Meren	Medium, Centre	5.2
Krimpenerwaard	Medium, Agricultural	5.2
Noordwijk	Small, Growth, Work, Green, Tourist	5.5

Elected municipality	Typology	% Difference 2020-2021
Ede	Large, Growth, Work, Green, Centre	5.6
Staphorst	Small, Growth, Historic, Agricultural	5.7
Dalfsen	Small, Agricultural	5.9
Almere	Large, Growth, New town, Centre	6.0
Westerkwartier	Medium, Agricultural	6.1
Huizen	Small, Centre	6.1
Heumen	Small, New town	6.4
Losser	Small, Former industrial	6.4
Altena	Medium	6.4
Katwijk	Medium, Growth, Centre	6.5
Oldenzaal	Small, Work, Former industrial	6.5
Hof van Twente	Small, Agricultural	6.6
Nijkerk	Small, Growth, New town, Work	6.6
Houten	Medium, Growth, New town	6.7
Noardeast-Fryslân	Small, Shrink, Historic, Agricultural	6.7
Roerdalen	Small, Shrink, Residential, Green, Tourist	6.7
Dinkelland	Small, Agricultural	6.9
Heeze-Leende	Small, Growth, Green	7.0
Oisterwijk	Small, Former industrial	7.0
Midden-Delfland	Small, Growth, New town, Agricultural	7.0
Harderwijk	Small, Growth, New town, Work, Green	7.0
Heerenveen	Medium, Work, Agricultural	7.1
Arnhem	Large, Growth, Historic, Work, Green, Centre, Tourist	7.1
Deventer	Large, Work, Centre	7.1
Heemskerk	Small, Residential, Green, Centre	7.2
Best	Small, New town, Former industrial	7.4
Culemborg	Small, Growth, New town, Former industrial	7.5
Bronckhorst	Small, Shrink, Historic, Agricultural	7.7
Reusel-De Mierden	Small, Residential, Green	7.8
Wierden	Small, Agricultural, Former industrial	7.8
Hilvarenbeek	Small, Green, Tourist	7.8
Rijssen-Holten	Small, Work, Former industrial	8.0
Borne	Small, Growth, Residential, Former industrial	8.0
Meerssen	Small, Shrink, Residential, Tourist, Former industrial	8.1
Noordenveld	Small	8.2
Echt-Susteren	Small, Shrink, Former industrial	8.3
Gulpen-Wittem	Small, Shrink, Historic, Agricultural, Tourist	8.4
Bloemendaal	Small, Growth, Residential, Green, Tourist	8.4
Valkenburg aan de Geul	Small, Shrink, Tourist	8.5
Voerendaal	Small, Residential, Agricultural, Tourist, Former industrial	8.5

Elected municipality	Typology	% Difference 2020-2021
Eijsden-Margraten	Small, Historic, Residential, Agricultural, Tourist	8.6
Rheden	Small, Historic, Green	8.7
Kampen	Medium, Growth, Historic, Agricultural	8.8
Steenwijkerland	Small, Tourist	8.9
Veere	Small, Tourist	8.9
Amstelveen	Medium, Growth, Work	9.2
Castricum	Small, Residential, Centre	9.2
Landsmeer	Small, Growth, Tourist, Former industrial	9.2
Urk	Small, Growth, New town	9.3
Hellendoorn	Small, Green, Former industrial	9.5
Haarlem	Large, Growth, Historic, Centre, Tourist	9.5
Wijk bij Duurstede	Small, Residential, Agricultural	9.5
Waalre	Small, Growth, Residential, Green, Former industrial	9.6
Ommen	Small, Green	9.7
Pijnacker-Nootdorp	Medium, Growth, New town, Residential	9.8
Hendrik-Ido-Ambacht	Small, Growth, New town, Residential	9.8
Voorschoten	Small, Growth, Residential	9.9
Westerveld	Small, Green, Tourist	9.9
Bladel	Small, Growth, Work, Green, Former industrial	10.0
Mook en Middelaar	Small, Shrink, Residential, Green, Tourist	10.1
Bergen (L.)	Small, Shrink, Green, Tourist	10.2
Nunspeet	Small, Work, Green	10.3
Doesburg	Small, Shrink, Historic, Former industrial	10.6
Bergeijk	Small, Tourist, Former industrial	10.7
Zwartewaterland	Small, Agricultural	10.8
Haaksbergen	Small, Former industrial	10.9
Valkenswaard	Small, Green, Former industrial	11.1
Bergen (NH.)	Small, Shrink, Green, Tourist	12.1
Hilversum	Medium, Growth, Historic, Work, Green, Centre	12.6
Lisse	Small	12.7
Ameland	Small, Growth, Historic, Green, Tourist	15.5
Terschelling	Small, Green, Tourist	24.7
Schiermonnikoog	Small, Historic, Green, Tourist	25.9
Vlieland	Small, Historic, Green, 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

Capital	Stock	Indicator	Description	Unit	Aggregation
Socio-cultural	Education	School dropout rate	The share of people that leaves the education circuit without a diploma.	Percentage	Municipality
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

Capital	Stock	Indicator	Description	Unit	Aggregation
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
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

Capital	Stock	Indicator	Description	Unit	Aggregation
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
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

Capital	Stock	Indicator	Description	Unit	Aggregation
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
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

Capital	Stock	Indicator	Description	Unit	Aggregation
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
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

Capital	Stock	Indicator	Description	Unit	Aggregation
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
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

Capital	Stock	Indicator	Description	Unit	Aggregation
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
Ecology	Resources & waste	Total amount of waste	Total amount of waste in kg/per inhabitant.	kg/inhabitant	Municipality

Capital	Stock	Indicator	Description	Unit	Aggregation
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

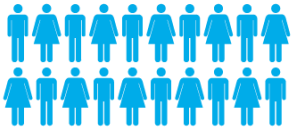
OPGERICHT IN
1947

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

HET pon|telos

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, policy-makers and managers. This enables them to make informed choices and give a positive impulse to the society of tomorrow.

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