



7th Performance Report of Elected  
Dutch Municipalities of BNG Bank  
Sustainability Bond of November 2017



# **7th Performance Report of Elected Dutch Municipalities of BNG Bank Sustainability Bond of November 2017**

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## Executive summary

On the 9<sup>th</sup> of November 2017, BNG Bank launched its fourth Sustainability Bond, a new seven-year benchmark with a volume of €750 million. The Framework for the BNG Bank Sustainability Bond 2017 was provided to BNG Bank by Het PON & Telos on the 6<sup>th</sup> of October 2017, 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)'. During the period 2018-2024, 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 107 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 seventh, and last, impact report of the 2017 Sustainability Bond, covering the years 2017-2024.

In conclusion, the elected municipalities continued to outperform the other group of municipalities by 2.2 percentage points (51.4 vs. 49.2) over the period 2017-2024. The sustainability scores improved for all three capitals, for both groups of municipalities. The largest improvements occurred for the economic capital (7.3 vs. 7.8 percentage points), while the improvements of the socio-cultural and ecological capitals were relatively smaller.

Table 1 Sustainability scores of 107 elected municipalities and of the total group of 342 Dutch municipalities in 2024 compared to 2017

Sustainability capital	Elected 2017	Total 2017	Elected 2024	Total 2024	Elected: Difference* 2017-2024	Total: Difference* 2017-2024 <sup>1</sup>
<b>Total</b>	<b>47.3</b>	<b>44.9</b>	<b>51.4</b>	<b>49.2</b>	<b>4.1</b>	<b>4.3</b>
Socio-cultural	52.2	48.8	53.2	50.0	1.1	1.2
Ecological	43.5	42.1	47.5	45.9	4.0	3.9
Economic	46.3	44.0	53.5	51.8	7.3	7.8

\* Percentage points

Among the elected municipalities, all had similar or higher sustainability scores for 2024 than for 2017. The scores of the municipalities are rather dynamic from year to year, although major differences and advantages among municipalities are of a structural nature. Over the reporting period, the elected municipality Leusden improved the most, by 7.2 percentage points.

<sup>1</sup> 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.

Amsterdam, Wageningen, Utrecht and Hattum had the highest (and only) reductions in CO<sub>2</sub> emissions when comparing 2021 with 2020, as can be seen in Chapter 5, Table 5.4. All other municipalities showed an increase in CO<sub>2</sub> emissions. The largest increase was found in Vlieland, followed by Rozendaal, Schiermonnikoog and Terschelling.

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# 1 Introduction

At the request of BNG Bank, Het PON & Telos provided BNG Bank on the 6<sup>th</sup> of October 2017 with a framework document<sup>2</sup> describing the sustainability criteria and selection process for best-in-class Dutch municipalities to be considered for the BNG Bank Sustainability Bond 2017. Het PON & Telos developed this framework based on the National Monitor of Sustainable Municipalities 2017, which was first produced in 2014 on behalf of the Dutch Ministry of Infrastructure and the Environment. On the 9<sup>th</sup> of November 2017, BNG Bank launched its fourth Sustainability Bond, a new seven-year benchmark with a volume of €750 million.

During the period 2018-2024, 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 107 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 seventh, and last, impact report of the 2017 Sustainability Bond, covering the years 2017-2024. It describes how the performance is assessed and the overall results of the comparison over the years 2017-2024, including the impact on CO<sub>2</sub> emissions.

Version impact report	Issue date
1	November 2018 <sup>3</sup>
2	December 2019 <sup>4</sup>
3	December 2020 <sup>5</sup>
4	December 2021 <sup>6</sup>
5	Oktober 2022 <sup>7</sup>
6	July 2023 <sup>8</sup>

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<sup>2</sup> <https://www.bngbank.com/-/media/Project/CBB/BNG-Bank-COM/Documents/Sustainability-Framework-2017.PDF?rev=8492231bb1c541c1b2add51dabd121f5>

<sup>3</sup> Report can be requested from BNG bank

<sup>4</sup> Ibid

<sup>5</sup> Ibid

<sup>6</sup> Ibid

<sup>7</sup> Ibid

<sup>8</sup> Ibid



## 2 Description of activities

### 2.1 Update of database

In order to be able to produce an impact report for 2024 of the municipalities elected for the BNG Bank Sustainable Municipality Bond of 2017, the main activity was to update the data for the sustainability assessment of Dutch municipalities used in the National Monitor Sustainable Municipalities 2017. 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 2017 has identified 14 types of municipalities. These 14 types were used for the framework of the BNG Bank Sustainability Bond of 2017 and form the basis of this performance report.

The indicator values are measured against the sustainability goals, which are described more detailed in the method report.<sup>9</sup> 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,<sup>10</sup> has shown that these goals are similar. It should be considered that the UN SDGs were mainly developed for nation states and include global commons, such as the oceans, which are not relevant at the municipality level of the Netherlands. Furthermore, the SDGs have a political rather than a scientific framework.

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<sup>9</sup> [www.hetpon-telos.nl/methodreport2024](http://www.hetpon-telos.nl/methodreport2024)

<sup>10</sup> 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>

## 2.2 Assessment of performance of elected sustainable municipalities

Based on the updated database, the sustainability performance of 107 elected municipalities in 2017 is assessed and discussed. The group of elected municipalities, described in the framework of the BNG Bank Sustainability Bond of October 2017, was selected by identifying the 15 municipalities with the best scores for each of the 14 types of municipalities, such as 'agricultural', 'old industrial', 'shrinking', etc. Originally, 115 municipalities were selected from a total of 388 municipalities in the Netherlands in 2017. Since 2017, the number of municipalities has decreased due to reorganizations within municipalities. In 2024, there are only 342 municipalities left. This influenced the selection of 115 municipalities for the bond of 2017 as well. The municipalities of Schinnen, Winsum, Strijen, Geldermalsen, Zuidhorn, Grave, Langedijk, and Weesp are no longer independent entities. They are therefore no longer included in this performance report. The group of elected municipalities now consists of 107 municipalities.

Furthermore, the number of indicators has been partly expanded due to new possibilities, and partly reduced due to a lack of continuous data collection, resulting in 127 indicators now, compared to 109 in 2017. Such changes need to be considered when comparing this 7<sup>th</sup> Performance Report to previous editions. To ensure a fair comparison over the years within this edition, scores for previous years have been recalculated based on the current set of indicators. A description of all indicators included in the 2024 framework and a description of which indicators have been added, removed or altered compared to last year can be found in Annex C. The reader is referred to Annex 1 of the 2017 National Monitor report and the 2024 Sustainability Bonds Methodology report,<sup>11</sup> for the details of the changes made to the calculation of the sustainability scores and how comparability between 2024 and 2017 was established.

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 2017.
2. A comparison of the sustainability scores of the elected municipalities between 2024 and 2017, 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<sub>2</sub> emissions.

The results of these activities are presented in the following chapters. Finally, the overall changes observed for the 2017–2024 reporting period are discussed.

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<sup>11</sup> [www.hetpon-telos.nl/methodreport2024](http://www.hetpon-telos.nl/methodreport2024)

### 3 Results of the update and comparison of 2017 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 2017 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 in this framework document sometimes differ from those presented in the 2017 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	2017	2018	2019	2020	2021	2022	2023	2024
<b>Total</b>	<b>44.9</b>	<b>45.6</b>	<b>47.0</b>	<b>47.4</b>	<b>48.1</b>	<b>48.4</b>	<b>49.0</b>	<b>49.2</b>
Socio-cultural	48.8	49.6	50.7	50.2	50.8	50.4	50.9	50.0
Ecological	42.1	42.3	42.8	43.2	44.2	44.5	44.7	45.9
Economic	44.0	44.9	47.4	48.7	49.3	50.3	51.4	51.8

Over the 2017-2024 period, the average overall sustainability score improved from 44.9 to 49.2 (on a scale from 0-100). All three underlying capitals improved, although not to the same extent. The economic capital improved the most over the period 2017-2024, from 44.0 to 51.8. The ecological capital improved from 42.1 to 45.9 and socio-cultural capital improved the least, from 48.8 to 50.0. It even decreased in comparison with the last 5 years. 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 2017

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%)	75 (70.1%)
50,000-100,000	60 (17.5%)	17 (15.9%)
More than 100,000	32 (9.4%)	15 (14.0%)

As Table 3.2 shows, the size distribution of the elected group of municipalities differs from the average distribution in the country. The small municipalities are under-represented, and the large municipalities are over-represented in the elected group, but the differences are very small. This must be considered 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 several 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, and
- Raising awareness of successful strategies used in high scoring municipalities.

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

Table 3.3 gives a summary of the overall differences between 2017 and 2024 for the total group of Dutch municipalities and the group of elected municipalities. The result is that elected municipalities continue to outperform the total group of municipalities, by 2.2 percentage points (51.4 vs. 49.2). Both groups of municipalities show an improvement in the overall score of more than 4 percentage points between 2017 and 2024. The scores of all three underlying capitals improved in a similar way for both groups. This year, the largest improvements occurred for the economic capital (7.3 vs. 7.8 percentage points), where the total group improved slightly more than the elected group.

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

Table 3.3 Sustainability performance of elected municipalities and of the total group of Dutch municipalities in 2017 compared to 2024 (percentage points)

Sustainability capital	Elected 2017	Total 2017	Elected 2024	Total 2024	Elected: Difference* 2017-2024	Total: Difference* 2017-2024 <sup>12</sup>
<b>Total</b>	<b>47.3</b>	<b>44.9</b>	<b>51.4</b>	<b>49.2</b>	<b>4.1</b>	<b>4.3</b>
Socio-cultural	52.2	48.8	53.2	50.0	1.1	1.2
Ecological	43.5	42.1	47.5	45.9	4.0	3.9
Economic	46.3	44.0	53.5	51.8	7.3	7.8

\* Percentage points

<sup>12</sup> 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 scores (percentage points) of stocks between 2017 and 2024 for the group of elected municipalities and all Dutch municipalities

Sustainability stock	Difference 2017-2024 of 107 elected municipalities	Difference 2017-2024 of all 342 municipalities
<b>Socio-cultural</b>	1.1	1.2
Arts & culture	-2.0	-2.2
Economic participation	12.5	13.7
Education	-1.4	-0.4
Health	-2.8	-4.3
Housing	-1.6	-0.9
Political participation	4.5	3.5
Residential environment	-1.9	-1.4
Safety	8.8	8.5
Social participation	-6.2	-6.1
<b>Ecological</b>	4.0	3.9
Air	4.4	3.9
Annoyance & external safety	-0.2	-0.2
Energy	14.6	14.9
Nature & landscape <sup>13</sup>		
Soil	1.3	0.9
Resources & waste	7.3	6.9
Water	0.6	0.7
<b>Economic</b>	7.3	7.8
Competitiveness	7.7	8.3
Infrastructure & mobility	8.3	7.4
Knowledge	6.9	7.8
Labour	16.7	17.1
Spatial location conditions	-3.2	-1.4

<sup>13</sup> Due to limited availability of data, a comparison in time is not possible for this stock

### Socio-cultural stocks

Despite the overall improvement in socio-cultural capital, most of the underlying stocks declined between 2017 and 2024 for both groups of municipalities. The largest declines in stock scores are for 'Social participation' and 'Health'. However, the stocks that improved, namely 'Economic participation', 'Safety', and 'Political participation', improved strongly, offsetting the declines in other stocks. The degree of development varies among the stocks. The total group of municipalities improved more for 'Economic participation' (12.5 vs. 13.7 percentage points), while the decline in the score for the stock 'Health' was less severe for the group of elected municipalities (-2.8 vs. -4.3 percentage points).

### Ecological stocks

Again, the group of elected municipalities shows a similar pattern of stock development as the total group of municipalities. The differences in the degree of development between the two groups of municipalities are small. The largest improvements over the period 2017-2024 are for the stocks 'Energy' (14.6 vs. 14.9 percentage points), 'Resources & waste' (7.3 vs. 6.9 percentage points), and 'Air' (4.4 vs. 3.9 percentage points). The only stock which score decreased slightly between 2017 and 2024 is 'Annoyance & external safety' with a decrease of 0.2 percentage points for both groups.

### Economic stocks

As with the other stocks, both groups of municipalities show a similar pattern of development between 2017 and 2024 for the economic stocks. By far the largest improvement was for the stock 'Labor', improving by 16.7 and 17.1 percentage points. The other stocks within this capital also show strong improvements, with the exception of the stock 'Spatial location conditions'. This is the only stock that decreased by 3.2 percentage points for the group of elected municipalities vs. 1.4 percentage points for the total group. Overall, the total group of municipalities improved more than the elected group of municipalities.

## 4 Elected municipalities with the largest improvement or reduction in sustainability performance score in 2017–2024 depending by typology

This chapter discusses the improvements or reductions in total sustainability score of individual elected municipalities in more detail. The assessment will be presented for each of the 14 types of municipalities that are identified in the framework for the BNG Bank Sustainability Bond of 2017: 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 2017 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 2017 scores and their 2024 sustainability scores. The scores of all these elected agricultural municipalities have improved over time, with an average improvement of 4.3 percentage points since 2017. The municipalities Voorst and Aalten improved the most in the reporting period, with an improvement of 6.4 and 6.3 percentage points respectively.

Table 4.1 Developments in total sustainability performance scores (0-100) of elected agricultural municipalities between 2017 and 2024

Agricultural municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Voorst	47.3	53.7	6.4
Aalten	47.4	53.8	6.3
Dalfsen	50.5	56.4	5.9
Oudewater	41.6	47.4	5.8
Olst-Wijhe	49.0	54.6	5.7
Dinkelland	49.8	54.9	5.1
Montfoort	47.0	51.8	4.7
Renswoude	47.7	52.2	4.4
Bronckhorst	49.5	53.7	4.2
Wierden	48.5	52.6	4.1
Bunnik	50.1	54.1	4.0
Boekel	46.1	49.4	3.2
Eijsden-Margraten	47.5	50.4	2.9
Zoeterwoude	46.4	48.0	1.6
Midden-Delfland	49.2	49.8	0.6
<b>Average</b>	<b>47.8</b>	<b>52.2</b>	<b>4.3</b>

\*Percentage points

## 4.2 Elected centre municipalities

As shown in Table 4.2, all elected centre municipalities have improved their total sustainability score over the past years. The average improvement between 2017 and 2024 for these municipalities is 4.2 percentage points. Ede shows the largest improvement of 6.1 percentage points.

Table 4.2 Developments in total sustainability performance scores (0-100) of elected centre municipalities between 2017 and 2024

Centre municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Ede	47.1	53.2	6.1
Middelburg	44.5	50.0	5.5
Apeldoorn	48.0	53.4	5.4
Hilversum	45.6	50.1	4.6
Huizen	45.0	49.6	4.5
Delft	47.8	52.3	4.5
Haarlem	46.9	51.3	4.4
Eindhoven	45.8	50.1	4.3
Castricum	47.3	51.5	4.2
Utrecht	48.1	52.2	4.1
Katwijk	47.2	51.1	3.9
Westland	43.9	47.8	3.8
Gooise Meren	45.0	47.8	2.8
Leiden	46.4	49.0	2.6
Groningen	48.1	50.0	1.9
<b>Average</b>	<b>46.5</b>	<b>50.6</b>	<b>4.2</b>

\* Percentage points

### 4.3 Elected green municipalities

The elected green municipalities improved their sustainability score by 4.2 percentage points on average between 2017 and 2024. As can be seen in Table 4.3, Leusden improved its score most (by 7.2 percentage points), followed by Utrechtse Heuvelrug and Noordwijk (both improved by 6.5 percentage points compared to 2017).

Table 4.3 Developments in total sustainability performance scores (0-100) of elected green municipalities between 2017 and 2024

Green municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Leusden	49.1	56.3	7.2
Utrechtse Heuvelrug	47.3	53.4	6.0
Noordwijk	48.7	54.7	6.0
Bergen (NH.)	45.3	50.4	5.2
Baarn	46.0	50.8	4.8
Bloemendaal	49.7	54.1	4.5
Nunspeet	48.8	53.1	4.2
Heeze-Leende	49.0	53.1	4.1
Wassenaar	46.9	50.7	3.7
Waalre	48.8	52.4	3.6
Putten	47.2	50.5	3.3
Mook en Middelaar	48.6	51.8	3.3
Ermelo	50.3	53.6	3.2
Rozendaal	51.7	53.7	2.1
Laren	46.4	48.5	2.0
<b>Average</b>	<b>48.3</b>	<b>52.5</b>	<b>4.2</b>

\* Percentage points

## 4.4 Elected growth municipalities

The elected growth municipalities show an average improvement of 4.0 percentage points over the last few years, see Table 4.4. All municipalities improved their score between 2024 and 2017, the largest improvement was realized by Nijkerk (6.3 percentage points). Midden-Delfland shows the smallest improvement (0.6 percentage points) over this period.

Table 4.4 Developments in total sustainability performance scores (0-100) of elected growth municipalities between 2017 and 2024

Growth municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Nijkerk	46.4	52.7	6.3
Dalfsen	50.5	56.4	5.9
Woudenberg	47.2	52.7	5.5
Scherpenzeel	46.5	51.6	5.1
Voorschoten	49.1	53.8	4.7
Renswoude	47.7	52.2	4.4
Oegstgeest	49.4	53.8	4.4
Kampen	47.8	52.2	4.4
Bunnik	50.1	54.1	4.0
Wageningen	52.0	55.9	3.9
Putten	47.2	50.5	3.3
Kapelle	46.7	49.6	2.9
Houten	50.2	52.8	2.6
Blaricum	49.1	51.5	2.4
Midden-Delfland	49.2	49.8	0.6
<b>Average</b>	<b>48.6</b>	<b>52.6</b>	<b>4.0</b>

\* Percentage points

## 4.5 Elected historic municipalities

The average improvement in the sustainability score of elected historic municipalities was 3.9 percentage points between 2017 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 Oudewater (5.8 percentage points), followed by Middelburg (5.5 percentage points).

Table 4.5 Developments in total sustainability performance scores (0-100) of elected historic municipalities between 2017 and 2024

Historic municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Oudewater	41.6	47.4	5.8
Middelburg	44.5	50.0	5.5
Schiermonnikoog	45.5	50.4	4.9
Delft	47.8	52.3	4.5
Kampen	47.8	52.2	4.4
Staphorst	51.8	56.1	4.3
Bronckhorst	49.5	53.7	4.2
Utrecht	48.1	52.2	4.1
Lopik	45.8	49.0	3.2
Eijsden-Margraten	47.5	50.4	2.9
Waterland	46.5	49.2	2.6
Ameland	48.3	50.7	2.3
Vlieland	52.4	54.2	1.8
<b>Average</b>	<b>47.5</b>	<b>51.4</b>	<b>3.9</b>

\* Percentage points

## 4.6 Elected mid-sized municipalities

Table 4.6 shows that elected mid-sized municipalities improved their sustainability score on average by 4.4 percentage points between 2017 and 2024. Veenendaal improved its score most, namely by 6.7 percentage points.

Table 4.6 Developments in total sustainability performance scores (0-100) of elected mid-sized municipalities between 2017 and 2024

Mid-sized municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Veenendaal	45.0	51.7	6.7
Krimpenerwaard	44.8	50.7	5.9
Meerijstad	44.1	49.7	5.6
Zeist	45.2	50.8	5.5
Woerden	46.5	51.4	4.9
Hilversum	45.6	50.1	4.6
Barneveld	47.6	52.0	4.5
Kampen	47.8	52.2	4.4
Katwijk	47.2	51.1	3.9
Leidschendam-Voorburg	43.3	47.2	3.9
Lansingerland	44.7	48.3	3.6
Stichtse Vecht	43.8	47.2	3.3
Pijnacker-Nootdorp	47.0	50.3	3.3
Gooise Meren	45.0	47.8	2.8
Amstelveen	48.0	50.4	2.5
<b>Average</b>	<b>45.7</b>	<b>50.1</b>	<b>4.4</b>

\* Percentage points

## 4.7 Elected New Town municipalities

Elected New Town municipalities improved their score on average by 3.8 percentage points over the years 2017-2024 (see Table 4.7). Of these municipalities, Nijkerk and Wijk bij Duurstede improved most, by 6.3 and 5.7 percentage points respectively.

Table 4.7 Developments in total sustainability performance scores (0-100) scores of elected New Town municipalities between 2017 and 2024

New Town municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Nijkerk	46.4	52.7	6.3
Wijk bij Duurstede	48.6	54.2	5.7
Woudenberg	47.2	52.7	5.5
Teylingen	46.5	51.8	5.3
Best	45.5	50.5	5.0
Renswoude	47.7	52.2	4.4
Oegstgeest	49.4	53.8	4.4
Nuenen, Gerwen en Nederwetten	50.6	54.4	3.8
Boekel	46.1	49.4	3.2
Uitgeest	42.6	45.8	3.2
Heumen	50.5	53.2	2.7
Houten	50.2	52.8	2.6
Oostzaan	45.7	46.5	0.9
Midden-Delfland	49.2	49.8	0.6
<b>Average</b>	<b>47.6</b>	<b>51.4</b>	<b>3.8</b>

\* Percentage points

## 4.8 Elected old industrial municipalities

Elected old industrial municipalities scored on average 4.0 percentage points higher over the reporting period, as shown in Table 4.8. Culemborg has improved the most, followed by Hellendoorn and Best. Oostzaan improved the least over these years (0.9 percentage points).

Table 4.8 Developments in total sustainability performance scores (0-100) of elected old industrial municipalities between 2017 and 2024

Old industrial municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Culemborg	46.6	52.6	6.0
Hellendoorn	48.3	53.4	5.1
Best	45.5	50.5	5.0
Voerendaal	44.0	48.9	4.9
Rijssen-Holten	48.7	53.0	4.4
Wierden	48.5	52.6	4.1
Bladel	48.8	52.8	4.1
Nuenen, Gerwen en Nederwetten	50.6	54.4	3.8
Hatterr	48.9	52.5	3.7
Haaksbergen	49.1	52.7	3.6
Waalre	48.8	52.4	3.6
Putten	47.2	50.5	3.3
Reusel-De Mierden	50.1	52.9	2.8
Oostzaan	45.7	46.5	0.9
<b>Average</b>	<b>47.9</b>	<b>51.9</b>	<b>4.0</b>

\* Percentage points



## 4.9 Elected residential municipalities

As Table 4.9 shows, the average improvement in sustainability score of elected residential municipalities is 3.8 percentage points over the period 2017-2024. Wijk bij Duurstede improved its score the most in these years, with an improvement of 5.7 percentage points.

Table 4.9 Developments in total sustainability performance scores (0-100) of elected old industrial municipalities between 2017 and 2024

Residential municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Wijk bij Duurstede	48.6	54.2	5.7
Buren	45.1	50.6	5.5
Voorschoten	49.1	53.8	4.7
Bloemendaal	49.7	54.1	4.5
Castricum	47.3	51.5	4.2
Wierden	48.5	52.6	4.1
Sint-Michielsgestel	46.9	50.9	4.0
Waalre	48.8	52.4	3.6
Uitgeest	42.6	45.8	3.2
Eijsden-Margraten	47.5	50.4	2.9
Heumen	50.5	53.2	2.7
Waterland	46.5	49.2	2.6
Rozendaal	51.7	53.7	2.1
<b>Average</b>	<b>47.9</b>	<b>51.7</b>	<b>3.8</b>

\* Percentage points

#### 4.10 Elected shrink municipalities

As far as elected shrink municipalities are concerned, it is found that their sustainability score improved on average by 3.9 percentage points between 2017 and 2024, see Table 4.10. Berkelland shows the largest improvement, followed by Bergen.

Table 4.10 Developments in total sustainability performance scores (0-100) of elected shrink municipalities between 2017 and 2024

Shrink municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Berkelland	46.5	52.2	5.6
Bergen (NH.)	45.3	50.4	5.2
Voerendaal	44.0	48.9	4.9
Valkenburg aan de Geul	45.6	50.1	4.5
Gulpen-Wittem	45.4	49.8	4.4
Bronckhorst	49.5	53.7	4.2
Leudal	44.0	47.7	3.7
Mook en Middelaar	48.6	51.8	3.3
Dantumadiel	45.7	48.2	2.5
Meerssen	46.7	49.1	2.4
Vlieland	52.4	54.2	1.8
<b>Average</b>	<b>46.7</b>	<b>50.6</b>	<b>3.9</b>

\* Percentage points

## 4.11 Elected small municipalities

The group of elected small municipalities has improved its sustainability score on average by 3.9 percentage points since 2017, see Table 4.11. Voorst shows the largest improvement (6.4 percentage points) and Midden-Delfland the smallest (0.6 percentage points).

Table 4.11 Developments in total sustainability performance scores (0-100) of elected old industrial municipalities between 2017 and 2024

Small municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Voorst	47.3	53.7	6.4
Dalfsen	50.5	56.4	5.9
Woudenberg	47.2	52.7	5.5
Montfoort	47.0	51.8	4.7
Bloemendaal	49.7	54.1	4.5
Oegstgeest	49.4	53.8	4.4
Veere	48.0	52.2	4.2
Bunnik	50.1	54.1	4.0
Wageningen	52.0	55.9	3.9
Hattem	48.9	52.5	3.7
Vught	49.1	52.3	3.2
Kapelle	46.7	49.6	2.9
Blaricum	49.1	51.5	2.4
Rozendaal	51.7	53.7	2.1
Midden-Delfland	49.2	49.8	0.6
<b>Average</b>	<b>49.0</b>	<b>52.9</b>	<b>3.9</b>

\* Percentage points

## 4.12 Elected tourist municipalities

The sustainability score of the elected tourist municipalities has improved on average by 3.7 percentage point between 2017 and 2024. Noordwijk shows the largest improvement in this period, namely 6.0 percentage points, see Table 4.12.

Table 4.12 Developments in total sustainability performance scores (0-100) of elected tourist municipalities between 2017 and 2024

Tourist municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Noordwijk	48.7	54.7	6.0
Bergen (NH.)	45.3	50.4	5.2
Voerendaal	44.0	48.9	4.9
Schiermonnikoog	45.5	50.4	4.9
Terschelling	47.6	52.5	4.9
Bloemendaal	49.7	54.1	4.5
Veere	48.0	52.2	4.2
Wassenaar	46.9	50.7	3.7
Mook en Middelaar	48.6	51.8	3.3
Hilvarenbeek	50.1	53.0	3.0
Eijsden-Margraten	47.5	50.4	2.9
Waterland	46.5	49.2	2.6
Ameland	48.3	50.7	2.3
Vlieland	52.4	54.2	1.8
Oostzaan	45.7	46.5	0.9
<b>Average</b>	<b>47.6</b>	<b>51.3</b>	<b>3.7</b>

\* Percentage points

### 4.13 Elected work municipalities

The average improvement in the sustainability score of the elected work municipalities is 4.2 percentage point in the last few years, as illustrated in Table 4.13. The largest improvements were realized by Noordwijk and Amersfoort (6.0 and 5.8 percentage points), while Amstelveen and Son en Breugel improved the least (although both improved by 2.5 percentage points).

Table 4.13 Developments in total sustainability performance scores (0-100) of elected work municipalities between 2017 and 2024

Work municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Noordwijk	48.7	54.7	6.0
Amersfoort	46.7	52.5	5.8
Zeist	45.2	50.8	5.5
Apeldoorn	48.0	53.4	5.4
Best	45.5	50.5	5.0
Barneveld	47.6	52.0	4.5
Goes	45.4	49.6	4.3
Utrecht	48.1	52.2	4.1
Wageningen	52.0	55.9	3.9
Westland	43.9	47.8	3.8
Ermelo	50.3	53.6	3.2
Leiden	46.4	49.0	2.6
Amstelveen	48.0	50.4	2.5
Son en Breugel	47.3	49.8	2.5
<b>Average</b>	<b>47.4</b>	<b>51.6</b>	<b>4.2</b>

\* 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 score of 4.0 percentage points from 2017 to 2024, as listed in Table 4.14. Amsterdam shows the smallest improvement in sustainability score, while Ede shows the largest improvement.

Table 4.14 Developments in total sustainability performance scores (0-100) of elected 100,000plus between 2017 and 2024

100,000 plus municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Ede	47.1	53.2	6.1
Zwolle	46.8	52.6	5.8
Amersfoort	46.7	52.5	5.8
Apeldoorn	48.0	53.4	5.4
Nijmegen	49.4	54.0	4.6
Delft	47.8	52.3	4.5
Haarlem	46.9	51.3	4.4
Eindhoven	45.8	50.1	4.3
Utrecht	48.1	52.2	4.1
Westland	43.9	47.8	3.8
Arnhem	46.7	50.2	3.5
Breda	45.7	48.9	3.1
Leiden	46.4	49.0	2.6
Groningen	48.1	50.0	1.9
Amsterdam	47.0	47.6	0.6
<b>Average</b>	<b>47.0</b>	<b>51.0</b>	<b>4.0</b>

\* Percentage points

#### 4.15 Summary of score developments of elected municipalities per typology

Table 4.15 gives an overview of the average performance of the 14 types of elected municipalities. The highest average sustainability score in 2024 was realized by small municipalities (52.9). The highest average improvement was realized by mid-sized municipalities, namely 4.4 percentage points between 2017 and 2024. Despite achieving the largest improvement, the average sustainability score of this group was the lowest compared to other typologies in both 2017 and 2024.

Table 4.15 Changes in total sustainability performance scores (0-100) of 14 types of elected municipalities between 2017 and 2024

Type of municipality	Sustainability score 2017	Sustainability score 2024	Difference*
Mid-sized municipalities	45.7	50.1	4.4
Agricultural municipalities	47.8	52.2	4.3
Green municipalities	48.3	52.5	4.2
Work municipalities	47.4	51.6	4.2
Centre municipalities	46.5	50.6	4.2
Growth municipalities	48.6	52.6	4.0
100.000plus municipalities	47.0	51.0	4.0
Former industrial municipalities	47.9	51.9	4.0
Small municipalities	49.0	52.9	3.9
Historic municipalities	47.5	51.4	3.9
Shrink municipalities	46.7	50.6	3.9
New Town municipalities	47.6	51.4	3.8
Residential municipalities	47.9	51.7	3.8
Touristic municipalities	47.6	51.3	3.7

\* Percentage points

#### 4.16 General outcome of improving and regressing elected municipalities

All the elected municipalities improved their sustainability score in 2024 compared to 2017, see Annex A.

Tables 5.1 and 5.2 show the ten elected municipalities that improved their sustainability score most or least. Of all the municipalities, Leusden improved its sustainability score the most between 2017 and 2024, by 7.2 percentage points. None of the elected municipalities show a reduction in sustainability score between 2017 and 2024. In this respect, the least improving municipalities among all elected municipalities are Amsterdam and Midden-Delfland, both showing an increase of 0.6 percentage points.

Table 5.1 The ten elected municipalities whose sustainability performance scores (0-100) has improved most in the period 2017-2024

Elected municipality	Typology 2017	Total score 2017	Total score 2024	Difference*
Leusden	Small, Green	49.1	56.3	7.2
Veenendaal	Medium, Former industrial, New town	45.0	51.7	6.7
Voorst	Small, Agricultural	47.3	53.7	6.4
Aalten	Small, Agricultural	47.4	53.8	6.3
Nijkerk	Small, Growth, New town	46.4	52.7	6.3
Ede	Large, Centre, Green, Growth, New town	47.1	53.2	6.1
Utrechtse Heuvelrug	Small, Green	47.3	53.4	6.0
Culemborg	Small, Former industrial, New town	46.6	52.6	6.0
Noordwijk	Small, Green, Tourist, Work	48.7	54.7	6.0
Krimpenerwaard	Medium, Agricultural	44.8	50.7	5.9

\* Percentage points



Table 5.2 The ten elected municipalities whose sustainability performance scores (0-100) has improved least in the period 2017-2024

Municipality	Typology 2017	Total score 2017	Total score 2024	Difference*
Amsterdam	Large, Centre, Growth, Historic, Tourist, Work	47.0	47.6	0.6
Midden-Delfland	Small, Agricultural, Growth, New town	49.2	49.8	0.6
Oostzaan	Small, Former industrial, New town, Tourist	45.7	46.5	0.9
Zoeterwoude	Small, Agricultural	46.4	48.0	1.6
Vlieland	Small, Historic, Shrink, Tourist	52.4	54.2	1.8
Groningen	Large, Centre, Growth, Tourist, Work	48.1	50.0	1.9
Laren (NH.)	Small, Green	46.4	48.5	2.0
Rozendaal	Small, Green, Residential	51.7	53.7	2.1
Ameland	Small, Historic, Tourist	48.3	50.7	2.3
Meerssen	Small, Former industrial, Residential, Shrink, Tourist	46.7	49.1	2.4

\* Percentage points

## 5 Performance of elected municipalities in terms of their CO<sub>2</sub> emission scores

This chapter describes the performance of the elected municipalities in terms of CO<sub>2</sub> emissions. Although these emissions are included as an indicator in the ecological capital, this chapter highlights 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<sub>2</sub> emissions of elected municipalities

In this section, the outcome of the CO<sub>2</sub> emission assessment of elected municipalities will be discussed. This is one of the key transitions to which national governments have committed themselves in the framework of the UN Climate Change Convention and particularly since the 2015 Paris Agreement. Individual municipalities have made similar commitments, e.g. through the framework of the Covenant of Mayors to combat climate change. In the Netherlands, the Association of Dutch Municipalities (VNG) has signed an agreement in 2013 with the national government and other parties to substantially reduce CO<sub>2</sub> emissions in the following years. In 2019, the national government signed the climate agreement to commit to the ambitious goals.

Data on the CO<sub>2</sub> emissions of each municipality are available on the web-portal of the Dutch Emissions Authority. This authority calculates the CO<sub>2</sub> emissions every five years, including the two most recent years. At this moment, data are available for 1990-2015 in a five-year interval, supplemented by the two most recent years in their database (2020 and 2021). In this impact report, the reduction over the two most recent years has been used. To give a more detailed picture, this impact report uses a different approach than the other impact reports by showing the raw emission data instead of the calculated sustainability score for CO<sub>2</sub> emissions.

As can be seen in Table 5.3, the group of elected municipalities achieved a reduction in CO<sub>2</sub> emissions of 27.1% over the period 1990-2021 and 29.7% over the period 2010-2021. However, the CO<sub>2</sub> emissions of this group increased by 3.7% between 2020 and 2021. The total group of municipalities also increased their CO<sub>2</sub> emissions over this period, by 3.9%.

Table 5.3 Developments of CO<sub>2</sub> 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 (107)	-27.1%	-29.7%	3.7%
Others	5.6%	-10.4%	3.9%
Total (342)	-2.0%	-14.5%	3.9%

Table 5.4 shows that Amsterdam, Wageningen, Utrecht and Hattum have the highest (and only) reductions in CO<sub>2</sub> emissions between 2021 and 2020. All other municipalities show an increase in CO<sub>2</sub> emissions. The largest increase was found in Vlieland, followed by Rozendaal, Schiermonnikoog and Terschelling. This is mainly due to a large increase in the

absolute number of kilograms for the Wadden Islands. As these are relatively small areas, this substantial increase is 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<sub>2</sub> 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<sub>2</sub> emissions between 2020 and 2021 (last two columns)

Elected municipality	Emission change between measuring years 2020 and 2021	Elected municipality	Emission change between measuring years 2020 and 2021
Amsterdam	-2.4	Vlieland	56.4
Wageningen	-1.8	Rozendaal	27.3
Utrecht	-1.3	Schiermonnikoog	25.9
Hattem	-0.6	Terschelling	24.7
Nijmegen	0.0	Ameland	15.5
Leiden	0.1	Hilversum	12.6
Delft	0.8	Bergen (NH.)	12.1
Leidschendam-Voorburg	0.9	Haaksbergen	10.9
Groningen	1.4	Lansingerland	10.8
Middelburg (Z.)	1.5	Teylingen	10.4

## 6 Discussion and overview of the results of the 2017-2024 assessment period

In conclusion, the elected municipalities continued to outperform the other group of municipalities by 2.2 percentage points (51.4 vs. 49.2) over the period 2017-2024. The sustainability scores improved for all three capitals, for both groups of municipalities. The largest improvements occurred for the economic capital (7.3 vs. 7.8 percentage points), while the improvements of the socio-cultural and ecological capitals were relatively smaller.

Among the elected municipalities, all had similar or higher sustainability scores for 2024 than for 2017. The scores of the municipalities are rather dynamic from year to year, although major differences and advantages among municipalities are of a structural nature. Over the reporting period, the elected municipality Leusden improved the most, by 7.2 percentage points. The elected municipalities that improved least are Amsterdam and Midden-Delfland, both with an increase of 0.6 percentage points.

A closer look at the CO<sub>2</sub> emissions shows that the group of elected municipalities achieved a reduction in CO<sub>2</sub> emissions of 27.1% over the period 1990-2021 and 29.7% over the period 2010-2021. However, the CO<sub>2</sub> emissions of this group increased by 3.7% between 2020 and 2021. Only four municipalities managed to reduce their CO<sub>2</sub> emissions in this period: Amsterdam, Wageningen, Utrecht and Hattum. All other municipalities realized an increase in CO<sub>2</sub> emissions. The largest increase was found in Vlieland, followed by Rozendaal, Schiermonnikoog and Terschelling.

It is not always the best scoring municipality in a given category that shows the largest 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 deterioration from year to year provide relevant incentives for municipalities to better understand their position, learn from each other, reduce vulnerabilities and develop new approaches to existing and emerging challenges. Impact reporting of sustainability bonds stimulates elected and other municipalities to invest proceeds from the bonds and other resources in the most effective operational and innovative structural activities to improve sustainability.

## Annex A: Overview of the differences in total sustainability performance scores (0-100) in 2017 and 2024 for all 107 elected municipalities

Municipality	Total sustainability score 2017	Total sustainability score 2024	Difference 2017-2024*
Leusden	49.1	56.3	7.2
Veenendaal	45.0	51.7	6.7
Voorst	47.3	53.7	6.4
Aalten	47.4	53.8	6.3
Nijkerk	46.4	52.7	6.3
Ede	47.1	53.2	6.1
Utrechtse Heuvelrug	47.3	53.4	6.0
Culemborg	46.6	52.6	6.0
Noordwijk	48.7	54.7	6.0
Krimpenerwaard	44.8	50.7	5.9
Dalfsen	50.5	56.4	5.9
Zwolle	46.8	52.6	5.8
Oudewater	41.6	47.4	5.8
Amersfoort	46.7	52.5	5.8
Wijk bij Duurstede	48.6	54.2	5.7
Olst-Wijhe	49.0	54.6	5.7
Meerijstad	44.1	49.7	5.6
Berkelland	46.5	52.2	5.6
Buren	45.1	50.6	5.5
Zeist	45.2	50.8	5.5
Woudenberg	47.2	52.7	5.5
Middelburg (Z.)	44.5	50.0	5.5
Apeldoorn	48.0	53.4	5.4
Teylingen	46.5	51.8	5.3
Bergen (NH.)	45.3	50.4	5.2
Hellendoorn	48.3	53.4	5.1
Dinkelland	49.8	54.9	5.1
Scherpenzeel	46.5	51.6	5.1
Best	45.5	50.5	5.0
Voerendaal	44.0	48.9	4.9
Woerden	46.5	51.4	4.9
Schiermonnikoog	45.5	50.4	4.9
Terschelling	47.6	52.5	4.9
Baarn	46.0	50.8	4.8
Voorschoten	49.1	53.8	4.7
Montfoort	47.0	51.8	4.7

Municipality	Total sustainability score 2017	Total sustainability score 2024	Difference 2017-2024*
Nijmegen	49.4	54.0	4.6
Hilversum	45.6	50.1	4.6
Huizen	45.0	49.6	4.5
Barneveld	47.6	52.0	4.5
Valkenburg aan de Geul	45.6	50.1	4.5
Delft	47.8	52.3	4.5
Bloemendaal	49.7	54.1	4.5
Renswoude	47.7	52.2	4.4
Gulpen-Wittem	45.4	49.8	4.4
Oegstgeest	49.4	53.8	4.4
Haarlem	46.9	51.3	4.4
Kampen	47.8	52.2	4.4
Rijssen-Holten	48.7	53.0	4.4
Staphorst	51.8	56.1	4.3
Eindhoven	45.8	50.1	4.3
Goes	45.4	49.6	4.3
Nunspeet	48.8	53.1	4.2
Veere	48.0	52.2	4.2
Bronckhorst	49.5	53.7	4.2
Castricum	47.3	51.5	4.2
Heeze-Leende	49.0	53.1	4.1
Utrecht	48.1	52.2	4.1
Wierden	48.5	52.6	4.1
Bladel	48.8	52.8	4.1
Bunnik	50.1	54.1	4.0
Sint-Michielsgestel	46.9	50.9	4.0
Katwijk	47.2	51.1	3.9
Wageningen	52.0	55.9	3.9
Leidschendam-Voorburg	43.3	47.2	3.9
Westland	43.9	47.8	3.8
Nuenen, Gerwen en Nederwetten	50.6	54.4	3.8
Wassenaar	46.9	50.7	3.7
Leudal	44.0	47.7	3.7
Hattem	48.9	52.5	3.7
Haaksbergen	49.1	52.7	3.6
Waalre	48.8	52.4	3.6
Lansingerland	44.7	48.3	3.6
Arnhem	46.7	50.2	3.5
Stichtse Vecht	43.8	47.2	3.3
Putten	47.2	50.5	3.3
Pijnacker-Nootdorp	47.0	50.3	3.3

Municipality	Total sustainability score 2017	Total sustainability score 2024	Difference 2017-2024*
Mook en Middelaar	48.6	51.8	3.3
Boekel	46.1	49.4	3.2
Ermelo	50.3	53.6	3.2
Uitgeest	42.6	45.8	3.2
Lopik	45.8	49.0	3.2
Vught	49.1	52.3	3.2
Breda	45.7	48.9	3.1
Hilvarenbeek	50.1	53.0	3.0
Kapelle	46.7	49.6	2.9
Eijsden-Margraten	47.5	50.4	2.9
Reusel-De Mierden	50.1	52.9	2.8
Gooise Meren	45.0	47.8	2.8
Heumen	50.5	53.2	2.7
Waterland	46.5	49.2	2.6
Houten	50.2	52.8	2.6
Leiden	46.4	49.0	2.6
Amstelveen	48.0	50.4	2.5
Son en Breugel	47.3	49.8	2.5
Dantumadiel	45.7	48.2	2.5
Blaricum	49.1	51.5	2.4
Meerssen	46.7	49.1	2.4
Ameland	48.3	50.7	2.3
Rozendaal	51.7	53.7	2.1
Laren (NH.)	46.4	48.5	2.0
Groningen	48.1	50.0	1.9
Vlieland	52.4	54.2	1.8
Zoeterwoude	46.4	48.0	1.6
Oostzaan	45.7	46.5	0.9
Midden-Delfland	49.2	49.8	0.6
Amsterdam	47.0	47.6	0.6

\* Percentage points

## Annex B: Overview of the changes in CO<sub>2</sub> emissions in 2020–2021 for all elected municipalities

Elected municipality	Typology	% Difference 2020-2021
Amsterdam	Large, Centre, Growth, Historic, Tourist, Work	-2.4
Wageningen	Small, Growth, Work	-1.8
Utrecht	Large, Centre, Growth, Historic, Tourist, Work	-1.3
Hattem	Small, Former industrial	-0.6
Nijmegen	Large, Centre, Growth, Tourist, Work	0.0
Leiden	Large, Centre, Growth, Historic, Work	0.1
Delft	Large, Centre, Growth, Historic	0.8
Leidschendam-Voorburg	Medium	0.9
Groningen	Large, Centre, Growth, Tourist, Work	1.4
Middelburg (Z.)	Small, Centre, Historic, Tourist	1.5
Zwolle	Large, Centre, Growth, New town, Work	1.7
Zeist	Medium, Green, Work	2.0
Utrechtse Heuvelrug	Small, Green	2.4
Apeldoorn	Large, Centre, Green, Work	2.5
Ermelo	Small, Green, Work	2.5
Barneveld	Medium, Green, Growth, New town, Work	2.7
Vught	Small	2.8
Leusden	Small, Green	3.0
Bunnik	Small, Agricultural, Growth	3.3
Son en Breugel	Small, Growth, Work	3.4
Breda	Large, Centre, Growth, Work	3.6
Woudenberg	Small, Growth, New town	3.6
Putten	Small, Former industrial, Green, Growth	3.7
Goes	Small, Work	4.1
Leudal	Small, Centre, Shrink, Tourist	4.2
Berkelland	Small, Agricultural, Shrink	4.3
Boekel	Small, Agricultural, Growth, New town	4.4
Voorst	Small, Agricultural	4.4
Stichtse Vecht	Medium	4.4
Eindhoven	Large, Centre, Former industrial, Growth, Work	4.5
Wassenaar	Small, Green, Tourist	4.5
Amersfoort	Large, Growth, New town, Work	4.5
Woerden	Medium, Agricultural, Growth, New town	4.7
Blaricum	Small, Growth	4.8
Waterland	Small, Historic, Residential, Tourist	4.8
Zoeterwoude	Small, Agricultural	4.9
Oegstgeest	Small, Growth, New town	5.1



Elected municipality	Typology	% Difference 2020-2021
Dantumadiel	Small, Agricultural, Residential, Shrink	5.1
Gooise Meren	Medium, Centre	5.2
Krimpenerwaard	Medium, Agricultural	5.2
Sint-Michielsgestel	Small, Residential	5.2
Kapelle	Small, Growth	5.3
Lopik	Small, Agricultural, Historic	5.4
Noordwijk	Small, Green, Tourist, Work	5.5
Ede	Large, Centre, Green, Growth, New town	5.6
Staphorst	Small, Agricultural, Historic	5.7
Dalfsen	Small, Agricultural, Growth	5.9
Huizen	Small, Centre, Residential	6.1
Uitgeest	Small, Growth, New town, Residential	6.2
Olst-Wijhe	Small, Agricultural	6.3
Nuenen, Gerwen en Nederwetten	Small, Former industrial, New town	6.4
Heumen	Small, New town, Residential	6.4
Buren	Small, Agricultural, Residential	6.4
Renswoude	Small, Agricultural, Growth, New town	6.5
Katwijk	Medium, Centre, Growth	6.5
Nijkerk	Small, Growth, New town	6.6
Houten	Small, Growth, New town	6.7
Dinkelland	Small, Agricultural	6.9
Heeze-Leende	Small, Green	7.0
Midden-Delfland	Small, Agricultural, Growth, New town	7.0
Arnhem	Large, Centre, Green, Growth, Tourist, Work	7.1
Laren (NH.)	Small, Green	7.2
Meerijstad	Medium, Work	7.2
Best	Small, Former industrial, New town, Work	7.4
Culemborg	Small, Former industrial, New town	7.5
Veenendaal	Medium, Former industrial, New town	7.7
Bronckhorst	Small, Agricultural, Historic, Shrink	7.7
Reusel-De Mierden	Small, Former industrial, Residential	7.8
Oudewater	Small, Agricultural, Historic	7.8
Wierden	Small, Agricultural, Former industrial, Residential	7.8
Oostzaan	Small, Former industrial, New town, Tourist	7.8
Hilvarenbeek	Small, Tourist	7.8
Rijssen-Holten	Small, Former industrial	8.0
Baarn	Small, Green	8.1
Meerssen	Small, Former industrial, Residential, Shrink, Tourist	8.1
Gulpen-Wittem	Small, Agricultural, Historic, Residential, Shrink, Tourist	8.4
Bloemendaal	Small, Green, Residential, Tourist	8.4

Elected municipality	Typology	% Difference 2020-2021
Aalten	Small, Agricultural	8.4
Valkenburg aan de Geul	Small, Shrink, Tourist	8.5
Voerendaal	Small, Agricultural, Former industrial, Residential, Shrink, Tourist	8.5
Eijsden-Margraten	Small, Agricultural, Historic, Residential, Tourist	8.6
Kampen	Medium, Growth, Historic	8.8
Veere	Small, Tourist	8.9
Amstelveen	Medium, Growth, Tourist, Work	9.2
Castricum	Small, Centre, Residential	9.2
Scherpenzeel	Small, Growth	9.3
Hellendoorn	Small, Former industrial	9.5
Haarlem	Large, Centre, Growth, Historic	9.5
Wijk bij Duurstede	Small, New town, Residential	9.5
Waalre	Small, Former industrial, Green, Residential	9.6
Pijnacker-Nootdorp	Medium, Growth, New town, Residential	9.8
Westland	Large, Centre, Growth, New town, Work	9.8
Voorschoten	Small, Growth, Residential	9.9
Bladel	Small, Former industrial, Growth	10.0
Mook en Middelaar	Small, Green, Residential, Shrink, Tourist	10.1
Nunspeet	Small, Green	10.3
Montfoort	Small, Agricultural	10.4
Teylingen	Small, New town	10.4
Lansingerland	Medium, Growth, New town	10.8
Haaksbergen	Small, Former industrial	10.9
Bergen (NH.)	Small, Green, Shrink, Tourist	12.1
Hilversum	Medium, Centre, Green, Growth, Work	12.6
Ameland	Small, Historic, Tourist	15.5
Terschelling	Small, Tourist	24.7
Schiermonnikoog	Small, Historic, Residential, Tourist	25.9
Rozendaal	Small, Green, Residential	27.3
Vlieland	Small, Historic, Shrink, 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 now sufficiently connected to fiberglass.
- The indicator 'Young population' has been removed from the stock 'Labour'.
- 'Landscape aesthetic value' has been removed from the stock 'Nature and Landscape' as it has not been updated for some time.
- The indicators 'Hazardous waste', 'Organic waste', 'Paper and cardboard waste' and 'Plastic, metal and beverage packaging waste' have been removed from the stock 'Resources & waste', due to new insights.
- The indicator 'Quality of swimming water' has been removed from the stock 'Water'.

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

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

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

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

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

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



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

Capital	Stock	Indicator	Description	Unit	Aggregation
Economy	Spatial location conditions	Deprecated business parks	Percentage of deprecated business parks compared to the total (gross) area of business parks.	Percentage	Business parks
Economy	Spatial location conditions	Net gross ratio business park	Ratio of business area to the issued land area of the business park.	Percentage	Business parks
Economy	Spatial location conditions	Office vacancy	Share of vacant offices.	Percentage	Municipality
Economy	Spatial location conditions	Vacant retail space	Share of vacant retail space.	Percentage	Municipality
Ecology	Air	Ammonia emissions	Emission of ammonia per inhabitant.	kg/inhabitant	Municipality
Ecology	Air	CO <sub>2</sub> emissions	Emission of CO <sub>2</sub> per inhabitant.	kg/inhabitant	Municipality
Ecology	Air	Emission of volatile organic substances	Emission of volatile organic substances per inhabitant.	kg/inhabitant	Municipality
Ecology	Air	Methane emissions	Emission of methane per inhabitant.	kg/inhabitant	Municipality
Ecology	Air	Nitrogen concentration	The average concentration of nitrogen in the air.	µg/m <sup>3</sup>	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 <sup>3</sup>	Surface area
Ecology	Air	Particulate matter concentration	The average concentration of particulate matter (PM2.5) in the air.	µg/m <sup>3</sup>	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/cm <sup>2</sup> /sr	Surface area
Ecology	Annoyance & external safety	Noise intensity	Percentage of land area affected by noise levels of 55 dB or more.	Percentage	Surface area
Ecology	Annoyance & external safety	Risk of flooding	Number of probable victims in case of a flood with a medium chance.	Number of probable victims	Surface area
Ecology	Energy	Electricity consumption households	Electricity consumption households.	kWh	Municipality

Capital	Stock	Indicator	Description	Unit	Aggregation
Ecology	Energy	Electricity consumption industry	Electricity consumption industry.	kWh/employee	Municipality
Ecology	Energy	Energy consumption mobility	CO <sub>2</sub> emissions Traffic and transport excl. electricity consumption traffic (fossil fuels).	Tonnes of CO <sub>2</sub>	Municipality
Ecology	Energy	Energy label homes	Percentage of homes with energy label B or higher.	Percentage	Municipality
Ecology	Energy	Energy label utility buildings	Percentage of utility buildings with energy label B or higher.	Percentage	Municipality
Ecology	Energy	Gas consumption households	Average gas consumption households in m <sup>3</sup> gas.	m <sup>3</sup>	Municipality
Ecology	Energy	Gas consumption industry	Average gas consumption industry in m <sup>3</sup> gas equivalents per employee.	m <sup>3</sup> /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 <sup>2</sup>	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/km <sup>2</sup>	Surface area
Ecology	Nature and landscape	Species diversity	Total number of species observed in the area over a 10-year period.	Count/km <sup>2</sup>	Surface area
Ecology	Resources & waste	Bulky household residual waste	Residual waste not separately collected that is too large or heavy to be disposed of in the same way as household residual waste.	kg/inhabitant	Municipality
Ecology	Resources & waste	Fine household residual waste	Fine household residual waste.	kg/inhabitant	Municipality
Ecology	Resources & waste	Separation of bulky household waste	Share of separated bulky household waste.	Percentage	Municipality
Ecology	Resources & waste	Separation of fine household waste	Share of separated fine household waste.	Percentage	Municipality

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

HET **pon | telos**



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