

Sustainability Framework 2019 for a BNG Bank Sustainability Bond for Dutch Social Housing Associations

Internal and external assessment of PPP-sustainability and an outlook at
SDG scores



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Summary

BNG Bank has issued sustainability bonds for the Dutch social housing sector since 2016. Telos of Tilburg University, the Netherlands, has developed frameworks measuring PPP-sustainability for such sustainability bonds. The first Framework was published July 2016 and has been used for the BNG Bank sustainability bond that was issued 6 July 2016, (EUR 1,000,000,000 | 0.05% | 13 Jul 2024).

Based on a more elaborated Framework of Telos in 2017, a second BNG Bank sustainability bond for Dutch social housing associations was issued 14 December 2017 (USD 750,000,000 | 2.125% | 14 Dec 2020).

BNG Bank asked Telos in March 2018 to prepare a 2018 Framework for a 2018 Sustainability Bond. The basis for the framework would be the same as in 2017, but it was requested to also include its meaning from the point of view of the UN Sustainable Development Goals (SDGs). This meant that the framework presented still elects social housing associations based on their performance according to the earlier developed framework using a PPP-methodology, but that in addition the contribution of housing associations to the SDGs is shown. The framework was published 5 September 2018 (Zoeteman and Mulder, 2018). The third BNG Bank Sustainability Bond was issued 8 November 2018 (USD 500,000,000 | 3.125% | 8 November 2021).

The 2019 Framework presents a similar approach as in 2018. It is based on an integral sustainability measurement combining an internal and an external sustainability assessment of Dutch social housing associations.

The **internal** sustainability is measured using three internal 'capitals', which cover the performance of headquarters of the social housing association and its housing units, by assessing the three sustainability capitals (PPP), as indicated by the United Nations Brundtland Commission of 1987.

The **external** sustainability deals with the local environment in which the rental housing units are located. Three (PPP) sustainability capitals also measure this external sustainability performance.

The result is that the total sustainability score is based on the mean value of the internal and external performance scores, including in total 6 capitals, 21 themes and 79 indicators.

The framework also implies a preselection step of eligible social housing associations, limiting the total group of 320 associations by preferring in the study those 200 that have a high PPP-sustainability score and are most focused on investing in neighborhoods with a large social challenge. The latter is the core business of Dutch social housing associations.

Subsequently 10 classes of associations have been defined, based on association size and age of property, as well as on two other types characterized by a large proportion of one-family dwellings or high-rise buildings.

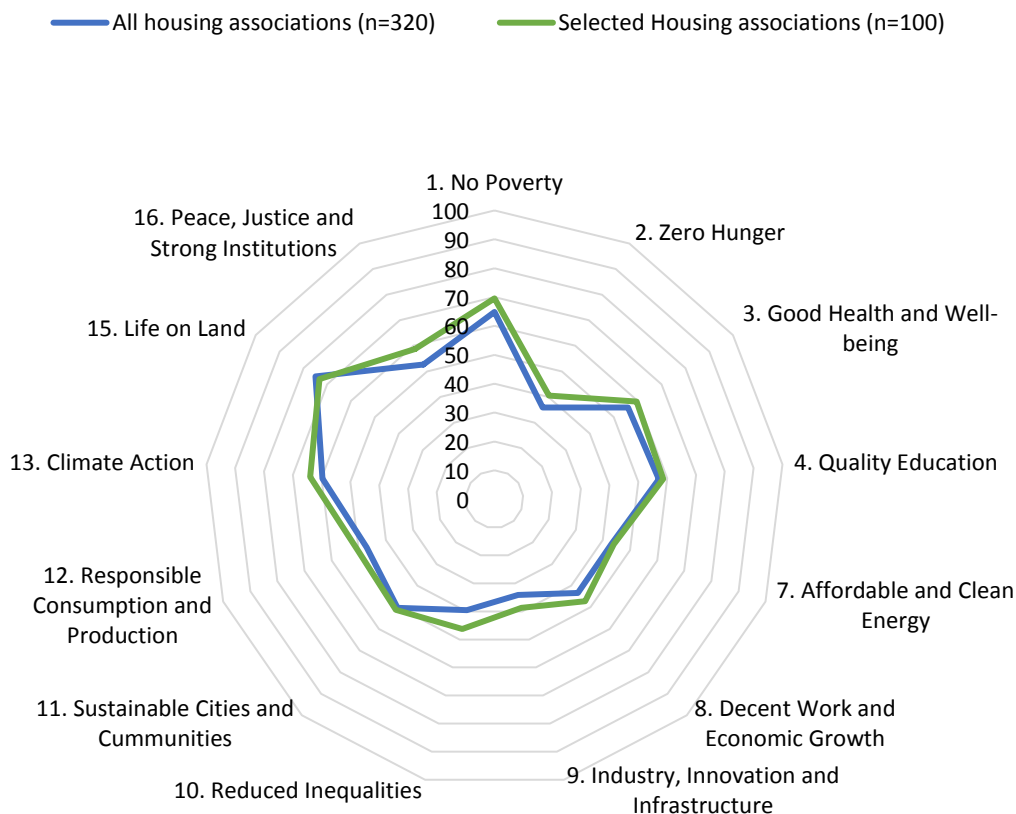
From the group of 200 preselected associations the 15 highest scoring associations on sustainability in each of the 10 classes have been selected. This resulted, after correcting for double counting, in a total group of 100 selected associations (see Table 6.1). These are the best scoring associations on PPP-sustainability of their classes and can be used as the elected associations for a 2019 BNG Bank Sustainability Bond for Dutch Social Housing Associations.

Table S1 List of ten highest scoring associations on total sustainability performance among the 320 associations studied

NAME	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
Woningstichting Putten	61.8	60.2	61.0
Woonstichting VechtHorst	58.1	61.5	59.8
Stichting Beter Wonen	60.0	59.5	59.7
Stichting Wonen Midden-Delfland	62.5	55.1	58.8
Woningstichting Nijkerk	57.9	59.5	58.7
Stichting Heuvelrug Wonen	63.8	53.6	58.7
Woonstichting Langedijk	59.8	57.1	58.4
Stichting IJsseldal Wonen	59.5	57.2	58.3
Charlotte Elisabeth van Beuningen Stichting	62.5	53.5	58.0
Stichting Woonwijze	61.6	54.3	58.0

This framework report also presents a methodology to measure the contribution of the social housing associations to the SDGs. Among the 17 SDGs, 13 could be linked to social housing associations. The relevant indicators have been allocated to these remaining 13 SDGs. The same methodology as used to derive sustainability scores for indicators was applied to calculate a score for each of these 13 SDGs.

SDG scores housing associations 2019



Because of methodological reasons it is not possible to calculate an overall SDGs score, like in the case of the PPP-sustainability assessment. However, based on the frequency of occurrence in the top 10 of social housing associations for each individual SDG, a ranking of 10 highest performing associations is presented. These associations belonged three or more times to a top 10 group. This SDGs ranking deviates somewhat from the ranking obtained with the PPP-sustainability scoring method. The latter is, from a scientific point of view (larger number of indicators and no overlap in indicators), preferred in the selection process of social housing associations eligible for the sustainability bond.

The 100 selected associations will be yearly monitored on PPP-sustainability scores during the term of the bond, using the methodology of this framework. The outcome of the annual monitoring will be reported in Impact Reports.

In the annual Impact Reports, the performance will also be monitored from the SDGs point of view.



1 Introduction

1.1 Social housing associations and their social environment

Most recent data indicate that in 2018 320 social housing associations (Dutch: *woningcorporaties*) existed in the Netherlands, which number is decreasing, e.g. by mergers of associations. The social housing associations involve a total of some 2.4 million housing units (Aedes, 2019). This shows that social housing associations play a major role in the Netherlands, providing housing for 29% of the Dutch population. Investments are financed by social housing associations' own equity and bank loans. The collective assets of all social housing associations are used as collateral for financiers through the Social Housing Guarantee Fund (Dutch: *Waarborgfonds Sociale Woningbouw*) which also watches over risk management. Ultimately, bank loans are backed up by the Dutch State and municipalities, which act as potential guarantors of last resort. This results in more favorable financing terms and counter-cyclical investments, without any direct government subsidies for new investments. The Guarantee Fund never needed to materialize a guarantee since its start in 1983.

Social housing associations are organizations meant to construct, maintain and rent housing space of good quality for an affordable price to relatively vulnerable citizens requiring special attention.

Social housing associations were starting to flourish in the Netherlands since a national law of 1901 allowed national subsidies for social housing associations or other types of organizations. It resulted in a major influence of the national government in the social housing sector. Government not only provided financial subsidies, but also developed regulation and its enforcement. The execution of the housing task was left to the housing organizations. As a result, a long tradition exists in the Netherlands to provide affordable housing to low income groups in society (TK, 2015).

The gradually developed additional roles of social housing associations, such as investing in aspects of the residential environment, has been limited recently in a new Housing Act (Dutch: *Woningwet*) of 2015.

1.2 Climate change a major challenge

The new Dutch government of 2017 (Rutte III) (TK, 2018) has set itself ambitious climate goals, in line with the Paris UN Climate Agreement, to halve CO2 emissions by 2030. Some 12% of the reduction amount has

to be delivered by the build environment, including the housing sector. This means a major effort for the social housing associations the coming decades. Recently the national government has reached agreement with relevant sectors in the Netherlands on how to implement climate related measures and published its decision on 28 June 2019 in the so-called Climate agreement ([https://www.klimaatakkoord.nl/](https://www.klimaatakkkoord.nl/)).



Presentation of the Climate Agreement by the Dutch Cabinet, 28 Juni 2019

In relation to the housing sector, this climate agreement includes a number of measures, such as:

- All buildings have to be sustainable by 2050. This means that all houses and buildings have to become CO₂-neutral the next 30 years. New neighborhoods will be free of natural gas pipes.
- A heat fund will be established which can lend annually 50 to 80 million EUROS at a low interest rate e.g. to better insulate homes. The fund will be available till 2030.
- Tax on the consumption of natural gas will be stepwise increased while tax on electricity use will be reduced.

1.3 Developments in frameworks for BNG Bank Sustainability Bonds

At the start of the year 2016, BNG Bank invited Telos, Sustainability Centre of Tilburg University, to develop a framework for a sustainability bond for social housing associations in the Netherlands, which defines the sustainability characteristics for selecting the best scoring social housing associations. A similar framework was developed by Telos for

the BNG Bank SRI bond for municipalities since 2014 (Zoeteman et al. 2015a, Sustainalytics, 2015), using an earlier developed methodology (Zoeteman et al., 2016a, 2016b; Zoeteman, 2012) as used for the Dutch 'National Monitor for Sustainable Municipalities' (Zoeteman et al., 2015b). This national monitor was issued for the first time in 2014 on request of the Dutch Ministry of Infrastructure and Environment. In the case of a sustainability bond for stimulating sustainable social housing, the basics for a framework could not be copied from the work on municipalities but had to be developed from scratch. On the other hand, gained experiences with municipalities, provinces and business sectors made it easier to move quickly towards establishing such a framework.

When BNG Bank announced plans to issue a sustainability bond for the social housing sector, respecting the Sustainability Bond Guidelines (ICMA, 2016) of the Green Bond Principles, Telos proposed to follow a two-step approach. As a first step, a solid but simplified sustainability bond framework was published in spring 2016. The second step would be a further refined version to be developed later that year. The simplified framework was published July 2016 and used for the first BNG Bank Sustainability Bond that was issued 6 July 2016, (EUR 1,000,000,000 | 0.05% | 13 Jul 2024). Second opinion was provided by Sustainalytics (2016).

Subsequently, the elaboration of the simplified framework was developed and finished end 2016 (Zoeteman and Mulder, 2016). Besides the internal sustainability performance of social housing associations, also the performance of the surrounding environment of the rental units of the association was assessed.

BNG Bank asked Telos in March 2017 to prepare a 2017 Framework for a 2017 Sustainability Bond, using the elaborated methodology. The 2017 Framework used this elaborated framework of December 2016 and was published 14 September 2017 (Zoeteman and Mulder, 2017). It was used for the second BNG Bank Sustainability Bond that was issued 14 December 2017 (USD 750,000,000 | 2.125% | 14 Dec 2020). (<https://www.bngbank.com/funding/social-housing-bond>).

BNG Bank asked Telos in March 2018 to prepare again a 2018 Framework for a 2018 Sustainability Bond. The basis for the framework would be the same as in 2017 but it was requested to include its meaning from the point of view of the UN Sustainable Development Goals (SDGs). This means that the framework presented still elects social housing associations based on their performance according to the earlier developed elaborated sustainability method, but that in addition the contribution of social housing associations to the SDGs will be shown. The framework was published 5 September 2018 (Zoeteman and Mulder, 2018). The third BNG Bank Sustainability Bond was issued 8 November 2018 (USD 500,000,000 | 3.125% | 8 November 2021).

BNG Bank decided to continue the approach followed in 2018 and asked Telos in April 2019 to prepare a new framework on this basis, respecting the Sustainability Bond Guidelines (ICMA, 2018) of the Green Bond

Principles. In this framework some simplifications will be inserted, as will be explained in chapter 2.

1.4 Set-up of 2019 framework report

After chapter 2, explaining the sustainability framework for the sustainability bond, chapter 3 presents the outcome for the internal performance and chapter 4 the outcome for the external sustainability performance of the social housing associations. In chapter 5 the combined result is shown. The outcome of the selection of best-in-class social housing associations is given in chapter 6. Chapter 7 presents the method Telos used to translate sustainability scores into SDG scores and how the social housing associations perform on the SDGs measured according to this methodology. Chapter 8 presents the conclusions.



Valkstraat

Ooijevaarstraat

2 The framework for a sustainability bond for Dutch social housing associations

2.1 General approach

The framework for selecting best-in-class social housing associations from a sustainability point of view, is based on measuring two aspects: internal performance aspects of social housing associations and the external sustainability performance of the environment of the housing units as described by Zoeteman and Mulder (2016).

The **internal** sustainability is measured using three internal 'capitals', which cover the performance of headquarters of the social housing association and its housing units, by assessing the three sustainability capitals (People, Prosperity, Planet or PPP), as indicated in the report of the United Nations Brundtland Commission of 1987. The method covers therefore social-cultural, economic and environmental aspects of the activities of the social housing association. Each capital is subdivided in themes.

The **external** sustainability deals with the local environment in which the rental housing units are located. Similar (PPP) sustainability capitals also measure this external sustainability performance.

The result is that the total sustainability score is based on the mean value of the internal and external performance scores, including in total 6 capitals, 21 themes and 79 indicators.

In this approach a change has been made in the internal sustainability measurement by deleting the 'internal business' capital in the internal sustainability domain. The relevant indicators of this capital have been attributed to the three other internal sustainability capitals, as described in Annex 1. Also the social-cultural capital of the internal sustainability domain has undergone some improvements, as presented in Annex 1

A prerequisite to operationalize the external performance is knowledge of the location of the rental units. Until now, Telos has not been able to acquire such data. In the meantime, an approximation of the location specific sustainability characteristics of rental units of social housing associations is followed, as will be described later.

Since the internal and external sustainability performance are assessed separately, the question is how to weigh both aspects in the final compilation of the total sustainability scores. It was considered to either weigh both aspects equally (1:1) or to give the internal performance score a heavier weight than the external performance score (e.g. 2:1).

Arguments in favor of the latter are that social housing associations have more direct power to influence internal performance and that data for internal performance are more readily available. An argument for the equal weighing of both aspects is that, although associations may not be able to directly influence external performance, associations have a dominant position in the neighborhoods where they are active and therefore are a key player that can exert pressure on municipal authorities to improve sustainability. Furthermore, internal and external performance do mutually impact each-other. Based on the latter two arguments internal and external performance are weighed equally.

Furthermore, the framework considers classes for the associations in order to avoid one-sidedness in assessing associations that would e.g. result in always preferring larger associations over smaller ones or vice versa. Including different classes of social housing associations allows to correct for this effect and gives associations of different types similar chances to be selected.

Using the best-in-class approach for social housing associations is, however, a complicated issue for an additional reason: a simple calculation per class of the highest scoring associations does not suffice. Social housing associations are created to help solve social problems in neighborhoods. Associations investing most in the poorest neighborhoods should be credited most for this reason, but will probably perform less according to the usual scoring methodology for sustainability. To overcome this potential paradox, a weighed preselection approach has been used, as was also the case for the 2016, 2017 and 2018 sustainability bonds of BNG Bank, and which is further described in chapter 6.1.

After these preparative steps, the final selection of best in class performing social housing associations from a sustainability point of view is a straightforward exercise.

2.2 Basic starting points for sustainability assessment of social housing associations

Telos has developed a general framework to quantify sustainable development of organizations, municipalities and regional authorities since the year 2000 (Zoeteman, Mommaas and Dagevos, 2016).

The framework is based on the broad sustainability definition of the UN Brundtland commission report *Our Common Future* (1987). The essence of the broad definition of sustainable development is that environmental quality, socio-cultural resilience and economic prosperity are societal aspects that should improve jointly and in a balanced way, safeguarding developmental prospects for future generations everywhere on our planet. The operationalization of this broad definition of sustainable development has been a matter of much debate, but has reached international consensus as reflected in the renewed and redefined 17 UN post 2015 Sustainable Development Goals (SDGs) and in the related 2030 Agenda.

Governments, including the Dutch Government, have agreed to monitor progress towards these goals on an annual basis.



SUSTAINABLE DEVELOPMENT GOALS



For the housing sector goal 11 is of direct importance: **‘Make cities and human settlements inclusive, safe, resilient and sustainable’**

This goal is specified with amongst others the following targets:

- 1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.
- 2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
- 3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries
- 4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.
- 5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.
- 6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.
- 7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.

The social housing sector plays an important role in contributing to these targets and their monitoring.

Based on these principles, Telos has developed a framework for housing associations that resembles in essence the framework developed for monitoring the sustainability of municipalities. This means that the three domains of sustainable development: ecological, socio-cultural and economic aspects (Planet, People and Profit) are included. The PPP-aspects are related to the characteristics of decentral housing property of the associations and their users. As explained in the previous chapter the characteristics of decentral housing property have been divided in internal performance (the housing units themselves) and the external performance (the neighborhood of the housing units).

Mindmap of capitals, themes and indicators

The structure for the capitals, their themes and related general sustainability requirements are listed in Table 2.1.

Table 2.1 General requirements for sustainability assessment of capitals and their 21 stocks relevant to social housing associations

EXTERNAL/ INTERNAL	CAPITAL	STOCK	REQUIREMENTS
External	Ecology	Air	The air is clean
External	Ecology	Annoyance and Emergencies	The risk for people of being affected by disasters is negligible
External	Ecology	Annoyance and Emergencies	Annoyance by odors, noise or light is absent
External	Ecology	Annoyance and Emergencies	There is no nuisance due to heavy rainfall
External	Ecology	Annoyance and Emergencies	There is no nuisance due to urban heat islands
External	Ecology	Nature and Landscape	Nature is preserved as much as possible and where feasible reinforced
External	Ecology	Nature and Landscape	Nature is accessible
External	Ecology	Nature and Landscape	Biodiversity needs to be maintained and reinforced
External	Social-Cultural	Social Participation	Citizens are concerned in society
External	Social-Cultural	Social Participation	Social cohesion in society is guaranteed
External	Social-Cultural	Social Participation	Every citizen has voting power, and uses that power
External	Social-Cultural	Economic Participation	Citizens are able to make ends meet financially
External	Social-Cultural	Economic Participation	there is no poverty and no social exclusion
External	Social-cultural	Arts and Culture	The cultural offer is sufficient and diverse
External	Social-Cultural	Arts and Culture	Everybody can participate actively or passively in cultural activities
External	Social-Cultural	Health	Everybody feels physically and mentally healthy
External	Social-Cultural	Health	Health care is of good quality and accessible for everyone
External	Social-cultural	Residential Environment	Public daily facilities are available and accessible for everyone
External	Social-Cultural	Residential Environment	Everybody is satisfied with their dwelling and living environment: Safe, pleasant and healthy
External	Social-Cultural	Education	Education is of high quality
External	Social-Cultural	Education	Everybody has access to the education appropriate to his or her capacities
External	Economic	Labor	Labor potential of the population is used as much as possible
External	Economic	Labor	Labor offered to the population is healthy
External	Economic	Labor	Supply and demand of labor are balanced, in quantity and quality
External	Economic	Competitiveness	The economy is nationally and internationally competitive
External	Economic	Infrastructure and accessibility	Businesses, facilities, institutions and economic centers are adequately accessible by transport means and ICT
External	Ecology	Energy	All consumed energy is renewable

EXTERNAL/ INTERNAL	CAPITAL	STOCK	REQUIREMENTS
Internal	Ecology	Energy	citizens consume less energy and emit less greenhouse gasses
Internal	Ecology	Resources and Waste	Social housing associations promote a circular economy through separated waste collection
Internal	Ecology	Resources and Waste	Citizens contribute to a wasteless circular economy
Internal	Economic	Corporational valuation	The association is in a healthy economic situation
Internal	Economic	Corporational valuation	The property of the association is of high value
Internal	Economic	Future Constancy	Social housing associations have a debt position with an acceptable risk profile
Internal	Economic	Future Constancy	Social housing associations highly value legality, financial continuity and integrity
Internal	Economic	Future Constancy	Creative, adaptive and innovative characteristics of the housing facilities are of high level
Internal	Economic	Loss of revenue	Available space is used in an optimal way
Internal	Economic	Loss of revenue	There is no loss of revenue due to vacancy or market developments
Internal	Social-Cultural	Physical and economic accessibility	Social housing associations are focused on their core business: affordable housing for people in need
Internal	Social-Cultural	Physical and economic accessibility	Allocations of dwellings is done appropriately to the target group
Internal	Social-Cultural	Physical and economic accessibility	Dwellings are accessible for people with physical or mental disabilities
Internal	Social-Cultural	Living quality	dwellings are available in a good price-quality ratio
Internal	Social-Cultural	Living quality	Dwellings are of high quality, in a healthy environment
Internal	Social-Cultural	Safety and Security	The chance of becoming a victim of violence, crime and traffic accidents is negligible
Internal	Social-Cultural	Safety and Security	Everybody feels safe
Internal	Social-Cultural	Residential satisfaction	Social housing associations provide excellent service to their tenants

To implement these requirements in practice, the choice has been made, as mentioned before, to split the ecological, socio-cultural and economic capitals in an interior and exterior part, resulting in 3 interior capitals and 3 exterior capitals. The mind-maps for the interior and exterior parts are given in Figure 2.1 and Figure 2.2. The sources of these data will be discussed in par. 2.5.

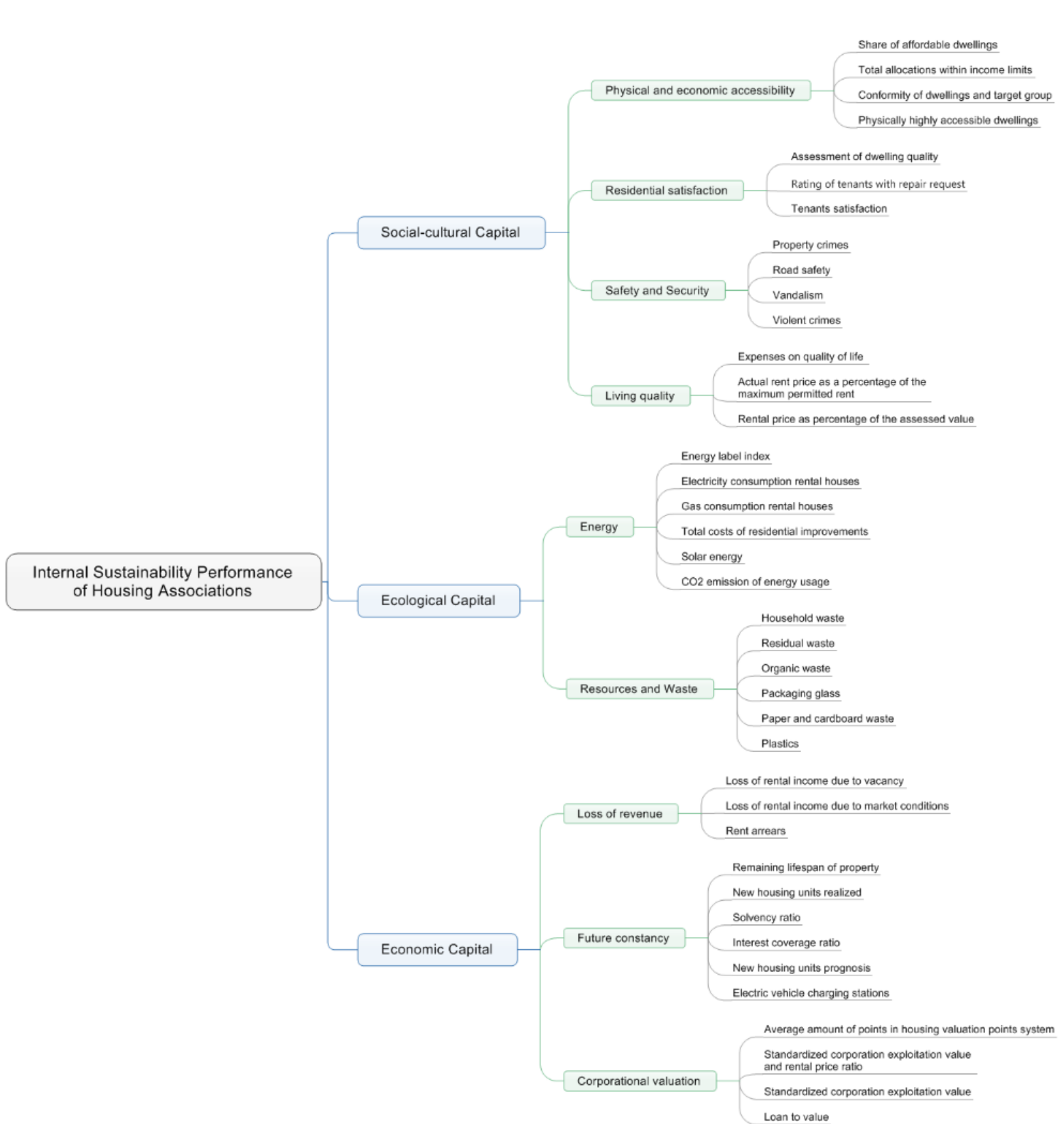


Figure 2.1 Mind-map of capitals, themes and indicators used in the internal framework for a Sustainability Bond for Dutch social housing associations

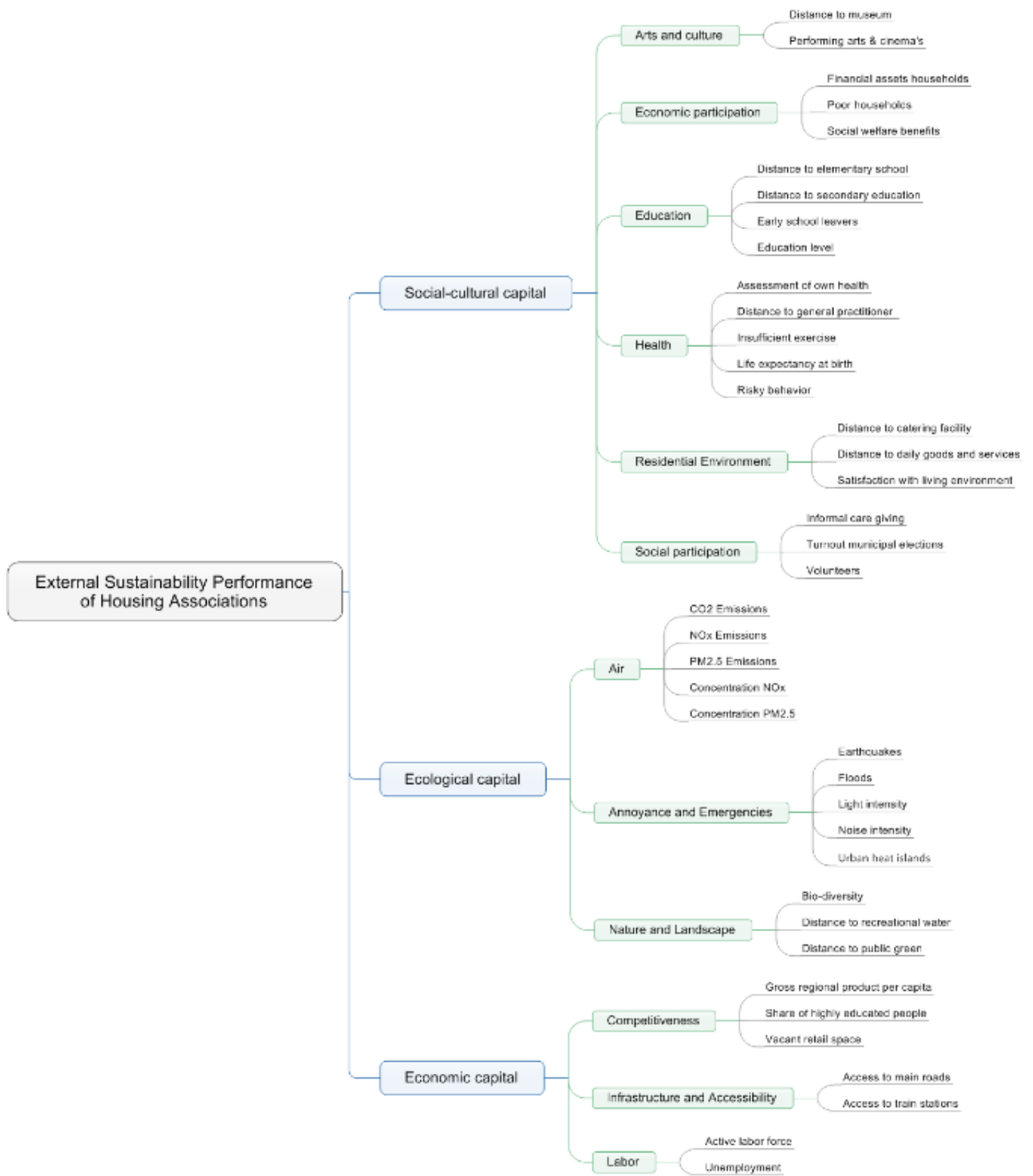


Figure 2.2 Mind-map of capitals, themes and indicators of the external framework for a Sustainability Bond for Dutch social housing associations

The mentioned 3 capitals, 9 themes and 39 indicators in Figure 3.1 will be used to assess the internal sustainability performance.

Figure 3.2 shows the 3 capitals, 12 themes and 40 indicators used to describe the external sustainability performance of the associations.

Linking neighborhood data to social housing association property.

The data for the indicators were collected on neighborhood level, for all relevant Dutch neighborhoods (Dutch: buurten). A solution had to be found for the different scale levels used in the study. In order to connect the neighborhood characteristics and sustainability scores to the social housing associations, detailed information is needed on the location of the association property. However, this data is unfortunately only available to Telos on municipality level, as mentioned before. Because of this problem, a method was developed to link the sustainability characteristics of the neighborhood with social housing association property.

Firstly, all neighborhoods were put into a selection process which started by excluding neighborhoods that are not relevant for this study. Neighborhoods with less than 100 houses were excluded, as well as neighborhoods with less than 150 inhabitants.

Secondly, the neighborhood data was aggregated to municipality level. This was done by taking the weighted¹ average of all the neighborhoods in a municipality.

In the last step, the data on municipality level was transformed to the social housing associations based on a weighted average on property per municipality. For example: association A has 25% of its property in Amsterdam, and 75% of its property in Utrecht. This association obtains an external sustainability score for 25% based on Amsterdam, and for 75% based on Utrecht.

This method was used for all 40 indicators in the external sustainability performance assessment, and for 14 out of the 40 indicators in the internal sustainability performance assessment. The used approximation is not perfect, but, given the data available, the best possible at the moment.

2.3 Remarks on allocation of indicators to capitals and themes

A detailed description of the 79 indicators used is given in Annex 1. This annex also explains how these indicators are defined and measured and

1 The weighing was conducted based on the number of social housing association houses in a neighborhood.

in what direction they are related to the sustainability scores. It should be realized that the Dutch social housing association sector has, seen in an international context, a rather unique position. For this reason, the social housing sector uses many concepts with a national signature, which are difficult to translate correctly into English. Where appropriate the Dutch term is added.

2.4 Sources of data on indicators

Indicator values for the social housing associations have been retrieved from the sources listed in Table 2.2.

Table 2.2 Data sources for the indicators used

CAPITAL	SOURCES
Ecological	Compendium voor de Leefomgeving, Centraal Bureau voor de Statistiek, Emissieregistratie, Grootschalige Concentratiekaarten Nederland, WoonOnderzoek, RIVM, Risicokaart, KNMI, KRW portaal, Inspectie voor de Leefomgeving, Rioned, NOAA/NGDC, Nationale Databank Flora en Fauna, Rijkswaterstaat klimaatmonitor, lokale bronnen, RVO, ABF Research, Human Environment and Transport Inspectorate (ILT, Corpodata), Aedes report 'Corporations in Perspective'
Economic	National Statistics (CBS), Uitvoeringsinstituut Werknemersverzekeringen, LISA, IBIS, Compendium voor de Leefomgeving, BAK; PBL, Kamer van Koophandel, CROW, Human Environment and Transport Inspectorate (ILT, Corpodata), Aedes report 'Corporations in Perspective'
Socio-Cultural	National Statistics (CBS), Waarstaatjegemeente.nl, Databank Verkiezingsuitslagen, Verkiezingkaart, Nationale Zorgtoeslag, Kernkaart, Uitvoeringsinstituut Werknemersverzekeringen, Erfgoed databank, Elsevier "Beste ziekenhuizen", BVI Stuurkubus, Kinderen in tel; VerweyJonker instituut, Inspectie voor het Onderwijs, Human Environment and Transport Inspectorate (ILT, Corpodata), Aedes report 'Corporations in Perspective'

The sources are, amongst others, Aedes, - the Dutch association of social housing associations, which publishes yearly data on the individual associations in its report Associations in Perspective (Aedes, CiP, 2019)-, the social housing associations authority, part of the Dutch Human Environment and Transport Inspectorate (ILT) in its annual accountability report on social housing associations dVi (The Human Environment and Transport Inspectorate, 2017); and from National Statistics (CBS) as far as neighborhood related data are concerned.

2.5 Sustainability norms used for the indicators and aggregation to the overall sustainability score

In order to transform individual indicator scores into a uniform system of sustainability scores, Telos has developed an approach using sustainability norms for each indicator by which ranges of sustainability goal achievement are defined. The system specifies minimum and maximum values and three intermediate categories indicated by color codes (red,

orange, green and gold). The set of norms applied to the 79 indicators used in this framework is given in Annex 2.

Once goal achievement scores of indicators have been derived, these are aggregated to theme scores and the theme scores are subsequently aggregated by giving them equal weight to capital scores. The capital scores are aggregated with equal weight to the overall internal or external sustainability score of which the overall score is derived by calculating their mean value.

2.6 The group of associations included in the framework

Based on most recent data (Aedes, 2019) 320 social housing associations were active in the Netherlands. These vary in size and own a wide variety of housing units. Some associations have more than 10,000 housing units and a large staff. They are also major players in local developments. Others own only a small number of several hundred housing units and show little dynamism in time.

Only those social housing associations that are large enough to provide adequate data on a yearly basis have been included in the framework. This resulted in the group of in total 320 social housing associations.



3 Internal sustainability performance of Dutch social housing associations

This chapter describes the internal sustainability performance of the 320 Dutch social housing associations studied. Besides an overall list of associations and their internal sustainability performance score, this chapter describes the role of association size, age of the property, the magnitude of changes in the property and the type of housing units (one-family homes or units in high-rise buildings).

The external sustainability performance will be discussed in chapter 4, while an overview of the integrated sustainability scores will be described in chapter 5. In chapter 6 the classes chosen and the associations selected for the sustainability bond are discussed.

3.1 General results for the internal sustainability performance of social housing associations

Table 3.1 Ten best scoring associations on internal sustainability performance among the 320 social housing associations studied in reporting year 2019

INTERNAL SUSTAINABILITY PERFORMANCE					
CODE	NAME	ECOLOGICAL	SOCIO-CULTURAL	ECONOMIC	TOTAL INTERNAL SCORE
L0661	Woonstichting VechtHorst	55.5	59.9	69.0	61.5
L0221	Stichting Waardwonen	53.3	65.6	61.7	60.2
L1865	Woningstichting Putten	53.6	58.8	68.1	60.2
L1864	Stichting Wonen Vierlingsbeek	45.2	64.9	69.2	59.8
L1693	Woningstichting Nijkerk	50.3	61.8	66.6	59.5
L0858	Stichting Beter Wonen	53.0	61.5	63.9	59.5
L0931	Stichting Woonlinie	46.9	60.2	68.4	58.5
L0765	Stichting Wonen Delden	46.7	60.5	67.5	58.2
L1745	Stichting Goed Wonen	49.4	63.3	60.6	57.8
L0641	Stichting Destion	43.6	64.4	65.1	57.7

Table 3.1 shows the 10 highest scoring associations, including their three capital scores. Calculation of the average total score makes it possible to score high on total internal sustainability even if one capital has a below average score. Annex 3 presents, in alphabetical order, the 30 social housing associations and their internal, external and total sustainability scores.

3.2 Impact of social housing association size

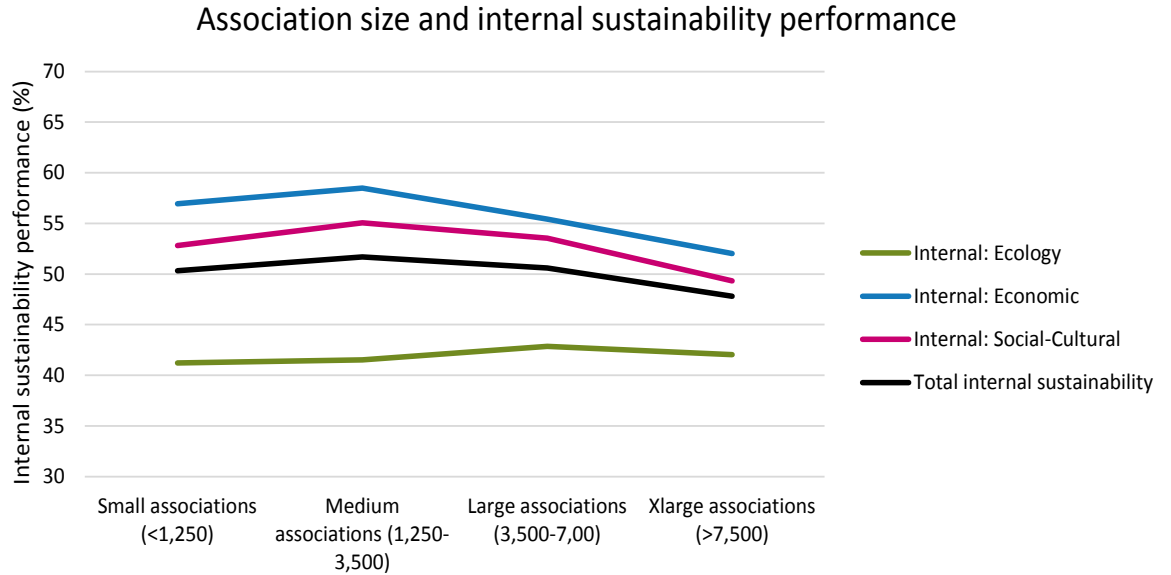


Figure 3.1 Impact of size classes of social housing associations on their internal sustainability performance in reporting year 2019

As Figure 3.1 shows, internal sustainability performance scores are highest for the medium large associations (1,250 – 3,500 housing units; black line). It must be noted that the differences between the total scores are small, while the largest differences occur for the economic and socio-cultural capitals. Compared to the previous year medium large associations managed to take over the best performing position from the large sized associations.

3.3 Impact of age of property of social housing associations

A similar analysis of the impact of the age of association property is presented in Figure 3.2. Associations with the oldest property² show the lowest sustainability scores. Associations with newest property show highest total sustainability scores. Associations with newest property show highest economic capital scores, but lower socio-cultural and ecological scores than those with new property.

2

Property age has been dealt with in this analysis by calculating the average age of association property and listing all associations according to this characteristic. Subsequently equal quarts (n=~85) of this average property age list have been used as the four categories shown in Figure 4.2. The group of associations with the oldest property represents an average property construction year of 1968, for the old property category the average construction year is 1977, and for the new and newest categories the average construction year is resp. 1980 and 1986.

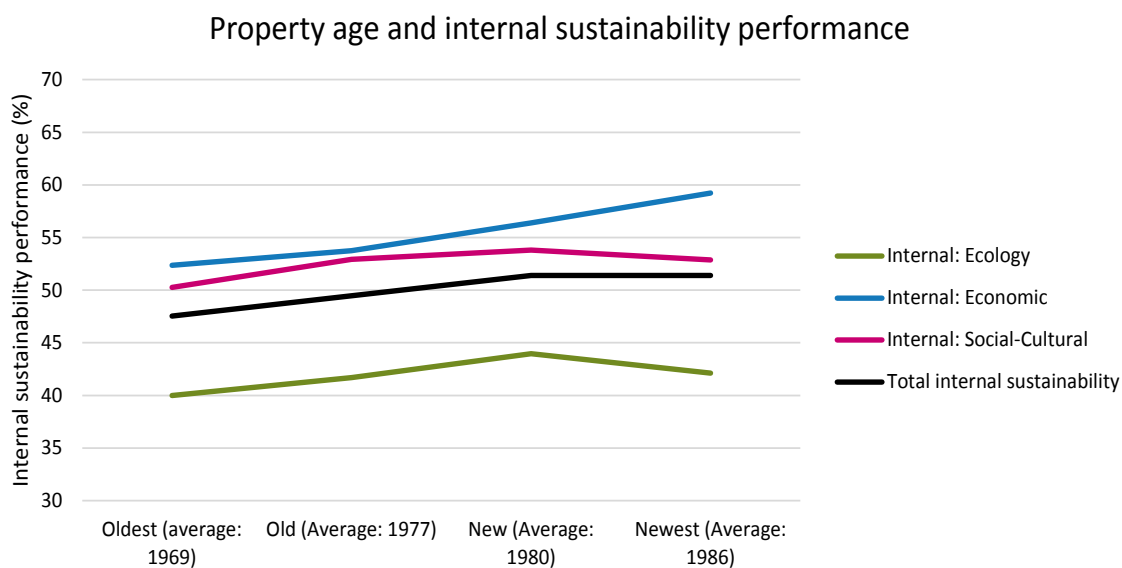


Figure 3.2 Impact of year of construction of property of associations on their internal sustainability performance in reporting year 2019

The ecological capital scores are for all four age groups considerably lower than the economic and socio-cultural ones.

3.4 Impact of one-family houses or high-rise buildings type of social housing associations

Figure 3.3 shows the scores for total sustainability and the three capital scores for the two additional association types discussed in this paragraph.

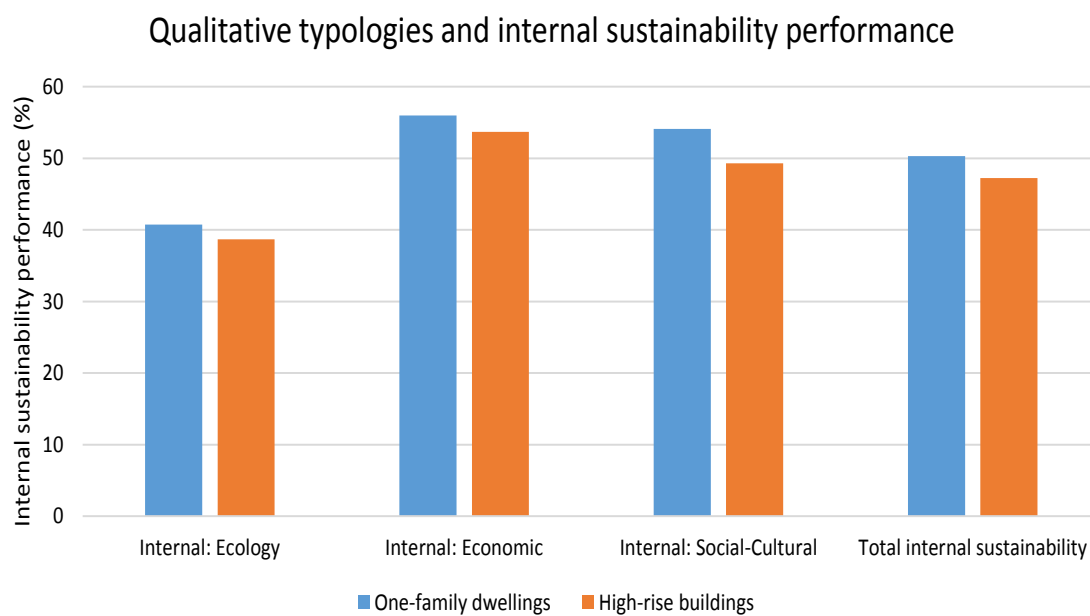


Figure 3.3 Internal sustainability scores of two qualitative types of social housing associations for reporting year 2019

Social housing associations with high levels of one-family dwellings are scoring better on sustainability in general and on all the capitals. Also here ecological capital scores are for both groups the lowest.



4 External sustainability performance of Dutch social housing associations

This chapter describes the general outcome of the second part of the study, focusing on the external sustainability performance. The external sustainability performance gives an image of the sustainability of the area in which the property of the associations is located. Besides an overall list of associations with their external sustainability performance score, the role of association size, age of the property, the magnitude of changes in the property and the type of housing units (one-family homes or units in high-rise buildings) are described. An overview of total sustainability scores will be described in chapter 5. In chapter 6 the classes chosen and the associations selected for a sustainability bond will be discussed.

4.1 General results on external sustainability for the social housing associations

Table 4.1 Ten social housing associations among the 320 social housing associations studied scoring highest on external sustainability performance including their three capital scores for reporting year 2019

CODE	NAME	EXTERNAL SUSTAINABILITY PERFORMANCE			
		ECOLOGY	ECONOMIC	SOCIO-CULTURAL	TOTAL EXTERNAL SCORE
L1395	Woningbouwvereniging Maarn	70.1	60.2	61.0	63.8
L1836	Stichting Heuvelrug Wonen	70.1	60.2	61.0	63.8
L1712	Christelijke Woonstichting Patrimonium	75.0	61.7	52.0	62.9
L1501	Charlotte Elisabeth van Beuningen Stichting	63.1	59.4	65.1	62.5
L1100	Stichting Wonen Midden-Delfland	54.3	70.9	62.4	62.5
L1588	Woningbouwstichting Cothen	71.0	62.8	52.9	62.2
L1865	Woningstichting Putten	64.6	62.8	57.9	61.8
L1471	Stichting Woonwijze	62.0	58.7	64.1	61.6
L1716	Viveste	62.2	62.8	59.2	61.4
L1543	Stichting Vallei Wonen	65.3	60.1	58.3	61.2

Table 4.1 shows the 10 highest scoring social housing associations on external sustainability performance, including their three capital scores. In practically all cases capital scores are above average. Annex 3 presents, in alphabetical order, the 320 social housing associations and their internal, external and total sustainability performance scores.

4.2 Impact of social housing association size

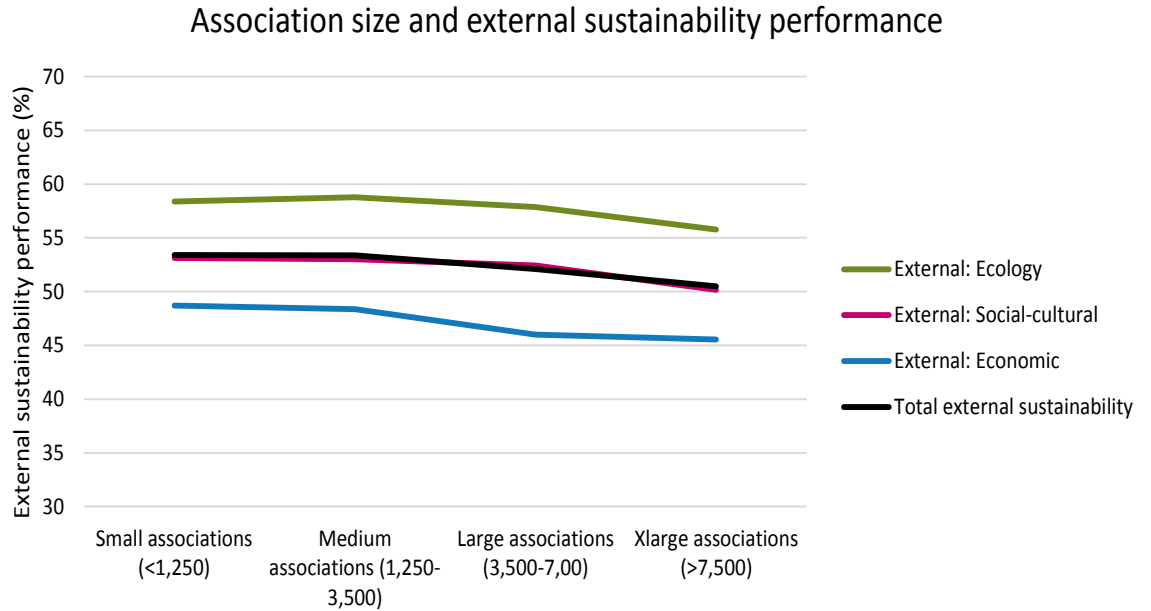


Figure 4.1 Impact of size classes of social housing associations on their external sustainability performance in reporting year 2019

As Figure 4.1 shows, total sustainability scores are highest for smaller associations (less than 3,500 housing units) and larger associations score lower on all capitals. Larger associations have property in neighborhoods with lower sustainability scores, as one might expect.

4.3 Impact of age of property of social housing associations

A similar analysis of the impact of the age of association property is presented in Figure 4.2. Associations with the oldest property³ show the lowest external sustainability scores. The newer the property of associations, the higher their sustainability score, although this effect is small. This is the result of higher ecological capital scores, and stabilizing socio-cultural and economic capital performances for associations with newer property.

3

Property age has been dealt with in this analysis by calculating the average age of association property and listing all associations according to this characteristic. Subsequently equal quarts (n=~85) of this average property age list have been used as the four categories shown in Figure 4.2. The group of associations with the oldest property represents an average property age of 1968 as the year of construction, for the old property category the average construction year is 1977, and for the new and newest categories the average construction year is resp. 1980 and 1986.

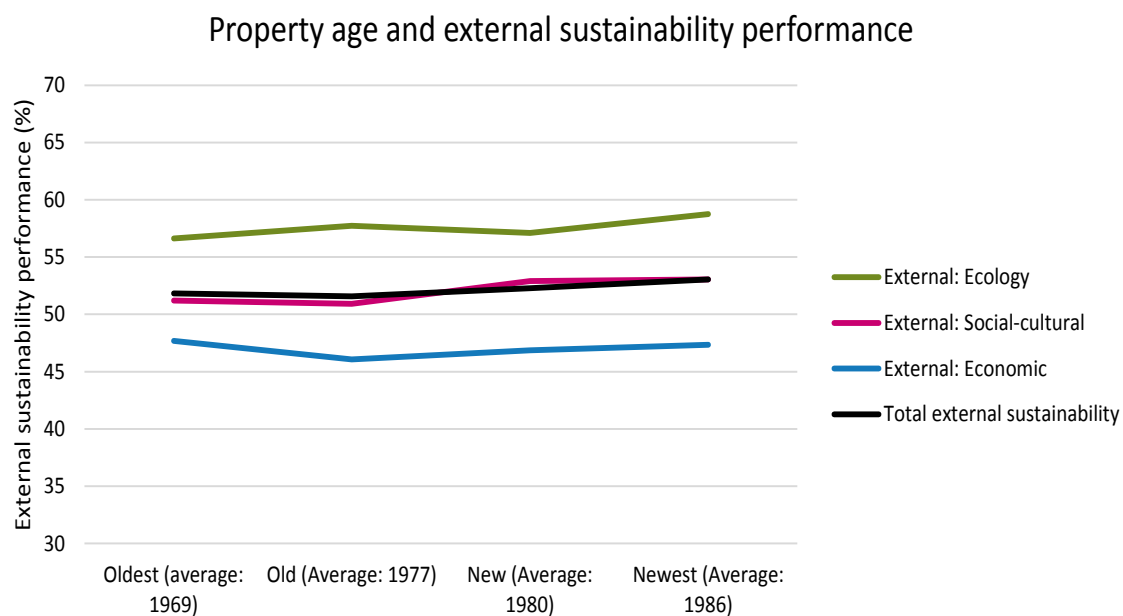


Figure 4.2 Impact of year of construction of property of associations on their external sustainability performance in reporting year 2019

4.4 Impact of one-family houses or high-rise buildings type of social housing associations

Figure 4.3 shows the scores for total external sustainability performance and the three capital scores related to the two additional qualitative association types⁴ discussed in this paragraph.

Differences between the two types are very small. Associations with a lot of one-family dwellings have on average a higher score on ecological external sustainability than associations with a large part of high-rise buildings. The scores on socio-cultural capital and economic capital are rather similar for both types.

4

The type 'one-family houses' includes all associations of which the property consists for 80% or more of one-family houses. The 'high-rise buildings' type refers to associations of which the property consists for 20% or more of high-rise housing units.

Qualitative typologies and external sustainability performance

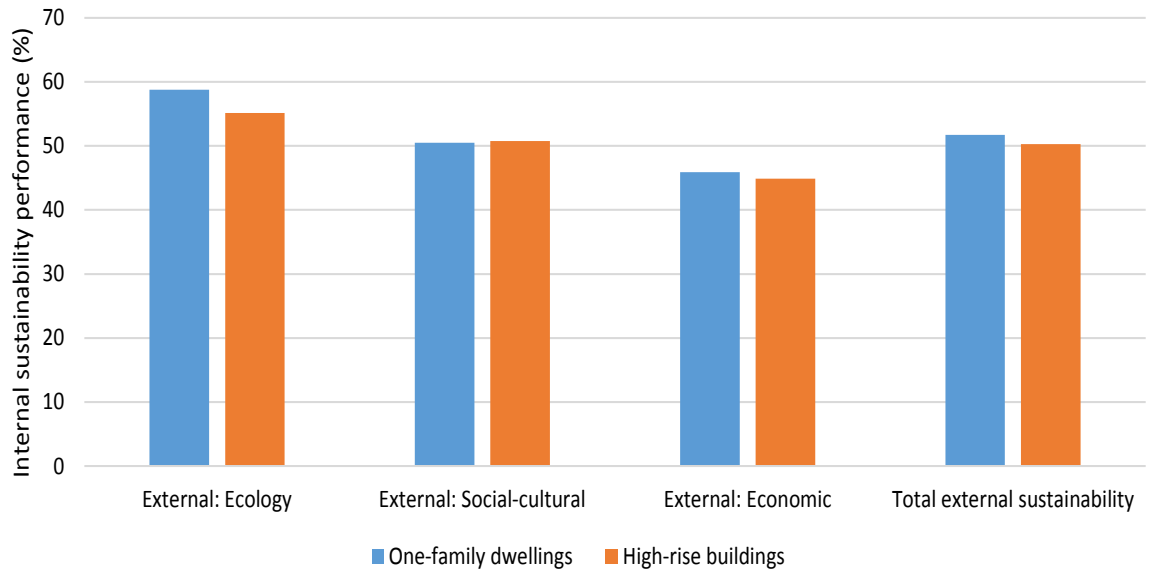


Figure 4.3 External sustainability scores of two types of social housing associations (one-family-houses and high-rise buildings)



5 Integrated sustainability performance of Dutch social housing associations

This chapter describes the general outcome of the study for the group of 320 social housing associations. Besides an overall list of associations with their sustainability score, the role of association size, age of the property, and the type of housing units (one-family homes or units in high-rise buildings) are described. In chapter 6 the associations selected for a sustainability bond will be discussed.

5.1 General results for the social housing associations

Table 5.1 Ten social housing associations among the 320 social housing associations studied scoring highest on total sustainability performance for reporting year 2019

CODE	NAME	INTERNAL SUSTAINABILITY PERFORMANCE	EXTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SCORE
L1865	Woningstichting Putten	60.2	61.8	61.0
L0661	Woonstichting VechtHorst	61.5	58.1	59.8
L0858	Stichting Beter Wonen	59.5	60.0	59.7
L1100	Stichting Wonen Midden-Delfland	55.1	62.5	58.8
L1693	Woningstichting Nijkerk	59.5	57.9	58.7
L1836	Stichting Heuvelrug Wonen	53.6	63.8	58.7
L0305	Woonstichting Langedijk	57.1	59.8	58.4
L1239	Stichting IJsseldal Wonen	57.2	59.5	58.3
L1501	Charlotte Elisabeth van Beuningen Stichting	53.5	62.5	58.0
L1471	Stichting Woonwijze	54.3	61.6	58.0

Table 5.1 shows the 10 highest scoring associations, including their internal and external performance scores. Annex 3 presents, in alphabetical order, the 320 social housing associations and their internal, external and total sustainability scores.

In this list variations in external sustainability scores are relatively small, -all these associations have property in sustainable neighborhoods-, compared to variations in the internal sustainability scores.



6 Selection 'best-in-class' social housing associations⁵

6.1 How to reconcile maximizing sustainability score and awarding the social task of social housing associations?

As described in paragraph 2.1, social housing associations have a special social responsibility in society. Simply ranking associations according to their sustainability score would not value this social responsibility to invest in neighborhoods with large social challenges. To include this aspect in the selection of associations for the sustainability bond framework, the following preselection step has been designed. Associations have been divided in four categories by defining them in four quadrants, depending on social challenge and level of investment, as presented in Figure 6.1.

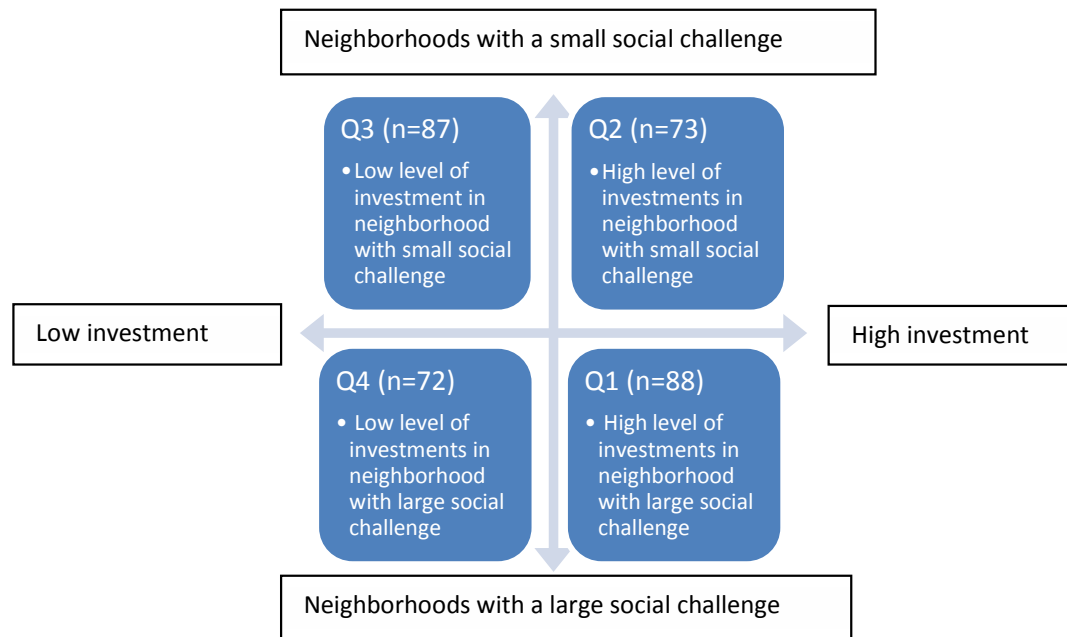


Figure 6.1 Four categories of social housing associations depending on their level of investment in a neighborhood and the level of social challenges in the neighborhood

Most favored are associations (Q1) with a high level of investment in neighborhoods with large social challenges. Least favored are associations (Q4) with a low level of investment in neighborhoods with large social challenges. Second best are associations (Q2) with a high level of investment in neighborhoods with a small social challenge. Third best are associations (Q3) with a low level of investment in neighborhoods with a small social challenge. Data to make it possible at this stage to allocate associations to these four categories have been processed as follows.

Firstly, we determined if the number of poor households (as provided by Statistics Netherlands), for every Dutch neighborhood⁶. Neighborhoods with a high percentage of low income households were considered neighborhoods with a large social challenge. These are the neighborhoods that the social housing associations should be focusing on. Subsequently, neighborhoods were weighted for the social housing associations on the basis of the social housing stock in that neighborhood.

Secondly, the total amount of investments spent by the social housing associations on residential improvements was considered. This describes to what extent associations do invest in improving the quality and living conditions of the neighborhoods. A high level of investments was defined as 'an association that has spent more than 1795 euro on average per rental unit over the period from 2015 till 2017 on maintenance and investments of dwellings'.

To value these aspects, a preselection of associations was carried out by in principle selecting the 80 best on sustainability scoring associations in Q1, the 60 best scoring associations in Q2, the 40 best scoring associations in Q3 and the best 20 in Q4, resulting in 200 of the 320 social housing associations which were used for the next selection exercise.

6.2 The use of 10 social housing association classes

As a result of the earlier described considerations, the framework for a BNG Bank Sustainability Bond for Dutch Social Housing Associations can be based on a total of 10 classes of social housing associations.

This number is composed of 4 size related classes, 4 age of property related classes and the one-family house class and high-rise buildings association class.

Other possible classes, such as student housing and property dynamics have also been considered, but were found not to be representative enough for the framework.

Some examples of thematic characteristics of the 10 classes of associations, compared to the average scores of associations, are given below. Note that the higher the score of a theme, the better the sustainability requirement is met.

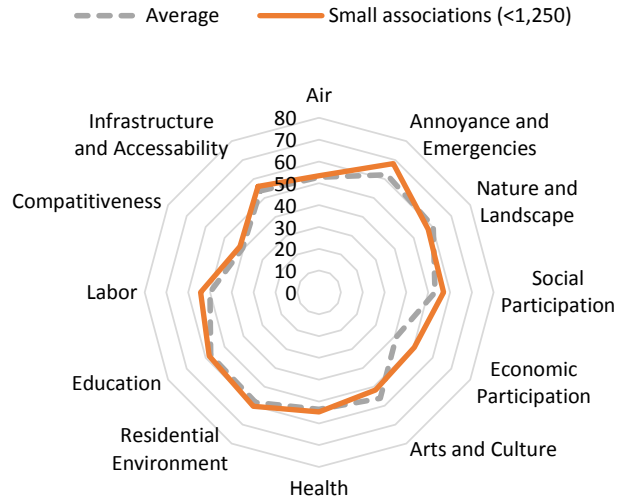
Internal sustainability

Small and medium sized associations, as well as newest property type of associations, show a better sustainability score on the theme of safety and security and the theme of loss of revenue. For the extra-large associations and high-rise building associations the reverse is found as both themes score here lower than average.

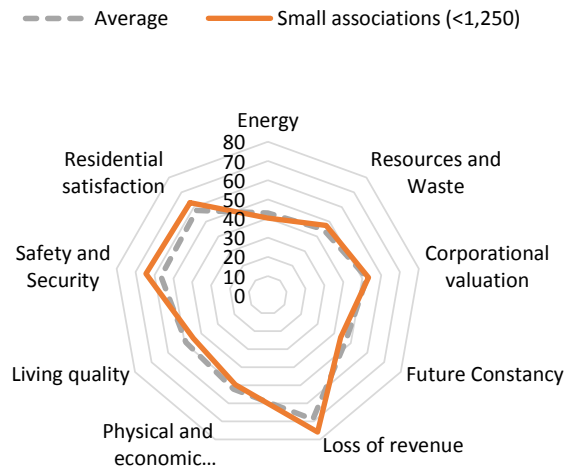
External sustainability

Small associations and those with many one-family dwellings score better on the theme annoyance and emergencies contrary to extra-large associations and association with high-rise buildings that score lower than average. Scores for economic participation are better for small and medium-sized associations and lower than average for extra-large associations and those with many high-rise buildings. Economic participation also scores higher for associations with the newest property and lower than average for associations with oldest property.

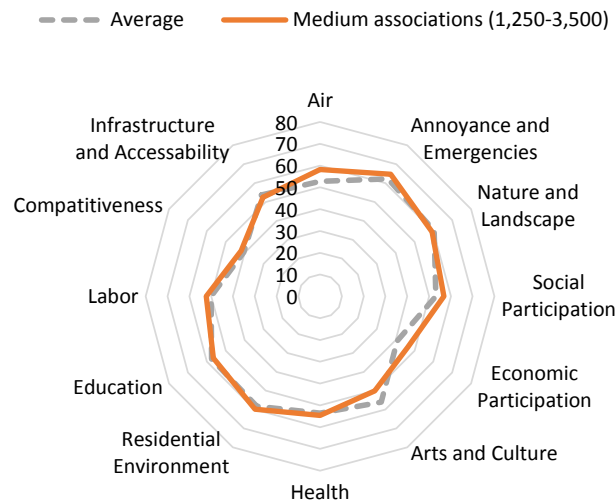
External sustainability performance of small associations



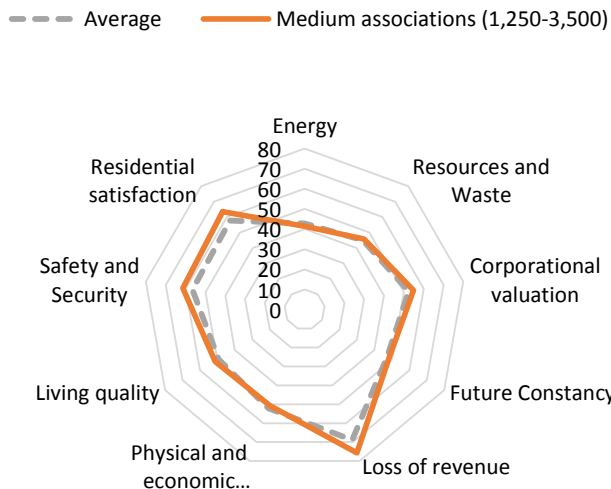
Internal sustainability performance of small associations



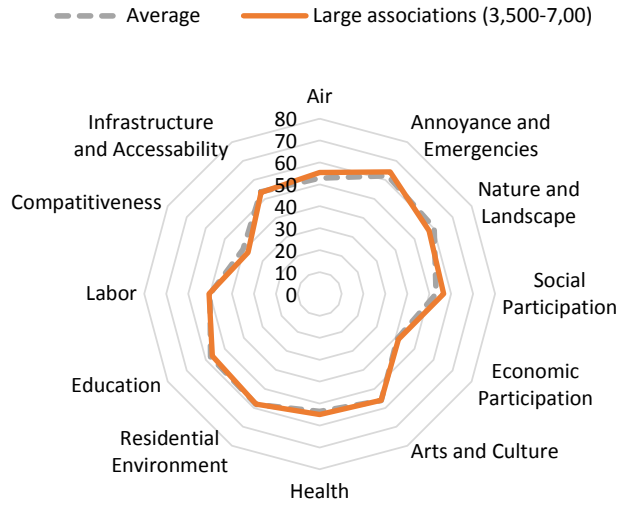
External sustainability performance of medium associations



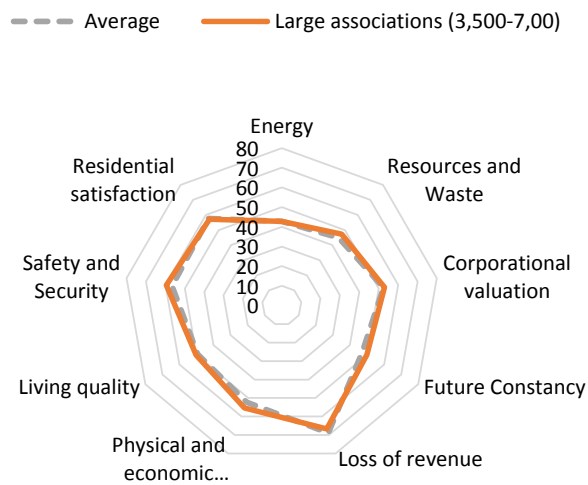
Internal sustainability performance of medium associations



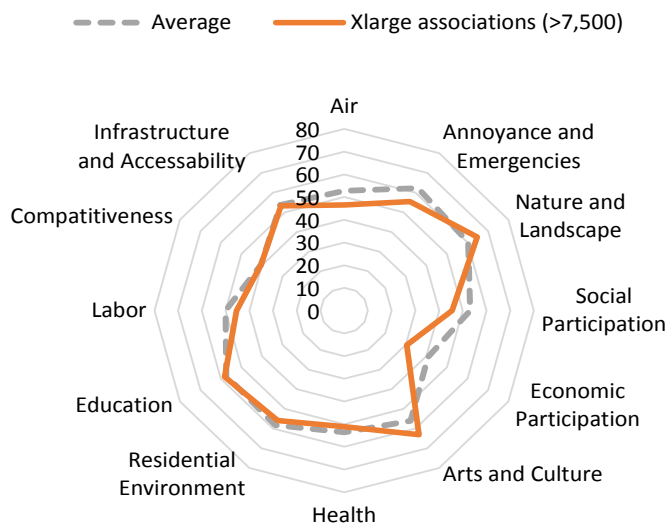
External sustainability performance of large associations



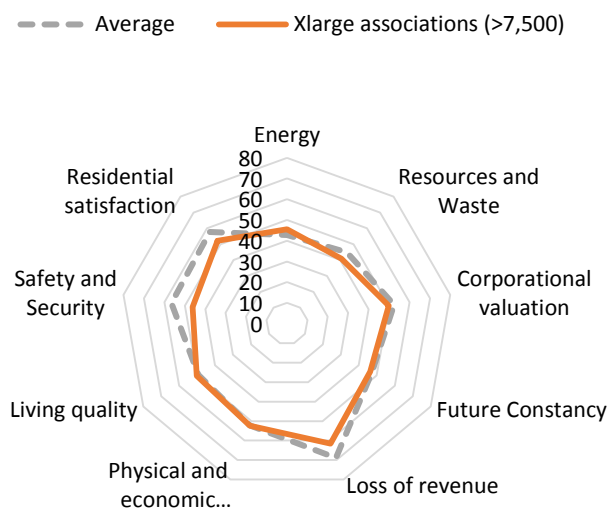
Internal sustainability performance of large associations



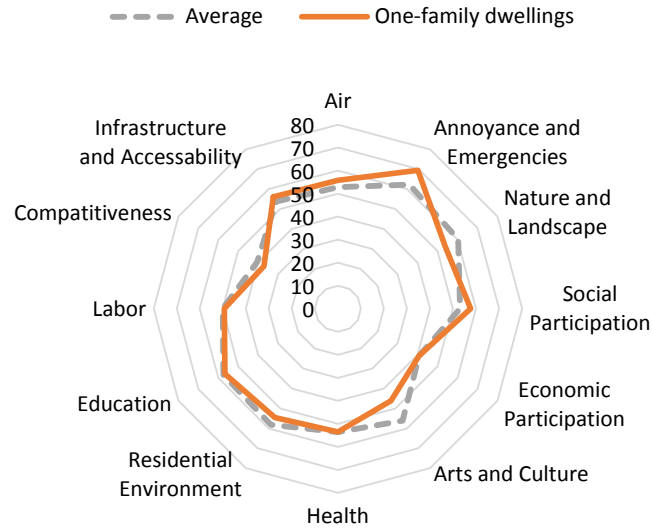
External sustainability performance of xlarge associations



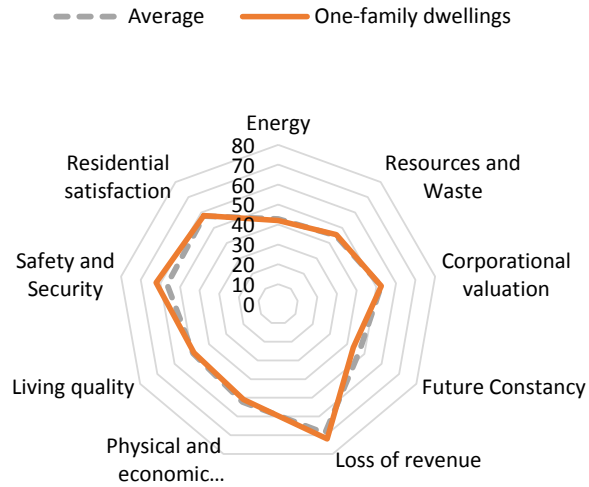
Internal sustainability performance of xlarge associations



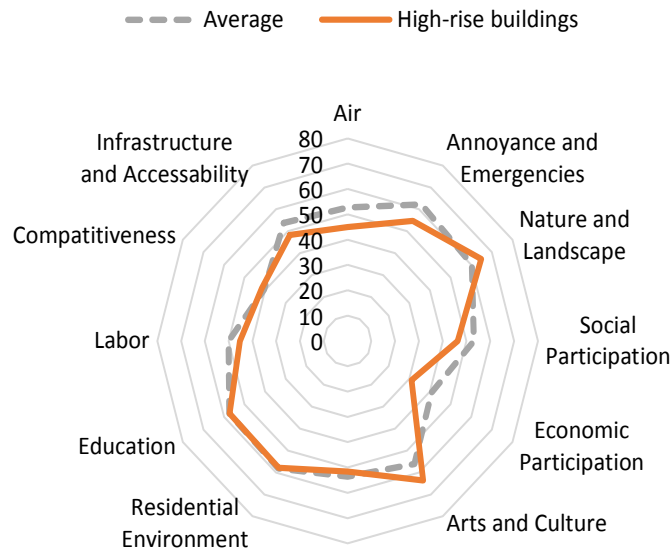
External sustainability performance One-family dwellings



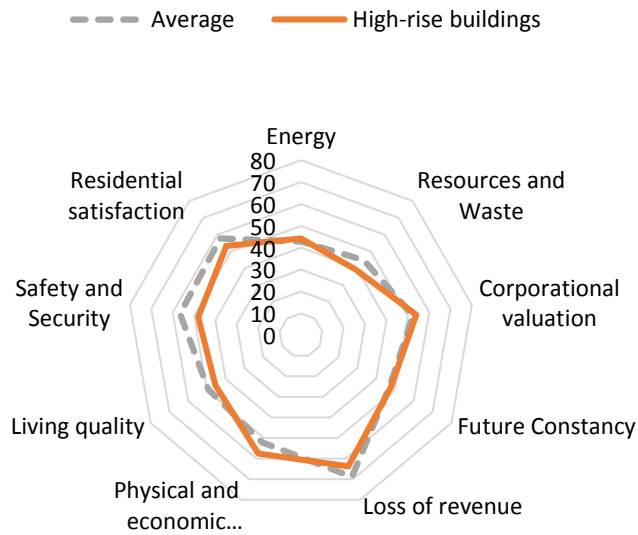
Internal sustainability performance one-family dwellings



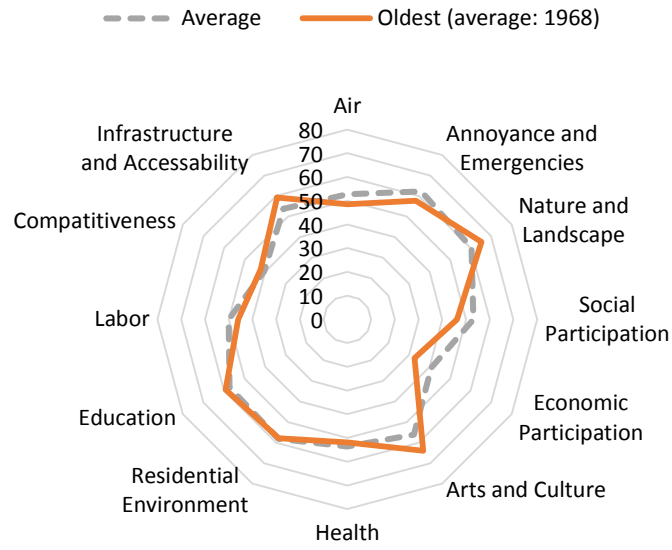
External sustainability performance high-rise buildings



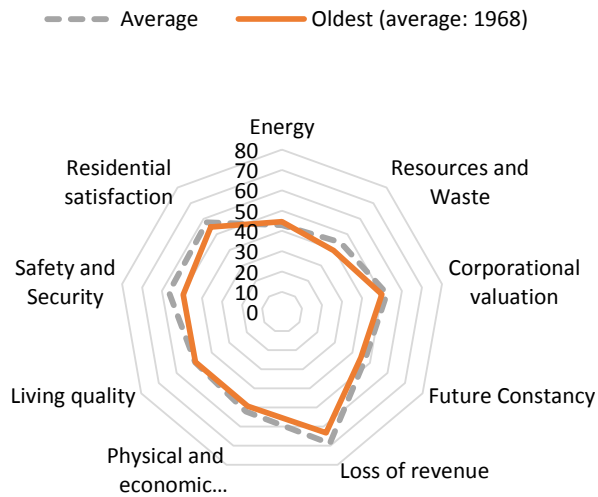
Internal sustainability performance high-rise buildings



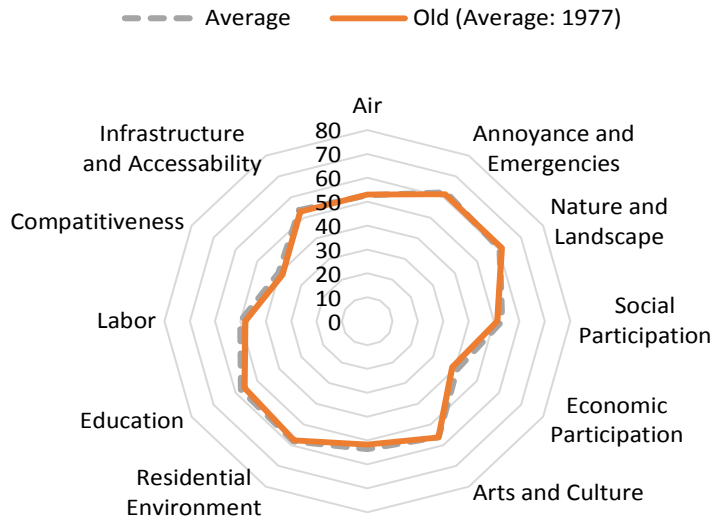
External sustainability performance of oldest property



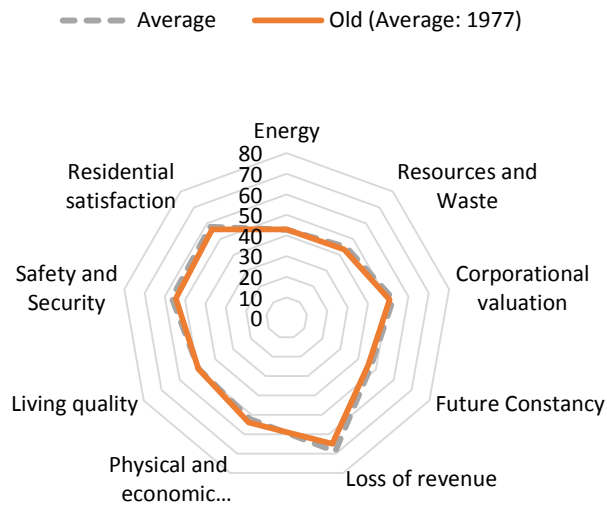
Internal sustainability performance of oldest property



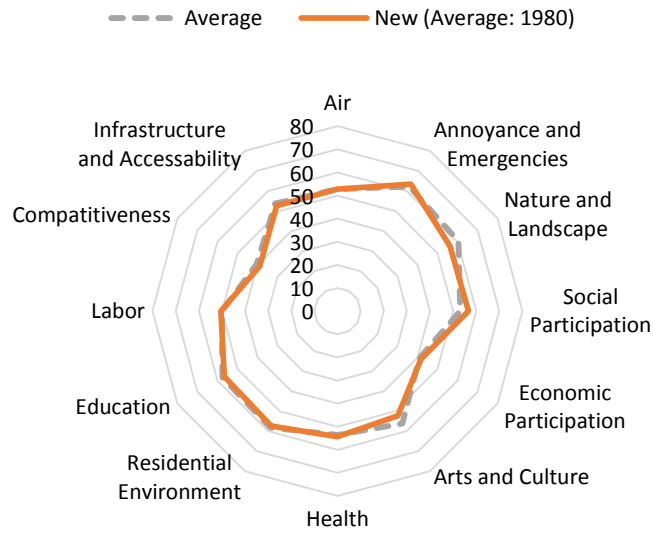
External sustainability performance of old property



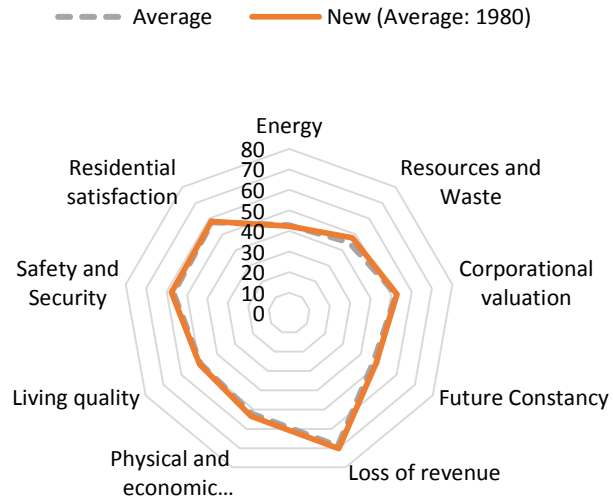
Internal sustainability performance of old property



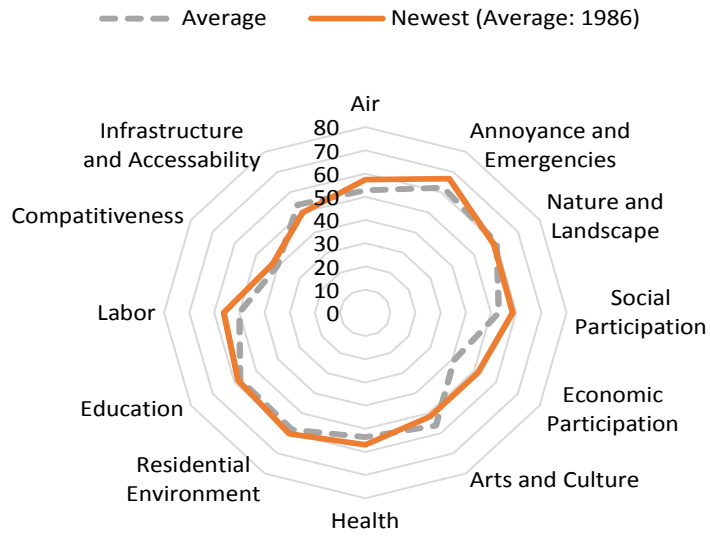
External sustainability performance of new property



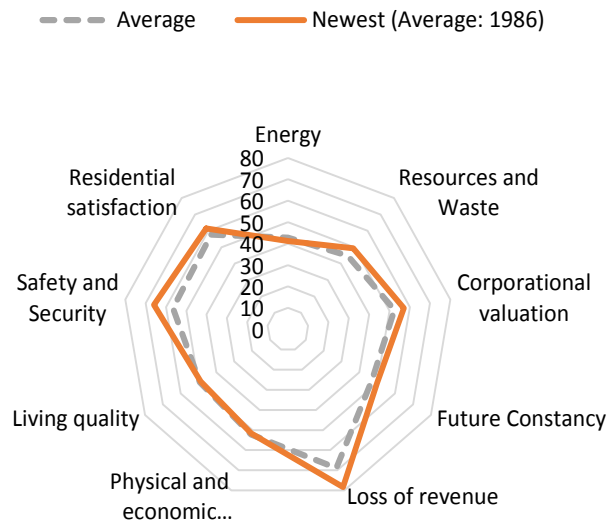
Internal sustainability performance of new property



External sustainability performance of newest property



Internal sustainability performance of newest property



6.3 Sustainability scores of preselected social housing associations for 10 association types

Below, the 10 classes of associations used in this social housing framework are listed with 15 associations scoring best on total sustainability in each class in reporting year 2019.

#	TOP 15 SMALL ASSOCIATIONS (N=41)		QUAD-RANT	TOTAL SUSTAINABILITY	#	TOP 15 MEDIUM ASSOCIATIONS (N=44)		QUAD-RANT	TOTAL SUSTAINABILITY
1	L0858	Stichting Beter Wonen	3	59.7	1	L1865	Woningstichting Putten	2	61.0
2	L1501	Charlotte Elisabeth van Beuningen Stichting	3	58.0	2	L0661	Woonstichting VechtHorst	3	59.8
3	L1712	Christelijke Woonstichting Patrimonium	3	57.9	3	L1100	Stichting Wonen Midden-Delfland	2	58.8
4	L1543	Stichting Vallei Wonen	3	57.4	4	L1693	Woningstichting Nijkerk	3	58.7
5	L0765	Stichting Wonen Delden	2	57.3	5	L1836	Stichting Heuvelrug Wonen	3	58.7
6	L1588	Woningbouwstichting Cothen	3	57.2	6	L0305	Woonstichting Langedijk	3	58.4
7	L1678	Woningstichting Tubbergen	3	56.8	7	L1239	Stichting IJsseldal Wonen	3	58.3
8	L0238	Woningstichting Voerendaal	3	56.2	8	L1471	Stichting Woonwijze	3	58.0
9	L1525	Stichting Woningbeheer De Vooruitgang	3	56.0	9	L1745	Stichting Goed Wonen	3	56.8
10	L0568	Stichting Eelder Woningbouw	3	55.7	10	L1709	Christelijke Woningstichting De Goede Woning	3	56.6
11	L1811	Stichting PeelrandWonen	3	55.3	11	L0678	Woningstichting St. Antonius van Padua	3	56.1
12	L1855	Woonstichting Gendt	3	55.1	12	L1878	Woningstichting Leusden	2	56.1
13	L1395	Woningbouwvereniging Maarn	3	55.1	13	L0992	Woningbouwvereniging Helpt Elkander	3	55.5
14	L1864	Stichting Wonen Vierlingsbeek	3	55.0	14	L0705	Veenendaalse Woningstichting	4	55.1
15	L1835	Woningstichting Maasdriel	3	54.7	15	L2092	Noordwijkse Woningstichting	3	55.0

#	TOP 15 LARGE ASSOCIATIONS (N=50)		QUAD-RANT	TOTAL SUSTAIN-ABILITY	#	TOP 15 XLARGE ASSOCIATIONS (N=65)		QUAD-RANT	TOTAL SUSTAIN-ABILITY
1	L1506	Woningstichting Salland-Wonen	3	56.6	1	L0886	Stichting Area	2	55.5
2	L1716	Viveste	3	56.3	2	L0835	Wooncorporatie ProWonen	2	55.2
3	L0221	Stichting Waardwonen	2	56.3	3	L0151	Woonstichting 'thuis	2	54.7
4	L0643	Bouwwerening Huis en Erf	2	56.2	4	L1875	Stichting Woningcorporaties Het Gooi en Omstreken	2	54.1
5	L1968	Stichting Idealis	4	55.9	5	L0369	Stichting UWOON	2	53.9
6	L1794	Woningstichting de Zaligheden	3	55.5	6	L1479	Stichting Talis	1	53.8
7	L0762	Woningstichting Beter Wonen Vechtdal	2	55.3	7	L0734	Patrimonium woonservice	1	53.3
8	L1236	Woonstichting St. Joseph	3	55.2	8	L0029	Stichting deltaWonen	1	53.2
9	L0317	Provides	2	55.1	9	L0732	HW Wonen	2	52.7
10	L1226	Woningbouwvereniging Bergopwaarts	3	55.1	10	L1464	Stichting Woonbedrijf SWS.Hhvl	1	52.4
11	L0347	Stichting Viverion	2	55.0	11	L2058	Mitros	1	52.3
12	L1436	Stichting Dunavie	2	55.0	12	L0041	Stichting Bo-Ex '91	1	52.2
13	L2082	Woningstichting Barneveld	3	54.9	13	L0766	Stichting GroenWest	2	52.0
14	L0931	Stichting Woonlinie	2	54.6	14	L0446	Stichting De Goede Woning Apeldoorn	2	51.8
15	L1413	Stichting Reggewoon	3	54.3	15	L1418	Stichting Woonbedrijf iederl	1	51.8

#	TOP 15 ONE-FAMILY-DWELLINGS ASSOCIATIONS (N=21)		QUAD-RANT	TOTAL SUSTAIN-ABILITY	#	TOP 15 HIGH-RISE-BUILDINGS ASSOCIATIONS (N=19)		QUAD-RANT	TOTAL SUSTAIN-ABILITY
1	L0661	Woonstichting VechtHorst	3	59.8	1	L1878	Woningstichting Leusden	2	56.1
2	L1395	Woningbouwvereniging Maarn	3	55.1	2	L0590	Stichting Rondom Wonen	3	54.3
3	L1864	Stichting Wonen Vierlingsbeek	3	55.0	3	L1524	Stichting Rijnhart Wonen	2	53.5
4	L0641	Stichting Destion	3	55.0	4	L0734	Patrimonium woonservice	1	53.3
5	L0077	Stichting Wold en Waard	3	54.1	5	L1464	Stichting Woonbedrijf SWS.Hhvl	1	52.4
6	L0254	Woningstichting Heteren	2	54.1	6	L0082	Woningstichting Vaals	4	51.9
7	L2099	Woonstichting De Marken	4	53.9	7	L2051	Stichting Woonstede	2	50.9
8	L1700	Woningbouwvereniging Beter Wonen Goedereede	2	53.7	8	L2004	DUWO	4	50.8
9	L1905	Woningbouwvereniging Utrecht	4	52.4	9	L1986	Stichting Huisvesting Bejaarden Oosterhout	1	50.7
10	L0379	Woningbouwvereniging Arnhemuiden	4	52.2	10	L1122	Stichting Rijswijk Wonen	1	50.7
11	L0036	Stichting Lyaemer Wonen	4	51.9	11	L0497	Stichting TBV	1	49.1
12	L0676	Stichting Wonen Zuidwest Friesland	1	51.8	12	L1911	Stichting WonenBreborg	1	48.6
13	L0420	Bouwvereniging 'Huis en Hof' voor de gemeente Nijmegen	1	51.3	13	L0017	Woningstichting Rochdale	1	48.3
14	L0003	Stichting Wonen Noordwest Friesland	1	50.7	14	L0267	Stichting Trivire	1	48.2
15	L0056	Stichting Woningbouw Achtkarspelen	2	50.6	15	L1093	Stichting Vidomes	1	47.4

#	TOP 15 OLDEST PROPERTY ASSOCIATIONS (N=50)			QUADRANT	TOTAL SUSTAINABILITY	#	TOP 15 OLD PROPERTY ASSOCIATIONS (N=51)		QUADRANT	TOTAL SUSTAINABILITY
1	L1501	Charlotte Elisabeth van Beuningen Stichting	3	58.0		1	L1836	Stichting Heuvelrug Wonen	3	58.7
2	L1395	Woningbouwvereniging Maarn	3	55.1		2	L0765	Stichting Wonen Delden	2	57.3
3	L1436	Stichting Dunavie	2	55.0		3	L0238	Woningstichting Voerendaal	3	56.2
4	L0979	de Woningstichting	1	54.3		4	L1236	Woonstichting St. Joseph	3	55.2
5	L0254	Woningstichting Heteren	2	54.1		5	L1855	Woonstichting Gendt	3	55.1
6	L0936	Stichting Eemland Wonen	2	54.1		6	L0347	Stichting Viverion	2	55.0
7	L0667	Woningbouwvereniging van Erfgoeiers te Laren N.H.	2	54.1		7	L2092	Noordwijkse Woningstichting	3	55.0
8	L1760	Woningbouwvereniging Reeuwijk	2	54.0		8	L1586	Stichting Lek en Waard Wonen	3	55.0
9	L1164	Woningbouwvereniging St. Willibrordus	1	53.7		9	L1409	Stichting Woonservice Ijsselland	4	54.8
10	L0033	Stichting voorheen De Bouwvereniging	1	52.7		10	L1528	Woningbouwvereniging Beter Wonen Streefkerk	3	54.4
11	L0694	Rentree	1	52.6		11	L0923	Bouwvereniging Woningbelang	3	54.2
12	L1905	Woningbouwvereniging Utrecht	4	52.4		12	L0178	Stichting Mijande Wonen	2	54.1
13	L1464	Stichting Woonbedrijf SWS. Hhvl	1	52.4		13	L1875	Stichting Woningcorporaties Het Gooi en Omstreken	2	54.1
14	L2058	Mitros	1	52.3		14	L0734	Patrimonium woonservice	1	53.3
15	L1357	Woningbouwstichting De Gemeenschap	1	51.9		15	L1573	Groen Wonen Vlist	2	53.2

#	TOP 15 NEW PROPERTY ASSOCIATIONS (N=56)		QUADRANT	TOTAL	#	TOP 15 NEWEST PROPERTY ASSOCIATIONS (N=43)		QUADRANT	TOTAL SUSTAINABILITY
1	L1693	Woningstichting Nijkerk	3	58.7	1	L1865	Woningstichting Putten	2	61.0
2	L1239	Stichting IJsseldal Wonen	3	58.3	2	L0661	Woonstichting VechtHorst	3	59.8
3	L1471	Stichting Woonwijze	3	58.0	3	L0858	Stichting Beter Wonen	3	59.7
4	L1506	Woningstichting Salland-Wonen	3	56.6	4	L1100	Stichting Wonen Midden-Delfland	2	58.8
5	L0643	Bouwvereniging Huis en Erf	2	56.2	5	L0305	Woonstichting Langedijk	3	58.4
6	L0568	Stichting Eelder Woningbouw	3	55.7	6	L1712	Christelijke Woonstichting Patrimonium	3	57.9
7	L0762	Woningstichting Beter Wonen Vechtdal	2	55.3	7	L1543	Stichting Vallei Wonen	3	57.4
8	L0835	Wooncorporatie ProWonen	2	55.2	8	L1588	Woningbouwstichting Cothen	3	57.2
9	L1226	Woningbouwvereniging Bergopwaarts	3	55.1	9	L1678	Woningstichting Tubbergen	3	56.8
10	L0705	Veenendaalse Woningstichting	4	55.1	10	L1745	Stichting Goed Wonen	3	56.8
11	L0931	Stichting Woonlinie	2	54.6	11	L1709	Christelijke Woningstichting De Goede Woning	3	56.6
12	L1893	Woonstichting Valburg	2	54.5	12	L1716	Viveste	3	56.3
13	L1413	Stichting Reggewoon	3	54.3	13	L0221	Stichting Waardwonen	2	56.3
14	L0386	Woningstichting Naarden	2	54.2	14	L0678	Woningstichting St. Antonius van Padua	3	56.1
15	L0077	Stichting Wold en Waard	3	54.1	15	L1878	Woningstichting Leusden	2	56.1

6.4 Best-in-class sustainable social housing associations

Table 6.1 summarizes the remaining 100 sustainable social housing associations, after correcting for double counting when an association is present in more than one class. This list represents the framework, which can be used for issuing a 2019 Sustainability Bond by BNG Bank. A list arranged according to the level of the sustainability score is given in Annex 4.

Table 6.1 List of 100 best-in-class social housing associations (alphabetical order) selected for the 2019 Framework for a sustainability bond

	NAME SOCIAL HOUSING ASSOCIATION	QUAD-RANT	TOTAL SUSTAINABILITY SCORE
L0643	Bouwwerening Huis en Erf	2	56.2
L0420	Bouwwerening 'Huis en Hof' voor de gemeente Nijmegen	1	51.3
L0923	Bouwwerening Woningbelang	3	54.2
L1501	Charlotte Elisabeth van Beuningen Stichting	3	58.0
L1709	Christelijke Woningstichting De Goede Woning	3	56.6
L1712	Christelijke Woonstichting Patrimonium	3	57.9
L0979	de Woningstichting	1	54.3
L2004	DUWO	4	50.8
L1573	Groen Wonen Vlist	2	53.2
L0732	HW Wonen	2	52.7
L2058	Mitros	1	52.3
L2092	Noordwijkse Woningstichting	3	55.0
L0734	Patrimonium woonservice	1	53.3
L0317	Provides	2	55.1
L0694	Rentree	1	52.6
L0886	Stichting Area	2	55.5
L0858	Stichting Beter Wonen	3	59.7
L0041	Stichting Bo-Ex '91	1	52.2
L0446	Stichting De Goede Woning Apeldoorn	2	51.8
L0029	Stichting deltaWonen	1	53.2
L0641	Stichting Destion	3	55.0
L1436	Stichting Dunavie	2	55.0
L0568	Stichting Eelder Woningbouw	3	55.7
L0936	Stichting Eemland Wonen	2	54.1
L1745	Stichting Goed Wonen	3	56.8
L0766	Stichting GroenWest	2	52.0
L1836	Stichting Heuvelrug Wonen	3	58.7
L1986	Stichting Huisvesting Bejaarden Oosterhout	1	50.7
L1968	Stichting Idealis	4	55.9
L1239	Stichting IJsseldal Wonen	3	58.3
L1586	Stichting Lek en Waard Wonen	3	55.0
L0036	Stichting Lyaemer Wonen	4	51.9

	NAME SOCIAL HOUSING ASSOCIATION	QUAD-RANT	TOTAL SUSTAINABILITY SCORE
L0178	Stichting Mijande Wonen	2	54.1
L1811	Stichting PeelrandWonen	3	55.3
L1413	Stichting Reggewoon	3	54.3
L1524	Stichting Rijnhart Wonen	2	53.5
L1122	Stichting Rijswijk Wonen	1	50.7
L0590	Stichting Rndom Wonen	3	54.3
L1479	Stichting Talis	1	53.8
L0497	Stichting TBV	1	49.1
L0267	Stichting Trivire	1	48.2
L0369	Stichting UWoon	2	53.9
L1543	Stichting Vallei Wonen	3	57.4
L1093	Stichting Vidomes	1	47.4
L0347	Stichting Viverion	2	55.0
L0033	Stichting voorheen De Bouwvereniging	1	52.7
L0221	Stichting Waardwonen	2	56.3
L0077	Stichting Wold en Waard	3	54.1
L0765	Stichting Wonen Delden	2	57.3
L1100	Stichting Wonen Midden-Delfland	2	58.8
L0003	Stichting Wonen Noordwest Friesland	1	50.7
L1864	Stichting Wonen Vierlingsbeek	3	55.0
L0676	Stichting Wonen Zuidwest Friesland	1	51.8
L1911	Stichting WonenBreburch	1	48.6
L1525	Stichting Woningbeheer De Vooruitgang	3	56.0
L0056	Stichting Woningbouw Achtkarspelen	2	50.6
L1875	Stichting Woningcorporaties Het Gooi en Omstreken	2	54.1
L1418	Stichting Woonbedrijf ieder1	1	51.8
L1464	Stichting Woonbedrijf SWS.Hhvl	1	52.4
L0931	Stichting Woonlinie	2	54.6
L1409	Stichting Woonservice Ijsselland	4	54.8
L2051	Stichting Woonstede	2	50.9
L1471	Stichting Woonwijze	3	58.0
L0705	Veenendaalse Woningstichting	4	55.1
L1716	Viveste	3	56.3
L1588	Woningbouwstichting Cothen	3	57.2
L1357	Woningbouwstichting De Gemeenschap	1	51.9
L0379	Woningbouwvereniging Arnemuiden	4	52.2
L1226	Woningbouwvereniging Bergopwaarts	3	55.1
L1700	Woningbouwvereniging Beter Wonen Goedereede	2	53.7
L1528	Woningbouwvereniging Beter Wonen Streefkerk	3	54.4
L0992	Woningbouwvereniging Helpt Elkander	3	55.5
L1395	Woningbouwvereniging Maarn	3	55.1
L1760	Woningbouwvereniging Reeuwijk	2	54.0

NAME SOCIAL HOUSING ASSOCIATION		QUAD-RANT	TOTAL SUSTAINABILITY SCORE
L1164	Woningbouwvereniging St. Willibrordus	1	53.7
L1905	Woningbouwvereniging Utrecht	4	52.4
L0667	Woningbouwvereniging van Erfgooiers te Laren N.H.	2	54.1
L2082	Woningstichting Barneveld	3	54.9
L0762	Woningstichting Beter Wonen Vechtdal	2	55.3
L1794	Woningstichting de Zaligheden	3	55.5
L0254	Woningstichting Heteren	2	54.1
L1878	Woningstichting Leusden	2	56.1
L1835	Woningstichting Maasdriel	3	54.7
L0386	Woningstichting Naarden	2	54.2
L1693	Woningstichting Nijkerk	3	58.7
L1865	Woningstichting Putten	2	61.0
L0017	Woningstichting Rochdale	1	48.3
L1506	Woningstichting SallandWonen	3	56.6
L0678	Woningstichting St. Antonius van Padua	3	56.1
L1678	Woningstichting Tubbergen	3	56.8
L0082	Woningstichting Vaals	4	51.9
L0238	Woningstichting Voerendaal	3	56.2
L0835	Wooncorporatie ProWonen	2	55.2
L2099	Woonstichting De Marken	4	53.9
L1855	Woonstichting Gendt	3	55.1
L0305	Woonstichting Langedijk	3	58.4
L1236	Woonstichting St. Joseph	3	55.2
L0151	Woonstichting 'thuis	2	54.7
L1893	Woonstichting Valburg	2	54.5
L0661	Woonstichting VechtHorst	3	59.8



7 Contribution of social housing associations to the SDGs⁷

This chapter describes a translation of the sustainability scores discussed before into scores on the 2015 UN Sustainable Development Goals (SDGs). Showing the impacts of social activities in terms of their contribution to the SDGs, is recently becoming a must for many organizations and particularly for banks and pension funds. These have been active since 2015 to develop a so-called 'taxonomy on Sustainable Development Investments (SDIs)' that translates the SDGs into investable opportunities from the perspective of Asset Owners (EC, 2018; UNEP, 2018). The European Commission (EC, 2019) has installed furthermore a Technical Working Group for defining a Taxonomy for sustainable activities. This working group focusses in particular on climate related activities. The SDGs are not developed according to scientifically agreed clearly separable themes, but are the result of politically agreed international priorities, a compromise that should accommodate the wishes of all nations of the world. The result is a set of 17 goals and within those 169 targets that have many overlaps and sometimes non-logical elements to measure them. This is recognized in the UN documents.

A standardized method to show the SDGs impacts is not yet available and may be hard to accomplish because of the many possible approaches for and the ambiguity in the SDGs themselves. The European Commission will contribute to harmonization of SDG monitoring methods for certain sectors, but like all work with impact indicators, it will take a long way to satisfy all demands.

The SDGs are not developed according to scientifically agreed clearly separable themes, but they are the result of a politically agreed international compromise that should accommodate the wishes of all nations of the world. The result is a set of 17 goals, containing 169 targets, which have many overlaps and sometimes non-logical elements to measure them. This is recognized in the UN documents.

Furthermore, it is clear that activities do not always impact all SDGs. And, although all levels of government and all business sectors are in principle addressed, the character of the SDGs still reminds strongly of the Millennium Development Goals of 2000 that were mainly focusing on the challenges of developing countries.

Nevertheless, the framework proposed will attempt to show the impact of the social housing associations in terms of the SDGs. The first part of this

chapter will discuss the method Telos developed for this purpose, while the second part presents the outcome.

7.1 Translation of sustainability assessment to SDG scoring

There are different options to link the outcome of sustainability (PPP-) assessments to SDGs impacts. Which option to use depends on the type of data at hand. An example of international SDG monitoring has been developed by Telos in collaboration with the UN Sustainable Development Solutions Network (SDSN) in Paris for European capitals (Lafortune, Zoeteman, et al., 2019). In the case of Dutch social housing associations, data for potentially 79 indicators are available. Concrete, roughly half of them can be attributed to the SDGs in conformity with the targets linked to these goals. The other half of the indicators used in the PPP-framework are, although relevant for measuring sustainability from a PPP-perspective, not addressed in the goals or targets of the SDGs.

As the SDGs have some overlap, indicators may show up more than one time. This is found acceptable and a logical consequence of the way the SDGs are designed. Where indicators seem to be positioned in a non-logical way, e.g. earthquakes under nr.1 (No poverty), this is due to the targets defined by the UN for this goal. In total, we used 50 indicators in the SDG framework. Of these 7 were used twice, to cover the targets of the SDGs as much as possible.

An overview of the SDGs, and the indicators available to measure them, is given in Table 7.1. As this table shows, 4 of the 17 SDGs could not be measured because of lack of data, or because they are not relevant for housing associations. These are nr. 5 (Gender equality), nr. 6 (Clean water and sanitation), nr. 14 (Life below water) and nr. 17 (Partnerships for the Goals). In some cases (nrs. 5 and 6), data are not available, probably because these are not perceived as problems. Water and sanitation are no issue in the Netherlands, as practically 99,99% of its citizens are provided with public drinking water supply and sewage collection and treatment systems. Housing associations have furthermore no direct impact on marine life (nr. 14) and partnerships for the Goals (nr. 17). So the 13 SDGs that are covered seem to be quite representative for the purpose of monitoring SDG impact for housing associations and its progress in the future.

Furthermore, it should be noted that some goals are measured by several indicators, while others are only covered by one. The latter is mainly due to the fact that SDGs are primarily meant to inspire national governments and less suited to monitor actions of e.g. housing associations.

The scores for the indicators are the same as the sustainability scores discussed previously, as are the rules for aggregation. However, the 13 SDGs scores have not been aggregated to one overall score for methodological reasons, such as the sometimes overlapping targets and therefore the multiple use of several indicators.

Table 7.1 Overview of the 17 SDGs and available indicators to measure them for social housing associations

GOAL	SHORT TITLE	DESCRIPTION	INDICATOR
1	No Poverty	End poverty in all its forms everywhere	Poor Households
			Social Welfare Benefits
			Floods
			Earthquakes
2	Zero Hunger	End hunger, achieve food security and improved nutrition and promote sustainable agriculture	Risky Behaviour
3	Good Health and Well-being	Ensure healthy lives and promote well-being for all at all ages	Concentration Particular Matter (PM2.5)
			Distance to General Practitioner
			Road Safety
			Assessment of Own Health
4	Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Risky Behaviour
			Distance to Elementary School
			Distance to Secondary Education
			Early School Leavers
5	Gender Equality	Achieve gender equality and empower all women and girls	Education Level
			No suitable indicator in database
			No suitable indicator in database
			No suitable indicator in database
6	Clean Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all	No suitable indicator in database
			No suitable indicator in database
			No suitable indicator in database
			No suitable indicator in database
7	Affordable and Clean Energy	Ensure access to affordable, reliable, sustainable and modern energy for all	Gas Consumption Rental Houses
			Electricity Consumption Rental Houses
			Solar Energy
			Total costs energy measures
			Energy label index
8	Decent Work and Economic Growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Early School Leavers
			Gross Regional Product per Capita
			Active Labour-force
			Unemployment
			Personnel costs divided by rental income (DEAB)
9	Industry, Innovation and Infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	CO2 Emissions
			Access to Main Roads
			Electric Vehicle Charging Station
10	Reduced Inequalities	Reduce inequality within and among countries	Social Welfare Benefits
			Poor Households
			Financial Assets Households

Table 7.1 Overview of the 17 SDGs and available indicators to measure them for social housing associations

GOAL	SHORT TITLE	DESCRIPTION	INDICATOR
11	Sustainable Cities and Communities	Make cities and human settlements inclusive, safe, resilient and sustainable	New housing units prognosis 2016-2020
			Access to Train Station
			Household generated Waste
			Concentration Particular Matter (PM2.5)
			Distance to Public Green
			Share of affordable dwellings
			Total allocations within income limits 2013-2015
			Conformity of dwellings and target group
			Physically highly accessible dwellings
			Rent price as a percentage of the maximum permitted rent
12	Responsible Consumption and Production	Ensure sustainable consumption and production patterns	CO2 emission of energy usage
			Household generated Waste
13	Climate Action	Take urgent action to combat climate change and its impacts	Organic Waste
			Floods
14	Life below Water	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	Urban heat islands
			No suitable indicator in database
15	Life on Land	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	Biodiversity
16	Peace, Justice and Strong Institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Vandalism
			Violent Crimes
			Property Crimes
			Turnout Municipal Elections
17	Partnerships for the Goals	Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	No suitable indicator in database

7.2 SDG scores of social housing associations

7.2.1 Impact of the housing sector from the point of view of the SDGs

Figure 7.1 shows the general outcome of the SDGs scores for the social housing sector as a whole and the group of selected associations in reporting year 2019. For all SDGs the selected group scored the same or higher than the total group.

SDG scores housing associations 2019

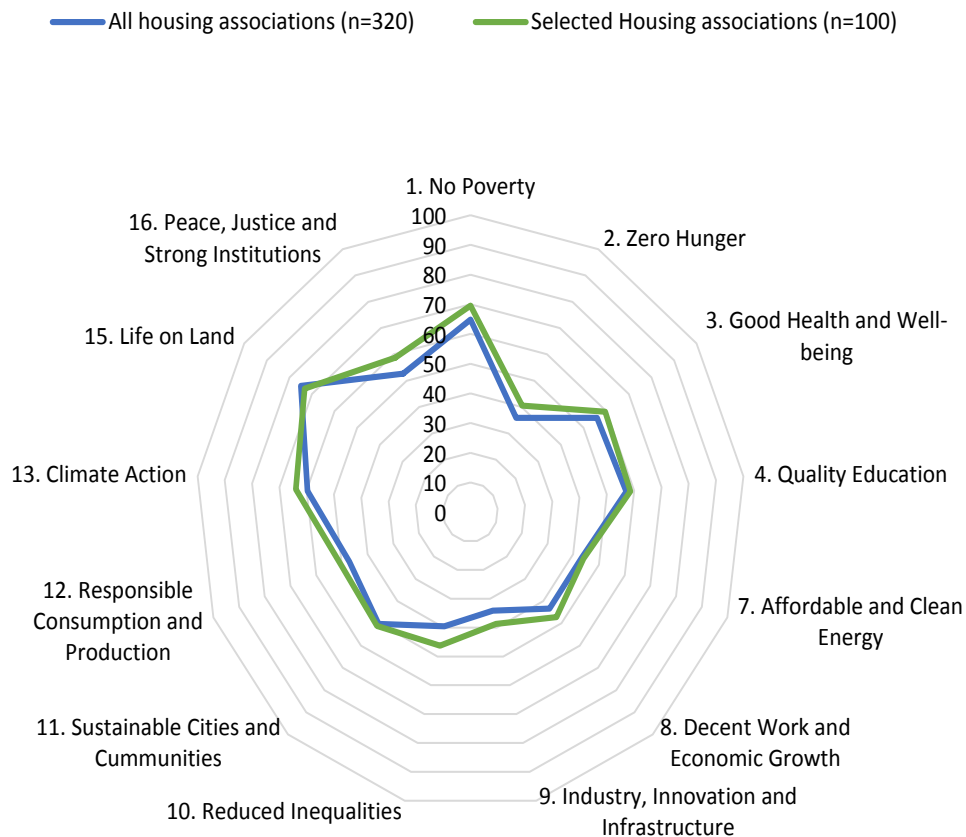


Figure 7.1 Average scores for the 13 SDGs of all social housing associations and the 100 best-in-class social housing associations in reporting year 2019

The highest scores were found for Goal 15 (Life on land), Goal 1 (No poverty) and Goal 3 (Good Health and Well-being).

The lowest scores occurred for Goal 9 (Industry, Innovation and Infrastructure) and Goal 2 (Zero hunger) and Goal 7 (Affordable and Clean Energy). It indicates that social housing associations still have a major challenge to improve their contribution to these goals, although more detailed measurement may shed a different light on the performance on these Goals. For instance under Goal 2 (Zero hunger) only one indicator (risky behaviour) is included.

Comparison over the years in the period 2016-2019, as shown in table 7.2, makes clear that the performance of several goas improved substantially (Goals 7, 8, and 16) , but other showed a small fallback (Goals 3 and 13). Goal 13 (Climate action) refers to the risk of floods and the urban heat island.

Table 7.2 Overview of the SDGs scores of Dutch social housing associations elected (n=100) and all (n=320) over the period 2016-2019

SDGS MEASURED	ELECTED (N=100)	ALL (N=320)	DIFFERENCE ELECTED AND TOTAL	ELECTED (N=100)	ALL (N=320)	DIFFERENCE ELECTED AND TOTAL
	2016	2016	2016	2019	2019	2019
1. No Poverty	70.4	65.3	5.0	69.6	64.8	4.8
2. Zero Hunger	36.1	32.0	4.1	40.5	35.9	4.6
3. Good Health and Well-being	59.9	57.0	2.9	59.6	56.0	3.6
4. Quality Education	58.6	56.6	2.0	58.6	57.1	1.5
7. Affordable and Clean Energy	39.6	39.0	0.6	44.0	43.3	0.7
8. Decent Work and Economic Growth	43.0	38.5	4.5	47.1	43.4	3.8
9. Industry, Innovation and Infrastructure	39.2	34.6	4.7	38.7	34.1	4.6
10. Reduced Inequalities	45.3	38.6	6.6	46.3	39.6	6.8
11. Sustainable Cities and Communities	51.2	50.3	0.8	51.1	50.3	0.9
12. Responsible Consumption and Production	48.1	45.5	2.6	50.3	47.0	3.2
13. Climate Action	64.8	60.8	4.0	64.0	59.8	4.2
15. Life on Land	73.3	74.9	-1.6	73.3	74.9	-1.6
16. Peace, Justice and Strong Institutions	49.6	42.4	7.3	58.8	52.8	6.1

In general, table 7.2 shows that the elected, as well as the total group of social housing associations improved themselves between 2016 and 2019. Especially in goals 3, 8, and 16, the development was stronger for elected social housing associations than for the total group of social housing associations.

7.2.2 Best scoring social housing associations for 13 SDGs

In this paragraph the 10 best scoring social housing associations within the total group for each of the SDGs are presented.

RANK	ID	NAME	1. NO POVERTY SCORE
1	L1543	Stichting Vallei Wonen	85.9
2	L1794	Woningstichting de Zaligheden	84.8
3	L1811	Stichting PeelrandWonen	84.0
4	L1588	Woningbouwstichting Cothen	83.6
5	LO439	Stichting Rhiant	83.3
6	L1678	Woningstichting Tubbergen	82.9
7	LO271	Stichting Woonservice Meander	82.6
8	LO757	Woningbouwvereniging Oostzaanse Volkshuisvesting	82.5
9	L1837	Woningvereniging Nederweert	82.4
10	L1704	Woonstichting Land van Altena	82.2

RANK	ID	NAME	2. ZERO HUNGER SCORE
1	L1811	Stichting PeelrandWonen	57.5
2	L1837	Woningvereniging Nederweert	57.5
3	L0992	Woningbouwvereniging Helpt Elkander	57.5
4	L1760	Woningbouwvereniging Reeuwijk	57.5
5	L1864	Stichting Wonen Vierlingsbeek	57.5
6	L1861	Stichting Oost Flevoland Woondiensten	57.5
7	L0590	Stichting Rndom Wonen	55.8
8	L2014	Stichting Woonpalet Zeewolde	55.0
9	L1100	Stichting Wonen Midden-Delfland	55.0
10	L1543	Stichting Vallei Wonen	54.7

RANK	ID	NAME	3. GOOD HEALTH AND WELL-BEING SCORE
1	L1100	Stichting Wonen Midden-Delfland	71.7
2	L1861	Stichting Oost Flevoland Woondiensten	71.3
3	L1543	Stichting Vallei Wonen	70.1
4	L1712	Christelijke Woonstichting Patrimonium	69.7
5	L1528	Woningbouwvereniging Beter Wonen Streefkerk	69.4
6	L1586	Stichting Lek en Waard Wonen	69.4
7	L1215	stichting 3B-Wonen	68.6
8	L0271	Stichting Woonservice Meander	68.4
9	L1704	Woonstichting Land van Altena	68.2
10	L0439	Stichting Rhiant	67.3

RANK	ID	NAME	4. QUALITY EDUCATION SCORE
1	L1100	Stichting Wonen Midden-Delfland	74.0
2	L0386	Woningstichting Naarden	71.6
3	L1709	Christelijke Woningstichting De Goede Woning	70.9
4	L1678	Woningstichting Tubbergen	68.6
5	L1910	Stichting WBO Wonen	67.2
6	L1837	Woningvereniging Nederweert	67.1
7	L1712	Christelijke Woonstichting Patrimonium	67.1
8	L0333	Woonstichting Vooruitgang	66.3
9	L2092	Noordwijkse Woningstichting	66.2
10	L0667	Woningbouwvereniging van Erfgooiers te Laren N.H.	65.7

RANK	ID	NAME	7. AFFORDABLE AND CLEAN ENERGY SCORE
1	L1905	Woningbouwvereniging Utrecht	63.9
2	L0041	Stichting Bo-Ex '91	62.4
3	L0579	Woonstichting Hulst	61.8
4	L2058	Mitros	58.0
5	L0033	Stichting voorheen De Bouwvereniging	57.9
6	L0089	L'escaut woonservice	57.6
7	L1182	Stichting Woonwaard Noord-Kennemerland	57.6
8	L1560	Stichting Woontij	56.7
9	L0943	Stichting Woongoed Middelburg	56.4
10	L0093	Woningstichting SWZ	56.0

RANK	ID	NAME	8. DECENT WORK AND ECONOMIC GROWTH SCORE
1	L1100	Stichting Wonen Midden-Delfland	70.9
2	L1543	Stichting Vallei Wonen	64.4
3	L1811	Stichting PeelrandWonen	64.1
4	L1215	stichting 3B-Wonen	63.9
5	L1892	De Woningraat	63.7
6	L1794	Woningstichting de Zaligheden	62.7
7	L0757	Woningbouwvereniging Oostzaanse Volkshuisvesting	62.0
8	L1745	Stichting Goed Wonen	61.9
9	L0354	Stichting Wonen Wateringen	61.5
10	L1878	Woningstichting Leusden	60.6

RANK	ID	NAME	9. INDUSTRY, INNOVATION AND INFRASTRUCTURE SCORE
1	L1586	Stichting Lek en Waard Wonen	67.1
2	L1528	Woningbouwvereniging Beter Wonen Streefkerk	67.1
3	L1543	Stichting Vallei Wonen	57.1
4	L0082	Woningstichting Vaals	56.4
5	L0979	de Woningstichting	56.2
6	L1968	Stichting Idealis	56.2
7	L1236	Woonstichting St. Joseph	54.8
8	L0678	Woningstichting St. Antonius van Padua	54.5
9	L1395	Woningbouwvereniging Maarn	53.8
10	L1836	Stichting Heuvelrug Wonen	53.8

RANK	ID	NAME	10. REDUCED INEQUALITIES SCORE
1	L1100	Stichting Wonen Midden-Delfland	76.3
2	L1802	Woningstichting Woonvizier	74.2
3	L1794	Woningstichting de Zaligheden	71.1
4	L1543	Stichting Vallei Wonen	70.5
5	L1811	Stichting PeelrandWonen	69.9
6	L0582	Stichting Omnivera	69.8
7	L1678	Woningstichting Tubbergen	68.7
8	L1837	Woningvereniging Nederweert	68.6
9	L1586	Stichting Lek en Waard Wonen	68.6
10	L1528	Woningbouwvereniging Beter Wonen Streefkerk	68.6

RANK	ID	NAME	11. SUSTAINABLE CITIES AND COMMUNITIES SCORE
1	L1501	Charlotte Elisabeth van Beuningen Stichting	68.6
2	L2066	Stichting Laurens Wonen	68.3
3	L0527	Stichting Sint Trudo	66.4
4	L1964	Stichting Jongeren Huisvesting Twente	64.5
5	L1968	Stichting Idealis	62.8
6	L0858	Stichting Beter Wonen	62.5
7	L0033	Stichting voorheen De Bouwvereniging	61.9
8	L1909	Stichting Studenten Huisvesting	61.8
9	L1944	stichting SSHN	61.6
10	L1122	Stichting Rijswijk Wonen	61.3

RANK	ID	NAME	12. RESPONSIBLE CONSUMPTION AND PRODUCTION SCORE
1	L1753	Stichting Wetland Wonen Groep	71.1
2	L0661	Woonstichting VechtHorst	67.9
3	L1670	Stichting Oosterpoort Wonen	66.3
4	L0237	Stichting Standvast Wonen	65.9
5	L0694	Rentree	65.2
6	L2099	Woonstichting De Marken	65.2
7	L0221	Stichting Waardwonen	64.4
8	L0762	Woningstichting Beter Wonen Vechtdal	64.3
9	L0782	Woningstichting Veluwonen	63.5
10	L1239	Stichting IJsseldal Wonen	63.5

RANK	ID	NAME	13. CLIMATE ACTION
1	L1899	Woningstichting De Volmacht	90.3
2	LO688	Stichting Uithuizer Woningbouw	89.2
3	LO686	Stichting De Delthe	89.2
4	LO543	R&B Wonen	87.9
5	LO579	Woonstichting Hulst	86.1
6	L1560	Stichting Woontij	85.6
7	LO003	Stichting Wonen Noordwest Friesland	85.5
8	L1622	Stichting Wonen Wittem	85.2
9	LO259	Woningstichting Gulpen	85.2
10	L1678	Woningstichting Tubbergen	83.2

RANK	ID	NAME	15. LIFE ON LAND
1	L1968	Stichting Idealis	86.9
2	LO979	de Woningstichting	86.9
3	LO420	Bouwwerening 'Huis en Hof' voor de gemeente Nijmegen	86.4
4	L1357	Woningbouwstichting De Gemeenschap	86.4
5	L1748	Stichting Woningcorporatie WoonGenoot	86.4
6	L1944	stichting SSHN	86.1
7	LO692	Woningbouwvereniging Rosehaghe	85.1
8	LO630	Brederode Wonen	84.6
9	L1436	Stichting Dunavie	84.5
10	LO231	Stichting Elan Wonen	84.2

RANK	ID	NAME	16. PEACE, JUSTICE AND STRONG INSTITUTIONS SCORE
1	LO661	Woonstichting VechtHorst	80.1
2	L1678	Woningstichting Tubbergen	78.2
3	L1712	Christelijke Woonstichting Patrimonium	78.0
4	LO582	Stichting Omnivera	75.2
5	L1709	Christelijke Woningstichting De Goede Woning	74.7
6	LO506	FidesWonen	73.3
7	L1482	Woningbouwvereniging Beter Wonen Ooltgensplaat	73.3
8	L1700	Woningbouwvereniging Beter Wonen Goedereede	73.3
9	L1544	Woongoed Goeree-Overflakkee	73.3
10	LO543	R&B Wonen	73.2

7.3 Best scoring social housing associations for a combination of SDGs

Although it was for methodological reasons not possible to calculate average scores for the total of SDGs, and make a list of best scoring social housing associations for the combined SDGs, an approximation of a list of best scoring associations among the total group can be developed using a different approach. Using the lists of top 10 scoring associations for each of the SDGs monitored, it can be assessed which associations are occurring most frequently on such top 10 lists. The result is presented in Table 7.3.

In total 10 social housing associations have been found which occur 3 times or more on top 10 lists for individual SDGs.

Table 7.3 Overview of best scoring Dutch social housing associations occurring most frequently in top 10 lists of individual SDGs in 2019

#	ID	NAME	NUMBER OF SDGS FOR WHICH ASSOCIATION BELONGS TO TOP 10	GOALS FOR WHICH THE SOCIAL HOUSING ASSOCIATION BELONGS TO A TOP 10 LIST	SUSTAINABILITY SCORE (AND RANKING OF SELECTED ASSOCIATIONS) (ANNEX 4)
1	L1543	Stichting Vallei Wonen	6	1.No Poverty, 2.Zero Hunger, 3.Good Health and Well-being, 8.Decent Work and Economic Growth, 9.Industry, Innovation and Infrastructure, 10.Reduced Inequalities	57.4 (12)
2	L1678	Woningstichting Tubbergen	5	1.No Poverty, 4.Quality Education, 10.Reduced Inequalities, 13.Climate Action, 16.Peace, Justice and Strong Institutions	56.8 (15)
3	L1100	Stichting Wonen Midden-Delfland	5	2.Zero Hunger, 3.Good Health and Well-being, 4.Quality Education, 8.Decent Work and Economic Growth, 10.Reduced Inequalities	58.8 (4)
4	L1811	Stichting PeelrandWonen	4	1.No Poverty, 2.Zero Hunger, 8.Decent Work and Economic Growth, 10.Reduced Inequalities	55.3 (31)
5	L1837	Woningvereniging Nederweert	4	1.No Poverty, 2.Zero Hunger, 4.Quality Education, 10.Reduced Inequalities	Not selected
6	L1794	Woningstichting de Zaligheden	3	1.No Poverty, 8.Decent Work and Economic Growth, 10.Reduced Inequalities	55.5 (28)
7	L1712	Christelijke Woonstichting Patrimonium	3	3.Good Health and Well-being, 4.Quality Education, 16.Peace, Justice and Strong Institutions	57.9 (11)
8	L1586	Stichting Lek en Waard Wonen	3	3.Good Health and Well-being, 9.Industry, Innovation and Infrastructure, 10.Reduced Inequalities	55.0 (45)
9	L1528	Woningbouwvereniging Beter Wonen Streefkerk	3	3.Good Health and Well-being, 9.Industry, Innovation and Infrastructure, 10.Reduced Inequalities	54.4 (52)
10	L1968	Stichting Idealis	3	9.Industry, Innovation and Infrastructure, 11.Sustainable Cities and Communities, 15.Life on Land	55.9 (26)



8 Conclusions⁸

A sustainability framework has been developed that can be used for the issuance in 2019 by BNG Bank for a Sustainability Bond for Dutch Social Housing Associations. The framework gives an integral view on internal and external sustainability, resulting in six domains: three internal sustainability capitals (People, Profit and Planet) of the social housing association, as well as three similar external sustainability capitals.

The data for the framework are derived from the Dutch Association of social housing associations, AEDES, and a range of other sources as specified in Table 2.2. These data include in total 79 indicators, focusing on the housing property and its users as well as its external neighborhood. The way the location of the property is related to neighborhood sustainability characteristics could not be described directly but has been estimated using socio-geographical association property identifiers and municipality sustainability characteristics.

A preselection step is applied, limiting the group of associations from which a selection is made to value the social task of social housing associations which may have a downward effect on sustainability scores. Those scoring high on sustainability and investing at the same time in neighborhoods with a large social challenge, are preferred. The latter is the core business of social housing associations in the Dutch context. The result has been that from a total group of 331 associations 200 are preselected for further selection.

Subsequently, 10 classes of associations have been defined based on association size and age of association property as well as based on two other types, which are characterized by a large proportion of one-family dwellings or high-rise buildings. Social housing associations in all 10 types have equal chances to be selected as best-in-class.

The 15 highest scoring associations on sustainability in each of these 10 classes have been selected, which results, after correcting for double counting, in a total group of 100 selected associations (Table 6.1). These are the best scoring associations on sustainability of their classes and the associations electable for the sustainability bond.

The outcome of 100 selected associations will be monitored yearly during the term of the sustainability bond using the methodology of this framework. The outcome of the annual monitoring will be reported in an Impact Report including:

The outcome of 100 selected associations will be monitored yearly during the term of the sustainability bond using the methodology of this framework. The outcome of the annual monitoring will be reported in an Impact Report including:

- A comparison of sustainability scores of the group of elected social housing associations in the reporting year with the year of issuance;
- An analysis on the level of themes, and occasionally on the level of indicators, to better understand the causes of changes in performance of elected associations and the total group of associations.
- A list of elected associations which showed the largest improvement in overall score and an indication of the main improvement themes and causes.

In the annual impact reports, the performance from the SDGs point of view will also be monitored. Although the SDGs scores can for methodological reasons not be aggregated to one figure, like in the case of the total sustainability score, they allow a listing of best scoring social housing associations for each of the monitored SDGs individually.



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Annexes

A Description of indicators used for the framework

Adjustments in indicator set

Adjustments in the dataset and framework can occur on a yearly basis. Changes in data availability, new scientific insights and changing policies are examples of reasons to reconsider or adjust the framework. Because the datasets should be comparable over the different reporting years, adjustments are reconstructed for the previous years.

Within the dataset used for this report, three different kinds of changes were implemented. Some indicators have been added, some have been deleted from the analysis and some have been changed in definition. An overview of the adjustments is described in the next paragraphs.

Added indicators

- Urban Heat Islands; average yearly difference in temperature due to the heat-island effect. Added in the Annoyance and Emergencies stock.
- Solvency ratio; measures the resistivity of the housing association in relation to the total capital. Replacement for the risk indicator (risk is no longer measured by ILT). Added to the future constancy stock.

Deleted indicators

- Total personnel costs; new scientific insights. Does not fit the goals of the stock (social, in internal business capital). Hard to norm: when is it sufficient?
- Costs of complaint services: new scientific insights. Does not fit the goals of the stock (social, in internal business capital). Hard to norm: when is it sufficient? Replaced by Rating of tenants with repair request.

Changed indicators

- All the indicators from the GGD source are now available on neighborhood level instead of municipality level. This makes it possible to be more accurate in the database
- The indicator electric vehicle charging stations, is now on neighborhood level instead of municipality level.
- Tenants satisfaction moved from the social stock to the residential satisfaction stock

- Total costs of residential improvements moved from the ecological stock to the energy stock
- Interest coverage ratio moved from the economic stock to the future constancy stock
- Total allocations within income limits has moved from the social stock to the physical and economic accessibility stock
- Conformity of dwellings and target group moved from the social stock to the physical and economic accessibility stock.
- Expenses on quality of live moved from the social cohesion stock to the living quality stock.

Changes in capitals

Because of the changes in the indicators, lack of data and new scientific insights, the internal business capital in the internal sustainability part has been removed. In most cases, the indicators were divided amongst the other stocks. This means the internal sustainability part is now consisting of three capitals, people, planet, profit, as is the case in the external sustainability as well. This gives more conformity over the whole measurement system.

Changes in stocks

Because of these changes, the stocks have been slightly revised. The stocks in the internal business capital have been removed. This has some consequences for the stocks in the social capital. The social cohesion capital was removed as well. The value for money stock has been renamed to living quality, and the residential satisfaction stock was added. An overview of all the indicators can be found in the next table.

Indicators used to describe the external sustainability performance

CAPITAL	STOCK	INDICATOR	DESCRIPTION	UNIT	LEVEL
Ecology	Air	CO2 Emissions	Total CO2 emissions in kg per inhabitants	kg/inhabitant	District
Ecology	Air	NOx Emissions	Total nitrogen emissions in kg per inhabitants	kg/inhabitant	District
Ecology	Air	Particular matter emissions	Total particulate matter emissions in kg per inhabitants	kg/inhabitant	District
Ecology	Air	Concentration NOx	The average yearly concentration of nitrogen in the air in µg/m3	µg/m3	District
Ecology	Air	Concentration Particular Matter	The average yearly concentration of particulate matter in the air in µg/m3	µg/m3	District
Ecology	Annoyance and Emergencies	Light Intensity	Yearly emission of artificial light	nanoWatts/cm2/sr	Neighborhood
Ecology	Annoyance and Emergencies	Noise Intensity	Average background noise intensity	(Scale 1-8)	Neighborhood
Ecology	Annoyance and Emergencies	Earthquakes	The three-yearly moving average of the number of registered earthquakes in the area	three-yearly average	Municipality
Ecology	Annoyance and Emergencies	Floods	Number of probable victims in case of a 100-year flood per squared kilometer	number of inhabitants	Municipality
Ecology	Annoyance and Emergencies	Urban heat islands	Yearly average temperature difference that occurs due to urban heat island effects	degrees celcius	Neighborhood
Ecology	Nature and Landscape	Distance to Public Green	The average distance of inhabitants to all forms of public green (e.g. (recreational) parks and public gardens)	km	Neighborhood
Ecology	Nature and Landscape	Distance to Recreational Water	The average distance of inhabitants to any form of recreational water	km	Municipality
Ecology	Nature and Landscape	Biodiversity	The total number of observed species in the area in a 10 year period	species/km2	Municipality
Socio-cultural	Social Participation	Volunteers	The share of people that was enrolled in any form of volunteering in the past 12 months	%	Neighborhood
Socio-cultural	Social Participation	Turnout Municipal Elections	The turnout in the last municipal elections (2018)	%	Municipality
Socio-cultural	Social Participation	Informal Caregiving	The share of people that was enrolled in any form of informal care giving in the past 12 months	%	Neighborhood
Socio-cultural	Economic Participation	Financial Assets Households	The share of households in possession of financial assets of 5,000 Euro or more (excluding real estate dept.)	%	Neighborhood
Socio-cultural	Economic Participation	Social Welfare Benefits	The share of the potential labor force that receives social assistance in the form of social welfare benefits.	%	Neighborhood
Socio-cultural	Economic Participation	Poor Households	The share of households with a household income below 105% of the social minimum	%	Neighborhood
Socio-cultural	Arts and Culture	Performing Arts & Cinema's	Average distance per inhabitant to for instance a theater or cinema.	km	Neighborhood
Socio-cultural	Arts and Culture	Distance to Museum	Average distance per inhabitant to a museum.	km	Neighborhood
Socio-cultural	Health	Insufficient Exercise	Share of the inhabitants that does not meet the requirements of sufficient physical activity	%	Neighborhood

CAPITAL	STOCK	INDICATOR	DESCRIPTION	UNIT	LEVEL
Socio-cultural	Health	Risky Behavior	the share of the inhabitants that show risky behavior (heavy smokers or drinkers)	%	Neighborhood
Socio-cultural	Health	Distance to General Practitioner	Average distance per inhabitant to a general practitioner.	km	Neighborhood
Socio-cultural	Health	Life expectancy at Birth	The regional life expectancy at birth	year	Municipality
Socio-cultural	Health	Assessment of Own Health	The share of inhabitants that assesses their own health as 'good' or 'very good'	%	Neighborhood
Socio-cultural	Residential Environment	Distance to Catering Facility	Average distance per inhabitant to catering facilities like restaurants or bars.	km	Neighborhood
Socio-cultural	Residential Environment	Distance to Daily Goods and Services	Average distance per inhabitant to shops who provide daily goods and services.	km	Neighborhood
Socio-cultural	Residential Environment	Satisfaction with Living Environment	The share of inhabitants that is satisfied with the living environment	%	Municipality
Socio-cultural	Education	Distance to Elementary School	Average distance per inhabitant to the closest elementary school.	km	Neighborhood
Socio-cultural	Education	Distance to Secondary Education	Average distance per inhabitant to the closest school for secondary education	km	Neighborhood
Socio-cultural	Education	Early School Leavers	The share of people that leaves the education circuit without a diploma	%	Municipality
Socio-cultural	Education	Education Level	The share of low educated people in the 18+ population (excluding students)	%	Neighborhood
Economic	Labor	Unemployment	percentage of unemployed people in the potential labor force	%	Municipality
Economic	Labor	Active Labor force	The share of the potential work force that is currently active in the labor market	%	Neighborhood
Economic	Competitiveness	Vacant Retail Space	The share vacant retail space	%	Municipality
Economic	Competitiveness	Gross Regional Product per Capita	The total regional production divided by the number of inhabitants resulting in a regional version of gross domestic product (GDP)	index	Municipality
Economic	Competitiveness	Share Highly Educated People	The total share of highly educated people	%	Neighborhood
Economic	Infrastructure and Accessibility	Access to Train Station	Average distance per inhabitant to the closest train station with a connection to the domestic railway network.	km	Neighborhood
Economic	Infrastructure and Accessibility	Access to Main Roads	Average distance per inhabitant to the closest main road access point.	km	Neighborhood

Indicators used to describe the internal sustainability performance

CAPITAL	STOCK	INDICATOR	DESCRIPTION	UNIT	LEVEL
Ecology	Energy	Electricity Consumption Rental Houses	Average electricity consumption of rental houses	kWh/dwelling	Neighborhood
Ecology	Energy	Gas Consumption Rental Houses	Average Gas Consumption of Rental Houses	m3	Neighborhood
Ecology	Energy	Solar Energy	Average installed capacity of solar (PV) panels per address (kW peak)	installed capacity/dwelling	District
Ecology	Energy	Energy label index	This indicator represents the % of housing units of an association with a certain energy label. Based on scores attributed to the labels (AAA=0.505, AA=0.705, A=1.005, B=1.305, C=1.605, D=1.955, E=2.255, F=2.555, G=2.7.) The weighted average score of all housing units of the association is calculated.	index	Housing association
Ecology	Energy	CO2 emission of energy usage	Average co2 emission of the energy used for heating the dwellings. (gas-consumption and external heat supply)	kg/m2	Housing association
Ecology	Energy	Total costs residential improvements	Total costs of residential improvements per rental unit (energy measures and accessibility for elderly people)	€/rental unit	Housing association
Ecology	Resources and Waste	Total household waste	Total amount of household waste produced in kg per inhabitant	kg/inhabitant	Municipality
Ecology	Resources and Waste	Household general Waste	Total amount of residual waste produced in kg per inhabitant	kg/inhabitant	Municipality
Ecology	Resources and Waste	Organic Waste	Total amount of organic waste produced in kg per inhabitant	kg/inhabitant	Municipality
Ecology	Resources and Waste	Packaging Glass	Total amount of packaging glass collected in kg per inhabitant	kg/inhabitant	Municipality
Ecology	Resources and Waste	Paper and Cardboard Waste	Total amount paper and cardboard waste in kg per inhabitant	kg/inhabitant	Municipality
Ecology	Resources and Waste	Plastics	Total amount of plastic waste in kg per inhabitant	kg/inhabitant	Municipality
Economic	Corporational valuation	Average amount of points in housing valuation system	Condition-score based on the NEN 2767 norms for housing	score	Housing association
Economic	Corporational valuation	Loan to value	The ratio of the long term debts and the standardized association exploitation value.	€	Housing association
Economic	Corporational valuation	Standardized corporation value	standardized association exploitation value	€/rental unit	Housing association
Economic	Corporational valuation	Standardized corporation value per rental unit	standardized association exploitation value per rental unit	€	Housing association
Economic	Future Constancy	Electric Vehicle Charging Station	Total amount of (semi-)public charging stations for electronic vehicles	charging stations/10,000 inhabitants	Neighborhood
Economic	Future Constancy	New housing units prognosis	Expected revenues from new housing units realized over 2017-2021 as a percentage of the current revenues from rent	%	Housing association

CAPITAL	STOCK	INDICATOR	DESCRIPTION	UNIT	LEVEL
Economic	Future Constancy	New housing units realized	Number of newly constructed housing units to be rented as percentage of the total stock exploited in the reporting year. Newly constructed units destined for direct sale or for rental by third parties are excluded from this figure	%	Housing association
Economic	Future Constancy	Remaining lifespan of property	The remaining lifespan of property is a standardized measure under the auspices of the CFV (Dutch: Centraal Fonds Volkshuisvesting) representing with a margin of 3 years the average remaining lifespan of the property of a association	year	Housing association
Economic	Future Constancy	Interest coverage ratio	Interest coverage ratio is based on net cash flow , national government contributions, corporate income tax, levies special project support and sanitation, divided by payed interest minus interest collected	ratio	Housing association
Economic	Future Constancy	Solvency ratio	measures the resistivity of the housing association in relation to the total capital.	ratio	Housing association
Economic	Loss of revenue	Loss of rental income due to market conditions	This indicator measures loss of rental income due to vacancies exceeding 3 months as a result of market circumstances	%	Housing association
Economic	Loss of revenue	Loss of rental income due to vacancy	This indicator relates to vacancy as a result of the execution of projects	%	Housing association
Economic	Loss of revenue	Rent arrears	The percentage of the annual rent that is missed by outstanding rental arrears	%	Housing association
Socio-cultural	Physical and economic accessibility	Physically highly accessible dwellings	Percentage of the housing stock that is accessible with wheelchairs or for people with physical disabilities	%	Housing association
Socio-cultural	Physical and economic accessibility	Share of affordable dwellings	The share of affordable and low cost dwellings suitable to provide housing to low income households within the regional market	%	Housing association
Socio-cultural	Physical and economic accessibility	Total allocations within income limits	Two-yearly average of the percentage of allocations within the income limits of the Wht	%	Housing association
Socio-cultural	Physical and economic accessibility	Conformity of dwellings and target group	Match between the housing stock of a corporation with regard to the target group in the area of the possession of the housing association	%	Housing association
Socio-cultural	Living quality	Expenses on quality of life	Expenses on quality of the living environment (social and physical activities) per rental unit	€/rental unit	Housing association
Socio-cultural	Living quality	Rent price as a percentage of the maximum permitted rent	Average rental price of the DEAB-dwellings divided by the number of points in the housing condition assessment (NEN 2767)	%	Housing association
Socio-cultural	Living quality	Rental price in percentage of the assessed value	Rental price in percentage of the assessed value	%	Housing association
Socio-cultural	Safety and Security	Property Crimes	The number of arrested suspects for property related crimes per 10,000 inhabitants	crimes/10,000 inhabitants	Neighborhood
Socio-cultural	Safety and Security	Road Safety	The number of deaths or heavily wounded victims of traffic incidents per 1,000 inhabitants	crimes/10,000 inhabitants	Neighborhood

CAPITAL	STOCK	INDICATOR	DESCRIPTION	UNIT	LEVEL
Socio-cultural	Safety and Security	Vandalism	The number of arrested suspects for vandalism per 10,000 inhabitants	crimes/10,000 inhabitants	Neighborhood
Socio-cultural	Safety and Security	Violent Crimes	The number of arrested suspects for violent crimes or sexual assaults per 10,000 inhabitants	crimes/10,000 inhabitants	Neighborhood
Socio-cultural	Residential satisfaction	Assessment of dwelling quality	Index between the assessed dwelling quality and the reference value of the Dutch national average	index	Housing association
Socio-cultural	Residential satisfaction	Tenants' rating of sustainability bond	Tenants' rating of sustainability bond (1-10)	scale (1-10)	Housing association
Socio-cultural	Residential satisfaction	Rating of tenants with repair request	Tenants' rating of sustainability bond (1-10), after a repair request	scale (1-10)	Housing association

B Norms for indicators in order to calculate sustainability scores from indicator score

INDICATOR	NORM RANGES				
	MINIMUM SCORE	RED - ORANGE RANGE	ORANGE - GREEN RANGE	GREEN - GOLD RANGE	MAXIMUM SCORE
CO2 Emissions	10000000	12881.021	6569.3208	1610.1276	0
NOx Emissions	10000	30.177696	21.124387	16.597733	0
Particular matter emissions	1000	1.6593137	1.0453676	0.7964706	0
Concentration NOx	100	40	25	10	0
Concentration Particular Matter	100	25	20	10	0
Light Intensity	2000	15	10	5	0
Noise Intensity	8	4	3	2	1
Earthquakes	50	1	0.3	0.1	0
Floods	2500	60	10	1	0
Urban heat islands	3	1.5	1	0.5	0
Distance to Public Green	5	0.7	0.5	0.3	0
Distance to Recreational Water	20	5	2.5	2	0
Biodiversity	0	250	375	500	1000
Volunteers	0	28	33	38	100
Turnout Municipal Elections	0	45	60	75	100
Informal Caregiving	0	10	12.5	15	100
Financial Assets Households	0	60	70	80	100
Social Welfare Benefits	100	3	2	1	0
Poor Households	100	12	6	3	0
Performing Arts & Cinema's	100	10	4	2.5	0
Distance to Museum	100	6	4	2	0
Insufficient Exercise	100	45	35	25	0
Risky Behavior	100	45	35	25	0
Distance to General Practitioner	20	2	1	0.65	0
Life expectancy at Birth	0	80	81	82	100
Assessment of Own Health	0	70	75	80	100
Distance to Catering Facility	10	2	1	0.5	0
Distance to Daily Goods and Services	5	1.5	1	0.5	0
Satisfaction with Living Environment	0	80	85	90	100
Distance to Elementary School	2	1.5	1	0.5	0
Distance to Secondary Education	20	5	2.5	1.5	0

INDICATOR	NORM RANGES				
	MINIMUM SCORE	RED - ORANGE RANGE	ORANGE - GREEN RANGE	GREEN - GOLD RANGE	MAXIMUM SCORE
Early School Leavers	10	1.75	1.25	0.75	0
Education Level	100	55	50	45	0
Unemployment	100	8	5	2	0
Active Labor force	0	55	60	65	100
Vacant Retail Space	100	10	7	4	0
Gross Regional Product per Capita	0	85	100	115	200
Share Highly Educated People	0	20	30	40	100
Access to Train Station	100	10	5	2.5	0
Access to Main Roads	100	2	1.5	1	0
Electricity Consumption Rental Houses	5000	2400	2250	2100	0
Gas Consumption Rental Houses	5000	1200	1000	800	0
Solar Energy	0	0.1705283	0.8100093	1.4494904	2.8989807
Energy label index	4	2	1.6	1.2	0
CO2 emission of energy usage	50	22	15	10	0
Total costs residential improvements	0	100	300	600	200000
Total household waste	2000	600	500	400	0
Household general Waste	700	200	175	100	0
Organic Waste	0	50	100	176	300
Packaging Glass	0	20	25	35	150
Paper and Cardboard Waste	0	50	60	114	200
Plastics	0	10	20	50	100
Average amount of points in housing valuation system	6	4	3	2	1
Loan to value	5	0.75	0.6	0.4	0
Standardized corporation value	0	35000	50000	65000	20000000
Standardized corporation value per rental unit	0	5	10	15	50
Electric Vehicle Charging Station	0	5	10	15	500
New housing units prognosis	0	2	6	15	50
New housing units realized	0	0.5	1.5	3	100
Remaining lifespan of property	0	20	23.5	27	50
Interest coverage ratio	-5	1	1.4	5	20
Solvency ratio	-100	20	40	50	100
Loss of rental income due to market conditions	20	2.5	1	0.2	0
Loss of rental income due to vacancy	20	1.5	0.5	0.1	0
Rent arrears	20	2	1	0.5	0
Physically highly accessible dwellings	0	10	30	50	100
Share of affordable dwellings	0	75	80	90	100
Total allocations within income limits	0	70	80	90	100
Conformity of dwellings and target group	0	80	85	95	150
Expenses on quality of life	0	20	60	126.25	500
Rent price as a percentage of the maximum permitted rent	110	75	65	55	1

INDICATOR	NORM RANGES				MAXIMUM SCORE
	MINIMUM SCORE	RED - ORANGE RANGE	ORANGE - GREEN RANGE	GREEN - GOLD RANGE	
Rental price in percentage of the assessed value	15	6	4.5	3	0
Property Crimes	20	8	4	2	0
Road Safety	10	2	1	0.4	0
Vandalism	50	8	6	2	0
Violent Crimes	20	4.5	3.5	2.5	0
Assessment of dwelling quality	0	95	100	105	200
Tenants' rating of sustainability bond	0	7	7.5	8	10
Rating of tenants with repair request	0	7	7.5	8	10

C Sustainability scores of 320 social housing associations (alphabetical order)

CODE	NAME OF ASSOCIATION	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
L0358	Almelose Woningstichting Beter Wonen	47.74	48.95	48.34
L1128	Baston Wonen	50.08	46.91	48.49
L0643	Bouwvereniging Huis en Erf	56.08	56.39	56.24
L0338	Bouwvereniging Huis en Hof	43.80	45.06	44.43
L0420	Bouwvereniging 'Huis en Hof' voor de gemeente Nijmegen	49.99	52.67	51.33
L0993	Bouwvereniging Onze Woning	47.87	43.10	45.48
L0923	Bouwvereniging Woningbelang	56.84	51.48	54.16
L0630	Brederode Wonen	51.98	48.93	50.45
L1501	Charlotte Elisabeth van Beuningen Stichting	62.51	53.49	58.00
L1709	Christelijke Woningstichting De Goede Woning	60.09	53.16	56.63
L0380	Christelijke Woningstichting Patrimonium	54.49	48.40	51.45
L0449	Christelijke Woongroep Marenland	47.97	45.50	46.74
L1712	Christelijke Woonstichting Patrimonium	62.93	52.87	57.90
L1892	De Woningraat	56.27	49.83	53.05
L0979	de Woningstichting	54.18	54.44	54.31
L1680	de Woonmensen/SJA	52.73	48.43	50.58
L2004	DUWO	52.96	48.63	50.79
L0506	FidesWonen	52.49	50.88	51.68
L1573	Groen Wonen Vlist	52.35	53.97	53.16
L0732	HW Wonen	49.73	55.59	52.66
L1005	Laurentius	51.53	44.23	47.88
L0089	l'escaut woonservice	48.57	47.84	48.20
L0986	Maaskant Wonen	49.41	52.92	51.16
L1804	Mercatus	51.74	51.83	51.79
L2058	Mitros	53.73	50.81	52.27
L2092	Noordwijkse Woningstichting	59.19	50.81	55.00
L1691	Ons Huis' Woningstichting	52.55	53.53	53.04
L0734	Patrimonium woonservice	55.87	50.68	53.27
L0640	Pre Wonen	51.19	45.23	48.21
L0317	Provides	59.16	51.13	55.15
L0543	R&B Wonen	52.47	53.60	53.04

CODE	NAME OF ASSOCIATION	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
L0147	R. K. Woningbouwvereniging Zeist	54.36	51.74	53.05
L1459	R.K. Woningbouwstichting 'De Goede Woning'	51.14	46.61	48.88
L0173	R.K. Woningstichting Ons Huis	49.50	48.56	49.03
L1901	Regionale Woningbouwvereniging Samenwerking	53.76	47.68	50.72
L0694	Rentree	51.22	53.91	52.56
L2056	Ressort Wonen	47.87	48.68	48.27
L1017	Site Woondiensten	50.51	50.30	50.40
L0013	Stichting Zayaz	52.36	47.28	49.82
L1215	stichting 3B-Wonen	53.64	49.28	51.46
L1793	Stichting Acantus	47.54	45.00	46.27
L1638	Stichting Accolade	49.83	51.14	50.49
L0574	Stichting Actium	45.68	51.34	48.51
L0495	Stichting Alwel	51.08	49.22	50.15
L0241	Stichting Antares Woonservice	47.19	49.84	48.52
L0410	Stichting Arcade mensen en wonen	51.67	45.11	48.39
L0886	Stichting Area	56.64	54.28	55.46
L0858	Stichting Beter Wonen	59.98	59.47	59.72
L0041	Stichting Bo-Ex '91	55.11	49.32	52.21
L0176	Stichting BrabantWonen	50.80	50.01	50.40
L0944	Stichting Casade	50.90	51.65	51.28
L0939	Stichting Christelijke Woningcorporatie	49.18	49.24	49.21
L0418	Stichting Clavis	42.42	47.77	45.09
L1912	Stichting de Alliantie	52.97	45.42	49.20
L0686	Stichting De Delthe	52.97	44.40	48.69
L0446	Stichting De Goede Woning Apeldoorn	52.76	50.93	51.84
L1034	Stichting De Goede Woning Amsterdam	53.27	45.53	49.40
L0385	Stichting De Huismeesters	54.50	46.51	50.50
L1896	Stichting De Leeuw van Putten	43.80	42.49	43.15
L0876	Stichting De Woonschakel Westfriesland	52.21	55.32	53.76
L0029	Stichting deltaWonen	53.69	52.63	53.16
L0641	Stichting Destion	52.21	57.71	54.96
L0045	Stichting Domesta	46.86	47.29	47.08
L0383	Stichting Dudok Wonen	56.01	46.98	51.50
L1436	Stichting Dunavie	57.43	52.53	54.98
L0568	Stichting Eelder Woningbouw	55.32	55.99	55.66
L0936	Stichting Eemland Wonen	58.57	49.61	54.09
L0231	Stichting Elan Wonen	53.44	44.16	48.80
L0553	Stichting Elkien	45.96	48.71	47.34
L1745	Stichting Goed Wonen	55.88	57.78	56.83
L0766	Stichting GroenWest	54.22	49.79	52.01
L1666	Stichting Habion	49.98	44.76	47.37

CODE	NAME OF ASSOCIATION	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
L1985	Stichting Harmonisch Wonen	46.13	46.51	46.32
L0392	Stichting Havensteder	46.92	39.49	43.21
L1836	Stichting Heuvelrug Wonen	63.75	53.60	58.68
L1986	Stichting Huisvesting Bejaarden Oosterhout	48.94	52.42	50.68
L1933	Stichting Huisvesting Vredewold	52.69	55.27	53.98
L1968	Stichting Idealis	54.18	57.63	55.91
L1239	Stichting IJsseldal Wonen	59.47	57.15	58.31
L0019	Stichting Intermaris	50.13	44.75	47.44
L1964	Stichting Jongeren Huisvesting Twente	49.27	51.69	50.48
L0343	Stichting KleurrijkWonen	52.37	49.60	50.98
L2066	Stichting Laurens Wonen	47.45	45.09	46.27
L1542	Stichting Lefier	45.72	46.08	45.90
L1586	Stichting Lek en Waard Wonen	56.66	53.25	54.95
L0144	Stichting Lekstede wonen	51.62	46.56	49.09
L1788	Stichting Leystromen	48.87	52.27	50.57
L0036	Stichting Lyaemer Wonen	49.99	53.91	51.95
L1876	Stichting Maasdelta Groep	45.13	44.87	45.00
L0308	Stichting MeerWonen	53.38	53.28	53.33
L0178	Stichting Mijande Wonen	55.71	52.48	54.09
L1817	Stichting Mooiland	48.08	49.50	48.79
L0232	Stichting Mozaiek Wonen	51.81	49.16	50.49
L1109	Stichting Nijestee	54.49	46.97	50.73
L0968	Stichting Omnia Wonen	50.86	51.21	51.03
L0582	Stichting Omnivera	52.10	51.36	51.73
L1861	Stichting Oost Flevoland Woondiensten	53.21	52.94	53.08
L1670	Stichting Oosterpoort Wonen	51.78	55.72	53.75
L1926	Stichting Ouderenhuisvesting Rotterdam	46.05	44.82	45.44
L0059	Stichting Parteon	47.61	43.83	45.72
L1811	Stichting PeelrandWonen	55.71	54.88	55.29
L1821	Stichting Plavei	53.42	49.25	51.34
L1549	Stichting Poort 6	52.04	42.91	47.47
L0117	Stichting Portaal	51.19	46.58	48.89
L0540	Stichting QuaWonen	53.14	50.46	51.80
L1413	Stichting Reggewoon	55.07	53.61	54.34
L2068	Stichting RHENAM WONEN	56.25	47.15	51.70
L0439	Stichting Rhiant	56.37	50.68	53.53
L1524	Stichting Rijnhart Wonen	51.39	55.67	53.53
L1122	Stichting Rijswijk Wonen	52.72	48.59	50.65
L0590	Stichting Rndom Wonen	55.53	53.01	54.27
L0527	Stichting Sint Trudo	53.61	48.21	50.91
L1944	stichting SSHN	49.69	55.40	52.54

CODE	NAME OF ASSOCIATION	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
L0124	Stichting Stadgenoot	53.27	45.18	49.22
L1785	Stichting Stadlander	47.85	47.09	47.47
L1768	Stichting Staedion	46.59	43.77	45.18
L0237	Stichting Standvast Wonen	47.06	51.96	49.51
L1909	Stichting Studenten Huisvesting	53.59	49.51	51.55
L0867	Stichting Tablis Wonen	51.54	46.06	48.80
L1479	Stichting Talis	51.29	56.36	53.83
L0497	Stichting TBV	47.57	50.66	49.11
L1781	Stichting Thuisvester	47.70	49.97	48.83
L1792	Stichting Thus Wonen	51.38	48.26	49.82
L0267	Stichting Trivire	49.24	47.12	48.18
L0688	Stichting Uithuizer Woningbouw	52.97	46.39	49.68
L0369	Stichting UWOON	54.31	53.51	53.91
L1543	Stichting Valleï Wonen	61.24	53.58	57.41
L0510	Stichting Velison Wonen	48.65	47.41	48.03
L1924	Stichting Vestia	46.63	40.65	43.64
L1093	Stichting Vidomes	51.32	43.53	47.43
L0658	Stichting Vivare	48.78	47.63	48.21
L0347	Stichting Viverion	57.39	52.71	55.05
L0065	Stichting Volkshuisvesting Arnhem	48.52	42.73	45.63
L0033	Stichting voorheen De Bouwvereniging	51.16	54.30	52.73
L0221	Stichting Waardwonen	52.32	60.19	56.25
L1910	Stichting WBO Wonen	55.72	50.59	53.15
L0225	Stichting Weller Wonen	47.57	46.76	47.16
L1753	Stichting Wetland Wonen Groep	53.44	53.73	53.58
L1766	Stichting woCom	51.14	49.08	50.11
L0077	Stichting Wold en Waard	54.39	53.87	54.13
L0765	Stichting Wonen Delden	56.36	58.23	57.29
L1100	Stichting Wonen Midden-Delfland	62.51	55.14	58.82
L0003	Stichting Wonen Noordwest Friesland	47.99	53.35	50.67
L1864	Stichting Wonen Vierlingsbeek	50.29	59.76	55.02
L0354	Stichting Wonen Wateringen	54.26	52.24	53.25
L1622	Stichting Wonen Wittem	55.56	49.24	52.40
L0081	Stichting Wonen Zuid	48.61	46.36	47.48
L0676	Stichting Wonen Zuidwest Friesland	49.40	54.11	51.76
L1911	Stichting WonenBreborg	48.56	48.71	48.63
L2073	Stichting Woningbedrijf Velsen	48.65	45.95	47.30
L1881	Stichting Woningbeheer Betuwe	52.94	53.09	53.02
L1525	Stichting Woningbeheer De Vooruitgang	57.80	54.10	55.95
L0056	Stichting Woningbouw Achtkarspelen	51.98	49.24	50.61
L1061	Stichting Woningcorporatie Plicht Getrouw	51.37	45.19	48.28

CODE	NAME OF ASSOCIATION	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
L1748	Stichting Woningcorporatie WoonGenoot	49.99	53.97	51.98
L1875	Stichting Woningcorporaties Het Gooi en Omstreken	55.10	53.05	54.08
L0898	Stichting Wonion	54.42	51.84	53.13
L2110	Stichting Woon Compas	46.44	45.03	45.74
L1418	Stichting Woonbedrijf ieder1	53.11	50.57	51.84
L1464	Stichting Woonbedrijf SWS.Hhvl	53.84	50.88	52.36
L0666	Stichting Woonborg	54.19	50.96	52.57
L0665	Stichting Woonbron	47.04	40.97	44.01
L0478	Stichting Wooncompagnie	54.26	48.51	51.38
L0363	Stichting Woonconcept	49.14	51.53	50.33
L2084	Stichting Woondiensten Aarwoude	52.49	50.43	51.46
L1737	Stichting Woondiensten Enkhuizen	57.38	50.56	53.97
L0565	Stichting WoonForte	50.03	48.59	49.31
L1839	Stichting WoonGoed 2-Duizend	46.84	49.63	48.23
L0943	Stichting Woongoed Middelburg	54.86	47.15	51.00
L1569	Stichting Woongoed Zeeuws-Vlaanderen	44.63	47.24	45.93
L1713	Stichting Woongoed Zeist	54.53	42.77	48.65
L0673	Stichting Wooninvest	51.43	44.42	47.93
L1921	Stichting Woonkracht10	49.41	47.79	48.60
L1906	Stichting Woonkwartier	48.02	49.09	48.55
L0931	Stichting Woonlinie	50.72	58.49	54.61
L1533	Stichting WOONopMAAT	51.06	47.47	49.27
L2014	Stichting Woonpalet Zeewolde	55.83	53.66	54.75
L1647	Stichting Woonpartners	49.82	47.28	48.55
L2085	Stichting Woonplus Schiedam	49.36	41.34	45.35
L0571	Stichting Woonpunt	46.79	41.83	44.31
L1877	Stichting Woonservice Drenthe	46.96	52.96	49.96
L1409	Stichting Woonservice Ijsselland	55.35	54.25	54.80
L0271	Stichting Woonservice Meander	48.71	51.89	50.30
L0079	Stichting Woonstad Rotterdam	47.87	41.53	44.70
L2051	Stichting Woonstede	51.03	50.73	50.88
L1560	Stichting Woontij	48.05	50.44	49.25
L1763	Stichting Woonveste	51.39	52.91	52.15
L0689	Stichting Woonvisie	50.62	47.73	49.18
L1182	Stichting Woonwaard Noord-Kennemerland	50.62	50.31	50.46
L1471	Stichting Woonwijze	61.62	54.30	57.96
L1646	Stichting Woonzorg Nederland	48.03	44.29	46.16
L0202	Stichting Wormerwonen	52.64	52.84	52.74
L1787	Stichting WSG	47.73	52.74	50.24
L2070	Stichting Ymere	53.06	45.86	49.46
L0278	Stichting Zaandams Volkshuisvesting	47.61	42.55	45.08

CODE	NAME OF ASSOCIATION	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
L0269	Stichting ZO Wonen	47.71	44.16	45.94
L1913	TIWOS Tilburgse Woonstichting	47.57	50.35	48.96
L0705	Veenendaalse Woningstichting	55.90	54.24	55.07
L0279	Vereniging tot Verbetering der Volkshuisvesting Rijsoord	50.69	48.26	49.47
L0428	Vereniging tot Verbetering der Volkshuisvesting Vooruitgang	50.69	49.03	49.86
L1716	Viveste	61.40	51.28	56.34
L0272	Wassenaarsche Bouwstichting	56.54	49.04	52.79
L2072	Waterweg Wonen	47.88	42.56	45.22
L1064	Welbions	50.78	48.38	49.58
L1697	Wonen Limburg	48.24	50.15	49.20
L1588	Woningbouwstichting Cothen	62.23	52.24	57.23
L1357	Woningbouwstichting De Gemeenschap	49.99	53.81	51.90
L1532	Woningbouwstichting 'Samenwerking'	52.35	49.07	50.71
L0794	Woningbouwvereniging Anna Paulowna	52.76	50.90	51.83
L0379	Woningbouwvereniging Arnhem	54.98	49.38	52.18
L1226	Woningbouwvereniging Bergopwaarts	52.74	57.41	55.08
L1528	Woningbouwvereniging Beter Wonen streefkerk	56.66	52.11	54.38
L1700	Woningbouwvereniging Beter Wonen Goedereede	52.49	54.87	53.68
L1559	Woningbouwvereniging Beter Wonen Ammerstol	52.35	49.17	50.76
L1482	Woningbouwvereniging Beter Wonen Ooltgensplaat	52.49	47.91	50.20
L1454	Woningbouwvereniging 'Beter Wonen'	52.76	46.69	49.73
L0280	Woningbouwvereniging Bolnes	50.69	50.85	50.77
L0846	Woningbouwvereniging De Goede Woning - Neerijnen	46.79	50.78	48.79
L0295	Woningbouwvereniging De Sleutels van Zijl en Vliet	51.58	50.99	51.29
L2038	Woningbouwvereniging Gelderland	49.36	52.94	51.15
L0764	Woningbouwvereniging Habeko Wonen	50.03	52.02	51.02
L0817	Woningbouwvereniging Heerjansdam	50.08	46.74	48.41
L0992	Woningbouwvereniging Helpt Elkander	57.72	53.20	55.46
L1640	Woningbouwvereniging Hoek van Holland	47.87	45.41	46.64
L1395	Woningbouwvereniging Maarn	63.75	46.36	55.06
L0757	Woningbouwvereniging Oostzaanse Volkshuisvesting	59.53	47.92	53.73
L0248	Woningbouwvereniging Patrimonium	52.34	46.59	49.47
L0629	Woningbouwvereniging Poortugaal	53.33	48.47	50.90
L1760	Woningbouwvereniging Reeuwijk	53.36	54.70	54.03
L0692	Woningbouwvereniging Rosehaghe	53.02	46.63	49.83
L0941	Woningbouwvereniging Samenwerking Slikkerveer	50.69	43.90	47.29
L1164	Woningbouwvereniging St. Willibrordus	60.08	47.26	53.67
L0339	Woningbouwvereniging 't Goede Woonhuys	54.36	36.96	45.66
L1905	Woningbouwvereniging Utrecht	55.25	49.60	52.43
L0667	Woningbouwvereniging van Erfgooiers te Laren N.H.	57.75	50.37	54.06
L1585	Woningbouwvereniging Vecht en Omstreken	53.21	45.63	49.42

CODE	NAME OF ASSOCIATION	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
L0249	Woningbouwvereniging Volksbelang	49.82	48.22	49.02
L2082	Woningstichting Barneveld	57.45	52.44	54.95
L1627	Woningstichting Berg en Terblijt	58.37	44.96	51.67
L0762	Woningstichting Beter Wonen Vechtdal	54.34	56.22	55.28
L1847	Woningstichting Compaen	50.90	49.52	50.21
L1775	Woningstichting de Veste	50.33	55.13	52.73
L1899	Woningstichting De Volmacht	49.71	50.35	50.03
L0841	Woningstichting De Voorzorg	48.10	43.93	46.01
L1842	Woningstichting De Woonplaats	51.38	45.85	48.61
L1794	Woningstichting de Zaligheden	54.94	56.15	55.54
L1399	Woningstichting Den Helder	49.75	39.48	44.61
L1426	Woningstichting Domijn	49.27	45.40	47.34
L0669	Woningstichting Domus	49.57	46.87	48.22
L1306	Woningstichting Eendracht	47.87	38.04	42.96
L0108	Woningstichting Eigen Haard	52.39	49.03	50.71
L1891	Woningstichting GoedeStede	53.90	46.21	50.06
L1598	Woningstichting Gouderak	52.35	49.28	50.81
L0259	Woningstichting Gulpen	55.56	50.05	52.80
L0425	Woningstichting Haag Wonen	46.56	37.98	42.27
L0228	Woningstichting HEEMwonen	49.29	44.83	47.06
L0883	Woningstichting Het Grootslag	51.10	57.45	54.28
L0254	Woningstichting Heteren	55.13	53.07	54.10
L0583	Woningstichting Kennemer Wonen	55.04	52.78	53.91
L1852	Woningstichting Kleine Meierij	51.78	47.95	49.87
L0758	Woningstichting Kockengen	53.21	46.59	49.90
L1878	Woningstichting Leusden	56.09	56.03	56.06
L1835	Woningstichting Maasdriel	54.06	55.41	54.73
L1038	Woningstichting Maasvallei Maastricht	48.89	48.09	48.49
L0636	Woningstichting Meerssen	53.74	51.80	52.77
L0386	Woningstichting Naarden	59.65	48.81	54.23
L2083	Woningstichting Nieuwkoop	55.97	48.13	52.05
L1693	Woningstichting Nijkerk	57.94	59.53	58.74
L1247	Woningstichting Obbicht en Papenhoven	47.58	49.69	48.64
L0682	Woningstichting Ons Doel	51.21	47.77	49.49
L0008	Woningstichting Openbaar Belang	52.92	50.95	51.94
L1865	Woningstichting Putten	61.77	60.16	60.96
L0017	Woningstichting Rochdale	52.40	44.16	48.28
L1506	Woningstichting SallandWonen	57.01	56.18	56.59
L0371	Woningstichting Samenwerking Vlaardingen	47.88	40.58	44.23
L0005	Woningstichting Servatius	48.72	48.60	48.66
L0528	Woningstichting Simpelveld	46.88	47.32	47.10

CODE	NAME OF ASSOCIATION	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
L0921	Woningstichting Sint Joseph Almelo	47.72	46.67	47.20
L0678	Woningstichting St. Antonius van Padua	58.15	54.08	56.11
L1689	Woningstichting St. Joseph	51.74	48.76	50.25
L0093	Woningstichting SWZ	52.92	52.98	52.95
L1678	Woningstichting Tubbergen	56.20	57.50	56.85
L0082	Woningstichting Vaals	49.39	54.48	51.94
L0063	Woningstichting Van Alckmaer voor Wonen	50.96	45.98	48.47
L0782	Woningstichting Veluwonen	53.22	54.80	54.01
L0238	Woningstichting Voerendaal	56.69	55.68	56.19
L0165	Woningstichting Weststellingwerf	53.02	49.37	51.19
L0366	Woningstichting Wierden en Borgen	50.22	45.88	48.05
L1850	Woningstichting Woensdrecht	52.32	53.62	52.97
L1802	Woningstichting Woonvizier	51.63	52.38	52.01
L0274	Woningstichting WoonWENZ	47.28	49.81	48.54
L1579	Woningstichting Wuta	53.21	42.26	47.73
L1837	Woningvereniging Nederweert	53.44	53.29	53.36
L0835	Wooncorporatie ProWonen	56.81	53.54	55.17
L1663	WoonFriesland	45.32	46.11	45.71
L1544	Woongoed Goeree-Overflakkee	52.49	53.12	52.80
L1519	Wooninc.	52.71	47.97	50.34
L2114	Woonpartners Midden-Holland	52.21	50.09	51.15
L1888	Woonstichting Centrada	46.13	47.14	46.64
L1825	Woonstichting De Kernen	50.76	56.35	53.56
L2103	Woonstichting De Key	53.09	47.79	50.44
L2099	Woonstichting De Marken	51.22	56.55	53.88
L2090	Woonstichting De Zes Kernen	43.80	46.08	44.94
L1855	Woonstichting Gendt	53.82	56.42	55.12
L0740	Woonstichting Groninger Huis	46.79	47.27	47.03
L0579	Woonstichting Hulst	50.47	54.10	52.29
L0837	Woonstichting Jutphaas	53.58	50.33	51.96
L1704	Woonstichting Land van Altena	49.77	55.31	52.54
L0305	Woonstichting Langedijk	59.82	57.06	58.44
L0602	Woonstichting SSW	57.04	47.31	52.17
L1236	Woonstichting St. Joseph	58.19	52.28	55.24
L0157	Woonstichting Stek	53.27	52.89	53.08
L0928	Woonstichting 't Heem	47.30	51.32	49.31
L0151	Woonstichting 'thuis	55.16	54.22	54.69
L0309	Woonstichting Triada	53.80	52.46	53.13
L1893	Woonstichting Valburg	55.13	53.91	54.52
L0661	Woonstichting VechtHorst	58.12	61.48	59.80
L0333	Woonstichting Vooruitgang	57.90	48.87	53.38

CODE	NAME OF ASSOCIATION	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
L0331	Woonstichting Vryleve	50.08	52.46	51.27
L1581	Zeeuwland	52.82	51.06	51.94

D List of 100 elected associations for a 2019 Sustainability Bond (ranked according to Total sustainability score)

#	ASSOCIATION NAME	QUADRANT	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
1	L1865 Woningstichting Putten	2	61.0	61.8	60.2
2	L0661 Woonstichting VechtHorst	3	59.8	58.1	61.5
3	L0858 Stichting Beter Wonen	3	59.7	60.0	59.5
4	L1100 Stichting Wonen Midden-Delfland	2	58.8	62.5	55.1
5	L1693 Woningstichting Nijkerk	3	58.7	57.9	59.5
6	L1836 Stichting Heuvelrug Wonen	3	58.7	63.8	53.6
7	L0305 Woonstichting Langedijk	3	58.4	59.8	57.1
8	L1239 Stichting IJsseldal Wonen	3	58.3	59.5	57.2
9	L1501 Charlotte Elisabeth van Beuningen Stichting	3	58.0	62.5	53.5
10	L1471 Stichting Woonwijze	3	58.0	61.6	54.3
11	L1712 Christelijke Woonstichting Patrimonium	3	57.9	62.9	52.9
12	L1543 Stichting Vallei Wonen	3	57.4	61.2	53.6
13	L0765 Stichting Wonen Delden	2	57.3	56.4	58.2
14	L1588 Woningbouwstichting Cothen	3	57.2	62.2	52.2
15	L1678 Woningstichting Tubbergen	3	56.8	56.2	57.5
16	L1745 Stichting Goed Wonen	3	56.8	55.9	57.8
17	L1709 Christelijke Woningstichting De Goede Woning	3	56.6	60.1	53.2
18	L1506 Woningstichting SallandWonen	3	56.6	57.0	56.2
19	L1716 Viveste	3	56.3	61.4	51.3
20	L0221 Stichting Waardwonen	2	56.3	52.3	60.2
21	L0643 Bouwvereniging Huis en Erf	2	56.2	56.1	56.4
22	L0238 Woningstichting Voerendaal	3	56.2	56.7	55.7
23	L0678 Woningstichting St. Antonius van Padua	3	56.1	58.2	54.1
24	L1878 Woningstichting Leusden	2	56.1	56.1	56.0
25	L1525 Stichting Woningbeheer De Vooruitgang	3	56.0	57.8	54.1
26	L1968 Stichting Idealis	4	55.9	54.2	57.6
27	L0568 Stichting Eelder Woningbouw	3	55.7	55.3	56.0
28	L1794 Woningstichting de Zaligheden	3	55.5	54.9	56.2

#	ASSOCIATION NAME	QUADRANT	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE
29	L0992 Woningbouwvereniging Helpt Elkander	3	55.5	57.7	53.2
30	L0886 Stichting Area	2	55.5	56.6	54.3
31	L1811 Stichting PeelrandWonen	3	55.3	55.7	54.9
32	L0762 Woningstichting Beter Wonen Vechtdal	2	55.3	54.3	56.2
33	L1236 Woonstichting St. Joseph	3	55.2	58.2	52.3
34	L0835 Wooncorporatie ProWonen	2	55.2	56.8	53.5
35	L0317 Provides	2	55.1	59.2	51.1
36	L1855 Woonstichting Gendt	3	55.1	53.8	56.4
37	L1226 Woningbouwvereniging Bergopwaarts	3	55.1	52.7	57.4
38	L0705 Veenendaalse Woningstichting	4	55.1	55.9	54.2
39	L1395 Woningbouwvereniging Maarn	3	55.1	63.8	46.4
40	L0347 Stichting Viverion	2	55.0	57.4	52.7
41	L1864 Stichting Wonen Vierlingsbeek	3	55.0	50.3	59.8
42	L2092 Noordwijkse Woningstichting	3	55.0	59.2	50.8
43	L1436 Stichting Dunavie	2	55.0	57.4	52.5
44	L0641 Stichting Destion	3	55.0	52.2	57.7
45	L1586 Stichting Lek en Waard Wonen	3	55.0	56.7	53.2
46	L2082 Woningstichting Barneveld	3	54.9	57.5	52.4
47	L1409 Stichting Woonservice Ijsselland	4	54.8	55.4	54.3
48	L1835 Woningstichting Maasdriel	3	54.7	54.1	55.4
49	L0151 Woonstichting 'thuis	2	54.7	55.2	54.2
50	L0931 Stichting Woonlinie	2	54.6	50.7	58.5
51	L1893 Woonstichting Valburg	2	54.5	55.1	53.9
52	L1528 Woningbouwvereniging Beter Wonen Streefkerk	3	54.4	56.7	52.1
53	L1413 Stichting Reggewoon	3	54.3	55.1	53.6
54	L0979 de Woningstichting	1	54.3	54.2	54.4
55	L0590 Stichting Rondom Wonen	3	54.3	55.5	53.0
56	L0386 Woningstichting Naarden	2	54.2	59.7	48.8
57	L0923 Bouwvereniging Woningbelang	3	54.2	56.8	51.5
58	L0077 Stichting Wold en Waard	3	54.1	54.4	53.9
59	L0254 Woningstichting Heteren	2	54.1	55.1	53.1
60	L0178 Stichting Mijande Wonen	2	54.1	55.7	52.5
61	L0936 Stichting Eemland Wonen	2	54.1	58.6	49.6
62	L1875 Stichting Woningcorporaties Het Gooi en Omstreken	2	54.1	55.1	53.1
63	L0667 Woningbouwvereniging van Erfgooiers te Laren N.H.	2	54.1	57.8	50.4
64	L1760 Woningbouwvereniging Reeuwijk	2	54.0	53.4	54.7
65	L0369 Stichting UWON	2	53.9	54.3	53.5
66	L2099 Woonstichting De Marken	4	53.9	51.2	56.5

#	ASSOCIATION NAME	QUADRANT	EXTERNAL SUSTAINABILITY PERFORMANCE	INTERNAL SUSTAINABILITY PERFORMANCE	TOTAL SUSTAINABILITY SCORE	
67	L1479	Stichting Talis	1	53.8	51.3	56.4
68	L1700	Woningbouwvereniging Beter Wonen Goedereede	2	53.7	52.5	54.9
69	L1164	Woningbouwvereniging St. Willibrordus	1	53.7	60.1	47.3
70	L1524	Stichting Rijnhart Wonen	2	53.5	51.4	55.7
71	L0734	Patrimonium woonservice	1	53.3	55.9	50.7
72	L0029	Stichting deltaWonen	1	53.2	53.7	52.6
73	L1573	Groen Wonen Vlist	2	53.2	52.4	54.0
74	L0033	Stichting voorheen De Bouwvereniging	1	52.7	51.2	54.3
75	L0732	HW Wonen	2	52.7	49.7	55.6
76	L0694	Rentree	1	52.6	51.2	53.9
77	L1905	Woningbouwvereniging Utrecht	4	52.4	55.3	49.6
78	L1464	Stichting Woonbedrijf SWS.Hhvl	1	52.4	53.8	50.9
79	L2058	Mitros	1	52.3	53.7	50.8
80	L0041	Stichting Bo-Ex '91	1	52.2	55.1	49.3
81	L0379	Woningbouwvereniging Arnhemuiden	4	52.2	55.0	49.4
82	L0766	Stichting GroenWest	2	52.0	54.2	49.8
83	L0036	Stichting Lyaemer Wonen	4	51.9	50.0	53.9
84	L0082	Woningstichting Vaals	4	51.9	49.4	54.5
85	L1357	Woningbouwstichting De Gemeenschap	1	51.9	50.0	53.8
86	L0446	Stichting De Goede Woning Apeldoorn	2	51.8	52.8	50.9
87	L1418	Stichting Woonbedrijf ieder1	1	51.8	53.1	50.6
88	L0676	Stichting Wonen Zuidwest Friesland	1	51.8	49.4	54.1
89	L0420	Bouwvereniging 'Huis en Hof' voor de gemeente Nijmegen	1	51.3	50.0	52.7
90	L2051	Stichting Woonstede	2	50.9	51.0	50.7
91	L2004	DUWO	4	50.8	53.0	48.6
92	L1986	Stichting Huisvesting Bejaarden Oosterhout	1	50.7	48.9	52.4
93	L0003	Stichting Wonen Noordwest Friesland	1	50.7	48.0	53.4
94	L1122	Stichting Rijswijk Wonen	1	50.7	52.7	48.6
95	L0056	Stichting Woningbouw Achtkarspelen	2	50.6	52.0	49.2
96	L0497	Stichting TBV	1	49.1	47.6	50.7
97	L1911	Stichting WonenBreborg	1	48.6	48.6	48.7
98	L0017	Woningstichting Rochdale	1	48.3	52.4	44.2
99	L0267	Stichting Trivire	1	48.2	49.2	47.1
100	L1093	Stichting Vidomes	1	47.4	51.3	43.5