

Sustainability Framework for a 2018 BNG Bank Social Bond for Dutch Housing Associations

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

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Summary

BNG Bank has issued social bonds for the Dutch social housing sector since 2016. Telos of Tilburg University, the Netherlands, has developed frameworks measuring PPP-sustainability for such social bonds. The first Framework was published July 2016 and has been used for the BNG Bank social housing 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 social housing bond 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 March 2018 to prepare a 2018 Framework for a 2018 Social housing 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 means that the framework presented still elects 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 2018 Framework presents an integral sustainability measurement based on an internal and an external sustainability assessment of Dutch housing associations.

The **internal** sustainability is measured using four internal 'capitals', which cover the performance of headquarters of the housing association and its housing units, by assessing:

- the three sustainability capitals (PPP), as indicated by the United Nations Brundtland Commission of 1987, and
- one domain for the Internal Business aspect of the association.

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 7 capitals, 19 themes and 79 indicators.

The framework also implies a preselection step of eligible housing associations, limiting the total group of 331 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 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.

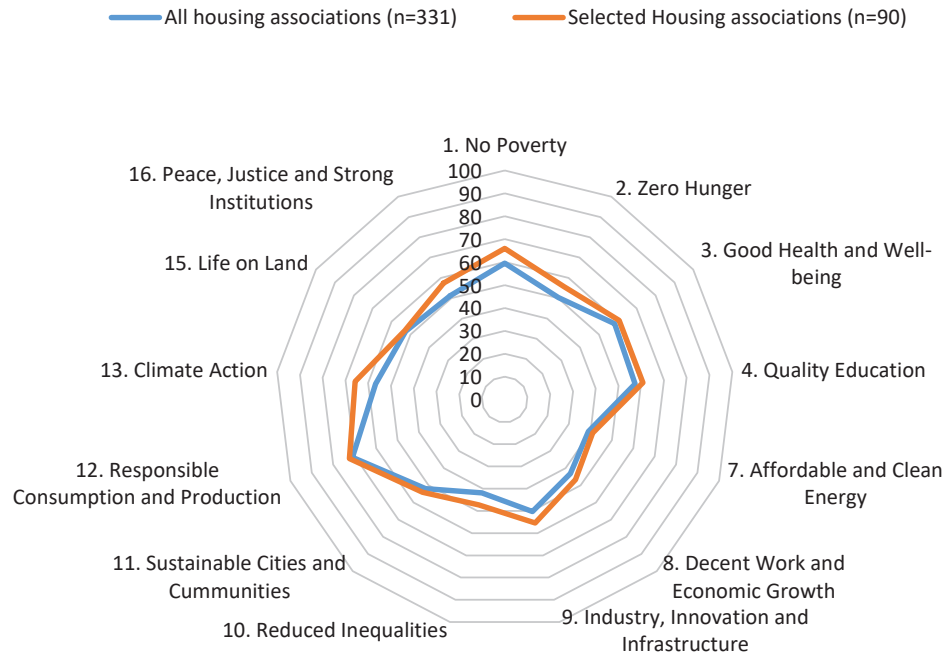
From the group of 200 preselected associations the 15 highest scoring associations on sustainability in each of the 10 classes have been selected. This resulted, after correcting for double counting, in a total group of 90 selected associations (see Table 6.1). These are the best scoring associations on PPP-sustainability of their classes and can be used as the elected associations for a 2018 sustainable social housing bond of BNG Bank.

Table S1 Ten associations among the 331 associations studied scoring highest on total sustainability performance

Name	<i>External sustainability performance</i>	<i>Internal sustainability performance</i>	Total sustainability score
Stichting Idealis	57.7	60.0	58.9
Woningstichting Putten	59.6	57.2	58.4
Christelijke Woonstichting Patrimonium	59.1	57.5	58.3
Stichting Wonen Midden-Delfland	61.8	54.2	58.0
Stichting Woonwijze	60.9	54.8	57.9
Stichting Beter Wonen	58.4	57.2	57.8
Vallei Wonen	62.3	53.1	57.7
Woonstichting VechtHorst	56.7	58.6	57.6
Provides	61.6	53.0	57.3
Woningstichting Voerendaal	54.3	59.4	56.9

This framework report also presents a methodology to measure the contribution of the housing associations to the SDGs. Among the 17 SDGs, 13 could be linked to 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 2018



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 housing associations for each individual SDG, a ranking of 16 highest performing associations is presented. These associations belonged three or more times to a top 10 group. This SDGs ranking deviates considerably 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 of housing associations eligible for the social bond.

The 90 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. Although the SDGs scores can for methodological reasons not be aggregated to one figure, they allow a listing of best scoring housing associations for the monitored SDGs individually.

1 Introduction

1.1 Position and historical developments

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.

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).

Most recent data indicate that some 331 housing associations (Dutch: woningcorporaties) existed, which number is decreasing, e.g. by mergers of associations, involving a total of more than 2 million housing units (Aedes, 2018). This shows that social housing associations play a major role in the Netherlands, providing housing for one-third of the Dutch population. Investments are financed by housing associations' own equity and bank loans. The collective assets of all 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.

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

The new Dutch government of 2017 (Rutte III) (TK, 2018) has set itself ambitious climate goals 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 housing associations the coming decades.

1.2 Developments in frameworks for BNG Bank social housing bonds

At the start of the year 2016, BNG Bank invited Telos, Sustainability Centre of Tilburg University, to develop a framework for a bond for social housing associations in the Netherlands, which defines the sustainability characteristics for selecting the best scoring 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 social 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 social bond for the social housing sector, respecting the Social Bond Guidance (ICMA, 2016) of the Green Bond Principles, Telos proposed to follow a two-step approach. As a first step, a solid but simplified social 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 social housing bond that was issued 6 July 2016, (EUR 1,000,000,000 | 0.05% | 13 Jul 2024).

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

BNG Bank asked Telos March 2017 to prepare a 2017 Framework for a 2017 Social housing 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 social housing 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 March 2018 to prepare again a 2018 Framework for a 2018 Social housing 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 housing associations based on their performance according to the earlier developed

elaborated sustainability method, but that in addition the contribution of housing associations to the SDGs will be shown.

1.3 Set-up of 2018 framework report

After chapter 2, explaining the elaborated sustainability framework for the bond, chapter 3 presents the outcome for the internal performance and chapter 4 the outcome for the external sustainability performance of the 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 housing associations perform on the SDGs measured according to this methodology. Chapter 8 presents the conclusions.

2 The framework for a sustainable social housing bond

2.1 General approach

The framework is based on measuring 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).

A prerequisite to operationalize the external performance is knowledge of the location of the rental units. This is however not as strait forward as it may seem, as such location specific data is not easily accessible. 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 housing associations is followed, as will be described in later chapters. The result includes a framework based on 4 internal performance 'capitals' (governance, ecological, social and economic) and 3 external performance capitals (ecological, social and economic). Their scores are calculated based on in total 79 indicators.

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 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 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 and 2017 social 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 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 recently 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.



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.

As the implementation of the SDGs has been picked-up by the Dutch government (Von Meijenfeldt, 2016) and in e.g. OECD's Green Growth and Sustainable Development annual forums (Zoeteman, 2016), it may be expected that monitoring data will become available on an annual basis for a broader set of indicators. 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. Moreover, a fourth domain is added representing the sustainability performance of the housing association as a business unit, which concerns roughly speaking the operations at the central office, such as procurement, energy saving at the head office building, overall financial aspects and governance elements of the association. These governance aspects are in line with the SDGs. 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 19 themes relevant to social housing associations

Capital	Theme	Sustainability requirements
Internal business	Ecological	Housing associations apply sustainable procurement principles
		Housing associations generate for internal use sustainable energy
		Housing associations are functioning in a climate neutral way
		Housing associations promote a circular economy through separated waste collection
	Social	Housing associations provide excellent service to their clients
		Employees have a high job satisfaction
		Housing associations provide opportunities for trainees, etc.
	Economical	Housing associations provide sufficient employment opportunities for all groups in society
		Housing associations have a good exploitation outcome
		Housing associations have a debt position with an acceptable risk profile
Governance	Housing associations apply sustainability principles for their	

		policies
		Housing associations highly value legality, financial continuity and integrity
Ecological	Air, Soil, Water	The environmental compartments are clean
	Nature and landscape	Nature is preserved as much as possible and where feasible reinforced
	Energy and climate	Citizens consume less energy
		Households use and generate themselves sustainable energy and emit less greenhouse gasses
	Waste collection and recycling	Citizens contribute to a wasteless circular economy
Annoyance and emergencies	The risk for people of being affected by disasters is negligible	
	Annoyance by odors, noise or light is absent	
Socio-cultural	Living environment	Public daily facilities are available and accessible for everyone
	Participation	Poverty and deprivation are adequately addressed
		Citizens are able to cope economically
	Arts and culture	Cultural variety and availability is sufficiently large
		Everybody can participate actively or passively in cultural activities
	Safety	The chance of becoming a victim of violence, crime and traffic accidents is negligible
		Everybody does feel safe
	Health	Everybody feels physically and mentally healthy
		Health care is of good quality and accessible for everyone
	Education	Education is of high quality
Everybody has access to the education appropriate to his or her capacities		
Economic	Labor	Labor potential of the population is used as much as possible
		Labor offered to the population is healthy
	Spatial conditions	Available space is used in an optimal way
	Infrastructure and accessibility	Businesses, facilities, institutions and economic centers are adequately accessible by transport means and ICT
	Knowledge	Knowledge infrastructure is of high quality and supports local activities
		Creative, adaptive and innovative characteristics of the housing facilities are of high level

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 4 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.

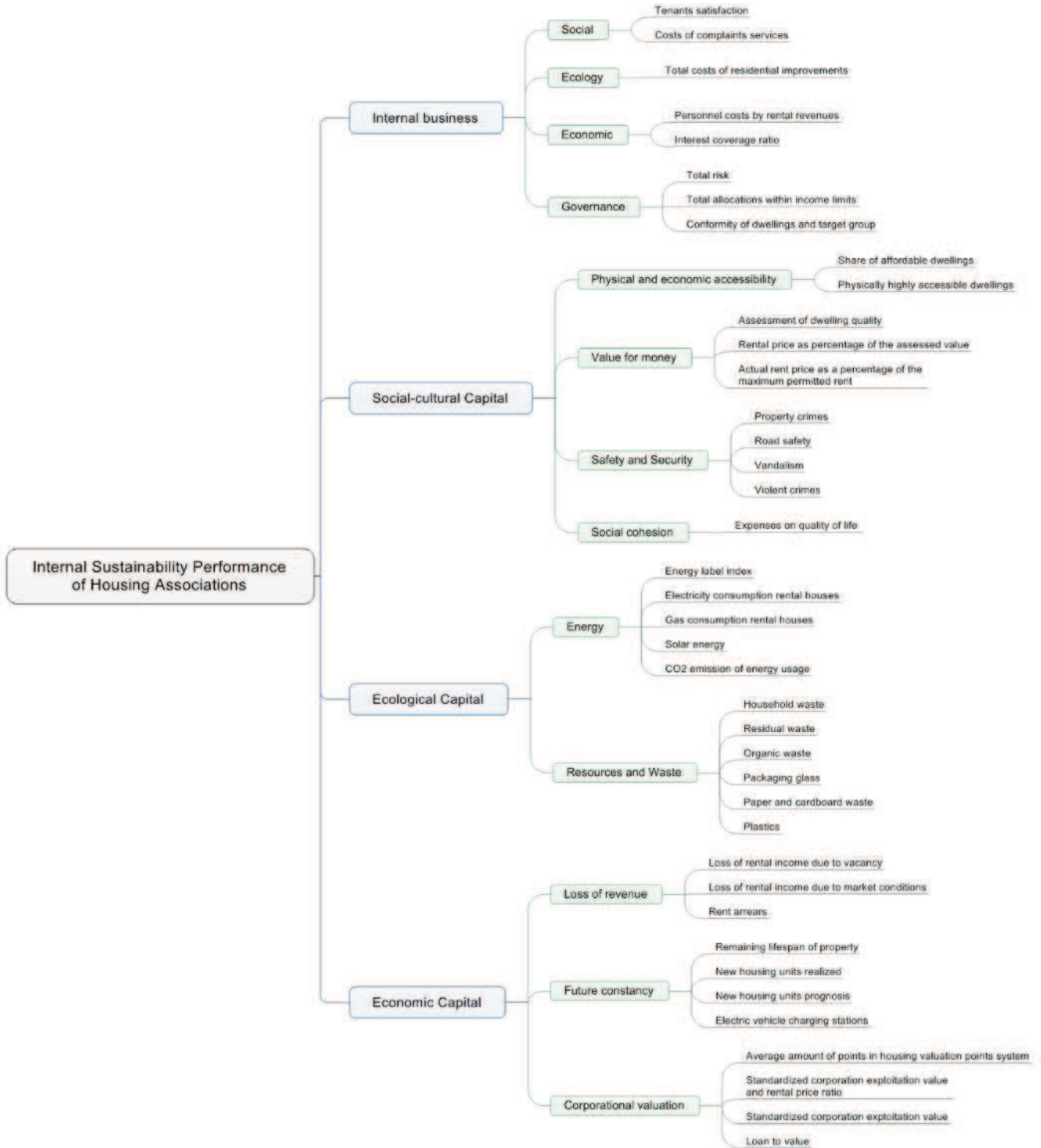


Figure 2.1 Mind-map of capitals, themes and indicators used in the internal framework for a sustainable social housing bond

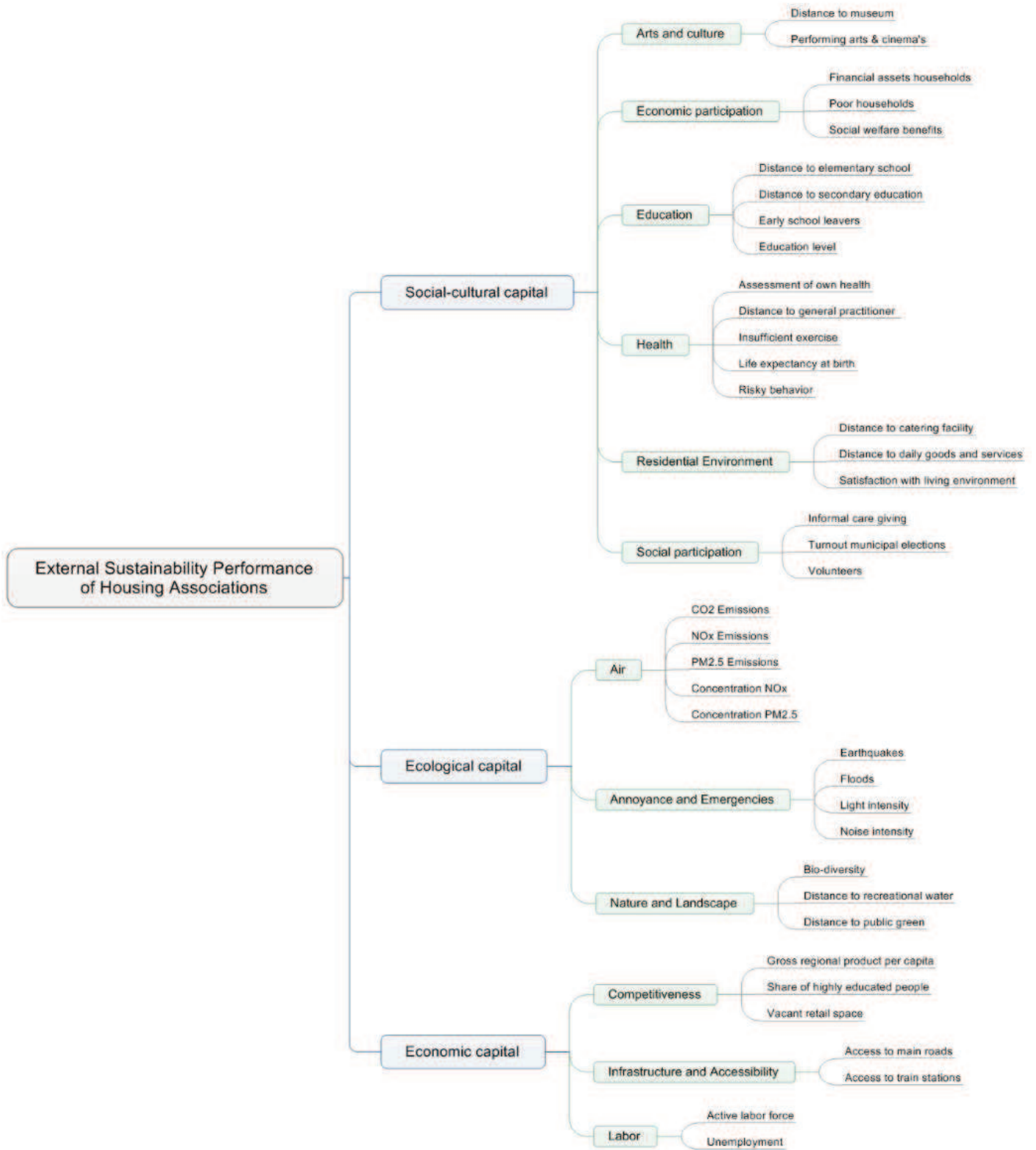


Figure 2.2 Mind-map of capitals, themes and indicators of the external framework for a sustainable social housing bond

The mentioned 4 capitals, 14 themes and 40 indicators in Figure 3.1 will be used to assess the internal sustainability performance.

Figure 3.2 shows the 3 capitals, 12 themes and 39 indicators used to describe the external sustainability performance of the associations. 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 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. Because of this problem, a method was developed to link the sustainability characteristics of the neighborhood with 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 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 39 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 in what direction they are related to the sustainability scores. It should be realized that the Dutch 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.

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

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
Internal Business capital	Human Environment and Transport Inspectorate (ILT, Corpodata), National Statistics (CBS), Aedes report 'Corporations in Perspective' (2018)
Ecological Capital	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' (2018)
Economic capital	National Statistics (CBS), Uitvoeringsinstituut Werknemersverzekeringen, LISA, IBIS, Compendium voor de Leefomgeving, BAK; PBL, Kamer van Koophandel, CROW, Human Environment and Transport Inspectorate (ILT, Corpodata 2016), Aedes report 'Corporations in Perspective' (2018)
Socio-cultural capital	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' (2018)

The sources are amongst others Aedes, the Dutch association of housing associations, which publishes yearly data on the individual associations in its report *Associations in Perspective* (Aedes, CiP, 2018), 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, 2016); 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 (from red till 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, 2018) 335 housing associations were active in the Netherlands in 2016. 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 dynamic in time.

Only those 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 331 associations.

3 Internal sustainability performance of Dutch social housing associations

This chapter describes the internal sustainability performance of the 331 Dutch 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 associations among the 331 associations studied scoring highest on internal sustainability performance including their four capital scores

Internal Sustainability Performance						
Code	Name	Internal Business	Ecological	Socio-cultural	Economic	Total Internal score
L1968	Stichting Idealis	57.0	50.8	50.6	72.4	60.0
L0238	Woningstichting Voerendaal	61.4	48.6	56.8	68.4	59.4
L0661	Woonstichting VechtHorst	54.8	50.5	59.4	70.5	58.6
L0497	Stichting TBV	59.8	52.8	49.9	63.0	58.5
L1247	Woningstichting Obbicht en Papenhoven	71.4	49.1	45.0	54.7	58.4
L0762	Woningstichting Beter Wonen Vechtdal	56.5	50.5	62.2	67.3	58.1
L1693	Woningstichting Nijkerk	50.0	52.4	64.7	71.6	58.0
L0694	Rentree	59.1	52.3	51.1	62.6	58.0
L1878	Woningstichting Leusden	51.3	47.8	57.0	74.9	58.0
L1712	Christelijke Woonstichting Patrimonium	62.7	42.6	49.9	67.1	57.5

Table 3.1 shows the 10 highest scoring associations, including their four capital scores. Compensation between the capitals 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 331 housing associations and their internal, external and total sustainability scores.

3.2 Impact of association size

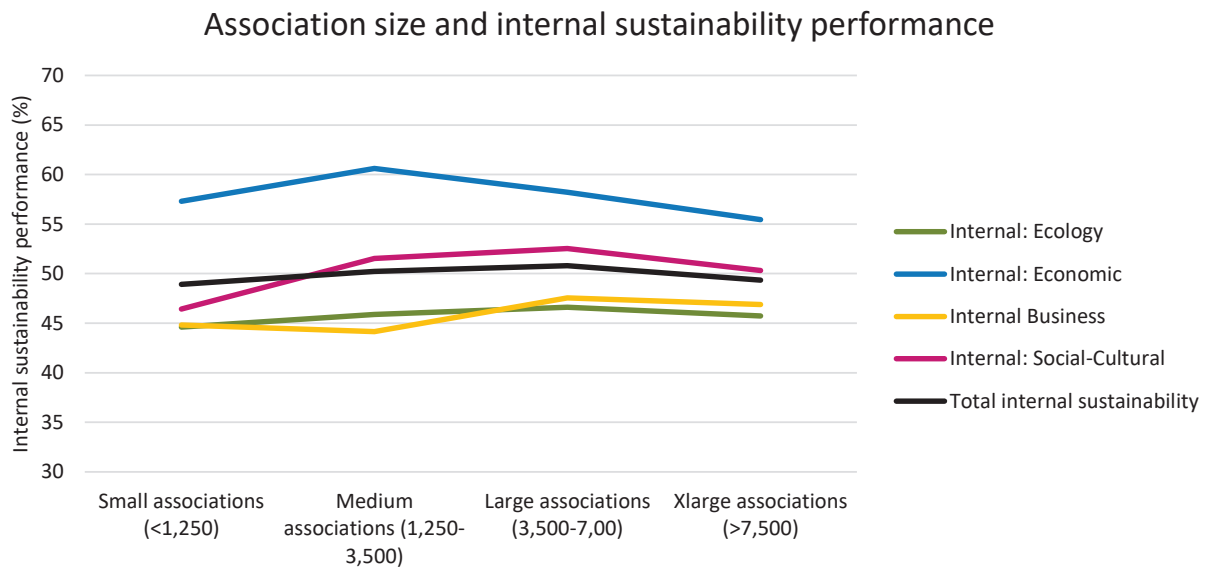


Figure 3.1 Impact of size classes of associations on their internal sustainability performance

As Figure 3.1 shows, internal sustainability performance scores are highest for the large associations (3,500 – 7,000 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 internal business capitals. Compared to the previous year large associations managed to take over the best performing position from the medium sized associations.

3.3 Impact of age of property of 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

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 quart (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.

scores. Associations with new property show highest total sustainability scores, despite lower internal business and socio-cultural scores. Associations with newest property show highest economic capital scores.

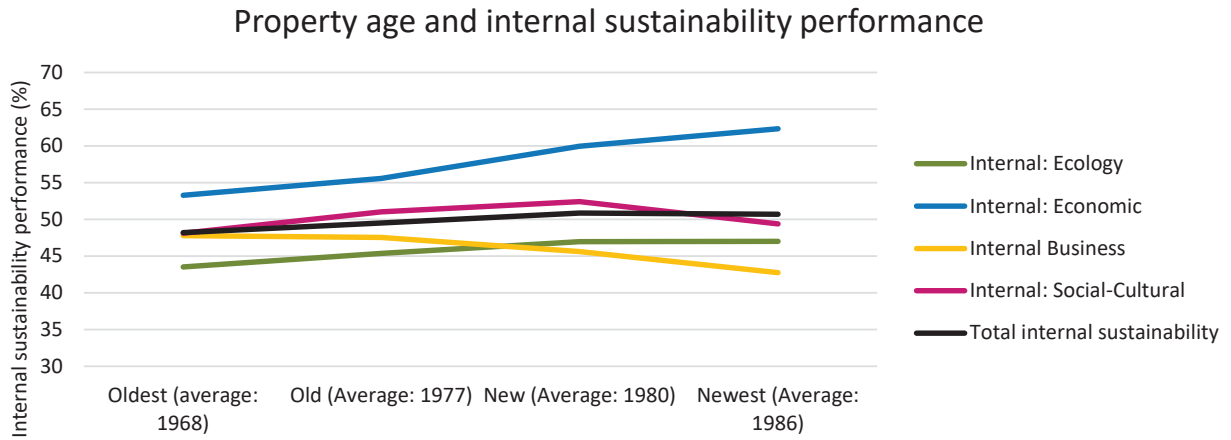


Figure 3.2 Impact of year of construction of property of associations on their internal sustainability performance

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

Figure 4.3 shows the scores for total sustainability and the four capital scores for the two additional association types discussed in this paragraph.

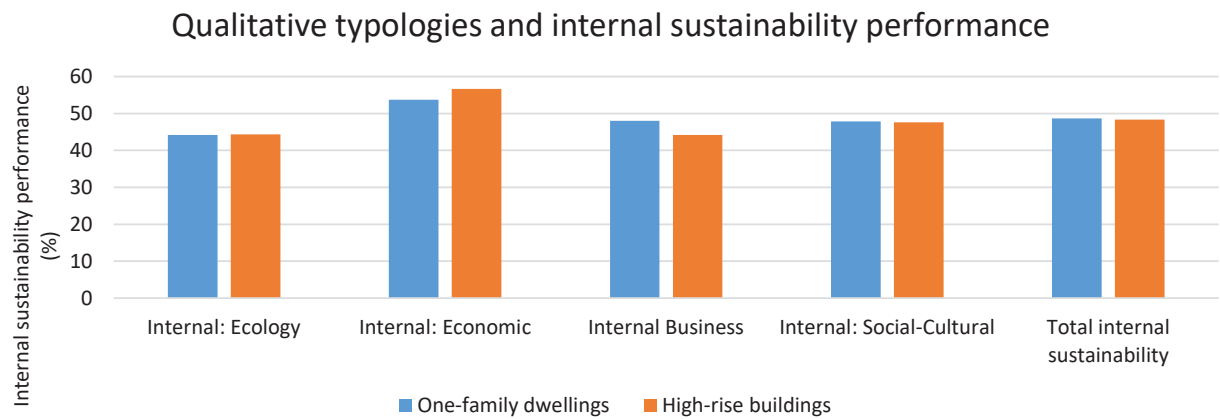


Figure 3.3 Sustainability scores of two qualitative types of associations

Differences between the two types are rather small, while the associations with high levels of one-family dwellings seem to perform a little bit better on sustainability in general and on all the capitals, except for the economic capital.

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 associations among the 331 associations studied scoring highest on external sustainability performance including their three capital scores

Code	Name	External Sustainability Performance			
		Ecology	Economic	Socio-cultural	Total External score
L1716	Viveste	62.3	66.8	63.4	64.2
L1543	Vallei Wonen	60.8	65.2	60.9	62.3
L1501	Charlotte Elisabeth van Beuningen Stichting	60.0	64.6	62.0	62.2
L1100	Stichting Wonen Midden-Delfland	48.5	68.7	68.3	61.8
L1395	Woningbouwvereniging Maarn	63.9	61.6	59.9	61.8
L1836	Stichting Heuvelrug Wonen	63.9	61.6	59.9	61.8
L0317	Provides	65.1	59.2	60.6	61.6
L0386	Woningstichting Naarden	59.5	62.4	62.8	61.6
L1164	Woningbouwvereniging St. Willibrordus	63.9	59.9	59.3	61.0
L1471	Stichting Woonwijze	58.0	63.7	61.1	60.9

Table 4.1 shows the 10 highest scoring associations on external sustainability performance, including their three capital scores. In practical all cases all capital

scores are above average. Annex 3 presents, in alphabetical order, the 331 housing associations and their internal, external and total sustainability performance scores.

4.2 Impact of association size

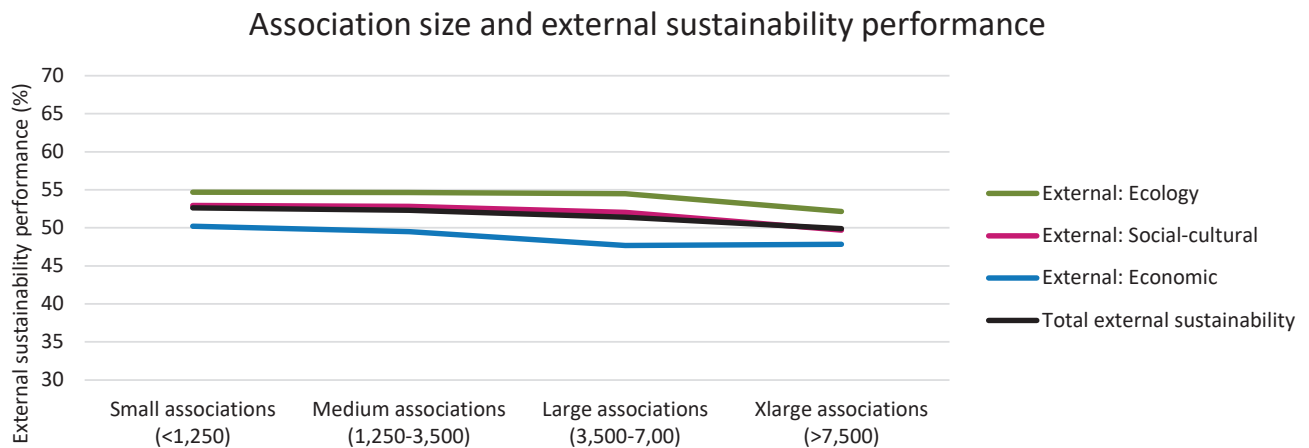


Figure 4.1 Impact of size classes of associations on their external sustainability performance

As Figure 4.1 shows, total sustainability scores are highest for smaller associations (less than 3,500 housing units) because larger associations score lower on all capitals.

4.3 Impact of age of property of 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. Economic capital scores are highest for associations with the oldest 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 quartiles (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.

Property age and external sustainability performance

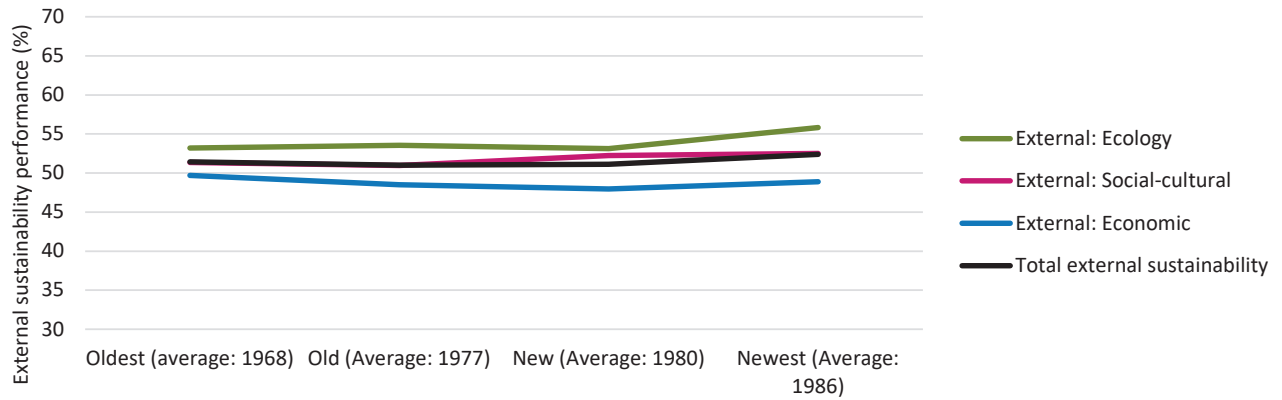


Figure 4.2 Impact of year of construction of property of associations on their external sustainability performance

4.4 Impact of one-family houses or high-rise buildings type of 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.

Qualitative typologies and external sustainability performance

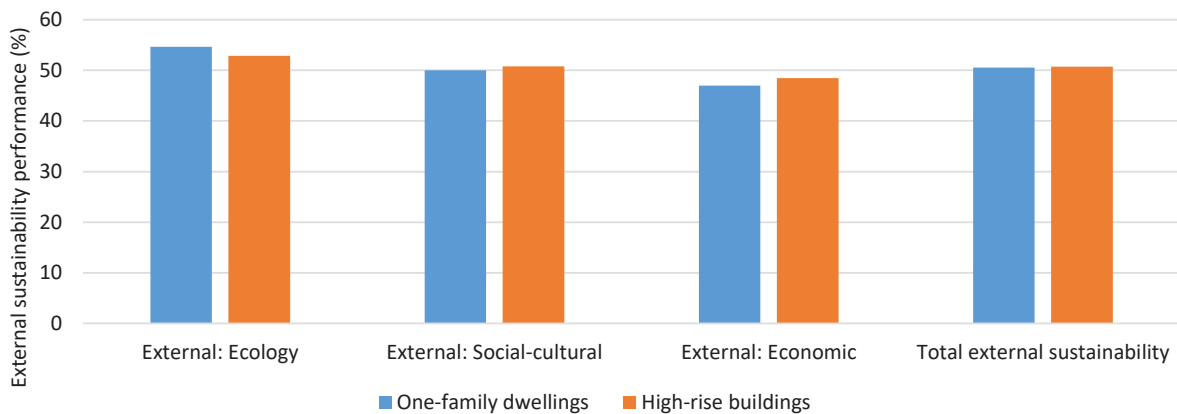


Figure 4.3 External sustainability scores of two types of associations (one-family-houses and high-rise buildings)

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.

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 are rather similar for both types.

5 Integrated sustainability performance of Dutch social housing associations

This chapter describes the general outcome of the study for the group of 331 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 social housing bond will be discussed.

5.1 General results for the social housing associations

Table 5.1 Ten associations among the 331 associations studied scoring highest on total sustainability performance.

Code	Name	<i>External sustainability performance</i>	<i>Internal sustainability performance</i>	Total score
L1968	Stichting Idealis	57.7	60.0	58.9
L1865	Woningstichting Putten	59.6	57.2	58.4
L1712	Christelijke Woonstichting Patrimonium	59.1	57.5	58.3
L1100	Stichting Wonen Midden-Delfland	61.8	54.2	58.0
L1471	Stichting Woonwijze	60.9	54.8	57.9
L0858	Stichting Beter Wonen	58.4	57.2	57.8
L1543	Vallei Wonen	62.3	53.1	57.7
L0661	Woonstichting VechtHorst	56.7	58.6	57.6
L0317	Provides	61.6	53.0	57.3
L0238	Woningstichting Voerendaal	54.3	59.4	56.9

Table 5.1 shows the 10 highest scoring associations, including their internal and external performance scores. Annex 3 presents, in alphabetical order, the 331 housing associations and their internal, external and total sustainability scores.

6 Selection of ‘best-in-class’ social housing associations

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

As described in paragraph 2.3, 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 sustainable social housing 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.

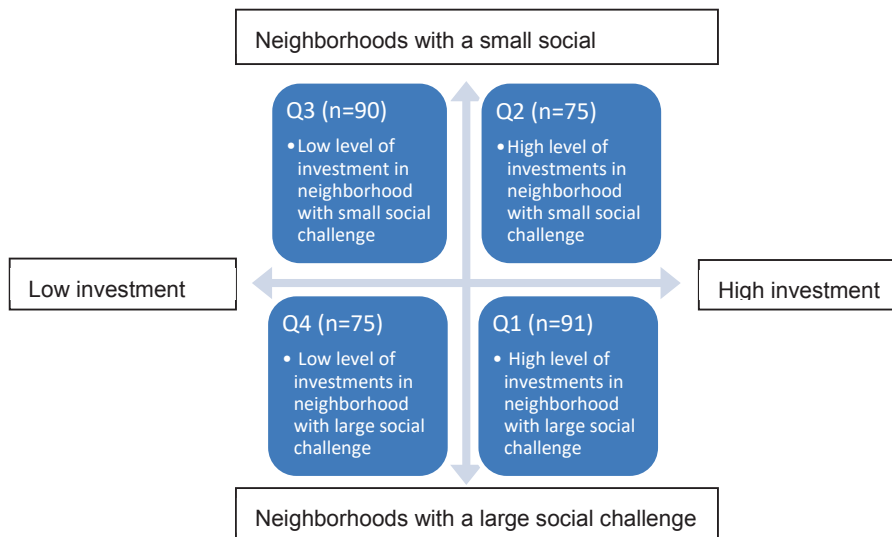


Figure 6.1 Four categories of housing associations depending on their level of investment in a neighborhood and the level of social challenges in the neighborhood

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 Neighborhood⁵. Neighborhoods with a high percentage of low income households were considered neighborhoods with a large social challenge. These are the neighborhoods that the housing associations should be focused on. After that, the neighborhoods were weighted to the housing associations on the basis of the social housing stock in that neighborhood.

Secondly, the total amount of investments spent by the 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 1686 euro on average per rental unit over the period from 2014 till 2016 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 331 associations carried on to the next selection exercise.

6.2 The use of 10 association classes

As a result of the previously described considerations, the framework for a BNG Bank sustainable social housing bond can be based on a total of 10 classes of housing associations.

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

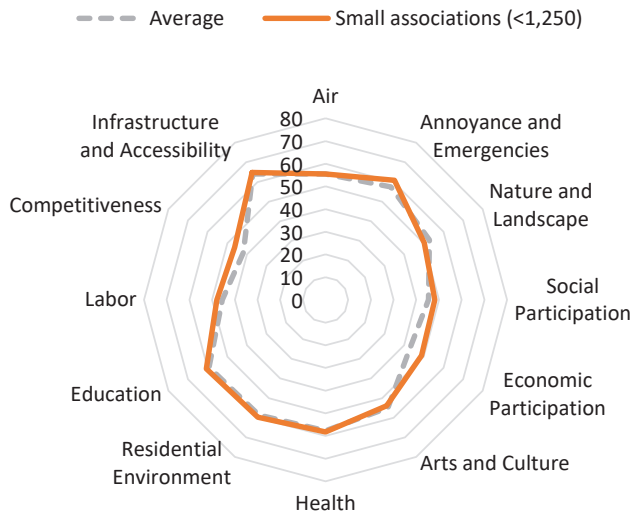
Other possible classes, such as student housing and property dynamics have also been considered, but were found not to be representative enough for the framework.

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

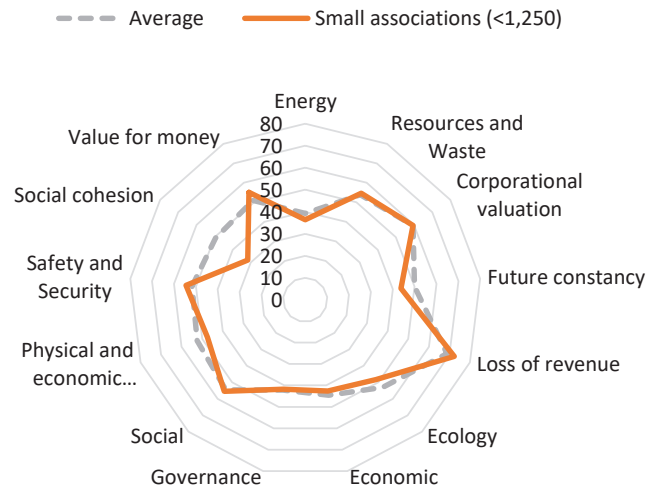
⁵ 12,237 in total

Small associations show a better sustainability score on the loss of revenue theme (internal). Associations with many high-rise housing units score better on annoyance and emergencies (external) than those with many one-family homes. Scores for economic participation (external) are better for associations with the newest property than for associations with older property.

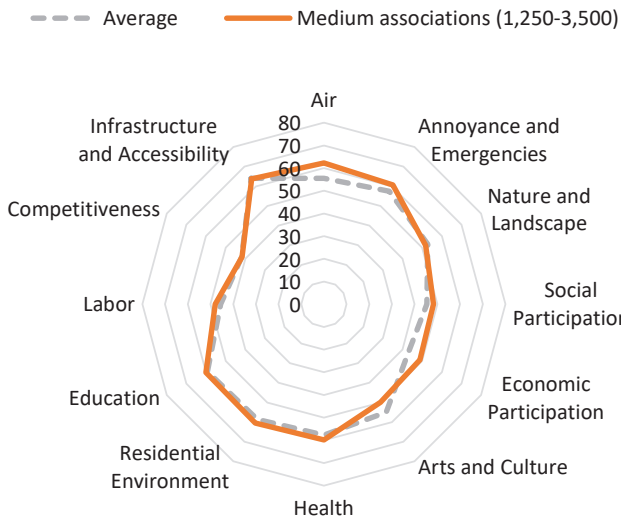
External sustainability of small associations



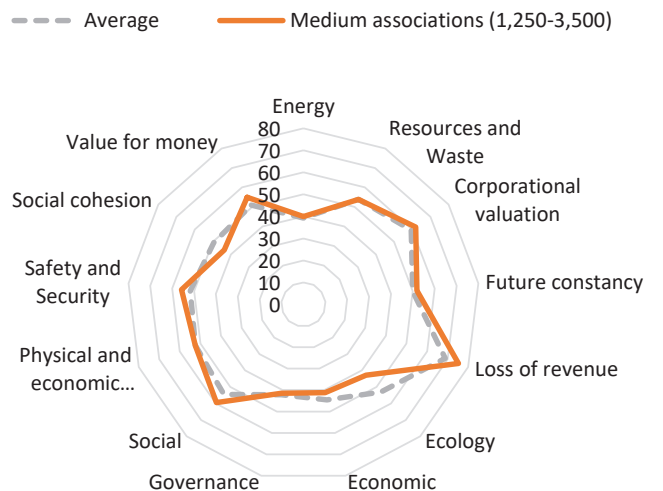
Internal sustainability of small associations



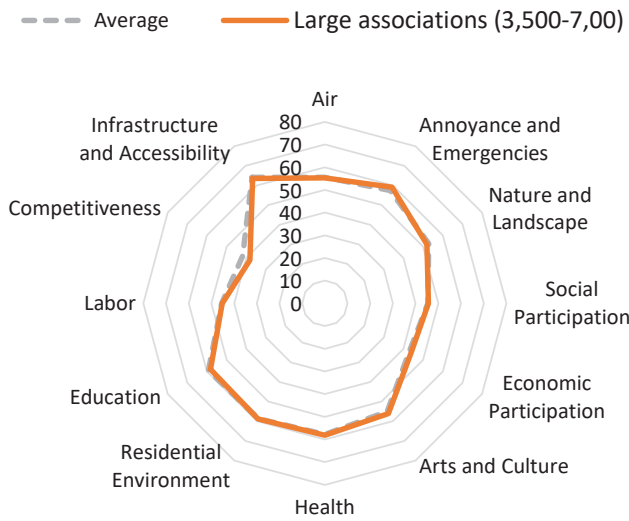
External sustainability of medium associations



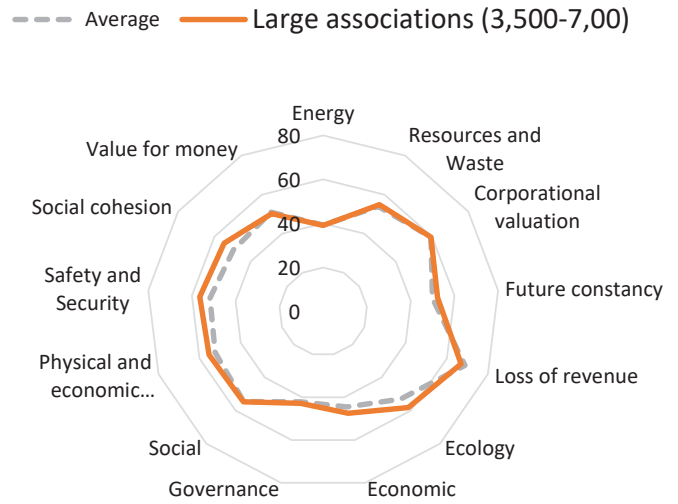
Internal sustainability of medium associations



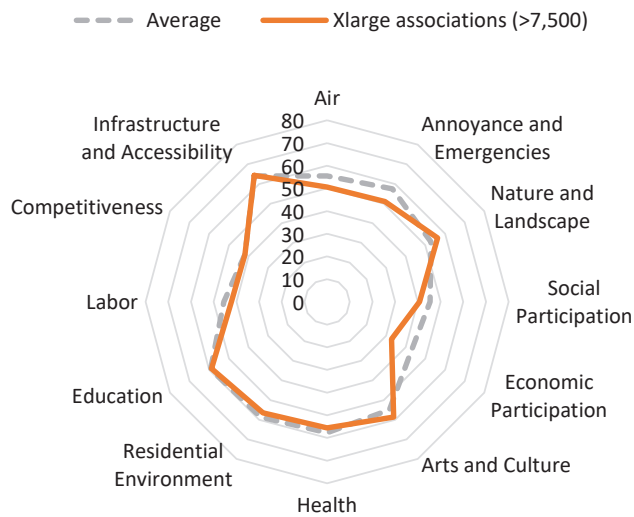
External sustainability of large associations



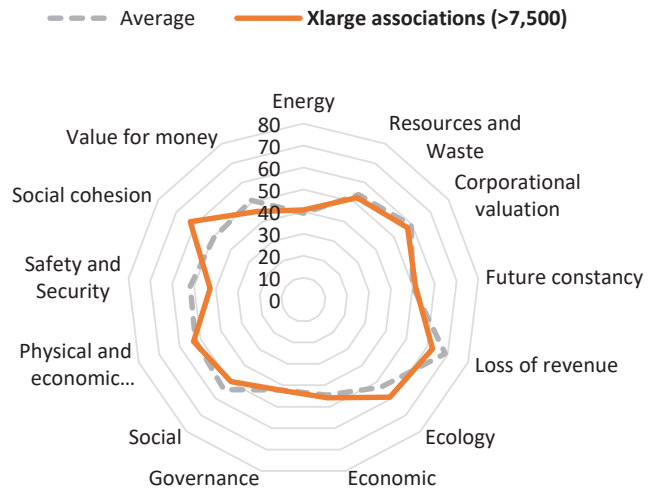
Internal sustainability of large associations



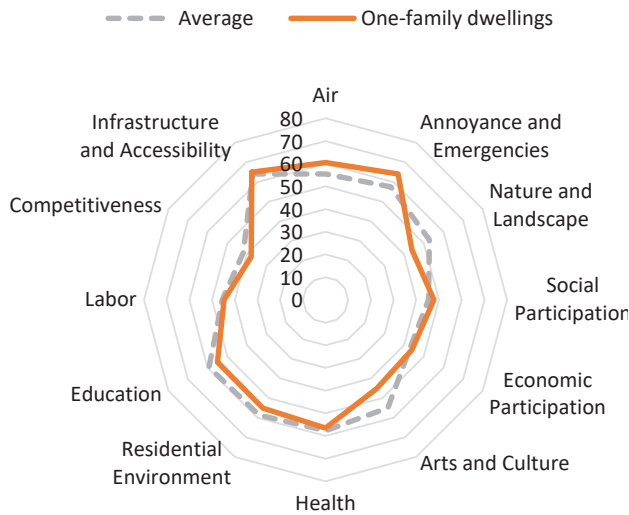
External sustainability of xlarge associations



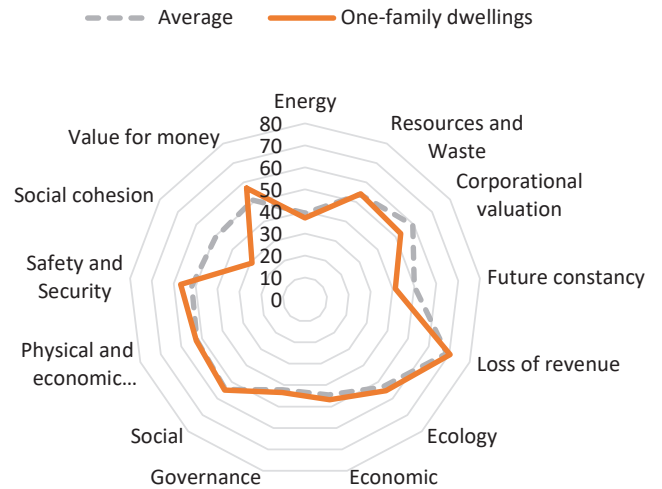
Internal sustainability of xlarge associations



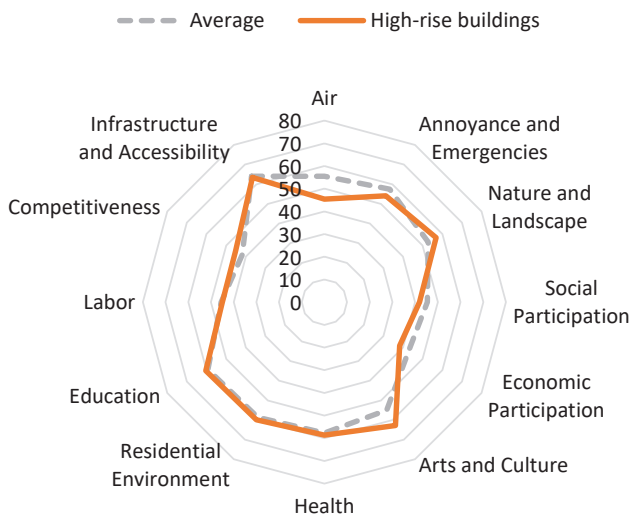
External sustainability one-family dwellings



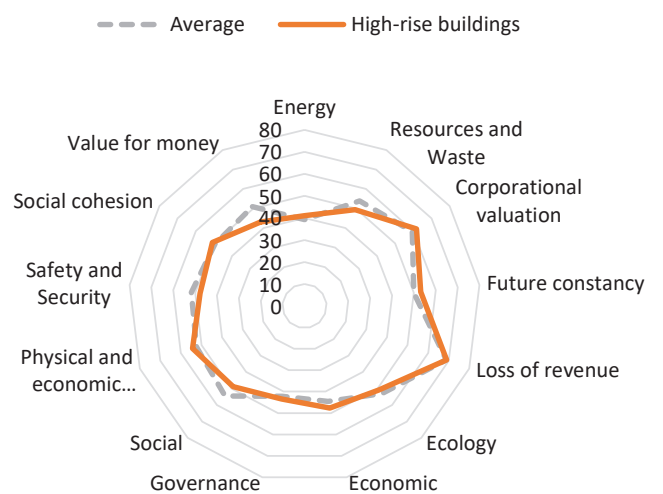
Internal sustainability one-family dwellings



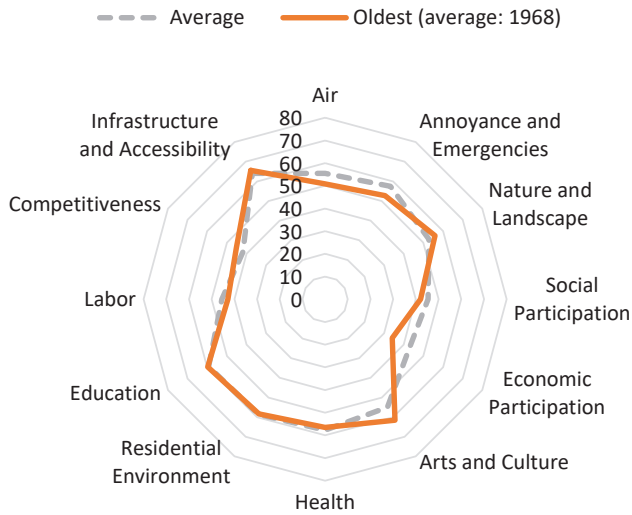
External sustainability high-rise buildings



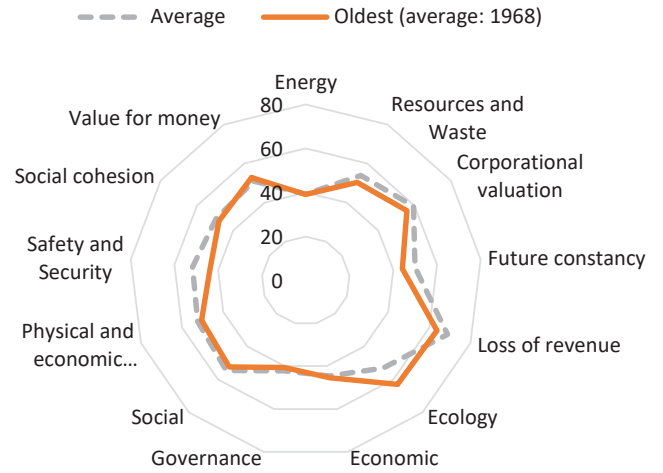
Internal sustainability high-rise buildings



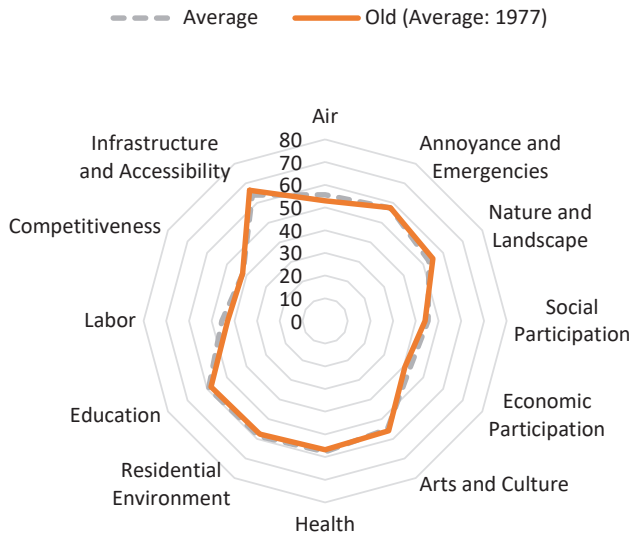
External sustainability of oldest property



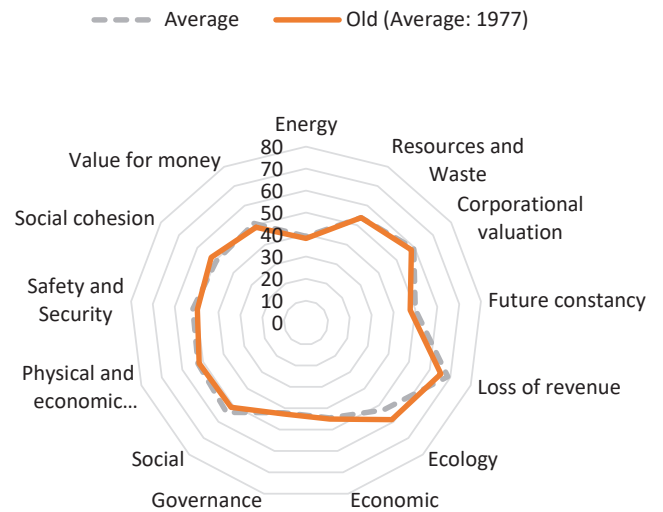
Internal sustainability of oldest property



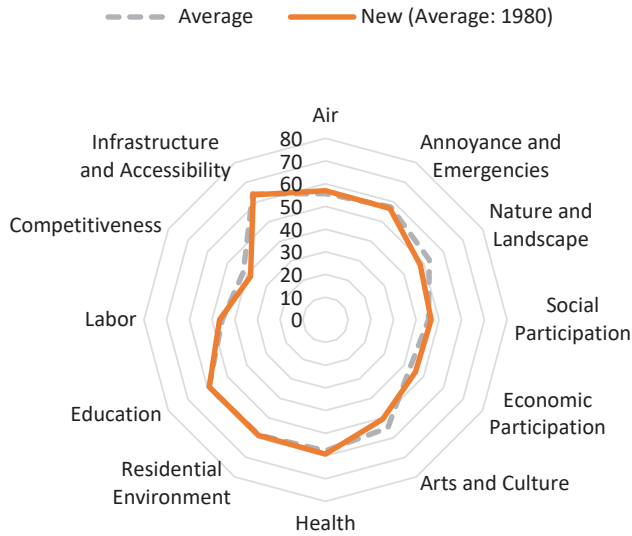
External sustainability of old property



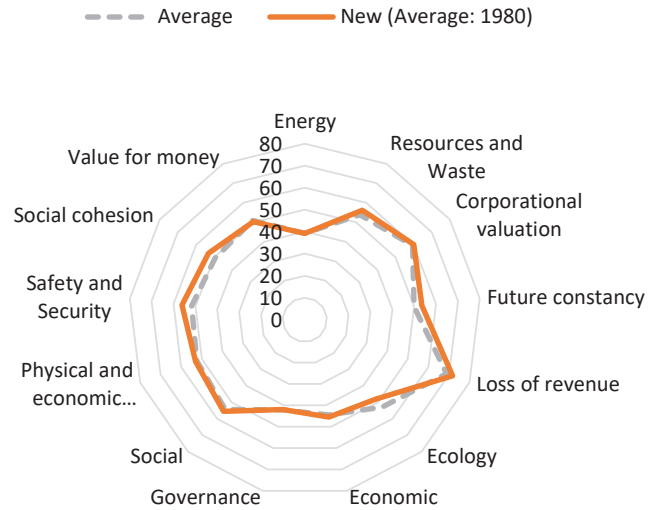
Internal sustainability of old property



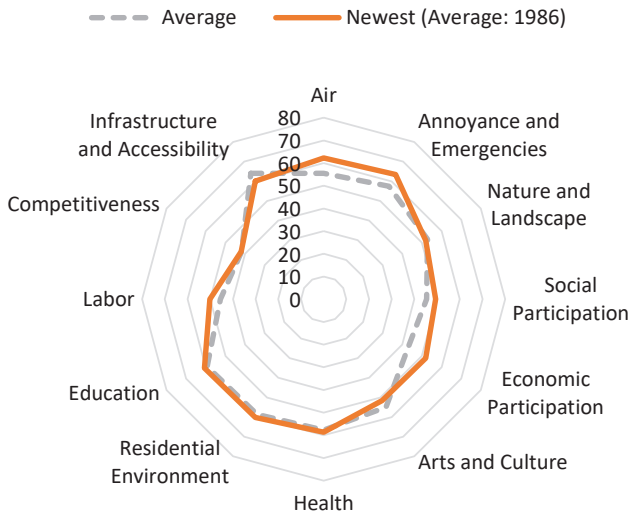
External sustainability of new property



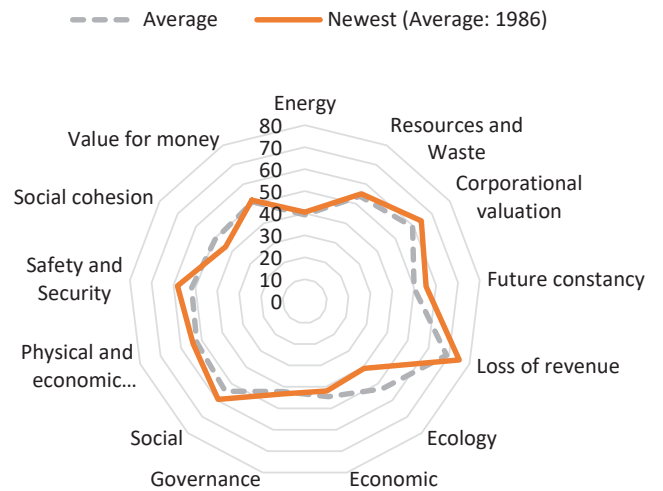
Internal sustainability of new property



External sustainability of newest property



Internal sustainability of newest property



6.3 Sustainability scores of preselected associations for 10 association types

Below, the 10 classes of associations are listed with 15 associations scoring best on total sustainability in each class.

#	Top 15 Small associations (n=44)	Quadrant	Total Sustainability	#	Top 15 Medium associations (n=45)	Quadrant	Total Sustainability
1	L1712 Christelijke Woonstichting Patrimonium	3	58.3	1	L1865 Woningstichting Putten	3	58.4
2	L0858 Stichting Beter Wonen	4	57.8	2	L1100 Stichting Wonen Midden-Delfland	3	58.0
3	L1543 Vallei Wonen	3	57.7	3	L1471 Stichting Woonwijze	3	57.9
4	L0238 Woningstichting Voerendaal	3	56.9	4	L0661 Woonstichting VechtHorst	3	57.6
5	L1395 Woningbouwvereniging Maarn	3	56.3	5	L1693 Woningstichting Nijkerk	3	56.9
6	L1501 Charlotte Elisabeth van Beuningen Stichting	3	56.0	6	L1709 Goede Woning	2	56.7
7	L1892 Woningbouwvereniging Oudewater	2	55.5	7	L1239 Stichting IJsseldal Wonen	3	56.5
8	L0705 Veenendaalse Woningstichting	1	55.4	8	L0936 Stichting Eemland Wonen	2	56.5
9	L1893 Woonstichting Valburg	2	54.5	9	L1878 Woningstichting Leusden	2	56.2
10	L0765 Stichting Wonen Delden	3	54.3	10	L1857 Wovesto	3	55.9
11	L1525 Stichting Woningbeheer De Vooruitgang	2	54.2	11	L2044 Stichting Wonen Wierden-Enter	2	55.5
12	L1866 Woningbouwvereniging Lopik	2	53.7	12	L1745 Stichting Goed Wonen	2	55.2
13	L1247 Woningstichting Obbicht en Papenhoven	1	53.7	13	L0305 Woningbouwvereniging Langedijk	3	54.8
14	L0147 R. K. Woningbouwvereniging Zeist	4	53.6	14	L1836 Stichting Heuvelrug Wonen	3	54.6
15	L0386 Woningstichting Naarden	2	53.4	15	L0333 Woonstichting Vooruitgang	3	54.2

Sustainability Framework for a 2018 BNG Bank Social Bond for Dutch Housing Associations

#	Top 15 Large associations (n=52)		Quad-rant	Total Sustainability
1	L1968	Stichting Idealis	4	58.9
2	L0317	Provides	2	57.3
3	L1716	Viveste	3	56.8
4	L0762	Woningstichting Beter Wonen Vechtdal	2	55.4
5	L0979	de Woningstichting	1	55.1
6	L0643	Bouwwerening Huis en Erf	2	54.8
7	L0383	Stichting Dudok Wonen	1	54.8
8	L1506	Woningstichting SallandWonen Stichting Woningcorporaties Het Gooi en Omstreken	3	54.4
9	L1875	Woningstichting Veluwonen	2	54.3
10	L0782	Woningstichting Veluwonen	2	54.2
11	L1236	Woonstichting St. Joseph	3	54.2
12	L1861	Stichting Oost Flevoland Woondiensten	1	54.1
13	L1436	Stichting Dunavie	2	54.0
14	L2082	Woningstichting Barneveld	3	54.0
15	L0694	Rentree	1	53.9

#	Top 15 XLarge associations (n=59)		Quad-rant	Total Sustainability
1	L1909	Stichting Studenten Huisvesting	4	56.1
2	L0151	Woonstichting 'thuis	2	55.4
3	L0041	Stichting Bo-Ex '91	1	55.3
4	L2058	Mitros	1	54.5
5	L0385	Stichting De Huismeesters	1	54.2
6	L0886	Stichting Area	3	54.2
7	L0734	Patrimonium woonservice	1	54.0
8	L1479	Stichting Talis	1	53.8
9	L2004	DUWO	4	53.8
10	L0835	Wooncorporatie ProWonen	2	53.7
11	L0583	Woningstichting Kennemer Wonen	2	53.7
12	L1464	Stichting Woonbedrijf SWS.Hhvl	1	53.5
13	L0029	Stichting deltaWonen	1	53.4
14	L2051	Stichting Woonstede	1	52.7
15	L0540	Stichting QuaWonen	2	52.7

#	Top 15 One-family-dwellings associations (n=20)		Quad-rant	Total Sustainability
1	L0661	Woonstichting VechtHorst	3	57.6
2	L1395	Woningbouwvereniging Maarn	3	56.3
3	L1866	Woningbouwvereniging Lopik Woningstichting Obbicht en Papenhoven	2	53.7
4	L1247	Woningstichting Heteren	1	53.7
5	L0254	Woningstichting Heteren	2	53.1
6	L2104	Stichting Woningbedrijf Warnsveld	4	53.0
7	L2099	Woonstichting De Marken	4	52.0
8	L0676	Stichting Wonen Zuidwest Friesland	1	52.0
9	L0641	Stichting Destion	3	51.9
10	L0165	Woningstichting Weststellingwerf	4	51.1
11	L1881	Stichting Woningbeheer Betuwe	2	50.4
12	L1482	Woningbouwvereniging Beter Wonen	2	50.0
13	L1700	Woningbouwvereniging Beter Wonen	2	50.0
14	L0003	Stichting Wonen Noordwest Friesland	2	49.5
15	L0056	Stichting Woningbouw Achtkarspelen	1	49.2

#	Top 15 High-rise-buildings associations (n=19)		Quad-rant	Total Sustainability
1	L1878	Woningstichting Leusden	2	56.2
2	L0333	Woonstichting Vooruitgang	3	54.2
3	L0734	Patrimonium woonservice	1	54.0
4	L2004	DUWO	4	53.8
5	L1524	Stichting Rijnhart Wonen	2	53.7
6	L0082	Woningstichting Vaals	1	53.1
7	L1122	Stichting Rijswijk Wonen	1	53.0
8	L0497	Stichting TBV	1	52.8
9	L2051	Stichting Woonstede	1	52.7
10	L0590	Stichting Rndom Wonen	3	52.4
11	L0439	Stichting Rhiant	3	51.9
12	L0837	Woonstichting Jutphaas Stichting Huisvesting Bejaarden	2	51.7
13	L1986	Oosterhout	1	51.4
14	L0565	Stichting WoonForte	2	50.5
15	L0267	Stichting Trivire	1	50.3

#	Top 15 Oldest property associations (n=51)		Quad-rant	Total Sustainability
1	L0936	Stichting Eemland Wonen	2	56.5
2	L1395	Woningbouwvereniging Maarn Charlotte Elisabeth van Beuningen	3	56.3
3	L1501	Stichting	3	56.0
4	L0979	de Woningstichting	1	55.1
5	L0383	Stichting Dudok Wonen	1	54.8
6	L2058	Mitros	1	54.5
7	L0385	Stichting De Huismeesters	1	54.2
8	L1436	Stichting Dunavie	2	54.0
9	L0694	Rentree	1	53.9
10	L1910	Stichting WBO Wonen	4	53.6
11	L1464	Stichting Woonbedrijf SWS.Hhvl	1	53.5
12	L0254	Woningstichting Heteren	2	53.1
13	L1122	Stichting Rijswijk Wonen	1	53.0
14	L2114	Woonpartners Midden-Holland Stichting voorheen De	2	52.8
15	L0033	Bouwwerenging	1	52.6

#	Top 15 Old property associations (n=53)		Quad-rant	Total Sustainability
1	L0238	Woningstichting Voerendaal	3	56.9
2	L1892	Woningbouwvereniging Oudewater	2	55.5
3	L0041	Stichting Bo-Ex '91	1	55.3
4	L1836	Stichting Heuvelrug Wonen	3	54.6
5	L1875	Stichting Woningcorporaties Het Gooi en Omstreken	2	54.3
6	L0765	Stichting Wonen Delden	3	54.3
7	L1236	Woonstichting St. Joseph	3	54.2
8	L0734	Patrimonium woonservice	1	54.0
9	L2004	DUWO	4	53.8
10	L0093	Woningstichting SWZ Woningstichting Obbicht en	1	53.8
11	L1247	Papenhoven	1	53.7
12	L2092	Noordwijkse Woningstichting	3	53.6
13	L0347	Stichting Viverion	2	53.6
14	L0923	Bouwwerenging Woningbelang Woningbouwvereniging St.	2	53.4
15	L1164	Willibrordus	2	53.3

#	Top 15 New property associations (n=51)		Quad-rant	Total Sustainability
1	L1471	Stichting Woonwijze	3	57.9
2	L1693	Woningstichting Nijkerk	3	56.9
3	L1239	Stichting IJsseldal Wonen	3	56.5
4	L1909	Stichting Studenten Huisvesting Woningstichting Beter Wonen	4	56.1
5	L0762	Vechtdal	2	55.4
6	L0705	Veenendaalse Woningstichting	1	55.4
7	L0643	Bouwwerenging Huis en Erf	2	54.8
8	L1893	Woonstichting Valburg	2	54.5
9	L1506	Woningstichting SallandWonen	3	54.4
10	L0333	Woonstichting Vooruitgang	3	54.2
11	L0782	Woningstichting Veluwonen	2	54.2
12	L1479	Stichting Talis	1	53.8
13	L0835	Wooncorporatie ProWonen	2	53.7
14	L1866	Woningbouwvereniging Lopik	2	53.7
15	L1413	Woningstichting Hellendoorn	3	53.6

#	Top 15 Newest property associations (n=45)		Quad-rant	Total Sustainability
1	L1968	Stichting Idealis	4	58.9
2	L1865	Woningstichting Putten Christelijke Woonstichting	3	58.4
3	L1712	Patrimonium	3	58.3
4	L1100	Stichting Wonen Midden-Delfland	3	58.0
5	L0858	Stichting Beter Wonen	4	57.8
6	L1543	Vallei Wonen	3	57.7
7	L0661	Woonstichting VechtHorst	3	57.6
8	L0317	Provides	2	57.3
9	L1716	Viveste	3	56.8
10	L1709	Christelijke Woningstichting De Goede Woning	2	56.7
11	L1878	Woningstichting Leusden	2	56.2
12	L1857	Wovesto	3	55.9
13	L2044	Stichting Wonen Wierden-Enter	2	55.5
14	L0151	Woonstichting 'thuis	2	55.4
15	L1745	Stichting Goed Wonen	2	55.2

6.4 Elected sustainable social housing associations

Table 6.1 summarizes the remaining 90 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 2018 Social housing 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 90 housing associations (alphabetical order) selected for the 2018 Framework for a sustainable social housing bond

Association name		Quadrant	Total Sustainability score
L0643	Bouwvereniging Huis en Erf	2	54.8
L0923	Bouwvereniging Woningbelang	2	53.4
L1501	Charlotte Elisabeth van Beuningen Stichting	3	56.0
L1709	Christelijke Woningstichting De Goede Woning	2	56.7
L1712	Christelijke Woonstichting Patrimonium	3	58.3
L0979	de Woningstichting	1	55.1
L2004	DUWO	4	53.8
L2058	Mitros	1	54.5
L2092	Noordwijkse Woningstichting	3	53.6
L0734	Patrimonium woonservice	1	54.0
L0317	Provides	2	57.3
L0147	R. K. Woningbouwvereniging Zeist	4	53.6
L0694	Rentree	1	53.9
L0886	Stichting Area	3	54.2
L0858	Stichting Beter Wonen	4	57.8
L0041	Stichting Bo-Ex '91	1	55.3
L0385	Stichting De Huismeesters	1	54.2
L0029	Stichting deltaWonen	1	53.4
L0641	Stichting Destion	3	51.9
L0383	Stichting Dudok Wonen	1	54.8
L1436	Stichting Dunavie	2	54.0
L0936	Stichting Eemland Wonen	2	56.5
L1745	Stichting Goed Wonen	2	55.2
L1836	Stichting Heuvelrug Wonen	3	54.6
L1986	Stichting Huisvesting Bejaarden Oosterhout	1	51.4

Association name		Quadrant	Total Sustainability score
L1968	Stichting Idealis	4	58.9
L1239	Stichting IJsseldal Wonen	3	56.5
L1861	Stichting Oost Flevoland Woondiensten	1	54.1
L0540	Stichting QuaWonen	2	52.7
L0439	Stichting Rhiant	3	51.9
L1524	Stichting Rijnhart Wonen	2	53.7
L1122	Stichting Rijswijk Wonen	1	53.0
L0590	Stichting Rondon Wonen	3	52.4
L1909	Stichting Studenten Huisvesting	4	56.1
L1479	Stichting Talis	1	53.8
L0497	Stichting TBV	1	52.8
L0267	Stichting Trivire	1	50.3
L0347	Stichting Viverion	2	53.6
L0033	Stichting voorheen De Bouwvereniging	1	52.6
L1910	Stichting WBO Wonen	4	53.6
L0765	Stichting Wonen Delden	3	54.3
L1100	Stichting Wonen Midden-Delfland	3	58.0
L0003	Stichting Wonen Noordwest Friesland	2	49.5
L2044	Stichting Wonen Wierden-Enter	2	55.5
L0676	Stichting Wonen Zuidwest Friesland	1	52.0
L2104	Stichting Woningbedrijf Warnsveld	4	53.0
L1881	Stichting Woningbeheer Betuwe	2	50.4
L1525	Stichting Woningbeheer De Vooruitgang	2	54.2
L0056	Stichting Woningbouw Achtkarspelen	1	49.2
L1875	Stichting Woningcorporaties Het Gooi en Omstreken	2	54.3
L1464	Stichting Woonbedrijf SWS.Hhvl	1	53.5
L0565	Stichting WoonForte	2	50.5
L2051	Stichting Woonstede	1	52.7
L1471	Stichting Woonwijze	3	57.9
L1543	Vallei Wonen	3	57.7
L0705	Veenendaalse Woningstichting	1	55.4
L1716	Viveste	3	56.8
L1482	Woningbouwvereniging Beter Wonen	2	50.0

Association name		Quadrant	Total Sustainability score
L1700	Woningbouwvereniging Beter Wonen	2	50.0
L0305	Woningbouwvereniging Langedijk	3	54.8
L1866	Woningbouwvereniging Lopik	2	53.7
L1395	Woningbouwvereniging Maarn	3	56.3
L1892	Woningbouwvereniging Oudewater	2	55.5
L1164	Woningbouwvereniging St. Willibrordus	2	53.3
L2082	Woningstichting Barneveld	3	54.0
L0762	Woningstichting Beter Wonen Vechtdal	2	55.4
L1413	Woningstichting Hellendoorn	3	53.6
L0254	Woningstichting Heteren	2	53.1
L0583	Woningstichting Kennemer Wonen	2	53.7
L1878	Woningstichting Leusden	2	56.2
L0386	Woningstichting Naarden	2	53.4
L1693	Woningstichting Nijkerk	3	56.9
L1247	Woningstichting Obbicht en Papenhoven	1	53.7
L1865	Woningstichting Putten	3	58.4
L1506	Woningstichting SallandWonen	3	54.4
L0093	Woningstichting SWZ	1	53.8
L0082	Woningstichting Vaals	1	53.1
L0782	Woningstichting Veluwonen	2	54.2
L0238	Woningstichting Voerendaal	3	56.9
L0165	Woningstichting Weststellingwerf	4	51.1
L0835	Wooncorporatie ProWonen	2	53.7
L2114	Woonpartners Midden-Holland	2	52.8
L2099	Woonstichting De Marken	4	52.0
L0837	Woonstichting Jutphaas	2	51.7
L1236	Woonstichting St. Joseph	3	54.2
L0151	Woonstichting 'thuis	2	55.4
L1893	Woonstichting Valburg	2	54.5
L0661	Woonstichting VechtHorst	3	57.6
L0333	Woonstichting Vooruitgang	3	54.2
L1857	Wovesto	3	55.9

7 Contribution of housing associations to the SDGs

This chapter describes a translation of the sustainability scores discussed before into scores on the UN Sustainable Development Goals (SDGs) of 2015. Showing the impacts of social activities in terms of their contribution to the SDGs, is 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). A standardized method to show the SDGs impacts is, however, 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 housing associations in terms of the SDGs. The first part of this chapter will discuss the method Telos developed, 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 SDG impacts. Which option to use depends on the type of data at hand. In this case, 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 49 indicators in the SDG framework. Of those 7 were used twice to cover the targets of the SDGs as good 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 a 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 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

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
			Risky Behaviour
4	Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	Distance to Elementary School
			Distance to Secondary Education
			Early School Leavers
			Education Level
5	Gender Equality	Achieve gender equality and empower all women and girls	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
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

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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
			CO2 emission of energy usage
12	Responsible Consumption and Production	Ensure sustainable consumption and production patterns	Household generated Waste
			Organic Waste
13	Climate Action	Take urgent action to combat climate change and its impacts	Floods
14	Life below Water	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	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 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 housing sector as a whole and the group of selected associations in reporting year 2018. For all SDGs the selected group scored the same or higher than the total group.

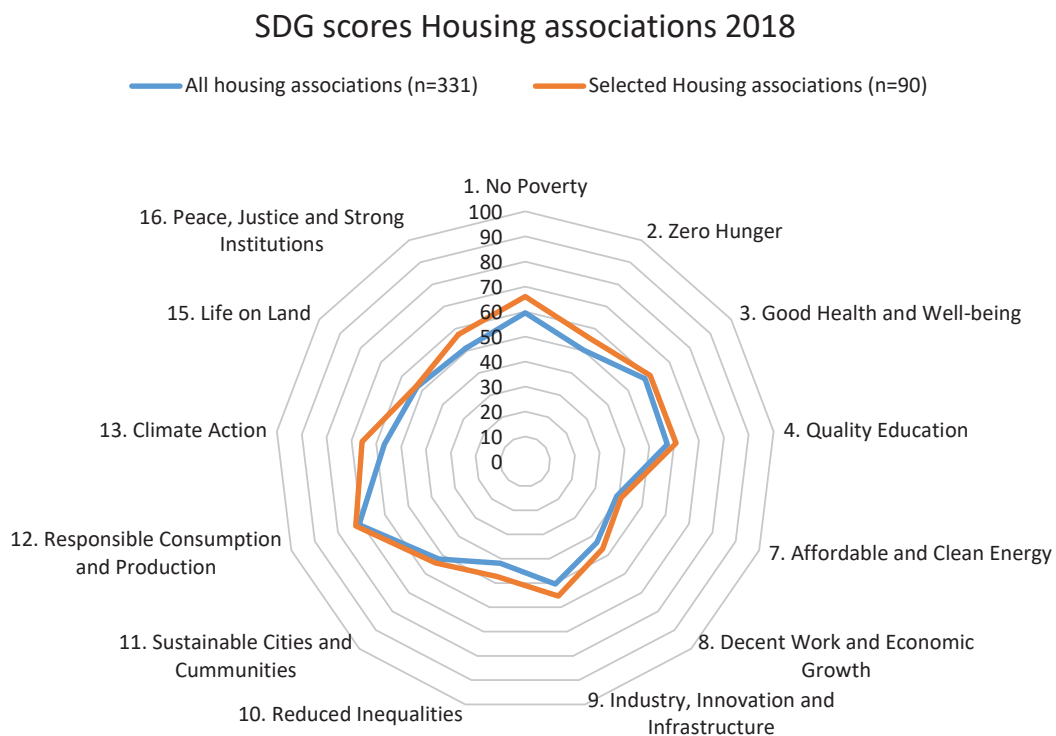


Figure 7.1 Average scores for the 13 SDGs of all housing associations in reporting year 2018

The highest score was found for Goal 12 (Responsible consumption and production) which is measuring waste generation by households, while the lowest occurred for Goal 7 (Affordable and Clean Energy), which measures energy use, energy saving and the transition to renewable resources. It indicates that housing association still have a challenge to improve their contribution to this goal.

Comparison over the years in the period 2016-2018, as shown in table 7.2, makes clear that the performance for Goal 7 has improved substantially (5.8% points) over the past years. Other large improvements are noted for Goals 9 and 16. However, the high scoring Goal 12 showed a fall back in performance over the past years (-

8.1%points), indicating that households served by the housing associations are losing part of their motivation to contribute to reducing their waste production.

Table 7.2 Overview of the SDGs scores of Dutch housing associations (n=331) over the period 2016-2018

SDGs measured	2016	2017	2018	Difference 2016-2018
1. No Poverty	58.9	59.1	59.5	0.6
2. Zero Hunger	50.3	50.3	50.3	0.0
3. Good Health and Well-being	61.0	58.6	58.2	-2.8
4. Quality Education	55.4	57.6	57.3	1.8
5. Gender Equality				
6. Clean Water and Sanitation				
7. Affordable and Clean Energy	33.3	36.8	39.1	5.8
8. Decent Work and Economic Growth	41.6	43.0	43.1	1.5
9. Industry, Innovation and Infrastructure	43.7	49.6	50.4	6.7
10. Reduced Inequalities	42.5	42.5	41.9	-0.6
11. Sustainable Cities and Communities	50.1	51.0	52.0	1.9
12. Responsible Consumption and Production	79.2	70.6	71.1	-8.1
13. Climate Action	56.6	56.7	56.7	0.1
14. Life below Water				
15. Life on Land	52.5	52.5	52.5	0.0
16. Peace, Justice and Strong Institutions	45.2	46.5	51.2	5.9
17. Partnerships for the Goals				

In general, table 7.2 shows that the housing associations improved themselves between 2016 and 2018 for 8 of the 13 goals that were measured in the analyses. Only three goals showed a decrease in the score over the period 2016-2018.

7.2.2 Best scoring housing associations for 12 SDGs

In this paragraph the 10 best scoring housing associations within the total group for each of the SDGs are presented. One of the 13 SDGs monitored is left out in this overview. This applies to SDG 13 (Climate action) which is based on only one indicator showing the danger of flooding. As the score of a large group of housing associations is 100% it was not possible to select the top 10.

Rank	ID	Name	1. No Poverty score
1	L1543	Vallei Wonen	85.1
2	L1811	Stichting PeelrandWonen	84.4
3	L1794	Woningstichting de Zaligheden	84
4	L2044	Stichting Wonen Wierden-Enter	82.9
5	L0757	Woningbouwvereniging Oostzaanse Volkshuisvesting	82.8
6	L1837	Woningvereniging Nederweert	82.5
7	L1678	Woningstichting Tubbergen	82.4
8	L1878	Woningstichting Leusden	81.9
9	L0264	Woningstichting Spaubeek	81.4
10	L1709	Christelijke Woningstichting De Goede Woning	81.3

Rank	ID	Name	2. Zero Hunger score
1	L1061	Stichting Woningcorporatie Plicht Getrouw	80.2
2	L0439	Stichting Rhiant	80.1
3	L2051	Stichting Woonstede	79.7
4	L0667	Woningbouwvereniging van Erfgoeiers te Laren N.H.	79.6
5	L0533	Woningbouwvereniging Laren	79.6
6	L0590	Stichting Rondom Wonen	79.5
7	L0602	Woonstichting SSW	78.7
8	L1878	Woningstichting Leusden	78.6
9	L1543	Vallei Wonen	78.4
10	L1716	Viveste	77.9

Rank	ID	Name	3. Good Health and Well-being score
1	L0590	Stichting Rondom Wonen	73.7
2	L1712	Christelijke Woonstichting Patrimonium	71.8
3	L1968	Stichting Idealis	71.8
4	L0979	de Woningstichting	71.8
5	L0386	Woningstichting Naarden	71.3
6	L1855	Woonstichting Gendt	71.3
7	L1865	Woningstichting Putten	71.2
8	L1586	Stichting Lek en Waard Wonen	70.9
9	L1528	Woningbouwvereniging Beter Wonen	70.9
10	L1893	Woonstichting Valburg	70.1

Rank	ID	Name	4. Quality Education score
1	L0667	Woningbouwvereniging van Erfgooiers te Laren N.H.	80
2	L0533	Woningbouwvereniging Laren	80
3	L1100	Stichting Wonen Midden-Delfland	75.9
4	L0992	Woningbouwvereniging Helpt Elkander	74
5	L1716	Viveste	72.4
6	L0333	Woonstichting Vooruitgang	72.3
7	L1910	Stichting WBO Wonen	71.3
8	L0386	Woningstichting Naarden	71.1
9	L0835	Wooncorporatie ProWonen	70.9
10	L1709	Christelijke Woningstichting De Goede Woning	69.2

Rank	ID	Name	7. Affordable and Clean Energy score
1	L0579	Woonstichting Hulst	56.4
2	L0041	Stichting Bo-Ex '91	55.4
3	L1729	Stichting Stadsherstel Amsterdam	54.8
4	L0688	Stichting Uithuizer Woningbouw	53.4
5	L1640	Woningbouwvereniging Hoek van Holland	53.1
6	L0943	Stichting Woongoed Middelburg	53
7	L0093	Woningstichting SWZ	52.9
8	L1182	Stichting Woonwaard Noord-Kennemerland	52.8
9	L1034	Woningbouwvereniging De Goede Woning Driemond	52.2
10	L2058	Mitros	51.9

Rank	ID	Name	8. Decent Work and Economic Growth score
1	L1892	Woningbouwvereniging Oudewater	69.5
2	L1100	Stichting Wonen Midden-Delfland	66.2
3	L1543	Vallei Wonen	65.9
4	L1933	Stichting Huisvesting Vredewold	62.1
5	L1498	Woningbouwstichting Kamerik	61.4
6	L1866	Woningbouwvereniging Lopik	61.4
7	L1811	Stichting PeelrandWonen	60.9
8	L0629	Woningbouwvereniging Poortugaal	60.3
9	L1525	Stichting Woningbeheer De Vooruitgang	59.2
10	L1794	Woningstichting de Zaligheden	58.3

Rank	ID	Name	9. Industry, Innovation
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			and Infrastructure score
1	L0082	Woningstichting Vaals	79.3
2	L1866	Woningbouwvereniging Lopik	70.5
3	L1550	Woningbouwvereniging Goed Wonen	70.5
4	L0165	Woningstichting Weststellingwerf	69.6
5	L0641	Stichting Destion	69.2
6	L1409	Stichting Woonservice Ijsselland	68.8
7	L1865	Woningstichting Putten	67.7
8	L1891	Woningstichting GoedeStede	67.2
9	L1693	Woningstichting Nijkerk	67.1
10	L0540	Stichting QuaWonen	66.4

Rank	ID	Name	10. Reduced Inequalities score
1	L1100	Stichting Wonen Midden-Delfland	72.3
2	L1811	Stichting PeelrandWonen	70.6
3	L1794	Woningstichting de Zaligheden	70.6
4	L0661	Woonstichting VechtHorst	69.8
5	L1802	Woningstichting Woonvizier	69.8
6	L1528	Woningbouwvereniging Beter Wonen	69.7
7	L1586	Stichting Lek en Waard Wonen	69.7
8	L1543	Vallei Wonen	68.8
9	L1678	Woningstichting Tubbergen	68.8
10	L1892	Woningbouwvereniging Oudewater	68.6

Rank	ID	Name	11. Sustainable Cities and Communities score
1	L0527	Stichting Sint Trudo	65.3
2	L1964	Stichting Jongeren Huisvesting Twente	64.6
3	L1675	Stichting Steelande wonen	63.8
4	L1968	Stichting Idealis	63.7
5	L0858	Stichting Beter Wonen	63.3
6	L1712	Christelijke Woonstichting Patrimonium	63.1
7	L1247	Woningstichting Obbicht en Papenhoven	63.1
8	L1501	Charlotte Elisabeth van Beuningen Stichting	62.9
9	L1944	stichting SSHN	62.3
10	L1693	Woningstichting Nijkerk	61.1

Rank	ID	Name	12. Responsible Consumption and Production score
1	L0740	Woonstichting Groninger Huis	83.3
2	L1588	Woningbouwstichting Cothen	80
3	L0672	Woningstichting Volksbelang	80
4	L1855	Woonstichting Gendt	79.5
5	L0835	Wooncorporatie ProWonen	79.3
6	L0923	Bouwvereniging Woningbelang	79.2
7	L0225	Stichting Weller Wonen	78.7
8	L0309	Woonstichting Triada	78.7
9	L0841	Woningstichting De Voorzorg	78.6
10	L0928	Woonstichting 't Heem	78.5

Rank	ID	Name	15. Life on Land score
1	L1968	Stichting Idealis	85.1
2	L0979	de Woningstichting	85.1
3	L1436	Stichting Dunavie	81.9
4	L1910	Stichting WBO Wonen	81.4
5	L1944	stichting SSHN	79.4
6	L0420	Bouwvereniging 'Huis en Hof' voor de gemeente Nijmegen	79.4
7	L1748	Stichting Woningcorporatie WoonGenoot	79.4
8	L1357	Woningbouwstichting De Gemeenschap	79.4
9	L1164	Woningbouwvereniging St. Willibrordus	78.6
10	L0272	Wassenaarsche Bouwstichting	77.9

Rank	ID	Name	16. Peace, Justice and Strong Institutions score
1	L1586	Stichting Lek en Waard Wonen	84.1
2	L0661	Woonstichting VechtHorst	84.1
3	L1678	Woningstichting Tubbergen	81.3
4	L1709	Christelijke Woningstichting De Goede Woning	79.8
5	L1712	Christelijke Woonstichting Patrimonium	77
6	L2044	Stichting Wonen Wierden-Enter	76.1
7	L1892	Woningbouwvereniging Oudewater	75.6
8	L1413	Woningstichting Hellendoorn	74.3
9	L0582	Stichting Omnivera	74
10	L1506	Woningstichting SallandWonen	73.4

7.3 Best scoring 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 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.

Table 7.3 Overview of best scoring Dutch housing associations occurring most frequently in top 10 lists of individual SDGs over the period 2016-2018

#	ID	Name	Number of SDGs for which association belongs to top 10	Goals for which the housing association belongs to a top 10 list	Sustainability score (and ranking of selected associations) (Annex 4)
1	L1543	Vallei Wonen	5	1. No Poverty, 2. Zero Hunger, 8. Decent Work and Economic Growth, 10. Reduced Inequalities, 13. Climate Action	57.7 (7)
2	L1709	Christelijke Woningstichting De Goede Woning	4	1. No Poverty, 4. Quality Education, 13. Climate Action, 16. Peace, Justice and Strong Institutions	56.7 (13)
3	L1678	Woningstichting Tubbergen	4	1. No Poverty, 10. Reduced Inequalities, 13. Climate Action, 16. Peace, Justice and Strong Institutions	Not selected
4	L1811	Stichting PeelrandWonen	4	1. No Poverty, 8. Decent Work and Economic Growth, 10. Reduced Inequalities, 13. Climate Action	Not selected
5	L2044	Stichting Wonen Wierden-Enter	3	1. No Poverty, 13. Climate Action, 16. Peace, Justice and Strong Institutions	55.5 (21)
6	L1968	Stichting Idealis	3	3. Good Health and Well-being, 11. Sustainable Cities and Communities, 15. Life on Land	58.9 (1)
7	L1878	Woningstichting Leusden	3	1. No Poverty, 2. Zero Hunger, 13. Climate Action	56.2 (17)
8	L1100	Stichting Wonen Midden-Delfland	3	4. Quality Education, 8. Decent Work and Economic Growth, 10. Reduced Inequalities	58.0 (4)
9	L0533	Woningbouwvereniging Laren	3	2. Zero Hunger, 4. Quality Education, 13. Climate Action	Not selected
10	L0667	Woningbouwvereniging van Erfgoeiers te Laren N.H.	3	2. Zero Hunger, 4. Quality Education, 13. Climate Action	Not selected
11	L1712	Christelijke Woonstichting Patrimonium	3	3. Good Health and Well-being, 11. Sustainable Cities and Communities, 16. Peace, Justice and Strong Institutions	58.3 (3)
12	L1910	Stichting WBO Wonen	3	4. Quality Education, 13. Climate Action, 15. Life on Land	53.6 (57)
13	L1528	Woningbouwvereniging Beter Wonen	3	3. Good Health and Well-being, 13. Climate Action, 15. Life on Land	Not selected
14	L1892	Woningbouwvereniging Oudewater	3	8. Decent Work and Economic Growth, 10. Reduced Inequalities, 8	55.5 (22)
15	L1586	Stichting Lek en Waard Wonen	3	3. Good Health and Well-being, 10. Reduced Inequalities, 16. Peace, Justice and Strong Institutions	Not selected
16	L1794	Woningstichting de Zaligheden	3	1. No Poverty, 8. Decent Work and Economic Growth, 10. Reduced Inequalities	Not selected

In total 16 housing associations have been found which occur 3 times or more on top 10 lists for individual SDGs.

There is not a clear relationship between the best scoring associations on the SDGs top 10 lists and the best on total PPP-sustainability scoring elected housing associations. Their sustainability scores and rankings are shown in the last column of Table 7.3. Half of the 16 housing associations, which score high on a combination of 3 or more SDGs, also occur on the list of selected ones based on their PPP-score. There are different reasons for this outcome. For example, the applied selection process for housing associations, the political choices made in defining the SDGs and differences in indicator sets, and the fact that indicators can be used multiple times in this SDG approach all contribute to this difference.

8 Conclusions

An elaborated framework has been developed that can be used for the issuance in 2018 by BNG Bank of a sustainable bond for social housing associations. The framework gives an integral view on internal and external sustainability, resulting in seven domains: the four internal sustainability capitals (People, Profit and Planet and the Internal Business aspect) of the housing association, as well as the three external sustainability capitals (PPP).

The data for the framework are derived from the Association of 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 housing associations which may have a downward trend 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 housing associations in the Dutch context. The result has been that from a total group of 331 associations 200 are preselected for further analysis.

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.

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 90 selected associations (Table 6.1). These are the best scoring associations on sustainability of their classes.

The outcome of 90 selected associations will be monitored yearly during the term of the bond using the methodology of this framework. The outcome of the annual monitoring will be reported in an Impact Report including:

1. A comparison of sustainability scores of the group of elected housing associations in the reporting year with the year of issuance;
1. 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.
2. 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 housing associations for each of the monitored SDGs individually.

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Annexes

Annex 1: 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

- CO2 emission of energy usage; average co2 emission of the energy used for heating the dwellings (gas-consumption and external heat supply).
- 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
- Total amount of residual waste; Total amount of household waste produced in kg per inhabitant
- Assessment of dwelling quality; Index between the assessed dwelling quality and the reference value of the Dutch national average

Deleted indicators

- Share of forest and natural area; influence of housing associations is very limited. On top of that, we only selected neighborhoods with a lot of dwellings. So in general, there is little forest and natural areas in those neighborhoods.
- Expenses on quality of life (physical activities); In the most recent dataset, there is no distinction between social- and physical expenses on quality of life. That's why this indicator was combined and moved to the social capital to the expenses on social activities indicator (social cohesion).
- Total risk prognosis (2x); Risk prognoses are not in the DPI dataset anymore. Deleted due to data insufficiency
- Percentage of proper allocations; was in the dataset twice. Total allocations within income limits is still in the dataset.
- Rental price per point in housing valuation points system; no available data
- Total maintenance costs; new scientific insights. Does not fit the goals of the stock (social, in internal business capital)

Changed indicators

- Distance to public green; This indicator was in the community nature and landscape stock (ecology) in the internal performance domain. Reconsidering the meaning of this indicator, it fits better in the nature and landscape stock in the external performance domain.
- Average amount of points in housing valuation system; scoring system is not used in DVI anymore. So now the NEN 2767 condition score is used.
- Total costs energy measures; new definition: costs of residential improvements per rental unit. Includes energy measures and accessibility costs for elderly people.
- Number of rental units per FTE; changed to personnel costs divided by rental income (DEAB), due to data availability.
- Share of low-cost- and affordable dwellings; taken together into one indicator, to prevent for skewed distributions of scores.
- Utilization potential workforce; replaced by unemployment level.

Changes in stocks

Because of these changes in the dataset, the stock community nature and landscape in the internal performance has been excluded. Resulting in a total of 25 stocks instead of the original 26 stocks.

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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 (PM2.5)	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 (PM2.5)	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	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	Municipality
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	%	Municipality
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	%	Municipality
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.)	%	Municipality
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.	%	District
Socio-cultural	Economic Participation	Poor Households	The share of households with a household income below 105% of the social minimum	%	District

Capital	Stock	Indicator	Description	Unit	Level
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	%	Municipality
Socio-cultural	Health	Risky Behavior	the share of the inhabitants that show risky behavior (heavy smokers or drinkers)	%	Municipality
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'	%	Municipality
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)	%	Municipality
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	%	District
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

Capital	Stock	Indicator	Description	Unit	Level
Economic	Competitiveness	Share Highly Educated People	The total share of highly educated people	%	Municipality
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	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	Gas Consumption Rental Houses	Average Gas Consumption of Rental Houses	m3	District
Ecology	Energy	Solar Energy	Average installed capacity of solar (PV) panels per address (kW peak)	Installed capacity/dwelling	Neighborhood
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	kg/inhabitant	Municipality

Capital	Stock	Indicator	Description	Unit	Level
	Waste		inhabitant		
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	Municipality
Economic	Future constancy	New housing units prognosis 2017-2021	prognosis of extra income due to new rental houses realized	%	Housing association
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	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
Internal Business	Ecology	Total costs residential improvements	Total costs of residential improvements per rental unit (energy measures and accessibility for elderly people)	€/rental unit	Housing association
Internal Business	Economic	Interest coverage ratio	Interest coverage ratio is based on net cash flow , national government contributions, corporate income tax, levies special project	ratio	Housing association

Sustainability Framework for a 2018 BNG Bank Social Bond for Dutch Housing Associations

Capital	Stock	Indicator	Description	Unit	Level
			support and sanitation, divided by payed interest minus interest collected		
Internal Business	Economic	personnel costs by rental revenues (DEAB)	loans and salary divided by the number of rental units (DEAB)	%	Housing association
Internal Business	Governance	Total allocations within income limits 2013-2015	Two-yearly average of the percentage of allocations within the income limits of the Wht	%	Housing association
Internal Business	Governance	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
Internal Business	Governance	Total risk	Total risk is assessed by an external supervisor and concerns the combination of market risk, macro-economic risk and operational risk, which are independent risks. The squared risks are added and the root is drawn to calculate the total risk in a figure. To this value the corporate tax obligations are added.	%	Housing association
Internal Business	Social	Costs of complaints services	Costs of handling complaints from residents and users	ratio	Housing association
Internal Business	Social	Tenants' rating of social housing bond	Tenants' rating of social housing bond (1-10)	scale (1-10)	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	Safety and Security	Property Crimes	The number of arrested suspects for property related crimes per 10,000 inhabitants	crimes/10,000 inhabitants	Municipality
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	Municipality
Socio-cultural	Safety and Security	Vandalism	The number of arrested suspects for vandalism per 10,000 inhabitants	crimes/10,000 inhabitants	Municipality
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	Municipality
Socio-cultural	Social cohesion	Expenses on quality	Expenses on quality of the living environment	€/rental unit	Housing

Capital	Stock	Indicator	Description	Unit	Level
cultural		of life	(social and physical activities) per rental unit		association
Socio-cultural	Value for money	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	Value for money	Rental price in percentage of the assessed value	Rental price in percentage of the assessed value	%	Housing association
Socio-cultural	Value for money	Assessment of dwelling quality	Index between the assessed dwelling quality and the reference value of the Dutch national average	index	Housing association

Annex 2: 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	12881.02	6569.321	1610.128	0
Nox Emissions	10000	30.1777	21.12439	16.59773	0
Particular matter (PM2.5)	1000	1.659314	1.045368	0.796471	0
Concentration Nox	100	40	25	10	0
Concentration Particular Matter (PM2.5)	100	25	20	10	0
Light Intensity	2000	10	5	2.5	0
Noise Intensity	8	4	3	2	1
Earthquakes	50	1	0.3	0.1	0
Floods	2500	60	10	1	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	30	45	60	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	5	2.6	1	0
Poor Households	100	12	6	3	0
Performing Arts & Cinema's	100	10	4	2.5	0
Distance to Museum	100	6	3	2	0
Insufficient Exercise	100	40	35	30	0
Risky Behavior	100	31	27	23	0
Distance to General Practitioner	100	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	10	1.5	1	0.5	0
Satisfaction with Living Environment	0	80	85	90	100
Distance to Elementary School	10	1.5	1	0.5	0
Distance to Secondary Education	50	7.5	3.5	1.5	0
Early School Leavers	10	1.75	1.25	0.75	0
Education Level	100	40	35	30	0

Indicator	Norm ranges				
	Minimum score	Red - Orange range	Orange - Green range	Green - Gold range	Maximum score
Unemployment	100	6	3	1	0
Active Laborforce	0	55	60	65	100
Vacant Retail Space	100	0.1	0.065	0.03	0
Gross Regional Product per Capita	0	85	100	115	200
Acces to Train Station	100	10	6	2	0
Acces to Main Roads	100	2.5	2	1.5	0
Share Highly Educated People	0	15	20	30	100
Electricity Consumption Rental Houses	5000	2500	2260	2100	0
Energy label index	4	2	1.6	1.2	0
CO2 emission of energy ussage	50	30	20	10	0
Gas Consumption Rental Houses	5000	1200	1000	800	0
Solar Energy	0	145	452.2222	2058.889	12865.56
Total household waste	2000	550	450	350	0
Household general Waste	700	275	225	175	0
Organic Waste	0	50	100	150	300
Packaging Glass	0	15	20	25	150
Paper and Cardboard Waste	0	40	70	100	200
Plastics	0	5	10	20	50
Average amount of points in housing valuation system	6	4	3	2	1
Loan to value	5	0.8	0.6	0.4	0
Standardized corporation value	0	35000	50000	65000	20000000
Standardized corporation value by rental price	0	5	8	11	15
Electric Vehicle Charging Station	0	5	10	100	5000
New housing units prognosis 2016-2020	0	0.05	7.5	15	100
New housing units realized	0	0.01	1.5	3	100
Remaining lifespan of property	0	20	23.5	27	50
Loss of rental income due to market conditions	10	2.5	1	0.2	0
Loss of rental income due to vacancy	25	1.5	0.5	0.01	0
Rent arrears	20	2	1	0.5	0
Total costs energy measures	0	100	300	600	100000
Interest coverage ratio	-5	1.4	3	5	50
personell costs devided by rental income (DEAB)	0	6	8	15	50
Total allocations within income limits 2013-2015	0	60	80	90	100
Comformity of dwellings and target group	0	0.8	0.9	1	1.5

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Indicator	Norm ranges				
	Minimum score	Red - Orange range	Orange - Green range	Green - Gold range	Maximum score
Total risk	40	18	15	12	0
Costs of complaints services	5000	800	300	100	0
Tenants' rating of social housing bond	0	7	7.5	8	10
Physically highly accessible dwellings	0	10	30	50	100
Share of affordable dwellings	0	75	80	90	100
Property Crimes	1000	50	25	10	0
Road Safety	100	15	10	5	0
Vandalism	100	8	6	4	0
Violent Crimes	100	6	4	3	0
Expenses on quality of life	0	20	50	126.25	500
Rent price as a percentage of the maximum permitted rent	110	75	65	55	1
Rental price in percentage of the assessed value	15	6	4.5	3	0
Assessment of dwelling quality	0	95	100	105	200

Annex 3: Sustainability scores of 331 housing associations (alphabetical order)

Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L0358	Almelose Woningstichting Beter Wonen	46.2	50.6	48.4
L1128	Baston Wonen	54.4	47.9	51.1
L0643	Bouwvereniging Huis en Erf	55.1	54.6	54.8
L0338	Bouwvereniging Huis en Hof	42.9	42.1	42.5
L0420	Bouwvereniging 'Huis en Hof' voor de gemeente Nijmegen	49.4	48.0	48.7
L0993	Bouwvereniging Onze Woning	48.8	43.2	46.0
L0923	Bouwvereniging Woningbelang	56.0	50.7	53.4
L0630	Brederode Wonen	52.8	47.6	50.2
L1501	Charlotte Elisabeth van Beuningen Stichting	62.2	49.9	56.0
L1709	Christelijke Woningstichting De Goede Woning	60.0	53.4	56.7
L0380	Christelijke Woningstichting Patrimonium	55.1	47.8	51.4
L0449	Christelijke Woongroep Marenland	42.9	50.7	46.8
L1712	Christelijke Woonstichting Patrimonium	59.1	57.5	58.3
L0979	de Woningstichting	57.7	52.5	55.1
L1680	de Woonmensen/SJA	49.5	50.5	50.0
L2004	DUWO	53.1	54.5	53.8
L0506	FidesWonen	50.6	47.0	48.8
L1573	Groen Wonen Vlist	49.5	51.9	50.7
L0732	HW Wonen	48.3	54.4	51.4
L1005	Laurentius	50.6	43.4	47.0
L0089	l'escaut woonservice	48.1	46.3	47.2
L0986	Maaskant Wonen	50.4	53.1	51.7
L1804	Mercatus	51.6	51.7	51.6
L2058	Mitros	54.1	54.9	54.5
L2092	Noordwijkse Woningstichting	58.1	49.2	53.6
L1691	Ons Huis' Woningstichting	49.7	52.0	50.9
L0734	Patrimonium woonservice	57.8	50.2	54.0
L0640	Pre Wonen	52.8	43.7	48.2
L0317	Provides	61.6	53.0	57.3
L0543	R&B Wonen	51.5	50.8	51.2
L0147	R. K. Woningbouwvereniging Zeist	56.1	51.1	53.6
L1459	R.K. Woningbouwstichting 'De Goede Woning'	52.0	45.0	48.5
L0173	R.K. Woningstichting Ons Huis	51.9	48.2	50.1

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Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L1901	Regionale Woningbouwvereniging Samenwerking	52.5	49.7	51.1
L0694	Rentree	49.8	58.0	53.9
L2056	Ressort Wonen	48.8	47.9	48.4
L1017	Site Woondiensten	50.5	50.2	50.4
L0013	Stichting Zayaz	49.7	50.2	50.0
L1215	stichting 3B-Wonen	52.8	47.2	50.0
L1793	Stichting Acantus	43.3	46.8	45.1
L1638	Stichting Accolade	48.2	51.3	49.8
L0574	Stichting Actium	42.9	50.4	46.7
L0495	Stichting AlleeWonen	51.3	49.1	50.2
L0241	Stichting Antares Woonservice	44.6	52.6	48.6
L0410	Stichting Arcade mensen en wonen	52.3	50.1	51.2
L0886	Stichting Area	56.9	51.5	54.2
L0858	Stichting Beter Wonen	58.4	57.2	57.8
L0041	Stichting Bo-Ex '91	57.2	53.3	55.3
L0176	Stichting BrabantWonen	48.8	51.8	50.3
L0944	Stichting Casade	48.4	54.7	51.5
L0939	Stichting Christelijke Woningcorporatie	46.4	46.0	46.2
L0418	Stichting Clavis	41.0	46.3	43.6
L1912	Stichting de Alliantie	52.5	50.8	51.6
L0686	Stichting De Delthe	50.1	44.0	47.0
L0446	Stichting De Goede Woning	49.5	53.7	51.6
L0385	Stichting De Huismeesters	55.1	53.4	54.2
L1896	Stichting De Leeuw van Putten	42.9	39.5	41.2
L0876	Stichting De Woonschakel Westfriesland	50.9	53.6	52.2
L0029	Stichting deltaWonen	52.2	54.6	53.4
L0641	Stichting Destion	53.1	50.8	51.9
L0045	Stichting Domesta	43.9	49.3	46.6
L0383	Stichting Dudok Wonen	58.3	51.3	54.8
L1436	Stichting Dunavie	54.9	53.1	54.0
L0568	Stichting Eelder Woningbouw	49.5	56.7	53.1
L0936	Stichting Eemland Wonen	59.8	53.2	56.5
L0231	Stichting Elan Wonen	53.5	51.2	52.3
L0553	Stichting Elkien	43.2	50.6	46.9
L1745	Stichting Goed Wonen	56.2	54.2	55.2
L0766	Stichting GroenWest	52.2	50.0	51.1

Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L1666	Stichting Habion	47.8	49.3	48.6
L1985	Stichting Harmonisch Wonen	45.1	47.7	46.4
L0392	Stichting Havensteder	47.8	40.4	44.1
L1836	Stichting Heuvelrug Wonen	61.8	47.4	54.6
L1986	Stichting Huisvesting Bejaarden Oosterhout	51.4	51.4	51.4
L1933	Stichting Huisvesting Vredewold	49.2	52.1	50.6
L1968	Stichting Idealis	57.7	60.0	58.9
L1239	Stichting IJsseldal Wonen	57.7	55.3	56.5
L0019	Stichting Intermaris	50.6	48.0	49.3
L1964	Stichting Jongeren Huisvesting Twente	51.3	51.2	51.2
L0343	Stichting KleurrijkWonen	48.9	52.6	50.7
L2066	Stichting Laurens Wonen	48.2	42.2	45.2
L1542	Stichting Lefier	44.3	48.3	46.3
L1586	Stichting Lek en Waard Wonen	50.5	48.3	49.4
L0036	Stichting Lyaemer Wonen	48.8	51.3	50.1
L1876	Stichting Maasdelta Groep	44.3	47.1	45.7
L0308	Stichting MeerWonen	54.6	50.7	52.6
L0178	Stichting Mijande Wonen	52.6	52.8	52.7
L1817	Stichting Mooiland	46.3	49.4	47.8
L0232	Stichting Mozaiek Wonen	51.2	49.7	50.5
L1109	Stichting Nijestee	55.1	48.7	51.9
L0968	Stichting Omnia Wonen	48.0	55.3	51.6
L0582	Stichting Omnivera	47.6	49.3	48.5
L1861	Stichting Oost Flevoland Woondiensten	52.5	55.6	54.1
L1670	Stichting Oosterpoort Wooncombinatie	50.6	56.4	53.5
L1926	Stichting Ouderenhuisvesting Rotterdam	46.0	47.5	46.7
L0059	Stichting Parteon	47.5	50.0	48.8
L1811	Stichting PeelrandWonen	55.1	51.7	53.4
L1821	Stichting Plavei	50.7	50.6	50.7
L1549	Stichting Poort 6	51.5	44.5	48.0
L0117	Stichting Portaal	50.6	48.8	49.7
L0540	Stichting QuaWonen	52.5	52.9	52.7
L2068	Stichting RHENAM WONEN	56.1	42.9	49.5
L0439	Stichting Rhiant	55.1	48.8	51.9
L1524	Stichting Rijnhart Wonen	53.5	53.9	53.7
L1122	Stichting Rijswijk Wonen	53.9	52.1	53.0

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Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L0590	Stichting Rndom Wonen	56.1	48.8	52.4
L0527	Stichting Sint Trudo	54.4	44.0	49.2
L1944	stichting SSHN	49.4	56.4	52.9
L0124	Stichting Stadgenoot	52.6	49.2	50.9
L1785	Stichting Stadlander	47.8	50.3	49.0
L1729	Stichting Stadsherstel Amsterdam	52.5	49.9	51.2
L1768	Stichting Staedion	47.6	44.7	46.2
L0237	Stichting Standvast Wonen	47.7	51.7	49.7
L1675	Stichting Steelande wonen	52.7	42.2	47.5
L1909	Stichting Studenten Huisvesting	55.8	56.4	56.1
L0867	Stichting Tablis Wonen	53.7	43.7	48.7
L1479	Stichting Talis	50.5	57.2	53.8
L0497	Stichting TBV	47.2	58.5	52.8
L1781	Stichting Thuisvester	47.9	50.3	49.1
L1792	Stichting Thus Wonen	48.4	49.9	49.1
L0927	Stichting Trifolium Woondiensten Boskoop	51.5	48.0	49.7
L0267	Stichting Trivire	49.6	51.0	50.3
L0688	Stichting Uithuizer Woningbouw	50.1	47.2	48.6
L0369	Stichting UWoon	52.0	51.8	51.9
L0510	Stichting Velison Wonen	48.4	46.8	47.6
L1924	Stichting Vestia	46.9	45.0	45.9
L1093	Stichting Vidomes	51.9	43.0	47.5
L0658	Stichting Vivare	48.3	47.5	47.9
L0347	Stichting Viverion	56.4	50.8	53.6
L0144	Stichting Volksbelang Vianen	54.7	47.8	51.3
L0065	Stichting Volkshuisvesting Arnhem	48.9	46.9	47.9
L0033	Stichting voorheen De Bouwvereniging	49.9	55.2	52.6
L0221	Stichting Waardwonen	51.7	55.8	53.8
L1910	Stichting WBO Wonen	56.4	50.8	53.6
L0225	Stichting Weller Wonen	47.3	49.7	48.5
L1753	Stichting Wetland Wonen Groep	51.1	48.8	50.0
L1766	Stichting woCom	48.1	46.5	47.3
L0077	Stichting Wold en Waard	48.7	48.2	48.4
L0765	Stichting Wonen Delden	55.1	53.5	54.3
L1100	Stichting Wonen Midden-Delfland	61.8	54.2	58.0
L0003	Stichting Wonen Noordwest Friesland	45.2	53.8	49.5

Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L1864	Stichting Wonen Vierlingsbeek	50.4	52.3	51.4
L0354	Stichting Wonen Wateringen	54.1	46.7	50.4
L2044	Stichting Wonen Wierden-Enter	57.4	53.6	55.5
L1622	Stichting Wonen Wittem	50.8	48.2	49.5
L0081	Stichting Wonen Zuid	46.3	49.3	47.8
L0676	Stichting Wonen Zuidwest Friesland	48.2	55.8	52.0
L1911	Stichting WonenBreborg	47.2	51.5	49.3
L2073	Stichting Woningbedrijf Velsen	48.4	45.1	46.7
L2104	Stichting Woningbedrijf Warnsveld	55.6	50.3	53.0
L1881	Stichting Woningbeheer Betuwe	50.8	50.0	50.4
L1468	Stichting Woningbeheer Born-Grevenbicht	49.0	51.6	50.3
L1525	Stichting Woningbeheer De Vooruitgang	57.2	51.3	54.2
L0056	Stichting Woningbouw Achtkarspelen	50.4	48.0	49.2
L1061	Stichting Woningcorporatie Plicht Getrouw	53.3	44.9	49.1
L1748	Stichting Woningcorporatie WoonGenoot	49.4	57.1	53.2
L1875	Stichting Woningcorporaties Het Gooi en Omstreken	55.1	53.5	54.3
L0898	Stichting Wonion	52.1	51.6	51.8
L2110	Stichting Woon Compas	48.8	45.0	46.9
L1418	Stichting Woonbedrijf ieder1	52.2	52.9	52.5
L1464	Stichting Woonbedrijf SWS.Hhvl	54.2	52.8	53.5
L0666	Stichting Woonborg	50.2	52.3	51.3
L0665	Stichting Woonbron	47.4	45.5	46.4
L0478	Stichting Wooncompagnie	50.7	47.1	48.9
L0363	Stichting Woonconcept	47.4	55.2	51.3
L2084	Stichting Woondiensten Aarwoude	49.9	47.6	48.8
L1737	Stichting Woondiensten Enkhuizen	56.7	46.0	51.4
L0565	Stichting WoonForte	51.5	49.6	50.5
L1839	Stichting WoonGoed 2-Duizend	46.2	53.7	49.9
L0943	Stichting Woongoed Middelburg	54.7	51.8	53.2
L1569	Stichting Woongoed Zeeuws-Vlaanderen	43.0	43.0	43.0
L1713	Stichting Woongoed Zeist	56.2	42.3	49.2
L0673	Stichting Wooninvest	52.9	46.7	49.8
L1921	Stichting Woonkracht10	50.2	48.3	49.2
L1906	Stichting Woonkwartier	46.0	48.3	47.1
L0931	Stichting Woonlinie	47.9	53.6	50.7
L1533	Stichting WOONopMAAT	52.1	49.4	50.8

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Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L2014	Stichting Woonpalet Zeewolde	54.3	52.5	53.4
L1647	Stichting Woonpartners	48.8	49.9	49.4
L2085	Stichting Woonplus Schiedam	49.3	41.0	45.2
L0571	Stichting Woonpunt	45.9	42.4	44.1
L1877	Stichting Woonservice Drenthe	43.9	50.2	47.1
L1409	Stichting Woonservice IJsselland	51.6	53.3	52.4
L0271	Stichting Woonservice Meander	48.5	47.5	48.0
L0079	Stichting Woonstad Rotterdam	48.8	44.1	46.5
L2051	Stichting Woonstede	52.9	52.6	52.7
L1560	Stichting Woontij	49.5	51.9	50.7
L1763	Stichting Woonveste	49.9	51.4	50.6
L0689	Stichting Woonvisie	50.3	49.1	49.7
L1182	Stichting Woonwaard Noord-Kennemerland	50.6	52.0	51.3
L1471	Stichting Woonwijze	60.9	54.8	57.9
L1646	Stichting Woonzorg Nederland	45.7	44.7	45.2
L0202	Stichting Wormerwonen	50.4	49.0	49.7
L2070	Stichting Ymere	52.5	48.0	50.3
L0278	Stichting Zaandams Volkshuisvesting	47.5	45.7	46.6
L0269	Stichting ZO Wonen	48.3	46.8	47.5
L1913	TIWOS Tilburgse Woonstichting	47.2	50.7	48.9
L1543	Vallei Wonen	62.3	53.1	57.7
L0705	Veenendaalse Woningstichting	57.9	53.0	55.4
L0279	Vereniging tot Verbetering der Volkshuisvesting Rijsoord	50.4	42.9	46.7
L0428	Vereniging tot Verbetering der Volkshuisvesting Vooruitgang	50.4	48.4	49.4
L1716	Viveste	64.2	49.4	56.8
L0272	Wassenaarsche Bouwstichting	56.9	48.8	52.9
L2072	Waterweg Wonen	49.4	48.6	49.0
L1064	Welbions	52.1	48.4	50.2
L1697	Wonen Limburg	45.6	50.7	48.2
L1588	Woningbouwstichting Cothen	60.5	46.2	53.3
L1357	Woningbouwstichting De Gemeenschap	49.4	55.0	52.2
L1498	Woningbouwstichting Kamerik	55.4	47.1	51.2
L1532	Woningbouwstichting 'Samenwerking'	49.5	46.1	47.8
L0794	Woningbouwvereniging Anna Paulowna	48.0	47.1	47.6
L0379	Woningbouwvereniging Arnhemuiden	54.9	45.8	50.3
L1226	Woningbouwvereniging Bergopwaarts	51.8	50.5	51.1

Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L1482	Woningbouwvereniging Beter Wonen	50.6	49.3	50.0
L1700	Woningbouwvereniging Beter Wonen	50.6	49.3	50.0
L1528	Woningbouwvereniging Beter Wonen	50.5	47.3	48.9
L1559	Woningbouwvereniging Beter Wonen	49.5	46.9	48.2
L1454	Woningbouwvereniging 'Beter Wonen'	48.0	42.6	45.3
L0280	Woningbouwvereniging Bolnes	50.4	47.1	48.8
L1847	Woningbouwvereniging Compaen	50.0	45.0	47.5
L0846	Woningbouwvereniging De Goede Woning - Neerijnen	43.8	46.2	45.0
L1034	Woningbouwvereniging De Goede Woning Driemond	52.5	46.8	49.6
L0295	Woningbouwvereniging De Sleutels van Zijl en Vliet	53.0	49.1	51.1
L2038	Woningbouwvereniging Gelderland	48.9	50.1	49.5
L1550	Woningbouwvereniging Goed Wonen	55.6	49.6	52.6
L0764	Woningbouwvereniging Habeko Wonen	51.5	50.1	50.8
L0817	Woningbouwvereniging Heerjansdam	50.0	49.7	49.9
L0992	Woningbouwvereniging Helpt Elkander	56.6	49.2	52.9
L1640	Woningbouwvereniging Hoek van Holland	48.8	53.6	51.2
L0305	Woningbouwvereniging Langedijk	56.7	53.0	54.8
L0533	Woningbouwvereniging Laren	60.4	42.0	51.2
L1866	Woningbouwvereniging Lopik	55.6	51.7	53.7
L1395	Woningbouwvereniging Maarn	61.8	50.9	56.3
L0757	Woningbouwvereniging Oostzaanse Volkshuisvesting	58.9	43.1	51.0
L1892	Woningbouwvereniging Oudewater	54.7	56.2	55.5
L0248	Woningbouwvereniging Patrimonium	51.7	43.8	47.8
L0629	Woningbouwvereniging Poortugaal	53.2	47.7	50.5
L1760	Woningbouwvereniging Reeuwijk	50.6	52.2	51.4
L0692	Woningbouwvereniging Rosehaghe	52.9	45.1	49.0
L0941	Woningbouwvereniging Samenwerking Slikkerveer	50.4	42.4	46.4
L1164	Woningbouwvereniging St. Willibrordus	61.0	45.5	53.3
L0339	Woningbouwvereniging 't Goede Woonhuys	56.6	36.6	46.6
L0667	Woningbouwvereniging van Erfgooiers te Laren N.H.	60.4	43.3	51.9
L1585	Woningbouwvereniging Vecht en Omstreken	54.1	44.1	49.1
L0249	Woningbouwvereniging Volksbelang	48.8	49.4	49.1
L2082	Woningstichting Barneveld	57.4	50.6	54.0
L1627	Woningstichting Berg en Terblijt	52.4	43.8	48.1
L0762	Woningstichting Beter Wonen Vechtdal	52.8	58.1	55.4
L1899	Woningstichting De Volmacht	45.6	41.9	43.7

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Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L0841	Woningstichting De Voorzorg	47.8	44.5	46.1
L1842	Woningstichting De Woonplaats	51.0	47.6	49.3
L1794	Woningstichting de Zaligheden	52.9	50.3	51.6
L1399	Woningstichting Den Helder	49.9	41.3	45.6
L1426	Woningstichting Domijn	51.2	47.5	49.3
L0669	Woningstichting Domus	49.8	51.5	50.6
L1306	Woningstichting Eendracht	48.8	44.6	46.7
L0108	Woningstichting Eigen Haard	51.8	49.3	50.6
L1891	Woningstichting GoedeStede	54.3	48.5	51.4
L1598	Woningstichting Gouderak	49.5	40.4	45.0
L0259	Woningstichting Gulpen	50.8	48.7	49.8
L0425	Woningstichting Haag Wonen	47.6	39.7	43.7
L0228	Woningstichting HEEMwonen	50.5	50.3	50.4
L1413	Woningstichting Hellendoorn	53.8	53.5	53.6
L0883	Woningstichting Het Grootslag	48.8	52.5	50.7
L0254	Woningstichting Heteren	53.7	52.5	53.1
L0583	Woningstichting Kennemer Wonen	53.9	53.5	53.7
L1852	Woningstichting Kleine Meerij	50.1	45.1	47.6
L0758	Woningstichting Kockengen	54.1	38.8	46.4
L1878	Woningstichting Leusden	54.4	58.0	56.2
L1835	Woningstichting Maasdriel	50.2	51.9	51.0
L1038	Woningstichting Maasvallei Maastricht	48.2	51.7	49.9
L0636	Woningstichting Meerssen	51.3	50.0	50.7
L0386	Woningstichting Naarden	61.6	45.3	53.4
L2083	Woningstichting Nieuwkoop	51.2	45.3	48.2
L1693	Woningstichting Nijkerk	55.7	58.0	56.9
L1247	Woningstichting Obbicht en Papenhoven	49.0	58.4	53.7
L0682	Woningstichting Ons Doel	52.6	46.8	49.7
L0008	Woningstichting Openbaar Belang	51.7	53.0	52.4
L1865	Woningstichting Putten	59.6	57.2	58.4
L0017	Woningstichting Rochdale	52.3	44.4	48.3
L1506	Woningstichting SallandWonen	54.3	54.5	54.4
L0371	Woningstichting Samenwerking Vlaardingen	49.4	44.7	47.1
L0005	Woningstichting Servatius	48.2	49.2	48.7
L0528	Woningstichting Simpelveld	47.4	45.6	46.5
L0264	Woningstichting Spaubeek	53.5	49.8	51.6

Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L0678	Woningstichting St. Antonius van Padua	55.0	51.4	53.2
L1689	Woningstichting St. Joseph	51.5	48.7	50.1
L0921	Woningstichting St. Joseph	46.2	45.1	45.6
L0093	Woningstichting SWZ	51.7	55.8	53.8
L1678	Woningstichting Tubbergen	54.4	51.0	52.7
L0082	Woningstichting Vaals	50.0	56.2	53.1
L0063	Woningstichting Van Alckmaer voor Wonen	51.5	49.4	50.5
L0782	Woningstichting Veluwonen	51.8	56.7	54.2
L0238	Woningstichting Voerendaal	54.3	59.4	56.9
L0672	Woningstichting Volksbelang	60.5	44.6	52.6
L0165	Woningstichting Weststellingwerf	51.2	51.0	51.1
L0366	Woningstichting Wierden en Borgen	47.3	47.6	47.5
L1850	Woningstichting Woensdrecht	52.1	50.2	51.2
L1802	Woningstichting Woonvizier	48.1	53.0	50.6
L0274	Woningstichting WoonWENZ	45.3	52.2	48.8
L1579	Woningstichting Wuta	54.1	42.5	48.3
L1837	Woningvereniging Nederweert	51.4	49.9	50.7
L0835	Wooncorporatie ProWonen	54.4	53.1	53.7
L1663	WoonFriesland	42.2	48.8	45.5
L1544	Woongoed Goeree-Overflakkee	50.6	50.4	50.5
L1519	Wooninc.	53.1	47.6	50.4
L2114	Woonpartners Midden-Holland	52.4	53.1	52.8
L1888	Woonstichting Centrada	45.1	45.4	45.2
L1825	Woonstichting De Kernen	46.6	52.9	49.8
L2103	Woonstichting De Key	52.7	50.7	51.7
L2099	Woonstichting De Marken	49.8	54.3	52.0
L2090	Woonstichting De Zes Kernen	42.9	48.8	45.9
L2052	Woonstichting Etten-Leur	54.1	50.6	52.3
L1855	Woonstichting Gendt	53.5	51.7	52.6
L0740	Woonstichting Groninger Huis	41.9	48.7	45.3
L0579	Woonstichting Hulst	49.0	54.0	51.5
L0837	Woonstichting Jutphaas	53.1	50.3	51.7
L1704	Woonstichting Land van Altena	49.2	47.8	48.5
L1788	Woonstichting Leystromen	49.0	46.0	47.5
L0602	Woonstichting SSW	56.2	47.2	51.7
L1236	Woonstichting St. Joseph	57.7	50.7	54.2

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Code	Name of Association	External sustainability performance	Internal sustainability performance	Total Sustainability score
L0157	Woonstichting Stek	51.0	55.2	53.1
L0928	Woonstichting 't Heem	46.7	56.8	51.8
L0151	Woonstichting 'thuis	55.3	55.5	55.4
L0309	Woonstichting Triada	50.7	53.6	52.2
L1893	Woonstichting Valburg	53.7	55.3	54.5
L0661	Woonstichting VechtHorst	56.7	58.6	57.6
L0333	Woonstichting Vooruitgang	56.3	52.2	54.2
L0331	Woonstichting Vryleve	47.9	53.4	50.6
L1857	Wovesto	56.2	55.7	55.9
L1581	Zeeuwland	47.9	47.3	47.6

Annex 4: List of 90 elected associations for a 2018 Social housing bond (ranked according to Total sustainability score)

#	Association name		Quadrant	External Sustainability Performance	Internal Sustainability Performance	Total sustainability score
1	L1968	Stichting Idealis	4	57.7	60.0	58.9
2	L1865	Woningstichting Putten	3	59.6	57.2	58.4
3	L1712	Christelijke Woonstichting Patrimonium	3	59.1	57.5	58.3
4	L1100	Stichting Wonen Midden-Delfland	3	61.8	54.2	58.0
5	L1471	Stichting Woonwijze	3	60.9	54.8	57.9
6	L0858	Stichting Beter Wonen	4	58.4	57.2	57.8
7	L1543	Vallei Wonen	3	62.3	53.1	57.7
8	L0661	Woonstichting VechtHorst	3	56.7	58.6	57.6
9	L0317	Provides	2	61.6	53.0	57.3
10	L0238	Woningstichting Voerendaal	3	54.3	59.4	56.9
11	L1693	Woningstichting Nijkerk	3	55.7	58.0	56.9
12	L1716	Viveste	3	64.2	49.4	56.8
13	L1709	Christelijke Woningstichting De Goede Woning	2	60.0	53.4	56.7
14	L1239	Stichting IJsseldal Wonen	3	57.7	55.3	56.5
15	L0936	Stichting Eemland Wonen	2	59.8	53.2	56.5
16	L1395	Woningbouwvereniging Maarn	3	61.8	50.9	56.3
17	L1878	Woningstichting Leusden	2	54.4	58.0	56.2
18	L1909	Stichting Studenten Huisvesting	4	55.8	56.4	56.1
19	L1501	Charlotte Elisabeth van Beuningen Stichting	3	62.2	49.9	56.0
20	L1857	Wovesto	3	56.2	55.7	55.9
21	L2044	Stichting Wonen Wierden-Enter	2	57.4	53.6	55.5
22	L1892	Woningbouwvereniging Oudewater	2	54.7	56.2	55.5
23	L0762	Woningstichting Beter Wonen Vechtdal	2	52.8	58.1	55.4
24	L0705	Veenendaalse Woningstichting	1	57.9	53.0	55.4
25	L0151	Woonstichting 'thuis	2	55.3	55.5	55.4
26	L0041	Stichting Bo-Ex '91	1	57.2	53.3	55.3
27	L1745	Stichting Goed Wonen	2	56.2	54.2	55.2
28	L0979	de Woningstichting	1	57.7	52.5	55.1

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#	Association name		Quadrant	External Sustainability Performance	Internal Sustainability Performance	Total sustainability score
29	L0643	Bouwwerening Huis en Erf	2	55.1	54.6	54.8
30	L0305	Woningbouwvereniging Langedijk	3	56.7	53.0	54.8
31	L0383	Stichting Dudok Wonen	1	58.3	51.3	54.8
32	L1836	Stichting Heuvelrug Wonen	3	61.8	47.4	54.6
33	L1893	Woonstichting Valburg	2	53.7	55.3	54.5
34	L2058	Mitros	1	54.1	54.9	54.5
35	L1506	Woningstichting SallandWonen	3	54.3	54.5	54.4
36	L1875	Stichting Woningcorporaties Het Gooi en Omstreken	2	55.1	53.5	54.3
37	L0765	Stichting Wonen Delden	3	55.1	53.5	54.3
38	L0333	Woonstichting Vooruitgang	3	56.3	52.2	54.2
39	L1525	Stichting Woningbeheer De Vooruitgang	2	57.2	51.3	54.2
40	L0782	Woningstichting Veluwonen	2	51.8	56.7	54.2
41	L0385	Stichting De Huismeesters	1	55.1	53.4	54.2
42	L0886	Stichting Area	3	56.9	51.5	54.2
43	L1236	Woonstichting St. Joseph	3	57.7	50.7	54.2
44	L1861	Stichting Oost Flevoland Woondiensten	1	52.5	55.6	54.1
45	L1436	Stichting Dunavie	2	54.9	53.1	54.0
46	L2082	Woningstichting Barneveld	3	57.4	50.6	54.0
47	L0734	Patrimonium woonservice	1	57.8	50.2	54.0
48	L0694	Rentree	1	49.8	58.0	53.9
49	L1479	Stichting Talis	1	50.5	57.2	53.8
50	L2004	DUWO	4	53.1	54.5	53.8
51	L0093	Woningstichting SWZ	1	51.7	55.8	53.8
52	L0835	Wooncorporatie ProWonen	2	54.4	53.1	53.7
53	L1524	Stichting Rijnhart Wonen	2	53.5	53.9	53.7
54	L0583	Woningstichting Kennemer Wonen	2	53.9	53.5	53.7
55	L1866	Woningbouwvereniging Lopik	2	55.6	51.7	53.7
56	L1247	Woningstichting Obbicht en Papenhoven	1	49.0	58.4	53.7
57	L1910	Stichting WBO Wonen	4	56.4	50.8	53.6
58	L1413	Woningstichting Hellendoorn	3	53.8	53.5	53.6
59	L2092	Noordwijkse Woningstichting	3	58.1	49.2	53.6
60	L0347	Stichting Viverion	2	56.4	50.8	53.6

#	Association name		Quadrant	External Sustainability Performance	Internal Sustainability Performance	Total sustainability score
61	L0147	R. K. Woningbouwvereniging Zeist	4	56.1	51.1	53.6
62	L1464	Stichting Woonbedrijf SWS.Hhvl	1	54.2	52.8	53.5
63	L0386	Woningstichting Naarden	2	61.6	45.3	53.4
64	L0029	Stichting deltaWonen	1	52.2	54.6	53.4
65	L0923	Bouwwerening Woningbelang	2	56.0	50.7	53.4
66	L1164	Woningbouwvereniging St. Willibrordus	2	61.0	45.5	53.3
67	L0254	Woningstichting Heteren	2	53.7	52.5	53.1
68	L0082	Woningstichting Vaals	1	50.0	56.2	53.1
69	L1122	Stichting Rijswijk Wonen	1	53.9	52.1	53.0
70	L2104	Stichting Woningbedrijf Warnsveld	4	55.6	50.3	53.0
71	L0497	Stichting TBV	1	47.2	58.5	52.8
72	L2114	Woonpartners Midden-Holland	2	52.4	53.1	52.8
73	L2051	Stichting Woonstede	1	52.9	52.6	52.7
74	L0540	Stichting QuaWonen	2	52.5	52.9	52.7
75	L0033	Stichting voorheen De Bouwwerening	1	49.9	55.2	52.6
76	L0590	Stichting Rendom Wonen	3	56.1	48.8	52.4
77	L2099	Woonstichting De Marken	4	49.8	54.3	52.0
78	L0676	Stichting Wonen Zuidwest Friesland	1	48.2	55.8	52.0
79	L0439	Stichting Rhiant	3	55.1	48.8	51.9
80	L0641	Stichting Destion	3	53.1	50.8	51.9
81	L0837	Woonstichting Jutphaas	2	53.1	50.3	51.7
82	L1986	Stichting Huisvesting Bejaarden Oosterhout	1	51.4	51.4	51.4
83	L0165	Woningstichting Weststellingwerf	4	51.2	51.0	51.1
84	L0565	Stichting WoonForte	2	51.5	49.6	50.5
85	L1881	Stichting Woningbeheer Betuwe	2	50.8	50.0	50.4
86	L0267	Stichting Trivire	1	49.6	51.0	50.3
87	L1482	Woningbouwvereniging Beter Wonen	2	50.6	49.3	50.0
88	L1700	Woningbouwvereniging Beter Wonen	2	50.6	49.3	50.0
89	L0003	Stichting Wonen Noordwest Friesland	2	45.2	53.8	49.5
90	L0056	Stichting Woningbouw Achtkarspelen	1	50.4	48.0	49.2