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## INTRODUCTION BY THE BOARD OF MANAGEMENT — ARC FUND

It is our pleasure to provide you with the Sustainability report 2019 for the Amvest Residential Core Fund (ARC Fund). This report provides an overview of our sustainability policies and performance. With this report, we aim to satisfy our stakeholders' need for sustainability information with respect to our company.

At Amvest Investment Management, we truly care about a sustainable and vital living environment. We develop and exploit real estate to fully satisfy the expectations of our stakeholders. By doing so, we provide our tenants with attractive, suitable, sustainable and comfortable houses, while simultaneously providing our investors an optimal and appropriate return on investment.

#### **ESG**

In 2017, the ARC Fund set out its Environmental, Social and Governance (ESG) program consisting of 14 material themes, based on a materiality survey conducted among the stakeholders of the ARC Fund. As part of this program, since 2018, most single-family homes have been equipped with solar panels. In addition, the ARC Fund strives to increase its insight in energy consumption of its portfolio. This will result in the implementation of sustainability platform CWING in 2020, which will be able to monitor energy consumption and CO2-emissions whilst providing the fund with long-term targets for all individual assets to adhere to the goals set in the Paris Climate Agreement.

The ARC Fund participates in the Global Real Estate Sustainability Benchmark (GRESB) survey, which assesses the sustainability performance of real estate portfolios in the previous year compared to their peers. As of 2014, the ARC Fund has been recognized as a Green Star by GRESB and in 2019 the ARC Fund received the maximum 5-star ranking. Our goal is to maintain this 5-star ranking with the continual improvement of our sustainability objectives.

Through an annual tenant survey and periodical quality surveys, the Fund Manager measures the property managers' quality and the customer satisfaction among its tenants. The objective is to achieve a structural high tenant satisfaction. The ARC Fund aims to achieve a tenant satisfaction score of at least 7.5 on a scale of 10 and to outperform its peers in the IVBN tenant satisfaction benchmark.

We have prepared this report in line with several standards and benchmarks. We endorse the United Nations Principles for Responsible Investment. We have used the GRI Standards as underlying bases for our report. We do not yet report in accordance to the Standards. Our ambition is to report in accordance with the Global Reporting Initiative (GRI) Standards – Option Core in the following years. The GRESB requirements were taken into account in the creation of this report. Another ambition is to work towards creating an integrated report in the following years.

On behalf of the Board of Management,

Wim Wensing, Fund Director Niclas von der Thüsen, Director Finance and Risk Dennis Wedding, Portfolio Manager



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## **2019 IN NUMBERS**

#### **ON SITE RENEWABLE ENERGY**

To support the transition to a low carbon economy, we have further invested in on site renewable energy. Renewable energy is generated from natural resources such as sunlight, wind, water and geothermal heat that are not considered finite. In 2019, the properties in our portfolio produces 3,890 MWh of renewable energy, lowering our carbon footprint by 2,525 tonnes of CO<sub>2</sub>. 1)



In 2018, we started our solar power program to speed up our sustainability improvements. In 2019, we have further invested in on-site renewable energy. As part of this program, more than 1.500 homes have now been equipped with solar panels.

#### **BENEFITING FROM SOLAR**



10,170

homes EUR 3.2 billion



**CARBON EMISSION** 

year like-for-like energy

consumption decreased

30,90 kg CO<sub>2</sub>/m<sup>2</sup>/

by 1,5%.<sup>1)</sup>

2,652

homes in pipeline EUR 932 million



5 stars

**GRESB** rating 5 out of 5



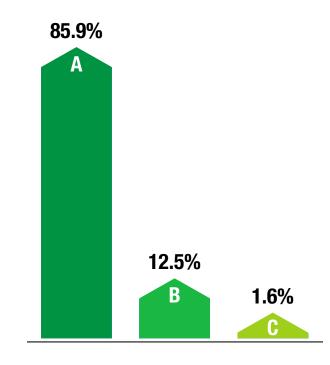
**7.2** 

tenant satisfaction benchmark: 7.1

#### **REFURBISHMENTS AND RENOVATIONS**

We have taken major steps in preparing and implementing a number of refurbishment and renovation projects within the ARC Fund portfolio. These steps have led to more comfortable homes and energy label improvements.

The percentage of A-label homes in our portfolio has increased from 78,2% in 2018 to 85,9% in 2019. We will continue our efforts over the years to come.



The direct landlord-obtained energy consists of 100% green energy. In our calculations, Amvest assumes that the tenant only consumes non-green energy (due to privacy regulation, Amvest is not able to retrieve this data).

## ABOUT THE AMVEST RESIDENTIAL CORE FUND

### **'OUR AIM IS TO CONTRIBUTE TO THE DEVELOPMENT OF MORE** SUSTAINABLE REAL ESTATE IN THE NETHERLANDS'



The ARC Fund aims to achieve a stable and attractive return in a sustainable manner supported by conservative use of leverage. Dynamic portfolio management ensures that the quality of the portfolio remains at a high level while operating costs remain relatively low.



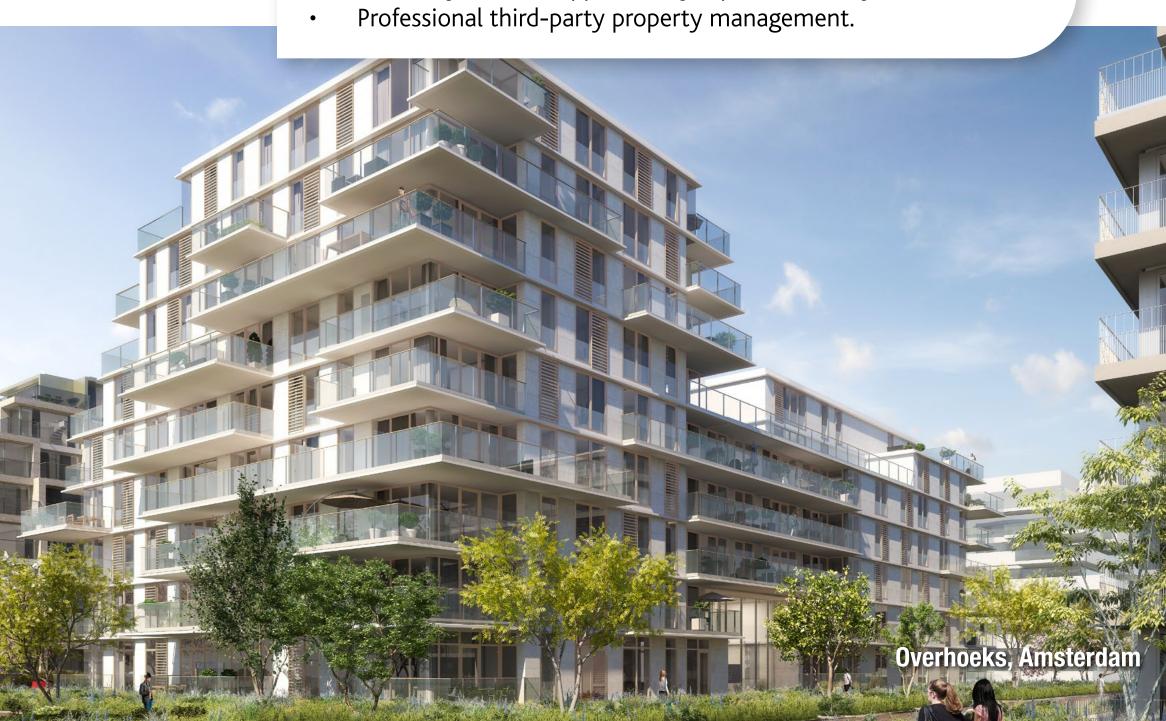
The ARC Fund plays an active role in taking stepts towards a more sustainable world. Based on a materiality survey amongst its stakeholders, the ARC Fund integrated relevant ESG (Environmental, Social and Governance) themes into the Fund's strategy. In order to meet the Paris Climate targets, energy consumption needs to be reduces substantially. The required focus on reducing energy consumption and carbon emissions is also a material ESG theme and therefore an integral part of the ARC Fund's strategy.



The ARC Fund has a Right of First Refusal (RoFR) agreement in place, which covers the acquisition of residential properties that are developed by Amvest Development Fund. The RoFR Agreement provides the fund with the opportunity to secure a long-term high-quality pipeline on an arm's length basis.

#### **KEY CHARACTERISTICS**

- Dutch non-listed residential core investment fund.
- Low risk, stable dividend and long-term value growth.
- Right of First Refusal with regard to residential properties developed by Amvest Development Fund.
- Conservative use of leverage with a target loan-to-value of 25%.
- INREV and AIFMD compliant.
- ISAE 3402 Type II certified Fund Services Provider.
- Long-term investment horizon (term of the fund until at least 17 January 2026, plus extension options).
- Managed by a dedicated Fund team.
- Quarterly external appraisals by reputable surveyors.



## **ESG POLICY**

The ESG policy is focused on a directed and balanced implementation of Environmental, Social and Governance aspects in the management of the ARC Fund. As an investment fund with a client base of institutional investors and a large portfolio rented out to many households, the ARC Fund has a large social impact. In order to be successful as a socially responsible Fund in the long run, it is of great importance that the ARC Fund sets high standards for sustainability.

#### **MATERIALITY ANALYSIS**

A materiality analysis was conducted in 2017 in order to identify the most important themes for the ARC Fund. An extensive survey based on the GRI Standards, GRESB, the INREV guidelines and a peer analysis was sent to the stakeholders of the ARC Fund questioning the materiality of a wide range of themes. This resulted in a selection of 14 factors that were considered material for the ARC Fund as well as for its societal stakeholders. The Fund Manager determines several Key Performance Indicators (KPI's) for each of the most important ESG themes. See page 10 for the materiality matrix and material themes.

#### **ESG TARGETS 2019**

The material themes are central to the ESG policy of the ARC Fund, and are grouped by four sections. The ESG policy focuses in particular on those aspects that emerge as the most important from the survey. In order to achieve its targets and to check the ARC Fund's progress on a periodic basis, the Fund Manager determined several Key Performance Indicators (KPI's) for the most important ESG aspects per theme.

#### 1. MATERIAL THEMES FOR THE ARC FUND

ECONOMIC ASPECTS	HOME COMFORT	INTERNAL OPERATIONS	ENVIRONMENTAL ASPECTS	
<ul><li>Generated economic value</li><li>Integrity and anti-corruption</li></ul>	<ul><li>Health and safety for inhabitants</li><li>Tenant satisfaction</li></ul>	<ul><li>Training and education of staff</li><li>Fair marketing and communication</li></ul>	<ul> <li>Energy consumption and energy saving</li> </ul>	
<ul> <li>Prevention of vacancy and</li> </ul>	<ul> <li>Fire safety</li> </ul>	Tan Thanketing and communication	<ul> <li>Carbon emissions and climate</li> </ul>	
<ul><li>occupancy rate</li><li>Compliance to legislation</li></ul>			<ul><li>change</li><li>Generation of renewable energy</li></ul>	
<ul> <li>Supply of sufficient high quality</li> </ul>			Generation of renewable energy	
and affordable private sector				
<ul><li>homes</li><li>Shareholder rights</li></ul>				

#### **AFFORDABLE HOUSING**

Availability and affordability have become increasingly important over the past years as rental levels have increased and supply is drying up.

By creating more supply in the mid-priced rental sector, the ARC Fund is contributing to the availability of homes. Since this segment is experiencing the most pressing shortage in supply, increasing investment in the mid-priced segment, specifically in high demand areas, makes both economical and societal sense. The portfolio of the ARC Fund has grown by over 4.000 homes since the beginning in 2015. In addition, the commitments and pipeline of the ARC Fund consists of more than 2,600 new homes to be added to the portfolio over the coming years. The bulk part of new constructions, commitments and pipeline units are situated in regions with the highest scarcity in the mid-priced segment. The ARC

Fund actively pursues the mid-priced segment by setting a minimum portfolio allocation of 75% to this segment. Currently, 81% of the ARC Fund's portfolio consists of homes with mid-priced rental prices, with another 3% consisting of social housing.

The ARC Fund furthermore recognizes the importance of affordable housing for key-workers ("sleutelberoepen") in sectors such as healthcare and security. Whilst affordability in general is already high on the agenda, special attention will be given to the housing of key workers in local markets with the most pressing shortage in supply.

#### **HOME COMFORT**

Tenant satisfaction is of great importance to the ARC Fund. The property managers are the first point of contact for the tenants and therefore have a significant impact on the tenants' satisfaction score. Each year, the ARC Fund sets the challenging target to obtain a grade of 7.5 or higher and to outperform our IVBN peers in the Customeyes benchmark. With a score of 7.2 in 2019 (2018: 7.1), the ARC Fund did not reach the targeted minimum grade, but did outperform the tenant satisfaction benchmark which is based on the performance of 8 IVBN members, including Amvest. Both goals remain in place in their current form for the forthcoming years. The overall score of 7.2 is the average of three components: quality of home, living environment and property management, as these are the components which directly reflect the Amvest management performance.

However, the tenants are much less satisfied with their repair requests compared to last year. Also, the score on complaints management is much lower than anticipated. Improving these two processes are high on the agenda in 2020.

Another important part of home comfort is safeguarding health and safety for tenants. To ensure a healthy indoor climate, it is important that air treatment and ventilation systems are maintained and cleaned periodically. Since 2019, the GPR label has been part of the Programme of Requirements (PoR). One of the five GPR themes is Health. A score of 1 to 10 can be achieved for each theme and the ARC Fund requires a minimum GPR score of 8 on this theme for new projects to be acquired.

Finally, while not an active KPI, fire safety is an important topic for tenants. It is important that all homes are equipped with smoke detectors. These detectors and also dry fire extinguishing pipes in apartment blocks need to be checked and maintained periodically. Property managers have received a SLA target to inform tenants at least

#### 2. TENANT SATISFACTION

Source: Customeyes

ASPECT	SCORES ARC FUND 2019	SCORES BENCHMARK 2019
Overall score	7.2	7.1
<ul><li>- Quality of home</li><li>- Living environment</li></ul>	7.6 7.5	7.3 7.5
- Property Management	6.4	6.4
Repair requests	6.2	6.3
Complaints management	4.4	4.7

once a year about fire safety in and around their home, for example alerting tenants about the escape routes for apartment buildings.

#### **ENERGY CONSUMPTION AND GENERATION, CARBON EMISSIONS AND ENERGY SAVING**

The energy label and GPR label provide a good indication of energy efficiency. The best indicator is the energy consumption in relation to the size of the building. The goal for 2019 was to have full insight into the consumption and generation of energy of all properties. This insight is necessary to devise realistic goals for the portfolio with regard to reducing the CO2 footprint. In 2019, the ARC Fund implemented an energy dashboard. This dashboard is used for reporting on energy consumption at a property level, but the information can also be used to analyse the portfolio and plan further energy improvements. The Energy Use Intensity (EUI) is used as the unit of measurement. The average EUI of the ARC Fund in 2019 was 124 kWh/m²/year.1)

Based on this figure, other data from the dashboard and the portfolio

characteristics, it can be determined how far the average EUI of the ARC

Fund needs to be reduced in order to meet the Paris Climate targets in 2030. Annual targets can then be set based on this long-term objective. The use of green energy also contributes to reducing the carbon footprint of the ARC Fund. For the common spaces, the ARC Fund only uses green energy. For the residential units, the ARC Fund is currently examining the possibility of negotiating low energy prices by bundling energy demand, so that optional green energy contracts on favourable conditions can be offered to all tenants.

#### **GRESB**

The ARC Fund has been participating in the Global Real Estate Sustainability Benchmark (GRESB) since 2013. Participating in the GRESB allows for an objective assessment of the extent to which the ARC Fund portfolio is future-proof.

The ARC Fund's GRESB score of 87, combined with an outperformance on all themes, shows a continued high sustainability performance. The ARC Fund achieved the highest obtainable five-star rating, indicating the ARC Fund is amongst the best performers worldwide.

Since measuring and understanding the energy performance of assets is considered key to environmental improvements, this is the area the ARC Fund wants to improve over the next years. The aim of the ARC Fund is to remain among the best-performing residential funds in the field of sustainability.

GPR charts the sustainability of buildings based on an assessment of five themes: energy, the environment, health, quality of use and future value.

#### **ENVIRONMENTAL ASPECTS**

The environmental aspects are subdivided in the themes 'Energy consumption and energy saving', 'Carbon emissions and climate change', and 'Generation of renewable energy'.

The ARC Fund has a young portfolio. Consequently over 85% of the homes in the ARC Fund portfolio have energy label A. The energy label is a good indication of energy efficiency. However, to concentrate on 'Energy consumption and energy saving', the ARC Fund wants to gain more insight into the consumption and generation of energy in all its assets. This insight is comprehensive for the common spaces, but for whole properties it is impossible to get a full insight, since the ARC Fund does not have access to smart meters of individual units because of privacy regulations. As a workaround the ARC Fund uses publicly available data about energy consumption at a postal code level. In order to further increase the ARC Fund's insight, the ARC Fund asks each new tenant for permission to read out the smart meter. Participating is voluntary due to AVG regulations.

In 2019 smart gas- and electricity meters have been installed for all common spaces placed or have been requested from the network companies. Additionally, a lot of effort was put into gathering the data in an online portal. This portal enables the Fund Manager to implement a dashboard which can be used for reporting on energy use per property. The information can also be used to alert tenants to the energy use and to plan further energy improvements of buildings (e.g. additional insulation or installation of solar panels).

Based on the data collected, the total carbon emission of the ARC Fund was 39 kg of CO2/m2/year based on a 98,4% data coverage. Likefor-like carbon intensity in 2019 decreased by 1,5%. This includes all properties where 12 months of full data is available both for 2018 and 2019.

The reduction of carbon emissions and climate change is addressed by increasing the use of energy generated by solar panels and providing the option to buy green energy at a discount. In 2018 a program was started

to equip most single family homes with solar panels. In 2018, 636 homes were equipped with solar panels, and in 2019 an additional 1.026 followed. The ARC Fund does not need approval from its current tenants to put panels on the roof since it is 'giving away' the installation. The financial return lies in the increase in value of the house and its higher market rental price.

The renewable energy generated by the panels placed in 2018 and 2019 is 2,919 MWh, saving 1,895 tonnes of CO2 in 2019. The carbon emissions reduction has been increased by 412% compared to 2018. The direct landlord-obtained energy (common spaces) consist of 100% green energy. In our calculations, Amvest assumes the tenant consumes as much green energy in percentages as the average household in the Netherlands.

For the common spaces the ARC Fund purchases green energy from the energy provider 'Green Choice'. For the residential units, the ARC Fund is currently examining the possibility of negotiating low energy prices by bundling energy demand.

The program of requirements for new projects includes a preference for the generation of renewable energy integrated in the property.

Furthermore, Amvest is currently examining if there are additional methods to incentivize consumption of green energy by our tenants.



#### **MATERIALITY ANALYSIS**

The ARC Fund attaches great value to corporate social responsibility and sustainable entrepreneurship. The Fund Manager believes that this can achieved by permanently adhering to the wishes and expectations of the stakeholders and society. In order to assess the interests of the tenants, investors, developers, maintenance companies, real estate managers and employees of the Fund Manager, a materiality analysis has been conducted. An extensive survey (based on the GRI Standards, GRESB, the INREV guidelines and a peer analysis) was sent to the stakeholders of the ARC Fund questioning the materiality of a wide range of themes and the performance of the Fund on these themes. The materiality survey was broadly composed, covered ESG factors and consisted of six sections:

- economic aspect;
- home comfort;
- social aspects;
- internal operations;
- environmental aspects;
- the living environment.

The output of the survey is reflected in a materiality matrix that shows which themes are material according to the external stakeholders and the employees of the Fund Manager. This matrix is drawn up in accordance with the guidelines of the Global Reporting Initiative (GRI), an independent international organization that set (inter alia) the Sustainability Reporting Standards (SRS). The GRI SRS are considered to be the worldwide standard in the field of sustainability reporting. In order to be able to report on sustainability, ESG factors should be fully embedded in the Fund's strategy.

In the materiality matrix, which is represented in graph 3, all themes are plotted on two axes:

AMVEST RESIDENTIAL CORE FUND SUSTAINABILITY REPORT 2019

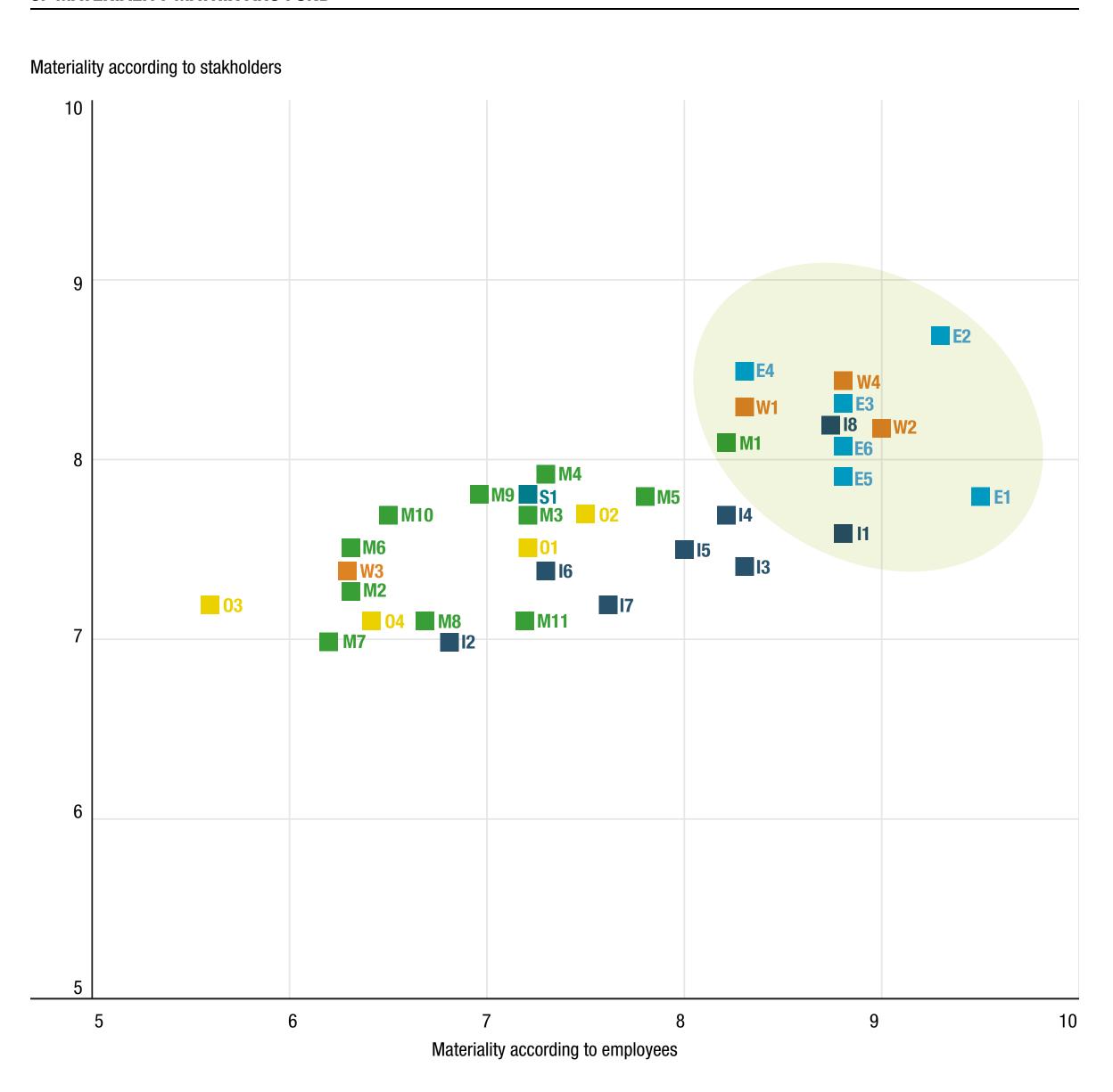
- on the vertical axis the importance of the theme to the stakeholders (0-10);
- on the horizontal axis the importance of the theme to the employees of the Fund Manager (0-10).

#### **ESG MEASURES**

From the extensive list of material themes, twelve themes were selected as most material for the Fund in the coming years (items in the green shaded area of graph 3). These most material themes were selected in the following manner:

- themes which scored 8.0/10 or higher by both the stakeholders of the ARC fund and the employees of the Fund Manager;
- themes which scored 8.5/10 or higher by the stakeholders or the employees of the Fund Manager;
- themes which are closely related to other selected themes (M4 and M5, see graph 3 and table 4).

#### 3. MATERIALITY MATRIX ARC FUND



#### 4. MATERIAL THEMES FOR THE ARC FUND

ECONOMIC ASPECTS	HOME COMFORT	SOCIAL ASPECTS	INTERNAL OPERATIONS	ENVIRONMENTAL ASPECTS	LIVING ENVIRONMENT
					<del>, , , , , , , , , , , , , , , , , , , </del>
E1 Generated economic value E2 Integrity and	W1 Health and safety for inhabitants	<b>S1</b> Health and safety	<ul><li>I1 Training and education of staff</li><li>I2 Diversity</li></ul>	M1 Energy consumption and energy saving	O1 Engagement and dialogue with local stakeholders
anti-corruption	W2 Tenant satisfaction		<b>I3</b> Primary and	<b>M2</b> Energy consumption and	O2 Liveability and living enviro nment
E3 Prevention of vacancy and occupancy rate	<b>W3</b> Flexibility during building		secondary tenms of employment	energy saving of the Amvest office	O3 Biodiversity and nature
E4 Compliance to	and living		<b>I4</b> Health of employees	M3 Materials and circularity	O4 Climate
legislation	W4 Fire safety		<b>I5</b> Membership	M4 Carbon	adaptation
E5 Supply of sufficient high quality and			of industry associations and knowledge sharing	emissions and climate change	
affordable private sector rental homes			I6 Innovation and knowledge sharing	<b>M5</b> Generation of renewable energy	
E6 Shareholder			I7 Employee	M6 Water	
rights			satisfaction	<b>M7</b> Environmental certificates for	
			18 Fair marketing and	residences	
			communication	MB Supplier environmental assessment	
				<b>M9</b> Sustainable renovations	
				M10 Waste	
				M11 Clean air	

## KPI'S FOR THE PURPOSE OF NON-FINANCIAL DATA IN THE ANNUAL REPORT

#### **TENANT SATISFACTION**

Objective	Determine resident satisfaction	
KPI owner	Customeyes	
Definition	Through an annual tenant survey the ARC Fund measures the property management quality and the customer satisfaction amongst its tenants. This concerns in particular the degree of satisfaction regarding the	
	rented property, the surroundings and the service level. Important elements are the contact moments and availability of staff of the property manager, the service performance, the letting process (intake) and	
	repair requests	
Scale/unity	Absolute score on a scale from 0 (minimum) to 10 (maximum)	
Calculation	<ul> <li>The satisfaction score is calculated by Customeyes based on the answers provided by the participant in the survey.</li> </ul>	
	<ul> <li>For each question a maximum number of points is possible to be achieved (scale 1-10)</li> </ul>	
	The survey is a quantitative research and fully digital	
	Each respondent counts even heavily when calculating averages	
	• The benchmark consists of 7 investors	
Target	To achieve a tenant satisfaction score of at least 7.5 and outperforming its peers in the IVBN benchmark.	
Scope	A sample of all the tenants from the ARC Fund who participated the questionnaire relating to tenant satisfaction.	
Frequency	Once a year	
Reporting process	The tenants fill out a score on a total of five components	
	Customeyes measures the responses	
	<ul> <li>Customeyes delivers a report (dashboard) with the average score per component, property manager and complex including the number of responses.</li> </ul>	
Systems and sources	Survey tool	
Audit process	The tenant satisfaction score is measured completely independently by Customeyes.	
Result 2019	7.2 (benchmark 7.1)	

#### **GRESB SCORE**

Objective	Achieve a GRESB score
KPI owner	Global Real Estate Sustainability Benchmark
Definition	The GRESB score is an overall measure of ESG performance, represented as the number of stars.
Scale/unity	Number of stars from 1 (minimum) to 5 (maximum)
Calculation	The GRESB score is calculated by the GRESB organization based on the answers provided by the participant in a survey. For each question a maximum number of points is possible to be achieved.
	The number of stars are awarded based on the relative score in comparison with the other participants.
Target	To achieve the maximum 5 stars
Scope	The complete ARC Fund
Frequency	Once a year
Reporting process	<ul> <li>The survey is filled in by the ARC Fund with the burden of proof and argumentation for the answers given</li> </ul>
	<ul> <li>The GRESB organization checks the answers, the burden of proof and the argumentation and determines the score per question</li> </ul>
	<ul> <li>The GRESB organization reports to the ARC Fund the score of the Fund, how it is structured and how it scores in relation to the peer group</li> </ul>
Systems and sources	Survey tool
Audit process	The GRESB organization checks the answers, the burden of proof and the argumentation according to its (high) standards and can visit the Fund for a further check
Result 2019	GRESB score: 5 stars

### **ENERGY USE INTENSITY (EUI)**

Objective	Measure the energy consumption of the objects in the ARC Fund portfolio
KPI owner	Cushman & Wakefield
Definition	The total energy consumption in kWh per m <sup>2</sup> per year of all objects in the portfolio that have been in operation for the entire calendar year. The sum of the amount of electricity (in kWh), disctrict heating in GJ and gas (in m <sup>3</sup> ) which is converted to kWh.
Scale/unity	kWh/m²/year
Calculation	<ul> <li>Electricity:</li> <li>The total energy consumption (kWh) per building is divided by the total Gross Floor Area in m<sup>2</sup></li> <li>Depending on the type of energy consumption, up to three connections are monitored for each building: supply from the grid operator, electricity generated by the solarpanels (if applicable) and electricity supplied to the grid (if applicable)</li> <li>Net consumption = supply grid operator + (generated electricity PV panels -/- electricity supplied back to grid)</li> <li>Gas:</li> <li>Gas consumption in m³ is converted into kWh (factor 1 m³ = 9.769 kWh)</li> <li>District steam generated in a centralized location for residential heating requirements in GJ is converted into kWh (factor 1 GJ = 277.78 kWh)</li> </ul>
Target	To achieve a percentual decrease in our like-for-like Energy Use Intensity compared to 2018.
Scope	All buildings in the ARC Fund, that are included in the annual report of the specific year (only buildings with a 100% data coverage are included). The buildings that are not in use for a full calendar year fall outside the scope as this may distort the data due to seasonal effects.
Frequency	Once a year
Reporting process	<ul> <li>Before the completion of a new building, all connections are entered in the Eview-system of Innax (for new buildings, meters are delivered directly 'smart' (readable remotely))</li> <li>From the date of completion, gas and electricity consumption are measured per 15 minutes on the basis of smart meters (automatically imported, implemented by INNAX)</li> <li>In 2019, consumption is partly added manually on the basis of invoices from the property managers and the Standard Year Volumes received from regional grid operators.</li> <li>In the first quarter after the relevant calendar year, an overview is drawn up of all buildings that have been in operation for the entire calendar year and the associated EUI.</li> </ul>
Systems and sources	Eview (managed by INNAX, ARC Fund has access), CWING (managed by C&W, ARC Fund has access) Excel for renewable energy.
Audit process	<ul> <li>It is checked on a monthly basis whether data from all complexes comes in</li> <li>Data trends are analyzed annually (smallest and largest consumer based on gas/district heating/ electricity consumption per m²)</li> <li>Data report is created by C&amp;W</li> </ul>
Result 2019	Average Energy Use Intensity 2019: 124 kWh/m²/year based on a 98.4% data coverage. The like-for-like Energy Use Intensity in 2019 was 118 kWh/m²/year. The like-for-like change percentage between 2018 and 2019 is therefore (2.3%).

#### **CARBON EMISSION**

Objective	Measure carbon emissions from the ARC Fund
KPI owner	Amvest
Definition	The total CO <sub>2</sub> emissions in kg or tonnes of the buildings of the ARC Fund
Scale/unity	# kg CO <sub>2</sub> /m <sup>2</sup> /year
Calculation	Electricity:
	<ul> <li>The amount of electricity in kWh per building is made clear via Eview (see KPI Energy Use Intensity)</li> </ul>
	<ul> <li>The buildings for which 100% green electricity is purchased are taken from the total consumption in kWh</li> </ul>
	• The total amount of kWh of 'gray' electricity is converted to kg of CO <sub>2</sub> in accordance with the emission factors of www.co2emissiefactoren.nl. 1 kWh = 0.649 kg of CO <sub>2</sub>
	Gas:
	<ul> <li>The amount of gas in m<sup>3</sup> per building is made clear via Eview (see KPI Energy Use Intensity)</li> </ul>
	<ul> <li>The buildings for which 100% green gas is purchased are taken from the total consumption in m<sup>3</sup></li> </ul>
	• The total amount of m <sup>3</sup> natural gas is converted to kg CO <sub>2</sub> in accordance with the emission factors of www.co2emissiefactoren.nl. 1 m <sup>3</sup> natural gas = 1.89 kg CO <sub>2</sub>
	• District steam generated in a centralized location for residential heating requirements in GJ is converted into 35.97 kg CO <sub>2</sub>
Target	To achieve a percentual decrease in our portfolio-wide average carbon emission per m².
Scope	All buildings in the ARC Fund, that are included in the annual report of the specific year (only buildings with a 100% data coverage are included). The buildings that are not in use for a full calendar year fall outside
	the scope as this may distort the data due to seasonal effects.
Frequency	Once a year
Reporting process	<ul> <li>The energy consumption is compiled based on the data as described in the KPI Energy Use Intensity</li> </ul>
	<ul> <li>Subsequently, the tenants are asked which energy contracts have been concluded for gas and electricity</li> </ul>
	<ul> <li>The total CO<sub>2</sub> emissions are determined based on energy consumption and contract types</li> </ul>
Systems and sources	The systems used for the energy usage form the source.
Audit process	<ul> <li>The data for the consumption is already checked by C&amp;W by their system CWING</li> </ul>
·	<ul> <li>The conversion factors are checked on the website of www.co2emissiefactoren.nl</li> </ul>
	<ul> <li>The calculation in Excel is checked using the four-eyes principle (Asset Manager and Portfolio Manager ARC Fund)</li> </ul>
Result 2019	Average carbon emission Intensity 2019: 39 kg CO <sub>2</sub> /m <sup>2</sup> /year based on a 98.4% data coverage.
	Like-for-like carbon intensity in 2019 was 30.90 kg CO <sub>2</sub> /m <sup>2</sup> /year.
	This shows an improvement of 1.5% on carbon emissions.

#### **RENEWABLE ENERGY**

Objective	Reduce carbon emissions by increasing the produced renewable energy produced by placing solar panels		
KPI owner	Sungevity		
Definition	The reduction of carbon emissions and climate change is addressed by increasing the production of renewable energy by placing solar panels.		
Scale/unity	# solar panels/ single-family homes		
	$\# kg CO_2/m^2/year$		
Calculation	The number of solar panels/homes is registered via the Sungevity dashboard		
	The amount of energy generated by solar panels is registered via the Sungevity dashboard		
	• The total amount of kWh of electricity generated by solar panels is converted to kg of CO <sub>2</sub> in accordance with the emission factors of www.co2emissiefactoren.nl. 1 kWh = 0.649 kg of CO <sub>2</sub>		
	• The number of solar panels placed on individual homes is registrered by Amvest.		
Target	The ARC Fund expects to fit out 580 homes (single-family) with solar panels in 2018 and upgrades its target to 750 homes in 2019.		
Scope	All single-family homes which are suitable to place solar panels		
Frequency	Once a year		
Reporting process	• From the date of placing of the new solar panels electricity which is generated by the panels is measured on the basis of smart meters (automatically read, implemented by Sungevity)		
	• Every 6 weeks an overview is drafted of all homes/solar panels that are in operation.		
	• Furthermore the data (number of solar panels/energy generated by the solar panels) in the Sungevity dashboard is part of the CWING dashboard by exporting the data.		
Systems and sources	Tool (dashboard) Sungevity and Excel for independent solar panels		
Audit process	• The data for the # solar panels/homes and the data for the generation of energy is checked by Sungevity and by C&W by their system CWING		
	• The conversion factors are checked on the website of www.co2emissiefactoren.nl		
	<ul> <li>Independent Solar panels on homes are registered by Amvest</li> </ul>		
Result 2019	Solar panels have been placed at 1,026 homes in 2019.		
	The renewable energy generated by the new solar panels and the previously placed solar panels on single-family homes is 2,919 MWh in 2019, saving 1,895 tonnes of CO <sub>2</sub> .		
	The carbon emissions reduction has been increased by 412% compared to 2018.		

## **CONTACTS**

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We always aim to further improve our sustainability activities and reporting. Therefore, we highly appreciate your feedback, questions and comments on our sustainability report. Please contact us.

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