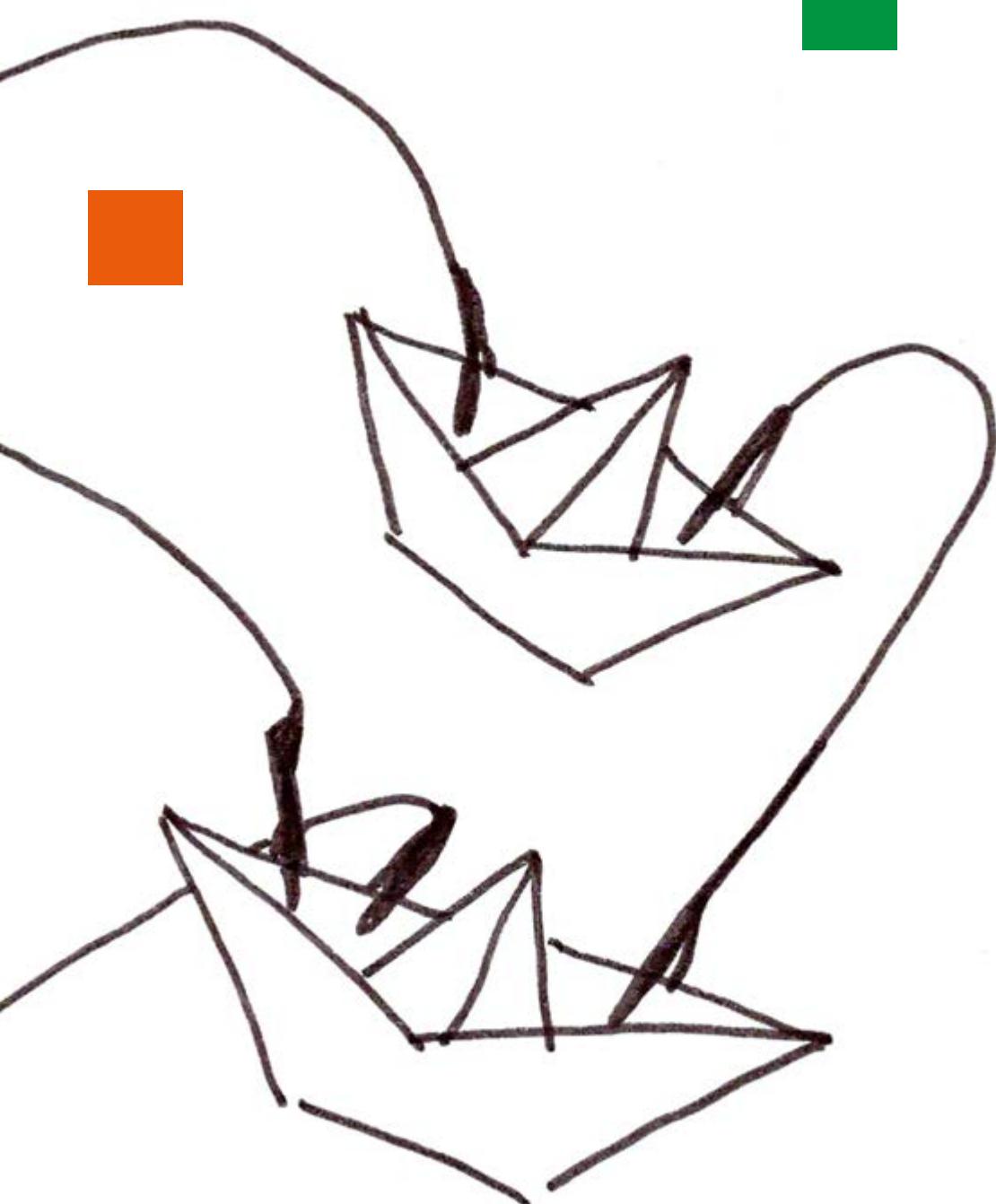


# City of Amsterdam



## Voluntary Local Review 2022

Impact of the Sustainable Development Goals on the City of Amsterdam



# City of Amsterdam Voluntary Local Review 2022



*Memoriam*  
Gerard den Boer (1965 -2022)

This VLR is dedicated to the memory  
of Gerard den Boer, who initiated the  
process of constructing this review.

With the passing of Gerard, we lose  
a special colleague with an unpre-  
cedented drive and zest for life. We  
will greatly miss his energy, vision,  
humour and sharp discussions.











SURINAMI KITCHEN

P&G  
Roti

Bloemactief

DRV  
94K

# Foreword



Uncertainty is all around us. The human mind often attends to short-term or urgent matters to deal with the uncertainties, such as the pandemic, political upheavals, economic instability or conflict. We find it harder to hold our attention to important challenges that are further into the future; our collective attention is key in order to deal with long-term uncertainties and to prevent inequality in society from increasing.

A current uncertainty connecting the short- and long-term is the rising energy prices. In 2019, around 50,000 residents of Amsterdam lived in energy poverty. Energy poverty occurs when a household has an energy bill that is too high for their income. The rise in gas prices makes the situation even more precarious. We try to tackle this with the ‘Amsterdam Agenda for Poverty and Debt’. Poverty alleviation and debt counselling are used to increase opportunities for all residents. Preventing poverty and reducing poverty leads to prospects for work, training and social participation. One of the aspects which the agenda focusses on is energy poverty. This ‘good practice’ works towards three SDGs: SDG 1 ‘No poverty’, SDG 7 ‘Affordable and clean energy’, and SDG 13 ‘Climate action’.

Cities play a vital role in localising the Sustainable Development Goals (SDGs). A total of 68% of the world’s population is projected to live in urban areas by 2050, according to the UN<sup>1</sup>. All the complexities collide in cities, which is a great challenge but also an immense opportunity. For example, we love to bike, with the result that there are more bicycles than people in Amsterdam. Using a bicycle instead of other means of transport has several benefits. People are healthier due to the daily physical exercise that comes with using the bicycle. Less CO<sub>2</sub> is emitted in the city than other cities dominated by motorised vehicles. Bicycles take up less public space than cars, therefore leaving more room for green in the city. Our bicycles have become a metaphor for how different aspects concerning mobility in our city can complement each other through the act of cycling. Our bicycles can also be seen as a metaphor for the SDGs, as it allows us to believe that complex societal issues can be solved in a concise way. Just like the impact of bicycles, all SDGs have an effect on each other.

<sup>1</sup> [UN Department of Economic and Social Affairs, 2018](#).

The SDGs are a blue print that reminds the world of the big transitions that humanity is facing. Amsterdam has been proactively building ways to think and work through these big transitions. We are proud of all the projects, policies, and initiatives mentioned in this report, but we are also aware of the many challenges we still face ahead. We hope residents, businesses and other actors keep on working together for a better future for our city, and for everybody and everything living on the planet. Most of all, we hope that the report will convince global policy makers of the need to engage all levels of government in drafting new global goals. The local level is indispensable in realising whatever goals are set. Amsterdam is willing and capable to engage.



Femke Halsema  
Mayor of Amsterdam



# Contents

	Social inclusion	79
	Discrimination	80
	Migration	82
	Good practices	84
Foreword		
	17	
Introduction		
From visions and policies to an integral compass	23	
Doughnut Economics: a compass to localise the SDGs	23	
	24	
Constructing the Voluntary Local Review		
	30	
<hr/>		
SDGs in brief		
SDG 2 - Zero hunger	38	
SDG 3 - Good health and well-being	39	
SDG 4 - Quality education	40	
SDG 5 - Gender equality	42	
SDG 6 - Clean water and sanitation	42	
SDG 7 - Affordable and clean energy	44	
SDG 9 - Industry, innovation and infrastructure	44	
SDG 14 - Life below water	46	
SDG 15 - Life on land	46	
SDG 16 - Peace, justice and strong institutions	47	
SDG 17 - Partnerships to achieve the Goals	48	
<hr/>		
SDGs in detail		
SDG 1 - No poverty	52	
Highlights	54	
Reducing poverty	54	
Social protection systems for the poor and the vulnerable	56	
Resilience	57	
Policy frameworks	58	
Good practices	59	
SDG 8 - Decent work and economic growth	60	
Highlights	62	
Economic growth and decline	62	
Economic diversification	63	
Policies for entrepreneurship and decent job creation	64	
Equal employment	65	
Youth in employment, education and training	67	
Sustainable tourism	69	
Good practices	70	
SDG 10 - Reduced inequalities	72	
Highlights	74	
Income and wealth inequality	74	
SDG 11 - Sustainable cities and communities	86	
Highlights	88	
Access to housing and services	88	
Access to sustainable transport	89	
Inclusive and sustainable urbanisation	91	
Cultural and natural heritage	91	
Access to green and public spaces	92	
Regional development planning	93	
Good practices	95	
SDG 12 - Responsible consumption and production	96	
Highlights	98	
Action plan	98	
Resource use	98	
Food waste	99	
Waste recycling	100	
Sustainable procurement	103	
Information and awareness for sustainable development	103	
Good practices	105	
SDG 13 - Climate action	106	
Highlights	108	
Climate-related resilience and adaptive capacity	108	
Climate change measures in policies	111	
Good practices	115	
Conclusions and reflections	119	
People	119	
Planet	120	
Prosperity	120	
Peace and partnerships	120	
Policy recommendations for implementing and monitoring SDGs	121	
Literature	122	
Documents: City of Amsterdam	122	
Other literature used	124	
Appendix 1. Constructing the VLR – a detailed look at the process	126	
Appendix 2. List of indicators used	129	
Photo index	134	
Colophon	138	

# Introduction



The SDGs are seen as a blueprint for a sustainable future. To achieve these goals, their effects must be assessed on a local scale. As mentioned in the Foreword, a striking 68% of the world population is projected to live in urban areas by 2050, and for Europe the percentage is even higher (83.7%)<sup>2</sup>. Apart from population growth, cities are estimated to generate 80% of all global economic growth. Amsterdam alone will develop between 5000 and 7500 homes in the next four years<sup>3</sup>. The well-being of humans, their economic activity and the environment is evidently driven by the cities.

Local and regional governments are increasingly engaged in sub-national assessments of SDG implementation through the Voluntary Local Review (VLR). Partner cities like Stockholm, Gent, Helsinki and Barcelona preceded us. Now also Amsterdam, being an international city, wants to take responsibility and contribute to the localisation of the SDGs. This VLR is the first attempt to actively localise the SDGs that are set for 2030, bringing them closer to the people and the local context in which they serve. The VLRs can provide policy coherence in relation to the Voluntary National Reviews of countries by mapping out what is being done in the city, using the SDGs as a common language. The VLR provides an overview of the local implementation of the goals, highlights where there is room for improvement, and also brings good practices to the fore. Localising the SDGs ultimately allows us to join our visions in a way that meets the needs of all people within a living planet's means. To put this into perspective, we will first discuss the city visions and policies.

## From visions and policies to an integral compass

After every municipal election, a coalition agreement is adopted in which the mayor and vice-mayors describe their goals for the city for the next four years. Ideally, this agreement includes a strategy with goals that go beyond their term of office, as well as capturing a vision for a sustainable future for the city.

On the basis of the coalition agreement, policy programmes and implementation agendas are developed with concrete measures to achieve the goals. Subsequently, monitoring progress in implementation of the goals is rather complex.

<sup>2</sup> European Commission (no date), *Developments and Forecasts on Continuing Urbanisation*.

<sup>3</sup> *Nota Investeringen 2022-2026*.

The municipality has adopted various visions for a sustainable future for Amsterdam. There are thematic strategies, such as on mobility, circular economy or greening, as well as strategies that integrate different themes, such as the Environmental Vision 2050 (Omgevingsvisie 2050) or the Climate Neutral Roadmap<sup>4</sup>. In addition, policy documents have been developed in which prosperity and well-being of the Amsterdam residents are taken into account, i.e., the City Doughnut based on Kate Raworth's Doughnut Economics and the Broad Prosperity Index (Brede Welvaart) based on national policy<sup>5</sup>. Because of their global as well as local focus, the City Doughnut and the Broad Prosperity come closest to the SDGs, like the SDGs they form bridges between challenges that are global, national, regional and local.

### Doughnut Economics: a compass to localise the SDGs

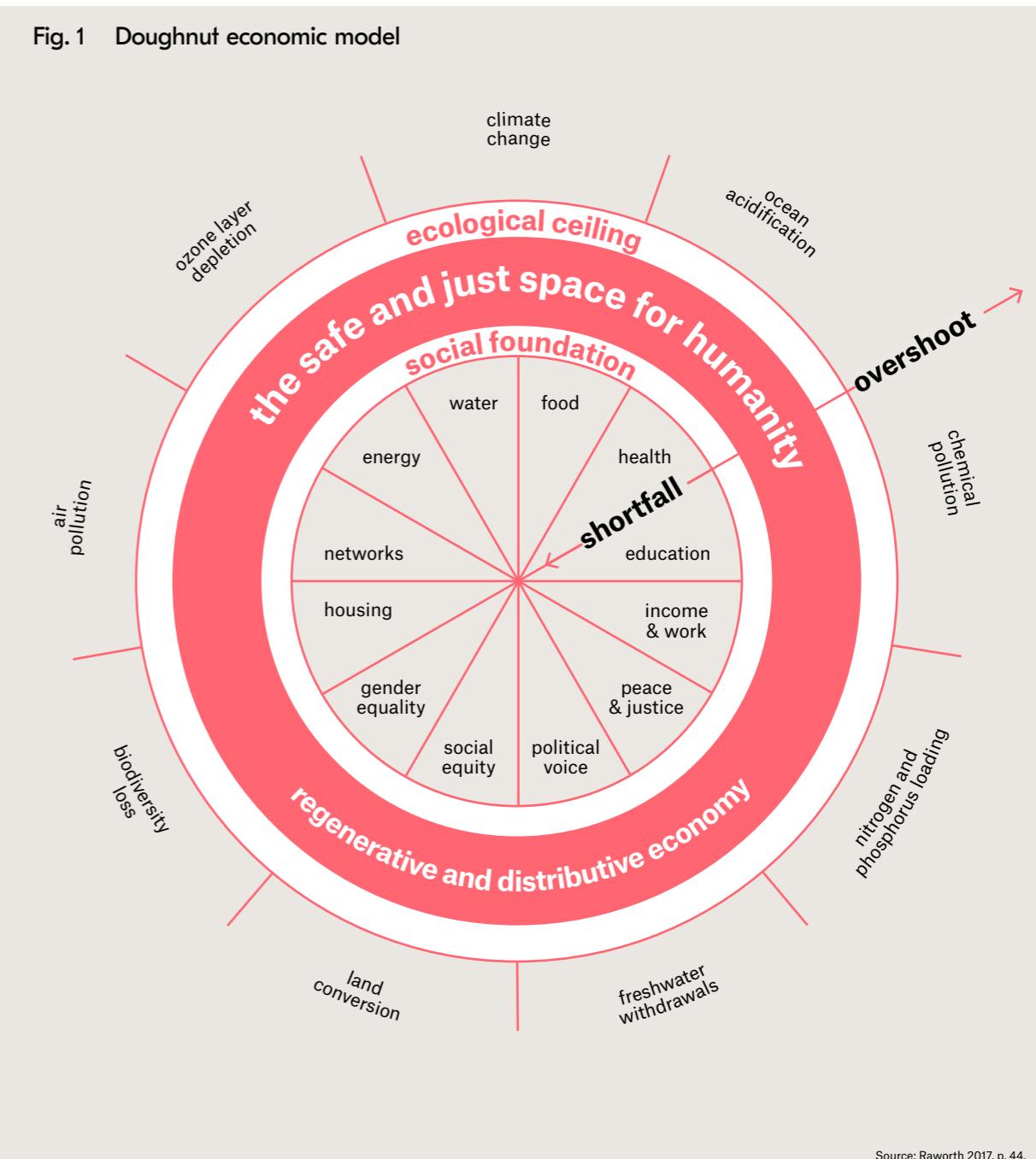
When bridging the global goals with the local visions, policies and goals, monitoring is key. There is a lot of monitoring undertaken, and monitoring instruments developed, by the municipality and its research partners. An inventory in 2021 yielded approximately 40 monitors that (aim to) map the sustainable future of the city. Some of these monitors focus on a particular subject, while others look at wider trends, and almost always the monitors entail multiple indicators. Therefore, the main challenge for the city is not monitoring but linking the monitoring to one cohesive and collective story of a sustainable future for Amsterdam.

The City Doughnut has allowed the city to formulate its cohesive and collective story. Raworth's model can be summarised in one image (the Doughnut) and seven economic principles. Looking at Figure 1: the inner ring stands for the social foundation, the outer for the ecological limits of the planet. The inner ring comprises 12 social foundations, derived from the SDGs, needed for a society to thrive. The outer ring represents the nine aspects to the ecological ceiling of our planet--or as Rockström and colleagues in 2009 coined, our planetary boundaries<sup>6</sup>.

The space between the inner and outer circle is what Raworth calls 'the safe and just space for humanity' the 'sweet spot': an economy that provides for the basic needs of everyone, without damaging the earth beyond its ecological limits. Furthermore, the Doughnut Economy shows the importance of holding our attention to all the five Ps: People, Planet, Prosperity, Peace and Partnership.

Economic growth is in some instances necessary, but also keep the environmental and social boundaries in mind. If we unroll the Doughnut, we can create a space for exploring the possible futures we want, through four lenses. In Figure 2, you can see how the Doughnut turns into a compass of the blueprint provided by the SDGs. Getting to the 'sweet spot' of the Doughnut requires action on many different levels. These levels do not operate in isolation from each other. The social foundation and the ecological ceiling apply not only to what happens in Amsterdam, but also to the effects the city has elsewhere. This produces four 'lenses' through which we can look at the city: local-social, local-ecological, global-ecological, and global-social, as displayed in Figure 3. Each lens draws on the available targets for defining the Doughnut's social foundation and ecological

Fig. 1 Doughnut economic model

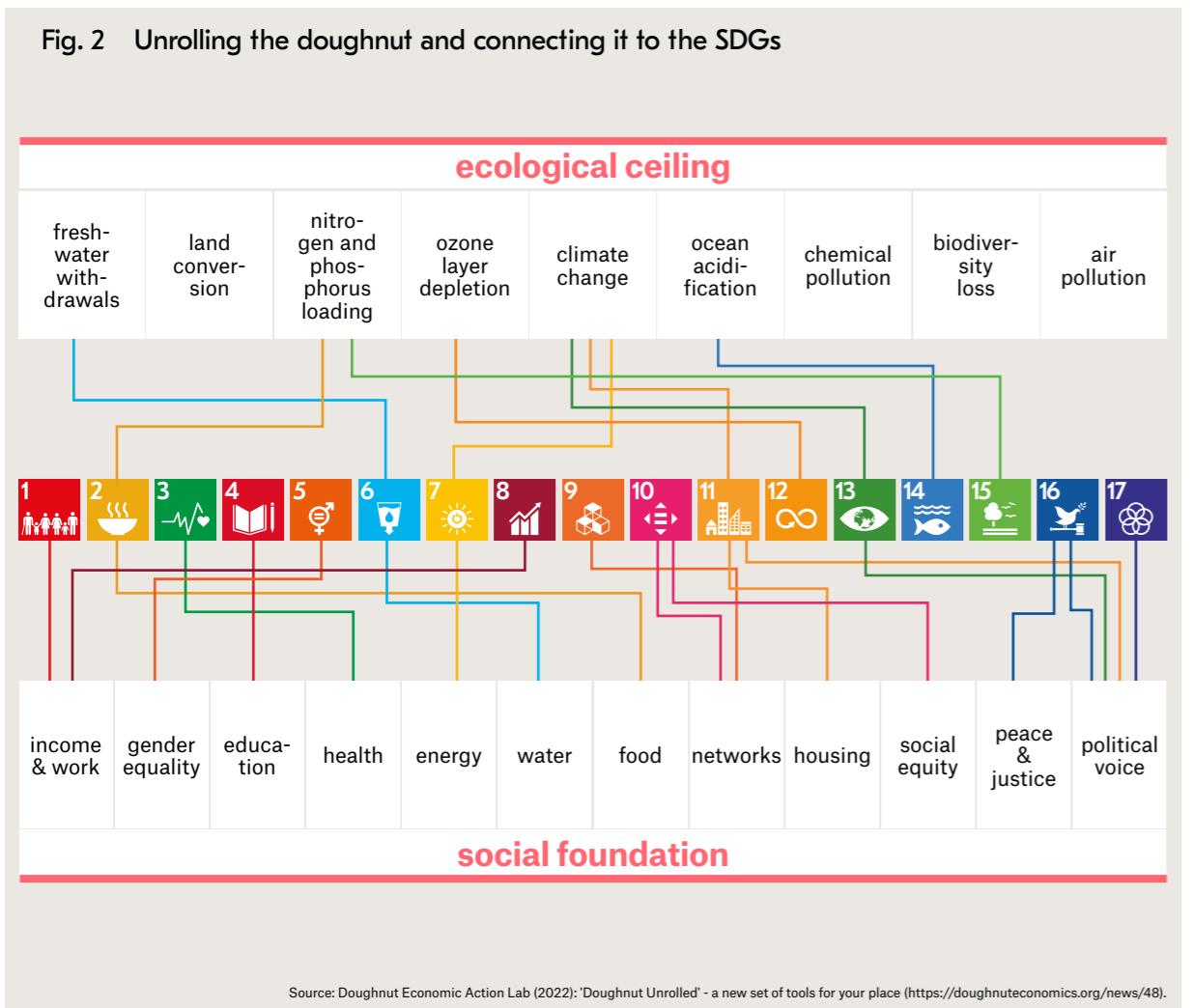


<sup>4</sup> [Amsterdam klimaatneutraal](#).

<sup>5</sup> [Brede welvaart Metropoolregio Amsterdam](#).

<sup>6</sup> Rockström et al. (2009).

Fig. 2 Unrolling the doughnut and connecting it to the SDGs



Source: Doughnut Economic Action Lab (2022): 'Doughnut Unrolled' - a new set of tools for your place (<https://doughnuteconomics.org/news/48>).

Fig. 3 The four central questions asked within the lenses of the City Portrait



ceiling, for both the city's local outcomes and its global impacts. It then matches these with the most relevant statistics available that give an illustrative snapshot of city life and its impacts in relation to those targets. Understanding Amsterdam's performance within each of these lenses is essential for an integrated view of the city's state<sup>7</sup>.

Last, Doughnut Economics is not just a monitoring tool for the municipality; it also provides seven design principles for navigating the city towards its sustainable future (Figure 4). These seven principles offer us ways to reflect on the work do while we stay attentive to both global and local dynamics.

In short, this VLR celebrates our strengths, brings to the forefront our weaknesses and helps the city map the blind spots as we navigate towards a sustainable future. By sharing our progress through this report we hope to contribute to the realisation of the SDGs worldwide. We also aim to join future discussions with different places and institutions all around the world to continue

Fig. 4 Design principle

Design principle	Departure	Visual representation
1. Change the goal of the economy	From GDP to meeting the needs of all people within the means of a living planet.	◎
2. Look at the bigger picture	Economy is derived from oikos (house, home) and nomos (management). Recognise and value all parts of the economy (ecosystem services, households, the commons, the market and the state).	👁
3. Stimulate human nature	Instead of homo economicus, persuade humans to be socially adaptable.	👉
4. Understand the system	Instead of mechanical systems, approach a context as a complex organic system.	✿
5. Design for distribution	Instead of using economic growth as a way to reduce poverty, develop distributive models that widen the circulation of economic value and wealth.	❖
6. Create to regenerate	Instead of applying economic efficiency (i.e., speed) as a way to reduce waste in every form, design regenerative ways that unthink the modern concept of waste altogether.	⟳
7. Growth agnostic	Move from indefinite growth towards a form of growth that meets the needs of all people in the means of a living planet. Nothing in nature or around us grows forever.	🌱

to improve the implementation of the SDGs. Some goals, such as SDG2 Zero Hunger, cannot be realised within city limits. Other SDGs challenge the integrity of the economic system (SDGs 11 and 12). This emphasises the importance of SDG 17 Partnerships for the goals. To achieve all goals that are set internationally, we must collaborate intergovernmentally.

### Structure of the report

We recognise that all SDGs are equally important. However, many of the SDG targets are not directly appropriate for the local level in general and/or the city of Amsterdam in particular. For this reason, we decided on a two-step approach. For the city of Amsterdam, the SDG workgroup defined the following interlinked goals as the main focus for this report: SDG 1, 8, 10, 11, 12 & 13. These goals are closely linked to the goals of our city council, and for that reason we will discuss these SDGs in more detail. Apart from that, we give a short overview of progress towards all the SDGs, using a limited number of indicators. In the next chapter, we briefly explain the process of constructing this Voluntary Local Review.

### About the notes

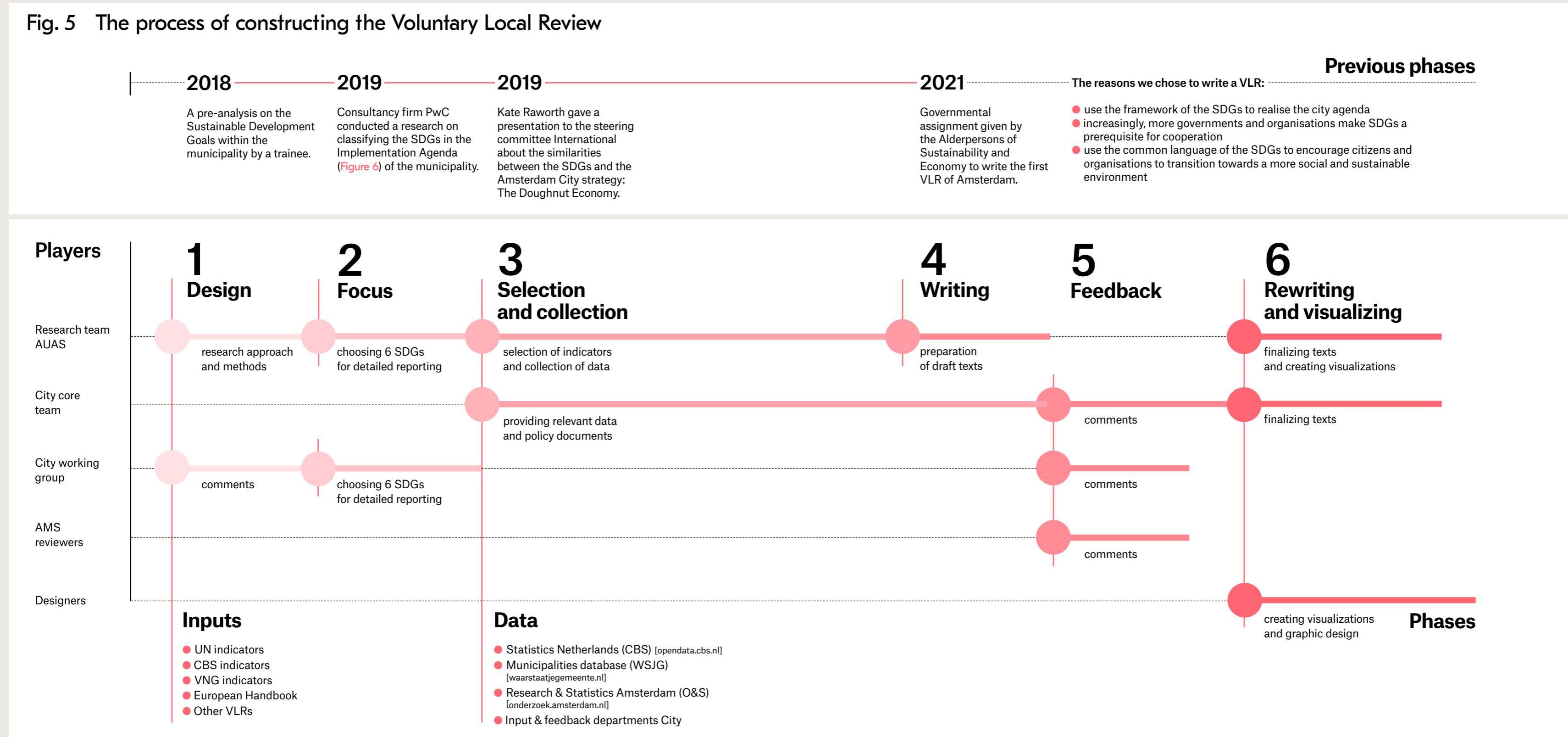
In the online version of this document, the notes contain clickable links to the data sources. When there is no author mentioned in the notes, it refers to a document from the city of Amsterdam.



# Constructing the Voluntary Local Review

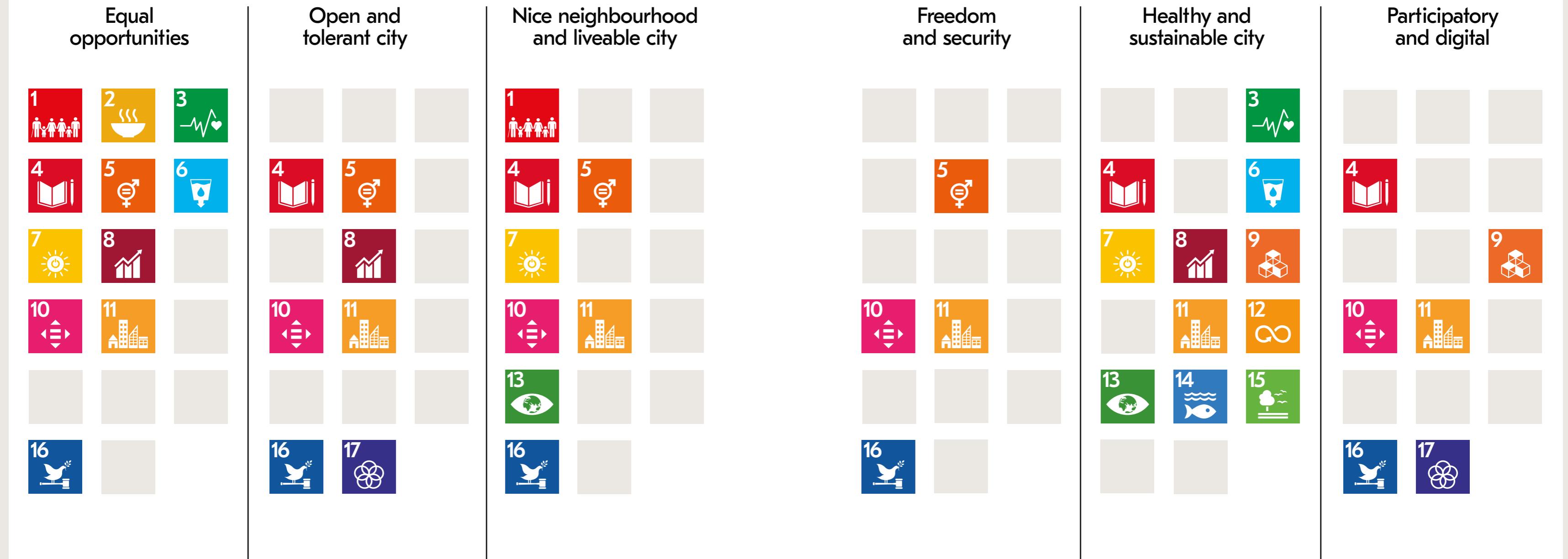
A detailed explanation of the different phases in constructing the VLR can be found in Appendix 1.

Fig. 5 The process of constructing the Voluntary Local Review



# Constructing the Voluntary Local Review

Fig. 6 SDG Classification according to the Implementation Agenda  
of the municipality



A photograph of a modern building's exterior. The upper portion of the building features a vibrant, multi-colored facade composed of vertical panels in shades of orange, pink, white, and blue. Below this, the building continues with a dark, greyish-blue facade. The overall design is geometric and modular.

# SDGs in brief



In this chapter, we provide a brief overview of all SDGs, from SDG1 to SDG17. We either report in short on a number of important indicators, or we indicate that a detailed analysis is provided in one of the next chapters.

The inclusion of indicators in the short report is mainly based on a new policy document<sup>8</sup> by the Association of Netherlands Municipalities (Vereniging van Nederlandse Gemeenten, VNG), which represents all municipalities in the Netherlands. They have developed a guideline for municipalities to prepare Voluntary Local Reviews; showing both main indicators and (possible) locations of data from national sources. This has served as the main source for selecting indicators. As the number of indicators in VNG's new policy document still exceeds the space available here, the choices for the inclusion of data were made on the basis of both availability and relevance for the specific context of Amsterdam. In some cases, additional data from local sources were used, most notably reports from the City Office of Research, Information and Statistics (OIS). In the following presentation, not all SDGs are treated equally. In general, this is because some SDGs include many subgoals and indicators, while others include only a few. In particular, the aim of this voluntary local review is to report on local indicators and relate to local policy. The local link is less obvious for a number of goals, subgoals and indicators. This is also recognised in the VNG document as well as in other (international) VLRs. This issue of limited local links concerns mostly SDGs 2, 6, 14 and 15.

<sup>8</sup> A draft version was kindly provided to the authors by VNG. The final version of the SDG indicator set was published in May 2022 at [www.waarsaatjegemeente.nl](http://www.waarsaatjegemeente.nl).

# No poverty

End poverty in all its forms everywhere

See next chapter for detailed analysis

# Zero hunger

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

This goal is related to different aspects of food production and food security. The Amsterdam region is an important area for food production. However, most of the products are consumed elsewhere. The Netherlands rank as the second largest exporter of agro-food products worldwide<sup>9</sup>.

Regarding hunger and food security, information on people receiving assistance from a 'food bank' can be found in the chapter on SDG 1.

#### Agriculture and food production

European and national policies strongly influence the city's achievements in relation to agriculture and food production.

Within the city of Amsterdam, there is relatively little (room for) agriculture. In late 2020, the city council supported a proposal for 'Amsterdam Food Capital', an initiative by the local associations of small business and the hospitality business<sup>10</sup> to turn Amsterdam into the 'World Food Capital' for the year of the city's celebration of its 750-year existence in 2025. An important focus point of this initiative is sustainability in the food sector.<sup>11</sup>

Food consumption in the city significantly affects use of the earth's resources elsewhere. In the Amsterdam City Doughnut, specific attention is paid to this ecological and social impact beyond the city borders. This has, for example, led to awareness of the fact that malnutrition is often prevalent amongst factory workers who produce goods that

are used in Amsterdam, due to low wages and excessive hours of work<sup>12</sup>. Another example is the fact that the amount of land required worldwide for Dutch consumption in 2013 was around two and a half times the area of the Netherlands itself<sup>13</sup>.

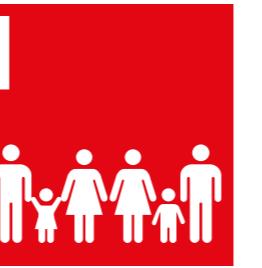
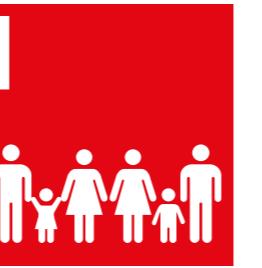
#### Sustainable agriculture

There are no specific data on the amount of biological farming within the city's boundaries. However, Amsterdam has a rich, innovative ecosystem that promotes the development of sustainable agricultural practices. For example, Impact Hub Amsterdam runs a number of programmes on sustainable food for entrepreneurs in the startup and scale-up phases. In 2021-2022, this includes the Village Food Pioneers Programme, which offers a number of free workplaces for impactful food entrepreneurs, and the Food Chain Accelerator, offering support to innovative startups or SMEs working on making the food chain more sustainable<sup>14</sup>.

#### Policy

In 2019, the city of Amsterdam adopted a 'Food strategy' with six lines of action:

- 1 Food as a 'social connector'
- 2 Food waste
- 3 Healthy food environment
- 4 Regional production and distribution
- 5 Entrepreneurship
- 6 Animal welfare, protein transition and circular agriculture



# Good health and well-being

Ensure healthy lives and promote well-being for all at all ages

Good health is vital for people. SDG 3 includes a number of subgoals and indicators focused on specific contributions to good health. The importance of this SDG has been demonstrated in full force during the COVID-19 pandemic. Although Amsterdam generally offers high-quality essential healthcare services, these have been under enormous pressure since the start of the pandemic.

#### Healthy lifestyle

Amsterdam shows signs of a slightly healthier lifestyle compared to the Netherlands as a whole (Figure 7). Almost four out of five Amsterdam residents perceived their own health as good or very good in 2020. The amount of people with one or more long-term illnesses is slightly lower than in the Netherlands as a whole. This might be because Amsterdam has a relatively young population.<sup>16</sup> The number of people who are overweight<sup>17</sup> has slightly decreased in the period 2016-2020 and is just under 40%. This is considerably less than the Netherlands as a whole, where the percentage slightly increased in the same period and is now almost 50%. The city has launched different policy initiatives to address the issue of obesity, especially in young peo-

ple. The city has committed itself to the goal to have all Amsterdam children at a healthy weight by 2033.<sup>18</sup>

#### The COVID-19 pandemic and access to health care

Beginning in March 2020, Amsterdam was hit by COVID-19. This has led to serious health problems, as well as problems in health care provision. The impact of the pandemic is still difficult to quantify.

However, 2020 figures show that the COVID-19 crisis has negatively affected mental and social well-being, especially among young adults.<sup>19</sup> Around 7% of Amsterdam residents indicate that they or someone in their household have not received necessary medical and/or dental treatment in the past year. The main reason treatment did not take place was the COVID-19 crisis. The lack of coverage from the health insurance and the deductible or personal contribution were other important reasons.<sup>20</sup>

mon in Amsterdam than elsewhere in the Netherlands and in the other major cities. The trend is downward: in 2016, 27% of Amsterdam adults were smokers.<sup>21</sup> Only four out of ten adult Amsterdam residents (40.5%) meet the standard for responsible alcohol use (one glass or less per day on average). This is lower than the national average of 43.4%.<sup>22</sup> Of adults, 14% can be counted as heavy and/or excessive drinkers.

Regarding drug use, 22.3% of adults in the Amsterdam region indicated having used drugs in the last year compared to 9.2% for the Netherlands as a whole.<sup>23</sup>

With regard to policy on smoking, alcohol and drugs, the following goals are set for 2030:

- Less than 5% of Amsterdam residents smoke
- Less than 5% of Amsterdam residents have heavy or excessive alcohol consumption
- Drug use has declined

<sup>16</sup> The average age of the Amsterdam population was 38.7 in 2021; compared to 42.3 for the Netherlands on average ([Waar staat je gemeente](#); based on CBS Bevolkingsstatistiek 2021).

<sup>17</sup> Defined as percentage of persons over 19 years with a Body Mass Index (BMI) of 25.0 kg/m<sup>2</sup> and over.

<sup>18</sup> [Amsterdamse Aanpak Gezond Gewicht](#), 2017.

<sup>19</sup> [Amsterdamse Gezondheidsmonitor 2020](#), p. 10-12.

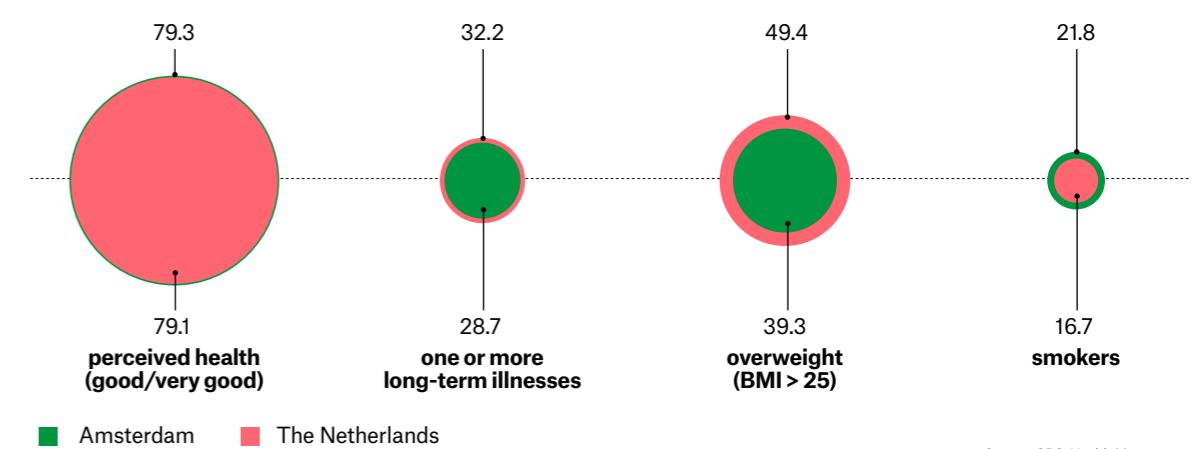
<sup>20</sup> [Amsterdamse Gezondheidsmonitor 2020](#), p. 16.

<sup>21</sup> [Amsterdamse Gezondheidsmonitor 2020](#), p. 18.

<sup>22</sup> RIVM 2021 (data for 2020).

<sup>23</sup> CBS, 2020, [Gezondheid, zorggebruik en Leefstijl](#). These numbers are for the 2017-2019 period and only available at regional level (GGD regions); for Amsterdam this includes the city and five surrounding municipalities)

Fig. 7 Health indicators the Netherlands and Amsterdam, 2020 (in % adult population)



Source: CBS, Health Monitor 2020.

# Quality education

## Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

SDG 4 aims to ensure inclusive, equal and good quality education for all. Starting from early childhood, it includes lifelong learning. Education is vital to creating equal opportunities and reducing social exclusion. In the Netherlands, education is financed mainly by the national government and is based on the principle of free school choice for parents. Public schools and special schools based on religion or educational philosophy are all financed by the government. The curriculum is not set in detail at the national level, although there are national standards and exams. The local government's role in the organisation of education is relatively limited, and there is no role in setting the curriculum.

### Early childhood and primary education

Participation in pre-primary education is an important factor in creating equal opportunities, especially for children who do not use Dutch as their first language at home. Use of early childhood or pre-school education<sup>24</sup> is slightly higher than average in Amsterdam, compared to the Netherlands as a whole (Figure 8).<sup>25</sup>

Statistics Netherlands (CBS) has developed an indicator showing risk

of educational disadvantage in pre-school<sup>26</sup> and primary education. One in four children in Amsterdam (25%) is considered at risk, compared to 15% for the Netherlands as a whole.<sup>27</sup> The numbers are available at the neighbourhood level, which means that a 'heatmap' can be created showing the neighbourhoods with the highest concentration of children (Figure 9).<sup>28</sup> The more red shown, the higher the risk. This shows that risk is highest in specific parts of the city, most notably Noord, Nieuw-West, Zuidoost and parts of Amsterdam-Oost.

### Segregation

Segregation according to socioeconomic and migration background is an issue in Amsterdam schools. Amsterdam is a superdiverse city, where 61% of primary school pupils have a migration background.<sup>29</sup> Segregation in Amsterdam is relatively high, even though it is lowest of the four largest Dutch cities.<sup>30</sup> This is mostly the case for segregation between children with low-income and high-income parents. The segregation of 'rich' and 'poor' is much higher than on the basis of ethnicity. In both cases, the segregation level has slightly decreased over recent years.<sup>31</sup> On the one hand, this segregation is

related to residential segregation, but on the other hand parents' choice of school also plays a role.<sup>32</sup>

### Labour market entry

At the end of initial education, a Dutch student is considered to have a 'starting qualification' for the labour market if (s)he acquires a diploma at EQF level 2 as a minimum.<sup>33</sup> If not, (s)he is considered an early school leaver. The number of early school leavers is relatively low in Amsterdam compared to the Netherlands as a whole: 7.8% of persons between 18-30 years old lack a starting qualification, compared to 11.7% nationally.

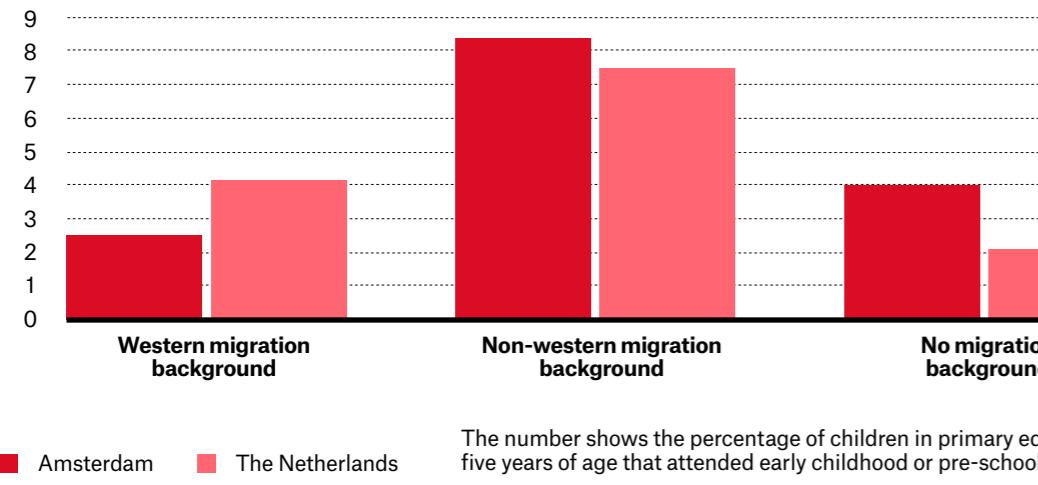
Another indicator of educational success is the percentage of young people not in education, employment or training (NEET). The relative number of NEET youth is consistently lower in Amsterdam compared to the Netherlands as a whole.

For more details on youth in education and employment, see SDG 8.

### Specific problems

One particular problem in education in Amsterdam is the shortage of teachers. This is a national problem, but in Amsterdam it is felt more severely than on average. This problem

**Fig. 8 Use of early childhood or pre-school education, 2021**



is particularly urgent, as the outflow (including retirement) of teachers in primary education in Amsterdam is expected to be much greater than the influx over the coming years. Therefore, the city initiated an emergency plan to remedy this problem. Despite a lot of efforts, the shortage increased over the last few years, and in October 2021 it stood at 15.3% (measured in full-time equivalents); compared to 8.5% for the Netherlands as a whole.<sup>34</sup>

The COVID-19 pandemic has hit hard in education; particularly for pupils or students who were already in a vulnerable position. Its consequences are still to be determined. A clear result of the first phase of the pandemic is seen in the school advice given to students toward the end of primary education, which is on average at 12 years old in the Netherlands. Pupils then move to different levels of (lower) secondary education. The advices given to

primary school pupils at the end of the school year 2019/2020 are on average slightly lower than before: the percentage of pupils with an advice to go to the highest level of secondary education<sup>35</sup> dropped from 27% in 2019 to 24% in 2020.<sup>36</sup>

**Fig. 9 Heatmap of risk of educational disadvantage in pre-school and primary education per neighbourhood in Amsterdam; 2017**



■ high ■ medium ■ low

24 In Dutch: voor- en vroegschoole educatie (VVE).

25 Kennisplatform Inclusief Samenleven, KIS-wijkmonitor, 2021.

26 In Dutch: peuteronderwijs.

27 This model uses characteristics about the environment of children which, according to the CBS study, predict a child's risk of an educational disadvantage. The characteristics included are the following: Education level of the parents; origin; length of stay of the mother in the Netherlands; whether or not in debt restructuring; average education level of all mothers at school. See CBS, Dashboard Onderwijskansen.

28 CBS, Dashboard Onderwijskansen. Data are for 1 October 2017.

29 De Staat van het Amsterdamsche primair onderwijs 2020, p. 16.

30 Onderwijsinspectie, Staat van het onderwijs 2020 – Technisch rapport segregatie.

31 Onderwijsinspectie, Staat van het onderwijs 2020 – Technisch rapport segregatie, p. 9 and 12.

This is shown in a national comparative report using the dissimilarity index. The dissimilarity index was 0.6 for rich-poor and 0.2 for Dutch-nonwestern migration background in 2019. For Amsterdam, there is additional data at neighborhood level which shows the dissimilarity index of parents with high and low education levels; in the period 2015-2019, this index decreased on average as well. See De Staat van het Amsterdamsche primair onderwijs 2020, p. 30.

32 Staat van de Stad, p. 106. A very recent overview of residential segregation of five European capital cities showed that residential segregation in Amsterdam is lowest among these cities. See Haandrikmen et al. (2021).

33 Mbo niveau 2 in Dutch. A definition of education levels in the Netherlands can be found at CBS. Basic level refers to ISCED 1 and 2; intermediate to ISCED 3, 4 and part of 5, advanced to ISCED 6 and up (and part of 5).

34 Monitor programma noodplan lerarentekort, 2021.

35 VWO or pre-university education.

36 Staat van de Stad, p. 108.

# Gender equality

## Achieve gender equality and empower all women and girls

SDG 5 is about achieving a fair distribution of power, influence and resources between women and men. In the Netherlands, there are strong issues regarding gender equality in the economy and labour market.

### Economy

Important indicators of gender equality in relation to the economy are the employment rate and income levels of women. In 2021, men are more likely to work than women in Amsterdam (72 versus 65%). In addition, women earned 16% less than men on average. The difference is greatest among older age groups and among people with a higher education level. More details on gender equality in the economy can be found in the discussion of SDG 8.4.

### The City of Amsterdam

What is the city's own position on gender equality? Amsterdam has had a female mayor since 2018. Femke Halsema is the first woman to hold this position in the city's history. Apart from the mayor, Amsterdam was governed by eight alderpersons

at the time of writing (April 2022), four of which are female.<sup>37</sup> The 45-member city council is the elected representation of the people of Amsterdam. At the March 2022 local elections, just over 50% of elected council members were female.

In the city's organisation, just over half (52%) of all employees were women in 2021.<sup>38</sup> In the top of the organisation, 27 out of 53 officials (51%) were women and a similar percentage is seen in the 'subtop'.<sup>39</sup> A target of 45% women at the top was set for 2021, and this target was achieved. No new target has been set.

### Diversity

Diversity is an important topic in the city's policy. The city departs from an 'intersectional' approach, which implies that people are always more than just their gender, their background or their sexual orientation: 'Think of all aspects that determine our living situation, possibilities and needs, for example, education, socioeconomic status, philosophy, origin and health. Everyone's mix is different'.<sup>40</sup>



<sup>37</sup> At the time of writing (March 2022). After local elections in March 2022, the composition of city council and College of Mayor and Alderpersons will probably change. The mayor is not elected and has been appointed for the period 2018-2024.

<sup>38</sup> In 2021, the city of Amsterdam had 17,854 employees, of which 9,213 were female (internal city numbers).

<sup>39</sup> The following functions are considered 'employees at the top': Municipal Secretary, Registrar, City Directors and Directors. Department directors are considered 'subtop'. Here 156 out of 304 employees (51%) were female in 2021 (internal city numbers).

<sup>40</sup> Volg het beleid: diversiteit (n.d., own translation).

<sup>41</sup> Amsterdam regenboogstad. (n.d.)

regional water authority, but in all other aspects the quality of the water is similar to the average of all water authorities.

An indicator of the affordability of clean water and sanitation is the amount of 'sewage charges', charged by the city (Figure 11)<sup>44</sup>. The charges in Amsterdam are substantially lower than the national average, although the increase in Amsterdam from 2017-2021 has been

greater than the national average.<sup>45</sup> Apart from this fixed amount, large users of drinking water (mainly industry and other companies) pay an extra charge.

In addition to the sewage charges, the water authority also charges a tax which includes three components: a water system charge, a water treatment charge and a pollution charge. Amounts depend on a lot of factors, including home ownership

and household composition, but are typically between € 180 and € 350 per year.<sup>46</sup>

# Clean water and sanitation

## Ensure availability and sustainable management of water and sanitation for all

SDG 6 is about achieving stable public access to high-quality drinking water, sanitation and hygiene. In the Netherlands, water quality is mainly governed by the water authority or waterschap. The city of Amsterdam is part of Waterschap Amstel, Gooi and Vecht, which covers an area with about 1.3 million residents, which is mostly below sea

level. The organisation Waternet works for both the water authority and the city, among other things in maintaining dykes, ensuring supply of safe and clean tap water, maintaining the sewage system and ensuring that the ground water level is correct. Specific local indicators for this SDG are still in development.<sup>42</sup>

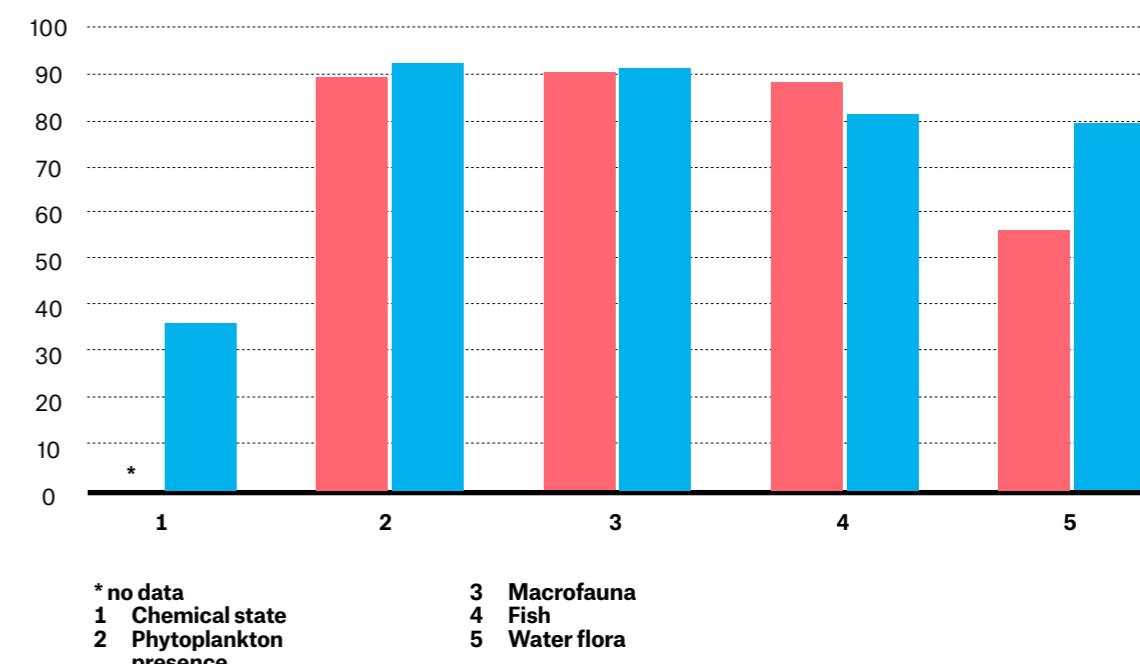


<sup>44</sup> Waar staat je gemeente. (data for 2017 and 2021)

<sup>45</sup> Comparison is for multi-person households. Amsterdam charges the same amount for one-person and multi-person households. Many other municipalities differentiate between the one-person and multi-person households.

<sup>46</sup> Waternet, water authority tax rates. (n.d.)

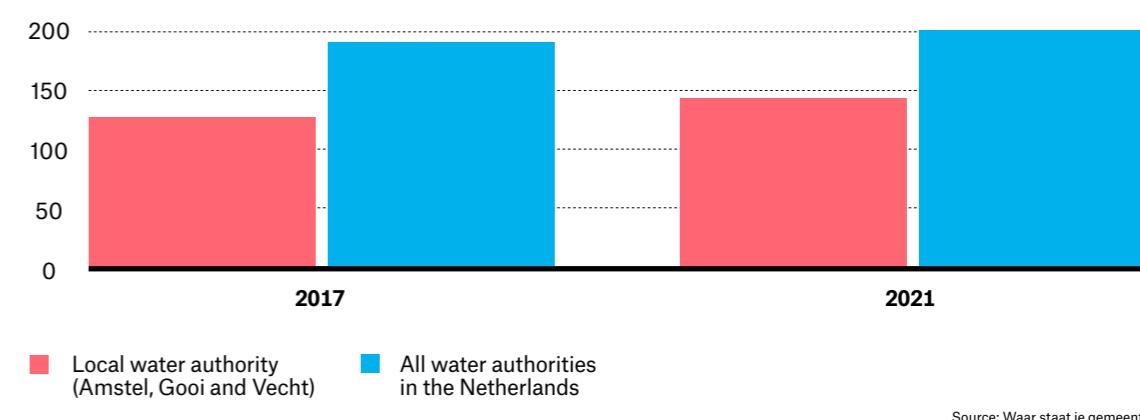
Fig. 10 Elements of water quality 2019 (in % of water bodies that comply with norm)



■ Local water authority (Amstel, Gooi and Vecht)  
■ All water authorities in the Netherlands

Source: Unie van Waterschappen.

Fig. 11 Annual sewage charge in euros per household



Source: Waar staat je gemeente, 2022.

# Affordable and clean energy

Ensure access to affordable, reliable, sustainable and modern energy for all

SDG 7 is focused on energy security, sustainability and energy efficiency. The reliability of energy supply in the Netherlands is high, but attention is needed for energy poverty in some households. Data on sustainable energy can be found in the chapter on SDG 13.

## Energy affordability

Two indicators for energy affordability are the energy poverty indicator and the energy ratio. The energy poverty indicator is

the percentage of households that combine to be in the bottom 25% of income and in the top 50% of energy use. In 2018, 8% of Amsterdam households belonged to this category, which was around the national average.

The city also collects its own data on energy costs. In 2019, Amsterdam households spent an average of €110 per month on their energy bill, which is on average 5% of the household income (the energy ratio). With an energy ratio of 10% or higher, the en-

ergy costs are regarded as (too) heavy on the income. The city defines this as 'energy poverty'. About 11% of Amsterdam households fell into this category in 2019.<sup>47</sup> From mid-2021, energy costs for most households have risen dramatically. The possible effects on energy poverty are discussed in more detail under SDG 1- Resilience.

<sup>47</sup> *Staat van de Stad*, p. 32-33. Note that in national comparisons, an energy quote of 8% and over is regarded as high. Due to different definitions, local data are not comparable to national data.



# Decent work and economic growth

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

[See next chapter for detailed analysis](#)



# Industry, innovation and infrastructure

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

SDG 9 encompasses multiple subjects: industry, innovation and infrastructure. Some of the UN-defined goals for this target are specifically relevant for

developing countries. This SDG has significant overlap with other SDGs that are developed in more detail, notably SDGs 8 (indicators related to sustainable economic

growth) and 13 (related to CO<sub>2</sub> emissions). Here, we focus on innovation.

Innovative startups focused on



sustainability can find relatively affordable office space and networking facilities in incubator and accelerator programmes and spaces in the city. One example is Impact Hub Amsterdam, which has around 400 members and is part of a global chain of 'hubs'. The city also sponsors Startup in Residence,

an incubation programme that connects entrepreneurs with key social and urban challenges in Amsterdam to stimulate innovation. For these startups, the city functions as a potential launching customer.

Further data on infrastructure can

be found in the chapter on SDG 11; further data on jobs can be found in the chapter on SDG 8.

# Reduce inequality

Reduce inequality within and among countries

[See next chapter for detailed analysis](#)



# Sustainable cities and communities

Make cities and human settlements inclusive, safe, resilient and sustainable

[See next chapter for detailed analysis](#)



# Responsible consumption and production

Ensure sustainable consumption and production patterns

[See next chapter for detailed analysis](#)

# Climate action

Take urgent action to combat climate change and its impacts

See next chapter for detailed analysis



## Life below water

Conserve and sustainably use the oceans, seas and marine resources for sustainable development



SDG 14 mainly refers to the ocean and marine resources. It is particularly difficult to find relevant indicators related to this goal at the local (city) level. Access to the sea from the Port of

Amsterdam is through the North Sea Channel. At the end of this channel, a new sea lock called Zeesluis IJmuiden was installed and officially opened in January 2022, aiming to ensure access to the sea

for the long term. It is the largest sea lock in the world. More info on sustainability and the Port of Amsterdam can be found in the chapter on SDG 13.

## 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



SDG 15 concerns the protection, restoration and sustainable management of all forms of life on land. At the local level, the share of 'nature' and forest in the total area is relevant.

The Netherlands has a low percentage of forest within its territory (just over 11%), compared to other countries.<sup>48</sup> The city of Amsterdam only has 193 hectares that qualify as forest. It is important to note that a large part of Amsterdam's main forest area, called Amsterdam Forest (Amsterdamse Bos), is just outside

the city borders. However, it is managed by the city. The Amsterdam Forest covers an area of around 1,000 hectares.

Taking a somewhat broader approach to nature areas, Amsterdam city still scores low in comparison to the Netherlands (Figure 12)<sup>49</sup>.

More data on the amount of 'green' in the city can be found in the chapter on SDG 13.

In 2016, the city published an extensive study<sup>50</sup> in which 'nature value' was mapped, on the basis of species

number, naturalness, substitutability and the role of the area in the ecological structure. The main conclusion was that the value of nature in Amsterdam increased compared to previous reports. Specific sub-studies into the distribution of house sparrows, butterflies, wild bees and wall plants supported this conclusion.<sup>51</sup>

The urban fringes form the most valuable areas from the point of view of urban nature and offer the most favourable conditions for biodiversity. In the coming years, a new report on 'nature value' is planned.

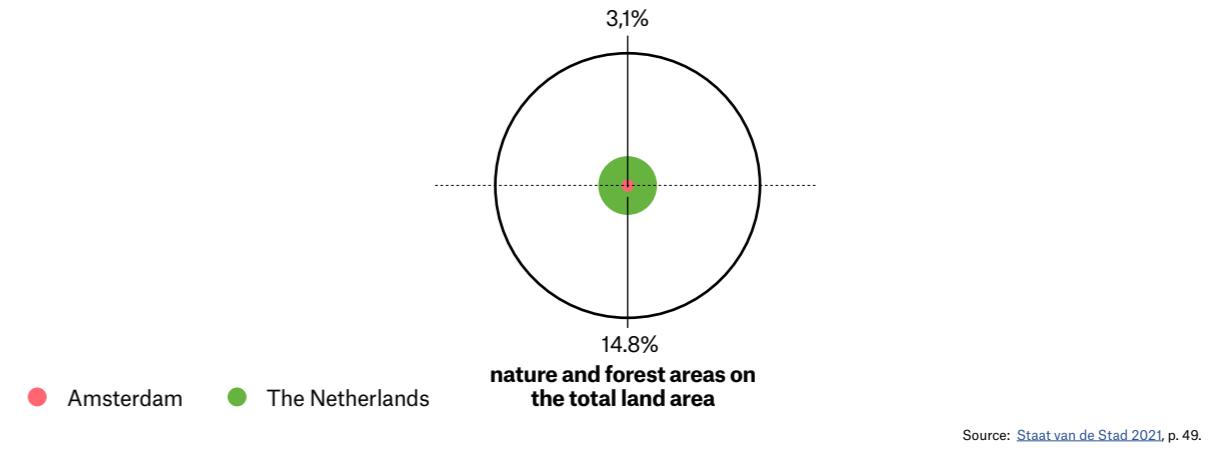
48 CBS, numbers for 2014.

49 Staat van de Stad, p. 49. Numbers for 2015 and 2016.

50 Natuurwaarden in kaart 2016.

51 Ibid, p. 18.

Fig. 12 Nature area in Amsterdam and the Netherlands



## 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



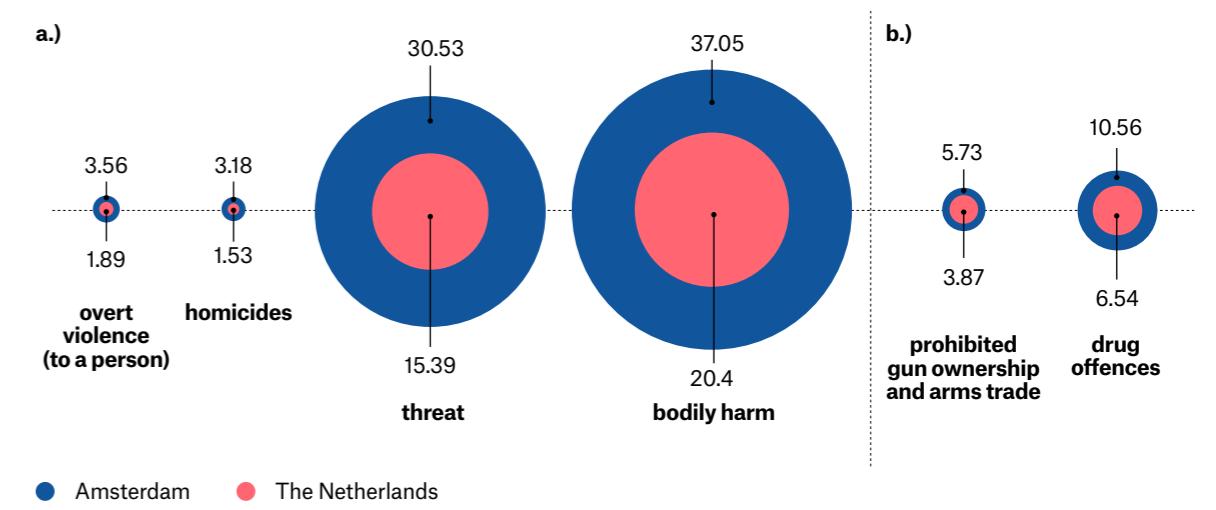
SDG 16 focuses on promoting a peaceful and secure society with effective and reliable institutions. Special attention is paid to reducing all forms of violence and the resulting deaths and fighting organised crime.

A set of indicators for the amount of

violence is formed by the occurrence of different forms of impairment of the physical integrity of persons, as shown in Figure 13a<sup>52</sup>. It is clear that Amsterdam does not score well compared to the Netherlands as a whole; reported occurrences are roughly almost double for each category. The good news is that all these numbers

show an obvious downward trend over the last decade. This downward trend is particularly strong in Amsterdam. Organised crime is also more prevalent in Amsterdam than in the Netherlands. This is shown by the indicators in Figure 13b<sup>53</sup>. For these indicators, the general trend is also

Fig. 13 a.) Impairment of physical integrity and homicides, per 10,000 residents (2021)  
b.) Organized crime, per 10,000 residents (2021)



downward, and the difference between the Amsterdam numbers and the national numbers is decreasing.

Another component of this SDG is the experience that citizens have

with their institutions; are they satisfied with the public services provided by the city? In 2019, Amsterdam citizens gave an average score of 7.1 on a scale of 1 to 10. There is almost no difference in how service

is valued between groups. However, citizens with a non-Western migration background do give a slightly higher score (7.3) than those without a migration background (6.9).<sup>54</sup>

<sup>54</sup> Burgermonitor Amsterdam 2019, p. 43.

# Partnerships to achieve the Goals

**Strengthen the means of implementation and revitalize the global partnership for sustainable development**

The final SDG is focused on building (global) partnerships to achieve the other 16 goals. Partnerships are also relevant for achieving goals at the local level. The city of Amsterdam has a strong focus on building partnerships, both locally, regionally nationally and internationally. Within Amsterdam, there are different structures in which organisations explicitly work together to achieve the SDGs. The national movement 'SDG Nederland', which connects over 1,000 organisations and is structured by a foundation, is based in Amsterdam. A more locally-focused example is formed by 60+ organisations collaborating in the 'SDG House', which is both a physical space and a virtual network. Since 2021, the SDG House has offered a 15-week SDG traineeship programme, in which young people can develop themselves to become an 'SDG professional'. At the regional level, Amsterdam closely works with surrounding municipalities in the Metropolitan Region Amsterdam (MRA). This consists of 32 municipalities, two provinces (North Holland and Flev-

oland) and the Transport Authority Amsterdam and basically spans the 'daily urban system' of Amsterdam. In October 2021, a top-level policy meeting focused on sustainability was held, and this is planned to be followed in September 2022 by a similar meeting on 'The State of Sustainability'. The MRA participates in a number of 'Green Deals' which focus on sustainability in specific sectors. One example is the 'Green Deal Wood', in which the MRA commits itself to use at least 20% wood or biobased materials in all its new building projects from 2025.

How do Amsterdam's sustainability efforts compare at the Dutch national level? An overall score is shown in the 'Municipal Sustainability Index' (GDI in Dutch)<sup>55</sup>, which compares all Dutch municipalities and gives them a score between 0 and 10. Here, Amsterdam scores 5.7; compared to a Dutch average of 5.9. Amsterdam scores well above average on the economic dimension of this index, while it scores below average on human development and societal indicators.

At the international level, Amsterdam aims to be a responsible capital and invests in various forms of co-operation, both in networks and in bilateral cooperation relationships. C40 is a global city network focused on the exchange of knowledge in the field of climate. The network ensures that partners are less dependent on political changes in the cities. Knowledge sharing is paramount. Amsterdam has said goodbye to city twinning in general. Instead, it mainly builds relationships around specific subjects. A notable exception is the recently renewed cooperation with Suriname (a former colony of the Netherlands, which became independent in 1975). This collaboration has great symbolic significance, because of Amsterdam's role in the slave trade and because of the large Surinamese diaspora in the city. It gains meaning as knowledge is exchanged on topics such as water management, health care and culture. Being a reliable partner in the present makes it easier to address the black pages of the past.



<sup>55</sup> Onderzoekscentrum Drechtsteden (no date). [Gemeentelijke Duurzaamheidsindex](#).





SDG  
1, 8, 10, 11, 12, 13  
in detailed  
analysis



# No poverty

SDG 1 is aimed at reducing poverty in all its forms. This concerns both financial aspects and the impact of poverty on people's lives.



The SDG agenda calls for special attention for social protection, equal economic rights and resilience of poor and vulnerable groups. The poverty problem in the Netherlands is of a different order compared to the poorest countries, but here, too, people are at risk of (relative) poverty. Since the decentralisation in the social domain of 2015, municipalities have played a key role in caring for the most vulnerable groups. Themes that also require attention in the Netherlands are problematic debts and child poverty. The COVID-19 crisis has exacerbated existing vulnerabilities worldwide.

## Highlights

- People with a low income suffer more often from long-term illness or other physical ailments/handicaps and feel less energised. The difference has become smaller mainly due to a drop in score among people with a high income.
- Low income and problematic debts are often related. Problematic debts are also more prevalent among residents with basic and intermediate education levels.
- In 2020, due to the COVID-19 crisis, a sharp increase was seen in households receiving a weekly food package.
- The main policy goals are to develop a just city with equal opportunities for all citizens and to provide residents in minimum-households a better livelihood by limiting poverty and debts. The city of Amsterdam is focusing on the prevention of problematic debts. This approach seems to be successful in reaching residents in an early stage and help them through counselling to prevent increase in debts.

## Reducing poverty

→ Subgoal link: 1.2

By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions.

### Households with minimum incomes

The city of Amsterdam differentiates between households with low incomes (an income less than 120% of the Statutory Minimum Wage<sup>56</sup>) and households with minimum incomes, which refers to households with both income and capital below the social assistance standard.<sup>57</sup> The persons<sup>58</sup> living in these 'minimal' households formed 14% of all households in 2018, compared to 14.5% in 2017.<sup>59</sup>

Differentiated between age groups, we see that in 2018:

- 22.4% of the persons in 'minimal' households are between 0 and 17 years old (compared to 23% in 2017)
  - 59.5% of the persons in 'minimal' households are between 18 and 65 years (compared to 59.7% in 2017)
  - 18.1% of persons in 'minimal' households are 65 years and older (compared to 17.3% in 2017)<sup>60</sup>
- Of all children in Amsterdam (0-18 years old), 12% lived in households dependent upon social assistance (bijstandsuitkering) in 2020, compared to 6% in the Netherlands as a whole.<sup>61</sup>

People with a low income<sup>62</sup> suffer more often from long-term illness or other physical ailments/handicaps (45%) than people with a medium income (29%) or a high income (18%) (Figure 14). In addition, 38% of people with a low income report feeling less energised versus 59% of people with a high income. The difference is smaller than in 2018; mainly due to a drop in score among people with a high income (from 72% in 2018 to 59% in 2020).<sup>63</sup>

### Households with registered debts

In total, 10.6% of all households had registered debts in 2020 (compared to 11.2% in 2019).<sup>64</sup> This

<sup>56</sup> This is defined annually by the [national government](#). For 2022 it was set at € 1725 per month gross income, excluding holiday leave.

<sup>57</sup> In Dutch: bijstandsnorm. This standard depends on age and living situation (one-person household or more persons).

<sup>58</sup> In line with the indicator suggested by VNG, we look at persons within households (instead of households) because this is more in line with the subgoal of reducing poverty among all persons living in poverty. Households are also not as stable as they used to be. Households give a different number (smaller).

<sup>59</sup> [Inkommen en bestedingen](#), Amsterdam, 2021.

<sup>60</sup> [Inkommen en bestedingen](#), Amsterdam, 2021.

<sup>61</sup> [Waar staat je gemeente](#), 2020. The number refers to the percentage of children living in a family where at least one member receives social assistance (bijstandsuitkering). Data are from CBS.

<sup>62</sup> According to the city's own definition, see earlier paragraph.

<sup>63</sup> These percentages are gained through a survey amongst residents of Amsterdam for the report [Staat van de Stad](#) and thus give insights into people's experienced health as well.

<sup>64</sup> [Staat van de Stad](#), p. 11.

Fig. 14 People suffering from a long-term illness, condition or disability according to education level, income, age, 2018-2020

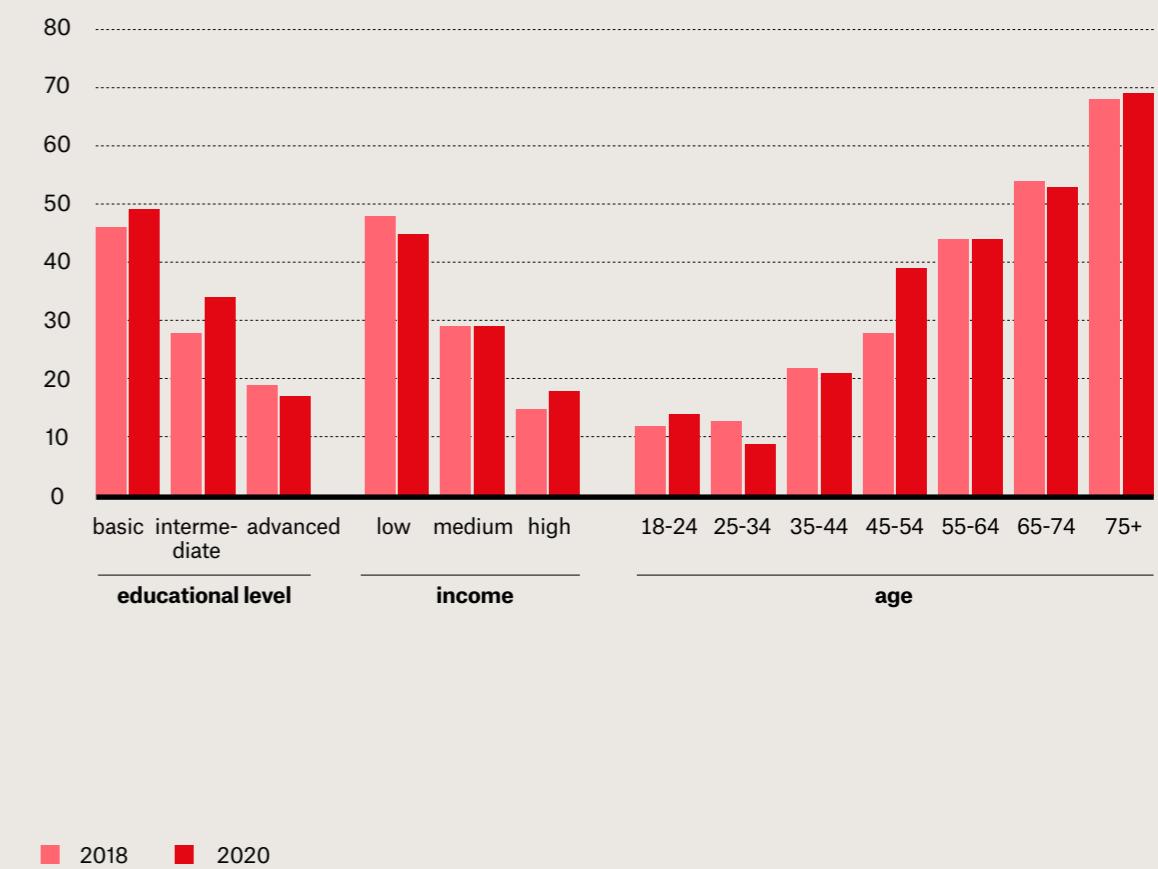
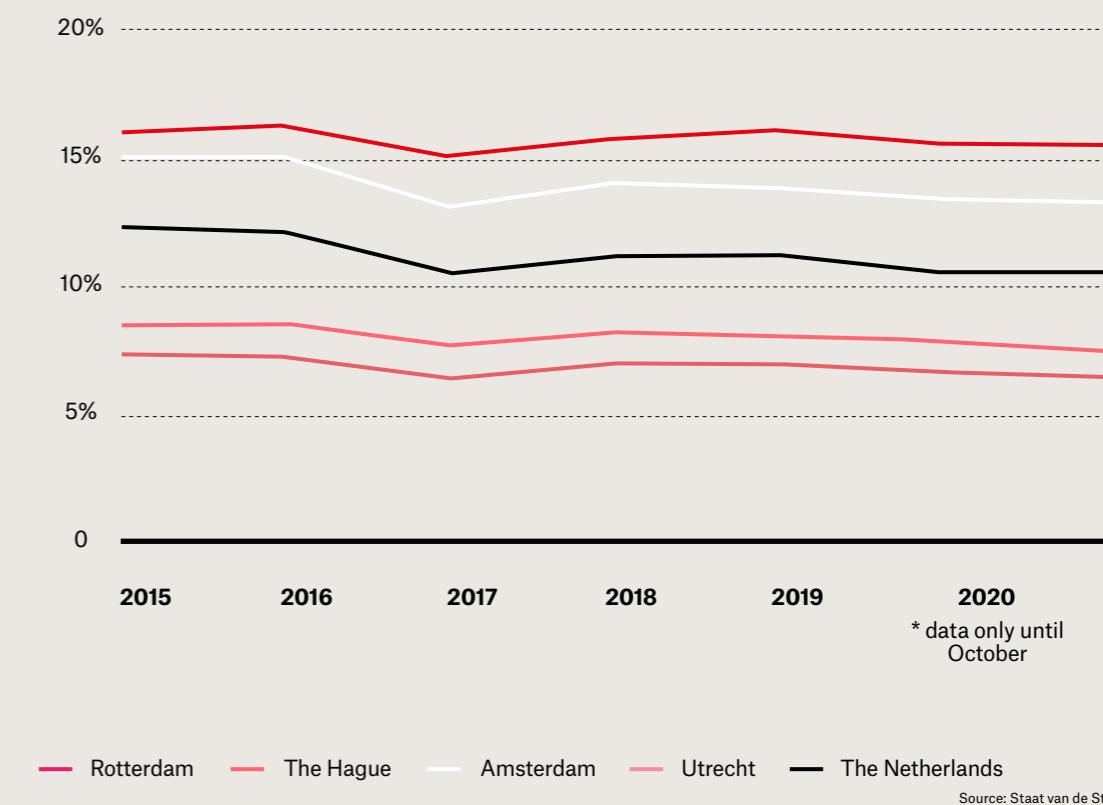
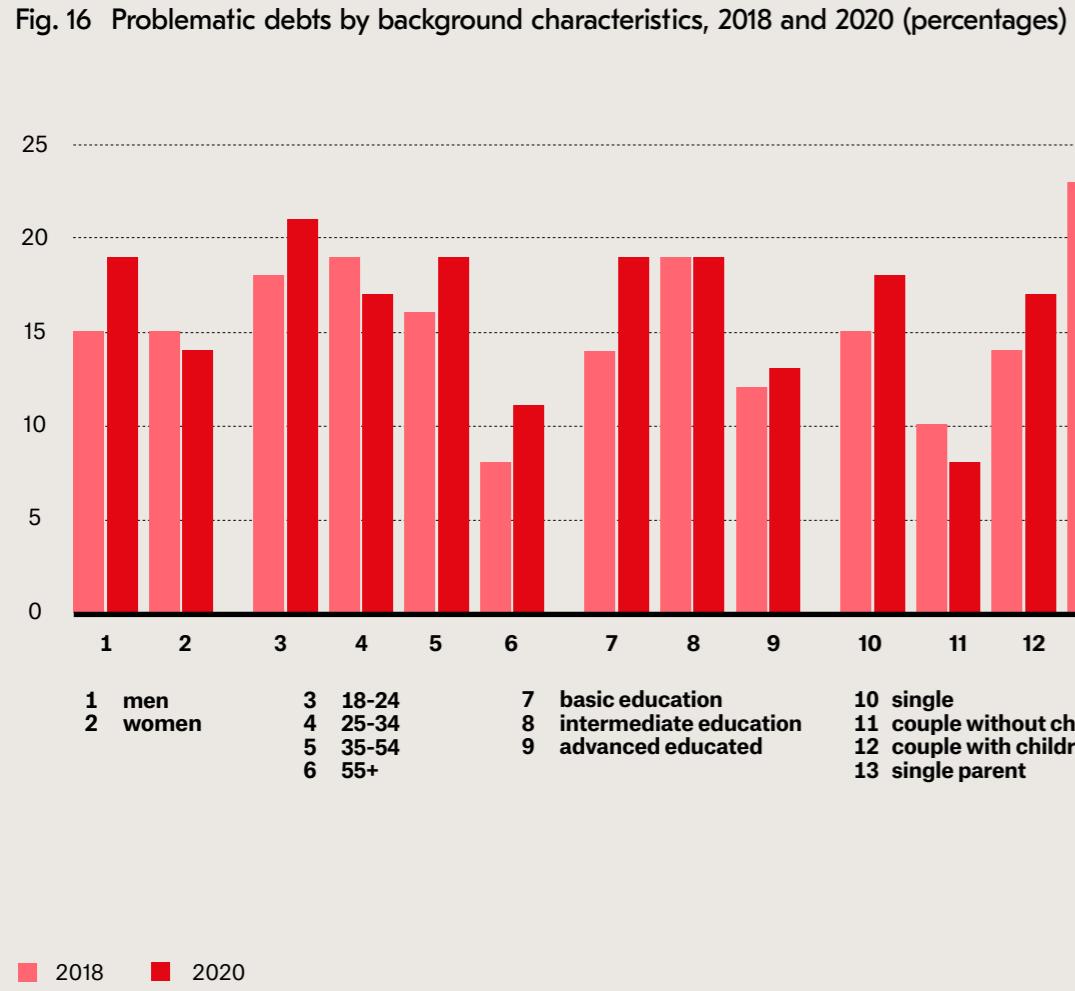


Fig. 15 Households with registered debt problems in the largest four Dutch cities, 2015 - Oct 2020 (percentages)





percentage is higher than the average in the Netherlands and the city of Utrecht, but lower than the averages in Rotterdam and The Hague (the four largest cities in the Netherlands) (Figure 15). Between 2015 and 2020 the proportion of households with problematic debts has decreased more than the average decrease in the Netherlands.<sup>65</sup>

The level of household income and problematic debts are related. Residents with a very low income often have problematic debts. Residents who say they have difficulty making ends meet relatively often have problematic debts (32%). Looking at the characteristics of people with problematic debts (Figure 16), we see the following in 2020:

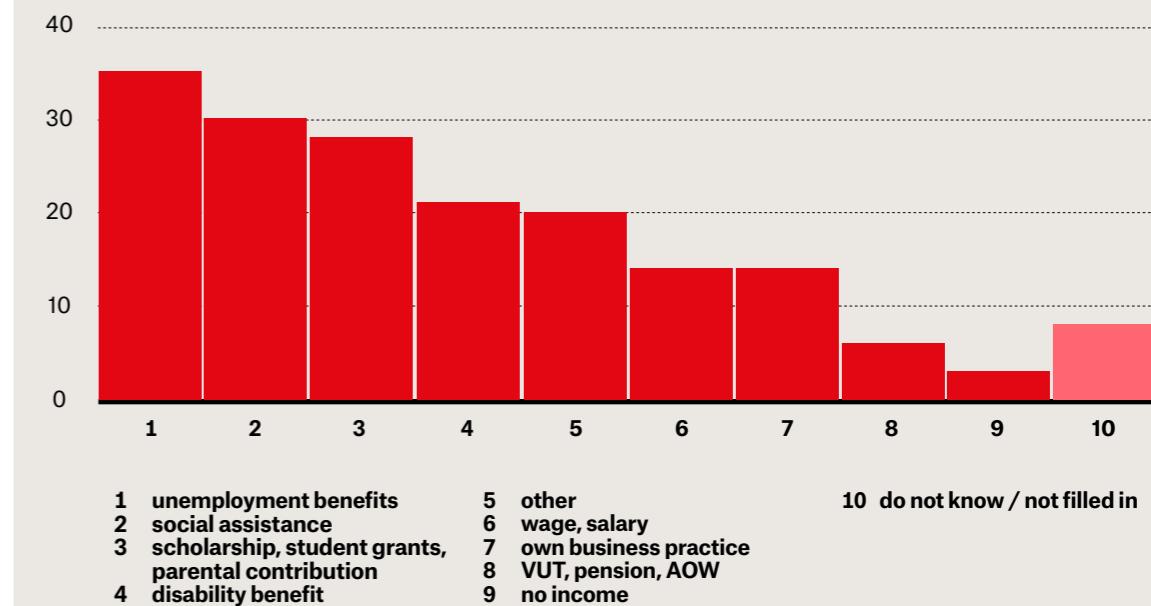
- Men indicate they have more problematic debts (19%) than women (14%). This difference was almost the same in 2018.
  - Young people aged 18-24 have more problematic debts (21%) than other age groups. Student debt plays a role here. Compared to 2018, the percentages for the age groups 18-24 years, 35-54 years and 55 years and older have increased.
  - Residents with basic and intermediate education levels<sup>66</sup> often have more problematic debts (both 19%) than residents from higher education levels (13%). In 2018, the percentage of people with basic education levels in problematic debt was much lower (14%).
- Social protection systems for the poor and the vulnerable**
- Subgoal link: 1.3 and 1.4
- 1.3: Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the**

● Looking at household types, single-parent families are more often in debt (20%) than other household types: 18% among single people, 17% among couples with children and 8% among couples without children.<sup>67</sup>

Compared to residents with approximately the same income derived through employment, residents who receive social assistance, disability or unemployment benefits relatively have more problematic debts (Figure 17). There is no significant difference between men and women in this regard.<sup>68</sup>

Problems with poverty are mostly concentrated in the so-called development neighbourhoods in the districts Noord, Nieuw-West and Zuidoost, where an accumulation of problems occur. In these areas, there is also the highest proportion of households that receive social assistance benefits<sup>69</sup> as main source of income.<sup>70</sup> Residents of district Zuid are the least likely to experience problematic debts, while those in West, Noord and Zuidoost experience the most problematic debts.<sup>71</sup>

**Fig. 17 Experienced problematic debts and source of income, 2020 (percentages)**



Source: Factsheet Schulden in Amsterdam 2021 Gemeente Amsterdam.

#### poor and the vulnerable.

**1.4: By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance.**

This also refers to 1.1 and 2.1

Of all households, 22.6% received social assistance benefits and support in 2021 (average in the Netherlands is 20.4%).<sup>72</sup> In 2019, approximately 60,000 residents of Amsterdam received social assistance through the Social Support Act (7%) and approximately 10,000 (1.2%) received social assistance through the Chronic Care Act.<sup>73</sup> Women, seniors over 75 years old and people with a low-income receive these social benefits more often.<sup>74</sup>

Another indicator of poverty is the number of households dependent on a 'food bank', where food is distributed weekly to people in need. In 2020, when COVID-19 first hit, a marked increase was observed in households that received a weekly food package. The numbers rose from 1,236 households on 1 January 2020 to 1,969 households on 31 December 2020,<sup>75</sup> an increase of 59%. In July 2021, this number was stable at 1,963.<sup>76</sup>

#### Resilience

→ Subgoal link: 1.5. This also relates to SDG 7. By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters.

An important element linked to resilience is energy poverty. Rising energy prices are a major issue in Amsterdam, as they do throughout the Netherlands and beyond. In 2020, the city published a report on energy poverty, in which an analysis was made of households vulnerable to rising energy prices.<sup>77</sup> Energy poverty is defined by the energy ratio: the percentage of a household income spent on energy. With an energy ratio of 10% or higher, the energy costs are regarded as (too) heavy on the income.

In an as-yet-unpublished document by the city's Research and Statistics Office, a preliminary analysis was made of the consequences of rising prices since mid-2021. On average, energy prices increased by 74% between May 2021 and February 2022. This would result in the number of households in energy poverty increasing from 9% to 27% on average for the city. Low-income groups are mostly affected by rising prices. The percentage of low-income households<sup>78</sup> in energy poverty would rise from 28% to 70%. However, it is not known how many households have long-term

65 [Staat van de Stad](#), p. 138.

66 A definition of education levels in the Netherlands can be found at [CBS](#). Lower level refers to ISCED 1 and 2; medium to ISCED 3, 4 and part of 5, higher to part of ISCED 6 and up (and part of 5).

67 [Staat van de Stad](#), p. 139.

68 [Factsheet Schulden in Amsterdam](#), p. 2. These percentages are from 2019 (instead of 2020 in the figures used from [Staat van de Stad](#) above).

69 In Dutch: [bijstandsuitkering](#).

70 In Amsterdam 32 development neighborhoods ([Ontwikkelbuurten](#)) are indicated in the areas Noord, Zuidoost and Nieuwe-West.

71 [Factsheet Schulden in Amsterdam](#), p. 1.

72 [Gemeenfelijk Monitor Social Domein](#). These benefits and support fall under the Child and Youth Act, Participation Act or Social Support Act (Jeugdwet, Participatiewet and WMO 2015 in Dutch).

73 In Dutch: [Wet langdurige zorg](#).

74 [Staat van de Stad](#), p. 10.

75 [Voedselbank Amsterdam](#), 2021, p. 13.

76 [Staat van de Stad](#), p. 143.

77 [Energiearmoede in Amsterdam](#), 2020.

78 In this case low-income households are defined as those households with an income below the 'rent benefit limit' ([huuroeslaggrens](#)). In 2021 this was €23,725 for one-person households and €32,200 for multi-person households.

contracts with fixed energy prices, and therefore are not yet affected by the rising prices. Additionally, households may be urged to take energy-saving measures due to rising prices. At the same time, the effects of the war in Ukraine on energy prices have not yet been taken into account. It is clear that there are many uncertainties regarding energy poverty.

Recent research on the topic<sup>79</sup> shows that approximately 75% of energy-poor households live in a housing association house (corporatiewoning). For Amsterdam, this leads to a nuanced picture on neighbourhood level, according to the researchers: 'various neighbourhoods in Amsterdam-Noord have a relatively large number of households with a low income and high energy costs, but a relatively small number of owners and tenants in less energetic houses who cannot make them more sustainable themselves; the Osdorp district, on the other hand, has a relatively large number of all these groups of households'.<sup>80</sup>

#### Policy frameworks

→ Subgoal link: 1.b

Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions.

The city's goal is to reduce the number of low-income residents who have problematic debts and/or struggle to make ends meet, to provide them with better opportunities. The Participation Act provides local governments with the possibility to implement local poverty policies within the framework of the law. The Amsterdam Agenda for Poverty and Debt describes the approach. In addition, there is a separate policy plan for reducing and preventing problematic debts ('Schuldhulpverlening' 2021-2025).<sup>81</sup> For both policies a monitor has been developed to follow the different resident groups who live in poverty and to identify which ones have debts (the 'Amsterdamse Armoedemonitor' and the 'Schuldenmonitor'). The main goals are to develop a just city with equal opportunities for all citizens and to provide residents in minima-households a better livelihood by limiting poverty and debts. Poverty is alleviated through different schemes that these residents can apply for (under the name 'Take your chance'). For children and young people there are also different schemes to create more equal opportunities and a higher level of participation.<sup>82</sup> The aim of the approach is to increase people's self-efficacy by providing tailored income support for minima-households and invest in skills for (digital) literacy and health. Additionally, residents can apply for long-term budget and financial coaching in their local neighbourhoods. To support children who live in poverty, extra financial support is made available in different schemes in education, sports and culture.<sup>83</sup> The city of Amsterdam is strongly committed to preventing and solving problematic debts. For residents with problematic debts, there is

a specific policy plan with several measures, Schuldhulpverlening 2021-2025. Residents with problematic debts can get help from debt counselling that is carried out by social service providers (MaDis). The most important intervention aimed at preventing problematic debts is 'Vroeg Erop Af', by trying to detect problems in an early stage. The 'Vroeg Erop Af' approach is based on agreements with housing corporations, energy companies, health insurance companies, the Employee Insurance Agency (UWV), the Amsterdam Tax Office, Waternet, CAK<sup>84</sup> and Social Insurance Bank (SVB). The agreement involves notifying the MaDi when a person is three months or longer in arrears with the relevant institution. By tackling problems early, the aim is to prevent bigger problems, such as a house eviction or a hold on the energy supply. In 2020, the number of notifications from 'Vroeg Erop Af' was 20,453. This is an increase of 6% compared to 2019. In 2020, more than 65% (11,500) of these reported households will 'have been reached', meaning that a plan of action for the payment arrears has been made or other actions have been taken, such as a referral, support and/or monitoring.<sup>85</sup>

At the end of 2020, approximately 6,600 Amsterdam residents had completed a regular debt counselling process, of which 4,611 were started in 2020. Of the processes completed in 2020, 61% were successful. In 2019, 8,200 residents were in debt counselling, with a success rate of 69%. This decrease in the number of (successful) trajectories in 2020 may be related, among other things, to the limited possibilities for physical personal contact because of the COVID-19 crisis at the start of the first lockdown.<sup>86</sup>

<sup>79</sup> TNO research published the report [De feiten over energiearmoede in Nederland. Inzicht op nationaal en lokaal niveau](#). (The facts about energy poverty in the Netherlands. Insight at national and local level) in September 2021 (based on data from 2019).

<sup>80</sup> TNO, [De feiten over energiearmoede in Nederland. Inzicht op nationaal en lokaal niveau](#), p. 36.

<sup>81</sup> [Stad met Uitzicht, Agenda Armoede en Schulden 2019-2022](#).

<sup>82</sup> [Volg het beleid: Werk, participatie en inkomen](#) (n.d.).

<sup>83</sup> [Stad met Uitzicht, Agenda Armoede en Schulden 2019-2022](#).

<sup>84</sup> A government organization that administers Dutch health insurance for people living abroad.

<sup>85</sup> [Staat van de Stad](#), p.139.

<sup>86</sup> [Staat van de Stad](#), p.139.



## — Good practices —

### Experiment with social welfare assistance ('Amsterdamse Experiment met de Bijstand')

→ SDG link: 1.3



On 1 February 2018, an experiment was launched to investigate whether a premium stimulates people who receive the social assistance benefit to look for (part-time) work. Participants in the experiment could earn a monthly premium of up to 200 euros if they work or start working part-time. With this scheme, peo-

ple entitled to social assistance can receive 30% of their wages, up to a maximum of 219 euros per month, as a premium. This happens once every six months, without their monthly benefit decreasing. The money is mainly spent on paying off debts, paying arrears and fixed costs such as rent, insurance and subscriptions. The premium is not formally seen as income, so it is not at the expense of, for example, the housing benefit. Research showed that twice as many people started working in this group compared to a comparable group that did not participate in the experiment. The results also showed that the so-called additional income premium contributes to more social security. That is why, since March 2022, everyone with assistance has been eligible for it, and the scheme will now be extended until the end of 2023.<sup>87</sup>



### Everyone Connected ('Iedereen Verbonden')

→ SDG link: 1.5

Through the COVID-19 crisis, it became clear that not every resident has access to the Internet. To prevent exclusion, 3,500 residents received refurbished laptops and Internet connections. In this way, people were able to maintain contact with others, could continue courses and thus remain connected socially with the city. 'Everyone Connected' is aimed at residents with a small budget who do not have access to a laptop or Internet connection. The provision of laptops and Internet hotspots has been established through cooperation with about 50 civil society organisations who can reach a wide group of residents with a low income. Residents who need help with their devices are supported by volunteers in increasing their digital skills. Refurbishing is also done in collaboration with partners, whereby work, learning and/or internship places are offered to people with a distance to the labour market. The conscious decision was made to recycle and refurbish existing equipment. Many companies and institutions have laptops or other devices that they no longer use, simply because newer models have been introduced. By refurbishing laptops, this project not only contributes to social cohesion but also to sustainable employment.<sup>88</sup>



The city of Amsterdam is trying to help people at risk of poverty as early as possible, to prevent them from getting into serious debts or being evicted from their homes (the 'Vroeg Erop Af' approach, see above). When problems are still small, advice or another 'light' intervention can be sufficient. To do that, it is important to know who is at risk of gaining serious debts. Therefore, the city receives a report from health insurers, housing associations, energy suppliers and the water authority (among others) about customers who have payment arrears. This is known as the 'approach to early detection' ('Amsterdamse aanpak vroegsignalering'). Through municipal legislation on debt assistance (the 'Wet gemeentelijke schuldhulpverlening') the creditor is allowed to pass this information to the city. After the report, the municipality supplements the data with other information known about the person reported.

This is information that is necessary to determine whether someone is a benefit claimant or a customer of WPI (the Work, Participation and Income Department of the Municipality of Amsterdam) and to determine to which care provider the report can best be forwarded. The system sends the report to a municipal social worker, who will contact the citizen in

14 days and performs a first analysis in 28 days. When the citizen accepts help, detailed agreements are made. The social worker reports to the central administration so that the creditor knows what the next steps are for the payment arrears.<sup>89</sup>

<sup>87</sup> NOS (26 November 2021). [Amsterdam gaat langer door met premie voor werkenden in de bijstand](#). For more detailed information about the research results, see: [Amsterdams experiment met de bijstand](#).

<sup>88</sup> <https://www.amsterdam.nl/innovatie/coronavirus-iedereen-verbonden/>

<sup>89</sup> <https://algoritmeregister.amsterdam.nl/vroeg-eropaf/>

8



# Decent work and economic growth



SDG 8 is aimed at promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.

The debate on economic growth has intensified since the SDGs were adopted in 2015. Striving towards economic growth at any price is no longer deemed acceptable. The city's use of the framework of Doughnut Economics indicates that there is a broader view toward the economy, in which the goal is to move to a space where in which 'it is possible to meet the needs of all people within the means of the living planet – an ecologically safe and socially just space in which humanity can thrive'.<sup>90</sup>

The aim is thus 'to thrive rather than to grow. Don't let growth become a goal in itself'.<sup>91</sup> This corresponds to broader sets of indicators for the state of the economy developed at the international and national levels. For example, Statistics Netherlands publishes an annual Monitor of Well-being and the SDGs.<sup>92</sup> However, economic growth in terms of gross regional product is one relevant indicator for this SDG, as we will see below.

## Highlights

- The economy of Amsterdam experienced rapid growth in terms of gross regional product between 2013 and 2019. The growth rate was above the national average. At the same time, the economy was relatively more vulnerable to effects of the COVID-19 pandemic.
- The city of Amsterdam aims to support green growth by stimulating the energy transition and circular economy. This contributes to job opportunities in sectors related to both transitions. However, employment in these sectors is still a small share of the total employment in Amsterdam.
- The net employment rate in Amsterdam is similar to the average in the Netherlands. There are large differences between groups (age, gender, educational level and migration background) in terms of employment rate.
- Men in Amsterdam earn on average 16% more per hour than women. Only two-thirds of all women are economically independent, similar to the national average.
- Discrimination takes place both during job application processes and in the workplace, mostly based on ethnicity or skin colour.

### Economic growth and decline

→ Subgoal link: 8.1

**Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7% gross domestic product growth per annum in the least developed countries.**

The economy of Amsterdam and its metropolitan region (MRA) has experienced rapid growth from 2014 to 2019 (Figure 18). The growth rate of the MRA was driven by the growth rate of the Amsterdam economy: more than half of the gross regional product of the MRA is produced in Amsterdam.<sup>93</sup> In 2019, the growth rates of the Amsterdam economy (2.8%) and the MRA (2.7%) were approximately one percentage point above the national average (1.7%).

In 2020, the measures taken by government to control the COVID-19 pandemic put various economic activities to halt, including hospitality, travel services, tourism and recreation. These sectors are well represented in Amsterdam and surrounding municipalities such as Haarlemmermeer, where Schiphol Airport is located. As a result, the local economy experienced a stronger decrease in 2020 than other areas in the Netherlands: -7% in Amsterdam and -18% in Haarlemmermeer (where Schiphol Airport is located), compared to -3.7% nationally. The economy in Amsterdam recovered and grew by 9% in the second half of 2021 compared to the same period in 2020.<sup>94</sup>

<sup>90</sup> [Amsterdam City Doughnut](#) (2020), p. 4.

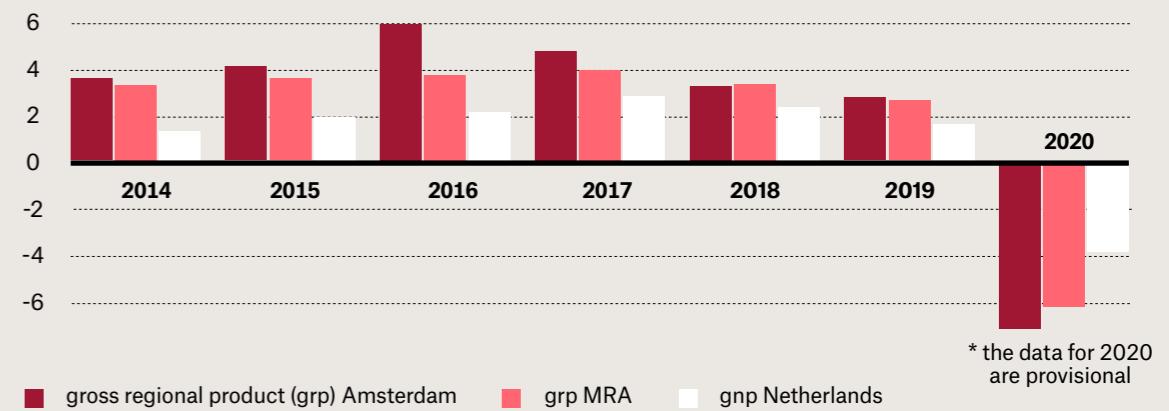
<sup>91</sup> [Amsterdam City Doughnut](#) (2020), p. 4.

<sup>92</sup> [Monitor of Well-being & the SDGs 2021](#).

<sup>93</sup> [Staat van de Stad](#), p. 58.

<sup>94</sup> [Staat van de Stad](#), p. 58.

Fig. 18 Economic growth (gross regional/national product), 2014-2020



Source: Staat van de Stad, p. 58.

### Economic diversification

→ Subgoal link: 8.2

**Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors.**

Amsterdam has a diversified economy, with a lot of knowledge-intensive companies. More than one in four offices and almost one in five jobs in Amsterdam are in the sector consultancy and research, which includes law and accountancy firms, architecture, advertising and marketing agencies<sup>95</sup> (Figures 19 and 20). This sector grew

rapidly between 2010 and 2021. Another example of a sizeable and rapidly growing sector is information and communication, which includes companies in software development and other ICT services. In addition, the sectors culture, sport and recreation, health and welfare care and retail are important for employment in Amsterdam.

The Metropolitan Region Amsterdam (MRA) as a whole is specialised in sectors in which employment is increasing faster than the Dutch average, on top of a faster increase in employment that the MRA already knows within sectors. Due to its pattern of specialisation, the MRA has benefited

Fig. 19 Number of organisations (active branches) per sector in Amsterdam, 2010-2021

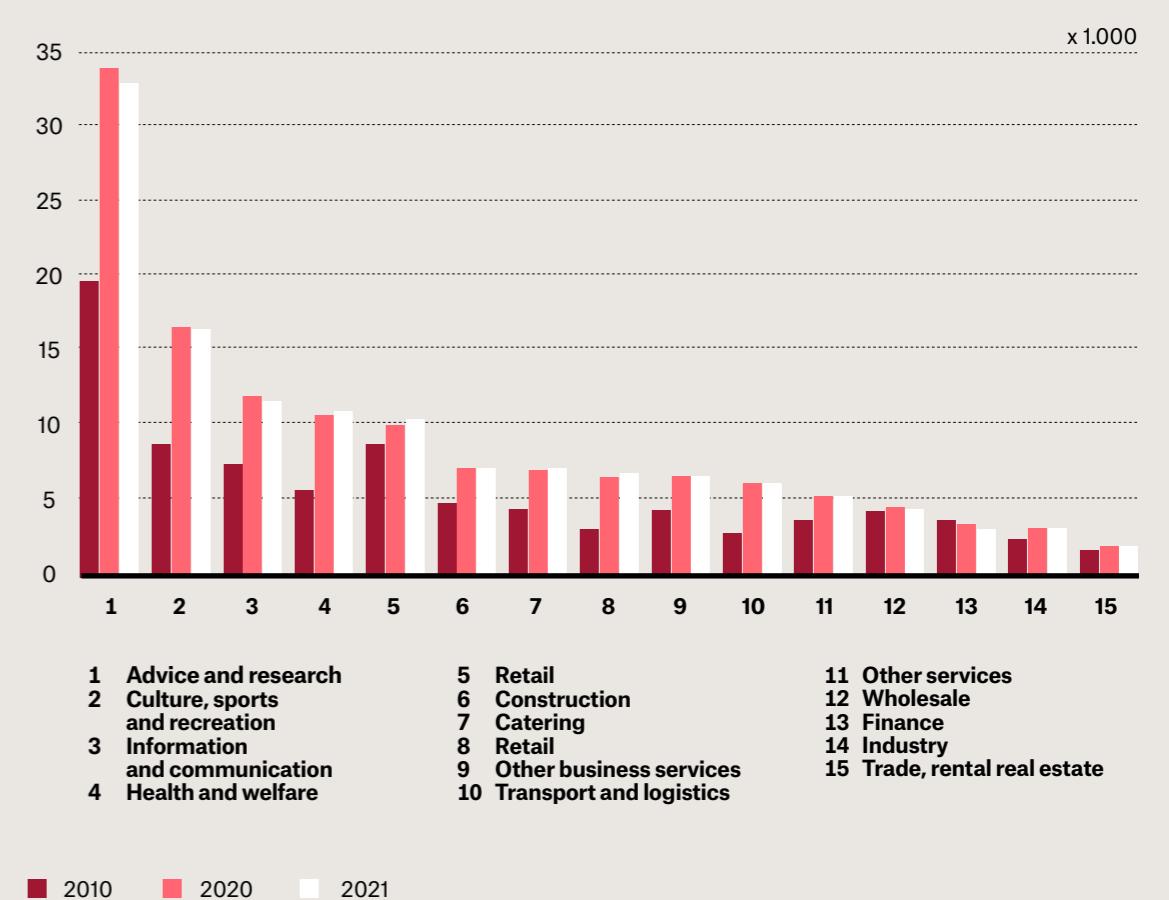
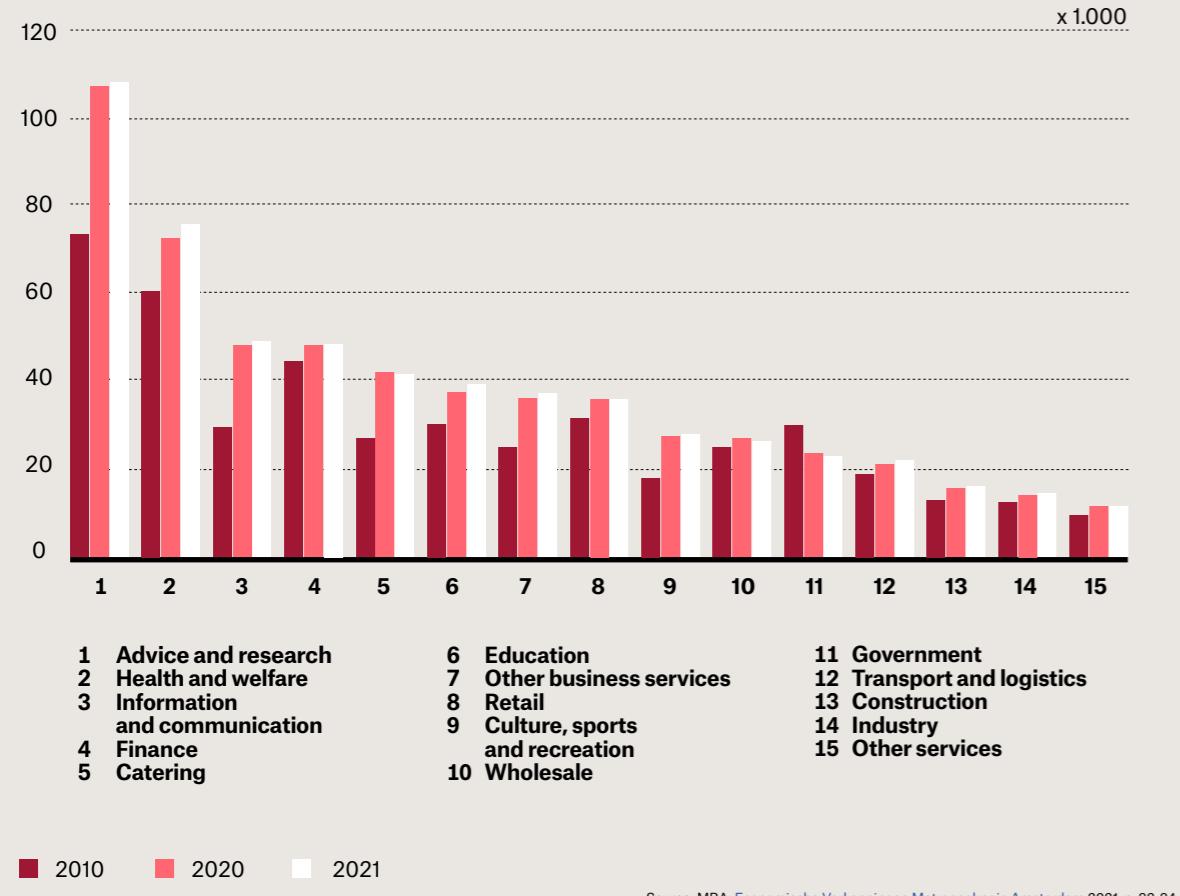


Fig. 20 Number of jobs per sector in Amsterdam, 2010-2021



from above-average employment growth in commercial services, including specialist business services and information and communications.<sup>96</sup>

The COVID-19 pandemic affected companies in different sectors in different ways. The greatest job loss between 2020 and 2021 took place in the hospitality industry, although the number of companies in this industry actually increased. The largest absolute decrease in number of companies can be seen in consultancy and research, followed at a distance by wholesale. The number of organisations in health and welfare care, education and retail increased in 2021.<sup>97</sup>

#### Policies for entrepreneurship and decent job creation

→ Subgoal link: 8.3

Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalisation and growth of micro-, small- and medium-sized enterprises, including through access to financial services.

#### Startup ecosystem

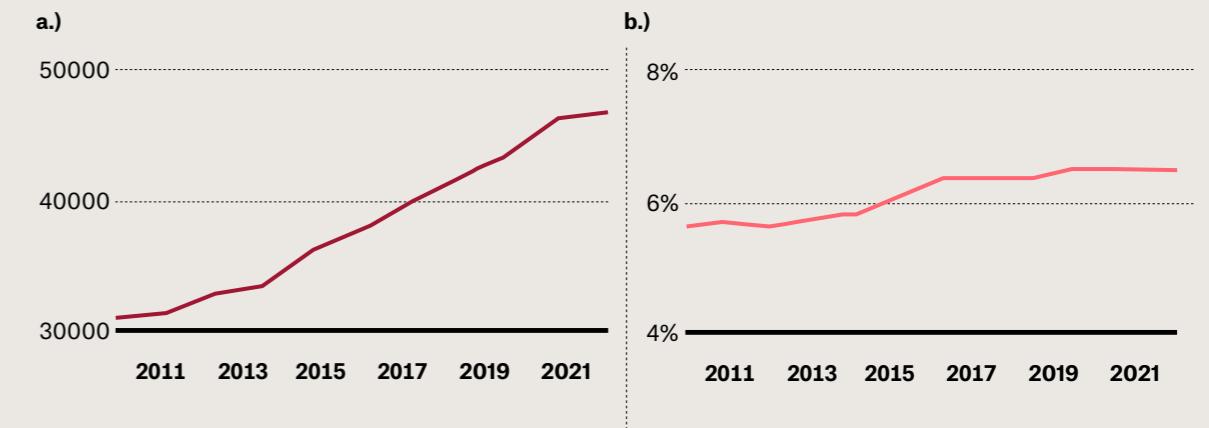
The city of Amsterdam has set the goal to have one of the top three best startup ecosystems in Europe. Policies focus on creating the conditions that startups need to grow: access to capital, talent and first customers, and an environment

with a startup mindset.<sup>98</sup> However, business dynamics have been heavily influenced by the COVID-19 pandemic and related economic measures. In 2021, both the numbers of starters and quitters were lower than in 2020 and 2019. In the course of 2021, 16,033 new companies were started, 14% less than in 2020. In addition, 9,221 companies have closed, 34% less than in 2020.<sup>99</sup>

#### Impact entrepreneurship

In addition, the city of Amsterdam aims to strengthen the ecosystem for impact entrepreneurship through a dedicated programme called Amsterdam Impact.<sup>100</sup> The goal is to tackle societal challenges through entrepreneurship and build a strong ecosystem that promotes and encourages business that never loses sight of people and the environment. The Amsterdam Impact programme for 2019-2022 has a broader focus than an earlier action plan for the period 2015-2018, which was focused on developing and positioning Amsterdam as the place for social entrepreneurship.<sup>101</sup> Impact entrepreneurship includes social enterprises in which making a positive impact is the main goal of the company, as well as socially responsible businesses, which are based on a traditional profit-driven business model but increasingly focus on creating long-term shared value.<sup>102</sup> The exact number of social or impact enterprises in Amsterdam is unknown, as a formal definition and legal form are lacking,

Fig. 21 Circular jobs in Amsterdam, 2011-2021. a) Number of jobs. b) % of total no. of jobs



but impact entrepreneurship is clearly on the rise.<sup>103</sup> The programme has a total budget of 2.5 million euros.

#### Energy transition jobs

The city of Amsterdam aims to reduce the use of fossil fuels and switch to fully sustainable energy sources, such as solar and wind energy. This transition has consequences for employment, especially in the technical sectors, including the installation and construction sector. Between 2010 and 2021, the number of jobs related to the energy transition increased by 30.5% (from 12,800 to 16,700).<sup>104</sup> The number of companies that are active in the energy transition increased even more in the same period, by 46.9%. Nevertheless, energy transition businesses still partake a small share in the total number of businesses in Amsterdam; 2.5% in 2010 and 2% in 2021.

The city of Amsterdam pledged to invest 78 million euros in a package of measures that contribute to sustainable development, involving the renovation and insulation of buildings, the acceleration of natural gas-free homes and investments in solar panels on the roofs of housing association homes.<sup>105</sup> According to estimates, investments up to 2025 could generate approximately 3,800 additional full-time jobs.

#### Circular economy jobs

Another major transition with consequences for the use of natural resources is the transition towards the circular economy. Figure 21 shows that the number of circular jobs has increased over the past ten years from around 30,000 in 2010 to approximately 46,400 in 2021.<sup>106</sup> The share of circular jobs in relation to total employment in Amsterdam has slightly increased and is now around 6.5%. A further increase in circular jobs is expected, since 10% of all online vacancies in Amsterdam in the first nine months of 2021 were for circular positions.

#### Equal employment

→ Subgoal link: 8.5

By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value.

#### Employment

Amsterdam's labour force (15 to 74 years old) increased by 14% from 2010 to 2020, to 686,000 people.<sup>107</sup> In 2020, 68% of the potential labour force was employed, 4% was unemployed and looking for a job, and 28% was neither employed nor looking for work. Men are more likely to work than women (Figure 22). Furthermore, highly educated residents (84%) are more likely to work than groups with intermediate (63%) and basic (40%) education levels.<sup>108</sup> Residents without a migration background (72%) are more likely to work than residents with a migration background (66%). Due to all these differences, the participation figures also differ per neighbourhood. Taken in total, however, the net employment rate (68%) in Amsterdam was similar to the average in the Netherlands. The difference in net participation between women and men is lower than in the Netherlands as a whole (Figure 22).<sup>109</sup>

Overall economic participation and particularly the participation of women in Amsterdam has steadily increased since 2003 (Figure 23). Although the 'gap' between the participation of women and men has decreased, it remains substantial.

Due to the COVID-19 crisis, unemployment increased steadily in 2020, up to 6.5% in the last quarter of the year. The first quarter of 2021 showed a decline to 5.6%. The increased unemployment rate did not affect all groups of residents equally. Groups that were already more often unemployed were more likely to lose their jobs. This applies to residents with a basic education level (11.0% unemployed), young people (9.9% unemployed) and residents with a migration

96 MRA, [Economische Verkenningen Metropoolregio Amsterdam](#), 2021, p. 82-84.

97 MRA, [Economische Verkenningen Metropoolregio Amsterdam](#), 2021, p. 82-84.

98 [Visie en actieprogramma StartupAmsterdam](#), (n.d.)

99 [Factsheet Economische kerncijfers Amsterdam](#), March 2022.

100 [Amsterdam Impact Action Programme 2019-2022](#).

101 [Actieprogramma Sociaal ondernemen 2015-2018](#).

102 [Amsterdam Impact Action Programme 2019-2022](#), p. 7.

103 Hogenstijn et al. (2020). [Ecosysteem Impact Ondernemen Amsterdam 2020: Een eerste beeld](#).

104 [Staat van de Stad](#), p. 65.

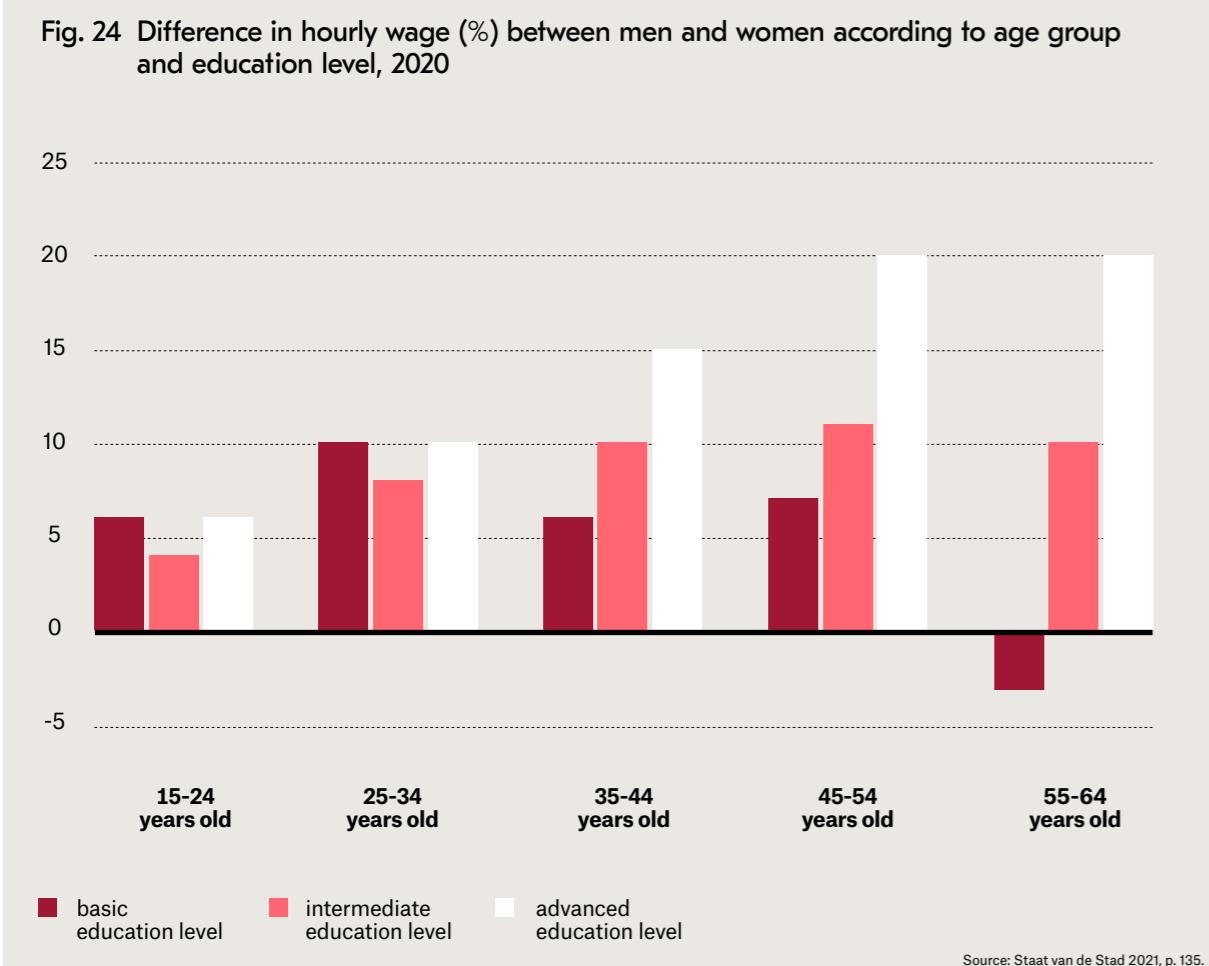
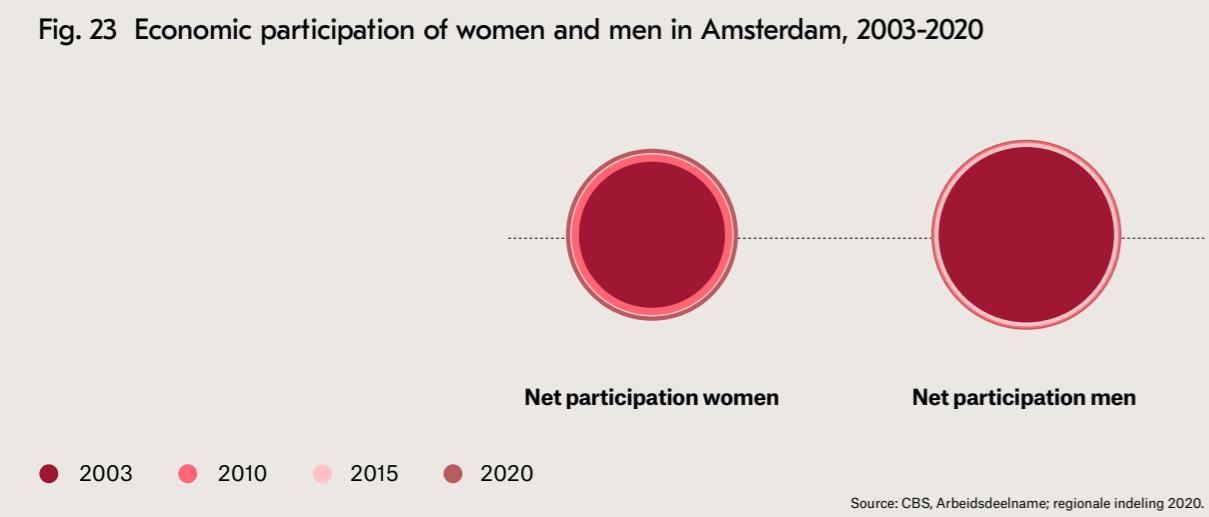
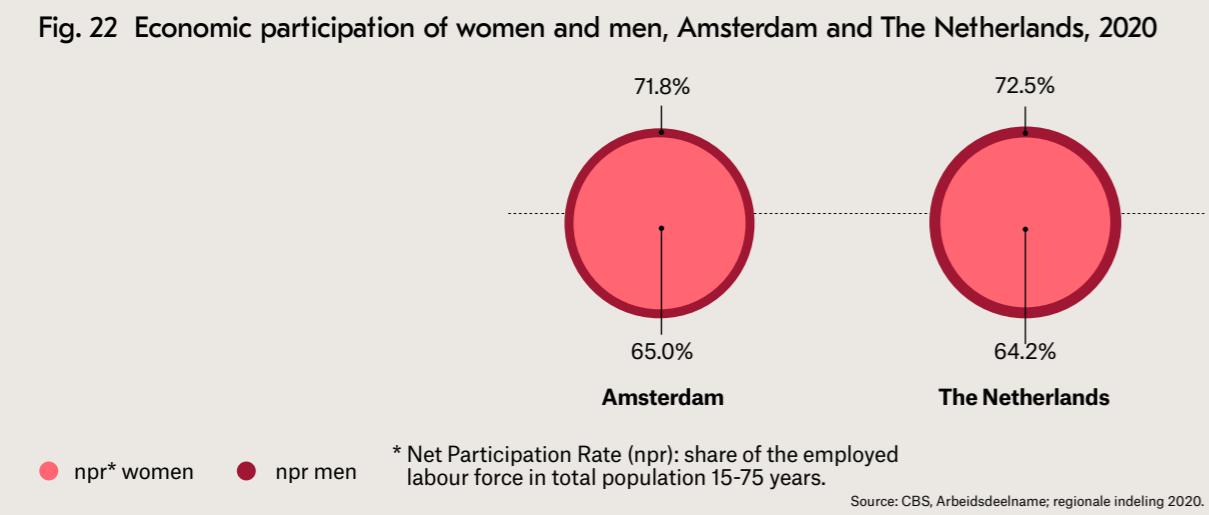
105 [Duurzame Stad, Duurzame Banen. Uitvoeringsagenda 2021-2022](#).

106 [Circulaire werkgelegenheid Amsterdam](#).

107 [Staat van de Stad](#), p. 121.

108 For definition of education levels, see SDG 4.

109 [Staat van de Stad](#), p. 121.



background (6.5% unemployed).<sup>110</sup> Although there is currently a big demand for new employees in various sectors, there is a mismatch between the demand of employers and the supply of job seekers.<sup>111</sup> For many people who are unemployed for a longer period of time, the step to technical jobs is a big one.

#### Income gap between men and women

On average, men earn 16% more per hour than women in Amsterdam: €26.80 versus €23.16.<sup>112</sup> This percentage is comparable to the average payment difference in the Netherlands: in 2019, men in the Netherlands earned on average 17% more per hour than women. The difference in hourly wages between men and women in paid employment in Amsterdam increases with age. The wage difference is especially large among the highly educated: highly educated men older than 45 earn on average 20% more per hour than highly educated women older than 45 years (Figure 24).

#### Economic independence

Economic independence means that someone can provide for their own livelihood.<sup>113</sup> In 2019, the minimum for economic independence was defined at an income of €990 net per month; 66% of Amsterdam women were economically independent, about as often as the average among women in the Netherlands (64%),<sup>114</sup> while 75% of Amsterdam men are economically independent, which is lower than the Dutch average (81%). Singles (with or without children) are less likely to be economically independent than the average in Amsterdam. Both women and men with a basic level of education are less likely to be economically independent than those with a medium or high level of education.

#### Discrimination on the labour market

In 2020-2021, 21% of all residents in Amsterdam experienced discrimination when being rejected for a job, and 15% experienced discrimination when being at the workplace.<sup>115</sup> Discrimination is most often experienced based on ethnicity or skin colour (50%), and less often on age (24%) and gender (22%). Discrimination is mainly felt due to hurtful jokes (41%) and less often by unequal pay for the same work (16%). The city of Amsterdam is taking measures to combat labour market discrimination, such as deploying mystery guests, organising campaigns to increase the willingness to report in the event of labour market discrimination, and promoting follow-ups when discrimination is detected.<sup>116</sup>

#### Gender equality

As described above, women in Amsterdam are more likely to be unemployed and earn less than men. They are less likely to be economically independent and more often experience discrimination on the labour market. The city of Amsterdam is investigating to what extent gender pay differences exist within the municipal organisation, and which structural factors explain that women are less likely to be economically independent.<sup>117</sup>

Measures will be taken on the basis of the results. In addition, a number of (women) civil society organisations formed an alliance (Samen Sterk in Werk<sup>118</sup>) in 2021 to help women towards economic independence. Furthermore, the very first women's law shop was opened in Amsterdam in 2021, which provides women with free access to legal advice and guidance.<sup>119</sup>

#### Persons with disabilities

The number of citizens on disability benefit (AO) has been declining in recent years. In 2007, the city had about 39,000 people on disability benefit; at the end of 2020, there were about 34,000. Of this total, 78% are fully incapacitated for work, the rest are partially incapacitated for work.<sup>120</sup> This is further discussed under SDG 10.

#### Youth in employment, education and training

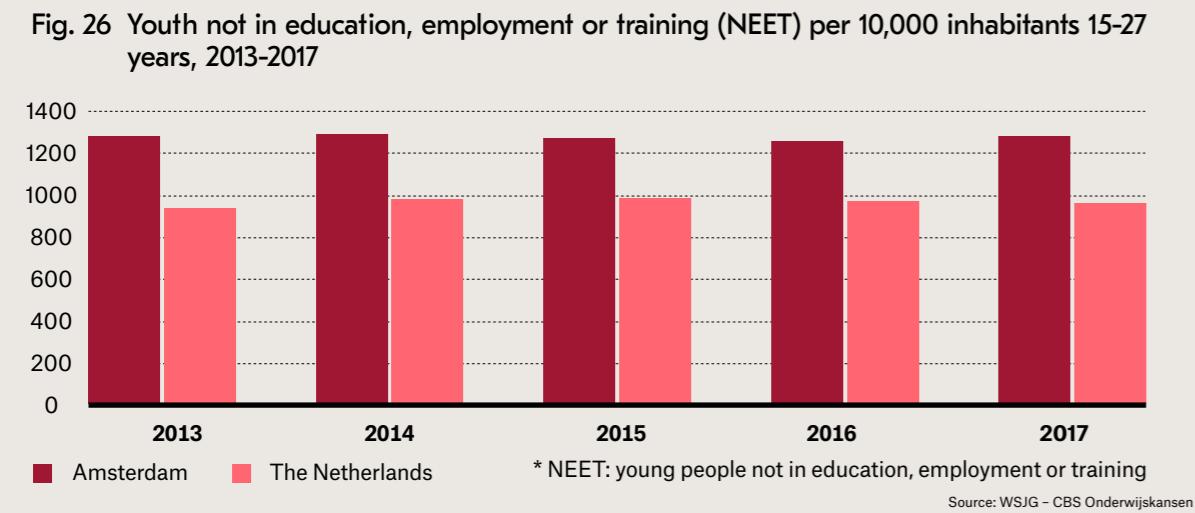
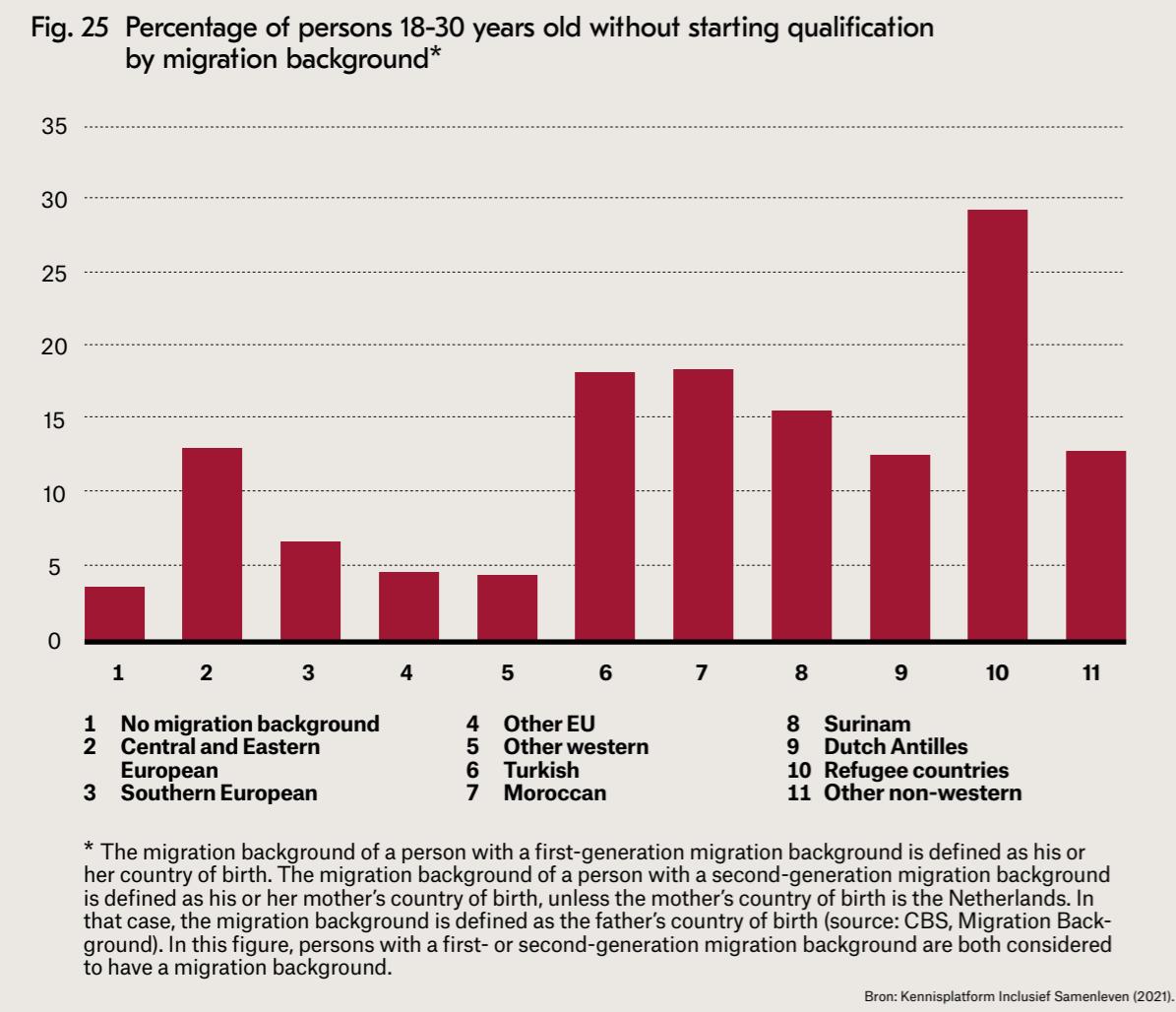
→ Subgoal link: 8.6.

By 2020, substantially reduce the proportion of youth not in employment, education or training. This also relates to SDG 4: Quality education.

National legislation requires youth up to the age of 18 to attend school until they have a 'starting qualification' for the labour market - a diploma at EQF level 2 as a minimum.<sup>121</sup> If not, (s)he is considered an early school leaver. The number of early school leavers is relatively low in Amsterdam compared to the Netherlands as a whole: 7.8% of persons between 18-30 years old lack a starting qualification, compared to 11.7% nationally. Vast differences can be seen between groups with different migration backgrounds (Figure 25)<sup>122</sup>.

Another indicator of educational success is the percentage of young people not in education, employment or training (NEET). The relative number of NEET youth is consistently lower in Amsterdam compared to the Netherlands as a whole (Figure 26)<sup>123</sup>, although recent numbers are lacking.

Employment opportunities for young people decreased relatively strongly during the COVID-19 crisis in 2020. Of the total increase in unemployment (5000 people) in 2020, two-thirds (3400) were residents between 15 and 26 years old.<sup>124</sup> Youth unemployment rose from 6.5% in 2019 to 9.9% in 2020. Young people are more likely to lose their jobs because they often have a temporary contract or work a flexible number of hours. Additionally, the hospitality industry and retail sectors, in which many young people work, were badly hit by the COVID-19 crisis. This is reflected in the high unemployment rate among young people between 15 and 22 years old, who are often still going to school and also have a part-time job. The unemployment rate in this category increased from 8.5% to 14.3%. Amsterdam's youth unemployment increased more sharply than nationally. Across the Netherlands, unemployment among young people rose from 6.1% in 2019 to 8.3% in 2020. As in recent years, young people with basic



education level are more often unemployed (14%) than those with intermediate (12%) and high (5%) levels. Unemployment among young people with intermediate education rose quickly in 2020 (from 7% to 12%).<sup>125</sup> The higher educated were less affected. Among young people without a migration background, 4% lost their job between February and June 2020, while this was 9% for young people with a non-Western or Western migration background.<sup>126</sup>

In response to the growing youth unemployment, Amsterdam is reinforcing its programmes to help young people with finding work or going back to school.<sup>127</sup> Among other things, youth have more access to individual guidance, job hunters are deployed to actively approach employers, and the municipality works together with vocational schools (MBOs) to enable young people to study longer.

### Sustainable tourism

→ Subgoal link: 8.9

By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products. This also relates to SDG 12.c.

Sustainable tourism is an important topic for Amsterdam. Before the COVID-19 pandemic hit, the visitor economy was seen as unbalanced. A 2020 advice report sets the goal to create a visitor economy that adds value and does not cause disturbance or disruption by 2025. In relation to the goal, it is important that this process is actively monitored. However, the huge impact of the COVID-19 pandemic and uncertainties about the future make it difficult to assess progress related to this goal at the time of writing.

125 [Persbericht: Stijging jeugdwerkloosheid in Amsterdam \(2021\)](#).

126 [Persbericht: Amsterdam lanceert aanpak jeugdwerkloosheid \(2021\)](#).

127 [Persbericht: Amsterdam lanceert aanpak jeugdwerkloosheid \(2021\)](#).

## — Good practices —

### Giving young school dropouts a chance

→ SDG link: 8.6 Youth in employment, education and training

DropOuts is an advertising agency founded in 2014. As a social enterprise, the agency employs only young people between the ages of 18 and 30 who have difficulty entering the labour market due to dropping out from school or physical disability. DropOuts aims to employ them for a maximum of three years, after which the company helps them move on to another employer. Often this is a client, as they know what the employees are capable of. New employees are often recruited through cooperation with the city of Amsterdam. DropOuts is often hired by companies that need to meet the social return requirement (5% of revenue) that the city of Amsterdam sets in procurement processes.<sup>128</sup>



### Reorganising the labour market

→ SDG link: 8.5 Full employment



House of Skills is a public-private partnership in the Amsterdam Metropolitan Area that connects a wide range of business, employer and employee organisations, knowledge and education institutions and administrators. The goal of House of Skills is to refocus the labour market towards skills (rather than degrees). Due to developments such as automation, the labour market is expected to change in the coming years. By gearing the labour market more towards skills, the skills of job seekers become visible to a broader range of sectors. As such, a more appropriate match between supply and demand in the labour market is expected to be made. House of Skills develops products and services for employers, workers and job seekers in the Amsterdam Metropolitan Area that stimulate a skills orientation, such as a skills passport and a skills check for sectors such as Care and Engineering/Construction.<sup>129</sup>

<sup>128</sup> [www.dropoutsamsterdam.nl](http://www.dropoutsamsterdam.nl)

<sup>129</sup> [www.houseofskillsregioamsterdam.nl](http://www.houseofskillsregioamsterdam.nl)





# Reduced inequalities

SDG 10 concerns the reduction of inequality within and between countries and is therefore directly in line with the *Leave No-one Behind* principle, which runs right through the 2030 SDG agenda.



The increasing growth of cities has generated prosperity in recent decades, but unfortunately also has a downside. Just like in other cities around the world, the G4 cities in the Netherlands see that this growth has increased the differences in opportunities between its residents.<sup>130</sup> The current COVID-19 crisis has reinforced this inequality of opportunity; often residents with a lower level of education/income and/or non-western migration background have fewer opportunities in society, suffer more from discrimination, have less social security and are more affected by crisis in their livelihood, and health.<sup>131</sup> Because many of these issues are related to and affect each other, the city focuses on an integrated approach to improve social equality in the city, by connecting different programmes and goals for inequality in income and work, housing, education, health, and well-being. The basic principle here is to invest more in groups that have unequal opportunities.<sup>132</sup>

SDG 10 focuses mainly on inequality in income, social inclusion, discrimination and migration. Other topics related to equal opportunities are education (SDG 4), housing (SDG 11) and work/economy (SDG 8). Relevant policies are also described in these chapters.

## Highlights

- Inequality is increasing in various domains (i.e., housing, health, education).
- The city of Amsterdam has an integrated perspective on social inequality, connecting different programmes in different sectors since they all affect each other.
- Wealth inequality is high, mainly due to homeownership and rising property prices in the city.
- Residents with lower income and education levels experience significantly lower levels of well-being than groups with higher income and higher education levels.
- National policies play a central role in targeting income and wealth inequality, for instance by increasing the minimum wage. The city of Amsterdam works together with Rotterdam, The Hague and Utrecht to propose structural changes at national level to improve equality.
- There is a large group of undocumented migrants in Amsterdam. The city of Amsterdam offers various services to support this group.

## Income and wealth inequality

→ SDG link: 10.1

**By 2030, progressively achieve and sustain income growth of the bottom 40% of the population at a rate higher than the national average**

→ 10.4

**Adopt policies, especially fiscal, wage and social protection policies and progressively achieve greater equality**

### Income distribution

Between 2014 and 2019, the standardised income<sup>133</sup> steadily increased in Amsterdam. Since 2015, the standardised income in Amsterdam is higher than the national average, and since 2018 it is the highest among the four largest cities in the Netherlands (Figure 27).<sup>134</sup>

There are significant differences in the average disposable income (not the standardised income) when looking at the composition of households (Figure 28). In 2019, couples with children had an annual average of 74,600 euros to spend. This is more than average in Amsterdam. For single-person households, the average disposable income is the lowest (28,000 euros) followed by single-parent families (37,300 euros).<sup>135</sup>

By comparing the standardised income of households with the Amsterdam average, it is possible to gain insight into the spatial distribution of the incomes in the city. Households in the neighbourhoods Amstel III/Bullewijk, Bijlmer Centrum and Volewijck (Zuidoost district) have the lowest income (Figure 29).<sup>136</sup> In the larger cities, the distribution of household

130 G4 (2020), [Propositie G4 Voorstel tegen Kansenongelijkheid](#), p. 2. In this proposition, the G4 also identifies the structural changes needed on the national level to combat inequality.

131 G4 (2020), [Propositie G4 Voorstel tegen Kansenongelijkheid](#), p. 2.

132 Raadsinformatiebrief Voortgang Tegengaan Kansenongelijkheid (June 2021).

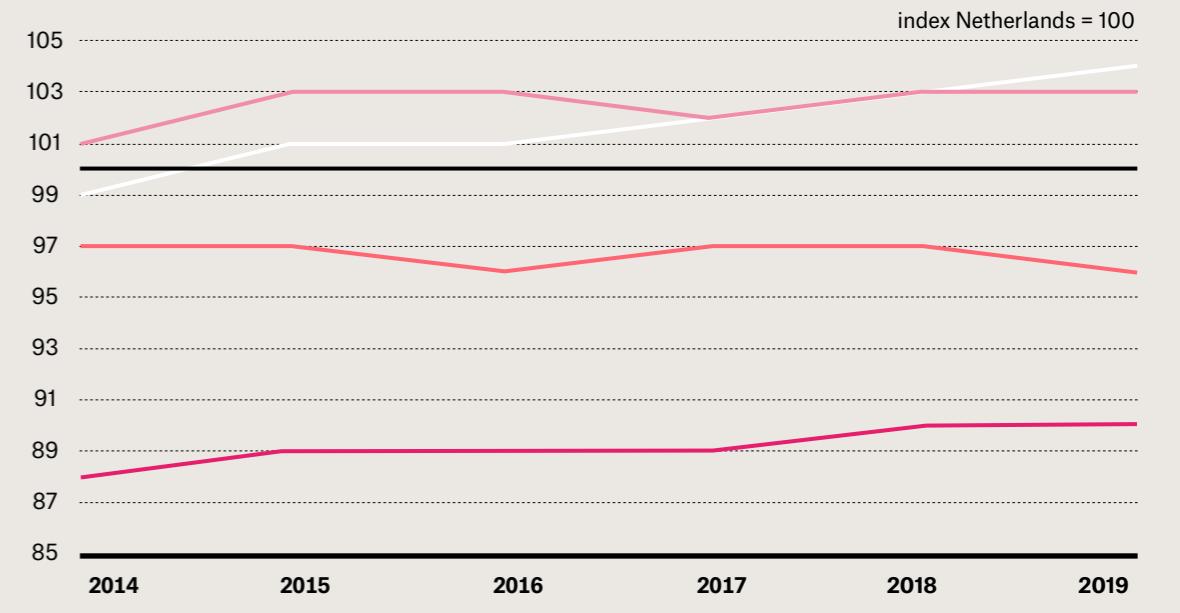
133 The standardised income is the disposable income adjusted for differences in household size and composition. Amsterdam consists of relatively many one-person households and with the standardised income the income levels of households are comparable. Using the disposable household income will demonstrate a different development. In 2019, households in Amsterdam had an annual income average of 43,400 euros. This is 2000 euros less than the national average and lower than the other three large cities in the Netherlands (Utrecht, Rotterdam and The Hague). Source: [Staat van de Stad](#), p. 133.

134 [Staat van de Stad](#), p. 132.

135 [Staat van de Stad](#), p. 133.

136 [Staat van de Stad](#), p. 133.

Fig. 27 Development standardised income in the four largest cities in the Netherlands, 2014-2019

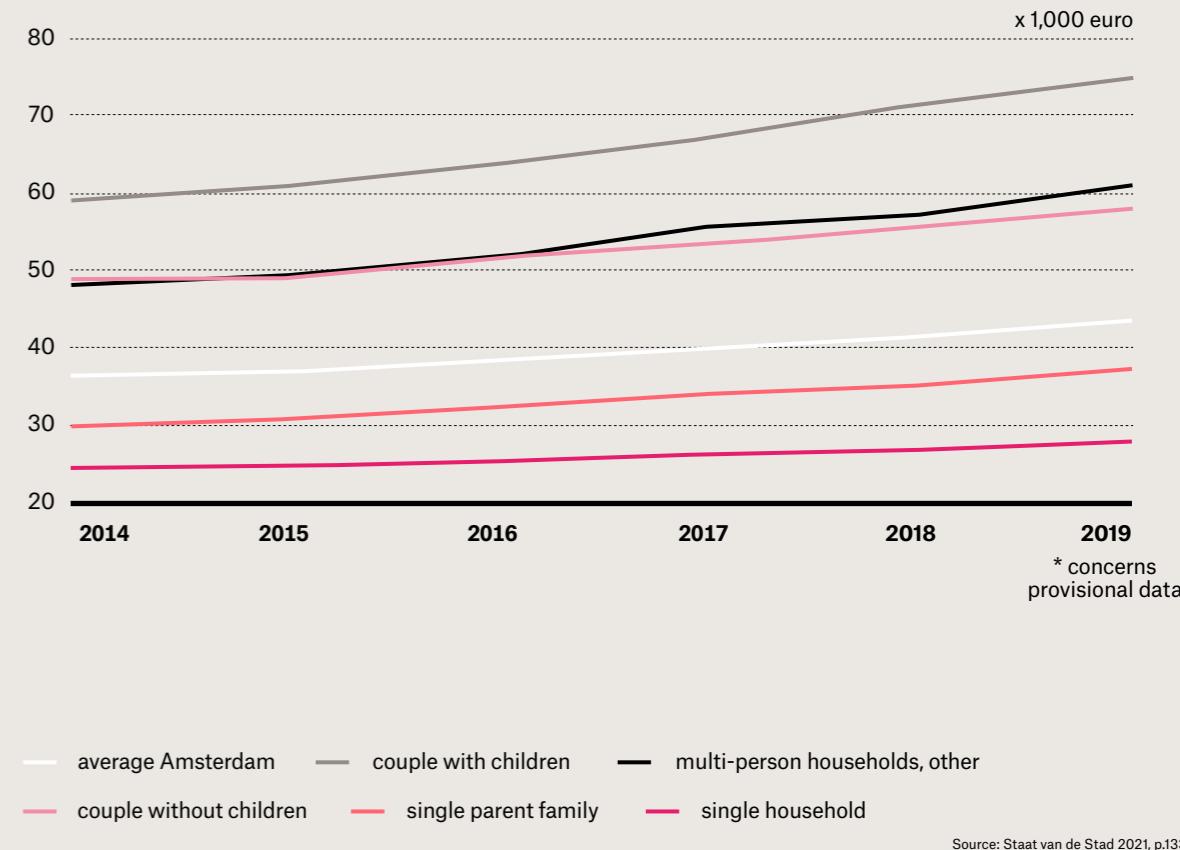


index Netherlands = 100

\* concerns provisional data

Source: [Staat van de Stad](#) 2021, p.132.

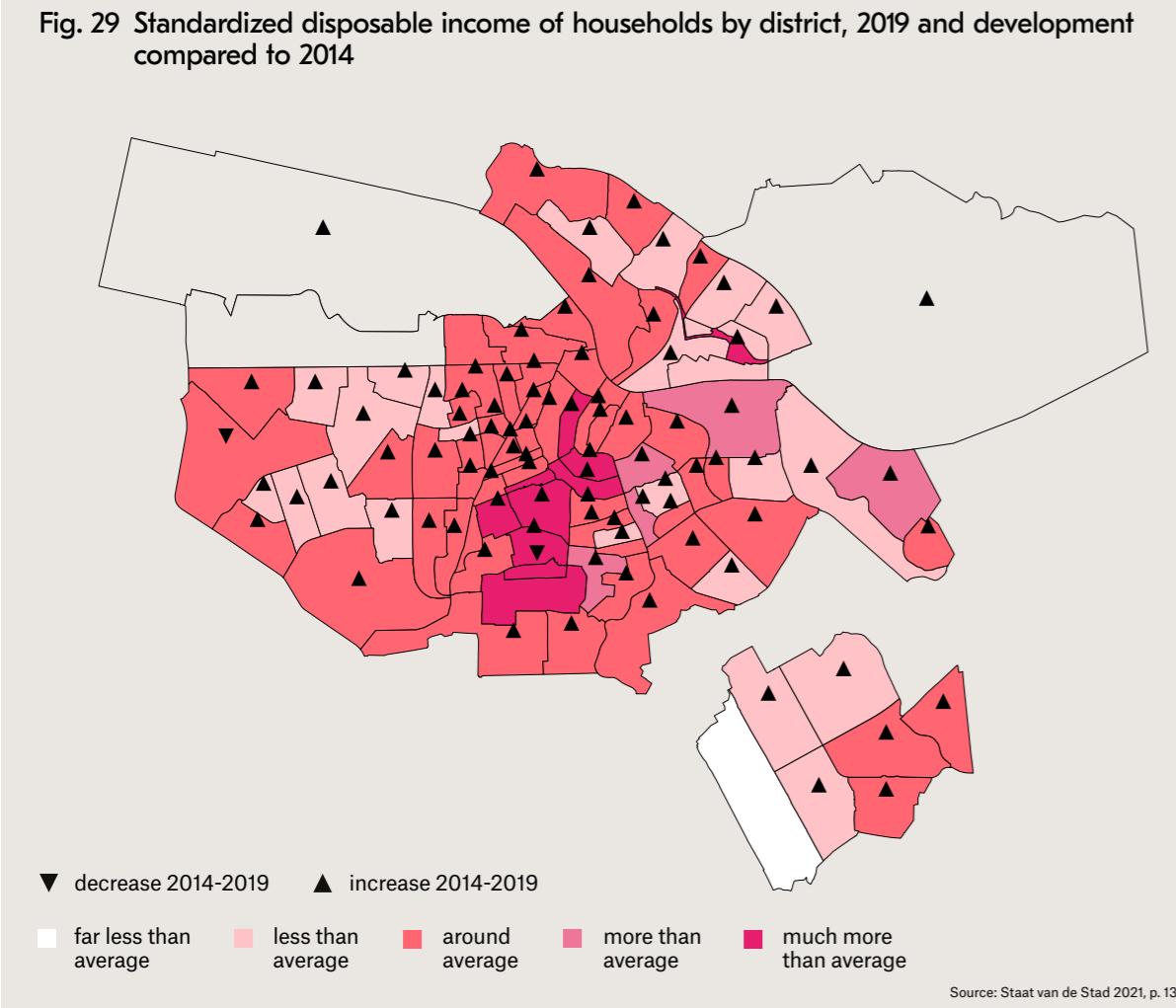
Fig. 28 Development standardised income by type of household in Amsterdam, 2014-2019 (x 1,000 euro)



x 1,000 euro

\* concerns provisional data

Source: [Staat van de Stad](#) 2021, p.133.



incomes is more polarised than in the Netherlands as whole. There are relatively many city residents with a very low or a very high income and relatively few residents with a medium income level. In 2019, Amsterdam, Rotterdam and The Hague had the highest share of households with a very low income (the lowest 10% in the Netherlands). In Amsterdam this share is 17%. The share of households with a very high income (the highest tenth in the Netherlands) is the highest in Amsterdam (14%). Between 2015 and 2019, the share of very low-income households has decreased slightly from 18 to 17% and the share of very high-income households has increased slightly from 13 to 14% in 2019.<sup>137</sup>

Looking at different types of households, we see differences in terms of the economic independence of residents (Figure 30). Economic independence means that a person can provide for their own livelihood through income from employment. In 2019, the minimum for economic independence was defined at an income of €990 net per month.<sup>138</sup>

Among single-parent families, both single fathers and mothers are less economically independent than the average in Amsterdam. In addition, both single men and women are less likely to be economically independent than men and women in Amsterdam on average. Age also influences economic independence. From the age group 25 to

34 years, the share of economically self-employed decreases with increasing age. This decrease is stronger among women than among men. Furthermore, women and men with a basic level of education are less likely to be economically independent than those with an intermediate and advanced level of education. Furthermore, women and men with a migration background are less likely to be economically independent than women and men without a migration background. Differences in economic independence according to migration background are often strongly related to education level: the share of economically self-employed increases as the education level rises.<sup>139</sup> The income gap between men and women is discussed under SDG 8.

The proportion of residents with an income from (national) social assistance, such as unemployment benefits or disability benefits, is 87.4 per 1000 residents, compared to the national average of 91.7 per 1000 residents. Compared to other cities in the Netherlands, this number is relatively low (Figure 31).

In 2020, young people and groups with a basic-to-intermediate education level (up to finished secondary education) were more often unemployed. In July 2020, the number of unemployed residents within the age group 18-26 was four times higher than in January that year.

137 [Staat van de Stad](#), p. 134.

138 This has been operationalised as an income of at least 70% of the statutory minimum wage, or the net social assistance benefit of a single person. In 2019, the limit for economic independence was €990 net per month. Source: [Staat van de Stad](#), p. 135.

139 [Staat van de Stad](#), p. 136.



Fig. 30 Economic independence of employed men and women in Amsterdam by characteristics, 2019

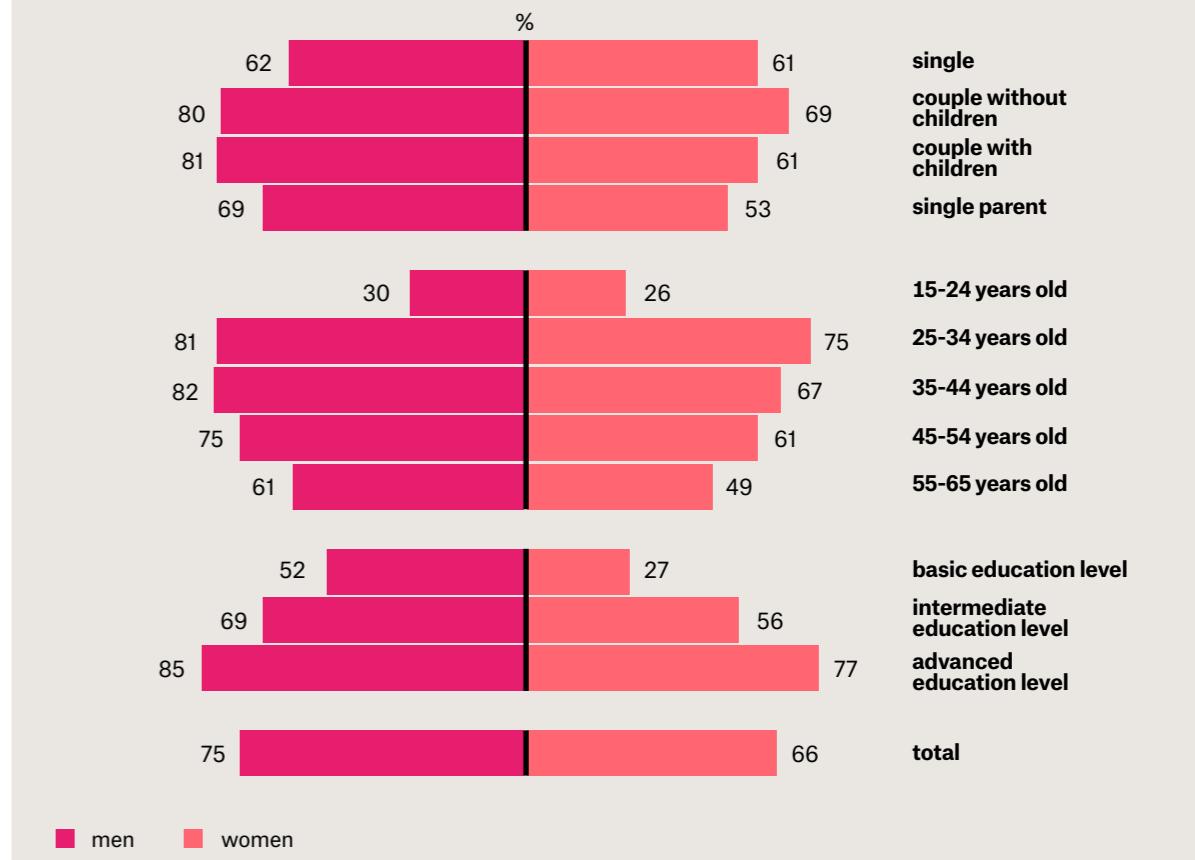
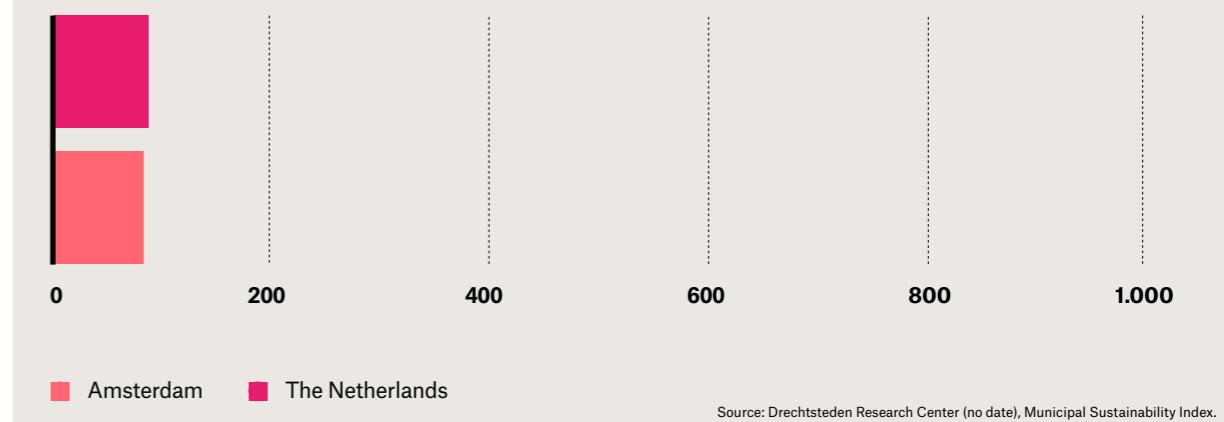


Fig. 31 People with an income from social assistance, 2021 (number per 1,000 inhabitants)

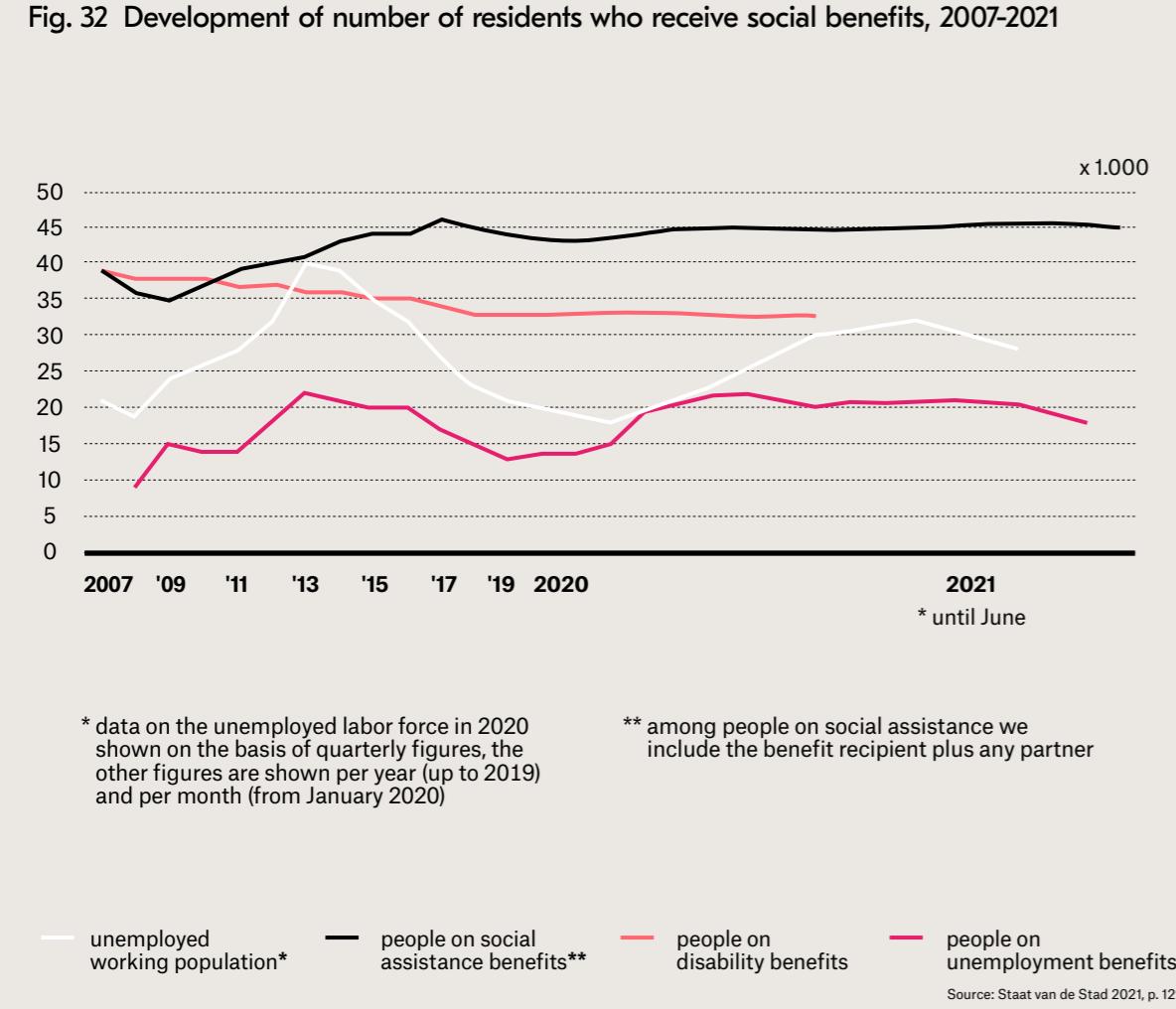


In the following months, the number of young people on unemployment benefits fell relatively quickly. This might be because unemployment benefit rights are built up over time (the longer you have worked, the longer you are entitled to benefits), and probably many young people had only built up limited rights on unemployment benefits and therefore were no longer receiving these. A large proportion of residents with unemployment benefits are highly educated, in January 2020 this was 44%. During the COVID-19 crisis, the number of people on unemployment benefits has increased relatively the most under groups

with basic to intermediate education (Figure 32).<sup>140</sup> The number of residents on disability benefits has been declining in recent years. In 2007, the city had 39,000 residents with a disability benefit; at the end of 2020, there were 34,000. National laws on disability benefits have changed in recent years. Currently, residents who receive a 'WiA' benefit, a benefit under the Work and Income (Capacity for Work) Act are the largest group with 45%.<sup>141</sup>

**Income inequality**  
Compared to other EU-countries, income





inequality in the Netherlands is small.<sup>142</sup> Income inequality is expressed through the Gini-coefficient, in a value ranging between 0 (income equality) and 1 (income inequality). Compared to the national average (0.29), the income inequality in the larger cities is much higher, 0.37 in Amsterdam alone. This is explained by the fact that there are relatively more households with a very low income (17%) and with a very high income (14%). Since 2017, income inequality has not changed for both Amsterdam and the Netherlands.

#### Wealth inequality

Wealth inequality is also expressed using the Gini-coefficient. Wealth inequality is much greater than income inequality. In the Netherlands as a whole, the Gini-coefficient is 0.79, but in the larger cities, the wealth inequality is even higher. In Amsterdam, the Gini-coefficient is 0.87, in Rotterdam 0.89 and in The Hague 0.85. This can be explained by the presence of relatively many young people, benefit recipients and persons with a non-western migrant background with very low levels of wealth living in cities, while on the other hand there is also a group with high levels of wealth.<sup>143</sup> The average level of wealth per household in Amsterdam increased from 126,400 euros (2016) to 187,700 euros (2019). Since the average wealth is determined by the major differences with both negative and positive extremes, the median<sup>144</sup> is

used instead of the average. Households in Amsterdam had a median wealth of 8,400 euros in 2019. Compared to 2016, this number has doubled (4,200 euros). In the Netherlands, the median wealth has also risen significantly over the years (from 22,000 euros in 2016 to 49,800 euros in 2019). The median wealth is thus much lower than in the Netherlands.<sup>145</sup> The level of median wealth is mostly related to homeownership and income: homeowners, freelancers ('zelfstandigen') and residents with the highest income have the highest levels of wealth. Residents with lower levels of wealth are mostly singles, one-parent families, young people, benefit recipients and low-income groups (Figure 33).<sup>146</sup>

There are significant differences between neighbourhoods in Amsterdam. Neighbourhoods with the lowest levels of wealth (under 1000 euros) are Amstel III/Bullewijk, Omval/Overamstel and Bijlmer Centrum. In the Zuid and the Noord districts, the highest levels of wealth are present in the Prinses Irenebuurt, Nieuwendammerdijk/Buiksloterdijk and Waterland. These differences are mostly explained by property value and ownership, due to the rising property prices in the city. Through different measures, the city is trying to achieve a more just housing market (see SDG 11).<sup>147</sup>

142 CBS [Ongelijkheid in inkomen en vermogen](#) (2019).

143 CBS [Ongelijkheid in inkomen en vermogen](#) (2019).

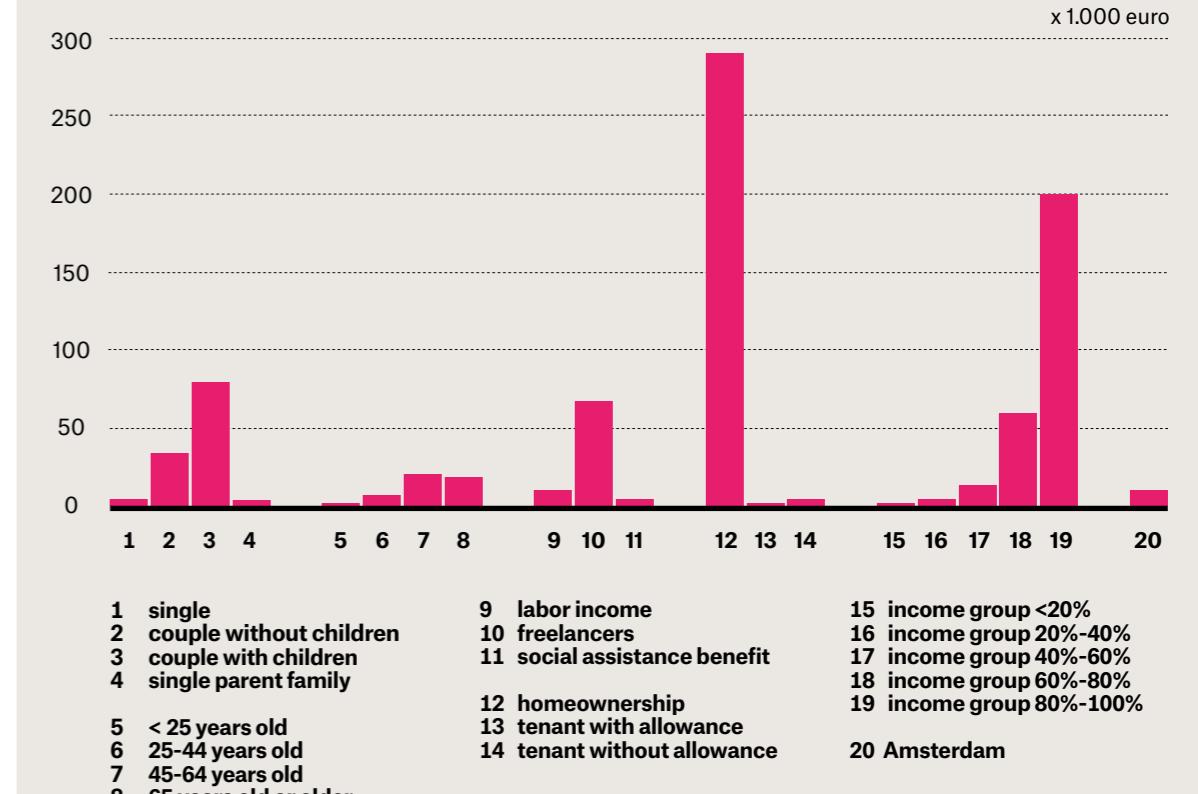
144 The median is the middle number in a list, in this case a list of wealth of households in Amsterdam.

145 [Staat van de Stad](#), p. 137.

146 [Staat van de Stad](#), p. 138.

147 [Staat van de Stad](#), p. 137-138.

**Fig. 33 Median wealth of households by background characteristics, 2019**



#### Social inclusion

→ SDG link: 10.2

By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

In the discussion of this target, we focus on social inclusion (well-being and social relations). Political inclusion (see SDG 11) and economic inclusion (SDG 8) are addressed elsewhere in this report.

The 'Living Situation Index' is developed by the Netherlands Institute for Social Research (SCP) to give a summarised understanding of the level of well-being.<sup>148</sup> It is based on indicators in eight important life domains, including housing, leisure activities, social participation, sport, holiday, possession of consumer goods, mobility and health.<sup>149</sup>

In 2020, the overall Living Situation Index in Amsterdam was 102, showing a decrease in comparison to 2016 and 2018 (in both years it was 105) (Figure 34).<sup>150</sup> The average level of well-being is still higher than the index base year 2004, but the upward trend that was visible since then has halted. In particular, the domains of leisure activities, holidays and social participation show a decrease in 2020, which can be explained as a result of the measures to control the COVID-19 pandemic. It is unclear whether the same development took

place nationwide, as there are no recent figures available for the national Living Situation Index. Well-being is strongly related to the level of education and income. In 2020, residents without education or with only primary education on average had a Life Situation Index of 87, whereas the score was 109 among the highly educated (i.e., university of applied sciences or university level).<sup>151</sup> Similarly, the Life Situation Index increases with income level: the lowest income group (up to 1,000 euros net per month) has a Life Situation score of 91 and the highest income group (above 3,200 euros) has a score of 111.<sup>152</sup>

In addition to education and income, age, migration background and health are important factors for well-being. Residents over the age of 55 experience lower than average levels of well-being.<sup>153</sup> In general, the older one gets, the lower one's level of well-being. In addition, on average residents with a migration background have a lower Life Situation Index than those without a migration background (99 vs. 106). Residents with a Moroccan migration background have the least favourable score (94), followed by those with a background from Turkey, the Middle East or Africa (96). Residents who suffer from a long-term illness, disorder or handicap have a considerably less favourable living situation than those who do not suffer from this (93 versus 106).<sup>154</sup> Perceived health also matters a lot. The healthier people

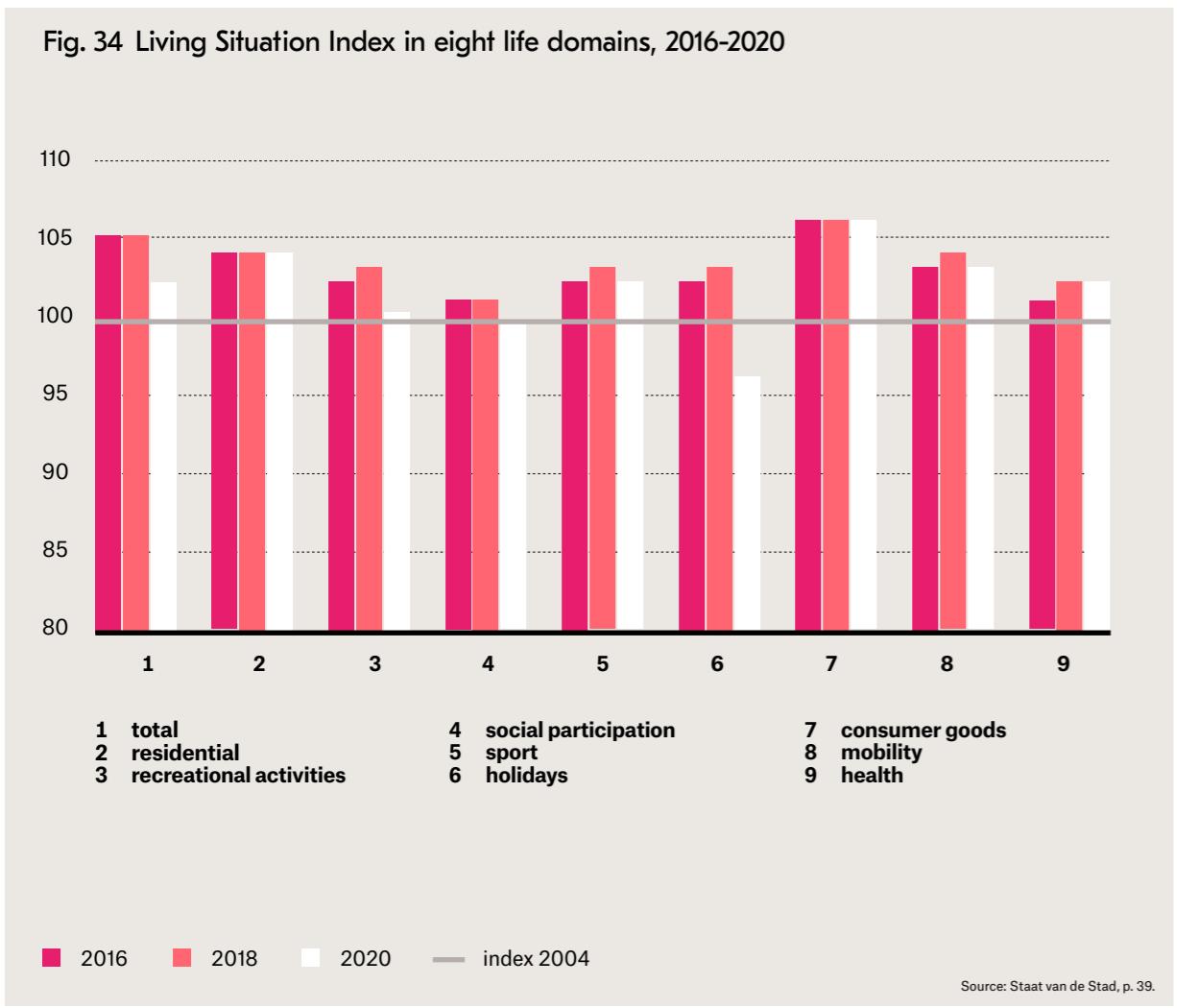
feel, the higher their level of well-being. For example, respondents who rate their own health as 'very good' have an average score on the Living Situation Index of 109 and those who rate it as '(very) bad' have a score of 83.

Well-being is also related to one's social relations. Residents who are often in contact with friends or close acquaintances experience a higher level of well-being than those who have these contacts less often. The Life Situation Index varies from 105 among those who have at least weekly contact, to 84 among those who rarely or never

have contact.<sup>155</sup> Residents who experience strong social isolation, who do not have supportive relationships, have a lower level of well-being than those who are not socially isolated at all (92 versus 110).<sup>156</sup> In 2020, 14% of residents in Amsterdam felt strongly socially isolated, a figure which is rather stable throughout the years.<sup>157</sup> Feelings of social isolation are more common among residents with poor health (39%) and with disability benefits (32%).

On average, the well-being of women in Amsterdam does not differ from that of men.

Fig. 34 Living Situation Index in eight life domains, 2016-2020



## Discrimination

→ SDG link: 10.3

Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard. This also relates to: 8.5.

The proportion of residents who at times feel discriminated has been at or around 13% for years.<sup>158</sup> This percentage is highest among residents with a Moroccan migration background (25%), gay/bisexual residents (22%) and residents with a Surinamese or Turkish migration background (20% and 19%) (Figure 35). Of all adult residents who have felt discriminated against in the past 12 months, 44% indicate that this has to do with

<sup>155</sup> [Staat van de Stad](#), p. 41.

<sup>156</sup> [Staat van de Stad](#), p. 41.

<sup>157</sup> [Staat van de Stad](#), p. 50.

<sup>158</sup> [Staat van de Stad](#), p. 155.

<sup>159</sup> [Staat van de Stad](#), p. 155.

<sup>160</sup> [Beleidsmonitor Diversiteit](#) (2022).

<sup>161</sup> [Staat van de Stad](#), p. 155.

<sup>162</sup> [Staat van de Stad](#), p. 155.

Fig. 35 Proportion of residents who experienced discrimination in the last 12 months, 2018-2020

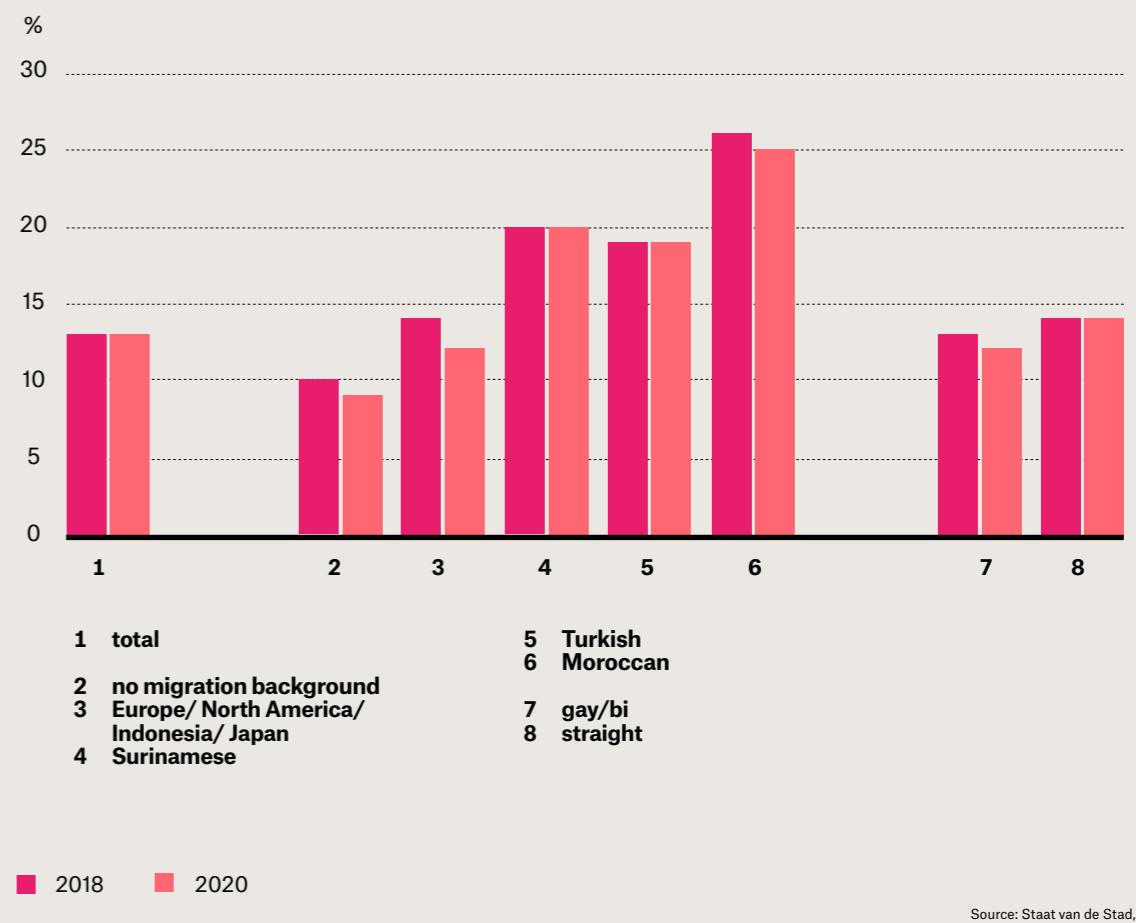
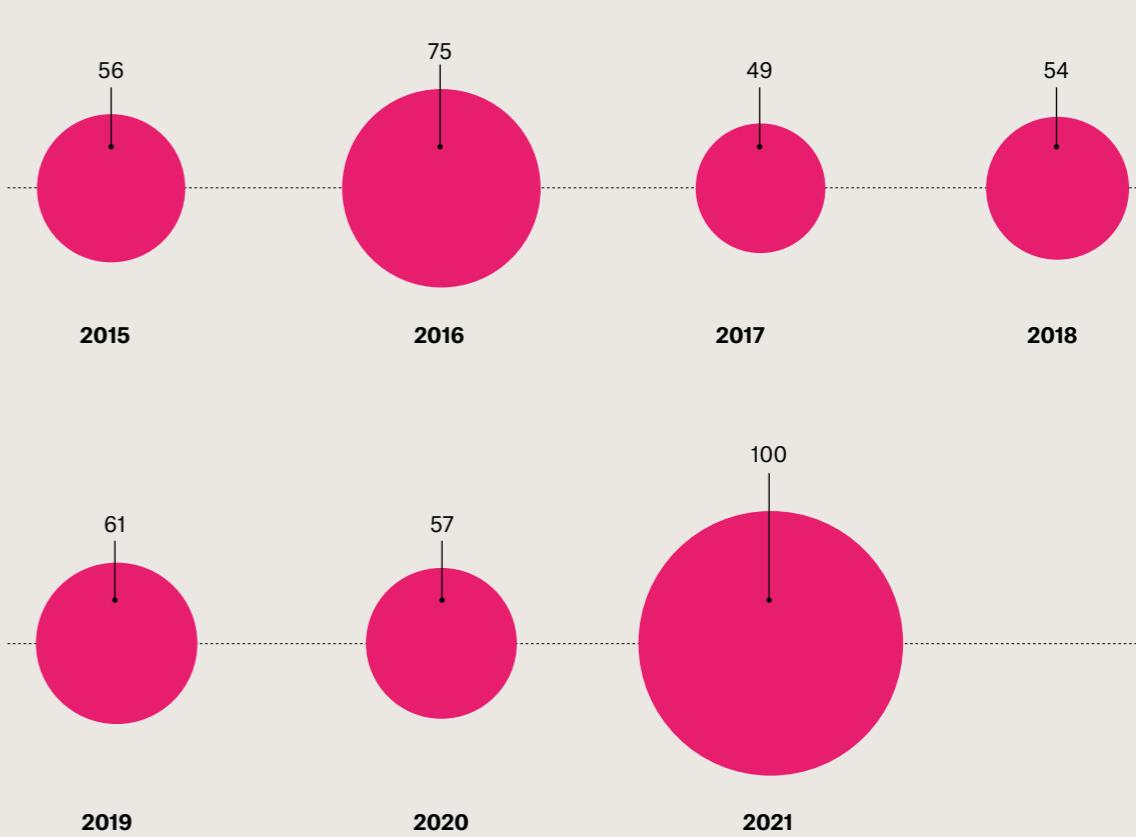


Fig. 36 Registered incidents of discrimination by the police in Amsterdam, 2015-2021



wear face masks were unjustly not allowed everywhere, and same-sex couples were not always recognised as part of the same household. Only a fragment of the discriminatory actions is reported to the police. In 2021, the number of discrimination crimes registered by the police in Amsterdam was 100.<sup>163</sup> This is significantly more than in previous years (Figure 36).

In 2020, the anti-discrimination policy of the city of Amsterdam was reviewed in response to the major impact of the Black Lives Matter movement and because of the discrepancy between the number of reports to the MDRA and the perceived discrimination.<sup>164</sup> In its approach to discrimination, the city opts for a combination of a repressive and a preventive approach, for example by organising anti-discrimination campaigns and providing a toolkit to social organisations to fight discriminatory practices.

More information on discrimination in the labour market and related policies can be found in the discussion of SDG 8.5.

## Migration

→ SDG link: 10.7

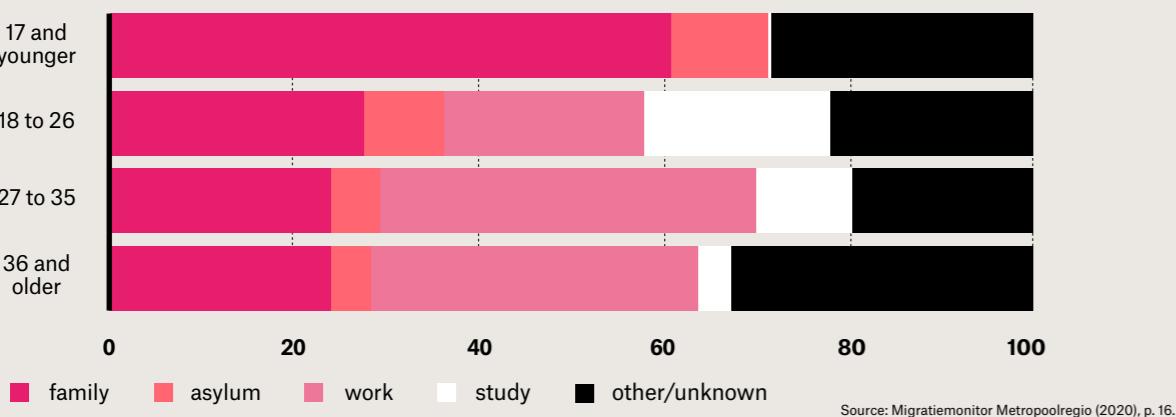
**Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies.**

This also relates to: SDG 8.5

Amsterdam has been a migration city for many years. Migration plays an important role in the growth of the city population. Between 2013 and 2017, the number of recent foreign migrants (max. 10 years) increased by 47% in the Amsterdam Metropolitan Area (MRA), while the total population increased by only 3%.<sup>165</sup> Recent migrants come to the MRA for various reasons, including family, work, study and for asylum (Figure 37). On average, residents with a migration background are more often unemployed than residents without a migration background. See SDG 8.5 for more details regarding labour market participation.

Policies related to migration of asylum seekers are

**Fig. 37 Motivation for migration to the Amsterdam metropolitan region for recent migrants (max. 10 years) by age group (2017)**



largely developed on the national level.<sup>166</sup> Depending on the safety of the country of origin and the personal situation of the asylum seeker, the national Immigration and Naturalisation Service (IND) decides whether asylum seekers receive a residence permit.<sup>167</sup> The law prescribes that the IND must make a decision within 6 months, which can be extended to 15 months in some situations. For asylum seekers who have a good chance of being admitted to the Netherlands, there is a short procedure of only 6 or 9 days. In practice, the application procedure takes between 10 and 47 weeks in February 2022, depending on the 'application track'.<sup>168</sup>

During the application process, the person concerned lives in an asylum seekers centre. The Central Agency for the Shelter of Asylum Seekers (COA) collaborates with municipalities throughout the country to provide shelter and guidance to asylum seekers. In March 2022, Amsterdam has one 'permanent' shelter and three temporary shelters, which together provide place for about 1300 people.<sup>169</sup> In addition, a new location with 500 places is being built and is expected to be ready in 2023.<sup>170</sup> In total, the COA provided 39,000 shelter places nationally in April 2022.<sup>171</sup>

Asylum seekers who have received a residence permit are called 'status holders' in the Netherlands. The national government determines every six months how many status holders are to be given a place to live by each municipality.<sup>172</sup> Larger municipalities must offer housing to more status holders than smaller municipalities. On 1 January 2020, 7,299 status holders were living in Amsterdam.<sup>173</sup>

In addition to providing housing, the municipality of Amsterdam aims to help migrants with a residence permit integrate into society as soon as possible. To this end, status holders are expected to follow language courses and all status holders from the age of eighteen are supervised by counsellors, who provide guidance towards work and training during their first three years in Amsterdam.<sup>174</sup> If needed, status holders are connected to health care organisations for support.

163 CBS [Dashboard misdrijven in de buurt, jaarcijfers 2021](#).

164 [Voortgangsbrieven Diversiteit en Inclusie](#) (January 2022).

165 [Migratiemonitor Metropoolregio](#) (2020).

166 Rijksoverheid (no date), [Migratiebeleid](#).

167 IND (no date). [Apply for asylum in the Netherlands](#).

168 IND (no date). [Processing times asylum](#).

169 COA (no date), [Locatiezoeker](#).

170 [Asielzoekerscentra in Amsterdam](#), (no date).

171 COA, [Opvang en begeleiding tijdens de asielaanvraag](#), (no date).

172 Rijksoverheid (no date), [Huisvesting statushouder](#).

173 [Vluchtingemonitor 2020](#).

174 [Amsterdamse Aanpak Statusholders](#), (no date).

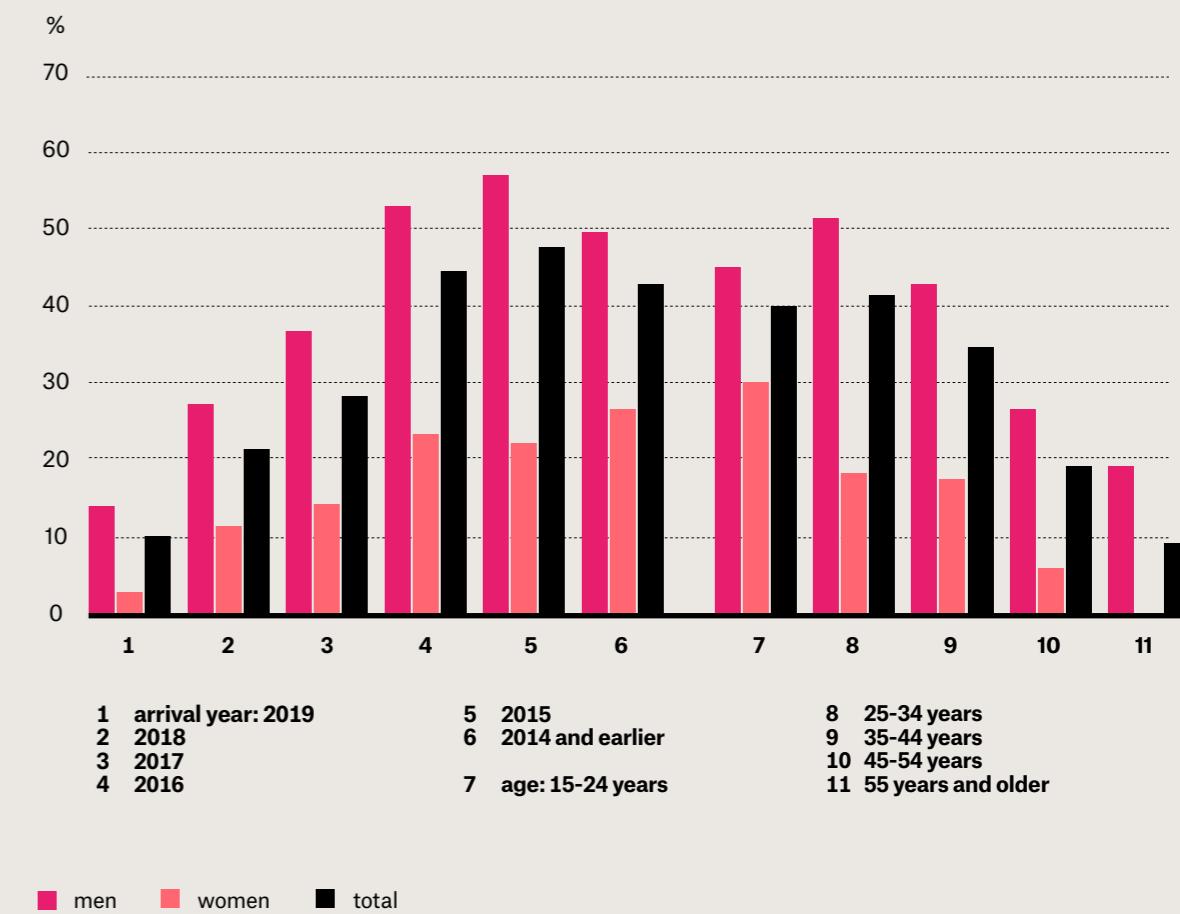
175 [Vluchtingemonitor 2020](#).

176 De Lange et al. (2017). [Van azc naar een baan. De Nederlandse regelgeving over en praktijk van arbeidsmarktintegratie van vluchtingen](#).

177 Zorg en ondersteuning, [ongedocumenteerden](#) (no date).

178 [Provisions for asylum seekers who were refused](#), (no date).

**Fig. 38 Share of status holders that have paid jobs, male and female (January 2020)**



The share of Amsterdam status holders who have paid work has increased in recent years.<sup>175</sup> In 2020, 37% of the status holders were employed. There are, however, major differences between men and women: men are much more likely to do paid work than women (45% versus 19%) (Figure 38). The longer status holders have been in the Netherlands, the higher the proportion with paid work. Some workers also receive social assistance benefits. In total, 62% of status holders receive social assistance benefits. This is high compared to Amsterdam's average, but the share decreases quickly as one stays longer in the Netherlands, especially among people aged 27-37 years. Compared to other large cities in the Netherlands, status holders in Amsterdam relatively often have paid work.

A study in 2017<sup>176</sup> showed that although Amsterdam is quite successful in helping young status holders to find work quickly, most of these jobs are low-skilled and low-paid. It is unclear to what extent status holders can move to better positions, especially when they are no longer guided by a counsellor. Initiatives such as House of Skills (see SDG 8) can help status holders find potential employers based on the skills they have, rather than their diplomas (which are often not recognised in the Netherlands). National policies prescribe that migrants denied

asylum need to leave the country. Nevertheless, it is estimated that there are between 10,000 and 30,000 so-called undocumented migrants (migrants without a valid residence permit who have not left the country) in Amsterdam.<sup>177</sup> The national government is responsible for policies regarding undocumented migrants. Within these frameworks, the city of Amsterdam attempts to support this group as much as possible. To this end, an Office for Undocumented Migrants (Loket Ongedocumenteerden) was opened, which provides 24-hour shelter, medical care, information and advice to undocumented migrants.<sup>178</sup>

# Knowledge Center for Inequality



The Knowledge Centre for Inequality<sup>179</sup> (Kenniscentrum Ongelijkheid) is a joint initiative of the Municipality of Amsterdam and four knowledge institutions in the city: University of Amsterdam, Free University, Amsterdam University of Applied Sciences and Inholland University of Applied Sciences. The aim of the Centre is to describe and explain new, persistent or growing forms of inequality in the Amsterdam Metropolitan Area –

and in particular the accumulation of inequality within and across life domains and life stages – and to contribute with research to the (further) development of practices that can prevent or combat inequality. The Knowledge Centre for Inequality was launched in 2021. Since then, various research projects have been initiated. Among other things, a project examines to what extent differences between groups of self-

employed people have increased since the COVID-19 pandemic, and to what extent work and income policies exacerbate or mitigate these inequalities. Another project will study inequalities among young people during the transition from education to work. The first results are expected in the fall of 2022.





# Sustainable cities and communities

SDG 11 is aimed at actions to make cities and human settlements inclusive, safe, resilient and sustainable.



This is an extensive objective which encompasses numerous topics, including housing, basic facilities, urbanisation, public transport and road safety, heritage, public space and air quality.

## Highlights

- The demand for housing in Amsterdam is many times greater than the supply, leading to long waiting periods for social housing and high rents in the free market and strong increases of prices of owner-occupied housing. Consequently, living in Amsterdam is increasingly inaccessible to households with a low or medium income.
- The city of Amsterdam aims to combat the inaccessibility of the housing market by stimulating new housing development, with particular emphasis on social and medium-priced rent. In addition, measures are being taken to exclude investors from the housing market.
- 3-9% of the population is at times unable to travel (experiences travel poverty). The city aims to decrease the size of this group.
- The city aims to improve and strengthen citizens' engagement with and control over planning and decision-making. There are no indicators yet to monitor this goal.
- There are clear differences between districts in terms of neighbourhood satisfaction and sense of safety. With targeted policy programmes the city aims to improve the situation in the districts of Zuidoost and Nieuw-West.

## Access to housing and services

**Subgoal link:** 11.1

By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

In the discussion of this subgoal, we mainly look at the accessibility and affordability of the housing market. The housing stock in Amsterdam is divided into three main types: social rent (48% in 2021), free market rent (23%) and owner-occupied housing (29%).<sup>180</sup> Although social rent covers about half of the housing stock, only 34% of all houses that recently became available (dwellings receiving a new household in the last two and a half years) belonged to that sector. Free market rent is relatively often recently available (45%), and is therefore the most accessible category. (Figure 39).

## Affordability

In most segments of the housing stock, includ-

ing social housing, medium-priced private rent and owner-occupied housing, the demand is many times greater than the supply. The average waiting period for a social rental home is 10 years.

Specific offers apply to students and vulnerable groups, who therefore have access to social housing more quickly. Social housing can be considered relatively affordable. In 2021, the average rent of social housing was € 548 per month. National legislation prescribes that social housing is only accessible to households with an income below € 40,024 per year.

Free market rent and owner-occupied housing are significantly less affordable, and prices have increased to a great extent in recent years. The average price of an owner-occupied house in Amsterdam has reached € 605,246 in the last quarter of 2021, a doubling in five and a half years.<sup>181</sup> Due to a lack of affordable owner-occupied housing, home seekers with sufficient income divert to the free market rental sector, with relatively high rents: a minimum of € 752, but an average of € 1,306 in 2021.<sup>182</sup>

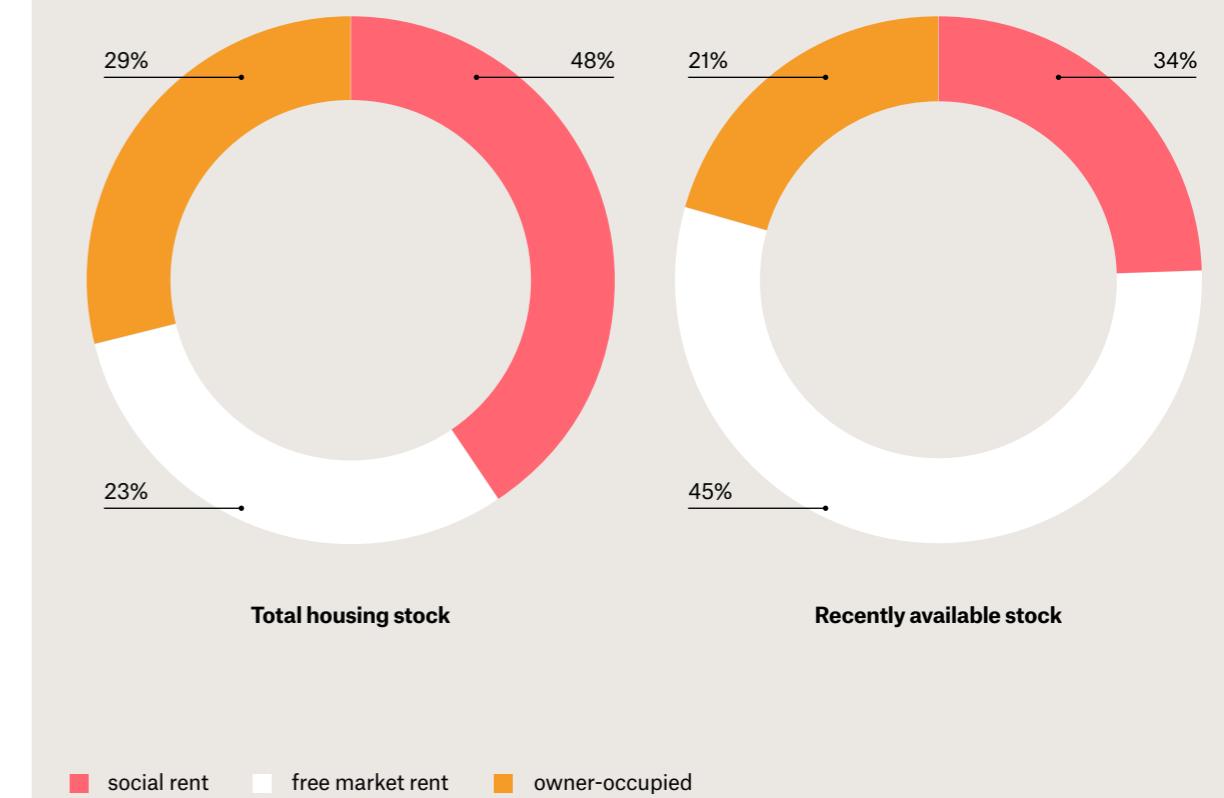
Due to long waiting periods in the social rental sector, high rents in the free market and expensive owner-occupied homes, living in Amsterdam is becoming less and less accessible to low- and medium-income households. Remarkably, those who were able to buy a home spend a much smaller share of their income on housing costs than tenants. In 2021, buyers spent an average of 18.1% of their income on mortgage payments (after deduction of mortgage interest from tax payment), while tenants spent on average 29.9% of their income on rent.<sup>183</sup> Households that have bought a house in the past two years spend a larger part of their income on their mortgage, namely 22.6%. The same applies to tenants: those who have recently started renting a house in Amsterdam spend on average 34% of their income on rent.

Despite issues with affordability and availability of housing, citizens are generally satisfied with their house (average score given is 7.7 out of 10).<sup>184</sup> Those who live in owner-occupied housing are generally more satisfied (8.3) than those who live in social housing (7.0) or free market rent (7.5).

## Homelessness

According to the Public Health Service of Amsterdam, the lack of affordable housing does not lead to an increase in homelessness (in 2019) but does make it more difficult for those who are homeless to find a home.<sup>185</sup> This applies in particular to the

Fig. 39 Total housing stock and recently available stock, 2021



## Access to sustainable transport

**Subgoal link:** 11.2

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.

## Modes of traffic

In 2019, residents in Amsterdam made an average of 2.5 trips per day by foot, bike, scooter, car or public transport.<sup>186</sup> In 2005 the average was still 3.1 trips per day. Digitisation seems to be an important explanation for the decrease: people are working from home more often, online shopping is increasing, and citizens are less likely to leave their home for services, such as arranging banking affairs or contact with the government. It is likely that the COVID-19 measures have led to a further decrease in the average number of trips a day in 2020 and 2021. On a national level, the number of kilometres travelled decreased by almost a third in 2020.<sup>187</sup>

When differentiating between types of transport, there was little difference in 2019 in the share of trips by car (29%), by bicycle (28%) and by public transport (25%) (Figure 40). Of all modes of transport, bicycle use increased most strongly since the beginning of the century and remained fairly con-

180 [Wonen in Amsterdam, factsheet woningmarkt](#) (data 2021).

181 Data from [CBS](#).

182 [Wonen in Amsterdam, factsheet woningmarkt](#) (data 2021).

183 [Wonen in Amsterdam, factsheet woningmarkt](#) (data 2021).

184 [Wonen in Amsterdam, factsheet leefbaarheid](#) (data 2021).

185 G4-USER (2019). [Signalen van toename van daklozen in de G4: feit of fictie?](#), p. 27-59.

186 CBS (2021). [Stijging van het aantal daklozen tot stilstand gekomen](#).

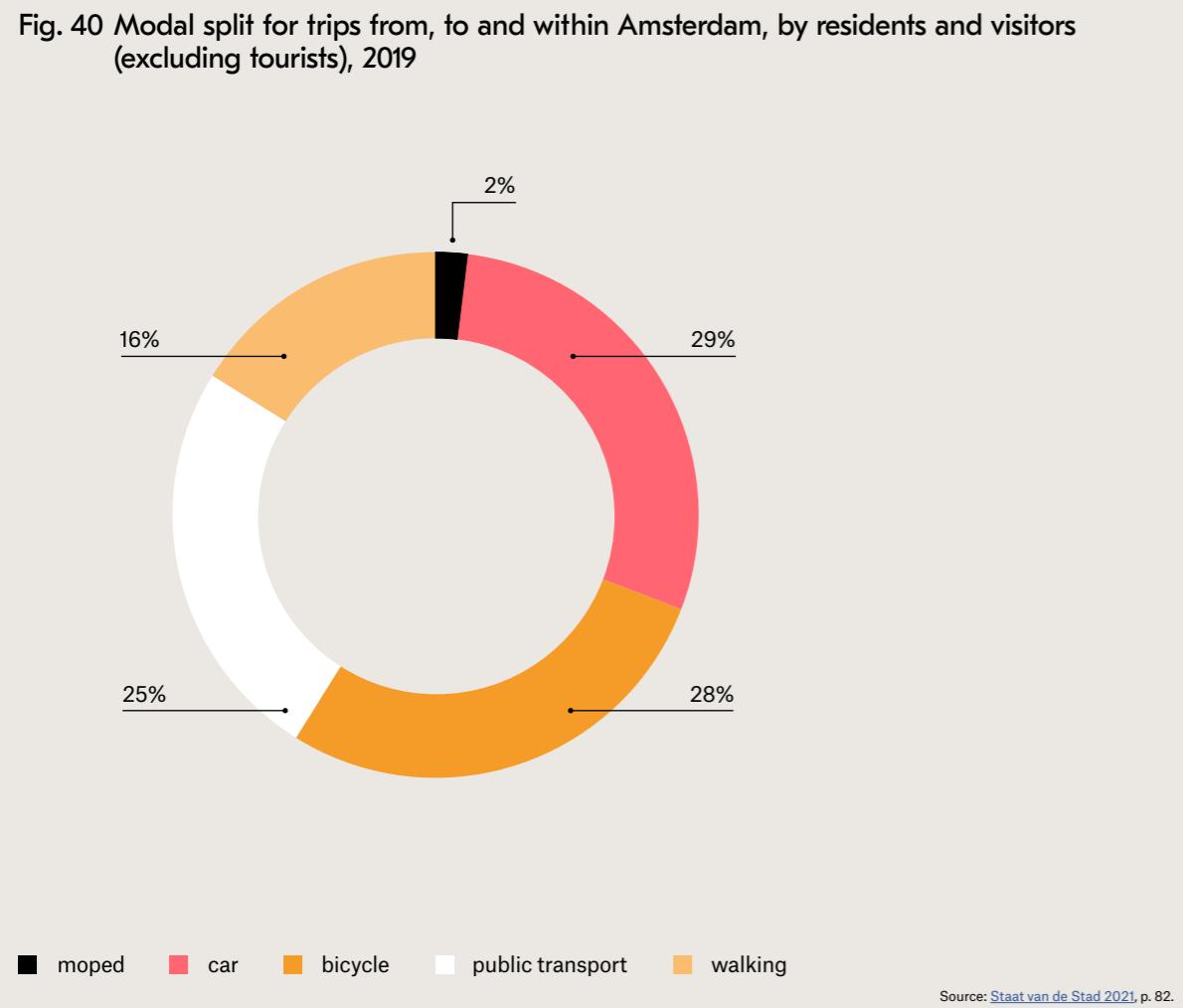
187 [Staat van de Stad](#), p. 30.

188 [Staat van de Stad](#), p. 30.

189 [Woonagenda 2025](#). Published in 2017.

190 [Staat van de Stad](#), p. 83.

191 Data from [CBS](#).



stant in recent years. The use of public transport increased between 2010 and 2019. However, the share of car trips by car, on the other hand, has decreased strongly since the 1990s. Compared to the national average, relatively few households in Amsterdam own a car (0.52 cars per household in 2018/2019 versus 1.02 nationally).<sup>192</sup>

#### Bicycle city

Although cycling is popular in Amsterdam, the Dutch Cycling Union gave Amsterdam a relatively low score as a cycling city in 2020 (2.9 out of 5) compared to the national average (3.4 out of 5).<sup>193</sup> In particular, cycling in Amsterdam is relatively less accessible to vulnerable groups such as children and the elderly, compared to other municipalities in the country (2.4 versus 3.6 out of 5). Amsterdam scores relatively well in having separate bicycle paths on roads where other users drive up to 50 km per hour (3.1 versus 2.0 out of 5), which increases safety for cyclists.

The municipality of Amsterdam aims to support bicycle use with a multi-year policy programme.<sup>194</sup> It includes 53 measures within 3 pillars: comfortable cycling, easy bicycle parking and new cycling behaviour. Among other things, cycle paths are widened, while fast, direct cycling routes will be introduced. In addition, bicycle use is stimulated in districts where this is less common (Nieuw-West, Zuidoost, Noord). The aim is that at least

35% of all journeys in these districts will be by bicycle in 2025 (versus 27% in 2016). Furthermore, the target is a bicycle satisfaction figure of 7.5 in 2025 (against 7.1 in 2015).

#### Public transport

Users of bus, tram and metro are generally positive about the quality of the public transport system in Amsterdam: the average score given was a 7.9 in 2019.<sup>195</sup> In 2018 a new metro line was introduced, connecting the north and south of the city. Simultaneously, the network of bus and metro lines was adjusted and a number of trams and bus stops were removed. The adjustments seem to have had a positive effect on the valuation of public transport. The appreciation of the metro network has increased from 7.4 in 2016 to 7.9 in 2019.<sup>196</sup> The passenger ratings for the tram and bus connections have also improved in the same period, from 7.4 to 8.0 (tram) and from 7.6 to 7.8 (bus). Public transport scores high on social safety (8.2), but affordability scores an average of 5.4.

#### Inclusive mobility

According to a recent study, between 3 and 9% of the population in Amsterdam is sometimes unable to travel and therefore experiences some degree of 'transport poverty'.<sup>197</sup> The reasons vary: transport is too expensive, there is no suitable transport, or a person needs to care for family members, has an illness longer than four weeks or

has physical or psychological disabilities. Amsterdam is taking various measures to combat transport poverty. Among other things, the city introduced a policy framework for inclusive mobility, which focuses on stimulating access to public transport for people with disabilities (physical or psychological).<sup>198</sup> Measures include improving accessibility of public transport stops for travellers with a physical and/or visual impairment, making travel information more comprehensible, and introducing public transport coaches that help people with disabilities to take the bus, tram or train.

#### Traffic safety and victims

Road users rate the safety of traffic in Amsterdam as moderately positive. In 2019, pedestrians were most positive about road safety (6.7), while moped riders experienced a decrease in safety (from 6.4 in 2017 to 5.0 in 2019). This can be explained by new traffic rules that prescribe that mopeds need to drive in the car lane (with helmet) instead of the bike lane. At the same time, sense of safety has increased for cyclists (from 6.0 in 2017 to 6.2 in 2019).<sup>199</sup>

The number of road deaths in the city decreased sharply between 1970 and 2000.<sup>200</sup> Over the past 10 years, the number of road deaths has remained fairly stable at an average of 15 per year. The number of seriously injured traffic victims fluctuates every year. In recent years, there seems to be a downward trend, with 1,130 seriously injured traffic victims in 2019.

Amsterdam aims to improve road safety among a number of target groups that are more vulnerable and/or are overrepresented in accident statistics, including cyclists, moped riders, motorists, children, young drivers, the elderly, pedestrians (with a disability), and tourists.<sup>201</sup> The goal is to decrease the number of seriously injured traffic victims and deaths by 25%. In 2022, the strategies will be evaluated and the plan will be updated.

#### Inclusive and sustainable urbanisation

##### Subgoal link: 11.3

By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

Several goals with regard to improving processes of democratisation were formulated in the Coalition Agreement of 2019. This led to the democratisation programme and is also reflected in the Comprehensive Vision Amsterdam 2050: a humane metropolis ('Omgevingsvisie').<sup>202</sup> The main aim is to improve and strengthen citizen engagement and control, for which several instruments have been developed. These instruments range from financial support for citizens initiatives, more flexible rules and regulations, a platform for knowledge sharing and giving citizens more control in the planning and execution of their initiatives.<sup>203</sup> Some of the goals and instruments of the democratisation programme will be

highlighted here. To improve citizen participation in city plans and policies, a Participation Policy Framework was adopted in October 2021. This framework contains the general principles and guidelines for the public servant for any participation process. For every project, a participation plan must be developed, according to the Guide-line for Participation ('Leidraad Participatie'). This participation plan is made public on the city website and should specify how the input of residents will be incorporated.

An earlier evaluation on the first pilots with participation sections in policy documents (carried out by the democratisation programme team), demonstrated that it was difficult for civil servants to develop more specific participation plans and most of them opted for 'informing' and/or 'advising/consulting', only one out of ten opted for 'co-creation'. With the policy framework, the guidelines and the tools, the city expects to improve the ability to develop more specific participation plans with a higher level of engagement.<sup>204</sup>

One participative financial instrument is the so-called neighbourhood budget, which can be used by residents themselves for all possible expenditures. The proposals for these budgets are shared online, and every resident can vote for their preference. In 2019, several experiments were carried out with these budgets in the districts Noord, Nieuw-West, Zuidoost, Centrum and West. Of the total budget of 2.5 million euros for the implementation of the pilots in 2019, 1.5 million euros has been spent on five projects in the Noord, Nieuw-West and Zuidoost districts. In 2020, spending will be somewhat behind due to the COVID-19 crisis. More than 230,000 residents of Amsterdam have already taken part in determining where these substantial budgets in the neighbourhood are spent. In total, 700 proposals have been made by collectives of citizens, entrepreneurs, and individuals. The results of the first pilots have been evaluated and incorporated into an urban policy framework, Buurtbudgetten.

In 2021, a mini civic council ('mini burgerbaar') of 100 residents was installed that received the opportunity to advise the city on different measures to achieve the set climate goals. On 15 November, the council handed over the recommendations to the local alderman. The College of Mayors and Alderpersons has indicated to adopt the recommendations if they meet pre-agreed preconditions and will submit them to the city council. Ultimately, the municipal council has a vote, but the civic council may indicate what it expects from the council.<sup>205</sup>

#### Cultural and natural heritage

##### Subgoal link: 11.4

Strengthen efforts to protect and safeguard the world's cultural and natural heritage.

Amsterdam has over 9,000 listed national and municipal monuments, and the number continues to grow. There are six nationally protected

<sup>198</sup> [Toekomstvisie Sociaal Vervoer](#) (2021).

<sup>199</sup> [Amsterdamse Thermometer van de Bereikbaarheid](#) (2021), p. 67.

<sup>200</sup> [Amsterdamse Thermometer van de Bereikbaarheid](#) (2021), p. 57.

<sup>201</sup> [Meerjarenplan Verkeersveiligheid 2016-2021](#).

<sup>202</sup> See [here](#) and [here](#). The full vision in Dutch can be found at <https://amsterdam2050.nl/>.

<sup>203</sup> [Samen werken aan een democratische stad](#), (no date).

<sup>204</sup> [Rekenkamer van Amsterdam](#) (2021), [Uitvoering ambities Coalitieakkoord 2018-2022. Democratisering](#).

<sup>205</sup> [Mini-burgerbaar - Gemeente Amsterdam](#).

conservation areas, including the historic city centre. The Canal Ring is a UNESCO World Heritage site, and three municipally protected conservation areas have also been designated.<sup>206</sup> According to the financial statements, Amsterdam spent 3.9 million euros on cultural heritage in 2020.<sup>207</sup>

Amsterdam has an extensive spatial quality policy that includes heritage values, but is also a planning policy, as it indicates by means of maps and descriptions which objects are valuable. Before any building activity can take place, building permits are needed, and these are assessed in terms of the impact of a proposal on cultural significance. Because space is scarce in Amsterdam and will continue to be in the increasing densification of the city, built heritage is redeveloped and reused for different purposes. The value system for heritage is not solely focused on older historical heritage, but also on modernistic, postwar developments.<sup>208</sup>

To better integrate cultural heritage in spatial planning, a new policy brief was adopted in 2020, called 'Heritage in a dynamic city'. The goal of the policy brief is to ensure that considerations of different interests are made in a timely, transparent, and explicit manner.<sup>209</sup> In addition, monumental values will be inventoried for more areas in the period 1965-1986, industrial areas, and historic villages around the city. One of the instruments is a new city council public office, where advice and help can be obtained to improve and upgrade the environmental performance of built heritage ('loket Verduurzamen Erfgoed'), which is important in achieving the city's sustainability goals.<sup>210</sup>

### Access to green and public spaces

**Subgoal link:** 11.7

**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.**

Amsterdam residents are generally satisfied with their living environment, giving it an average score of 7.5 in 2019.<sup>211</sup> People are generally content with the availability of various sorts of neighbourhood amenities. Citizens are satisfied with the availability of shops for daily groceries, public transport and schools, while they see room for improvement for parking facilities, community centres and amenities for sports and play (Figure 41).

In 2020, 24% of all residents experienced that their neighbourhood is 'moving forward', while 18% described it as 'going backwards'. There are differences between districts in the extent to which residents value the neighbourhood and the way in which neighbourhood satisfaction develops.

While residents in Zuid are relatively most satisfied with their neighbourhood (average score 8.1), residents in Nieuw-West are least satisfied (6.7). Although residents of Centrum are relatively

satisfied (7.9), they are least hopeful about the future of their neighbourhood. This is related to the increasing pressure of tourists and visitors in the city centre.

The number of reported crimes in Amsterdam is about twice as high as the average in the Netherlands (94 versus 47 per 1000 inhabitants). Of all Amsterdam residents aged 15 and over, 3% often feel unsafe in their neighbourhood. Again, there are clear differences between districts: residents in Nieuw-West most often feel unsafe (8%), while residents in Zuid least often feel unsafe (2%). Crime can lead to a sense of unsafety, but this is not always the case. Research has shown that the sense of unsafety is often related to the appearance of nuisances by young people. In addition, relatively many residents feel unsafe in neighbourhoods that are less lively. And vice versa, many of the reported crime incidents are related to going out and tourism, while this does not significantly affect the quality of life of local residents in the relevant lively neighbourhoods.

Between 2017 and 2022, the municipality of Amsterdam is investing in so-called 'development neighbourhoods' in the districts of Noord, Nieuw-West and Zuidoost.<sup>212</sup> The goal is to improve the quality of housing, the living environment and neighbourhood amenities, to advance quality of life, sense of safety, the socioeconomic position of residents and the sustainability of housing. Plans for neighbourhood improvement are developed in collaboration with residents, civil society organisations and housing corporations. For the Zuidoost district, a Masterplan was developed in 2021 which aims to support sustainable improvement of youth prospects, liveability and safety.<sup>213</sup> A comparable plan is being developed for the Nieuw-West district.

The distance to public green spaces is 0.4 kilometres in comparison to 0.5 nationally. The amount of green natural areas is rather low in Amsterdam. For every 1000 inhabitants, there is one hectare of nature and forest areas, in comparison to thirty hectares nationally.

Furthermore, only 3.1% of the total land surface contains nature and forest areas in Amsterdam, compared to 14.8% nationally (more details in Chapter SDG 12).<sup>214</sup>

Regarding air quality, the concentration of particulate matter (PM10 and PM2.5) in Amsterdam has been decreasing in recent years and is currently below the European maximum values (Figure 42).<sup>215</sup> The annual average nitrogen dioxide concentration in Amsterdam has also decreased since 2008 and was 37 micrograms per m<sup>3</sup> in 2019, which is below the European standard of a maximum of 40 micrograms of nitrogen dioxide per m<sup>3</sup>. This excludes a busy street in the city centre of Amsterdam (Stadhouderskade), where the limit values for nitrogen dioxide were in fact exceeded.

However, scientific research shows that European

206 [Policy: Listed monuments.](#)

207 [Jaarverslag 2021, p. 397.](#)

208 [Policy: Listed monuments.](#)

209 [Begroting 2022, p. 86.](#)

210 [Begroting 2022, p. 86.](#)

211 [Staat van de Stad, p. 177.](#)

212 [Actualisatie Bestuursopdracht Ontwikkelbuurten 2019 – 2022.](#)

213 ZO=Zuidoost (district Southeast in Amsterdam). [Masterplan Zuidoost Programma 2021-2040.](#)

214 [Staat van de Stad, p. 49.](#)

215 [Staat van de Stad, p. 75.](#)

216 [Actieplan Schone Lucht. Uitstootvrij Amsterdam \(2019\).](#)

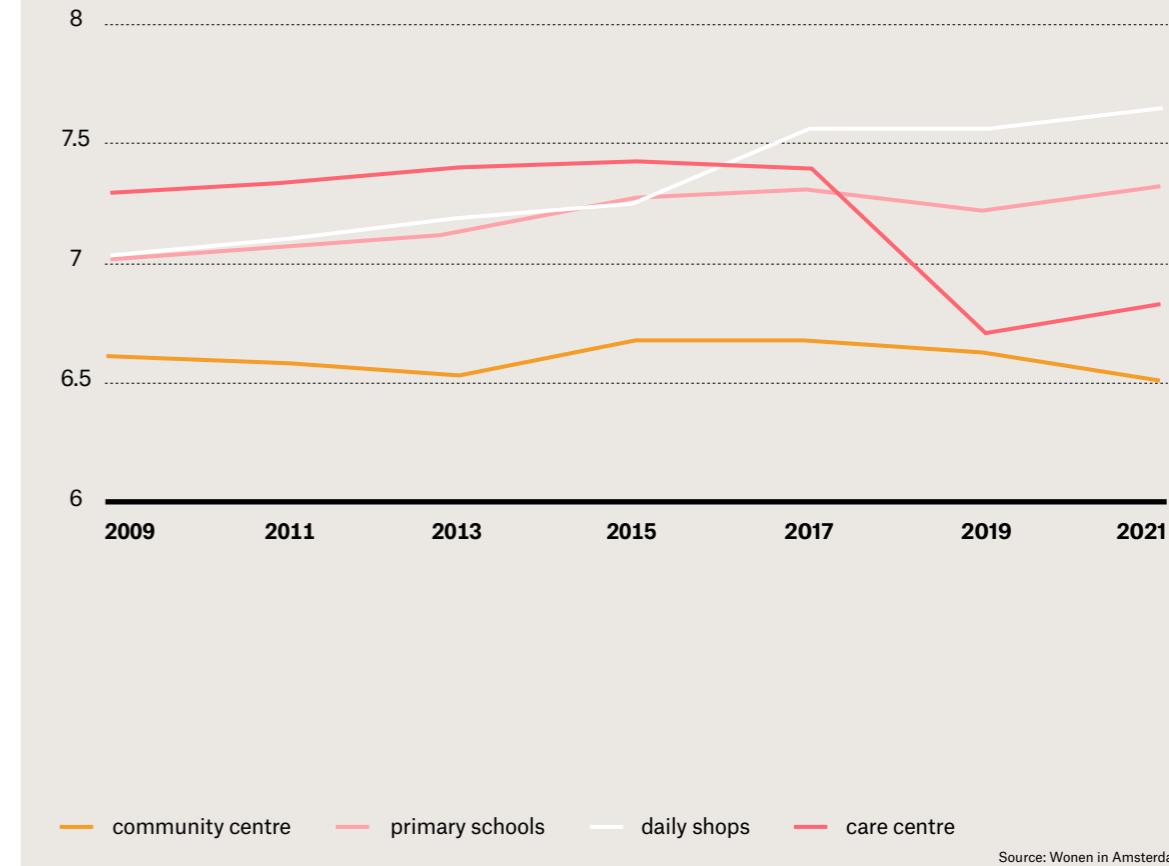
217 [Geluidskartaat 2018.](#)

218 [Actieplan Geluid 2020-2023 \(2020\).](#)

219 MRA (no date), [MRA Agenda.](#)

220 Depla, S., te Grootenhuis, H & Pans, R. (2019). [Meer richting en resultaat. Evaluatie bestuurlijke samenwerking Metropoolregio Amsterdam.](#)

**Fig. 41 Grades for neighborhood facilities on scale 1-10, 2009-2021**



standards for particulate matter do not provide sufficient health protection. The World Health Organisation (WHO) recommends lower values: an average annual concentration of particulate matter below 20 g/m<sup>3</sup> (PM10) and 10 µg/m<sup>3</sup> (PM2.5). In order to meet WHO standards in 2030, the municipality of Amsterdam is working towards zero-emission transport.<sup>216</sup> In 2025, road traffic within the A10 ring road should be emission-free, except for passenger cars and motorcycles. By 2030, all traffic in the city should be emission-free.

In the immediate vicinity of almost all major roads in Amsterdam, noise levels are between 65 and 70 dB and sometimes exceed 70 dB (Figure 43) (data from 2018).<sup>217</sup> This means that the limit value that Amsterdam has set for urban road traffic, 68 dB, is surpassed on a regular basis.<sup>218</sup> Exposure to noise above 55 dB (and even below) can cause serious nuisance. Therefore, the city plans to take measures to decrease noise caused by road traffic, among other things by reducing speed, stimulating slow forms of traffic, promoting electric powered transport and insulating facades.

### Regional development planning

**Subgoal link:** 11.1

**Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.**

The Amsterdam Metropolitan Area (MRA) is a partnership of the provinces of North Holland and Flevoland, 32 municipalities and the Amsterdam Transport Region. The MRA Agenda is the substantive basis of the MRA collaboration. With this agenda, the collaborating authorities are working to strengthen the Amsterdam Metropolitan Area as an international economic top region with high quality of life by investing in a future-proof and balanced metropolis. The collaboration aims to promote coherence between developments in the field of housing, work, mobility and landscape.<sup>219</sup> However, despite good intentions urban and infrastructure planning in the MRA is still to a large extent fragmented.<sup>220</sup> Members participate on a voluntary basis: in the end, the municipalities decide what to do. As a result, there is still unnecessary competition between municipalities in attracting companies and developing industrial estates.

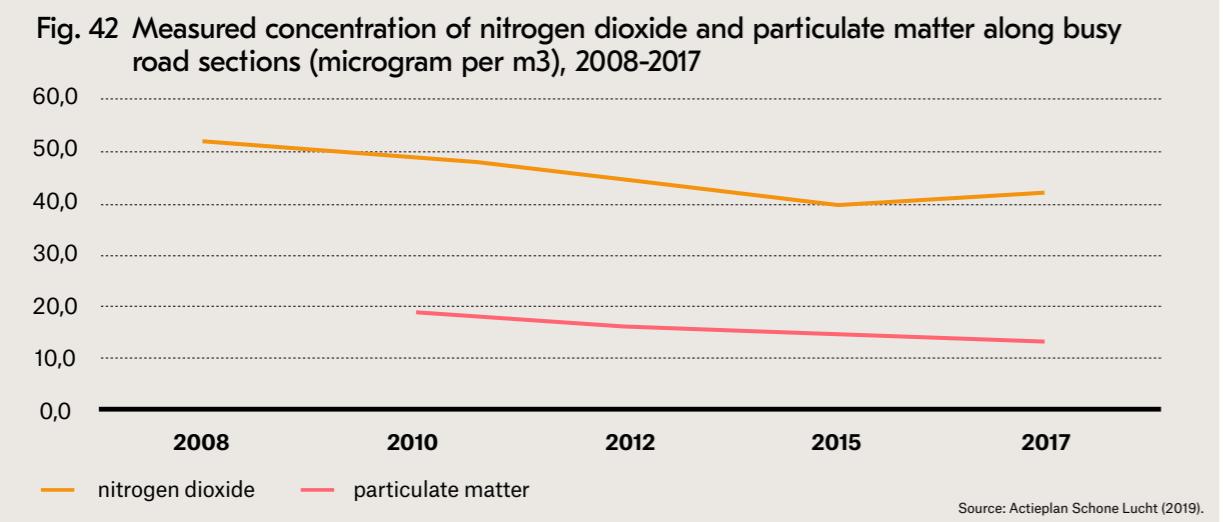
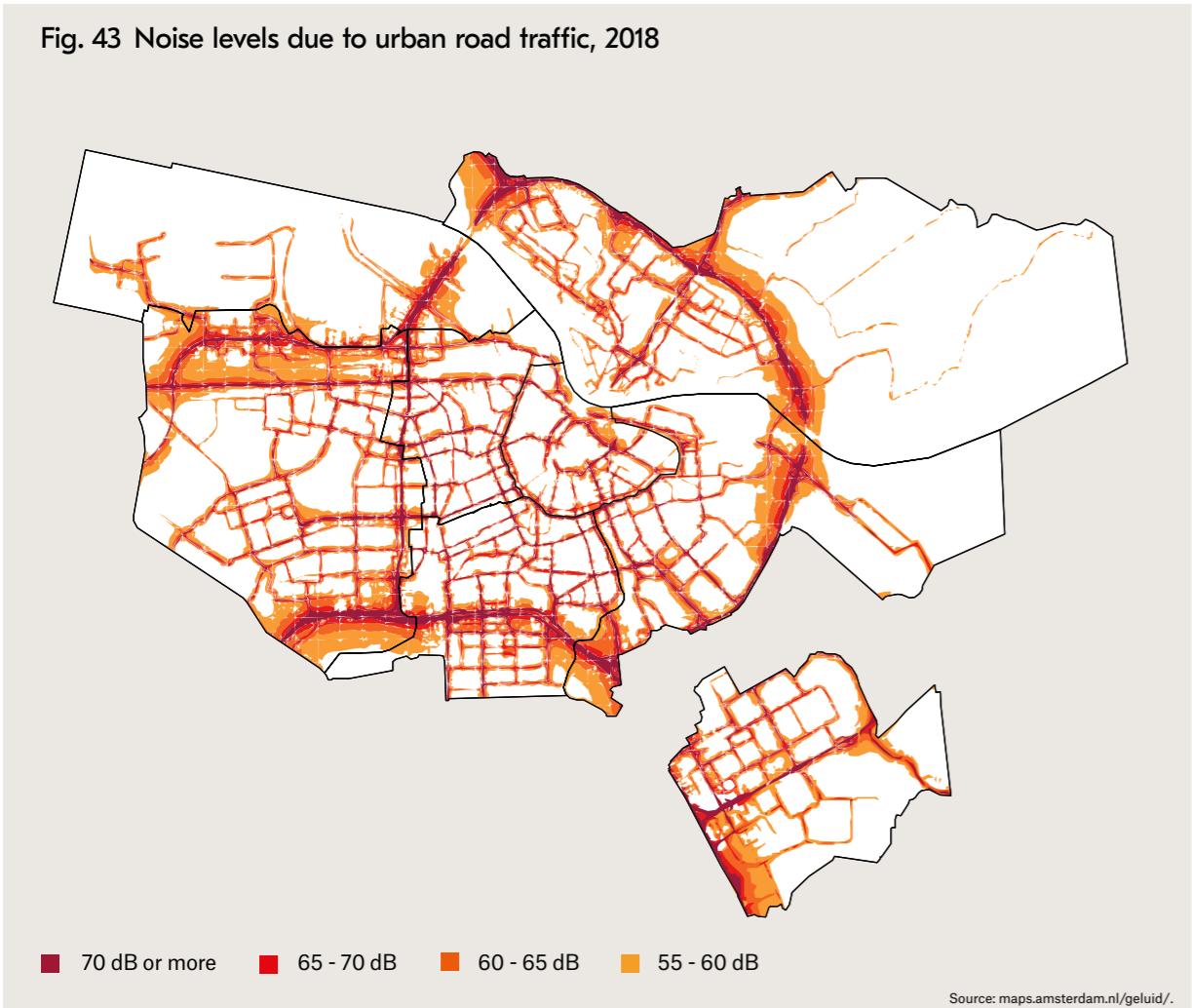


Fig. 43 Noise levels due to urban road traffic, 2018



## — Good practices —



## Floating neighbourhood

SDG link: 11.3

In 2008, a group of Amsterdam residents came up with a plan to build a floating neighbourhood, in an ecologically and socially sustainable way. In 2022, this has become a reality in a canal in the Noord district of Amsterdam. 46 households live on 30 arks in the project Schoon Schip (literally: clean ship).<sup>221</sup> On the ecological side, the floating neighbourhood consists of well-isolated houses which are not connected to the gas system and are heated with heat pumps. Electricity is generated with solar panels, arks have their own battery, and a 'smart grid' is formed allowing energy exchange between households.

On the social side of things, the Schoon Schip neighbourhood has a shared space and the households form an owners association. In addition, a foundation is formed in which workgroups of residents take care of issues like smart grid & energy, sanitation, shared mobility, ecology, water quality and communication. The process of building the floating neighbourhood was not easy. After the first ideas were formed in 2008, a foundation was formed that filed

an official application to build the neighbourhood in 2013. After a long period of preparation and building, the first residents arrived early 2019. Schoon Schip is committed to share its ideas and results to inspire others and therefore publishes its 'greenprint' including lessons learned online.<sup>222</sup> The floating neighbourhood has attracted a lot of attention from national and international media.<sup>223</sup>

<sup>221</sup> <https://schoonschipamsterdam.org/en/>.

<sup>222</sup> <https://greenprint.schoonschipamsterdam.org/>.

<sup>223</sup> This includes an article in *The Washington Post* (Rubin, 17 December 2021).

# Responsible consumption and production

This SDG aims to take actions toward sustainable consumption and production patterns, mainly through efficient use of natural resources and reduction of food waste.



SDG 12 closely links to the goals formulated in the city's Amsterdam Circular Strategy.<sup>224</sup>

The main goals for the city in this policy document are the following:

- In 2030, we want to use 50% less new natural resources (compared to 2019).<sup>225</sup>
- In 2050, we want our city to be 100% circular.

## Highlights

- The first edition of the Amsterdam Monitor Circular Economy showed that the bulk of the city's economy is still based on intensive primary material consumption. If the city is to meet its targets, consumption of primary, abiotic material would have to decrease annually by 2.3 billion kilograms starting in 2019. Much work is needed to reduce this material footprint to the target for 2030.
- Data on the division between use of primary materials (natural resources) and secondary materials (recycled) are not yet available, new measurement tools are in development.
- There is a declining trend in total waste production. The share of recycled waste is gradually increasing (from 43% in 2016 to 54% in 2019). The strategy to improve waste recycling is aimed at improving facilities, so that supply behaviour improves (in line with the goal to give strong priority to cleaning and enforcement based on the theme of public space, water and mobility), and to use raw materials in the highest quality manner so that it can be processed.
- The city of Amsterdam spends more than € 2.5 billion annually on purchasing goods and services. With its procurement strategy, Amsterdam aims to support and, where possible, accelerate its sustainability. The specific targets (circular procurement): 10% in 2022, 50% in 2025 and 100% less use of primary raw materials in 2030. This has also been agreed on in the MRA region.

## Action Plan

**Subgoal link: 12.1**

Implement the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries.

At the local level, this subgoal relates to action plans promoting sustainability. Over the last few years, the city of Amsterdam has built a comprehensive programme of circular policy and actions. This consists of the following main elements:

- Framework: Amsterdam City Doughnut.<sup>226</sup> This is a city portrait that presents city life and its impacts through four 'lenses' – social, ecological, local and global. It aims to create a vibrant city that is socially just and ecologically safe.
- Strategy: Amsterdam Circular 2020-2025.<sup>227</sup> In this policy document, three focus areas are named:

- Food and organic waste
- Consumption goods
- Built environment

- Action: Implementation plan and monitoring. In the innovation and implementation programme Amsterdam Circular 2020-2021, over 200 projects are described that are implemented by the city, often with partner organisations. In 2020, a first version of a monitor of results was published, developed with Technical University of Delft and TNO.<sup>228</sup> A thoroughly updated and interactive version of this monitor was published in February 2022.<sup>229</sup>

In addition, (the process leading up to) this Voluntary Local Review could be considered a next step in putting action plans in practice. It aims to further raise awareness of Amsterdam's efforts and challenges in reaching the SDGs among both residents and other stakeholders.

## Resource use

**Subgoal link: 12.2**

By 2030, achieve the sustainable management and efficient use of natural resources.

The use of resources is very much a global topic. In the Amsterdam City Doughnut, reference is made 'to the effects of Amsterdam's resource use in the manufacture of products that are imported into the city, such as fertiliser, water, land and fossil fuels that are used worldwide to produce food and clothing in sale in the city'.<sup>230</sup>

Focusing on the local level, an important indicator related to this subgoal is the material footprint of the city. How many resources and materials does the city use in a year? The first edition of the Amsterdam Circular Monitor showed that 1,216 kton of resources and materials were used by the city in 2018. This amounted

to around 1.4 tonnes per capita.<sup>231</sup> The city then pledged to improve its measurement tools to make them more complete. In the 2022 update based on new data from Statistics Netherlands (CBS), it was found that '73.4 billion kilograms was needed for the entire Amsterdam economy in 2019. For consumption within Amsterdam, 18.5 billion kilograms of material was required. In other words, depending on whether we focus on local consumption or look at the entire economy, material use in Amsterdam is 15 or even 61 times higher than was previously thought'.<sup>232</sup> The city concluded that 'despite many initiatives, the bulk of Amsterdam's economy is still based on intensive primary material consumption. If the city is to meet its targets, consumption of primary, abiotic material would have to decrease annually by 2.3 billion kilograms starting in 2019'. Much work is needed to reduce this material footprint to the target for 2030 (Figure 44).

The preliminary numbers for 2020 indicate that the city has met the reduction goals successfully, with a reduction of around 5.6 billion kg of primary abiotic material. This also means that the trend – the average change from 2015 – has changed from 'rising' to 'stable'.

The decrease can be broken down into 24 different commodity groups that together represent all the material in the city. Of these goods groups, 5 are increasing and 19 groups show a decrease in volume. The obvious explanations for this decrease are social developments related to the COVID-19 pandemic and related material supply problems and raw material shortages. However, to say with certainty per commodity group what effect the above factors had in 2020, more research is required.

Nevertheless, there are specific events that can be linked to declines in the use of materials in Amsterdam. For example, approximately half of the decrease in coal, lignite, natural gas and crude oil can be attributed to the closure of the Hemweg coal plant in December 2019. A decrease in natural gas consumption (possibly due to COVID-19 or

a mild winter) and a decrease in European – and in particular German – coal demand explains the rest of the decline. The reduction in material in this commodity group represents approximately half of the total decrease in material use in 2020. This commodity group has been showing a decline since 2015.

At the city level, data are not yet available on the proportion of renewable-source energy consumption. In the Netherlands as a whole, this was 9% in 2019.<sup>233</sup> Nationally, however, coal use will most likely increase again in 2021 and 2022 due to the high gas price and the war between Russia and Ukraine.

Neither the old nor the new Amsterdam numbers can be compared to the national numbers of 9.5 tonnes per capita Domestic Material Consumption (DMC) or 161 kg per 1,000€ GDP Material Footprint (MF).<sup>234</sup> In addition, data are not yet available on the division between primary materials (natural resources) and secondary materials (recycled). New measurement tools are in development.<sup>235</sup>

## Food waste

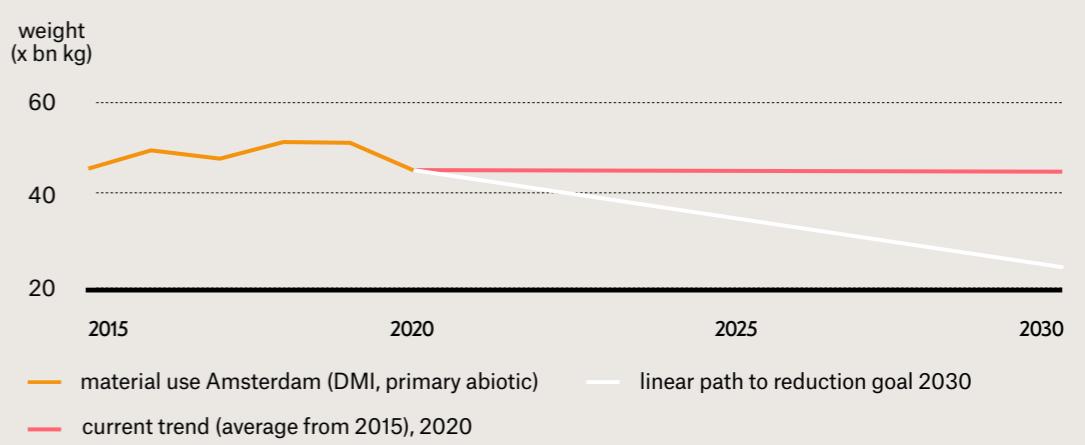
**Subgoal link: 12.3**

By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses.

Food waste is defined as 'food intended for human consumption but not used for this purpose' – in all settings: at home, as well as in retail, cafés, restaurants, etc. For the Netherlands as a whole, food waste per capita was between 96 and 149 kilograms in 2018. Exact figures are not known, but assumptions were made about the minimum and maximum amount of food per waste stream.<sup>236</sup> The trend seems to be slightly downwards.<sup>237</sup>

Solid food waste in households is estimated to be 34.3 kilograms per person per year in 2019. This amounts to 23–32% of total waste in the food chain. Consumers appear to have the largest share

Fig. 44 Primary material use Amsterdam 2015-2020 and trends foreseen



Source: Circular Economy Monitor: An Outline, 2022.

of waste in the chain. Among consumers, food waste has been declining for a number of years. Using 2010 as a baseline, the decrease was 29% in 2019 (from 48.0 kg to 34.3 kg).<sup>238</sup>

Figures on food waste in retail were published for the first time in 2020. On average, 98.3% of the food offered in supermarkets<sup>239</sup> in the Netherlands is sold. The remaining 1.7% does not reach the consumer. Retail contributes 10% to the total food waste in the Netherlands.<sup>240</sup>

#### Policy

Following the SDGs, the aim is to reduce food loss per capita as part of a sustainable pattern of food consumption and production. Initiatives will be supported against food waste and for more efficient food production. The city supports initiatives that fight against food waste and for a more sustainable, healthier diet – e.g., by offering solutions in logistics, data, value retention, accessibility or engagement and community involvement, but also in the field of food technology that can provide tasty sustainable alternatives.<sup>241</sup>

Policies will be created aimed at specific sectors and specific groups of residents through the Amsterdam Food Strategy and the Amsterdam Circular Strategy. The Amsterdam Food Strategy outlines six main actions. The goals are to make residents more aware of the importance of food, less waste, eating less meat and processed food, producing less waste and shorter food chains. The action against food waste relates mainly to the end of the food chain, the retail. The city aims to make people aware of waste production and propose alternatives so that residual food retains its value. For example, by making a tasty meal the next day, growing mushrooms on coffee grounds, food waste as animal feed or making compost.<sup>242</sup>

#### Waste recycling

**Subgoal link:** 12.5  
By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

This also refers to goal 8.4

These subgoals relate to different forms of waste, including household and industrial waste. Between 2016 and 2019, the total amount of waste dropped by around 14% (Figure 45).<sup>243</sup> This relates to both ‘city waste’ (from households and companies) and ‘construction and demolition waste’.

Regarding waste recycling, the trend is positive (Figure 46). Since 2016, the amount of waste that is recycled has remained relatively stable in absolute terms (around 900 kilotons). In 2019, 945 kilotons of waste were recycled. However, considering the declining trend in total waste production, this means that the share of recycled waste is gradually increasing (from 43% in 2016 to 54% in 2019).

#### Household waste recycling

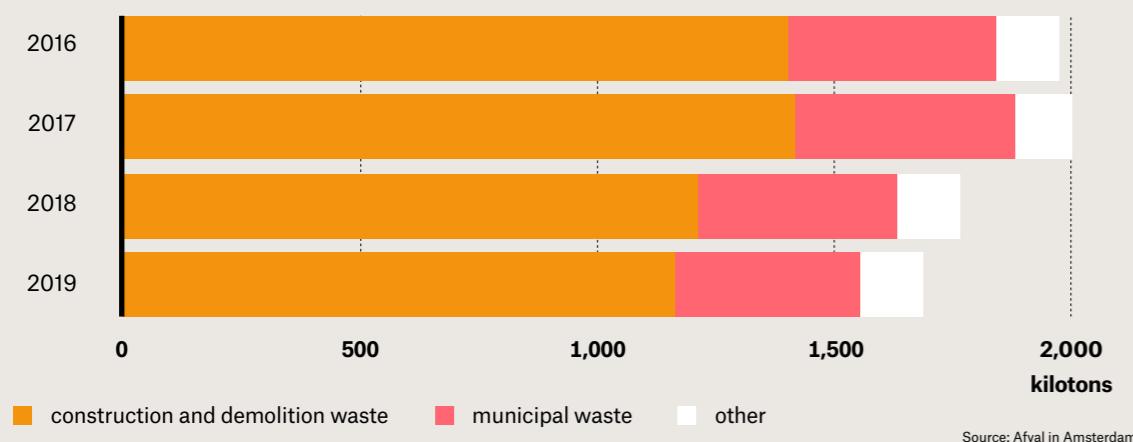
Looking specifically at household waste, the Figure 47 shows that the amount of waste per inhabitant is decreasing in the four largest cities in the Netherlands and that Amsterdam produces the smallest amount of waste per inhabitant in 2019, 377 kg.<sup>244</sup>

Figure 48 demonstrates the various ways in which inhabitants of Amsterdam separate their waste.<sup>245</sup>

- 60% ends up as residual waste
- 18% is separated at source
- 14% is further separated (including metals from bottom ash)
- 8% is ‘bulk waste’ that is not separated

Organic waste is one of the types of waste that often ends up unseparated/in the residual waste, because there are no collection facilities in Amsterdam, except for a number of neighbourhoods. Glass is well separated; only 5% of the glass waste is returned to the residual waste. Of the bulky (‘groot’) household waste, only 24% is collected separately, 41% is post-separated and 35% remains unseparated.<sup>246</sup>

Fig. 45 Primary waste produced in Amsterdam by type (kilotons, 2016-2019)



<sup>238</sup> Voedingscentrum (2020), [Facfsheet Voedselverspilling](#).

<sup>239</sup> Measured in kilograms.

<sup>240</sup> Wageningen University & Research, 2020.

<sup>241</sup> Amsterdam Circular Strategy 2020-2025.

<sup>242</sup> Voedselstrategie (2021).

<sup>243</sup> Afval in Amsterdam (2022).

<sup>244</sup> Staat van de Stad, p. 74.

<sup>245</sup> Staat van de Stad, p. 74.

<sup>246</sup> Staat van de Stad, p. 74.

<sup>247</sup> Staat van de Stad, p. 75.

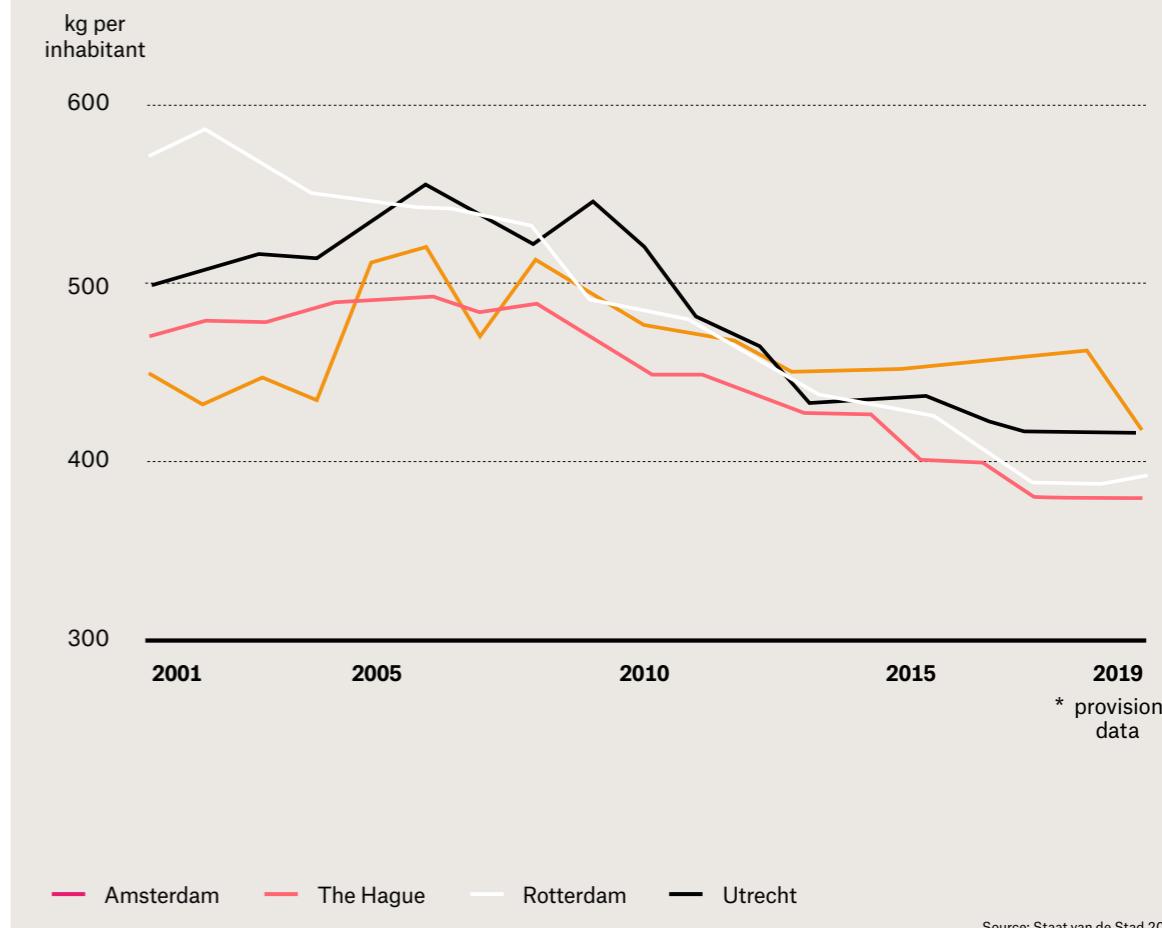
<sup>248</sup> Staat van de Stad, p. 75.

<sup>249</sup> Rekenkamer Metropool Amsterdam (2021), [Uitvoeringsambities coalitieakkoord 2018-2022 Haven, circulaire economie en afval](#), p. 8.

Fig. 46 Primary waste produced in Amsterdam by processing method (kilotons, 2016-2019)



Fig. 47 Household waste in kg per inhabitant for main Dutch cities 2001-2019

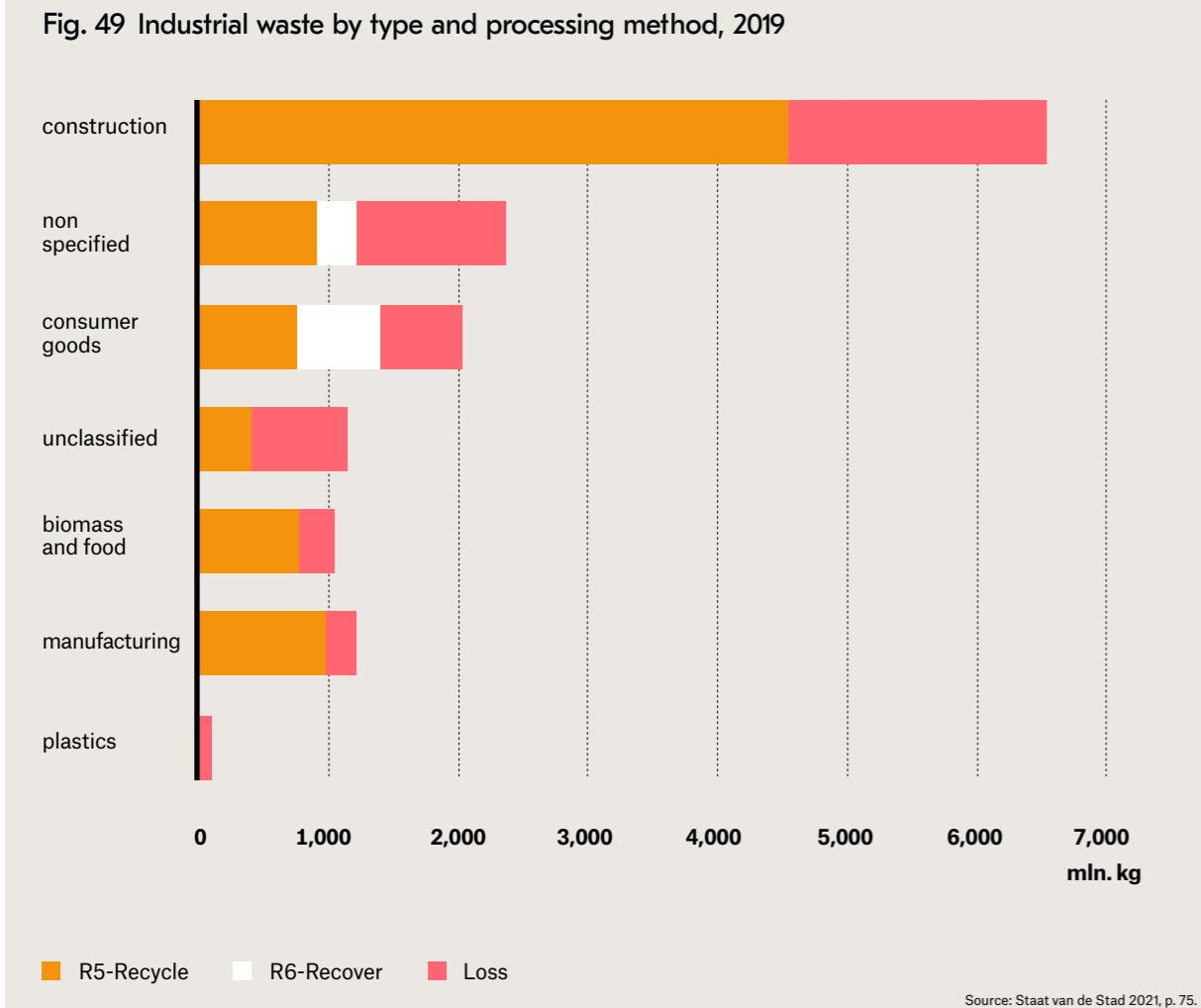
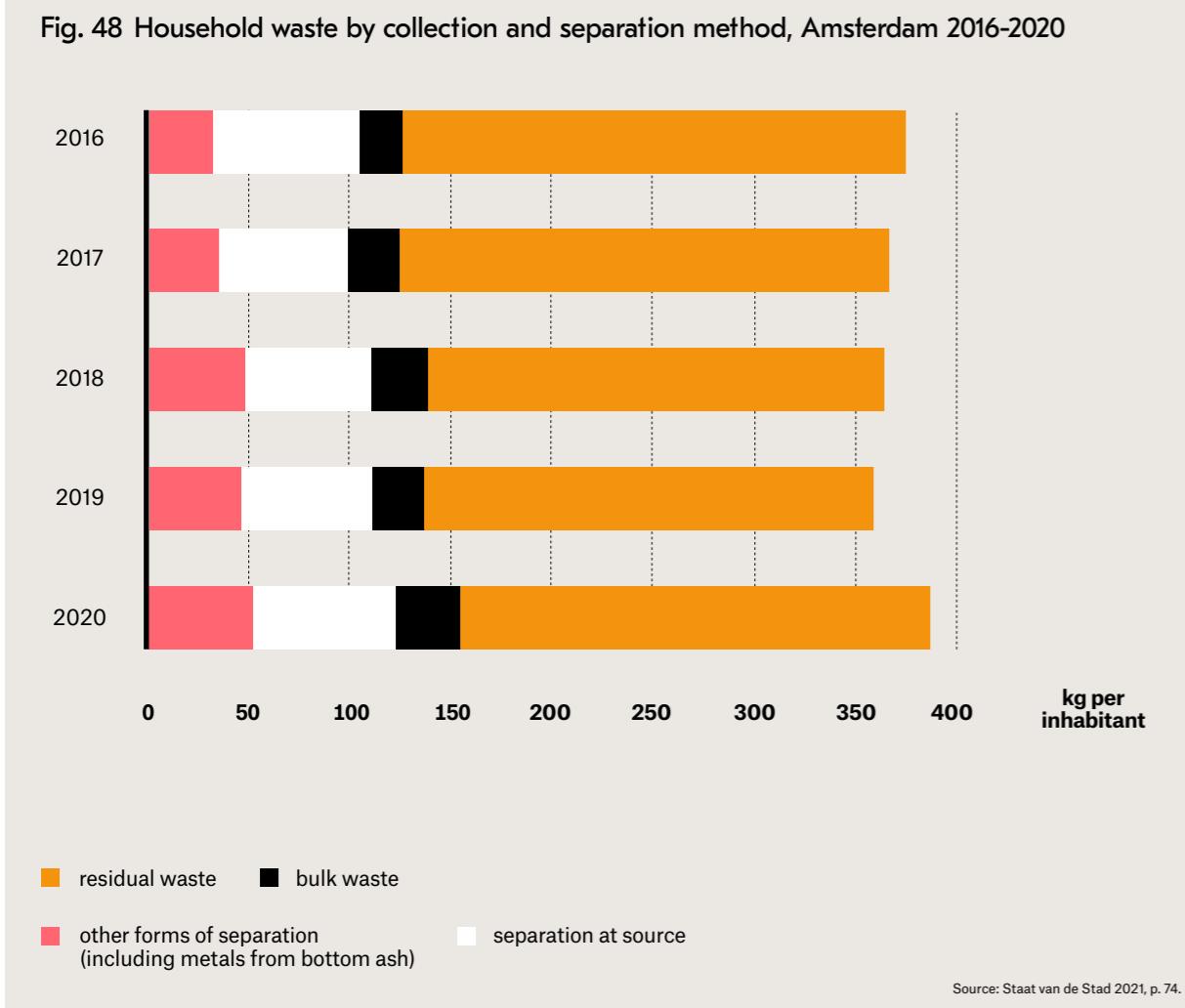


dam, in total, 13,600 million kilos of industrial waste (waste from companies) was collected in 2019. Most waste is generated in the construction industry (48%). Consumption goods amount to about 15%, while the non-specific category generates 17% of the total. This includes among others metals and silt from municipal waste. The unclassified category accounts for 9% of the total waste, which includes asphalt residues, cleaning agents or waste from roofing materials.<sup>247</sup>

is recycled. Plastics and synthetic materials generate the lowest amount of waste (in kilograms), while only 14% is recycled and 86% is lost.<sup>248</sup>

**Policy**  
To improve waste management in the city, several goals were formulated in the 2018 Coalition Agreement: to improve separate waste collection and to develop a targeted approach for company waste.<sup>249</sup>

Concrete goals to improve waste recycling are formulated in the *Uitvoeringsprogramma afval en grondstoffen 2020-2025*. The strategy is aimed at 1) improving facilities for waste recycling, 2) encour-



aging behavioural change of inhabitants and 3) using raw material in the highest quality manner.<sup>250</sup>

In 2021, the implementation of this policy was independently evaluated and, in general, the conclusion was that the measures are appropriate for the goal. However, the city was told it could improve on its public reporting of results.<sup>251</sup> For organic waste streams, the city of Amsterdam will launch a programme before 2023 to improve the collection and processing from Amsterdam's residents, visitors, businesses and institutions. EU policy states that kitchen and garden waste must be collected and processed separately by the end of 2023. The aim is to have a separate collection of kitchen and garden waste in place for 73% of Amsterdam's households by 2030.<sup>252</sup>

Furthermore, the goal is to develop a targeted approach to more collectively collect 'company waste'. The desired outcome is a 50% reduction of the total amount of kilometres driven in the transport of waste collection, using one waste collector. Furthermore, the amount of waste not presented properly by companies must be reduced. To this end, extra capacity has been made available for enforcement and cleaning of the public space in the new cluster *Stadsbeheer*, as outlined in the *Masterplan handhaving en reiniging* (January 2020). To facilitate enforcement, rules will be made more uniform and more clear. Additionally, the local tax on waste collection for companies (*reinigingsrecht*) will be completely re-evaluated in 2023. The city tested a new approach which included better information, clearer rules and stronger enforcement on 'company waste' that is incorrectly presented in three pilot areas in 2019. The goal is to scale up to other areas in the city.<sup>253</sup>

#### Sustainable procurement

Subgoal link: 12.7

Promote sustainable public procurement practices, in accordance with national policies and priorities.

The city of Amsterdam spends more than € 2.5 billion annually on purchasing goods and services.<sup>254</sup> With its procurement strategy,

Amsterdam aims to support and, where possible, accelerate its sustainability goals. To this end, targets were set for circular, climate-neutral and emission-free purchasing:<sup>255</sup>

- Circular procurement: 10% in 2022, 50% in 2025 and 100% less use of primary raw materials in 2030.
- Climate-neutral procurement: by 2030 at the latest, the municipality's business operations will be climate neutral.
- Emission-free procurement: 100% of traffic (with the exception of passenger cars), mobile equipment and aggregates within built areas are emission-free by 2025 at the latest.

The municipality has established two sustainable commissioning teams.<sup>256</sup> Both serve as an advice desk and a centre of expertise for sustainable commissioning and purchasing. The aim is to make circular, CO<sub>2</sub> and energy-saving criteria more standard and visible.<sup>257</sup> In addition, an 'Environmental Cost Indicator' (MKI) was introduced in a number of tenders, and from 2022 onwards, the CO<sub>2</sub> performance ladder (*CO<sub>2</sub>-prestatieladder*) is a standard ingredient for works, deliveries and services in the civil engineering sector.<sup>258</sup>

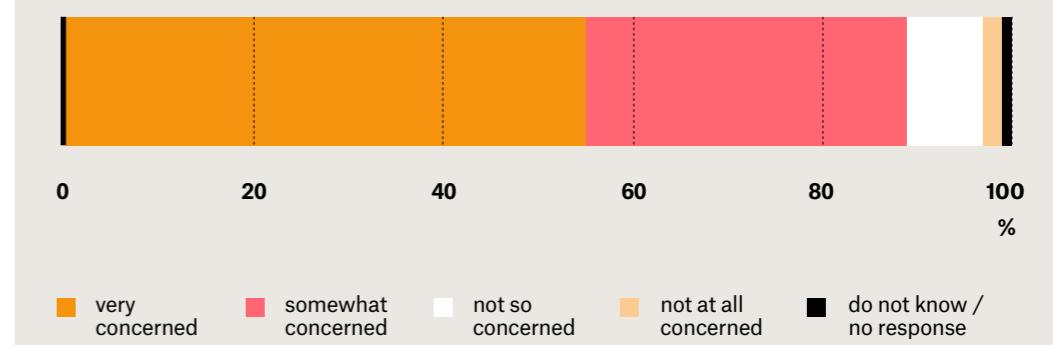
#### Information and awareness for sustainable development

Subgoal link: 12.8

By 2030, ensure that people everywhere have relevant information and awareness for sustainable development and lifestyles in harmony with nature.

To achieve this subgoal, measurement is made of the extent to which (i) global citizenship education and (ii) education for sustainable development (including climate change education) are mainstreamed in national education policies, curricula, teacher education and student assessment. There are no specific data available to measure this yet, but there is qualitative evidence of actions taken. Within the city of Amsterdam, a number of programmes and campaigns support awareness and knowledge of sustainable development among employees. During Green Lectures topics

**Fig. 50 Level of concern about pollution of the earth, depletion of raw materials and emissions of greenhouse gases among Amsterdam inhabitants, 2021**



Source: Factsheet Consumptie en duurzaamheid in Amsterdam, 2022.

such as waste, energy, CO<sub>2</sub>, circularity and behavioural change are discussed, and employees are invited to think about how to address these within their department and personal work environment. In addition, in 2021 nearly 700 employees participated in a 40-day Footprint Challenge to bring down their ecological footprint.<sup>259</sup>

In a recent survey, a large proportion of respondents (89%) state that they are concerned about issues such as pollution of the earth, depletion of raw materials and emissions of greenhouse gases (CO<sub>2</sub>) (Figure 50).<sup>260</sup> More than half of the respondents are very concerned (55%), about a third of respondents are somewhat concerned (34%), and the rest are little or not concerned. The national CBS survey shows that about three-quarters of the Dutch surveyed are somewhat or very concerned about climate change. Whether people in Amsterdam are concerned about the environment and the climate is related to education level: for example, 94% of the highly educated are very concerned or somewhat concerned about these matters, compared to 88% of the intermediately educated and 79% of those with basic education. Young people more often have many or at least some worries (92%) in comparison with older people (84%).

<sup>259</sup> [Goed op weg naar een duurzame organisatie. Verduurzamingsrapportage 2021. Naar een duurzame organisatie 2020-2030 \(2021\).](#)

<sup>260</sup> Factsheet Consumption and Sustainability in Amsterdam 2021. City of Amsterdam

## — Good practices —

### Business Involved

→ SDG link: 12.6



### Sustainable commissioning

→ 12.7 Sustainable procurement

The city of Amsterdam has formed a working group with advisers representing both sustainable commissioning teams. The working group is frequently asked for advice in procurement processes, which has led to more sustainable purchasing, for instance sustainability criteria in tenders for construction, municipal catering, and green gas.<sup>261</sup>



### Educating sustainable and social entrepreneurship

→ 12.8 Information and awareness for sustainable development

In 2021, the city of Amsterdam supported a project delivering and researching an education programme on sustainable and social entrepreneurship to around 500 children in primary schools (age 9-12). The programme was delivered by social enterprise Fawaka Entrepreneurship School, and research on its effects was carried out by the Amsterdam University of Applied Sciences. Effects show that children clearly gain knowledge about sustainable development, which provides additional arguments to mainstream such types of programmes in curricula.<sup>264</sup>



In 2021, the city of Amsterdam launched the Business Involved platform for companies and their employees to find sustainable volunteer work and activities that have a positive impact on Amsterdam and the region. These opportunities are designed to match people's individual skills and aspirations while also reflecting company social values. The platform is a collaboration between experts from the city of Amsterdam, Vrijwilligers Centrale Amsterdam (Volunteer Centre Amsterdam, VCA) and social tech company Deedmob. Participating companies are able to measure their local impact using the SDGs.<sup>261</sup>

### Cleaning up the cocoa value chain

→ SDG link: 12.6 Corporate responsibility

Goal: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle



Tony's Chocolonely is an Amsterdam-based chocolate brand, whose aim is to create the conditions for the eradication of child (slave) labour in the cocoa value chain. Its ultimate aim is to positively influence the practices of the largest chocolate companies in the world. The company aims to create awareness, lead by example and inspire others to act. To this end, it publishes an 'Annual Fair Report'<sup>265</sup> in which it reports on its impact. To support its impact claims, Tony's has not only integrated sustainability information in its reporting cycle; it has also audited a number of such non-financial Key Performance Indicators (KPIs). This includes data on the 'percentage of Choco Fans who are aware of the existence of modern slavery on cocoa farm', 'percentage carbon footprint compensated' and 'tonnes of cocoa beans purchased through Tony's Open Chain'. This Open Chain is a collaborative initiative that helps companies exceed sustainability targets and transform the cocoa supply chain; using Tony's sourcing principles. By 2021, the Open Chain

approach was adopted by two other important players in the Dutch cocoa field: the house brand of the largest supermarket chain Albert Heijn and the discount retailer Aldi.

<sup>261</sup> [www.businessinvolved.amsterdam](#)

<sup>262</sup> [Goed op weg naar een duurzame organisatie. Verduurzamingsrapportage 2021. Naar een duurzame organisatie 2020-2030 \(2021\).](#)

<sup>263</sup> See [this article](#) in Pioneers Post (lorga 2022), also for more examples.

<sup>264</sup> See Tony's Chocolonely, [Annual Fair Reports](#).



# Climate action

SDG 13 is aimed at actions toward reaching the goals that are defined in the Paris Agreement concerning climate change.



SDG 13 focuses on tackling human-caused climate change. This concerns both resilience to shocks caused by climate adaptation and ‘mitigation’, measures to combat climate change. Climate policy is closely related to the commitment to renewable energy (SDG 7), circularity (SDG 12), circular agriculture (SDG 2), industry, infrastructure and mobility (SDG 9), urban development (SDG 11) and water (SDG 6).

Climate adaptation is also an important task for municipalities. There is a strong warming effect in urban areas, especially at night, heat lingers for a long time. Trees and water can provide cooling. At the same time, the risks of flooding must be anticipated.

## Highlights

- The city of Amsterdam scores very low in terms of amount of green space in the city, which is a problem for climate adaptation.
- The city has high goals for CO<sub>2</sub> reduction and the city's coordinating role is strengthened through more official capacity.
- Since 2010, CO<sub>2</sub> emissions are decreasing, despite the growth of the city. However, the CE Delft research agency estimates that with the current speed of reduction a CO<sub>2</sub> reduction of 42% in 2030. Therefore, this rate is too slow to achieve the goal of 55% reduction in 2030.

## Climate-related resilience and adaptive capacity

Subgoal link: 13.1.

Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

This also relates to SDG 11.5

The city of Amsterdam is strengthening the adaptive capacity through the Strategy and Implementation Agenda Climate Adaptation. Prioritised climate-related hazards are heat, drought and flooding. To identify the resilience of the city to changing climate, climate stress tests are performed on these hazards by the local government. These tests provide insights into the risk areas for Amsterdam and are used in the preparation and implementation of the Climate Adaptation Strategy for Amsterdam and the Implementation Agenda.<sup>265</sup>

## Preventing heat stress and water nuisance

The heat stress map demonstrates that in many places in Amsterdam, especially in the city centre, the perceived temperature is at least 40 degrees on a heat stress test day. In particular, seniors over 75 years old who suffer from loneliness are at risk for health consequences caused by heat stress (Figure 51).

Green areas in the city contribute to cooling the city during heat and to better capture water. Compared to other cities in the Netherlands, Amsterdam scores relatively low in relation to green space per home: Amsterdam ranks 23rd of the 31 larger municipalities (Figure 52) (mapped by Wageningen University).

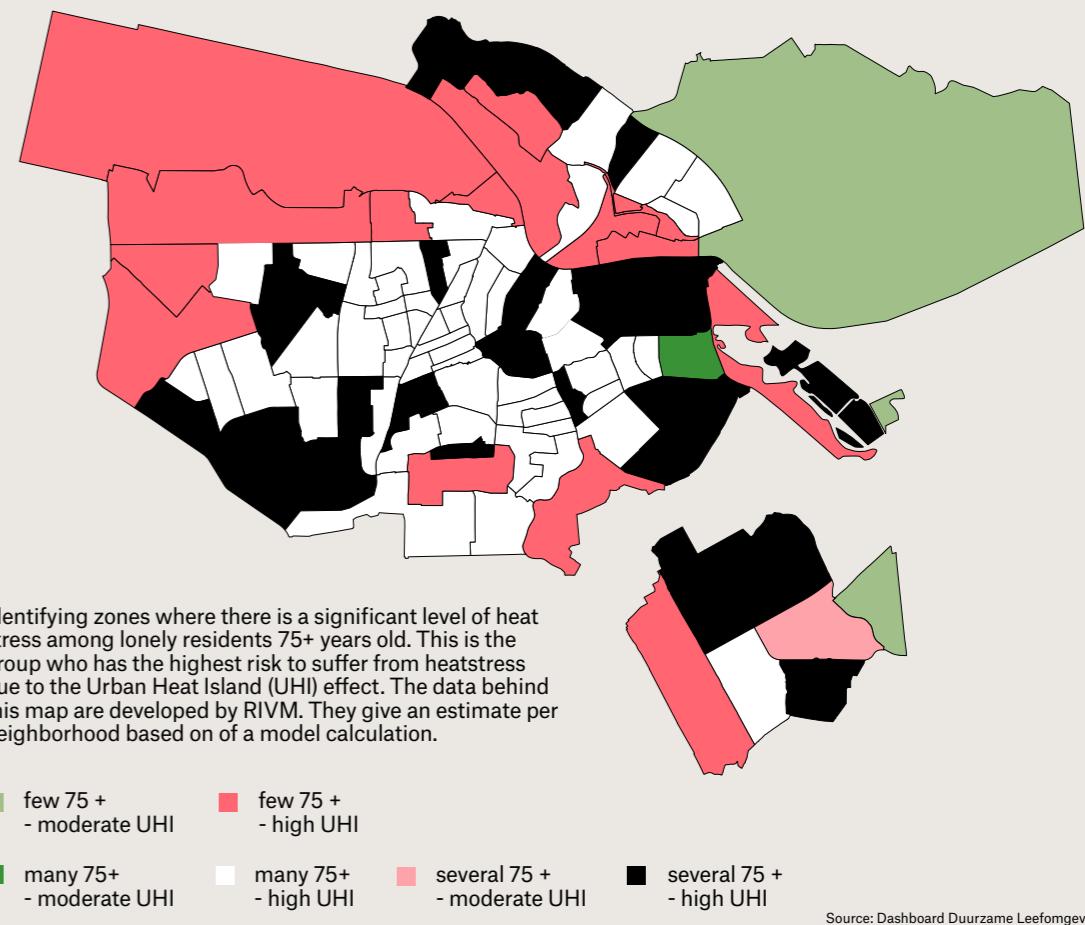
In 2020, there was an average of 60 square metres of green space per resident in the city. This has decreased since 2015 (71 square metres per resident). In total, 16% of the land area in the city is green. The petrified surface in public and private gardens is 49 percent. Of the 12 square kilometres of flat roofs in the city, approximately 1% is green.<sup>266</sup>

In 2021, data became available on the amount of ‘green’ in Amsterdam (Figure 53). This includes both trees and ‘low green’, such as bushes. Here, Amsterdam scores below the national average as well.

<sup>265</sup> Uitvoeringsagenda Klimaatadaptatie Amsterdam (2021).

<sup>266</sup> Staat van de Stad, p. 76.

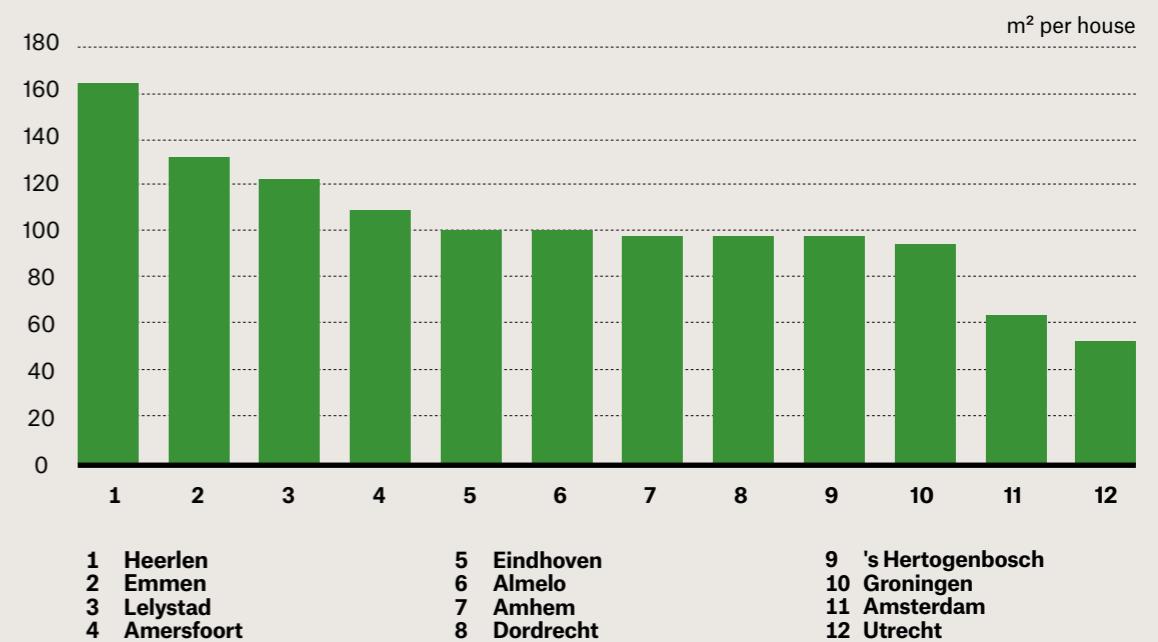
Fig. 51 Identifying zones where there is a significant level of heat-stress among lonely 75+ years old



Identifying zones where there is a significant level of heat stress among lonely residents 75+ years old. This is the group who has the highest risk to suffer from heatstress due to the Urban Heat Island (UHI) effect. The data behind this map are developed by RIVM. They give an estimate per neighborhood based on a model calculation.

Source: Dashboard Duurzame Leefomgeving, 2020.

Fig. 52 Green per house (m<sup>2</sup>) in selected Dutch cities, 2014

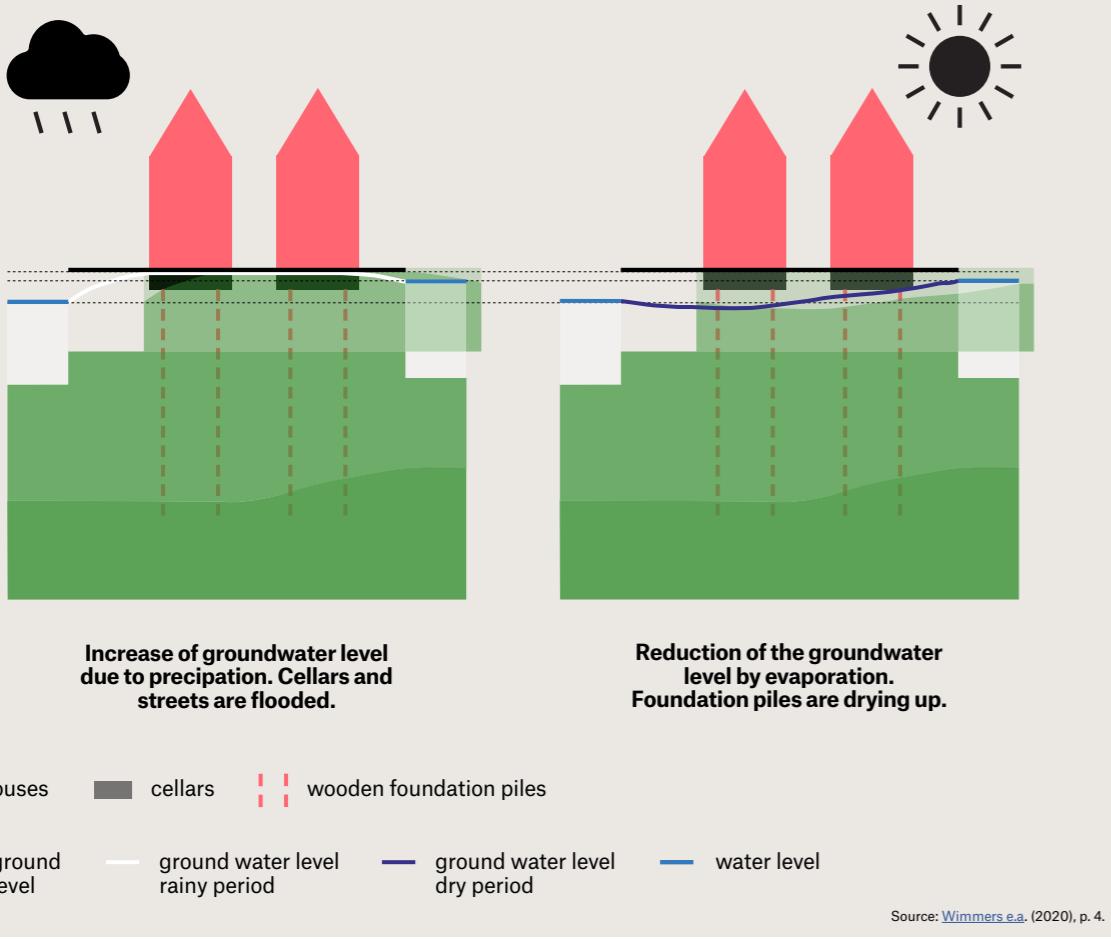


**Flooding**

Through extensive rainfall and the growing building stock in the city, there is an increased risk for flooding. Through the water nuisance stress test, so-called bottleneck areas in the city are identified. A bottleneck is a (part of a) street or neighbourhood with a strongly increased risk of nuisance and damage in the event of extreme rain.<sup>267</sup>

The risk of extreme flooding is very low. Only on the east side of the urban district Noord there is a small chance of 1/300 to 1/3000 per year for a flood. Policies to address future risks, such as sea level rise, are discussed below.

**Fig. 54 Schematic representation of groundwater excess driven by precipitation and evaporation.**



In almost half of the measured areas, the groundwater level is low or very low, more than 1.25 metres below the ground level.<sup>269</sup>

**Climate adaptation policy**

To provide solutions for the prioritised hazards, the climate adaptation implementation agenda was launched in May 2021. The aim is to put the issue on the agenda, inspire and offer tools to get started. The agenda consists of various examples, concrete actions and inspiration for residents and entrepreneurs, demonstrating the need for their participation in creating a more climate-adaptive city. The implementation agenda is characterised by an 'iterative process': through experimenting, monitoring and evaluating, actions and measures can be adapted.<sup>270</sup>

Some of the concrete measures involve, among others, the creation of hundreds of extra green spaces, testing water storage under tramlines, greening of schoolyards through a subsidy Amsterdam Impuls Schoolyards, and increasing the number of façade gardens. Residents are facilitated in greening their gardens through a public service of removing tiles and climate adaptation coaches. An additional goal is to have at least one rain barrel placed per day by a resident. Through the platform Rainproof, residents are inspired and linked to these public services and other activities in their local area.<sup>271</sup>

To further prevent water nuisance and damage in the city, the so-called Hemelwaterverordening (the 'Rainwater Regulation') was adopted in 2021. This regulation prescribes that for new buildings and renovated buildings where one or more building layers are added, at least 60 litres of rainwater per square metre must be stored and drained in the following 60 hours.

The aim is to decrease the (small) risks of extreme flooding in the city and to reduce the consequences in the event of a flood, both through spatial planning and through crisis management.

In addition to the current work and overarching activities, the city thrives to do the following:

- increase awareness of flood risks and the functioning of the water system among spatial planners, project developers, urban designers and asset managers
- set up a thematic study on water safety for knowledge development in the context of spatial area development and utilities
- increase the role of flood risks and sea level rise in the choices made in spatial development through stress testing, both at project level and in the context of trajectories such as the Comprehensive Vision Amsterdam 2050: a humane metropolis.<sup>272</sup>

**Climate change measures in policies**

Subgoal link: 13.2.

Integrate climate change measures into national policies

In line with the Paris Climate Agreement and EU policy, the city of Amsterdam aims to have reduced the city's CO<sub>2</sub> emissions by 5% in 2025, 55% in 2030, and 95% in 2050, compared to 1990, which is used as a reference year. The city will switch over to 100% sustainably generated energy.<sup>273</sup> In 2040, Amsterdam will no longer use natural gas and all traffic must be emission-free as early as 2030. The municipal organisation will also be climate neutral by 2030.<sup>274</sup> The plan of action for reaching these goals is detailed in the Roadmap Amsterdam Climate Neutral 2050.<sup>275</sup> With the annual Climate Report, the city monitors the progress of the implementation of the roadmap. Based on an up-to-date CO<sub>2</sub> calculation carried out by an independent research agency, estimated expectations for the reduction are made for the next several years.<sup>276</sup>

The goals for CO<sub>2</sub> reduction are high and the city's coordinating role is strengthened through more official capacity. Two programme-teams concerning gas-free and climate neutrality that were installed in 2017 are now structurally embedded in the Department for Urban Planning and Sustainability.<sup>277</sup> Since 2010, CO<sub>2</sub> emissions are decreasing, despite the growth of the city. CO<sub>2</sub> emissions were 4,436 kiloton in 2019, compared to more than 5,510 kiloton in 2010.<sup>278</sup>

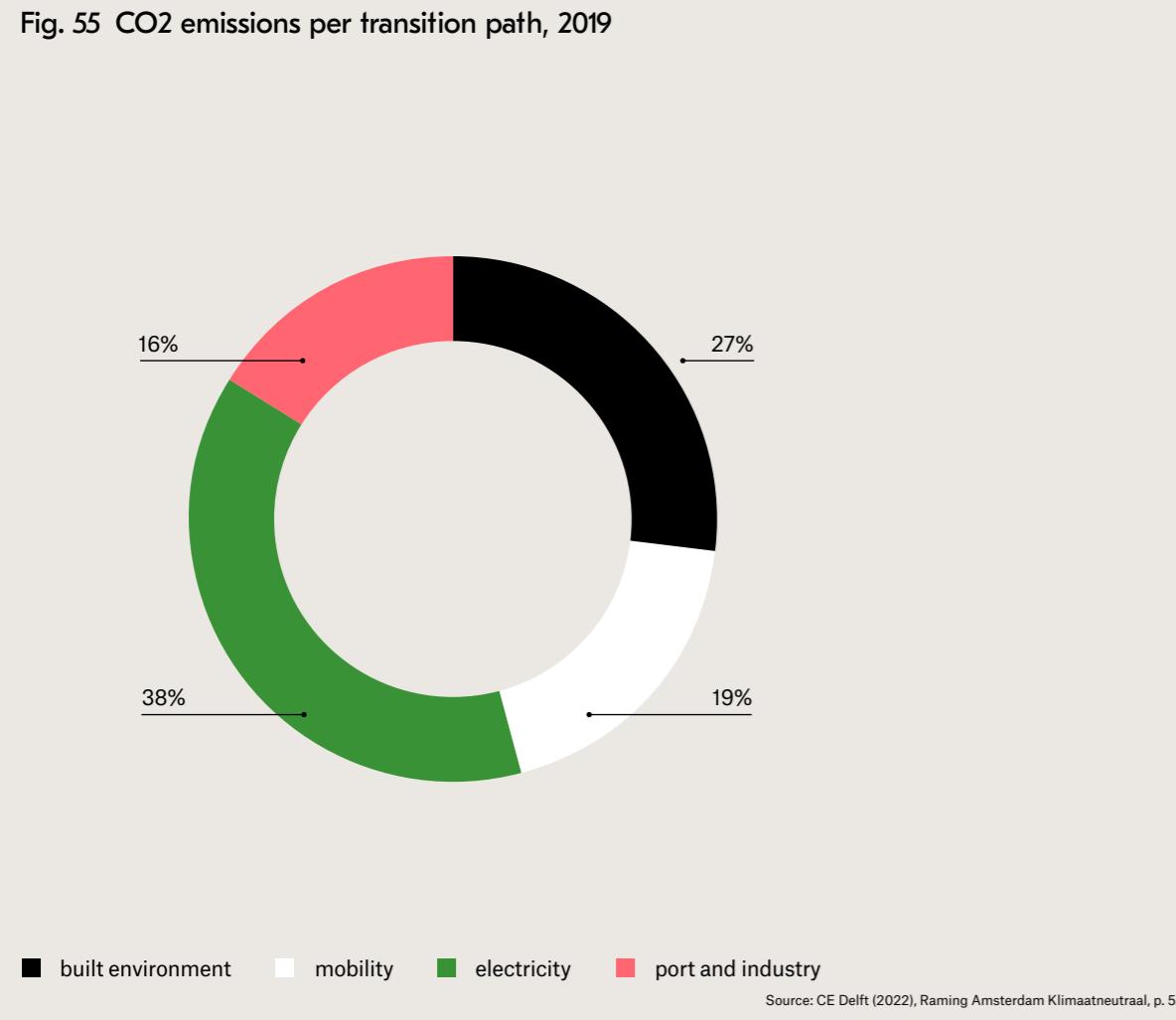
According to the Climate Report 2021, the reduction in 2020 was 15%, compared to 2017. This reduction is partially explained by the COVID-19 crisis (especially due to a reduction in traffic and electricity). In a February 2022 update on the estimated reduction, CE Delft estimates a CO<sub>2</sub> reduction of 42 percent in 2030 (within a bandwidth of 12 to 58%). They conclude that 'the target of a reduction of 55% does not appear to be fully achievable, unless all developments turn out favourably, all the intended policies are established as quickly as possible and the municipality is given the tools and able to implement them effectively for successful implementation. This becomes more urgent every year.'<sup>279</sup> However, the estimate looks better than in previous years, as reduction of emissions in 2019 was higher than expected.

Looking at these figures from the perspective of the Amsterdam City Doughnut, the development is positive, but still the planetary boundary is exceeded by a factor of 2.3. This indicates that the footprint is 2.3 times larger than it should be for a city like Amsterdam.<sup>280</sup>

The Roadmap Climate Neutral 2050 differentiates between four transition paths; Built Environment, Mobility, Electricity, Port and Industry (Figure 57). Figure 55 demonstrates the greenhouse gas emissions in 2019 per path.

**Built environment**

In the built environment, most of the greenhouse gas emissions are caused by gas used to heat houses and utility buildings. Therefore, in 2017 a separate programme Amsterdam Aardgasvrij



2040 was launched (and is now a structural part of the department Urban Planning and Sustainability). The goal is to be 'gas-free' in 2040 by making more use of heat networks and residual heat, or fully electric heat systems with a heat pump. The aim for 2030 is to expand the number of natural gas-free houses (and utility buildings) to 102,000. This goal was lowered, as it was decided to take more time for the transition. As there are no complete data available for the number of gas-free houses, the city looks instead at the number of houses connected to a heat net. In 2020, the number of houses connected to a heat net rose by over 8,000 to a total of around 108,000 houses and utility buildings, which is 24% of the total housing stock.<sup>281</sup> Note that heat nets are not always free of natural gas.

To reduce emissions in the built environment, the focus is on the transition to a gas-free city, along three lines: scaling of gas-free neighbourhoods, developing renewable energy sources for heat nets (such as aqua thermal, geothermal, and residual heat from datacentres) and expanding urban heat networks. Through the development of a new law on heat (the 'Warmtewet 2.0.'), local governments will have a greater directing role in the realisation of heat networks.<sup>282</sup>

Another important pillar is to reduce energy use in buildings. For new developments, a range of

instruments are in use to create energy-neutral or even energy positive development. Since 2015, all new-to-be-built buildings have to meet a minimum norm of energy efficiency.<sup>283</sup> All granted construction permits in 2019 and 2020 reached this norm. Since July 2018, all new houses are built gas-free.<sup>284</sup>

Since January 2021, permit applications for all new constructions, both residential and non-residential, must meet the requirements for 'Nearly Energy-Neutral Buildings' (the so-called BENG standard). These new building regulations set requirements for the maximum energy requirement, fossil energy consumption and the generation of renewable energy in buildings. Not only must proper insulation and energy-efficient installations be taken into account, but also the application of sustainable energy.<sup>285</sup>

#### Mobility

For mobility, the aim is to have emission-free transport for the whole city in 2030. Environmental zones have been established, and the city strives to introduce emission-free zones in 2025.<sup>286</sup> The first pillar to reach this target is limiting the amount of transport movements, by stimulating the use of bicycles and public transport and creating less space for both moving and parked cars. By working together with residents, visitors, public and private parties in the programme Smart

Mobility, the supply of goods in the city can be made cheaper and more sufficient. Through well-located hubs, suppliers are facilitated in transferring their goods to smaller electric vehicles for movements within the city borders. Car sharing is stimulated and in 2020 Amsterdam had the most shared cars in the Netherlands (11,111).<sup>287</sup> In 2025, all shared vehicles must be emission-free.

The second pillar is to stimulate the switch to sustainable modes of transport and to facilitate these sustainable alternatives.<sup>288</sup> In 2020, the proportion of electric vehicles was 4.3% (compared to 3.1% in 2019). Since the end of 2020, an environmental zone is in place for a large part of the city, blocking access to the city centre for the most polluting diesel vehicles.<sup>289</sup>

#### Electricity

Electricity is the key to transitioning to a fossil-free city; more electricity is needed and electricity can be generated sustainably. The city aims at maximum solar energy generation on roofs and wind turbines. The city works together with housing corporations (40% of the housing stock is owned by housing corporations) to accelerate the use of solar panels. For all new constructions and renovation projects, solar panels must be installed.<sup>290</sup>

Looking at the total amounts of installed capacity, the numbers grow quickly.

An important indicator used in national comparisons is the presence of solar panels on houses. While Amsterdam clearly lags behind the national average with regard to this indicator (3.7% of houses have solar panels on the roof, compared to 15.7% nationally<sup>291</sup>), the lower percentage can at least partly be explained by the fact that Amsterdam has many apartments without its own roof. The growth rate of solar panels in Amsterdam (Figure 56) is similar to the national average.

Apart from solar energy, 62 MW of wind energy (installed capacity) was realised at the end of 2020.<sup>292</sup> The city aims to optimise the use of wind energy by instalment of more wind turbines.

Permits for these turbines must be granted before 2025. An extra 11 megawatts has been achieved by replacing smaller wind turbines with larger ones. Amsterdam is striving to achieve 550 MW of solar energy and 127 MW of wind energy by 2030.<sup>293</sup> In 2019, Amsterdam's main coal-fired power plant Hemwegcentrale was closed, as part of the national policy to move towards sustainable energy.<sup>294</sup>

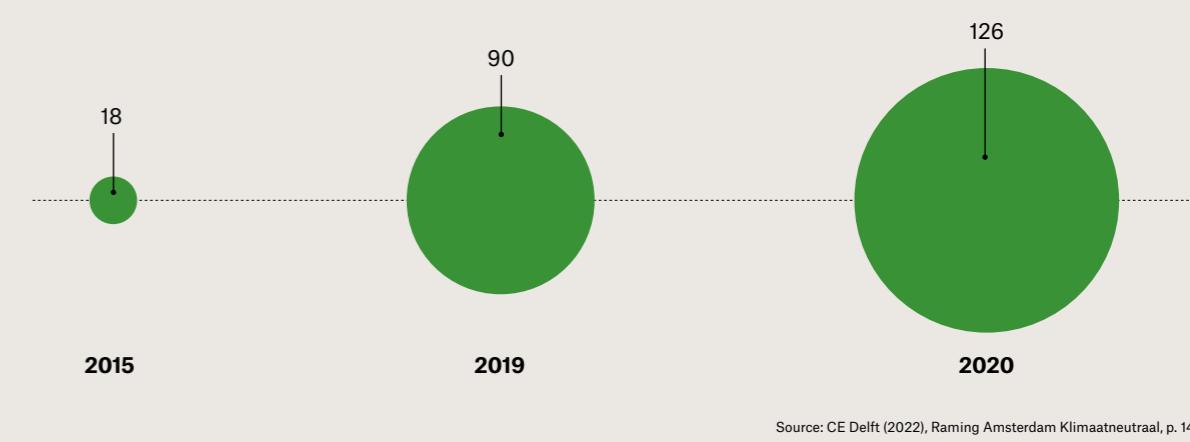
#### Port and industry

Most of the industrial companies are in the Port of Amsterdam. To achieve the climate goals, a transformation of the port economy into a greener economy is required. The Port of Amsterdam aims to develop itself as a sustainable and circular hub for energy and raw materials. Shipping in the port area must be emission neutral by 2050. For 2025, aims include a 10% reduction in NOx, SOx and PM shipping to improve air quality, and to contribute to a 10% reduction of greenhouse gases in the port area.<sup>295</sup> This is to be achieved, among other measures, by making use of carbon capture storage and utilisation and targeting the generation of hydrogen.<sup>296</sup>

#### Municipal organisation

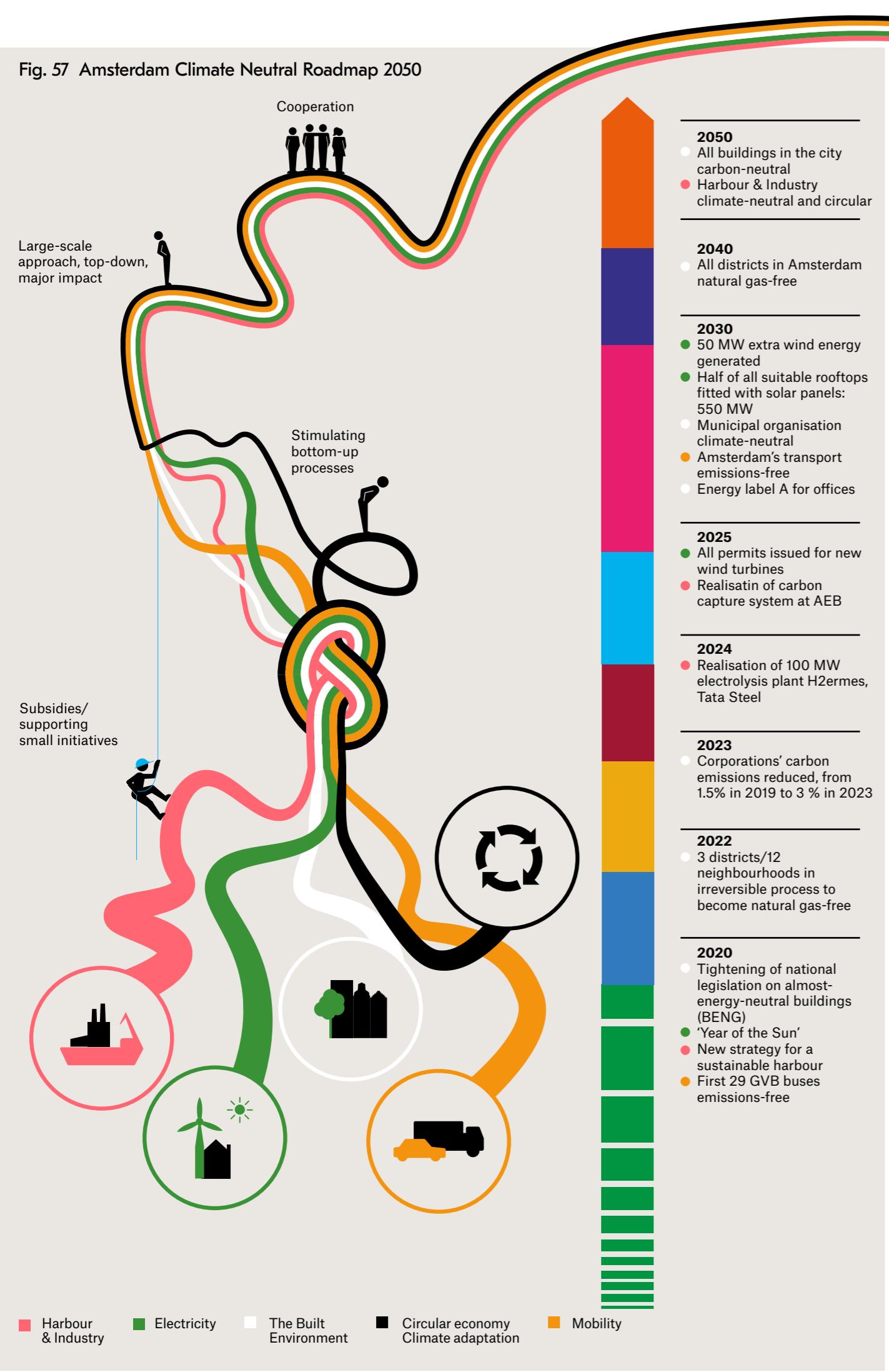
The city itself strives for CO<sub>2</sub>-neutral business operations and is working to reduce the remaining emissions in scopes 1 and 2 to zero.<sup>297</sup> The CO<sub>2</sub> emissions of the municipal organisation fell to 16 ktonnes in 2020: a 20% reduction compared to 2018.<sup>298</sup> Measures have been drawn up for the remaining emissions, such as making the vehicle fleet more sustainable and purchasing green gas (for buildings that are not yet natural gas-free). In addition, the scope-3 emissions are mapped.<sup>299</sup> The city is committed to reducing these emissions through sustainable procurement (see SDG 12).<sup>300</sup>

**Fig. 56 Installed capacity solar panels in Amsterdam, 2015-2020 in MW**



Source: CE Delft (2022), Raming Amsterdam Klimaatneutraal, p. 14.

Fig. 57 Amsterdam Climate Neutral Roadmap 2050



## — Good practices —

RESILIO;  
more blue-green  
roofs in the city

→ Subgoal link: 13.2

As another measure to increase the amount of green space to strengthen the adaptivity of Amsterdam, the city is stimulating the implementation of (blue) green roofs or vertical green. With the RESILIO project, 10,000 m<sup>2</sup> of rooftop space is transformed into smart blue-green roofs. Blue-green roofs can store more rainwater than 'normal' green roofs. Under the green layer of plants is a crate system in which water is stored. Through the substrate (soil) and a filter layer, the water reaches the plants. A smart drop decides (based on weather data) whether to retain the water (in times of drought) or to release it (when there is heavy rainfall). The water and plants have a cooling effect on and above the roof. The extra water increases the growth of the plants and improves biodiversity.<sup>301</sup> The aim of the city is to stimulate the scaling up of these blue-green roofs in the city.<sup>302</sup>

Positive Energy Districts:  
generating energy for the neighbours

→ Subgoal link: 13.2



In the ATELIER project neighbourhoods in Amsterdam and Bilbao are transformed into 'Positive Energy Districts' by implementing innovative solutions, ultimately reducing 1.7 kton CO<sub>2</sub> emissions. In the north of Amsterdam, Buiksloterham, current and future residents will become part of a local energy market where they can trade sustainably generated energy – by equipping buildings with smart mobility and energy technologies – via a local digital platform. The surplus of energy will be created and balanced in Buiksloterham's local energy system. The energy generated can also be stored locally and shared with the neighbours. Residents are thus not just energy consumers, but also producers. In the end, Buiksloterham will become a Positive Energy District: a carbon-neutral area where more energy is produced than the residents use. The ATELIER project is part of the European Commission's research and innovation programme Horizon 2020.<sup>303</sup>

<sup>301</sup> [www.resilio.amsterdam.nl](http://www.resilio.amsterdam.nl)<sup>302</sup> [Uitvoeringsagenda Klimaatadaptatie Amsterdam 2021, p. 67.](http://Uitvoeringsagenda_Klimaatadaptatie_Amsterdam_2021.pdf)<sup>303</sup> AMS Institute, [ATELIER project](#) (no date).



# Conclusions and reflections



304 [UN Department of Economic and Social Affairs. \(2015\)](#)

When the SDGs were officially adopted by the UN in 2015, they were divided into five areas: People, Planet, Prosperity, Peace and Partnerships.<sup>304</sup> We have structured this concluding chapter according to the five Ps.

However, as a city government, we find it of utmost importance that the five Ps do not operate in isolation from each other. Making the city thrive as a whole is a matter of finding commonalities between the goals. If we cannot see the relationships between the various goals we are collectively working on at various levels of government, we will end up competing against each other. In a world where time and resources are limited, such competition results in unforeseen and unwanted trade-offs. For these reasons, we end with a final P that we have added, Policy. With our policy recommendations, we show how Amsterdam is building bridges towards a sustainable future.

## People

- + One of the main priorities in Amsterdam is equal opportunity for all its citizens. By connecting different programmes and goals against inequality (i.e., income and work, housing, education, health, and well-being), we aim to increase equal opportunity. For residents with a low income and rising debt, the approach focuses on prevention and early identification of possible problems.
- Although inequality has been decreasing slightly over the past few years, equal opportunity between resident groups is still an issue. The growth of cities has generated prosperity in recent decades, but this also has a downside. Wealth inequality is particularly high in Amsterdam, which is mostly related to homeownership and rising property prices. Like other cities around the world, Amsterdam sees that this growth has increased the differences in opportunities between its residents.

The COVID-19 crisis has reduced equal opportunity even further. Residents with a lower level of education/income and/or non-western migration background often have fewer opportunities in society, suffer more from discrimination, have

less social security and are more affected by crisis in their livelihood and health. Because many of these issues are related to and affect each other, the city focuses on an integrated approach to improve social equality. The basic principle here is to invest more in groups that have unequal opportunities.

The housing market situation is labelled as a housing crisis. Living in Amsterdam is becoming less and less accessible to low- and middle-income households. The wealth inequality between tenants and homeowners is increasing. Many of these developments have national causes and implications, but do affect the larger cities more. The city's goal of supporting the development of adequate and affordable housing as formulated in the Housing Agenda 2025 needs to be closely monitored.

Finally, recent developments in Ukraine threaten to exacerbate inequality in cities. Inflation, higher energy prices and higher prices for goods influence everyone's purchasing power. Low-income residents also often live in poorly insulated houses. There is a high risk that the crisis will affect them and reduce equal opportunity further. The national government has already implemented instruments that offer financial support, but not

sufficiently. Together with the national government and energy companies, among others, the city is looking at what is needed to prevent increasing inequality and rising debt for low-income households.

## Planet

- + The city takes an integrated approach towards environmental and ecological issues, has high goals, takes a lot of initiative and strives to continually improve its monitoring practices.
- However, the monitoring activities show that current efforts are not yet sufficient to reach the city targets. While CO<sub>2</sub> emissions show a downward trend, the (planned) reductions are not enough to meet the 2030 target of 55% reduction compared to 1990. Moreover, the 55% reduction will not in itself resolve social problems such as energy poverty.

The importance of Amsterdam as a logistic hub for material entering Europe provides leeways for Amsterdam to play a pivotal role in the transformation to a circular economy. The online monitor circular economy that was first published in February 2022 will frequently update the city on the possible interventions it can take with its stakeholders to achieve its goals of becoming a fully circular city by 2050. According to the data, there are specific events that can be linked to a decrease in the use of materials in Amsterdam in 2020. For example, about half of the decrease in coal, lignite, natural gas and crude oil can be attributed to the closure of a coal-fired power plant in December 2019. A decrease in natural gas consumption (possibly due to COVID-19 and the milder winter) and a decrease in European – and in particular German – coal demand explains the rest of the decline. The conflict in Ukraine will also have an impact on the way the city consumes fossil fuels. Furthermore, Amsterdam is the largest city in our densely populated country. This is reflected in the city's low score on the availability of 'green space', including nature and forest areas. The bulk of the city's economy is still based on intensive primary material consumption. Reducing the material footprint is a huge challenge. In recent years, the city has invested in a comprehensive circular strategy, where the Doughnut Economy was introduced as a compass to bring material use closer to the debates on climate adaptation and energy neutrality, as thousands of new homes will be built in the coming four years. Roughly nine out of ten residents are concerned about environmental issues, such as the pollution of the earth, the depletion of raw materials and the emissions of greenhouse gases (CO<sub>2</sub>). Concern about the environment and the climate is highest among highly educated and young people.<sup>305</sup>

## Prosperity

- + In the past decade, Amsterdam has shown both strong economic growth and an increase in the general well-being of its citizens. The city takes an increasingly broad view towards the economy, in which the goal is to thrive within ecological and social boundaries, rather than to grow in terms of income.
- However, not all groups benefit equally from economic growth and increased well-being. Women, youth, persons with disabilities, a migrant background and/or lower levels of education have a relatively weaker position on the labour market.

Amsterdam has a diversified economy which has shown rapid growth in the past decade, but also vulnerability to the implications of the COVID-19 pandemic. There are clear differences between groups in terms of economic participation: women, youth, persons with disabilities, a migrant background and/or lower levels of education are less often employed and/or economically independent. This has broader effects, since a lower level of income is related to lower levels of well-being. The city has launched a plan to recover the economy by taking measures that simultaneously promote sustainable development and employment growth. This integrated approach fits within the broader framework of Doughnut Economics that was adopted by the city, which is aimed at meeting the needs of all people within the means of the living planet. It is unclear to what extent the intended policies are capable of reducing differences in employment and economic independence between groups; monitoring of this subject is recommended.

## Peace and partnerships

Recent events, including the COVID-19 crisis and the war in Ukraine, show the importance of both peace and partnerships. These themes are connected to SDG 16 (Peace) and SDG 17 (Partnerships), respectively. For this report, we have only briefly analysed these SDGs. However, it is clear that the city of Amsterdam has a strong focus on building partnerships locally, regionally, nationally and internationally. This is shown, for example, in the strong regional collaboration in the Metropolitan Region Amsterdam (MRA), but also in the Amsterdam City Doughnut.<sup>306</sup> The process of preparing this 'city portrait' was a collective effort of the city and a number of (inter)national citizen organisations, and the content of the Doughnut highlights the importance of international partnerships, with its global lenses of respecting the well-being of people around the world and the health of the planet. The city of Amsterdam also actively exchanges knowledge and experiences applying Doughnut principles with other cities and places around the world to align our monitoring practices and also our design principles.

<sup>305</sup> Factsheet Consumption and Sustainability in Amsterdam 2021. City of Amsterdam

<sup>306</sup> Amsterdam City Doughnut.

## Policy recommendations for implementing and monitoring SDGs

Based on our experience in constructing this VLR, the following policy recommendations for a better implementation process of the SDGs within the city are made:

### 1 – Improve monitoring.

In some cases, policies have clear targets set out on a clear timeline; with related monitoring mechanisms. Examples are the Roadmap Amsterdam Climate Neutral 2050 and the related Circular Economy Monitor. However, for many other policies, this is less clear. To be able to properly assess the contribution of Amsterdam to the SDGs, it is important that the impact of policies and strategies can be measured. Since some policy documents lack SMART principles (Specific, Measurable, Achievable, Realistic, Time-bound) the impact on the SDGs can hardly be measured. This brings us to the topic of data. For some SDGs, a lot of data are available, while for others data are missing or incomplete. In some cases, it is difficult to find specific local indicators for achievements toward a subgoal. At first glance, indicators may then seem less directly connected to specific subgoals. Balance must be found between localising the SDGs in a way which facilitates comparisons on the one hand and room for the specifics of the local context on the other hand.

### 2 – Holistic approach to city challenges

The municipality made the choice to prepare a detailed overview of six SDGs and a short update on the other eleven SDGs. This implies that we have a better view of achievements towards the six SDGs with detailed overviews: SDG 1, 8, and 10–13. However, there is significant overlap between the SDGs. For example, the city has an integral approach towards promoting equal opportunity. This is directly tied to SDG 10 (reduce inequalities), but also connects to, for example, SDG 1 (poverty reduction), SDG 4 (equal opportunities in education), SDG 8 (equal economic opportunities), and SDG 11 (for example, equal opportunities on the housing market).

The achievement of the various goals and meeting the challenges of the city can be improved by an integrated task-oriented approach and a better connection with the deployment of resources, thus improving efficiency and effectiveness. Furthermore, publishing a VLR frequently keeps track of the contribution towards obtaining the Sustainable Development Goals.

### 3 – Join forces with Doughnut Economics.

In 2020, Amsterdam published the first 'City Doughnut'. Taking the global concept of the Doughnut, developed by Kate Raworth, and turning it into a tool for transformative action in the city of Amsterdam by 'downscaling the Doughnut', combining local aspiration with global responsibility. There is a strong link between Doughnut indicators and the SDGs. Social prior-

ities in the SDGs form the basis of the indicators used to quantify the 'social foundation' of the Doughnut. The ecological priorities of the SDGs are reflected in indicators of the ecological ceiling. The main difference is that in the City Doughnut, Amsterdam's activities are seen through four lenses: an ecological and a social lens, combined with a local and a global view. These ecological-social local-global lenses allow us to contextualise the SDGs, while upholding our integrity to grassroots activation. The goal of this global view is to define what it means for Amsterdam to respect the health of the whole planet and the well-being of people worldwide and not only take local interests into account. The City Doughnut is proof that the global goals for 2030 can and should be localised in order to be realised by 2030.

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# Appendix 1.

## Constructing the VLR

### — a detailed look at the process

In this Appendix, we explain the approaches and methods used to construct this VLR. The infographic on pages 32-33 provides a basic overview of the phases and main ‘players’ involved, while this text provides more detail on the steps taken. This first VLR for Amsterdam provides a point of departure for possible future VLRs. Therefore, we elaborate on the methods used, so lessons learned in this process can be applied in the future.

Constructing a Voluntary Local Review for the first time is a complex task. It requires finding a balance between different elements:

- connecting to other Reports: the official UN indicators, the Voluntary National Review and guidelines of the Association of Netherlands Municipalities (VNG)
- finding space for highlighting the specific situation of the city of Amsterdam
- availability of data and comparisons
- readability for different target groups
- availability of time and resources

Before the project to create this VLR started, some basic choices were already made.

- The publication of the VLR was planned for Q2 of 2022.
- The aim was to focus on highlighting a number of SDGs, not to create a full overview of all subgoals or indicators of all individual goals.
- The task of constructing the data part of this VLR was commissioned by a research team at the Amsterdam University of Applied Sciences (AUAS).
- The explicit aim was to learn from the process.

In the following, we explain the steps taken in the different phases of the process. Note that some of the phases overlapped over time.

#### Phase 1. Design

In the period up to 2021, the city went through a number of steps within the municipality to reach the decision to write a VLR. The timeline is visualized in the top of the image on page 32-33. In 2018, a trainee conducted an opportunity analysis on the benefits of implementing the SDGs in municipal policy. With this, the first steps have been taken. In 2019, a larger study followed by the consultancy firm (PWC) on the SDGs in the city. It is an analysis on companies implementing the SDGs, the citizen perspective, the opportunities the SDGs bring to collaborations and an overview of the interfaces between the Amsterdam Implementation Agendas and the SDGs (see image). Subsequently, in the same year, Kate Raworth presented the interfaces between the SDGs and the city’s strategy to the city’s workgroup on international affairs.

From this follows the decision from the alderwoman of Sustainability and the alderman of Economy to provide an administrative assignment to conduct a VLR of the city of Amsterdam. The assignment comes from the Department of Urban Planning and Sustainability and is carried out by the Department of Public Affairs. The decision was made to collaborate with the AUAS and outsource the research and writing to their research team.

At AUAS, the research team was formed and the research approach was drafted. Being the first VLR for both the city and the research team, the decision was made to conduct a pilot. By writing a review for one specific SDG, lessons would be learned for the rest of the project. SDG 12 was chosen for this pilot.

The research team and core team of the city jointly discussed the main sources that were to be used as input to decide the subgoals and indicators to focus on. The following sources were used:

- 1 Official UN indicators. This was obviously the point of departure. However, not all subgoals and indicators are aimed at or translatable to a review at the local level.
- 2 European Handbook for Voluntary Local Reviews.<sup>307</sup> This report by the European Commission’s Joint Research Council is focused on indicators relevant at the local level; for which comparative data are available across Europe.
- 3 CBS indicators. The Dutch national statistics agency Statistics Netherlands (CBS in Dutch) publishes an annual SDG Monitor<sup>308</sup>, reporting on progress on achieving the SDGs. This is a report at the national level, but the more the local data can correspond to this national report and vice versa, the more they can reinforce each other.
- 4 Input from other selected VLRs. In the exploratory phase of the process, a number of VLRs were studied for other cities, and a selection was made of VLRs that Amsterdam wanted to use as an example. These were based on a combination of comparable city size, comparable context and comparable goals in creating a VLR.

Three VLRs were selected:

- a VLR Stockholm<sup>309</sup>
- b VLR Ghent<sup>310</sup>
- c VLR Helsinki<sup>311</sup>

307 Siragusa et al. (2020), [European Handbook for SDG Voluntary Local Reviews](#).

308 CBS, [Monitor Brede Welvaart & de SDGs 2021](#).

309 City of Stockholm, [Voluntary Local Review City of Stockholm 2021](#).

310 City of Ghent, [Ghent Voluntary Local Review 2020 \(full overview\)](#) and [Ghent Sustainability Report 2021 – Focus on People](#).

311 City of Helsinki, [From Agenda to Action: Implementation of the UN Sustainable Development Goals in Helsinki, 2021](#).

312 Barcelona City Council (2021), [Barcelona: Sustainable Future](#).

313 The final document has now been published at [Waarstaafjegemeente.nl](#)

few pages and worked out the results of the SDG 12 pilot. This provided a concrete idea of what the eventual VLR publication would look like. All these materials were then used for the meeting of the full city working group, where decisions were made on the next steps of the project.

#### Phase 2. SDG selection

As indicated earlier, the city did not aim for a full report on all the SDGs at this point. Instead, a number of SDGs were chosen for detailed reporting. After discussion with the full working group, the choice was made that the report would consist of a detailed overview of six SDGs and a short update on the other eleven SDGs.

The six SDGs chosen for a detailed review were:

- SDG 1 - No poverty
- SDG 8 - Decent work and economic growth
- SDG 10 - Reduce inequality
- SDG 11 - Sustainable cities and communities
- SDG 12 - Responsible consumption and production (pilot)
- SDG 13 - Climate action

The arguments for this specific selection are as follows:

- These SDGs are considered specifically relevant at the local level, as shown by the fact that these are often selected in other VLRs to be worked out in detail.
- Relatively many policy documents are available for these specific SDGs.
- These SDGs provide a mix between more people oriented goals (SDG 1 and 10), more prosperity oriented goals (SDG 8), more planet oriented goals (SDG 13) and SDGs which integrate different types of goals (SDGs 11 and 12).
- These SDGs would provide enough opportunity to highlight some aspects of the specific situation of the city of Amsterdam, with regard to both data and policy.

The city working group agreed on this approach, and the research team set to work, writing out the data chapters.

#### Phase 3.

##### Indicator selection and data collection

A new document had become available from the Association of Netherlands Municipalities (VNG in Dutch). They had developed a ‘Proposal for a set of local SDG indicators for the benefit of VNG and municipalities’, and were willing to share a draft document<sup>313</sup> with the city core team and research team. This proved to be a useful new source.

Then a distinction was made between the six highlighted SDGs and the eleven other SDGs. For the other SDGs, a simple approach was taken. The new VNG document was taken as the point of departure for the decision on the indicators

to use, and the city's biannual statistical report 'Staat van de Stad' (published late 2021) was used as the main local data source. Where needed, additional information was sought from other city reports and by requesting information at the different city departments.

For the six SDGs selected for detailed reporting, a more elaborate approach was used, in which there was more room to report on connections to city policies, as well as good practices found in and by the city. The following steps were taken:

**1** A table of possible indicators was created, using the input as detailed in Step 1, plus the new VNG document.

**2** Based on this table, the research team made a first selection of subgoals and indicators for a 'deep dive'. An important decision here was the exclusion of some subgoals for further research, as these were considered less relevant at the local level. For the deep dive, the research team indicated whether focus would be on statistical indicators and/or policy goals or descriptions and/or a good practice.

**3** Per selected subgoal, the deep dive consisted of:

- a – checking which corresponding indicators are available in 'Staat van de stad' (City of Amsterdam Statistical Report)<sup>314</sup>

- b – checking possible other sources in an overview of links between policies and SDGs (document provided by the city), adding relevant updates of policies or reports (where known)

- c – asking for input at the city's relevant department(s). This was coordinated by the city liaison, in close correspondence with the research team leader.

- d – for relevant data found, checking which comparisons are available. The main comparisons sought were development in time and with the Netherlands as a whole.

**4** After discussing the results and questions from Step 3 in the research team, selecting the most relevant indicators / policies to be included in the first draft of the report text.

#### Phase 4. Writing

The next step was to prepare draft texts. First, a division of work was made between the research team and the city team. The research team was responsible for the methodology and data chapters and the city team would draft the introduction. After finishing these texts, a conclusion would be written jointly, with the research team focusing on conclusions taken from the data and the city team focusing on policy implications. The research team set about writing the first draft

text, listing questions to discuss with the city core team. The paragraphs were written per selected subgoal and structured as follows:

#### Goal

- Data (where applicable and/or available)
- Comparison (where applicable and/or available)
- Policy (focus on goals)
- Good practice (in some cases; from business, society and/or policy)

The completed drafts were first discussed within the research team and then shared with the core city core team. In writing the chapters, an overlap of several SDG subgoals was found. In these cases, data were included in descriptions of the six detailed SDGs. Cross-references were made in a number of cases.

#### Phase 5. Feedback

After the first drafts were made, the important phase of asking for comments and feedback commenced. Feedback was provided in several ways:

- The city core team provided a first round of feedback through the Coordinator on the city side. Specific questions were sent to different departments to provide clarity, additional data or check the data used.
- Taking into account these comments and extra data, the document was shared with the full working group. All were invited to provide general feedback in a meeting and send specific feedback through email. The working group also took steps to include other relevant city officials in the feedback round.
- A team of reviewers at the AMS Institute (a research institute that works closely with the city on advanced metropolitan solutions) also provided feedback.

Thanks to feedback, both the use of data and readability were improved. Furthermore, it turned out that with some SDGs, the relation between the specific official definition of a subgoal and the indicators chosen raised some questions. Not all elements mentioned in a specific subgoal are always included in the description or the indicators used. This has to do with their specific relevance at the local level, the availability of data and the available space for elaboration.

#### Phase 6. Rewriting and visualising

Taking into account all of the feedback received as well as new data that became available, the rewriting of the draft texts started. The final deadline for new data input was 1 April 2022.

In addition, semi-final texts were shared with the graphic design team, who could then start to create visualisations. The graphic design team produced a first draft of the final report, and after two review rounds, the report was published in its final form.

# Appendix 2. List of indicators used

SDG subgoal	Local indicator	Year	Comparison in time	Other comparison(s)	Other (sub) goals
1.2	% of households with minimum incomes	2018	x	Subgroups	
1.2.	% children who live in households dependent upon social assistance	2020		Netherlands	
1.2.	% of residents who are considered vulnerable (i.e. suffer from physical and/or mental illnesses)	2020	x		
1.2	% of households with registered debts	2020	x	Other major cities	
1.2.	% of residents with problematic debts	2020	x	Subgroups (age, sex household types, education levels, social assistance)	
1.2.	Neighborhoods with a high concentration of poverty	2020			
1.3	% of households receiving social assistance benefits and support	2019		Netherlands Subgroups (who receive these benefits more often)	
1.4	No. of households receiving weekly food packages	2021	x		2
1.5.	% of households in energy poverty	Preliminary analysis, expectations for 2022			7
1.5.	% of energy-poor households living in a housing association house	2019			
2	No local data; local policy and national data				
3.3	% of population perceiving own health as 'good'	2020		Netherlands	3.4
3.3	% of population with one or more long-term illnesses	2020		Netherlands	
3.4	% of population overweight (BMI >25)	2020		Netherlands	
3.4	% of smokers in population	2020	x	Netherlands	3.5
3.4	% of drug users in population	2020		Netherlands	
3.3	% of residents who indicate that they or someone in their household have not received necessary medical and/or dental treatment in the past year	2020		Netherlands	
4.2	Use of early childhood or pre-school education	2021		Netherlands	

## Appendix 2.

### List of indicators used

SDG subgoal	Local indicator	Year	Comparison in time	Other comparison(s)	Other (sub) goals
4.1	Risk of educational disadvantage in pre-school and primary education	2017			4.4, 4.5
4.1	Segregation – dissimilarity index	2019			4.4, 4.5
4.1	% of early school leavers	2020			4.4, 4.5
4.1	% of youth NEET	2017			4.4, 4.5
4.4	% of pupils with highest secondary school advice	2019/2020	x		
4.c	Shortage of teachers	2021		Netherlands	
5.1	Employment rate of women compared to men	2021			5.5, 8.4, 8.5
5.1	Income level of women compared to men	2021			5.5, 8.4, 8.5
5.5	% of women in College of Mayor & Alderpersons and city council	2022			
5.5	% of women employed in city organisation	2021			
5.5	% of women managers in city organisation	2021			
6.1	Sewage charges city	2021	x	Netherlands	6.2, 6.3
6.3	Water quality indicators (water authority area)	2019		Netherlands	6.6, 14.1, 15.1
7.1	Energy poverty	2018			
7.1	Energy ratio	2019			1
8.1	Growth rate of the Amsterdam economy	2021	x	MRA	
8.2	Diversity of the Amsterdam economy (sectors)	2021	x		
8.3	Number of companies started and closed	2021	x		
8.3	No. of jobs in energy transition and circular economy	2021	x		
8.5	Economic participation of women and men	2020	x	subgroups	5.1
8.5	Net employment rate / unemployment level	2020	x	Netherlands	
8.5	Difference in hourly wages between men and women	2019		Netherlands; subgroups	5.1
8.5	People who are economic independent	2019		Netherlands; subgroups	
8.5	Residents who experienced discrimination	2021			
8.5	Number of citizens on disability benefit	2020	x		10
8.6	18-30 year-olds who lack a starting qualification	2020		Netherlands, subgroups	4

SDG subgoal	Local indicator	Year	Comparison in time	Other comparison(s)	Other (sub) goals
8.6	Youth Not in Employment, Education, or Training (NEET) per 10,000 inhabitants	2017	x	Netherlands	4
8.6	Youth unemployment rate	2020	x	Netherlands, subgroups	
9	No local data, local policy				
10.1	Standardized income	2019	x	G4	
10.1	Disposable income	2019		Subgroups	
10.1	Income distribution households	2019	x	Netherlands/subgroups/ neighborhoods	8
10.1	Economic independence differentiated by residents' characteristics	2019			
10.1	Residents who receive social assistance (unemployment benefits or disability benefits)	2021		Cities in the Netherlands	1.3
10.1	Residents social assistance / disability benefits	2021	x	Subgroups	
10.1	Income inequality (Gini-coefficient)	2021		Netherlands	
10.1	Relation income inequality and average standardized disposable income for neighborhoods	2019		Amsterdam neighborhoods	
10.1	Wealth inequality, measured by the median wealth (not the average)	2019	x	Netherlands, subgroups, Amsterdam neighborhoods	11
10.2	Level of wellbeing, measured by the living situation index	2020	x	Subgroups	11 (Political inclusion) 8 (economic inclusion)
10.3	% of residents who experienced discrimination	2020	x	Subgroups	8.5
10.3	Number of registered incidents of discrimination	2021	x		8.5
10.7	Number of recent foreign migrants (max. 10 years)	2020	x	Subgroups	8.5
10.7	Amount of shelters	2022			
10.7	% of Amsterdam status holders who have paid work	2020		Male/female	
11.1	Total housing stock and recently available stock	2021		Types of housing stock	
11.1	Average rent social housing	2021			
11.1	Average price owner-occupied house	2021	x		
11.1	Average free market rent	2021			
11.1	Share of income spent on housing costs	2021	x	Home owners/tenants	
11.1	Average housing satisfaction score	2021		Home owners/forms of tenants	

## Appendix 2.

### List of indicators used

SDG subgoal	Local indicator	Year	Comparison in time	Other comparison(s)	Other (sub) goals
11.1	No. of economically homeless (estimate)	2020			
11.2	Trips made by residents divided by modes of transport used	2019	x	Modes of transport	
11.2	Car ownership per household	2018/2019		Netherlands	
11.2	Score as cycling city	2020		Netherlands, subgroups	3.7, 9.1
11.2	Average bicycle satisfaction of residents	2015			3.7, 9.1
11.2	Average public transport users satisfaction	2019			
11.2	% of population experiencing transport poverty	2020			1
11.2	Resident satisfaction of road safety	2019	x	Modes of transport	
11.2	No. of road deaths and seriously injured victims	2021	x		
11.4	No. of listed monuments and conservation areas	2021			
11.4	Annual amount spent on cultural heritage	2020			
11.7	Average score living environment	2019			
11.7	Grades for neighborhood facilities	2021	x	Facilities	
11.7	No. of reported crimes	2021		Netherlands	16.1
11.7	% of residents feeling unsafe	2021		Neighborhoods	16.1
11.7	Distance to and availability of green spaces	2021	x	Netherlands	12
11.7	Air quality – concentration of particulate matter	2019	x	European maximum values	3.9
11.7	Average noise levels on streets	2018			
12.2	Material consumption in kg	2019	x		12.5
12.5	Total amount of waste in kg	2019	x	Per type of waste and processing method	
12.5	Total amount of household waste in kg	2021	x	G4 cities	
12.5	Separation of household waste in kg per resident	2021	x		11.6
12.5	Total amount of industrial waste in kg	2021		Per processing method	8.4
12.7	Total amount spent by city on purchasing goods and services	2020			

SDG subgoal	Local indicator	Year	Comparison in time	Other comparison(s)	Other (sub) goals
12.8	% of residents concerned about issues such as pollution of the earth, depletion of raw materials and emissions of greenhouse gases	2021			Netherlands, subgroups
13.1	Heat-stress among lonely 75+ years old	2021			11.5
13.1	Green space per home	2014		Cities in the Netherlands	11.5
13.1	Green space per resident	2021	x		11.5
13.1	Amount of trees and green area	2021		Netherlands	11.5
13.1	Risk of extreme flooding	2022			11.5
13.1	Groundwater levels	Unclear, probably 2021			
13.2	CO <sub>2</sub> emissions	2021	x		
13.2	Estimated reduction of CO <sub>2</sub> emissions for 2030.				
13.2	CO <sub>2</sub> emissions per transition path (Built Environment, Mobility, Electricity, Port and Industry)	2022			
13.2	% houses connected to a heat-net	2021	x		
13.2	Amount of shared cars	2020		Netherlands	
13.2	Proportion of electric vehicles	2021	x		
13.2	Installed capacity solar panels	2022	x	Netherlands	
13.2	% houses with solar panels			Netherlands	
13.2	Installed capacity of wind energy	2020			
13.2	CO <sub>2</sub> emissions municipal organization	2021	x		12
14	No local data				
15.1	% of forest area	2014		Netherlands	
15.1	Nature area per resident	2015-2016			
15.1	Nature and forest in % total area	2015-2016			
16.1	Impairment of physical integrity per 10,000 residents	2021	x	Netherlands	5.2
16.1	Homicide per 10,000 residents	2021	x	Netherlands	11.7
16.4	Organised crime per 10,000 residents	2021	x	Netherlands	
16.6	Satisfaction of residents with public services	2021			
17.4	Score on 'Municipal Sustainability Index'	2021			

# Photo index



pages 4-5  
Photo: Annegien van Doorn



page 7  
Diemerzeedijk  
Photo: Edwin van Eis



pages 8-9  
Herinrichting Muntplein  
rode loper  
Photo: Alphons Nieuwenhuis



pages 10-11  
Houthaven  
Photo: Edwin van Eis



pages 52-53  
SDG 1  
Photo: Annegien van Doorn



pages 60-61  
SDG 8  
Photo: Annegien van Doorn



page 71  
Bevrijdingsdag 5 mei 2022  
Photo: Richard Mouw



pages 72-73  
SDG 10  
Photo: Annegien van Doorn



pages 12-13  
Brasapark  
Photo: Edwin van Eis



pages 14-15  
Anton de Kom  
Photo: Edwin van Eis



pages 16 and 19  
Drukte Centrum  
Photo: Edwin van Eis



page 22  
Windmolens  
Photo: Edwin van Eis



page 85  
Kraan het Paard van Noord  
aan de Bongertkade  
Photo: Alphons Nieuwenhuis



page 86-87  
SDG 11  
Photo: Annegien van Doorn



pages 96-97  
SDG 12  
Photo: Annegien van Doorn



pages 106-107  
SDG 13  
Photo: Annegien van Doorn



page 29  
Bijenpark  
Photo: Wouter Zaalberg



page 34  
Our Domain  
Photo: Edwin van Eis



page 49  
MBO College  
Photo: Edwin van Eis



page 50  
Tunnel Derkinderenstraat  
Photo: Sanne Couplie



pages 116-117  
ODE  
Photo: Edwin van Eis



page 118  
Diemerzeedijk  
Photo: Edwin van Eis



pages 136-137  
Photo: Annegien van Doorn

“Our compass will always be set on providing fair and equal opportunities, a sustainable future and responsible growth of our city for all citizens of Amsterdam.”

Coalition Agreement 2022-2026



# Colophon

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The city team has written the introduction of the report. The research team has written all data chapters in this report. The chapters on constructing the VLR and the conclusions and reflections are jointly written by the research team and the city team. The City Working Group and the AMS-Institute have reviewed the report.

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