

Voluntary Local Review 2022

The Implementation of the
UN Sustainable Development Goals
in the City of Düsseldorf



Landeshauptstadt
Düsseldorf



**GLOBAL
SUSTAINABLE
MUNICIPALITY NRW**



Voluntary Local Review 2022

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Imprint

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The City of Düsseldorf thanks the Service Agency for Communities in One World, funded by the Federal Ministry for Economic Cooperation and Development, that enabled the City of Düsseldorf to compile this report with the assistance of the Sustainability Network NRW and the German Council for Sustainable Development.

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88 percent of all residents enjoy living in the City of Düsseldorf (Result of the citizens' survey 2019). This report highlights some of the reasons for this. Düsseldorf committed itself to the goals of sustainability early on. The administration and many initiatives and organizations in civil society have been working together for sustainable development for years. Düsseldorf has been an „Agenda 2030 signatory municipality“ since 2016 and has placed its approach on a systematic basis with the concept „Shaping sustainability at the municipal level“ adopted by the Council in 2019.

Agenda 2030 as an „action plan for people, planet and prosperity“ is the guideline for our actions in Düsseldorf and at the same time a challenge. The implementation of the 17 Sustainable Development Goals (SDG) is a huge task that we must and want to face. The excessive use of resources continues to exceed the limits within which our earth can regenerate. Related to this is the loss of biodiversity and increasing signs of climate change. And at present, the goal of the 2030 Agenda „to consolidate universal peace with greater freedom“ is more relevant than we would like. Meeting these challenges can only be achieved through a major collective effort. States, cities and each and every individual must do their part to ensure that the „transformation of our world“ in the sense of the 2030 Agenda for Sustainable Development succeeds. In this context, the Sustainable Development Goals touch on issues of urban services of general interest as well as on more far-reaching opportunities for municipalities to shape the future. According to the

Preface

OECD, around 65 % of the SDGs can only be achieved with the participation of cities. Thus, municipalities have a special significance in the implementation.

Just how comprehensive the municipal contributions to sustainable development are in Düsseldorf is shown by the „Stocktaking—Survey of Sustainable Development in the Municipality of Düsseldorf“, which forms the basis of this report as an administration-wide survey. Well over 400 concepts, projects, strategies, networks and measures from almost all departments of the administration show that sustainability is a genuine cross-sectional task. To further focus implementation and effectively strengthen this through interdisciplinary cooperation, we have developed various „sustainability fields of action.“ They cover priority fields for us as a municipality, such as climate protection, biodiversity, waste management and urban cleanliness, municipal north-south cooperation, land management, sustainable construction and the high-rise framework plan, lifelong learning and culture for sustainable development, sustainable procurement, and the path to sustainable mobility.

I would like to thank all my colleagues from the various departments of the city administration, as well as all others who have contributed to the conception and preparation of this report as part of the „Global Sustainable Municipality NRW“ model project. This report on the implementation of sustainable development in Düsseldorf should also be the basis for an exchange of good ideas and for learning from each other—within the city administration, with civil society and politics in Düsseldorf, with the municipalities participating in the model project and (via the Voluntary Local Review (VLR) to the High-Level Political Forum in New York) worldwide.

Dr. Stephan Keller
Mayor of the State Capital Düsseldorf

Introduction

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1.1

The 2030 Agenda and the International Voluntary Local Review Movement

In 2015, the United Nations General Assembly adopted the 2030 Agenda and its Global Sustainable Development Goals (SDGs). The 2030 Agenda provides a joint frame of reference for all UN member states, including the North and the South, and represents a universally valid target system for a viable future. Consisting of 17 primary goals (cf. figure 1) and 169 targets, it holistically addresses environmental, social and economic objectives, such as mitigating climate change and the destruction of ecosystems, reducing socioeconomic inequalities, and supporting quality education and decent work (UN, 2015). The UN Global Sustainable Development Report (UN, 2019) demonstrates that urgent action is needed to reach these goals by 2030. Consequently, the United Nations General Assembly has declared the present decade (2020-2030) the Decade of Action.

The 2030 Agenda is designed primarily for application by nation states (although one of its goals, SDG 11 on Sustainable Cities and Communities, is specific to subnational levels). Targets and indicators reflect country-level metrics, and national governments are requested to regularly report on implementation status through Voluntary National Reviews (VNRs).¹ These are presented every year at the UN High-Level Political Forum on Sustainable Development (UN HLPF), the central platform for follow-up and review of the 2030 Agenda. However, there is widespread agreement among practitioners and scholars that the implementation of the SDGs relies significantly on the participation of subnational levels (cf. e.g. UCLG, 2021; Gustafsson & Ivner, 2018).

On the concrete local implementation level—that is, the level closest to the people—decisive steps are taken to achieve the SDG. Since all SDGs have targets directly related to the responsibilities of local governments, the 2030 Agenda emphasizes the critical role of municipal authorities (IUN, 2015, paragraph 45). In the literature, it is frequently mentioned that at least 65 % of the SDG targets (105 out of 169) could not be achieved unless local authorities are assigned a clear mandate and role in the implementation process (e.g., OECD, 2020). Local governments are therefore called upon to “break down” the global goals and targets to the specific local context (SDG localization) and make their individual contribution to achieve the goals.² Since the 2030 Agenda does not provide explicit guidance for SDG localization, regional UN organizations, urban bodies and networks, and regions and cities have organically developed individual approaches.

Against this backdrop, more and more municipalities voluntarily initiate an assessment of their progress in implementing the SDGs in the form of Voluntary Local Reviews (VLRs). Unlike national reporting via VNRs, VLRs currently have no official status or mandate from the United Nations or in the 2030 Agenda architecture. Accordingly, there is no formal mechanism to publish a VLR. However, since 2018 (when New York City and the Japanese municipalities of Kitakyushu, Toyama, and Shimokawa officially presented their VLRs), cities and regions worldwide have taken the initiative to monitor their local contributions. The VLR movement is now a global phenomenon, and many new VLRs are published yearly (for a comprehensive list of published VLRs see, for example, UN-Habitat & UCLG, 2021). This process has become an essential complement to national reporting mechanisms by contributing first-hand information on practical experiences on the ground and localizing indicators while strengthening coordination, accountability, and transparency. In this regard, VLRs' potential goes beyond their monitoring and reporting function. VLRs are accelerators of the SDG localization process and levers for bringing about transformation from the bottom up through local innovation and awareness-raising (cf. e.g., Deininger et al., 2019; Pipa & Bouchet, 2020). Moreover, they are essential tools for increasing mutual learning and vertical coherence between levels



FIGURE 1: The 17 Global Sustainable Development Goals / © United Nations

of action. Consequently, the link between VLRs and VNRs becomes more critical—local representatives are increasingly present at the UN High-Level Political Forum, and local government sections in VNRs are frequently co-produced by national and local governments (cf. e.g., German Institute of Urban Affairs & Bertelsmann Stiftung, 2021).

As there are currently no fixed standards for developing a VLR and no generally accepted definition, the published reports differ in structure and content. However, an increasing number of publications provide guidelines and technical assistance in this regard—for example, the Guidelines for Voluntary Local Reviews by UCLG and UN-Habitat, the European Handbook for SDG Voluntary Local Reviews by the European Commission's Joint Research Centre, and the Global Guiding Elements for Voluntary Local Reviews of SDG implementation by UNDESA (cf. UCLG & UN-Habitat, 2020; Siragusa et al., 2020; UNDESA, 2020 - and also IGES, 2021; UNESCAP, 2020). The present Voluntary Local Review 2022 takes these guidelines into account and considers the specific context of implementing the SDGs in German municipalities (cf. section Context and Methodology).

¹ As part of its follow-up and review mechanisms, the 2030 Agenda encourages member states to “conduct regular and inclusive reviews of progress at the national and subnational levels, which are country-led and country-driven” (paragraph 79). Each UN member state is required to submit at least two VNRs before 2030. Countries have presented VNRs to the UN High-Level Political Forum on Sustainable Development since 2016. Germany released its second VNR in 2021.

² In this regard, about 200 municipalities in Germany have signed the specimen resolution “The 2030 Agenda for Sustainable Development: Building Sustainability at the Local Level”, developed to facilitate commitment of local authorities for implementing the SDGs (by the German Association of Cities and Towns and the Council of European Municipalities and Regions/ German Section - with support of the Service Agency Communities in One World from Engagement Global).

Short Profile of the City of Düsseldorf

Around 645,000 people live in Düsseldorf in 217.4 km², making the capital of North Rhine-Westphalia (NRW) the seventh-largest city in Germany. The population has risen continuously in recent years until 2020. Regarding area, Düsseldorf ranks 75th among German cities. Düsseldorf lies on both sides of the Rhine in the water-rich, largely flat river valley. In the eastern part of the city, the terrain rises as it passes into the "Bergisches Land" region.

The city is an international business center in the heart of Europe. Thanks to its high quality of life and moderate cost of living, the city is a magnet for international companies. Düsseldorf is a trade fair city—and thus a leading location for trade fairs and exhibitions—and the second-largest industrial location in NRW. The city offers a wide variety of industries and business-

related services. Long-established, globally active, major companies are located in the city, as are agile startups.

There are 17 universities in the city, with around 60,000 students. Düsseldorf's population has a high level of education, with 32% of people holding a university degree. Around 32,300 people attended courses at the Adult Education Center in 2018. There are 180 city-run schools and 28 privately run schools, including one international school. The city's cultural scene is also particularly pronounced and diverse.

Düsseldorf is divided into 10 boroughs with 50 districts that have very different characteristics. This diversity also contributes to the city's charm; many people feel connected to "their" district, which acts as a counterbalance to the anonymity of a big city. Düsseldorf is also very multicultural—people from 184 nations live in the city. More than 40% of the population are immigrants or have at least one parent who immigrated from abroad, and every fourth person does not have German citizenship.

In terms of sustainable municipal development, the City of Düsseldorf has made it its task to sustain existing strengths in different fields of sustainability and to solve challenges in a spirit of solidarity. Against the backdrop of a

steadily growing and multicultural population, Düsseldorf regards itself as a globally open, tolerant and dynamic city. As an international economic center, Düsseldorf is characterized by sustained positive economic development and above-average income compared with the rest of the country. However, not everybody benefits from this situation to the same extent, which is why the city explicitly aims to support people with lower incomes. The mixture of many universities, networks and startups offers businesses not only a good start, but also enormous growth potential. This situation results in opportunities—both in economic terms and regarding changes in production processes with a view to innovative solutions toward less environmental pollution.

The growth of the population and the economy and the limited area of the city area lead to special challenges for urban development—but also enable the opportunity of a compact city of short distances. Space in Düsseldorf is scarce, and demand is high. Different land uses and ideas for use compete strongly, such as for living spaces, working spaces, open spaces and green spaces. Therefore, regarding sustainable municipal development, various instruments have been developed to protect open spaces and provide space for housing and economic development.

The centrality of the city, with its large range of jobs, the possibilities of education and a concentration of services of various kinds causes high traffic volume. Due to Düsseldorf's location in the region and its close relations with the surrounding area, this traffic volume is characterized, among other things, by strong commuter flows. As a major center, Düsseldorf radiates out into the region and promotes cooperation within the region. In the intensively used and densely built-up city, the consequences of global warming are already being felt. Persistent warm periods and heavy rainfall events are increasing. Against this backdrop, different strategies and measures for dealing with the consequences of climate change have been developed and are implemented successively.



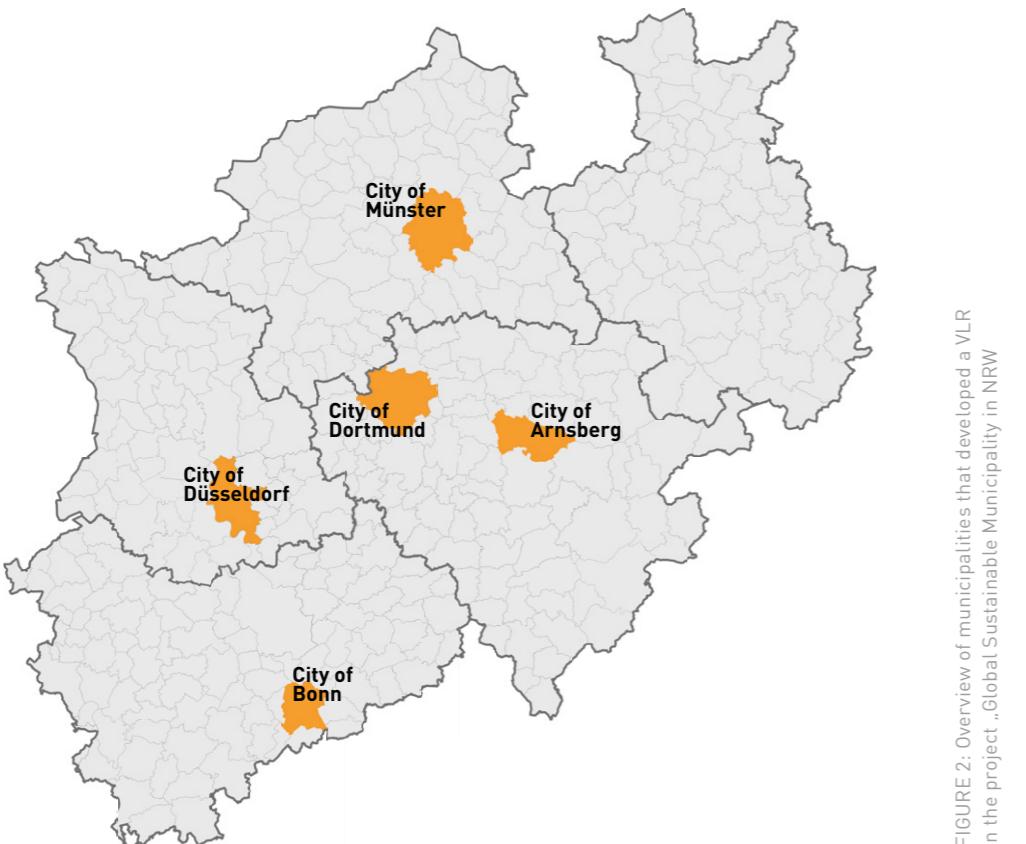
PHOTO: City of Düsseldorf - Rhine Tower and Media Harbour district / Copyright: saiko3p - iStock

1.3

Context, Methodology and Structure of this Report

Context of this VLR

This report was developed within the project Global Sustainable Municipality in North Rhine-Westphalia (third project term from 2021 to 2022). The project has been implemented by the Service Agency Communities in One World (SKEW) of Engagement Global in cooperation with the German Council for Sustainable Development (RNE) and the Sustainability Network North Rhine-Westphalia (LAG 21 NRW) on behalf of the Federal Ministry for Economic Cooperation and Development. In the first two project terms (2016 to 2020), the focus was on elaborating integrated sustainability strategies for municipalities, while in the third term (2021 to 2022)



the emphasis was on the development of local sustainability reports. Within the project, five cities in North Rhine-Westphalia—Düsseldorf, Bonn, Münster, Dortmund and Arnsberg—developed a VLR (see the overview in the relevant map). These new VLRs supplement the VLRs previously published in Germany by different cities in recent years (Mannheim in 2019, Bonn in 2020, and—with a focus on indicators—Stuttgart in 2020).

The basic structuring of the VLRs follows the German Reporting Frame Sustainable Municipality published in 2021 by the German Council for Sustainable Development (cf. RNE, 2021). The German Council for Sustainable Development advises the Federal Government on issues of sustainability policy. Against the backdrop of lacking an official standard for sustainability reporting in German municipalities, the Council initiated a comprehensive multi-stakeholder dialog to develop the German Reporting Frame Sustainable Municipality. This guideline seeks to promote a more uniform and transparent way of reporting and builds on the established German Sustainability Code (a reporting standard in corporate sustainability since 2011). In 2022, the Reporting Frame was applied for the first time by more than 20 municipalities in various federal states in Germany.

Project „Global Sustainability Municipalities“

The project Global Sustainability Municipalities of the Service Agency Communities in One World supports municipalities in localizing the SDGs through awareness-raising activities, networking and in implementing the 2030 Agenda. We supply information on the options for getting involved in development work, advise on the formulation and implementation of municipal sustainability strategies, and provide forums for designing forward-looking action for results at the local level. We cooperate closely with actors from Germany's federal, regional and local governments, municipal associations and civil society organisations.

Stocktaking: qualitative and quantitative analysis

Overall, the information in this report represents the status quo in the year 2022. A comprehensive stocktaking was conducted at the beginning of the project to gather the information needed for this report. This process consisted of both qualitative and quantitative elements. In terms of the qualitative analysis, all core activities in the city that contribute to sustainable development and represent the status quo were gathered. This procedure included integrated or sectoral strategies and concepts, measures, projects, city council resolutions, specific goals, collaborations and networks, and organizational structures. In addition, overall achievements and results within recent years were mapped. The collection of the activities was structured according to particular topics regarding sustainability (cf. the structuring of the VLR, below.)

In terms of the quantitative analysis, indicators were evaluated that illustrate different developments in terms of sustainability. The indicators comprised a predefined indicator set of 56 “SDG indicators for municipalities”. These indicators were developed within a project of the same name (cf. Bertelsmann Stiftung et al., 2020). The objective of the project was to identify suitable indicators to map SDG implementation at the municipal level in Germany and provide corresponding data. Thus, the project used the 2030 Agenda's 231 indicators as an orientation and transferred them to the local level. By an online portal (SDG Portal), centrally assessable data are generally provided for all German towns and cities with more than 5,000 inhabitants. The predefined indicator set was complemented in this VLR by municipality-specific and individually chosen add-on indicators, for which the data was provided by the city of Düsseldorf. These indicators consider the specific context in the city and thus supplement the predefined set. The add-on indicators also enrich the areas with limited predefined indicators (due to a lack of central data availability—for example, SDG 13 and SDG 17 are not currently covered by “SDG indicators for municipalities”.)

The qualitative and quantitative stocktaking results are presented in this VLR in respective qualitative parts (presentation of activities) and quantitative parts (presentation of indicators).

Structuring of the VLR

This VLR is structured according to the German Reporting Frame Sustainable Municipality. For structuring the elements of sustainability reporting, this guide introduces two basic categories: overarching steering criteria and thematic fields.

The steering criteria focus on overarching and cross-sectional aspects regarding sustainability and thus cover the overall municipal sustainability management. In this VLR, this part is consolidated into the following sections:

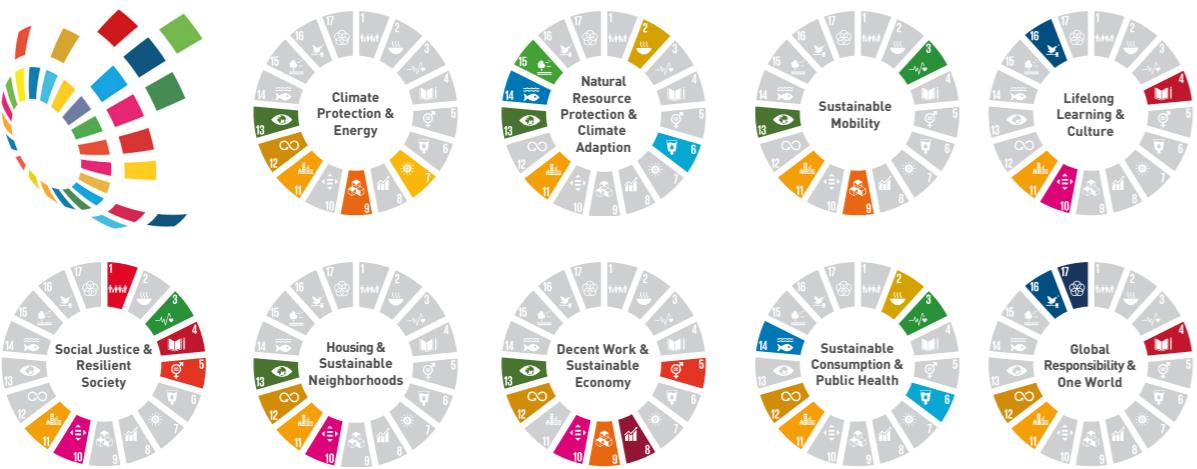
- Strategic and organizational approach for sustainability
- Public participation for sustainability
- Sustainable administration, contracting and procurement
- Sustainable finances
- Innovation for sustainability

These aspects are supplemented by the thematic fields. When implementing the 17 SDGs and their 169 targets on a local level, the challenge is to transfer them to the specific context of the municipalities. Within the Global Sustainable Municipality in North Rhine-Westphalia project, the 17 SDGs are translated into nine thematic fields for municipal sustainability that are relevant to the specific context of German

municipalities.³ These thematic fields represent a synthesis of the SDGs and municipal areas of competence in Germany, which are reflected in the responsibilities of the political committees in the municipalities. All 17 SDGs are considered equally in the localization process to ensure that sustainable development is understood holistically and to account for co-benefits and tradeoffs. The thematic fields developed within the Global Sustainable Municipality in North Rhine-Westphalia project were adopted in the German Reporting Frame Sustainable Municipality. The overview in figure 3 presents these fields of sustainable municipal development together with core references to the SDGs.

The steering criteria and thematic fields both include qualitative and quantitative parts. The structuring of the qualitative parts follows the German Reporting Frame Sustainable Municipality, which presents certain aspects for reporting. These subitems specifically query specific report contents in the sense of a checklist. The quantitative parts include the predefined indicator set of "SDG indicators for municipalities" and the municipality-specific add-on indicators (cf. above). Figure 4 provides an overview of the described elements, forming the structure of this VLR:

FIGURE 3: Thematic fields for municipal sustainability [own elaboration]



Steering Criteria

- Strategic and Organizational Approach for Sustainability
- Public Participation for Sustainability
- Sustainable Administration, Contracting and Procurement
- Sustainable Finances
- Innovation for Sustainability

Thematic fields for Municipal Sustainability

- Climate Protection & Energy
- Natural Resource Protection & Climate Change Adaptation
- Sustainable Mobility
- Lifelong Learning & Culture
- Social Justice & Future-Proof Society
- Housing & Sustainable Neighborhoods
- Decent Work & Sustainable Economy
- Sustainable Consumption & Healthy Living
- Global Responsibility & One World

Qualitative Aspects and Quantitative Indicators

For each thematic field, one to two practical examples in the sense of flagship projects are presented additionally. In terms of the quantitative indicators, basically the period of the last decade is addressed when presenting the data in order to depict long-term developments. Important indicators are furthermore visualized by graphics. When presenting the qualitative aspects and quantitative indicators, the core SDG addressed by the respective aspect or indicator is highlighted (note that other SDGs can be addressed, too—only the most pertinent one is highlighted). The qualitative contributions (i.e., the core activities in the city gathered by the qualitative stocktaking) are marked by using italics in the text. At the end of each chapter, an overview is given of all mentioned contributions regarding the qualitative aspects, including an allocation to the SDG targets of the 2030 Agenda.

³ The 2030 Agenda addresses three levels of responsibility for municipal action:
„In the municipality for the municipality“ (measures that lead to impacts in the municipality itself), „In the municipality for the world“ (measures with a global impact), and „In other countries and by other countries“ (e.g. via partnership projects.)

Steering: Municipal Sustainability Management

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2.1

Introduction

Since the implementation of the "Local Agenda 21 Process" in the 1990s, the state capital of Düsseldorf has been pursuing the goal of bringing sustainability to life—thinking globally and acting locally. Since the adoption of Agenda 2030 by the United Nations in 2015, the approach to implementing sustainability in Düsseldorf has been closely linked to the 17 Global Sustainable Development Goals (SDGs). With the City Council resolution of 17.11.2016, the city joined the [model resolution "2030 Agenda for Sustainable Development: Shaping Sustainability at the Municipal Level"](#) of the German Association of Cities and Towns and the Council of European Municipalities and Regions/German Section. Sustainable development is understood in the city as a municipal cross-sectional task that affects all areas and specialist tasks of the administration, including the subsidiaries.

The Agenda 2030 process in Düsseldorf is based on the commitment of the administration, politics and civil society. The implementation process is, thus, to be shaped jointly and benefit from the exchange among these elements. Against this background, the [overarching concept of "Shaping Sustainability at the Municipal Level,"](#) which was adopted in 2019, defines the following steps as central aspects of the roadmap for implemen-

ting the Global Sustainability Goals in Düsseldorf: (1.) the conception for the city administration of Düsseldorf regarding implementing Agenda 2030 and anchoring sustainability as a municipal cross-sectional task in all offices; (2.) the creation of different offers for civil society that provide "space" for additional actors regarding sustainability and enable a constructive exchange between these actors and promote concrete implementations; (3.) the integration and networking of administration, civil society and politics in the context of sustainability; and (4.) the establishment of a coordination office.

The implementation of these steps has advanced in recent years. The [Sustainability Office](#) was established at the end of 2019 to coordinate the process in the administration and to inform, involve and support civil society and to promote networks. With the [Sustainability Advisory Board](#) as an exchange and design forum for civil society, politics and administration, as well as the [Special Committee for Sustainable Development](#) as a political body, the existing bodies for the broad anchoring and networking of the topic of sustainability are being reorganized and integrated into the new process. In addition, the city conducts broad and highly comprehensive public relations work regarding the SDGs (e.g. via the municipal website with information on the topic, activities, projects and dates [www.duesseldorf.de/nachhaltigkeit] and regular exhibitions and events on Agenda 2030).



PHOTO: Sustainability Office „Shaping sustainability in Düsseldorf means thinking globally and acting locally for a world we want to live in the future.“ (Photo: Kai Kitschemberg)



PHOTO: Düsseldorf Alliance for Sustainability - Civil Society Organizations Cooperate to Shape Sustainability Together

2.2

Strategic and Organizational Approach for Sustainability

With the [overarching concept of "Shaping Sustainability at the Municipal Level"](#), adopted by the City Council on September 19, 2019, Düsseldorf set the current framework for the orientation and organization of sustainable development in the city. Sustainable development is understood as a municipal cross-sectional task that affects all areas and specialist tasks of the administration, including the subsidiaries. The following steps were decided upon for the strategic approach within the administration: (1.) obtain an overview by a stocktaking—target/actual comparison, (2.) prioritize fields of action, (3.) define goals, implementation and success criteria, (4.) control and document implementation, and (5.) consolidate results—set standards. With this approach, Düsseldorf has chosen an alternative path to the classic sustainability strategy. The stocktaking and the definition and implementation of the prioritized fields of action, including the defined goals and success criteria, ensure a strategic approach within the administration that is based on a long-standing commitment to sustainability.

In the interests of an efficient and effective approach, the Düsseldorf City administration developed the following priority fields of action for municipal sustainability in 2022, which will be submitted to the Council's committees and discussed there:

1. Climate protection
2. Mobility
3. Waste management and urban cleanliness
4. Promotion of biodiversity—preservation of species diversity
5. Sustainable land management

6. Sustainable building
7. High-rise master plan as an example of sustainable urban development
8. Municipal north-south cooperation
9. Lifelong learning and culture for sustainable development
10. Sustainable procurement in the Düsseldorf city administration

The fields of action were named by the departments of the city administration. Each field of action is coordinated by a lead department, with each developing a profile with the Sustainability Office. Each proposed field of action contains a description of the objective, a presentation of the special significance, an allocation to the SDG, sub-objectives, projects, measures, and targeted results and success criteria. The proposals were first discussed and supplemented in the Sustainability Advisory Council and the Special Committee for Sustainable Development. After preliminary discussions in the committees, they will be presented to the City Council for a final decision. The central basis for prioritizing the fields of action was the "Stocktaking—Survey of Sustainable Development in the Municipality of Düsseldorf" conducted in 2021. As part of this inventory, the sustainability activities of all offices were recorded via an administration-wide survey, which presented the status quo of all activities. A target-performance comparison (a comparison of existing activities with the goals of Agenda 2030) revealed in which areas the City of Düsseldorf is already well positioned regarding sustainability.

Against this background, the Düsseldorf fields of action define topics that are particularly important for local sustainable development and for which there is a need for action. An area of action is specifically characterized by the fact that it has a high potential for achieving the SDGs (priority), is particularly relevant for Düsseldorf (relevance), can be influenced by the city (influence), and systematically bundles various activities and combines them across departments (bundling). Through interdepartmental cooperation and improved coordination, existing fields of action can also be advanced more strongly and become more conspicuous to external perception. The concept of "Shaping Sustainability at the Municipal Level" stipulates that for each of the prioritized fields of action of the City of Düsseldorf, specific goals are developed and

adopted that are both ambitious and realistic. To this end, a comprehensive process was initiated in 2021 that includes the development and coordination of proposals for the fields of action and targets. One example of a specific target in a field of action is the city's goal of being climate-neutral by 2035 and reducing CO₂ emissions in Düsseldorf to two metric tons per capita per year to achieve this. In addition to the overarching target descriptions, specific sub-targets are also defined for all fields of action. Regarding climate protection, for example, such sub-targets include defining emission targets for the individual sectors (private households, industry/commerce, trade, services, transport and municipal facilities). Furthermore, specific success criteria (indicators or key figures) are determined in each case to make the implementation of the targets measurable. When defining and implementing the goals, potential conflicts between the individual SDGs or subject areas must be resolved. For example, in the city, land for the protection and restoration of terrestrial ecosystems (SDG 15.1) and for green space (SDG 11.7) compete with land for housing (SDG 11.1), infrastructure (SDG 9), sustainable economic growth (SDG 8) and food production (SDG 2.4). The need to identify and resolve existing conflicting goals illustrates that sustainability can only be implemented as a cross-cutting task of all offices of the administration. Concrete implementation strategies and projects for realizing the agreed sustainability goals are developed and agreed jointly by individual or several offices.

Overall, the Düsseldorf Agenda 2030 process, which bundles activities and structures in Düsseldorf, directly references the SDGs. The overarching concept of "Shaping Sustainability at the Municipal Level," the "Stocktaking—Survey of Sustainable Development in the Municipality of Düsseldorf" and the public relations work are directly aligned with the SDGs or follow their structure. For example, the 17 SDGs are presented comprehensively on the city's website, existing activities of civil society actors and selected projects ("lighthouse projects") of the city administration are classified, and citizens are motivated to become involved under the key phrase, "What can you do?" Since the sustainability strategies of the federal and state governments also use the 2030 Agenda as a central structural element, there is a fundamental congruence of the overarching objectives.

The sustainability architecture of the City of Düsseldorf spans the areas of administration, politics and civil society (see figure 5). These areas are represented by the Sustainability Office, the Special Committee for Sustainable Development (administration and politics) and the Sustainability Advisory Council (administration, politics and civil society). In the following, these three bodies are presented.

In accordance with the concept of "Shaping Sustainability at the Municipal Level," the topic of sustainability is anchored in the Düsseldorf city administration as a cross-sectional task in all areas and specialist tasks. The inventory, in the form of the "Stocktaking—Survey of Sustainable Development in the Municipality of Düsseldorf," documents this anchoring impressively, with 434 individual contributions from 36 offices on the respective 17 SDGs. The processes for implementing the 2030 Agenda are coordinated by the Sustainability Office, which has been in place since the end of 2019 and is located in the Office for Environmental and Consumer Protection. The Sustainability Office acts as an information provider, contact and supporter of sustainability activities in both the administration and civil society, as well as promoting net-

working with each other and with politics. This activity includes managing the Special Committee for Sustainable Development and the Sustainability Advisory Council. The Office supports the offices and subsidiaries regarding implementing sustainable development as a cross-cutting municipal task. The Office's overall coordination is responsible for the organizational and technical management of processes, including, in particular, the development and establishment of communication structures and demand- and goal-oriented support in the administration for implementing sustainability in all departments. Implementing interdepartmental processes, such as stocktaking or developing priority fields of action for sustainability, are also important tasks. Another focus concerns the involvement of civil society. Employees also support and activate civil society actors with the aim of establishing joint additional contributions to the implementation of the 2030 Agenda in Düsseldorf (e.g., through the co-development and accompaniment of new forms of dialog). In accordance with the cross-sectional organization, implementing the priority fields of action sustainability occurs in the responsible departments. For example, the "Energy Management" department in the Office of Facility Manage-



FIGURE 5: Shaping Sustainability at the Municipal Level in Düsseldorf

2.3

Sustainable Administration, Contracting and Procurement

ment assumes responsibility for the steering, advisory and interdepartmental functions for the "sustainable building" field of action in the administration.

The Special Committee for Sustainable Development is an exchange body comprising elected representatives of the council factions and offices of the city administration. The "Rules of Procedure for Sustainability of the City of Düsseldorf" define the tasks, roles and working methods in this regard. The Special Committee initiates debates on sustainability topics in city politics and brings topics or initiatives to the Sustainability Advisory Board and information on sustainability to the City Council and the committees.

The Sustainability Advisory Council comprises the members of the Special Committee (politics and administration) and representatives of the following civil society organizations: Forum "Lebensraum Stadt" of the Local Agenda, Network Education for Sustainable Development, One World Forum Düsseldorf e. V., Catholic Church Düsseldorf, Protestant Church District Düsseldorf, Engagement Global gGmbH Düsseldorf, AG Nachhaltiger Konsum, Youth Council Düsseldorf, Senior Citizens' Council of the State Capital Düsseldorf, Heine Center for Sustainable Development—Heinrich Heine University Düsseldorf, a representative of the Alliance for Sustainability (core team) and the Food Council Düsseldorf e. V.. The aim of the Advisory Board, which meets once every three months, is to strengthen the shaping of sustainability through information exchange and networking among the actors involved. The Board advises on the activities and projects for implementing the 2030 Agenda in Düsseldorf and provides space for substantive discussions regarding ideas and priorities. Both the Special Committee for Sustainable Development and the Sustainability Advisory Board have proven themselves established exchange bodies between politics, administration and civil society. Just as sustainability is a cross-cutting task in the administration, this also applies to the municipal subsidiaries (or companies) and municipal enterprises. The activities of the subsidiaries and shareholdings of the state capital of Düsseldorf are brought together by the municipal shareholding management department in the treasury. The Public Corporate Governance Code for the shareholdings of the City of Düsseldorf sets standards for

the efficient cooperation of all parties involved. Companies must develop a code of conduct as the guideline for the responsible, respectful and sustainability-oriented conduct of the company. In particular, the code is intended to ensure that business conduct is in line with social values. In the run-up to preparing this sustainability report, a survey of sustainability principles and existing sustainability objectives was conducted at selected municipal subsidiaries (or companies) and municipal enterprises. The results are integrated into the respective aspects of this report. Ideally, the comprehensive anchoring of sustainability principles is clear—several subsidiaries also regularly publish their own sustainability reports.

Included in the survey were:

- Zukunftswerkstatt Düsseldorf GmbH (ZWD),
- Jugendberufshilfe Düsseldorf gGmbH,
- Flughafen Düsseldorf GmbH (annual sustainability report in accordance with the German Sustainability Code),
- Messe Düsseldorf GmbH,
- Werkstatt für angepasste Arbeit GmbH
- Düsseldorf Tourismus GmbH (annual sustainability report as part of the works meeting) / Düsseldorf Marketing GmbH,
- Stadtwerke Düsseldorf AG,
- AWISTA Gesellschaft für Abfallwirtschaft und Stadtreinigung mbH (regular sustainability reports considering the standards of the Global Reporting Initiative, the German Sustainability Code and the Global Sustainability Goals),
- Stadtsparkasse Düsseldorf
- Industriterrains Düsseldorf-Reisholz AG (IDR),
- SWD Städte, Wohnungsgesellschaft Düsseldorf AG and SWD Städte, Wohnungsbau-GmbH & Co., KG Düsseldorf (SWD Group),
- CMD Connected Mobility Düsseldorf GmbH,
- IPM Immobilien Projekt Management Düsseldorf GmbH (IPM),
- Bädergesellschaft Düsseldorf mbH,
- Rheinbahnen AG,
- Stadtwerke Düsseldorf AG and
- D.LIVE GmbH & Co. KG.

Sustainability is a cross-cutting issue for the Düsseldorf city administration. Sustainability is to become a self-evident principle of all actions in the long term (such as legality and economic efficiency). Principles of sustainable action are already set out in business and service directives, for example, on sustainable procurement, the selection of building materials and the use of recycled paper. In the future, the aim is to enshrine consistently other generally applicable results from projects and procedures in regulations (such as business instructions and service agreements) throughout the administration. The findings from implementing the fields of action will provide a boost in this regard. Regarding sustainable procurement, the binding establishment of new standards is an explicit goal. This goal is intended to simplify and standardize everyday decisions made by the city, for example, as an employer, in the management of buildings or in the purchase of goods and the choice of transport. Examples of major projects and processes of the administration in which sustainability has been implemented include planning for the European Football Championship EURO 2024 and the planning process for the new construction of the technical administration building, in which the aspects of future-proof design of the working environment and sustainable construction were considered.

Sustainable procurement has been an established principle of the Düsseldorf city administration for many years. Both ecological and social criteria are set out in the business instructions for awarding contracts. An inter-factional Council resolution made fair procurement binding in the city administration in 2006. The

procurement instructions stipulate that preference is to be given to Fairtrade products when purchasing. Independent certification (e.g., the Fairtrade seal or comparable seals) serves as proof. All goods must meet the core labor standards of the International Labor Organization. Among other things, no products may be procured that are manufactured using exploitative child labor. In the procurement or use of materials and consumer goods for construction projects and other contracts, consideration shall be given to products that are durable, repairable, recyclable, energy efficient and that result in less polluting waste compared with other products, or that have been manufactured from residual or waste materials. Further citywide regulations result, for example, from the "Business Instruction for the Procurement of Environmentally Friendly Building Materials," which outlines basic rules for the procurement of durable and low-pollutant building materials. The aim is the exclusive use of environmentally friendly and low-emission materials in construction activities by the City of Düsseldorf and third parties commissioned by it. Another example is the business directive regarding the prevention of hazards from electrical systems and equipment and for improving energy efficiency within the Düsseldorf city administration. The departments also consider other sustainability criteria when ordering products, such as using recycled raw materials.

Sustainable procurement is also set out in business instructions when awarding contracts and concessions. For example, the "Use of environmentally friendly building materials" service instruction is incorporated into tendering procedures. In its function as a cross-sectional office (which handles a significant part of the city's procurement procedures), the Central Procurement Office is increasingly providing consulting services regarding sustainability aspects in procurement procedures. These services are provided to departments in both the construction and the supply and service sectors. To this end, an overarching register is being created to record companies that offer sustainable products. The Procurement Office demonstrates to these companies how to participate in municipal procurement procedures. When procurement requirements are published by the departments, they are advised on a case-by-case basis regarding implementing sustain-

ability criteria in the award documents and supported in the evaluation. The Procurement Office also ensures compliance with minimum standards for working conditions. With the additional contract conditions of the Düsseldorf city administration for the execution of services/construction work, contractors commit themselves to criteria such as occupational safety and health protection, minimum wages, combating undeclared work or the renunciation of exploitative child labor. Furthermore, the contractors undertake to comply, when executing the contract, with the regulations through which the core labor standards of the International Labor Organization have been implemented in national law.

2.4

Public Participation for Sustainability

The Düsseldorf Agenda 2030 process involves actors from civil society, politics and administration. In accordance with the concept of "Shaping Sustainability at the Municipal Level," the cooperation and support of proven actors from the Local Agenda 21 process, such as the One World Forum, initiatives and committed citizens, will be continued. In addition, innovative forms of participation will introduce new dialog formats, and thus provide new impetus. For a broader involvement of civil society regarding sustainability, a better exchange among each other is being promoted, and structures for active people who want to shape sustainability are being established. As a new program, the Düsseldorf Alliance for Sustainability was founded in 2021 for non-profit organizations with full-time employees in Düsseldorf. The format is intended to support work in organizations to initiate cooperation, new initiative(s) and projects. With the Alliance, a project was developed especially for larger Düsseldorf non-profit organizations. Full-time representatives of the organizations are invited to display their contributions to sustainable development, to discover possibilities for action in the field of sustainability, to discuss solutions and to network with like-minded people. Members of the Alliance include universities, trade unions, churches, environmental and social associations and their institutions.

In regular dialog—for example, via the Sustainability Advisory Council—are the Youth Council, the Senior Citizens' Council, the Sustainable Consumption Working Group, the Düsseldorf Food Council, the Education for Sustainable Development Network, the One World Forum Düsseldorf, Engagement Global gGmbH Düsseldorf (including the Fairtrade Town steering group and the One World Advisory Council of the City of Düsseldorf), the Catholic and Protestant Churches,

and Heinrich Heine University (Heine Center for Sustainable Development). There are also contacts with many other initiatives (such as Gerresheim Nachhaltig, Benrather Initiative für Nachhaltigkeit, Tauschring, Lebensmittelretter, Gemeinwohlökonomie, etc.) and exchange and support depending on mutual needs.

The municipal website of the Sustainability Office (www.duesseldorf.de/nachhaltigkeit) offers extensive information on the SDGs and activities, actors, dates and events (of the administration and of third parties), as well as many opportunities to make contact and to contribute ideas. The website also offers a calendar of events with an overview of current events regarding sustainability and the "Mit-MachKarte—Engagement für Nachhaltigkeit" ("Get Involved in Sustainability" map), which presents existing initiatives, groups and associations active in various areas (such as food waste or waste avoidance).

In its citizen survey, the City of Düsseldorf chose sustainability as a focus topic in 2021. The participants were asked which aspects and actors of sustainability they were familiar with, how they implement sustainability themselves in everyday life, how they perceive the work of the administration in this regard, and where they would like to see the focus in the future. The results are published graphically as Statistical Information No. 313.

Regarding neighborhood development, there are numerous strategies at the neighborhood or district levels in which the city cooperates with civil society or supports it. Thus, there are various places of civic engagement in neighborhoods. One example of this engagement is community gardens, in which various "urban gardening projects" are implemented (e.g., Düsselgrün community garden, Ellerstraße community garden).

Sustainable Finances

The City of Düsseldorf acts as a project partner in the joint study "Sustainability Budget and Sustainability Return—Strategic Orientation in Municipal Budgeting," which is being conducted by the German Institute of Urban Affairs in association with eight cities in NRW and NRW. Bank until the end of 2022. As part of the joint study, the participating municipalities are bringing themselves up to date with the latest discussions on the links between sustainability and municipal financial policy. In this way, the project will enable the municipalities to make their own contributions regarding impact-oriented management of the overall budget and to develop existing approaches in individual aspects. In particular, the process perspective of budget planning and control will be jointly concretized. The German Institute of Urban Affairs is developing an innovative instrument for calculating the sustainability yield of municipal investment measures, using the concrete example of individual projects or products of municipal budgets of the participating partner municipalities. Against this backdrop, the City of Düsseldorf is planning to create an impact-oriented budget aligned with the respective sustainability goals. To reflect sustainability in the administration in the budget of the state capital in accordance with the Council resolution, the product description of each product is to be expanded to include the aspect of SDGs.

In the future, the financial investments of the City of Düsseldorf will be made based on the investment guideline yet to be adopted by the City Council. The investment guideline considers the so-called ESG criteria when acquiring financial investments: "E" stands for environment (e.g., environmental pollution or hazards, greenhouse gas emissions or energy efficiency issues; "S" stands for social, which includes aspects such as occupational health and safety,

diversity and social commitment; and "G" stands for governance, which refers to sustainable corporate management. This includes, for example, topics such as corporate values or management and control processes. Sustainable financing instruments have a specific reference to one or more of the three ESG criteria. For example, the City of Düsseldorf uses subsidized loans to finance projects such as "electric mobility" or the "construction of energy-saving buildings." The Municipal Savings Bank in Düsseldorf was one of the first savings banks in the Düsseldorf Savings Bank Network to sign the voluntary commitment to climate-friendly and sustainable business practices. In this commitment, the savings bank undertakes to make its business operations more CO₂-neutral (target: climate neutrality by 2035), to align financing and its own investments with climate targets, and to support commercial and private customers in transforming to a climate-friendly economy. The municipal savings bank supports its customers regarding the increased interest in sustainable investments.

Indicators



Financial resources balance 16.6

	2010	2015	2019
EURO	28	-121	-170

Budget surplus or deficit per inhabitant (Source: SDG Portal)

The financial balance provides information regarding the financial capacity of a municipality to shape the local economic, social and ecological framework autonomously. In the City of Düsseldorf, the indicator displays a negative development over time. Although the financial balance in 2010 was at 28.00 euros per inhabitant, which is a surplus, the City of Düsseldorf recorded a budget deficit in both 2015 and 2019. Most recently (2019), the budget deficit per inhabitant in the city was below the national average of 86.00 euros per inhabitant. In the long term, this development does not contribute to achieving the German Sustainability Strategy Goal 8.2.c "Debt ratio max. 60% of GDP—to be maintained until 2030."



Tax revenue 16.6

	2010	2015	2019
EURO	2263	2229	2461

Tax revenue per inhabitant (Source: SDG Portal)

Tax capacity is a key determinant of a municipality's financial room for maneuver and provides information on economic strength or structural weakness. However, tax revenues do not consider other revenues, such as fees, levies, investment allocations from the federal and state governments or general key allocations under the municipal financial equalization systems. In the City of Düsseldorf, there has been a positive development in tax revenue per inhabitant over time. The revenue power increased from 2,263 euros per inhabitant* in 2010 to 2,461 euros per inhabitant* in 2019. The development of tax revenues in Düsseldorf is significantly above the German average over the entire period. The sustainability strategies at federal and NRW state level define no specific targets for the development of tax revenues.



Liquidity loans 16.6

	2010	2015	2018
EURO	0	213	0

Liquidity/cash loans in the core budget per inhabitant (Source: SDG Portal)

Short-term liquidity loans, or cash loans in the core budget, indicate financing bottlenecks in municipalities that are bridged by overdrawing accounts ("overdraft facilities"). High and long-term liquidity loans indicate a fundamental imbalance in the budget structure of a municipality, which is problematic regarding intergenerational equity. In the City of Düsseldorf, liquidity loans per inhabitant have decreased over time. In 2017, 2018 and 2019, liquidity loans were no longer necessary. This development is consistently below the value for the federal average over the period, which most recently (2019) was 496 euros per inhabitant for bridging deficits. The sustainability strategies at federal and NRW state level define no specific targets for liquidity loans.

Innovation for Sustainability

The City of Düsseldorf promotes and exploits the possibilities of digitization for various structures and processes to promote innovation and, thus, exploit synergy effects between sustainability and digitization in the city administration. One example of this approach is effective office communication without media discontinuity through introducing digital communication regarding work processes. For example, the tax office needs data from various offices to fulfill legal requirements. Currently, paper print-outs are produced from different databases of various offices, then scanned and fed into the digital tax file for further processing. In the future, processing will occur directly in the digital tax file without media discontinuity and without sub-processes (printing, scanning, transferring). In the city's contract management, a "contract management database" also enables constant access to all contracts, as well as to tax compliance, transparency promotion, contracts and efficiency control. A high degree of digitization in the city administration can, in principle, serve as a basis for more extensive home office variants, in which employees can perform all work processes on the move. In this way, the environmental impact of commuter traffic and fixed municipal costs per employee can be minimized.

The Digital Innovation Hub Düsseldorf/Rheinland GmbH comprises a network of cities, municipalities and companies with the aim of strengthening innovations in the Düsseldorf/Rheinland economic region and driving digitization. Together with the City of Düsseldorf and other partners, such as the waste management and city cleaning company AWISTA, Stadtwerke Düsseldorf is explicitly developing and testing various smart city concepts, for example, the Future Quarter model project. As part of the project, the partners involved are

meeting the challenges of a digitized city by installing a "Long Range Wide Area Network" (LoRaWan) in various areas, which is a radio technology for data transmission. For example, data from sensors, meters or measuring instruments are transmitted securely via "gateways" to databases and, ultimately, to end users. One advantage of this new network is its good building penetration. The new technology could be used, for example, to direct traffic flows and manage parking spaces, as well as to deploy waste disposal vehicles as needed. Messe Düsseldorf also contributes regarding innovation for sustainability by acting as an innovation broker at its leading world trade fairs, bringing together research and industry, and thus promoting the development of sustainable innovations and technologies.

Furthermore, the City of Düsseldorf is pushing ahead with its development toward a "Smart City." The City Council has decided on further development and set up a small commission called "Smart City Düsseldorf" to support the development of the strategy, in which the Council's parliamentary groups are each represented with one seat. A new overall strategy is to link individual projects more closely together and to consider the consequences of digitization for different areas of the city (e.g., for retail). Therefore, an interdisciplinary exchange is to take place, and external partners, such as the municipal investment companies (or enterprises), are to be included. Specific possible projects that could be undertaken as part of the overall strategy include digital platforms and more advanced approaches to participation formats and planning processes, real labs (e.g., for the digital display of parking space availability) and cultural education offerings using digital formats.

Indicators



Business startups 9.5

NUMBER	2010	2015	2018
12.6	11.4	10.9	

Number of newly established businesses per 1,000 inhabitants
(Source: SDG Portal)

Startups can help to create jobs, promote competition and express an innovative and sustainable economic structure. The indicator provides information on the number of newly established commercial enterprises per 1,000 inhabitants, but not on the innovative content of the respective startup. Therefore, this figure only represents the degree of innovation of a municipality to a limited extent. In the City of Düsseldorf, this development has only declined slightly over time but is consistently above the German average (2019: 8.1 newly established commercial enterprises per 1,000 inhabitants). In its sustainability strategy, the German Government has released Goal 9.1 "Increase private and public spending on research and development—at least 3.5% of GDP annually by 2025." Visionary founders with a forward-looking orientation are supported, for example, by tax breaks or economic stimulus packages, and can increase the level of innovation in a municipality.



Broadband internet access—private households 9.c

PERCENT	2010	2015	2018
94.7	95.4	98.6	

Proportion of private households that can use a minimum bandwidth of 50 Mbit/s (Source: SDG Portal)

Comprehensive broadband coverage of private households has an indirect sustainability impact, as access to information and electronic services (e.g., e-medicine, e-government) or working in a "mobile office" can relieve the burden on private households by saving time and money. Digital access to a wide range of educational and information services also contributes to intergenerational equity. The percentage of households in the City of Düsseldorf that can use a bandwidth of 50 Mbit/s has developed positively over time. In 2019, the percentage of broadband coverage of private households was 98.6 %, above the NRW average of 93.2 % (due to a lack of data, a Germany-wide comparison is not possible here). The City of Düsseldorf is, thus, contributing to the achievement of Goal 9.1.b "Nationwide roll-out of gigabit networks by 2025" of the German Sustainability Strategy.

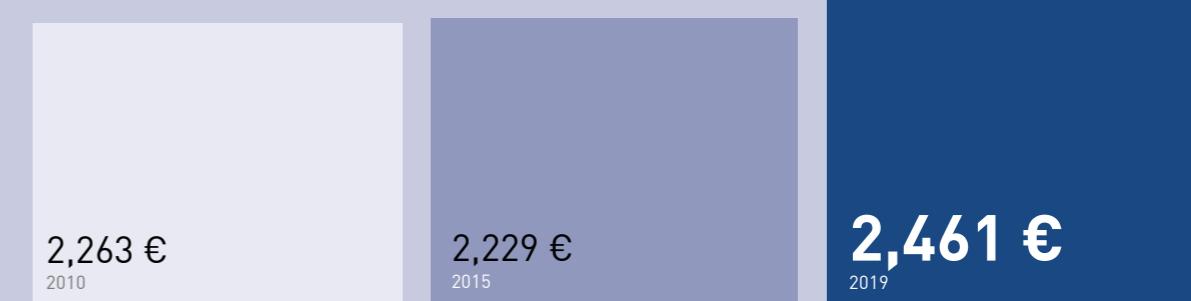
Overview of contributions

Aspect	Contributions ⁵
Strategic and Organizational Approach for Sustainability	<ul style="list-style-type: none"> Overarching concept "Shaping Sustainability at the Municipal Level" Supporting the model resolution "2030 Agenda for Sustainable Development: Shaping Sustainability at the Municipal Level" Stocktaking—Survey of Sustainable Development in the Municipality of Düsseldorf Sustainability Office Special Committee for Sustainable Development Sustainability Advisory Council
Sustainable Administration, Contracting and Procurement	<ul style="list-style-type: none"> Fair procurement Procurement instructions Service instruction "Use of environmentally friendly building materials"
Public Participation for Sustainability	<ul style="list-style-type: none"> Düsseldorf Alliance for Sustainability Public relations on the SDGs via the municipal website of the Sustainability Office Citizen survey Neighborhood development
Sustainable Finances	<ul style="list-style-type: none"> Joint study "Sustainability Budget and 'Sustainability Return'—Strategic Orientation in Municipal Budgeting" Investment guideline
Innovation for Sustainability	<ul style="list-style-type: none"> Digital Innovation Hub Düsseldorf/Rheinland GmbH Future Quarter model project Small commission "Smart City Düsseldorf" Smart City Düsseldorf overall strategy

Visualization of selected Indicators

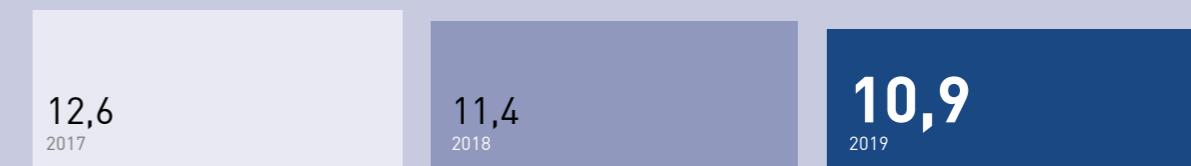
Taxes revenues

Tax revenue per inhabitant



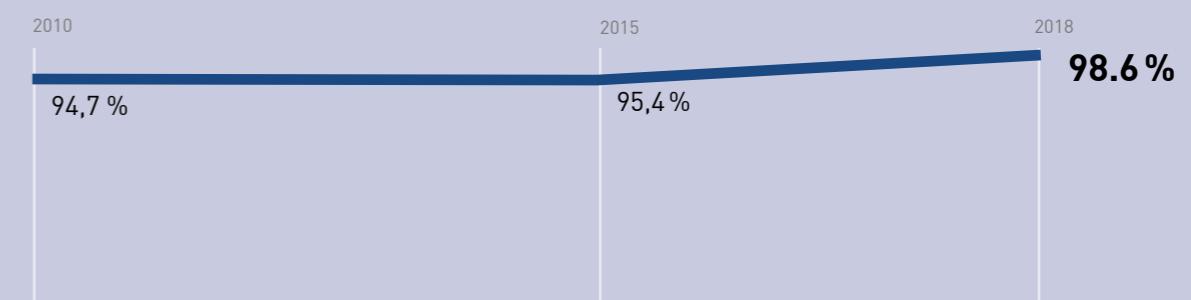
Business start-ups

Number of newly established businesses per 1,000 inhabitants



Broadband internet access—Private households

Proportion of private households that can use a minimum band-width of 50 Mbit/s



⁵

Note: Since the contributions regarding "Steering: Municipal Sustainability Management" cover overarching and cross-sectional aspects regarding sustainability, they are not allocated to the SDG targets of the 2030 Agenda. For the thematic fields in the following chapters, the respective contributions will be mapped to the SDG targets.

Thematic fields for Municipal Sustainability

The following chapters present the results concerning the thematic fields of action for municipal sustainability. Each of the nine chapters is presented consistently in the SDG color most relevant to the respective field of action. The chapters are structured similarly. First, an introductory page presents the thematic field and the foremost SDGs that are addressed. This page also highlights the addressed qualitative aspects and chosen practical examples and the quantitative indicators belonging to the thematic field. Second, the qualitative

contributions are presented—that is, the most significant activities in the city that contribute to the thematic field. An overview then summarizes all mentioned contributions including an allocation to the SDG targets of the 2030 Agenda. Third, the quantitative indicators are presented that demonstrate developments in the fields of action. Significant indicators that are particularly suitable for illustrating the specific trends in the municipality are visualized by graphics at the end of each chapter.

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3.8 — Sustainable Consumption & Public Health	106
3.9 — Global Responsibility & One World	118

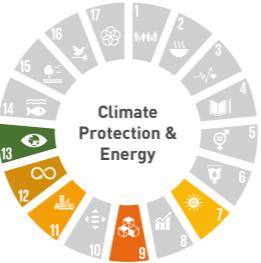




General Introduction to the Field of Action

The field of action Climate Protection and Energy is probably the most central challenge at the global level in the area of sustainable development. The consequences of climate change are already perceptible in German municipalities. Extreme events such as heavy rainfall and flooding, heat waves, prolonged drought, and severe storms occur with increasing frequency and intensity. These conditions are associated with negative impacts on human health, municipal infrastructures, water, agriculture, and forestry. At the 2015 UN Climate Change Conference in Paris, the international community set the goal of limiting global warming to well below 2°C compared to pre-industrial levels, and if possible to 1.5°C. These targets also apply to municipalities. Accordingly, the transformation to a sustainable energy supply must also be driven forward at the municipal level. The Climate Protection and Energy field of action thus brings together topics such as the reduction of greenhouse gas emissions, the expansion of renewable energies, increased energy efficiency, and measures to save energy and raise awareness among the population.

3.1



Climate Protection & Energy

Qualitative Aspects

- Climate protection in the municipality
- Climate protection in administration, municipal undertakings and associated companies
- Embedding climate protection in spatial planning and development

Practical Examples

- Solar offensive for municipal buildings
- Service agency for the renovation of old buildings

SDG indicators

- Completed residential buildings with renewable heating energy

Add-on indicators (City of Düsseldorf)

- CO₂ emissions in Düsseldorf
- Electricity from photovoltaics (PV)
- Final energy consumption in Düsseldorf

[13] Climate protection in the municipality

With its [Path to Climate Neutrality \(Resolution "Climate Emergency" 2035\)](#), the City of Düsseldorf has set itself the ambitious goal of being climate-neutral by 2035, and thus becoming the "Climate Capital." Accordingly, annual per capita CO₂ emissions are to be reduced to a maximum of two tons. To this end, a climate protection budget of 60 million euros per year was set up and a "Small Climate Aid Commission" established. The regular recording of emissions in the city as a whole is conducted via the municipal [energy and CO₂ balance sheet](#) in accordance with the basic principles of the Climate Alliance.

With the [Climate Protection Concept 2025](#), the city has an action program for short- to medium-term realization, as well as long-term options for action up to the year 2050 ("Master Plan 2050"). The Concept defines seven strategy pillars with 69 individual measures. The pillars are as follows: (1.) energy-saving construction and renovation in residential buildings; (2.) energy supply and infrastructure, as well as renewable energies; (3.) energy efficiency in trade, commerce and services; (4.) education; (5.) role model Group City of Düsseldorf; (6.) climate-friendly mobility; and (7.) lifestyle and consumption.

A wide variety of projects contribute to achieving the climate protection goals, such as energy-efficient building refurbishment with the municipal funding program ["Climate-Friendly Living and Working in Düsseldorf"](#) and advice on refurbishment options provided by the [Service Agency for the Refurbishment of Old Buildings](#) (see practical example). Other examples include the [climate campaign](#), which uses various high-profile approaches (such as a climate savings book) to motivate the population to protect the climate, and the decision for the city administration to purchase 100% green electricity. Against the backdrop of all climate protection activities, Düsseldorf was continuously awarded the [European Energy Award](#) from 2007 (several times in gold) to 2020. Düssel-

dorf's Membership in the "Climate-Positive Cities" initiative of the German Sustainable Building Council also contributes to this.

[13] Climate protection in administration, municipal undertakings and associated companies

The Düsseldorf city administration—with over 10,000 employees and over 2,000 buildings—and the municipal subsidiaries and associated companies act as role models in climate protection. For example, a ["solar offensive"](#) has been in place for municipal buildings since 2021 (see practical example). This project is intended to increase significantly the number of solar installations in place. [Energy-efficient renovation measures](#) are increasingly being promoted (e.g., as part of the "Renovation of the 20 worst properties in terms of energy efficiency" project). [Energy management](#), including [energy-management software](#) for all energy-relevant processes, contributes to increasing energy efficiency. Various public institutions and municipal affiliated companies (or enterprises) also participate in the environmental management system Ökoprofit to reduce operational emissions (e.g., the Environmental Agency, the City Museum, Messe Düsseldorf, Stadtentwässerungsbetrieb, Industriterrains Düsseldorf-Reisholz AG and Werkstatt für angepasste Arbeit).

Overall, the [implementation planning for the climate protection](#) of municipal associated companies (or enterprises) is to be advanced in accordance with the Path to Climate Neutrality 2035. The municipal associated companies (or enterprises) and municipal enterprises have firmly fixed climate protection in their corporate structures. This policy applies to the installation of photovoltaic systems (e.g., at Stadtwerke Düsseldorf, Messe Düsseldorf, Gesellschaft für Abfallwirtschaft und Stadtreinigung AWISTA, Industriterrains Düsseldorf-Reisholz AG, Rheinbahn, the airport and Werkstatt für angepasste Arbeit) or the purchase of green electricity or abandoning fossil fuels (e.g., at Immobilien Projekt Management Düsseldorf, Bädergesellschaft

Düsseldorf, Rheinbahn AG, Messe Düsseldorf or D.LIVE]. Various companies also implement strategic energy-management systems to reduce electricity consumption and heating energy requirements (e.g., Bädergesellschaft Düsseldorf or Messe Düsseldorf). The SWD Städtische Wohnungsgesellschaft Düsseldorf (SWD Group) promotes climate protection in a targeted manner by means of efficiency house standards (both for new buildings and for the refurbishment/modernization of existing stock), built a climate protection housing estate in NRW and implements various district heating projects. Düsseldorf Airport has set itself the goal of operating in a climate-neutral manner by 2035, analogous to the City of Düsseldorf, and of achieving "net zero" by 2050. Since 2019, in addition to an energy-management system with predictive control, the airport has been using environmentally friendly district heating for its building heating and has been purchasing green electricity since the beginning of 2022. Stadtsparkasse Düsseldorf is also pursuing the goal of climate neutrality by 2035 as part of its voluntary commitment to climate-friendly and sustain-

able business practices. Messe Düsseldorf has joined the Net Zero Carbon Events initiative, with the aim of halving its emissions by 2030.

13 Embedding climate protection in spatial planning and development

With the solar offensive in urban planning, the Council of the City of Düsseldorf instructed the administration to include the installation of photovoltaic systems on the roof and/or facade in tenders for the sale or lease of municipal properties, and to integrate them in the sales or lease agreements. In the context of development plans and urban development contracts, all possibilities should be used to make the installation of photovoltaic systems mandatory. Building permit (new construction and roof renovation) applicants will be offered free advice on the use of solar energy. As a matter of principle, environmentally relevant aspects will be included in building applications and planning procedures (such as urban development competitions, development plans and traffic planning) and in investor consultations.

Contractual partners must undertake to participate in a consultation meeting at the state capital in the Office for Consumer Protection, Municipal Climate Management Department, on the topics of electromobility (charging infrastructure), achieving energy-efficient buildings, climate adaptation and flood risks. An early consultation before implementing the § 4 I Baugetzbuch in the development plan procedure is mandatory. The specification of energy standards in urban development contracts ensures that new buildings meet or, if necessary, exceed current energy standards in accordance with the Building Energy Act.

Practical examples

Solar offensive for municipal buildings

To make determined use of the solar potential of the City of Düsseldorf, the City Council, by the resolution of 29.04.2021, declared a solar offensive for municipal buildings. The Council, thus, commissioned the administration to analyze all municipal properties for their solar potential and to retrofit all suitable roofs and facades with photovoltaic systems by 2025 (considering the structural and technical requirements). According to current investigations, the theoretical solar potential of municipal buildings for photovoltaics is approximately 62,000 kWp.

Constructing photovoltaic systems will be mandatory for all new municipal buildings and for renovations that trigger the obligation to comply with the Building Energy Act. For projects in existing buildings and in new buildings, the administration shall also examine operational models, cooperation possibilities (e.g., in the form of "contracting") and the development of standard solutions for planning, construction and operation (as well as the leasing of areas). Finally, the city should work to ensure that the solar potential is also exploited in the municipal holdings.

Service Agency for the Renovation of Old Buildings

With the Service Agency for the Renovation of Old Buildings, the City of Düsseldorf, in cooperation with the municipal utilities and the NRW Consumer Center, advises private homeowners on the energy-related renovation of old buildings. The service is aimed at owners of owner-occupied property and landlords who want to improve the energy efficiency of their buildings, and thus promote climate protection. The Service Agency provides information on basic renovation options, possible financial assistance through subsidies and technical support (e.g., from expert consultants). A sound approach to planning and implementation is essential. Energy-efficient renovation measures (such as insulating the outer shell or optimizing the heating system) generally reduce energy consumption while cutting ancillary costs. In the long term, this approach should significantly increase the renovation rate in the city. The advice is supplemented by the city's Climate-Friendly Living and Working subsidy program.



PHOTO: Energy saving through energy-efficient renovation of municipal buildings and the promotion of renovation of old buildings by private individuals

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets
Climate protection in the municipality	<ul style="list-style-type: none"> Path to Climate Neutrality (Resolution „Climate Emergency“ 2035) Energy and CO₂ balance Climate Protection Concept 2025 „Climate-friendly Living and Working in Düsseldorf“ Service Agency for the Refurbishment of Old Buildings Climate campaign European Energy Award 	13.2
Climate protection in administration, municipal undertakings and associated companies	<ul style="list-style-type: none"> Solar offensive Energy-efficient renovation measures Energy management / Energy management software Ökoprofit Implementation planning for climate protection for municipal undertakings and associated companies 	7.2 7.3 7.3 8.4 13.2
Embedding climate protection in spatial planning and development	<ul style="list-style-type: none"> Solar offensive in urban planning Building applications and planning procedures Specification of energy standards in urban development contracts 	7.2 11.3 7.3

Indicators



CO₂ emissions in Düsseldorf 13.2

M T	1987	2007	2010	2014	2018
	8.10	5.73	4.88	4.64	3.86

CO₂ emissions in Düsseldorf in million metric tons. Balancing according to the specifications of the Climate Alliance. (Source: State Capital Düsseldorf, Office for the Environment and Consumer Protection)

CO₂ emissions in the City of Düsseldorf declined continuously from 1987 to 2018. The decrease between 1987 (start of accounting) and 2018 is around 52%. Since 2007 (joining the Climate Alliance), CO₂ emissions have fallen by 33% by 2018 despite population growth. A closer analysis reveals that private households have contributed to these savings by 39%, municipal facilities by approximately 52%, commerce and industry by 70%, and transport by 6% in their sectors. The City of Düsseldorf has taken extensive climate protection measures. The City Council passed a resolution with the goal of climate neutrality by 2035. The options for action to achieve this target are set out in the Düsseldorf 2025 Climate Protection Concept.



Final energy consumption in Düsseldorf 12.1

GWh	1987	2007	2010	2014	2018
	23.648	21.127	17.999	17.477	16.568

Final energy consumption in Düsseldorf in GWh/a (Source: State Capital Düsseldorf, Office for Environment and Consumer Protection)

Final energy consumption is the amount of energy used, such as electricity from the socket, gas from the pipeline, oil in the heating tank or district heating from the transfer station. Final energy consumption in the City of Düsseldorf has fallen by 29.9% since 1987. This decrease was mainly due to savings in the industrial/commercial sector, in which final energy consumption was reduced by 52.8%. The increase in the population and the associated expansion of the space available and the hours of use of schools and kindergartens have not led to an increase in energy consumption due to numerous efficiency measures. However, in the city as a whole, final energy consumption remains at a high level, with a decrease of only 2.2% compared with 2016 (16,949 GWh/a).



Electricity from photovoltaics 7.2

W/ INHABITANT	2015	2016	2018	2020
	34.1	38.5	43.3	52.9

Total installed capacity of all photovoltaic systems per inhabitant in Düsseldorf (Source: City of Düsseldorf, Office for Environment and Consumer Protection)

Electricity from photovoltaic systems represents the most important renewable energy source after energy generation from wind turbines. The indicator reflects the total output of all photovoltaic plants per inhabitant. From 2015 to 2020, there was a significant increase in energy production from photovoltaics. The expansion of electricity from photovoltaics can contribute overall to the achievement of Goal 7.2.b. „Increase the share of electricity from renewable energy sources in gross electricity consumption to at least 65% by 2030.“

Indicators



Residential buildings with renewable heating energy 11.b

PERCENT	2010	2015	2019
	13.3	24.2	27.4

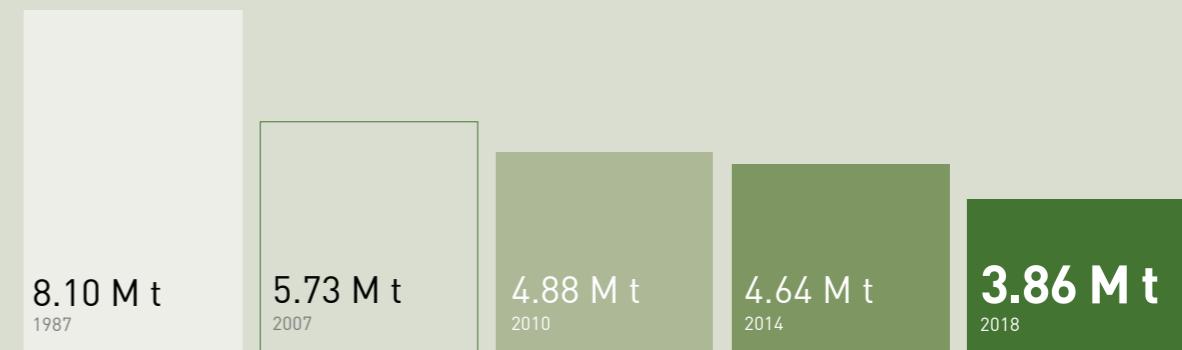
Share of completed residential buildings with renewable heating energy (Source: City of Düsseldorf, Office for Environment and Consumer Protection)

Using renewable heating energy in the building sector can contribute significantly to reducing CO₂ emissions. In addition, using such energy has positive economic effects on fixed energy costs (e.g., lower investment costs or the elimination of CO₂ pricing) in private households. In the City of Düsseldorf, the share of completed residential buildings with renewable heating energy has increased in recent years and was most recently (2019) 27.4%. However, this share is below the NRW average (46.6%). At the federal level, no value is available for 2019. In 2018, the share of completed residential buildings with renewable heating energy was 47.2%. The German Sustainability Strategy essentially pursues the goal of increasing the share of renewable energy in gross final energy consumption to 30% by 2030, to 45% by 2040 and to 60% by 2050 (Goal 7.2.a). The City of Düsseldorf contributes indirectly to achieving the goal of the German Sustainability Strategy through its activities in the residential building sector.

Visualization of selected Indicators

CO₂ emissions in Düsseldorf

CO₂ emissions in Düsseldorf in million metric tons. Balancing according to the specifications of the Climate Alliance



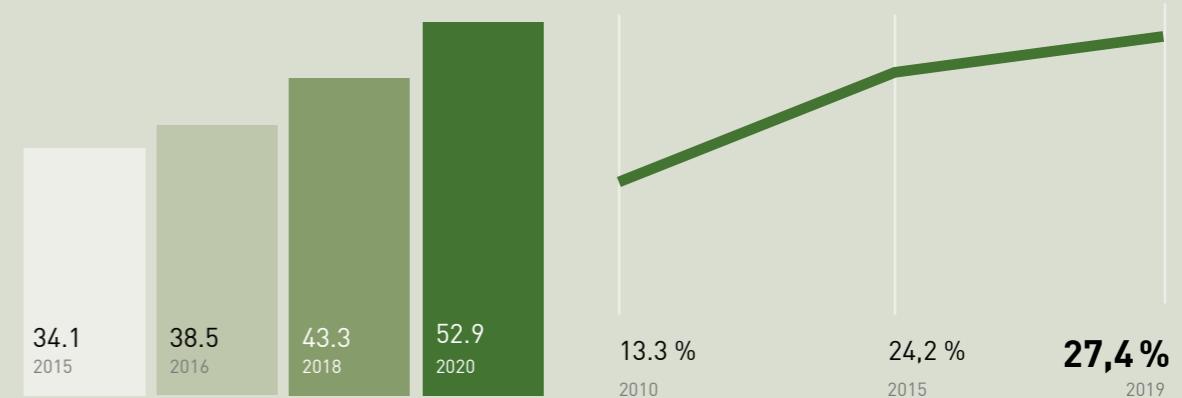
Final energy consumption in Düsseldorf

Final energy consumption in Düsseldorf in GWh/a



Electricity from photovoltaics

Total installed capacity of all photovoltaic systems per inhabitant in Düsseldorf





3.2



Natural Resource Protection & Climate Adaptation

General Introduction to the Field of Action

Biodiversity and natural resources such as soil, water, and air are the essential foundations of human life and economic activity. However, in many places, the use of resources exceeds their regenerative capacity. The increasing loss of biodiversity (i.e., the diversity of species, genetic variation, and habitats), along with climate change, represents the most significant global challenge in terms of sustainability. The impairment of natural soil functions due to human land use leads to reduced rainwater infiltration and groundwater recharge. Water and soil pollution—for example, through the dumping of chemicals and waste—threaten the ecological balance. Air pollution from particulate matter and nitrogen dioxide leads to health risks, while greenhouse gases accelerate climate change. Against this background, the protection and sustainable use of natural resources and the development of effective climate change adaptation strategies at the municipal level are of central importance.

Qualitative Aspects

- Biodiversity protection
- Sustainable agriculture and forestry
- Sustainable supply and disposal
- Reduction of resource consumption in administration, municipal undertakings and associated companies
- Reduction of environmental pollution in soil, water and air
- Climate adaptation in the municipality
- Climate adaptation in administration, municipal undertakings and associated companies

Practical Examples

- Climate analysis
- Labeling procedure "City Green Close to Nature"

SDG indicators

- Land use
- New land use
- Land use intensity
- Nature conservation areas
- Landscape quality
- Unfragmented open space areas
- Watercourse quality
- Nitrogen surplus in agriculture
- Wastewater treatment

Add-on indicators (City of Düsseldorf)

- Nitrate in groundwater

15 Biodiversity protection

The state capital Düsseldorf has defined the protection of biological diversity as a central field of action. The city's membership in the "Communities for Biodiversity" alliance illustrates its commitment to this course. By way of a Council resolution (RAT/099/2021—Preservation of Biodiversity), the City Council commissioned the administration in 2021 to draw up an independent biodiversity concept for the City of Düsseldorf. Corresponding measures are to be embedded in the update of the landscape plan and in the green development plans. The green space plans will be developed at different scales: for the city as a whole, at the level of the city districts and as project-related plans. On behalf of the Public Facilities Committee, the city also participates in the certification process "City Green Close to Nature" (see practical example). Based on a basic decision by the Council, a procedure was also initiated to amend or redraft the landscape plan. The landscape plan defines binding nature and landscape conservation areas and describes measures for their development.

Düsseldorf also participates in projects to breed endangered species to preserve genetic and biological diversity and supports climate-friendly and species-rich front gardens via information materials for the population. The creation of near-natural flower meadows also contributes to the preservation of biodiversity. Another project is the installation of "insect hotels" at Düsseldorf schools. This project is coupled with distributing teaching aids and information material, as well as teacher-training courses to raise awareness of the topic among students.

15 Sustainable agriculture and forestry

The City of Düsseldorf promotes sustainable agriculture by considering organic farming on municipal land. In new leases for agricultural land, the city integrates various requirements, including the creation of roadside strips, renouncing glyphosate and the future conversion

of arable land into grassland in the Rhine foreland when there is a change of tenant to avoid pesticide and fertilizer inputs into water bodies, to promote the implementation of the EU Water Framework Directive, to enhance the land ecologically and, ultimately, to improve dike and erosion protection. In addition, for urban agricultural land in the Urdenbacher Kämpe, management conditions are agreed in the lease contracts in close coordination with the Haus Bürgel Biological Station Stadt Düsseldorf—Kreis Mettmann e. V.

The sustainable use of forestry land is also guaranteed by the city. The 2,190 hectares of forest owned by the city (out of 2,802 hectares in the city) are 100% certified according to the Forest Stewardship Council standard. The near-natural management of the municipal forest focuses on the promotion of natural processes in the dynamics of the forest ecosystem and climate change compatible development. Biotopes in the nature and landscape conservation areas outside the urban forest are looked after by the landscape maintenance yard.

Preparing green space plans also forms the basis for controlling the development of green spaces. When preparing development plans, such plans support environmental precautions and species protection. The forward planning, maintenance and development of a network of public green spaces also promote healthy living conditions in the city. Existing green spaces are given new value through implementing park maintenance works or through rehabilitation programs (such as the Children's Playgrounds Master Plan or post-storm restoration efforts). The principles of near-natural green maintenance ("City Green Close to Nature") are applied and pesticides are dispensed with.

12 Sustainable supply and disposal

The entire City of Düsseldorf Group is implementing various measures for sustainable supply and disposal. In principle, the city aims to increase the recycling rate to 65% by 2035. The development of a "Zero Waste Concept" with the aim of

certification as a "Zero Waste City" was decided recently. The Gesellschaft für Abfallwirtschaft und Stadtreinigung AWISTA mbH promotes the circular economy in Düsseldorf, for example, through material recycling and the expansion of collection systems and recycling centers. By increasing the recycling rate, raw materials are to be recovered for the material cycle. As part of the city's waste avoidance concept, measures to avoid waste and reduce the amount of waste have been set out (e.g., for events on city-owned land). This approach supplements existing rules for the separation and disposal of operational waste that aim to increase the recycled content and minimize the amount of waste (waste management). The recycling concept ensures the proper recovery of excavated materials and mineral waste.

Private households can take advantage of the comprehensive waste advice provided by the Office for Environmental and Consumer Protection, the consumer advice center and AWISTA. Websites also offer a variety of information, for example, regarding how to increase the separate collection of recyclable materials (e.g., by increasing the use of the blue garbage can and reducing the amount of residual waste) and how to avoid disposable packaging.

The integrated water supply concept serves to secure the water supply. This concept also describes the emergency alliances with neighboring communities, the potential hazards and possible effects of climate change, and drinking water consumption in the context of population development. The wastewater disposal concept ensures proper disposal, including the necessary wastewater facilities, considering climate change and water protection concerns. Part of the concept is also a precipitation water disposal concept, which serves to strengthen the natural water cycle when dealing with precipitation water. Innovative research projects in the field of wastewater management also serve to develop sustainable methods in wastewater collection and treatment.

12 Reduction of resource consumption in administration, municipal undertakings and associated companies

In the City of Düsseldorf Group, the criterion of resource conservation is considered in various processes and activities. Of particular importance is the Council resolution of 29.04.21 regarding the certification of all new municipal construction projects. This resolution stipulates that new construction measures must be planned, implemented and certified in accordance with the standards of the German Sustainable Building Council (DGNB), with the minimum standard being gold, and the target being platinum. The focus is on the assessment criteria "lifecycle assessment of the building" and the "cradle-to-cradle principle" as an approach to a continuous and consistent circular economy. The Office of Facility Management will assume coordinating and advisory functions for the field of action "sustainable building." Pilot projects include the construction of the new Technical Administration Building and Düsseldorf's first timber-hybrid house on a former municipal site. In the "Opera House of the Future" project, which is particularly significant for Düsseldorf, high demands are also made from the outset on ecological and economic sustainability aspects, as well as on socio-cultural and functional quality throughout the decision-making and planning process.

The digitization of processes also conserves resources (e.g., the introduction of an electronic invoice receipt and issue book or paper avoidance through intelligent IT systems). The tax office, for example, has digitized paper files and is preparing to deliver notices in digital form. For this innovation, the tax office was selected as a beacon for NRW by Init AG (on behalf of the Federal Ministry of the Interior, for Building and the Home Office).

The municipal subsidiaries (or companies) and municipal enterprises also contribute to resource conservation. For example, as in the case of new municipal construction projects, new construction measures at Immobilien Projekt

Management Düsseldorf are always implemented in accordance with the criteria catalog of the German Sustainable Building Council (Deutsche Gesellschaft für Nachhaltiges Bauen). SWD Städtische Wohnungsbau-GmbH Co. KG Düsseldorf (SWD_Gruppe), in turn, pursues the goal of increasing the share of recycled building materials regarding resource-conserving construction and reducing water consumption, for example, through modern sanitary equipment. The municipal utilities also keep the environmental impact from operating generation plants and waste treatment as low as possible.

15 Reduction of environmental pollution in soil, water and air

Reducing the environmental impact of soil, water and air resources is a central task for the state capital Düsseldorf. Regarding the environmental medium of soil, the focus is particularly on its limited availability, since the Düsseldorf city area is very small in relation to the number of inhabitants. The soil function map for mapping soils worthy of protection helps evaluate interventions within the framework of the intervention and compensation regulation. Contaminated sites and old deposits are systematically recorded in a cadastre as areas suspected of being contaminated. Contaminated sites and harmful soil changes are remediated according to regulatory priorities or within the framework of land recycling and can, thus, be used again. To prevent pollutants from entering the environment, proper site drainage is ensured in the urban area.

Regarding water as a resource, ecological development goals and measures for flowing water are defined within the framework of watercourse development planning. These goals and measures are implemented in the course of near-natural maintenance or redesign in accordance with the European Water Framework Directive. To improve the water quality of surface water, achieving a good ecological and chemical status is to be ensured. For all flowing water in the urban area, regular exami-

nations of the chemical status and water organisms are conducted. A good chemical status is also to be ensured for groundwater, including the reduction of diffuse substance inputs through agricultural management. Restoration is achieved through the remediation of groundwater contamination. In terms of groundwater remediation technology, the city also participates in research and development projects.

Regarding the air resource, the city's activities to reduce the concentration of air pollutants are coordinated within the framework of the Clean Air Plan. Air pollution is calculated citywide once a year, with background and maximum pollution levels measured at selected locations (measured and calculated air pollution).

13 Climate adaptation in the municipality

With the adoption of the climate adaptation concept in 2017, Düsseldorf laid the foundation for increasing the city's resilience to climate impacts. The concept defines 15 key measures in the areas of analytical measures, structural and ecological measures, and organizational and communicative measures. Through regular controlling, the goals and measures of the concept are continuously reviewed and adjusted if necessary. Examples of activities implemented as part of the concept include the information campaign regarding dealing with climate change and adaptation measures, and the expansion of the "green roofs, facades and courtyards" funding program (with an accompanying green roof potential register). The urban tree concept has also been advanced in recent years. Newly planted trees are intended to alleviate the situation in climatic load areas, and the rehabilitation of existing tree locations improves the growing conditions of existing trees. With the help of climate analysis, the local climatic functional relationships are presented, and protection and development measures are derived (see the practical example).

With the action concept for heavy rain management, which is another key measure of the climate adaptation concept, a superordinate

instrument for flood prevention is being developed. The instrument comprises four components: precaution through information, municipal construction and maintenance measures, crisis management, and municipal land-use precautions. The heavy rain hazard map and heavy rain risk analysis are used to analyze potential danger spots due to heavy rain-induced flooding to make statements about the extent of danger to human health and damage to public buildings and infrastructure facilities. The heavy rain advisory service for property owners is intended to minimize and, ideally, prevent damage caused by backwater or surface water that does not drain away in the event of heavy rain. Implementing measures from the flood risk management plans also leads to improved protection against flooding in the urban area.

Regarding the map of soil-cooling capacity, information on the distribution of soils with high cooling capacity is available for the urban area. In urban land-use planning, this information is considered in the planning process.

13 Climate adaptation in administration, municipal undertakings and associated companies

Against the background of the described goals and measures for climate adaptation in the City of Düsseldorf, the city administration and the municipal affiliated companies (or enterprises) and municipal enterprises are also implementing various measures for climate adaptation. These measures include roof and façade greening to improve the urban climate. For example, the municipal housing company is pursuing the goal of significantly increasing the proportion of green spaces on its properties in its new construction projects by planting green roofs and facades, which, among other things, helps to protect tenants from heat in the summer. The green spaces are also being designed in such a way as to increase biodiversity at the site. The Werkstatt für angepasste Arbeit (Workshop for Adapted Work) and Industriterrains Düsseldorf-Reisholz AG (in the construction of the new administration building) are also increasingly using green roofs to prevent heat islands.



PHOTO: Green facades and roofs in the densely built-up inner city – climate adaptation to protect against heat

Climate analysis

With Climate Analysis 2020, studies on local climatic effects were carried out for the third time (after 1995 and 2012) for the urban area of Düsseldorf. The citywide analysis of the urban climate provides valuable information for urban planning and design. The climate analysis offers an essential basis for giving greater consideration to the concerns regarding the urban climate and climate adaptation in urban areas and urban land-use planning. The overriding goal is to stabilize climatically positive structures and improve polluted areas. The focus of Climate Analysis 2020 was on the summer thermal stress situation for the urban population and the urban cold air balance. Against this background, two planning reference maps for the night and day situation were developed as central results.

Labeling procedure “City Green Close to Nature”

Düsseldorf has been participating in the City Green Close to Nature labeling process since 2019, and the city received the gold award in 2021. The label is awarded by the Communities for Biodiversity alliance and German Environmental Aid to communities particularly committed to the design and maintenance of green spaces that are close to nature (they are assessed in the categories of bronze, silver and gold). The aim is to establish ecological standards for the management of public green spaces to preserve biodiversity in cities. In Düsseldorf, the labeling process was implemented—in cooperation with the associations, initiatives and organizations active in the city—by the Garden, Cemetery and Forestry Department. First, all measures already implemented were compiled in an inventory. Ideas for implementation by 2023 were then coordinated, such as the creation of an urban flowering meadow register. Finally, the measures are summarized in a sustainable green space strategy for the state capital Düsseldorf.

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets	Aspect	Contribution	Allocation to SDG Targets
Biodiversity protection	<ul style="list-style-type: none"> Communities for Biodiversity alliance Biodiversity concept City Green Close to Nature Redraft the landscape plan Breed endangered species Climate-friendly and species-rich front gardens Creation of near-natural flower meadows Insect hotels at Düsseldorf schools 	15.5 15.5 15.5 15.1 15.5 15.5 15.5 15.5	Reduction of resource consumption in administration, municipal undertakings and associated companies	<ul style="list-style-type: none"> Certification of all new municipal construction projects Digitization of processes 	12.2 12.2
Sustainable agriculture and forestry	<ul style="list-style-type: none"> Organic farming on municipal land Renunciation of glyphosate Conversion of arable land into grassland Sustainable use of forestry land Management of the municipal forest Preparation of green space plans Planning, maintenance and development of a network of public green spaces 	2.4 3.9 15.1 15.2 15.2 11.3 11.7	Reduction of environmental pollution in soil, water and air	<ul style="list-style-type: none"> Soil function map Proper site drainage Watercourse development planning Improve the water quality Groundwater remediation technology—Research and development projects Clean Air Plan Measured and calculated air pollution 	15.1 6.6 6.6 6.3 6.3 11.6 11.6
Sustainable supply and disposal	<ul style="list-style-type: none"> Waste avoidance concept Recycling concept Waste advice Water supply concept Wastewater disposal concept Precipitation water disposal concept Innovative research projects in the field of wastewater management 	12.5 12.4 12.8 6.1 6.6 6.4 6.3	Climate adaptation in the municipality	<ul style="list-style-type: none"> Climate adaptation concept Information campaign on dealing with climate change and adaptation measures "Green roofs, facades and courtyards" funding program Heavy rain hazard map Heavy rain risk analysis Heavy rain advisory service Flood risk management plans Soil cooling capacity 	13.1 12.8 15.4 13.1 13.1 12.8 11.5 13.1
			Climate adaptation in administration, municipal undertakings and associated companies	<ul style="list-style-type: none"> Climate adaptation measures in administration, municipal undertakings and associated companies 	13.1

Indicators



Land use 11.3

PERCENT	2010	2015	2019
	59.6	60.7	61.2

Share of settlement and traffic area in the total area [Source: IT.NRW, area survey by type of actual use]

The share of settlement and transport areas comprises building space and open space, operational area, transport area, recreational area and cemetery area, and can include both sealed and unsealed areas. The indicator measures the share of settlement area and traffic area in the total area and is considered in the context of the goal of relying less on expansion and external development and more on efficiency and internal development in ongoing urbanization (principle of the City of Düsseldorf: internal before external development). At 61.2%, the share of settlement and traffic areas in the land area is comparatively high in Düsseldorf. At 217 Km², the city area is small in relation to the population of 644,000. Thus, Düsseldorf has only limited outdoor space for development. To preserve the outdoor area, urban development that is also necessary due to the population growth takes place, as much as possible, in the inner area. Thus, the inner-city green space system as part of the settlement area is also of great importance as a compensation for increasing urban densification. Despite a change in the statistical basis considered in 2016 (conversion to the Official Real Estate Cadastre Information System ALKIS), a slight trend toward an increase in settlement and transport areas is discernible. This development is also in line with developments in other major cities in NRW with similar numbers of inhabitants and makes it more difficult to achieve Goal 11.1.a "Reduce new land use for settlement and transport to an average of less than 30 ha per day by 2030" of the German Sustainability Strategy.



New land use 11.3

PERCENT	2010	2015	2019
	0.0	0.9	0.0

Annual change in settlement and transport area in percent [Source: State Capital Düsseldorf, Office for Statistics and Elections]

New land use often leads to an irretrievable loss of natural soils and open spaces, although the indicator alone says little about inclusive or sustainable urban development. In addition, the validity of the data over time is affected by a change in land survey methodology in 2016. Most recently (2019), the City of Düsseldorf achieved a year-on-year rate of change in settlement and transport area of 0 %, meaning no additional land was used. The rate of new land usage at a national average is also low, (2019) +0.05 %. This development can be assigned to Goal 11.1.a "Reduction of new land use for settlement and transport to an average of less than 30 ha per day by 2030" of the German Sustainability Strategy, whereby a negative development would contribute to the achievement of the goal.



Land-use intensity 15.1

HECTARE	2010	2015	2019
	0.02	0.02	0.02

Settlement and transport area per inhabitant [Source: SDG Portal]

The limited land available in the municipality is a non-renewable resource that should also be available to future generations. Often, different needs compete with each other, and it is necessary to assess and reconcile the demands and conflicting goals. Efficient land use can positively influence the economic and social benefits without expanding the use of land. However, the indicator only sets the settlement and transport areas in relation to the number of inhabitants and makes no statements about the qualitative design of the areas. In the City of Düsseldorf, there have been slight fluctuations over time outside the two decimal places, so the figures are rather constant at 0.02 hectares of settlement and transport area per inhabitant. This value is low compared with the average settlement and transport area per inhabitant in Germany (2019: 0.06 hectares per inhabitant). Consequently, the City of Düsseldorf is characterized by a very high settlement and traffic density, and thus indirectly contributes to the achievement of Goal 11.1.b "Reduction of the inhabitant-related loss of open space" of the German Sustainability Strategy.



Nature conservation areas 15.5

HECTARE	2010	2015	2019
	11.3	11.3	15.2

Share of nature conservation areas with high protection status [Natura 2000 areas, nature reserves and national parks] in total area [Source: State Capital Düsseldorf, Garden, Cemetery and Forestry Office, Lower Nature Conservation Authority]

Municipalities require sufficiently large nature conservation areas, where nature can develop without burdensome human intervention. These areas contribute significantly to the preservation of biological diversity and are considered important retreats and recreational areas for humans. Another important component is the networking of cross-border and interconnected protected areas (such as the Europe-wide network of Natura 2000 sites) to increase the resilience of the individual areas. In the city of Düsseldorf, the proportion of nature conservation areas has recently risen to 15.2%. A comparison with the national average is not possible due to different calculation bases. The German Sustainability Strategy aims to "increase biodiversity and landscape quality—achieving the index value of 100 by 2030" (Goal 15.1.). The NRW sustainability strategy specifically aims to "increase the state-wide biotope network to 15 % by 2030" (Goal 15.1.c).

Indicators



Planned and implemented measures of the urban tree concept 15.2

PLANTING PERIOD	2019/2020	2020/2021	2021/2022	2022/2023	IMPLEMENTATION NOTES
TREE PLANTING IN NEW LOCATIONS	206	100	120		
REHABILITATION OF EXISTING SITES WHILE PRESERVING THE TREE	80	40	120		
REHABILITATION OF EXISTING SITES WITH RENEWAL OF THE TREE	80	60	160		
TOTAL NUMBER	366	200	400		

To increase the number of trees in the City of Düsseldorf, the administration drew up a concept for planting an additional 1,000 trees, especially on streets and squares in neighborhoods with a need for ecological and climatic improvement. As part of the urban tree concept, tree sites will be newly created or rehabilitated. Four fields of work were defined for implementation: 1. tree planting in newly created tree grates; 2. rehabilitation of existing tree sites while preserving the tree population; 3. replanting of trees in existing tree grates with necessary pipe laying; and 4. rehabilitation of existing tree sites with renewal of the tree population. No figures are yet available for Work Area 3 because of the necessary lead time. In addition to the creation of new tree sites, the rehabilitation of existing sites with the optimization of site conditions for existing or newly planted trees is of great importance. A very significant increase in case numbers is planned for the 2022/2023 planting season. The urban tree concept represents one of the key measures of the climate adaptation concept of the City of Düsseldorf—it complements tree planting in parks and forests.



Landscape quality 15.5

INDEX	2012	2015	2018	NOTES
	5.1	5.1	5.1	Total of all human interventions in the natural balance [hemeroby index] (Source: SDG Portal)

Landscape quality is measured using parameters such as proximity of vegetation to potential natural vegetation (pnV), degree of soil sealing and compaction, degree of change in humus form and microclimate, use of fertilizers and pesticides, and water quality and obstruction of water bodies. The degree of human intervention in the natural balance of the City of Düsseldorf has been steadily assessed over time, with level 5.1 of the hemeroby index (1=not influenced by culture, 7=excessively influenced by culture). Compared with the rest of Germany (level 4.2), the City of Düsseldorf has more harmful effects on the natural balance. This situation can negatively impact the achievement of Goal 15.1 „Increase biodiversity and landscape quality“ of the German Sustainability Strategy.



Unfragmented open space areas 15.5

PERCENT	2008	2012	2016
	n/a	4.8	4.8

Proportion of unfragmented open space areas > 50 km² that are not dissected by routes of the interurban transport network in the total area (Source: SDG Portal)

Habitat fragmentation significantly impacts biodiversity loss. Animal and plant species are separated from each other, and the remaining areas are often too small for the continuation of a species. Accordingly, regions with low landscape fragmentation generally have the highest biodiversity. Data for this indicator are only available for two years. The City of Düsseldorf, with a share of 4.8% of unfragmented open space, is significantly below the German average. In NRW, the average share of undissected open space areas is only 6.1% (2016). This situation is also influenced by the high settlement and traffic density in the City of Düsseldorf. The sustainability strategies of the Federal Government and the state of NRW have no explicit targets for the fragmentation of open space areas, but they do have targets for reducing land use and increasing landscape quality and biodiversity.



Watercourse quality 6.6

PERCENT	2016	2017	2019
	n/a	n/a	0.0

Proportion of stream length with ecological status ratings of "very good" and "good" to total stream length (Source: SDG Portal)

The ecological status of flowing water is influenced by human intervention (e.g., by excessive inputs of nutrients from agriculture, by structural interventions such as straightening, or by the discharge of polluted wastewater). The assessment of flowing water is based on the Water Framework Directive (WFD). The ecological status is assessed according to five levels—from "very good" to "poor"—and the chemical status has two levels: "good" or "not good." In the City of Düsseldorf, none of the reportable watercourses is rated at least "good" in terms of ecological status/potential according to the current 2022–2027 management plan. The chemical status is "not good" for all water bodies. However, the German Sustainability Strategy has set out in Goal 6.1.a the "compliance with or undercutting of the water body-typical orientation values at all measuring points by 2030."



Nitrate in groundwater 6.3

NUMBER OF MEASURING POINTS	2017	2018	2019	2020	2021
	951	1041	982	687	455

Proportion of measuring points where the threshold value of 50 mg nitrate per liter is exceeded (Source: State Capital Düsseldorf, Office for Environmental and Consumer Protection)

The indicator defines the "proportion of measuring points where the threshold value of 50 mg nitrate per liter is exceeded". The table displays the results of all nitrate analyses of the past five years on Düsseldorf city territory. In each case, the last measured value of a year is included in the calculation. The proportion of measuring points at which the threshold value of 50 mg nitrate per liter is exceeded varies between 3 and 5%. When viewed spatially, the proportion is higher in the largely agriculturally used outdoor areas than in the indoor areas. The aim of sustainable soil management is to minimize nitrogen inputs. In the future, the survey will be systematized beyond the occasion-related investigations by a uniform, grid-like sampling over the urban area.

Indicators



Nitrogen surplus in agriculture 2.4

	2010	2015	2018
KG/HA	72.2	97.3	125.7

Nitrogen surplus of the agriculturally used area [Source: SDG Portal]

Excessive use of fertilizers in agriculture in particular is causing a wide range of environmental problems. In this respect, the global planetary pollution limit has already been exceeded. In addition, nitrogen surpluses lead to acidification of surface waters, oceans and various terrestrial ecosystems, as well as nitrate pollution in groundwater. In the City of Düsseldorf, the nitrogen surplus of the agriculturally used area has continuously increased over time, and most recently amounted to 125.7 kg / ha. The data at the federal level also reveal steadily increasing values over time, most recently (2018) was 92.1 kg / ha (2010: 65.4 kg / ha). This development is contrary to Goal 2.1.a formulated in the German Sustainability Strategy ("Reduce the nitrogen surplus of the overall balance for Germany to 70 kilograms per hectare of agricultural land as an annual average 2028–2032").



Wastewater treatment 6.6

	2010*	2015	2018
PERCENT	100.0	100.0	100.0

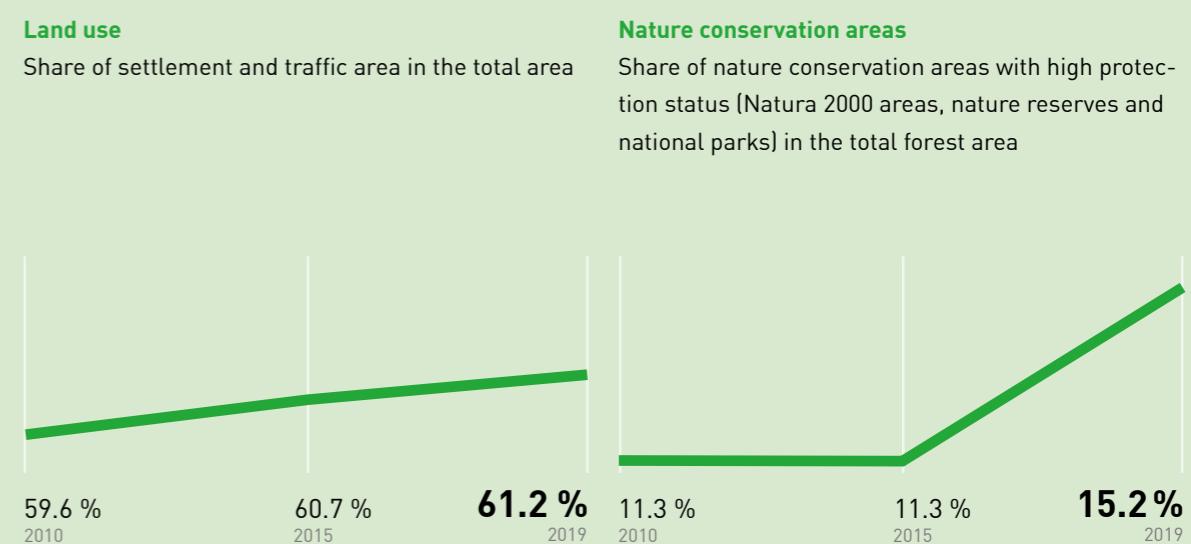
Proportion of wastewater treated by nitrogen and phosphorus elimination (Source: SDG Portal, *Source for 2010: City of Düsseldorf, Canal and Water Engineering Office)

Wastewater refers to water contaminated from domestic, commercial or industrial use, among other sources, and can cause significant harm to humans, animals and nature if not properly treated. Nitrogen and phosphorus elimination can remove excess amounts of nitrogen and phosphorus from wastewater, improving the quality of wastewater treatment. In the City of Düsseldorf, the proportion of treated wastewater has been 100% since the expansion of the southern wastewater treatment plant in 1999. The NRW average of 96.6% (2018) is also a very high proportion of wastewater treated (data at the federal level is only available up to 2015: proportion of 91.0%). The sustainability strategies of the Federal Government and the state of NRW do not explicitly address wastewater treatment.

Visualization of selected Indicators

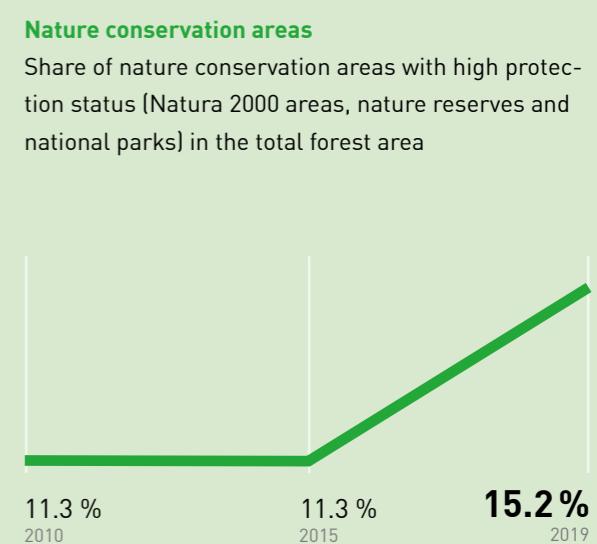
Land use

Share of settlement and traffic area in the total area



Nature conservation areas

Share of nature conservation areas with high protection status (Natura 2000 areas, nature reserves and national parks) in the total forest area



Planned and implemented measures of the urban tree concept

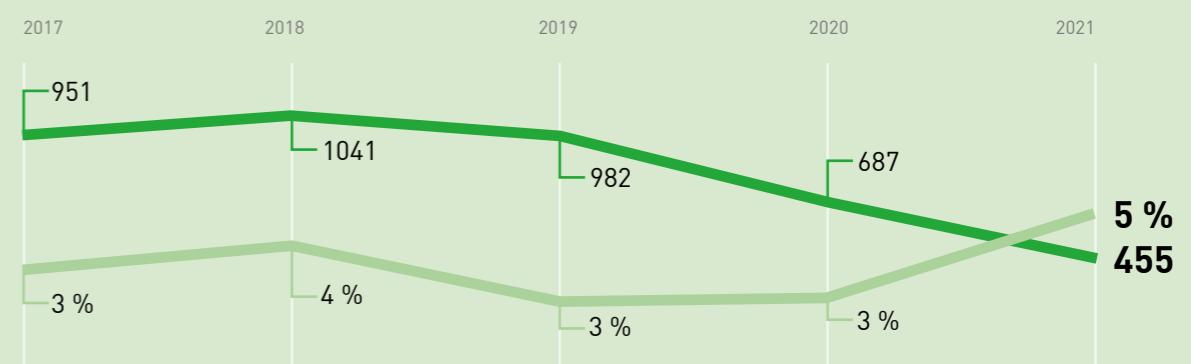
Implemented and planned measures within the framework of the urban tree concept, differentiated according to the concept's fields of work. Indication in absolute numbers of measures already implemented or planned



Nitrate in groundwater

Proportion of measuring points where the threshold value of 50 mg nitrate per liter is exceeded

● Number of measuring points ● Percent





General Introduction to the Field of Action

The third field of action of sustainable municipal development, Sustainable Mobility, comprises the sub-areas of passenger and freight transport within a municipality along with the associated infrastructures. Mobility is a prerequisite for social and economic development and for enabling people to participate in social life. The fundamental objective of a sustainable transport policy is to design socially necessary mobility so that mobility needs are compatible with sustainable development. The „modal split“—the distribution of traffic volume among different modes of transport—is still heavily dominated by motorized private transport. Overall, the current transport system, which is not yet sustainable, has a wide range of impacts on climate, the environment, and health. Against this background, the field of action bundles central challenges such as the promotion of ecomobility (public transport, cycling, and walking) and alternative forms of propulsion, measures for air and noise pollution control, and the reduction of land and resource consumption.

3.3



Sustainable Mobility

Qualitative Aspects

- Sustainable mobility in the municipality
- Sustainable mobility in administration, municipal undertakings and associated companies

Practical Example

- Creation of the „Mobility Plan D“

SDG indicators

- Car density
- Road traffic casualties

Add-on indicators (City of Düsseldorf)

- Modal Split
- Bicycle traffic
- Share of electric and hybrid vehicles (passenger cars)

11 Sustainable mobility in the municipality

As a strategic transport development plan, „Mobility Plan D“ sets out overarching guidelines, goals and measures for Düsseldorf up to the year 2030 (see in detail in the practical example). In addition to the mobility plan, traffic system management helps to network and make optimal use of the available infrastructure. Situational and strategic traffic management can reduce emissions. The „Green City Mobility“ master plan and the Clean Air Plan also contribute to reducing nitrogen oxide emissions. The Clean Air Plan wants, as a central goal, to increase the share of electromobility in the total number of all vehicles in Düsseldorf. This aim is supported by various activities, such as the promotion of wall charging stations in private households and companies. The City of Düsseldorf is part of the hydrogen competence region Düsseldorf Rhine Wupper, and the hydrogen master plan aims to establish hydrogen use (e.g., regarding production and distribution with associated refueling infrastructure).

Various measures and projects are also being implemented to promote local public transport, such as a public transport acceleration at signalized nodes or the expansion of the light

rail network as part of the target concept „Public Transport Düsseldorf: Part 1—Light Rail“. Constructing mobility stations promotes the use of different modes of transport. Düsseldorf is also a member of the „Working Group of Pedestrian- and Bicycle-Friendly Cities, Communities and Districts in NRW“ and participates in the annual nationwide cycling competition „City Cycling“.

To accelerate the expansion of cycling infrastructure, the Small Commission on Cycling was created in 2020, including additional funds in the budget and additional positions in the cycling department. Shared mobility (“CarSharing”, “Bike-Sharing” and carpooling) is also promoted by the City of Düsseldorf. With a view to commuter mobility, the city also forms regional cooperations to establish sustainable concepts in cooperation with the surrounding communities.

11 Sustainable mobility in administration, municipal undertakings and associated companies

In line with the goals outlined for the City of Düsseldorf, the city administration is also pursuing the goal of reducing emissions in the area of mobility. As part of the replacement



PHOTO: Mobility plan D - planned mobility stations for changing to sustainable means of transport (Photo: Hendrik Sander, Magda Zdrojewski)

Practical example

of combustion engines in the municipal vehicle fleet, vehicles with low emissions (electric vehicles and fuel cells) are increasingly being used. According to the city's electromobility action concept, diesel and gasoline cars are to be substituted for battery-electric cars in the long term, including the use of charging electricity from renewable energy sources. The procurement of around 150 electric vehicles is planned by 2023. As part of the "[Corporate Mobility Management](#)" project, developing sustainable mobility management for employees of the city administration is targeted. In cooperation with business associations, the city also promotes climate-friendly corporate mobility among companies as part of the [mobility partnership](#) and offers free, qualified advice on corporate mobility management. Around 80 companies have already been recruited for the network.

The municipal undertakings and associated companies also contribute to sustainable mobility. This process includes the gradual conversion of vehicle fleets to zero-emission drive systems (e.g., at Gesellschaft für Abfallwirtschaft und Stadtreinigung AWISTA, Stadtwerke Düsseldorf, Düsseldorf Airport, Messe Düsseldorf and IPM Immobilien Projekt Management Düsseldorf) and the provision of properties with charging infrastructures (e.g., at Industriterrains Düsseldorf-Reisholz AG). Rheinbahn is also increasingly focusing on zero-emission bus drives (the goal is decarbonization by the end of 2035) and the supply of trains and infrastructure. In addition, the city and various municipal subsidiaries (or companies) and municipal enterprises provide their employees with company tickets and company bicycles (e.g., Düsseldorf Tourismus and Düsseldorf Marketing, Messe Düsseldorf, and Werkstatt für angepasste Arbeit). Furthermore, the city subsidiary CMD (Connected Mobility Düsseldorf) is focusing on constructing more than 100 mobility stations as a central component of the mobility turnaround to create a climate-friendly alternatives to the private car. These projects combine various mobility services in one place, and thus always offer the right means of transport for all needs.

Creation of "Mobility Plan D"

"Mobility Plan D" sets out guidelines and measurable goals for mobility and transport development up to the year 2030, as well as concrete measures. At the end of 2019, a political resolution defined four target dimensions with respective action goals: (1.) establish a new mobility culture and shift vehicle trips (action goals: prioritize the expansion and promotion of public transport, walking and cycling, promote intermodality and multimodality, expand sharing services, take advantage of the opportunities offered by digitization for the traffic turnaround); (2.) strengthen competitiveness and ensure accessibility (action goals: improve urban and environmentally compatible accessibility regionally and supraregionally, promote efficient and environmentally friendly commercial transport); (3.) reduce traffic-related pollution and create healthy living spaces (action goals: reduce noise and air pollution, promote energy transition in transport); and (4.) remove barriers and upgrade road spaces (action goals: increase traffic safety and subjective security, ensure social participation and expand accessibility, redistribute road space in favor of local mobility and reorganize parking in public spaces). The mobility plan aims to take a holistic view of all modes of transport and all other issues relevant to traffic to consider broad public participation.

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets
Sustainable mobility in the municipality	<ul style="list-style-type: none"> • Creation of "Mobility Plan D" • Traffic system management • "Green City Mobility" master plan • Electromobility • Hydrogen competence region Düsseldorf Rhine Wupper • Promote local public transport • Working Group of Pedestrian- and Bicycle-Friendly Cities, Communities and Districts in NRW • City Cycling • Small Commission on Cycling • Commuter mobility 	11.2 11.b 11.2 11.6 11.6 11.2 11.2 11.2 11.2 11.2 11.2 11.3
Sustainable mobility in administration, municipal undertakings and associated companies	<ul style="list-style-type: none"> • Replacement of combustion engines in the municipal vehicle fleet • "Corporate Mobility Management" project • Mobility partnership • Measures of the municipal undertakings and associated companies regarding sustainable mobility 	11.6 11.2 17.17 11.2

Indicators



Modal Split (choice of transport mode) 11.2

	2008	2013	2018	
PEDESTRIAN TRAFFIC	30	29	P	Share of individual means of transport in the traffic volume of all persons with main and secondary residences in Düsseldorf in percent (Source: TU Dresden, SrV - Mobility in cities)
BICYCLE TRAFFIC	10	12	16	
PUBLIC TRANSPORT	20	19	21	
MOTORIZED PRIVATE TRANSPORT	40	40	36	

The state capital of Düsseldorf is actively pursuing the goal of motivating residents and commuters to switch to environmentally friendly modes of transport, and thus achieve a change in traffic patterns. Repeated participation in the regular survey "Mobility in Cities—System of Representative Transport Surveys (SrV)" makes it possible to draw an initial balance of the measures implemented to date. The development of the modal split reveals that the state capital Düsseldorf is on course with the measures and strategies implemented so far. The share of MIV in the modal split has fallen 4% since the SrV 2013, which is a positive development, especially considering the previous years of stagnation. It is also encouraging that more Düsseldorfers are cycling. Between 2008 and 2018, the share of trips made by bicycle increased from 10% to 16%. In inner-city traffic, cycling has even increased by 5% since 2013 and, at 19%, is almost on a par with public transport, which accounts for 21% of in-city traffic. The measures taken to promote cycling (RADSchlag, main cycling network, parking facilities, marketing, "Radaktivtag", "Düsseldorf Fahrradkongress 2018", promotion of cycling to events by D.LIVE, etc.) are having the desired effect and confirm that Düsseldorf relies on cycling. Public transport has also gained slightly in importance.



Motor vehicle density 11.2

	2010	2015	2019	
NUMBER	459.8	480.7	499.5	Number of privately registered passenger vehicles per 1,000 inhabitants (Source: SDG Portal)

The number of cars per 1,000 inhabitants has been increasing for years nationwide, which has far-reaching social, economic and ecological effects. In addition, the continuous expansion of the mobility infrastructure leads to an equally higher car density, which results in a negative cycle. The noise and pollutant loads caused by MIV are a health hazard, especially for people in densely populated areas. Resource- and energy-intensive production, maintenance and disposal lead to high environmental pollution. In the City of Düsseldorf, the number of passenger cars per 1,000 inhabitants rose slightly but steadily over time, from 459.8 (2010) to 499.5 (2019), and Germany-wide development displays a similar trend. In 2019, 1,000 inhabitants* owned around 566 passenger cars (2010: 510 passenger cars). This development is contrary to the following goals of the German Sustainability Strategy: "3.2.a. Reduce emissions of air pollutants", "3.2.b. Reduce proportion of population with elevated PM10 fine dust exposure" and "11.2.b. Reduce final energy consumption in passenger transport".



Share of electric and hybrid vehicles (passenger cars) 11.6

	2019	2020	2021
ELECTRIC VEHICLES	0.2	0.4	0.8
HYBRID VEHICLES	1.1	2.0	3.9

Share of vehicles (passenger cars) with purely electric drive and hybrid vehicles in the total number of all passenger cars (stock) in percent, each as of January 1st (Source: Federal Motor Transport Authority)

The share of electric vehicles in the passenger car population quadrupled from 2019 to 2021 but is still low in absolute terms, at 0.8%. The share of hybrid vehicles (hybrid and plug-in hybrid vehicles) has also increased significantly, to 3.9%. The government subsidy for the purchase of e-cars, the expansion of the charging infrastructure and the growing range of e-cars suitable for everyday use have probably contributed to this figure, as has growing environmental awareness. The city supports the expansion of the charging infrastructure and is pushing CO2-neutral drive technologies in the procurement of new company vehicles.



Bicycle traffic 11.2

	2019	2020	2021
PERCENT	5.8	7.1	6.3

Number of cyclists at 13 permanent counting points in the Düsseldorf city area between January 1 and December 31 of the respective year (rounded to 100,000) (Source: State Capital Düsseldorf, Office for Traffic Management)

Bicycle lanes in cities are becoming more crowded, as has been observed for several years. This cycling trend has also continued in the City of Düsseldorf. At 13 permanent counting stations used by the state capital to register bicycle traffic in the city area, around 6.3 million were registered in 2021, from the beginning of the year to December 31, despite a rainy spring and summer and home office duty, which was in effect until the end of June for COVID protection. Although this number is a decrease from the record year of 2020, when about 7.1 million bicyclists were registered, it is an increase of more than 8% from 2019, when about 5.8 million bicyclists were registered.

Indicators



Road traffic casualties 3.6

NUMBER	2010	2015	2019
	5.1	5.3	5.1

Number of people injured or killed in traffic accidents per 1,000 inhabitants (Source: SDG Portal)

The “traffic accident victims” indicator supports the assessment of general road safety, but without distinguishing between the different means of transport. Pedestrians and cyclists are frequently and seriously injured by cars, whereas the probability of car drivers being seriously injured in this context is very low. This imbalance cannot be represented by the indicator. In the City of Düsseldorf, the number of people injured or killed in traffic accidents per 1,000 inhabitants* has remained relatively constant over time, at around five people. The nationwide comparison reveals a similar trend, with 4.7 people injured or killed most recently (2019). The sustainability strategies of the Federal Government and the state of NRW do not include any explicit targets in this regard.

Visualization of selected Indicators

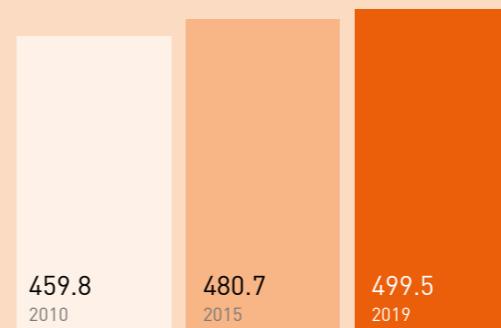
Modal split (choice of transport mode)

Share of individual means of transport in the traffic volume of all persons with main and secondary residences in Düsseldorf in percent



Motor vehicle density

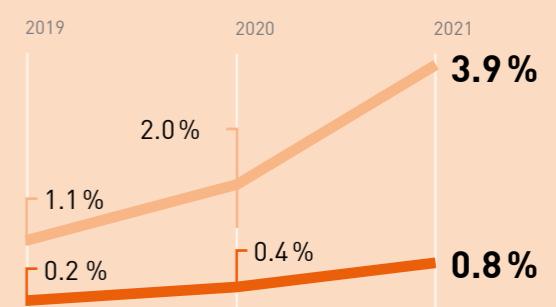
Number of privately registered passenger vehicles per 1,000 inhabitants



Share of electric and hybrid vehicles (passenger cars)

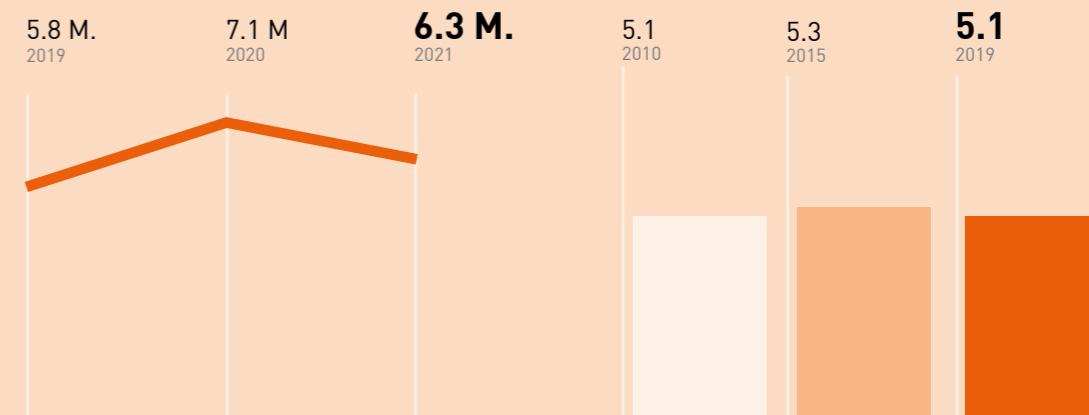
Share of vehicles (passenger cars) with purely electric drive and hybrid vehicles in the total number of all passenger cars (stock) in percent, each as of January 1st

● Electric vehicles ● Hybrid vehicles



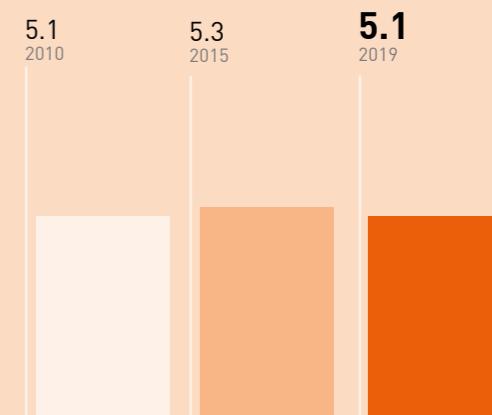
Bicycle traffic

Number of cyclists at 13 permanent counting points in the Düsseldorf city area between January 1 and December 31 of the respective year (rounded to 100,000)



Road traffic casualties

Number of people injured or killed in traffic accidents per 1,000 inhabitants





3.4



Lifelong Learning & Culture

General Introduction to the Field of Action

The field of action Lifelong Learning and Culture bundles various school, extracurricular, and cultural education topics. Lifelong learning describes the comprehensive development of skills and abilities over the course of a human life. It enables the individual to recognize problems and develop the ability to deal with conflicts appropriately and devise solution strategies. The learning process is not limited to school education but refers to the entire lifetime and includes formal and informal forms of learning (for example, the cultural sector in particular reaches people through informal education pathways.) Since education is one of the fundamental prerequisites for leading a self-determined life, it is essential to ensure equitable educational opportunities in all forms of learning and for all people. Education for sustainable development (ESD) involves an education that enables people to think and act sustainably and promotes participation and solidarity. These aspects form key competencies for actively shaping a sustainable society.

Qualitative Aspects

- Access to high-quality education for all citizens
- Education for Sustainable Development in community-based educational institutions
- Cooperation regarding sustainability with other educational institutions
- Supporting employability in administration, municipal undertakings and associated companies
- Supporting cultural affairs
- Promoting an everyday culture of sustainability

Practical Example

- Düsseldorf Network Education for Sustainable Development

SDG indicators

- Basic supply close to home—Primary school
- School dropout rate
- School dropout rate—Foreigners
- Childcare places for children under three
- Integrative daycare centers

Add-on indicators (City of Düsseldorf)

- Supply rate of open all-day schools at the primary level

4 Access to high-quality education for all citizens

Düsseldorf is a city of education—numerous programs from various institutions contribute to this. The Düsseldorf Educational Counseling Service offers free counseling for citizens regarding school careers, career planning, continuing education and funding counseling (education check/premium). The accompanying database "Bildungskompass" summarizes information about educational opportunities in various areas. Since 2019, Düsseldorf has participated in the "Bildung integriert" (Integrated Education) project, which establishes an education management system and an education monitoring system to improve the quality of education in Düsseldorf as a whole and individual educational opportunities. Through an ambitious expansion program of childcare options for children under the age of three, considerable efforts have been made in Düsseldorf to ensure that every child enters the education system as early as possible. Incidentally, the walking distance to the nearest daycare center in Düsseldorf is 6.1 minutes, a value well below average in NRW. As a joint institution of the City of Düsseldorf and NRW, the Düsseldorf Center for School Psychology also promotes good education for all students. Families and schools are advised and supported, for example, regarding learning processes, social integration and inclusion or transitions between school types.

Within the framework of 48 cooperation networks, daycare centers and elementary schools regularly exchange information, and in another five networks, elementary schools and secondary schools exchange information to facilitate the respective transitions (transition P—Sek I / daycare center—elementary school). The educational pathway navigator, which is an online tool for schools, career counselors and students, helps young people find all educational pathways in Düsseldorf, regardless of their school-leaving qualifications. As part of the NRW state program "Kein Abschluss ohne Anschluss," a municipal coordination office was also set up to provide career guidance services for all second-

ary schools and vocational colleges. Vocational orientation is also supported by other offerings [Düsseldorf Vocational Orientation Days and Digital Insight into the Düsseldorf University Landscape]. Finally, the Volkshochschule Düsseldorf offers various educational opportunities, such as further education at school (school-leaving certificates—second-chance education) or basic education and literacy (teaching reading, writing and arithmetic skills).

4 Education for Sustainable Development in community-based educational institutions

Many educational and cultural institutions in Düsseldorf teach Education for Sustainable Development (ESD), which offers the opportunity to promote sustainable everyday life of people. Against the background of these diverse initiatives and programs, the state capital is striving to join the nationwide network of ESD municipalities and to apply for a UNESCO award as an ESD municipality. The central point of contact for sustainability education in schools is the Düsseldorf "Education for Sustainable Development Network" (see in detail in the practical example). A complementary project is the "Win With Energy / 50:50 Program," which promotes awareness of resource conservation in the areas of energy, water and waste. The "Edible City" project (from which schools and daycare centers receive funding for garden projects such as edible plants), the municipal central school garden and the forest school (as a learning site explicitly aimed at teaching ESD) are also "best-practice examples."

In addition to sustainability education in schools, there are various extracurricular projects for people of all ages. For example, the Adult Education Center offers various courses and programs related to sustainability, such as on the topics of climate change or upcycling, as well as working groups on environmentally friendly gardening. Various exhibitions at the Kunsthalle Düsseldorf also address the communication of sustainability topics. The Central Library and the district libraries are members of the "Green Library Network" and are developing a comprehen-

hensive concept ("Green Library—Sustainable Library"). The Central Library's Sustainability Project Group offers special event formats for information and practical activities. With its "Vision for the Central Library 2025 / Future Vision of the Düsseldorf District Libraries 2025," the Library is pushing long-term further development. The municipal libraries have also signed the "Libraries4Future" policy statement.

In addition to these individual projects, the Düsseldorf Cultural Office works with a holistic educational approach that ESD is part of. This approach takes the form of individual development support and self-empowerment. Cultural education trains the senses regarding the perception of the environment, creates experiences of effectiveness and promotes participation. Such education begins with kindergarten children, who experience how various materials from nature change shape in their hands and become objects and works of art.

Increasingly, however, in recent years, there have also been projects for young people and adults on the topics of environmental/climate protection, resource conservation, upcycling, etc. These projects are published centrally on an internet portal for cultural education in Düsseldorf ("Musenkuss").

4 Cooperation regarding sustainability with other educational institutions

The consumer advice center in Düsseldorf offers a comprehensive range of educational and advisory services, including on sustainability issues. There is close cooperation with the city administration, for example, regarding advice and funding for the energy-efficient refurbishment of old buildings.

Both in daycare centers and in the "Centers Plus," supporting associations offer a wide range of programs on sustainability topics (such as energy conservation, waste avoidance, for example by repairing, healthy nutrition, biodiversity, equality, fair trade, and much more). Non-city adult education providers, such as the

Protestant Family Education in Düsseldorf (efa) and the ASG Education Forum, also make committed contributions, as do the city's various universities. The AMD Academy for Fashion and Design, Department of Design at the Fresenius University of Applied Sciences, for example, is intensively involved in fashion and sustainability. The fair fashion guide BUY GOOD STUFF, developed by students, was created in cooperation with the city.

The Education for Sustainable Development network offers all Düsseldorf schools a comprehensive range of extracurricular teaching units and events by experts and institutions regarding sustainability topics. As an extracurricular place of learning, the Biological Station "Haus Bürgel" is part of this network.

The One World Advisory Council of the state capital Düsseldorf comprises representatives of the city society and uses city funds to promote development policy information and education work from the city society.

8 Supporting employability in administration, municipal undertakings, and associated companies

Various training programs are available to promote the employability of employees in the city administration. Development offers and instruments within the framework of personnel development provide the opportunity to support all employees in an optimal and tailored manner and to develop their potential.

4 Supporting cultural affairs

The Department of Culture offers various forms of funding to support creative artists, cultural businesses, associations and institutions. Increasingly, projects in the independent scene [art and artist funding] that address sustainability in an artistic way are also being supported. In particular, topics such as social coexistence, gender equality, integration, sustainable consumption and climate protection are the focus. There is also funding for energy-efficient investments

that support cultural institutions. Funds from the climate protection budget were used, for example, to finance the renovation of the Kunsthalle and energy-efficient lighting at the zakk (Zentrum für Aktion, Kultur und Kommunikation gGmbH).

As part of the cultural development planning, it was decided to develop modern and transparent funding guidelines for cultural funding in Düsseldorf. Guiding goals and criteria for cultural funding in Düsseldorf were initially developed in a participatory process involving politicians, administrators and cultural practitioners. The issue of ecological, social, economic and cultural sustainability regarding Agenda 2030 played a central role.

11 Promoting an everyday culture of sustainability

The municipal website of the state capital Düsseldorf (www.duesseldorf.de/nachhaltigkeit) has an exceptionally broad range of information on the 17 SDGs of the 2030 Agenda, with explicit

hints and tips on how sustainability can be implemented in the concrete everyday life of citizens ("SDG module"). With the help of an online tool, the Sustainability Office presents the SDGs and provides detailed information on their significance. For each of the 17 goals, Düsseldorf projects, initiatives, associations and organizations are listed that contribute to their realization in the city. More than 260 local projects and actors are listed in the online tool—systematically assigned to the 17 goals—illustrating the diversity of commitment in and for the city's society. These projects and actors are supplemented by contributions from the city administration regarding the realization of the SDGs. Within the framework of the "Sustainability Newsletter," interested parties are regularly informed—beyond the information available on the internet—about further Düsseldorf activities and current developments.

An exhibition regarding the SDGs for the general public [exhibition "Agenda 2030—Our 17 Goals"] was held in the foyer of the VHS in 2020 and in City Hall in 2021 for four weeks each. Supple-



PHOTO: Streetcar for sustainable mobility - designed by students with information for all passengers on the goals of sustainability

Practical example

mented by an extensive program of events and activities, the Sustainability Office provided information about the SDGs and important Düsseldorf actors involved in their implementation.

Another activity regarding recreational facilities is the procedure whereby all Düsseldorf children's and youth recreational facilities (such as adventure playgrounds) have to choose a focus over and above their core tasks. One focal point is "Shaping society and the environment," which includes a focus on ecological education. Finally, sustainability is also an explicit topic in the upcoming "Child and Youth Development Plan 2021–2025."

Düsseldorf Network Education for Sustainable Development

The Düsseldorf Network for the Promotion of Education for Sustainable Development in the Classroom and School Life was founded out of the Agenda 21 process in Düsseldorf. The Network is an association of schools of all types (about 40 schools in total) and non-school partners such as companies, institutions (e.g., the consumer advice center Düsseldorf) and non-governmental organizations (e.g., the One World Forum Düsseldorf e. V.). The aim of the Network is to impart design competence, among other things, by integrating sustainability criteria into daily school life. A number of schools support their school development in this respect with the help of a "sustainability audit." The association also promotes the exchange of information and experience between schools, professional and pedagogical discourse, and the further development of methodological principles. Düsseldorf schools can book teaching events and activities from the extensive educational program free of charge. The Network (coordinated by a part-time position in the Office for Environmental and Consumer Protection) is explicitly listed as a "good practice example" in the NRW state program "School of the Future."

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets
Access to high-quality education for all citizens	<ul style="list-style-type: none"> Educational Counseling Service Integrated Education Childcare options for children under the age of 3 Düsseldorf Center for School Psychology Transition P—Sek I / daycare center—elementary school Educational pathway navigator Municipal coordination office Düsseldorf Vocational Orientation Days and Digital Insight into the Düsseldorf University Landscape 	4.1 4.5 4.2 4.1 4.1 4.4 4.a 4.3
Education for Sustainable Development in community-based educational institutions	<ul style="list-style-type: none"> "Education for Sustainable Development Network" "Win with Energy / 50:50 Program" "Edible City" project Central school garden or the forest school Education for Sustainable Development by the Adult Education Center "Green Library—Sustainable Library" "Vision for the Central Library 2025 / Future Vision of the Düsseldorf District Libraries 2025" "Libraries4Future" policy statement 	4.7 13.3 4.7 4.7 4.7 4.7 4.7 4.7
Cooperation regarding sustainability with other educational institutions	<ul style="list-style-type: none"> Education for Sustainable Development network One World Advisory Council of the state capital Düsseldorf 	4.7 12.8
Supporting the employability of employees in administration, municipal undertakings and associated companies	<ul style="list-style-type: none"> Various training programs to promote the employability of employees 	4.4

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets
Supporting cultural affairs	• Department of Culture	4.a
	• Art and artist funding	4.a
	• Funding for energy-efficient investments	7.3
	• Funding guidelines	4.a
Promoting an everyday culture of sustainability	• "SDG module"	12.8
	• "Sustainability Newsletter"	12.8
	• Exhibition "Agenda 2030—Our 17 Goals"	12.8
	• "Shaping society and the environment"	12.8

Indicators



Basic services close to home—elementary school 4.1

METERS	2010	2017	2019
n/a	487.0	n/a	n/a

Population-weighted linear distance to the nearest elementary school [Source: SDG Portal]

The number of elementary schools in a community significantly impacts the daily lives of young families. The closure of elementary schools can lead to a reduction in the use of public transport services, which favors private motorized transport. For families, this situation means more organizational effort and longer journeys in everyday life. A lack of elementary schools close to home can encourage migration. Unfortunately, there is not enough statistical data available to make a statement about the development of the indicator. In 2017, the inhabitant-weighted linear distance to the nearest elementary school in the City of Düsseldorf was 487.0 meters. In 2017, the NRW average was 833.0 meters. Average values at the federal level are not available, nor could any targets be identified in the sustainability strategies of the Federal Government or the state of NRW.



Supply rate of open all-day schools at the primary level 4.1

PERCENT	2009/10	2015/16	2021/22
52	63	69	

Proportion of students in open all-day schools as a percentage of all students in primary school [Source: City of Düsseldorf, Youth Welfare Office]

When all-day schools were launched in NRW, it was important for the state capital Düsseldorf to establish not only sufficient, but also qualitatively appealing all-day programs. Therefore, in addition to the instructional offerings, there is supervision by qualified personnel from cooperating youth welfare organizations and additional stimulation through extracurricular educational offerings from the areas of culture, sports, media, music and STEM. In addition to the core OGS program, a further 10% of students are offered after-school care. For students particularly interested in sports, care services have been created on sports club premises in cooperation with six Düsseldorf sports clubs. This arrangement ensures that around 81% of all students at the primary level have access to care and education. A particular challenge is the legally stipulated entitlement to a full-day place for first graders from the 2026/27 school year, with the number of students increasing.



School dropout rate 4.1

PERCENT	2010	2015	2019
2.7	1.6	2.1	

Proportion of school leavers without a secondary school-leaving certificate among all school leavers [Source: SDG Portal]

This rate provides information on the proportion of people who complete their compulsory schooling without having obtained at least a lower secondary school-leaving certificate. Entry into working life in Germany is significantly more difficult for people without a lower secondary school-leaving certificate. Responsibility for schools is an obligatory task of local authorities, and education is a far-reaching key issue for the future viability of a municipality. The content of instruction and its implementation are the responsibility of the state. In the City of Düsseldorf, the proportion of school leavers without a secondary school-leaving certificate is slightly above the average for NRW municipalities over time. However, data at the federal level are unavailable. The German Sustainability Strategy aims to "continuously reduce the percentage of early school leavers (18- to 24-year-olds without a school-leaving qualification)" through Goal 4.1a.

Indicators



School dropout rate—foreigners 10.2

PERCENT	2016	2017	2019
	259.1	263.8	222.2

Ratio of the school dropout rate of foreigners to the school dropout rate in the total population
[Source: SDG Portal]

Education plays a central role for young people with a migration background. Basic school education is the key to the world of work, and thus a prerequisite for economic integration. Young people with a migration background are often confronted with problems in everyday education (e.g., discrimination or insecure residence). Until 2016, the ratio of school dropout rates in the City of Düsseldorf was roughly in line with the NRW average (Düsseldorf 259.1 %, NRW average 276.0 %). However, in 2017, the rate was significantly lower (Düsseldorf 263.8 %, NRW average 395.7 %). In 2019, the ratio of the school dropout rate of foreigners* to the school dropout rate in the total population was 222.2 % (NRW average 2019: 392.5 %), which means that of the school dropouts in the City of Düsseldorf, around twice as many students* are foreigners*. Values at the federal level are not available. Overall, further efforts are needed to achieve Goal 10.1 "Increase the proportion of foreign school leavers with at least a secondary school-leaving certificate and bring them into line with the proportion of German school leavers by 2030" of the German Sustainability Strategy.



Childcare (under three years old) 4.2

PERCENT	2010	2015	2019
	15.4	22.6	21.5

Proportion of children under three years of age cared for in daycare facilities [Source: SDG Portal]

Childcare in daycare centers enables early childhood education and joint preparation for entry into elementary school. In addition, childcare enables parents to re-enter employment. However, the indicator allows no conclusions to be drawn about the quality of early childhood education and, moreover, the care of children in daycare facilities is not a mandatory prerequisite for preparation for entry into elementary school. In the City of Düsseldorf, the share of children under three years of age who are cared for in daycare facilities has increased slightly over time and was around 21.5 % in 2019. Thus, more children under the age of three are cared for in daycare. There is a very large number of daycare places available in Düsseldorf; however, these places are not included in the indicator. In a national comparison, however, there is a higher proportion of 28.8 % (2019). Goal 4.2.a. of the German Sustainability Strategy also defines the goal of increasing the proportion of all-day care for children up to the age of two to 35 % by 2030.



Integrative daycare centers 4.a

PERCENT	2010	2015	2019
	12.2	26.2	37.5

Proportion of inclusive daycare centers among all daycare centers [Source: SDG Portal]

Integrative daycare centers follow the principle of inclusion and enable all children, regardless of their physical, mental and spiritual condition, to receive a comprehensive education and upbringing. Children with and without disabilities are cared for and supported together. In the City of Düsseldorf, the proportion of inclusive daycare facilities among all daycare facilities has risen steadily over time. In addition, it is possible to care for a child with an impairment in almost every facility. The NRW average has also risen steadily over time and is higher than the share of the City of Düsseldorf (NRW share 2019: 51.6 %). No data are available at the federal level. No specific targets are formulated regarding the sustainability strategies of the Federal Government and the state of NRW.

Visualization of selected Indicators

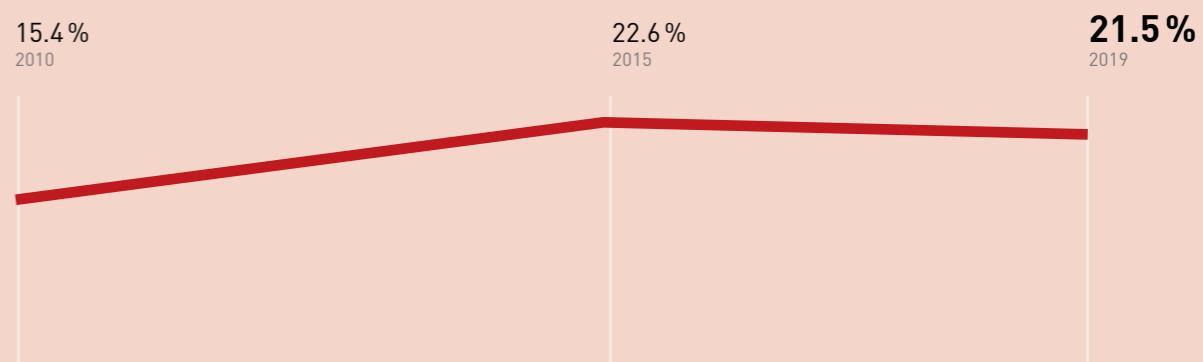
School dropout rate

Proportion of school leavers without lower secondary school leaving certificate among all school leavers



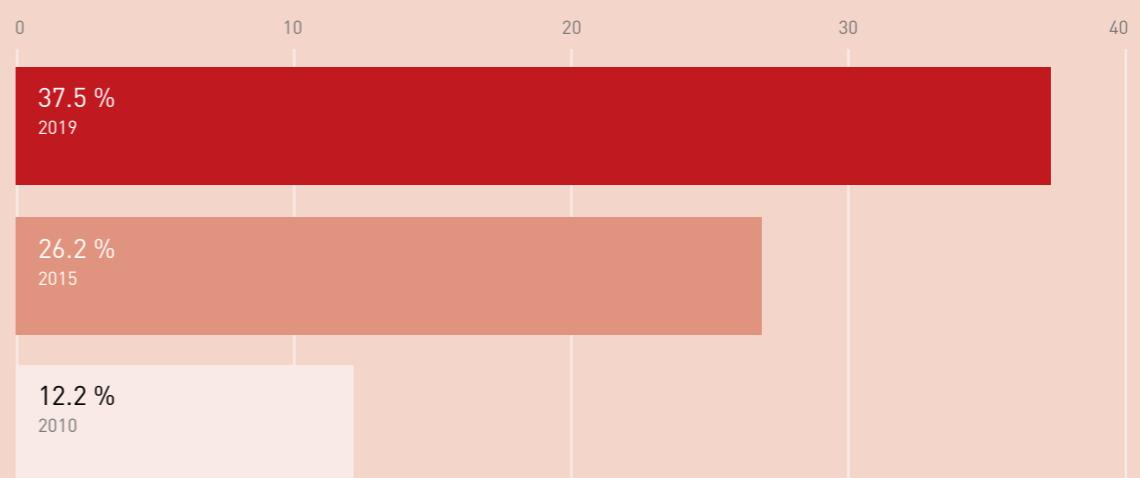
Childcare (under three years olds)

Proportion of children under three years of age cared for in daycare facilities



Integrative daycare centers

Proportion of inclusive daycare centers among all daycare centers





General Introduction to the Field of Action

Participation and equality are the cornerstones of sustainable societies. The field of action Social Justice and Resilient Society relates primarily to securing the social, economic, and political participation of all segments of the population as well as integration. This endeavor includes the targeted promotion of disadvantaged population groups, the prevention of poverty, and measures relating to anti-discrimination, violence prevention, and equal opportunities. In addition, the field of action includes demographic development (which describes the current population structure in terms of factors such as size, age structure, birth rate, and immigration) and the shaping of demographic change (i.e., the change in the composition of the population, such as a decreasing number of young people and a simultaneously increasing number of older people.) The promotion of social and civic engagement—for example, by creating suitable structures—is also significant in this field of action.

3.5



Social Justice and Resilient Society

Qualitative Aspects

- Anti-discrimination, violence prevention, and equal opportunities
- Promotion of disadvantaged population groups
- Shaping demographic change and participation of old people
- Inclusive services of general interest and promotion of democracy
- Care and integration of refugees and homeless people
- Prevention of child, youth and old-age poverty
- Support of social commitment
- Supporting the resilience of the municipality through collaborations and networks

Practical Examples

- Centers Plus—Securing a Supportive Infrastructure for the Elderly
- “DiverseCity Congress”

SDG indicators

- Poverty—SGB XII / SGB II
- Child Poverty / Youth Poverty / Poverty in old age
- Ratio of employment rates for women and men
- Pay gap between women and men
- Proportion of women in the city council
- Naturalizations
- Crimes

Add-on indicators (City of Düsseldorf)

- Poverty risk rate
- Disposable income
- Managers by management level and gender

10 Anti-discrimination, violence prevention, and equal opportunities

The city's [Office for Equality and Anti-Discrimination](#) is committed to equal opportunities through various measures and projects (e.g., "Diversity Management," "DiverseCity Congress," "Equal Pay Day" or the awarding of an equality prize). The [Committee for Equality](#) accompanies the topic of equality from a political perspective and commissions the administration to implement measures for gender equality and anti-discrimination. As a key steering instrument for municipal human resources planning, the [Equality Plan](#) includes a summary presentation of the City of Düsseldorf's equality goals. Among other things, the Plan sets out the goal of increasing the proportion of women to 50% in all areas in which they are underrepresented (with a particular focus on management functions). To implement a gender-equitable distribution of funds in the budget, the [establishment of gender budgeting in the budget](#) will be pursued. The city map "[Women's Paths in Düsseldorf—with a Historical View](#)" also presents female personalities in Düsseldorf's city history to draw attention to women and their stories.

Regarding the topic of violence, the [International Day of Action “No to Violence Against Women and Girls”](#) is held annually. The Office for Equality and Anti-Discrimination uses this day to draw more attention to the issue of violence against women and girls. There is also an offer of protection from Düsseldorf's women's shelters for women affected by violence. To [support child protection in schools](#), the Center for School Psychology, in cooperation with the Youth Welfare Office, provides counseling for teachers and specialists on how to proceed if there are signs a child's wellbeing is at risk. The [State Prevention Office Against Violence and Cyber Violence in Schools in NRW](#) also systematically supports schools in their commitment against violence and exclusion. Finally, the local [steering committee of the European Coalition of Cities Against Racism](#), under the auspices of the Equal Opportunities Office, provides a forum for actors to network in the field of anti-racism and anti-discrimination.

The [Crime Prevention Council of the state capital Düsseldorf](#) is the central coordination and advisory body for the systematic prevention of crime. The Council works in 10 specialized groups (extremism, violence prevention in schools, violence prevention—LGBTIQ+, domestic violence, people living on the street, victim protection, urban crime prevention, sports and security, offender assistance and justice, civil courage) and with the participation of local committees and institutions.

10 Promotion of disadvantaged population groups

To support disadvantaged population groups, the [Disability Coordination Department](#) in the state capital of Düsseldorf manages and coordinates the implementation of the [Disability Equality Act of North Rhine-Westphalia](#). This department acts in an executive capacity for the [Council for People with Disabilities](#) and its working bodies—the round tables. The measures taken by the city administration to safeguard the interests of people with disabilities are presented annually in a report ([Report on the Implementation of the Disability Equality Act](#)). The [specialized office for disabled people in working life](#) explicitly takes care of permanently integrating severely disabled people into working life. The specialist unit provides advice, and financial assistance can also be applied for. Through the [promotion of structural measures for barrier-free accessibility](#), homeowners and tenants are supported regarding individual adaptation measures for the home and living environment. Rheinbahn AG is also committed to supporting disadvantaged population groups through the barrier-free expansion of bus stops. As part of the [Inclusion and Sport project](#), there are also numerous free programs for people with disabilities, and joint programs for people with and without disabilities (e.g., inclusion run, inclusion sports badge, blind soccer). These can also engage in joint gardening in the inclusive [multigenerational garden](#) in the “Mit-Mach-Garten” of the Düsseldorf Central School Garden. Finally, the Kunsthalle offers acoustic tours and tours with sign language interpreters.

The Municipal Employment Promotion Office coordinates targeted measures to combat long-term unemployment and the problems often associated with it, such as poverty and low social participation. In addition, the city creates job opportunities and social participation for long-term unemployed people who have great difficulty accessing the labor market.

10 Shaping demographic change and participation of old people

Social isolation and loneliness among very old people is a central social problem in Germany, and will become even more acute due to increasing demographic change. Within the framework of open senior citizen work, Düsseldorf has neighborhood meeting places ("zentren plus") for older people (see in detail in the practical example). The city's Senior Citizens' Council and its office represent the interests and voice of Düsseldorf's senior citizens and actively advocates their interests. For example, implementing the symposium "Poverty and Loneliness in Old Age" was suggested to develop sustainable strategies to address the various problems of older people. The developed concept, with 26 recommendations regarding action to combat poverty and loneliness in the long term, was adopted by the Health and Social Affairs Committee. The "Guide for the Elderly and the Young at Heart" provides a comprehensive overview of all the city's services.

Citizens can also obtain specific advice about care from the city's care office. The regional office for old age, care and dementia is also developing care structures with providers, so people with care needs and their relatives can be supported and accompanied in their living environment. The outreach service for seniors advises and supports seniors who can no longer manage their daily lives themselves or who need care. The "Aging Under the Rainbow" specialist unit also explicitly promotes the interests of older people who identify as lesbian, gay, bi, trans and inter (LGBTI*) people. The City of Düsseldorf also participates as a model municipality in the funding program "Guter Lebensabend NRW," which

aims to reduce access barriers to care for seniors with an immigration background. Finally, the project "Biography of the City—Offers for People with and without Dementia" (as a cooperation of the City Museum and the Diakonie) enables people with dementia to participate in cultural programs through various formats.

10 Inclusive services of general interest and promotion of democracy

Citizen participation is an integral part of a functioning democracy. The Service Agency for Participation serves as a central point of contact for participation processes involving young people in Düsseldorf and as an interface to political committees, municipal offices, youth leisure facilities, associations and schools, as well as the children and young people themselves. Children can gain practical experience of democracy by becoming involved in the "Garather Children's Parliament", which enables them to play an active role in shaping their district. A binding participation structure is guaranteed through cooperation with the district council and the Düsseldorf Youth Council. The Düsseldorf Youth Council basically represents the interests and concerns of all children and young people. The Council has an advisory vote in all district councils and in the Council's specialist committees. The Youth Council submits inquiries and applications to politicians and administrators and develops its own projects and campaigns. Regarding access to municipal services of general interest, the "Düsselpass" offers numerous benefits and reductions to those entitled to social assistance and those with a comparably low income, as well as to recipients of Unemployment Benefit II. Overall, the City of Düsseldorf ensures that public services are geared toward the changing living conditions and needs of the population by continuously developing the social infrastructure.

1 Care and integration of refugees and homeless people

The general basis for integration work in Düsseldorf is the citywide integration concept. To pro-

vide all residents with equal access opportunities and participation, the following guidelines are set out in the concept: (1.) creation of a culture of mutual recognition; (2.) support in education, training and employment; (3.) consideration of the focus on migration in planning and decision-making processes; and (4.) participation by promoting civil society involvement. Implementing the concept is accompanied by the Integration Coordination Committee, the Integration Steering Committee and the Düsseldorf Integration Conference.

The Düsseldorf Municipal Integration Center is also committed to improving the participation and equal opportunities of immigrants. In this context, offers are designed for the following main topics: enabling initial orientation, opening up regular services and shaping the immigration society. The Municipal Integration Center develops qualification programs for various target groups, for example, volunteers working with refugees, teachers and other educational professionals. In addition, programs to support immigrants and break down barriers are developed in close cooperation with clubs and associations. These programs include the promotion of integrative projects with the Düsseldorf migrant associations as a civil society self-organization, the establishment of a pool of language and cultural mediators as a placement platform for interpreters, the support of parent education programs in early education, the promotion of low-threshold language courses and programs for labor market integration and trauma coaching as part of the state program "Starting Out in Training and Work".

Every two years, the Municipal Integration Center invites participants to a citywide integration conference to generate new impetus for implementing the citywide integration concept. In 2021, around 180 participants discussed the need for and strengthening of a critical focus on racism in municipal integration work.

The Integration Council functions as a mouthpiece for people with a migration background. Directly elected representatives of people with

a migration background can work there with members of the Council on the many issues surrounding integration. Examples of the work of the Integration Council in 2021 include a multilingual vaccination campaign in the form of videos and the suggestion to commemorate the victims of terrorist attacks with the planting of trees in the North Park.

In an attempt to prevent homelessness, the counseling center for housing emergencies offers preventive assistance. Via the reconstruction of the homeless infrastructure, homeless people are to be supported. The state initiative homelessness, "Finally a Home!", is permanently financed and supported by the city. There is also an expert group, "People Living on the Street," of the Crime Prevention Council.

1 Prevention of child, youth and old-age poverty

To ameliorate the precarious living conditions of children and young people and the consequences of poverty, support and assistance programs are created within the framework of measures to alleviate the effects of child poverty (Poverty Fund). The development, implementation and evaluation of the approaches created to mitigate child poverty commissioned by the Council in 2018 are conducted within the framework of the Düsseldorf prevention concept U27 for children, adolescents and young adults. The aim of the concept is to close identified gaps in the prevention chain for children at risk of or affected by poverty in Düsseldorf to help them grow up successfully. Special programs such as "Future for Children" and other prevention approaches exist within the framework of "Early Help." Individual support is provided through career guidance for lower-performing secondary school and comprehensive school students. The career entry guides provide intensive support for students in the process of choosing a career (career orientation, arranging internships, job application training, etc.). In addition, young people who require increased support to compensate for social disadvantages or to overcome individual impairments are supported within the framework of the "Social Purpose of Youth Vocational

Assistance." Finally, the network of debtor and insolvency counseling centers advises people in financially difficult situations.

17 Support of social commitment

Civic engagement is an indispensable task for society. The Department for Civic Involvement supports, networks and promotes volunteerism in Düsseldorf. With the "Ehrenamtskarte", active volunteers receive recognition and benefits of various kinds. The "Martinstaler" of the state capital of Düsseldorf is awarded annually to people who have displayed special commitment to volunteering.

As part of the City of Düsseldorf's environmental project funding, financial support is provided for projects regarding environmental protection by citizens. The aim is to promote imaginative and ecologically interesting initiatives in nature conservation and environmental protection. Suitable subprograms exist both for smaller projects to be implemented in the short term and for projects to be planned for the

longer term and that require larger subsidies. Extraordinary environmental commitment can also be recognized via the Environmental Award and with premiums from the state capital. The awarding of various grants to Düsseldorf sports clubs is another central component of sports promotion. Particular emphasis is placed on promoting youth sports, but also on topics such as inclusion, integration and equal opportunities.

17 Supporting the resilience of the municipality through collaborations and networks

The state capital of Düsseldorf is an active member of a number of networks, such as EUROCITIES, the Council of European Municipalities and Regions, the Covenant of Mayors, the network of City Directors of International Affairs, the International Observatory of Mayors on Living Together, the Mayors for Peace organization and the Climate Alliance. The city is also a member of LAG 21 NRW (Landesarbeitsgemeinschaft Agenda 21 NRW e. V.) and the Mayors' Dialogue of the German Council for Sustainable Development (RNE). In addition, from 2019 to 2024, the city is participating in the LIFE Green Heart project for the climate adaptation of Toulouse Métropole, funded by the European Union. Within the framework of the project, a regular exchange regarding the topics of climate adaptation and circular economy takes place between Düsseldorf and Toulouse. The project should lead to new impulses in adaptation to climate change in Düsseldorf through innovative findings and the exchange of "best-practice examples." The project is also intended to lay the foundation for a long-term climate partnership with Toulouse. In addition to this climate adaptation project, Düsseldorf was also a partner city in the European city network "sub>urban. Reinventing the fringe" to investigate the urban fringe as a potential for new urban qualities.



PHOTO: Guiding system for the blind in the city - here a campaign to raise awareness of the issues of people with disabilities

Centers Plus—securing a supportive infrastructure for the elderly

The 32 "Centers Plus" meeting places distributed throughout the city advise seniors and their relatives on all issues relating to life in old age, regarding meeting, advice, care and support. The Centers help to establish new social contacts and offer various leisure activities in areas such as health, culture, education and creativity, as well as joint visits to events. Sustainability is also a topic at lectures or, very specifically, at monthly repair cafés or regarding the purchase of Fairtrade coffee. The "Centers Plus" explain ways of living in one's own home for as long as possible, despite the need for help and care. Individual assistance is coordinated, and home visits are made on request. Services are offered to meet the special needs of citizens in the district, for example, migrants, family caregivers or people with dementia. Many of these services are free or only require a small contribution to costs. The "Centers Plus" are run by Düsseldorf's welfare associations and are funded by the city.

"DiverseCity Congress"

Appreciating diversity is an important prerequisite for living together and promotes the participation of all people. The Equal Opportunities Office of the City of Düsseldorf, together with its cooperation partner Völklinger Kreis, organizes an annual "DiverseCity Congress." The program items (e. g., lectures, workshops and panel discussion) focus on the opportunities and challenges of diversity and how diversity can be used and shaped in everyday professional and private life, as well as in the social context. The Congress is, thus, a sign of diversity and open cooperation in the state capital, and the participation of Düsseldorf's partner cities additionally promotes international exchange.

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets	Aspect	Contribution	Allocation to SDG Targets
Anti-discrimination, violence prevention, and equal opportunities	<ul style="list-style-type: none"> Office for Equality and Anti-Discrimination Committee for Equality Equality Plan Gender budgeting in the budget Women's Paths in Düsseldorf—with a Historical View International Day of Action "No to Violence against Women and Girls" Child protection in schools State Prevention Office against Violence and Cyber Violence in Schools in NRW Steering committee of the European Coalition of Cities against Racism Crime Prevention Council of the state capital Düsseldorf 	16.b 16.b 10.3 5.1 5.1 5.2 16.2 16.2 16.b 16.1	Inclusive services of general interest and promotion of democracy	<ul style="list-style-type: none"> Outreach service for seniors "Aging under the Rainbow" specialist unit "Biography of the City—Offers for People with and without Dementia" 	10.2 10.2 10.2
Promotion of disadvantaged population groups	<ul style="list-style-type: none"> Disability Coordination Department Disability Equality Act of North Rhine-Westphalia Report on the Implementation of the Disability Equality Act Specialized office for disabled people in working life Promotion of structural measures for barrier-free accessibility Inclusion and Sport project Multigenerational garden Municipal Employment Promotion Job opportunities and social participation for long-term unemployed people who are far from the labor market 	10.2 10.2 10.2 8.5 10.2 10.2 17.17 10.1 10.4	Care and integration of refugees and homeless people	<ul style="list-style-type: none"> City-wide integration concept Municipal Integration Center Integration Council Counseling center for housing emergencies Reconstruction of the homeless infrastructure 	10.7 10.7 10.7 11.1 11.1
Shaping demographic change and participation of old people	<ul style="list-style-type: none"> "Zentren plus" Senior citizens' council "Poverty and loneliness in old age" Guide for the elderly and the young at heart City's care office Regional office for old age, care and dementia 	10.2 10.2 10.1 3.4 10.2 3.8	Prevention of child, youth and old-age poverty	<ul style="list-style-type: none"> Measures to alleviate the effects of child poverty (Poverty Fund) Düsseldorf prevention concept U27 Career entry guides "Social Purpose of Youth Vocational Assistance" Network of debtor and insolvency counseling centers 	1.2 1.2 4.4 1.4 1.3
			Support of social commitment	<ul style="list-style-type: none"> Environmental project funding Environmental Award Sports promotion 	15.a 15.a 17.17
			Supporting the resilience of the municipality through collaborations and networks	LIFE Green Heart project for climate adaptation of Toulouse Métropole	13.1

Indicators



Poverty—SGB II/SGB XII rate ^{1.3}

PERCENT	2017	2018	2019
	14.0	13.5	11.9

Share of persons entitled to benefits under SGB II or SGB XII (under 65) in the population (under 65)
[Source: SDG Portal]

The SGB II / SGB XII rate indicates the proportion of the population entitled to basic benefits for jobseekers (SGB II) or social assistance (SGB XII), and thus the extent to which people in a municipality need assistance. In the City of Düsseldorf, the proportion has fallen slightly over time, from 14.0% to 11.9%. This trend is also apparent nationally, with the share in 2019 being 9%, slightly below the share in the City of Düsseldorf. The sustainability strategies of the Federal Government and the state of NRW make no explicit reference to this indicator in their objectives.



Poverty—child poverty ^{1.3}

PERCENT	2010	2015	2019
	22.5	21.3	18.6

Proportion of under-15s affected by poverty [Source: SDG Portal]

Child poverty is usually caused by the unemployment and poverty of the parents. Possible consequences of child poverty include underprovision in important areas of life, such as housing or nutrition, and unequal educational and participation opportunities. In the City of Düsseldorf, the proportion of under-15s affected by poverty has fallen slightly over time. This development is evident nationally also, because in 2019 the rate was 13.4%, slightly below the figure for Düsseldorf (18.6%). The sustainability strategies of the Federal Government and the state of NRW include no age-specific targets regarding poverty. However, in Goal 1.1.a., the German Sustainability Strategy pursues the general objective of keeping the "proportion of people who are materially deprived (lack of certain consumer goods, involuntary abstention from certain consumption for financial reasons) significantly below the EU28 value (28 states of the European Union by January 31, 2020) by 2030."



Poverty—youth poverty ^{1.3}

PERCENT	2010	2015	2019
	18.5	19.0	17.5

Proportion of 15- to 17-year-olds affected by poverty [Source: SDG Portal]

A considerable proportion of young people between the ages of 15 and 17 are affected by poverty. This situation limits their opportunities to participate in society and to develop their personalities. Youth poverty is often accompanied by fewer educational opportunities, so the possibilities of qualified vocational training may be limited. In the City of Düsseldorf, the proportion of 15- to 17-year-olds affected by poverty has recently fallen again slightly. This development is also evident nationally, with the share in 2019 being 9.9%, significantly lower than in the City of Düsseldorf (2019: 17.5%). However, other large cities in NRW with similar numbers of inhabitants often have higher proportions of youth poverty. The sustainability strategies of the Federal Government and the state of NRW do not include age-specific targets regarding poverty.



Poverty—old-age poverty ^{1.3}

PERCENT	2010	2015	2019
	6.2	7.7	8.0

Proportion of people over-65 affected by poverty [Source: SDG Portal]

Old-age poverty describes the problem of people having only a pension entitlement that is below the subsistence level when they reach retirement, in some cases despite having worked for a long time. In the coming years, this problem is likely to become even more acute due to demographic change, pension reforms and developments in the labor market. The possibilities for older people to change this situation are often limited. Furthermore, old-age poverty can increase isolation. In the City of Düsseldorf, the proportion of people over 65 affected by poverty has risen slightly, but continuously, over time. This trend is also evident in the German average, with the share in 2019 being 3.1%, which is lower than the share in the City of Düsseldorf, at 8.0%. The shares of old-age poverty in other major cities in NRW with similar numbers of inhabitants are also slightly lower than in the City of Düsseldorf. The sustainability strategies of the Federal Government and the state of NRW include no age-specific targets regarding poverty.



Poverty risk rate ^{1.2}

PERCENT	2010	2015	2019
	18.6	18.3	19.3

Share of the total population at risk of poverty whose income is less than 60 percent of the median income [Source: Destatis]

The share of people at risk of poverty in the total population ranges from 18- to just over 19-percent. In this context, the share in 2019 shows a slight increase compared to the values from 2010 and 2015. Overall, it can be seen that a not insignificant proportion of the population is at risk of poverty and that the city's contributions to the thematic area of "Social Justice and Sustainable Society" and to improving educational opportunities are highly significant.



Disposable income ^{1.2}

EURO	2010	2015	2019
	22,004	23,937	27,199

Disposable income per inhabitant in euro [Source: IT.NRW, VGRdL]

The disposable income of private households is derived from the primary income after the deduction of taxes on income and wealth, social security contributions and other current transfers payable by households, and after the addition of monetary social benefits and other current transfers received (mainly from the Government). Disposable income is, thus, the amount available for consumption and savings. This figure is a meaningful indicator of the (monetary) wellbeing of the population. However, disposable income should not be equated across the board with the concept of purchasing power, since purchasing power has to consider the price level in addition to the nominal amount of money (real purchasing power), whereas disposable income as a purely nominal amount of money does not consider the prevailing price level. Despite a change in the data basis (use of the population figures from the current census as of 2011), there are signs of an increase in disposable income.

Indicators



Ratio of employment rates for women and men **5.1**

PERCENT

2010
89.4

2015
91.6

2019
90.1

Ratio of employment rate of women to employment rate of men
[Source: SDG Portal]

The employment rates of women and men subject to social insurance contributions provide important information regarding possible forms of gender-specific discrimination in the labor market, although civil servants, the self-employed and marginal part-time workers are not part of the calculation basis. Similarly, no distinction is made whether employees are in full-time or part-time employment, so the number of working hours has no influence on the indicator. The female employment rate in the City of Düsseldorf in 2019 was 90.1% of the male employment rate and had increased slightly but continuously over time (if more women than men are employed subject to social insurance, the value is over 100%; if the value is below 100%, more men than women are integrated into the labor market). A Germany-wide comparison reveals a very similar picture: the rate was 89.3% in 2019. The employment rates of women and men are not explicitly addressed in the sustainability strategies of the Federal Government and the state of NRW.



Pay gap between women and men **5.1**

PERCENT

2015
79.8

2016
80.2

2017
80.8

Median income of female employees relative to median income of male employees [Source: SDG Portal]

There are still significant differences in income between female and male employees. This gap is due, among other things, to different career choices, hierarchical levels and professional experience. Temporary leave for family reasons also negatively impacts income. Despite the ban on discrimination, women are paid less than men, which also affects pension levels in the long term. The indicator reflects the (gross) median income of full-time employed women in relation to the (gross) median income of full-time employed men. In the City of Düsseldorf, the median income increased minimally between 2015 and 2017. More recent data are not available. The NRW average displays a similar trend, which is only slightly higher than the Düsseldorf trend (2017: 84.8%) and confirms the lower pay of women compared with men. No statistical data are available at the federal level. Consequently, further efforts are needed to achieve the German Sustainability Strategy Goal 5.1.a. "Reduce the gap to 10% by 2020, maintain by 2030."



Proportion of women in the City Council **5.5**

PERCENT

2013
34.8

2017
31.7

2022*
37

Proportion of seats on the City Council held by women
[Source: SDG Portal]

*Source 2022: State Capital Düsseldorf, Office for Statistics and Elections]



Managers by management level and gender **5.5**

MEN
WOMEN

2019
64
36

2020
64
36

2021
63
37

Percentage of managers by gender in the Düsseldorf city administration [Source: State Capital Düsseldorf, Office for Statistics and Elections]

Women continue to be underrepresented among managers in the Düsseldorf municipal administration. Only a small positive development can be observed in the short period under review. A more detailed analysis of the figures presented above regarding management levels indicates that the gender ratio is balanced among heads of departments and institutes. With department and division heads, the ratio is 60% male to 40% female managers. At the lower management level, female employees dominate team leaders, at 56%. With group management, there is a high percentage of male employees (88%), which is presumably because "group management" is particularly prevalent in areas of work in which men have also predominantly worked to date (e.g., maintenance departments of the Garden Department or the Office of Traffic Management).



Naturalizations **10.7**

PERCENT

2010
1.2

2015
1.3

2019
1.2

Number of naturalized persons in the respective year as a percentage of all foreign residents [Source: SDG Portal]

The number of naturalizations per year is considered an important indicator for making statements about integration, because naturalization generally contributes to a stronger identification with the resident society. In the City of Düsseldorf, 1.2% of the foreign population obtained German citizenship within one year in 2019. Over time, the percentage of naturalizations per year fluctuated between 1.2% and 1.3%, which was in line with the average national German percentage of naturalizations, which was also 1.2% in 2019. The sustainability strategies of the Federal Government and the state of NRW make no explicit reference to naturalizations in their objectives.

Indicators



Crimes 16.4

NUMBER	2013	2016	2019
	146.3	127.1	103.8

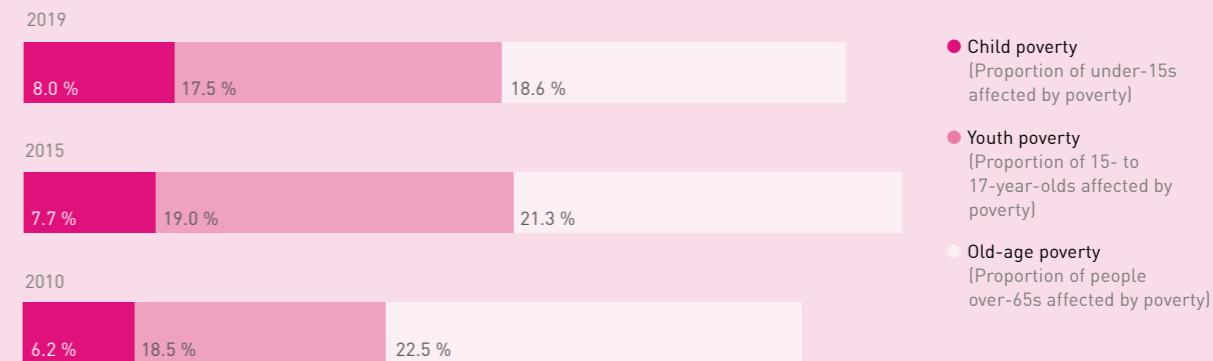
Number of registered crimes per 1,000 inhabitants [Source: SDG Portal]

This indicator concerns the number of crimes reported to the police within the municipality compared with the number of inhabitants, providing information on the public and general security situation. Since no distinction is made between different types of crime, it is hardly possible to derive any statements regarding the successful combating of organized crime. Although the number of registered crimes in the City of Düsseldorf has been declining over time, most recently (in 2019) there were 103.8 recorded crimes per 1,000 inhabitants. This figure is higher than the Germany-wide trend, which is also declining (2019: 65.4 crimes per 1,000 inhabitants). However, the city trend contributes to the achievement of Goal 16.1 of the German Sustainability Strategy ("Reduce the number of recorded crimes per 100,000 inhabitants to below 6,500 by 2030.")

Visualization of selected Indicators

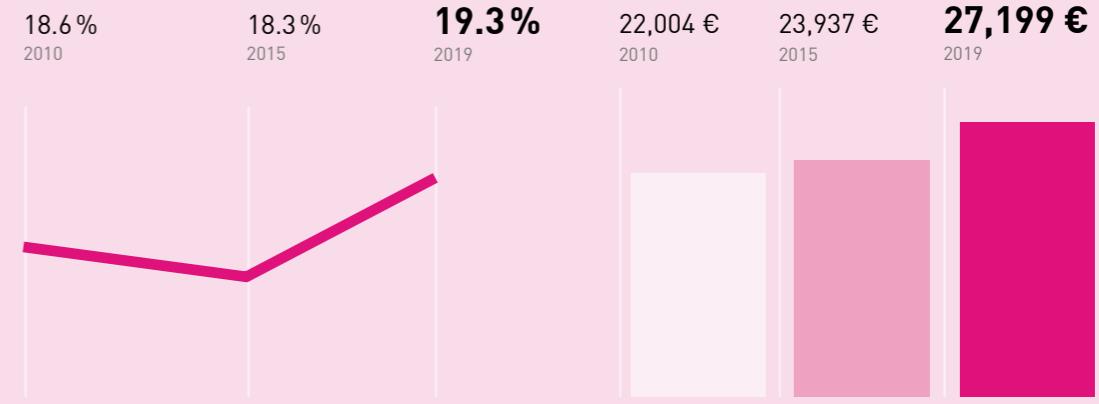
Poverty

Proportion of under 15-year-olds (child poverty), of 15-18-year-olds (youth poverty) and of over 65-year-olds (elderly poverty) affected by poverty



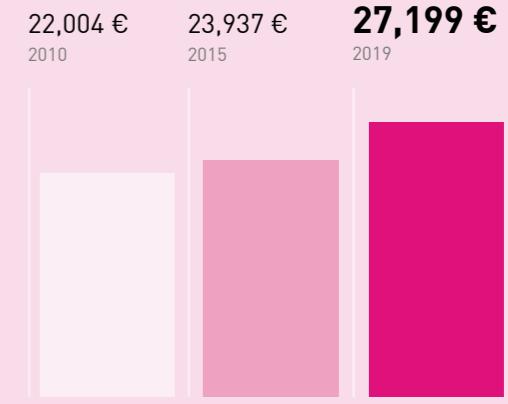
Poverty risk rate

Share of the total population at risk of poverty whose income is less than 60 percent of the median income



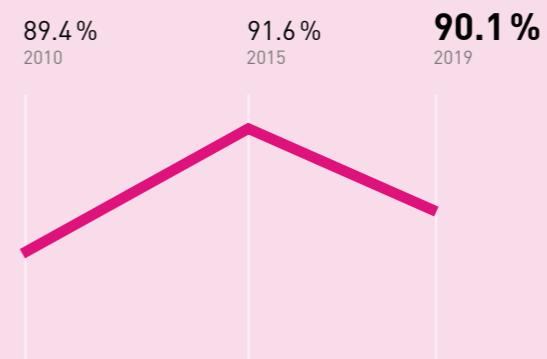
Disposable income

Disposable income per inhabitant in euro



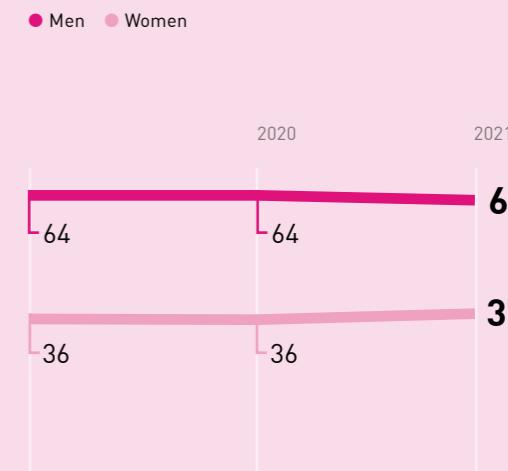
Ratio of employment rates for women and men

Ratio of employment rate of women to employment rate of men



Managers by management level and gender

Percentage of managers by management level and gender in the Düsseldorf city administration





General Introduction to the Field of Action

Neighborhoods, as places of living and social interaction, form people's everyday living and action space and are therefore of particular importance for sustainable development. Sustainable neighborhoods are characterized by the fact that they offer a high quality of life, promote participation in social coexistence, and consider environmental protection and resource conservation. Against the backdrop of population growth and rising rents, the provision of adequate housing in particular poses a significant challenge. Increasing segregation in German cities, for example, is manifesting itself in the spatial segregation of individual population groups across urban areas. In terms of sustainable development that promotes participation and integration, creating a heterogeneous population composition is an essential task of neighborhood development. Furthermore, the establishment of sufficient infrastructural facilities plays a vital role. In addition to access to local suppliers and green spaces, this also includes social and cultural infrastructures, which positively affect participation in neighborhood life and thus increase the individual quality of life.

3.6



Housing & Sustainable Neighborhoods

Qualitative Aspects

- Affordable housing
- Sustainable neighborhood development
- Participation in neighborhood development
- Noise protection
- Places for recreation and social contacts
- Avoidance of social segregation

Practical Example

- Process for the city-wide urban development concept Raumwerk D

SDG indicators

- Rental prices
- Living space
- Local recreation area
- Basic services close to home - supermarkets

Add-on indicators (City of Düsseldorf)

- Number of publicly subsidized apartments realized

11 Affordable housing

Düsseldorf is a growing city, with a population that has been rising continuously for years. Accordingly, the Düsseldorf housing market faces the major challenge of ensuring a balanced supply of housing in all price segments. Against this backdrop, the overarching [action concept for the housing market, "ZUKUNFT WOHNEN.DÜSSELDORF" \(Future Housing\)](#), has 32 measures and pursues the goal of public welfare-oriented residential development to create a balanced supply of housing without neglecting the high level of quality regarding urban development and architecture. In addition to mandatory municipal tasks (such as housing subsidies), a quota of publicly subsidized and price-subsidized housing is set as part of urban land-use planning procedures to [promote housing development](#). Furthermore, tenant households wishing to exchange their apartments with one another are supported through the [housing exchange program](#). [Alternative, communal forms](#) of housing are promoted by the Agency for Building Communities and Housing Groups. The first realizations were initiated by the Living in Community project of the "Fachforum Lebensraum Stadt" of the Local Agenda 21 Düsseldorf. By means of a [statute for the protection and preservation of living space](#), vacancies, demolitions and short-term rentals of apartments are regulated and prevented. Land recycling in Düsseldorf is promoted as part of the [reuse of land](#) (e.g., former industrial sites). In this way, housing needs can be met without using undeveloped outer areas. [Implementing concept tenders for the allocation of municipal land](#) is intended to ensure the best possible use of such land—particularly with a view to creating affordable housing.

Regarding the municipal subsidiaries (or companies) and municipal enterprises, the role of SWD Städte. Wohnungsgesellschaft Düsseldorf mbH & Co. KG and SWD Städte. Wohnungsbau-GmbH & Co. KG Düsseldorf (SWD Group) should be mentioned. The main purpose of the company is to create and maintain housing for broad sections of the population. Thus, approximately

1,000 apartments are to be built by 2026, and high-quality apartments will also be created for people with medium and lower incomes.

11 Sustainable neighborhood development

Düsseldorf, with its many individual neighborhoods, is colorful and diverse. In many places there is no single good solution for all, because the opportunities and challenges differ in social, economic and ecological terms. Experience reveals that people feel particularly noticed and become involved with concrete solutions in their own neighborhoods. With the redrafting of the [urban development concept "Raumwerk D,"](#) answers to the urban development challenges of today and tomorrow have been sought at the citywide level since 2018 in a process that has been underway for many years (see in detail in the practical example). In addition, Düsseldorf has defined integrated neighborhood development as an essential tool for sustainable urban development. Therefore, programs such as "Socially Integrative City" and "Active City and District Centers" are being implemented in several areas. Through the [framework concept for integrated neighborhood development \[ZUKUNFT QUARTIER.DÜSSELDORF\]](#), the already extensively practiced neighborhood development was expanded and restructured. Using various tools and projects, the concept pursues the goal of enabling similar living and development opportunities for all people in all neighborhoods. Accordingly, ever more offers and initiatives are being developed at the neighborhood or district level, or existing ones are being linked, especially regarding projects to promote neighborhoods.

Established programs are, for example, "Centers Plus" (see above) and civic sustainability initiatives with a focus on the neighborhoods (such as "Gerresheim Nachhaltig" or the "Benrather Initiative for Sustainability"). To involve children and young people specifically in developing their district, the [District Check](#) program has its own format. Accompanied by the Service Agency for Participation (of the Youth Welfare Office and the Youth Ring), children and young

people learn to become involved at an early stage (e.g., in youth parliaments) and to negotiate and initiate changes.

In recent years, the City of Düsseldorf has used integrated action concepts as part of the Social Cohesion urban development program (formerly Socially Integrative City) to redesign several neighborhoods and make them more attractive and appealing to the people who live there. The Wersten/Holthausen area is now fully funded. Integrated urban development concepts are being drawn up for the Garath 2.0 and Rath/Mörsenbroich areas, and funding for a second phase has been applied for. Sustainable urban renewal is based on measures for climate protection and climate adaptation, which will be given greater consideration in the second phase.

17 Participation in neighborhood development

The City of Düsseldorf attaches great importance to public participation and the involvement of the entire urban society in developing urban concepts. For example, broad public participation via various (both digital and analog) events and



PHOTO: Sports park for young and old - created with the participation of the people in the neighborhood (Rath) (Photo: Lukas Schulze)

formats played a central role in the Raumwerk D urban development concept. Various online participations lasting several months in different phases of the concept development could be mentioned as an example. Intensive citizen participation via public dialog events and online dialogs was also carried out during the development of the Düsseldorf Mobility Plan D. In addition, residents in the urban renewal funding areas concerned were and are intensively involved in preparing the integrated urban development concepts and in the planning and implementation of individual projects. The participation of children and young people is particularly noteworthy.

3 Noise protection

High noise pollution poses a serious threat to human health. With its noise abatement planning, Düsseldorf has a concept for protecting citizens from unacceptable noise pollution. The results of the noise mapping reveal both the polluted areas and the noise sources that cause them. Based on this information, strategies are derived to avoid undesirable and harmful noise pollution. To achieve the goals of noise abatement planning in the long term, measures for reducing ambient noise pollution are defined in the noise action plan, which is established for five years at a time. Active noise abatement measures include noise barriers on roads and noise-optimized road surfaces. For passive noise protection, homeowners receive financial support for the installation of sound-reducing windows and ventilators through the "Soundproof Windows" subsidy program, which has been in place for years. The subsidy is aimed at residential buildings on stretches of road particularly exposed to traffic noise. In addition, using noise-reduced machines is contractually agreed when road construction work is put out to tender.

11 Places for recreation and social contacts

The provision of places for recreation and social contact in the urban area is an important task for promoting the health of citizens. This aspect includes, in particular, parks and play-

grounds. With the numerous programs and initiatives at the district or borough level, especially regarding the promotion of neighborhoods (such as "Centers Plus," see the practical example in the topic area "Social Justice and Sustainable Society"), meeting places for implementing sustainability "on one's own doorstep" are created, which supports the sensitization of citizens for sustainable development. Through projects such as Sport in the Park and the creation of a multifunctional sports area in each city district, citizens have the opportunity to participate in various free sports activities that promote the inclusion, participation and health of all people.

10 Avoidance of social segregation

Every district in Düsseldorf has its own history and character. These districts are places of identification and home, of integration and co-existence. Potential and opportunities, and challenges and problems are concentrated in the neighborhoods (e.g., regarding urban development and infrastructure, economy and employment, social participation and education, and adverse environmental conditions). The integrated neighborhood development plan with action area coordinators within the framework of ZUKUNFT QUARTIER.DÜSSELDORF aims to prevent social segregation in Düsseldorf. During a conference in May 2021, suggestions were collected and recommendations for action were formulated for the various neighborhoods. With the help of the neighborhood atlas, the characteristics of the neighborhoods were determined and summarized in 12 action areas with different needs in specific topic areas.

Practical example

Process for the citywide urban development concept Raumwerk D

Düsseldorf is a growing city that is constantly evolving and changing. Against this backdrop, a large-scale project lasting several years was initiated in 2018 to develop the citywide urban development concept for Düsseldorf (Raumwerk D). Throughout the Raumwerk D process, the intensive participation of urban society via various events and formats (analog and digital) plays a central role. In the process, different products are developed in five phases that build on each other, such as the design of four citywide visions in the form of spatial images by interdisciplinary planning teams. The development concept is dedicated to finding answers to the urban development challenges of today and tomorrow. Examples of typical questions are "What does the Düsseldorf of the future look like?" and "How do you continue to build a compactly mixed city?" Raumwerk D consists of various elements, such as basic values, self-image, structural plans and spatial framework. Three plans structure the wide range of topics of Raumwerk D with different focal points: Just and Compact Düsseldorf; Green, Healthy and Climate-Friendly Düsseldorf; and Productive and Creative Düsseldorf. Raumwerk D is to be adopted as an urban development concept in accordance with the German Building Code (BauGB). Once adopted, project is to be considered as such in the preparation of urban land-use plans.

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets
Affordable housing	<ul style="list-style-type: none"> Action concept for the housing market (Future Housing) Promote housing development Housing exchange program Alternative, communal forms of housing Statute for the protection and preservation of living space Reuse of land Implementing concept tenders for the allocation of municipal land 	11.1 11.1 11.1 17.17 11.1 12.2 11.1
Sustainable neighborhood development	<ul style="list-style-type: none"> Urban development concept "Raumwerk D," Framework concept for integrated neighborhood development "District Check" Social Cohesion urban development program 	11.3 11.3 16.7 1.2
Participation in neighborhood development	<ul style="list-style-type: none"> Public participation in the development of urban concepts 	16.7
Noise protection	<ul style="list-style-type: none"> Noise abatement planning Noise action plan "Soundproof Windows" subsidy program Use of noise-reduced machines 	3.4 3.4 3.4 3.4
Places for recreation and social contacts	<ul style="list-style-type: none"> Offers and initiatives at the district or borough level Sport in the Park Multifunctional sports area 	11.7 3.4 3.4
Avoidance of social segregation	<ul style="list-style-type: none"> Integrated neighborhood development ("Zukunft Quartier. Düsseldorf") 	11.3

Indicators



Rental prices 11.1

Euro	2010	2015	2019
	8.00	10.00	12.00

Average net rent per square meter in euro (Source: SDG Portal)

The topic of "housing" plays a central role in everyone's life and massively impacts quality of life, which makes the developments in many German cities all the more worrying. These worries include bottlenecks in the supply of affordable housing as a result of privatization and the capitalization of the housing market, as well as migration trends and the accompanying decline in the quality of living. In the City of Düsseldorf, there was an increase in net cold rents per square meter from EUR 8.00 (2010) to EUR 12.00 (2019), which may be accompanied by challenges in the supply of affordable housing. Comparable data at the federal and state levels are not available. The German Government's sustainability strategy formulates Goal 11.3 ("Reduce the share of overburdened persons in the population to 13% by 2030"), sending a signal to Germany's major and university cities.



Living space 11.1

M²	2010	2015	2019
	39.1	40.3	40.9

Available living space per person (Source: SDG Portal)

Living space per person has increased continuously in Germany over the years, partly due to households having fewer people on average. Since this is an average value, no differentiation is made regarding how living space is distributed. The above trend is also reflected in the City of Düsseldorf. Over time, the available living space per person has risen continuously, and was 40.9 m² per person in 2019. This figure is 3 m² above the German average of 37.9 m² per person (2019). The German Sustainability Strategy has no explicit target references regarding living space, but Goal 11.1.b addresses the "reduction of the inhabitant-related loss of open space," and thus the valuable asset of open space, which is also of great importance in housing construction.



Number of completed publicly subsidized apartments 11.1

Number	2010	2015	2019
	n/a	40	573

Number of construction completions of publicly subsidized housing units through new construction and construction measures (including dormitory places) (Source: State Capital Düsseldorf, Office for Housing)

The number of completed publicly subsidized apartments fluctuates greatly from year to year. This fluctuation is due to larger residential areas being developed by investors at irregular intervals, with a proportion of subsidized housing being completed in the process. Overall, the City of Düsseldorf uses its promotion of housing construction to specify a quota of publicly subsidized apartments as part of urban land-use planning procedures, as well as corresponding agreements when selling or leasing municipal land.

Indicators



Local recreation areas 11.7

M ² INSIDE	2010	2015	2019
	7.9	8.5	8.9

Share of recreational area in total land area (Source: IT.NRW, area survey by type of actual use or state capital Düsseldorf - Land Survey and Cadastral Office)

Local recreation areas in a municipality include undeveloped areas (such as green spaces, parks, allotment gardens, and sports fields and campsites) that are predominantly used for sports and recreation, are home to animals or plants, and thus have a high social and ecological value. In the City of Düsseldorf, the share of recreational land in the total land area has steadily increased to 8.9 percent in 2019. In addition, there are park-like cemeteries, which also serve as green spaces for recreation and species protection (a total of 274.5 ha). This development is not comparable with the German average due to different calculation bases. The sustainability strategies of the Federal Government and the state of NRW define no goals for the development of local recreation areas.



Basic services close to home—supermarkets 11.1

METERS	2010	2015	2017
	n/a	n/a	423

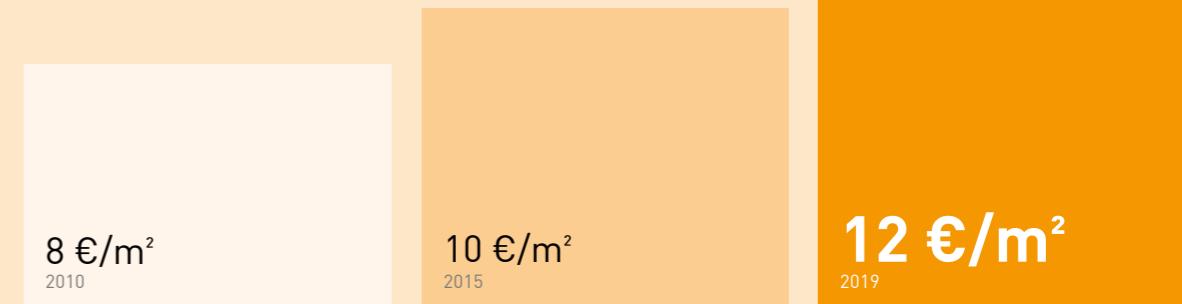
Inhabitant-weighted linear distance to the nearest supermarket or discount store (Source: SDG Portal)

The supply of food is a basic human need and an important aspect of regional development. It should, therefore, be possible to travel the distance to the nearest supermarket without a great deal of time or logistical effort. However, the trend toward relatively remote, large supermarkets has increased, which makes it difficult to reach them on foot, especially in rural areas. Nevertheless, the statistical data (municipal and federal level) on the population-weighted linear distance to the nearest supermarket or discount store allow no valid statements to be made about long-term development. Only for 2017 is there a comparable NRW average value of 735 m airline distance to the nearest supermarket or discount store. The sustainability strategies of the Federal Government and the state of NRW also do not address this issue.

Visualization of selected Indicators

Rent prices

Average net rent per square meter in euro



Living space

Available living space per person



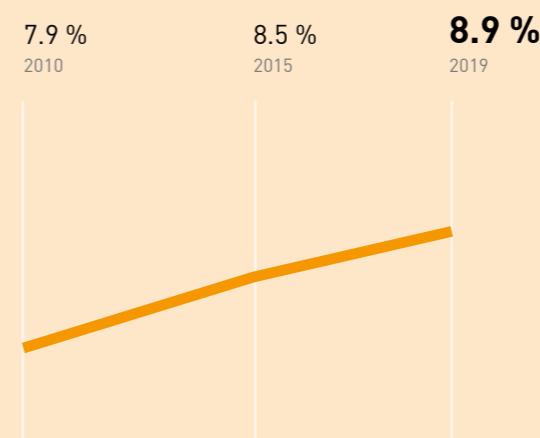
Number of completed publicly subsidized apartments

Number of construction completions of publicly subsidized housing units through new construction and construction measures (including dormitory places)



Local recreation areas

Share of recreational area in total land area





3.7



Decent Work and Sustainable Economy

General Introduction to the Field of Action

The field of action Decent Work and Sustainable Economy encompasses local economic and labor market development and the situation of employees at their place of work. A functioning economy with sufficient jobs enables people to satisfy their basic needs and develop their potential. In this context, the creation of family- and employee-friendly structures and the promotion of diversity and equal opportunities is a central task. Simultaneously, it is essential to promote a sustainable business location in a community and encourage innovation in this area. With a view to sustainable development, companies have an important ecological and social responsibility toward society. This includes implementing sustainable production patterns and creating and safeguarding adequate working conditions. Demographic change and the associated consequences—along with advancing digitization, which is leading to profound changes in the labor market—require special attention with regard to economic development.

Qualitative Aspects

- Family and child-friendly structures and offers
- Compatibility of family and career in administration, municipal undertakings and associated companies
- Diversity and equal opportunities in administration, municipal undertakings and associated companies
- Sustainable management of resident companies
- Sustainability-oriented start-up and business development

Practical Examples

- Düsseldorf climate pact with the business community
- Audit family-friendly municipality

SDG indicators

- Gross Domestic Product
- Long-term unemployment rate
- Employment rate—15 to 64 year olds / 55 to 64 year olds / foreigners
- Employed persons receiving unemployment benefit
- Highly qualified employees

Add-on indicators (City of Düsseldorf)

- Employees subject to social security contributions by working hours and gender
- Share of marginally paid employees

8 Family and child-friendly structures and offers

In 2017, Düsseldorf became the first city in Germany to be awarded the “Family-Friendly Municipality” certificate on a permanent basis, following several audits (see the practical example for more details). With its non-profit subsidiary Zukunftswerkstatt Düsseldorf GmbH, Düsseldorf is also involved in the municipal labor market, creating career prospects and helping to solve social problems in the areas of pathways to work, career and family, and equality. Zukunftswerkstatt is the sponsor of the Competence Center for Women and Jobs in Düsseldorf and in the Mettmann district. The Competence Center offers small- and medium-sized companies various consultations, events and workshops that support them regarding a modern and life-phase-oriented personnel policy or regarding the compatibility of work and family. For example, suggestions are developed regarding how a family-conscious corporate culture can be established and communicated in a company. With 16 competence centers for women and careers in NRW, the State Government is working to increase the number of women in employment. The competence centers are funded by the European Regional Development Fund.

8 Compatibility of family and career in administration, municipal undertakings and associated companies

Since 2014, the state capital of Düsseldorf has been awarded the “audit berufundfamilie” certificate as a family-friendly employer for its family-conscious HR policy. In addition to the city, various other companies from Düsseldorf have also received awards. The certificate is the largest seal of quality in Germany and a strategic HR management tool for the accompanying implementation of a family- and life-phase-conscious HR policy. The certification process comprises a multi-stage, long-term procedure that reviews the penetration of the corporate culture and the degree of depth of the targeted HR policy every three years. The focus of the process is on the following areas: family- and life-phase-conscious

leadership, work-life balance, health management, generation management, internationality, diversity, and dealing with different lifestyles.

10 Diversity and equal opportunities in administration, municipal undertakings and associated companies

For many years, the state capital of Düsseldorf has been committed to equal opportunities and diversity. Twice a year, a conference of equal opportunity officers from Düsseldorf companies and public authorities is held in the city. The goal of this conference is regular exchange on topics and developments relevant to equal opportunities in Düsseldorf's companies and public authorities. The municipal affiliated companies are required by the City of Düsseldorf to consider the nationwide “Diversity Charter.“ The Charter is a corporate initiative to promote diversity in companies and institutions and aims to create a working environment in which all employees, without exception, receive the same appreciation and support.

In the city administration, target agreements regarding equal opportunities (implementation of the equal opportunities plan) exist between the Office for Equality and Anti-Discrimination and other offices with corresponding controlling. Initiated by the then Equal Opportunities Office, a network of women leaders at the state capital was also established in 2018. The overarching goal of this network is the exchange and networking of female department heads and heads of offices or institutes. For administrative employees of the city, there is also an internal LGBTIQ+ network as a protected space for exchange, the networking and visibility of LGBTIQ+ employees of the administration, and for planning events.

The city's associated companies (or enterprises) and municipal enterprises also play a special role in promoting integration, equal opportunities and diversity. For example, Zukunftswerkstatt Düsseldorf is involved in the labor market through coaching, support, qualification/training, temporary employment, the placement of

people in need of help, and disadvantaged target groups. The Jugendberufshilfe Düsseldorf also promotes the social and professional integration of socially disadvantaged young people. The Workshop for Adapted Work pursues the goal of constantly improving work opportunities for people with disabilities and advancing their inclusion. An example of ensuring a high diversity of employees is AWISTA, the company for waste management and city cleaning, with employees from 24 nations and 83 employees with disabilities (out of 860 employees).

8 Sustainable management of resident companies

To promote a more sustainable economy in Düsseldorf, there is a close exchange between the city and the business community, and one focus is climate protection. As part of the Düsseldorf Climate Pact with the business community, companies are supported within a network to implement their climate protec-

tion goals, and thus achieve the overarching goals of the city (see in detail in the practical example).

The environmental management approach Öko-profit is being promoted in Düsseldorf as a joint effort by the city, local businesses and other regional partners, with financial support from the state. The environmental program enables Düsseldorf companies, businesses and public institutions to increase resource efficiency regarding energy, water and waste, to minimize their costs and operational risks and to increase their competitiveness. Around 70 companies have received awards in this context, and together they have saved around 14,000 tons of carbon dioxide per year and 32.3 million kilowatt hours of energy. Overall, this program supports the development of sustainable approaches in Düsseldorf companies. In particular, resident startups contribute to solutions for sustainability problems through their innovation potential (see awards as part of the German Sustainability Award).



PHOTO: Promoting and honoring creative, innovative and sustainable startups during Startup Week [Photo: Michael Lübbe]

Within the scope of the city administration's operational environmental protection, the approval and monitoring of environmentally relevant facilities and activities of businesses, companies and public institutions is also carried out. By enforcing the requirements of environmental law (water, soil, waste, emission control law), the discharge of pollutants into the environment is prevented and, when it is unavoidable according to the state of the art, reduced to a minimum. When marketing municipal land, companies and investors wishing to settle in the city are encouraged to build on and use the land in a sustainable manner.

9 Sustainability-oriented start-up and business development

With over 420 startups, Düsseldorf has a large and constantly growing startup scene. The Startup Portal, a communication platform of the Economic Development Agency, is a central point of contact in this regard and provides information about sustainability competitions and events, among other things. The local startup scene is supported through various projects and network meetings. For example, Startup Week Düsseldorf is organized annually by the Office of Economic Development. The "Rhineland Pitch," which is also supported by the city, is now the largest "startup pitch competition" in Germany. As part of the settlement of innovative companies regarding sustainability and the networking of those at the business location (e.g., EUREF Campus), the positioning of Düsseldorf as an innovative and sustainable location is also promoted.

Practical examples

Düsseldorf Climate Pact with the business community

In October 2021, the City of Düsseldorf joined forces with the Chamber of Industry and Commerce, the Chamber of Skilled Crafts and the District Chamber of Skilled Crafts to create the "Düsseldorf Climate Pact with Business." The initiative is intended to create a broad network of companies committed to the city's climate protection goals (climate neutrality by 2035) and to help achieve them. This target is to be achieved by significantly reducing energy consumption and (largely) decarbonizing the unavoidable or offsetting the remaining energy consumption. All companies based in Düsseldorf that are committed to climate-friendly business practices and have this in their corporate philosophy can become members of the network. As a so-called climate partner, these companies are supported with information, consulting and funding offers, and networking, exchange and communication offers. Each climate partner prepares a CO₂ baseline assessment and formulates measures backed up by CO₂ reduction targets up to 2035. Monitoring is carried out every five years to check the success of the project.

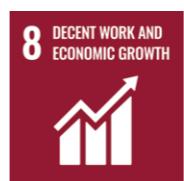
Audit Family-Friendly Municipality

Düsseldorf has held the "Family-Friendly Municipality" certificate since 2010. Since then, progress in implementation has been reviewed every two years, and since 2017, after several audits, the state capital has been the first municipality to hold the certificate permanently. The aim of the audit is to develop family-friendly overall strategies to make a municipality more attractive as a place for families to live and to improve the compatibility of family and work. This aim must be combined with a high level of political commitment. Examples of the implemented measures in Düsseldorf are as follows: (1.) the introduction of the Kita-Navigator as a central allocation system for childcare places; (2.) the parental visitation service for first-born children and new families with children; and (3.) the creation of family-friendly housing and living conditions at affordable rates. Families also benefit from the integration services offered in daycare centers and schools, for example, through language support projects such as "Rucksack" and "Griffbereit."

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets
Family and child-friendly structures and offers	<ul style="list-style-type: none"> “Family-Friendly Municipality” certificate Competence Center for Women and Jobs in Düsseldorf and the Mettmann district 	5.4 5.5
Compatibility of family and career in administration, municipal undertakings and associated companies	<ul style="list-style-type: none"> “Audit berufundfamilie” 	5.4
Diversity and equal opportunities in administration, municipal undertakings and associated companies	<ul style="list-style-type: none"> Conference of equal opportunity officers from Düsseldorf companies and public authorities “Diversity Charter” Network of women leaders Target agreements on equal opportunities (implementation of the equal opportunities plan) 	10.3 10.3 5.5 10.3
Sustainable management of resident companies	<ul style="list-style-type: none"> Düsseldorf Climate Pact with the business community Ökoprofit Operational environmental protection Marketing of municipal land 	13.3 8.4 12.6 11.b
Sustainability-oriented start-up and business development	<ul style="list-style-type: none"> Startup Portal “Rhineland Pitch” Settlement of innovative companies in the sense of sustainability and networking of those at the business location 	8.2 8.2 9.4

Indicators

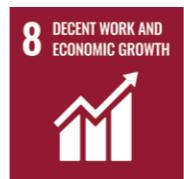


Gross Domestic Product 8.1

Euro	2010	2015	2018
	71,588	78,013	81,430

Gross domestic product per inhabitant [Source: SDG Portal]

Gross domestic product defines the total value of an economy's economic output. At the municipal level, the rating is the sum of all formally produced goods and documented services minus intermediate inputs and imports (gross value added). However, gross domestic product alone cannot be used to make any statements about municipal characteristics, such as the location of companies or the commuting situation of employees. In addition, no statement can be made about the ratio of value added to the use of resources (through indicators such as raw material or energy productivity). The gross domestic product per inhabitant in the City of Düsseldorf is increasing slightly but continuously over time and is at a high level. The average development in Germany also tends to increase (2017: € 39,585.10 per inhabitant*) but is significantly below the value of the City of Düsseldorf. Goal 8.4 of the German Sustainability Strategy aims for “steady and appropriate economic growth.” The general development in Germany corresponds to this goal, which is not quantified further.



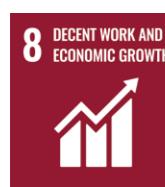
Long-term unemployment rate 8.5

Percent	2010	2015	2019
	5.6	4.6	2.7

Proportion of long-term unemployed in the total labor force [Source: SDG Portal]

The long-term unemployment rate describes the proportion of non-employed persons who have been registered as unemployed for a year or more with employment agencies or with providers of basic benefits for jobseekers under Book II of the Social Code. Persistent unemployment has a major effect on the financial, social and health situations of those affected and their families and can also affect the financial situation of the municipality. However, the indicator does not consider the gender or age of those not in employment. Consequently, no statements can be made about gender-based improvements in the employment situation, including for young people. In the City of Düsseldorf, the proportion of long-term unemployed has fallen steadily over time to 2.7% (2019), with the national average still slightly lower at 2.1 % in 2019. This development has a positive effect regarding Goal 8.5.a. “Increase the employment rate to 78% by 2030” of the German Sustainability Strategy.

Indicators

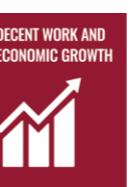


Employment rate— 15- to 64-year-olds 8.5

PERCENT	2010	2015	2019
	49.6	53.8	59.7

Proportion of socially insured employees aged 15–64 in the total population of working age (Source: SDG Portal)

The employment rate indicates the share of employees aged 15 to 64 who make social insurance contributions in the total population of working age (i.e., civil servants and self-employed and marginally employed persons are not included in the statistics). The rate is, thus, similar to the share of the total population in employment, since most gainfully employed people are in this age group. Overall, the rate enables conclusions to be drawn about the social situation of the population. Employment secures individual financial independence and contributes to the future viability of a municipality. In the City of Düsseldorf, the proportion of employed persons has risen steadily over time, from 49.6% to 59.7%, which mirrors the Germany-wide proportion, which was 61.1% in 2019. This development also contributes to the achievement of Goal 8.5.a. "Increase the employment rate to 78% by 2030" of the German Sustainability Strategy.

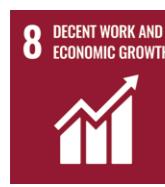


Employed persons receiving unemployment benefit 8.5

PERCENT	2010	2015	2019
	25.0	26.0	25.5

Proportion of ALG II recipients in employment among all recipients of benefits capable of working (Source: SDG Portal)

Employed persons who receive Unemployment Benefit II (ALG II) because their income from employment cannot cover their living expenses are referred to as top-up recipients. ALG II recipients who supplement their benefits through gainful employment within the legally permissible framework are also considered top-up recipients. If support has to be claimed despite gainful employment, this may indicate structural deficits in the economic sector that result in a development not in the sense of decent work. Complex entitlement regulations and the time-consuming application process, as well as shame, suggest that the number of unreported cases is high. In the City of Düsseldorf, the proportion of people receiving a top-up has remained stable over time and most recently stood at 25.5%, which is close to the national trend (2019: 26.3%). The sustainability strategies of the Federal Government and the state of NRW contain no explicit targets for this indicator.



Employment rate— 55- to 64-year-olds 8.5

PERCENT	2010	2015	2019
	37.1	43.3	50.1

Proportion of 55- to 64-year-old employees in the total population of residents in this age group subject to social insurance contributions at place of residence (Source: SDG Portal)

The employment rate indicates the share of employees aged 55 to 64 who make social security contributions in the total working-age population. This rate complements the above-mentioned indicator (see "Employment rate—15- to 64-year-olds"). A high employment rate in this age group indicates not only financial independence, but also social inclusion, even if demographic change leads to an imbalance between pensioners and contributors in the long term. In the City of Düsseldorf, the proportion of employees has risen steadily over time, from 37.1% to 50.1%, which mirrors the Germany-wide proportion, which was 53.3% in 2019. The increasing proportion contributes to the achievement of Goal 8.5.b. "Increase the employment rate among older people (from age 60 to the statutory retirement age) to 60% by 2030" of the German Sustainability Strategy.



Share of marginally employed persons 8.5

PERCENT	2011	2015	2019
	13.0	12.9	12.6

The employment rate of marginally employed persons indicates the share of marginally employed persons at the place of residence in the working-age population (15 to under 65 years) (Source: Statistics of the Federal Employment Agency)

The share of paid part-time employees decreased during the period under review. These employees may be persons who have been in marginal paid employment exclusively or on a part-time basis. Background data indicate that the number of those exclusively employed part-time has decreased. Part-time, low-income employees may be people dependent on additional income, but also experts who can contribute their professional skills elsewhere.



Employment rate—foreigner 10.2

PERCENT	2010	2015	2019
	64.8	71.2	83.2

Ratio of employment rate of foreigners to employment rate in total population (Source: SDG Portal)

The employment rate of people with a migration background enables conclusions to be drawn about integration into the labor market. A high employment rate of people with a migration background indicates both economic and social integration and participation in society and ensures people's financial independence. However, no statement can be made about freedom from discrimination for people with a migration background. Furthermore, reasons such as legal restrictions on taking up work can affect the employment rate. In the City of Düsseldorf, the employment rate of people with a migration background in relation to the employment rate in the overall population was most recently 83.2%, slightly above the German national rate of 79.7% (2019). The German sustainability strategies contain no explicit targets for the indicator, but the NRW sustainability strategy aims to "reduce the poverty risk rate of people with a migration background," according to Goal 10.4.



Employees subject to social security contributions by working hours (full-time, part-time) and gender 5.1

	2010	2015	2019
FULL-TIME MEN	44.8	49.0	52.2
FULL-TIME WOMEN	31.0	32.9	34.3
PART-TIME MEN	4.6	7.3	8.8
PART-TIME WOMEN	13.9	18.8	21.4

The employment rate reveals the shares of the respective employees subject to social insurance contributions at the place of residence in the respective population of working age (15 to under 65 years). Numbers in percent. (Source: Statistics of the Federal Employment Agency)

Employment rates increased overall in the period under review for both full-time and part-time employment. Men are significantly more likely to work full-time than women, and the proportion of part-time employees among women is more than twice as high as that for men. The reasons for this difference can be manifold. Part-time employment may be necessary for financial reasons as additional income, to facilitate the combination of work and family, or to reflect the perpetuation of traditional role models. Economic reasons may also play a role in the unequal distribution of full-time employment between women and men, as income levels are still not balanced.

Indicators



Highly qualified employees 9.5

	2010	2015	2019
PERCENT	21.8	22.2	26.3

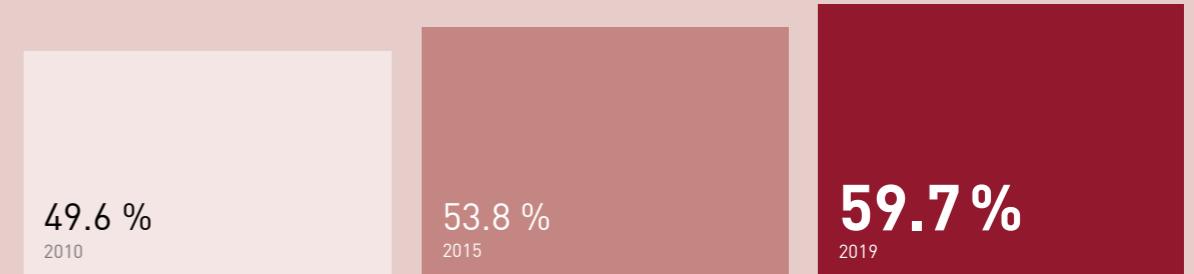
Proportion of employees subject to social insurance contributions with an academic degree among all employees subject to social insurance contributions at the place of work
[Source: SDG Portal]

The proportion of highly qualified people in a municipality has various positive effects. In addition to increasing the economic performance, and thus the future viability of (municipal) companies, the level of qualification also has economic effects, for example, through business tax revenue for the municipality. However, the share explains nothing about the need for highly qualified people or the required degree of specialization at a location. In the City of Düsseldorf, the share has risen over time and, at 26.3% most recently, is well above the German average of 16.8% (2019). The sustainability strategies of the Federal Government and the state of NRW contain no explicit targets for the indicator.

Visualization of selected Indicators

Employment rate

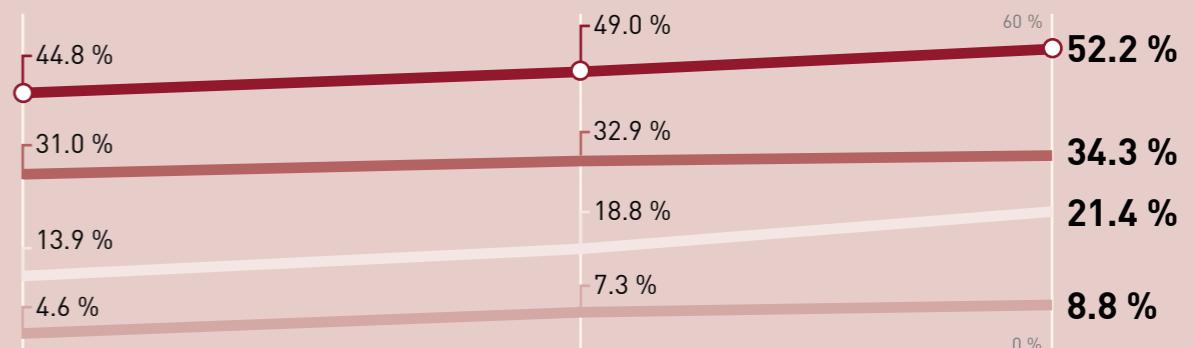
Proportion of socially insured employees aged 15–64 in the total population of working age



Employees subject to social insurance contributions by working hours (full-time, part-time) and gender

The employment rate reveals the shares of the respective employees subject to social insurance contributions at the place of residence in the respective population of working age (15 to under 65 years). Numbers in percent.

● Full-time men ● Full-time women ● Part-time men ● Part-time women



Share of marginally employed persons

The employment rate of marginally employed persons indicates the share of marginally employed persons at the place of residence in the working-age population (15 to under 65 years)

	2010	2015	2019
Share of marginally employed persons	13.0 %	12.9 %	12.6 %

Long-term unemployment rate

Proportion of long-term unemployed inhabitants in the labour force

	2010	2015	2019
Long-term unemployment rate	5.6 %	4.6 %	2.7 %



General Introduction to the Field of Action

The field of action Sustainable Consumption and Public Health combines the topics of a sustainable and healthy lifestyle in a municipality. Sustainable consumption characterizes consumer behavior that considers ecological and social aspects when purchasing and using or disposing of products or services. In German municipalities, this involves a change in consumption styles to reduce resource consumption and with a view to the globally equitable distribution of resources. To promote a circular economy, it is necessary to keep resources in use for as long as possible, thus creating a closed cycle. Conscious and sustainable consumption can also have positive effects on personal health. In this respect, ensuring high-quality healthcare for all people, regardless of social status and other factors, is a central task of services of general interest. Because society is aging, care and healthcare are increasingly significant location factors. High-quality medical care and services close to home are therefore of particular importance.

3.8



Sustainable Consumption & Public Health

Qualitative Aspects

- Local offers for supporting sustainable consumption and lifestyles
- Sustainable tourism
- Ensuring quality health care
- Health promotion for employees in administration, municipal undertakings and associated companies
- Care and support

Practical Examples

- Sustainable Consumption Working Group
- Climate-friendly communal catering

SDG indicators

- Drinking water consumption
- Waste amount
- Premature mortality—females
- Premature mortality—males
- Hospital Care
- Basic care close to home—family doctor
- Basic care close to home—pharmacy
- Nursing home staff
- Staff in care services
- Nursing home places
- Immission of air pollutants

Add-on indicators (City of Düsseldorf)

- Body mass index (BMI) of children

12 Local offers for supporting sustainable consumption and lifestyles

Various activities in the City of Düsseldorf support the spread of sustainable consumption or sustainable lifestyles. One “best-practice example” is the implementation of a “library of things” in the Central Library. True to the motto “borrowing instead of buying,” items on various topics can be borrowed by citizens (e.g., regarding sewing, DIY, cooking and baking, or play and exercise). This approach raises awareness of “non-possessive consumption” and promotes resource conservation.

Regarding nutrition, the Rhineland Farmers' Markets promote regional marketing in Düsseldorf with short transport routes and several market days per week at four locations. In 2021, the “Ernährungsrat Düsseldorf e. V.” was founded, which has set up an internet platform to help consumers find their way around when buying regional and local foods (“Regiofood Düsseldorf”). As part of the “Essbare Stadt” project, various programs from the city invite people to “garden and harvest.” One example is the financing of raised beds on publicly accessible but private land. Other projects in the area of sustainable consumption in Düsseldorf include support for private providers regarding the provision of reusable cups. As a Fairtrade Town, Düsseldorf promotes fair trade. A variety of opportunities to buy Fairtrade products are shown on the city's map. The Fairtrade local brand “Düsseldorf Kaffee” will be launched in 2022 with a new range of products.

Regarding electricity supply, Stadtwerke Düsseldorf offers a green electricity tariff in which 100% of the electricity is produced from renewable sources. Overall, Stadtwerke is also promoting the expansion of renewable generation in its portfolio. Since 2003, the company has generally refrained from burning coal for the provision of electricity and heat. Energy is recovered in combined heat and power plants, and the heat generated during electricity production and waste incineration is marketed as district heating.

8 Sustainable tourism

A central role in promoting sustainable tourism in Düsseldorf is played by the city's associated companies Düsseldorf Tourism and Düsseldorf Marketing. One example is the introduction of a tourism card regarding rental bicycles, complementing the “DüsseldorfCard” tourism card for local public transport. This combination represents a pioneering approach in Germany's major cities. Another example is the promotion of bicycle tourism via the development of various bicycle tours.

The City of Düsseldorf's tourism concept also prominently features information about ways to explore the city by bicycle, for example, bicycle route recommendations to visit sights, or the possibility of using rental bicycles and bicycle-friendly hotels. With the help of the “RADschlag Online Navigation”, bicycle tours can also be planned individually on the internet. The tourism concept also promotes that Düsseldorf, with its diverse parks and green spaces, is greener than almost any other major city.

3 Ensuring quality health care

To ensure high-quality healthcare, the city's health reporting regularly describes the health situation in Düsseldorf and creates the basis for managing are locally. This process includes basic health data monitoring and specific reports on the topics of “children and adolescents,” “addiction and drugs” and “illness and disability.” As part of the CHECK' D (Düsseldorf Model for the Promotion of Physical Activity, Sports and Talent), all children are examined regarding sports motor skills and body status in the second and fifth grades and during the school entry examination. Düsseldorf is also part of the Healthy Cities Network (WHO—European Healthy Cities Network) and is committed to the health-promoting and preventive objectives as formulated by the World Health Organization (WHO). Another example of networks and cooperation is the Psychosocial Working Group, in which the providers of the state capital Düsseldorf—who are significantly involved in the provision of care—are represented.

The city administration also provides transparent and easily accessible information regarding local health services. The Self-Help Service Office, the "Wege Weisen online help portal" (with help for mentally distressed young people, their social environment and professionals) and the Center for School Psychology (with the "Healthy School for All" project, among others) also contribute to maintaining mental health. In co-operation with the Diakonie, the City Museum also offers various projects for the very elderly and people with and without dementia. As a component of the Düsseldorf prevention chains, the project "Children in the Grünau—Fit for life: Establishing Health-Promoting Structures," measures for health promotion and prevention are being established.

3 Health promotion for employees in administration, municipal undertakings and associated companies

Against the background of increasing private and professional demands, strategic occupational health management is becoming increasingly important. The city administration and the municipal undertakings and associated companies have established various approaches to promo-

te the health of their employees. One example is the Workshop for Adapted Work, which offers specific preventive health and occupational safety measures, sports and therapy services, and consultations with the company physician. Occupational health and safety inspections are also carried out. AWISTA, the company for waste management and city cleaning, offers its employees health days, training in occupational health and safety, pension schemes and supplementary pension funds, company sports groups and the financing of gym memberships, among other things.

3 Care and support

Faced with progressive demographic change, the focus is increasingly shifting to ensuring sufficient nursing and care. Within the framework of the Conference on Aging and Care, the networking of all areas important to the care infrastructure takes place in Düsseldorf. The Conference promotes and initiates effective cooperation between all institutions active in nursing. The Conference contributes to ensuring and developing local, coordinated outpatient, daycare and full inpatient nursing care for the population of Düsseldorf. In addition,

as part of the municipal care planning of the Office for Social Affairs, an inventory of the programs for older people and people needing care is regularly made. Considering the socio-spatial distribution, the inventory determines whether sufficient programs of appropriate quality are available. The reports of the local planning form the basis for the development and safeguarding of program structures in Düsseldorf. In addition, regular quality assurance of the care setting for citizens in need of social assistance is carried out via home visits by the specialized care service (ensuring that care is provided appropriately).

Practical examples

Sustainable Consumption Working Group

In 2017, the Local Agenda of the City of Düsseldorf decided to focus on sustainable consumption and founded the Sustainable Consumption Working Group to implement this. The Group develops ideas, promotes exchange and organizes events and campaigns (e.g., information events regarding "Living without waste"). The website provides citizens with a comprehensive overview of sustainable initiatives and offers in Düsseldorf in the area of consumption, such as information on repair cafés or swap meets. Examples of concrete projects include the promotion of exercise books made of recycled paper in Düsseldorf schools, campaigns for Parking Day and various offers regarding sustainable nutrition, also as part of the "Edible City" project or the Düsseldorf Seed Festival.

Climate-friendly communal catering

Developing strategies for sustainable communal catering is the focus of a project of the City of Düsseldorf that is being carried out with the Verbraucherzentrale NRW e.V., the Jugendberufshilfe (as caterer) and individual school locations. To make the meals on offer more sustainable (e.g., through the climate-friendly design of menus or the reduction of food waste), critical points and possibilities for change in the midday meals are analyzed with the students. The findings from this project can then be transferred to many school locations.



PHOTO: Promoting and honoring creative, innovative and sustainable startups during Startup Week [Photo: Michael Lübeck]

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets
Local offers for supporting sustainable consumption and lifestyles	• Rhineland Farmers' Markets	2.4
	• "Ernährungsrat Düsseldorf e. V."	2.4
	• "Essbare Stadt"	12.3
	• Fairtrade Town	12.1
	• Measures by the Stadtwerke Düsseldorf	7.2
Sustainable tourism	• "DüsseldorfCard"	8.9
	• Tourism concept	8.9
	• "RADschlag Online Navigation"	8.9
Ensuring quality health care	• Health reporting	3.8
	• CHECK' D (Düsseldorf Model for the Promotion of Physical Activity, Sports and Talent)	3.4
	• Psychosocial Working Group	3.8
	• Self-Help Service Office	3.4
	• Wege Weisen online help portal	3.4
	• Center for School Psychology	3.4
	• "Kinder in der Grünau—Fit ins Leben: Establishing Health-Promoting Structures"	3.4
	• Approaches to promote the health of employees	3.8
Care and support	• Conference on Aging and Care	3.8
	• Municipal care planning	5.4
	• Reports of the local planning	3.8
	• Specialized care service	3.8

Indicators



Drinking water consumption 12.2

LITERS	2010	2015	2018
	175.0	162.9	174.7

Drinking water consumption in liters per inhabitant per day
(Source: SDG Portal)

Drinking water is one of the most precious resources, especially because of increasing periods of drought and hot summers. In principle, Germany is a water-rich country, which is particularly true for Düsseldorf, situated as it is between the Bergisches Land and the Rhine. However, the indicator does not provide information about the indirect consumption of "virtual water" (global water consumption in nutrition or consumption decisions). In the City of Düsseldorf, drinking water consumption is significantly above the NRW average (2018: 131.1 liters per inhabitant* per day). It must be considered that in addition to the inhabitants, commuters also contribute to water consumption. For the period 2010 to 2015, data are available at the federal level, which reveal a constant development. The sustainability strategies of the Federal Government and the state of NRW contain no targets for drinking water consumption by private households.



Waste amount 12.5

TOTAL QUANTITY THOUSAND TONS	2010	2015	2021
	255	243	244
QUANTITY PER PER INHABITANT AND YEAR KG/E*A	434.7	401.3	396.3
RECYCLING %	34.0	36.7	38.1

Waste from the public waste disposal company (private households, etc.) (Source: City of Düsseldorf, Office for Environmental and Consumer Protection)

The amount of waste in a municipality and the resulting need for disposal can be directly influenced by each individual through his or her consumption decisions. Over time, the amount of waste disposed of per inhabitant can be used to draw conclusions about the urgency and necessary scope of waste prevention. In the time series from 2010 to 2021, the amount of waste per inhabitant has decreased slightly. The stagnation in absolute waste volumes since 2015 should be viewed against the backdrop of a rising population. The share of recycled waste increased from 34% in 2010 to 38.1% in 2021. The goal of Düsseldorf's waste management field of action is the avoidance of waste and a significant increase in the recycling rate. Goal 12.1.ba of the German Sustainability Strategy aims to "continuously reduce the global environmental impact of private household consumption."

Indicators



Premature mortality—females 3.4

NUMBER

2010
1.02015
0.92019
0.9

Number of deaths among women under 70 years per 1,000 population [Source: SDG Portal]

The number of premature deaths among women under 70 years of age per 1,000 inhabitants can provide information about health risks and problems in the healthcare system. In general, women under the age of 70 are significantly less likely to die than men. Reasons for this difference may include career choices, healthier lifestyles and a willingness to undergo preventive medical examinations. In the City of Düsseldorf, the development of the indicator is rather constant: for every 1,000 women under 70 years of age, 0.9 women die prematurely. In the Germany-wide comparison, the value was most recently (2017) also at 0.9 deaths per 1,000 inhabitants*. This development already corresponds to Goal 3.1.a "Reduction to 100 deaths per 100,000 inhabitants (women) by 2030" of the German Sustainability Strategy.



Basic care close to home—family doctor 3.8

METERS

2011
354.02015
346.02019
n/a

Inhabitant-weighted linear distance to the nearest family doctor [Source: SDG Portal]

In the event of acute illness, the rapid and immediate accessibility of the family doctor is indispensable. In principle, working people, families with children, and older people benefit particularly from basic healthcare that is close to home and can be reached at low cost. In addition to the social factors mentioned above, demographic and economic structures (urban-rural divide) play a particularly important role in the density of care provided by family doctors. As the population density increases, so too does the density of basic healthcare close to home. In the City of Düsseldorf, the population-weighted linear distance to the nearest family doctor was 346.0 m in 2015, 8 m less than in 2011. Comparable federal or state values are not available. The sustainability strategies of the Federal Government and the state of NRW also contain no explicit targets for this indicator.



Premature mortality—males 3.4

NUMBER

2010
1.72015
1.32019
1.4

Number of deaths among men aged under 70 years per 1,000 population [Source: SDG Portal]

This indicator is the male counterpart to the indicator "Premature mortality—women" (see above). In the City of Düsseldorf, the values fluctuated over time between 1.3 and 1.7 premature deaths of men per 1,000 inhabitants. In the Germany-wide comparison, the value was most recently (2017) at 1.5 deaths per 1,000 inhabitants*. This development already supersedes Goal 3.1.a "Reduction to 190 deaths per 100,000 inhabitants (men) by 2030" of the German Sustainability Strategy.



Basic care close to home—pharmacy 3.8

METERS

2010
n/a2015
n/a2017
410.0

Population-weighted linear distance to the nearest pharmacy [Source: SDG Portal]

Short distances to pharmacies are just as important as proximity to a general practitioner or hospital. The number of pharmacies is also influenced by the demographic structures of a region, the urban-rural divide and competition from the free market economy (including new digital retail outlets). Due to a lack of data, it is not possible to make statements regarding the development of basic care close to home in the City of Düsseldorf. Only one value from 2017 is available, which indicates a resident-weighted linear distance of 410.0 meters to the nearest pharmacy. This value is significantly below the NRW average of 884.0 meters (2017) to the nearest pharmacy. The sustainability strategies of the Federal Government and the state of NRW also contain no explicit targets for this indicator.



Hospital care 3.8

NUMBER

2010
882.72015
829.82017
812.8

Number of hospital beds per 100,000 inhabitants [Source: SDG Portal]

Comprehensive hospital care is an essential element of services of general interest. Hospitals must act according to strict economic parameters while guaranteeing high-quality medical care. This demand can lead to a shortage of supply. Hospital care close to home is displaying an increasingly urban-rural divide due to rationalization measures. In the City of Düsseldorf, the number of established beds per 100,000 inhabitants* slightly decreased over time (2017: 812.8 beds), and the number of established beds in hospitals per 100,000 inhabitants* at federal and state levels also slightly decreased over time (2010–2017), which supports the above statement. The sustainability strategies of the Federal Government and the state of NRW contain no explicit targets for this indicator.

Indicators



Nursing home staff 3.8

NUMBER

2010

781.2

2015

860.0

2019

889.2

Personnel in nursing homes per 10,000 inpatients in need of care
(Source: SDG Portal)

Demographic developments mean the number of people needing care is rising steadily, and people's increasing life expectancy is also leading to a longer average duration of care. Both developments pose considerable personnel and financial challenges for the German healthcare system in its current form. The number of full-time equivalents per 10,000 people needing care has risen slightly over time in the City of Düsseldorf to 889.2 (2019), slightly above the national German average of 832.2 full-time equivalents (2019). The sustainability strategies of the Federal Government and the state of NRW include no explicit targets for personnel in nursing homes.



Personnel in care services 3.8

NUMBER

2010

0.18

2015

0.17

2019

0.14

Personnel in outpatient care services per person in need of care
(Source: SDG Portal)

Due to demographic change, demand for healthcare services is rising continuously, and people's increasing life expectancy is also leading to a longer average duration of care. This change is reflected above all in the demand for outpatient care services. To be able to guarantee decent outpatient care in Germany and to maintain the care system, better working conditions must be created through lower personnel burdens. In the City of Düsseldorf, the trend is downward. In 2019, there were 0.14 employees (full-time positions) per person needing care. In 2015, there were 0.17 employees. This development is in line with the trend in Germany as a whole and indicates a need for action in nursing professions. However, the sustainability strategies of the Federal Government and the state of NRW contain no explicit targets for this indicator.



Nursing home places 3.8

NUMBER

2010

46.1

2015

44.9

2019

42.6

Number of available inpatient places in nursing homes per 1,000 inhabitants aged 65 and over
(Source: SDG Portal)

The number of available inpatient places in nursing homes plays a key role because of the major staffing and financial challenges in the German healthcare system—demographic development is leading to changes in the demand for nursing home places. In addition, there are social needs that aim to provide nursing home places close to home, and to enable regular visits and social contacts from the familiar center of a patient's life. In the City of Düsseldorf, there has been a slight decrease in the number of nursing home places, whereas there has been a slight increase to 53.6 (2019) nursing home places per 1,000 inhabitants* aged 65 and over nationally. The increasing demand requires an expansion of nursing home places, but the sustainability strategies of the Federal Government and the state of NRW contain no explicit targets for this indicator.



Immission of air pollutants 3.9

LÖRICK (BACK-GROUND POLLUTION)

2010

25

2015

19

2021

15

CORNELIUSSTR. (TRAFFICSITUATION)

35

27

21

Concentration of fine particulate matter (PM10) – particles with a maximum diameter of 10 micrometers in the air. Annual mean values in µg / m³ (Source: NRW State Office for Nature, Environment and Consumer Protection)

This indicator describes how disturbance factors impact people and the natural environment. Particularly high levels occur through energy generation, road traffic, agriculture and industry. Particulate matter (PM) is considered particularly harmful to health and is an issue primarily in densely populated areas. Limit values are set by the European Union and the WHO. In the City of Düsseldorf, the concentration of fine dust (PM10) particles with a maximum diameter of 10 micrometers in the outdoor area was 15 µg / m³ (background pollution) in 2021. The value at the heavily trafficked, inner-city Corneliusstraße was 21 µg in 2021. At both measuring points, the values decreased continuously from 2010 to 2021. Goal 3.2.b of the German Sustainability Strategy formulates the "achievement of the WHO limit value for particulate matter of 20 micrograms/cubic meter for PM10 as an annual average, if possible, across the whole of Germany by 2030." The City of Düsseldorf fell below this limit value for background pollution in 2021, and in the inner-city area, it seems realistic to achieve the target in the next one or two years. Since 2021, the WHO has recommended compliance with a value of 15 µg / m³. This value is already being complied with in Lörick and seems achievable in the inner-city area in the long term.

Indicators



Body mass index (BMI) of children 3.4

VALUE	2010	2015	2018
n/a	15.9	15.9	

The body mass index (BMI) is calculated from the formula of body weight (in kilograms) divided by height (in meters) squared [Source: State Capital Düsseldorf, Health Department, School Entrance Examination]

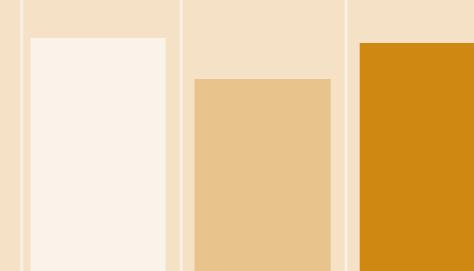
The body mass index (BMI) is collected as part of the thorough school entry examinations. For the values of the BMI, age-dependent ranges are provided in the literature, ranging from underweight to normal weight to overweight. In the case of severely overweight, this is also referred to as obesity. The value of 15.9 in the table is within the normal weight range for five- to six-year-old children.

Visualization of selected Indicators

Drinking water consumption

Drinking water consumption in liters per inhabitant per day

175.0 l 2010	162.9 l 2015	174.7 l 2018
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Hospital care

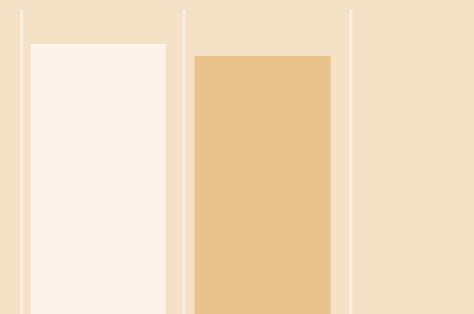
Number of hospital beds per 100,000 inhabitants



Basic care close to home—family doctor

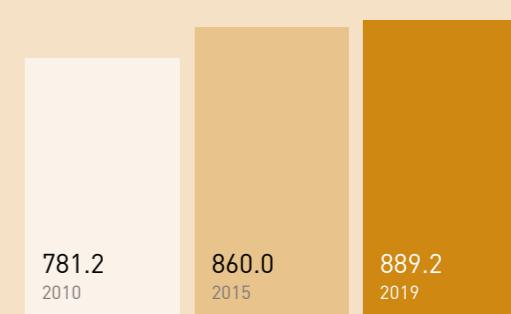
Inhabitant-weighted linear distance to the nearest family doctor

354.0 m 2011	346.0 2015	n/a 2019
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Nursing home staff

Personnel in nursing homes per 10,000 inpatients in need of care



Immission of air pollutants

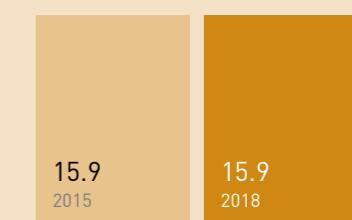
Concentration of fine particulate matter (PM10)—particles with a maximum diameter of 10 micrometers in the air. Annual mean values in $\mu\text{g}/\text{m}^3$

● Lörick
[Background pollution] ● Corneliusstr.
[Traffic situation]



Body mass index (BMI) of children

The body mass index is calculated from the formula body weight (in kilograms) divided by height (in meters) squared





General Introduction to the Field of Action

Individuals, organizations, and communities act in a globally responsible manner if they are committed to equal opportunities or participatory justice, a fair global distribution of goods, peaceful development, the preservation of the environment and the protection of resources. Therefore, assuming global responsibility means ensuring that our actions and economic activities do not harm people in other regions. Against this background, the field of action Global Responsibility and One World covers various topics, including cooperation through networks and partnerships, local approaches to promoting global justice (e.g., through fair trade, promoting a sense of communal responsibility, and municipal development cooperation. For example, the exchange of knowledge between the global North and South in the context of city and project partnerships contributes to an increased understanding of different living conditions.

3.9



Global Responsibility and One World

Qualitative Aspects

- Promoting sustainability through intermunicipal cooperation in the home country
- Local cooperation for global justice
- International municipal development cooperation

Practical Example

- Fairtrade City Map

SDG indicators

- Fairtrade-Town
- Fairtrade-Schools

[17] Promoting sustainability through inter-municipal cooperation in the home country

The City of Düsseldorf maintains various inter-municipal cooperations in Germany regarding sustainability issues. For example, the "Regi NetzWerk" is a cooperation with the major cities of Duisburg and Krefeld, the neighboring cities of Meerbusch and Ratingen, and the district of Mettmann. The partners are pursuing new approaches to integrated spatial development—the focus is on innovative, sustainable and interdisciplinary approaches to solutions (e.g., the integrated processing of sectoral projects and the joint processing of future issues such as settlement development and mobility).

Düsseldorf is also part of the "Between the Rhine and the Wupper" cooperation area, which includes 19 cities in the Rhineland-Berg region and the district of Mettmann. The municipal administrations are developing new structures of cooperation to think jointly about projects and plans beyond the city limits (e.g., on the topics of housing, mobility, and leisure and recreation). Within the framework of the cooperation area, the joint development of an "Integrated Regional Mobility Concept" for public (especially rail-based) regional transportation and bicycle traffic was initiated. In addition to Düsseldorf, this joint development concerns the Bergisches Städtedreieck, Leverkusen, the district of Mettmann



PHOTO: MIME ART FOR LIFE e. V. - Encouragement tour of the mime artists from Mpumalanga (South Africa) on the occasion of the anniversary of the One World Council and the Local Agenda 21 in Düsseldorf

with its district towns, and four neighboring towns to the south of the districts of Ober-Berg and Rhein-Berg.

In the person of the Lord Mayor, Düsseldorf also participates in the nationwide "Sustainable City dialog" of the German Council for Sustainable Development, in which more than 30 German cities have been participating since 2010. Within the framework of the dialog, an exchange takes place regarding strategies and measures for sustainable development. With joint statements and position papers, important encouragement for sustainable urban development are regularly given at the federal political level.

[17] Local cooperation for global justice

The state capital of Düsseldorf has been certified as a Fairtrade Town since 2011. The certification was reviewed in 2014, 2018, 2020 and 2022 and awarded again in each case. These awards recognize the city society's multifaceted commitment to promoting global justice. Fairtrade has been firmly anchored in the city for years. Düsseldorf was awarded the nationwide title of Capital of Fairtrade in 2007, which is awarded every two years by the "Service Agency Communities in One World." An overview of sales outlets and restaurants offering Fairtrade products in the city is provided by the Fairtrade City Map on the internet (see in detail in the practical example). To promote fair trade further in Düsseldorf, the Fairtrade Town steering group coordinates and networks actors and provides information about basic benefits and goals. The following institutions are represented in the steering group: Verbraucherzentrale Düsseldorf, Eine Welt Forum Düsseldorf e. V., SchokoFair, Fairtrade Schools, Heinrich Heine University, Düsseldorf University of Applied Sciences, Kreis der Düsseldorfer Muslime—KDDM, FairTrade Düsseldorf e. V., politics (City Council and Sustainability Advisory Board), Engagement Global gGmbH—Düsseldorf branch office and the city's Sustainability Office.

In addition to the general award as a Fairtrade Town, various Düsseldorf schools, daycare centers and universities have also been recognized as "Fairtrade University," "Fairtrade Kita" and "Fairtrade School."

Practical example

17 International municipal development cooperation

Düsseldorf is a city with a strong international network, and international cooperation is of particular importance. Voluntary development education and information work in Düsseldorf is comprehensively supported by the city's One World Advisory Council. Among other things, local initiatives involved in "North-South work" can submit applications for funding to the Council. Düsseldorf also maintains various official city partnerships (Reading, Haifa, Warsaw, Moscow [currently suspended], Chemnitz, Chiba, Chongqing and Palermo). The city administration is in exchange with the respective administrations of the twin cities (e.g., regarding ideas on the challenges of modern cities in terms of urban development, digitalization, economy, art and sustainable development). Depending on the project, the focus can be on one or more SDGs. In 2022, the City of Düsseldorf entered into another partnership with Chernivtsi, in western Ukraine. In the Global South, the city has good relations with Morocco, partly because of the large Moroccan community in Düsseldorf. A memorandum of understanding was signed between Düsseldorf and Marrakech to intensify the friendly cooperation between the cities—with projects in the fields of tourism, business, education and culture.

In addition, there are various other specific collaborations, including cooperation with foreign chambers of commerce, diplomatic missions, associations and societies, cooperation between the City Museum and various partners (e.g., in Israel and Greece), as well as partnership relations between the Equal Opportunities Office regarding equality policy issues and various business cooperations. An example of the support provided to municipalities in other countries by the municipal holding companies (or companies) and municipal enterprises is the approach of the Workshop for Adapted Work, which offers providers from other countries the exchange of skilled workers.

Fairtrade City Map

As part of the online tool "Fairtrade City Map," the City of Düsseldorf offers a comprehensive overview of sales outlets and gastronomy using Fairtrade products. The Sustainability Office redesigned and expanded the service in 2021. More than 300 entries provide up-to-date and convenient information on where Fairtrade products are offered in Düsseldorf. Fairtrade has been established in Düsseldorf for years. Fairtrade products can be consumed in various stores, restaurants and hotels. Canteens, schools, church congregations and other public institutions also offer Fairtrade products. In the Fairtrade City Map, individual categories with Fairtrade offers (e.g., stores with Fairtrade clothing, Düsseldorf world stores or Fairtrade groups) are displayed, each of which marks the locations using different colored symbols.

Overview of contributions

Aspect	Contribution	Allocation to SDG Targets
Promoting sustainability through intermunicipal cooperation in the home country	<ul style="list-style-type: none"> • "RegioNetzWerk" • "Between the Rhine and the Wupper" • "Integrated Regional Mobility Concept" • "Sustainable City" dialog 	11.a 11.a 11.2 11.3
Local cooperation for global justice	<ul style="list-style-type: none"> • Fairtrade Town • Capital of Fair Trade • Fairtrade city map • Fairtrade Town steering group • Fairtrade University, Fairtrade Kita and Fairtrade School 	12.1 12.1 12.8 12.1 12.8
International municipal development cooperation	<ul style="list-style-type: none"> • One World Advisory Council • Official city partnerships • Memorandum of understanding between Düsseldorf and Marrakech • Specific collaborations 	10.b 17.16 17.16 17.16

Indicators



Fairtrade-Town 12.1

	2011	2018	2022
NUMBER	1	3	5

Number of times the municipality has been awarded Fairtrade Town status [Source: SDG Portal]

The award “Fairtrade Town” is a certification of TransFair e. V. that recognizes the municipal commitment to Fairtrade products (at fair minimum prices for the producer). Municipalities, districts or regions must fulfill certain criteria (existing council resolution, establishment of a steering group, Fairtrade products in an assortment of the local retail trade, involvement of civil society and existing public relations work). The award must be recertified every two years. The City of Düsseldorf has received four Fairtrade Town awards up to 2022. No comparable data are available at the federal and state levels of NRW, nor do the sustainability strategies of the Federal Government and the state of NRW include any targets regarding the status of the awards.



Fairtrade-Schools 12.1

	2012	2017	2022
PERCENT	1	8	13

Number of awarded Fairtrade Schools [Source: www.fairtrade-schools.de]

The “Fairtrade School” award is a certification by TransFair e. V. that honors the school’s commitment to fairly traded products at fair minimum prices for the producer. The award can be obtained by any type of school in Germany. The following criteria must be met: establishment of a school team, creation of a “Fairtrade Compass,” offering of Fairtrade products, fair trade as an integral part of teaching, events and public relations work on the topic of fair trade. The award must be recertified every two years. The first Fairtrade School in Germany was in Düsseldorf, and so far, there are 13 schools. No data are available at the federal and state levels of NRW, nor do the sustainability strategies of the Federal Government and the state of NRW include any targets regarding the status of the award.

Visualization of selected Indicators

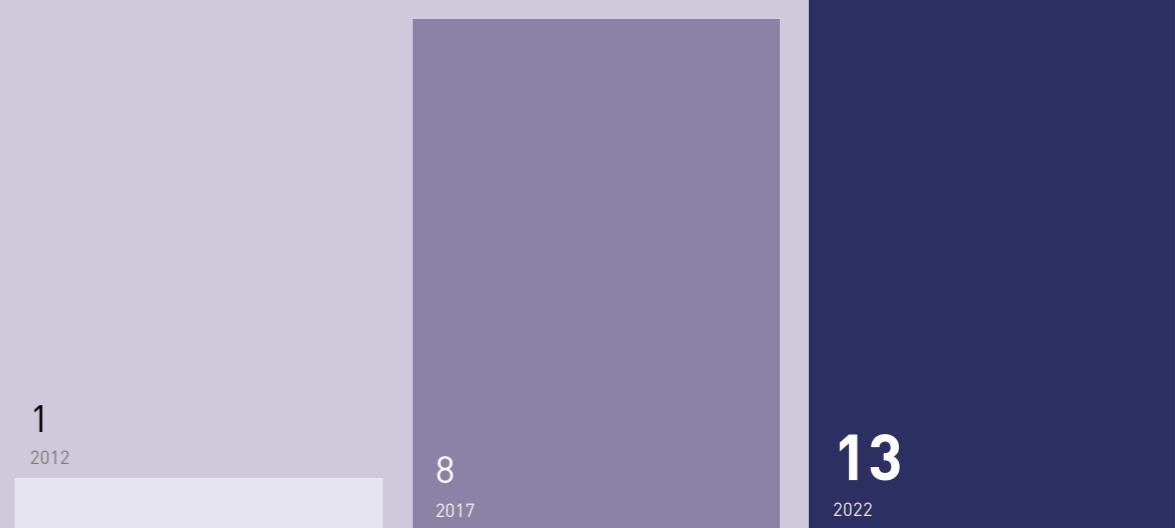
Fairtrade Town

Number of times the municipality has been awarded Fairtrade Town status



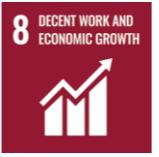
Fairtrade Schools

Number of awarded Fairtrade Schools



Overview: Allocation of the contributions to the Sustainable Development Goals and their targets



Sustainable Development Goal	Targets	Sustainable Development Goal	Targets
 SDG 1—End poverty in all its forms everywhere	<ul style="list-style-type: none"> 1.1 Eradicate extreme poverty 1.2 Reduce relative poverty 1.3 Implement social protection systems and policies, achieve substantial coverage of the poor and the vulnerable 1.4 Ensure equal rights to economic and other resources 1.5 Increase resilience of poor people to environmental, economic and social shocks/disasters 1.a Mobilize resources for developing countries to implement programs/policies to end poverty 1.b Establish policy frameworks at regional, national, and international levels to eradicate poverty 	 SDG 6—Ensure availability and sustainable management of water and sanitation for all	<ul style="list-style-type: none"> 6.1 Achieve access to safe and affordable drinking water for all 6.2 Achieve access to adequate sanitation and hygiene for all 6.3 Improve water quality 6.4 Increase efficiency of water use, reduce water scarcity 6.5 Implement integrated water resources management 6.6 Protect and restore water-connected ecosystems 6.a Expand international cooperation and assistance to developing countries on water and sanitation issues 6.b Increase participation of local communities in sustainable water management and sanitation.
 SDG 2—End hunger, achieve food security and improved nutrition and promote sustainable agriculture	<ul style="list-style-type: none"> 2.1 End hunger, ensure access to food 2.2 End all forms of malnutrition 2.3 Double agricultural productivity and incomes of small-scale food producers 2.4 Ensure sustainability of food production and use of resilient agricultural practices 2.5 Preserve genetic diversity of seeds, crops, domestic/domestic animals (as well as wild relatives) 2.a Invest to improve agricultural production capacity in developing countries 2.b Correct and prevent trade restrictions and distortions in global agricultural markets 2.c Take measures to ensure the functioning of food commodity markets and facilitate access to market information 	 SDG 7—Ensure access to affordable, reliable, sustainable and modern energy for all	<ul style="list-style-type: none"> 7.1 Ensure access to affordable, reliable and modern energy services 7.2 Increase the share of renewable energies 7.3 Increase energy efficiency 7.a Increase international cooperation to facilitate access to clean energy research and technology 7.b Improve infrastructure/technology in developing countries to provide sustainable energy services
 SDG 3—Ensure healthy lives and promote well-being for all at all ages	<ul style="list-style-type: none"> 3.1 Reduce maternal mortality 3.2 Reduce newborn and child mortality 3.3 Combat communicable diseases 3.4 Reduce premature mortality due to non-communicable diseases, promote mental health and well-being 3.5 Strengthen prevention and treatment of substance abuse 3.6 Halve deaths and injuries from road traffic crashes globally 3.7 Ensure access to sexual/reproductive health care / inclusion of reproductive health in national strategies 3.8 Achieve universal health coverage/access to health services and essential medicines/vaccines for all 3.9 Reduce deaths and illnesses from chemicals and pollution of environmental assets 3.a Strengthen the WHO Framework Convention on Tobacco Control 3.b Support research and development and access to vaccines and medicines 3.c Increase health financing/education and training of health workers in developing countries 3.d Strengthen early warning, risk reduction and management of health risks 	 SDG 8—Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	<ul style="list-style-type: none"> 8.1 Sustain per capita economic growth 8.2 Achieve higher economic productivity through diversification, modernization and innovation 8.3 Promote development-oriented policies to support decent work, entrepreneurship and innovation 8.4 Improve resource efficiency in consumption & production, strive to decouple economic growth from environmental degradation 8.5 Achieve full and productive employment and decent work and equal pay for work of equal value for all 8.6 Reduce proportion of young people out of employment and education/vocational training 8.7 Take action against forced and child labor, slavery and human trafficking 8.8 Protect labor rights and promote workplace safety 8.9 Develop and implement policies to promote sustainable tourism 8.10 Strengthen capacity of national financial institutions to promote access to financial/insurance services 8.a Increase aid for trade to developing countries 8.b Develop global strategy for youth employment and implement Global Jobs Pact
 SDG 4—Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	<ul style="list-style-type: none"> 4.1 Ensure free and quality schooling for all students 4.2 Ensure access to quality early childhood education and care 4.3 Ensure access to affordable and quality technical, vocational and tertiary education. 4.4 Ensure sufficient skills for employment, decent work and entrepreneurship 4.5 Ensure equal opportunities and equal access to all levels of education and training 4.6 Minimize the number of illiterate people 4.7 Improve knowledge and skills to promote sustainable development 4.a Develop safe, inclusive and effective educational institutions 4.b Increase the number of available higher education scholarships for developing countries 4.c Increase supply of qualified teachers in developing countries 	 SDG 9—Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation	<ul style="list-style-type: none"> 9.1 Build resilient and sustainable infrastructure to promote economic development and human well-being 9.2 Promote sustainable industrialization and increase industry's share of employment and GDP 9.3 Increase access to financial services for small industrial and other enterprises 9.4 Modernize infrastructures and retrofit industries in a sustainable manner 9.5 Improve research and build technological capacity of industrial sectors 9.a Support developing countries to develop sustainable infrastructures 9.b Support indigenous technology development, research and innovation in developing countries 9.c Expand access to information and communication technology and provide access to Internet
 SDG 5—Achieve gender equality and empower all women and girls"	<ul style="list-style-type: none"> 5.1 End discrimination against women/girls 5.2 Eliminate violence against women/girls 5.3 Eliminate child marriage, early marriage and forced marriage, and genital mutilation of women/girls 5.4 Recognize and value unpaid care and domestic work 5.5 Ensure participation and equal opportunities for women in leadership roles at all levels 5.6 Ensure access to sexual and reproductive health and reproductive rights 5.a Implement reforms to create equity in access to economic and other resources 5.b Improve use of enabling technologies to promote women's empowerment 5.c Strengthen sound policies/legislation for gender equality and women's empowerment 	 SDG 10—Reduce income inequality within and among countries	<ul style="list-style-type: none"> 10.1 Achieve income growth of the poorest population 10.2 Promote empowerment and inclusion of all people 10.3 Ensure equal opportunities and reduce inequalities 10.4 Take policy action to increase equality 10.5 Improve regulation and supervision of global financial markets and institutions 10.6 Strengthen the voice of developing countries in decision-making in international economic and financial institutions 10.7 Facilitate orderly and safe migration and mobility, implement managed migration policies 10.a Apply principle of special and differential treatment for developing countries 10.b Promote development assistance and financial flows in developing countries 10.c Reduce transaction costs for migrants' home remittances

Sustainable Development Goal	Targets	Sustainable Development Goal	Targets
 <p>SDG 11—Make cities and human settlements inclusive, safe, resilient, and sustainable</p>	<ul style="list-style-type: none"> 11.1 Ensure affordable, safe and adequate housing and basic services for all 11.2 Provide access to sustainable transportation systems for all, increase road safety 11.3 Implement integrated sustainable urban development 11.4 Improve protection and preservation of the world's cultural and natural heritage 11.5 Improve disaster prevention 11.6 Reduce environmental impact of cities 11.7 Ensure access to green spaces and public spaces for all 11.a Through enhanced higher-level development planning, support linkages between cities and communities 11.b Develop sustainable urban development policies in more cities and towns, and a holistic disaster risk management 11.c Support developing countries in constructing sustainable and resilient buildings 	 <p>SDG 15—Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</p>	<ul style="list-style-type: none"> 15.1 Ensure conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems 15.2 Promote sustainable management of all forest types 15.3 Combat desertification and neutralize land degradation 15.4 Preserve mountain ecosystems 15.5 Reduce degradation of natural habitats, end biodiversity loss 15.6 Promote equitable sharing and adequate access to genetic resources 15.7 End poaching and trade in protected plant and animal species 15.8 Prevent introduction of invasive alien species 15.9 Incorporate ecosystem and biodiversity values into policies 15.a Increase financial resources for biodiversity and ecosystem conservation 15.b Increase financial resources for sustainable forest management and provide incentives for developing countries to do so 15.c Combat poaching and trade in protected species
 <p>SDG 12—Ensure sustainable consumption and production patterns</p>	<ul style="list-style-type: none"> 12.1 Initiate measures for sustainable consumption and production patterns 12.2 Achieve sustainable management and use of natural resources 12.3 Halve food waste and reduce food losses 12.4 Ensure environmentally sound disposal of waste and chemicals 12.5 Reduce waste generation 12.6 Encourage businesses to use sustainable process techniques and reporting 12.7 Promote sustainable public procurement 12.8 Ensure information and awareness of sustainable development among all people 12.a Assist developing countries in transitioning to sustainable consumption and production patterns 12.b Develop monitoring tools for the impacts of sustainable tourism and support 12.c Reduce fossil fuel subsidies, taking into account the special needs of developing countries 	 <p>SDG 16—Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and transparent institutions at all levels</p>	<ul style="list-style-type: none"> 16.1 Reduce violence and violence-related mortality 16.2 End violence against children 16.3 Promote rule of law and ensure equal access to justice 16.4 Combat organized crime, reduce illicit financial and arms flows 16.5 Reduce corruption 16.6 Build effective, accountable and transparent institutions 16.7 Ensure participatory decision-making at all levels 16.8 Increase participation of developing countries in global governance institutions 16.9 Ensure legal identity for all people 16.10 Ensure access to information and protect fundamental freedoms 16.a Prevent violence and combat terrorism and crime 16.b Implement non-discriminatory legislation and policies
 <p>SDG 13—Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy</p>	<ul style="list-style-type: none"> 13.1 Strengthening resilience and adaptive capacity to climate change 13.2 Integrate climate protection measures into national policies 13.3 Improve education and human and institutional capacity in climate change mitigation and adaptation 13.a Provide financial support for climate change mitigation activities in developing countries 13.b Enhance climate change planning and management capacity for developing countries 	 <p>SDG 17—Strengthen the means of implementation and revitalize the global partnership for sustainable development</p>	<p>Financing</p> <ul style="list-style-type: none"> 17.1 Strengthen domestic tax collection resources in developing countries 17.2 Fulfill development aid commitments 17.3 Mobilize additional resources for development assistance 17.4 Assist developing countries in dealing with indebtedness 17.5 Implement investment promotion schemes for developing countries <p>Technology</p> <ul style="list-style-type: none"> 17.6 Expand cooperation for knowledge transfer 17.7 Promote development, transfer and dissemination of sustainable technologies in developing countries 17.8 Systematize cooperation for science/technology/innovation; introduce global mechanism for technology promotion <p>Capacity building</p> <ul style="list-style-type: none"> 17.9 Increase international support for capacity building in developing countries <p>Trade</p> <ul style="list-style-type: none"> 17.10 Promote open, equitable, and rules-based global trading system 17.11 Increase exports of developing countries 17.12 Achieve tariff/quota-free market access for developing countries <p>Systemic issues</p> <ul style="list-style-type: none"> 17.13 Improve global macroeconomic stability 17.14 Improve policy coherence for sustainable development 17.15 Respect national sovereignty in implementing sustainability policies 17.16 Expand global (multi-actor) partnerships for sustainable development 17.17 Promote formation of public, public-private and civil society partnerships 17.18 Increase capacity building for data availability in developing countries 17.19 Develop measures of sustainable development progress, support statistical capacity building in developing countries
 <p>SDG 14—Conserve and sustainably use the oceans, seas and marine resources for sustainable development</p>	<ul style="list-style-type: none"> 14.1 Reduce marine pollution 14.2 Sustainably manage and protect marine and coastal ecosystems 14.3 Minimize and address the impacts of ocean acidification 14.4 Implement sustainable fisheries mechanisms 14.5 Contribute to the conservation of coastal and marine areas 14.6 Prohibit forms of fisheries subsidies that lead to excessive and illegal fishing 14.7 Increase economic benefits through sustainable use of marine resources for developing countries 14.a Deepen scientific knowledge to improve ocean health and increase biodiversity 14.b Ensure access of small-scale fishers to marine resources and markets 14.c Improve conservation and sustainable use of the oceans and their resources 		

Conclusion and Outlook



Conclusion and Outlook

Municipal sustainability reporting fulfills three essential functions. First, it is a tool for analysis—a stocktaking of the status quo with regard to activities and developments in the municipality. Second, it serves as a communication tool considering different audiences at distinct levels (such as the public and politics on local, national, and international levels). Third, it has a steering function, reflecting on actual developments and adapting current and future activities (such as revising a Sustainability Strategy.) This Voluntary Local Review submitted to the UN will, in principle, promote all of these benefits.

The report contributes to the growing global VLR movement, with more and more municipalities producing an assessment of their progress implementing SDGs. This complements the official national reporting by UN member states by highlighting practical experiences from the concrete implementation level of municipalities. In the “Decade of Action” for sustainable development, this joint action is urgently needed.

The VLR used the Reporting Frame Sustainable Municipality, a standardized structure for local sustainability reporting that is currently promoted in Germany. In the Global Sustainable Municipality in North Rhine-Westphalia project, all five VLRs (Düsseldorf, Bonn, Münster, Dortmund, and Arnsberg) were developed based on this structure. Hence, this report contributes to establishing a more coherent reporting format in German municipalities. The present work shows how the global framework of the 2030

Agenda can be successfully localized with regard to qualitatively structuring the thematic fields in municipalities and applying suitable quantitative indicators for this level. With the combination of reporting the activities in the municipality (integrated or sectoral strategies and concepts, measures, projects, resolutions of the city council, specific goals, collaborations, networks, and organizational structures) and recent developments through indicators, this report highlights the status quo of sustainable development comprehensively.

Several guidelines on VLRs (cf. chapter 1) highlight that the emphasis in reporting local contributions to the 2030 Agenda should be on the process itself rather than the outcome. In this sense, the process of preparing this review has contributed to the localization of the SDGs—for example, in supporting horizontal coordination in the municipality. The VLR process represents a journey that does not end with the report. The report enables a stocktaking of the progress and shortcomings in the local SDG implementation, and the findings can be considered in existing and future implementation efforts.

Overall, this report underlines the crucial role of municipalities in the global implementation of the 17 SDGs. It demonstrates that contributions to most of the 169 SDG targets can be made at the local level. In this regard, the report supports claims in the literature that at least 65% of the targets cannot be reached without the full engagement of municipalities. The yearly growing VLR community underlines this role. However, VLRs must become more systematically involved in the respective national reporting tools in the future. If many more municipalities report their contributions in the forthcoming years and the link between national and local reporting becomes stronger, the 2030 Agenda can be jointly implemented at all levels in the Decade of Action.

Appendix

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Short Portrait— Service Agency Communities in One World



Who we are—the Service Agency Communities in One World

The Service Agency Communities in One World (SKEW) is a programme of Engagement Global. It is your partner for all issues related to municipal development cooperation in Germany. Since 2001, the Service Agency is available to municipalities as a service and consultation institution on behalf of the Federal Ministry for Economic Cooperation and Development. The focus is on future issues as municipal partnerships, migration and Development, Global Sustainability Municipalities-Localising SDGs and fair trade and fair procurement.

The Service Agency supports actors in administrations, local politics and civil society to shape their engagement in municipal development cooperation. It implements pilot projects and offers financial and professional support. With the aim of strengthening municipal partnerships, the Service Agency offers a dialogue platform to exchange experiences and jointly develop local solutions to global issues for municipalities from Germany and countries of the Global South.

The Support project Global Sustainability Municipalities

The project Global Sustainability Municipalities supports municipalities in implementing the strategic integration of the SDGs. The daily actions of municipalities should be following the principals of the Agenda 2030 – aiming to implement an eco-economic, social and ecologic sustainable development locally by taking global responsibility as well.

To be able to achieve this a key element is the development of an integrated sustainability strategy for municipalities in the context of the 2030 Agenda, as implemented in the “Global Sustainable Municipalities in North Rhine-Westphalia”

project. The anchoring of sustainability on all levels is a condition for visionary municipal development. The municipality prepares itself for the future and can thus use cost and efficiency advantages. Support services are provided throughout this processes, by carrying out inventories, advising on how relevant municipal actors (e.g. from politics, administration, civil society, companies, science) can best be involved and in sustainability management and its long-term establishment. This offer is being implemented in currently 10 federal states in Germany, with 171 municipalities taking part.

In addition to sustainability strategies and reporting, we offer the following support:

- Conferences to discuss and exchange possible actions to implement the 2030 Agenda in German municipalities;
- Support for the implementation of Agenda 2030 events in the municipalities (e.g. event series, information campaigns, dialogue processes);
- Information materials such as the SDG fact sheets, studies, SDG posters, SDG flags, municipal practical examples and flyers;
- Support in co-signing the specimen resolution “2030 Agenda for Sustainable Development: Shaping sustainability at the local level” and networking with other municipalities;

More information:

[https://skew.engagement-global.de/
municipalities-for-global-sustainability.html](https://skew.engagement-global.de/municipalities-for-global-sustainability.html)

Short Portrait— Sustainability Network North Rhine-Westphalia (LAG 21 NRW e.V.)



Who we are, where we come from

The Sustainability Network North Rhine-Westphalia (LAG 21 NRW e.V.) is an independent network of municipalities and civil society associations, unions and actors in North Rhine-Westphalia that provides strategic support for local sustainability processes and implements them in a practice-oriented manner through education, consulting, projects and campaigns. In dialogue, we rely on the involvement of politics, administration, civil society, science and business to meet the social, ecological and economic requirements of sustainable development. In our actions, we are committed to Agenda 21 and the resolutions of the 1992 UN Conference on Environment and Development in Rio de Janeiro, and since 2016 to Agenda 2030 for Sustainable Development. In doing so, we are guided by the model of Strong Sustainability, which focuses on the limits of the planet Earth (planetary boundaries) as a guideline for human action.

The network's origins lie in the worldwide Local Agenda 21 movement, which creates solutions for central issues of socially, ecologically, and economically just development at the local level according to the guiding principle “Think globally, act locally.” In 2001, LAG 21 NRW was founded as a municipal network to enable an exchange of content and undertake statewide projects and campaigns together with local sustainability initiatives. We have helped professionalize Agenda 21 processes and anchor them more firmly in politics and administration. Within the NRW Sustainability Network framework, we have developed into a central point of contact for local sustainability both statewide and nationally and see the network as a moderator and shaper, facilitating the transformation process of sustainable development through discourse.

How we work

We believe a transformation toward sustainable development can only be achieved through a process in which civil society, politics, administration, science, and business can participate on an equal footing. Therefore, we strive to initiate and accompany lasting change processes through discourse, dialogue, consulting processes, projects, campaigns, and our research work. We focus our work locally, regionally, and nationwide and contribute our experience to national and international processes. We make the methods and results of our work transparently available.

What we offer

We support, advise, and accompany municipalities and civil society actors in the development and implementation of sectoral and integrated sustainability strategies and reports. Through our research work, we also teach children, young people, and adults the skills to shape sustainable development and contribute to the targeted transfer of knowledge. We bring together stakeholders and initiate participation processes to firmly anchor sustainability goals in society.

We believe that current and future challenges cannot be met with the problem-solving strategies of the past. Climate change, species extinction, population development, growth and prosperity, and a socially and environmentally compatible economy require a new, systemic, and cross-cutting approach to thinking and acting.

Have we stirred your interest?

You can find more information at www.lag21.de, or you can contact Dr. Klaus Reuter directly at k.reuter@lag21.de, tel. +49-231-936960.

