

Stadt
Rottenburg
am Neckar

Voluntary Local Review of the City of Rottenburg am Neckar 2023

Implementing the Agenda 2030 and
the Sustainable Development Goals at the
local level

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Foreword

Dear readers,
It's finally here. The English version of Rottenburg am Neckar's first voluntary review of its contributions to the Sustainable Development Goals has been published, within the framework of United Nations reporting on achieving the 2030 Agenda for Sustainable Development. This review outlines the actions taken by Rottenburg's municipal administration in five of the key areas selected by the United Nations for this year: Clean Water and Sanitation (SDG 6), Affordable and Clean Energy (SDG 7), Industry, Innovation and Infrastructure (SDG 9), Sustainable Cities and Commu-

nities (SDG 11) and Partnerships for the Goals (SDG 17).

The review provides the first overview of what the administration and the municipally owned utilities in Rottenburg are doing in these five areas, and of what we have achieved so far. It reveals that many of the indicators that benchmark progress in this regard have developed positively in recent years. A description of many of the areas in which we are taking action underpins these quantitative indicators, illustrating what needs to be done to work towards achieving the individual goals. Environmental aspects are just as much a part of these efforts as economic and social ones. The information provided here shows that multidimensional actions are crucial if the SDGs are to be achieved. At the same time, it is clear that much still needs to be done.

Preparing the report was a journey of discovery shared by many staff members of the municipality and its utilities. Five teams, coordinated by the Environmental Protection and Climate Action Unit, have collated facts, figures, data, and other

useful information from across all offices and organisations. Initiative N!, which was established in 2016 to promote good quality of living in the municipality, was also involved. On the back of this, we have produced this first review, with support from North-Rhine Westphalia's State Working Group on Agenda 21 e.V. and Engagement Global, and funding from the Federal Ministry for Economic Cooperation and Development (BMZ).

I would like to thank all those involved for their steadfast work and boundless commitment. The results speak for themselves. The contents of this local review will feed into the Federal Government's report on the 17 Sustainable Development Goals, which will be published on the United Nations website.

This first review will by no means be our last. More will follow, so that we can report on progress and on further action that needs to be taken to achieve all 17 goals. Future updates could cover measures undertaken by local society as a whole. Many people are dedicated to making Rottenburg am Neckar a sustainable town, through their in-

vovement in associations, educational institutions, political parties, church communities, retail, restaurants, cafés or other businesses, or industry and commerce. The level of business, community and civil society involvement will be showcased to a greater degree. So watch this space! And join in by helping us compile future voluntary local reviews for the municipality. I very much look forward to your contributions.



Stephan Neher

Mayor,
Municipality of Rottenburg am
Neckar

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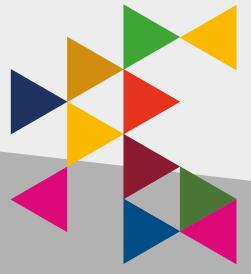
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Vol

1 Introduction

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Photo 1: SDGs on Swabian coasters, Source: Rottenburg town council

1.1 Voluntary Local Reviews in the context of the 2030 Agenda

In 2015, the UN member states adopted the 2030 Agenda with its 17 Sustainable Development Goals (SDGs). In the 2030 Agenda, the global community agreed on a framework for a worldwide transition to sustainable development. The 17 SDGs (see Fig. 1) are translated into greater detail in 169 targets, covering the environmental, social and economic aspects of sustainability. The SDGs are universally applicable, addressing all UN member states in the Global South as in the North, and aim to bring about radical changes at political and societal levels. The outcomes of the Global Sustainable Development Report 2019 (to be updated in September 2023) make it clear that rigorous action will be needed during the ongoing UN Decade of Action 2020–2030 if the SDGs are to be achieved by 2030. As a universal framework of reference, the 2030 Agenda guides actions within Germany too, at federal, state and local levels.



Figure 2: The 17 Sustainable Development Goals, © United Nations

To render visible the progress made towards achieving the SDGs, the 2030 Agenda calls for regular reviews.¹ At national level this takes the form of Voluntary National Reviews (VNR). The VNRs are presented annually at the UN High-Level Political Forum, the central platform for the follow-up and review of the 2030 Agenda at the global level. Every year the Forum focuses on different SDGs. In 2023, for instance, the focus is on SDGs 6, 7, 9, 11 and 17. In 2016 and 2021 Germany presented a Voluntary National Review to the High-Level Political Forum (HLPF).

Municipalities have a particularly vital part to play in the successful implementation of the 2030 Agenda, since this is the level at which the stage will be set in

the most crucial way.² All 17 SDGs have targets that directly relate to local level responsibilities. Pertinent literature often points to the fact that at least 65 per cent of the 169 targets will only be achieved if municipalities are consistently involved in implementation and monitoring.³ Accordingly, the 2030 Agenda underlines the key role to be played by local authorities and the importance of cooperation between different levels of action and actors.⁴ Local actors are called on to identify and implement action required at local level based on the global goals. This is known as localising the Sustainable Development Goals. Three main areas of responsibility may be addressed: "at local level for local level" (measures that impact the municipality itself), "at local level for the world" (local measures with

¹ Reporting takes place within the framework of the 2030 Agenda review mechanism ("conduct regular and inclusive reviews of progress at the national and sub-national levels, which are country-led and country-driven"; UN, 2015 - paragraph 79). It is also indicated that the local level should be involved ("follow up and review at the regional and subregional levels can, as appropriate, provide useful opportunities for peer learning, including through voluntary reviews"; UN, 2015 - paragraph 80). By 2030 all UN member states are to have published a minimum of two national reports. Official requirements apply to the structure and content of reviews at nation state level.

² See UCLG, 2021 and Gustafsson & Ivner, 2018.

³ See OECD, 2020.

⁴ UN, 2015 - Paragraph 45.

a global impact), and "in and through other countries" (measures that are realised worldwide and in conjunction with other municipalities).⁵ Municipalities thus play a pivotal role as trailblazers for change and as the level closest to citizens. Against this backdrop, over 200 German municipalities have already signed the specimen resolution "The 2030 Agenda for Sustainable Development: Building Sustainability at the Local Level" (Association of German Cities, German Association of the Council of European Municipalities and Regions (CEMR)).

As awareness grows of the importance of the local level for achieving the SDGs, an increasing number of municipalities around the world are reporting on their own individual contributions. In contrast to national reviews, local reviews of SDG implementation have no official status and thus no UN mandate with concomitant reporting requirements. Since 2018 (when New York and the three Japanese cities of Shimokawa, Toyama and Kitakyushu were the first to report on their progress), more and more municipalities have taken the initiative and reported voluntarily on the status of their local-level implementation of the SDGs. The reports are thus known as Voluntary Local Reviews, or VLRs. Local reporting has now become an extremely dynamic global movement, with several new VLRs published every year.⁶ The first German municipalities to produce a VLR were Mannheim in 2019 and Bonn in 2020. In 2022, Dortmund, Düsseldorf, Hannover and Kiel followed suit. VLRs offer a huge potential to feed practical experience at local level into national and regional reporting, thus enhancing overall coordination, accountability and transparency. The dovetailing of the different levels (known as vertical integration) is pivotal. In this regard, the relevance of VLRs transcends mere monitoring, since VLRs accelerate localisation of the SDGs and the transition to greater sustainability in the spirit of bottom-up processes, while also support-

ing reciprocal learning.⁷ This is also reflected in the growing trend to firmly integrate the local level in the UN High-Level Political Forum (e.g. as part of the Local and Regional Governments Forum) and involve local actors in national reviews.⁸

Given that there have not so far been any uniform standards for the production of VLRs, it is not surprising that the reviews published around the world vary widely in terms of structure and content. A growing number of publications do, however, offer guidance (including for instance UCLG & UN-Habitat Guidelines for Voluntary Local Reviews, the European Handbook for SDG Voluntary Local Reviews, the UNDESA Global Guiding Elements for Voluntary Local Reviews of SDG implementation and, in German, Engagement Global's Handreichung zu VLRs).⁹ This VLR has taken account of the international guidelines in terms of the methodology used and the structure of the review.

5 See also the similar breakdown of measures in the German Sustainable Development Strategy.

6 For an up-to-date list of VLRs published to date see the Voluntary Local Review website of the UN Department of Economic and Social Affairs (UN DESA). Comparative analyses can be found in UN-Habitat & UCLG, 2021.

7 See also Deininger et al., 2019; Pipa & Bouchet, 2020 and Koch et al., 2019.

8 See German Institute of Urban Affairs & Bertelsmann Stiftung, 2021.

9 Cf. UCLG & UN-Habitat, 2020; Siragusa et al., 2020; UNDESA, 2020; Engagement Global, 2022; see also IGES, 2021 and UNESCAP, 2020.

1.2

Context, methodology and structure of this report

Photo 3: Integration course, Source: Municipality of Rottenburg



This Voluntary Local Review reflects the status quo in 2023 in terms of sustainable local development and provides a round-up of the progress made towards achieving the SDGs. The VLR has been produced within the framework of a project of Engagement Global's Service Agency Communities in One World on behalf of the Federal Ministry for Economic Cooperation and Development (Voluntary Local Reviews for Globally Sustainable Municipalities – Local-level support and advice on producing VLRs). In Germany, the Service Agency is the central contact point for local development policy. It enables municipalities to get involved in action for global sustainability and a more equitable world, as set out in the United Nations 2030 Agenda, with actions both at local level and in the Global South. During the project term from July 2022 to October 2023, six German municipalities (the City of Freiburg, the District of Fürstenfeldbruck, the Free and Hanseatic City of Hamburg, the City of Cologne, the Municipality of Bad Köstritz and the Municipality of Rottenburg am Neckar) were given support to help them draw up individual VLRs in German and in English. The municipalities involved could report on either all 17 SDGs or on the five focal SDGs to be addressed by the 2023 UN High-Level Political Forum (SDGs 6, 7, 9, 11 and 17). The VLRs were published to coincide with the HLPF in summer 2023. Alongside the ongoing support for the participating municipalities, inter-municipal exchange was important within the scope of the project, to encourage municipalities to learn from one another. Overall this has helped make German VLRs stronger and more uniform.

The individual municipalities put in place working groups to elaborate the VLRs. They conducted an extensive baseline survey to gather the information needed for the report. The process involved firstly forming a project team within the administration that brought together people from all relevant local divisions (e.g. planning, environment, transport, social affairs, international affairs, public health and economic

development). The project team was managed by a coordinator or coordinators (one or two individuals), who were responsible for organising the process at local level. With the help of information provided by the members of the project team, a systematic baseline survey was conducted, covering both qualitative and quantitative elements. The qualitative analysis looked at all core activities of the municipality that help achieve sustainable development. This included guiding strategies and plans, measures and activities, projects, permanent responsibilities, programmes, political decisions, specific goals, cooperation arrangements and networks, as well as organisational structures. Additionally, key achievements and outcomes in recent years were identified in the various thematic areas. To complement this, general information was gathered on overarching aspects of sustainability. The quantitative analysis evaluated firstly a fixed set of indicators (SDG indicators for municipalities) and then supplementary municipality-specific indicators. The set of fixed indicators was developed by the Bertelsmann Stiftung and other institutions.¹⁰ The project aims to identify indicators capable of illustrating the implementation of the SDGs at local level in Germany. An online portal (the SDG Portal) provides data available from a number of centralised sources for all German municipalities with a population of at least 5,000. The six municipalities participating in the Service Agency project were able to supplement these indicators with their own indicators, particularly in areas where little data was available, enabling them to take account of the specific local context. These data were then provided by the municipalities themselves. Within the framework of the baseline survey, various source materials (Excel tables broken down by SDG and overarching questionnaires) were combined in the project. A draft report was drawn up on this basis, and discussed at various project team workshops and in local

consultation processes. The draft was expanded accordingly and subsequently finalised. Overall, this process surmounted traditional barriers within administrations, and allowed information to be compiled across departments and units. Given the thematic breadth and interconnected nature of sustainability issues, this horizontal integration was crucially important.

This VLR is broken down into two main sections. The first of these provides a general introduction to sustainability processes on the ground. Alongside a thumbnail sketch and a presentation of the main milestones in realising sustainability, this section includes an explanation of how sustainability is being mainstreamed at strategic and organisational level. The second part presents specific progress made towards achieving the individual SDGs in recent years. This includes both qualitative and quantitative elements, in line with the baseline survey. Firstly, all core activities undertaken to implement the SDGs are presented, and the individual activities indicated in the text. The indicators selected are then outlined (with illustrations for the key indicators). The indicators used map progress over the last decade, illustrating longer-term developments. At the start of each SDG section, all activities and indicators are summarised concisely. Every SDG section also contains an introductory text, which presents the SDG and its specific relevance for German municipalities.

¹⁰ See Bertelsmann Stiftung et al., 2022.



02

2 Rottenburg am Neckar in the context of sustainable development

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Abb. 5: Rottenburg, ObereGasse Source: Municipality of Rottenburg

2.1 Brief profile of Rottenburg am Neckar

Rottenburg am Neckar is a German administrative unit known as a Große Kreisstadt or district town. The nucleated town consists of a town core and its 17 villages that are well networked and work together to jointly drive development. Over the past ten years, Rottenburg's population has increased to almost 44,000 inhabitants (compared with around 42,500 in 2011). Participation by and the involvement of all localities in the town's development are top priority. While the town is family friendly and modern, it also maintains a traditional feel because it is steeped in history. People from every generation feel at home here.

Rottenburg am Neckar is characterised by various features that make the town special. These include:

- I **17 + 1 = Rottenburg.** The attraction of a district town comprising a town core and 17 villages is the diversity that goes with it. The villages – all of which are different sizes – develop individually, while

benefiting from the administrative structure that a large district town offers.

- I **Rottenburg is steeped in history.** The Romans were the first settlers, founding the town of Sumelocenna in 98 AD. Large parts of the town are preserved and can be accessed as a museum in several places today. One of Rottenburg's schools is even built over the ruins of a Roman bath. A special highlight is the Roman public toilets – the largest latrine this side of the Alps.
- I **Rottenburg has a multicultural society.** Citizens from about 120 countries live in the town, with the percentage of non-nationals rising from 7.8 to 14.8 per cent between 1992 and 2022.
- I **Rottenburg is a central location for schooling and education.** There are 14 primary schools in the town core and 17 villages, and numerous secondary schools, community schools, vocational schools, technical schools, two universities, an adult education centre and a music school.

I **Rottenburg is a sports town.** A sports development plan is in place that incorporates both recreational and elite sports. In addition to maintaining a presence in national and state leagues, the goal is to adopt a holistic approach to promoting sports. Around 50 sports clubs offer a wide range of activities for all age groups. Cooperation between schools and sports club plays an important role in Rottenburg, which was once named the most active town in Germany in the Mission Olympics competition.

- I **Rottenburg is the seat of a Roman Catholic bishop.** Churches and other religious communities are important elements of the town's culture. The diocese of Rottenburg Stuttgart has its seat here.
- I **Rottenburg is a cultural town with a rich cultural offering.** Together with various event organisers and the town's residents, the municipality offers a diverse range of events. The historic Amannhof building recently became the town's history museum, adding to the list of museums such as the dio-

Photo 6: Rottenburg House Nepumuk on the Neckar River, Source: Rottenburg City Council



ceses museum, the Roman museum and the regional Sülchgau-Museum that already enrich the town's cultural diversity.

- I Situated on a river, Rottenburg is a town for nature lovers.** The town has a large forest estate which, just like the numerous hedgerows, species-rich meadows and streams, is regularly maintained so that biodiversity will be preserved for a long time to come. The Neckar valley is a popular destination for hiking and cycling. The conservation of flora and fauna is a high priority for Rottenburg, a town that fosters the relationship between humans and nature.
- I Rottenburg has received tourism awards and is recognised as a "little gem".** Nature, culture, an extensive network of bikeways and hiking trails, the Neckar Valley bike path, premium hiking trails and the attractive townscape, surrounding areas and vibrant town life are much admired by tourists.
- I Rottenburg offers a diverse range of jobs and has a strong economy.** The commercial areas offer sev-

eral advantages, in particular a central location in the heart of Baden-Württemberg, an optimal infrastructure and exemplary support for business. Demand for commercial sites from within the town itself, the surrounding area and from throughout the region is constantly high. A major challenge for creating value at the local level is the high number of people who commute to the Stuttgart region for work.

- I Rottenburg has an active civil society.** The municipality offers a wide range of funding opportunities for civil society activities and benefits from this co-operation and the diverse social, cultural, economic and environmental impacts. Over a period of ten years for example, EUR 2.24 million has flowed into volunteer projects through the Citizens' Basic Income, an allowance paid by the Municipal Administration. Between 2014 and 2023, the municipality of Rottenburg am Neckar awarded 93 bronze medals for outstanding civic engagement, in recognition of its appreciation for voluntary work.

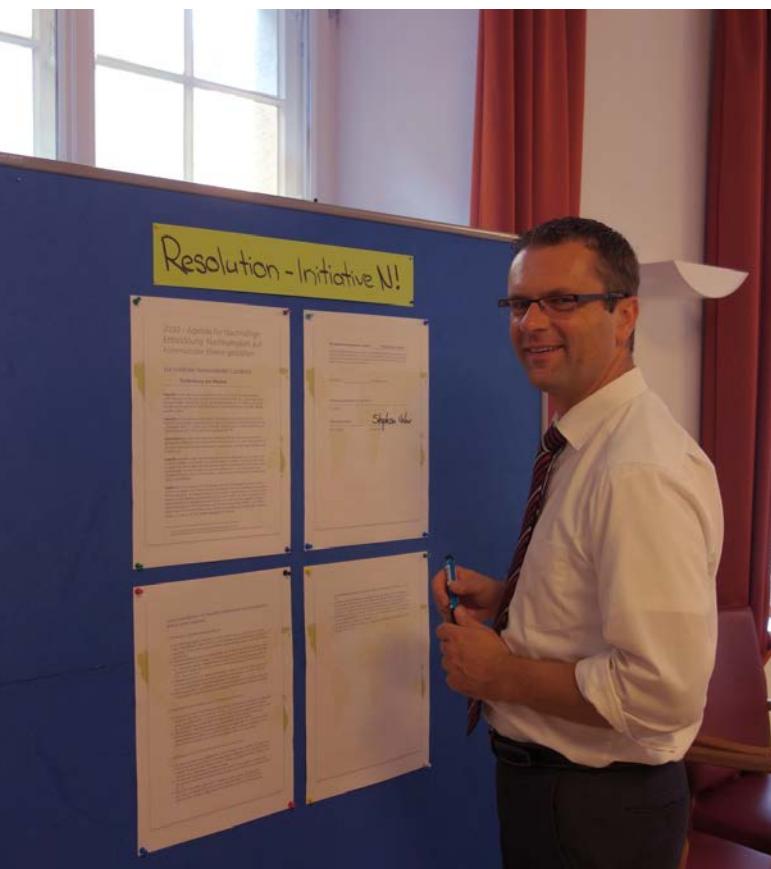


Photo 7: 2016, Rottenburg am Neckar becomes a signatory municipality of the 2030 Agenda, Source: Rottenburg Town Council

Photo 8: Rottenburg St-Moriz, Source: Municipality of Rottenburg



2.2 Sustainability in Rottenburg am Neckar – Introduction

Support for sustainable development has a long tradition in Rottenburg am Neckar. **Local Agenda 21** – an open citizens' platform for implementing sustainability activities – was established at the end of the 1990s. In 2010, Rottenburg became Baden-Württemberg's first **Fairtrade Town**, which underlines the town's efforts to support global justice. To make local contributions to achieving the Sustainable Development Goals (SDGs) and help progress consistent action for greater sustainability, **Initiative N!** was established in 2016 to promote **good quality of living in Rottenburg am Neckar**. A multistakeholder partnership – comprising representatives from the administration, the scientific community, education and civil society – advises the town on sustainability issues. Within the framework of Local Agenda 21, Fairtrade Town activities and Initiative N!, specific sustainability projects are routinely implemented in cooperation with other stakeholders in the town (such as One World shop, Fair Schools/University/Daycare Centre). An **Agenda 21 budget** is earmarked for this purpose as part of the municipal budget, along with other funding options from the Environmental Protection and Climate Action Unit's budget.

In 2016, Rottenburg am Neckar was one of the first German municipalities to sign the **specimen resolution The 2030 Agenda for Sustainable Development: Building Sustainability at the Local Level** of the Association of German Cities and the German Association of the Council of European Municipalities and Regions (CEMR). By signing the specimen resolution, German municipalities can commit to implementing the 17 Sustainable Development Goals (SDGs) of the 2030 Agenda for Sustainable Development.

Rottenburg was also awarded the **European Energy Award (EEA)** in December 2022. The energy policy work programme comprises around 60 project measures. Municipal heat planning is underway, the aim being to achieve carbon-neutral heat supply by 2040. The

Municipal Council has also decided to lease municipal land for the **construction of wind turbines**. The municipal utilities (Stadtwerke), an energy cooperative and fellow citizens are to be involved in the planned wind farm. The overarching goal is net zero emissions.

The municipality is convinced that all actions count – be they large or small. We therefore support sustainability in our day-to-day work, and at every level, along the lines of **Think globally, act locally**. Examples here include: (i.) Recycling projects to promote the reuse of raw materials, (ii.) Education and PR work as well as advice from the Environmental Protection and Climate Action Unit and partners, (iii.) Cooperation arrange-

ments with volunteers and support for sustainable projects and activities (e.g. to revitalise meadow orchards, construct dry stone walls and install photovoltaic systems or switch from cars to bicycles as part of the town's cycling competition) and (iv.) Cooperation with schools, e.g. within the framework of the I am a Climate Hero! climate action project.

The following timeline illustrates the key milestones in implementing sustainability in Rottenburg am Neckar.

1999

Municipal Council resolution on the Local Agenda 21 platform with its own funds from the municipal budget

2010

Rottenburg named the first Fairtrade Town in Baden-Württemberg

2016

Establishment of Initiative N!*

2010

Preparation of the climate action masterplan and establishment of the Climate Action Office (2013)

2014

Agreement and guidelines on public procurement for inter-municipal cooperation with other public and church-based institutions in the Neckar-Alb region

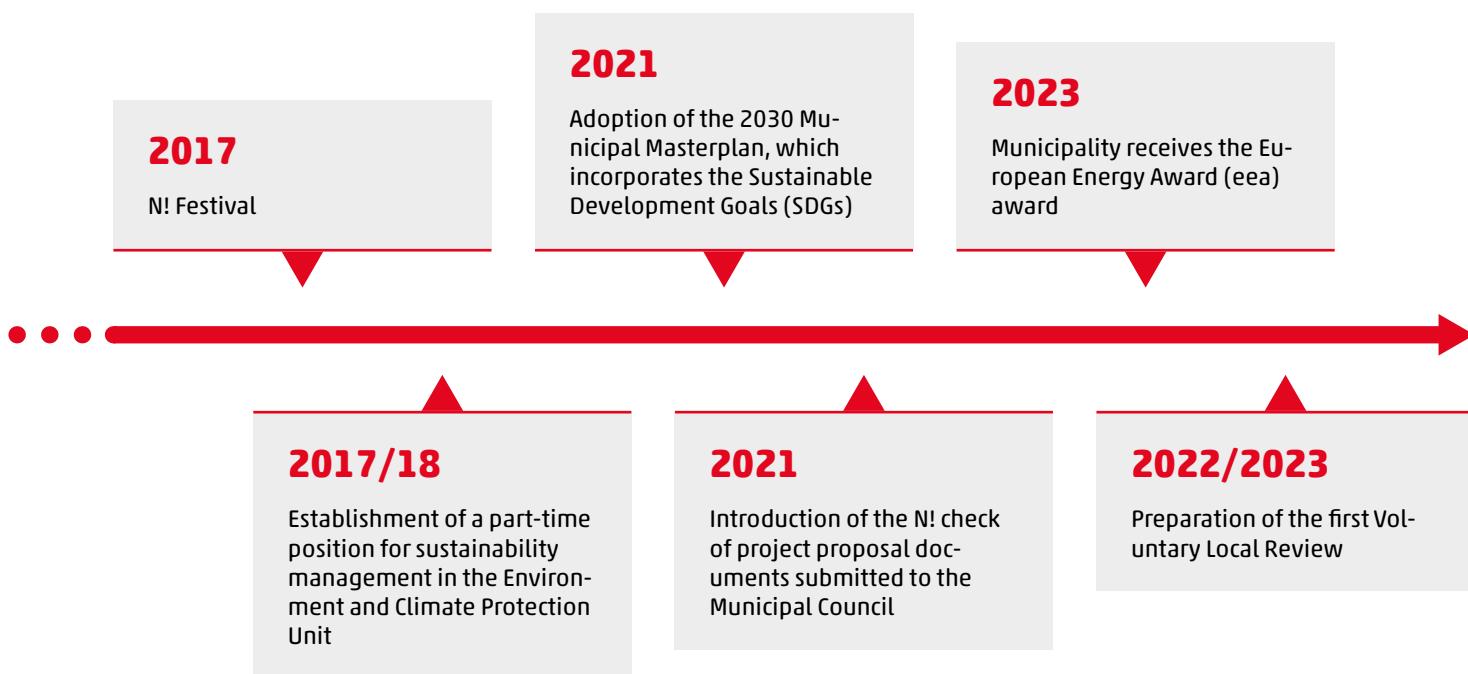
2016

Signing of the specimen resolution The 2030 Agenda for Sustainable Development of the Association of German Cities and the German Association of the Council of European Municipalities and Regions (CEMR).

* Initiative N! – Living Well in Rottenburg am Neckar. The "N!" stands for the German word for sustainability ("Nachhaltigkeit").



Figure 9: Certificate "Signatory municipality of the Agenda 2030 City of Rottenburg am Neckar", Source: Municipality of Rottenburg



2.3 Strategic mainstreaming of sustainability

From a strategic perspective, Rottenburg takes a dual approach to achieving sustainability. On the one hand, it implements sustainability projects and measures at grassroots level, and on the other, it incorporates sustainability as a cross-sectional task into all administrative activities. This involves the implementation of corresponding legal requirements and mandatory municipal tasks as well as the implementation of additional measures on a voluntary basis. Since the 17 SDGs were adopted by the United Nations in 2015, the 2030 Agenda has provided Rottenburg am Neckar with a "compass" for sustainable municipal development - in terms of activities with both local and global impacts. Sustainability is also anchored in the **town's Vision for the Future**.

Thematic implementation occurs within the framework of the administration's key tasks and the **Rottenburg 2030 Municipal Masterplan**, which was adopted by the Municipal Council in 2020. The strategy provides the framework for developing the municipality of Rottenburg am Neckar over the next two decades. Rottenburg will use this strategy to address the challenges of the future and further develop the nucleated town and the 17 localities.. The Municipal Masterplan was developed over two-and-a-half years together with many stakeholders such as citizens, representatives of the Municipal Council and administrative staff. The inclusive and participatory process was supported by experts from relevant sectors. Surveys were conducted and ideas workshops for the villages were held in the town core's three neighbourhoods and in the 17 areas in order to establish expectations. The aim was to identify the local, everyday issues, needs and ideas, but also to pinpoint any concerns. A separate survey and ideas workshop were offered to young people, providing them with their own platform. Overall, citizen participation played a key role in gathering knowledge and opinions, in order to strengthen people's sense of identification with the villages and with the town as a whole. The Municipal Administration and

the Municipal Council then had the task of comparing citizens' suggestions with their own activities and ideas, and pooling and prioritising themes. In a next step, these were discussed again with the citizens in thematic workshops, and suitable project ideas for the future of the town as a whole were also discussed in greater depth. The proposals collected are continuously earmarked with budget funding and prioritised by an internal administrative steering group.

In the grand scheme of things, the Municipal Masterplan is oriented towards living together in an economically efficient, socially just and environmentally sound manner in the town and its 17 villages. In this way, the town explicitly signs up to becoming a little more aware of its global responsibility for achieving greater sustainability and "One World" in its local actions, both today and in the future. The 2030 Agenda's 17 SDGs help take into account the economic, social and environmental dimensions of sustainability in a balanced and integrated manner when developing the municipality of Rottenburg. The 17 goals are therefore integrated into the Municipal Masterplan, using the corresponding icons.

The strategy is broken down into the following ten thematic areas:

- I **Work** – jobs and development of industry and commerce
- I **Supply** – infrastructure, supply of basic local services and digitalisation
- I **Coexistence** – integration, participation, voluntary work, clubs and associations and living together
- I **Growing older** – accommodation, care and life in old age
- I **Housing** – housing supply, different types of housing and development of the locality
- I **Mobility** – transport, public transport, footpaths and bike paths
- I **Leisure** – Culture, tourism and recreation
- I **Young people** – youth, meetings, training and representation
- I **Education and care** – education, childcare, schools and digital learning

I **Conservation and development** – climate action, the environment, nature, landscape and agriculture

Each of the ten thematic fields contains a baseline survey, including conclusions, recommendations and the derivation of goals. Against this backdrop, proposed solutions and project ideas are developed, along with model projects and ideas for measures that can be conducted in the short term. When implementing the measures from the Municipal Masterplan, a sustainability check (N! check, see "Organisational implementation of sustainability" below) is carried out to ensure that sustainability aspects have been included.

We use ten overarching guiding principles to determine what a sustainable Rottenburg will look like in 2030. These ten principles are depicted overleaf.



1. Work

Jobs, development of industry and commerce

Rottenburg is a sustainable place to do business for companies that offer attractive and inclusive jobs for anyone wishing to live and work there.

It offers sufficient, appropriate space for industries, businesses and services and supports companies that help secure skilled labour.

Existing business locations are optimised, and additional areas zoned for commercial purposes. New businesses have settled in the district. State-of-the-art, accessible jobs have been created that help significantly improve income.

Companies and business owners fulfil their environmental, social and governance responsibilities accordingly.



2. Supply

Infrastructure, supply of local basic services, digitalisation

The villages have a guaranteed supply of basic services close to home. Existing infrastructure has been stabilised and expanded. Throughout the entire municipality, basic services are supplemented by digitalisation and neighbourhood support, and regional producers and companies are involved. Local shops have been established in some villages. Regional and fair trade produce accounts for a high percentage of the goods on sale.

The establishment of community spaces in different villages fosters cohesion and identity and provides space for different groups to pursue cultural and social activities.

In the town core and in the villages, the digitalisation strategy has been implemented for comprehensive broadband rollout. Private households benefit from this to the same extent as administrative bodies and the education and private sectors. Free wifi is available in public buildings and other public areas.



5. Housing

Supply of housing, different types of housing and village development

Housing supply is being expanded throughout the municipality according to needs. Accommodation is available for different life stages, target groups and age structures, along with new, affordable types of housing.

Better use is being made of land to support sustainable construction and more high-density accommodation is available.

Brownfield development takes precedence over greenfield development. New construction projects are only developed if they are sustainable.

As part of rehabilitation measures, village centres are upgraded by making historic buildings more attractive through renovation, conversion and extension.



6. Mobility

Mobility, local public transport, pedestrian walkways and bikeways

Transport strategies have been introduced that support climate action and facilitate intermodal behaviour for all users. These include affordable mobility options and user-friendly, digital mobility packages for different user groups and age groups. The strategies are being continually developed.

It has been possible to reduce motorised personal transport and any associated pollution and noise in both the town core and the villages. Local public transport is affordable, attractive, user-friendly and well networked.



3. Coexistence

Integration, participation, voluntary work, clubs and associations, living together

An awareness of social engagement has been created and strengthened throughout the entire municipality.

Reliable structures have been created for mutual support.

Voluntary engagement is being professionally coordinated, networked and supported.

All residents of Rottenburg are able to participate at all levels of society. Rottenburg embraces diversity and tolerance.



4. Growing older

Housing, care services, quality of life for senior citizens

Rottenburg is a medium-sized town that offers a good standard of living. Older people are able to participate in public life and to age with dignity in their own homes.

Public meeting spaces and routine meet-ups for elderly citizens help older people to stay active and develop different skills.

Innovative, exemplary types of housing for older people have been developed based on the

forward-thinking purchase of land and the approval of planning applications.

An active "culture of recognition" for skilled care workers has been established and is being put into action. There is a sufficient supply of low-threshold, in-patient, out-patient and day-patient services.



7. Recreation and leisure

Culture, tourism, recreation

Rottenburg offers diverse cultural and sports activities for all of its residents, along with a platform for local artists. There are also subcultural offerings that appeal above all to young people and young adults.

Rottenburg campaigns for "soft" tourism, combining a mixture of attractive leisure and experiential offerings and the historic old town, as well as committed hosts and restaurateurs who focus on local tourism and cultural goals.

The river Neckar and its banks and the Wurmlinger chapel are just two of town's characteristic features. It is also the seat of the Bishop of Rottenburg-Stuttgart diocese.



8. Young people

Young people, meet-ups, education and training, representation

Young people are able to experience Rottenburg as a diverse living environment.

A broad array of educational opportunities is offered to young people. They are able to find their own places where they can spend their leisure time, and meet independently, with consumer sovereignty.

In addition to a Youth Council, young people have a broad range of opportunities for easily accessing other political processes, in a number of different ways. Municipal Councils and Village Councils involve young people in all decisions that are relevant to them.

Children are involved in relevant decisions in a child-appropriate manner.



9. Education and childcare

Education, childcare, schools, digital learning

Rottenburg offers family-friendly, flexible, inclusive and integrative education and childcare services.

Inclusion and integration are perceived to be a societal task and a proactive approach is adopted in this context. For this reason, not only are there more trained care workers, corresponding services are also available in the areas of education, care and leisure, across different locations.

The diverse educational and childcare landscape in Rottenburg is maintained and further developed. This includes kindergartens, primary schools and educational opportunities for adults, along with care services in the villages, as such facilities are a good investment in terms of improving the quality of living. Educational institutions and sporting amenities are renovated, adapted for modern needs and extended where necessary. To improve quality, the clear commitment to small schools requires more school clusters and, in this context, closer cooperation between schools.



10. Conservation and development

Climate action, environmental protection, nature conservation, landscape, agriculture

Rottenburg is a carbon-neutral town. Anyone living and working here has adapted their behaviour accordingly. In the interest of climate action, incentives have been offered, and rules and regulations are also being put in place.

Alternative, renewable sources of energy have been further expanded.

Thanks to continuous engagement, a municipal biodiversity strategy has been developed that serves to not just protect species and habitats, but also raise awareness and create value.

Agriculture provides an important source of income. It contributes to the supply of basic local services and plays a responsible role in conserving the diverse, species-rich cultural landscape. In this way, it also contributes to climate action. Particularly valuable areas of this cultural landscape are therefore excluded for other rights of use. Special consideration is given to the appropriate management of agricultural areas.



2.4 Organisational mainstreaming of sustainability

In recent years, Rottenburg has established diverse structures to ensure that organisational elements of sustainability have been mainstreamed. At a general level, sustainability is deemed **a priority for "the person in charge"**, and the Lord Mayor therefore views it as a matter of vital importance. From an operational perspective, the issue of sustainability is anchored in the **Environment and Climate Protection Unit** (which is assigned to Department 2 under the leadership of the First Mayor). Rottenburg's "core administration" is divided into nine divisions and two units. There are also companies owned, or partly owned by the municipality and a foundation. The Environment and Climate Protection Unit is responsible, among other things, for environmental education and advisory services, climate action activities, nature and landscape conservation as well as biotope network planning and maintenance. A separate **part-time position for sustainability management** was created in the unit in 2017/18. Depending on the specific theme, other offices from all three departments of the Municipal Administration are tasked with sustainability topics. Although the Committee for Construction and Sustainability includes "sustainability" in its name, it currently has no overarching role or responsibility in this regard.

Photo 10: Admission of Rottenburg at the Club of Agenda 2030 Municipalities during the 4th networking meeting; from left. Ms. Doris Witterer-Stiepelmann (BMZ a.D.), Ms. Hannah Wagner (Environmental Officer City of Rottenburg am Neckar), Mr. Stefan Wilhelmy (Engagement Global); Source: © Martin Magunia



Rottenburg's **Municipal Council** deals with sustainability issues and decisions in specific contexts through the **sustainability check (N! check)** of draft council documents. The check can quickly assess and present the impacts of planned municipal projects in the different action areas of sustainable municipal development. A targeted assessment can thus be made of the extent to which a planned municipal project will promote or inhibit sustainability. The background to the N! check launched in 2015 is the sustainability check introduced at federal state level in 2011, which was further developed. N! check is based on the structures of the state of Baden Württemberg's sustainability strategy. In 2017, the Sustainability Office of Baden Württemberg's State Institute for the Environment and

Baden-Württemberg's Ministry for the Environment, Climate and Energy Sector launched a pilot project to develop a template for the municipal N! check. This included a test phase in the municipalities, in which Rottenburg actively participated. The municipality's environmental officer was therefore involved in developing the N! check in Baden-Württemberg. Since then, she has acted as a first point of contact for sustainability checks and can be asked to help with moderation and provide documentation. Before an N! check is prepared, the respective support team can provide advice on whether the involvement of external experts (e.g. members of Initiative N!, environmental, cultural and social associations, commissioned architects, etc.) would prove useful. Documents submitted to the Municipal Council (as well as to all committees and advisory councils) will indicate whether or not an N! check has been carried out and is attached to the documents.

If no check was carried out, a corresponding explanation must be provided. In 2022, Rottenburg compiled a list of projects that were suitable/not suitable for the N! check. The findings from Rottenburg continue to be incorporated into the work of Baden Württemberg's State Institute for the Environment.

Key organisational structures for achieving sustainability in Rottenburg also include the multistakeholder partnership **Initiative N!** to promote **good quality of life in Rottenburg am Neckar** (in which the administration and representatives from various social groups work together) and the Local Agenda 21 platform, whose office is based in the Environment and Climate Protection Unit.

2.5 Public participation for sustainability

Public participation on various themes and overarching tasks of sustainable municipal development has a high priority in Rottenburg am Neckar and is encouraged and fostered in a number of different ways. In addition to the participatory processes in Local Agenda 21 and Initiative N!, the pilot project **Municipal Development Advisory Council** deserves particular mention. The council – which was introduced in 2022 – embodies a new format for citizen participation (as part of the model project on shaping the future together locally with the Berlin Governance Platform, which is funded by the Federal Agency for Civic Education). It is made up of representatives from politics, the administration, civil society and the business community and is tasked with developing recommendations for action for the Municipal Council on peaceful coexistence and sustainable development in Rottenburg in the context of multiple crises. It advises on sustainable development of the municipality, based on public interests and a plan of sustain-

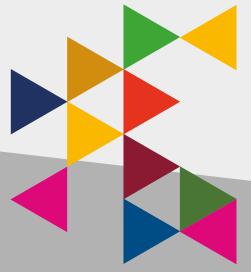
ability that is aligned with the 17 Sustainable Development Goals.

Rottenburg also has several advisory councils and representative bodies where concrete ideas and suggestions can be put forward. The Rottenburg **Integration Advisory Council**, which was appointed for the first time in 2017, advises politicians and administrators on all issues related to integration and migration. The aim here is to help improve the living conditions of people from a migration background. The Rottenburg **Disability Advisory Board**, which was also appointed for the first time in 2017, advises politicians and administrators alike on inclusion. In this way, it works on achieving equal living conditions for people with disabilities living in the Rottenburg area and is also the point of contact for people with disabilities, clubs and associations, self-help organisations, rehabilitation agencies and the municipality's citizens. In the **Youth Council**, young people in Rottenburg am Neckar actively participate in local political events and present their own ideas. The representation is a body elected by secondary schools to represent the interests of young people and young adults at a political level in the municipality. The District Senior Citizens' Council is the district board of trustees for outreach services for the elderly and carries out advocacy work to support the interests of older people.

Further examples of public participation include:

- Participation by residents with relevant expertise in the various committees, e.g. in the Social, Education and Culture Committee and the Committee for Construction and Sustainability
- Participation by citizens from the town core and its villages as well as from administration and politics via a number of different formats in developing the Municipal Masterplan, including the mainstreaming of sustainability and of the SDGs
- Citizens' council on the theme of Regional Slaughter, But How? to support decision-making on using municipal funds for the slaughterhouse in Rottenburg am Neckar

- Dialogue on energy: Citizen participation process in the framework of the Municipal Council's decision to lease land for the construction of wind turbines
- Citizen participation in the redesign of the through road in the village of Kiebingen
- Citizen participation in the At Home in Seebonn initiative to design a plan for the future of both the young and old in the village of Seebonn as part of the Impulses for Neighbourhoods programme of the Baden-Württemberg Alliance for Participation network
- Citizen participation in the pedestrianisation plan
- Citizen participation in translating the SDGs into the local dialect and printing them on beer mats



03

3 Implementation of the Sustainable Development Goals (SDGs) in Rottenburg am Neckar

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3.1 SDG 6 – Clean water and sanitation

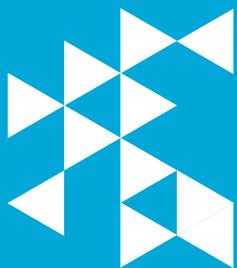
3.1.1 SDG 6 – Introduction and relevance for German municipalities

SDG 6 is designed to ensure availability and sustainable management of water and sanitation for all. It concerns access to drinking water and sanitation/hygiene for all. It also includes wastewater management, water protection, long-term water availability, efficient water use and the promotion of integrated water resources management. Groundwater is the major drinking water resource in Germany. However, water plays an important role not only for human supply, but also for instance in agricultural production and the preservation of ecosystems. To ensure the maintenance of natural and near-natural water cycles and water supply, water resources must be protected against pollution and overexploitation. The key focus of implementing

SDG 6 in Germany is therefore on improving water quality. However, the effects of climate change mean that seasonal/regional water scarcity will increase in the future. This also brings the responsible use of water resources into focus.¹¹ For German municipalities, the following themes are therefore especially relevant at the local level (please also compare these with the targets for SDG 6 in the annex):

- | Ensuring water quality and avoiding water scarcity
- | Protecting aquatic ecosystems
- | Guaranteeing municipal sanitation and wastewater disposal.

¹¹ See Germany's Voluntary National Review to the High-Level Political Forum 2021 and the German Sustainable Development Strategy 2021.



3.1.2 Overview of qualitative aspects and indicators

Qualitative aspects:

- | Water bodies and water quality
- | Wastewater treatment
- | Drinking water supply
- | Sanitation

Indicators:

- | Wastewater treatment
(using Kiebingen sewage treatment plant as an example)
- | Nitrate load

3.1.3 Qualitative aspects

Water bodies and water quality

While the supply of drinking water and sanitation services in Germany comes under the umbrella of public services, there is still a great need to improve water quality. The basic requirements for the quality of surface water (rivers, lakes, transitional and coastal waters) and for groundwater are stipulated in the EU Water Framework Directive, which aims to achieve a status of "good" for all surface waters and groundwater throughout Europe by 2027 at the latest. For surface waters, this means both good ecological and chemical status, and for groundwater, good chemical and quantitative status. Under the directive, the term "ecological status" refers to quality in terms of the structure and functioning of aquatic ecosystems. The chemical status is assessed as good if the limit values of certain pollutants are met. In terms of good quantitative status, a balance between groundwater abstraction and recharge must be ensured. If the status of surface waters and groundwater is good overall, then structures are as close to their natural state as possible and pollution levels are low.

Photo 11: Dettingen flood retention basin,
Source: Rottenburg town council



Germany's Voluntary National Review to the High-Level Political Forum 2021 (report on implementation of the 2030 Agenda for Sustainable Development) states that all of the 9,800 surface water bodies and over a third of the 1,200 groundwater bodies in Germany have so far failed to achieve the overall status of "good". A report on the status of water bodies published in 2022 by the Federal Environment Agency (UBA) and the Federal Environment Ministry (BMU) entitled The Water Framework Directive. Water Bodies in Germany 2021. Progress and Challenges provides detailed information on these findings. For example, only 9 per cent of all surface waters currently achieve good ecological status, and none of the surface waters achieve good chemical status. For groundwater, 67 per cent of water bodies achieve good chemical status and 95 per cent achieve good quantitative status. In both groundwater and surface water, pressures from nutri-

ents and pollutants occur across the board – especially from phosphorus, nitrogen and mercury (only 1 per cent of surface waters and 53 per cent of groundwater bodies in Germany are currently considered uncontaminated). The main reasons most surface waters do not achieve an ecological status of "good", on the other hand, are construction, straightening of watercourses and the interrupted continuity of watercourses by transverse structures. Germany therefore plans to implement extensive corrective measures over the next few years. The measures planned for the current management period (2022 to 2027) include restoration to improve habitats for animals and plants in over 80 per cent of surface waters; nutrient and pollutant inputs are to be reduced in over 60 per cent from diffuse sources and in almost 30 per cent from point sources. In groundwater, measures in the agricultural sector to reduce pollution from diffuse sources predominate, accounting for more than 50 per cent of all measures.

Against this backdrop, Rottenburg has also been committed to **protecting water-related ecosystems** for many years. As far back as 1988, the Municipal Council decided to implement a hydraulic engineering

programme to improve the ecological quality of watercourses and support flood protection. By 1994, DM 3.62 million had been invested in the programme and a decision made to continue it. In 1995, the watercourse maintenance programme was prepared, which included measures on watercourses from the biotope networking programmes. In this context, around 70 km (about two-thirds of the total length) of regionally significant and smaller water bodies are maintained every year. The measures are financed from the municipal budget (approx. EUR 90,000 per annum). Further measures to improve ecological quality and biodiversity are financed from the municipal eco-account and using external funding. The eco-account can be used to implement important nature conservation measures. The underlying idea here is that the loss of nature and landscape caused by the environmental impact of construction work must be compensated for through other preventative conservation measures. These measures are financed by the developer that initiates the work. This is where the Rottenburg eco-account model comes in. It can be used to pool compensation measures and implement them in other areas and at a different time to the construction work itself.

Photo 12: Trial start-up-EssDe_Wastewater_treatment_plant-Kiebingen,
Source: Municipality of Rottenburg



Wastewater treatment

Municipal wastewater treatment in Rottenburg is carried out by the company Stadtentwässerung Rottenburg am Neckar (SER), which is owned by the municipality. The treatment of wastewater (used water from households and businesses, i.e. sewage and rainwater) is an important measure for achieving a water status of "good". In Rottenburg, **sewage and rainwater** are **mainly collected separately in the sewerage system**. Wastewater is discharged via public sewerage systems and is treated in municipal treatment plants. Municipal treatment plants therefore play a key role in reducing the input of nutrients and pollutants into the environment. SER operates four of its own treatment plants, all of which have their own laboratories and suitably qualified personnel to monitor effluent values. It also manages a plant that treats wastewater for a cluster of municipalities.

In treatment plants, wastewater undergoes various stages of treatment to free it from pollutants and nutrients, leaving what is known as sludge. Treatment **facilities** in Rottenburg have undergone general **technical improvements** in recent years. This includes the construction and commissioning of membrane filtration plants for the further treatment of wastewater and improvement of the discharge values into the water environment. The construction of a digester to produce gas and feed it into a separate combined heat and power plant can also significantly reduce sewage by about one third.

Between November 2022 and March 2023 in particular, increasing shortages of chemicals (such as ferric chloride) for phosphorus precipitation posed huge problems for the German wastewater industry. There is a **shortage of precipitants** throughout Germany. They play a key role in ensuring compliance with discharge limits for phosphorus and thereby in protecting water bodies from eutrophication.

Regarding **further treating rainwater**, in areas with a separation system, a retention soil filter can be installed to purify water e.g. from roads, farmyards, residential courtyards and parking areas during its passage through the topsoil into the subsoil. The treated water is collected by a drainage system and can be discharged through a drainage structure into a nearby body of surface water or can help recharge groundwater through infiltration. Rainwater that does not require treatment is harvested, e.g. using green roof systems, and returned to the water cycle through evaporation and plant metabolism. Alternatively, it is routed directly to infiltration using trough-drain trench systems.

The municipality of Rottenburg offers a wide range of **training and further education** measures for **staff at wastewater treatment plants**. Specialised courses are available in addition to general training within the municipality. Meetings of "neighbourhood groups" for the staff of sewage treatment plants and laboratories are also held twice a year, where participants can share their personal experience and discuss problems

with an experienced wastewater engineer. Rottenburg am Neckar also values **PR work at sewage treatment plants**. Guided tours are given on request for apprentices as well as for kindergartens, schools, universities, associations and clubs. Routine open days are also held.



Photo 13: Dettingen flood retention basin,
Source: Rottenburg town council

Drinking water supply

The municipal utilities (Stadtwerke) are responsible for **drinking water supply** in Rottenburg am Neckar. They ensure that Rottenburg's citizens receive top-quality drinking water. 60 per cent of drinking water requirements are obtained locally from the Bronnbach spring, the remaining 40 per cent from the Ammertal-Schönbuch group, the Gäuwasserversorgung water utility and the Starzel Eyach group. The Bronnbach waterworks supplies about 3,500 m³ per day or 1,277,500 m³ per annum (1 m³ = 1,000 litres). A family of four living in Rottenburg with an average income and water consumption pays about 0.8 per cent of their annual income for clean drinking water. The water originates from the high plains of the surrounding Stäble and Gäu region. The water protection area of the springs, which is divided into different protection zones, cov-

ers approx. 110 km². As the spring area has cover of varying heights of shell limestone and a clayey type of sedimentary rock known as keuper, the water must be extensively treated. The water is filtered, sterilised using ozone and softened. The water treatment process reduces nitrate levels in the drinking water to 21mg/l.

To collect rainwater and use it for the purposes of water conservation, residential and commercial development plans also **stipulate** general regulations for developers **for installing water tanks on construction sites**. Water tanks are underground, covered or enclosed collection tanks and serve as buffer storage tanks for supplying water to houses or small villages and towns.

Rottenburg also has a central **drinking water well** in the town core, which was overhauled in 2022. Wirtschaft Tourismus Gastronomie Rottenburg am Neckar, a company owned by the municipality, and the Environment and Climate Protection Unit, set up nine **refill stations** in the town core, following an awareness raising campaign. Refill Deutschland is a Germany-wide not-for-profit organisation established in 2017 that works to prevent plastic waste by setting up stations to dispense tap water free of charge into reusable containers.

Photo 14: New construction of retention soil filter AZV Bondorf/Hailfingen





Photo 15: Bronnach waterworks, Source: Stadtwerke Rottenburg

Sanitation

As regards sanitation, the Rottenburg Municipal Administration has examined possible locations for public toilets in the town core, within the framework of its toilet strategy. In addition to the installation of new public toilets, a "nice toilet" strategy is also being implemented, which involves tradespeople (particularly catering establishments) allowing the public to use their bathroom facilities free of charge. Participating traders receive compensation from the municipality in return. In this way, citizens can avail themselves of a comprehensive network of freely accessible toilets.

3.1.4 Indicators



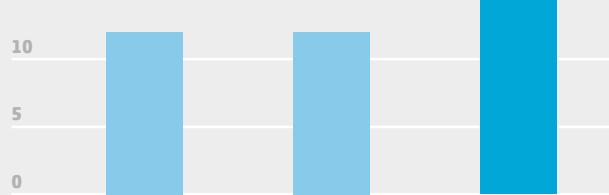
Wastewater treatment (using Kiebingen sewage treatment plant as an example)

Effluent load in milligrams per litre

(Source: Municipality of Rottenburg am Neckar and review by the District Administration)

Wastewater treatment (COD – information regarding the pollution load)

12
2010 **12**
2015 **15**
2020

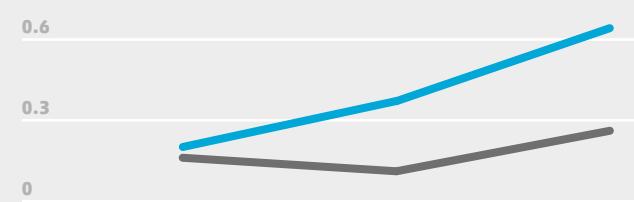


The wastewater treatment indicator refers to compliance with and improvement of effluent values in accordance with the requirements of the receiving waters. Using the Kiebingen wastewater treatment plant (45,000 PE) as an example, the prescribed limits and actual measured values of chemical oxygen demand (COD), ammonium ($\text{NH}_4\text{-N}$) and phosphate (P) are examined.

Microorganisms in sewage treatment plants need oxygen to break down pollutants. The COD test is therefore an important tool for controlling the biological degradation stage in sewage treatment plants. The required limit values for COD of effluent at the Kiebingen wastewater treatment plant were set at 60 mg/l in 2009 and at 48 mg/l in 2013. The values in Rottenburg am Neckar were significantly under these limits. This shows that purification at the plant is functioning well and that microorganisms in the tanks are metabolising extensively. As regards the 2020 values, please note that the composition of wastewater changed during the pandemic (working from home and the closure of

Wastewater treatment (COD – information regarding the pollution load)

	Ammonium ($\text{NH}_4\text{-N}$)	Phosphate (P)
2010	0.20	0.16
2015	0.37	0.11
2020	0.64	0.26



businesses and public facilities over long periods of time led to an increase in domestic wastewater, for example). For all of the data analysed, it must be pointed out that a large proportion of inputs into water bodies also comes from agriculture, through fertiliser loads and monocropping (e.g. corn).

The official limit for ammonium in 2009 was 5 mg/l. It was brought down to 3 mg/l in 2013 to minimise further pollution of water bodies. Ammonium – which is known to poison fish – is reduced and degraded to an even more significant degree in Rottenburg. This also reduces the growth of algae in water bodies, relieving the burden on the Neckar, the largest receiving watercourse, on its way north.

As regards phosphate, Rottenburg was also below the official limit of 0.5 mg/l in effluent, which reduces eutrophication in the Neckar. Phosphate recovery from sludge and wastewater will play a decisive role in the operation of wastewater treatment plants in the future.



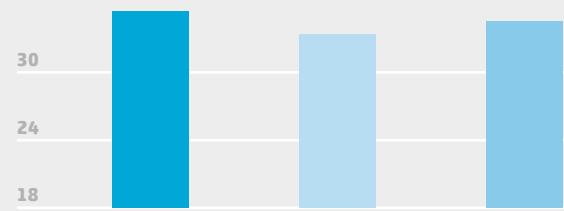
Nitrate load

Nitrate contamination in drinking water in milligrams per litre
(Source: Municipality of Rottenburg am Neckar)

Groundwater in Germany is often heavily polluted with nitrate. One cause of this is the use of nitrogen fertilisers in agriculture. The EU Nitrates Directive therefore stipulates a maximum limit so as to protect waters against pollution caused by nitrates from agricultural sources. The standard of 50 mg nitrate per litre, which is uniformly defined for groundwater in the EU Groundwater Directive, was anchored in the German Groundwater Ordinance (GrwV) as a threshold value. If this value is exceeded, measures must be introduced to reduce the inputs. Both the EU directive and the German ordinance stipulate that – once rising pollutants are detected – countermeasures (i.e. to reverse the trend) must be initiated as soon as three quarters of the threshold value is reached, that is at 37.5 mg ni-

Nitrate load

35.5 mg/l
2010 **33.42 mg/l**
2015 **34.60 mg/l**
2018



trate per litre. In Rottenburg, the nitrate value of the drinking water has been consistently below this warning value of 37.5 mg/litre of monitored groundwater over the last decade.



3.2 SDG 7 – Affordable and clean energy

3.2.1 SDG 7 – Introduction and relevance for German municipalities

SDG 7 aims to ensure access to affordable, reliable, sustainable and modern energy for all. A secure, environmentally sound and affordable supply of electricity and heat is key to social and economic development. It is also directly linked to environmental protection and climate action. Energy and heat security, environmental compatibility and affordability form a triad of energy policy goals. In Germany, climate and energy policy as part of the energy transition aims to decarbonise energy systems by promoting renewables, reducing energy consumption and increasing energy efficiency. This is designed to achieve the overarching goal of carbon neutrality. The transformation towards a

sustainable energy supply must be implemented in various sectors (energy and agriculture, industry, buildings and transport). Achieving digitalisation and innovation by investing in research and new technologies plays an important role in this.¹² When localising implementation of this SDG, German municipalities on the whole face the following thematic tasks (please also compare these with the targets for SDG 7 in the annex):

- | Promoting renewable energy
- | Increasing energy efficiency
- | Ensuring access to an affordable and reliable energy supply.

¹² See Germany's Voluntary National Review to the High-Level Political Forum 2021 and the German Sustainable Development Strategy 2021.



3.2.2 Overview of qualitative aspects and indicators

Qualitative aspects:

- | Energy and climate action – overarching goals, developments and activities in the Municipality of Rottenburg
- | Support for renewables
- | Heat supply
- | Support for energy efficiency
- | Energy and climate action – municipal buildings

Indicators:

- | Electricity from renewable sources
- | Community heating systems
- | Preparation of energy reports
- | Completed residential buildings with renewable heating energy
- | Use of renewables in housing construction
- | Retrofitting of heating systems
- | The Buy-Renovate-Design-Protect and the Green Construction municipal programmes
- | Energy advice for Rottenburg households
- | LED lighting in public buildings
- | Charging point infrastructure
- | Cuts in greenhouse gas emissions through climate action projects

3.2.3 Qualitative aspects

Energy and climate action – overarching goals, developments and activities in the Rottenburg municipality

With the Federal Climate Change Act (2021), the German Government has set itself the objective of reducing carbon emissions by 65 per cent by 2030, compared with 1990 levels. Germany is to achieve carbon neutrality by 2045, which means that the emission of greenhouse gases must be balanced by their reduction.

The Municipality of Rottenburg also wants to make a substantial contribution to climate action and the energy transition and has set itself the goal of becoming **carbon neutral**. The following overarching goals have therefore been incorporated into the energy and climate action section of Rottenburg's 2030 Municipal Masterplan and are to be achieved by 2030:

Photo 16: eea award ceremony, Source: KEA-BW Martin Stollberg



- The term Carbon-Neutral Municipality has become Rottenburg's mantra. Carbon neutrality essentially means that Rottenburg generates as much energy as it consumes. To achieve this objective, it is important not just for the municipality to lead the way, but also for its citizens to be willing to play their part and to change their ways. In the interest of climate action, incentives are being provided, and rules and regulations are also being put in place. Action is being taken, for example, through local net zero energy production, energy cooperatives (set up independently by relevant stakeholders) and the certification of buildings with high energy efficiency.
- The municipality was awarded the European Energy Award for its commitment to climate action and energy efficiency.
- The supply of alternative and renewable energies (wind turbines, photovoltaic systems) has been further expanded.

A variety of activities have been completed in Rottenburg in recent years to achieve the targeted goals. The municipality's **climate action masterplan** was published as far back as 2010. The integrated climate action and energy plan is based on a holistic approach in which the four areas heat, electricity and transport are viewed with regard to their contribution to climate action. As part of the rollout, the position of a climate action officer was created and filled in 2013. As well as implementing the measures contained in the climate action masterplan, further measures and plans have been developed and implemented (for example, as part of the European Energy Awards, the community heating plan as well as implementation of the cycling and pedestrianisation plans).

The first **carbon audit** was prepared for the nucleated town in 2010 within the framework of preparing the climate action masterplan. This provided an overview of the energy sources used, their potential and emissions, the distribution by sector (households, transport, etc.) as well as the per capita emissions for the nucleated town and the 17 localities. In 2019, the decision was made to prepare an audit every four or five years so as to monitor trends. The next audit was therefore commissioned in 2019, with another scheduled for this year (2023) as part of the community heating plan (see below for further information).

In 2019, Rottenburg's Municipal Council decided to participate in the **European Energy Award** (eea), an international quality management and certification tool for climate action at the local level. Developed at the end of the 1990s, more than 350 municipalities and districts throughout Germany now participate in the system. The eea aims to help municipalities achieve carbon neutrality. The systematic and structured approach of the eea process allows effective and efficient measures and tailor-made solutions for achieving climate neutrality to be developed and implemented – from expanding the electricity sector towards 100 per cent renewable energies right through to the heat and sustainable mobility transitions and sector coupling. Against this backdrop, an Energy Team was established at Rottenburg's Municipal Administration, which de-

veloped an energy policy work programme that was adopted by the Municipal Council. A first audit was successfully carried out in December 2022. Rottenburg then received the eea award following a three-year process. The work programme will form the basis for activities over the next few years that will lead into the re-audit. The programme currently contains around 70 measures with different priorities and levels of progress.



Photo 17: Redevelopment mobile, Source: Rottenburg city council

Support for renewables

Support for renewable energies is a key component of the energy transition. A total of 140,295,389 kWh of energy was consumed in Rottenburg in 2015, which had dropped to 133,789,528kWh in 2020. While 27,725,790 kWh of this energy was generated by **renewable energies** in 2010, this value had already jumped to 42,842,891 kWh by 2015 and to 43,158,223 kWh by 2020. The municipal utility's own installations produced around one third of this. The drop in energy consumption is due, among other things, to the increased percentage of feed-in and self-consumption, increased energy efficiency in industry and reduced industrial production during the pandemic.

The **energy cooperative eER Rottenburg am Neckar** supports projects in the region that produce renewable energy at the local level. These include the uses of PV systems first and foremost, as well as participation in wind power projects. eER was initiated in 2009

Photo 18: Roman Museum LED, Source: Rottenburg City Council



by the solar group of Local Agenda 21 Rottenburg and other private individuals.

A **wind park** would offer Rottenburg the opportunity to generate its electricity requirements needs calculative from renewable sources, with zero emissions. Against this backdrop, the municipal utilities and the municipality of Rottenburg, in cooperation with Altus AG – an experienced project developer of wind power and photovoltaic installations – are pushing ahead with constructing eight wind turbines throughout Rottenburg on municipally owned land. In November 2022, the Municipal Council voted by an overwhelming majority to lease municipal land in Hailfingen, Oberndorf and Wendelsheim. The vote was preceded by a comprehensive debate on energy from an early stage, as part of an informal public consultation process, which is par-for-the-course in Rottenburg. In this context, citizens are involved in advance of the approval procedure (when they are officially kept in the loop on a formal basis). A group – moderated and supported by the Dialogue Forum on Energy – was set up to ensure objective and unbiased discussion of the leasing decision. It consisted of representatives from all political parties and lists of the Municipal Council, representatives of the affected villages, youth groups, local citizens' initiatives, the Municipal Administration and the municipal utilities. Visits to similar wind farms were also carried out. Citizen participation was a top priority, in order to increase acceptance among the population. Several public information events were held for all citizens from June 2022 onwards, for example.

Heat supply

A community heating plan forms the basis for achieving carbon-neutral heat supply. Under the Baden-Württemberg Climate Act, Rottenburg is obliged to develop a **community heating plan** by the end of 2023. The plan will include a status analysis (survey of current heat requirements and consumption as well as the resulting carbon emissions), a potentials analysis (determination of the potential for saving energy) and the preparation of a target scenario. This scenario will help

us ensure that future heat requirements are covered using renewable energies, allowing us to achieve carbon-neutral heat supply for the nucleated town and the 17 localities. This includes a detailed area-by-area description of the supply structure that will be required by 2040, with an interim target for 2030. Measures for implementing and achieving this goal will be described in the plan. The initial results of the status analysis were presented to the responsible working group at the end of 2022, along with a roadmap of future activities.

The community heating plan will, among other things, define what neighbourhoods will be supplied via a heating network or decentralised supply system. The first detailed study will be carried out in the neighbourhood of Rottenburg Oberndorf, in order to quickly draft a strategy for implementing a carbon-neutral heating network and reduce energy demand there. Further **neighbourhood plans** and feasibility studies will be prepared and conducted when compiling the plan.

Rottenburg has been able to continuously increase the share of heat generated from **community heating systems** in recent years (from 3,468,120kWh in 2016 to 3,762,644 kWh in 2020 and an impressive 4,524,096kWh in 2021). Community heating systems supply heat to buildings over relatively short distances, compared with district heating systems. They offer a number of advantages over other heat generation technologies. The generation of heating in a centralised location is extremely energy-efficient. The networks can be equipped with seasonal heat storage units to facilitate a high percentage of solar thermal energy, for example.

Support for energy efficiency

Businesses consume about one quarter of the energy produced in Baden-Württemberg. It is therefore important that they are supported in maximising their energy efficiency. Against this backdrop, a business advisory campaign was launched in the municipality in late 2021.

As part of the municipal climate action programme, Rottenburg cooperates with the Reutlingen Chamber of Industry and Commerce and the Tübingen District Climate Action Agency in running the **Energy Roadshow**, to name just one example. The roadshow offers free energy advice to Rottenburg businesses, with PV systems a potential option in the review. Participating businesses are also provided with information on current energy efficiency support programmes. In a first step (at the end of 2021 and start of 2022), these services were made available to businesses in the town core and the 17 localities. As a second step in late 2022, services were opened up to other businesses in different surrounding villages.

Since then, participation in the state of Baden-Württemberg's **KLIMAfit pilot project** has also been launched with the municipalities of Rottenburg, Tübingen, Mössingen and Reutlingen (under the leadership of the City of Tübingen). KLIMAfit is a support programme run by Baden-Württemberg's Ministry for the Environment, Climate and Energy Sector. With professional support from the consulting firm Arqum, participating businesses draw up a carbon audit for their companies and develop economically viable measures for improving their energy efficiency and reducing emissions.

Rottenburg am Neckar also actively assists in improving energy efficiency and reducing energy consumption in the area of housing. A Municipal Council resolution of 1 January 2021 stipulates that all new residential areas must be developed in accordance with the **energy-efficient home standard KfW55**. A rule was also introduced obliging developers buying municipal land

for construction purposes to obtain advice on energy efficiency, irrespective of whether the development is for residential or commercial purposes. Developers are also obliged to connect to a cold community heating network, depending on the heating system they intend to use in a new development.

Energy and climate action – municipal buildings

Energy reports for municipal buildings have been prepared in the municipality since 1997. They are compiled at regular intervals by the Office for Buildings and show energy consumption by the properties in the town core and its villages. The last energy report was published in 2015. Reports were prepared for 2018 and 2019, but were not published. From 2020 onwards, the energy consumption of 92 buildings has been recorded in climate fact sheets in accordance with the Baden-Württemberg Climate Act and presented to the administrative body. These fact sheets present the most recent figures for consumption of heat, electricity and water and facilitate a comparison between the different towns and cities in Baden-Württemberg. Where above-average consumption is identified for a building, the underlying reasons are first identified, before steps are taken to address the situation. High consumption figures are usually down to the construction method used. This includes defective power lines for example, which can have a detrimental impact even after the problem has been rectified. As caretakers play a key role in raising the awareness of the different occupants, they undergo targeted training and attend regular talks.

To reduce the municipality's energy consumption, **lighting** is being gradually **retrofitted** since 2014, by changing conventional neon tube lighting to LEDs. Electricity use is down by an average of 50 per cent in these buildings. Replacing the lights in a sports hall led to savings of 19,610 kWh per annum for example, with an annual drop of 22,870 kWh per annum in the town's Roman Museum. The lighting in around twenty

ty kindergartens and other buildings such as the arts centres and town halls in the nucleated town was also retrofitted.

Heating systems in Rottenburg's municipal buildings are also being **retrofitted** (currently there are 52 oil-fired heating systems, 14 pellet systems, 76 liquid gas systems, three buildings with electric heating, one with an air-to-water heat pump and 22 buildings connected to community heating networks). Existing heating systems are regularly serviced to minimise consumption. Depending on the financial situation, oil heating systems are replaced with pellet systems, for example. The municipal utilities operate the community heating networks.

As conventional heating pumps are hard on electricity, any **heat pumps** in public buildings were also **replaced with energy-efficient ones** between 2017 and 2022. Of the 230 or so heat pumps in operation, 172 have been replaced so far, which equates to around 75 per cent of the pumps used in municipal properties. The remaining heat pumps will be replaced in the years to come, the aim being to gradually replace all old pumps.

Since 2017, the Office for Buildings has also been preparing and commissioning **roadmaps for renovating municipal buildings that are in a poor state of repair**. The roadmaps chart measures for rolling out an appropriate energy efficiency standard in the buildings in question. Twenty roadmaps had been prepared by February 2021, covering the replacement of around ten boiler systems and implementation of several insulation and window replacement measures. Some of the roadmaps were also drawn up by the municipal utility Wohnbau Rottenburg am Neckar.

Photo 19: Renovated residential building of WBR,
Source: Wohnbau Rottenburg



3.2.4 Indicators

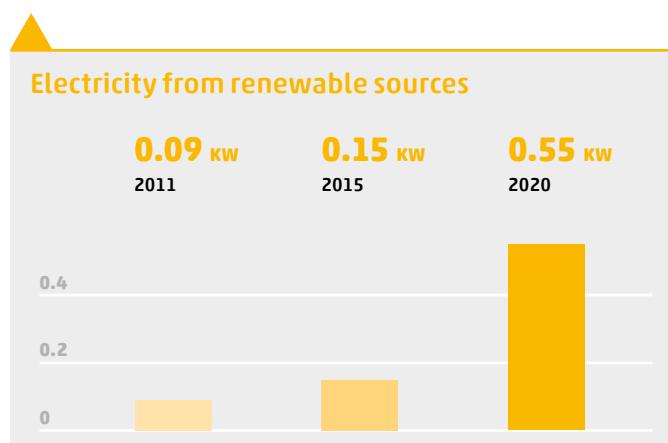


Electricity from renewable sources

Net installed nominal capacity of renewable electricity from biomass, solar energy, hydro and wind per capita
(Source: SDG Portal)

A sustainable energy economy relies primarily on renewables. This indicator provides information on the net installed nominal capacity of renewable electricity from biomass, solar energy, water and wind per capita in a municipality. In the Municipality of Rottenburg am Neckar, the net nominal capacity of renewable electricity has risen continuously over the period under review and most recently (2020) stood at 0.55

kilowatts per inhabitant. The national average of 1.51 kilowatts per capita is considerably higher. This trend contributes to achievement of target 7.2.b. of the German Sustainable Development Strategy: "Increase the share of electricity from renewable energy sources in gross electricity consumption to at least 65 per cent by 2030".





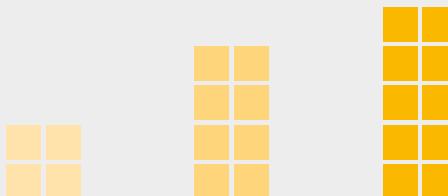
Preparation of energy reports

Number of self-compiled energy reports and reports prepared in accordance with section 7b of the Baden Würtemberg Climate Act
(Source: Municipality of Rottenburg am Neckar)

Rottenburg compiled energy reports on its own initiative up to 2019. From 2020, the Baden-Württemberg Climate Protection and Energy Agency (KEA) has published special tables in accordance with section 7b of the Baden-Württemberg Climate Act. These are filled out by the municipality and submitted to KEA. KEA compiles fact sheets on this basis, which are used to compare data from the different towns and cities in Baden-Württemberg and map out current consumption. The fact sheets for 2020 and 2021 have already been published; the 2022 version is currently being prepared.

Preparation of energy reports

4 2012 8 2018 10 2020



Completed residential buildings that use heat from renewable sources

2018	2019	2020
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70.1 %	84.7 %	89.8 %
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Percentage of completed residential buildings with heat from renewables in newly constructed residential buildings (Source: SDG Portal).

The use of heat from renewable sources in the construction sector can make a significant contribution to reducing CO₂ emissions. In addition, the use of heat from renewables has positive economic effects on fixed energy costs (e.g. lower investment costs or elimination of carbon pricing) in private households. In the municipality, the percentage of completed residential buildings that use heating from renewable sources has risen significantly over time. The most recent figure

(2020) is 89.8 per cent, which is well above the most recent national average (2020) of 50.5 per cent. The German Sustainable Development Strategy aims to increase the percentage of renewables in gross final energy consumption (target 7.2.a). The Municipality of Rottenburg am Neckar contributes indirectly to achieving this target through its activities in the housing sector.

7 AFFORDABLE AND CLEAN ENERGY



Use of renewables in housing construction

2020	2021	2022
2	1	1

Number of retrofitted and newly constructed buildings per annum (Source: Municipal utility Wohnbau Rottenburg am Neckar)

This indicator records the number of buildings that have been retrofitted by the municipal utility Wohnbau Rottenburg am Neckar to help reduce carbon emissions. Energy-saving aggregates (PV, pellet, district heating and cold community heating systems) were installed

in this context, avoiding fossil fuels as a primary energy source. The 2021 development comprises a new build with 57 residential and two commercial units. It is heated using a combined heat and power (CHP) installation.

7 AFFORDABLE AND CLEAN ENERGY



Retrofitting of heating systems

2014	2016	2019	2022
2	3	3	1

Number of heating systems retrofitted or replaced (Source: Municipality of Rottenburg am Neckar)

Nine heating systems were installed or retrofitted between 2014 and 2022 in order to save heating energy and cut carbon emissions. Furthermore, around 178 of 230 heat pumps have been replaced since 2014 to save

electricity; this represents 75 per cent of all municipal heat pumps.

7 AFFORDABLE AND CLEAN ENERGY



The Buy-Renovate-Design-Protect and the Green Construction municipal programmes

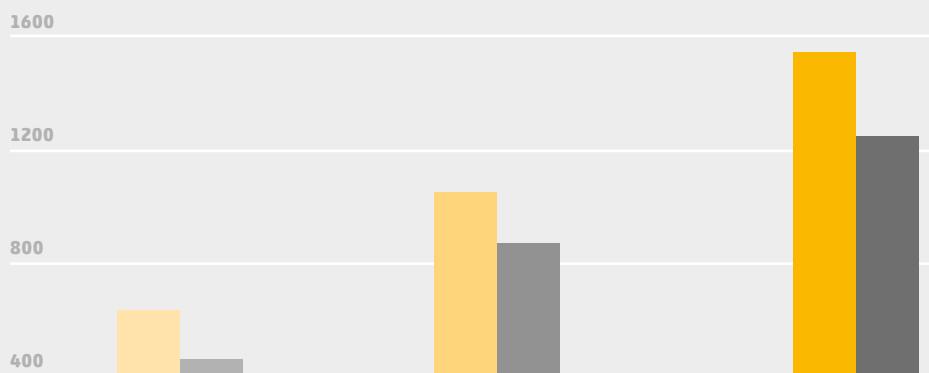
Funding for the expansion of renewable energies through the installation of PV systems in conjunction with storage systems on the roofs of private households that export energy into the grid (Source: Municipality of Rottenburg am Neckar)

The Municipality of Rottenburg am Neckar has been assisting its citizens in investing in renewable energy since 2020 by providing funding for the installation of PV systems in conjunction with storage systems on the roofs of private households that export energy into the grid. To this end, the Municipal Council provided funding for the Buy-Renovate-Design-Protect programme (2020) and for the Green Construction programme (2021 and 2022). The amount of funding provided per installation was reduced after the first year of the programme so that significantly more measures could be

supported from a similar municipal budget. The funding provided by the municipality for the installation of renewables over the past three years equates to an average of EUR 4.26 per capita per annum.

Number of private households receiving funding**Total output of the PV systems + Capacity of battery storage**

Total output of the PV systems receiving funding	588 kWp	1,059 kWp	1,539 kWp
Capacity of battery storage installations receiving funding that export energy into the grid	471 kWp	878 kWp	1,243 kWp
2020			

**Total funding**

7 AFFORDABLE AND CLEAN ENERGY



Energy advice for households in Rottenburg

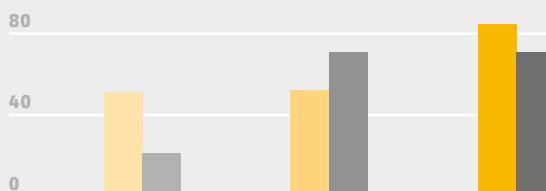
Number of consultations in Rottenburg's Town Hall and on site with the end user
(Source: Municipality of Rottenburg am Neckar)

Energy advisory services have been carried out in Rottenburg for many years. The aim is to significantly increase the renovation rate and promote energy-efficient construction. In recent years, a large-scale PR campaign has been conducted to increase demand. Changed framework conditions (through the provision of financial support) and rising energy prices have led to a sharp increase in numbers. Demand for energy check advisory services has also been high from the outset. There is currently not enough staff available to meet demand for these services.

Please note: These figures do not take into account consultations at events (e.g. the "Energy Advice Mobile", various information stands)

Energy advice for households in Rottenburg

Town Hall	51	52	85
On site	21	71	72



7 AFFORDABLE AND CLEAN ENERGY



LED lighting in public buildings

2012	2014	2021
300	570	640

In 2012, the municipality began replacing conventional incandescent bulbs and fluorescent tubes with LED lighting. Starting with the Kreuzerfeld sports hall, other sports halls were, or are still being retrofitted, along with all municipal kindergartens, schools and administrative buildings. In 2017, for example, Sumelocenna – the town's Roman Museum – was retrofitted with 179

Total of replaced lamps
(Source: Municipality of Rottenburg am Neckar)

lighting points. In 2021, LED lighting was installed in administrative buildings and in a primary school at a cost of around EUR 22,000. More than 1,000 lighting points have been replaced so far. Electricity use has been reduced by an average of 50 per cent in these buildings.

7 AFFORDABLE AND CLEAN ENERGY**Charging point infrastructure**

2016	2018	2020
0.05	0.05	0.57

Number of publicly accessible normal and fast charging points from 3.7 kW per capita (Source: SDG Portal).

Electrification, particularly of road transport, is essential for achieving climate targets. The expansion of electromobility therefore requires a consumer-friendly and reliable charging infrastructure. This indicator provides information on the number of publicly accessible normal and fast charging points in the municipal area. The most recent figures for Rottenburg (2020)

show that there were 0.57 publicly accessible normal and fast charging points from 3.7 kW per inhabitant. The national average is lower, at 0.35 charging points per inhabitant. Overall, developments in Rottenburg contribute to the achievement of target 11.2.b "Reduce final energy consumption in passenger transport" of the German Sustainable Development Strategy.

7 AFFORDABLE AND CLEAN ENERGY**Cuts in greenhouse gas emissions through climate action projects**

2011	2015	2019
0.00 t	0.05 t	0.10 t

Potential greenhouse gas reductions over the period reviewed through completed investment-based funding provided under the municipal guideline, within the framework of the National Climate Initiative, in metric tons per inhabitant (source SDG Portal).

Greenhouse gas emissions make a significant contribution to global warming. Avoiding the burning of fossil fuels where possible in order to reduce greenhouse gas emissions is one of the most important objectives on our path to sustainable development. According to the most recent figures (2020), cuts in greenhouse gas emissions achieved by climate action projects in Rottenburg have risen steadily to around 0.10 metric tons

per inhabitant. This figure is somewhat lower than the average for Baden-Württemberg (2019: 0.18 tons per inhabitant). (No data is available for the federal level). The general trend nevertheless contributes to the achievement of target 13.1.a "Reducing greenhouse gas emissions" laid down in the German Sustainable Development Strategy.

**9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE**

3.3 SDG 9 – Industry, innovation and infrastructure

3.3.1 SDG 9 – Introduction and relevance for German municipalities

SDG 9 aims to build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation. These three elements touch on many areas – such as digitalisation, or information and communications technology. Innovation has the potential to make a key contribution to current challenges, such as climate action and resource conservation, or demographic change. Innovations also play an important role in promoting sustainable industrialisation, which aims among other things to achieve more resource-efficient and low-emission production. The term “infrastructure” includes both technical and social infrastructure (e.g. infrastructure for transport, energy and water/wastewater, as well as education and health

care). When planning and designing infrastructure, various requirements (for instance concerning health, climate change mitigation and adaptation, securing natural resources or equal participation) must be taken into account simultaneously.¹³ For German municipalities, the following areas are therefore especially important for implementing this SDG (please also compare these with the targets for SDG 9 in the annex):

- | Promoting innovation
- | Supporting sustainable industrialisation and business start-ups
- | Establishing sustainable infrastructure, especially for information and communications technology.

¹³ See Germany's Voluntary National Review to the High-Level Political Forum 2021 and the German Sustainable Development Strategy 2021.



3.3.2 Overview of qualitative aspects and indicators

Qualitative aspects:

- | Digitalisation in the Municipality of Rottenburg am Neckar/
Smart Rottenburg
- | Digitalising local government
- | Infrastructure
- | Sustainable business development

Indicators:

- | Broadband services – private households
- | Fibre optic backbone networks
- | Digitalisation of schools – investments
- | Digitalisation of schools – digital devices
- | Self-service terminal
- | Online appointment booking system
- | Transactions for logging faults
- | Online job search
- | Document management system
- | Business start-ups
- | Highly qualified professionals

3.3.3 Qualitative aspects

Digitalisation in the Municipal- ity of Rottenburg am Neckar/ Smart Rottenburg

Increasing digitalisation has had a profound impact on many areas of society over the past decades. It is continuing to advance at a steady pace and requires a powerful digital infrastructure. Digitalisation opens up new and faster areas of application for people, and digital infrastructure has become an important basic need within society. Against this background, Rottenburg's 2030 Municipal Masterplan targets achievement of the following goals by 2030:

- | A municipal digitalisation strategy is in place that includes a plan for comprehensive broadband access for the nucleated town. This will benefit private households and the administration, businesses and the education sector by providing stable job opportunities for employees working from home offices and ensuring the quality of education for home schooling and study.
- | There is free access to the internet in public buildings and public places.
- | Suitable digital communication tools are used to improve networking and communication and foster mutual interaction.

Photo 20: Starting shot for fiber optic building connections Siebentäler,
Source: Rottenburg town council



We recognised early on in Rottenburg that a high-performance data transfer infrastructure is vital for digital transformation and for future security. Broadband supply using fibre-optic lines as the infrastructure of the future was initiated as far back as 2008, which was indeed very forward-thinking at the time. In that same year, the Municipal Council decided to build a fibre-optic network at its own initiative. For a rural town like Rottenburg, this was also seen as an opportunity to keep abreast with urban centres in terms of attracting people to live and work here. Since then, every effort is being made to drive **broadband expansion in Rottenburg**. Specifically, we are creating a broad-based mu-

nicipal fibre-optic infrastructure with open network access, which means that all telecommunications companies can use the fibre-optic line. This shared-use approach is designed to ensure that the infrastructure is as effective as possible and therefore conserves resources too. In 2019, a **closed meeting** was also held on **digitalisation and Rottenburg's path to becoming a "smart" digital town**. With the participation of the Municipal Council, the Municipal Administration and various experts, a broadband working group was set up to discuss the innovative topic. A plan for expanding broad-based municipal fibre optic infrastructure in the nucleated town was drafted and updated. A fibre optic backbone network – i.e. a high performance data "artery" – has since been established throughout the municipality.

The **digitalisation of schools** (both primary and secondary) is also being pushed in the municipality. For this purpose, a technical expansion plan was developed in cooperation with the municipality's schools. The schools have also developed an educational plan for teachers and pupils to use media in class. In addition to improving services through the structured cabling of all school buildings and broad-based WLAN, the focus has also been on providing digital presentation equipment in all classrooms, along with digital devices for all teachers and pupils. Thus, in recent years, the working environment at schools has been significantly improved (implementation at seven school sites in 2020, six in 2021 and another six in 2022). The next steps and long-term goals will now be discussed in annual media development meetings (for each of the schools involved).

The impact of digitalisation on all areas of life presents Rottenburg with the challenge of providing the required digital services to support economic, social and societal systems. The need for digital services in different areas of life was one of the requirements identified in the 2030 Municipal Masterplan. Overall, a strategic and holistic approach is called for in this regard. Against this backdrop, the **Smart Rottenburg plan was developed** together with the firm Bechtle. It forms the strategic basis for additional networked digitalisation

projects in the municipality. With the involvement of relevant stakeholders from administration and politics, an end-to-end Vision for a Smart Rottenburg was developed, with a focus on strengthening the domestic market. The municipality's different strengths and weaknesses were weighed up in this vision and placed in the context of current measures and supraregional trends. In this way, it was possible to identify action areas that bear particular relevance for more in-depth consideration. It soon became clear that Rottenburg already has a wide range of digital services in place, but that these can only be accessed from different points. It was also established that digital services are not available in all areas of life. A recommendation was therefore made to pool the diverse range of digital services that already exist in the different areas of life into one access point and to provide new services for those areas that were not yet covered. This is to be mapped using a **digital community platform** with diverse functions. In addition to linking all areas of life within a municipality, the platform will also connect up the associated digital offerings and offer them to the user in one single hub. A new portal will also be created on the platform that will combine the channels used to communicate with the administration. A "social" portal will also be created here, which will support networking and dialogue among Rottenburg's citizens. In addition to these new services, existing services (such as the events calendar, companies' register and job search tool) will be integrated to make them more user-friendly. The Smart Rottenburg plan was presented to the Municipal Council in 2022.

Digitalising local government

Rottenburg's Municipal Administration sees itself as a modern provider of a comprehensive range of services to its citizens. We are constantly optimising our processes, services and offerings. Digitalisation plays a key role in this context. The Municipal Masterplan aims to progress digitalisation of the administration's services by 2030. The "digital town hall" will therefore help reduce bureaucracy and improve citizen-orienta-

tion and will simplify processes and communication between all of the stakeholders involved.

Since 2018, the municipality has implemented an increasing number of **digital citizen services**. Digitalisation can help us offer better quality municipal services to citizens in a more citizen-friendly, user-oriented, efficient, effective and cost-effective manner. The more processes we digitalise, the broader the degree of networking, which will create end-to-end, seamless, transparent and digital workflows. From the very start, Rottenburg has aimed to digitalise processes and workflows as holistically and seamlessly as possible. Citizens should not only be able to fill out and submit applications digitally, administrative staff should also be able to process them digitally and ideally return them to citizens digitally too. The entire process from application, processing and approval to filing should therefore be digitalised to the greatest possible degree. Rottenburg prioritises this sustainable approach to digitalisation. Moreover, digitalisation is primarily carried out in areas where it is needed and wanted, which optimises acceptance and motivation for the digital transformation of processes. The resulting flexibility in implementation is indispensable, given the dynamic environment of ever-changing administrative tasks. In this way, synergies can be leveraged to the greatest possible degree. Any gaps that still remain following the digitalisation of workflows are closed by the specific office or unit. Further digitalisation potential is gradually being identified and implemented in each department. The Municipality of Rottenburg regards the creation of targeted linkages between digitalisation and sustainable development as a special task. After all, digital processes can support and accelerate sustainability.

The **fault logging system**, which was introduced in 2020, is just one example of a digitalised service for citizens. Its introduction is one component of the municipality's efforts to use digitalisation to positively shape people's lives over the long term. All citizens are to be given the opportunity to log suggestions and improvements. Citizens can use the app or the homepage to easily report faults with the Municipal Admin-

istration under nine different categories (lighting, signage, playgrounds, streets, pollution, litter, public green spaces, pests and parking ticket machines). Using defined processes, the reported faults are directly assigned to the responsible department. The municipality then endeavours to fix the problem as soon as possible. Introduction of the system is also intended to improve cleanliness in Rottenburg and to optimise work processes across the administration's different offices.

In order to improve the efficiency of the processes used by the different services and reduce waiting times, since 2020 it has been possible to **book appointments** at some of the administration's offices online. Online booking is available to members of the public using citizens' advice, the immigration office, the bureau for social affairs for pension matters or for matters related to trade and industry. Anyone booking an appointment online first receives an overview of key information, and a reminder before the appointment itself. The introduction of online appointments has improved the efficiency of overall processes. Documents required for processing do not have to be resubmitted as often, and it is easier to control public traffic in the offices themselves. It also lightens the load on employees, who are able to prepare for a specific appointment.

Users can access the **self-service terminal** of the German Government's Bundesdruckerei to enter their own biometric data (such as photo, fingerprint and signature) when applying for passports and ID cards, making the data collection process significantly more efficient and user-friendly. Enabling applicants to record their own biometric data locally significantly speeds up the process of applying for identity documents. During the data collection process, applicants and processing staff alike benefit from the automated support provided by the online service, seamless integration into existing business processes and the certified security standards for collecting biometric data.

Given that services for citizens are becoming increasingly digitalised, the availability of **public WLAN** in the administration is also becoming increasingly important,

as citizens also store their data digitally. In the course of expanding the availability of WLAN in the municipality for administrative purposes, public WLAN services were also developed in 2020. A project to provide public wifi in the town core will also enable citizens to access information about municipal services and corresponding WLAN hotspots have been installed at different points throughout this area.

The digitalisation of citizen services also calls for an increasing degree of **remote working in the administration**. In future, Rottenburg's administration should be able to access digital services and municipal processes from any location and also have access to the necessary documents. Several devices were tested for this purpose and the services were sent out for tender and procured. Rollout of the devices started at the end of 2022, accompanied by a staff training programme.

With regard to job vacancies in the municipality, an **online application system** known as Check-In was also introduced. A link to the municipal homepage was created so that applicants can access the page for the position for which they wish to apply directly from the homepage. Here, they can import data or input their own information. Interested parties are guided through the application process step by step and can review their application in its entirety before submitting it. The application is then automatically imported into the background system for the advertised job. The HR division and relevant administrative staff can access it and can retrieve the applications directly. Any communication with applicants takes place from within the system.

A **Document Management System** (DMS) is a key prerequisite for online application procedures and for providing citizens with efficient digital services. All information and data can be managed, archived and used centrally in one DMS. It interfaces with the respective procedures used in the administration's offices, enabling seamless business processes in Rottenburg's Municipal Administration. This enables data to be exchanged digitally within the administration and with other authorities, and citizens' enquiries can be

answered more quickly. The integrated digital search facility allows faster access to files and documents.

The introduction of the **electronic personnel file** in 2020 makes it possible to exchange personnel files digitally if staff move to another employer. In this way, all administrative officers with the appropriate authorisation are able to access personnel files in parallel. The uniform and clear structure and the merging of all personnel documents into one file allow staff to work much more efficiently. Paper files are being replaced by digital personnel files. The files are created automatically at the Municipal Administration through an interface with the business process. Billing documents are also automatically filed in the DMS.

All inventory files were digitalised when introducing the **digital tax file** and then imported into the DMS. The interface to the DMS, which was specially developed for the existing business process, is used to automatically file new notices in the relevant files. Any changes (e.g. change in the taxpayer's address) made in the business process itself are automatically adjusted in the corresponding tax file. The advantages of the digital tax file are that archived documents can be accessed quickly, saving both paper and storage space.

Since 2021, the **digital property file** has ensured that files for all areas of a property can be managed uniformly. The filing system structure for a property and its management is often historic in nature. In the absence of specialist applications, it is defined by the best-practice knowledge of staff at the office in question. In the area of property management, it is difficult to create a generally valid, standardised file structure. A separate document type was therefore defined for each area (rents, leases, sales, acquisitions, etc.) to enable electronic file management. The inventory files are prepared manually and scanned. The new property files are digitally recorded directly, gradually replacing paper documentation.

From 2023 onwards, incoming mail has also been scanned centrally in the mailroom and forwarded digitally to the relevant staff members for processing.

Digitalising incoming mail means that the original version of just a few documents (such as certificates or deeds) still have to be distributed. The aim is for mail to be sent digitally too. The advantages are significant time savings, faster processing of incoming mail, greater transparency through simple and centralised availability of documents, faster processing and the ability to move documents along quickly.

The introduction of a virtual Office for Construction and Planning Portal in mid-2023 will also enable citizens to submit planning applications digitally. Applicants will be able to log in to the portal using their Baden-Württemberg Service Portal account. Everyone involved in the construction project will have access to a shared project room on the virtual portal. All stakeholders in the planning Ap192M5application process will be able to communicate electronically in the project room, and actively monitor the application process, provide the required services and documents or, if necessary, just inspect them. The digital construction file will be maintained and processed during planning approval, and the files archived in the DMS. There will be interfaces with the respective business processes so that the approval procedure can be seamless. The permits will be digitally signed and made available to the developer electronically.

The virtual Office for Construction and Planning Portal will close the gap in electronic communications between external roles (developers, architects and architectural technicians, etc.) and the stakeholders within the planning authority. It will also be possible to use the portal to communicate with external authorities, thereby digitalising an administrative service that can often be complex.

Photo 21: Groundbreaking ceremony for DSL-Interkommunal in Rottenburg, Source: Rottenburg City Council



Infrastructure

In terms of infrastructure, a distinction is made between public and private utilities. Public utilities include above all technical and social infrastructure, whereas private utilities tend to revolve around the supply of goods and services.

The following goals have been incorporated into the section on infrastructure and the supply of basic local services in Rottenburg's 2030 Municipal Masterplan, and are to be achieved by 2030:

- The supply of basic services in the 17 villages is secured. It has been possible to stabilise and expand existing infrastructure.
- The establishment of community spaces in different villages fosters cohesion and identity and provides space for different groups to carry out cultural and social activities.
- In the 17 villages, it has been possible to maintain and expand the supply of basic local services. More village shops have been set up in some of these areas. In others, offerings have been expanded through mobile shops and temporary stalls at existing shops. Local infrastructure and services throughout Rottenburg are supplemented by digitalisation, taking into account regional producers and businesses.
- Local agricultural produce continues to constitute an important livelihood.
- The supply of good food throughout the region remains intact.
- The weekly market in Rottenburg is now a well-established institution and continues to draw large crowds.

Sustainable business development

The business section of Rottenburg's Municipal Masterplan states that, by 2020, the administration aims to have developed Rottenburg into a stronger and more sustainable business location that offers attractive jobs. It also states that the municipality will have a good, coordinated transport system and an efficient telecommunications network, and provide attractive and sufficient space for businesses and services, which will help generate increased revenue.

In 2017, the Municipal Administration set up a **Business Development Unit** as a first point of contact and service provider for businesses and traders. The unit also fields enquiries about business start ups and expansions and for PR work to promote Rottenburg as a prime location for business and industry. The Municipal Administration calls on businesses and tradespeople to fulfil their environmental, social and governance responsibilities, assists them in carrying out such activities, and ensures that robust framework conditions are in place that enable innovative and conscientious companies to create and secure attractive jobs in the locality. The municipality also takes into account the potential regional and supraregional impacts of the decisions it makes, not just in terms of generating synergies and benefits, but also in terms of any unintended negative impacts.

A **sustainable business policy round table** was established in 2018 to support durable and lasting local economic development. Members included representatives of the administration, politics, the Municipal Council, the state nature conservation association, the voluntary Initiative N! and the Chamber of Industry and Commerce. The round table aimed to draft a **Vision for the Future for municipal economic policy** and to develop a process for focussing on sustainability when starting up new businesses or industries. Under the academic guidance of Rottenburg University of Applied Forest Sciences, criteria and goals from all three dimensions of sustainability were formulated. Since

then, these have formed the basis for any decisions that political bodies make in relation to commercial development. The key guiding principle of municipal economic policy in Rottenburg is strengthening and preserving the municipality's significant inherent diversity. This relates to:

(i.) conserving biodiversity in natural and semi-natural habitats, (ii.) maintaining social diversity, its broad integration and fair participation in any developments in the municipality, (iii.) offering and safeguarding education and training opportunities at as many educational levels as possible, and (iv.) having as balanced a mix of industries and trades as possible.

Sustainability aspects are presented transparently to businesses and industries enquiring about settling in the area and when zoning future commercial sites. When allocating municipal commercial sites, the sustainability of both the company and the project is discussed with the interested parties from the outset. Each company is carefully considered in this context, and an overview of positive and, where applicable, negative aspects of the project is then drawn up. The findings are presented to the political decision-makers for consideration. Since some enquiries were rejected in the past on this basis, the importance of sustainability for a new business venture can be emphasised in relevant discussions with interested companies.

By the end of 2022, Rottenburg had also participated in the two-year European **AGORA project**, a cooperation project on the sustainable development of existing commercial areas and industrial estates in the Neckar-Alb region. As part of the project, the municipality of Rottenburg worked together with the Neckar-Alb Regional Association to make the existing Siebenlinden commercial area and industrial estate, which is characterised by a variety of uses, more sustainable and fit-for-purpose, and to develop it further for the future. The specific measures developed will be implemented in the years to come.



Photo 22: Commercial building with wooden elements, Ergenzingen,
Source: Municipality of Rottenburg



Photo 23: Commercial building with wooden elements, Ergenzingen,
Source: Municipality of Rottenburg

3.3.4 Indicators



Broadband provision – private households

2017	2018	2019
81.1 %	88.4 %	88.0 %

Percentage of private households with a data speed of 50 Mbps (Source: SDG Portal)

Comprehensive broadband coverage for private households has an indirect impact on sustainability, as access to information and electronic services (such as e-medicine or e-government) and the ability to work remotely can relieve the burden on private households by saving time and money. Digital access to a wide range of educational and information services also promotes intergenerational equity. The percentage of Rottenburg's private households that can use

a bandwidth of 50 Mbit/s has risen continuously over time, most recently (2019) to 88.0 per cent and thus only slightly below the average of 90.0 per cent for Baden-Württemberg (a comparison with national figures is not possible as no federal data is available for this indicator). In this way, Rottenburg am Neckar is helping to achieve target 9.1.b of the German Sustainable Development Strategy "Rollout of broadband - universal gigabit network rollout by 2025".



Digitalisation of schools – investments

2020	2021	2022
755,000 €	907,200 €	2,958,000 €

Amount of investment (without subsidies)
(Source: Municipality of Rottenburg am Neckar)

A state-of-the-art digital infrastructure and a high-performance broadband connection are vital for future-oriented schooling. The Municipality of Rotten-

burg am Neckar provides funding to support digitalisation at schools and in 2022 it increased expenditure to EUR 2,958,000.00.



Digitalisation of schools – digital devices

	2014–2016	2017–2019	2020–2022
laptops	No figures available	No figures available	631
iPads	No figures available	No figures available	1,454

Number of devices for pupils, teachers and classrooms
(Source: Municipality of Rottenburg am Neckar)

In addition to digital infrastructure, the provision of digital devices and teachers who are qualified to use digital media are important for modern schooling. Devices procured in the municipality have enabled

around 3,850 pupils and 400 teachers from 20 schools to access digital learning, regardless of social status. Implementation at the practical level is the responsibility of the schools.

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Fibre optic backbone networks

Project costs, service areas (district), installation distance
(Source: Municipality of Rottenburg am Neckar)

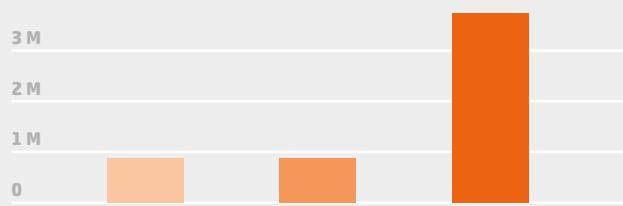
The construction of a municipality-wide fibre optic network helps reduce the amount of electricity needed for internet use. A recent study by the Hesse University of Applied Sciences (THM) on behalf of the German Broadband Association (BREKO) came to the conclusion that, in the case of internet access technologies, end-to-end fibre to the home (FTTH) networks consume up to 3.6 times less electricity than fibre to the building

(FTTB) networks and up to 8 times less electricity than copper-line TV cable networks. The conclusion is that fibre-based internet access is the most energy efficient transmission technology.

Note: The data refers to a number of two-year periods and to one three-year period and is therefore only comparable to a limited extent.

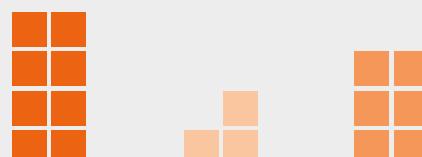
Fibre optic backbone networks (EUR)

871,295 € **872,145 €** **3,734,700 €**
2010/2011 2014/2015 2017-2020



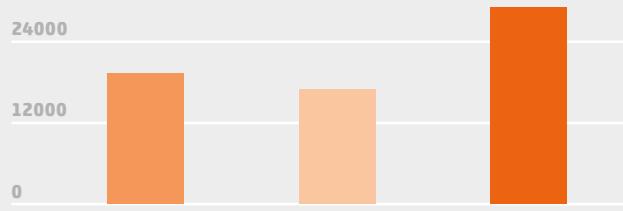
Fibre optic backbone networks (Areas)

8
2010/2011 **3 (+ ICC area extension)**
2014/2015 **6 (+ 1 commercial area)**
2017-2020



Fibre optic backbone networks (Metres)

19,306 m **16,988 m** **29,092 m**
2010/2011 2014/2015 2017-2020



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE


Self-service terminal

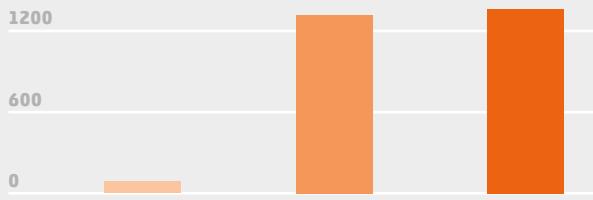
Number of transactions using the self-service terminal
(Source: SST list, Municipality of Rottenburg am Neckar)

When applying for passports and identity cards, citizens of Rottenburg am Neckar can use a self-service terminal to record their own biometric data such as photographs, fingerprints and signatures. The num-

ber of processes carried out annually using the terminal has risen steadily in recent years from 86 in 2018, jumping to 1,319 in 2020 and 1,364 in 2021.

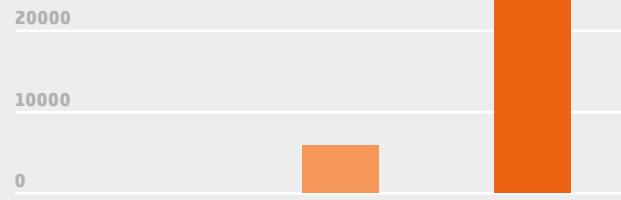
Self-service terminal

86	1,319	1,364
2018	2020	2021



Online appointment booking system

No figures available	5,872	24,041
2020	2021	2022



Online appointment booking system

Number of online appointment transactions
(Source: primus - Appointment statistics per counter by month, Rottenburg am Neckar)

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE


The online appointment booking system was first introduced at the Rottenburg citizens' advice office during the pandemic. In a second step, the system was gradually extended to cover other areas, such as the

immigration office, the bureau for social affairs and the weapons and trades department. The number of appointments booked online jumped significantly to 24,041 in 2022.

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE

Transactions for logging faults

2020	2021	2022
341	1,128	1,125

Number of defects logged using the online system
(Source: MeldooPlus, municipality of Rottenburg am Neckar)

Citizens can use the app or the homepage to easily log faults with the Municipal Administration, using nine different categories (lighting, signage, playgrounds, streets, pollution, litter, public green spaces, pests and parking ticket machines). This service has been very

popular in recent years. 341 faults were reported to administration in all categories in 2020, the first year it was introduced. In 2021, 1,128 defects were logged, with a grand total of 1,125 notifications received in 2022 (as at December 2022).

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE

Online job search

2019	2020	2021
38	40	48

Jobs advertised since the digital platform was introduced
(Source: Perbility Check-In)

The number of jobs advertised online has increased steadily since the Check-In digital platform was introduced (see above). 48 positions were advertised on

the system in 2021, which was up on previous years, based on the Municipal Administration's expansion and increasing demand for staff.

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE

Document Management System

2019	2020	2022
No figures available	No figures available	2,652,307

Number of digital pages in the DMS
(Source: Municipality of Rottenburg am Neckar - d3 report)

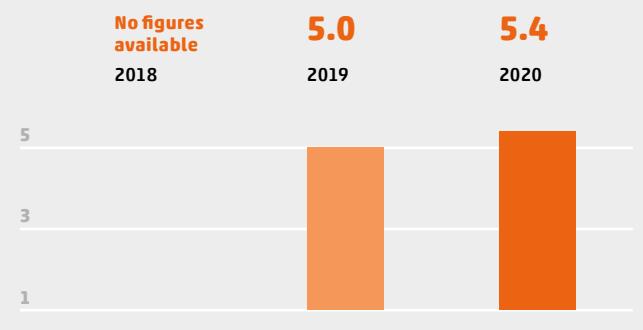
A Document Management System (DMS) is a key pre-requisite for providing citizens with efficient digital services and has been successfully introduced in the

municipality. The total number of digital pages in the system had increased to 2,652,307 pages by 2022.

9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE**Business start-ups**

Newly established businesses per 1,000 inhabitants (Source: SDG Portal)

Start-ups can help to create jobs and promote competition – and can also channel the spirit of an innovative, sustainable economic structure. Rather than providing information on the innovative content of the start-ups, this indicator maps out the number of newly established commercial enterprises per 1,000 inhabitants. It can therefore only provide limited insight into the actual degree of innovation in a municipality. In the municipality, the number of newly established businesses per 1,000 inhabitants increased from 5.0 in 2019 to 5.4 new enterprises in 2020. This trend is slightly under the German average of 6.6 commercial enterprises per 1,000 inhabitants (2020). In its Sustainable Development Strategy, the German Government has anchored target 9.1a "Increase private and public expenditure on research and development – at least 3.5 per cent of GDP per year by 2025". Examples of support provided in this context include tax breaks and economic stimulus packages for visionary, forward-thinking entrepreneurs who can boost the level of innovation within a municipality.

Business start-ups

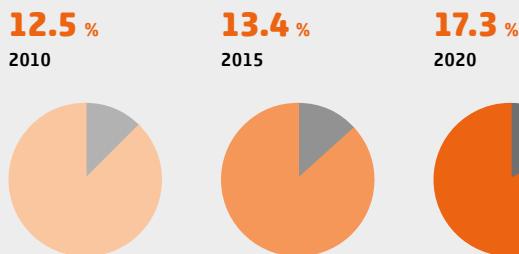
9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE


Highly qualified professionals

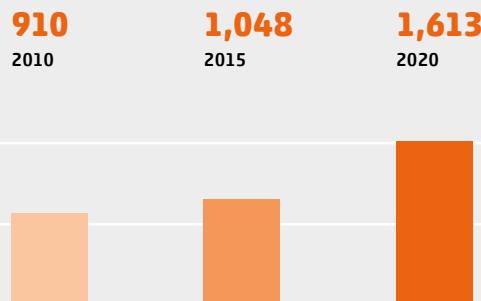
Percentage of employees subject to social insurance contributions who have an academic vocational qualification relative to all employees subject to social insurance contributions at the work location
(Source: State Office for Statistics)

An increased level of highly qualified workers in a municipality has a range of positive impacts. As well as increasing economic performance, and therefore the future viability of (local) companies, the level of qualifications also has economic effects – for example, it boosts a municipality's commercial tax revenue. However, the percentage of people with a high level of qualifications does not actually say anything about the actual need for highly qualified staff or the required degree of specialisation at a location. In the municipality, the percentage of highly qualified people (with a general increase in the number of people in employment, increasing from 7,500 to 10,250 in the comparative period from 2010 to 2020) has risen significantly over time to 17.3 per cent, mirroring the national average of 17.4 per cent (2020). The increase in the municipality was above average among employees with academic qualifications. Rottenburg's municipal economic policy takes into account companies that also offer highly skilled jobs. Significant progress has been made here over the past ten years. The German Sustainable Development Strategy does not contain any explicit targets for this indicator.

Highly qualified professionals (in %)



Highly qualified professionals (in absolute terms)



**11 SUSTAINABLE CITIES
AND COMMUNITIES**

3.4 SDG 11 – Sustainable cities and communities

3.4.1 SDG 11 – Introduction and relevance for German municipalities

SDG 11 aims to make cities and human settlements inclusive, safe, resilient and sustainable. Municipalities must rise to face current challenges such as climate change, resource scarcity, demographic change and migration. Against this background, a sustainable, integrated urban development policy will combine social, economic and ecological goals and takes all relevant interests into account. Among other things, this involves promoting compact and green urban structures, socially balanced and mixed urban neighbourhoods, and affordable housing. Neighbourhoods are places where people reside and interact socially. They also form the space where people lead their everyday lives. This makes them especially important for sustainable development. The reduction of environmental pollution

by municipalities (e.g. air quality and noise abatement), and the promotion of sustainable mobility (e.g. by strengthening modes of eco-transport), are also key components of SDG 11.¹⁴ In summary, for German municipalities the following themes play a particularly important role in implementing this SDG (please also compare these with the targets for SDG 11 in the annex):

- | Implementing integrated urban development, promoting sustainable neighbourhoods and affordable housing, and reducing land take
- | Promoting sustainable mobility
- | Implementing comprehensive disaster risk management
- | Promoting air quality and noise abatement.

¹⁴ See Germany's Voluntary National Review to the High-Level Political Forum 2021 and the German Sustainable Development Strategy 2021.



3.4.2 Overview of qualitative aspects and indicators

Qualitative aspects:

- | Urban development planning
- | Housing supply
- | Promotion of sustainable neighbourhoods
- | Reducing land take
- | Green spaces and recreational areas
- | Social inclusion
- | Reducing waste
- | Sustainable mobility
- | Noise protection
- | Emergency hotline
- | Heavy rainfall risk management and flood protection

Indicators:

- | Land take
- | New land take
- | Intensity of land use
- | Local recreational areas
- | Living space
- | Vacant lots between buildings
- | Vacant properties
- | Subsidised/social housing
- | Rent reduction
- | Provision of housing (housing campaign)
- | State Development Programme for Rural Areas
- | Subsidies for design measures
- | Density of settlements in floodplains
- | Civil defence siren network
- | Air pollution
- | Victims of road traffic accidents
- | Barrier-free bus stops
- | Upper Neckar Valley citizens' car
- | Bikes for work contracts for municipal employees
- | People from a migration background
- | Political bodies of Rottenburg am Neckar

3.4.3 Qualitative aspects

Urban development planning

The preparation of urban development plans goes back a long way in Rottenburg. In the spirit of sustainable urban development, the first **plan** was launched as far back as 1997. On the basis of changing framework conditions and new challenges in local politics, plans have since been routinely modified or updated and accompanied by implementation reports. In 2021, urban development planning was channelled into Rottenburg's 2030 Municipal Masterplan, which was prepared with significant participation by the citizens and goes above and beyond urban spatial and planning aspects (for more details, see the section on "Strategic mainstreaming of sustainability" above).

Housing supply

As regards the provision of housing, the following specific goals have been incorporated into Rottenburg's 2030 Municipal Masterplan and are to be achieved by 2030:

Photo 24: Green moat and bus station, Source: City of Rottenburg



- Housing supply has been expanded in line with demand. There are housing options for different life situations, target groups and age structures, as well as new and affordable forms of housing. The main focus in this context is on the provision of attractive rental apartments.
- In the nucleated town and the 17 localities, it has been possible to make better use of construction land in existing and new development areas and to increase the density of housing.
- An increase in the construction of subsidised housing has ensured that local people have access to affordable housing.
- Family-friendliness ranks high in the design of the residential environment.
- Barrier-free living is possible in the nucleated town. Accessibility is a top priority primarily in the village centres.

As regards the provision of basic public services at the local level, Rottenburg fulfils tasks related to housing provision for broad sections of the population at socially acceptable conditions by **building, providing and maintaining accommodation through Wohnbau Rottenburg am Neckar** (WBR). The overarching mandate of WBR, a municipally-owned company, is to provide the market with accommodation for lower and middle income groups. WBR is entitled to erect, supervise, manage and administer its own houses and apartments in all legal forms and forms of use. It is also mandated to assume all tasks arising in the field of housing, urban development and infrastructure, and to acquire, mortgage and sell property and issue leaseholds. It can also provide facilities for the community and for communal services as well as social and cultural amenities and services. Its main focus however, is on providing affordable housing and increasing housing stock.

The municipality also promotes the **provision of housing through the Raumteiler letting service**, which helps house and apartment owners find suitable tenants. The services are aimed at house and apartment owners who have vacant properties but have reservations about renting it out. Raumteiler suggests options for structuring tenancies and offers information on letting. The service team then suggests potential appropriate tenants for the property, and is there to support both sides during the initial phase of a lease.

To facilitate the development of sites in central areas into attractive, contemporary properties, Rottenburg's Planning Office surveys vacant lots between buildings and maps vacant sites to identify potential. On this basis, it designs small-scale plans for future construction projects. The municipality buys up potential sites in these areas for future development, thereby counteracting any undesirable development, e.g. through misuse (**purchase model for the development of construction land**).

Promotion of sustainable neighbourhoods

Rottenburg's 2030 Municipal Concept incorporates the following goals for supporting sustainable neighbourhoods:

- | New construction areas are only developed if there is a focus on sustainability and climate action.
- | The locality's structure has improved significantly in many places. It has been possible to preserve and upgrade the village centres.
- | Each village has a lively centre. This includes the design of village squares as well as the availability of shops and places to meet. It was possible to facilitate the participation of engaged associations, clubs and citizens in this context.
- | Public spaces, particularly entrances to and through the villages, are attractively designed.
- | Rottenburg's has a lively town centre. This is achieved through a good mix of residential, work, cultural and gastronomic amenities.
- | Heritage protection measures have been implemented to renovate and secure the structure of the historic fabric of buildings in Rottenburg's old town. Old and new structures present a contrasting mixture of historic and modern-day architecture.

The Wohnbau Rottenburg am Neckar (WBR) housing company takes a range of sustainability criteria into account when undertaking construction projects. This includes implementing **sustainable construction methods** using eco-friendly materials (hybrid and timber construction). To promote **social integration**, emphasis is placed on mixed-use buildings (social and privately rented accommodation) built to the same quality standards, and the avoidance of excessive suburbanisation and social injustice (50 per cent of apartments are social housing). Every effort is also made to develop **family-friendly buildings**. This includes, among other things, the construction of large apartments for big families as well as integrated kindergartens. **Digitalisation** also plays an important role in **housing construction**. By evaluating data in a target-

ed manner, costs can be controlled and reduced, which leads for example to a reduction in consumption and in the distances travelled to read meters. From 2026, all heat cost allocators and hot water meters must be digital. To encourage the conscious and economical use of energy, **consumption information for tenants** became **mandatory** in 2022 – all tenants must now receive monthly updates on how much energy they use.

Since the 1970s, Rottenburg has also worked actively to ensure that, where possible, each of the town's 17 **villages** has a **kindergarten and a primary school**. There are currently 14 primary schools, and there is a municipal kindergarten in every village and in the town core. Children can walk to their school or kindergarten from the outset, which also helps develop a lively community.

Photo 25: Plan of the front area - Schänzle with water playground;
Source: City of Rottenburg



Reducing land take

Dealing with the limited and non-reproducible resource of land is a key action area for sustainable development. The "land take" refers to the increase in the amount of an area that is used for settlement and transport (and therefore results in the loss of open space and soil) and includes buildings, open spaces and roads, as well as green spaces and recreational areas. In its first Sustainable Development Strategy, published in 2002, the German Government had set itself the objective of limiting the increase in the land area used for settlement and transport to 30 hectares per day by 2020. This objective was not achieved, however. The four-year average increase in the land area used for settlement and transport in Germany between 2015 and 2018 was around 56 hectares per day. In the strategy's 2021 update, achievement of the original objective set in 2002 was pushed back to 2030, and the objectives "Reduce the loss of per capita open space area" and "No reduction in density of settlements" were added. According to the 2021 Indicator Report of the Federal Statistical Office (DESTATIS) on Sustainable Development in Germany, according to the current status, these three targets will be almost met at the national level, with the target forecast to be missed by a margin of between 5 and 20 per cent.

The following goal has been incorporated into Rottenburg's 2030 Municipal Masterplan and is to be achieved by 2030: Land take can be further reduced even if there is moderate growth. Brownfield development takes precedence over greenfield development. Before the development of a new construction area is considered, the potential for "rounding-off" settlements on village outskirts is examined, gaps between vacant lots are filled or suitable plots of land are infilled and vacant buildings rehabinited.

Against this backdrop, Rottenburg's Municipal Council has requested that the **infill potential** of all development plans be reviewed and amendments to previous resolutions initiated where necessary. This would mean that the existing settlement structure would be

moderately infilled to open up further residential areas, without any greenfield development. The Municipal Council has also taken the conscious decision to **restrict the lot size** when zoning residential sites in order to densify residential settlements.

Green spaces and recreational areas

According to the State Office for Statistics, the municipality of Rottenburg am Neckar has a land area of 14,226 ha. 145 ha (1 per cent) of this land is designated as sports, leisure and recreational areas. According to surveys conducted by the Municipal Administration when preparing its plan for urban green spaces, 175 ha of green spaces are available within the municipality. These include barrier-free green spaces for leisure and recreational use (parks) as well as roadside greenery. A **plan for maintaining public spaces** has been prepared to ensure that a coordinated approach is adopted for green areas. Climate change adaptation measures are

also in place to address any undesirable environmental impacts. To this end, the municipality has drafted a list of tree species that are suitable for an urban environment along with planting guidelines. Green spaces are already being redesigned against the backdrop of climate change.

As there is a direct correlation between species richness in green spaces and health and wellbeing, Technische Betriebe Rottenburg am Neckar (TBR), a company owned by the municipality, is gradually converting green borders in Rottenburg into species-rich, insect-friendly areas. There is just under 40m² of green space available per capita in the town core area alone. Given the rural setting, a further 7,552 ha (53.1 per cent) of agricultural land and 4,139 ha (29.1 per cent) of forest are available locally for recreational purposes. With an area of over 3,200 hectares, Rottenburg's municipal forest is the largest municipal forest in the district of Tübingen and one of the largest municipal forests in the state of Baden-Württemberg. The largest continuous area of forest is located south of Rottenburg in the Rammert region.

Photo 26: Near-natural Neckar riverbank in the rear Neckarhalde, Source: Municipality of Rottenburg



Social inclusion

Social inclusion aims to ensure that everyone has equal opportunities and is able to participate in all areas of society to the same degree. Inclusion concerns people with disabilities as well as refugees and children and young people facing special challenges. The municipality of Rottenburg conducts a range of different activities to promote social inclusion. The following sections outline a few different examples.

Rottenburg am Neckar has been selected as a **host town for the 2023 Special Olympics**. In the run-up to the event, towns all over Germany will host athletes in 190 country delegations, enabling them to get to know the country and its people and experience the regional specialities and unique traits of all federal states. Rottenburg is part of this undertaking, the largest municipal inclusion project in the history of the Federal Republic of Germany. Under the motto of "Running together in Rottenburg", the town applied to become one of around 240 host towns and was successful in 2022. The idea behind the application is an inclusive and barrier-free run in the town, which will be perpetuated as an annual event. Rottenburg will host guests from Belize in Central America. Even during the application phase, the response from residents was extremely positive. For example, a project group consisting of sports clubs, the association for children and young people Mokka e.V., the advisory council for the disabled and integration as well as representatives from schools and the Municipal Administration was established early on. The application was therefore underpinned from the very outset by strong voluntary engagement.

Rottenburg is also committed to helping refugees. Measures include the **provision of housing and follow-on accommodation for refugees**, most recently from Ukraine in particular. Since 2015, the administrative side of accommodation has become a field in its own right and more staff have been assigned to this area. In addition to municipal housing, the municipality also arranges private accommodation. We also

collect **donations** for refugees, for example, furniture for people for the duration of their stay in follow-on accommodation. Another example is the collection of bicycles. A list of the required donations is published in the municipal newsletter Rottenburger Mitteilungen. The municipality also arranges volunteers to assist refugees arriving in the country (e.g. in attending initial visits to authorities) as well as helpers for transitional schooling. Other voluntary and municipal services for refugees include a pool of interpreters, a language café, a bike workshop and a community garden. These activities help promote a welcoming culture in Rottenburg.

Work often has an important role to play in fostering inclusion and participation and in promoting social cohesion, particularly against the backdrop of increased migration. The municipality of Rottenburg am Neckar has recognised this and is developing a varied array of suitable offerings in response. The municipal immigration authority sees itself as playing a welcoming role in this context, and staff numbers have been increased there. Among other things, it runs its own legal advisory service for Ukrainian refugees. An employment advisory service is also available where interested employers and potential employees from a migration background can share information or find out what they need to know about recruitment or finding a job. This service was launched in October 2021 and has been gaining in popularity since. It is the first of its kind in the district of Tübingen. Together with the district's employment project for refugees with permission to remain in the country long term, new ways are being jointly sought to match refugees with jobs via the municipal immigration authority.

Rottenburg also provides targeted support for children and young people who are poor or at risk of poverty (currently every fifth child in Baden-Württemberg). Children who grow up in poverty often lack opportunities to participate in society and achieve their full potential. Against this backdrop, Rottenburg launched a child poverty prevention network with the association for children and young people Mokka e.V. and several other partners (including schools, community

foundations and daycare centres). The **NeRo children's network** project is part of the strategy to build resilience among children in Rottenburg to enhance their opportunities in life. It is supported by the Ministry of Social Affairs, Health and Integration with funds from the state of Baden-Württemberg. The aim is to establish a nationwide, cross-system network so that institutions can act quickly in line with needs. In this way, different stakeholders from the health, education and youth welfare sectors can team up with politicians to counteract poverty and create suitable framework conditions for children and their families. The network is being established in the existing Alliance for Families in Rottenburg.

As a voluntary service, the municipality of Rottenburg also supports measures and projects that are available above all to children, young people and young adults

on application. Since 2022, the **young citizens' basic income** allowance offers young people in Rottenburg the opportunity to apply for project support. Funding is provided for projects that are aimed at or initiated by young people and are based on the principle of sustainability. The aim is to foster participation by all young people in Rottenburg and encourage them to become involved in the community.

Municipal funding guidelines for promoting sports, music and nature conservation also provide a framework for relevant clubs and associations to receive routine financial support for consistent, high-quality activities to support children and young people.

Photo 27: Colorful evening at the youth center with students of the Lindenschule / Weggentalschule and the delegation from Belize;
Source Rottenburg am Neckar



Reducing waste

Rottenburg's 2030 Municipal Masterplan includes the following goal for waste, which is to be achieved by 2030: Targeted and comprehensive PR work has helped drive home the message that the growing challenges of waste disposal can only be met through consistent waste avoidance. There is increasingly less litter in Rottenburg and in the countryside.

Against this backdrop, Rottenburg has initiated various activities to reduce waste in recent years. In 2021, the Municipal Council decided to launch an **anti-litter campaign**. An initial work meeting on litter and cleanliness in Rottenburg took place in consultation with the Public Order Office and Municipal Council groups in 2020. Subsequently, a working group was established with representatives from the Municipal Council groups and the administrative divisions of the Public Order Office, the Environmental Protection and Climate Action Unit, the Office for Public Relations and Civic En-

gagement and Technische Betriebe Rottenburg am Neckar (TBR). Consensus was reached between all of the working group participants that the clear direction for an anti-litter campaign needed to be to create awareness for cleanliness and litter, step up the enforcement of fines and conduct consistent PR activities. With this goal in mind, a project plan was drafted and the campaign Raudeburg Cleans Up launched, Raudeburg being the name for Rottenburg in Swabian dialect. In this context, various themes are addressed to educate people about the problem of waste and how we deal with it, and to raise our awareness of cleanliness. Citizens who do not dispose of waste properly must expect to pay appropriate fines.

Since 2006, the Environmental Protection and Climate Action Unit, in cooperation with the Office for Public Relations and Civic Engagement and TBR, has organised the **Stadtputzede waste collection campaign** every few years. On two days in spring, more than 1,000 helpers collect rubbish that is lying around the town and its outskirts. Photo competitions and the distribu-

Figure 28: Introduction ReCup Invitation, Source: Rottenburg City Council



tion of information on litter and other activities support the campaign. For example, in 2019, a litter collection challenge was integrated via social networks, along with a photo exhibition and an award ceremony. In 2022 and 2023, the municipality participated in the organisation and implementation of the Forest **Clean-up Day** in cooperation with the Rottenburg University of Applied Forest Sciences.

To avoid waste, several **reuse systems** have been introduced in Rottenburg in recent years. The municipality initiated the **KeepCup** reusable cup campaign in 2017 together with Aktionsbündnis Tübingen, bakeries, cafés and petrol stations. The aim was to raise awareness of the overuse of disposable cups among the public and local businesses and to encourage action by setting a good example. In 2017, the municipality received the Helden! Deed of the Month award for this campaign from Baden-Württemberg's N!-Netzwerk sustainability network. In 2019, the municipality set up the user-friendly **RECU**p deposit system. Citizens can buy their coffee-to-go in the ReCup, for which they pay a deposit. To get the deposit back, they then simply return the empty cup to any ReCup partner throughout Germany. The **reCIRCLE reusable system** was also successfully introduced. It is organised by Wirtschaft Tourismus Gastronomie Rottenburg am Neckar, which is owned by the municipality, and the Environmental Protection and Climate Action Unit. reCIRCLE is a nationwide network for reusable containers for the take-away sector. Users pay a deposit to borrow a reusable box and then return it to any partner when they are finished. Eight restaurants are now participating in Rottenburg. Other activities for avoiding waste include the introduction of reusable cups at the Christmas Market and the use of reusable net bags instead of disposable plastic bags for fruit and vegetables. The nets are sourced locally in the Zollernalbkreis district and therefore have a low carbon footprint.

The recycling of waste and the reuse of raw materials is also actively promoted in Rottenburg. The Environmental Protection and Climate Action Unit has been supporting the **Baden-Württemberg mobile phone campaign** since the 2018 Sustainability Days. The aim

Photo 29: Cell phone box, Source: Rottenburg city council



of this nationwide campaign is to carry out educational work along the value and user chain and conduct decentralised smart phone collection campaigns and proper recycling, to name just a few examples. The production of smart phones requires numerous natural resources, particularly rare and precious metals. The reuse of used mobile phones and proper recycling therefore play an important role in bringing valuable natural materials back into circulation. (Thanks to innovative technologies, 80 per cent of raw materials can now be recovered and reused). The municipality supports these endeavours by running different collection points and conducting regular PR work. Another measure to conserve resources in Rottenburg is the **collection of corks**. Since 2021, collection containers have been made available in Rottenburg's Town Hall, in all of the town halls in the 17 villages and in the One World Shop, for example. The collected corks can be upcycled to make shoe soles. Both collection campaigns have been running very successfully in recent years.

The municipality also supports the reuse of used items within the framework of goods exchange campaigns. **Exchange Day** took place in Rottenburg Festhalle in spring every year (run by the Environmental Protection and Climate Action Unit with extensive voluntary support). In 2022, its 30th anniversary was celebrated in a new format – **goods exchange in residential areas**. The event is open to all inhabitants of a residential area, who create a value-added cycle by exchanging goods. The weekly municipal gazette includes a section entitled **Don't throw away - give away**, which offers readers the opportunity to advertise for any items that they are either looking for or would like to donate.

The Local Agenda 21 platform and the citizens' basic income support the **Rottenburg Repair Café** and the **Fairteiler**. Repairing defective items (such as electrical appliances and machines, IT equipment, mobile phones, bicycles, toys, sewing machines and clothing) reduces the need to buy new equipment and generate waste. As well as making routine appointments with expert repairers, the public can access measuring equipment, tools, machines, spare parts and other ma-

terials and equipment. At Fairteiler, the food rescued by volunteers is made available to all citizens free of charge. The aim here is to counteract food waste and show that many foods that end up in the rubbish are actually still perfectly edible.



Photo 30: Rottenburg city cleaning, Source: Rottenburg city council

Sustainable mobility

In Germany, the modal split – an indicator used to show the percentage of travellers using a particular mode of transport compared to the ratio of all trips made – is still heavily dominated by car use. The transportation of passengers and freight, collectively referred to as transport services, has increased significantly in recent decades. The current transport system has a diverse range of impacts on climate, the environment and on health. To achieve sustainable mobility, we therefore need to address key challenges in the areas of climate action, air and noise pollution control, and the protection of green spaces and natural resources. As a general rule of thumb, it is important to promote the use of environmentally friendly modes of transport (walking and cycling, local public transport) and the more sustainable design of motorised personal transport.

Photo 31: Rottenburg cargo bike rental, Source: Rottenburg city council



Rottenburg's 2030 Municipal Masterplan contains the following mobility goals:

- I New transport strategies that take climate action and multimodal user behaviour into account are being prepared and continuously developed. Innovations such as autonomous driving, fuel cells and hydrogen propulsion, light rail, etc. enrich intermodal passenger transport even in small towns. The strategies include affordable mobility offers and expedient mobility packages for different user and age groups, which can also be accessed digitally.
- I Zero-carbon mobility is being supported. The necessary infrastructure is available in public spaces. Appropriate power supply and connections are also provided in private households.
- I Traffic calming measures could reduce the impact of pollution and noise caused by traffic.
- I Equal routings for pedestrians, bicycles and cars are available in all traffic areas. All road users interact with and show consideration for each other.
- I Local public transport is affordable and well developed. The modernisation of local, reasonably-priced public transport with tighter intervals, clever networking and attractive transfer and waiting areas together with other means of transport ensures that a lot of people no longer travel by car, thus reducing motorised private transport.
- I There are good public transport connections to the town core, the 17 villages and to Tübingen, Reutlingen, Horb and Stuttgart.
- I There is a willingness to equip buses with alternative drives.
- I More considerate road usage and better infrastructure for cyclists lead to an increasing number of people switching to the bicycle. The number of pupils cycling to school has also increased.
- I A well-developed network of bike paths connects the villages with the town core as well as the villages with each other.
- I Safe and attractive routes are available for pedestrians.

Overall, Rottenburg am Neckar is striving for a strategic reorientation of all of its transport plans, with a

focus on local mobility. In the area of cycling, the 2020 **cycling plan** provides the framework for action over the coming years. Within this framework, a town-wide cycling network for everyday and recreational use is being developed. Based on an analysis of the existing cycling infrastructure, deficiencies are being identified and measures to remedy them listed. All of the proposed measures aim to meet the needs of the different cycling user groups. Cyclists' requirements differ, depending on whether they are cycling day-to-day or for recreational purposes. The range of cycling facilities in Rottenburg is to be adapted to current standards, in accordance with these requirements and with the increased use of electric bikes, creating a high level of acceptance for bikeways.

With regard to pedestrian traffic, in 2021 the Municipal Council decided, on the basis of the current urban development plan, to develop a **pedestrianisation plan for** the town centre in addition to the cycling plan. The pedestrianisation plan is a separate study that integrates the existing cycling plan. Where possible, the measures should also be transferred to Rottenburg's villages. The existing footpath network is to be analysed and examined for practicality and any necessary adjustments identified. The aim here is to actively promote walking and avoid unnecessary car journeys, helping protect the climate and safeguard health.

To promote the local public transport system, the municipality actively participates in the **regional light rail plan** developed by the district in order to significantly increase the attractiveness of the Neckar Valley railway line. This is to be achieved by installing a double-track line extension, improving existing stations and constructing new stops, as well as improving the service frequency. The aim is to make public transport on the route significantly more attractive than private motorised transport. Another local public transport measure is the **barrier-free expansion of bus stops** in the municipal area. This involves compiling an inventory and continuous reconstruction.

In order to reduce individual traffic, the municipality is supporting the local **teilAuto car-sharing** system by,

for example, providing parking spaces and conducting PR work. Municipal staff use **teilAuto** in addition to the municipal fleet. Several ride-sharing benches have been installed in the villages in recent years. Bürgerauto Rottenburg is another municipal offering.

To promote sustainable individual transport, people in Rottenburg can charge electric cars at various locations in the municipal area. A charging infrastructure plan for the entire municipality promotes **electromobility** in the villages. Public charging stations are installed as part of car park renovations and electricity capacity is taken into account when laying cables in new development areas.

E-mobility is also being promoted in Rottenburg's **Municipal Administration**. Conversion of the municipal vehicle fleet to e-powered cars started in 2020 and will be continuously progressed. As far back as 2013, e-bikes were purchased for municipal employees attending appointments outside the Municipal Administration. The fleet has been significantly expanded since then (with e-bikes, 25 km/h and S-pedelecs, 45Km/h)

and additional parking facilities have been provided around municipal buildings. e-bikes, e-cargo bikes and electric cars have been provided for caretakers in the town core. Since recently, all Rottenburg residents can borrow a cargo bike free of charge, or for an optional donation. The bike was financed with the help of Local Agenda 21.

Since April 2023, the municipality's Environmental Protection and Climate Action Unit has supported the procurement of electric cargo bikes with and without pedal assistance, cargo S pedelecs that can do up to 45 km/h and cargo and child transport trailers for bicycles and pedelecs, in an effort to support air pollution control and reduce carbon emissions.

The **municipal utilities** and the **Technische Betriebe Rottenburg am Neckar (TBR)**, have also been positioning themselves more sustainably in the area of mobility for several years now. Currently, 25 per cent of the staff at the municipal utilities and 22 per cent of the staff at TBR use the (e-)bike leasing services (offered by Jobrad).

Photo 32: Barrier-free bus stop from above, Source: Rottenburg city council

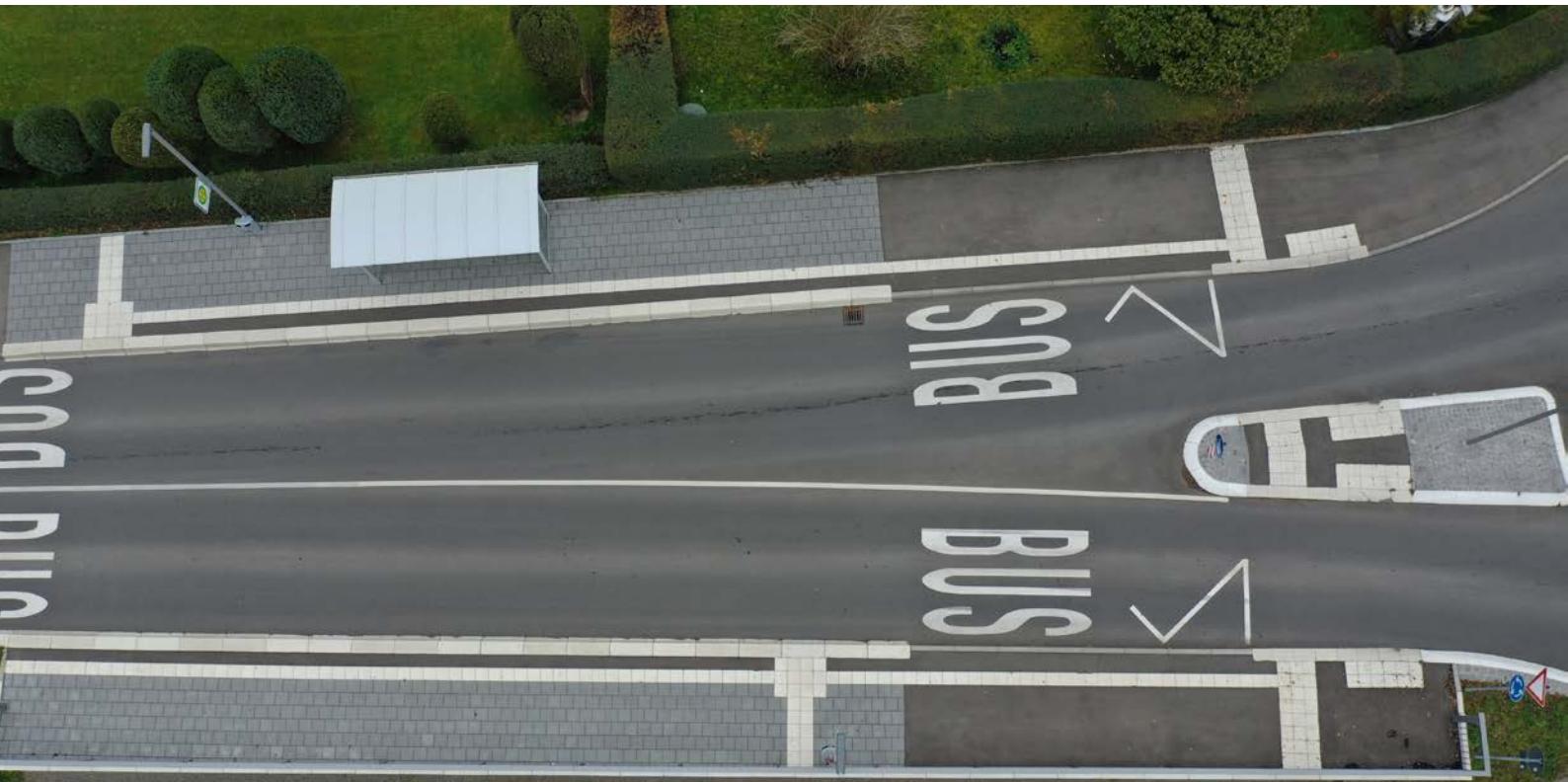




Photo 33: Flowering traffic circle and trees at the bus station
Source: Municipality of Rottenburg

Noise protection

High noise pollution poses a serious risk to human health. Against this backdrop, the EU's Environmental Noise Directive aims to reduce such noise. The directive was incorporated into German law, which obliges municipalities to draw up noise maps and accompanying **noise action plans**. The Municipality of Rottenburg therefore prepares noise action plans, with the most recent one being adopted by the Municipal Council in 2022. A total of eight street segments run through the town, which are classified as major streets with traffic loads above the threshold value of the third level of noise mapping (8,200 motor vehicles/24h, section 47b no. 3 of the German Federal Immission Control Act BImSchG). Potential measures for reducing noise pollution were investigated for the affected traffic routes. An additional 15 routes were investigated on a voluntary basis. Noise pollution was calculated for the selected routes and noise abatement measures were also defined.

Emergency hotline

Rottenburg set up an emergency telephone for housing issues, which is on call 24 hours a day, 365 days a year. Here, citizens can reach contacts at the municipal Public Order Office via the police. The service enables people experiencing sudden and acute housing emergencies (such as house fires, physical violence or flooding) to be accommodated safely at short notice. The rapid response team is staffed by a municipal emergency room pool of experts, for example.

Heavy rainfall risk management and flood protection

Floods caused by heavy rainfall have repeatedly led to considerable property damage and also claimed a number of lives in recent decades. These climatological trends will continue in the future due to climate

change, which is why corresponding strategies for action are becoming increasingly important. The state guidelines on municipal **risk management** in the event of **heavy rainfall** in Baden-Württemberg provides municipalities with a standardised procedure for developing a local plan for this area. The objective of such a risk management system is to reduce the risks caused by flooding following heavy rainfall or flash floods on human health, buildings and infrastructure, the environment, cultural heritage and business activities. Urban flash flooding is the flooding of a settlement area that results from local heavy rainfall. Unlike river flooding, no reliable method has yet been identified for providing significant advance warning. Characteristics include flooding at some distance away from water bodies, strong velocities that pose a strong potential risk even at low flow depths, and water coming off slopes outside of towns and villages. Due to some very steep slopes in Rottenburg and its villages, flash floods are quite possible – as was seen during the heavy rain in the town core in June 2021. Against this backdrop, the municipality started to prepare its first risk management maps for heavy rainfall in 2019. So far, it has produced two maps for the Bieringen area (2019) and for Kiebingen (2021), with work ongoing on the Bad Niedernau map. Medium and long-term measures are derived from the maps, which are taken into account when preparing development plans.

Following two flood events in July and August 2002, the municipality of Rottenburg am Neckar prepared damage documentation and a **flood protection plan** for the three villages of Hemmendorf, Dettingen and Bad Niedernau. When flood events with widespread flooding and resulting damage occurred again in 2008 however, it became obvious that an overall plan was necessary to avoid such events in the future if at all possible. The municipality of Rottenburg is now planning to implement 100-year flood protection for the three districts through three cross-village **flood retention basins**. The plan provides for the construction of one flood retention basin each above the villages of Hemmendorf and Dettingen as well as another basin at the Aischbach, below Dettingen. In Ergenzingen, the Göttelfinger valley basin protects the village from

flooding from the Seltenbach river catchment area. This will also protect the village of Obernau below.

The flood protection measures are also tested by the fire brigade every two years (**flood protection drills**). Protective walls, hoses and other measures were procured in Bad Niedernau, Bieringen and Obernau based on the flood risk maps. These are set up by the fire brigade as required, once the water rises above a certain level.



Photo 34: Green oasis in the city center - Schänzle front area, Source: City of Rottenburg



3.4.4 Indicators



Land take

Percentage of total land area occupied by built-up areas and transport infrastructure
(Source: SDG Portal)

This indicator measures the percentage of the total land that is used for settlement and transport and is to be viewed in the context of the goal of focusing to a lesser degree on expansion and greenfield development and more on efficiency and brownfield development as part of increasing urbanisation. The value for this indicator has risen slightly in Rottenburg, an increase that can be described as very moderate, and therefore more or less corresponds to the national trend (2020: 14.4 per cent of total area occupied by built-up areas and transport infrastructure). To achieve the targets 11.1.a "Reduction in expansion of settlement and transport area to under 30 ha on average per day by 2030" and 11.1.b "Reduction of the loss of per

Land take

15.2 %
2010 **15.4 %**
 2015 **15.7 %**
 2020



capita open space area" of Germany's Sustainable Development Strategy, trends would need to be reversed or brownfield development would need to be intensified.



New land take

2010	2015	2020
0.01 %	0.06 %	-0.12 %

Change in area occupied by built-up areas and transport infrastructure compared to the previous year, based on total area (Source: SDG Portal)

New land take often leads to an irretrievable loss of natural soils and open spaces, although the indicator alone can say little about inclusive or sustainable urban development. The validity of the data over time is also affected by a change in the area survey methodology in 2016. According to the most recent figures (2020), there was a drop of -0.12 per cent in the area occupied by built-up areas and transport infrastructure in the municipality, compared to the previous year (2019), which means that less new land was used for

this purpose than in the previous year. The average new land take nationwide was also down slightly, according to most recent figures (2020) at -0.05 per cent. At the overarching level, this trend can be assigned to targets 11.1.a "Reduction of expansion of settlement and transport area to under 30 ha on average per day by 2030" and 11.1.b "Reduction of the loss of per capita open space area" of the German Sustainable Development Strategy.

11 SUSTAINABLE CITIES AND COMMUNITIES



Intensity of land use

2010	2015	2020
0.05 ha	0.05 ha	0.05 ha

Area occupied by built-up areas and transport infrastructure per person
(Source: SDG Portal)

The limited amount of land available in the municipality is a non-renewable resource that we need to protect for future generations. Our different needs, expectations and usage patterns often have conflicting goals that we must weigh up and reconcile – the efficient use of land can have positive economic and social benefits that do not result in expansion of use. It is important to note that this indicator only reflects the settlement and transport area compared against the number of inhabitants. It does not provide any qualitative information on usage. There have been slight variations in Rot-

tenburg over the years, but – as the figures are rounded to two decimal places – these are negligible. The overall figure has remained constant at 0.05 hectares occupied by built-up areas and transport infrastructure per person. According to most recent data (2020), the national average for this indicator was more intensive at 0.06 hectares per inhabitant. Rottenburg am Neckar therefore contributes indirectly to achievement of target 11.1.b “Reduction of the loss of per capita open space area” of the German Sustainable Development Strategy.

11 SUSTAINABLE CITIES AND COMMUNITIES



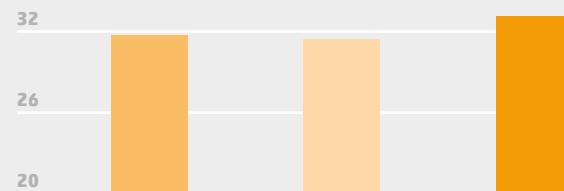
Local recreational areas

Local recreational areas per person in m² (Source: SDG Portal)

Local recreational areas in a municipality include undeveloped areas (including green spaces, parks, allotments, sports fields and campsites) that are predominantly used for sports and recreation and are also home to animals or plants. They are therefore of high social and ecological value. In the municipality, the percentage of local recreational space per person increased slightly to the most recent figure of 33.14 m² per person (2020), which is low compared with the national average, which stood at 63.34 m² in 2020. In the state of Baden-Württemberg, the average is more in line with the municipality's figures, with 34.32 m² of local recreational areas available per person in 2020. The Federal Government's Sustainable Development Strategy does not contain any targets for this indicator.

Local recreational areas

2010	2015	2020
31.76 m ²	31.42 m ²	33.14 m ²





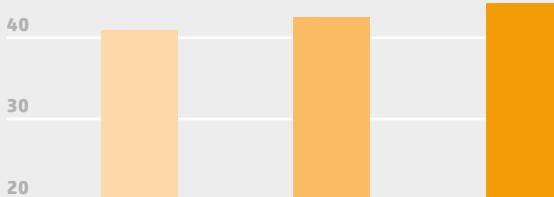
Living space

Available living space per capita (Source: SDG Portal)

The area of living space per capita has increased in Germany over the years, partly due to a fall in the size of an average household. This trend is also reflected in Rottenburg. Whereas in 2010, the average living space per capita was still 40.9m², by 2020 it had risen to 44.2m², putting Rottenburg a little below the national average of 45.6m² per person (2020). Although the German Sustainable Development Strategy does not state any explicit targets for living space, target 11.1.b does address the valuable asset of open space through the "loss of per capita open space area", which also plays a huge role in housing construction.

Living space

40.9 m²
2010 **42.5 m²**
2015 **44.2 m²**
2020



Vacant lots between buildings

	2010	2015	2020
Villages	713	680	527
Town core	377	202	128
Total	1090	882	655

Number of vacant lots between buildings in the municipal area (Source: Municipality of Rottenburg am Neckar)

In all of the 17 villages, all potential vacant lots between buildings are surveyed, mapped and entered into a database through inspections and letters to the property owners. In this way, those interested in developing a site can be identified, along with poten-

tial for infilling development. The municipality drafts small-scale development plans for certain plots of land and areas. The total number of vacant buildings declined over the period from 2010 to 2020.



Vacant properties

	2010	2015	2020
No figures available		180	200

Absolute number of land parcels with vacant buildings suitable for residential use
(Source: Municipality of Rottenburg am Neckar)

In Rottenburg am Neckar, vacant buildings are documented and the owners contacted to see how they wish to develop their property. If the owner is interested in selling, the municipality brokers a sale by advertising

the building on its homepage free of charge. Property owners receive expert advice on funding and development opportunities. According to most recent figures (2020), the number of vacant buildings has increased.

**11 SUSTAINABLE CITIES
AND COMMUNITIES****Subsidised/social housing**

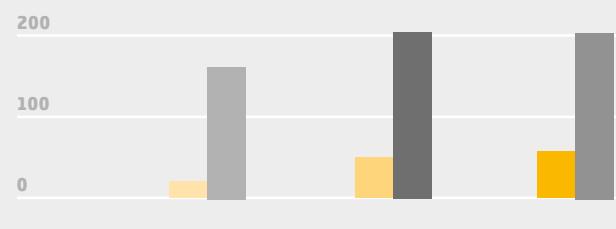
Number of subsidised apartments in the municipal area

(Source: Wohnbau Rottenburg am Neckar, WBR, municipality of Rottenburg am Neckar)

As part of its municipal services, Rottenburg am Neckar fulfils tasks related to housing provision for broad sections of the population at socially acceptable conditions through Wohnbau Rottenburg am Neckar (WBR), which is owned by the municipality, by building, providing and maintaining housing (see section above on qualitative aspects of housing supply for more details). In a 2016 meeting, the Municipal Council passed a resolution to establish the company as well as its Articles of Association. WBR started operations in 2017 with the entry into force of these Articles of Association. Against this background, the number of social housing units in the town area has steadily increased over the period under review from 2017 to 2022 (from 20 to a total of 57). The percentage of municipal social housing increased from 12 per cent to 28 per cent.

Subsidised/social housing

Social housing in housing stock	20	50	57
Number of social housing units overall	163	206	205

**11 SUSTAINABLE CITIES
AND COMMUNITIES****Rent reduction**

2020	2021	2022
< 6.00 €/m ²	No figures available	> 6.00 €/m ²

Average price per m²

(Source: Wohnbau Rottenburg am Neckar, WBR)

By reducing construction costs, including through the use of subsidies, it will be possible to reduce rental costs in the longer term, which will in turn enable

low-cost housing. In Rottenburg am Neckar, the most recent figure (2022) for average rent per m² was over EUR 6.00.

**11 SUSTAINABLE CITIES
AND COMMUNITIES****Provision of housing (housing campaign)**

2017	2021	2022	2023/24 (in planning)
92	149	162	200

Number of new buildings as well as renovation and extension of existing stock

(Source: Wohnbau Rottenburg am Neckar, WBR)

WBR is mandated to provide the market with 30 new apartments every year to counteract the housing

shortage. This number will increase to 200 for the years 2023/24.



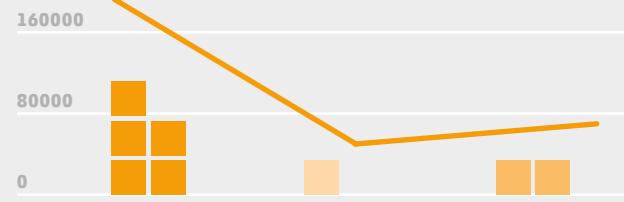
State Development Programme for Rural Areas

Amount of funding and subsidies as well as number of individual measures
(Source: Municipality of Rottenburg am Neckar)

For more than 25 years now, Baden-Württemberg's State Development Programme for Rural Areas has promoted the sustainable development of village centres in rural areas. Providing support for residential buildings in the village centres means that fewer construction developments need to be zoned (reduction of new sealed areas for development of new builds). Social cohesion of the village community is also supported as a result (no "drain" from the historic village centres). The aspect of sustainability has been strengthened in recent years by paying a bonus for buildings whose supporting structure is made of a material that captures carbon. The number of measures funded varies from year to year. Municipalities bear sole responsibility for the acquisition of funding projects and the submission of applications to the state funding programme.

State Development Programme for Rural Areas

193,000 €	50,000 €	70,000 €
5	1	2



Subsidies for design measures

2010	2015	2020
138,000 €	172,000 €	260,000 €
25	34	28

Amount of funding and subsidies
Number of individual measures
(Source: Municipality of Rottenburg am Neckar)

Within the framework of statutes governing the design of historic town centres and the old town, the municipality provides subsidies to compensate for any additional design work required. In this way, the mu-

nicipality has been able to prevent village centres from becoming run down over the past 40 years and to remain attractive, lively town centres, particularly from a residential perspective.

11 SUSTAINABLE CITIES
AND COMMUNITIES


Density of settlements in floodplains

Percentage of area in the officially designated floodplain that is occupied by built-up spaces and transport infrastructure (Source: SDG Portal)

The objective of designating floodplains on surface waters aims to reduce or even completely prevent damage caused by flood events (Section 76 of the German Federal Water Act – WHG). In the municipality, 6.4 per cent of the built-up settlement and transport area is located in an officially designated floodplain, according to most recent figures (2020). This trend is identical to the German average of 6.4 per cent in 2020. The Federal Government's Sustainable Development Strategy does not contain any targets for this indicator.

Density of settlements in floodplains

6.5 %

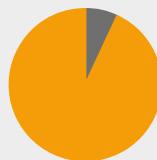
2011

6.3 %

2015

6.4 %

2020


11 SUSTAINABLE CITIES
AND COMMUNITIES


Civil defence siren network

2021

2022

2023

No figures
available

No figures
available

15

Number of sirens

(Source: Municipality of Rottenburg am Neckar)

There are currently 15 sirens in the civil defence network in the municipality. It needs to be taken into consideration in this context that at least eight sirens would need to be replaced to ensure civil protection

for the municipal area. This is to be followed up, pending the go-ahead of a potential new phase of the Federal Government's siren funding programme.



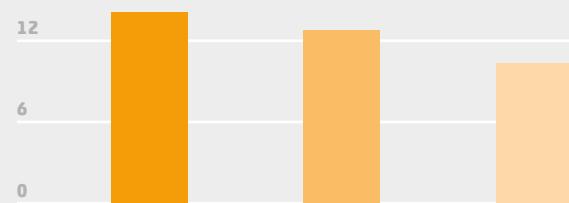
Air pollution

Annual mean level of particulate matter (PM₁₀) per cubic metre (Source: SDG Portal)

This indicator describes the impact of disruptive factors on people or the natural environment. Particularly high levels of pollution are emitted by energy generation, road traffic, agriculture and industry. Particulate matter (PM) is considered particularly harmful to health and is a factor primarily in densely populated areas. Limit values are set by the European Union and the World Health Organization. In the municipality, the average concentration of fine dust (PM₁₀) particles in the air with a maximum diameter of 10 micrometers was 10.3 µg/m³ in 2020. No comparative values are available at the federal or state level. Target 3.2.b of the German Sustainable Development Strategy aims for "WHO particulate matter guideline value of 20

Air pollution

14.1 µg/m³ 2012 **12.8 µg/m³** 2016 **10.3 µg/m³** 2020



µg/m³ for PM₁₀ to be adhered to as widely as possible by 2030". Rottenburg am Neckar fell below this limit value in 2020.



Victims of road traffic accidents

2010	2015	2020
4.3	5.7	4.3

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

This indicator helps us assess road safety in general, without distinguishing between the different modes of transport. Pedestrians and cyclists are not just the more frequent victims of car accidents, they also tend to sustain more serious injuries – the likelihood of drivers sustaining such injuries is very low by comparison. This indicator does not adequately represent this im-

balance. In Rottenburg, the number of people injured or killed in traffic accidents per 1,000 inhabitants varies over a ten-year period and most recent figures (2020) show that it has returned again to 4.3 persons injured or killed. The nationwide trend is slightly lower, at 4.0 percent in 2020. The German Sustainable Development Strategy does not contain any targets for this indicator.



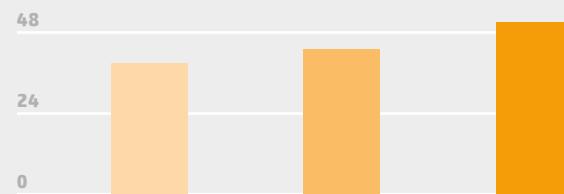
Barrier-free bus stops

Number of bus stops converted to barrier-free bus stops using Kassel Kerb
(Source: Municipality of Rottenburg am Neckar)

The German Passenger Transport Act (PBefG) aimed for all bus stops to be made barrier-free by 1 January 2022. The municipalities are responsible for implementation. District funding is available for the construction of barrier-free bus stops, along with support through the State of Baden-Württemberg's law on financing municipal transport. Since the target was stated in the Passenger Transport Act, bus stops in the municipal area of Rottenburg have been successively retrofitted, sometimes in combination with other measures. Given local conditions, not all bus stops can be retrofitted in accordance with the act.

Barrier-free bus stops

39 2020	43 2021	51 2023
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Upper Neckar Valley citizens' car

15 September 2021-22 October 2022
approx. 1400

Number of requested trips
(Source: Municipality of Rottenburg am Neckar)

In order to improve the local transport situation in Rottenburg, villages joined forces a few years ago to purchase a citizens' car. For older people in particular, the distance to the bus stop or to the train station was too far by foot, with poor transport connections. The citizens' car gives older people back their independence. Pick-up from their front door and drop-off there afterwards is a good solution for most of the target group, many of whom are mobility-impaired. This mobile, voluntary everyday support service has allowed the

80 to 95 year-old age bracket to independently make appointments with the doctor or physiotherapist (80 per cent of the trips currently involve trips to doctors in Rottenburg, to the clinic in Tübingen or Rottenburg, to physiotherapy, aqua aerobics or chiropody). Between 2021 and 2022, around 1400 trips with the citizens' car were requested. Approximately 120 trips per month are undertaken, with 19 volunteer drivers. There are currently 36 regular passengers.

11 SUSTAINABLE CITIES AND COMMUNITIES



Bikes for work contracts for municipal employees

2017	2019	2022
3.2 %	7.0 %	18 %
17	37	96

Percentage (and absolute number) of bikes for work contracts for municipal employees in relation to those eligible to apply (Source: Municipality of Rottenburg am Neckar)

Leases for bikes that can be used for both work and personal use by Rottenburg municipal administration staff were offered for the first time in May 2017. Since

then, there has been a steady increase in demand for bikes for work.

11 SUSTAINABLE CITIES AND COMMUNITIES



People from a migration background

2018	2020	2022
No figures available	6,289	7,186

Number of people from a migration background
(Source: Municipality of Rottenburg am Neckar)

In 2020, 6,289 people from a migration background lived in the municipality; this had risen to 7,186 by 2022. Although this indicator shows the steady increase in the number of people from a migration background, it does not provide any information regarding

whether migrants have been successfully integrated, as it does not reflect the differences between migrants and non-migrants. Further data from the areas of employment, education, health and social integration would be required to this end.

11 SUSTAINABLE CITIES AND COMMUNITIES



Political bodies of Rottenburg am Neckar

2014	2017	2022
4	7	8

Number of political bodies and participatory entities
(Source: Municipality of Rottenburg am Neckar)

In the town core of Rottenburg am Neckar, there were four decision-making political bodies in 2014: The Municipal Council, the Social, Education and Culture Committee, the Administrative Committee and the Committee for Construction and Sustainability. Expert residents have also been appointed as advisory members of the committees. The Youth Council, the Integration Advisory Board and the Disability Advisory Board

were added in 2016 and 2017, with the Municipal Development Advisory Council being established in 2022. Each village also has local councils with decision-making powers. The operating committees and supervisory boards, etc. are not included here. This indicator depicts the diverse committee work/involvement of participatory, inclusive and integrated settlement planning and management bodies.

17 PARTNERSHIPS
FOR THE GOALS

3.5 SDG 17 – Partnerships for the goals

3.5.1 SDG 17 – Introduction and relevance for German municipalities

SDG 17 calls on the world to strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development, with respect to all the SDGs. These can only be achieved through strong partnerships at multiple levels. Politics, civil society, academia and business must work together to implement the goals – locally, regionally, nationally and globally. This means that multi-actor partnerships between public, private and civil society partners are key. The core principle of "leave no one behind" describes the special responsibility to include all people on the path to sustainable development. In particular, the needs of the poorest and

most disadvantaged should be taken into account – both within a society and in the context of the global community. Accordingly, the 2030 Agenda calls for the countries of the Global North to support the countries of the Global South, e.g. in capacity building for sustainable development.¹⁵ For German municipalities, the following themes are therefore especially relevant for implementing this SDG (please also compare these with the targets for SDG 17 in the annex):

- | Forming and supporting partnerships and cooperation arrangements
- | Promoting global justice

¹⁵ See Germany's Voluntary National Review to the High-Level Political Forum 2021 and the German Sustainable Development Strategy 2021.



3.5.2 Overview of qualitative aspects and indicators

Qualitative aspects:

- | Promoting global justice - commitment to fair trade
- | Local Agenda 21 in Rottenburg am Neckar
- | Initiative N! Living well in Rottenburg am Neckar
- | Global partnerships with municipalities
- | Further cooperation arrangements, networks and partnerships of the municipality and support for citizen engagement

Indicators:

- | Fairtrade Town
- | Fairtrade Schools
- | Citizens' Basic Income Projects

3.5.3 Qualitative aspects

Promoting global justice – Engagement in the area of fair trade

For many years now, the Municipality of Rottenburg am Neckar, together with civil society, has been committed to global justice. Commitment to Fair Trade and One World has been ongoing for years, with the One World Shop Weltladen e.V. being established as far back as 1977. Since then, there has been proactive co-operation within associations and clubs as well as many initiatives within the municipality to create a more equitable and inclusive global society. These efforts stepped up a notch with the launch of the Local Agenda 21 platform in Rottenburg. The Agenda Project Group Rottenburg Acts Fairly was established in 2000, launching many events and projects. This Local Agenda process provided the impetus for Rottenburg to apply to become a **Fairtrade Town** in 2009.

Photo 35: Garden of Encounter, Source: Rottenburg Municipality



Rottenburg has been officially certified as a Fairtrade Town since 2010, making it the first Fairtrade Town in the federal state of Baden-Württemberg. Fairtrade Towns promote fair trade at the municipal level and are the result of successful networking between stakeholders from civil society, politics and businesses that work together at the local level. In Germany, the international Fairtrade Towns campaign is supported by the association TransFair. The title of Fairtrade Town is conferred for two years at a time – the town of Rottenburg has been successful in extending the certification since 2010 until today, although other towns have lost their title over time.

To receive certification, a municipality must fulfil five criteria that prove its commitment to fair trade at various municipal levels. In addition to the adoption of a council resolution, a local steering group must be set up to coordinate activities. Other criteria relate to the sale of fair trade products, information and educational activities that involve civil society, and appropriate

media and PR work. In Rottenburg, different projects are implemented every year with a variety of partners (examples include a Fair Town Rally, film contributions for Fair Week and a Fair Trade Action Day at Rottenburg schools). Cooperation with other Fairtrade-certified institutions plays an important role in this context. There are now three **Fair Trade Schools** in Rottenburg (St. Klara since 2016, PKG since 2018 and CJL since 2019). The Rottenburg University of Applied Forest Sciences was also certified as a **Fair Trade University** in 2016. In 2022, the first **Fair Kita** children's daycare centre was added to the circle of "fair-certified" facilities in Rottenburg. The topic of fair trade is incorporated into the corresponding institutions and awareness of global justice is created.

The aspect of fair trade is also increasingly being taken into account in **public procurement** too. For some years now, the municipal administration has been en-

Photo 36: Title extension Fairtrade town, Source: Rottenburg town council



endeavouring to take into account environmental and social aspects in addition to economic ones in its procurement activities. In everyday procurement of food and textile products for example, attention is paid to the relevant labels (this includes Fair Trade gift baskets, Fair Trade fruit and juices – for local council meetings for example, as well as scarves, t-shirts and caps for public appearances). Ecological and social criteria also play a major role in the public procurement activities carried out as part of intermunicipal cooperation involving the municipalities of Metzingen, Rottenburg, Tübingen and Reutlingen as well as the districts of Tübingen and Reutlingen.

Local Agenda 21 platform in Rottenburg am Neckar

Since the end of the nineties, Rottenburg am Neckar has had a **Local Agenda 21**, in which various stakeholders in working groups, project groups and the coordination group are committed to sustainable development. The working groups and project groups underpin and implement the Agenda's projects. The coordination group's task is to carry out public relations work and promote dialogue among the project groups. The office of the Local Agenda 21 platform is located in the Environmental Protection and Climate Action Unit at Rottenburg municipal administration. Local Agenda 21 serves as an open platform for citizens.

The platform was established within the framework of various key milestones. In 1996, an intensive, open public participation process on urban development planning (STEP) was carried out. A guiding vision was developed, and objectives were defined in the economic, environmental and social fields, paving the way for initiation of the Local Agenda 21 process. In 1998/99, the Adult Education Centre Rottenburg offered a series of events on urban development and Local Agenda 21. They were initiated by the municipal administration and various groups such as the Rottenburg Association for the Protection of the Environment and Nature and church representatives. The

programme, which was developed in several rounds of talks, also included topics such as fair world trade, agriculture and silviculture. In 1999, Rottenburg's Municipal Council decided to develop a Local Agenda 21 platform with the participation of citizens, stakeholders and the administration. In July of that year, working groups on culture, the environment, economy and social affairs were established at the Agenda planning workshop, involving around 70 participants.

Today, the Local Agenda is still active with various working groups (Economy working groups: Fairtrade Town, Regional market; Environment working groups: RepairCafe, bikepaths group, cargo bikes, Weggental habitat; Social affairs working group: Culture in Castle 1 (correctional facility), Meeting of Kreuzerfeld neighbourhood group, Foodsharing). The annual budget for volunteer work is around EUR 5,300 (without contingency funding).

Figure 37: Logo Local Agenda 21, Source: Municipality of Rottenburg



Initiative N! Living well in Rottenburg am Neckar

In order to promote consistent local action for greater sustainability, stakeholders from the Local Agenda 21 platform, together with the Municipal Administration, launched the **Initiative N! – Living Well in Rottenburg am Neckar**. The “N!” stands for the German word for sustainability (“Nachhaltigkeit”). The initiative seeks to create a balance between economic, social and environmental interests – locally, globally, today and in the future.

The Lord Mayor Stephan Neher invited participants to the launch event and signed the specimen resolution The 2030 Agenda for Sustainable Development: Building Sustainability at the Local Level. Since then, Rottenburg has been a signatory municipality and a member of the Club of the 2030 Agenda Municipalities.

The multistakeholder partnership Initiative N! with representatives from the administration, the academic and scientific community, education and civil society advises the municipality on sustainability and contributes to achievement of the Sustainable Development Goals at the local level. The initiative emerged from an awareness that sustainability starts in the here and now at the local level. The municipality of Rottenburg will only remain attractive today and in the future and retain its reputation as a role model town worth living in if local people live sustainability. At the same time, Rottenburg is making an exemplary contribution to raising awareness of sustainability and creating a more equitable and just society.

Against this backdrop, the overarching objective of the stakeholder partnership is to systematically make sustainability a decision-making and implementation criterion for all projects in Rottenburg – both internally in the administration and externally throughout the municipality (in cooperation with various stakeholders). Sustainable action should become a daily occurrence for everyone in the town. The Sustainable Development Goals serve as a compass in this context.

To implement the objectives described above, Initiative N! is developing a variety of ideas and activities. One such example is the N! Festival organised in 2017. The festival made the broad topic of sustainability tangible for all citizens of the town based on simple, practical everyday examples and invited them to participate in this context. The initiative focuses on different fields of action – education, energy, consumption, mobility and administration. It also supports sustainability initiatives by associations, clubs and citizens and promotes cooperation with the private sector. This fosters networking with stakeholders within the state and nationwide as part of the global 2030 Agenda movement.

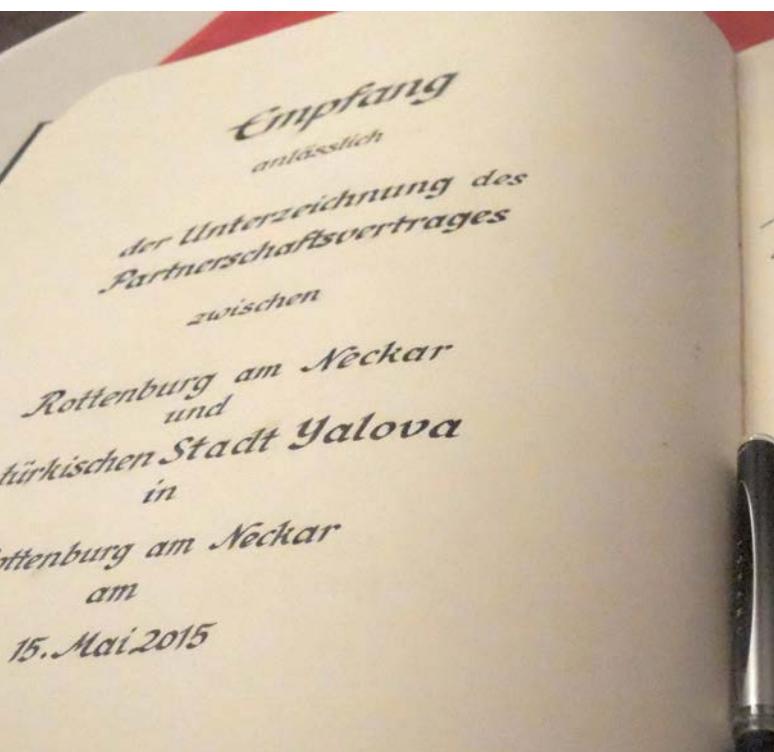


Figure 38: Logo Initiative N!, Source: Rottenburg City Council

Global partnerships with municipalities

In 2017, the Friends of Malawi Association Malawi Freunde Rottenburg e.V. started a climate partnership project in the community of Chilumba in northern Malawi in cooperation with and with support from the municipality of Rottenburg. For this purpose, a **climate and environment workshop** was carried out in Chilumba, the idea being to identify the problems that people living in the locality and surrounding areas encounter as a result of climate change and to establish the current environmental status. Conclusions and goals were to be jointly derived on this basis and specific activities and projects developed. Around 40 selected people were involved (including women's groups from the surrounding villages, the village development committee, pupils and teachers, district officials and six tribal leaders from the neighbouring villages). Over the course of two days, the World Café method was used to identify priorities and develop different goals in five working groups, particularly in the areas of climate action, environmental protection and sanitation. In this way, numerous measures were developed, based on cost estimates. The path was also paved for the establishment of an energy sponsorship programme, a toilet programme and irrigation systems. A fundraising campaign was launched for this purpose and the programmes started in 2017. Since then, financial support has been provided annually by the Municipal Administration and the town's municipal utilities.

Photo 39: Ceremonial signing of the twinning agreement with Yalova,
Source: Rottenburg City Council



Rottenburg am Neckar also runs a number of twinning arrangements. In 2015, a **twinning agreement** was signed between Rottenburg and Yalova, Turkey.

For some time now, citizens and the municipal council have been keen to initiate a twinning arrangement with Turkey. Many people from Turkey have also found a new home in Rottenburg. Contact with Yalova was initiated in 2013/2014 within the framework of the EU-Turkey town twinning initiative. Since then, the friendly links between both towns are to be stepped

up, especially in the youth sector. A town twinning association was established in 2015 to support the process. According to its statutes, the purpose of the association is to provide general support for the twinning arrangement, with special emphasis on fostering international understanding and friendship. A further important focus is cooperation in all areas of cultural and social life and meet ups of individual citizens or groups from the twin towns. Since the establishment of the association and the partnership, regular meetings have taken place to promote dialogue and information-sharing.

A twinning arrangement between Rottenburg am Neckar and the town of Saint-Claude in France was established in 1979. The signing of the agreement sealed a friendship that had been in place for ten years. The basis for establishing the twinning was the contact that had been established between the Returnee Association (VdH Ortsgruppe Rottenburg) and the Association of Former French Prisoners of War (ACPG) from Saint-Claude. The friendship and partnership that exists between the two towns – particularly between their young people – has been stepped up in recent years. In 2010, the local Franco-German Alliance Twinning Association – Rottenburg am Neckar/Saint-Claude was also established to continuously promote the twinning arrangement. A similar association had already been established in Saint-Claude in 2009. The towns and associations have been working closely together ever since. Other twinning arrangements also exist between individual villages and towns in France and Austria, including Ergenzingen-Gols, Kiebingen-Lion sur mer, Oberndorf-St.Georgen, Wendelsheim-Albis.

Photo 40: Garden of Encounter, Source: Rottenburg City Council.



Further cooperation arrangements, networks and partnerships of the municipality and support for citizen engagement

In addition to the multistakeholder partnerships mentioned above – Initiative N! and Local Agenda 21 – the municipality of Rottenburg is active in various other local cooperation arrangements, networks and partnerships. These are described in greater detail below.

In 2019, the municipality of Rottenburg am Neckar was a founding member of the **Alliance Cities of Safe Harbours** and coordinates the member municipalities in Baden-Württemberg. The alliance unites municipalities, communities and districts throughout Germany that show solidarity with the Seerbrücke initiative that campaigns for migration policy and with the Sea-Watch civilian sea rescue in the Mediterranean network. It combines the willingness to additionally take in asylum seekers rescued from distress at sea and/or stranded in overcrowded reception centres.

The municipality also has a municipal refugee coordinator to coordinate the **Network of Refugee Support**, which has around 50 regularly active volunteers. Services, for which an annual budget of around EUR 3,000 is available, include for example, a language café with child care, tutoring services, career counselling and a bike workshop.

For many years now, Rottenburg has also been involved in various **working groups for children and youth**, partly at district level and with the police. Here, information on offers of help and support groups is exchanged, as part of networking. Recommendations for action, guidelines on and joint action and letters to parents are also developed and published.

The municipality also maintains an active **partnership with the local University of Applied Forest Sciences** through several links and collaborations. For example, the Municipal Administration provides almost 2,500 hectares of municipal forest, consisting of a north and



a south forest district, as a research and teaching forest for the university. Other collaborations include, for example, the supervision of Bachelor's, Master's and other theses. The students are also encouraged to work together. Various university groups meet regularly in a youth centre, for example. The Municipal Administration and the university also support each other at various (educational) events (such as ForestCleanUp Day, Initiative N! and NeuGründer).

Within the framework of existing cooperation arrangements, the municipality of Rottenburg implements various specific projects and activities. The following sections outline a few different examples:

- As part of the **A Construction Trailer for Everyone project**, the municipality cooperates with the forestry university, the association Mokka e.V. and the Youth Council. In 2022, a funding application was submitted in this context via the Mindchanger campaign to jointly sustainably convert and expand a construction trailer by the end of 2023. This will provide a contact point for young people aged between 14 and 27, but also involve the neighbourhood and the clubs and associations based there. Furthermore, different free-of-charge, low threshold workshops will be offered for visitors on the topic of sustainability.
- In the **Garden of Encounter project**, the Municipal Administration cooperates with the University of Applied Forest Sciences as well as with other stakeholders (the associations Diasporahaus Bietenhausen and Lebenshilfe Tübingen and with the Lindenbach school). The municipality has acquired a garden for this purpose and provides about EUR 1,500 annually for running costs.
- With the municipality's support, the Wir im Ländle humanitarian aid association was able to build a **camp school** at a refugee camp near the Syrian border in 2021. The municipality plans to provide EUR 15,000 annually to fund the school.
- Together with the Youth Council, the Baden-Württemberg Youth Foundation and many other cooperation partners, the municipality marks the annual **International Democracy Day** by holding an

event and a small democracy festival on the market square. To this end, the municipality engages in dialogue with citizens on various topics.

- Rottenburg also supports the local **Festival of Nations** – a low-threshold integration tool. The joint organisation of activities encourages many nationalities from as many different cultures as possible to meet, get to know each other and develop a mutual understanding. 30 clubs, associations and individuals are continuously involved. Between 500 and 800 people regularly come together at the festival itself.
- Together with volunteers and aid organisations, the municipality organises an annual event to mark **International Day for the Elimination of Violence Against Women** through various campaigns to raise awareness of domestic violence and make relevant counselling services known to the public.
- Different sports clubs, the municipality's Youth Welfare Office, the youth association Mokka e.V. and the youth officers of the police force have come together to initiate the joint **Sports Camp** project. The sports camp is an annual activity of the municipal summer holiday programme for young people where young people get to try out different sports.
- From 2020 onwards, the municipality's **Corona testing strategy** ran testing in all schools, kindergartens and several municipal test centres, supported by around 530 volunteer test helpers from 2020 onwards.
- Implementation of Rottenburg's **integration plan** is another example of an activity that is only successful through cooperation between several stakeholders. The plan is based on an extensive participation process with members of the municipal council, experts and volunteers involved in migration and integration work, employees of the Municipal Administration and citizens. It will provide a common guideline for integration policy over the coming years and will be gradually implemented and updated with support from working groups from a wide range of actors both within and outside the administration.



Photo 41: Action on the Day against Violence against Women,
Source: Municipality of Rottenburg

Photo 42: Sports development plan of the city of Rottenburg am Neckar,
Source: Municipality of Rottenburg



The cooperation and promotion of clubs and associations by the municipality should also be mentioned in this context. There are many different types of clubs and associations in Rottenburg that fulfil important social, cultural, sporting, educational, health care and environmental roles. The new version of the **guidelines for supporting clubs and associations** adopted by the municipal council in 2021 stresses that developing the important role clubs, associations, institutions and initiatives play in society requires close partnership and cooperation with the municipality, based on trust. Against this background, the municipality provides both direct and indirect support. In particular, in accordance with the new guidelines, the municipality provides appropriate financial support within the available budgetary means.

Specific **funding guidelines for supporting civil society measures for sustainable development were published** in 2023. On application, the municipality – as a voluntary service – supports various measures and projects by voluntary actors, initiatives and other groups. These must have a particular bearing on sustainable development and be suitable for advancing engagement by the municipality for sustainability, at civil society level too. Through its support for civil society measures, Rottenburg would like to support the diverse voluntary stakeholders in Rottenburg, and therefore make a contribution to sustainable municipal development. Funding is based on the 17 Sustainable Development Goals (SDGs). The programme supports local and global measures and partnerships that can be directly assigned to one or more of the SDGs and that take into account at least two of the three dimensions of sustainability (environmental, economic and social).

Specific cooperation with clubs also occurs within the framework of **sports development planning**. A sports development plan was launched in the municipality in 2018 to address fundamental changes in the school and club landscape, based on a multi-level approach. First, basic data was prepared and analysed in an inventory. An online survey of the sport and physical activity of Rottenburg residents living in the town core

and the villages was conducted and various aspects of such activity evaluated. Another survey was then conducted to identify the needs of the sports clubs and schools and the findings subsequently evaluated. This audit of the inventory of needs paved the way for a participatory process. Representatives from political bodies, schools and associations and from the municipal administration were involved in five work meetings. To implement the sports development plan, the municipal council approved EUR 50,000 for each of the budget years 2021 to 2023. The administration has prioritised the actions section of the plan and incorporated it into a three-year implementation plan. Within the framework of a first **network meeting of the sports development planning steering group** in 2022, several clubs have integrated sustainability and the SDGs into their agendas and presented N! profiles for clubs along with the contents of the N! charter on sport.

Support for civic engagement also plays a key role in this context. The municipal administration's various offices and units serve as a network for associations, projects and groups that promote the needs of other people or the surrounding area. For many years now, the bodies of the municipality of Rottenburg have recognised that solutions to important socio-political issues, in the areas of care, self-help, youth, family, integration and education for example, can only be found in a well functioning community of engaged citizens. **Support for volunteering** is therefore a municipal policy priority. Appreciation and respect are important pillars of support. Since 2014, the municipality of Rottenburg has honoured up to ten citizens each year for their outstanding civic engagement. The Office for Public Relations and Civic Engagement coordinates the selection process and organises the annual reception, in which the citizens' award is embedded. Up to 2023, a total of 93 bronze medals were awarded by the municipality.

As part of the **further education programme** for civic engagement, a variety of events are offered annually to support volunteers. The programme is organised and managed by the municipality's Office for Public

Relations and Civic Engagement in cooperation with Rottenburg's Adult Education Centre.

Since 2012, the municipality has provided support within the framework of the **citizens' basic income** for various activities by Rottenburg associations, clubs, initiatives and other groups, in order to support local voluntary work. The allowance, which is based on an amount of EUR 5 per inhabitant, is available annually and is usually used up to a large degree. Associations often cooperate with each other and with various institutions in this context. In ten years since the basic income was established, the Social, Education and Culture Committee alone approved around EUR 1,029,000 for 198 voluntary projects in the town core. An additional amount of around EUR 1,330,000 citizens' basic income was approved for 727 voluntary projects in the villages.

It has been possible to support youth cultural events since 2016, with an annual budget of EUR 20,000 available for this purpose. The funding guidelines were revised in 2022, so that this option can be made more widely available as youth citizens' income from 2023. The Youth Council decides on the distribution of funding in its public meetings. A maximum of EUR 3,000 is available for each project application. The aim is to encourage young people to independently implement projects for and with other young people and young adults.



Photo 43: The Youth Council 2022 on the educational trip at the Ethics Council in Berlin, Source: Municipality of Rottenburg



Figure 44: Flyer for "A construction trailer for all",
Source: Rottenburg City Council

3.5.4 Indicators

17 PARTNERSHIPS
FOR THE GOALS



Fairtrade Town

Number of new/repeat awards as a Fairtrade municipality (Source: SDG Portal)

Certification as a Fairtrade Town is awarded by Fairtrade Deutschland e.V. in recognition of a municipality's commitment to fairly traded products (bought at fair minimum prices for producers). In this context, municipalities, districts and regions must meet certain criteria (existing council resolution, establishment of a steering group, fair trade products offered by local

retailers, involvement of civil society and ongoing PR activities). Certification must be renewed every two years. The municipality has already had its certification as a Fairtrade Town renewed five times. No comparable data is available at federal or state level, and the German Sustainable Development Strategy does not contain any targets on the status of awards.

Fairtrade Town

1	3	5
2011	2016	2020



Fairtrade Schools

1	2	3
2016	2018	2019



Fairtrade Schools

Number of schools designated as Fairtrade Schools
(Source: www.fairtradeschools.de)

17 PARTNERSHIPS
FOR THE GOALS



Certification as a Fairtrade School is awarded by Fairtrade Deutschland e.V. in recognition of a school's commitment to fairly traded products (bought at fair minimum prices for producers). Any type of school in Germany can obtain certification, provided it establishes a school team, compiles a Fairtrade Compass, offers fair trade products, integrates fair trade into

classes, and runs events and PR activities on fair trade. Certification must be renewed every two years. Three schools in Rottenburg am Neckar are already certified as Fairtrade Schools. No data is available at federal or state level, and the German Sustainable Development Strategy does not contain any targets on the status of awards.



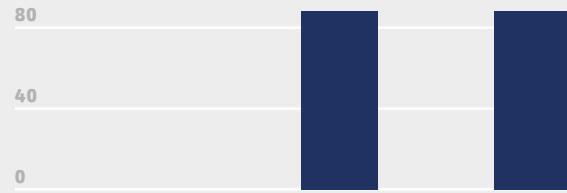
Citizens' Basic Income Projects

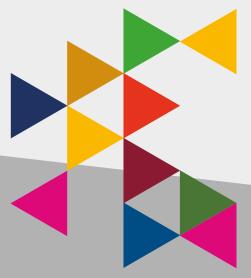
Annual number of projects supported with citizens' basic income (Source: Municipality of Rottenburg am Neckar)

Since 2012, the citizens' basic income has been used to support projects run by Rottenburg clubs, associations, initiatives and other groups. This promotes local voluntary work. The nucleated town receives citizens' basic income of EUR 5 per inhabitant.

Citizens' Basic Income Projects

0
2010 **88**
2015 **88**
2023





04

4 Outlook



Photo 45: Rottenburg market place through window, source: Rottenburg city council

This Voluntary Local Review (VLR) takes a comprehensive look at the implementation status of the Sustainable Development Goals (SDGs) in the Municipality of Rottenburg am Neckar, in both qualitative terms (setting out activities to foster sustainability) and in quantitative terms (analysing indicators). The presentation of the individual SDG-related activities and indicators demonstrates the important contribution the municipality is making to realising the 2030 Agenda at local level. While local reporting on sustainability in Germany has often focused more on quantitative indicators to date, the VLR aims to take a holistic approach to presenting local sustainability. It thus illustrates how the global framework of reference provided by the 2030 Agenda can be localised in both qualitative and quantitative terms to help achieve the SDGs.

This first Voluntary Local Review (VLR) is the first sustainability report compiled by the Municipality of Rottenburg am Neckar. It provides a starting point for developing the municipality's sustainability reporting in the years to come. Reporting is thus seen as an ongoing process, in which the findings of this VLR will serve as the basis for future reports. In addition to activities relating specifically to SDGs 6, 7, 9, 11 and 17,

the municipality is undertaking various other activities that contribute to the remaining SDGs. Using this as a foundation, the VLR can be expanded in future to cover all 17 of the Sustainability Development Goals and thus present the efforts of the district in full. In future reports, alongside the activities of the municipality we also plan to integrate the manifold forms of engagement by other actors (e.g. from the realms of business and civil society) to help achieve the SDGs.

Essentially this international sustainability report has three distinct purposes. Firstly it allows us to reflect on progress made towards achieving sustainable development. Central activities (strategies and plans to guide actions, measures, projects, political decisions, specific objectives, cooperation arrangements and networks, and organisational structures) can be presented together, developments rendered tangible with the help of indicators, and action required identified. Secondly, reporting helps communicate information about the sustainability status quo at local level to policy-makers and interested parties, establishing transparency and generating more attention. Finally, reporting is a central steering element in the ongoing cycle of local sustainability management and for the future alignment of local planning. The degree of objectives achievement can be considered, mechanisms set in course where objectives were not attained, and new priorities set in the interests of continually improving action.

This VLR is part of the ever-growing, worldwide VLR reporting movement, and indicates that municipalities can play a key part in realising the 2030 Agenda. Local contributions were found to all SDGs addressed. The contributions presented here cover most of the 169 targets. In this regard the VLR supports the assumption found in much literature that at least 65 per cent of the SDG targets will only be achieved if municipalities are consistently involved in implementation and monitoring (see Introduction). The VLR report offers huge potential to supplement national and regional reporting to the UN High-Level Political Forum for Sustainable Development, by adding the dimension of local practical experience. For the successful implementation

of the 2030 Agenda, it is crucially important that the various levels (international, national, regional, local) be dovetailed. This VLR has been drawn up with five others under the auspices of a Germany-wide process. This fosters inter-municipal exchange in Germany, and worldwide, on various aspects of reporting (e.g. regarding procedures and structures) as well as encouraging mutual learning through innovative beacon projects.

This VLR illustrates the wide spectrum of relevant issues and the importance of cooperation to drive forward sustainability as a challenge for all. Against this background, we hope that this VLR will encourage other municipalities to report on their own activities to realise the SDGs. The most recent United Nations programme reports on achieving the Sustainable Development Goals indicate a need for urgent action if the 17 SDGs are to be achieved by 2030 (half the time available since the 2030 Agenda was adopted in 2015 has already elapsed). Local realisation gives municipalities a special responsibility to drive forward sustainable development within the UN's Decade of Action (2020-2030).

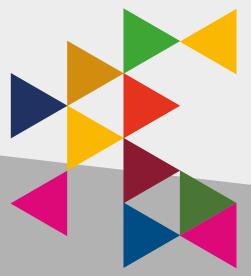
Accordingly, the Municipality of Rottenburg am Neckar plans to rigorously continue along the path it has chosen to achieve greater sustainability in the years to come. The focus is thus on realising the Rottenburg 2030 Municipal Masterplan and the goals set out there (see the section on "Strategic mainstreaming of sustainability" above). Furthermore, we will be implementing the following key steps for local sustainability management:

- | In future, the N!-Check sustainability check will be conducted earlier in the planning process of municipal development measures. This will enable us to consider sustainability aspects as early as possible in the planning process.
- | We will also introduce systematic monitoring of the non-binding (self-)recommendations made as part of the check.
- | This voluntary local review is a first step towards a comprehensive monitoring system. This will enable

us to consider available information on sustainability-related developments in future policy decisions.

- We will increasingly integrate the SDGs into the implementation of projects defined in the 2030 Municipal Masterplan.
- In the medium term, we also plan to subject the municipal budget to an N!-Check/SDG check.





05

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5.1 Summary of the 169 SDG targets (adapted)

SDG 1 - End poverty in all its forms everywhere

- 1.1 Eradicate extreme poverty
- 1.2 Reduce relative poverty
- 1.3 Implement social protection systems and measures, achieve substantial coverage of the poor and vulnerable
- 1.4 Equal rights to economic and other resources (access to basic services)
- 1.5 Build resilience of poor people (to environmental, economic and social shocks/disasters)
- 1.a Ensure mobilisation of resources for developing countries to implement programmes /policies to end poverty
- 1.b Create policy frameworks at regional, national and international levels to eradicate poverty.

SDG 2 - End hunger, achieve food security and improved nutrition and promote sustainable agriculture

- 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 sustainable food production and implementation of resilient agricultural practices
- 2.5 Maintain the genetic diversity of seeds, cultivated plants, and farmed and domesticated animals (and their related wild species)
- 2.a Investment to enhance agricultural productive capacity in developing countries
- 2.b Correct and prevent trade restrictions and distortions in world agricultural markets
- 2.c Adopt measures to ensure the proper functioning of food commodity markets and facilitate access to market information

SDG 3 - Ensure healthy lives and promote well-being for all at all ages

- 3.1 Reduce maternal mortality
- 3.2 Reduce neonatal and infant mortality
- 3.3 Combat communicable diseases
- 3.4 Reduce premature mortality from non-communicable diseases, promote mental health and well-being
- 3.5 Strengthen prevention and treatment of substance abuse
- 3.6 Halve the number of global deaths and injuries from road traffic accidents
- 3.7 Ensure access to sexual/reproductive health care (family planning, information and education)
- 3.8 Achieve universal health coverage / access to health-care 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 (developing countries)
- 3.c Increase health financing / education and training of the health workforces in developing countries
- 3.d Strengthen early warning, risk reduction and management of national and global health risks

SDG 4 - Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

- 4.1 Ensure completion of free and quality education for all children
- 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 jobs and entrepreneurship
- 4.5 Ensure equal opportunities and equal access to all levels of education and training
- 4.6 Minimise the number of illiterates
- 4.7 Improve knowledge and skills to promote sustainable development (learners - ESD)
- 4.a Build and upgrade safe, inclusive and effective education facilities that are child-, disability- and gender-sensitive
- 4.b b Increase the number of scholarships available to developing countries for enrolment in higher education
- 4.c Increase the supply of qualified teachers in developing countries

SDG 5 - Achieve gender equality and empower all women and girls

- 5.1 End discrimination against women/girls
- 5.2 Eliminate violence against women/girls
- 5.3 Eliminate child, early and forced marriage, and female genital mutilation
- 5.4 Recognise and value unpaid care and domestic work (promote shared responsibility within the household and family)
- 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 rights
- 5.a Undertake reforms to give women equal rights to economic and other resources
- 5.b Enhance the use of enabling technologies to promote the empowerment of women
- 5.c Strengthen sound policies/legislation for gender equality and the empowerment of women

SDG 6 - Ensure availability and sustainable management of water and sanitation for all

- 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 water use efficiency, reduce water scarcity
- 6.5 Implement integrated water resources management

- 6.6 Protect and restore water-related ecosystems (mountains, forests, wetlands, rivers, aquifers and lakes)
- 6.a Expand international cooperation and support for developing countries in the area of water and sanitation
- 6.b b Strengthen the participation of local communities in sustainable water management and sanitation

SDG 7 - Ensure access to affordable, reliable, sustainable and modern energy for all

- 7.1 Ensure access to affordable, reliable and modern energy services
- 7.2 Increase the share of renewable energy
- 7.3 Increase energy efficiency
- 7.a Enhance international cooperation to facilitate access to clean energy research and technology
- 7.b Expand infrastructure/upgrade technology in developing countries for supplying sustainable energy services

SDG 8 - Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

- 8.1 Sustain per capita economic growth (GDP)
- 8.2 Achieve higher levels of economic productivity through diversification, modernisation and innovation
- 8.3 Promote development-oriented policies that support / create decent jobs, entrepreneurship and innovation (small businesses)
- 8.4 Improve resource efficiency in consumption & production, endeavour to decouple economic growth from environmental degradation
- 8.5 Achieve full and productive employment and decent work for all (including women and men with disabilities) as well as equal pay for work of equal value
- 8.6 Reduce the proportion of youth not in employment, education or training
- 8.7 Take measures to eradicate forced and child labour, slavery and human trafficking
- 8.8 Protect labour rights and promote safe working environments
- 8.9 Devise and implement policies to promote sustainable tourism
- 8.10 Strengthen the capacity of domestic financial institutions to expand access to financial/ insurance services
- 8.a Increase Aid for Trade support for developing countries
- 8.b Develop a global strategy for youth employment and implement the Global Jobs Pact

SDG 9 - Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation

- 9.1 Develop resilient and sustainable infrastructure to support economic development and human well-being
- 9.2 Promote sustainable industrialisation and increase industry's share of employment and GDP

- 9.3 Increase the access of small-scale industrial and other enterprises to financial services
- 9.4 Upgrade infrastructure and retrofit industries to make them sustainable
- 9.5 Enhance research and upgrade the technological capability of industrial sectors
- 9.a Facilitate sustainable infrastructure development in developing countries
- 9.b Support domestic technology development, research and innovation in developing countries
- 9.c Increase access to information and communications technology and provide access to the Internet

SDG 10 - Reduce inequality within and among countries

- 10.1 Achieve income growth among the poorest
- 10.2 Empower and promote the inclusion of all
- 10.3 Ensure equal opportunity and reduce inequalities
- 10.4 Adopt policies for greater equality (wage policy, social protection)
- 10.5 Improve regulation and monitoring of global financial markets and institutions
- 10.6 Strengthen the voice of developing countries in decision-making in global economic and financial institutions
- 10.7 Facilitate orderly and safe migration and mobility, implement well-managed migration policies
- 10.a Implement the principle of special and differential treatment for developing countries (in accordance with WHO agreements)
- 10.b Encourage official development assistance and financial flows to developing countries
- 10.c Reduce transaction costs for migrant remittances

SDG 11 - Make cities and human settlements inclusive, safe, resilient and sustainable

- 11.1 Ensure access for all to affordable, safe and adequate housing and basic services
- 11.2 Provide access to sustainable transport systems for all, improve road safety
- 11.3 Enhance sustainable urbanisation, implement participatory, integrated sustainable settlement planning and management
- 11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage
- 11.5 Improve disaster risk management
- 11.6 Reduce the environmental impact of cities (air quality, waste)
- 11.7 Provide universal access to green and public spaces
- 11.a Support economic, social and environmental links between cities and rural communities by strengthening national and regional development
- 11.b Adopt and implement integrated policies and plans for sustainable urban development (inclusion, resource efficiency, climate change mitigation, adaptation and holistic disaster risk management)
- 11.c Support developing countries in building sustainable and resilient buildings

SDG 12 - Ensure sustainable consumption and production patterns

- 12.1 Implement 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 Achieve the environmentally sound management of waste and chemicals
- 12.5 Reduce waste generation
- 12.6 Encourage companies to adopt sustainable practices and reporting
- 12.7 Promote sustainable public procurement
- 12.8 Ensure that people everywhere have the relevant information and awareness for sustainable development
- 12.a Support developing countries in moving towards sustainable patterns of consumption and production
- 12.b Develop and implement tools to monitor the impacts of sustainable tourism
- 12.c Reduce fossil fuel subsidies, taking into account the specific needs of developing countries

SDG 13 - Take urgent action to combat climate change and its impacts

- 13.1 Strengthen resilience and adaptive capacity to climate change
- 13.2 Integrate climate measures into national policies
- 13.3 Improve education and human and institutional capacity on climate change mitigation and adaptation
- 13.a Provide financial support for climate action in developing countries
- 13.b Raise capacity for climate change-related planning and management in developing countries

SDG 14 - Conserve and sustainably use the oceans, seas and marine resources for sustainable development

- 14.1 Reduce marine pollution
- 14.2 Sustainably manage and protect marine and coastal ecosystems
- 14.3 Reduce ocean acidification and address the impacts
- 14.4 Implement sustainable fishing mechanisms
- 14.5 Contribute to the conservation of coastal and marine areas
- 14.6 Prohibit forms of fisheries subsidies that lead to overcapacity and illegal fishing
- 14.7 Increase economic benefits for developing countries through the sustainable use of marine resources
- 14.a Increase scientific knowledge in order to improve ocean health and enhance biodiversity
- 14.b Provide access for small-scale fishers to marine resources and markets
- 14.c Enhance the conservation and sustainable use of the oceans and their resources

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

- 15.1 Ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems
- 15.2 Promote the sustainable management of all types of forests
- 15.3 Combat desertification and neutralise land degradation
- 15.4 Conserve mountain ecosystems
- 15.5 Reduce the degradation of natural habitats, halt the loss of biodiversity
- 15.6 Promote fair and equitable sharing and appropriate access to genetic resources
- 15.7 End poaching and trafficking of protected species of flora and fauna
- 15.8 Prevent the introduction of invasive alien species
- 15.9 Integrate ecosystem and biodiversity values into local planning/policies
- 15.a Increase financial resources to conserve biodiversity and ecosystems
- 15.b Increase financial resources for sustainable forest management and provide incentives for developing countries to adopt such management
- 15.c Combat poaching and trafficking of protected species

SDG 16 - Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

- 16.1 Reduce violence and related death rates
- 16.2 End violence against children
- 16.3 Ensure equal access to justice
- 16.4 Combat organised crime, reduce illicit financial and arms flows
- 16.5 Reduce corruption
- 16.6 Develop effective, accountable and transparent institutions
- 16.7 Ensure participatory decision-making at all levels
- 16.8 Strengthen the participation of developing countries in the institutions of global governance
- 16.9 Provide legal identity for all
- 16.10 Ensure access to information and protect fundamental freedoms
- 16.a International cooperation: prevent violence and combat terrorism and crime
- 16.b Promote and enforce non-discriminatory laws and policies

SDG 17 - Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development**Finance**

- 17.1 Strengthen domestic resource mobilisation to improve domestic tax collection capacity in developing countries
- 17.2 Fulfil ODA commitments
- 17.3 Mobilise additional financial resources for developing countries

- 17.4 Assist developing countries in managing debt
- 17.5 Implement investment promotion regimes for developing countries

Technology

- 17.6 Enhance cooperation for knowledge transfer (North-South) in the field of science, technology and innovation
- 17.7 Promote the development, transfer and dissemination of sustainable technologies in developing countries
- 17.8 Establish systematic cooperation for science, technology and innovation; introduce global technology capacity-building mechanism

Capacity development

- 17.9 Enhance international support for capacity building in developing countries

Trade

- 17.10 Promote an open, equitable and rules-based world trading system
- 17.11 Increase the exports of developing countries
- 17.12 Implement duty/quota-free market access for developing countries

Systemic issues

- 17.13 Enhance global macroeconomic stability
- 17.14 Enhance policy coherence for sustainable development
- 17.15 Respect each country's sovereignty in the implementation of policies for sustainability
- 17.16 Expand global (multi-actor) partnerships for sustainable development
- 17.17 Encourage and promote the formation of public, public-private and civil society partnerships
- 17.18 Enhance capacity-building support for developing countries to increase data availability
- 17.19 Develop measurements of progress on sustainable development, and support statistical capacity-building in developing countries

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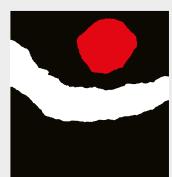
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