Stuttgart - a Livable City

The global 2030 Agenda at a local level

2nd Voluntary Local Review

2021

STUTTGART

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2nd Voluntary Local Review

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STUTTGART

Foreword

Cities worldwide are facing the big questions of sustainable economic, ecological and social transformation. The 2030 Agenda with its Sustainable Development Goals (SDGs) adopted by the United Nations (UN) in 2015, offers municipalities an all-embracing orientation framework for developing urban strategies for the future. In 2018, the Municipal Council of the State Capital Stuttgart joined the model resolution 2030 Agenda of the Association of German Cities and Towns to actively implement the global sustainability goals.

Based on this, the State Capital, in cooperation with the Bertelsmann Foundation and the German Institute of Urban Studies, drew up the first nationwide SDG Voluntary Local Review (VLR, "Stuttgart – a Liveable City") in 2019. The regular, cross-departmental SDG review enables among other things:

- the presentation of the UN sustainability goals in the State Capital both quantitatively and qualitatively and to make these understandable and tangible through a variety of practical examples,
- the analysis of developments in the course of time, identifying the inter-relationships and conflicts of interest between sustainability goals and
- the development of further measures and policy recommendations, as well as content prioritisations on the basis of regular monitoring.

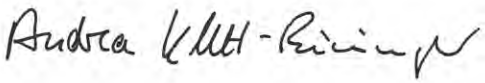
The present 2021 update addresses the recommendations for the further development of indicators and expansion of topics, for instance in the areas of digitalisation, sport and culture. As the peak of the Covid-19 pandemic falls in the period following the first VLR, the data will be used to make initial references to potential impacts in specific local contexts.

The VLR is to be further developed in accordance with the dynamic developments and requirements in the State Capital. For instance, the municipal product budget was aligned with the SDGs beyond the work on the second VLR. To this end and in terms of the respective resolutions of the Municipal Council, first steps have been taken in view of a closer interlinking of a cross-departmental development of guiding principles, SGD indicators and budget planning towards impact-oriented sustainability management.

With the VLR, Stuttgart contributes methodically and practically to the exchange of experiences, further development and use of SDG indicators in other cities and municipalities, as well as internationally. In 2021, the State Capital's contribution to the implementation of the 2030 Agenda was included in reports to the United Nations: the National Progress Report on the New Urban Agenda and the Voluntary National Review (VNR) on the 2030 Agenda by the German government.

We would like to thank the Statistics Office and the International Relations Department for the reliable preparation of the present VLR in cooperation with the offices, departments and public undertakings of the State Capital Stuttgart. Thanks to this interdisciplinary work, further prerequisites are created for the data-based implementation of the global sustainability goals in Stuttgart.

Dr. Clemens Maier
Deputy Mayor
Public Safety, Order and Sport Division



Andrea Klett-Eininger
City Director
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**Stuttgart –
a Liveable City
The global 2030 Agenda
at a local level**

SDG 5 – Gender Equality

SDG 6 – Clean Water and Sanitation

SDG 7 – Affordable and Clean Energy

SDG 8 – Decent Work and Economic Growth

SDG 9 – Industry, Innovation und Infrastructure

SDG 10 – Reduced Inequalities

SDG 11 – Sustainable Cities and Communities

SDG 12 – Responsible Consumption and Production

SDG 13 – Climate Action

SDG 14 – Life below Water

SDG 15 – Life on Land

SDG 16 – Peace, Justice and Strong Institutions

SDG 17 – Global Partnerships for the Goals

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Development of selected indicators

In the following chapters, the developments in the State Capital Stuttgart are presented as a time series for the selected indicators for the respective SDGs.

The structure of the individual SDG chapters is as follows:

- Short formulation of the respective SDG,
- Overview of the targets and topics relevant according to the nationwide "SDG Indicators for Municipalities" project,
- Reflection and description of the development of the respective indicator,
- Classification, definition and basis of calculation, partly with methodical notes,
- Presentation of correlations with other SDGs and references to other indicators that are relevant to the respective SDG and explained under other SDGs,
- Presentation of selected practical examples of the State Capital Stuttgart.

As a rule, the time series covers the years 2010 to 2020, depending on the availability of data. The quantitative and qualitative data used for the report is provided by the Statistics Office and other offices and departments of the State Capital Stuttgart. In some cases, data was sourced from the "Wegweiser Kommune" [Community Guide] by Bertelsmann Foundation (data up to 2018).

The texts of the individual indicators are based on the pilot VLR created in 2019, insofar as the indicators were adopted. Definitions and calculation formulas originating from the nationwide project "SDG Indicators for Municipalities" were partly adapted against the background of the Stuttgart context. Appropriate definitions and calculation bases were formulated for the indicators contributed by the State Capital itself.

The exact methodical procedure and the base data are explained in more detail following the SDG chapters.

Overviews of the 17 UN Sustainable Development Goals with their 169 targets, the indicators specifically selected for the VLR in the State Capital and other possible SDG Indicators for Municipalities can be found in the Appendices I, II and III.

Lists of all figures and practical examples follow the bibliography.

For further information on the position of the UN 2030 Agenda in Stuttgart go to:
www.stuttgart.de/global-und-nachhaltig

SDG 1
No Poverty

"End poverty in all its forms everywhere"

Relevant targets for German municipalities include implementing social protection measures, ensuring a broad provision for the poor and vulnerable, increasing resilience in precarious situations and mobilising resources to end poverty in all countries of the Global South.

Indicator 1.1:
Recipients of minimum social security benefits

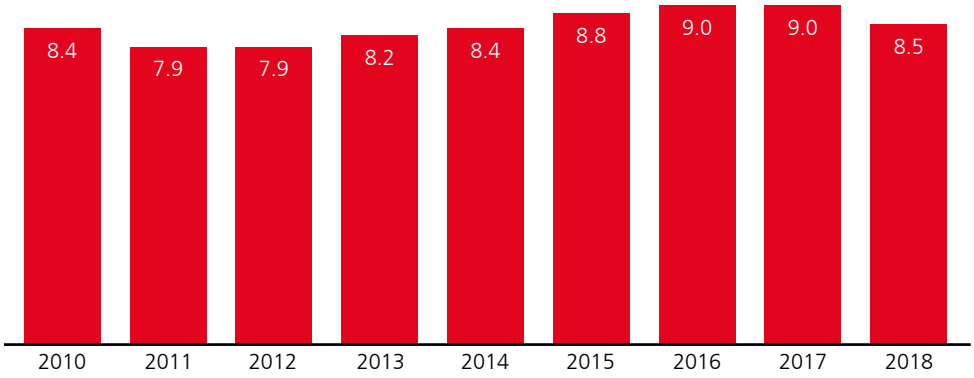


Figure 1:
Recipients of minimum social security benefits (figures in percent)

Sources: Federal and State Statistical Offices; State Capital Stuttgart, Statistics Office (Population register)

In the period under review, the percentage of recipients of minimum social security benefits is between 7.9 and 9.0 percent. In the years from 2011 to 2016, it rises steadily and remains at a peak of 9.0 percent in 2017. The extreme increase since 2014 can be explained by the influx of refugees in 2015/16, which also increased the number of those receiving standard benefits under the Asylum Seekers Benefit Act. This, in turn, increased the total proportion of people receiving minimum social security benefits. In 2018, the proportion drops again for the first time by 0.5 percentage points to 8.5 percent.

Classification / Definition

Recipients of minimum social security benefits include SGB II / SGB XII benefits and the standard benefit under the Asylum Seekers Benefit Act. The indicator describes the level of the need for help within the municipality. The focus is on the financial, but also possible psychological burdens of those affected. The sustainability goal in this regard should be that the benefits for the people in need are sufficient that they can finance their own lives. The appropriate / suitable measures for municipal planning are transfer benefit densities and minimum social security rates, as they reflect the local need for state support to achieve a standard of living.

The indicator reflects the proportion of people actually receiving benefits. A problem arises from the unrecorded cases of people who are actually entitled to benefits but do not apply for them. Reasons for this include ignorance, shame or lack of self-confidence in dealing with authorities. The State Capital Stuttgart counteracts this by advising on how to apply and through outreach work.

Furthermore, the indicator refers only to income poverty, although there are different definitions of poverty. Today, poverty is often understood as a multidimensional concept not only refering to income or material poverty, but also to social, political, educational and cultural poverty. Often, but not necessarily, these different forms of poverty concur.

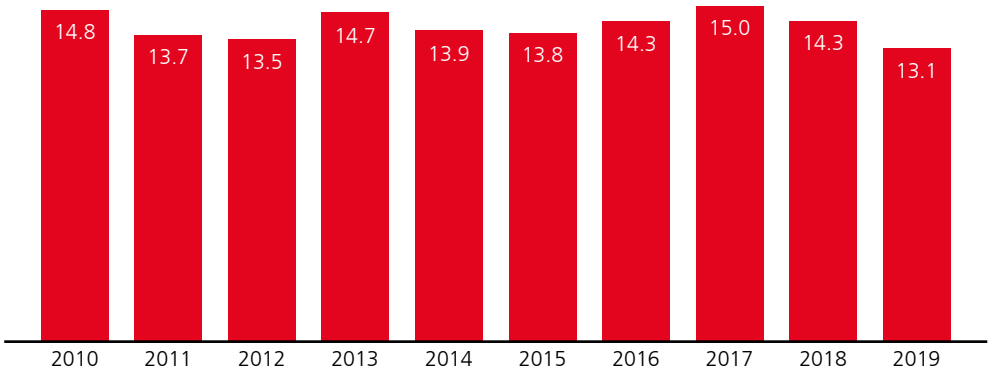
The indicator calculates the proportion of people receiving benefits pursuant to SGB II and SGB XII or standard benefits pursuant to the Asylum Seekers Benefit Act in relation to the number of residents. Taking into account the benefits from the Asylum Seekers Benefit Act, the calculation deviates from that of the 2019 report.

Calculation

Recipients of minimum social security benefits

$$\frac{\text{Number of benefit recipients pursuant to SGB II and SGB XII} + \text{Number of standard benefits pursuant to the Asylum Seekers Benefit Act}}{\text{Number of residents}} * 100$$

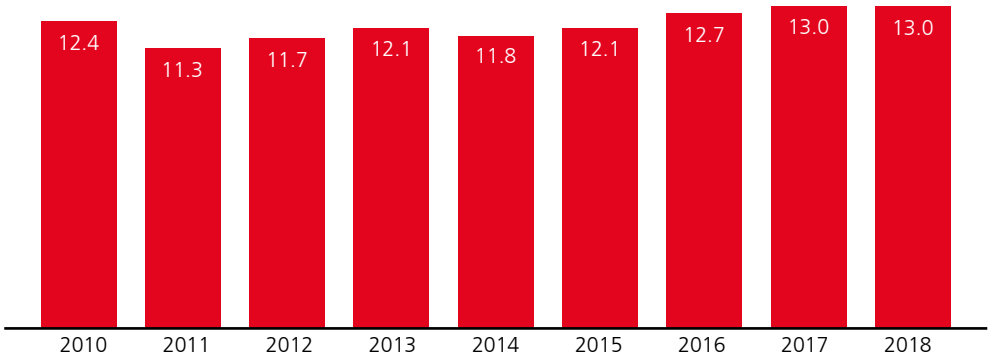
Indicator 1.2:
Poverty among children, adolescents and young adults, the elderly and single parents



Source: Federal Labour Office, State Capital Stuttgart, Statistics Office (Population register)

Figure 2:
Child poverty
(figures in percent)

From 2010 to 2019, child poverty varies around a fairly stable level of some 14 percent. 2013 and 2017 see a sharp increase; the latter can be attributed to the increased influx of refugees in this period. Since 2018, the values have been falling and reach 13.1 percent in 2019, the lowest level in the period under review.



Source: "Wegweiser Kommune" of the Bertelsmann Foundation, State Capital Stuttgart, Statistics Office

Figure 3:
Poverty among
adolescents / young adults
(figures in percent)

The proportion of adolescents and young adults jeopardised by poverty has been around 12 percent since 2010 and is thus slightly lower than the proportion of children jeopardised by poverty. However, the number of jeopardised adolescents has been rising steadily since 2014.

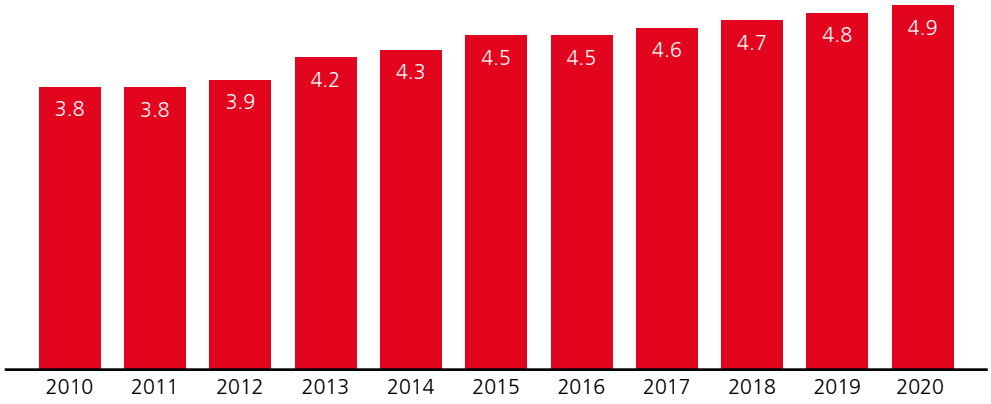


Figure 4:
Poverty among the elderly
(figures in percent)

Source: Federal Labour Office, State Capital Stuttgart, Statistics Office (Population register)

The level of poverty among the elderly is lower than the level of poverty among children and adolescents. However, the curve is different, as poverty among the elderly has increased almost continuously from 2010 to 2020. Here, the shift of level from 3.8 percent to 4.9 percent is significant. Some factors suggest that poverty among the elderly will continue to increase in future. The further increase in atypical employment, instable employment in the low-wage sector and employment histories with interruptions have long-term effects on the income available in old age. While private provision for old age has become increasingly important, the pension level is falling continuously due to changes in pension legislation in recent years and the demographic development. For those affected, poverty among the elderly goes hand in hand with restrictions in nearly all areas of life.[3]

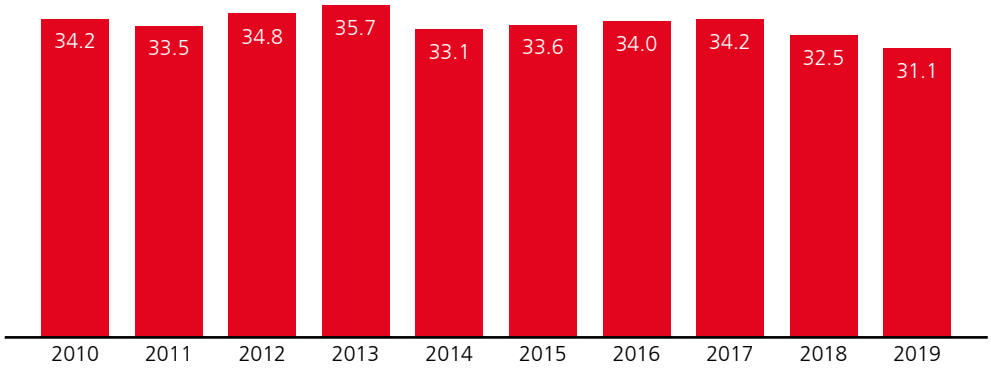


Figure 5:
Poverty among single parents
(figures in percent)

Source: Federal Labour Office, State Capital Stuttgart, Statistics Office
(Population register / Budget generation)

The proportion of single parents affected by poverty is much higher than that for the individual age groups. In the period from 2010 to 2019, between 31.1 and 35.7 percent of single parents in the State Capital Stuttgart received benefits pursuant to SGB II. The poverty risk of single parents has remained at a high level for years and is more than four times higher than that of two-parent families with one or two children. In the State Capital Stuttgart, in every fifth family children grow up with only one parent.[4] Children increase the poverty risk of a household, as they directly increase the household's needs and, in addition, the care tasks make it difficult or even impossible to compensate by taking on additional work. Both the household's needs and the care tasks increase with the number of children. In social and labour market politics, single parents are considered a population group with special socio-political support needs, as they cannot share providing for the family and caring for the children with another parent in the household.[5]

The reasons for the high risk of poverty among single parents are manifold. Difficulties in finding a balance between work and bringing up children play an important role. In the traditional distribution of roles, working mothers usually take on the role of additional earners and the man is the main breadwinner of the family. In the case of separation or divorce, mothers are faced with a difficult double burden and a poverty trap, because of increased living costs on the one hand, inadequate maintenance obligations of the fathers vis-à-vis the mothers and, on the other hand, their income situation, which often put women in precarious situations.

Single parents are often more affected by unemployment – a circumstance that is based on structural obstacles when it comes to a work-life (child-rearing) balance. Women still have a lower income compared to men, the increase in salaries is lower and, even with the same qualification, they earn less than men.[6]

Classification / Definition

For certain population groups, such as single parents, women or children, there is an increased risk of poverty combined with a risk for social disadvantage. This is a case of social inequality since opportunities in life are often better for one group than another insofar as financial resources and living conditions are concerned.[7] Growing up and living in poverty is associated with various limitations, obstacles and personal difficulties. Moreover, poverty and social exclusion jeopardise social cohesion. Therefore, in many fields and with different measures, the State Capital Stuttgart seeks to fight, ease and, at best, prevent poverty. According to the EU definition, people are considered to be at risk of poverty if their income is less than 60 percent of the equivalent income of the total population.[8] This gauge of the risk of poverty is based on a relative definition of poverty, which states that people have so little means that they are excluded from the minimum standard of living compared to the social environment in the respective EU member state.

Calculation

Child poverty is calculated as the propotion of benefit recipients pursuant to SGB II and SGB XII under the age of 15, plus the number of persons under the age of 15 in a community of dependence with benefit recipients pursuant to SGB II or SGB XII, in the population under the age of 15:

Number of benefit recipients pursuant to SGB II / SGB XII under the age of 15
+
Number of persons under the age of 15 in a community of dependence with benefit recipients pursuant to SGB II or SGB XII

/

Number of residents under the age of 15

* 100

The poverty of adolescents / young adults is calculated as the proportion of benefit recipients pursuant to SGB II / SGB XII between 15 and 17, plus the number of persons between 15 and 17 in communities of dependence with benefit recipients pursuant to SGB II or SGB XII in the population between 15 and 17 years of age:

Number of benefit recipients pursuant to SGB II / SGGB XII between 15 and 17
+
Number of persons between 15 and 17 in communities of dependence with benefit recipients pursuant to SGB II / SGB XII

/

Number of residents between 15 and 17

* 100

Poverty among the elderly is calculated as the proportion of benefit recipients pursuant to SGB XII 65 years and older in the population 65 years and older:

Number or benefit recipients pursuant to SGB XII 65 years and older

/

Number of residents 65 years and older

* 100

Poverty among single parents is calculated as the proportion of benefit recipients pursuant to SGB II in the number of single parents:

Number of single parents with income support pursuant to SGB II

/

Number of single parents

* 100

Indicator 1.3:
Net social expense ratio

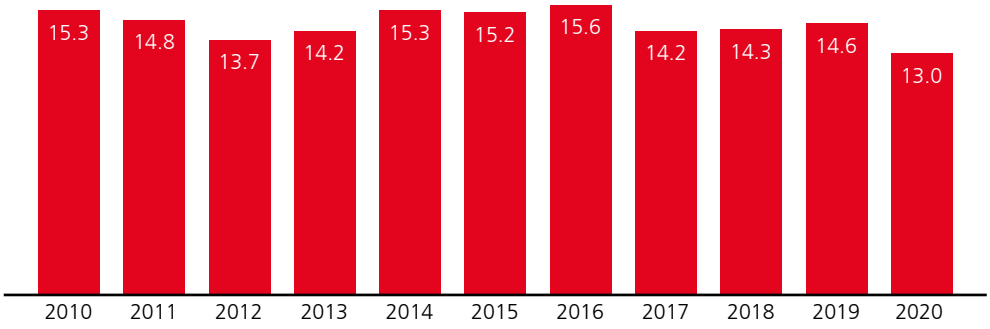


Figure 6:
Net social expense ratio
(figures in percent)

Source: State Capital Stuttgart, City Treasury

The proportion of social expenses in ordinary expenses in the Stuttgart budget fluctuates between 13.0 and 15.6 percent in the period under review. The highest rates were in 2010 and between 2014 and 2016. Most recently, the value dropped to 13 percent

Classification / Definition

Social benefits are, in particular, considered to be benefits provided by a municipality to mitigate social disparities to a third party without a return. This includes for instance basic benefits for job-seekers, SGB XII or AsylbLG (Asylum Seekers Benefit Act). Costs are partly offset by income, for example from the federal government.

The indicator describes the percentage of the net resource requirement of the social sector in the total revenue of ordinary expenses and provides information on the extent to which the municipal budget is already defined and burdened by social benefits. This indicator also refers to the social status of the residents of a municipality. The proportion of social benefits in the overall budget should be as low as possible.

Calculation

Net social expense
/
Ordinary expenses
* 100

Correlation with other SDGs

Poverty (SGB II / SGB XII benefit) and, to a lesser extent, poverty among children and adolescents are connected with the economic development (indicator "Gross domestic product", SDG 8). The 2009 recession was promptly reflected in higher poverty rates; the economic recovery in the following years led to a slight decrease in poverty rates.

Poverty is therefore a core aspect of sustainability because it goes hand in hand with numerous other problems and is often the cause of these, in particular in the long term. This applies in particular to poverty among children and adolescents. Like health and environmental protection, educational opportunities are affected by poverty to the same extent.

There are also links to the fight against poverty in what we call the Global South (cf. SDG 12 "Responsible Consumption and Production", SDG 16 "Peace, Justice and Strong Institutions" as well as SDG 17 "Partnerships for the Goals").

For SDG 1 "No Poverty", the following indicators are also relevant: "School leavers without qualifications" (SDG 4); "Relative poverty among women" (SDG 5); "Unemployment", "People increasing earnings" (SDG 8); "Relative poverty rate among foreigners", "Income distribution (low, medium, high)" (cf. SDG 10); "Accomodation service for social housing" (SDG 11).

Practical example 1:
Scouting poll of older people in Stuttgart Wangen in their mother tongue

Context:
The scouting poll of older people in their mother tongue is intended to get more detailed information on the topics relevant for a fitting support: social integration and family support; general state of health and chronic illnesses; provisions for the need of nursing care; understanding the care situation; attitudes towards professional care; level of information on support services and care.

Description / Realisation:
It is not easy to reach older people living alone (either with or without a migration background) and older people with a migration background via written surveys. A personal survey with a standardised questionnaire is required to get to know and analyse their needs and draw up offers and find ways to help them into the assistance system.

The scouting poll in Stuttgart Wangen is carried out by multilingual interviewers. In a face-to-face conversation, questions are asked and the answers entered in the form. This is the basis for the evaluation. The questionnaire was translated from German to Greek, Turkish, Italian and Serbo-Croatian / Bosnian, as these are the most common mother-tongue languages among the elderly in the Wangen borough (more than 1,500 contacts per language).

Experience / Results:
Due to the Covid-19 pandemic, the survey can only take place once the incidence situation allows it.

Division / Office / Public Undertaking:
Social Welfare Office in the Social Affairs and Integration Division

Practical example 2:
District community centres

Context:
District community centres are local cross-generation meeting points, and play an important part in combating and preventing poverty by offering help and advice, and also offering opportunities for social and cultural participation, fostering the general well-being.

Description / Realisation:
District community centres are low-threshold, social meeting points in the neighbourhood. They are the next step to the existing district and family centres and meeting places for the elderly. District community centres are aimed at everyone in the neighbourhood – old, young.

The aims of the district community centes are "Encouraging meeting people", "Bringing generations together", "Living together in an inclusive community", "Supporting people" and "Shaping the district and neighbourhoods". District community centres offer advisory services, various courses, a café and lunch. Some of these offers are free of charge. They are both for specific target groups and cross-target groups.

Experience / Results:
The district community centres are still not quite fully fledged. The first district community centre was opened in October 2020, but due to the Covid-19 pandemic, there are still restrictions.

Division / Office / Public Undertaking:
Social Welfare Office in the Social Affairs and Integration Division, Youth Welfare Office in the Youth and Education Division

Further reading / links:
https://www.stuttgart.de/buergerinnen-und-buerger/kinder-und-jugendliche/jugendhilfeplanung/treffpunkte-im-quartier.php
(Last access 12.07.2021)

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 2
Zero Hunger

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

Relevant targets of SDG 2 for German municipalities are in particular the improvement of the nutrition situation and sustainability in agricultural production.

Indicator 2.1:
Children with overweight (at school enrolment)

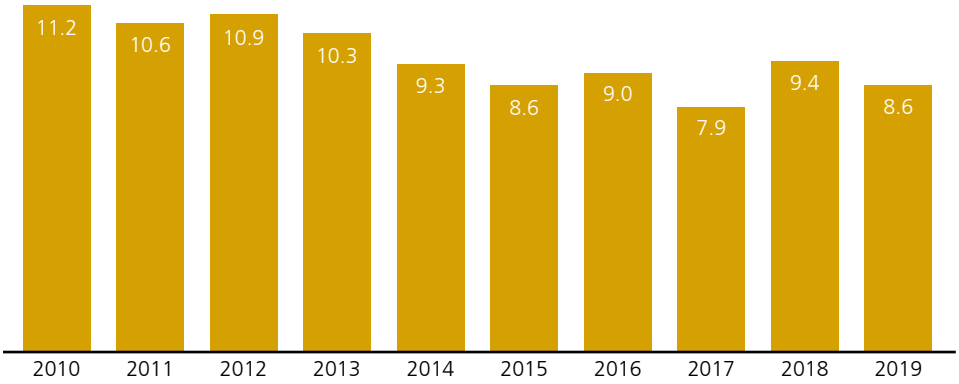


Figure 7:
Children with overweight (at school enrolment) (figures in percent)

Source: State Capital Stuttgart, Public Health Office (school enrolment examination)

By 2015, the number of children with overweight in the age group 4 to 5 years had shown a clear decrease for the entire city. Since then the value has been stable with annual fluctuations between 7.9 and 9.4 percent.

The State Capital Stuttgart has taken various measures to improve nutrition and promote physical activity. It cannot be definitely proven whether there is a causal relation between these measures and the decrease or limitation of the number of overweight children. However, it is an obvious assumption that the municipal measures have a positive effect. Stuttgart is a very heterogenous city with so-called well-off neighbourhoods on the one hand and neighbourhoods with social disadvantages on the other hand. The child health report[9] therefore evaluated the rates of the children with overweight according to the city districts. This revealed that 1.6 to 20.2 percent of 4 to 5 year old children are overweight. This is why the city in particular focuses its obesity prevention and health promotion measures, plus comprehensive programmes, on the neigbourhoods where the child health report shows high health and social indicators.

Classification / Definition

The indicator shows the proportion of all children with a body mass index above the threshold. This threshold is determined as the value below which 90 percent of all children of the same gender in the age group in Germany are. The body mass index is calculated as BMI = (weight [in kg]) / (height [in m])².

In principle, the aim is to decrease the rate of overweight children and adolescents, since childhood obesity goes hand in hand with various health risks, some of which may not become apparent until adulthood (e.g. cardiovascular diseases, type 2 diabetes).

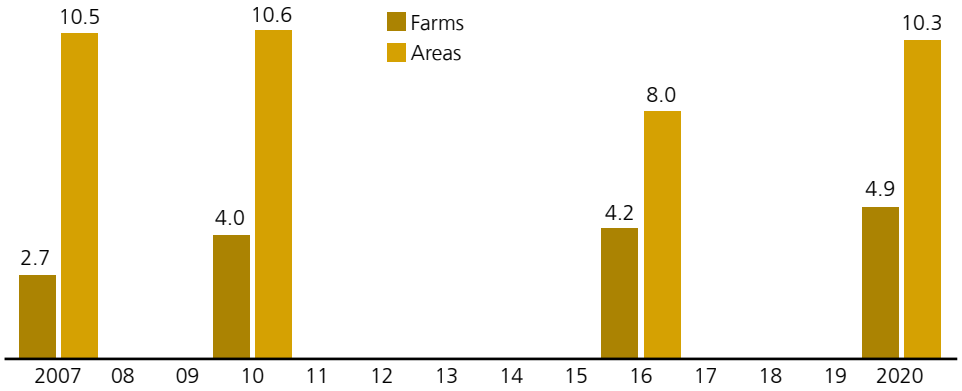
Due to the legal school enrolment medical examination, where all 4- to 5-year-old children (N ≈ 5,000) are examined (weight and height etc.) every year, the State Capital Stuttgart has valid data for this age group.

Calculation

Overweight children:

$$\frac{\text{Number of children at school enrolment with overweight}}{\text{Number of all examined children of a school year}} * 100$$

Indicator 2.2:
Organic farming



Source: State Statistical Office (Agricultural structure survey)

Figure 8:
Organic farming
(figures in percent)

In 2007, there were seven organic farms in Stuttgart. By 2016, this number had increased to eight, while the total number of farms decreased from 257 to 191 in the same period. The proportion of organic farms increased accordingly from 2.7 to 4.2 percent. However, in 2007, 266 hectares were being farmed organically, with this area decreasing to 200 hectares by 2016. So, the percentage of organic farming land fell from ten percent in 2010 to eight in 2016. Since then, it has risen again and was once more at slightly more than ten percent.

Classification / Definition

Organic farming is part of sustainable agricultural policy. It is based on resource-saving production methods as well as on animal welfare, the latter to be achieved by limiting the number of animals kept in the area. Mineral fertilisers and synthetic chemical pesticides are not permitted in organic farming; the focus is on a cycle: using manure of own livestock as fertilizer. In contrast to conventionally managed farms, the purchase of feed from foreign cultivation is minimal or not permitted. This way, organic farming also assumes global responsibility.

Data on organic farming is collected approximately every four years in the context of the official agricultural structure survey. Farms with five hectares of land or more or with minimum production units that manage at least parts of the farm according to the guidelines of Regulation (EC) No. 834/2007 are taken into account.

Calculation

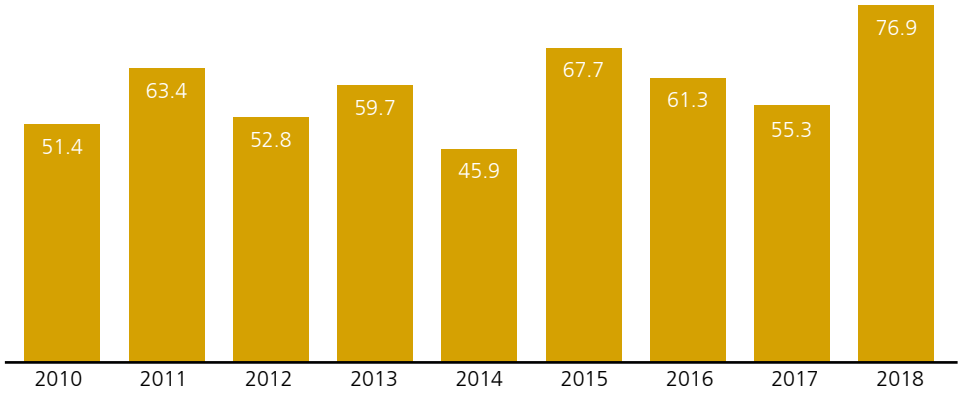
Proportion of agricultural land farmed organically:

Organically farmed agricultural land
/
Area under agricultural use in total
* 100

Proportion of organic farms:

Number of organic farms
/
Number of agricultural farms in total
* 100

Indicator 2.3:
Nitrogen surplus



Source: Bertelsmann Foundation, University of Giessen, Institute for Resource Management

Figure 9:
Nitrogen surplus
(in kg / ha)

The nitrogen surplus of the State Capital Stuttgart determined via model calculations, fluctuates considerably over the period shown and reached a peak of 76.9 kg / ha in 2018. The Federal Environment Agency states in this respect: "The level of nitrate depends on several factors. The concentration by land use around the monitoring points are of utmost importance. In addition, regional hydrogeological conditions, such as groundwater surface distance and flow velocity, as well as underground hydro-chemical conditions play an important role."[10] The aim is to reduce the nitrogen surplus nationwide to 70 kg / ha per year by 2030. In Stuttgart, this rate is complied with in the period under review, except for 2018. At present, the rate in Germany is 80 kg / ha (2019).[11]

Classification / Definition

Excess nitrogen input from agriculture continues to be a major ecological problem, since with inputs into groundwater, surface water and air, it affects diverse ecosystems. Although nitrogen is a main nutrient element of plants, fertilisation in excess and beyond the natural vegetation period pollutes the ecosystems in such a way that their resilience to climate change and extreme weather conditions decreases.

The nitrogen surplus is determined via model calculations taking into account the use of fertilisers, input from air, removal by input in herbal and animal market products and further aspects.

Since 1995, the Institute for Resource Management at the University of Giessen has been carrying out calculations at the level of districts and independent towns.

Calculation

Nitrogen surplus:

$$\frac{\text{Nitrogen surplus in kilogrammes}}{\text{Area under agricultural use in hectares}} * 100$$

Correlation with other SDGs

SDG 2 is clearly related to SDG 3 "Health" (cf. indicator "Promotion of physical activity in nursery schools").

The nitrogen surplus is very dependent on agriculture. Organic farming, for instance leads to a more favourable balance of nitrogen surplus, which in turn contributes to better quality of running water (cf. SDG 6 "Clean water and sanitation").

The indicator "Soil index" is also relevant for SDG 2 (cf. presentation under SDG 15 "Life on Land").

Practical example 3:
Establishment of an organic market

Context:
Almost 200 farms cultivate some 2,500 hectares of agricultural land, some twelve percent of the Stuttgart's total area. Even in a high-density region like Stuttgart, agriculture is of great importance to the entire city. Farmers make a crucial contribution to maintaining the cultural landscape, such as the orchards and terraced vineyards. This way they contribute greatly to ensuring the quality of recreational areas. The unsealed areas are of a major ecological value for the city: they serve as cold-air production areas and improve the urban climate. At the same time, farmers are an important source of local provisions for the local population by selling their fresh, regional products in farm shops and at the many weekly markets in the boroughs. The aim of business development is to support the local farms so that they can operate profitably in the long term.

Description / Realisation:
In cooperation with the Bio-Musterregion Ludwigsburg-Stuttgart [organic model region] and Märkte Stuttgart GmbH, a weekly market was set up in Stuttgart offering organic products from regional production and processing. The aim here is to open up new sales opportunities for organic producers and to increase the range of organic products available to consumers.

Experience / Results:
The BioMarkt opened at the end of April 2021 on Marienplatz and takes place every second and fourth Friday of every month. There is a diverse selection of organic and regional agricultural products. In addition, some stands also offer products that can be directly tried out.

Division / Office / Public Undertaking:
Economic Development Department

Further reading / links:
https://www.stuttgart.de/wirtschaft/wirtschaftsfoerderung/landwirtschaft.php (last access 12.07.2021)

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 3
Good Health and Well-Being

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

Relevant targets of SDG 3 for German municipalities are, in particular, combatting infectious diseases, promoting mental health and well-being, preventing and treating the misuse of harmful substances, universal access to health care and reducing health impacts due to pollution of air, water and soil.

Indicator 3.1:
Children with conspicuous screening of gross motor skills

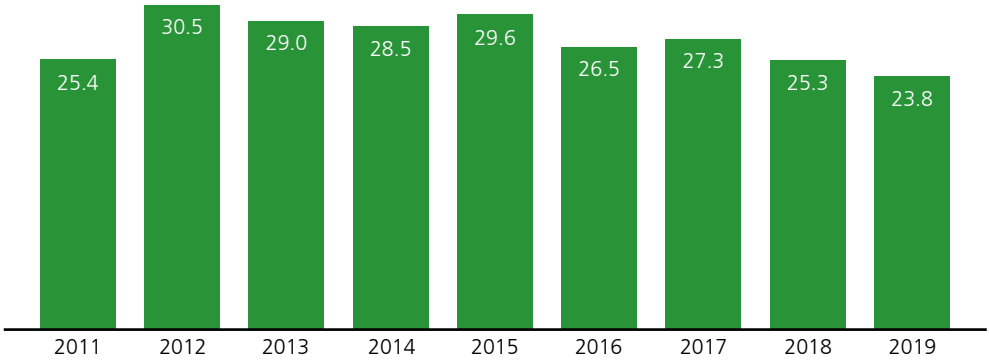


Figure 10:
Gross motor skills among children (percentage of 5-year old children with conspicuous screening)

Source: State Capital Stuttgart, Public Health Office (school enrolment examination)

The proportion of children with conspicuous gross motor skills in the school enrolment examination fluctuates between 24 and 30 percent in the period under review. Since 2016, a slight decrease of the rate has been observed.

Classification / Definition

The indicator shows the rate of children with a conspicuous screening of gross motor skills (documentation of the school enrolment examination). The stage of development of gross motor skills is examined with a standardised examination (hopping on one leg) and assessed according to age-specific threshold values. Since the examination is a screening process, a certain excess survey has to be assumed.

Calculation

Proportion of children with conspicuous screening of gross motor skills:

$$\frac{\text{Number of children at school enrolment with a conspicuous screening of gross motor skills}}{\text{Number of all children of an enrolment year who are examined}} * 100$$

Indicator 3.2:
Level of organisation in sports

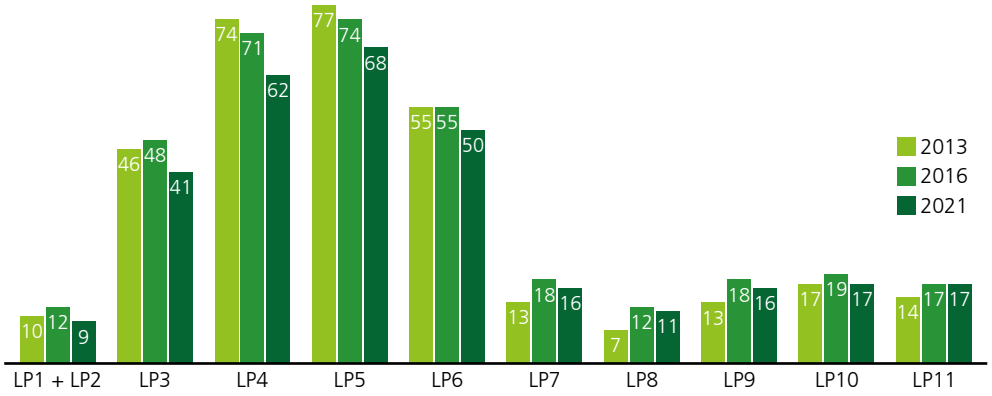


Figure 11:
Level of organisation of different life phases (LP) in sport clubs
(figures in percent)

Source: State Capital Stuttgart, Office of Sport and Physical Activity

The level of organisation in sports is particularly high with children. In the life phases 4 and 5 (children from 6 to under 14), more than half of the children are in organised sport clubs, in the life phase 6 (adolescents from 14 to under 18), some 50 percent, as adults the level of organised sports decreases significantly.

Since 2013, a decline in sport club membership has been observed, in particular among children and adolescents in life phases 3 to 6 (from 3 to under 18). In the other life phases, the development is more or less unchanging. Overall, the 2021 survey indicates that membership has declined in all life phases compared to the 2016 census. The Covid-19 pandemic meant that the number of people leaving a club and joining was not equalised, as is usually the case.

Classification / Definition

Sport and physical activity are among the central factors of health promotion. In addition to individual activity, the organisation in sport clubs in particular is an example of physical activity. The Office of Sport and Physical Activity of the State Capital Stuttgart records the number of members in sport clubs according to life phase. Here, a distinction is made between eleven different life phases:[12]

- Life phase 1: Pregnancy and children under 1
- Life phase 2: Children under 3
- Life phase 3: Children from 3 to under 6
- Life phase 4: Children from 6 to under 10
- Life phase 5: Children / adolescents from 10 to under 14
- Life phase 6: Adolescents from 14 to under 18
- Life phase 7: Young adults from 18 to under 25
- Life phase 8: Adults from 25 to under 40
- Life phase 9: Adults from 40 to under 60
- Life phase 10: Adults from 60 to under 75
- Life phase 11: Adults 75 years and older

For each of the eleven life phases the number of persons organised in sport clubs is ascertained and related to the number of residents. The value resulting from this is the level of organisation in percent.

Calculation

Number of persons organised in sport clubs per life phase
/
Number of residents in the respective life phase in total
* 100

Indicator 3.3:
Urban physical activity spaces

Sport and physical activity are part of urban life in Stuttgart. In addition to the programmes of the sport clubs, more and more sport and physical activities take place beyond the classic sports facilities. At the same time, not only is the number of people increasing doing outdoor sport and without instructors, but also the range of forms of exercise. This means that there are different requirements in public spaces. With the "Stuttgart Master Plan for Urban Physical Activity Spaces", the city administration has been developing strategies to promote physical activity in public spaces and to ensure it in the long term. In 2020, the physical activity space per resident is 0.23 m2; the aim is to double this.

Classification / Definition

The indicator refers to areas that are specifically equipped for sport and accessible to all. This includes, for instance, kick-around areas for football, basketball courts, boules areas or table tennis tables. These are related to the number of residents. The indicator was introduced in 2020 and will be updated on a regular basis.

Calculation

Urban physical activity spaces:

$$\frac{\text{Sports areas accessible to all in square metres}}{\text{Total number of residents}} * 100$$

Indicator 3.4:
Promotion of physical activity in nursery schools

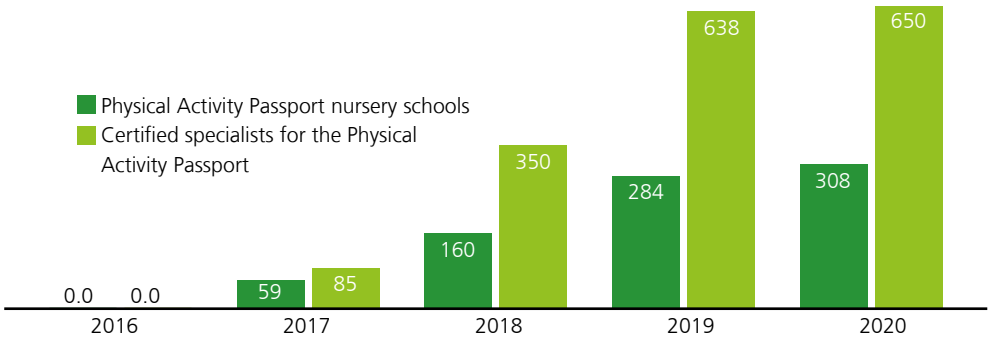


Figure 12:
Promotion of physical activity in nursery schools (number)

Source: State Capital Stuttgart, Office of Sport and Physical Activity

The Stuttgart Physical Activity Passport was developed to support nursery schools and sport clubs in promoting physical activity. It accompanies children in the age group 3 to under 6. One goal of the Physical Activity Passport is to integrate physical activity into everyday family life. Eight animals teach different exercises in a child-friendly way, each of which can be performed at four levels of difficulty. The Physical Activity Passport supports educational staff, exercise instructors and parents in promoting the children's motor skills and in observing, accompanying and assessing their development in a differentiated way. Since the programme was launched the number of nursery schools participating has increased significantly to 308. In Stuttgart, there is a total of 650 certified specialists for the Physical Activity Passport, and the trend is rising.

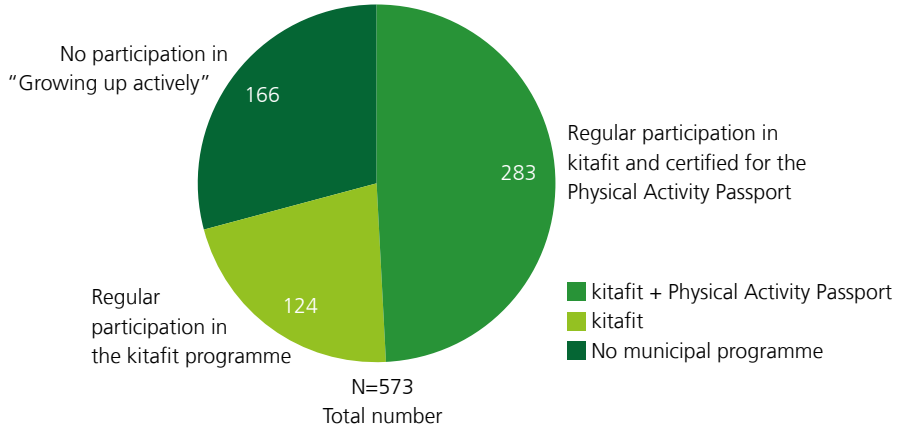
For children, physical activity in everyday life has a major influence on their healthy development. The State Capital Stuttgart, together with clubs and care facilities, offers the programme "Growing up actively" in an age-appropriate form to promote physical activity. In addition to the Physical Activity Passport, this includes other components that aim at promoting physical activity and motor skills of children (kitafit, schwimmfit, minisport voucher).[13]

Classification / Definition

The regular participation and the registrations of nursery schools in the individual sub-projects of the "Growing up actively" programme are the basis of the quantitative survey on how actively nursery schools implement the promotion of physical activity.

Calculation

Number of Physical Activity Passport nursery schools and certified specialists for the Physical Activity Passport



Source: State Capital Stuttgart, Office of Sport and Physical Activity

Indicator 3.5:
Premature mortality

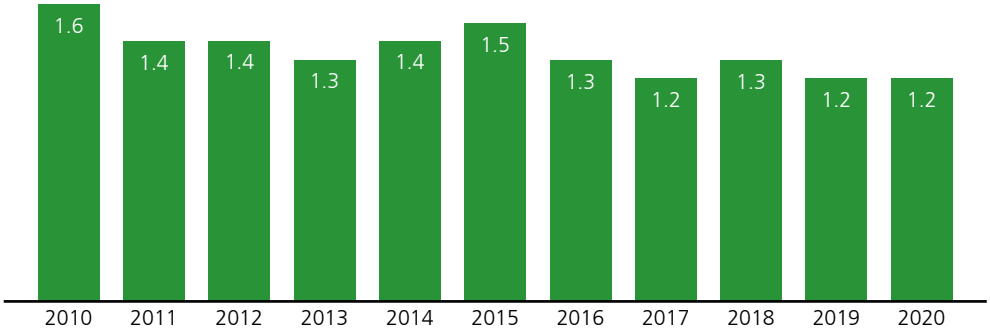


Figure 13:
Premature mortality
(deceases / 1,000 residents)

Source: State Capital Stuttgart, Statistics Office

Premature mortality of people under 65 in the State Capital Stuttgart between 2011 and 2019 was consistently under 1.5 fatalities per 1,000 residents. Despite fluctuating annual values, an overall decline can be observed in the entire period under review.

A wide spectrum of causes is responsible for this decline, such as advances in medical care and the decrease in traffic casualties. The overall decline in premature mortality cannot be clearly attributed to individual measures in the areas of preventative health measures, elimination of accident black spots or improved occupational safety. However, taken as a whole, the measures are likely to impact the development.

In 2020, a slight increase in mortality rates can be observed. It cannot be clearly determined to what extent this can be attributed to excess mortality due to the Covid-19 pandemic. In total, some 250 people died of or with Covid-19 in Stuttgart in 2020.[14]

Classification / Definition

The quality of life of people is significantly influenced by their health status. If deaths occur frequently under the age of 65, this can indicate massive health risks and problems in the health care sector. Therefore, the measurement of mortality under the age of 65 reflects widespread health risks.

In municipalities, health care and the promotion of preventative health measures, which include both physical and mental health, have a very high priority, as does increasing road safety. Furthermore, municipalities together with business associations can contribute to improving occupational health. The indicator is defined as the proportion of deceased under 65 in all residents per thousand.

Calculation

Premature mortality:

Number of fatalities among persons under 65
/
Number of residents
* 1,000

Indicator 3.6:
Suicide mortality

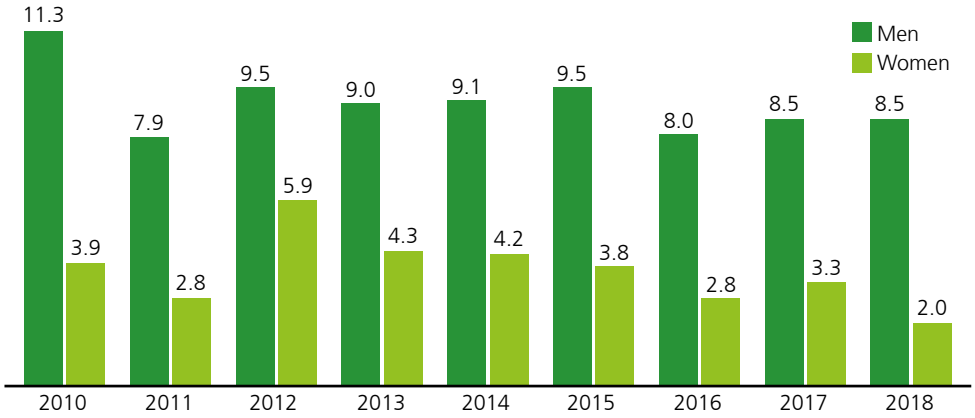


Figure 14:
Suicide mortality among men and women (cases / 100,000 residents)

Source: State Statistics Office of Baden-Württemberg

The number of suicides per year fluctuates considerably, which is not unusual from a statistical point of view, given the relatively low number of cases. The quite different time-based distribution between men and women is remarkable. In the period under review, 2010 was the year with the most suicides among men, while 2012 stood out when it comes to suicides among women. As a general rule, in Stuttgart a change of trend in suicides among men or women cannot be observed.[15]

Classification / Definition

Suicide is one of the possible premature causes of death. Suicide is usually the result of severe mental impairment or disorder; this is why suicide mortality can be used as an indicator here. Actual suicides vary between men and women and therefore have to be considered as a gender-specific issue.

The data is based on the statistics of causes of death, which in turn are based on the death certificates issued by the doctors who determine the death. It is assumed that there is an unrecorded number of suicides that are included in the statistics as accidents or other types of deaths in addition to the statistically recorded suicides. The reason for this may be that the suicide is not recognised, is not clear or that there is a tendency to state another cause of death due to the loyal relationships between the doctors determining the death and the relatives. The indicator reflects the number of suicides by gender, relative to the number of residents.

Calculation

Number of suicides of men
/
Number of residents
* 100,000

Number of suicides of women
/
Number of residents
* 100,000

Indicator 3.7:
Medical care

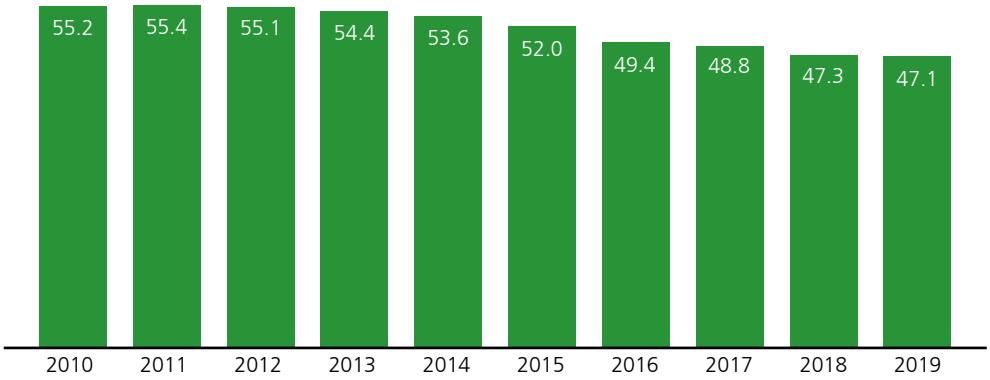


Figure 15:
Medical care
(doctors per
100,000 residents)

Source: State Statistics Office of Baden-Württemberg

According to the data of the State Statistics Office of Baden-Württemberg, the care coverage by general practitioners in the State Capital Stuttgart decreased between 2010 and 2019 in relation to the population. However, the present data seems to underestimate the actual density of physicians. In 2017, due to different definitions, the Northern Württemberg District Medical Association reports a significantly higher number of general practitioners for Stuttgart with an increase in the number of doctors from 277 in 2015 to 374 in 2017.

Classification / Definition

The indicator reflects the density of physicians. Medical care is part of a comprehensive health care and thus an important aspect of the target. In this context, general practitioners are important for primary care and the possible referral to specialised doctors. At the same time, the coverage by general practitioners can also be an indicator of the performance of the health sector as a whole. As a general rule, gaps in coverage can refer to an unfavourable health service coverage as a whole.

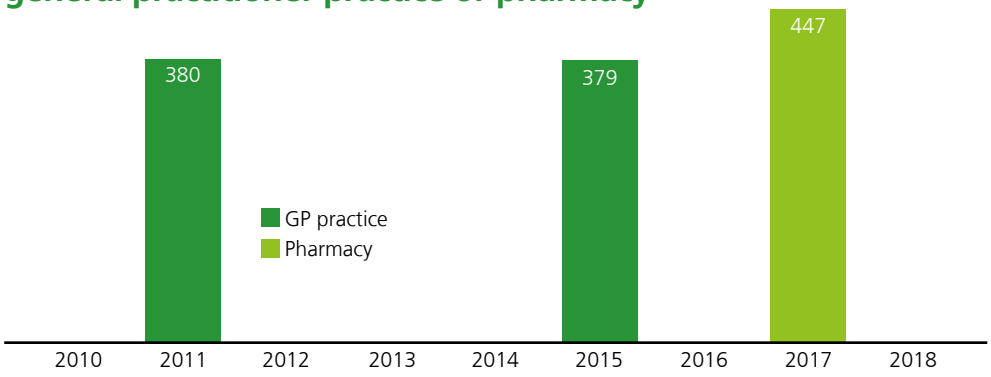
A higher density of general practitioners tends to increase the chance of flexible and individually oriented treatment (reduced waiting times as an aspect of accessibility). However, the indicator does not provide reliable information on the quality of care or the actual accessibility, in particular for less mobile population groups.

Calculation

Medical care:

$$\frac{\text{Number of general practitioners, physicians without a specialisation}}{\text{Number of residents}} * 100{,}000$$

Indicator 3.8:
Primary care close to home – distance to the nearest general practitioner practice or pharmacy



Source: Federal Office for Building and Regional Planning / Federal Pharmacies' Registry

Figure 16:
Linear distance to the nearest GP practice or pharmacy (in metres)

In 2011 and 2015, the estimated linear distance to the nearest general practitioner (GP) practice was some 380 metres. In 2017, the distance to the nearest pharmacy in Stuttgart was 447 metres. When interpreting these values, however, the topography of Stuttgart must be taken into account. Due to the basin location often with steep slopes, the actual distances can deviate considerably from the linear distance used here as a basis.

Classification / Definition

The indicator reflects the distance, as the crow flies, to the nearest GP practice or pharmacy rated according to the number of residents.

The procedure chosen only approximately reflects the actual distance to the nearest GP practice or pharmacy. In the medium term, the indicator will be further developed taking into account actual walking distances.

Calculation

The linear distance describes the absolute, relief-independent distance from a population unit (250 x 250 metres) to the next unit with a GP practice or a pharmacy, located by the address from the "Who-to-Who" company database.

Linear distances do not cross water barriers, such as rivers. This linear distance is weighted in accordance with the proportion of the total population of the district or independent town, as a total of all population units. Population units are based on ATKIS Basis SLM 250 (settlement land use data) plus census data from 2011.

Indicator 3.9:
Places in nursing homes

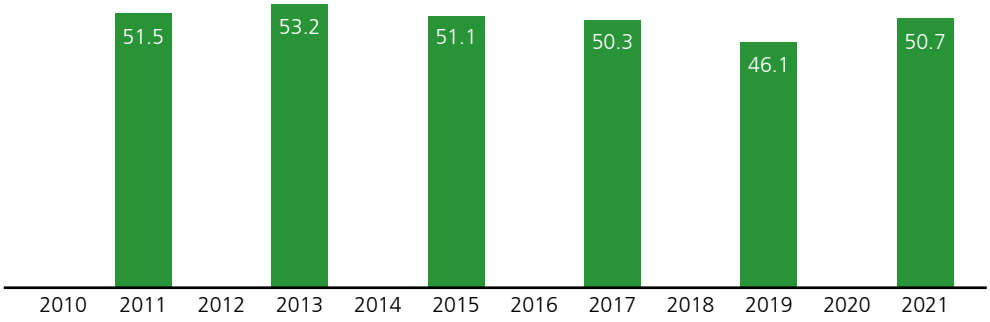


Figure 17:
Places in nursing homes
(places / 1,000 residents)

Source: Federal and State Statistical Offices, State Capital Stuttgart, Statistics Office

The number of places available in full-time residential care in the State Capital Stuttgart has somewhat decreased since 2013. The 53 care places for 1,000 residents 65 years and older at that time decreased to some 46 places in 2019. In fact, the care situation with residential places in nursing homes became more critical due to the disproportionate increase in the number of senior citizens in need of care.[16] In 2021, the number of residential care places has increased significantly by more than 500 compared to 2019. Since the number of residents 65 years and older remained static, the value of care places per 1,000 residents increased by four percentage points to 50.7 percent.

In principle, the approach is "non-residential rather than residential" – particularly as the majority of people in need of care would prefer to be cared for at home. Therefore, the non-residential care infrastructure in the State Capital Stuttgart has been expanded to a very large extent in recent years. It is foreseeable that the number of people in need of care in the places available will increase, and – due to the demographic development (increase in the number of senior citizens in need of care) – a 100 percent utilisation of the places available will not be sufficient, even if care at home services continue to be increased.

A supplementary indicator allowing conclusions on the quality of care is staffing. Between 2011 and 2015, the staffing ratio per care place in nursing homes increased slightly from 0.82 to 0.89 nursing staff members per care place.

Classification / Definition

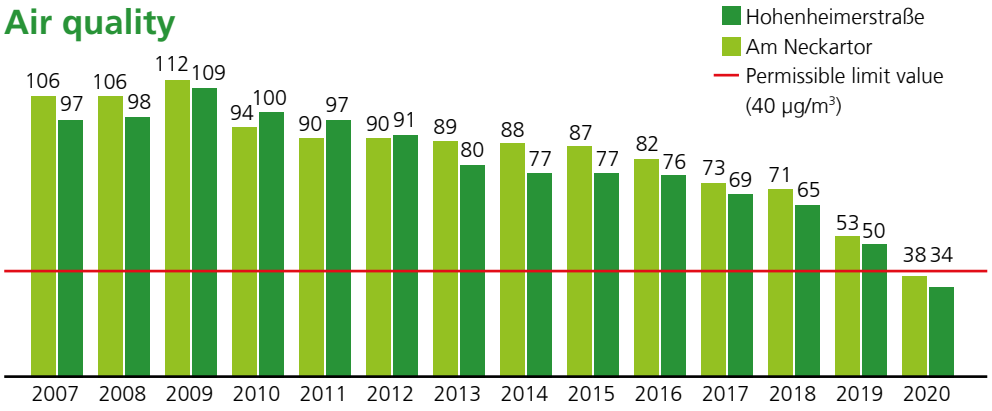
The provision of places in nursing homes is an essential aspect of the care of older people in need of care close to home. What is important is, on the one hand, the proper care of the people in need of residential care. However, the availability of nursing home places also means relief for family members who would otherwise have to take over the care themselves – with the follow-on consequences for the family situation and job opportunities. A sufficient number of care places also provide security for those families currently not in need of a care place, but are dealing with a possible need in future. A predictable future bottleneck in care means stress for families, even before the need actually arises. Due to these side effects, the indicator "Places in nursing homes" reflects a broader spectrum of relevant aspects than the actual care itself. The indicator is defined as the number of places available in nursing homes in relation to the number of residents over 65. The data is collected every two years.

Calculation

Places in nursing homes:

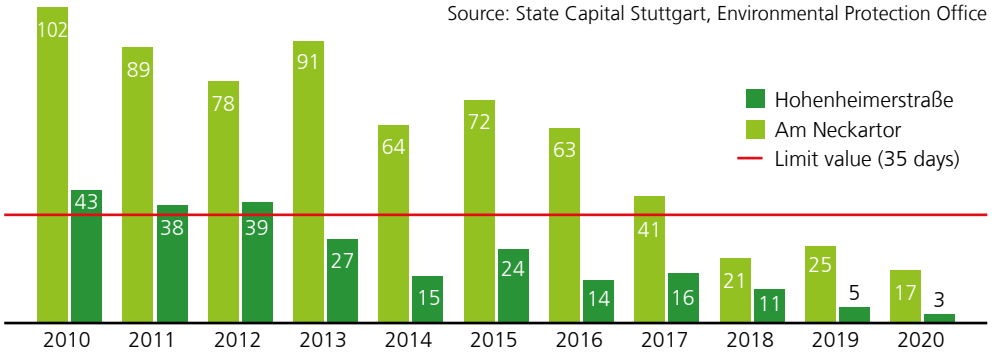
Number of places available in nursing homes
/
Number of residents 65 years and older
* 1,000

Indicator 3.10:
Air quality



Source: State Capital Stuttgart, Environmental Protection Office

Figure 18:
Annual mean values NO_2 for two traffic-oriented monitoring stations (in µg / m³)



Source: State Capital Stuttgart, Environmental Protection Office

Figure 19:
Days with PM10 > 50 µg / m³ for two traffic-oriented monitoring stations (number of days)

Both the nitrogen dioxide and particulate matter pollution decreased significantly at the two monitoring stations during the reporting period. In 2020, the thresholds of 40 µg / m³ with regard to nitrogen dioxide pollution were observed for the first time in the period under review. With 38 and 34 µg / m³, the values are significantly lower than those measured ten years earlier (94 and 100 µg / m³). However, there are two other monitoring stations in the city (Prag- and Talstraße), where the nitrogen dioxide thresholds were still exceeded. In 2020, according to the official measurement data of the Baden-Württemberg State Institute for Environmental Protection (LUBW), the thresholds for particulate matter were observed at all monitoring stations in the city area.

Air pollution is mainly caused by traffic. The decline in pollution reflects the improved measures to reduce pollutant emissions. In contrast to traffic-related pollutants, air pollution due to mainly non-traffic-related pollutants (e.g. sulfur dioxide, dust precipitation) has decreased significantly during the last years. However, ozone pollution has increased slightly.

Classification / Definition

Air pollution control is important for the well-being and long-term health of the population. Due to the topographical urban basin situation, this has always been an important issue in Stuttgart since its beginnings – also when it comes to urban development. The indicator selected draws on two thresholds the observation of which is a particular challenge in Stuttgart.

These are precautionary values, i.e. permanent exceedance of the thresholds makes health impacts on the population more likely. However, a distinct causal traceability of deaths or illnesses to air pollution is not possible. For many years, in accordance with legal regulations, the air in Stuttgart has been monitored 24/7. Baden-Württemberg has a corresponding monitoring network for this.

Calculation

Annual medium nitrogen dioxide pollution:
permitted 40 µg NO_2 / m³

Number of days per year with a particulate matter average of PM10 > 50µg / m³: permitted 35 days.

Indicator 3.11:
Noise pollution

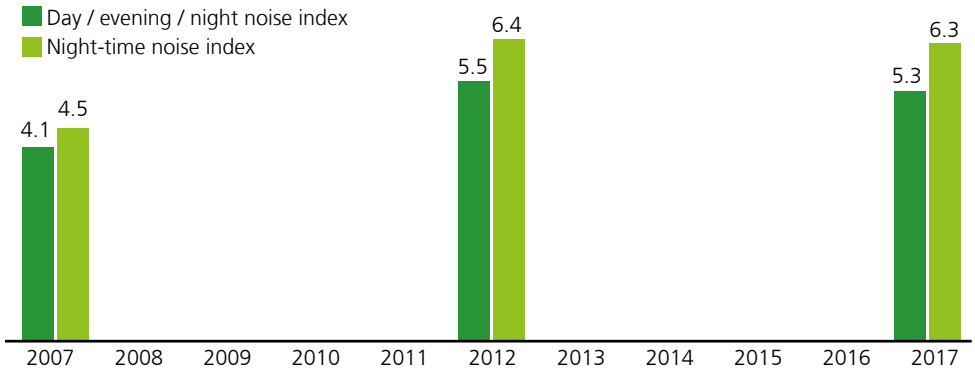


Figure 20:
Proportion of residents exposed to noise (noise pollution above 65 / 55 db(A) (day / night) due to road traffic) (figures in percent)

Source: State Capital Stuttgart, Environmental Protection Office

The diagram shows that the noise exposure to residents increased from 2007 to 2012, in particular at night. This increase from 2007 to 2012 is partially due to the fact, that in 2007 not all main roads were statistically recorded. Compared to 2012, for the year under review 2017, there was a minimum decrease in the proportion of those affected for the entire city area. Nevertheless, almost 40,000 people (6.3%) in Stuttgart were affected by night-time road traffic noise above 55 db(A) in 2017.

The City of Stuttgart drew up a Noise Action Plan in 2009 in accordance with the EU Environmental Noise Directive, which was updated in 2015 and reviewed in 2019, to systematically and continuously reduce noise pollution. The next comprehensive update is scheduled by 2024.

Road traffic is the main source of noise pollution in Stuttgart. Therefore, the focus of the measures is on reducing road traffic noise. The main points of noise reduction planning are speed limits also on main roads, by-pass roads around residential areas for HGV traffic, increased installation of noise-reducing road surfaces and the construction or raising of noise barriers, as at the B 10/27 in Zuffenhausen or a noise barrier at A 831 in Vaihingen.

Classification / Definition

Noise is a physical and mental burden causing stress to those affected. This can lead to high blood pressure and cardiovascular diseases or even heart attacks. In particular, noise levels at night (Lnight) above 55 db(A) are detrimental to health.

Noise is distributed in the city very differently. Relatively high noise levels can be observed in certain places. However, these can vary depending on the time of the day. During the day, noise pollution, in particular by road or air traffic, tends to be higher than at night. In particular, noise pollution at night is a problem, since it can cause sleeping disorders.

The noise pollution indicator reflects the proportion of those affected who are exposed to noise levels of more the 65 db(A) during the day or 55 db(A) at night.

The indicator has been developed from the impact analysis required by the EU Environmental Noise Directive, the results of which are also presented in the Noise Action Plan of the City of Stuttgart.

Calculation

Noise pollution, day / evening / night noise index over 24 hours:

Number of residents with road traffic noise exposure above 65 db(A) over 24 hours

/

Number of residents

* 100

Noise pollution, night-time noise index:

Number of residents with night-time road traffic noise pollution above 55 db(A)

/

Number of residents

* 100

Correlation with other SDGs

In addition to care of all kinds (see also indicators under SDG 1 "No Poverty" and SDG 2 "Zero Hunger"), health and well-being depend on environmental conditions. Increased economic productivity will raise the gross domestic product (SDG 8 "Decent Work and Economic Growth"), but it can also mean increasing stress levels on the workforce – impairing health and well-being.

Air quality and noise pollution are directly related to urban traffic and the means of transport chosen (cf. indicator "Modal split" under SDG 11). The "Air quality" indicator is also influenced by pollutants from other sources (e.g. indicator "Greenhouse gas emission", SDG 13). However, this emission is in turn influenced by economic activity (in particular the indicator "Gross domestic product", SDG 8, also SDG 9 "Industry, Innovation and Infrastructure"). Forests, trees (SDG 13 "Climate Action") and recreational areas (SDG 11 "Sustainable Cities and Communities") are related to air quality, but also to well-being as a whole.

In addition to air and noise pollution, the number of "traffic casualties" (SDG 11 "Sustainable Cities and Communities") is relevant for SDG 3. The indicator "Contaminated sites" (SDG 15 "Life on land") reflects a goal relevant to health.

Practical example 4:

Physical Activity Passport Stuttgart / Physical Activity Passport BW

Context:

Exercise and physical activity play an essential role in healthy development. Only about a quarter of girls and boys in Germany aged 3 to 17 achieve the minimum requirements of 60 minutes of moderate physical activity per day. Less than half of the 3-to-6 year-olds exercise at least 60 minutes per day. This physically inactive lifestyle can lead to motor deficits, overweight and obesity. In Stuttgart, the school enrolment examination gathers data on early childhood motor skills. In the course of screening gross motor skills, anomalities were detected in every fourth child. Nursery schools are particularly suitable for implementing preventative health promoting measures to reach all children, regardless of social differences.

Description / Realisation:

The physical activity programme in nursery schools – "kitafit" – has been running in Stuttgart since 2016. With the Physical Activity Passport, various exercises train the motor skills: running, jumping, balancing, climbing, throwing and catching. Every form of exercise is assigned to a certain animal, for instance the squirrel (= balancing) or the crab (= torso stability). All animal exercises are divided into four levels of difficulty built on one another.

The focus in the implementation of the Physical Activity Passport is on the training of the educational staff with regard to promoting physical activity and improving motor skills of preschool children. The Physical Activity Passport enables educational experts to integrate physical activity in their daily routine at the nursery school in a targeted, playful way and without any additional effort. The educational staff members have a one-day training session and receive materials, a game collection and the actual passports for the children.

Experience / Results:

As of September 2019, 247 of the 575 Stuttgart nursery schools in Stuttgart have been participating in the programme. More than 400 educational experts have been qualified and more than 30,000 Physical Activity Passports issued to kindergarten children in Stuttgart. In cooperation with the Public Health Office, all children receive a Physical Activity Passport at the time of their school enrolment. In addition, the Physical Activity Passport has been introduced into Stuttgart's sport clubs and is used for therapeutic purposes such as obesity prevention.

The spread of the Physical Activity Passport in Stuttgart and how it was realised was evaluated in detail in 2019. The results show a wide spread in all nursery schools, but particularly in underpriveliged areas and districts where there is a high level of irregularities in gross motor skills. The results indicate that the Physical Activity Passport is in principle suited to every pre-school facility and can be used to achieve equal health opportunities.

Overall, the educational staff was very pleased with the concept, the materials and how it could be integrated into the facility. The people involved in the study also confirmed that the Physical Activity Passport motivates children to exercise more and supports them in developing their motor skills. The subjective perception of the educational staff is also reflected in the improved results of the school enrolment examination in Stuttgart since the introduction of the Physical Activity Passport.

Division / Office / Public Undertaking:

Office of Sport and Physical Activity in the Public Safety, Order and Sport Division

Further reading / links:

www.bewegungspass-bw.de (Last access: 12.07.2021)

www.stuttgart.de/leben/sport/sportprogramme/bewegt-aufwachsen.php (Last access: 12.07.2021)

GRDrs 497/2019; GRDrs 117/2021

Practical example 5:
Gemeinschaftserlebnis Sport (GES)

Context:
With its sports education courses, the programme "Gemeinschaftserlebnis Sport" (GES) [Community Experience of Sport] is a main link in "Sport – School – Social Affairs". The various GES programme modules help the State Capital Stuttgart achieve several Sustainable Development Goals (SDGs).

Description / Realisation:
The diverse, low-threshold and free GES programmes help on the way to gender equality (SDG 5). Most of the programme modules are aimed at boys and girls on an equal basis. Special projects primarily address target groups that are underrepresented in sport clubs (girls and (young) women with migration background) and give them opportunities to participate, become involved and advance (empowerment).

The programme specifically addresses underprivileged groups in Stuttgart and provides participants with competencies that can enable or reinstate access to (further) educational opportunities (SDG 4). GES sees sport as an educational approach.

The basic integrative and inclusive character of the GES programme modules and its principle of "sport and physical activity for all" (regardless of gender, cultural and social origin, or physical abilities) help create opportunities for all to participate and become involved and avoid exclusion processes (SDG 10).

In particular, GES offers children and young people who, for various reasons, are or were subject to exclusion (or more difficult access opportunities) to participate in qualified sport and physical activity programmes and increase their physical activity. This is also a valuable contribution to their mental and physical health and well-being (SDG 3).

GES makes great efforts to make its office operations climate neutral (reducing waste, no colour copies, using as little paper as possible, reusing and repairing material). GES also has an environment-friendly mobility concept (e-mobility, use of public transport, bicycles) (SDG 13).

Without an interdisciplinary network, Sustainable Development Goals cannot be achieved. This is why GES promotes and advances exchange among all parties involved (SDG 17). Thus, the transfer of knowledge from 25 years of practical experience in the work at the interface "Sport – School – Social Affairs" in municipal, regional, national and international networks is also included in the agenda of GES.

Experience / Results:
The interdisciplinary expertise of GES staff is particularly appreciated by the numerous network partners.

With the sustainable and long-term work of GES, the participants have been able to benefit from an informal, varied educational setting, which helps them grow up healthy and opens up new roads.

A great deal of knowledge is transferred and pooled in the wide network of committees and institutions in the State Capital which, in turn, is of benefit for the children, adolescents and young adults participating in the target-group-oriented educational projects.

Division / Office / Public Undertaking:
Office of Sport and Physical Activity in the Public Safety, Order and Sport Division, Gemeinschaftserlebnis Sport (GES), as well as Sportkreis Stuttgart e.V.

Further reading / links:
www.gemeinschaftserlebnis-sport.de
(Last access: 12.07.2021)

Practical example 6:

Health guides inform immigrants about Corona

Context:

People from over 180 nations live in Stuttgart, speaking more than 120 languages. Almost 45 percent of all residents and more than 60 percent of all children and adolescents have a migration background. Due to language and cultural barriers, access to the German health system is often difficult for these people. General information doesn't reach them or is incomplete and sometimes misunderstood. For reasons of social justice and equal health opportunities, migration-sensitive strategies and measures are required here, such as the systematic inclusion of the target group and the consideration of socio-cultural practices and beliefs.

Time and again, we see how important it is that all citizens participate in preventing the further spread of the Corona virus SARS-CoV-2. However, the aforementioned problem sometimes leads to confusions and lack of understanding of the restrictions and recommendations for action to combat the pandemic. Contact restrictions or adherence to the AHA+L rules (keeping distance, observing hygiene, wearing a mask in everyday life, ventilating) are often perceived as very restrictive, but can only be realised by raising people's awareness and not with regulations alone.

After some minor infection outbreaks in refugee shelters, the need for gender- and culturally-sensitive information became clear.

The Public Health Office was able to rely on trained health guides from the "Health Guides for Migrants in Stuttgart" project[17] who had very good contact to their respective communities.

Description / Realisation:

At the beginning of the pandemic, the awareness-raising and preventative measures taken showed a strong heterogeneity. An important issue was (and still is) the difficulty the residents of the shared accommodation have in observing hygiene measures and quarantine. The reasons for this include the cramped conditions in the accommodation and / or lack of understanding due to language barriers. For this reason, the Public Health Office trained the health guides as "Corona information navigators" and integrated them in infection protection at a low-threshold level. For the Public Health Office, the guides gave information to the residents of the shared facilities in Arabic, Kurdish, Turkish, Spanish, English, German, Farsi, Dari and French about

- Routes of infection of the Corona virus
- Hygiene measures (AHA+L rule)
- Quarantine (purpose)
- Testing

The aim of sharing this low-threshold information in the shared facilities was to find a gender- and culturally sensitive approach, so the importance of observing the measures could be understood.

Experience / Results:

The feedback from the shelters and the experience of the staff there were altogether positive. Information passed on by people with a similar cultural background and without any language barriers meant a much better understanding of the hygiene requirements, and the information was then passed on to other residents in a snowball effect.

Based on this positive experience, health guides were trained regarding vaccination in March 2021, so that they could then conduct online events for their community, where organisational questions as to vaccination in Stuttgart can be clarified in the respective language. The guides have the back-up of a doctor, who is available for individual questions from the participants (e.g. as to the vaccine, effectiveness in the case of virus mutation, side effects, rumours or other concerns).

Since April 2021, online events have been offered in various languages.

Division / Office / Public Undertaking:

Public Health Office in the Social Affairs and Integration Division

Further reading / links:

https://www.stuttgart.de/leben/gesundheit/vorsorge/gesundheitslotsen.php (Last access 12.07.2021)

Interim report 2020 "Health Guides for Migrants in Stuttgart" project

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 4

Quality Education

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

Relevant targets of SDG 4 for German municipalities are in particular the goals relating to access to high-quality primary and secondary education, to pre-school education, as well as technical, vocational and tertiary education. The focus is on reducing gender- and milieu-specific differences in education and providing equal access to education for all. In addition, the promotion of Education for Sustainable Development (ESD) and inclusive education play an important role.

Indicator 4.1:
Transition from primary school

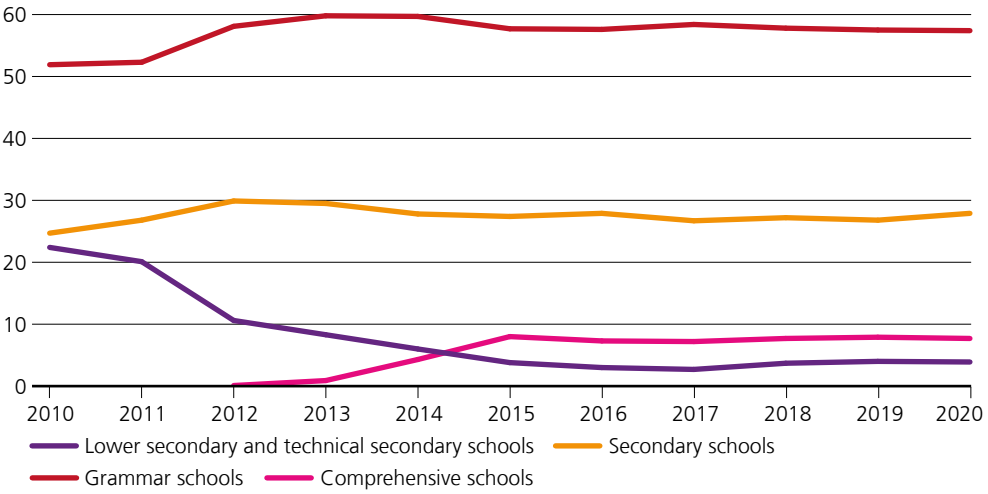


Figure 21:
Transition rates from primary school to secondary school (in percent)

Source: State Statistical Office Baden-Württemberg (Official School Statistics)

About half of Stuttgart's primary school children change to a grammar school after the fourth grade. This value has seen little change in recent years. In relation to the entire period under review since 2010, two points stand out: on the one hand, since 2010 the transitions have increasingly shifted from the lower secondary and technical secondary schools to grammar schools due to the elimination of the binding recommendation from the primary school. On the other hand, the introduction and expansion of comprehensive schools as of 2013 led to a preference for this school type.

Classification / Definition

The transition rate from primary schools to secondary schools indicates the ratio of primary school children transferring to the various types of schools. The indicator provides information on the extent to which this transition contributes to the segregation of different groups. Transitions from both public and private primary schools are shown.

Calculation

Transition from primary school:

Number of transitions to the respective type of school
/
Number of primary school children in final year
* 100

Indicator 4.2:
Childcare

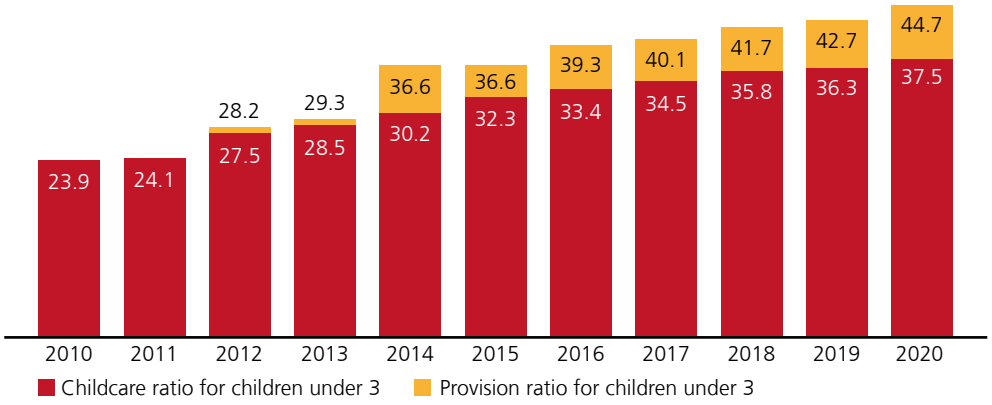


Figure 22:
Childcare for under 3-year-olds (in percent)

Source: State Statistical Office; State Capital Stuttgart, Youth Welfare Office and Statistics Office

Childcare of under 3 year-olds increased in the reporting period. The percentage has risen from 23.9 (2010) to 37.5 percent (2020). The expansion of daycare centres in the State Capital Stuttgart has been intensified in recent years and is reflected in these figures.

In 2020, the number of young children under 3 years in Stuttgart was some 17,500. In particular between 2014 and 2018, it increased by more than 2,000 due to a high level of immigration and rising birth rates. Since 2019, the number of young children has decreased by some 900. The cause is slightly declining birth rates and more children and their families moving away.[18]

Due to the increase in the number of children between 2014 and 2018, the childcare ratio has not increased as much as in the years before 2014, despite an increase in places. In 2020, the childcare ratio rose by more than one percentage point to 37.5 percent, this can be accounted for by the decline in the number of children. The provision ratio which refers to the places theoretically available, rather than the children actually cared for is about 45 percent, the provision target for the under 3s is around 60 percent.

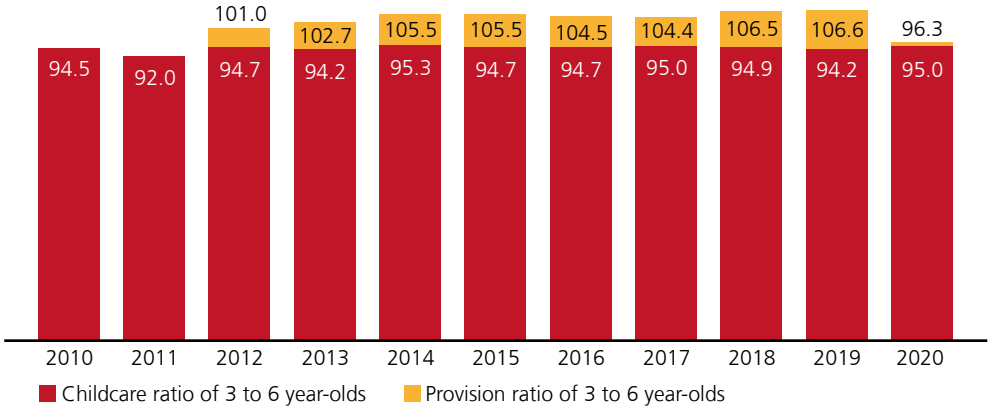


Figure 23:
Childcare for 3 to 6 year-olds (in percent)

Source: State Statistical Office; State Capital Stuttgart, Youth Welfare Office and Statistics Office

In the period under review, the proportion of children between three and five cared for mostly remained unchanged. The value fluctuates between 93 and 96 percent; with a proportion of more than 90 percent, the full capacity seems to have been reached.

This is also reflected by the recent statistical total provision rate of 107 percent, which does not consider the actual number of children cared for, but the number of places available. In terms of figures, there are sufficient places available in Stuttgart. However, due to staff shortage, construction measures and the like, not all places available can be allocated. Therefore, the place buffer of more than 100 percent makes sense and is necessary. In particular, this surplus of places is also effective, because since the school year 2020/21, the deadline for school enrolment has in stages been brought forward to 30 June. Bringing forward the deadline for school enrolment means that more 6-year-olds will remain in the nursery school for another year.

Classification / Definition

Pre-school childcare should improve the educational opportunities of children – regardless of the origin and educational level of the parents – and prepare the children for school. Parents preparing children for school can also be correct and constructive, but the SDGs prefer institutionalised pre-school education. Pre-school education programmes also offer parents the opportunity for gainful employment. For these reasons, early childhood education has a key position both from a social point of view (e.g. in terms of education, equality and equal opportunities) and from an economic point of view (in terms of the financial situation of the parents).

The "childcare ratio" indicator reflects the actual care. The provision rate of daycare, on the other hand, indicates the number of places statistically available for children of the corresponding age in nursery schools, including the company places occupied by Stuttgart children, as well as children in daycare. When calculating the provision ratio, 6-year-olds attending nursery schools are also taken into account. Therefore, the reference figure for years includes until 2014: 3.25 at 95 percent; from 2015: 3.27 at 98 percent and from 2020: 3.51.

The indicator shows the proportion of children cared for among all children and differentiates between age groups. Both sub-indicators do not reveal the quality of care. The indicator also does not reveal whether children are not cared for due to a lack of care facilities or places or due to decisions made by the parents.

Calculation

Care ratio:

Actual childcare for under 3-year-olds:

Number of children under 3 in day-care centres
/
Number of children under 3
* 100

Actual childcare for 3 to 6 years old children:

Number of 3 to 6 years old children in day-care centres
/
Number of 3 to 6 years old children
* 100

Provision ratio:

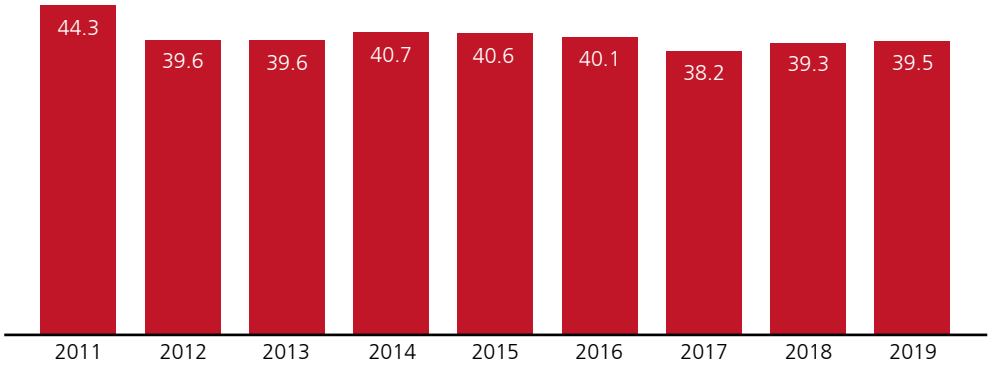
Places available in nursery schools for children under 3:

Number of places for children under 3
/
Number of children under 3
* 100

Places available in nursery schools for 3 to 6 years old children:

Number of places for 3 to 6 years old children
/
Number of 3 to 6 years old children (cf. definition)
* 100

Indicator 4.3:
Children with speech impediments



Source: State Capital Stuttgart, Public Health Office

Figure 24:
Children with speech impediments
(in percent)

The number of children with speech impediments revealed in the school enrolment examination has been at a fairly constant 40 percent since 2011, except for the 2011 school enrolment year.

Classification / Definition

The indicator describes the proportion of children in a school enrolment year where the language screening is conspicuous. The Heidelberger Auditive Screening in School Enrolment Examination (HASE screening) is used to assess the level of language development. In this context, appropriate thresholds are set for the different age groups. The HASE screening differentiates between children with and without speech impediments.

The rate of children with a conspicuous language screening is relatively high, since the screening initially records all children with speech impediments. Further tests are carried out to find reasons for the problems (for instance little knowledge of German or disorders in speech development); the results are then used to determine the support required.

Calculation

Number of children with a conspicuous language screening according to HASE

/

Number of all children examined in an enrolment year

* 100

Indicator 4.4:
School leavers by school-leaving qualifications

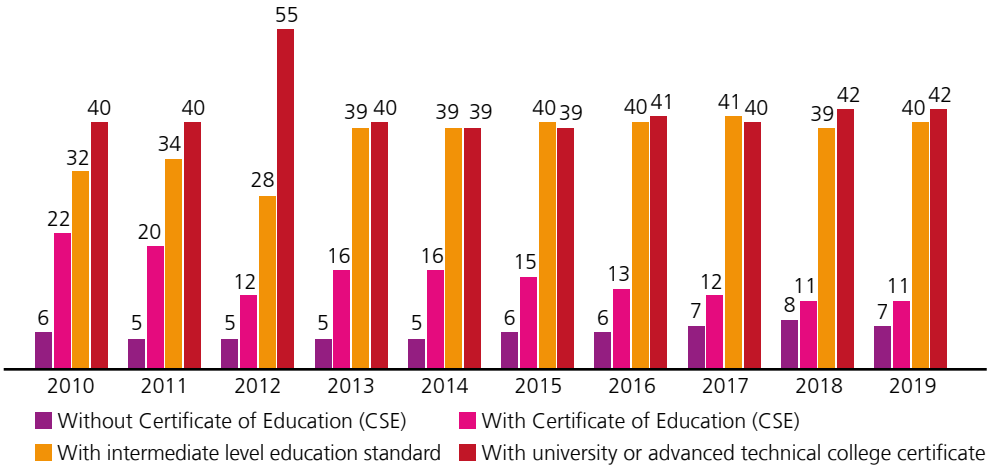


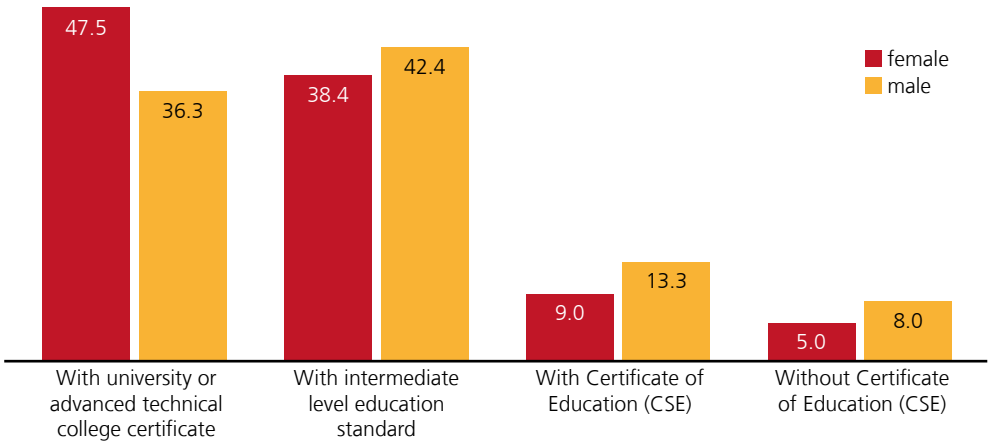
Figure 25:
School leavers from general education schools by school-leaving qualifications (in percent)

Source: State Statistical Office Baden-Württemberg (Official School Statistics)

Some 40 percent of pupils in Stuttgart leave school with Abitur and thus obtain the university or advanced technical college certificate. Since 2010, this share has remained unchanged to a large extent. 2012 is an "outlier year" in which the Abitur rate hit a one-time 54.6 percent. This exceptional value comes from the grammar schools switching from nine to eight years (some model schools stayed with a nine-year period). This meant a double Abitur year in 2012, while the number of school leavers from other secondary schools remained at the normal level. Accordingly, the proportion of school leavers with Abitur was significantly higher.

The proportion of pupils with an intermediate level education standard has also been some 40 percent since 2013, having been around one third in previous years. In contrast, the proportion of pupils leaving school with CSEs has dropped. In the period under review, the proportion fell from 22 to eleven percent now. The number of school leavers without a school-leaving certificate has remained comparatively constant between five and eight percent.

These figures refer to the educational institutions in the State Capital Stuttgart. However, the pupils at these schools do not necessarily live in Stuttgart, but may also commute from the surrounding region. This applies in particular for vocational schools.



Source: State Statistical Office Baden-Württemberg (Official School Statistics)

Figure 26:
School leavers from general education schools by school-leaving qualifications and gender in 2019 (in percent)

A gender-differentiated analysis of school leavers shows that almost 48 percent of female school leavers leave school with a university or advanced technical college certificate. Among male school leavers, it is only 36 percent, while those with an intermediate level education make up the largest group (42.4 percent). Leaving school with or without CSEs is more widespread among male pupils than female. Eight percent of male school leavers, but only five percent of female school leavers do not have a school-leaving qualification.

Classification / Definition

The indicator describes the proportion of school leavers according to their school-leaving qualification. In a knowledge society, education – and higher education – is of great importance. The basis for good vocational training at universities or in an apprenticeship is a good school education. Often a university or advanced technical college certificate is required or appreciated. Therefore, accomplishments at school are important for both the economy and the professional opportunities of school leavers and of course for their income and opportunities in life. A good education is of great importance both economically and socially.

Calculation

Number of school leavers by school-leaving qualifications
/
Number of school leavers in total
* 100

Indicator 4.5:
All-day primary schools

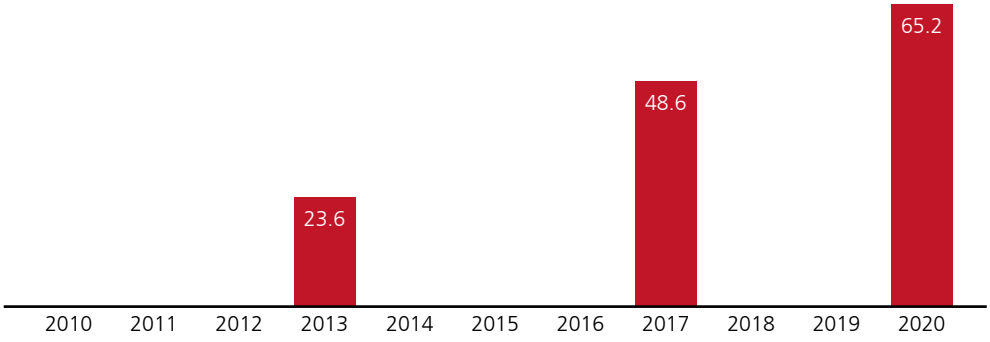


Figure 27:
Proportion of all-day primary schools (in percent)

Source: State Capital Stuttgart, Schools Administration Office

In April 2013 – within the concept of transferring Stuttgart primary schools to all-day schools – it was decided to in the medium term turn all primary schools into (partially) bound all-day primary schools with an integral approach to combine teaching and extra-curricular all-day offers. At that time, there were already 17 all-day primary schools (24%) in the State Capital. In the following years the number increased, so that now 45 of the 69 primary schools offer all-day schooling and care (65%).[19]

Classification / Definition

The indicator describes the proportion of all-day primary schools in all public primary schools in Stuttgart. All-day primary schools ensure free comprehensive education, since they offer the possibility of spreading the time for learning and recreation throughout the day and also have various other (extra-curricular) programmes (e.g. artistic, sport and cultural). At the same time, they are a basis for equal access to education for all children, regardless of their social origin or the occupation of their parents.[20] The higher the proportion of all-day primary schools, the greater the educational equality and equal opportunities for further school education. Most all-day primary schools in Stuttgart meet high quality standards.[21]

Calculation

All-day primary schools:

Number of public all-day primary schools
/
Total number of primary schools
* 100

Indicator 4.6:
Educational programmes with ecological sustainability relevance

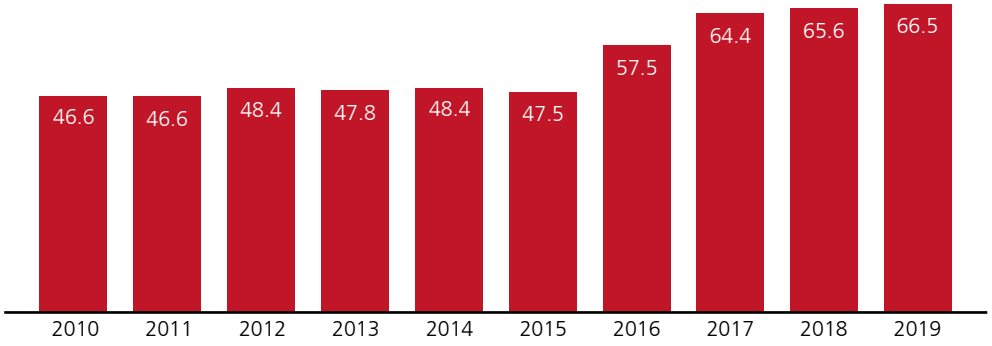


Figure 28:
Schools participating in at least one ESD project, eco-school programme or environmental certificate (in percent)

Source: State Capital Stuttgart, Environmental Protection Office

In Stuttgart, some 150 schools are municipal schools. In recent years, the State Capital Stuttgart has substantially increased its support of schools re nature and environment, therefore is also in line with the State Baden-Württemberg education programme guideline "Education for Sustainable Development" (ESD) 2016. The proportion of schools participating in at least one of the ESD programmes, eco-school programme or environmental certificate has increased from 46.6 percent (2010) to 66.5 percent (2019).

Classification / Definition

Educational programmes with ecological sustainability relevance are very diverse. In practically all educational institutions – from pre-school education to tertiary education (e.g. universities, vocational colleges) – ecological sustainability plays a relevant role.

For many teachers, education with an ecological sustainability relevance is a matter of course. In addition, there are numerous programmes and activities to consolidate and extend education in the field of ecological sustainability. The proportion of schools participating in thematically relevant programmes reflects the commitment to Education for Sustainable Development (ESD).

Calculation

Educational programmes with ecological sustainability relevance:

$$\frac{\text{Number of schools which participate in at least one eco-school programme, hold environmental certificates or are involved in ESD projects}}{\text{Total number of schools}} * 100$$

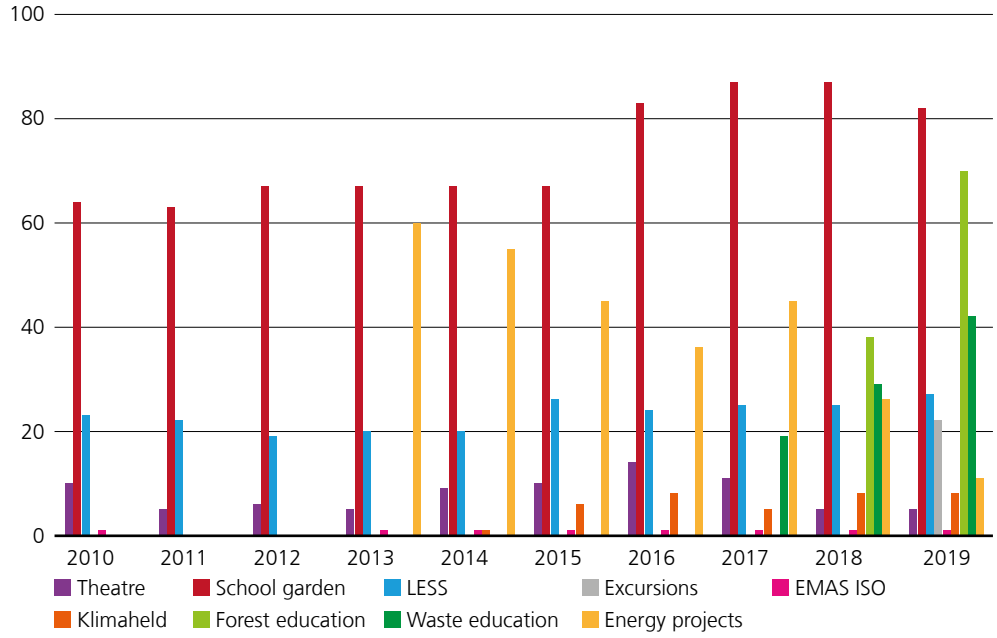


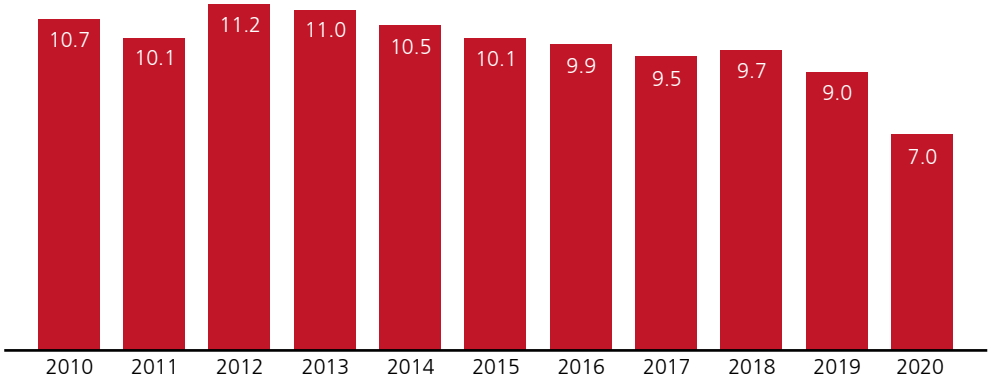
Figure 29:
ESD educational programmes of the State Capital Stuttgart (in number)

Source: State Capital Stuttgart, Environmental Protection Office, Parks, Cemeteries and Forestry Office; AWS; Stadtwerke Stuttgart

Various offices of the State Capital Stuttgart, such as the Environmental Protection Office, the Parks, Cemeteries and Forestry Office, the Waste Management Companies (AWS) or Stadtwerke (Public Utilities) offer ESD programmes (Education for Sustainable Development) for Stuttgart schools. The focus of the programmes differ. The launch of the School Garden Network in 2005 provided a first overview of Stuttgart's school gardens and what they offer. The schools are supported by the City both technically and financially. Surveys on the number of schools with school gardens were conducted in 2009 to 2012, and 2016 to 2019 (in the chart above the 2012 value was also used for the years 2013 to 2015). Since not all schools always provide a feedback, an accurate figure is often not possible.

In addition to the educational programmes with ecological sustainability relevance, the State Capital Stuttgart also provides schools and educational institutions with municipal and public programmes in the areas of social and economic sustainability that cover all 17 SDGs. In doing so, the State Capital Stuttgart wants to balance the demand and supply of schools and educational institutions. Here, it makes an important contribution to creating awareness and implementing the guideline "Education for Sustainable Development" in the new education programme in Baden-Württemberg. 2020 saw the closure of schools due to the pandemic and so virtually no events could take place, therefore it makes no sense in quoting figures for this year. A new addition in 2019 were nature education excursions offered to primary schools.

Indicator 4.7:
Loans from the Library of Stuttgart



Source: State Capital Stuttgart, Library of Stutttgart

Figure 30:
Loan rate (incl. other media) from the Library of Stuttgart (statistics loans / residents)

Between 2010 and 2020, an average of ten books and other media per resident were borrowed from the Library of Stuttgart and its branch libraries. Until 2015, the rate was slightly above ten, since then the number of loans per resident has been downward. The number of loans in 2020 was only seven per resident, which can of course be attributed to the more difficult access to the media collection during the Covid-19 pandemic.

Classification / Definition

Public libraries are an important pillar of cultural education. Their task is to provide all residents with free access to information, education and culture, regardless of their income, status, age, gender or origin. Libraries provide media of all kinds and support the acquisition of reading, media and information skills.[22] The indicator describes the number of books and media per year borrowed from the Library of Stuttgart, its branch libraries and mobile libraries. Since 2015, digital offers have also been included in the statistics.

Calculation

Loans from the Library of Stuttgart:

Number of loans
/
Number of residents

Indicator 4.8:
Culture budget

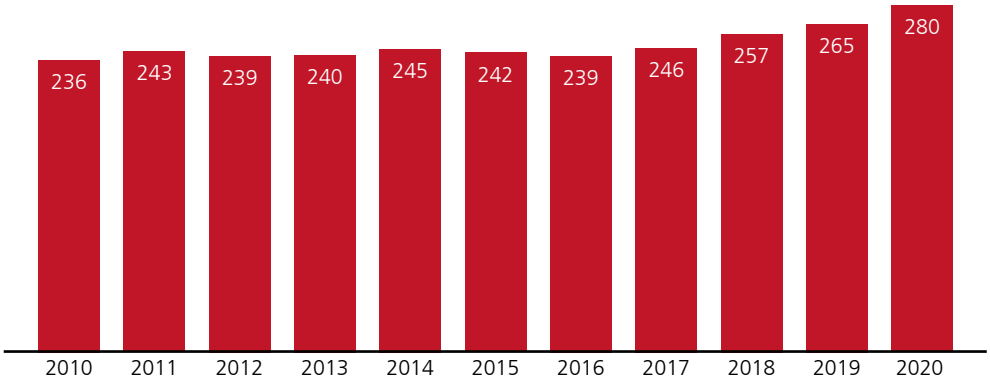


Figure 31:
Cultural budget per resident (in Euro)

Source: State Capital Stuttgart, Cultural Affairs Office

Between 2010 and 2017, the expenditure in the culture budget of the State Capital Stuttgart remained stable at some 240 Euro per resident. Since then this has increased – in 2020 the culture budget was approx. 280 Euro per resident.

Classification / Definition

The culture budget includes the expenses of the Cultural Affairs Office and other municipal offices in the cultural sector. These are related to the number of residents and indicate how much money is available for culture in the municipal budget. Up to and including 2019, financial results have been registered; for 2020, there is only a budget estimate since the financial results were not available at that time.

Calculation

Cultural budget per resident:

Cultural budget in Euro
/
Number of residents

Correlation with other SDGs

Considering it comprehensively, education has a crucial influence: both on the individual journey through life and economic advance. Career, income and opportunities in life depend very much on individual educational achievement. Accordingly, education is of key importance for the social dimension of sustainability (see also SDG 1 "No Poverty"). Poverty is often a consequence of inadequate education, which makes access to the labour market more difficult. The fight against poverty is only possible through education.

The economy depends on skilled workers and therefore on a good education system where people can attain the appropriate qualifications. The ecological dimension of sustainability (in particular SDG 8 "Decent Work and Economic Growth" and SDG 9 "Industry, Innovation and Infrastructure") is also closely linked to education. Education provides information on the ecological consequences of how we "work" (see SDG 12 "Responsible Consumption and Production") or the choice of means of transport (indicator "Modal split" SDG 11).

Considering the influence education has on one's future life, the inequalities and disadvantages in education must be borne in mind. This also refers to health aspects (SDG 2, indicator "Children with overweight", SDG 3, indicator "Children with conspicuous screening of gross motor skills") as well as gender inequalities (SDG 5 "Gender Equality") and issues of inclusion and integration (SDG 10 "Reduced Inequalities"). Educational equality also means access to cultural education and lifelong learning.

Sustainability education gives people the chance of influencing sustainability themselves and shaping their own lives sustainably. The knowledge we have on interrelations between environment and mankind affects almost all SDGs and has in almost all areas of local and regional life an impact on future action (e.g. in health, mobility, consumption, waste, water and energy consumption or urban development), as well as on global interrelations (fair trade, protection of the oceans etc.). Enabling pupils to recognise these interrelations and effects of their actions lays the foundations for the development of future generations. Sustainability is now included in school programmes and often part of extra-curricular activities.

The governance[23] dimension of sustainability, i.e. the participation of different stakeholders in decision-making processes and their implementation is also related to education, since the will and self-assessed competence to become politically involved also grows with an increasing level of education (cf. indicators "Informal citizen participation" and "Participatory budgeting", "Youth participation", SDG 16). Education, with its widespread link to all sustainability aspects, is a key factor.

Practical example 7:
School development project "Cloud 13"

Context:
The structure of pupils at Stuttgart schools is becoming more and more heterogeneous. Therefore, school frameworks must be further developed in accordance with essential issues and questions as to community and cohesion. The State Capital Stuttgart supports such school development projects with the quality development fund. The project "Cloud 13" is a positive example of how schools can develop inclusive structures.

At Steinbachschule, a primary school in the Büsnau district, it became apparent in 2018 that the challenges and needs of primary school children could no longer be met by the school and the after-school care group. Often primary school children switched from the conventional school to a special education counselling centre (SBBZ) and professional daycare groups.

Description / Realisation:
The school and extracurricular stakeholders active at Steinbachschule jointly developed a support structure, which lays the focus on children according to their daily capability and special needs structure in everyday school life at the conventional school. The school development project "Cloud 13" aims to further develop school structures in a way that the children can continue their education with their friends at school. This is a joint project of five partners: Steinbachschule Büsnau, SBBZ Verbundschule Stuttgart Rohr, Schülerhaus Steinbachschule (Youth Welfare Office Stuttgart), the Youth Welfare Office Stuttgart – Beratungszentrum Vaihingen and Stiftung Jugendhilfe aktiv.

The concept can be clearly seen in a new room called "Cloud 13". Here, many activities are possible taking up on the needs of the children. Between 10 a.m. and 3 p.m., Cloud 13 is run by a teacher and a qualified education worker. In an atmosphere of trust, they find out the child's needs and provide direct support.

With this structural change at the school, these partners manage to keep all children at Steinbachschule. Individual support approaches were combined and reorganised so that a parallel structure of learning and support has been created in everyday school life.

Experience / Results:
Since the restructuring, no child has moved to an SBBZ or a professional daycare group. The school has been able to support all its children according to their needs.

Division / Office / Public Undertaking:
Stuttgart Partnership for Education in the Youth and Education Division; Youth Welfare Office

Further reading / links:
https://www.stuttgart.de/leben/bildung/bildungsgerechtigkeit/handlungsfelder/handlungsfelder-bildungsgerechtigkeit.php#Qualit-C3A4tsentwicklungsfonds
(Last access 12.07.2021)

Practical example 8:

Municipal ESD network “Experience Nature Stuttgart”

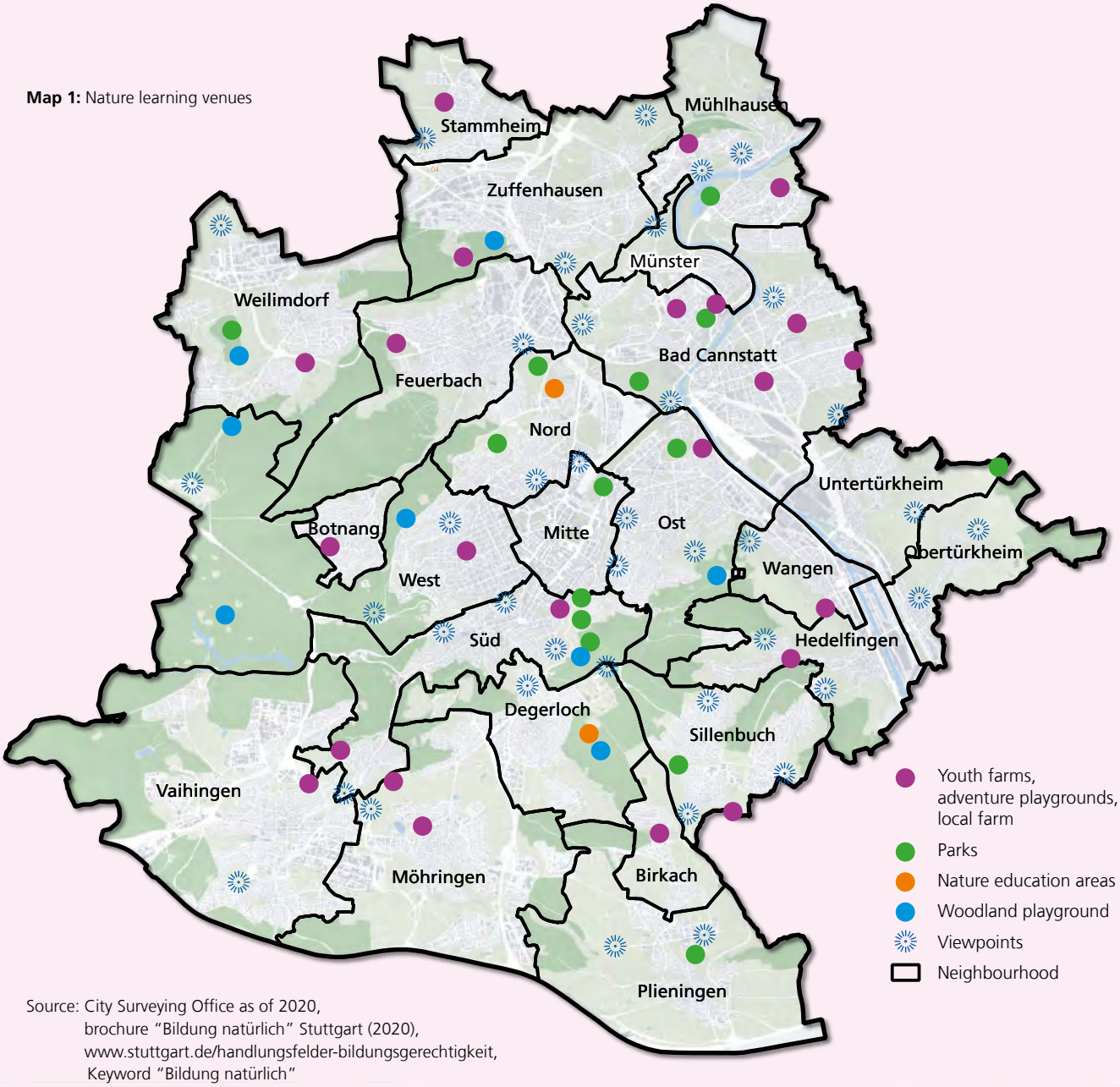
Context:

In Stuttgart, stakeholders from civil society, administration and educational institutions have been committed to “Education for Sustainable Development” (ESD) for many years. Since 2019, the State Capital has been systematically supporting and promoting this pledge: the Municipal Council adopted a framework concept for the municipal ESD network “Experience Nature Stuttgart” with the resolution 607/2019.

Description / Realisation:

The network “Experience Nature Stuttgart” aims to provide all Stuttgart children and adolescents with access to nature, ecological and environmental education, as well as “Education for Sustainable Development”. This access is provided by nursery schools, primary and secondary schools, as well as local extracurricular educational institutions. At the same time, the children’s and adolescents’ commitment to the environment and climate protection ought to be taken up and integrated into city life.

Map 1: Nature learning venues



Source: City Surveying Office as of 2020,
brochure “Bildung natürlich” Stuttgart (2020),
www.stuttgart.de/handlungsfelder-bildungsgerechtigkeit,
Keyword “Bildung natürlich”

The network relies on cross-sector cooperations to strengthen existing educational programmes and develop new formats. In doing so, the network wants to strengthen the exchange between the administration, local formal and non-formal educational institutions, as well as local and nationwide stakeholders from the fields of environmental education and ESD.

The network was launched within the administration at the end of 2020. Since 2021, introductory conversations have been conducted with local stakeholders to assess and analyse needs. This will be the basis for a medium-term strategy of the network.

Division / Office / Public Undertaking:

In the city administration, the network comprises eight offices and departments:

- Environmental Protection Office
- Urban Planning and Housing Office in the Urban Planning, Housing and Environment Division
- Parks, Cemeteries and Forestry Office in the Engineering Division
- Internal Relations Department in the Administrative Coordination, Communication and International Relations Division
- Schools Administration Office
- Youth Welfare Office in the Youth and Education Division
- Children's Affairs Department
- The overall coordination of the network lies with the Stuttgart Partnership for Education in the Youth and Education Division.

Further reading / links:

www.stuttgart.de/handlungsfelder-bildungsgerechtigkeit, Keyword "Bildung natürlich"
(Last access 12.07.2021)

Visualisation:

This map shows the many nature learning venues in Stuttgart. Not all nature learning venues have yet been listed. In the context of the ESD network "Experience Nature Stuttgart", which started its activities at the end of 2020, a systematic catalogue and visualisation of the diverse nature and sustainability learning venues in Stuttgart will be carried out in the next years.

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 5
Gender Equality

"Achieve gender equality and empower all women and girls to self-determination"

Relevant targets of SDG 5 for German municipalities are in particular those related to ending discrimination against women and girls, as well as violence against women and girls, recognising unpaid care and domestic work, ensuring participation of women in executive positions, ensuring access to sexual and reproductive health and promote gender equality in general.

Indicator 5.1:
Employment rates

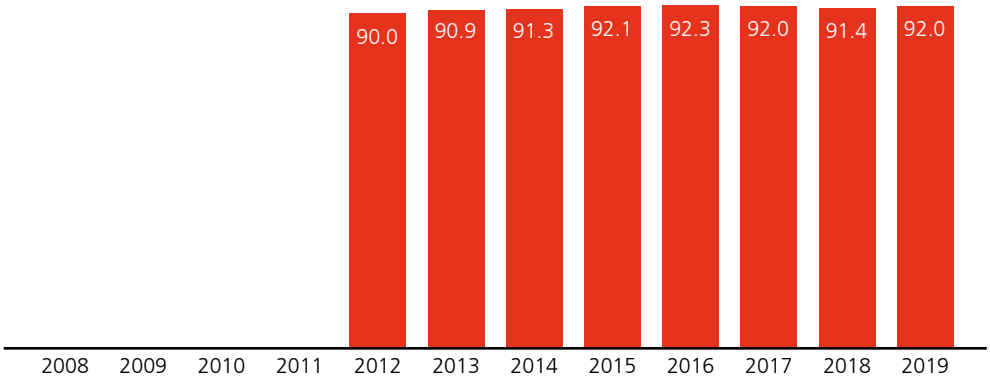


Figure 32:
Relation of women's employment rates compared to men (in percent)

Source: State and Federal Statistical Offices

In the period under review, the ratio of employment rates of women and men did not change and is at slightly more than 90 percent. The employment rate of women remained lower than that of men. The invariable relation of the employment rate of women to that of men is due to a continuous but parallel increase in employment rates for both genders. The pattern of unequal employment rates remains unchanged.

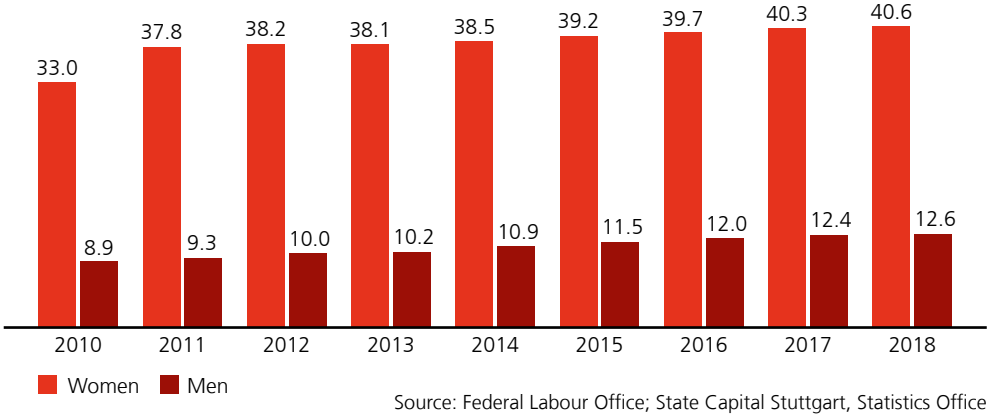


Figure 33:
Part-time employment rates of women and men (in percent)

Source: Federal Labour Office; State Capital Stuttgart, Statistics Office

Not only are women less likely to be employed than men, but work part-time more often. In the period under review, the part-time rate of women increased from 33 percent in 2010 to almost 41 percent in 2018. The figure also increased for men, from 9 percent in 2010 to almost 13 percent in 2018. However, this development does not change the fact that the number of women in part-time work is more than three times higher than that of men.

Classification / Definition

Education and employment are decisive for individual opportunities in life. Therefore, in addition to educational opportunities, which were discussed in SDG 4 with regard to gender, special attention is paid to employment. Employment not only provides income, but also social recognition and enables more independence.

The value of the indicator reflects the employment rate of women relative to that of men. A value of 100 indicates equal employment rates for women and men. Values below 100 indicate a lower employment rate of women compared to that of men.

Thus, the indicator takes into account the employment situation as a whole. Neither the quality of employment (cf. the following indicators) is taken into account nor the question as to what extent foregoing employment voluntarily is responsible for the differences.

While the employment rate refers to all forms of employment subject to social security contributions, the proportion of part-time employees between women and men also differs. Therefore, the analysis is supplemented by the part-time employment rates of women and men.

Calculation

Employment rates of women and men:

Number of women ssc* at the place of residence between 15 and 64 years

/

Number of women between 15 and 64 years in total

* 100

/

Number of men ssc* at the place of residence between 15 and 64 years

/

Number of men between 15 and 64 years in total

* 100

* 100

Employment rates of women in part-time employment:

Number of women ssc* between 15 and 64 years at the place of residence in part-time employment

/

Number of women ssc* between 15 and 64 years at the place of residence in total

* 100

Employment rate of men in part-time employment:

Number of men ssc* between 15 and 64 years at the place of residence in part-time employment

/

Number of men ssc* between 15 and 64 years at the place of residence in total

* 100

* ssc = employed subject to social security contributions

Indicator 5.2:
Relative poverty among women

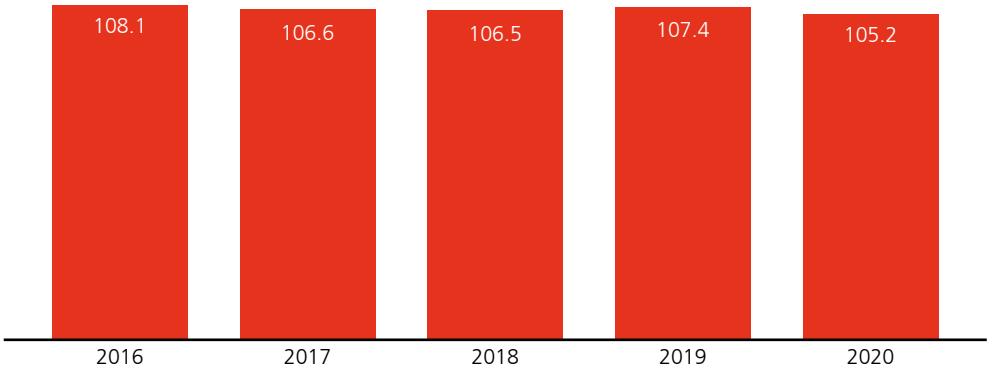


Figure 34:
Relative poverty among women (in percent of poverty rate among men)

Source: State and Federal Statistical Offices

Poverty is more widespread among women than among men. In the period under review, the values are above 100 in all years, i.e. the poverty rate among women is always higher than that among men. However, the differences to men are not very big. The difference is made by the number of single parents, most of which are women.

Classification / Definition

Poverty in general was already discussed in SDG 1. However, poverty among the genders does not occur to the same extent. This difference is revealed by the indicator by putting the extent to which women are affected in relation to that of men.

The indicator "Relative poverty among women" indicates the rate of women receiving benefits pursuant to SGB II or SGB XII related to the rate of men receiving benefits pursuant to SGB II or SDG XII. The indicator value is 100 if the proportion of women receiving such benefits among all women is exactly the same as the proportion of men receiving such benefits among all men. A value above 100 indicates a higher rate of women receiving benefits pursuant to SGB II or SGB XII compared to this rate of men, i.e. women are more affected by poverty than men.

Calculation

Relative poverty among women:

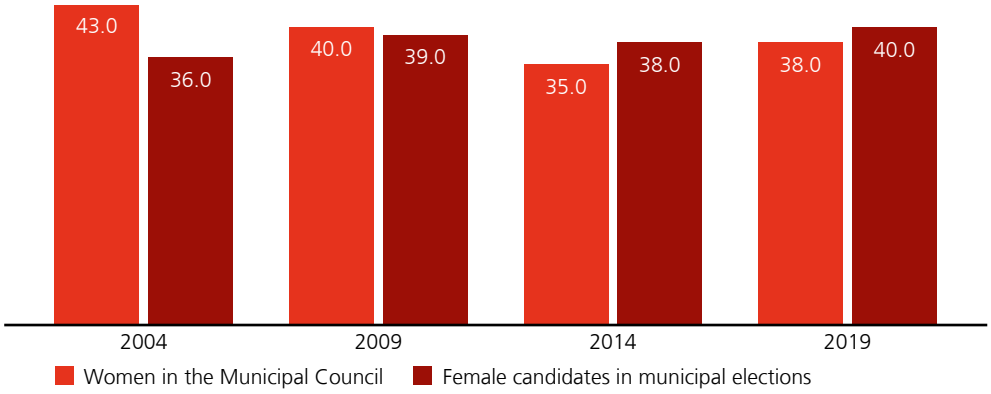
Number of female benefit recipients pursuant to SGB II and SGB XII
/
Number of women

/

Number of male benefit recipients pursuant to SGB II and SGB XII
/
Number of men

* 100

Indicator 5.3:
Women in the Stuttgart Municipal Council



Source: State Capital Stuttgart, Statistics Office

Figure 35:
Percentage of women in the Stuttgart Municipal Council (number of titles)

The percentage of women in the Stuttgart Municipal Council increased from 35 to 38 percent between the 2014 and 2019 municipal elections. In the municipal elections of 2004 and 2009, this percentage was at that time already higher at 43 and 40 percent.

Parallel to the percentage of women in the Stuttgart Municipal Council, the percentage of female candidates also increased from the municipal election 2014 to the 2019 election (from 38 percent to the post-war record level of 40 percent). In 2004 and 2009, the proportion of female Municipal Councillors was higher than that of female candidates; in 2014 and 2009, it was lower. With the exception of 2014, the percentage of female candidates in municipal elections has increased since 2004.

Since the parties and list coalitions act autonomously when nominating candidates, no influence can be exerted on the gender ratio of the list of candidates. Legal requirements (e.g. gender quotas) are difficult due to the Equal Treatment Act.

Classification / Definition

The percentage of women in the Stuttgart Municipal Council reflects the representation of women in local politics. The composition of the representative bodies in particular should – generally speaking – correspond to the composition of the population. The proportion of women is an important aspect that is directly addressed in the sustainability target.

The proportion of women in the Municipal Council is determined by two factors: the nomination of candidates by parties and list coalitions on the one hand, and the election decision on the other hand.

Calculation

Women in the Stuttgart Municipal Council:

Number of women with a seat in the Municipal Council
/
Seats in the Municipal Council in total
* 100

Indicator 5.4:
Women in management positions

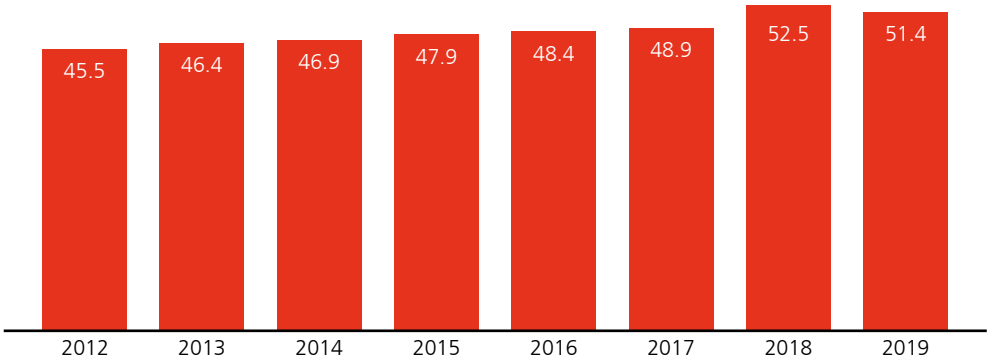


Figure 36:
Women in management positions at the State Capital Stuttgart (in percent)

Source: State Capital Stuttgart, Administrative Services and Human Resources Office (HR report)

A central socio-political task is creating equal opportunities between women and men in the labour market. In the last ten years, progress has been made in the employment ratio of women nationwide, however, this does not apply for the percentage of women in management positions.

The percentage of women employed in the administration of the State Capital Stuttgart (excluding the municipal hospitals), increased steadily from 63.3 percent in 2012 to 64.1 percent in 2017. Afterwards, it fell to 63.7 percent in 2019. The percentage of women in management positions took a positive turn from 45.5 percent (2012) to 52.5 percent (2018), however, decreased to 51.4 percent in 2019. The increase in management is therefore higher than the increase in the percentage of women in general. The percentage of women increased in particular at upper management levels and at 51 percent (2019) is only slightly below the percentage of women in the administration in general. There is a steady trend towards gender equality in the administration of the State Capital Stuttgart.

Classification / Definition

The indicator describes the percentage of management positions in the central administration of the State Capital Stuttgart (excluding the municipal hospitals) occupied by women. The values indicate the extent to which there is parity in the gender ratio.

Calculation

Number of women in management positions
/
Number of employees in management positions
*100

Correlation with other SDGs

Gender equality in the different areas of life is influenced by long-term socio-cultural and political developments. There is also a close correlation with SDG 1 "No Poverty" (cf. indicator "Poverty among single parents") However, the shaping of distinct framework conditions can also have an influence in the short and medium term. Childcare in particular enables women to return to working life and generally speaking leads to a higher employment rate of women. A comparison of the various districts in Germany reveals a clear relation between the employment ratio of women and the care of children under 3.[24] So, the increase in care for children under 3 in Stuttgart (SDG 4 "Quality Education") is probably the reason for the almost unvarying relation of women's and men's employment despite the increase in the employment ratio in general.

Gender differences can also be observed in a whole range of other aspects, in particular in the areas of work and inequality, and will be discussed at the respective points in this report (cf. SDG 8, SDG 9, SDG 10).

Practical example 9:

Implementation of gender-sensitive language for the administration of the State Capital Stuttgart

Context:

Equal use of female and male forms was certainly a step forward, but it still excludes many people who do not identify themselves in this socio-cultural division (binarity). As a service provider and partner, it is important for the City of Stuttgart to communicate in such a way that as many people as possible feel addressed and valued.

Following the decision of the Federal Constitutional Court of 10 October 2017[25] on a "third option" to the genders female and male, a gender-sensitive language is now required that includes and makes visible people of other gender identities, such as intersexual and non-binary persons. Since this resolution, justification is required if this third gender option is not named or included.

Description / Realisation:

The State Capital Stuttgart has compiled "Information on the use of gender-sensitive language" and published them on the Intranet as a recommendation for implementation to achieve equal and fair treatment of women, men and other genders (diverse) in everyday language. Current developments and issues are taken up by the Gender / LGBTTIQ Coordination Unit at the Department for Equal Opportunities for Women and Men and included in the implementation recommendation at regular intervals.

The use of the gender asterisk (*) is encouraged, the addition of other genders in forms and addresses and the avoidance of gender-specific stereotypes. Gender-specific language always refers to people. Institutions, organisations, objects are referred to with their grammatically correct gender form. (e.g. the State Capital Stuttgart as employer, the Municipal Council and its members). Technical and legal terms are also excluded from these recommendations.

Experience / Results:

A pragmatic attitude should encourage all those involved to communicate in a way that it is appropriate to the situation, appropriate and appreciative for all, and to become aware of their own use of language. Practice so far has shown that these recommendations have already been applied, for instance in printed papers of the Municipal Council, in legal texts, in the training programme, in announcements of events.

Division / Office / Public Undertaking:

Department for Equal Opportunities for Women and Men

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 6

Clean Water and Sanitation

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

Relevant targets of SDG 6 for German municipalities are in particular the improvement of water quality, the implementation of integrated water management and the protection or restoration of water-related ecosystems.

Indicator 6.1:
Wastewater treatment

All wastewater entering the wastewater treatment plants is subject to denitrification and phosphorus elimination. In Stuttgart, the highest quality level has been achieved for many years now.

Classification / Definition

Wastewater refers to water contaminated by domestic, commercial or industrial use. Deficient wastewater treatment can lead to harmful substances being discharged into water bodies and significantly increasing their nutrient level. This nutrient surplus is reduced by bacteria. This process consumes oxygen, which leads to fish kill and an increase in algae growth. To ensure the safe use of water bodies and the sustainable re-discharge of wastewater into the water bodies, the municipalities must act appropriately.

Calculation

Wastewater treatment:

$$\frac{\text{Wastewater volume treated by denitrification and the elimination of phosphorus}}{\text{Wastewater volume in total}} * 100$$

Indicator 6.2:
Quality of running water

Determinating the quality of watercourses is complex and is carried out sporadically. Data is available for the years 1994 and 2010.

In 1994, 55 percent of kilometres of watercourses in the State Capital Stuttgart was classified as class II or better, in 2010, this figure increased to 89 percent.[26] So, the wastewater load of streams in Stuttgart has been significantly reduced in the past twenty years. This is mainly due to the consistent expansion of rainwater treatment plants. When it rains, these retain considerable polluting loads in the sewer system and feed them into Stuttgart's sewage treatment plants for targeted treatment.

If wastewater treatment systems have been built at (a section of) a watercourse, or other measures have been implemented that may have an impact on the quality of the water body, a reassessment of the water quality is recommended after at least 5 years. After 15 years, a comprehensive examination of the water quality should be carried out.

Classification / Definition

As natural water habitats, watercourses are of great importance. Pollutants enter the watercourses due to the discharge of wastewater and rainwater from paved surfaces. In particular, easily degradable organic substances reduce the oxygen content of water bodies and significantly lower the quality of watercourses as a habitat for aquatic species and plants. The improvement of the quality of running water is closely related to improved wastewater management.

Conclusions can be drawn about the pollution of a water body due to wastewater discharges and their oxygen-consuming effect from the macrozoobenthos (small aquatic invertebrates such as caddisfly larvae, isopods, snails etc.) that can be determined in the water body. Based on the species found and their composition, the saprobic index and water quality class are determined. The procedure is specified in DIN standard 38410. The indicator for the quality of running water indicates the proportion (in kilometres) of the watercourse at least in quality class II.

Calculation

Quality of running water:

$$\frac{\text{Watercourses with at least quality class II in km}}{\text{Total watercourses in km}} * 100$$

Correlation with other SDGs

The indicators "Renaturation measures of watercourses" (SDG 15) and "Consumption of drinking water" (SDG 12) are also relevant for SDG 6.

The indicators are also relevant for SDG 11 "Sustainable Cities and Communities", as well as for the topics, civil protection and climate-resilient municipalities.

Practical example 10:

Improved elimination of phosphorus and abstraction of trace elements in the main wastewater treatment plant Stuttgart-Mühlhausen

Context:

The European Water Framework Directive (WFD) set out a common goal for good conditions of surface waters in Europe. This goal can only be achieved if the ecological and chemical condition of many water bodies are improved.

Due to the investment-related use of the Neckar and the Neckar catchment area, the nutrient input and other anthropogenic trace elements in the Neckar are considerable. To improve the quality of water, the aim should be to reduce phosphorus and anthropogenic trace elements in the wastewater treatment plants.

Description / Realisation:

In recent years, considerable efforts have been made in the Stuttgart wastewater treatment plants to free the Neckar from this pollution. In wastewater treatment, this is done by biological elimination of phosphorus and targeted chemical abstraction of phosphate. In doing so, phosphates are fixed in the sewage sludge and removed from the wastewater.

Taking the main wastewater treatment plant Stuttgart-Mühlhausen as an example, this is done in several steps. Modern decentralised dosing systems, efficient process technology and a sustainable precipitation strategy are used to extract more phosphates. In addition, the existing sand filter will be upgraded to improve phosphorus elimination. At the same time, a system for eliminating trace elements will be integrated into the sand filter to improve the chemical status of the water body.

Experience / Results:

The measures implemented so far have led to a reduction in the annual mean value and a stabilisation of the daily routine values for the parameter phosphorus and therefore an alleviation of the water body. The conversion of the existing sand filter to a flocculation filter and eliminating trace elements by adding activated carbon in powder form means future requirements for wastewater treatment performance can be reliably met.

Division / Office / Public Undertaking:

Public Undertaking Municipal Sewage Management in the Engineering Division

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 7
Affordable and Clean Energy

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

Relevant targets of SDG 7 for German municipalities are in particular the reduction of final energy consumption and the increase of the proportion of renewable energy in the energy mix.

Indicator 7.1:
Proportion of renewable energy in final energy consumption

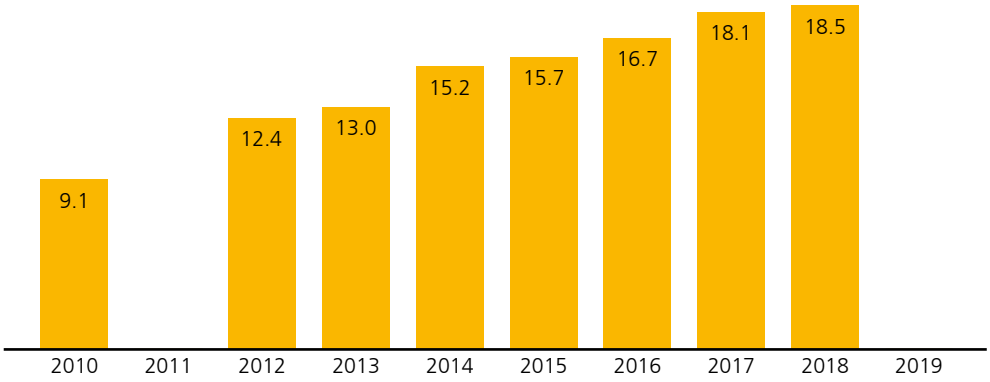


Figure 37:
Proportion of renewable energy in gross final energy consumption (in percent)

Source: State Capital Stuttgart, Environmental Protection Office

In the period under review, the proportion of renewable energy in the final energy consumption of the State Capital Stuttgart increased continuously. The large rise between 2010 and 2012 is due to the set-up of Stadtwerke Stuttgart and the city switching to purchasing 100 percent green electricity. After this change the proportion of renewable energy in the final energy consumption also increased.[27] For 2011 there is no energy balance and data for 2019 is not yet available.

Classification / Definition

Energy generation and energy consumption are central issues for sustainable development, as they are largely responsible for global greenhouse gas emissions. With regard to energy generation, the "energy turnaround" in Germany aims to back out of the nuclear energy programme and to significantly reduce the use of fossil raw materials. Renewable energy is of paramount importance in the reduction of greenhouse gas emissions. This includes wind, solar, hydro, bioenergy and geothermal energy.

Renewable energy is often characterised by decentralised supply, i.e. unlike in the past, energy is increasingly provided by decentralised systems distributed across a large number of municipalities. Municipalities can actively support the expansion of renewable energy and contribute to increasing the share of renewable energy in the local energy mix. However, this contribution is only possible by ensuring a reliable energy supply.

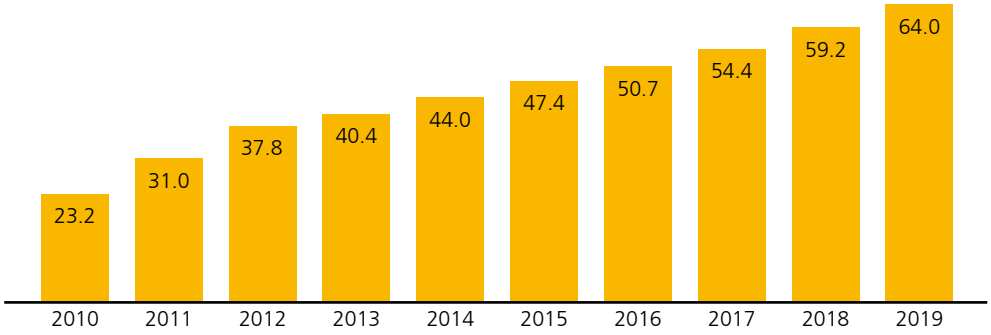
The entire electricity and heat supply from renewable energy is registered. This means, that in addition to the generation of renewable energy and heat in the city area, the purchase of green electricity, the renewable proportion in the German electricity mix, the participation of Stadtwerke Stuttgart in renewable generation plants and the renewable share in district heating are all taken into account.

Calculation

Share of renewable energy in final energy consumption:

Energy supply by renewable energy
/
Gross final energy consumption (climatically adjusted)
* 100

Indicator 7.2:
Power from photovoltaics



Source: State Capital Stuttgart, Environmental Protection Office, Statistics Office

Figure 38:
Power from photovoltaics (in W / resident)

Since 2010, the power of photovoltaic systems installed in Stuttgart has almost tripled. In 2019, installed power per resident was 64 watt. With its solar campaign, the State Capital Stuttgart has been funding the expansion of use of photovoltaic systems of up to EUR 450 per kWp.[28]

Classification / Definition

The indicator describes the installed power of the photovoltaic systems in Stuttgart and indicates the amount of electricity these systems could theoretically generate.

Calculation

Power from photovoltaics:

Installed photovoltaic power
/
Number of residents

Indicator 7.3:
Generation of renewable energy in the city area

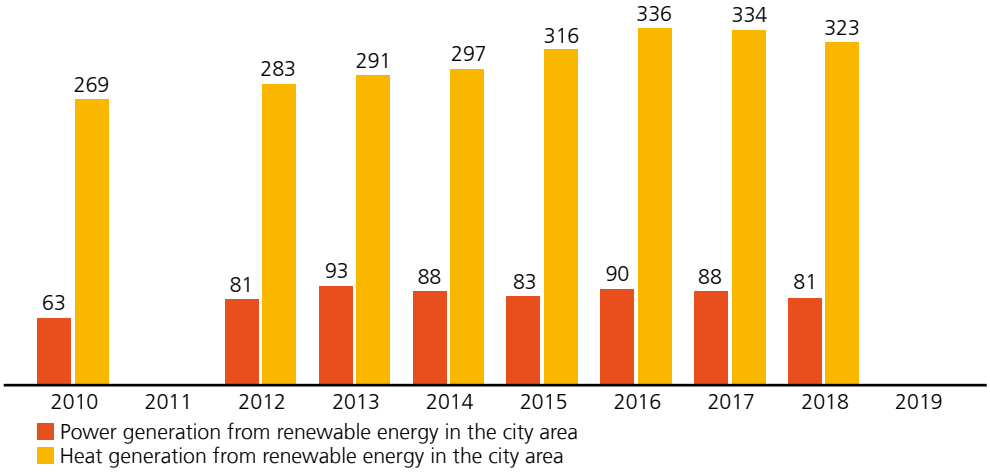


Figure 39:
Heat and power generation from renewable energy in the city area (in Gwh)

Source: State Capital Stuttgart, Environmental Protection Office

In recent years, power generation from renewable energy was increased from some 63 to almost 90 GWh with annual fluctuations in the large plants for power generation of gas from purification plants. Since 2012 the value has fluctuated between 80 and 90 GWh. Recently, the expansion of photovoltaic systems has risen significantly, but is only slightly reflected in the overall balance.[27] Over a ten-year basis, an increase can be observed in the generation of electricity: while in 2010 some 270 GWh were generated in the city area from renewable energy, this rose to more than 320 GWh in 2018.

Classification / Definition

The decentralised generation of electricity, in particular renewable energy, can be a municipal contribution to sustainable power supply. It reduces shortfalls in energy transport, make the municipality more resilient against failures of the power supply and is often economically viable.

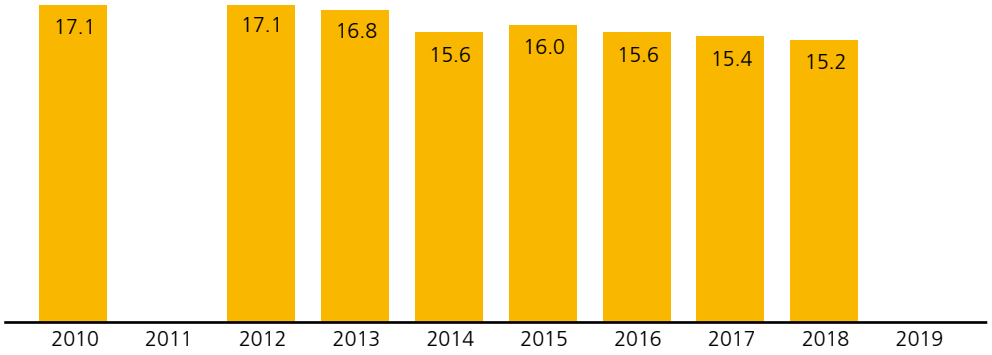
The indicator "Generation of renewable energy in the city area" reflects the local, sustainable power supply and takes into account both power and heat generation.

Calculation

Heat and power generation from renewable energy in the city area:

Annual heat and power generation from renewable energy in the city area (GWh / a)

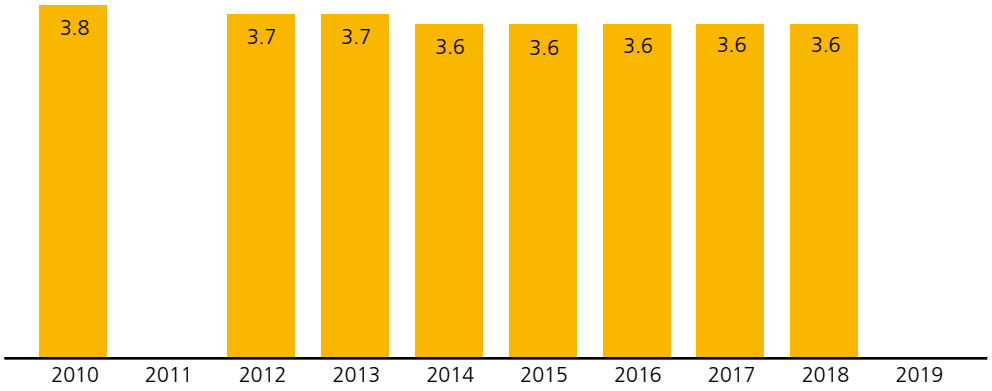
Indicator 7.4:
Final energy consumption



Source: State Capital Stuttgart, Environmental Protection Office, Statistics Office

Figure 40:
Final energy consumption by industry, commerce, trade and services (in MWh / SvB)

In the period from 2010 to 2018, the final energy consumption in industry, commerce, trade and services decreased from 17 Mwh to 15 Mwh per employee subject to social security contributions (SvB).



Source: State Capital Stuttgart, Environmental Protection Office, Statistics Office

Figure 41:
Final energy consumption in the transport sector (in MWh / resident)

In the period under review, the final energy consumption in the transport sector per resident and year decreased. The consumption decreased from 3.77 MWh per resident in 2010 to 3.56 MWh in 2018. Besides the increase in population figures, this can be explained by a minimum reduction of recorded traffic.

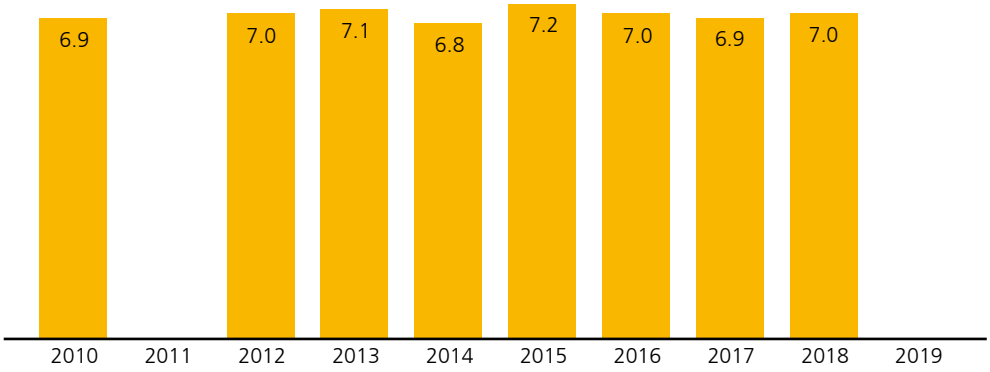


Figure 42:
Final energy consumption by private households (in MWh / resident)

Source: State Capital Stuttgart, Environmental Protection Office, Statistics Office

The final energy consumption by private households per resident is subject to annual fluctuations. Since the differences, however, are very small and the value for 2015 is slightly higher, a clear trend cannot be observed. The increase in the energy efficiency of building shells, heating technologies and terminal devices is counterbalanced by the increase in living space per resident and an increase in the use of electronic devices. Thus, efficiency gains are neutralised by the increase in consumption.

Whereas the relative final energy consumption has decreased in the economy and transport sectors, this does not apply to the same extent to private households.[27]

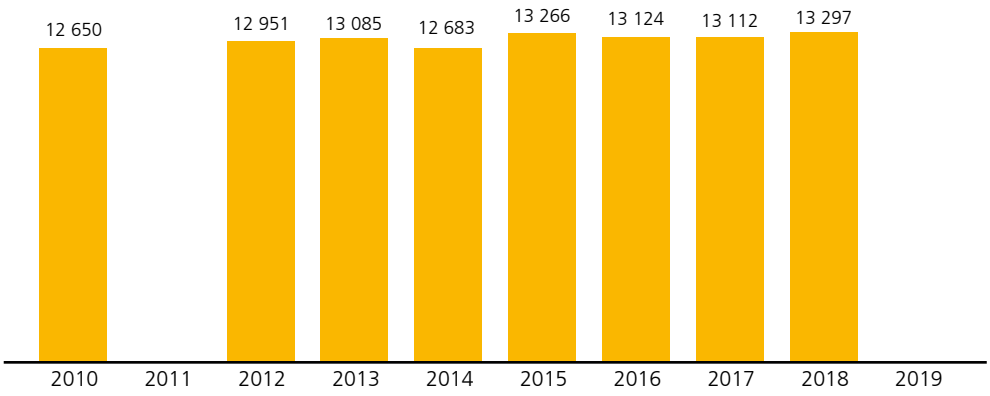


Figure 43:
Final energy consumption by the city as a whole (in GWh / a)

Source: State Capital Stuttgart, Environmental Protection Office

From 2010 to 2018, the final energy consumption by the city as a whole was some six percent lower than the final energy consumption in the 1990s. As with the specific consumption figures presented above, the dynamic development is caused by the increase in population, a higher standard of living and the larger number of employees subject to social security contributions.

Classification / Definition

In addition to sustainable energy generation, the reduction of energy consumption is a central sustainability goal. The possibilities to influence energy consumption, be it by saving energy or improved efficiency, are manifold and dependent on various stakeholders, from private individuals to large organisations. Politics can intervene at various levels. Municipalities can also aim at reduced energy consumption with a variety of specific measures. These include for instance targeted energy management of municipal properties, support programmes or energy efficiency networks.

The indicator final energy consumption reflects the extent to which energy is actually consumed. As a summary factor, it does not show the areas in which energy consumption is actually increasing or decreasing. However, a differentiation according to the three sectors commerce / trade / service, industry / transport and private households indicates at least how energy consumption is developing in the respective consumer group.

The indicator relates the final energy consumption to the number of users. In the case of final energy consumption in industry, commerce, trade and services, this is the number of employees subject to social security contributions (ssc), in the case of transport and private households, it is the number of residents.

Calculation

Final energy consumption by industry, commerce, trade and services:

Consumption of final energy by industry, commerce, trade and services (climatically adjusted)

/

Number of employees subject to social security contributions

Final energy consumption by traffic:

Consumption of final energy by traffic (climatically adjusted)

/

Number of residents

Final energy consumption by private households:

Consumption of final energy by private households (climatically adjusted)

/

Number of residents

Final energy consumption by the city as a whole:
Consumption of final energy by the city as a whole (climatically adjusted)

Indicator 7.5:
Energy productivity

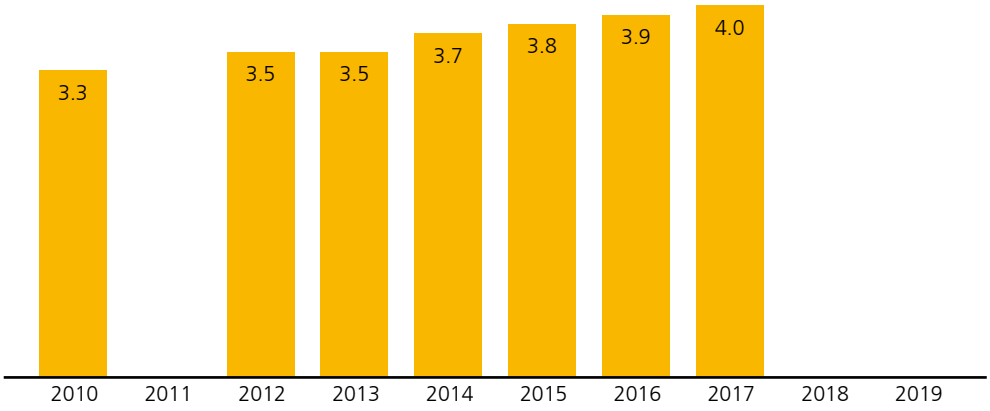


Figure 44:
Energy productivity
(in million Euro / MWh)

Source: State Capital Stuttgart, Environmental Protection Office

Energy productivity more than doubled between 1995 and 2012. It also increased significantly in the period from 2010 to 2017. Therefore, economic growth does not lead to proportional growth in energy consumption. In fact, the reduction in final energy consumption in all consumption sectors is offset by a significant increase in the gross domestic product.[27] Data for the years 2018 to 2020 is not yet available.

Classification / Definition
Energy productivity is the ratio energy consumption to economic productivity. This makes it clear to what extent energy is used effectively. This way the indicator complements the indicators for energy generation and energy consumption by measuring the effectiveness of their use.

Calculation
Energy productivity:

Gross domestic product
/
Primary energy consumption

Correlation with other SDGs

The goal of a clean energy supply has far-reaching consequences for other SDGs. In particular, keeping water and air clean (SDG 3 "Good Health and Well-being" and SDG 6 "Clean Water and Sanitation") as well as Climate Action (SDG 13) are closely linked to energy generation and use. However, energy also plays a crucial role for a productive and stable economy (SDG 8 "Decent Work and Economic Growth"), which provides resources for other SDGs, such as combatting poverty (SDG 1 "No Poverty"), health care (SDG 3) or education (SDG 4).

Responsible consumption and production patterns (SDG 12) and the structure of cities and communities (SDG 11 "Sustainable Cities and Communities") are also key factors for developments in the energy sector.

Production and consumption form a hinge-joint between numerous SDGs which either support one another or have conflicting targets. One solution here is the decoupling of economic growth and energy consumption, i.e. an increase in energy productivity, which is on the horizon for Stuttgart.

Practical example 11:
Energy concept "Urbanisation of the energy transition in Stuttgart"

Context:
In 2016, the energy concept "Urbanisation of the energy transition in Stuttgart" was developed. The aim of the concept is that by 2050 all citizens and enterprises can do without fossil fuels and therefore are climate-neutral. With many stakeholders involved, this objective was substantiated, existing approaches further developed and summarised in an overall concept. The energy concept includes various measures with the aim of reducing energy consumption, increasing energy efficiency and increasing the share of renewable energy.

Description / Realisation:
The energy concept comprises more than 100 measures, which are in six fields of action: Municipal properties / Buildings, Housing and the Citizens / Industry, Commerce, Trade and Services and Industry / Transport / Energy master planning and Energy supply / Involvement of citizens and Stakeholders.

The measures implemented include two municipal funding programmes for energy-efficient modernisation of buildings, free energy advice, education programmes for school classes, an environment prize, exemplary new municipal buildings and redevelopments (e.g. plus energy school), neighbourhood concepts, round tables with Stuttgart companies, city contracting.

The 2020 goals according to GRDrs 1056/2025 (resolution 28.01.2016) are: the reduction of the primary energy consumption by 20 percent (compared to 1990) and an increase in the share of renewable energy in final energy consumption to 20 percent. The 2020 goals according to GRDrs 819/2017 (resolution 26.10.2017) are: 95 percent less greenhouse gas emission (compared to 1990) and 50 percent less final energy consumption (compared to 1990).

Experience / Results:
In the context of the energy concept, a comprehensive energy balance is drawn up annually, which provides information on the final and primary energy demand and the greenhouse gas emission of the individual sectors. The balance also includes the share of the individual energy sources, such as oil, gas, district heating etc., as well as the share of renewable energy. The energy balance shows where action is required and in what sectors and makes it possible to document the successful implementation of the energy concept by 2050. According to the current reporting procedure, the 2020 targets of the Energy Concept will probably all be met. Many measures of the Energy Concept were discussed and further developed with various stakeholders, this formed the basis of the Climate Action Programme (see measure "Climate Action Programme"). Numerous measures are being realised or have already been implemented to some extent.

Division / Office / Public Undertaking:
Environmental Protection Office in the Urban Planning, Housing and Environment Division

Further reading / links:
https://www.stuttgart.de/energiekonzept
(last access: 12.07.2021)

Practical example 12:

Experience the energy transition with the smart benches of Stadtwerke Stuttgart and BW-Bank

Context:
Charge your mobile phone with green electricity and recharge your own batteries at the same time: this is what the smart benches in Stuttgart are designed to do. This project by the Stadtwerke Stuttgart and BW-Bank wants to provide the boroughs with photovoltaic benches. The idea behind the smart benches is to let people see and feel the energy transition. Taking a break you can see how green electricity is generated and use it on the spot.

Description / Realisation:
Solar cells in the seating surface provide green electricity for up to four mobile phones at one time and also free WiFi. The smart bench is manufactured by the Pforzheim-based company messWerk; it is 1.85 metres wide and has three solar modules that convert sunlight into electricity and store it in a battery. Two mobile phones can be charged via USB connections, two induction fields start the charging process simply by placing the mobile phones with the corresponding function on the bench. The solar power also flows into LED lighting under the bench, which automatically switches on when it gets dark. In summer, the sitting surface is cooled by ventilation; and then in winter, when the sun shines it is warmer thanks to the dark surface of the solar panels.

There are already smart benches in Degerloch, Mühlhausen, Botnang, Feuerbach, Süd, Ost and Plieningen, as well as in Stuttgart-West at the grounds of MTV Stuttgart 1843 e.V. and TV Cannstatt at Schnarrenberg. More locations will follow.

Experience / Results:
The smart benches are being used more and more: the smart bench installed in the Plieningen district in March 2020 recorded more than 1,450 charging processes by December 2020, making it a charging hotspot, followed by the bench in Botnang installed in January 2020 with 1,000 charging processes.

Division / Office / Public Undertaking:
Stadtwerke Stuttgart GmbH
(wholly owned subsidiary of the State Capital Stuttgart)

Further reading / links:
www.stadtwerke-stuttgart.de
(Last access 12.07.2021)

Practical example 13:

With the Stuttgart Crowd of Stadtwerke Stuttgart, sustainable and environment-friendly projects from and for Stuttgart are funded

Context:
The Stuttgart Crowd of Stadtwerke Stuttgart is an impetus for a sustainable and environment-friendly life in the city. The crowdfunding platform helps to fund sustainable projects and get CO_2-free ideas off the ground.

Description / Realisation:
Stuttgart initiatives from all areas of society can apply for financial support at www.stadtwerke-stuttgart-crowd.de. The only prerequisite is that the purpose is ecological sustainability or its realisation is sustainable and environment-friendly. It can be a club, a school, an institution or just a private group – the main thing is that the people involved are based in the State Capital. It is also possible for such a Stuttgart initiative to finance a sustainable project outside the city or even in another country.

The Crowd, i.e. the community of the city, solely decides which projects are supported and are of benefit for a sustainable Stuttgart. Every donation is welcome – starting at one euro. The Stadtwerke, as a driving force, provides additional funding of 1,000 Euro per month.

So that the supporting crowd can be absolutely certain about what the donations will be used for, the principle of "all or nothing" applies: the money donated will only be spent if the financial goal is reached. If not, the money will be returned to the donors.

Experience / Results:
When the Stuttgart Crowd was launched in October 2020, the first three projects succeeded in raising their planned donation amounts: the traditional club Stuttgarter Kickers collected more than 50,000 Euro for an LED floodlight system enabling the youth section of the club to train energy-efficiently even in poor visibility periods. The 1. Kindersportverein Stuttgart was able to purchase an electric cargo bike thanks to the Crowd. Hinterhofkino Stuttgart (backyard cinema) uses the donations to finance further operations. Thanks to an electric cargo bike powered by green electricity, including a projector and screen, the initiative is active against social isolation in Stuttgart's backyards, offering free, environment-friendly film evenings from the balcony.

Division / Office / Public Undertaking:
Stadtwerke Stuttgart GmbH
(wholly owned subsidiary of the State Capital Stuttgart)

Further reading / links:
www.stadtwerke-stuttgart-crowd.de
(Last access 12.07.2021)

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 8

Decent Work and Economic Growth

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

Relevant targets of SDG 8 for German municipalities are appropriate economic growth and increasing productivity and resource efficiency. Furthermore, SDG 8 is also about achieving full employment and decent work. The focus is on reducing the number of young people without a job, school qualifications or vocational training.

Indicator 8.1:
Gross domestic product

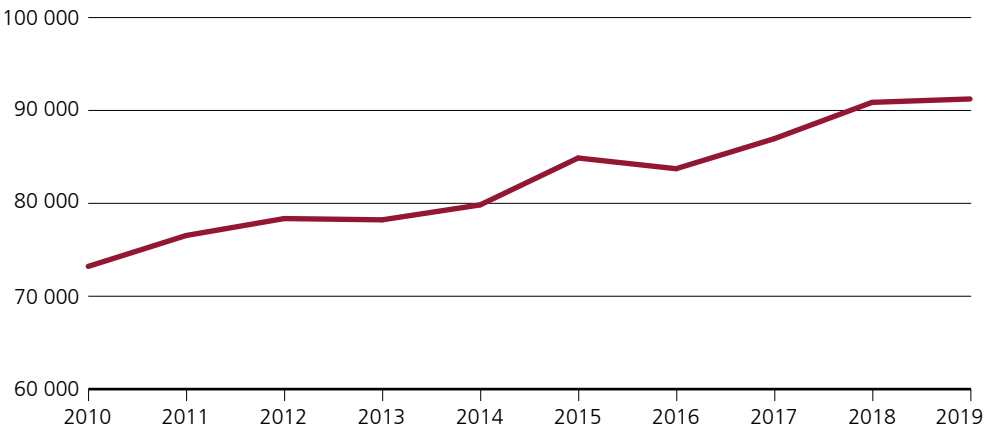


Figure 45:
Gross domestic product
(in Euro / resident)

Source: "National Accounts of the Länder" working group

The gross domestic product of the State Capital Stuttgart dropped significantly with the economic crises from 2007 - 2009. In 2009, the gross domestic product in Stuttgart was 66,130 Euro per resident. However, a rapid recovery began as of 2010. As early as 2011, the 2007 level was exceeded again with a gross domestic product of 76,531 Euro per resident. By 2019, there was a further increase to 91,228 Euro per resident. The good overall economic situation in Germany is also reflected in Stuttgart. In addition, the business location Stuttgart has developed in recent years more dynamically than other business locations of comparable German cities.[29] The impact of the Covid-19 pandemic on the gross domestic product can only be analysed in a few years.

Classification / Definition

The productivity of the economy is the starting point for economically and socially sustainable development, providing opportunities for ecologically sustainable activities. The total economic power is reflected in the gross domestic product.

The gross domestic product is the sum of all goods and services produced as final products within a spatial unit minus intermediate consumption in the respective price ranges.

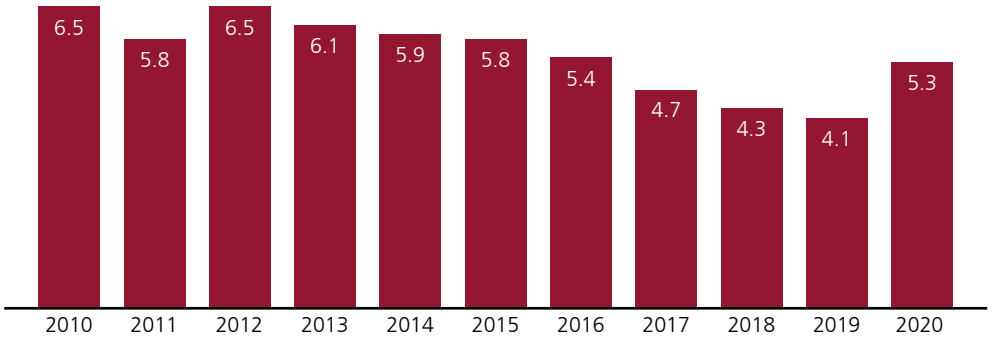
For the indicator, the gross domestic product is in relation to the official population figure.

Calculation

Gross domestic product:

Gross domestic product in the respective prices
/
Number of residents

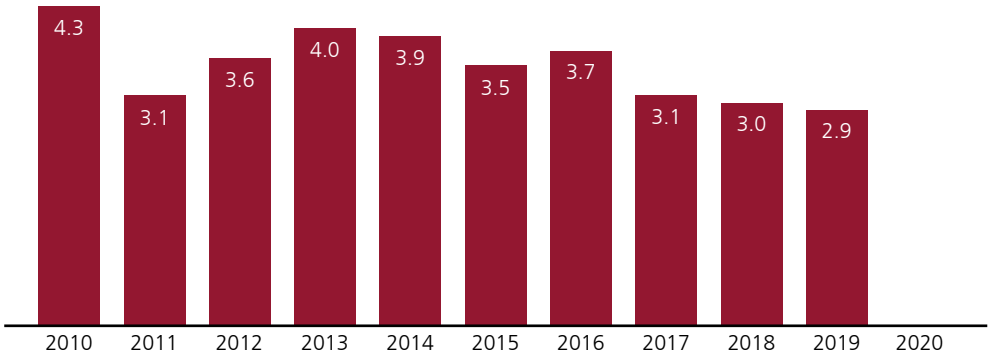
Indicator 8.2:
Unemployment



Source: Federal Labour Office

Figure 46:
Unemployment in total (in percent)

In recent years, the unemployment rate has fluctuated between 4 and 6.5 percent. Between 2013 and 2019, it steadily decreased. This decrease is due to the positive development on the labour market, which has contributed to a significant increase in employment (cf. indicator "Employment rate"). In 2020, unemployment again rose considerably to 5.3 percent due to the Covid-19 pandemic.[30]



Source: Federal Labour Office

Figure 47:
Unemployment among adolescents and young adults ("youth unemployment rate") (in percent)

Most recently in 2016, a minor increase in unemployment among people under 25 was observed. This is also due to the influx of young refugees. In 2017 and 2018, the rate returned to the lowest level in the period under review. For 2020, the first year of the Covid-19 pandemic, data on youth unemployment was not available before the editorial deadline, however, an increase in unemployment is to be expected against the background of the slowdown in economical dynamics.

Classification / Definition

The unemployed are persons who

- are temporarily not in employment or are only employed for less than 15 hours a week (unemployment),
- are looking for employment subject to social security contributions, with a minimum of 15 working hours per week (personal efforts),
- are available for the job placement efforts of the Labour Office or the Jobcentre, i.e. are able and willing to work and have the right to (availability),
- live in the Federal Republic of Germany,
- are not under 15 and have not yet reached the age limit for retirement and
- have registered as unemployed in person with a labour office.

The unemployment rate refers to the number of unemployed people related to the civilian labour force as a whole (i.e. employed + unemployed). The civilian labour force includes the whole dependent civilian labour force, as well as the self-employed and family workers. The dependent civilian labour force consists of employees subject to social security contributions (including trainees / apprentices), those marginally employed, persons in work opportunities (additional expenditure option), civil servants (excluding the military), border commuters and unemployed people.

The unemployment rate only includes people who register as unemployed in person. People who are not in gainful employment and would like to take on work, but are not registered with the Labour Office are therefore not recorded. In particular, persons not entitled to unemployment benefits (I) have little incentive to register as unemployed. This leads to a statistical under-coverage of unemployed people. This applies in particular to people returning to work who are not entitled to unemployment benefits, but would like to take on work. Therefore, it can be assumed that more women than men are affected by this under-coverage of unemployment statistics.

Calculation

Unemployment in total:

$$\frac{\text{Unemployed people}}{\text{The entire civilian labour force} + \text{Unemployed people}} * 100$$

Unemployment among adolescents and young adults:

$$\frac{\text{Unemployed people under 25}}{\text{The entire civilian labour force under 25} + \text{Unemployed people under 25}} * 100$$

Indicator 8.3:
Long-term unemployment

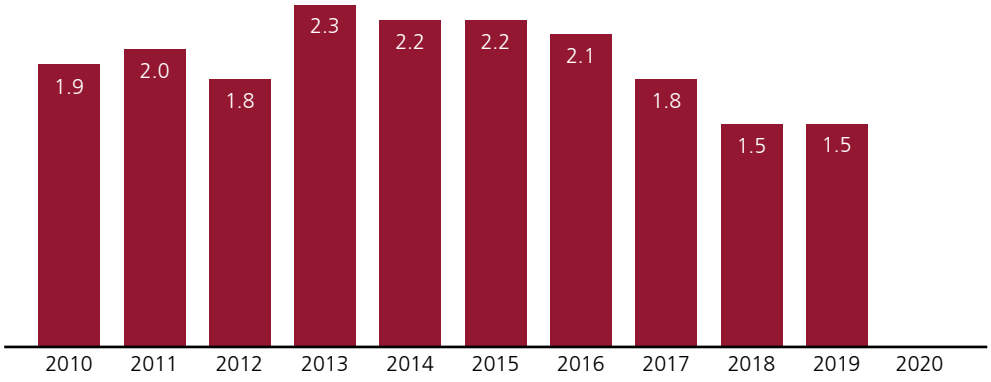


Figure 48:
Long-term unemployment in total (in percent)

Source: Federal Labour Office

From 2010 to 2013, long-term unemployment at first rose significantly. Between 2013 and 2016, it remained at a stable level of slightly more than two percent. Most recently, a decline in long-term unemployment was determined between 2016 and 2019. For 2020, the first year of the Covid-19 pandemic, data on long-term unemployment was not available before the editorial deadline.

Classification / Definition

Unemployment is a major problem for those affected if it lasts for a longer period. Long-term unemployed people are people who are permanently unemployed for more than one year. Parallel to the definition of unemployment, the long-term unemployment rate relates the long-term unemployed to the civilian labour force and the unemployed.

Calculation

Long-term unemployment in total:

$$\frac{\text{Unemployed people with duration of unemployment} > 1 \text{ year}}{\text{The entire civilian labour force} + \text{Unemployed people}} * 100$$

Indicator 8.4:
Employment rate

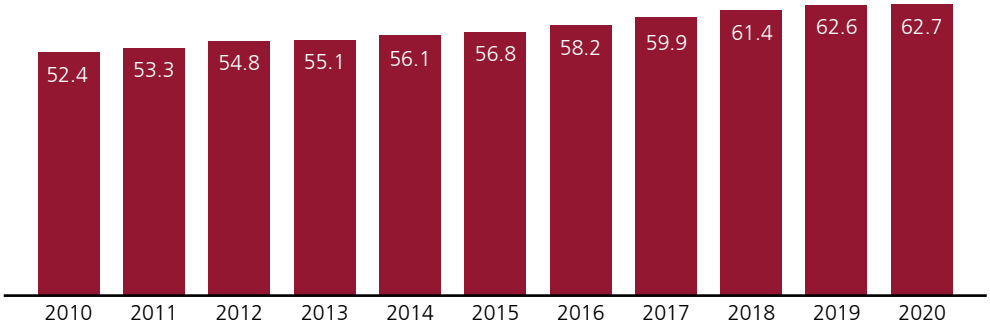


Figure 49:
Employment rate
(in percent)

Source: Federal and State Statistical Offices; Federal Labour Office; State Capital Stuttgart, Statistics Office

In the period under review, the employment rate rose steadily from 52.4 percent to 62.7 percent. The positive economic development is reflected in higher employment. Only in 2020, the increase in the employment rate slowed down due to the Covid-19 pandemic.

Classification / Definition

The employment rate provides information on the number of residents who are able to work and are actually employed. While the unemployment rate records those without work, looking for work but without success, the employment rate indicates the extent to which people enter the labour market. Accordingly, it is also relevant for the employment rate, how widespread it is to stay at home for housework and parenting or retiring before the statutory retiring age is reached.

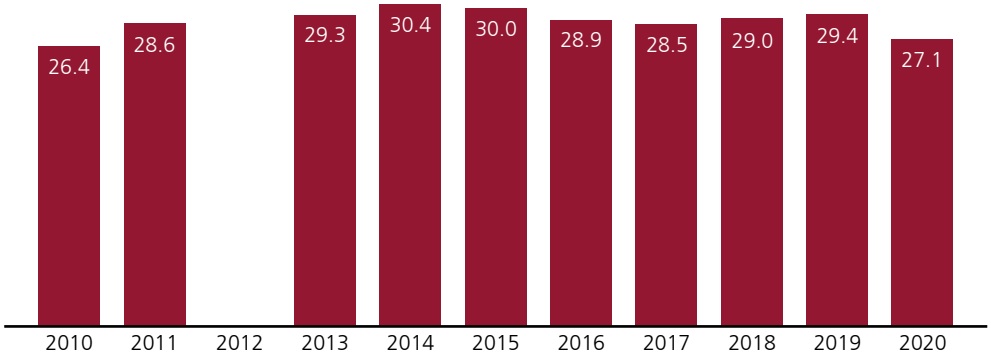
The employment rate is defined as the ratio of employees subject to social security contributions (ssc) to the population of working age. Thus, the employment rate refers exclusively to employees, but not to self-employed people or family workers. Nor does the calculation include civil servants. Therefore, the number of people working outside the household is systematically underestimated. However, the changes in this labour segment are of great importance and an important add-on to the unemployment indicator. The values reflect the status as of 30 June of each year.

Calculation

Employment rate:

$$\frac{\text{Number of employees subject to social security contributions between 15 and 64 years at the place of residence}}{\text{Number of residents between 15 and 64 years}} * 100$$

Indicator 8.5:
"People increasing earnings"



Source: Federal Labour Office

Figure 50:
Employed persons elegible for benefits ("people increasing earnings") (in percent)

The number of people increasing earnings related to all people eligible for benefits has steadily risen since the introduction of the basic benefit for jobseekers in 2005 to some 30 percent in 2014. An increasing proportion of people who received unemployment benefits were at least in a low-paid job. There was a short-term stop to this with the influx of refugees in 2015 to 2017. From 2017 to 2019, there was an increase in the percentage of people among the people increasing earnings related to all people eligible for benefits. 2020 saw a drop to 27.1 percent.

In recent years, the employment rate has continued to rise, which also has an impact on the SGB II sector. Although it is always welcome that more people are in employment, the fact remains that – despite being in employment – an increasing number of people depend on state benefits. This applies in particular to women and non-nationals eligible for benefits.

Classification / Definition

Not every employment means a sufficient income. People with low income are entitled to unemployment benefit II. These people increasing earnings are either in employment subject to social security contributions or marginally employed or self-employed and can receive additional state support.

The indicator "People increasing earnings" is the relation of employees receiving unemployment benefits II to the total number of recipients of unemployment benefits II. It indicates the proportion of recipients of unemployment benefits II in employment subject to social security contributions, in marginal employment or self-employed. This indicates the range of the the low-wage sector, but also the proportion of unemployment benefit II recipients integrated into a social job context, even if poorly paid.

Calculation

People increasing earnings:

$$\frac{\text{Number of benefit II recipients in employment}}{\text{Total number of recipients of unemployment benefits II}} * 100$$

Indicator 8.6:
Trade tax rate

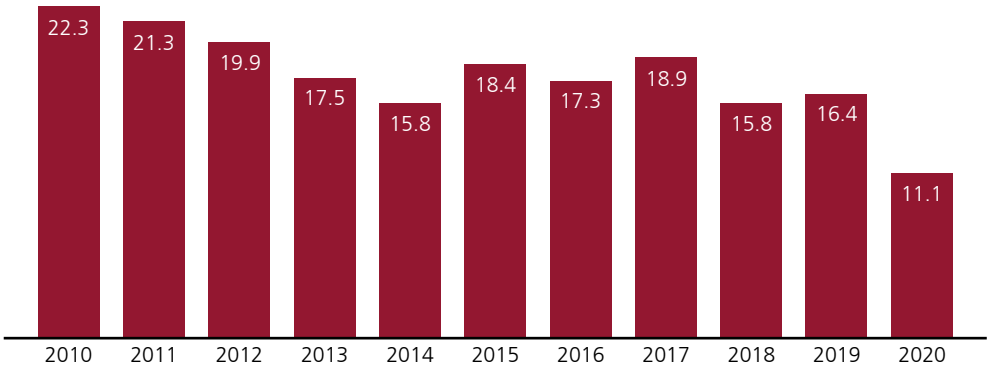


Figure 51:
Trade tax rate
(in percent)

Source: State Capital Stuttgart, City Treasury

The percentage of trade tax in the Stuttgart ordinary budget was some 22 percent at the beginning of the period under review and has since tended to decrease despite the positive economic situation. In 2020, against the background of the Covid-19 pandemic, only around eleven percent of the ordinary income was generated by trade tax.

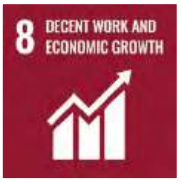
Classification / Definition

Trade tax is generally levied on all commercially operative individual enterprises, partnerships and corporations. The object of the tax is the business enterprise and its objective earning power, i.e. the profit. Trade tax is one of the most important taxes of a municipality in Germany. It is one of the few relevant sources of income a municipality can directly influence. The amount of trade tax can be controlled by the Municipal Council by means of the assessment rate. The statutory minimum is 200 percent. In Stuttgart, the current assessment rate is 420 percent.

The income from trade tax is subject to fluctuation. The main factors in this context are the development of the economy and the structure of the industry. The trade tax levy, in turn, is intended to balance out regional differences. The indicator reveals the extent to which the fulfilment of the municipal services is dependent on a positive development of economy or industry structure. The lower the trade tax rate, the more dependent the municipal budget is on general federal and state tax revenues and allocations from the state. Municipalities depend on trade tax being as stable as possible to finance their portfolio of tasks reliably and sustainably.

Calculation

Trade tax revenue minus tax levy
/
Ordinary income
* 100



Correlation with other SDGs

Economic productivity is itself part of the economic sustainability dimension, but it also has a direct impact on the social and ecological sustainability dimension. Economic growth tends to reduce poverty, as was made clear in the corresponding indicators (SDG 1 "No Poverty"). On the other hand, there is a risk that economic growth will lead to increasing environmental pollution. Therefore, decoupling economic growth and environmental pollution is of crucial importance.

In Stuttgart, economic growth in recent years has been accompanied by decreasing CO_2 emission from industry and commerce (SDG 13, indicator "Greenhouse gas emission"). This development is extremely positive at municipal level, but it has to be assessed in a broader context. The reduction in CO_2 emission can also be partly due to a relocation of industries with high emissions to other regions and countries. Accordingly, locally better conditions do not necessarily lead to a globally improved situation. This restriction, however, should not fundamentally contest the positive development of Stuttgart with regard to economic growth and air pollution.

The indicators "Energy productivity" and "Final energy consumption" (SDG 7), as well as "Highly qualified people" and "Start-ups" (SDG 9) are also relevant. Further relevant indicators for SDG 8 are the indicators "EMAS-certified sites", "Amount of waste" and "Consumption of drinking water" (SDG 12) as well as "Employment rates" (SDG 5).

The target of SDG 8 as to educational equality and the reduction of the proportion of young people without school-leaving qualifications, training and / or employment is closely related to SDG 4 (indicator "School-leavers by school-leaving qualifications") and SDG 10 ("Reduced Inequality").

Practical example 14:

Youth career advisory programme "400+Future" – qualification and employment programme for young people

Context:
Although the situation on the training market in Stuttgart is good and the unemployment rate of young people under 25 is generally speaking very low, some young people do not manage the transition to training or employment. For this target group, there are professionally differentiated support opportunities in Stuttgart. In addition to the services of the employment agency (SGB III) (SGB = Social Insurance Code) and the Jobcentre (SGB II), career advisory services pursuant to Article 13 SGB III – Youth Social Work is the third pillar in the overall support system u25. In Stuttgart, the municipal employment promotion is another stakeholder active in the field of supporting young people under 25 in the transition from school to work. The existing measures include vocational training orientation, the opportunity of (post-)qualification, as well as support through accompaniment and counselling. The "400+Future" programme funded pursuant to Article 13 SGB VIII, is an important support element in the interdisciplinary overall system. The programme supports the transition from school to working life and addresses adolescents and young adults between the age of 16 and 27 who have few opportunities and are individually disadvantaged.

Description / Realisation:
The project "400+Future" has been carried out since 2003 by four social enterprises (GJB – Gesellschaft für Jugendsozialarbeit und Bildungsförderung e.V., Sozialunternehmen Neue Arbeit gGmbH, Sozialunternehmen ZORA gGmbH, sbr Gemeinnützige Gesellschaft für Schulung und berufliche Reintegration mbH) and a youth welfare organisation (Caritasverband für Stuttgart e.V.) in cooperation with the Volkshochschule Stuttgart. "400+Future" is a programme of work-related youth social work. The main aim is to help and support young people in stabilising their personal lives and finding work-related orientation and improving their opportunities as to starting out and moving on to vocational training. The programme provides individual support tailored to meet the young person's needs. What makes "400+Future" special is the interrelationship of vocational practice, the possibility of attaining a Certificate of Education qualification and socio-educational support. The young people also receive a small payment during their participation, regardless of their work. It is rather an extra for participation and attendance. The financial support is intended to motivate the young people to complete the programme and successfully handle the transition to working life.

Experience / Results:
Since the development of "400+Future", the programme has been often adjusted selectively to react to changed framework conditions or new needs. In addition, there have also been changes specific to the organisation, so that today the programme is implemented in a differentiated manner and according to the needs of the participants. In 2020, the concept was updated in a participatory process with the organisations of the programme to maintain the standard of quality despite the different ways of implementation. Their different orientations in "400+Future" are both wanted and required to meet the diverse needs of the young people. The development of a concept therefore served to bring together the different features, define uniform standards for the realisation and, at the same time, strengthen the individual profiles.

The greatest success factor of "400+Future" is also reflected in the options for different vocational training fields, as well as in the different group sizes and numbers of participants per programme sponsor, since there can be a flexible response to the different needs and wishes of the participants. In 2019, 100 young people participated in the programme, 13 percent of them started an apprenticeship. 40 percent entered one of the transition programmes and went back to school or entered employment. The success of the programme is indicated by the fact that more than half of the participants managed to complete the programme with a positive result, which is a good rate for the target group.

Division / Office / Public Undertaking:
Youth Welfare Office in the Youth and Education Division

Practical example 15:

Health promotion for the unemployed – interlinking work and health promotion in everday life in the city

Context:

Prolonged unemployment can affect physical and mental health. Long-term unemployed people are more often in medical treatment. Health impairments, in turn, make integration into working life more difficult. At the same time, it was difficult to reach this group of people as regards health-promoting services in terms of primary prevention. Therefore, the federal framework recommendations and the state framework agreement in Baden-Württemberg for the implementation of the National Prevention Strategy explicitly stipulate cross-agency cooperation of health insurance funds and employment agencies / Jobcentres. The project makes a significant contribution in this respect and, in accordance with the setting approach of health promotion, strives on the one hand for behavioural prevention, and on the other hand for situational prevention in everyday life. In addition to the statutory health insurance funds, the National Association of Statutory Health Insurance Funds and the Federal Labour Office, the project is also supported by the German Association of District Councils and the Association of German Cities and Towns.

Description / Realisation:

Since spring 2020, the Stuttgart Jobcentre has been involved in the project "Interlinking work and health promotion in everyday life in the city" together with the Association of Health Insurance Funds (vdek). Low-threshold, means-tested health promotion programmes and prevention pursuant to Article 20a SGB V are developed on the basis of a needs assessment. The programmes (e.g. in the areas of mental health, nutrition and physical activity) are intended to make unemployed people aware of health issues, so they can remain healthy or improve their health. Benefit recipients can participate in the programmes free of charge and on a voluntary basis. A steering committee at the respective project location manages the project. The Federal Centre for Health Education (BZgA) coordinates the comprehensive evaluation of the project.

Experience / Results:

At the beginning, a cooperation agreement was concluded that regulates the common goals and cooperation. A steering committee that meets on a regular basis was also established. A poll of the benefit recipients was carried out to determine their needs and a poll of the personal contacts completed. Of the latter, 16 of the specialised departments and branch offices of the Jobcentre participated in the training "Motivating Health Talks".

The planned involvement of the unemployed themselves in the project, plus the approach to prevention in everyday life in the city seem to be important elements of the concept.

The course of the project to date has revealed that the interlinking of work and health promotion makes sense and must remain on the agenda. Therefore, how this can be continued must be considered from the outset.

Division / Office / Public Undertaking:

Jobcentre in the Social Affairs and Integration Division as well as the Association of Health Insurance Funds (vdek)

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 9
Industry, Innovation and Infrastructure

"Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation"

Relevant targets of SDG 9 for German municipalities are in particular the establishment of a sustainable infrastructure, as well as the promotion of innovation, research and development.

Indicator 9.1:
Start-ups

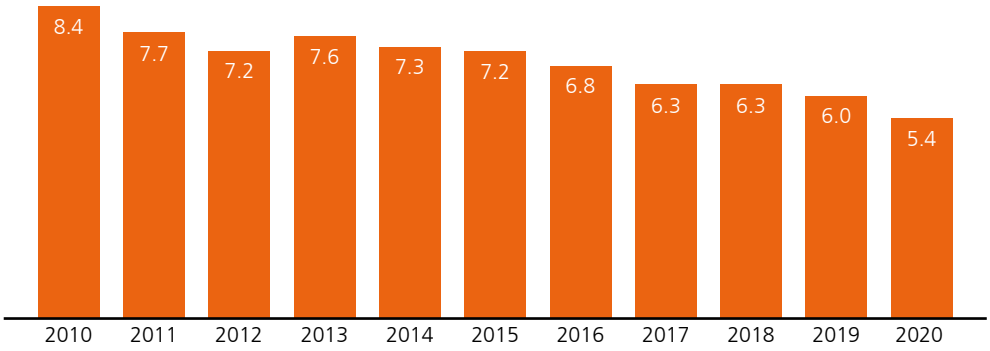


Figure 52:
Start-ups
(in number per
1,000 residents)

Source: State Statistical Office

The number of start-ups showed a downward tendency between 2010 and 2017. The years following the economic crisis, i.e. between 2010 and 2012, saw a decline in start-ups. This continued after a brief recovery in 2013. Most recently, the figure dropped again significantly to 5.4 start-ups per 1,000 residents in 2020, due to the uncertain economic situation in the context of the Covid-19 pandemic. For 2021, a further decline is expected.

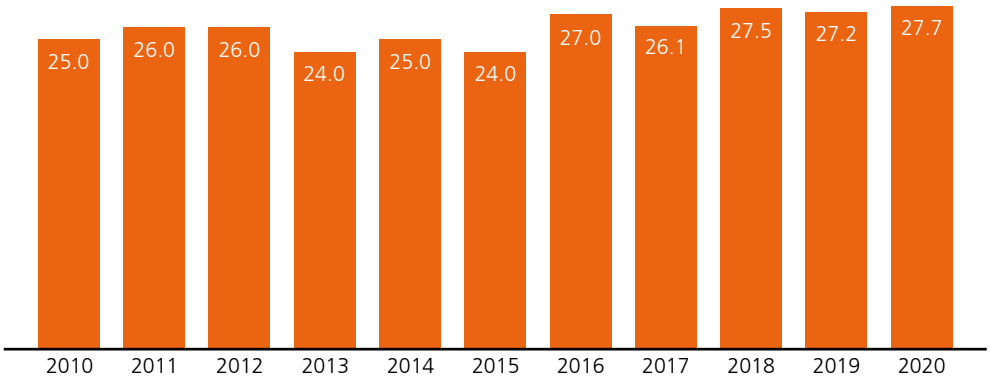


Figure 53:
Start-ups by women
(in percent)

Source: State Statistical Office

The proportion of start-ups by women fluctuated slightly until 2015 without a clear tendency. Although the figures have continued to fluctuate since 2016, they are still slightly higher than those of the previous years (26 to 27.7 percent).

Around a quarter of all start-ups can be attributed to women, almost three quarters to men. This very significant difference may be based on a number of factors. The lower employment rate of women is only responsible for a small part of the disparity. A different risk appetite and lower confidence on the part of important reference persons (e.g. banks, start-up counsellors, friends and family offering "advice") might play a role.

Classification / Definition

New establishment of commercial enterprises creates jobs, promotes competition and contributes to economic growth. Technological and cultural change requires a constant adjustment of the economic structure and with that, new business start-ups.

The start-up indicator reflects the frequency of new establishment of commercial enterprises relative to the population. It is an accurate, albeit rather rough description of a phenomenon, because the indicator includes new innovative enterprises with high growth potential as well as small businesses, for instance a new hairdresser's shop or take-away.

Generally speaking, women tend to start businesses less often than men. The proportion of start-ups by women indicates the extent to which women also establish commercial enterprises.

Calculation

Start-ups in total:

Number of new establishment of commercial enterprises
/
Number of residents
* 1,000

Start-ups by women:

Number of new establishment of commercial enterprises by women
/
Number of new establishment of commercial enterprises in total
* 100

Indicator 9.2:
Highly qualified people

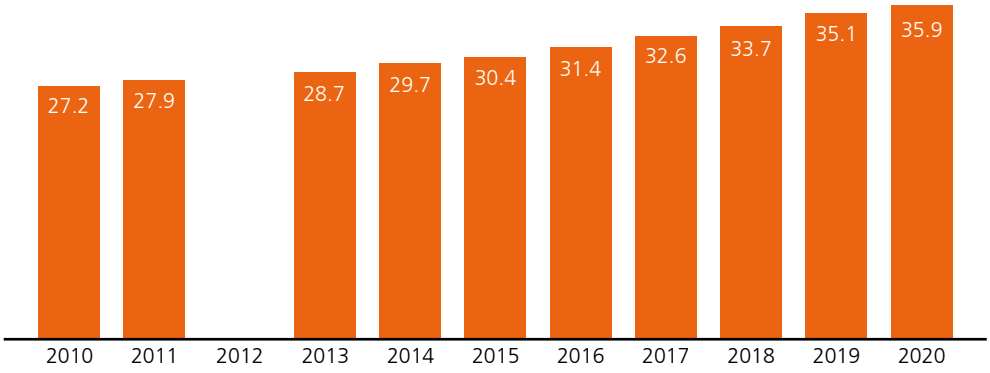


Figure 54:
Highly qualified people
(in percent)

Source: State Statistical Office

The proportion of highly qualified people among employees subject to social security contributions (ssc) in the State Capital Stuttgart is on the upward trend. This applies both to the period up to 2011 and since 2012. Due to a change in statistical recording, no values were recorded for 2012.[31] Most recently, almost 36 percent of employees subject to social security contributions in Stuttgart have a university degree.

Classification / Definition

Highly qualified people are of particular importance for the economy, because their competence and creativity make a valuable contribution to an innovative economy. In view of the shortage of skilled workers and executive personnel, highly qualified people play an important role in the location factor.

The reflection on highly qualified people can only be made on a very general level. For the local economy and the individual companies, specific qualifications are relevant in every case. These need not necessarily be academic qualifications. Depending on the economic structure, the requirements can greatly vary.

The indicator "Highly qualified people" indicates the ratio of employees with academic qualifications subject to social security contributions to all employees subject to social security contributions.

Calculation

Highly qualified people:

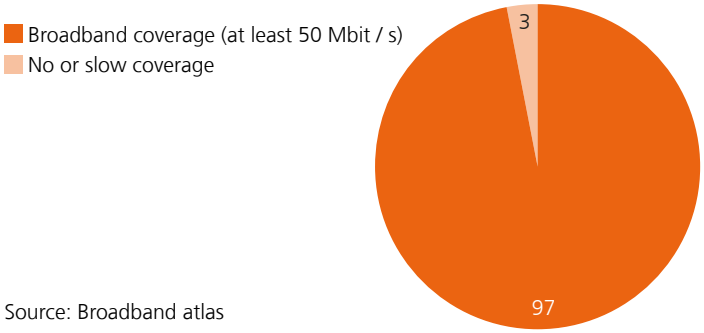
Number of employees with an academic degree subject to social security contributions at the place of work

/

Total number of employees subject to social security contributions at the place of work

* 100

Indicator 9.3:
Broadband coverage – Private households



Source: Broadband atlas

Figure 55:
Broadband coverage 2020 – private households (in percent)

According to the broadband atlas, 97 percent of private households in Stuttgart currently have a broadband coverage of at least 50 Mbit / s (figures for 2020). In 2015, the figure was 86 percent and has risen significantly since then.

Classification / Definition

The broadband coverage of private households indicates the ratio of private households connected to the broadband network with a minimum speed of 50 Mbit / s.

Calculation

Broadband coverage of private households:

Number of households with broadband coverage > 50 Mbit / s

/

Number of all households

* 100

Correlation with other SDGs

Innovation is essential to ensure a long-term dynamic and successful economy (SDG 8 "Decent Work and Economic Growth"). This requires the continuous new establishment of commercial enterprises and companies, but also a high level of creativity and competence. The availability of qualified workers and executives, as well as business founders is therefore of crucial importance. This is a direct connection to the subject education (SDG 4 "School leavers by school-leaving qualifications").

There are also correlations with the indicator "Energy productivity" (SDG 7) and the indicators on sustainable mobility at SDG 11 ("Sustainable Cities and Communities") and SDG 12 (indicator "EMAS-certified sites").

Digitalisation in particular is of increasing importance for SDG 9, which is also described in SDG 16 alongside with indicators "Digital community" and "Mobile working".

Innovation, research and development aiming at a more sustainable economy and environment-friendlier practices in many fields will be decisive for achieving the sustainability goals as a whole.

Practical example 16:

International students in Stuttgart: "Your Start in Stuttgart and the Region" and "Your Future in Stuttgart"

Context:
Stuttgart is a major international science location and is one of the cities in Germany with the most international students. At the same time, the region is extremely affected by the shortage of skilled workers. International students can help meet the demand for skilled workers in the future. Their language skills and country-specific knowledge make them particularly interesting for business enterprises. However, studies show that 75 percent of the international students leave the country again after graduation.[32] It is therefore important to make it easier for international students to find their feet, feel "at home" and shape their professional future here.

Description / Realisation:
With the information event "Your Start in Stuttgart and the Region – Dein Start in Stuttgart und der Region", the State Capital provides international students with important information at the beginning of each winter semester so that they are able to find their feet and their way through their studies in Stuttgart.

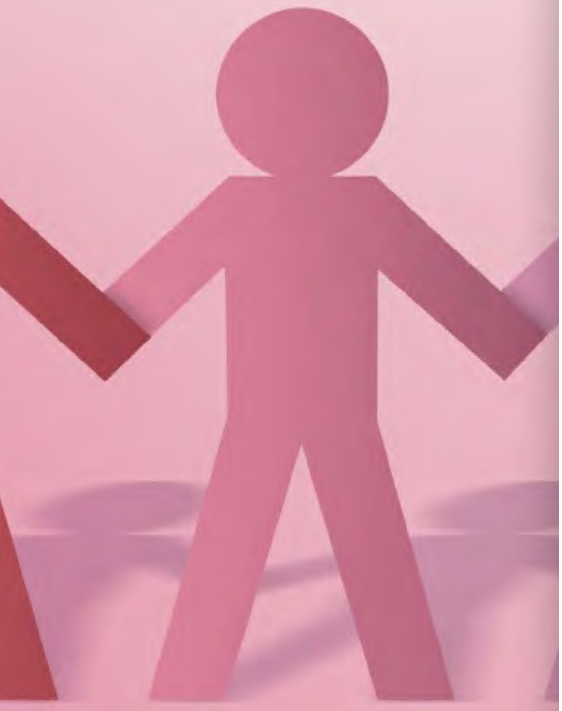
The State Capital hosts "Your Future in Stuttgart – Deine Zukunft in Stuttgart" to encourage international students to start their working life in Stuttgart and the region. Lectures and in-depth workshops are available to the students and open stands where they can talk to the cooperation partners. Employers, who may be of interest and counselling centres present their programmes. Here the topics cover residence permits, start-ups, language courses, finding and applying for a job. The aim is to make contact to former students and potential employers, so students can make a successful start into their working life. "Your Future in Stuttgart" takes place every two years during the summer semester.

Experience / Results:
The events reach large sections of the target group. An average of 150 people from 25 different countries take part in "Your Start in Stuttgart and the Region". The "Your Future in Stuttgart" event reaches an average of 200 people from 50 countries. After the event, the presentations and information material are also available to any others interested. The feedback from the international students is invariably positive. Due to the Covid-19 pandemic, the events are currently held in digital form.

Division / Office / Public Undertaking:
Department for Integration Policies in the Social Affairs and Integration Division, and Economic Development Department

Further reading / links:
https://www.stuttgart.de/buergerinnen-und-buerger/migranten/auslaendische-studenten/
(Last access 12.07.2021)

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart



SDG 10
Reduced Inequalities

"Reduce inequality within and among countries"

Relevant targets of SDG 10 for German municipalities are in particular enabling all people – irrespective of age, gender, disability, ethnicity, origin, religion, economic or other status – to have self-determination over their lives and helping them in a process of inclusion. It is also about ensuring equal opportunities, in particular about questions of migration and integration.

Indicator 10.1:
Relative poverty rate among foreigners

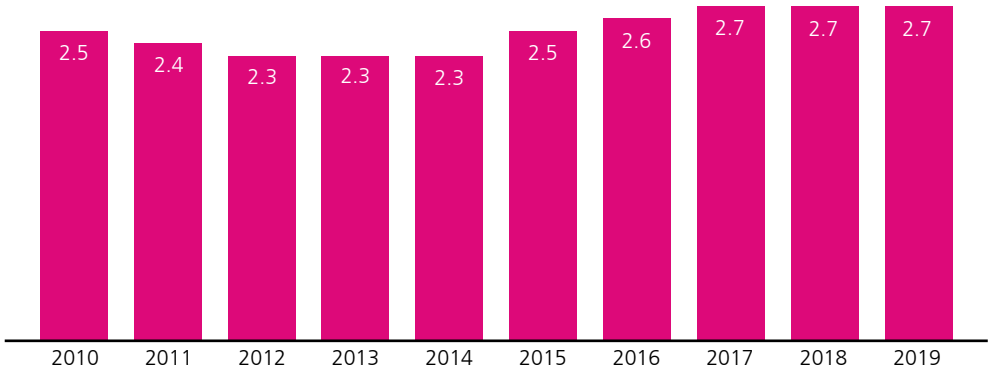


Figure 56:
Relative poverty rate among foreigners (as relation)

Source: Federal and State Statistical Offices; Federal Labour Office; State Capital Stuttgart, Statistics Office

The poverty rate among foreigners is much higher than among Germans. In 2010, the ratio of foreigners who received benefits pursuant to SGB II, SGB XII or AsylbLG was 2.1 times higher than for Germans. The relative poverty rate rose significantly between 2013 and 2017 and has remained constant at 2.7 ever since. In 2014 to 2017, the large increase in the number of foreigners was a result of the refugee influx. The higher poverty rate among foreigners is partly related to their higher labour market risks and lower hourly wages, as well as other features of precarious employment.

Classification / Definition

Poverty affects some population groups more than others. In addition to the poverty rates among children, adolescents and the elderly discussed in SDG 1, foreigners are also more often affected by poverty. The indicator is the ratio of foreigners who receive benefits pursuant to SGB II (persons entitled to standard benefits), SGB XII (recipients of welfare allowance and basic social security, whether in facilities or not, also according to AsylbLG [Asylum Seekers Benefit Act]) to corresponding share of Germans.[33]

The relative poverty rate among foreigners is not expressed as a percentage, but as a multiple of the poverty rate among Germans, because the poverty rate among foreigners is significantly higher than the poverty rate among Germans. If the poverty rates among foreigners and Germans were equal, the indicator would be 1. Values above 1 indicate how many times higher the poverty rate among foreigners is compared to the poverty rate among Germans.

Compared to the previous SDG indicator report, the indicator has been revised and now also takes into account benefits pursuant to AsylbLG paid to persons in asylum procedures and tolerated persons who do not receive benefits pursuant to SGB XII. The data shown includes both basic social security and welfare allowance. Regarding SGB II benefits, only persons entitled to standard benefits are taken into account, not other persons in the household, as these have only been reported regularly as of 2016.

Calculation

Relative poverty rate among foreigners:

Number of benefit recipients pursuant to SGB II and SGB XII without German citizenship
+ Benefit recipients pursuant to AsylbLG
/
Total foreigners

/

Number of benefit recipients pursuant to SGB II and SGB XII with German citizenship
/
Total German citizens

Indicator 10.2:
Relative employment rate of foreigners

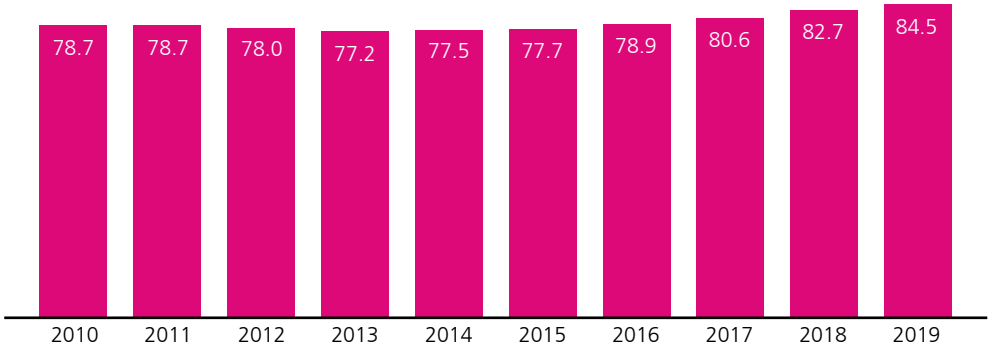


Figure 57:
Relation of employment rate of foreigners to total employment rate (in percent)

Source: Federal and State Statistical Offices; Federal Labour Office; State Capital Stuttgart, Statistics Office

The relation of the employment rate of foreigners to the general employment rate has been on a rising trend since 2013. Most recently, the employment rate of foreigners reached some 85 percent of the general employment rate. Foreigners benefited more than average from both the favourable economic development before the Covid-19 pandemic and the general increase in employment (cf. SDG 8 "Decent Work and Economic Growth").

In a city like Stuttgart, where people from more than 180 nations live, integration is a major issue. Here the State Capital Stuttgart plays a leading role with measures like the integration concept "Stuttgart Pact for Integration", its specific staff unit for integration policies, a Welcome Center and a participation committee that is exemplary on a European level.

Classification / Definition

Integration into the labour market is essential both for the economic and social situation of individuals. The measure for integration in the labour market is the employment rate.

The employment rate depends on the possibilities of finding a job. However, it is also influenced by how many households have only one or two adults able to work. This depends on the possibility of finding a job, the economic necessity for both adults of a household to take on a job, and the willingness to pursue gainful employment. The employment rate does not reflect the level of influence of these factors.

The relative employment rate of foreigners indicates the employment rate of foreigners in relation to all employees. A value below 100 percent means that the employment rate of foreigners is lower than that of all employees, while a value above 100 percent indicates a higher employment rate of foreigners.

Calculation

Relative employment rate of foreigners:

$$\frac{\text{Number of foreign employees subject to social security contributions at the place of residence between 15 and 64 years}}{\text{Total number of foreigners between 15 and 64 years}} \Big/ \frac{\text{Total number of employees subject to social security contributions at the place of residence between 15 and 64 years}}{\text{Total number of residents between 15 and 64 years}} * 100$$

Indicator 10.3:
Meeting points for citizens

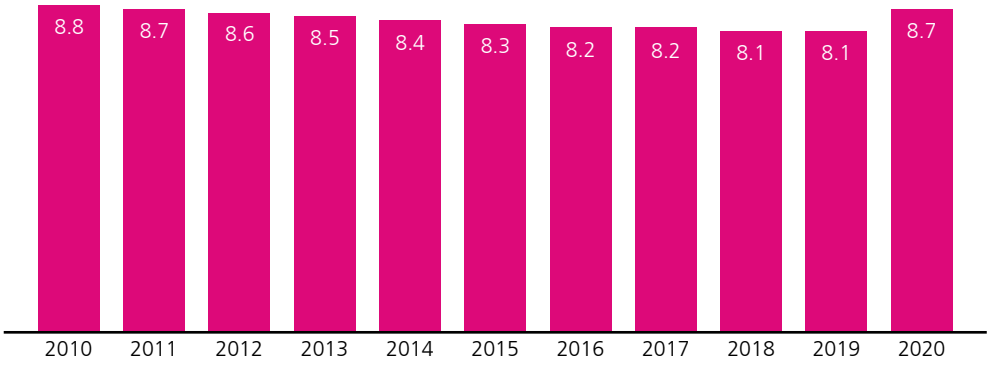


Figure 58:
Meeting points for citizens (in number per 100,000 residents)

Source: State Capital Stuttgart, Social Welfare Office and Youth Welfare Office

While the number of meeting points has been stable for a long time in recent years (34 meeting places for the elderly and 16 district and family centres, as well as district community centres) and the indicator has dropped from 8.8 in 2010 to 8.1 in 2019 only due to the increase of population, an increase to 8.7 meeting points per 100,000 residents can now be observed. In the 2020/2021 budget, the Municipal Council made important decisions for local multi-generation meeting points. The conceptual framework and funding guidelines for district community centres specified the first two locations (GRDrs 304/2020 "District community centes – resolutions on conceptual frameworks, space allocation programme, selection and funding criteria and on 2 locations"), which will be opened in the coming years.

In addition to the district community centres, there will continue to be the "smaller version" of multi-generation meeting points for the elderly and the district and family centres. In 2020, the number of district and family centres increased to 20 compared to the previous year.

Classification / Definition

Meeting places in the neighbourhood make an important contribution to social inclusion and opportunities for social participation. This applies in particular to people who are otherwise not so involved for various reasons (for instance low financial resources or mobility restrictions).

Calculation

Meeting points for the elderly, district and family centres as well as district community centres are summarised here and put in relation to the total population. Civic centres are not included in this list.

Meeting points for citizens:

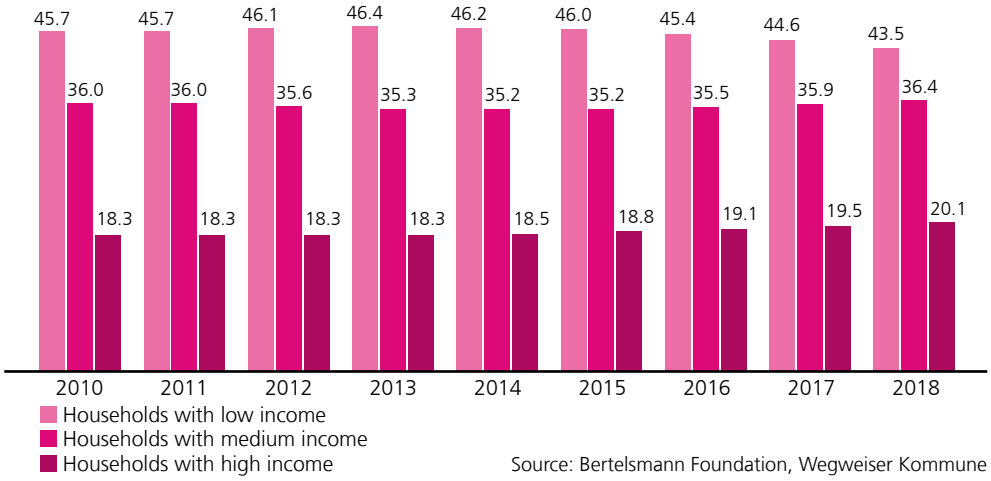
Number of meeting points for the elderly, district community centres and district and family centres

/

Number of residents

* 100,000

Indicator 10.4:
Income distribution (low, medium, high)



Source: Bertelsmann Foundation, Wegweiser Kommune

Figure 59:
Households with low, medium, high income (in percent)

The proportion of households with low income (net income less than 25,000 Euro per year) has slightly declined since 2010 to 43 percent. In contrast, the proportion of households with medium income (net income between 25,000 and 50,000 Euro per year) has hardly changed since 2010 and is fairly stable between 35.2 and 36.4 percent. The proportion of households with high income (net income of more than 50,000 Euro per year) has slightly increased to some 20 percent.

The changes in the proportion of households in the three income groups are minor. It is difficult to judge whether there are real shifts here or whether the changes are due to imprecision in data gathering or by chance.

Classification / Definition

Income distribution provides information on the extent of income inequality in any society. A high level of social inequality tends to cause social tension, on the other hand, inequality can also be an incentive. Generally speaking, the global sustainability goals strive for a reduction of social inequality.

The data situation for determining the household income at municipal level is difficult. The geomarketing company, nexiga estimates the proportion of households in three income groups based on various data from the Federal Statistical Office, the German Institute for Economic Research and the Federal Labour Office. It is the estimated annual net income available to the household regardless of the source of income.

Calculation

Households with low income:

Number of households with a total net income of less than 25,000 Euro per year
/
Total number of households
* 100

Households with medium income:

Number of households with a total net income between 25,000 and 50,000 Euro per year
/
Total number of households
* 100

Households with high income:

Number of households with a total net income of more than 50,000 Euro per year
/
Total number of households
* 100

Correlation with other SDGs

Reducing inequalities is often synonymous with pursuing other sustainability goals, especially at a social level.

The split of health burdens is very irregular (cf. indicator "Children with overweight", SDG 2). Education (SDG 4) and employment (SDG 8 "Decent Work and Economic Growth" and SDG 9 "Industry, Innovation and Infrastructure") are often key to reducing inequalities. In addition, numerous other factors, such as discrimination, lead to social inequalities, and only a fraction of the unequal distribution of burdens and disadvantages across the population is reflected in this report.

The following indicators are also reflected in SDG 10, although they are described in other chapters: End poverty (SDG 1) is primarily the fight against poverty among certain target groups (cf. indicators "Recipients of minimum social security benefits", "Child poverty", "Poverty among adolescents / young adults", "Poverty among the elderly" and "Poverty among single parents"). Gender inequality, addressed under the indicator "Employment rates" (SDG 5) is not discussed in detail in this chapter. Less inequality also includes access and participation opportunities of citizens from different backgrounds (SDG 11 "Sustainable Cities and Communities" and SDG 16 "Peace, Justice and Strong Institutions").

In addition to inequalities within a society, SDG 10 also refers to inequality between societies in an international dimension (cf. SDG 17 "Partnerships for the Goals").

Practical example 17:
Welcome buddies

Context:
Sustainable integration requires social contacts, shared moments and the exchange of experience between people. For the linguistic, professional and cultural integration of newcomers to the city, the State Capital Stuttgart therefore launched the project of welcome buddies in 2015; these accompany the newcomers in their integration.

Description / Realisation:
During the counselling interview, the staff at the Welcome Center determine whether the welcome buddies programme could be helpful. If so, they complete a questionnaire with the newcomers covering their profession, age, hobbies, language skills and interests of the new immigrants. Any questions or concerns they have will also be noted.

On average, the welcome buddies meet their mentees once a week, they speak and practise German with them and show them the city and the surrounding area. They also help them to find a job or a flat and visit each other.

Experience / Results:
Participating in the project bypasses many obstacles that can be in the way to integration. After five project years, some 400 welcome buddies have been matched with mentees in a tandem system. The new immigrants became noticeably more confident in their personal behaviour. Thanks to the support of the welcome buddies, flats, jobs and university places have been able to be found. Very often, a friendship develops from the mentoring programme.

Division / Office / Public Undertaking:
Department for Integration Policies in the Social Affairs and Integration Division and the Welcome Center Stuttgart

Further reading / links:
https://www.stuttgart.de/buergerinnen-und-buerger/migranten/integration/ehrenamtliche-integrationsarbeit.php (Last access 12.07.2021)

Practical example 18:
Shared accommodation Emin Eller in Stuttgart-Rot

Context:
Caring for people with dementia is a great challenge for relatives, for non-nationals even more so. Therefore, the Working Group for Older Migrants in Stuttgart (AKäMiS) had the idea of setting up a shared accommodation for senior citizens in Stuttgart-Rot with a view to considering the different cultures.

Description / Realisation:
The shared accommodation, founded in 2015, consists of two flatshares for people with dementia – with and without migration background – who can no longer live alone at home. The relatives actively support their parents and still have the responsibility, which is also a relief for the carers.

Each of the two shared accommodations have eight elderly persons, whereby one is specially structured for older people of Turkish origin. Here, the carers are Turkish-speaking and have the necessary cultural empathy.

The German-speaking neighbouring shared accommodation also has eight residents. On a regular basis both groups with their relatives come together to talk about things and also celebrate.

The name of the association that supports the shared accommodation of senior citizens in Stuttgart-Rot is Emin Eller ("In safe hands"). Its aim is to promote new forms of housing and care for older people with migration background in need of care, support and nursing.

Experience / Results:
The costs for the residents are lower than in nursing homes (rent, household expenses and care services), as the participation of relatives and volunteers from the neighbourhood is an important pillar in the joint organisation of everyday life.

In this small-scale shared accommodation, the Turkish senior citizens can continue to live their culture, language and habits after a hard working life. In the shared kitchen, meals are cooked for them and the afternoons are organised to fit in with their culture. The family members have access at all times and are involved in their care.

Division / Office / Public Undertaking:
Social Welfare Office and Department for Integration Policies in the Social Affairs and Integration Division, Stuttgarter Wohnungs- und Städtebaugesellschaft mbH (SWSG), and Emin Eller Association

Further reading / links:
https://www.swsg.de/swsg/nachhaltig-sozial.html
(Last access 12.07.2021)

Practical example 19:
Child and Family Centres (KiFaZ)

Context:
With GRDrs 236/2012, the Stuttgart Municipal Council decided that nursery schools should be advanced to Child and Family Centres (KiFaZ), where many children with a bonus card are cared for. The background to this was that nursery schools with a high number of children growing up in disadvantaged situations – poverty and educational structures – face particular challenges. Since 2020, children with disabilities and their families have also been addressed, as they can benefit enormously from the special structure of a Child and Family Centre. The aim is to provide equal opportunities in education and in general from early childhood. As of 2021, 33 facilities in Stuttgart are organised as Child and Family Centres.

Description / Realisation:
The frame concept of the Stuttgart Child and Family Centres comprises four spheres of activity with the aim of creating equal opportunities (also in education): 1. Forwarding children, 2. Boosting the parents, 3. Supporting families and 4. Early help. In each area, standards are set for services that are implemented by all organisations behind the Child and Family Centres.

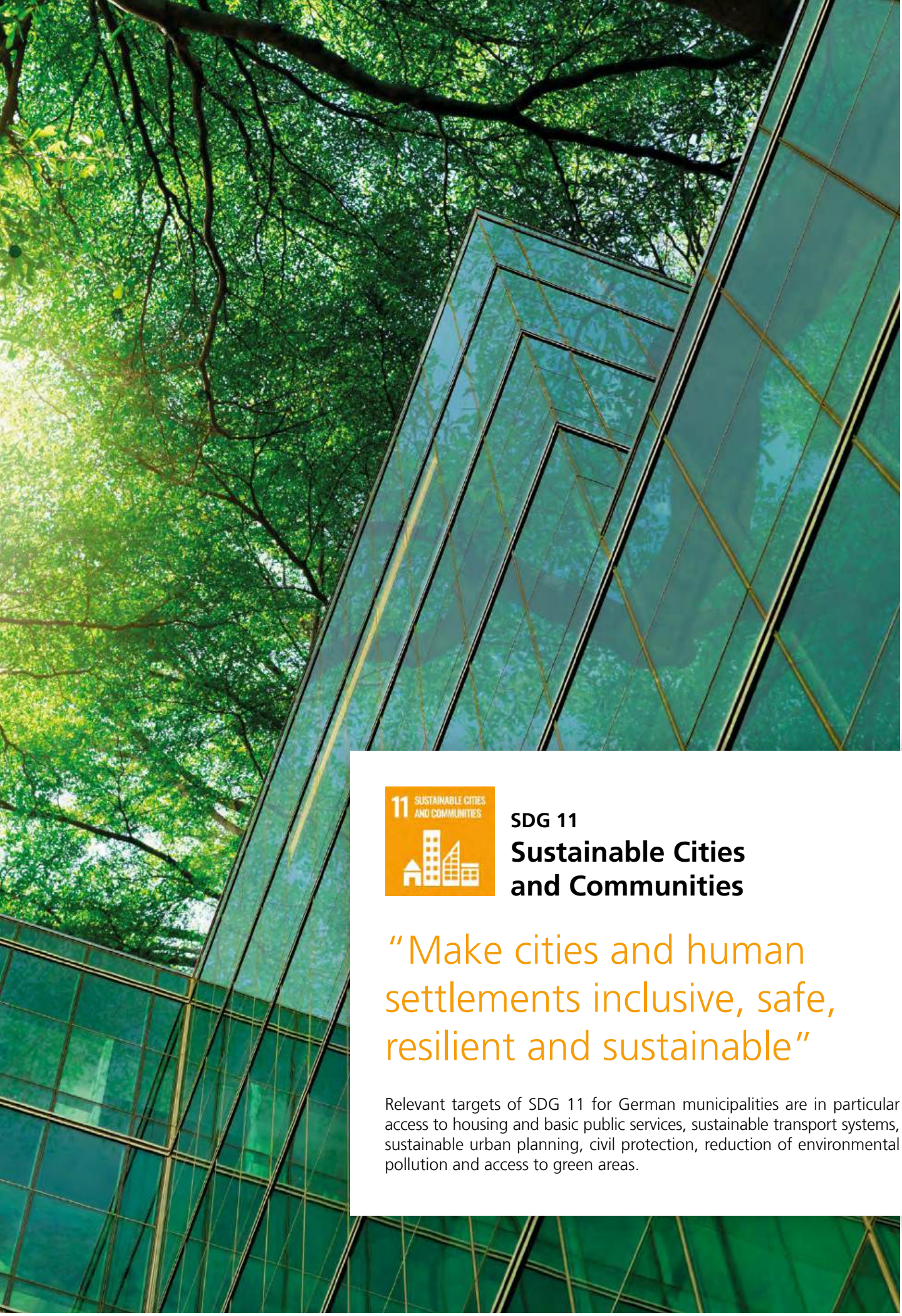
For example, the children receive support in the areas language, physical activity and nutrition with support programmes in the Child and Family Centre, such as "Spachkita" or "Kitafit". Low-threshold opportunities for parents to get together are an open door for parental self-help and participation. Staff from family education centres and the Public Health Office also come to the parents' cafés and meetings to help the parents in their parenting skills and support them in assuming their parental responsibilities. Numerous services are offered to support the whole family, for instance referral to and accompaniment in further assistance, advice service directly at the parents' meetings by the staff of the counselling centres or creating an environment where the families can establish a network outside the Child and Family Centre. Finally, the close cooperation with the early help services in Stuttgart ensures that early and preventative support can be offered directly after the birth of a child or a sibling.

Experience / Results:
Evaluations of the Child and Family Centre work show that children and families are clearly promoted, strengthened and supported in all spheres of activity.

Division / Office / Public Undertaking:
Youth Welfare Office Stuttgart, Youth Welfare Planning

Further reading / links:
https://www.stuttgart.de/buergerinnen-und-buerger/kinder-und-jugendliche/jugendhilfeplanung/kindertagesbetreuung.php

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart



SDG 11

Sustainable Cities and Communities

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

Relevant targets of SDG 11 for German municipalities are in particular access to housing and basic public services, sustainable transport systems, sustainable urban planning, civil protection, reduction of environmental pollution and access to green areas.

Indicator 11.1:
Rents

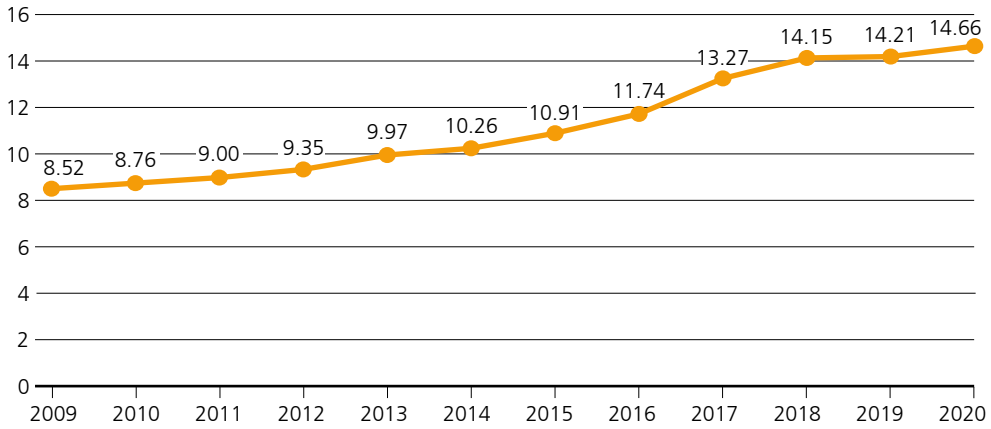


Figure 60:
Rents
(in Euro / m²)

Source: State Capital Stuttgart, Statistics Office (immoscout24.de)

The indicator "Rents" can only estimate the development on the rental market, nevertheless the development is clear: the rents of accommodation advertised in Stuttgart have increased significantly during the period under review. Until 2010, the average rent per square metre (net rent) in Stuttgart was between 8 and slightly under 9 Euro. In the following years, the rent increased significantly. In 2015 and 2016, the average asking price was already at 10.9 to under 12 Euro per square metre, in 2018 at 13.3 to more than 14 Euro. From 2010 to 2018, rents have increased by more than a third.

After Munich and Frankfurt, Stuttgart has the third most expensive rents in Germany.[34] The rents of advertised apartments are considerably higher than those of existing tenancies. The local comparative rent of the rent index is based on tenancies on the free housing market concluded or altered within the last four years. In 2018, the average rent index per square metre in Stuttgart was 9.60 Euro; compared to 2007 (6.96 Euro), an increase by 37.9 percent.

Classification / Definition

What the rental market has to offer is decisive for access to housing. In particular, for households with lower income, home ownership is often not an option. The average rent provides information on the rental price of apartments by size: net cold rent per square metre. The indicator shows the development of rental prices as an overall average. The fact that the square metre price depends on the size of the apartment cannot be taken into account, nor does the indicator refer to location or the condition of the housing.

Calculation

Rents:
Asking market rents (net cold) per sqm
for initial letting and re-letting

Indicator 11.2:
Accommodation service for social housing

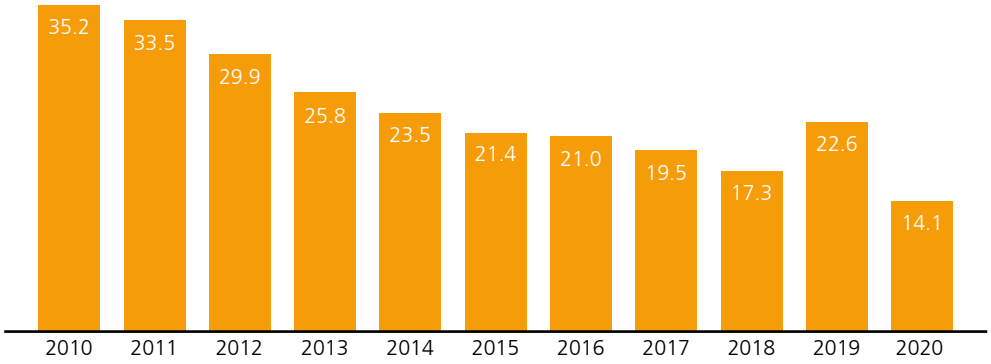


Figure 61:
Accommodation service rate for social housing (in percent)

Source: State Capital Stuttgart, Urban Planning and Housing Office

In the last fifteen years, the number of social rental apartments in Germany has been approximately halved, partly due to the elimination of rent regulation. The difficult housing market in large cities can also be seen in Stuttgart in the allocation of social housing and the average waiting time. The number of households allocated social housing declined in the reporting period. In 2010, 35 percent of the households in the planning file were allocated accommodation, by 2020 this proportion had dropped to more than half to 14.1 percent. In 2019, a particularly high number of apartments were placed (22.5 percent) as this year saw many new building projects with a high percentage of social housing.

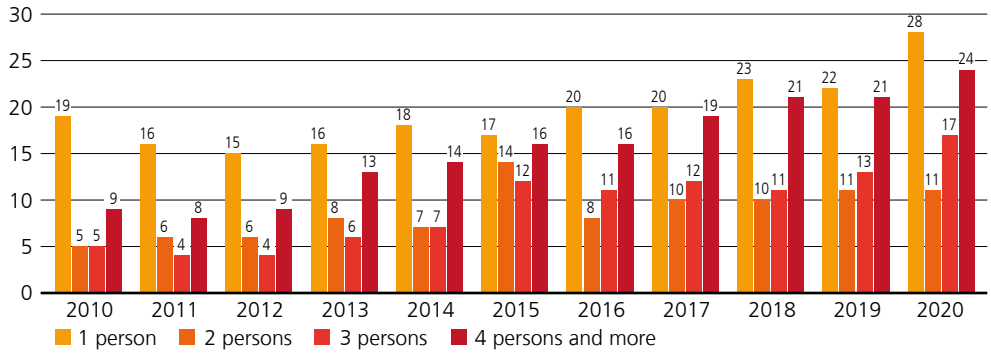


Figure 62:
Waiting times for social housing for EU citizens (in months)

Source: State Capital Stuttgart, Urban Planning and Housing Office

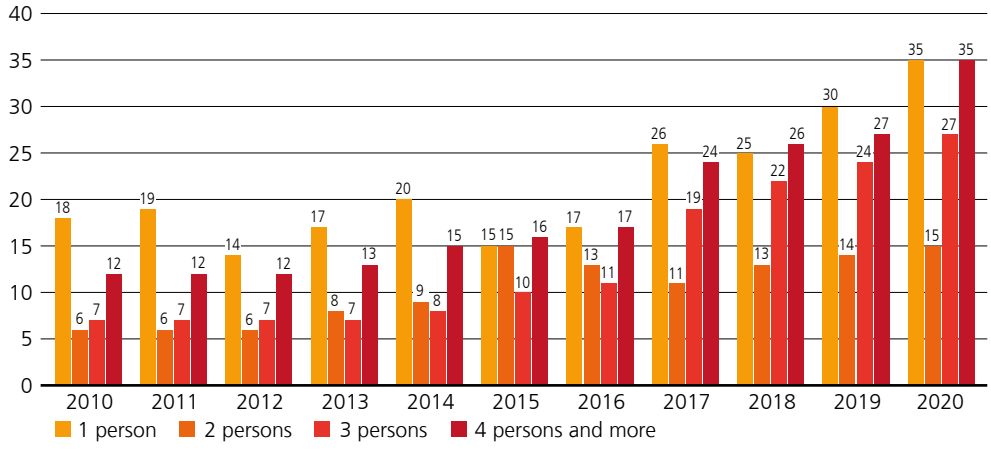


Figure 63:
Waiting time for social housing for non-EU citizens (figures in months)

Source: State Capital Stuttgart, Urban Planning and Housing Office

The development of average waiting times is less consistent over the same period. However, waiting times have tended to increase. The average waiting times for a one-person household are by far the longest and have extended in the reporting period, in particular since 2012. The average waiting times for a multi-person household were significantly shorter, however, an approximation can be observed. While in 2008 the average waiting time for a multi-person household was only half or less than the average waiting time for a one-person household, the difference in 2020 is only marginal, because the average waiting time of multi-person households has significantly increased.

Non-EU citizens have to wait longer for housing than EU citizens. This applies to the entire period under review and all household sizes. In 2020, the waiting time for non-EU citizens in a one-person household and in a household of more than four persons was 35 months – the longest of all.

The increased demand due to the influx of people to Stuttgart and the increasing rents, as well as the reduction in the social housing available are responsible for the increasingly difficult situation.[35]

Classification / Definition

The provision of affordable housing is a problem, in particular for people with a low income. In addition to the rent, the accommodation service procedures for social housing give an idea of the difficulties that people with a low income have in finding affordable housing.

Two measured values reflect the extent to which people with a low income manage to obtain social housing. On the one hand, the placement rate of social housing indicates how often households were placed in an apartment relative to all households registered in the list. On the other hand, the average waiting time indicates how long it takes to place people eligible for social housing.

The placement rate of social housing relates the number of households placed to all households registered in the municipal planning file.

The average time on the waiting list for social housing differs according to the size of apartment required and is differentiated. The data is also differentiated according to EU citizens and non-EU citizens to make it visible how non-EU citizens are affected.

For the application for social housing in Stuttgart proof of entitlement to accommodation is required.

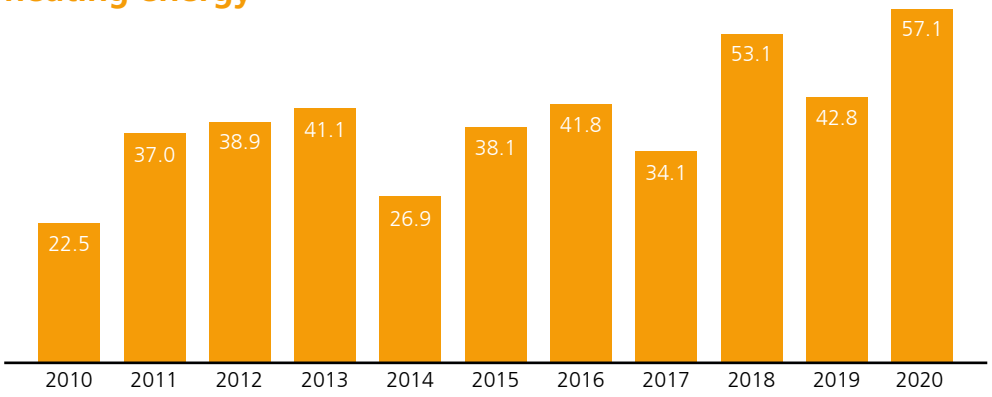
Calculation

Accommodation service for social housing:

$$\frac{\text{Number of households placed}}{\text{Total number of households registered in the municipal planning file}} * 100$$

Accommodation service for social housing (waiting list):
Average time in the planning file for an apartment – itemised by household size and citizenship

Indicator 11.3:
Completed residential buildings with renewable heating energy



Source: State Capital Stuttgart, Statistics Office

Figure 64:
Completed residential buildings with renewable heating energy (in percent)

In the last ten years, the proportion of completed residential buildings with renewable heating energy has increased from around one third to 50 percent, sometimes with significant annual fluctuations. In 2020, significantly more than half of all new residential buildings were heated primarily with renewable energy.

Classification / Definition

The indicator shows the ratio of newly erected residential buildings that are heated primarily with renewable energy to all new residential buildings of one year. Renewable primary heating energy includes geothermal energy, environmental thermal energy (air / water), solar thermal energy, wood, biogas, as well as other biomass energy sources.

Calculation

Number of completed residential buildings with renewable primary heating energy
/
Total number of completed residential buildings
* 100

Indicator 11.4:
Modal Split

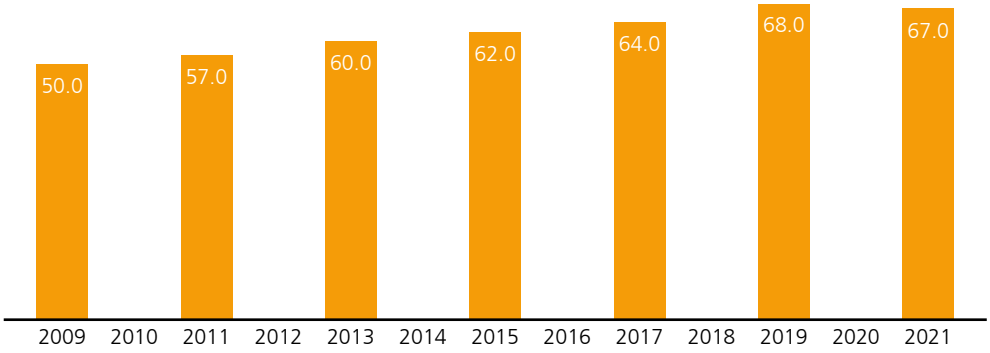


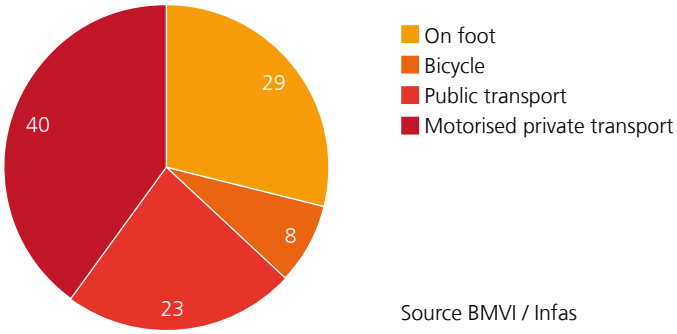
Figure 65:
Choice of environment-friendly means of transport for commuting to work (in percent of entries)

Source: State Capital Stuttgart, Statistics Office (local survey)

The use of environment-friendly means of transport is widespread. More than half of the Stuttgart residents use environment-friendly means of transport for getting to work or training place. This proportion has been steadily increasing. In 2009, 55 percent accounted for environment-friendly means of transport, by 2019 this figure had increased to 68 percent. During this time, the use of cars fell, in particular among young people: the number of car-owners in this group also decreased and they tend to use a bicycle, public transport or other alternatives. If, however, a car is available, it is often used for getting to work.[36]

In 2020, a standstill of the previous developments can be observed. Due to the Covid-19 pandemic, the proportion of public transport users decreased. This reduced the proportion in environment-friendly public transport for getting to work, as the decline could not be fully compensated by increases in other environment-friendly means of transport.

The last survey of modal split in Stuttgart was carried out in 2017. This does not only refer to the use of the most common means of transport for the way to work, school or training place, but reflects the actual mix of means of transport used by the residents. With some 40 percent, motorised private transport (MIV) accounts for the largest proportion. However, here some 60 percent of everyday distances to be covered are actually carried out environment-friendly (public transport, bicycle) or on foot.



Source BMVI / Infas

Figure 66:
Information on modal split in Stuttgart (figures in percent)

Classification / Definition

The modal split describes the distribution of the traffic volume among the different modes of transport, i.e. car, bicycle, public transport and the like. This indicator summarises all environment-friendly means of transport to reflect the sustainability of urban transport.

The difficulty of determining such an indicator lies in the variety of modes used. Comprehensive data on the modal split was last collected for Stuttgart in 2017.

Data from the Stuttgart local survey is also used as an approximation of the distribution according to modes of transport. Every two years, people are questioned about the means of transport for getting to work or training place, as this is a distance covered every working day – so very often. This means that the survey focuses on one important distance, although the total traffic volume includes many other trips, for instance for shopping or leisure purposes. Since multiple answers are possible here, the individual values were standardised to 100.

Calculation

The indicator is calculated as the number of road users who use environment-friendly means of transport on their way to work, i.e. on foot, by bicycle, e-bike or public transport:

$$\frac{\text{Number of road users, who go to work / training place on foot, by bicycle, e-bike or public transport}}{\text{Total number of road users on the way to work or training place}} * 100$$

Indicator 11.5:
Bicycle traffic

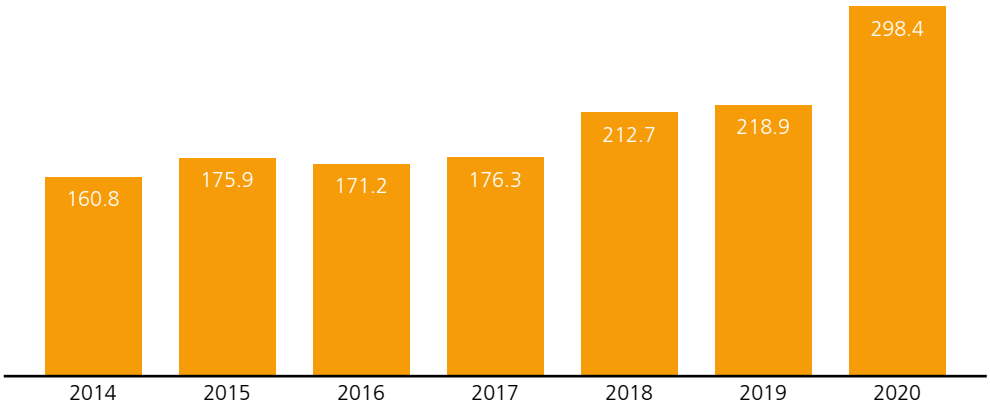


Figure 67:
Cyclists at selected bicycle counting stations (bicycles / 100 residents)

Source: State Capital Stuttgart, Civil Engineering Office

The increase in bicycle traffic in Stuttgart is also reflected in the 15 permanently installed automatic bicycle counting stations in the city. In 2020, some 1.8 million cyclists were noted at the counting stations Böblinger Straße and König-Karls-Brücke. If this figure is related to the number of Stuttgart residents, the two counting stations had together almost 300 bicycles per 100 residents. This figure has almost doubled since the counting stations were set up in 2014. In 2020, there was an extreme increase, partly due to the Covid-19 pandemic, when many users of public transport, worried about infection, turned to cycling.

Classification / Definition

In Stuttgart, there are 15 permanent automatic bicycle counting stations. The first permanent counting station was set up on 1 July 2012 at König-Karls-Brücke in Bad Cannstatt on the main cycle route 1. Another counting station, also on the main cycle route 1, is located in Stuttgart-Süd, Böblinger Straße. Since 10 December 2013, the number of cyclists passing this point has been registered. This indicator is based on the figures of these two counting stations since comparable data has been available since 2014. This can be extended to other bicycle counting stations. The indicator is the ratio of the number of cyclists counted at the two counting stations to the number of residents.

Calculation

Bicycle traffic:

Number of cyclists counted
/
Number of residents
* 100

Indicator 11.6:
Rental bikes

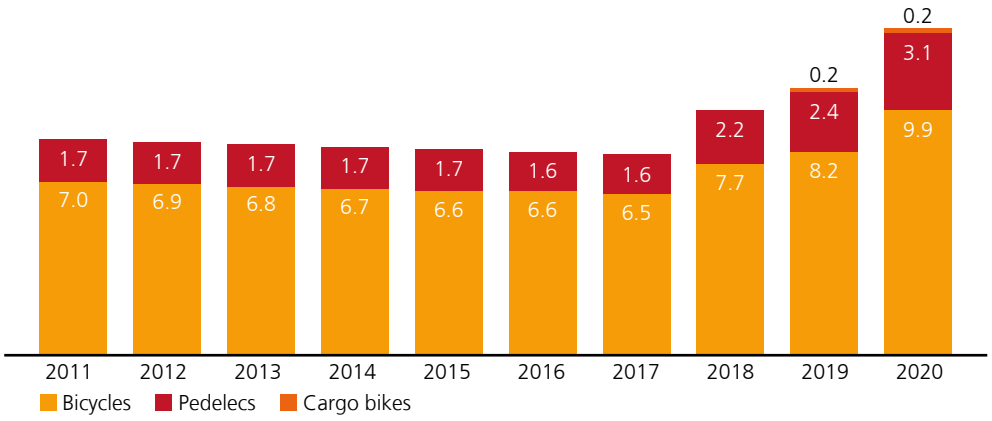


Figure 68:
Rental bikes and pedelecs in Stuttgart (bicycles / 10,000 residents)

Source: State Capital Stuttgart, Policy Planning and Sustainable Mobility Division

Since 2011, not only cars, but also bicycles can be hired in Stuttgart. As a concession to the city's topography, here, rental e-bikes or pedelecs have also been available alongside traditional bicycles since the outset. The total number of bicycles available has increased since 2011 from 500 (including 100 pedelecs) to some 800 in 2020 (including 188 pedelecs).[37] The number of rental bikes available per 10,000 residents has increased accordingly from almost nine in 2011 to almost 13 at present.

In cooperation with the partner RegioRadStuttgart the volume of rental bikes has continuously expanded in recent years. Since 2018, not only has the number of bicycles increased, but the number of rental stations has also more than doubled from 45 in 2017 to currently 100. If the rental bike infrastructure of the municipalities in the region is included, where bicycles can be borrowed from and returned to RegioRadStuttgart, the number increases to some 1,400 bicycles at more than 180 stations.

Classification / Definition

Nowadays, rental bikes are a characteristic of public traffic in many cities. In Stuttgart, the "RegioRadStuttgart" system plays an important part in reducing motorised private transport and relieving local public transport. The indicator relates the number of available bicycles (differentiated by bicycles, pedelecs and cargo pedelecs) to the number of residents.

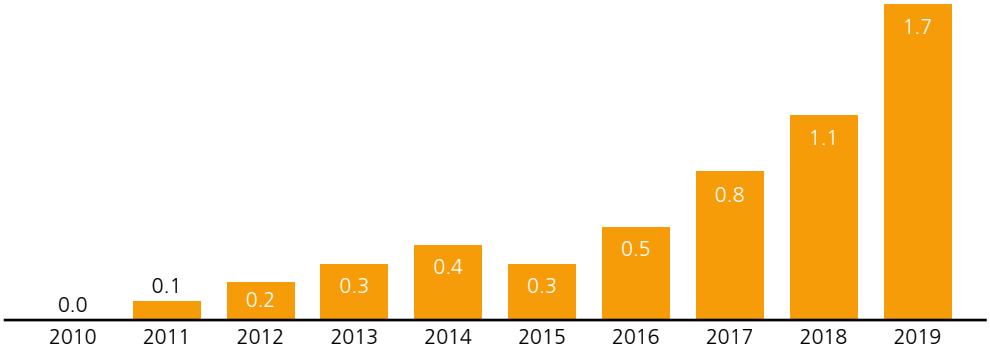
Calculation

Rental bikes:

Number of rental bikes, pedelecs and cargo pedelecs
/
Number of residents
* 10,000

Indicator 11.7:
Passenger cars with electric drive

Figure 69:
Passenger cars with electric drive (incl. plug-in hybrid) (in percent)



Source: State Capital Stuttgart, Statistics Office

The number of passenger cars with electric drive increased significantly in Stuttgart between 2010 and 2019. Except for 2015, a continuous increase can be observed. Nevertheless, the share of electric-driven passenger cars was still below two percent of all passenger cars in 2019.

Classification / Definition

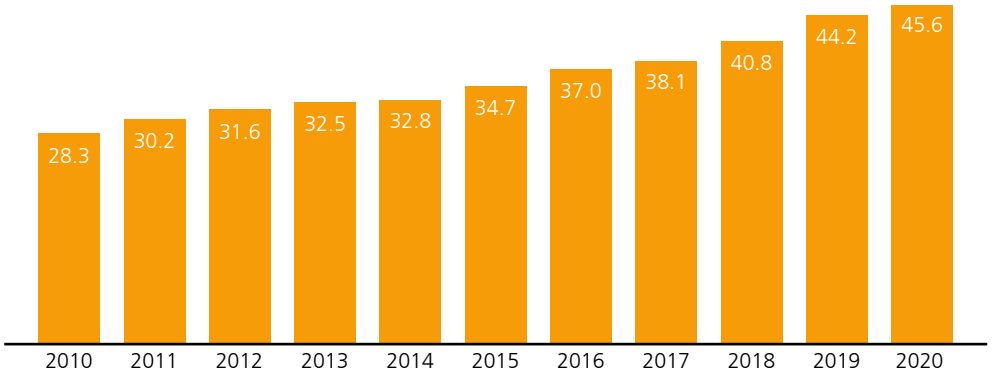
Passenger cars with electric drive or plug-in hybrids are a more sustainable alternative to conventional combustion engines. They have a considerable saving potential in NOx emission, particulate matter pollution and noise relevant for urban traffic at a speed of up to ca. 50 km/h. The indicator includes both electric vehicles and plug-in hybrids equipped with an electric drive and a combustion engine. It relates all registered passenger cars with electric drive (incl. plug-in hybrids) to the total number of passenger cars registered.

Calculation

Passenger cars with electric drive:

Number of registered passenger cars with electric drive
/
Total number of registered passenger cars
* 100

Indicator 11.8:
Accessibility of public transport



Source: State Capital Stuttgart, Civil Engineering Office

Figure 70:
Stops equipped for the disabled (in percent)

In 2020, profiled verges were installed at 376 of 824 bus stops (kerb edges). These make it easier to board and facilitate orientation for people with visual impairment. By 2020, the number of disabled-accessible stops had risen steadily, and most recently, almost half of Stuttgart's bus stops have been barrier-free.

The stops of Stadtbahn (SSB) and S-Bahn (DB) are largely barrier-free.[38]

Classification / Definition

The accessibility of local public transport (ÖPNV) is of great importance for people with physical disabilities so they can participate in public life.

Accessibility in public transport concerns a variety of aspects that cannot easily be shown in a single indicator. The indicator presents the number of disabled-accessible stops in Stuttgart as of 2010.

Calculation

Accessibility of public transport:

$$\frac{\text{Number of barrier-free bus stops}}{\text{Total number of bus stops}} * 100$$

Indicator 11.9:
Traffic casualties

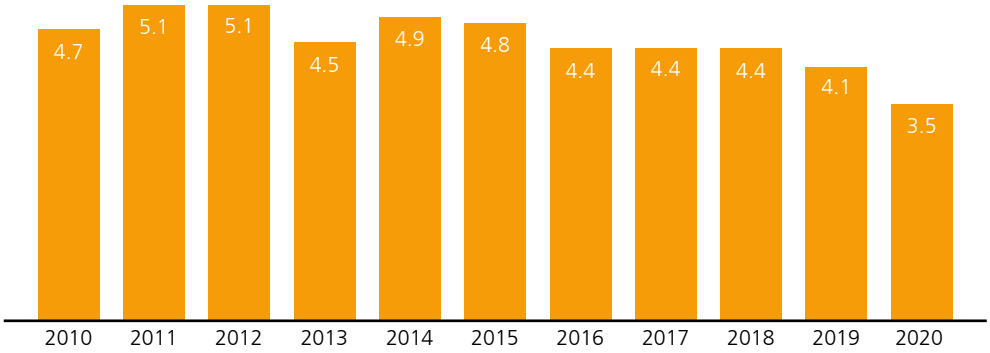


Figure 71:
Traffic casualties
(casualties / 1,000 residents)

Source: Federal and State Statistical Offices

Between 2010 and 2020, the number of traffic casualties fluctuates between 3.5 and 5.1 per 1,000 residents. Even if the pattern is irregular, a downward trend since 2012 can be observed. This might be partly due to the monitoring and working on traffic accident black spots. Particular focus is on children's way to school. The decrease in 2020 can at least be partly accounted for by the Covid-19 pandemic, which meant a reduction in the traffic volume. The number of fatal casualties in traffic accidents (2020: 7) is only a small part of traffic casualties in total (2020: 2,108) and makes up only a small percentage of premature mortality (cf. SDG 3 "Public Heath and Well-Being").

Classification / Definition

Due to the density of traffic in cities and the convergence of different forms of transport (cars, cyclists, pedestrians), road safety is a key issue. The indicator "Traffic casualties" indicates how successful road safety measures are.

The indicator is not entirely accurate since the number of traffic casualties should – strictly speaking – be related to the number of road users. Commuters to the city, alongside residents, also play a certain role in urban traffic. The indicator shows the ratio of the number of people injured and killed through traffic accidents to the city population.

Calculation

Traffic casualties:

$$\frac{\text{Number of persons injured or killed through traffic accidents}}{\text{Number of residents}} * 1000$$

Indicator 11.10:
Land use

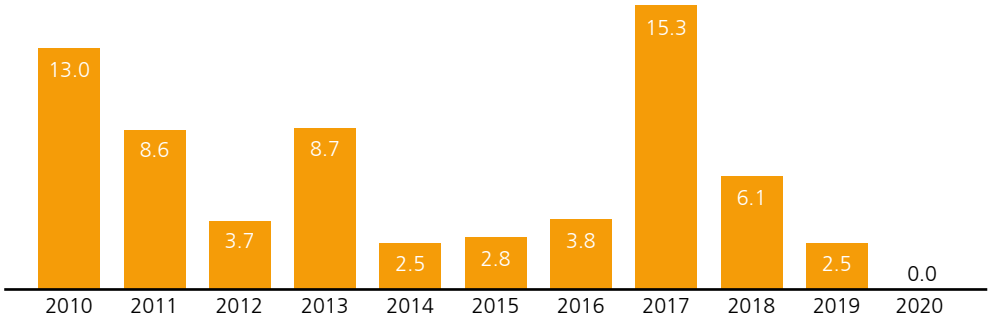


Figure 72:
Annual land use
(in hectares)

Source: State Capital Stuttgart, Statistics Office

Land use in Stuttgart has been reduced to a large extent by measures such as brownfield development, density of use and land recycling. In the 1980s, the settlement and transport area increased by an average of 73 hectares per year. Since 2010, the average has been 6.1 hectares. Despite the general decline in land use, major urban development projects repeatedly result in a greater increase in the settlement and transport area, for instance the expansion of the airport site in Plieningen in 2005. However, the indicator is also affected by special developments, such as the amendment of the usage regulation of the special airfield Pattonville in Mühlhausen in 2008. The last major land use took place in 2017 when the area of the planned new development area Langenäcker-Wiesert in Stammheim was repurposed.

Classification / Definition

Ground is a non-renewable and therefore particularly valuable resource. The economical use of land is an important factor in sustainable urban development.

The annual increase in settlement and transport areas is defined as land use. As a rule, areas previously undeveloped are used for building (residential) projects.

However, the settlement and transport area do not correspond to the sealed area, as they include less built-up areas, such as green spaces, campsites and cemeteries. In addition, the settlement and transport area also has unsealed area segments, for instance front gardens of residential buildings or roadside greenery.

Calculation

Annual land use: area used for settlements and transport in ha – area used for settlements and transport in ha in the previous year

Indicator 11.11:
Recreational areas

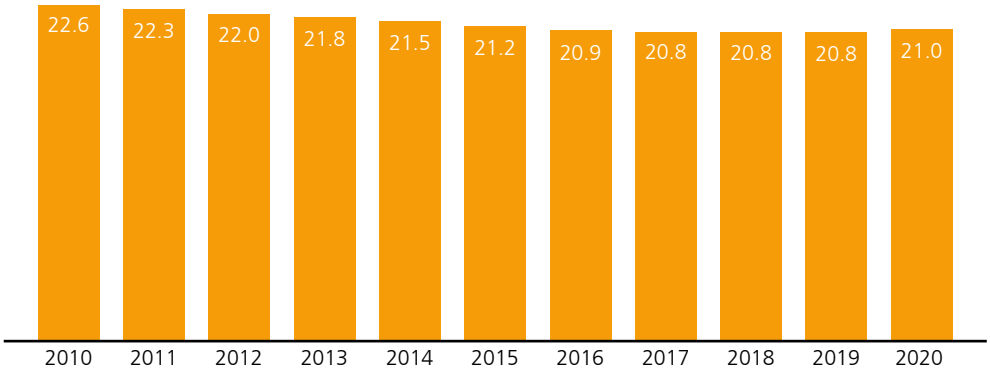


Figure 73:
Recreational areas
(m^2 / resident)

Source: State Capital Stuttgart, Statistics Office

Mathematically, all residents have access to an average of some 20 square metres of sports, leisure and recreation areas per person – forest areas not taken into account. In the period under review, this value first fell slightly due to the changes in population numbers and then increased again to 21 square metres per person.

About one third of the urban area of the State Capital is made up by forests, vineyards, orchards and public green areas, which include children's playgrounds, cemeteries and various parks. They contribute significantly to the quality of life and are in the general interest of the population.

The green and recreational areas constitute some two percent of the recreational area of the State Capital Stuttgart. Some 600 hectares of the green areas in Stuttgart consist of high-quality landscaped and ecologically maintained parks and green areas.

The woods around Stuttgart form its largest recreational area. With an area of some 5,000 hectares, 24 percent of the city is forested. The State Capital vineyard and the historical city centre vineyards are also a landmark of Stuttgart.

Preserving, developing and creating new green structures is an essential prerequisite for maintaining and improving the daily well-being of the Stuttgart residents. To maintain the social and ecological benefit of public green areas on a long-term basis and with a view to the future the importance of urban green areas with other urban development policy goals and needs must be carefully weighed up.

Classification / Definition

In urban areas, open and natural spaces fulfill important social and ecological functions. They have a high recreational value, can reduce stress and serve as places where people can get together. However, recreational areas also have an ecological value, as they can improve air quality by climate regulation and air filtration – in particular in urban areas. The indicator relates the green and recreational areas to the city's population.

Calculation

Recreational areas:

$$\frac{\text{Green areas and leisure space}}{\text{Number of residents}}$$

Correlation with other SDGs

Many aspects of sustainability influence the design of the city or are affected by its design. The economic development of the city (SDG 8 "Decent Work and Economic Growth" and SDG 9 "Industry, Innovation and Infrastructure") has direct implications on land use, soil protection (indicator "Soil index" SDG 15) and many other aspects. These sustainability dimensions in a city also depend on traffic and consumption patterns (SDG 12 "Sustainable Consumption and Production Patterns"). Climate Action (SDG 13) is often part of city planning measures. This is where the possibilities and the conflicting goals of sustainable development merge.

The indicators "Air quality" and "Noise pollution" (SDG 3), "Energy productivity" (SDG 7), "Biodiversity" (SDG 15) and "Digital community" (SDG 16) are also relevant for mapping an inclusive and sustainable urban development and public services. The indicators "Waste quantity" (SDG 12) and "Greenhouse gas emission from industry, commerce, trade and services, transport and private households" (SDG 13) are also important for SDG 11, as these are related to the goal of reducing the environmental pollution originating in the cities.

The indicator "Crimes" (SDG 16) is relevant to SDG 11 in terms of the goal of ensuring access to safe, inclusive and accessible green areas and public spaces.

Moreover, the social and cultural dimension of the sustainability goals, i.e. the "Reduction of poverty" (SDG 1), "Public health" (SDG 3), "Education" (SDG 4), "Gender equality (SDG 5), "Civic participation" (SDG 16) and "Global partnerships" (SDG 17) are particularly relevant with regard to social cohesion.

SDG 11 "Sustainable Cities and Communities" was explicitly included in the 2030 Agenda to underline the important role municipalities play in achieving the sustainability goals as a whole. In fact, all SDGs concern socially, economically and ecologically sustainable urban development.

Practical example 20:
Implementation of the 2030 Agenda in all urban renewal areas

Context:
Numerous projects of the Urban Renewal and Housing Department of the Urban Planning and Housing Office have been contributing to the local implementation of the 2030 Agenda for many years. However, in the context of district development in the "social city" areas, numerous areas of people's life are affected. The active terminology of SDGs in the urban renewal projects and processes that are already underway and making people in the neighbourhoods aware of the sustainability goals should act as a boost to the implementation of the SDGs from the residents.

Description:
Whether playgrounds and exercise areas are redesigned in residential areas, buildings upgraded in energy efficiency, environmental topics such as biodiversity, bee pastures or stepping stone biotopes opened up in nature observation areas or concepts for local health services developed – this all involves sustainability goals. All projects – investment or non-investment – are always planned, designed and implemented in cooperation with the local citizens. In redevelopment areas such as Hallschlag and in Münster, SDGs are already directly integrated in project-related public relations work.

This concept of open civic participation in the "social city" areas works due to the integrative project work of the Urban Renewal Department staff and the involved specialist offices. They are the project-related interface between citizens, the administration and municipal committees. Interdisciplinary project groups (IPG) ensure regular and transparent exchange between all participants and the preparation and transfer of project decisions.

Neighbourhood development as a dynamic and comprehensive process always remains close to the people. Cooperation with residents takes place where they are with the help of contractors who actively implement participation formats and professionally facilitate civic participation. This way strong and long-term networks can be established between the two parties: volunteers and officials, and funding programmes from urban planning are available for both investment and non-investment measures.

Results:
Over the entire extent of every sphere of the "social city" programmes, the work is based on an integrated development concept (IEK). This comprises all spheres in the neighbourhood categorised as tasks and the corresponding measures. The integrated development concepts are updated and adapted on an ongoing basis. Individual measures can be assigned to the various sustainability goals and thus become part of further project work. Through the participatory processes in the neighbourhoods the local people become familiar with the SDGs and these stick in their minds long-term.

Office / Department:
Urban Planning and Housing Office,
Urban Renewal Department

Further links:
https://www.stuttgart.de/leben/stadtentwicklung/stadtplanung/stadterneuerung/sanierungsgebiete.php
(Last access 21.10.2021)

Practical example 21:
"70599Lebenswert" - Implementation of the 2030 Agenda at district level

Context:
The implementation of the 17 Sustainable Development Goals depends very much on the municipal structure with a strong public involvement.

At the beginning of 2020, the network "70599Lebenswert" [70599Liveable] was set up in the two boroughs, Birkach and Plieningen to spread the word about the 2030 Agenda, make it known among the residents and promote the idea locally. "70599Lebenswert" is a network and pool for existing initiatives and campaigns on sustainability, and develops these and implements new, definite practical measures.

"70599Lebenswert" is supported by the International Relations Department and Birkach-Plieningen District Office and is considered a pilot project for other Stuttgart boroughs.

Description / Realisation:
In this context, "70599Lebenswert" focuses on strengthening cooperation between the various stakeholders and offers a common podium for exchange, knowledge management and actual realisation. In addition, the network increases the participation in both boroughs, ensures targeted activities locally, improves effectiveness and is a reliable link-up between existing needs and the resources of sustainable district development.

The project team responsible for the strategy and implementation is made up of local people involved in environmental organisations, climate protection and sustainability initiatives, local clubs, churches and social institutions.

Four sub-projects have been developed around the themes that reflect the scope and links between the Sustainable Development Goals: Environmental Protection and Landscaping, Energy Transition and New Mobility, Meeting Places and Participation, Sustainable Economy and Public Welfare. These fields of work include the campaigning for and upholding of orchards and urban gardens, the preservation and vitalisation of Birkacher Feld, the expansion of cycle paths on the Fildern, an initiative for private solar systems, a network of meeting points, getting people involved – old and young, local sustainable projects and a platform for enterprises oriented to public welfare.

Experience / Results:
Although the possibilities of attendance-based events were limited in 2020 to a large extent, "70599Lebenswert" had a great feedback in the Birkach and Plieningen boroughs right from the start and has been expanding ever since. Within a few months, some 80 local groups, initiatives, clubs, organisations, institutions and associations plus more than 20 individuals showed their interest in taking part. Other important partners are also the University of Hohenheim and the surrounding Filder communities. With the cooperation of these various participants with a view to the common goals of the 2030 Agenda and the tangible measures, this initiative also played an important part in social cohesion.

Division / Office / Public Undertaking:
International Relations Department in the
Administrative Coordination, Communication
and International Relations Division
as well as Plieningen-Birkach District Office

Further reading / links:
https://www.70599lebenswert.de/
(Last access 12.07.2021)

Practical example 22:
Temporary play streets

Context:
"Out of the way – it's time to play!" – this is the motto of the pilot project "Temporary Play Streets", which started in summer 2018 at three different locations in Stuttgart and was continued in 2019 and 2020. Following the positive feedback, it was decided to continue and stabilise this project, and funds were made available under the "Action Plan Child-Friendly Municipality, Local Implementation of the UN Convention on the Rights of the Child 2020 to 2022".

In particular, in densely populated urban areas, children should be given the opportunity of reclaiming "their" street for a limited period. Temporary play streets are intended to extend the opportunities for playing outdoors in public spaces and also offer a place where people of all ages can get together.

Description / Realisation:
To make streets available for children to play despite the increase in traffic and built-up areas, the City of Stuttgart together with Stuttgarter Jugendhaus Gesellschaft has launched the project "Temporary Play Streets". The initiative and organisation for temporary play streets come largely from institutions for children and adolescents. The Public Order Office checks whether it is realistic on the favoured street and if the application is successful, the street segment will be closed for one afternoon.

In contrast to traffic-calmed sectors, temporary play streets are completely closed to car traffic. This means, access, transit and parking are prohibited there during this time. Most often, this switch to temporary play streets takes place in the afternoon for a few hours and at regular intervals (e.g. once a month). On this afternoon, the street belongs to the children, adolescents and families living there: they can rollerblade, skateboard, be creative with chalk on the pavements and roads, play ball or elastics, and the street is theirs for a while.

Experience / Results:
The offer to set up a temporary play street is very popular with the children and youth centres and the play streets are used a lot. This year (2021), the 40 approved dates can be realised. In 2020, some 500 children and adolescents benefitted from the project.

Division / Office / Public Undertaking:
Children's Affairs Department, Public Order Office in the Public Safety, Order and Sport Division, Youth Welfare Office and Schools Administration Office in the Youth and Education Division as well as Civil Engineering Office in the Engineering Division

Further reading / links:
https://www.stuttgart.de/buergerinnen-und-buerger/kinder-und-jugendliche/kinderfreundliches-stuttgart/aktionsplan-kinderfreundliche-kommune.php
(Last access 12.07.2021)

Practical example 23: Pedestrian traffic concept

Context:
By signing the "Charter of Walking" in July 2011, the State Capital has made a commitment to the significance of walking and to promoting pedestrian traffic. Walking is not only the simplest and most basic form of transport, but it is also environmentally and socially compatible, healthy, cost-effective, flexible and feasible without any technical expenditure or effort. Promoting pedestrian traffic is a prerequisite for lively places in the city; it avoids exclusion, and including all groups (especially children, adolescents, senior citizens) in the social city life. Despite these advantages, walking has been underestimated in transport planning for many years – not only in Stuttgart – and has been regarded as "just traffic". In Stuttgart covering some 30 percent of all distances, walking is the most important means of transport after motorised private transport. Especially in the inner-city districts, walking has a major significance – with sometimes more than 30 percent. Due to its constricted basin topography, Stuttgart offers good conditions for walking. This potential should be made visible by the pedestrian traffic concept.

Description / Realisation:
So far, infrastructural measures for pedestrians have been carried out selectively or as a part of ongoing projects. The strategic pedestrian traffic concept of 2017 now includes a systematic perspective for pedestrians, walkways and their network structure.

The aim of the concept is to

- identify the main ways that connect important sources and destinations (demand-oriented);
- extend areas for sauntering (promenades) with a high green quality, to encourage walking (supply-oriented);
- carry out an analysis of the deficiencies of these paths, to form a basis for a structural concept and investment programme.

For the implementation, certain quality standards and requirements for the infrastructure were introduced. Here an important aim is the minimum width of pavements and the distance between crossing facilities. In future, the walkway width shall be 2.5 metres and the distances between crossing facilities 100 to 150 metres.

Experience / Results:
The pedestrian traffic concept defines 14 promenades and 16 main walkways. This has resulted in a network covering some 70 kilometres evolved for the five inner city districts. The pedestrian traffic concept is to be realised route by route. For this, the Municipal Council has provided personnel (four posts) and funds (initially 3.4 million Euro). The goals set can therefore be achieved consistently step by step. First, the promenade VII in Stuttgart-West and -Mitte will be upgraded, making it attractive for pedestrians. The first measures have already started: the focus here is on selective improvement measures, for instance no restrictions on the walkway by electric charging stations or parking meters. The first update of the pedestrian traffic concept is being planned for another five boroughs.

Division / Office / Public Undertaking:
Urban Planning and Housing Office in the Urban Planning, Housing and Environment Division, Policy Planning and Sustainable Mobility Division, Civil Engineering Office in the Engineering Division as well as Public Order Office in the Public Safety, Order and Sport Division

Further reading / links:
https://www.stuttgart.de/leben/mobilitaet/fussgaenger/
(Last access 12.07.2021)

Practical example 24:
Stuttgart Mobility Week

Context:
The first Stuttgart Mobility Week is part of the European Mobility Week, which takes place every year in thousands of European municipalities and cities from 16 to 22 September. In 2021, more than 3,000 municipalities from 53 countries participated in the European Mobility Week under the motto "For active, sustainable and safe mobility". Stuttgart is already on the go sustainably in many ways – also because local companies, research institutions, clubs and associations are very active in this area. The event programme of the Stuttgart Mobility Week was therefore developed in cooperation with local partners from business, science and the general public. These were asked to plan their own events around the topic of sustainable mobility and hold them during the first Stuttgart Mobility Week.

Description / Realisation:
The Stuttgart Mobility Week took place from 16 to 22 September. A key feature was its decentralised character. Due to the ongoing Covid-19 pandemic, a central major event as in 2019 with the car-free Sunday on Theodor-Heuss-Straße could not take place. Instead, there were numerous smaller events spread throughout the city keeping up the "car-free character". The various Stuttgart boroughs played a central role in this. Clubs, neighbourhood initiatives and enterprises were also enthusiastic in their participation. The City of Stuttgart had an information stand in the town hall on working days. The specialist offices dealing with mobility and traffic were there to provide information on their activities. The main target group was Stuttgart citizens who were to be encouraged to test new and sustainable forms of mobility. The people received interesting information on various topics and projects and gained insights on the spot (bike paper chase, walkabouts, presentation of a logistics hub, car sharing tour, etc.).

The Stuttgart Municipal Council had unanimously decided on free local transport for the weekend during the mobility week.

Experience / Results:
During the mobility week, almost 100 events took place in ten boroughs. Different public event formats were combined with online events and offered information and practical experience on numerous topics, such as car and bike sharing, pedestrian traffic, accessibility, electric mobility, logistics and bicycle traffic.

Many activities in the boroughs were initiated by the district advisory councils and / or residents and help making sustainable mobility a fixed feature in the boroughs. A budget for the boroughs provided by the organisers was very welcome and helped with the planning and implementation of the activities.

A special highlight was the free local transport in Stuttgart (tariff zone 1) at the mobility week weekend (18 and 19 September). The analysis of the the data by Stuttgarter Straßenbahnen AG (SSB) showed that, compared to the previous weekend 19 percent more passengers travelled by tram and 14 percent by bus.

Division / Office / Public Undertaking:
Urban Mobility Department in the Policy Planning and Sustainable Mobility Division

Further reading / links:
https://www.stuttgart.de/mobilitaetswoche
(last access: 01.10.2021)
GRDrs 247/2021

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 12
Responsible Consumption and Production

"Ensure sustainable consumption and production patterns"

Relevant targets of SDG 12 for German municipalities to ensure sustainable consumption and production patterns are in particular the sustainable use of natural resources, reducing food waste, reducing waste, encouraging enterprises to act sustainably and promoting sustainable public procurement.

Indicator 12.1:
Consumption of drinking water

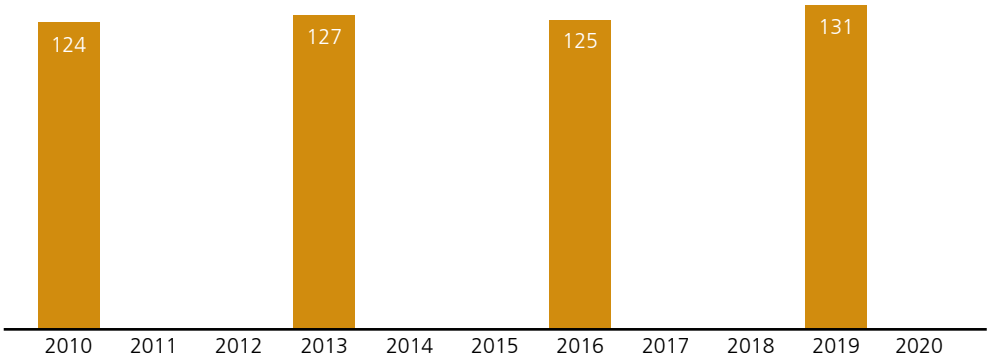


Figure 74:
Consumption of drinking water
(in l per resident / day)

Source: State Statistics Office of Baden-Württemberg

The average daily consumption of drinking water by private households and small business in the State Capital Stuttgart was initially stable at some 125 litres per resident and day, after there had been a drop before 2010. The figure for 2019 (preliminary) indicates another slight increase in water consumption. It seems that the downward trend, which can be attributed to more economical household behaviour and lower water consumption of household appliances (e.g. washing machines, dishwashers), is in the first instance not a long-term development.

Classification / Definition

Drinking water is one of the key resources and therefore it is important to use it economically. The consumption of drinking water depends on both private consumption and water use by commercial enterprises. Drinking water use by industry is recorded separately, but it is not possible to separate the consumption between private households and small business. The figure is determined every three years, the figure indicated for 2019 is provisional. The indicator reflects the average daily consumption of drinking water by private households and small business per resident.

Calculation

Consumption of drinking water:

Annual consumption of drinking water (households and small business)
/
Number of residents
* days per year

Indicator 12.2:
Amount of waste

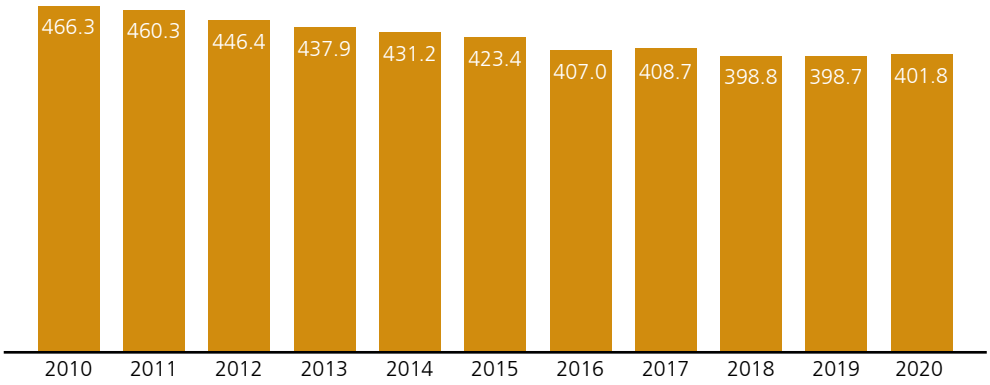


Figure 75:
Amount of waste
(in kg / resident)

Source: State Capital Stuttgart, Public Undertaking Stuttgart Waste Management (AWS)

The municipal amount of waste in kilogrammes per resident has been declining since 2010 after an interim increase and has come to a standstill at some 400 kg per resident.

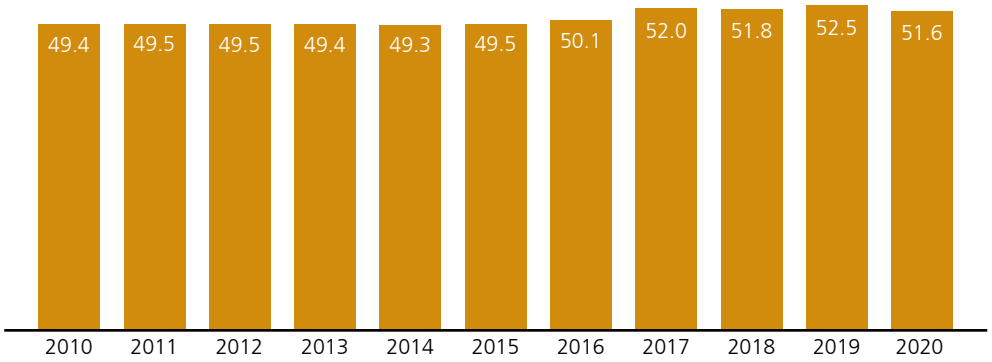


Figure 76:
Percentage of recyclable material and green waste in the amount of waste (figures in percent)

Source: State Capital Stuttgart, Public Undertaking Stuttgart Waste Management (AWS)

The proportion of recyclable material and green waste in the amount of waste increased slightly between 2010 and 2020, by two percentage points to some 52 percent. Reducing the amount of municipal waste is a development goal not to be ignored. However, there is a special focus on separating residual waste from recyclable material for the benefit of separately collecting a higher proportion of recyclable material. Recyclable material contained in residual waste should be screened and recycled. Thanks to the increase in collection stations for recyclable material, its proportion increased in recent years compared to the amount of residual waste. A positive development can also be expected in the coming years, after the introduction of the compulsory organic waste bin throughout the entire city, which started in 2015 and was completed in 2018. The organic waste bin was introduced on a voluntary basis more than 20 years ago. However, in the meantime data has shown a decline in the proportion of recyclable material and green waste.

Classification / Definition

The reduction of waste and reuse of recyclable waste is a sustainability issue with a long tradition. Two aspects play a role here. On the one hand, it is about the municipal amount of waste as a whole, and on the other hand, it is about the use of recyclable material. The indicator "Amount of waste" is limited to domestic waste and does not take industrial waste into account.

The calculation of municipal waste in kilogrammes per resident comprises the amount of household and bulk waste, green and organic waste, as well as all other separated recyclable materials (paper, glass, lightweight packaging, electronic waste etc.). The analysis does not include commercial and construction waste, which can be deposited with the public waste disposal authorities, but is not subject to any direct municipal obligation. Therefore, they are not to be assigned directly to domestic waste or the per capita amounts of waste recorded by the municipalities. On the other hand, the problem waste of harmful substances recorded by the municipal collection is assigned to the residual and bulk waste.

The indicator reflects the amount of waste generated per year in relation to the residents living in the regional administrative unit. The proportion of recyclable material indicates the proportion of recyclable material in the waste.

Calculation

Amount of waste – total:

Total amount of waste in kg
/
Number of residents

Proportion of recyclable material in the amount of waste:

Amount of recyclable material and green / organic waste in kg
/
Total amount of waste in kg
* 100

Indicator 12.3:
EMAS-certified sites

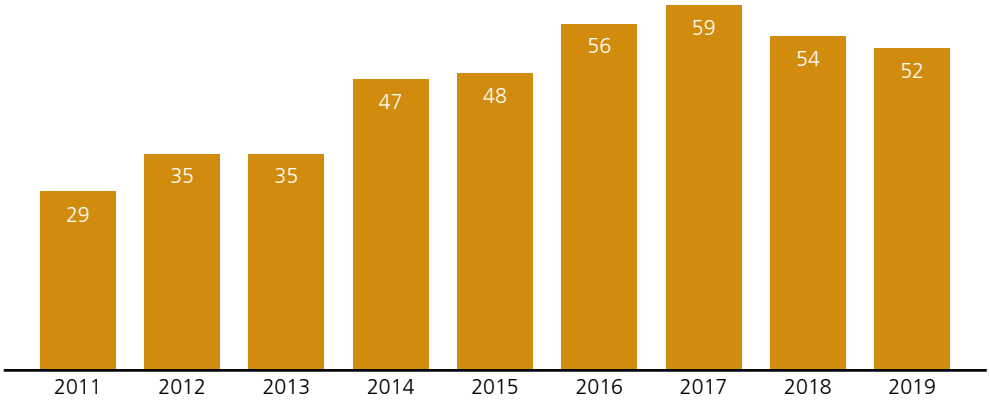


Figure 77:
EMAS-certified sites
(in number of sites)

Sources: German Chamber of Industry and Commerce, evaluation by The German Institute for Urban Studies

The number of sites certified according to the Eco Management and Audit Scheme (EMAS) increased steadily to 59 by 2017. Between 2011 and 2017, the number doubled. Since 2018, the number of EMAS-certified sites decreased, in line with the general development in Germany – a decline since its peak in 2017.[39]

Classification / Definition

The Eco Management and Audit Scheme (EMAS) is a European certification system for assessing the environmental compatibility of companies. The companies undertake to ensure that their use of energy and resources is environment-friendly – far beyond the legal requirements. Regular reporting obligations and audits by state-supervised environmental experts are also included in the profile of requirements.

EMAS-certification reliably reflects environmentally compatible business processes. However, non-certified companies can also orientate to these environmental criteria, bypassing the expenditure of certification. Therefore, the number of operating sites environmentally oriented is underestimated.

EMAS-certification is carried out for operating sites. The number of EMAS-sites refers to the postcode area of Stuttgart (postcode 70xxx). Since the number of operating sites in the State Capital Stuttgart is not known, it is not possible to determine the proportion of EMAS-sites.

Calculation

EMAS-certified sites: Number of EMAS-certified sites

Indicator 12.4:
Sustainable procurement

Figure 78:
Sustainable procurement measures
(in percent)

Source: State Capital Stuttgart, Central Purchasing

Approximately one quarter of the procurement measures by the Central Purchasing Department of the State Capital Stuttgart is sustainable. Its proportion in all procurements has been determined since 2019 and has recently slightly risen to 26 percent. The "sustainable procurement" index, which gauges the procurement processes in municipalities, has also increased in Stuttgart since 2017 and recently reached seven of a maximum of ten points.

In accordance with municipal regulations, recycling paper has been standard for the procurement of paper and print products since 2014. The proportion of recycling paper in the total use of paper in the administration of the State Capital Stuttgart had therefore increased almost continuously from 2007 to 2018. While in 2007 just under a quarter of the paper consumed was not recycling paper, this now only applies to one percent. This means the Stuttgart administration has practically completely switched to recycling paper.

Most public procurement processes are carried out by the municipalities. This involves a high responsibility and a role model character for sustainable development which the State Capital Stuttgart would like to fulfill.

As early as 2005, the Stuttgart Municipal Council decided to no longer purchase products originating from exploitative child labour. In general, Central Purchasing in the Administrative Services and Human Resources Office requires all bidders and their subsidiaries, as well as the suppliers to comply with the core labour standards of the International Labour Organisation of the United Nations (ILO) for all products, which shall ensure decent working conditions and adequate protection. The product range of municipal procurement is constantly extended by regional, ecological and fair trade items. Since 2013, Stuttgart has been among the fair trade cities and has since been recertified four times most recently in 2021.

Classification / Definition

The proportion of sustainable procurements is estimated annually by Central Purchasing on the basis of a list of allocation numbers.

The index "Sustainable Procurement" is a summated index of ten dichotomous variables based on a standardised questionnaire[40] with the following questions:

1. Is there a council order on a sustainable orientation of procurement?
2. Is a guideline on sustainable procurement applied (e.g. ISO 20400)?
3. Are specific, sustainable procurement goals defined?
4. Are quality requirements for sustainable production methods and supply chains established?
5. Are measures available to support suppliers / contractors in complying with the required standards?
6. Are business relations with suppliers not complying with the required standards terminated?
7. Does your municipality analyse the social and environmental risks of the products to be procured?
8. Are there defined business processes for sustainable procurement available?
9. Does your municipality communicate the goals, activities and results of sustainable procurement management to the public?
10. Is there an office responsible for sustainable procurement management in the municipality?

Calculation

Proportion of sustainable procurement measures:

$$\frac{\text{Number of sustainable procurement procedures}}{\text{Number of all procurement procedures}} * 100$$

The "Sustainable Procurement" index is defined as:
Number of questions answered with Yes

Correlation with other SDGs

The individual and organisational attitude to sustainability in the form of sustainable consumption and production patterns has an impact on all spheres of sustainability. Here, the focus is on the environmental dimension, where direct environmental damage is put in perspective through reduced consumption of drinking water, reduced waste and ecologically oriented management. Indirectly affected are other environmental impacts, such as "Nitrogen surplus" (SDG 2), "Air quality" and "Noise pollution" (SDG 3) or "Greenhouse gas emission" (SDG 13) as well as "Biodiversity" (SDG 15). On a larger scale, the sustainable consumption and production patterns aim at sustainable behaviour as a whole.

Goal 12 refers to the necessity to adapt behaviour and production methods. This requires innovations (SDG 9 "Industry, Innovation and Infrastructure"), but also means fundamental shifts in economic habits that not only lead to growth in sustainably oriented areas, but also to the waiving of non-sustainable economic management. Here, possible conflicts with the goals SDG 8 "Decent Work and Economic Growth" and SDG 1 "No Poverty" as well as directly related SDGs become apparent.

Education and information are basic prerequisites for the awareness of sustainable development and living. Therefore, SDG 12 is also closely related to the indicator "Educational programmes with ecological sustainability relevance" (cf. SDG 4).

The sustainable management and efficient use of natural resources is also reflected by the indicators "Wastewater treatment" (SDG 6) or "Final energy consumption" and "Energy productivity" (SDG 7).

Practical example 25:

Organic food days at schools in the State Capital Stuttgart

Context:

The interest in environment-friendly and healthy nutrition is steadily on the rise in the society as a whole. The course is set early among children – how they accept and deal with a balanced and healthy nutrition. This is where critical tendencies among children and adolescents can be observed. The number of children suffering from obesity, diabetes, allergies or other predominantly diet-related health problems is steadily increasing.

With this in mind and because the average time spent by children and adolescents in school is on the increase and consequently more meals are eaten there, schools have a particular responsibility for healthy and environment-friendly nutrition. Here organic food can make an important contribution.

Therefore, Central Purchasing in cooperation with the Schools Administration Office pursues the goal of continuously increasing the organic share in the procurement of food.

Description / Realisation:

The provision of lunches and other services are tendered with the aim of offering the schoolchildren a varied, nutritionally optimal menu with high-quality food. High-quality food is procured according to the recommendations of Deutsche Gesellschaft für Ernährung (DGE) [German Food Association].

The catering offer should also contribute to environment protection. Therefore, the city attaches importance to using organic, seasonal and regional produce and to avoiding disposables as far as possible.

Organic produce is offered on at least a quarter of the days. Suppliers provide proof of this with appropriate certificates and seals. In future, this should be increased to cover at least half of the school days.

EU, federal or state funding programmes are also taken into consideration. An example for this is the EU school milk programme, where fresh milk, cheese and natural yoghurt are supplied to schools.

A regular dialogue among tenderers as an instrument of market research where the higher requirements concerning food are communicated, ensures that a sufficient number of valid bids are received for each tender. Vice versa, the market gets new impulses for expanding on an eco-fair and social production basis.

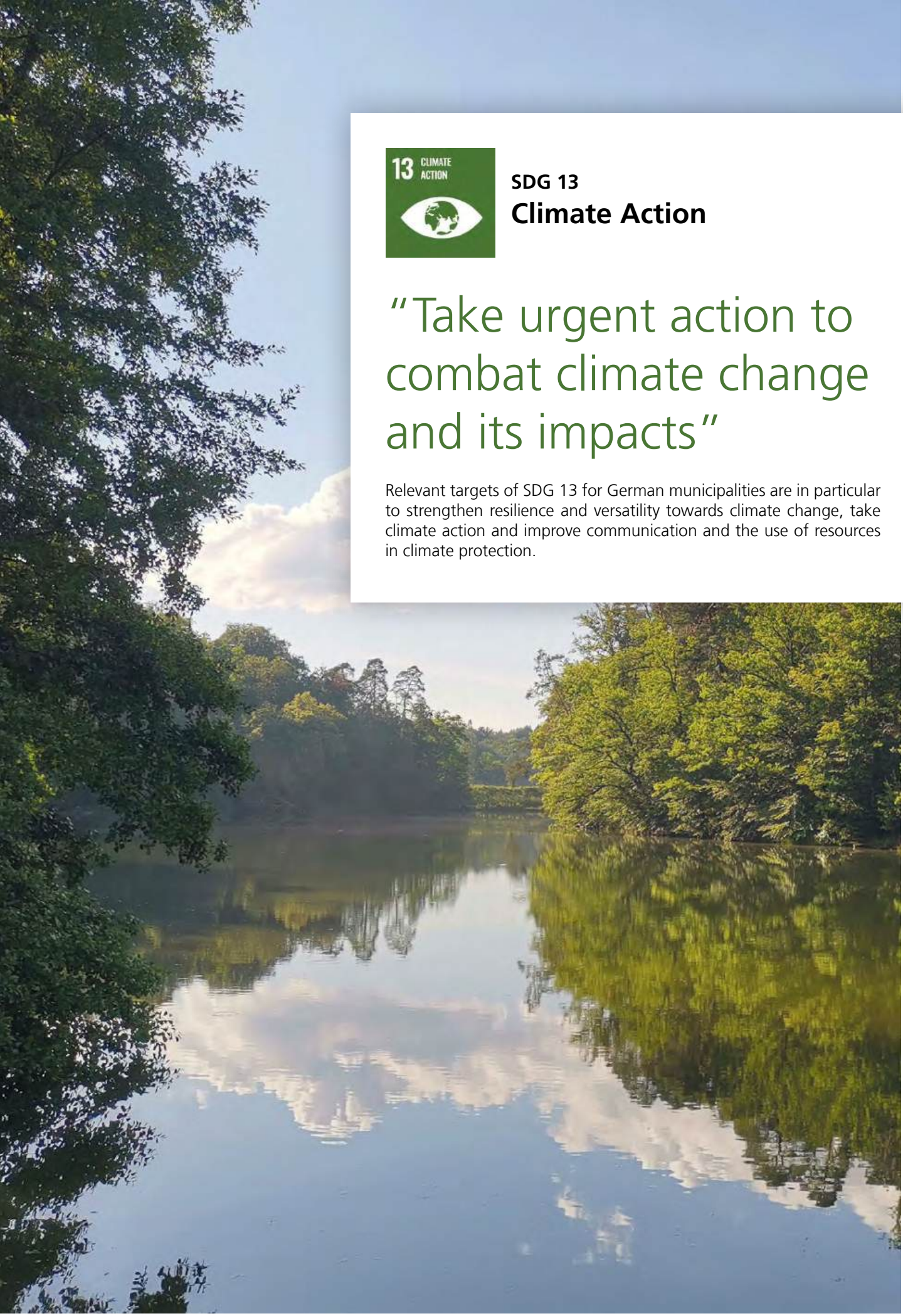
Experience / Results:

The responsibility of the municipality, which goes hand in hand with the high procurement volume of food, must be continuously used to promote a healthy, balanced and environment-friendly nutrition. The State Capital Stuttgart wants to meet this requirement and is continuously working on this in close cooperation between Central Purchasing and the Schools Administration Office. A poll among schoolchildren and their parents in 2020 revealed that they are for a higher proportion of organic food in school meals and find this important.[41]

Division / Office / Public Undertaking:

Administration Services and Human Resources Office, Central Purchasing in the General Administration, Culture and Legal Affairs Division, Schools Administration Office, Team "Implementation of support concept of schoolchildren"

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart



SDG 13

Climate Action

“Take urgent action to combat climate change and its impacts”

Relevant targets of SDG 13 for German municipalities are in particular to strengthen resilience and versatility towards climate change, take climate action and improve communication and the use of resources in climate protection.

Indicator 13.1:
Forest area

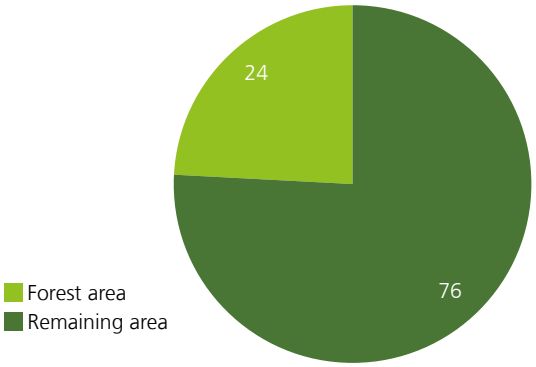


Figure 79:
Proportion of forest area (in percent)

Source: State Capital Stuttgart, Statistics Office

The proportion of forest areas generally only changes over long periods of time. The forest area in Stuttgart is constant at 23.5 percent of the total area. This means that Stuttgart citizens have some 80 square metres of forest area per capita. The city owns more than half of the forest area (2,700 ha). Since 2019, Stuttgart's municipal forest has been fully FSC-certified.

Classification / Definition

Forest areas reduce CO_2. They can bind CO_2 emissions and thus improve the CO_2 balance. The indicator "Forest area" is defined as the proportion of wooded area in the total area.

Calculation

Forest area:

$$\frac{\text{Forest area}}{\text{Total area}} * 100$$

Indicator 13.2:
Trees in public spaces

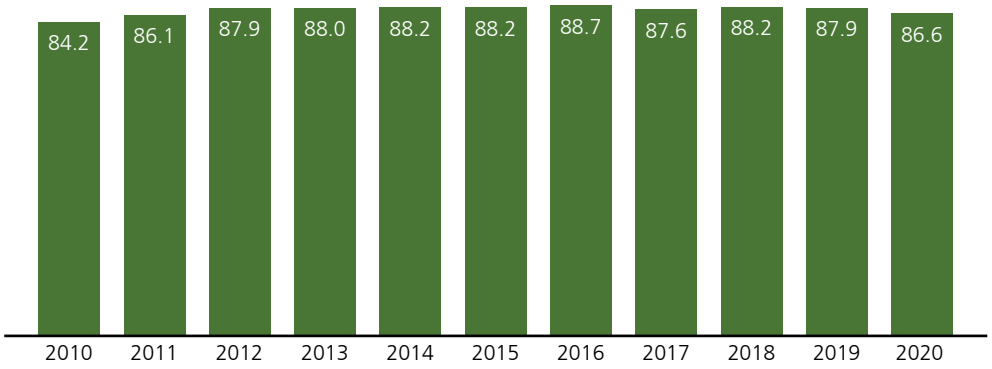


Figure 80:
Trees in public spaces (trees per hectare)

Source: State Capital Stuttgart, Parks, Cemeteries and Forestry Office

In the reporting period, the density of trees in public spaces has stabilised. Some 87 trees per hectare can be counted in public spaces in Stuttgart. The annual fluctuations are caused by felling of trees to be carried out for large construction projects or for safety reasons.

Furthermore, it has to be taken into account that some 25 percent of the tree population consist of young trees, which have a lower climate-improving effect than adult specimens. The proportion of urban trees in the total public space tree population is more than 40 percent. While the life of an urban tree is only some 40 years, trees in natural locations can reach many times this age. Stuttgart has a tree protection statute to protect trees on private properties.

Classification / Definition

In addition to large forest areas, free-standing individual trees are also favourable to local air quality and the microclimate. The age and size of the trees are important for the climatic effect. Mature trees with large treetops are more efficient than young trees or trees with less foliage volume. More detailed data on the shape of urban trees is not available.

The data only shows trees in public green spaces and roadside environment. Trees in forests, forest-like populations and cemeteries are not included. The indicator is defined as the number of individual trees relative to the total area.

Calculation

Trees in public spaces:

Number of trees on public grounds
/
Total area public space in ha

Indicator 13.3:
Greenhouse gas emissions

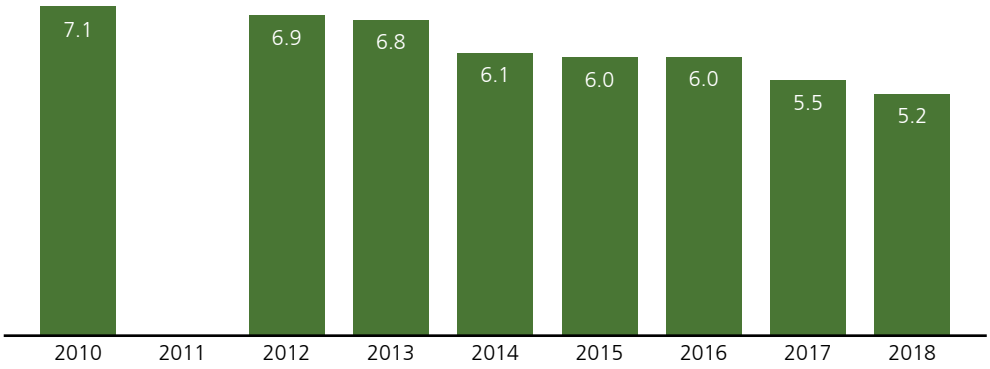


Figure 81:
Energy-related greenhouse gas emissions from industry, trade, commerce and services (in t CO_2 eq / ssc)

Source: State Capital Stuttgart, Environmental Protection Office

In the period under review, the greenhouse gas emissions of trade, commerce, services and industry per employee subject to social security contributions (ssc) and year have steadily decreased from 7 to 5.2 tonnes CO_2 equivalents per employee subject to social security contributions and year. In the long term, this figure decreased more significantly: in the mid-1990s, it was still at 9.8 tonnes CO_2 equivalent per employee subject to social security contributions.

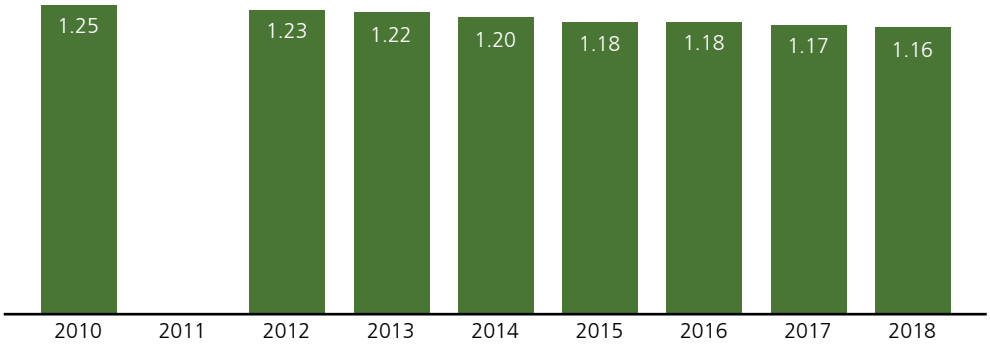
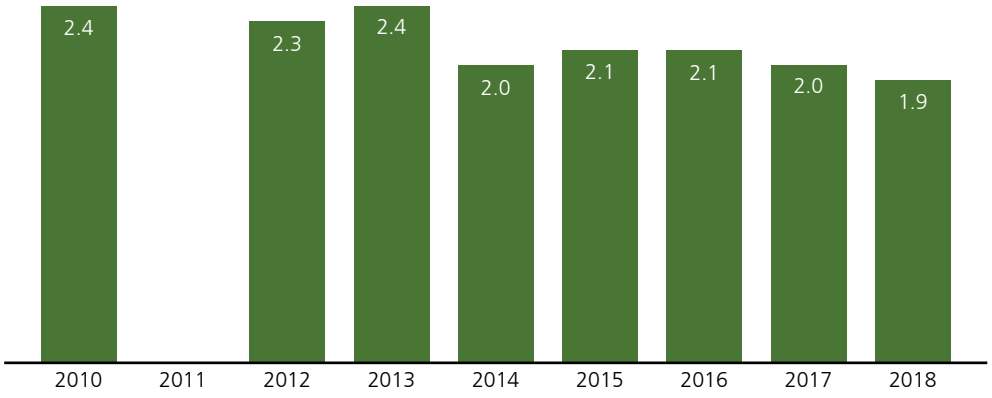


Figure 82:
Energy-related greenhouse gas emissions in transport (in t CO_2 eq / resident)

Source: State Capital Stuttgart, Environmental Protection Office

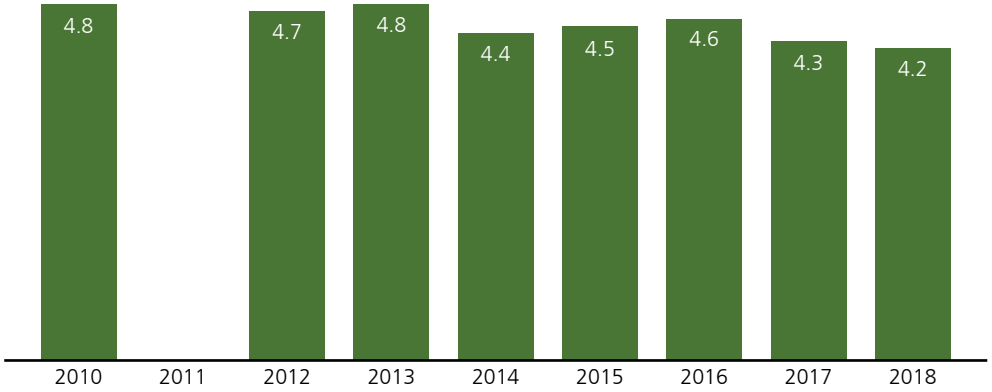
In the period under review, the energy-related greenhouse gas emissions in transport per resident and year have decreased slightly from 1.25 in 2010 to 1.16 tonnes CO_2 equivalent per resident in 2018. In the 1990s, the figures were still above the value of 1.5 tonnes CO_2 equivalent per resident.



Source: State Capital Stuttgart, Environmental Protection Office

Figure 83:
Energy-related greenhouse gas emissions from private households
(in t CO_2 eq / resident)

In the period under review, the energy-related greenhouse gas emissions from private households per resident and year have ranged around 2.1 and with 1.9 tonnes CO_2 equivalent per resident were lower than 2 for the first time in 2018. Part of this development is due to the change of the CO_2 factor in power procurement.



Source: State Capital Stuttgart, Environmental Protection Office

Figure 84:
Energy-related greenhouse gas emissions in the entire city
(in million t CO_2 eq / a.)

The annual energy-related greenhouse gas emissions from all sectors of the city as a whole have decreased from 4.8 to 4.2 million tonnes CO_2 equivalent since 2010. In 1990, Stuttgart still emitted 6.4 million tonnes CO_2 equivalent. Part of this development is due to the increase in the proportion of renewable energy in the federal electricity mix and thus the change of the CO_2 factor in electricity procurement.

The reasons for the significant reduction in energy-related greenhouse gas emissions are mainly due to the conversion of energy generation towards more renewable energy and to efficiency improvements in the individual sectors.

Classification / Definition

The reduction of greenhouse gas emissions is one of the central measures for achieving the goals of the Paris Agreement of 2015, according to which the warming of the Earth's atmosphere is to be limited to a maximum of two degrees on a longtime average.

The indicator respectively relates greenhouse gas emissions to users. In the case of greenhouse gas emissions from industry, commerce, trade and services, these are employees subject to social security contributions (ssc), in the case of transport and private households it is residents. Data for 2019 was not available as of the editorial deadline.

Calculation

Greenhouse gas emissions – trade, commerce, services and industry:

Emission of CO_2 equivalents due to trade, commerce, services and industry

/

Employees subject to social security contributions in trade, commerce, services and industry

All direct and indirect emissions of greenhouse gas (expressed in CO_2 equivalents) caused by trade, commerce, services and industry, including agriculture, are recorded. At present, the State Capital Stuttgart only has data on energy-related greenhouse gas emissions, to which all calculations refer.

Greenhouse gas emissions – transport:

Emission of CO_2 equivalents due to transport

/

Number of residents

All direct and indirect emissions of greenhouse gas caused by transport are recorded. Balancing is done according to territories, however, transit traffic (airport, motorways and railway traffic) is not taken into account.

Greenhouse gas emissions – private households:

Emission of CO_2 equivalents due to private households

/

Number of residents

All direct and indirect emissions of greenhouse gas caused by private households including consumer behaviour are recorded.

Greenhouse gas emissions – entire city:

Emission of CO_2 equivalents of all sectors

Correlation with other SDGs

Measures for CO_2 absorption by trees and forests are closely related to the concept of city planning as a whole, as well as to "land use" and urban "recreational areas" (SDG 11). While these aspects are beneficial for both sides and run parallel, there can be a conflict as to alternative land uses (cf. indicator "Organic farming" (SDG 2) and indicator "Soil index" (SDG 15)), as already mentioned for SDG 11. This applies, for instance, to the construction of housing and the housing market in general, transport organisation or economic growth and start-ups or business expansions. "Educational programmes with environmental sustainability relevance" (SDG 4) and sustainable consumption patterns (SDG 12) also influence the goal of sustainable urban development.

The preservation of local soil resources (SDG 15 "Life on Land") contributes considerably to climate resilience if the land is not forested (wasteland, agricultural use), since these soil resources are in particular for the production of cold air and fresh air movement axes.

The emission of greenhouse gas is significantly related to the goals of reducing "Final energy consumption" in all transport segments, increasing "The share of renewable energy" and "Energy generation" (cf. SDG 7). Therefore, SDG 13 is also reflected by the mentioned indicators of SDG 7. Non-energy emissions, for instance in industry and agriculture as well as emissions from imported goods and services must also be taken into account for a comprehensive delineation of greenhouse gas emissions. However, at present there is no sufficient data available.

Practical example 26: **"The forest of the future" initiative**

Context:
In the "The forest of the future" initiative, the urban forest is to be made fit for the climate change by reforesting and programmes to adapt the forest structure and tree species.

Description / Realisation:
To counteract the advancing impacts of the climate change in Stuttgart's urban forest, silvicultural methods are to be used to stabilise the urban forest (cf. GRDrs 975/2019). First of all, mature trees not suitable for the site and unable to survive in future (e.g. beech and spruce) should be removed. This prevents shading of growing trees in need of light and provides a natural regeneration. Then tree species suitable for the site (e.g. oak) can be planted or the concentration is on the existing rejuvenated stock.

Experience / Results:
Such adaptation measures for better climate resilience of Stuttgart's urban forest are currently (as of March 2021) only limited to the woodland edge, as the advisory board for Stuttgart's urban forest obtained a halt to regular felling in 2019.

Division / Office / Public Undertaking:
Parks, Cemeteries and Forestry Office
in the Engineering Division

Further reading / links:
https://www.stuttgart.de/leben/natur/wald/beirat-fuer-stuttgarter-stadtwald.php
(Last access 12.07.2021)

Practical example 27:
Climate protection action programme

Context:
On 20 December 2019, the Municipal Council adopted the Climate Protection Action Programme with a very large majority. The aim of the 200 million Euro package is to increase climate protection activities and be climate neutral by 2050 at the latest. The package consists of additional measures that go beyond the climate protection, energy saving and climate adaptation measures adopted in parallel in the double budget. The Climate Action Programme takes up numerous programmes that were developed and prioritised in an extensive process to get parties involved. It addresses subjects such as energy saving, climate protection, climate adaptation, sufficiency, nutrition, protection of resources and is thus cross-functional and interdisciplinary.

Description / Realisation:
Clear political goals were defined in the context of the package: the aims of the adopted reduction path of the city is to reduce CO_2 emissions – compared to 1990 – by 65 percent by 2030, by 80 percent by 2040 and by 95 percent by 2050, to stop using energy from coal by 2030, to increase the share of renewable energy sources by 30 percent by 2025 and to achieve a fully sustainable, climate-neutral generation of energy by 2050.

Many of the adopted measures are ground-breaking and have already been implemented in the context of other Municipal Council resolutions:

- A separate office calculates with immediate effect the CO_2 impacts of political decisions.
- A staff unit for coordinating the action programme has been set up.
- A separate office has been set up for commercial transport / city logistics.
- There are clear guidelines for the use of timber construction and recycling building materials in urban building projects. For instance, new buildings up to two storeys are built in timber or a timber hybrid construction. This is also aimed for buildings with more than two storeys, and is submitted to the Municipal Council for a ruling.
- New municipal constructions are always built according to the "plus energy" standard and renovations have climate neutrality as a goal.
- The municipal funding programme for the energy modernisation of residential buildings, the Energy Saving Programme, has been extended to 75 million Euro. The intention is to support residents and also housing companies and housing associations in the energy modernisation of buildings.
- Two funding programmes to increase the share of renewable energy generation in Stuttgart, the solar scheme and the heat pump programme have been adopted and are already in progress.

Many other measures are scheduled or already implemented.

Division / Office / Public Undertaking:
Environmental Protection Office in the Urban Planning, Housing and Environment Division;
Staff unit Climate Protection in the Policy Planning and Sustainable Mobility Division;
Department Coordination S21/Rosenstein and Future Projects

Further reading / links:
https://www.stuttgart.de/leben/umwelt/klima/aktionsprogramm-klimaschutz.php
(Last access 12.07.2021)

Practical example 28:
Climate Impact Adaptation Concept Stuttgart KLIMAKS

Context:

Stuttgart has been a member of the European Climate Pact since 1995. The Climate Pact strives for climate justice together with indigenous people, for instance by supporting climate protection programmes, raising awareness about and not using tropical timber from overexploitation. COICA (Coordinadora de las Organizaciones Indígenas de la Cuenca Amazónica) has been one of the most important cooperation partners of the network since its foundation. COICA is the umbrella association of the indigenous organisations of the Amazon Basin founded in the Peruvian capital, Lima in 1984, which has since been advocating the rights of indigenous nations. With the aim of supporting indigenous nations in their struggle for legal recognition and the protection of their territories, The Climate Pact works closely with COICA and its member organisations, in particular at a political level. The common goal is the preservation of the global climate. COICA as a member of the board of the Climate Pact helps to safeguard and represent its interests in the strategy. Since 2021, Stuttgart has also been part of the Mayors Alliance for the Green Deal of the EUROCITIES networks of major European cities.

Stuttgart also participates in the Covenant of Mayors or Mayors Adapt via its membership in the Climate Pact. Mayors Adapt is the first pan-European initiative on climate change adaptation. It offers a dynamic platform of exchange and enables a large, European-wide perceptibility. This way it supports local efforts to adapt to the climate change. It is based on the recognition that cities and municipalities play a key part in implementing solution concepts to address the climate change.

In the context of the initiative, the mayors commit to contribute in particular to the overall goal of the EU climate adaptation strategy and to strengthen the climate resilience of their city and so with that Europe. This means increasing municipal provisions and increasing responsiveness to climate change impacts by developing a comprehensive (independent) local adaptation strategy that also includes specific demands in the context of planning procedures.

Description / Realisation:

In 2012, against this background and under the leadership of the Environmental Protection Office / Urban Climatology, the Stuttgart Climate Impact Adaptation Concept KLIMAKS was developed and adopted by the Municipal Council – currently 53 measures from all spheres of adaptation. A working group is responsible for the implementation and can arrange for a follow-up concept. The working group comprises staff from the city administration and external departments (water and energy suppliers, transport companies) also involved in this issue.

The focus is on the properties of urban green spaces that are beneficial for the urban climate and at the same time relevant to climate protection and adaptation.

- Due to their metabolic processes vegetation areas bind the greenhouse gas CO_2. The biomass produced this way, in particular in the form of wood, ensures the availability of renewable energy as a regenerative raw material.

- In the case of low and less dense vegetation, green spaces support the ventilation of residential areas. By doing so, they not only reduce pollution, but also heat accumulation and thermal load, in particular during hot spells. They also act as cold air production areas that set thermally induced local wind systems in motion, such as night air corridors, slope winds and mountain winds.

- With their large foliar surface urban forest areas can both cool and clear a large volume of air.

- The temperature-lowering effect of vegetation areas can be observed in the close correlation between the thermal complex of an urban development and the degree of impervious surfaces. This means in turn that green and unsealed areas in the city counteract the effect of urban heat islands.

- Green spaces as infiltration and retention areas always reduce the impact of heavy rain and flooding and support urban water management. Green spaces are vital for the recharge of groundwater, an aspect that can contribute to the survival of entire ecosystems in times of major drought.

The improvement of the urban climate and air-hygiene situation in urban space and thus the successful adaptation to the impact of the climate change therefore relies to a great extent on successful green planning and green space policy.

Implementation is an ongoing process, with adjustments in the context of regular working group meetings. Individual measures are implemented or initiated as funding projects.

Experience / Results:
A prerequisite for sustainable urban development is the positive implementation and operation of an "organisation structure in line with the tasks". An independent field of responsibility for "urban climatology" with an interface function within the city administration could be of advantage.

Division / Office / Public Undertaking:
Environmental Protection Office in the Urban Planning, Housing and Environment Division

Further reading / links:
Ministry of Transport and Infrastructure Baden-Württemberg (Editor), 2015: Climate Booklet for Urban Development. 2nd updated edition July 2015. Stuttgart.

www.stadtklima-stuttgart.de

www.klimabuendnis.org

www.panorama.solutions/en/solution/green-aeration-corridors-stuttgart-city

(Last access 21.10.2021)

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 14
Life below Water

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

Relevant targets of SDG 14 for German municipalities are, in particular, the quality of running water (SDG 6 "Clean Water and Sanitation"), the treatment of wastewater (SDG 6) and the reduction of harmful effects of CO_2 emissions from traffic, private households and industry, commerce and services to the oceans, sea and marine resources (SDG 13 "Climate Action"). More details are available in the presentation of the indicators in the respective SDG chapters.

SDG 15

Life on Land

"Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss"

Relevant targets of SDG 15 for German municipalities are, in particular, the protection of terrestrial ecosystems, the sustainable management of forests and the conservation of biodiversity.

Indicator 15.1:
Soil index

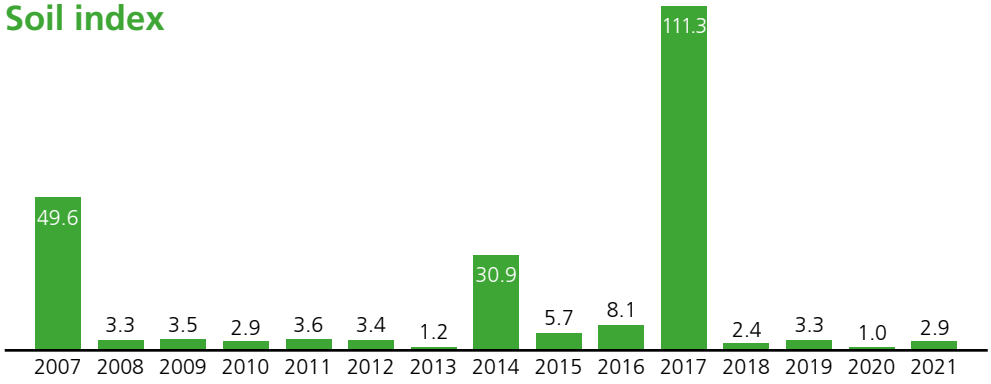


Figure 85:
Loss of soil index points in Stuttgart (in soil index points)

Source: State Capital Stuttgart, Environmental Protection Office

The development of demands on soil is illustrated by the index points of the annual consumption of soil. In most years of the period under review since 2010, the loss was marginal due to consistent brownfield regeneration. In the years with much higher consumption rates, plans were made for high-quality soil on the outskirts (cf. indicator "Land use", SDG 11).

Further information is necessary to assess the loss of soil index points, for instance the total existing soil resource in soil index points or the land use. Specific target agreements are necessary to control land use. In Stuttgart, the survey of the total resources of soil index points and in particular the determination of consumption rates and target values were carried out on the basis of resolutions of the Municipal Council passed in the Stuttgart Soil Protection Concept (BOKS) in 2006.

BOKS goes beyond the mere gauging of index points because clear target agreements were made. Soils of the quality levels „high" and „very high" are to be continuously safeguarded by a targeted monitoring of a „soil quota", the initial value of which was 1,000 soil index points. The aim is to cover the demand for soil (ground) as completely as possible in the brownfield area and to achieve a recycling of land before the quota of 1,000 soil index points (BX) is used up.

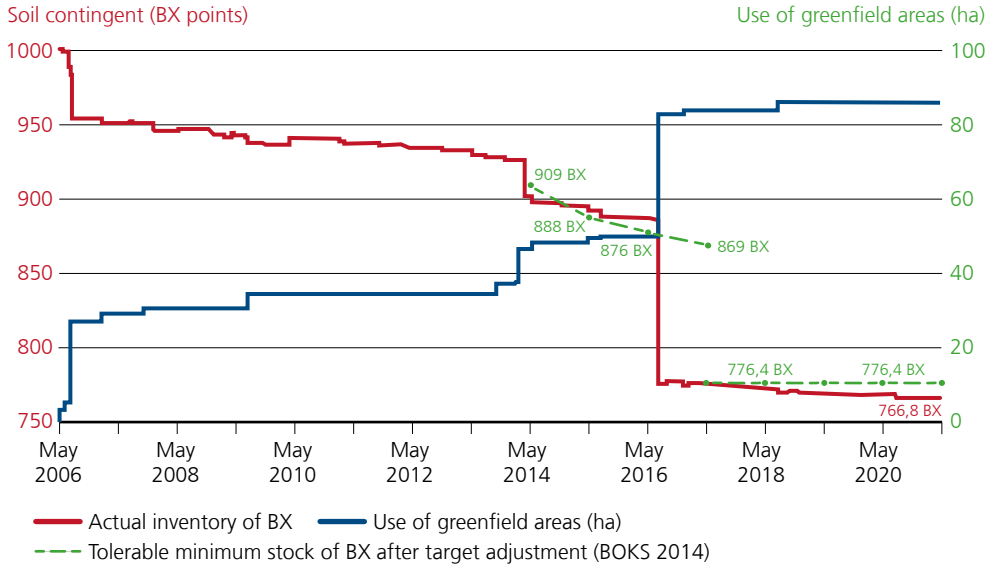


Figure 86:
Soil quota and use of greenfield areas in Stuttgart (BX = soil index; with targets) (in soil index points or in ha)

Source: State Capital Stuttgart, Environmental Protection Office

The red line indicates the development of the soil quota in BX points, starting at 1,000 BX in 2006 and dropping to 766.8 BX in 2021. The course of the curve illustrates that in the past and also recently the sustainability goals have been achieved. Occasionally, measures for brownfield development also result in more BX points. However, in 2006, 2014 and most significantly in 2016 a major loss of soil can be observed which is reflected in a significant drop in the BX score. In the first two cases, these are developments on the outskirts on high-quality soil originating before the soil protection concept, and in the last case a nationwide infrastructure project, which does not lie in the responsibility of the Municipal Council. By nature, such land use measures clash with the sustainability goals of soil protection. To achieve the planned sustainability goals, the tolerable minimum distance of 869 BX in 2017 should not have been undercut. Due to the drop in the score to 776.6 BX, the originally estimated margins for the balance periods up to 2025 have already been used up. In addition, they are irreversible due to the lack of balancing opportunities in the soil compartment.

Classification / Definition

Overall, the survey of land use showed that the ratio of the residential to transport area is balanced. The quality of soils is of no relevance. Due to the purely quantitative approach, no sustainability goals for soil can be defined.

Soil is one of the resources that can hardly be regenerated in human time periods. Therefore, the economic management of local soil resources is a key component of successful concepts for sustainable soil protection. Since classic consumption patterns, such as the construction of detached houses on the outskirts, inevitably drain the resource and land use cannot be balanced effectively, sustainability can only be achieved if a constant, preferably good soil condition (i.e. a defined standard of functional compliance = soil quality) can be guaranteed during a defined period under review. This is only possible if the new use of land is reduced consistently to achieve circular land use management. The focus of soil protection efforts in the State Capital Stuttgart is on the preservation of multifunctional soils, which fulfil the soil functions.

The "soil index" indicator therefore takes into account not only the amount of land used, but also the soil quality. This is based on the planning map "Soil Quality Stuttgart", in which all available information has been processed into a map covering the entire area. On this map, the soil quality is classified on a scale from 0 (=no soil quality) to 5 (=very high soil quality), so that planners and municipal decision-makers also have an understandable basis. To make appropriate decisions in planning processes it is necessary to map the soil quality of an area under consideration and to measure the land use planned.

Calculation

For the calculation of the soil index, the specific quality of land is calculated by multiplying the ground (ha) by the value of the associated soil quality grades (value / ha) and quantified in soil index points (without dimensions).

Indicator 15.2:
Contaminated sites

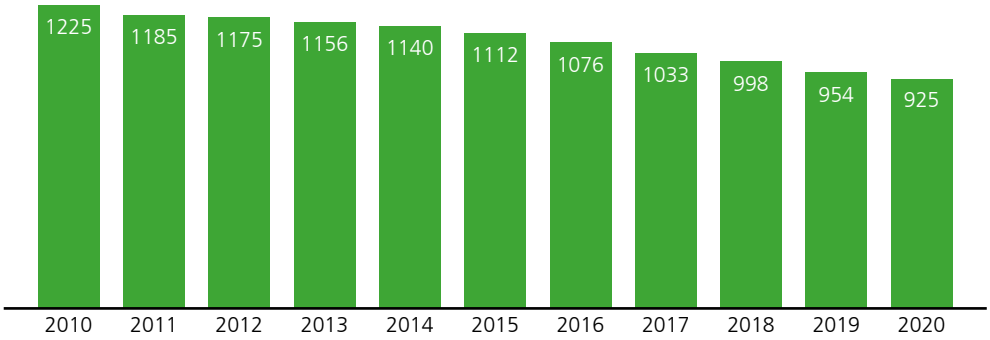


Figure 87:
Contaminated sites with a need for action in Stuttgart (number)

Source: State Capital Stuttgart, Environmental Protection Office

With the examination and remediation of actually or presumably contaminated land the number of sites requiring action is gradually decreasing. While in 2010, there were still 1,225 areas to be assessed and partially remediated, the figure for 2020 has decreased to 925. However, the decline is very slow. While municipal sites can be processed quickly, in the case of private sites those responsible are often unwilling to cooperate. This leads to legal disputes with the corresponding time required. To ensure urban brownfield development, i.e. development without further land use, contaminated sites with development potential should also be processed in future in accordance with the proven principle "buy – remediate – market".

Classification / Definition

Contaminated sites, i.e. land contaminated with environmentally hazardous substances, pose risks to the terrestrial and freshwater ecosystems, as well as related services. In particular, people, crops and groundwater are at risk. In addition, contaminated sites are a major obstacle to urban brownfield development. This leads to encroachments on a protected resource – soil on the outskirts. The aim is therefore to examine and remediate the actually or presumably contaminated sites.

Calculation

The indicator "Contaminated sites" represents the number of sites in Stuttgart that are to be examined, controlled or remediated due to a suspected or proven hazard potential. The aim is to reduce the number of sites to be processed to zero, i.e. to examine and remediate all sites with a hazard potential if necessary.

Indicator 15.3:
Renaturation measures of watercourses

The State Capital Stuttgart is responsible for the maintenance of the waters of the second category in the city. This includes some 70 watercourses with a total length of circa 150 kilometres. In 1980, some 67 percent were classified as natural or near-natural. In the past three decades, some 21 kilometres of watercourses have been renaturalised. For example, large parts of Feuerbach between Rotweg and Hohlgraben as well as in the area of the former sports field in Zazenhausen have been remediated to a near-natural state. In addition, parts of Tränkebach from Hoffeldstraße to the inlet to Ramsbach between Degerloch and Schönberg were renaturalised. As a result, in 2018, the proportion of natural or renaturalised waters increased to some 81 percent.

The Neckar is a category I watercourse. The state BW is responsible for the maintenance and development of category I waters, therefore, the Neckar is not included in the indicator "Renaturation measures of watercourses".

Classification / Definition

In the past, many watercourses were shored, cased and straightened as flood control measures and for development reasons. The Water Framework Directive (200/60 EC) obliges EU member states to return unnaturally developed surface waters to a good ecological state. The restoration of near-natural waters is also referred to as renaturation.

The primary fields of renaturation of streams and rivers are the creation of hydro-ecological passage, the initiation of self-dynamic water development and thus the improvement of the water structure. Exemplary measures are the removal of riverbed and bank linings, the planting of vegetation that suits local conditions and the elimination of linear waterways.

Calculation

The "Renaturation measures of watercourses" indicator indicates the share of watercourse kilometres of category II waters in the Stuttgart urban area that are in a near-natural or renaturalised state.

Renaturation measures of watercourses:

$$\frac{\text{Length of renaturalised watercourses}}{\text{Length of originally technically shored and drained watercourses}} * 100$$

Indicator 15.4:
Biodiversity

The loss of biodiversity is exemplified by the loss of species of wild bees, locusts and amphibians.

In Stuttgart, some 270 wild bee species are known, at least 58 of which were already extinct in 2000. This corresponds to a loss of 21 percent of the species. About a third of the wild bee species is threatened with extinction, endangered or on the watch list according to the Red List of Baden-Württemberg.[42]

Of some 43 locusts species, at least 9 were already extinct in 2005. Here, a species loss of 21 percent can be observed and about one third of locusts species is threatened with extinction, endangered or on the watch list according to the Red List of Baden-Württemberg.[43]

In addition, two (14%) of Stuttgart's 14 amphibian species have become extinct. More than half of the amphibian species are threatened with extinction, endangered or on the watch list according to the Red List of Baden-Württemberg.[44]

The reasons for species extinction are the negative developments of the respective habitats, for instance due to land loss caused by all kinds of developments, intensive land use and agriculture or by succession and overgrowth with shrubs and the use of biocides and fertilisers.

The city-wide mapping from the beginning of the millenium, the basis for the aforementioned data, is still of significance today, since the population development of species usually takes place over a longer period of time. Compared to then, it is very likely that the threat to species diversity has worsened. Further species have become extinct, such as the lesser mottled grasshopper Stenobothrus stigmaticus at Eichenhain and local reductions in many other species have been recorded. The State Capital Stuttgart wants to counteract this with its species protection concept.

The species protection concept of the State Capital Stuttgart from 2018 provides for a complete as possible inventory of all animal and plant species observed in Stuttgart, as well as the evaluation of ecologically valuable species for the target and individual species protection concept. The target species concept lists typical species – target species with a protection species function – for the biotope types occurring in Stuttgart to promote not only the habitats, but also all location-typical flora and fauna occurring there via protection measures for these target species. Species that only occur at individual locations are listed in the individual species protection concept and are to be specifically promoted at their locations.

In 2018, the first steps towards implementation were taken with pilot areas. Some of them already show first recovery tendencies. In the long term, further areas are to be transferred to the implementation portfolio of the species protection concept to ensure biodiversity in habitats by targeted species protection. With a new mapping of species populations at specific locations and also in relation to the entire city, the success of the measures can be evaluated.

It is planned to examine the indicator groups on a regular basis to monitor the development of the species population. In 2021 and 2022, the mapping of Stuttgart's wild bees will be updated.

Classification / Definition

Biodiversity aims at the diversity of species in their entire extent and is therefore difficult to manifest in a single indicator. However, the distribution of individual species is also closely related to the distribution of other species. The threat to individual species is an indication of a threat to other species, if they depend on one another via the food chain or respond to the same environmental factors.

The "Biodiversity" indicator reflects species extinction, taking wild bees, locusts and amphibians as examples. The aim is to prevent species extinction and a deterioration of the status quo in Stuttgart's biodiversity by targeted habitat enhancement measures. In particular wild bees, locusts and amphibians are good bio-indicators for determining the quality of the habitat.

Calculation

The indicator is based on the categorisation of three exemplary animal species according to their endangerment status:

Biodiversity (Biodiversity A):
Wild bee species according to endangerment status according to the Red List Baden-Württemberg

Biodiversity (Biodiversity B):
Locust species according to endangerment status according to the Red List Baden-Württemberg

Biodiversity (Biodiversity C):
Amphibian species according to endangerment status according to the Red List Baden-Württemberg

Correlation with other SDGs

Biodiversity in the city is closely related to renaturalised areas, but also to recreational areas (SDG 11). Organic farming (SDG 2 "Zero Hunger") can also contribute to biodiversity due to its reduced use of biocides. However, in addition to avoiding material pollution, the development and preservation of habitats are also of particular importance. In this context, organic farming as such (i.e. without further measures) hardly comes off better. Multifunctional land is generally used in agriculture. Securing soil resources also serves SDG 2, in particular for sustainable food production.

As an important reactor in environmental cycles, securing soil resources also supports the implementation of SDG 6 "Clean Water and Sanitation", in particular sustainable water management, since soils filter and clean water on its way underground and thus support the groundwater recharge. At the same time, the water storage capacity of soils absorbs the discharge peaks at rainfalls. The management of contaminated sites is in particular relevant for the protection of groundwater and thus the water quality (SDG 6, indicator "Quality of running water").[45]

Soil protection, as presented in the Stuttgart Soil Index, is related to combating the climate change and its impacts (SDG 13 "Climate Action"), as intact soils can store large amounts of CO_2. Soils counter summer heat stress by storing and evaporating water. The protection of near-natural soils is also related to dealing with contaminated sites, since actual or presumable contaminated sites can be a major obstacle to brownfield development.

Soil protection is in particular to safeguard soils of high and very high quality ("multifunctional soils"). So, it is closely related to the indicator "Land use" (SDG 11), but also goes beyond that.

For SDG 15, the indicator "Nitrogen surplus" (SDG 2) is also relevant for agricultural use. The goal of sustainable conservation, restoration and use of ecosystems is also reflected via the indicators "Trees in public spaces" and "Forest area" (cf. SDG 13).

"Educational programmes with ecological sustainability relevance" (SDG 4) also have an influence on the goal of protecting ecosystems and biodiversity.

Practical example 29:

Research project "RAMONA – Urban environmental offset strategies to drive sustainable land use"

Context:

In expanding urban regions such as the Stuttgart region the utilisation of additional residential and transport areas, plus the necessary offset measures are more and more in conflict with other uses of land. The provision of suitable development areas as well as appropriate compensation sites is an ever-increasing challenge. Solutions must focus more on the city / surrounding area structure. To support sustainable land use, new urban regional strategies are to be developed in the RAMONA project with a view to developing inter-municipal compensation areas and so contributing to preventive urban and regional development.

Description:

The joint project "RAMONA – Urban environmental offset strategies to drive sustainable land use" is funded by the Federal Ministry of Education and Research (BMBF) in the context of the programme "Stadt-Land-Plus zur Förderung von Forschungs- und Entwicklungsvorhaben" in the thematic area "Ressource Land" (funding code 033L201C).

The joint project is divided into a three-year development phase (2018 to 2021) and a two-year implementation phase (2021 to 2023). Surveys in the first phase revealed that between 1998 and 2018 intervention measures took place on 1,228.5 hectares (ca. 6% of the municipal surface area). With circa 151 hectares, the compensation areas are some 0.6 percent of the municipal surface area. About 49 percent of the compensation measures were carried out on agricultural land.

Potential for future compensation includes dismantling hydro-engineering installations and steep slope wasteland areas, production-integrated compensation measures (PiK) or unsealing measures.

The joint project is coordinated by RWTH Aachen University, Chair of Landscape Architecture. In addition to the State Capital Stuttgart, other partners in the project include the University of Hohenheim, Verband Region Stuttgart, Flächenagentur Baden-Württemberg GmbH, the city of Filderstadt and Naturschutzbund Deutschland NABU Stuttgart e.V.

Implementation:

The development phase is followed by the implementation phase, in which the developed possibilities / ideas / proposals for compensation and species protection measures are prepared and supported in terms of planning and organisation in selected, specific implementation areas.

Experience / Results:

The analysis of the intervention and compensation status quo revealed that there is sufficient offset potential in the Stuttgart Region. Therefore, the focus is on "added-value compensation", which is based on the expansion of inter-municipal cooperation in terms of sustainability (biotope network).

Division / Office / Public Undertaking:

Divisions of Urban Planning, Housing and Environment (Urban Planning and Housing Office) and Economic Affairs, Finances and Public Undertakings (Properties Office).

Further reading / links:

http://www.fona-ramona.de/
(Last access 21.10.2021)

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 16

Peace, Justice and Strong Institutions

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

In accordance with the nationwide project, relevant targets of SDG 16 for German municipalities are in particular the reduction of violence (especially against children), the fight against organised crime, the reduction of corruption, the establishment of efficient institutions and the involvement of citizens.

Indicator 16.1:
Digital municipality

Digitalisation is increasingly becoming an indicator of the sustainability of the State Capital Stuttgart. Its progress in the most diverse areas of work is dynamic and more and more administrative processes are characterised by it. Therefore, the city administration must focus more on this topic to remain efficient.

To measure the level of digitalisation of municipalities, the German Institute of Urban Affairs has developed the "Digital Municipality" index. It is based on a standardised questionnaire and measures the share of digitalisation measures implemented as a summated index of 16 dichotomous variables.[46] In 2021, the index for Stuttgart was calculated for the first time at an index value of 75.

In 2019, the City of Stuttgart adopted its strategy for a digital city administration with "Digital MoveS – Stuttgart.Gestaltet.Zukunft" [Stuttgart.Shapes.Future]. Digital MoveS is intended to provide people with customer-oriented, efficient and effective administration processes based on modern and secure IT infrastructure in a fully digitalised form. For this purpose, the 2020/21 budget allowed to ten million Euro for the ICT project and created 98 jobs.

The Covid-19 pandemic as of March 2020 made the urgency of digitalisation very clear. It also caused a shift of priorities within the strategy. The need for digital solutions in the form of online services for the citizens escalated, as did the need for new digital forms of communication and working within the administration. Topics such as the rapid expansion of the administration's online services, the introduction of digital communication forms (e.g. platforms for telephone and video conferences) and mobile working had top priority together with IT security and the development of the IT infrastructure. Other measures had to be put on hold.

In the past two years, a large number of measures have been implemented in the four programmes of "Digital MoveS". In programme 1 "Digital Citizen Services", digital and seamless services offered to citizens and enterprises are developed, innovation potentials identified on an ongoing basis and the performance of the OZG processes (Online Access Act) ensured. By the end of the first half of 2021, some 93 online services were available. Programme 2 "Digital Administration" is about the optimisation and increase in efficiency of the internal process portfolio, the development and description of what is required of internal processes and the establishment of administration-wide, seamless ICT services (e.g. the introduction of the city-wide e-file (pilot projects), e-recruiting, business process management). Programme 3 "Modern Working Environment" is about projects to ensure good framework conditions for employees and an attractive employer image (e.g. mobile working, renewal of media technology, change management). Programme 4 "Digital Infrastructure" comprises projects to develop infrastructural and technological conditions for digital city administration. High-performance technology and tools are available and will guarantee secure and high-performance IT operations (e.g. information security management system, digital IT service office, document management system, broadband access).

Digitalisation will continue to be a challenge for the City of Stuttgart in the coming years. With digital transformation, Stuttgart is currently at a critical point where it is essential to get on the right track for the future. Therefore, a Digitalisation and IT Office will be set up at the turn of the year 2021/22 to pool resources and focus on pushing digitalisation within the city administration and also set up sustainably secure and systematic IT operations.

Classification / Definition

The indicator provides information on the degree of digitalisation in municipal processes. In this context, 16 questions are raised:

1. Does the municipality have a digital agenda / digital strategy?
2. Is the digital agenda / digital strategy fundamentally directed at sustainable urban development and does it include individual strategic fields of action for this purpose? (e.g. higher efficiency of the administration, more transparency and participation, achieving specific climate goals, optimised mobility and traffic flows, regional innovation and business promotion)
3. Does the municipality have a permanent working group / staff unit / competence centre as a steering committee to deal with the topics digitalisation and a smart city?
4. Are the effects and the achievement of the goals of the digital agenda / digital strategy monitored on a long-term basis?
5. Does the municipality or municipal companies have sovereignty over the data relevant to the fulfilment of their tasks?
6. Does the municipality have a long-term strategy for dealing with large datasets? (Data protection and security)
7. Does the municipality publish its data as open data?
8. Does the digital agenda / digital strategy follow an inclusive and activating approach that ensures participation of all citizens and does not exclude individual groups? (e.g. continuous provision of all municipal services in analogue form)
9. Are there target-specific educational and support programmes for the use of information and communication technologies or media competence?
10. Does the municipality support the provision and access to devices and software?
11. Are digital platforms used in the municipality to provide easier access to local information that is important for democratic decisions?
12. Do industry and science cooperate in the field of digitalisation to support local innovation and development?
13. Does the digital agenda take into account improving the location and, securing local knowledge and added value?
14. Does the municipality use digital technologies to support energy transition locally? (e.g smart grids, smart metering, smart lighting)
15. Does the digital agenda / digital strategy include sharing and sustainable business models that promote a more resource-efficient economy or circular economy?
16. Does the digital agenda / digital strategy take into account possible spatial effects, such as land use and conversion potential or traffic volume?

Calculation

$$\frac{\text{Number of criteria met}}{16} * 100$$

Indicator 16.2:
Mobile working

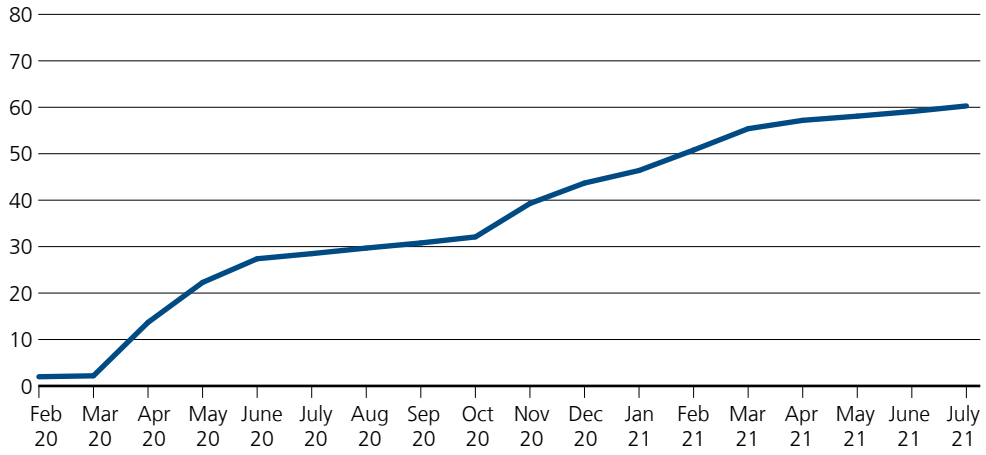


Figure 88:
VPN accounts for municipal employees (in percent))

Source: State Capital Stuttgart, Administrative Services and Human Resources Office

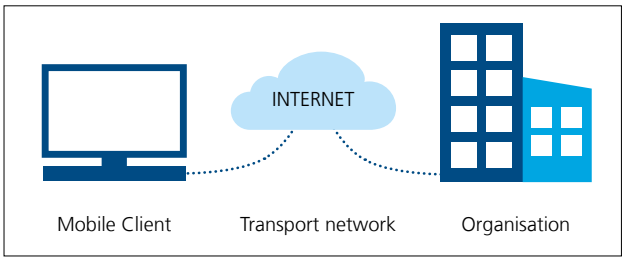
Mobile working is becoming more and more important. The City of Stuttgart provided for an expansion of mobile working in the digitalisation strategy Digital MoveS. Due to the Covid-19 pandemic, the planned expansion was accelerated. Some 11,000 of the 15,000 employees of the City of Stuttgart have an e-mail account (digital access). At the beginning of 2020, some 250 telework stations were set up at the State Capital Stuttgart enabling people to work from home. By the end of 2020, some 4,750 employees were able to work at home with mobile devices. In July 2021, some 6,300 employees were able to work on mobile devices. The mobile working rate increased from approx. two percent to some 60 percent in 18 months under review.

Classification / Definition

According to the definition of the Federal Office for Information Security (BSI), a VPN is a virtual network: in contrast to conventional networks, such as a home network, the different terminals here are not directly physically connected to each other or a central router – for instance via a network cable or a WLAN connection.

VPN normally uses the connection paths on the public Internet. In a private environment most often a connection is established from a terminal – for instance a notebook * – to a VPN server. The terminal is internally assigned a new IP address by the VPN server. Rather than the original IP address of the device, the external IP address of the VPN server is visible on the websites accessed. At the same time, all data transmitted between the terminal and the VPN server is encrypted and thus sealed off from the rest of the Internet.

(*example BSI calls smartphone)



Source: Federal Office for Information Security

Calculation

Mobile terminals with VPN at the State Capital Stuttgart
/
Number of employees with e-mail address
* 100

Indicator 16.3:
Crimes

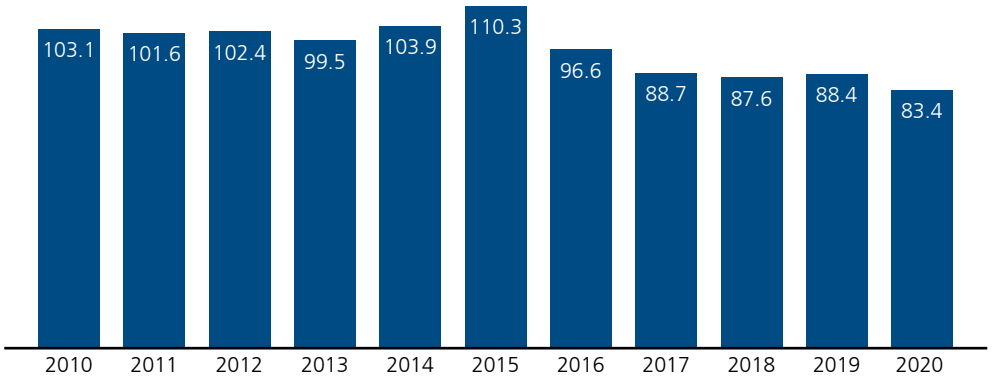


Figure 89:
Crimes
(cases per 1,000 residents)

Source: State Office of Criminal Investigation Baden-Württemberg, State Capital Stuttgart, Statistics Office

Until 2013, the crime rate per resident slightly decreased. In 2014 and 2015, the number of crimes increased again and with 110 criminal offences per 1,000 residents in 2015 it reached its peak in the period under review. This increase is mainly due to more thefts and above all, more crimes against aliens and asylum legislation. It is particularly this area that the number of crimes has been decreasing significantly since 2016. Overall, a downward trend can be observed as to crimes since 2016. 2020 was the year with the lowest value in the period under review.

Classification / Definition

While the term "organised crime" is a specific form of crime, the indicator "Crimes" reflects a broad spectrum of crime, with very different degrees of organisation. The Police Crime Statistics (PKS) only registers crimes that come to the attention of the law enforcement authorities. These are a broad spectrum of infringements on the law, such as theft, fraud, but also violent crimes or infringements on aliens and asylum legislation.

The indicator reflects both the number of crimes reported to the police in relation to the population and the general criminal trend in the city. In addition, the PKS enables more differentiated observations, for instance according to individual types of torts.

The crime statistics can only record crimes that are reported to the law enforcement authorities or become known in another way. There is also a considerable number of unreported crimes. Therefore, the crime statistics only covers a part of the criminal offences that actually occur.

It is sensible to relate the number of cases to the population to take into account the number of potential offenders and victims. However, the calculation of the indicator does not take into account that potential offenders and victims can also be commuters or people passing through.

The figures provided differ from those of other publications since the number of residents according to the civil register is used as reference.

Calculation

Crimes:

Number of crimes reported to the police
/
Number of residents
* 1,000

Indicator 16.4:
Total municipal debt

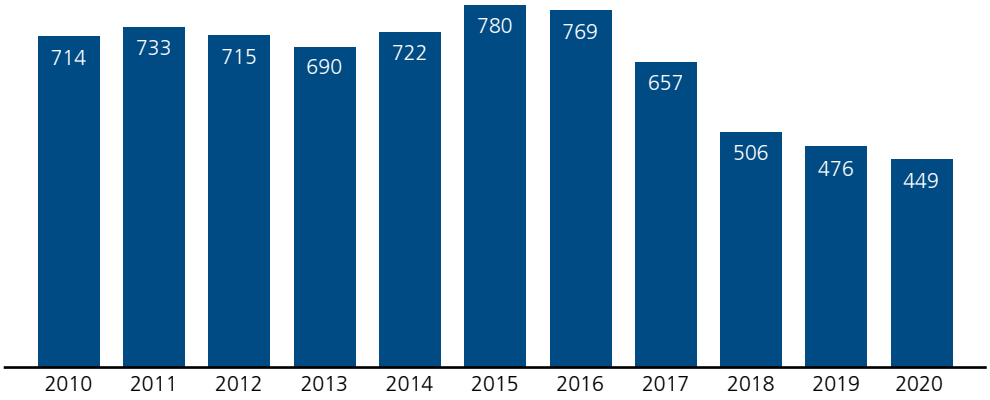


Figure 90:
Total municipal debt
(in Euro / resident)

Source: State Capital Stuttgart, Annual financial statements

From 2007 (1,122 Euro) to 2009 (694 Euro), the total municipal debt per resident decreased significantly. From 2009 to 2016, the level of debt was between 692 and 780 Euro per resident. The increased figures for 2015 and 2016 are due to loans for financing the construction of refugee accommodation. By 2019, the total municipal debt had finally fallen to a low of 476 Euro per resident.

Not only the total municipal debt, but also the debt of the municipal core budget as a whole has decreased significantly. In 2018, the debts in the city's core budget were completely repaid. So the city is debt-free as to the core budget, with debts only remaining in public undertakings. This opens up new financial margins for action, such as the Climate Action Programme (cf. practical example under SDG 13). Despite special expenditures in the context of combating and overcoming the Covid-19 pandemic, the debt level of the public undertakings was further reduced in 2020, so that the total municipal debt per resident was most recently 449 Euro.

Classification / Definition

Sustainable budget management is important for the municipality's long-term capacity to act. Only with a stable budget situation can the municipality react to problems and undesirable developments.

Debt indicates the sustainability of budget management over a longer period of time. In this context, the total debt of the municipality, including that of public undertakings, is relevant.

The indicator reflects the debt level in the overall municipal budget, including the debt of public undertakings, relative to the population. The debts of independent municipal associate companies are not included in the analysis.

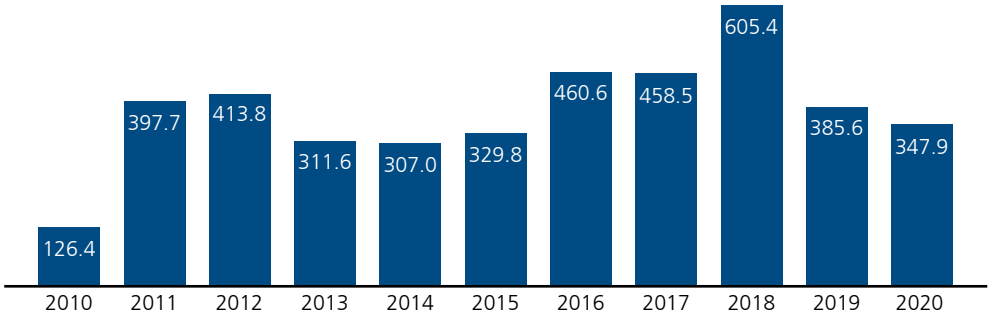
Calculation

Total municipal debt:

Debt of the municipality in all partial budgets
/
Number of residents

Indicator 16.5:

Cash surplus / requirement for the long-term fulfilment of tasks



Source: State Capital Stuttgart, City Treasury

Figure 91:
Cash surplus / requirement (figures in million EUR)

In the period under review, the cash surplus of the City of Stuttgart is – with exceptions – in the positive range and fluctuates between 300 and 400 million Euro. In 2018, the highest value was reached with more than 600 million Euro. Most recently, the cash surplus was 347.9 million Euro. As at the same time no ordinary repayments were budgeted, liquidity from cash surplus was available in the full amount for other financing purposes.

Classification / Definition

Budget management must be planned and carried out in a way that a long-term fulfilment of municipal tasks is ensured. Municipalities are legally obliged to ensure continuous fulfilment of tasks. Appropriate planning must ensure that sufficient financial resources are available, for example to punctually pay wages, subsidies, grants or invoices.

The indicator provides information on the extent to which a municipality is able to make regular payments for current administrative activities from its own resources and without borrowing. A cash deficit, i.e. a negative sign, requires structural measures in the profit and loss budget. The cash surplus is an important indicator in assessing the financial situation of a municipality. It must at least be high enough to finance ordinary repayments.

Calculation

Balance of incoming and outgoing payments from current administrative activities

Indicator 16.6:
Participation of adolescents

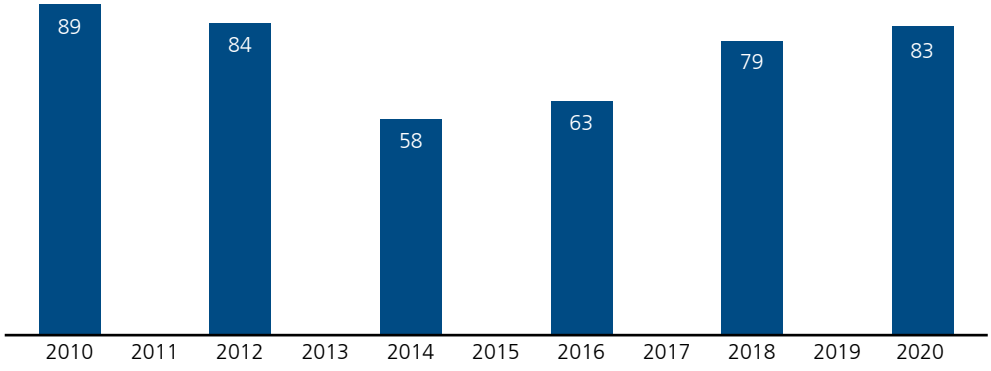


Figure 92:
Number of boroughs with a youth council (in percent)

Source: State Capital Stuttgart

In 2010, almost 90 percent of boroughs (17 boroughs) had a youth council. In 2014, this share decreased to 58 percent (eleven boroughs), but increased again in 2016 and 2018 to 63 and 78 percent respectively (twelve and 15 boroughs).

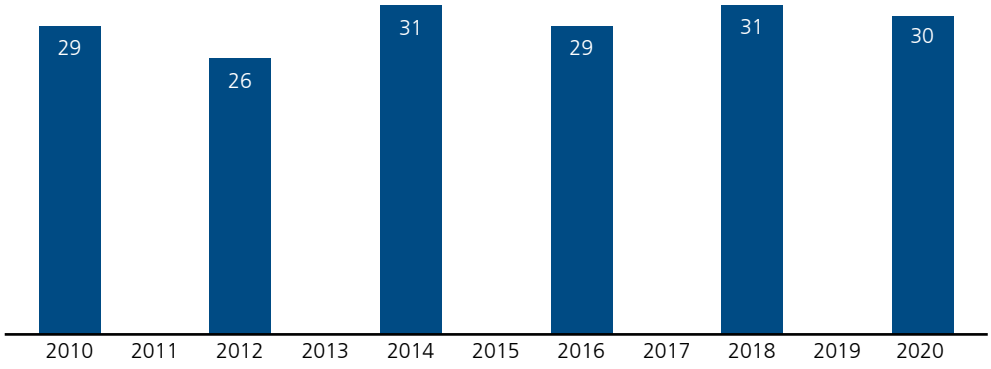


Figure 93:
Participation in youth council elections (in percent)

Source: State Capital Stuttgart

The participation in youth council elections is quite low, ranging around 30 percent. The turnout was 31.4 percent (4,884 voters) in 2014, 29 percent (5,617 voters) in 2016 and in 2018, it was 30.5 percent (6,396 voters).

Classification / Definition

The participation of adolescents in decision-making processes and political representation can be a way of familiarising people with becoming involved at a young age and improving political participation in the long term. Youth councils in Stuttgart are institutionalised forums where adolescents can raise their concerns and discuss these.

The indicator "Participation of adolescents" reflects the institutionalised involvement of adolescents in two ways. On the one hand, it indicates the proportion of boroughs with a youth council, and on the other, the participation in the youth council elections is shown. Eligible voters are all adolescents who are at least 14, but not yet 19 years old on the reference date. Youth council elections in Stuttgart only take place in 19 boroughs, since the smaller boroughs are combined.

Calculation

Participation of adolescents (boroughs with youth councils):

Number of boroughs with a youth council
/
Total number of boroughs
* 100

Participation of adolescents
(participation in youth council elections):

Number of voters in the youth council election
/
Total number of eligible voters in the youth council election
* 100

Indicator 16.7:
Informal citizen participation

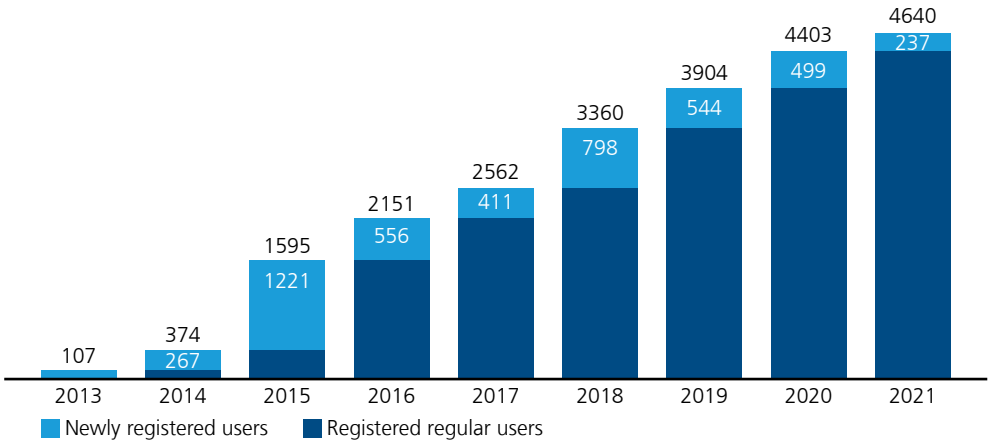


Figure 94:
Number of newly registered users and total number of registered users at "Stuttgart – Meine Stadt" [Stuttgart – My City] in years

Source: State Capital Stuttgart

Developments in recent years have shown that residents increasingly want to get involved in their environment and the development of their city. This is reflected both in the desire to become involved in political decision-making and policy-forming processes, but also in increased voluntary work. In August 2013, the State Capital Stuttgart launched a first pilot version of the participation portal www.stuttgart-meine-stadt.de. The portal has been continuously expanded and developed over the years. In 2021, the participation portal had some 4,600 users.

The aim of the pilot project was to have residents of the respective boroughs vote on important issues in the borough and address questions to the administration prior to residents' meetings. The first residents' meeting with online participation took place in October 2013 in Obertürkheim. Here 78 residents took part. A total of 107 new registrations were recorded in the five months of the first project year 2013. In the following year 2014, a total of 267 new users joined in connection with the three residents' meetings held.

In 2015, an eGovernment development project advanced the portal to a permanent application with numerous major projects and an ever increasing number of users. It was launched in April 2015 with a large-scale online participation regarding the local transportation plan. The newly created possibility for information and participation on the portal, as well as the four residents' meetings held in 2015 resulted in 1,221 new registrations. This is also the highest number of new registrations since the launch of "Stuttgart – Meine Stadt".

A mandate from politicians to develop standards for citizen participation procedures resulted in the development of a guideline for informal citizen participation. It was unanimously adopted by the Municipal Council in April 2017 and came into effect in October 2017. The guideline regulates the entire subject area of informal citizen participation in Stuttgart – from initiating participation procedures to their organisation and decision-making. With the guideline, the city has created a transparent and binding framework for informal citizen participation in the form of commitment.

A central element of the guideline is the list of projects published on the municipal participation portal when the guideline came into effect. The list of projects is an instrument that provides transparent information about administration projects and the related participation opportunities. Residents can actively participate in projects by means of surveys, forums and interactive maps. At the beginning, in October 2017, the list of projects comprised 157 projects and 411 new registrations were recorded.

The guideline's coming into effect, the publication of the list of projects on the portal at the end of 2017 and the implementation of the first major online participations ("International Urban Development Competition Rosenstein" in May 2018 and "New Urban Space B14" in July 2018) are also reflected in the number of registrations in 2018 – with 798 new registrations on the portal, this was the second highest number.

In particular, during the Covid-19 pandemic it became clear how indispensable high-performance digital participation formats are. The participation portal enabled the community to continue to participate and obtain information – in the pandemic year 2020, the portal recorded 499 new registrations.

In the meantime (as of July 2021), 4,640 users have registered on the portal and some 350 projects have been posted. In future, digital methods are to be used even more in citizen participation as a useful addition to traditional face-to-face events. The portfolio on the participation portal is to be expanded by innovative digital participation formats to further expand and improve usability for the users. This way, the State Capital Stuttgart wants to encourage more residents to become involved in the development of their city and social issues as a whole.

Classification / Definition

The portal "Stuttgart – Meine Stadt" enables interested citizens to obtain information at an early stage about municipal participation projects and all other municipal projects. The project is an important step to more transparency and citizen participation. The indicator reflects the development of the number of users who have registered in the online portal.

Calculation

Number of registered users at www.stuttgart-meine-stadt.de.

Indicator 16.8:
Participatory budgeting

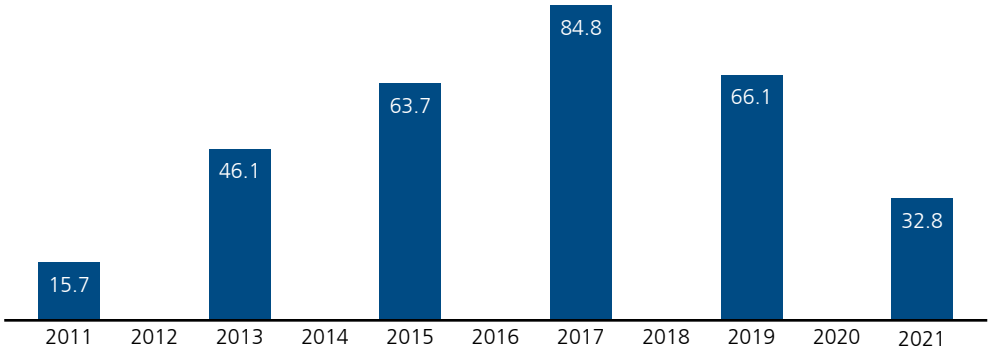


Figure 95:
Participants in Stuttgart's participatory budgeting (participants / 1,000 residents)

Source: State Capital Stuttgart

In the first years following the introduction of Stuttgart's participatory budgeting, the number of participants increased significantly to 84 per thousand in 2017. Since then the number of participants has been decreasing. In 2021, the figure was particularly low with only 33 participants per 1,000 residents, primarily due to the Covid-19 pandemic. For the first time, the participation procedure was completely digital; the usual information events in the boroughs were not possible. For infection control reasons the popular assessment on hardcopy signature lists, which had been used in recent years to acquire about half of the participants, were no longer allowed. To counteract the restrictions there was a larger PR campaign for participatory budgeting than in previous years. During the participation procedure, there were info screens (at the city railway stops and in the trains), posters in buses and at suburban railway stops, as well as Citylight posters throughout Stuttgart.[47]

In 2021, almost 20,000 participants submitted a total of 2,853 proposals for the participatory budgeting in many areas of responsibility of the State Capital Stuttgart. After pooling similar proposals, the remaining 2,156 proposals were evaluated with 1,306,395 votes. A special added value is the intensive discussion of the proposals on the platform www.buergerhaushalt-stuttgart.de.

Classification / Definition

The participatory budgeting enables the Stuttgart citizens to actively participate in the budget plans every two years. In the proposal phase, registered users have the opportunity to contribute their own proposals to the participatory budgeting. In the subsequent assessment phase, they can rate all submitted proposals as "good for the city" or "not so good for the city".

The 100 proposals rated best and the two most popular proposals for each borough are reviewed by the administration, then submitted to the district advisory councils for their comments and then prepared for the autumn budget discussions. The proposals must be feasible and financially viable and fall within the responsibility of the city.

Calculation

Number of participants in the participatory budgeting
/
Number of residents
* 1,000

Correlation with other SDGs

The governance dimension of sustainability (i.e. the participation of different stakeholders in the decision-making processes and their implementation) relating to decision-making and the political-administrative implementation of measures has an indirect impact on all remaining dimensions of sustainability. Political decisions, also at a local level, have direct effects on social justice (SDG 1 "No Poverty", SDG 5 "Gender Equality", SDG 10 "Reduced Inequalities"), economic development (SDG 8 "Decent Work and Economic Growth", SDG 9 "Industry, Innovation and Infrastructure"), the shaping of the city (SDG 11 "Sustainable Cities and Communities"), environmental and climate protection action (SDG 2 "Zero Hunger", SDG 6 "Clean Water and Sanitation", SDG 13 "Climate Action", SDG 14 "Life below Water", SDG 15 "Life on Land") and the municipal commitment to support people and countries in other parts of the world (SDG 17 "Partnerships for the Goals"). However, the possibilities for these activities depend very much on the city's capacity to act.

The debt level is greatly influenced by the economic development (see indicator "Gross domestic product", SDG 8) and the requirements to provide particular support for poor residents (SDG 1 "No Poverty" and SDG 8 "Decent Work and Economic Growth"). The scope for influence depends on "good" governance, but also on external influences and long-term consequences of municipal action. These correlations are of particular importance for sustainable governance.

The aim of decision-making at all levels demand-oriented, inclusive, participatory and representative is also reflected by the indicators "Women in the Stuttgart Municipal Council" (SDG 5) and "Meeting points for citizens" (SDG 10).

The sustainability goal "Peace, Justice and Strong Institutions" is decisive for shaping the upcoming transformation processes, ensuring services for the public and social cohesion in the municipality.

Practical example 30:
Mobile working

Description / Realisation:

The State Capital Stuttgart has some 15,000 employees, 11,000 of whom have an e-mail account (digital access). At the beginning of 2020, some 250 telework stations were set up at the State Capital Stuttgart, enabling people to work from home. By the end of 2020, some 4,750 employees were able to work at home with mobile devices. In November 2020, the Municipal Council decided that a further 4,000 laptops could be procured step-by-step by the end of 2022 and future replacements would also be mobile devices. By June 2021, already 6,300 employees were able to work from mobile devices. The city has managed to increase the mobile working rate from some two percent to more than 50 percent within 18 months.

Experience / Results:

As of 2020, mobile working is to be tested initially on a small scale as a new form of working at the State Capital Stuttgart. The original goal was to achieve better staff retention with more flexibility at work and making a better work-life balance possible. The Covid-19 pandemic accelerated everything and instead of a pilot project, there was a city-wide roll-out of mobile working. An online survey of employees and managers on their experience with mobile working during the pandemic lockdown in the summer 2020 produced valuable results for further expanding mobile working.[48] It also revealed that mobile working is very popular among employees. Therefore, the State Capital Stuttgart will offer its employees the possibility of mobile working on a long-term basis, as a functional supplement to the existing forms of office work and telework. A service agreement with the General Staff Council, which regulates the framework for mobile working also outside the pandemic situation, will be concluded shortly. The details for digital working need to be further expanded, including an e-file that is technically based on a document management system (DMS). Corresponding pilot projects are already underway, a city-wide roll-out in preparation.

Division / Office / Public Undertaking:

Administrative Services and Human Resources Office in the General Administration, Culture and Legal Affairs Division

Further reading / links:

Digital MoveS

www.stuttgart.de/digitalmoves

Practical example 31:
Participation of children

Context:
According to the UN Convention on the Rights of the Child, children are entitled to information and participation. The Stuttgart Children's Assembly is about implementing this right in the form of participation and exchange of information in the various areas of life that significantly affect the children.

Description / Realisation:
The concept of the Stuttgart Children's Assembly is based on an annual cycle: in autumn, the set topic is announced, and until spring the "let's get involved groups" develop ideas, projects or proposals which they submit to the city and are prepared for the assembly for discussion. The feedback on the results, the requirements resulting from these and the subject for the next children's assembly are given in summer. Children aged eight to ten can participate with an accompanying adult/s.

Experience / Results:
Due to the Covid-19 pandemic, the first Stuttgart Children's Assembly in March 2020 had to be cancelled at short notice. However, the 25 applications (from school, all-day and general child and youth work sectors) were answered in writing by the relevant offices and sent to the "let's get involved groups" together with contact details and offers for further cooperation. It was also possible to realise individual projects directly with the children. The focus of the 2021 Children's Assembly is the subject "Play, Leisure Time and Culture" that was chosen by the 1,500 Stuttgart children participating in July 2020. All topics are directly derived from the rights of children of the UN Convention on the Rights of the Child. Again this year the Children's Assembly cannot take place face-to-face. The ten submissions of the "let's get involved groups" can be viewed on the website of the Children's Assembly. The contributions deal for instance with the visual makeover and improvement of leisure facilities in the respective district, the local playing facilities and Stuttgart's theatres. The ideas, wishes and applications submitted are passed on to the city administration and checked for feasibility. So far some 1,765 children have been reached.

Division / Office / Public Undertaking:
Youth Welfare Office, Schools Administration Office and Stuttgart Partnership for Education in the Youth and Education Division, Children's Affairs Department as well as the Coordination Unit for Youth Participation in Municipal Activities

Further reading / links:
https://www.stuttgart.de/buergerinnen-und-buerger/kinder-und-jugendliche/kinderfreundliches-stuttgart/kinderbeteiligung/kinderversammlung.php
(Last access 12.07.2021)

Explanatory film to Stuttgart Children's Assembly:
https://www.youtube.com/watch?v=AbxzruYIB_Q&t=2s
(Last access 12.07.2021)

Practical example 32:
International City Youth Forum

Context:
Stuttgart is an international city with people from more than 180 nations. 46 percent of the total population have a migration background, more than 61 percent among adolescents. After the "Stuttgart riot night 2020", there was lot of talk about young people with a migration background – but nobody talked with them. For this reason, the State Capital Stuttgart has set up the International City Youth Forum, in which representatives from politics, the administration and the community in general listen to what young people have to say about their city and how they experience it.

Description / Realisation:
The State Capital has had a cross-departmental steering committee on social integration since 2017. After the "Stuttgart riot night 2020", this existing structure was used to set up the "Social Integration Working Group" and additional members invited. It soon became clear that the young people themselves must be involved. With the International City Youth Forum, the State Capital has established an explicit forum in which young people can communicate their views, experience and hopes to politicians, administration representatives and experts from the civil society. The International City Youth Forum has been meeting on a regular basis since December 2020, in small groups of ten to twenty young people. The dialogue partners include the Deputy Mayor for Social Affairs and Integration, experts from the respective administration units and welfare organisations.

Experience / Results:
During the pandemic, the following questions were repeatedly raised in the State Capital: What do young people need during the pandemic? How do they see things and what are their concerns?

The International City Youth Forum comprises a wide variety of young people, differing in age, origin, residence status, migration history, their stages in life, education and work, religion and gender, and allows the partners to learn about the general needs affecting all young people, as well as specific needs. In this context, the city benefits from the expert knowledge of the young people. At the same time, through their involvement in a city committee and the close exchange with leaders from politics, administration and civil society, the young people experience great acknowledgement.

The following topics have been dealt with to date: vocational training, studies and school, respect, growing up in Stuttgart as a migrant child, young people being a "burden" for the family?, experiencing racism and discrimination, participation in work, education and public space, and living in refugee accommodation.

Division / Office / Public Undertaking:
Department for Integration Policies in the Social Affairs and Integration Division

Practical example 33:

Respect Guide Project and Campaign Week #Respect0711

Context:

The question of how we treat one another is the practical test for respectful and peaceful coexistence. An incident at an open-air pool in 2019 and the "Stuttgart riot night 2020" put these values of how we live together to the test. For the State Capital Stuttgart it was clear: we have to act and we need a creative and sustainable approach to finding solutions. If we call for respect and living peacefully alongside one another, then we have to set a good example. Therefore, the State Capital Stuttgart launched the Stuttgart Respect Guide Project and the Stuttgart Campaign Week #Respect0711 to promote peaceful and respectful coexistence in the city.

Description / Realisation:

Only one month after the "Stuttgart Riot Night", the Community Crime Prevention Staff Unit and the Department for Integration Policies had recruited 15 young women and men aged 18 to 30 as Respect Guides. On 1 August, the first coaching session took place for the young Respect Guides, followed four days later by their first assignment in Inselbad in Stuttgart. By the beginning of October 2020, the Respect Guides had further assignments at open-air pools, parks and public spaces. Here they talked to young and older people, raising awareness for mutual respect, recruited further respect guides and listened to the needs of the civilian population. The Respect Guides Project extends the relationship-building sector of mobile youth work, where there is close exchange. Further assignments have already been planned for 2021.

To raise the awareness of this work, the Department for Integration Policies shot six video spots on respect in autumn 2020. The idea behind this – bringing people from various occupational backgrounds into a dialogue with the people of Stuttgart and talking about respectful interaction.

Experience / Results:

The Respect Guide Project feedback from the general public and district advisory councillors was absolutely positive. People were very happy to talk to the Respect Guides and several district advisory councillors approached the Guides with more assignments. In the media, the project was also very well received – not only several press reports, SWR, Regio TV and ZDF also accompanied the young Respect Guides on their assignments and reported on the project in radio and television.

Division / Office / Public Undertaking:

Stuttgart Partnership for Safety and Security – Community Crime Prevention in the Public Safety, Order and Sport Division, Department for Integration Policies in the Social Affairs and Integration Division and Communications Department in the Administrative Coordination, Communication and International Relations Division

Further reading / links:

https://www.regio-tv.de/mediathek/video/respektlotsen-im-einsatz/
(Last access 12.07.2021)

https://www.stuttgart.de/leben/soziales/aktionswoche-respekt-0711.php.
(Last access 12.07.2021)

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

SDG 17
Global Partnerships for the Goals

“Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development”

In general, SDG 17 refers to strengthening resources for implementing the 2030 Agenda and to building up partnerships for sustainable development at all levels. According to the nationwide project, relevant targets for municipalities also include the establishment and expansion of partnerships, as well as the mobilisation of assets from different sources, not only locally but also in countries of the Global South.

Indicator 17.1:
Twin towns in the Global South

Peace, international understanding and solidarity are the driving forces behind the international activities of the State Capital Stuttgart.

Since 1948, Stuttgart has been cultivating and shaping its relations with cities and partners worldwide. This has resulted in ten active town twinnings on four continents[49], three of which are in the so-called Global South, as well as in diverse networks to strengthen these partnerships.[50]

With its European and international commitment, the State Capital wants to actively enable global responsibility for sustainable action and solidarity.

Between 2008 and 2020, the average expenditure, for the three twin towns in the Global South amounted to 20 percent of the twin town budget of the International Relations Department.

Classification / Definition

The indicator "Twin Towns in the Global South" includes local expenditure in Stuttgart or for projects realised in the twin towns. These vary in content and size and are carried out by the city itself or by civil-society organisations.

The expenditure is related to measures in and with the twin towns Menzel Bourguiba (Tunisia), Cairo (Egypt) and Mumbai (India).

This includes funds for exchange programmes, educational work, anniversary celebrations of town-twinning, networking / activation events and grants for exchange and participation projects by third parties (e.g. civil society organisations).

Not included are services provided by other departments for project work with and in the countries of the Global South in international networks, third-party funding or campaigns to increase fair trade.

The indicator reflects the average funds for cooperation with and in the twin towns in the Global South in relation to the average funds of the International Relations Department available for town twinning in the years 2008 to 2020.

Calculation

Twin towns in the Global South:

$$\frac{\text{Funds for cooperation with twin towns in the Global South}}{\text{Free project funds budget of the International Relations Department}} * 100$$

Indicator 17.2:
Projects and advisory services

Since 2016, the cross-departmental and civil society services coordinating, advising, implementing and (financially) supporting activities of the department as a central service provider and designer have increased. Since 2016, not only the tasks, but also human resources and budget have both increased by a third.

	2016	2017	2018	2019	2020
1. Realisation of own town twinning projects	19	19	54	54	53
2. Advice and support of financially subsidised town twinning third-party projects	79	78	90	86	26
3. Non-monetary support of town twinning third-party projects / target-group-specific advice	36	37	50	74	75
4. Advice, support and realisation of own and third-party projects EUROCITIES and measures to strengthen Europe	10	10	20	18	13
5. Non-monetary support of own and third-party projects EUROCITIES and measures to strengthen Europe	15	15	30	30	30
6. Advice, support and realisation of own and third-party projects Global Development Goals (SDG) for implementation at a local and international level		10	20	20	15
7. Non-monetary support of own and third-party projects Global Development Goals (SDG) for implementation at a local and international level		30	55	55	40
Number of posts according to staff appointing scheme (plus SDG project with third-party funding)	5,5	5,5+1	6+1	6+1	7+1

Figure 96:
Projects and advisory services (number)

Source: State Capital Stuttgart

With the pandemic year 2020, third-party projects based on personal meetings and travel, for instance school and youth exchanges, have plummeted.

The State Capital Stuttgart is increasingly strengthening and expanding its international commitment. In the 2020/2021 double budget, the Municipal Council decided to create two permanent posts in the International Relations Department. With the coordination for international sustainability and development to strategically anchor and implement the sustainability goals, the former project position co-financed by the Federal Ministry for Economic Cooperation and Development (BMZ) was made permanent from City funds as of April 2021. In November 2020, a specialist consultancy agency for EU funding acquisition and EU project management was also established. Prior to this, in 2016, Stuttgart joined the European city network EUROCITIES with the establishment of a part-time coordination post (EUROCITIES contact officer) and in 2018, the programme for

the promotion of civil society commitment and its structures in South-Eastern Europe, including the support of particularly vulnerable population groups, were also strengthened with a part-time post for project consulting.

In addition to the State Capital's own resources, the International Relations Department has risen third-party funds amounting to some 500,000 Euro over the past twelve years, which has provided more scope and opportunities for realising development policy projects in Stuttgart and for international partnerships.

The State Capital has received numerous awards for this specific commitment to municipal development policy and Europe, including:

- Prize Meine. Deine. Eine Welt [My. Your. One World] of the Stiftung Entwicklungszusammenarbeit Baden-Württemberg and Engagement Global in 2015 and 2017
- Special recognition of the EU Award for Fair and Ethical Trade 2021 for Monitoring and Impact
- European Awards of the Council of Europe (first three levels) – Diploma of Europe (2018), Flag of Honour (2019) and Badge of Honour (2021) for special services in spreading the European idea and the special efforts in shoring up a united Europe

The current challenges and special needs brought about by the Covid-19 pandemic were met with programmes for digital exchanges, counselling and financial support in practical pandemic response measures for vulnerable groups.

Selected examples of municipal development cooperation to overcome the pandemic include:

- Ancillary lessons for children in slums in Mumbai
- Provision of protective visors for people in unofficial townships in Cairo
- Support in maintaining the exterior area of the hospital in Menzel Bourguiba
- Promotion of a hygiene project for refugees on Lesbos via the funding programme "Strengthening Europe"

Classification / Definition

The indicator "Projects and advisory services" includes advisory and support services in the central areas of the International Relations Department according to the indicators in the budget. This includes own projects in the subject areas town twinning, Europe (networks and funding programmes) and global sustainable development as well as projects of civilian society partners (e.g. schools, associations, artists). The scope and duration of the projects vary.

Areas 4 to 7 in the table were systematically recorded in the budget with indicators as of 2019; the figures of previous years are based on subsequent counts.

Calculation

The indicator reflects the number of advisory and support services in the central areas of the Internal Relations Department for the financial years 2016 to 2020.

Correlation with other SDGs

Municipal sustainability is rooted globally. Partnerships across borders and continents, as well as with various local stakeholders, take account of this global embedding. As an interdisciplinary topic, SDG 17 is relevant to all SDGs.

For instance, the local social situation (cf. SDGs 1, 2, 3, 4, 5, 10, 16) or the local environmental situation (cf. SDGs 6, 7, 13, 14, 15) are also affected by the global context and vice versa. The local economic production and consumption patterns are part of the global economy (cf. SDGs 8, 9, 11, 12, 13, 14, 15), for which the municipalities take responsibility.

The local situation is also directly affected by global developments through the immigration of refugees. By integrating people from other parts of the world, municipalities address issues of economic change and social cohesion at both a local level and in a global dimension.

Municipalities play an active part in shaping the necessary transformation processes via partnerships with business, civil society and science to address global challenges and they mobilise citizens for achieving the global development goals together. Cooperation at regional and international level serves for mutual learning and strengthening the role of municipalities in the strategic consolidation of the 2030 Agenda.

The 17 SDGs with their correlations and conflicting goals affect all areas of action for municipalities and can only be achieved by means of strong partnerships at all levels.

Practical example 34:
Refugee support on Lesbos

Context:
Since 2018, the State Capital Stuttgart has been committed to strengthening the exchange and dialogue with Southern and South-Eastern Europe. With the 2030 Agenda in mind, support is given to projects by Stuttgart organisations aiming to strengthen particularly vulnerable population groups, such as Sinti and Roma or refugees in and from South-Eastern Europe. The State Capital Stuttgart reacted at short notice to the rapidly changing developments of the current Covid-19 pandemic and advised project partners to continue with activities on Lesbos.

Description / Realisation:
After the devastating fire in the Moria refugee camp in Greece in early September 2020, the City of Stuttgart funded two projects of the Stuttgart association Just Human to support refugees on Lesbos:

With the project "BabyBoxes and breastfeeding advice" the particularly vulnerable group of pregnant women and mothers with newborn and small children were supported with clothing, blankets and other necessary equipment. A separate tent for breastfeeding was also set up and advice on breastfeeding offered. Due to incorrect information, many mothers do not even try to breastfeed, even though this would provide a healthy nutrition for babies and other sicknesses could be prevented.

In the "SafeHands" project, hand-washing stations were set up under the supervision of refugee women and men themselves. For this purpose, they were trained in hygiene issues, thus ensuring the transfer of knowledge. In addition, protection masks were handed out at the station, which were collected after use, washed and returned into the cycle of use. What sounds simple, is a major action: several thousand masks had to be collected, washed and then distributed again every day.

Experience / Results:
On Lesbos, Just Human works in cooperation with the Greek partner organisation, Starfish Foundation. Their aim is that people seeking refuge take on tasks themselves, thereby expanding their skills and experiencing self-value.

According to the association, the measures described reach 150 people. Thus, the support provided by the State Capital Stuttgart goes beyond pure emergency work and first aid and ensures sustainable structural cooperation.

Due to the great success with the mothers and newborn children a follow-up of the project "BabyBoxes and breastfeeding advice", was approved in 2021, with the addition of an "Open Space", a protected place where women and girls can meet and participate in courses for self-defence and yoga to strengthen their physical and mental well-being. These classes reflect the target group's need for safety, since women and children are repeatedly exposed to (sexualised) violence in the camp. There is schooling for interested participants ("Train the Trainer"), so that they themselves can offer training sessions to spread knowledge gained in the classes. The aim of the classes is to increase their self-esteem and self-confidence, which can be achieved through the holistic strategy practised in yoga and self-defence.

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International Relations Department in the Administrative Coordination, Communication and International Relations Division

Further reading / links:
https://www.just-human.de/
(Last access 12.07.2021)

Practical example 35:
#futureproofchallenge

Context:

In the anniversary year 2021, the State Capital Stuttgart has focused on digital media and new virtual opportunities for intercultural exchange between the twin towns as a part of the 50th twin-town celebrations with Menzel Bourguiba in Tunisia. Due to the Covid-19 pandemic, visits of delegations between the twin towns are currently not possible.

Description / Realisation:

A joint "sustainability challenge" found a modern-day way to encourage citizens to become more involved in how to include more sustainability in everyday life. On 3 May 2021, the joint social media challenge with Menzel Bourguiba was launched under the hashtag "#futureproofchallenge". All citizens of Stuttgart and Menzel Bourguiba were invited via the municipal channels on Facebook and Instagram to share their personal tips for a social and environment-friendly way of life.

The challenge was scheduled for four weeks with a weekly post on the municipal Instagram channel @stuttgart.meine.stadt. Two films were produced for this purpose, which for publication in Menzel Bourguiba were also subtitled in Arabic, the twin towns briefly portrayed and the challenge explained. The twin town Menzel Bourguiba was presented and various practical tips and examples were given on the activities of the State Capital Stuttgart in the context of the implementation of the 2030 Agenda of the UN.

Experience / Results:

The Challenge was a means of bringing people together with their creativity, their needs and ideas and mobilising them for the implementation of the UN Sustainability Goals of the 2030 Agenda at a local level. This included:

- 6,031 hits on the two videos in the municipal Instagram channel @stuttgart.meine.stadt
- Local radio interview with representatives of the city administration in Menzel Bourguiba (Radio8) about the anniversary and the challenge
- Publication of the films on the Facebook channel of Menzel Bourguiba with Arabic subtitles
- Various reposts (sharing the post) and participation from: Wahiba Arres - Miss Tunisia 2014 (34,300 hits), German Embassy Tunis and various multipliers in Stuttgart such as: Jugendagentur Stuttgart, Stuttgarter Jugendhausgesellschaft, Junge Bibliothek Stuttgart, Stadtbibliothek Stuttgart, Youth Welfare Office Stuttgart, Ausbildung Stadt Stuttgart (as of 14.07.2021).

Division / Office / Public Undertaking:

International Relations Department in the Administrative Coordination, Communication and International Relations Division

Further reading / links:

https://www.stuttgart.de/leben/internationale-beziehungen/stuttgarts-partnerstaedte/50-jahre-menzel-bourguiba/jahre-menzel-bourguiba.php (Last access: 06.09.2021)

Further practical examples at: www.stuttgart.de/lebenswertes-stuttgart

Further development and update of the SDG VLR

In cooperation with the Bertelsmann Foundation and the German Institute of Urban Affairs, Stuttgart prepared the first nationwide SDG survey ("Voluntary Local Review", VLR) in 2019. At the same time, the State Capital tested the SDG indicators as a pilot project. These are recommended in the nationwide project "SDG Indicators for Municipalities" of the Association of German Cities and Towns by the Service Agency Communities in One World, Engagement Global and other partners, and in turn further developed additional indicators for the municipalities nationwide. These were again included in the updated edition of the "SDG Indicators for Municipalities".[51]

Methodical approach

Based on the recommendations from the 2019 pilot project and current needs, the State Capital further developed the VLR. The selection and analysis of indicators are a complex process, requiring expert knowledge and an interdisciplinary approach.

At the end of 2020, interdisciplinary workshops and surveys took place under the coordination of the International Relations Department and the Statistics Office as the first step to preparing the second VLR. Here the existing indicators and further indicator proposals from the departments were discussed, partially adapted, supplemented and selected. In this context, additional areas of municipal actions (not included in the pilot report) were assigned to the SDGs and underlined with indicators for the second Stuttgart VLR. This includes digitalisation, sport and culture and municipal development policy.

In a second step, the departments provided the Statistics Office in the first half of 2021 with the necessary quantitative data for illustrating the indicators, as well as qualitative data in the form of selected practical examples.

In a third step, the indicators which had been prepared by the Statistics Office and provided with basic information were reviewed by the departments and any possible reasons for the changes observed in the period under review identified. If the data available for certain developments also allowed reference to the Covid-19 pandemic, this was pointed out accordingly.

With this procedure, not only was it possible to combine detailed knowledge from all departments with knowledge as to interdisciplinary connections, but it was also possible to use additional data accesses within the municipal administration.

All departments of the Stuttgart city administration contributed intensively and with major commitment to this second VLR "Stuttgart – A Liveable City – The global 2030 Agenda at a local level".

Data basis, contribution and limitation

The indicator catalogue provided by the nationwide project "SDG Indicators for Municipalities" was also the starting point for the second VLR of the State Capital Stuttgart (https://sdg-portal.de). Additional indicators from the national catalogue of the National Progress Report 2021 on the New Urban Agenda (NUA) accompanied by the German Institute of Urban Affairs (difu) were also reviewed and some of these included. Stuttgart was involved in this catalogue as a pilot municipality.[52]

The State Capital Stuttgart developed further indicators as a supplement to the indicators adopted from the "SDG Indicators for Municipalities". 15 indicators were already part of the 2019 report, while 23 indicators were included for the first time in the 2021 VLR. Some of these take further targets into consideration.

The criteria for selecting the SDG indicators for Stuttgart, which were determined in the interdisciplinary workshops, were:

a) the appropriate recording of the SDGs,
b) the relevance for the State Capital Stuttgart and
c) the availability of up-to-date data for the reporting period (usually 2010 to 2020).

In addition, the number of indicators should remain manageable. Therefore, preference was given to indicators covering several SDGs.

Due to the further development of indicators, the number has increased from 77 in the pilot report in 2019 to a total of 100 indicators in the present SDG VLR, with 62 indicators from the nationwide project "SDG Indicators for Municipalities".

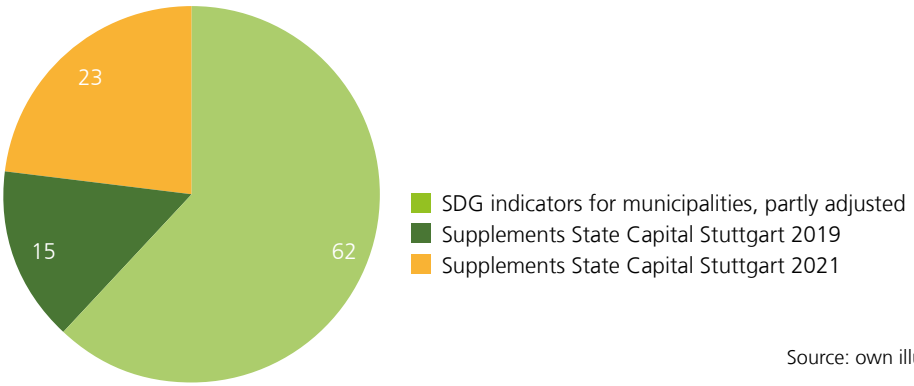

Figure 97:
Overview of the sources of the indicators in the 2021 VLR (figures in percent)

Source: own illustration

Compared to the first report from 2019, a uniform start for the time reference has been chosen (with a few justified exceptions). The data series start in 2010, directly following the 2009 economic crisis. Thus, they cover a period of ten years. The availability of the majority of indicators as of 2010 will allow that year to be used as the starting point for VLRs in the future.

For methodical reasons, in this second VLR – with a few exceptions – only data from the State Capital or the statistical offices of the Federal Government and the Länder, which were prepared by the Statistics Office of the State Capital Stuttgart, was used. If the number of residents is used as reference, this is based on the municipal population published by the Statistics Office in Stuttgart from the population register. This figure differs from the official number of residents ascertained by the State Statistical Office on the basis of the 1987 and 2011 census and updated on an annual basis. Due to this difference, in individual cases there may be slightly different figures compared to other nationwide publications.

During the in-depth examination of the indicators while preparing the VLR, it became clear at one point or another that the existing SDG indicators had to be developed, adapted or supplemented to have a better evaluation of the actual goal. In such cases, the time series in the 2021 report differ from those in the 2019 report. Negligible deviations may also occur if other data sources were used compared to the previous report, for instance by the preference of municipal data and data from direct official sources (in particular the Statistical Offices of the Federal Government and the Länder, the Federal Labour Office). However, these deviations are extremely small.

In addition to the presentation of the quantitative indicator values, selected goals, strategies and measures for the effective shaping of sustainability at a local level are described by means of qualitative data as practical examples, as in the first 2019 SDG Report. For the second SDG VLR, new practical examples were selected as a rule, although the examples from the first VLR have by no means lost their relevance. All practical examples can also be found on the website. They will be continuously updated.

The selected and illustrated indicators and practical examples allow an interdisciplinary view of the implementation of the 2030 Agenda in Stuttgart at city level as a whole and how the city has developed with regard to the 17 SDGs over the past ten years. The comprehensive VLR is a supplement to the detailed individual reports of the departments (e.g. social monitoring, education monitoring, climate protection monitoring).

Many sustainability goals depend on and influence one another, some are in conflict with one another. Not all developments – provided there are significant differences – can be described and explained with the indicators. This applies not only to the content, but also in terms of space. Significant developments and framework conditions relevant to sustainability at other levels (EU, federal government, state) also affect changes in Stuttgart and vice versa. It was not the purpose of this report to elaborate systematically the specific municipal contribution of influencing certain developments. This would require a comprehensive analysis of the various influences at a municipal level for the different sustainability dimensions. The focus is more on gaining knowledge with regard to the situation in the State Capital Stuttgart, rather than the comparison with other municipalities.

This second VLR consolidated the data and calculation basis for future, regular updates of the VLR.

The indicators selected for the second VLR of the State Capital Stuttgart are listed in Annex II.

Additional indicator proposals by the State Capital are listed in Annex III as another methodical contribution to future VLR and for other municipalities.

All practical examples, as well as the 2019 Pilot VLR can be found on the State Capital Stuttgart website under: www.stuttgart.de/lebenswertes-stuttgart

Notes

[1] Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) in the Federal Office for Building and Regional Planning (BBR) (ed.): National Progress Report on the Implementation of the New Urban Agenda, 2021 URL: https://difu.de/publikationen/2021/nationaler-fortschrittsbericht-zur-umsetzung-der-new-urban-agenda (last access 25.11.2021).

Federal Government (ed.), 2021: Report on the implementation of the 2030 Agenda for Sustainable Development. German Voluntary National Review to the HLPF 2021 URL: https://www.bmz.de/de/agenda-2030 (last access: 07.09.2021).

[2] For further information about the nationwide project and updated SDG indicator catalogue cf. https://www.bertelsmann-stiftung.de/de/unsere-projekte/agenda-2030-nachhaltige-entwicklung-vor-ort/projektnachrichten/sdg-indikatoren-fuer-kommunen-1 (last access: 12.07.2021).

[3] Cf. State Capital Stuttgart (ed.), 2018: Sozialdatenatlas Darstellung und Analyse der sozialen Situation in der Landeshauptstadt Stuttgart mit Daten aus dem Jahr 2016, p. 30.

[4] State Capital Stuttgart (ed.), 2018: Faltblatt. Stuttgarter Familiendaten 2018.

[5] Cf. Achatz, Juliane; Hirseland, Andreas; Lietzmann, Torsten; Zabel, Cordula, 2013: Alleinerziehende Mütter im Bereich des SGB II. Eine Synopse empirischer Befunde aus der IAB-Forschung. (IAB Research Report, 08/2013), Nuremberg, 79 p. 4.

[6] Cf. Hübgen, Sabine, 2017: Armutsrisiko Alleinerziehend. In: Aus Politik und Zeitgeschichte: Familienpolitik, 67. Vol., No. 30-31/2017, p. 22-27; cf. Haan, Peter; Stichnoth, Holger; Blömer, Maximilian; Buslei, Hermann; Geyer, Johannes; Krolage, Carla und Müller, Kai-Uwe, 2017: Entwicklung der Altersarmut bis 2036: Trends, Risikogruppen und Politikszenarien. Ed. Bertelsmann Foundation Gütersloh.

[7] Cf. Hradil, Stefan, 2012: Grundbegriffe. URL: https://www.bpb.de/politik/grundfragen/deutsche-verhaeltnisse-eine-sozialkunde/138437/grundbegriffe. (Last access 09.03.2021).

[8] Cf. Federal Agency for Civic Education URL: https://www.bpb.de/politik/hintergrund-aktuell/70186/armut-11-05-2006 (last access: 09.03.2021)

[9] State Capital Stuttgart (ed.): Kindergesundheitsbericht 2015. Gesundheit, soziale Lage und medizinische Versorgung in den Stuttgarter Stadtteilen

[10] Cf. Federal Environment Agency 2019: Nitrat im Grundwasser. URL: https://www.umweltbundesamt.de/daten/wasser/grundwasserbeschaffenheit#nitrat-im-grundwasser (last access: 11.05.2021)

[11] Cf. Federal Environment Agency 2021: https://www.umweltbundesamt.de/daten/land-forstwirtschaft/stickstoffeintrag-aus-der-landwirtschaft (last access: 10.09.2021).

According to findings of the Environmental Authority Saxony, "agricultural crops […] absorb only small amounts of nitrogen in autumn and winter. The mineral (mobile) nitrogen detected in autumn sampling can be washed out with the leachate and enter groundwater, water bodies and near-natural habitats – consequently impairing drinking water and exceeding environmental quality standards. However, the residual nitrate content of the soil is influenced by the weather conditions during the vegetation period, the maximum use of the yield potential, the soil type and the climatic conditions." (Saxon State Office for the Environment, Agricultures and Geology, 2018: Residual nitrate in the soil. URL: https://www.landwirtschaft.sachsen.de/restnitrat-im-boden-39857.html (last access 25.11.2021))

[12] State Capital Stuttgart, Office of Sport and Physical Activity (ed.), 2018: Sport und Bewegung in Stuttgart 2030. Grundlagenpapier des Amts für Sport und Bewegung: Konzept der 11 Lebensphasen. Stuttgart.

[13] Programme details cf. https://www.stuttgart.de/leben/sport/sportprogramme/bewegt-aufwachsen.php (last access: 10.09.2021)

[14] Cf. Frisoli, Pasquale; Mäding, Attina, 2021: Einwohnerentwicklung in Stuttgart unter Pandemiebedingungen. Rückgang der Einwohnerzahl nach Jahren des Wachstums im Jahr 2020. In: Statistik und Informationsmanagement 5/2021, p. 139-159.

[15] There are no comprehensive analyses of the causes and triggers of suicide mortality among men or in a gender comparison, but there are many individual studies. Influencing factors are in particular social and emotional isolation. Furthermore, traditional gender models play a role: many men are under-diagnosed with depression; there is a lack of acceptance of mental illness and comprehensive forms of assistance. While women more often seek help in difficult situations, men are more likely to consider conflicts as a personal failure and are inclined to equate professional failures with social failures more quickly. A tendency of attempting to cope with depression by consuming alcohol was observed. This leads to an increased suicide risk. In summary, it should be emphasised that it is not the conflict situations that lead to suicide, but the inability to deal with these situations. Cf. Hausmann, Armand; Rutz, Wolfgang und Meise, Ullrich, 2008: Frauen suchen Hilfe – Männer sterben! Ist die Depression wirklich weiblich? In: Neuropsychiatrie, Vol. 22, No. 1/2008, p. 43-48.

[16] Cf. Gunderlach, Robert, 2017: 2015 nahezu 15 000 Pflegebedürftige in der Landeshauptstadt Stuttgart. In: State Capital Stuttgart (ed.): Statistik und Informationsmanagement, Monthly bulletin 10/2017, p. 292-298.

[17] Project of the Public Health Office and Health Conference of the State Capital Stuttgart, supported by Stiftung für gesundheitliche Prävention Baden-Württemberg with funds from the social health insurance Baden-Württemberg pursuant to Article 20a SGB V and the Unfallkasse [accident insurance fund]

[18] Cf. Frisoli, Pasquale; Mäding, Attina, 2021: Einwohnerentwicklung in Stuttgart unter Pandemiebedingungen. Rückgang der Einwohnerzahl nach Jahren des Wachstums im Jahr 2020. In: State Capital Stuttgart (ed.): Statistik und Informationsmanagement 5/2021, p. 139-159.

[19] Cf. State Capital Stuttgart, Schools Administration Office (ed.), 2012: Eine runde Sache - Die Ganztagsgrundschule in Stuttgart. Rahmenkonzept zum Ausbau der Stuttgarter Grundschulen zu Ganztagsschulen. Stuttgart.

[20] Cf. State Capital Stuttgart (ed.), 2018: Leben – Bildung – Schule in Stuttgart. Der Bildungsbericht der Landeshauptstadt. Band 1: Grundschulalter. Stuttgart, p. 42 et seq.

[21] Cf. State Capital Stuttgart (ed.), 2018: Bericht zur Qualitätsanalyse Stuttgarter Ganztagsgrundschulen. Stuttgart; Hufnagel, Jan Manuel, 2019: Qualitätsanalyse der Stuttgarter Ganztagsgrundschulen. In: State Capital Stuttgart (ed.): Statistik und Informationsmanagement, Monthly bulletin 11/2019, p. 338-358.

[22] Association of German Cities and Towns, German Association of Towns and Communities, German Library Association (ed.), 2016: Bibliotheken als starke Vermittler für Bildung und Kultur in Städten und Gemeinden. Leitlinien und Hinweise zur Weiterentwicklung öffentlicher Bibliotheken. Berlin and Cologne.

[23] Governance is understood as a system for regulating and coordinating a state, municipality, administration or other organisational unit. This goes beyond the term of government, since negotiations, decisions and implementations of several stakeholders from the world of politics, business, organisations and civil society are coordinated here. More information: German Institute for Urban Affairs, 2018: Was ist eigentlich ... Governance? URL: https://difu.de/publikationen/difu-berichte-32018/was-ist-eigentlich-governance.html (last access 27.08.2019).

[24] Cf. Assmann, Dirk; Honold, Jasmin; Grabow, Busso und Roose, Jochen, 2018: SDG-Indikatoren für Kommunen – Indikatoren zur Abbildung der Sustainable Development Goals der Vereinten Nationen in deutschen Kommunen. Ed. Bertelsmann Foundation, Federal Institute for Research on Building, Urban Affairs and Spatial Development, German Association of District Councils, Association of German Cities and Towns, German Association of Towns and Communities, German Institute for Urban Affairs, Engagement Global. Gütersloh.

[25] Cf. Decision of the Federal Constitutional Court: https://www.bundesverfassungsgericht.de/SharedDocs/Entscheidungen/DE/2017/10/rs20171010_1bvr201916.html

[26] Cf. Water quality surveys of the State Capital Stuttgart, Environmental Protection Office.

[27] Details, also of future projects are in included in State Capital Stuttgart (ed.), 2016: Energiekonzept. Urbanisierung der Energiewende in Stuttgart. URL: https://www.stuttgart.de/leben/umwelt/energie/energiekonzept.php (last access 25.11.2021)

[28] Cf. Stuttgart's Solar Campaign. URL: https://www.stuttgart.de/leben/umwelt/energie/solaroffensive.php (last access: 12.08.2021).

[29] Münzenmaier, Werner (2018): Stuttgart: Stärkster Zuwachs an wirtschaftlicher Leistungskraft unter den Großstädten. In: State Capital Stuttgart (ed.): Statistik und Informationsmanagement, Monthly bulletin 11/2018, p. 291.

[30] Cf. Söldner, Carmen (2020): Die Entwicklung des Stuttgarter Arbeitsmarkts und der Wirtschaft in Zeiten der COVID-19-Pandemie. In: State Capital Stuttgart (ed.): Statistik und Informationsmanagement, Monthly bulletin 11, p. 318-325.

[31] At this time, the previous, combined survey of school education and vocational training was divided into separate features. This resulted in various adjustment effects during the transition period, including a significantly higher share of unknown qualifications. This has probably cut the rate of academic qualifications. It is not a specific Stuttgart phenomenon; these effects had a nationwide impact in the corresponding period.

[32] Cf. Sachverständigenrat Deutscher Stiftungen für Integration und Migration (ed.), 2012: Mobile Talente? Ein Vergleich der Bleibeabsichten internationaler Studierender in fünf Staaten der Europäischen Union. Berlin.

[33] In addition to the criterion of citizenship, an analysis of poverty rates by migration background would be informative for estimating the level of inclusion, as aimed at by the target. However, only data according to citizenship is available.

[34] For further information on the rental market cf. Held, Tobias; Schmitz-Veltin, Ansgar; Strauß, Matthias; Pazerat, Alexander, 2021: Wohnungsmarkt Stuttgart 2021. Statistik und Informationsmanagement, Special issue 2/2021. Stuttgart.

[35] Cf. Held, Tobias; Schmitz-Veltin, Ansgar; Strauß, Matthias; Pazerat, Alexander, 2021: Wohnungsmarkt Stuttgart 2021, State Capital Stuttgart (ed.): Statistik und Informationsmanagement, Special issue 2/2021.

[36] Cf. Gieck, Jochen, 2019: Öffentliche Verkehrsmittel weiter auf der Überholspur – Ergebnisse der Bürgerumfrage 2019. In: State Capital Stuttgart (ed.): Statistik und Informationsmanagement, Monthly bulletin 11/2019, p. 336-337; Schwarz, Thomas, 2012: Mobilität junger Menschen in Stuttgart im Wandel. State Capital Stuttgart (ed.): Statistik und Informationsmanagement, Monthly bulletin 10/2012.

[37] For further evaluations of the Stuttgart bicycle sharing portfolio cf. Schütt, Fabian, 2020: Nutzungsanalyse des Bike-Sharing-Angebots in Stuttgart. Werkstattbericht zu Möglichkeiten der Nutzbarmachung frei verfügbarer Stationsdaten. In: Stadtforschung und Statistik, Vol. 33, H. 2, p. 36-41.

[38] Cf. Rail network plan of Verkehrsverbund Stuttgart of barrier-free stops under: https://www.vvs.de/download/MobilitaetsEingeschraenkte.pdf (last access: 16.09.2021)

[39] Cf. https://www.umweltbundesamt.de/daten/umwelt-wirtschaft/umwelt-energiemanagementsysteme#eco-management-and-audit-scheme-emas (last access: 12.08.2021)

[40] Cf. Riedel, Henrik, 2020: Wirkungsorientiertes Nachhaltigkeitsmanagement in Kommunen. Einflussfaktoren und Effekte der Nutzung von Indikatoren. Bertelsmann Foundation, Gütersloh.

[41] Bauer, Fabienne; Hufnagel, Jan Manuel; Schmitz-Veltin, Ansgar, 2021: Gutes Essen in der Schule. Bericht zur Analyse der Essensversorgung an Stuttgarter Schulen. Stuttgart.

[42] Westrich, Paul; Schwenninger, Hans Richard; Herrmann, Mike; Klatt, Martin; Klemm, Matthias; Prosi, Rainer and Schanowski, Arno, 2000: Rote Liste der Bienen Baden-Württembergs. Naturschutz-Praxis, Artenschutz 4, Karlsruhe.

[43] Detzel, Peter, 1998: Die Heuschrecken Baden-Württembergs. Stuttgart.

[44] The information is included in the protection of species concept of the State Capital Stuttgart, 2018.

[45] For more information on the relation between the treatment of contaminated sites and groundwater quality refer to: State Capital Stuttgart, Environmental Protection Office (ed.) 2003: Kommunaler Umweltbericht: Das Grundwasser in Stuttgart. Series of the Environmental Protection Office, Volume 2003, 1.

[46] Cf. Gies, Jürgen; Holz, Philipp; Jossin, Jasmin; Milbert, Antonie; Müller, André; Peters, Oliver; Scheller, Hendrik, 2021: Nationaler Fortschrittsbericht zur Umsetzung der New Urban Agenda. BBSR online publication 2/2021. Bonn.

[47] For details refer to participatory budgeting Stuttgart: Verfahren zur Beteiligung der Bürger an der Aufstellung des Doppelhaushaltes 2022/2023. GRDrs 536/2021. Stuttgart.

[48] Gieck, Jochen; Mombrei, Andrea; Tost, Claudius, 2021: Mobiles Arbeiten bei der Landeshauptstadt Stuttgart. Ergebnisse der Mitarbeitendenbefragung 2020. In: State Capital Stuttgart (ed.): Statistik und Informationsmanagement, Monthly bulletin 2/2021, p. 47-58.

[49] Town twinning of the State Capital Stuttgart: 1) St. Helens, Great Britain, since 1948; 2) Cardiff, Great Britain, since 1955; 3) St. Louis, USA, since 1960; 4) Strasbourg, France, since 1962; 5) Mumbai, India, since 1968; 6) Menzel Bourguiba, Tunisia, since 1971; 7) Cairo, Egypt, since 1979; 8) Lodz, Poland, since 1988; 9) Brno, Czech Republic, since 1989; 10) Samara, Russia, since 1992.

[50] EUROCITIES, Energy Cities, EU Cities for Fair and Ethical Trade, Connective Cities, POLIS, EFUS, Convention of the Mayors for Climate and Energy (as a coalition of municipal networks, also member of the Climate Alliance (climate protection) and of Mayors Adapt (climate change adaptation)), Mayors for Peace and the Council of European Municipalities and Regions (CEMR)

[51] Municipalities around the world prepare Voluntary Local Reviews for the United Nations to implement the 2030 Agenda at a local level. In 2021, the contribution of municipalities was included for the first time in the Federal Government's National State Report to the United Nations on the High Level Political Forum (HLPF) 2021. The Visitor Location Registers in the Voluntary Local Reviews of Bonn, Mannheim and Stuttgart were mentioned in the State Report as examples of good practice.

The Federal Government (ed.), 2021: Report on the implementation of the 2030 Agenda for Sustainable Development. Voluntary State Report of Germany on HLPF 2021. URL: https://www.bmz.de/de/agenda-2030 (last access: 07.09.2021).

For further information on the nationwide project and updated SDG indicator catalogue cf. https://www.bertelsmann-stiftung.de/de/unsere-projekte/agenda-2030-nachhaltige-entwicklung-vor-ort/projektnachrichten/sdg-indikatoren-fuer-kommunen-1 (last access: 12.07.2021).

[52] Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) in the Federal Office for Building and Regional Planning (BBR) (ed.): National Progress Report on the Implementation of the New Urban Agenda, 2021. URL: https://difu.de/publikationen/2021/nationaler-fortschrittsbericht-zur-umsetzung-der-new-urban-agenda (last access: 07.09.2021).

[53] In the English version of the goal, "race" is also mentioned in addition to age, gender, disability, ethnicity, origin, religion or economic or other status. However, in the German language "Rasse" has a different meaning to the English term "race" which is covered by "ethnicity" and therefore not translated.

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2nd fully revised edition, Gütersloh.

Bertelsmann Foundation (ed.), 2020:
SDG-Indikatoren für kommunale Entwicklungspolitik. Indikatoren für den entwicklungspolitischen Beitrag von Kommunen zu den Sustainable Development Goals.
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Annex I – Overview of the 17 UN Sustainable Development Goals with 169 targets

Adopted on 25 September 2015 by 193 Heads of State and Government

Goal 1 End poverty in all its forms everywhere

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than $1.25 a day

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

1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

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

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

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1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions

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

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

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and promote access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries

2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility

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

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate

3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all

3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

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

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all

4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

Goal 5 Achieve gender equality and empower all women and girls

5.1 End all forms of discrimination against all women and girls everywhere

5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation

5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation

5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate

5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life

5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences

5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws

5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women

5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels

Goal 6 Ensure availability and sustainable management of water and sanitation for all

6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all

6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

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6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.b Support and strengthen the participation of local communities in improving water and sanitation management

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

7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

7.3 By 2030, double the global rate of improvement in energy efficiency

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7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States and landlocked developing countries, in accordance with their respective programmes of support

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

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

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

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

8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead

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

8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training

8.7 Take immediate and effective measures to eradicate forced labour, end modern slavery and human trafficking and secure the prohibition and elimination of the worst forms of child labour, including recruitment and use of child soldiers, and by 2025 end child labour in all its forms

8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products

8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

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8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries

8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization

Goal 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

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9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States

9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

Goal 10 Reduce inequality within and among countries

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

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

10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

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

10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations

10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions

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

10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements

10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes

10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent

Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable

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

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

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

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

11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

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

11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015–2030, holistic disaster risk management at all levels

11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

Goal 12 Ensure sustainable consumption and production patterns

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

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

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

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

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

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

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

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12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

Goal 13 Take urgent action to combat climate change and its impacts*

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

13.2 Integrate climate change measures into national policies, strategies and planning

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

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13.a Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly $100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible

13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

* Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.

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

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation*

14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

14.b Provide access for small-scale artisanal fishers to marine resources and markets

14.c Enhance the conservation and sustainable use of oceans and their resources by implementing international law as reflected in the United Nations Convention on the Law of the Sea, which provides the legal framework for the conservation and sustainable use of oceans and their resources, as recalled in paragraph 158 of "The future we want"

* Taking into account ongoing World Trade Organization negotiations, the Doha Development Agenda and the Hong Kong ministerial mandate.

Goal 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 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally

15.3 By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world

15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.6 Promote fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources, as internationally agreed

15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products

15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species

15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

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15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems

15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation

15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

Goal 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 Significantly reduce all forms of violence and related death rates everywhere

16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children

16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all

16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime

16.5 Substantially reduce corruption and bribery in all their forms

16.6 Develop effective, accountable and transparent institutions at all levels

16.7 Ensure responsive, inclusive, participatory and representative decisionmaking at all levels

16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance

16.9 By 2030, provide legal identity for all, including birth registration

16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements

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16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime

16.b Promote and enforce non-discriminatory laws and policies for sustainable development

Goal 17 Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Finance

17.1 Strengthen domestic resource mobilization, including through international support to developing countries, to improve domestic capacity for tax and other revenue collection

17.2 Developed countries to implement fully their official development assistance commitments, including the commitment by many developed countries to achieve the target of 0.7 per cent of gross national income for official development assistance (ODA/GNI) to developing countries and 0.15 to 0.20 per cent of ODA/GNI to least developed countries; ODA providers are encouraged to consider setting a target to provide at least 0.20 per cent of ODA/GNI to least developed countries

17.3 Mobilize additional financial resources for developing countries from multiple sources

17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress

17.5 Adopt and implement investment promotion regimes for least developed countries

Technology

17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism

17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

Capacity-building

17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the Sustainable Development Goals, including through North-South, South-South and triangular cooperation

Trade

17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda

17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020

17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access

Systemic issues

Policy and institutional coherence

17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence

17.14 Enhance policy coherence for sustainable development

17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development

Multi-stakeholder partnerships

17.16 Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries

17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

Data, monitoring and accountability

17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts

17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries

Source: United Nations (UN), 2015: Transforming our world: the 2030 Agenda for Sustainable Development; Resolution adopted by the General Assembly on 25 September 2015 (www.un.org/Depts/german/gv-70/band1/ar70001.pdf; last access 28.09.2021).

Annex II –
Selected SDG indicators for the State Capital Stuttgart

The following overview contains the 100 indicators selected for the present 2nd Stuttgart SDG VLR. They are allocated to the respective SDGs or their targets. Appropriate cross-references are inserted for indicators covering several SDGs.

SDG 1: No Poverty (End poverty in all its forms everywhere)		
Indicator	**Calculation**	**Source of the Indicator**
SDG 1.3: Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable		
Recipients of minimum social security benefits	(Number of benefit recipients pursuant to SGB II and SGB XII + Number of standard benefits pursuant to the Asylum Seekers Benefit Act) / (Number of residents) * 100	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2021)
Poverty – Child poverty	(Number of benefit recipients pursuant to SGB II / SGB XII under 15 years + Number of persons under 15 years in a community of dependence with benefit recipients pursuant to SGB II or SGB XII) / (Number of residents under the age of 15) * 100	Key indicator, SDG indicators for municipalities
Poverty – Poverty among adolescents / young adults	(Number of benefit recipients pursuant to SGB II / SGB XII between 15 and 17 + Number of persons between 15 and 17 in communities of dependence with benefit recipients pursuant to SGB II / SGB XII) / (Number of residents between 15 and 17) * 100	Key indicator, SDG indicators for municipalities
Poverty – Poverty among the elderly	(Number or benefit recipients pursuant to SGB XII 65 years and older) / (Number of residents 65 years and older) * 100	Key indicator, SDG indicators for municipalities
Poverty – Poverty among single parents	(Number of single parents with benefits pursuant to SGB II) / (Number of single parents) * 100	Supplement State Capital Stuttgart 2019
Net social expense ratio	(Net social expense) / (Ordinary expenses) * 100	Supplement State Capital Stuttgart 2021
Income distribution: Households with low income	*See SDG 10*	

Indicator	Calculation	Source of the Indicator
School leavers by school-leaving qualifications	*See SDG 4*	
Relative poverty among women	*See SDG 5*	
Unemployment	*See SDG 8*	
"People increasing earnings"	*See SDG 8*	
Relative poverty rate among foreigners	*See SDG 10*	
Accommodation service for social housing	*See SDG 11*	

SDG 2: Zero Hunger (End hunger, achieve food security and improved nutrition and promote sustainable agriculture)

Indicator	Calculation	Source of the Indicator
SDG 2.2: By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons		
Children with overweight (at school enrolment)	(Number of children at school enrolment with overweight) / (Number of all examined children of a school year) * 100	Key indicator, SDG indicators for municipalities
SDG 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality		
Organic farming (proportion of land and farm)	(Proportion of agricultural land farmed organically) / (Area under agricultural use in total) * 100 (Proportion of organic farms) / (Number of agricultural farms in total) * 100	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2021)
Nitrogen surplus	(Nitrogen surplus in kilogrammes) / (Area under agricultural use in hectares) * 100	Key indicator, SDG indicators for municipalities
Soil index	*See SDG 15*	

SDG 3: Good Health and Well-Being - Ensure healthy lives and promote well-being for all at all ages		
Indicator	**Calculation**	**Source of the Indicator**
SDG 3.4: By 2030, reduce by one-third pre-mature mortality from non-communicable diseases through prevention and treatment, and promote mental health and well-being		
Children with conspicuous screening of gross motor skills	(Number of children at school enrolment with a conspicuous screening of gross motor skills) / (Number of all children of an enrolment year examined) * 100	Supplement State Capital Stuttgart 2021
Level of organisation in sport	(Number of persons organised in sport clubs per life phase) / (Number of residents in the respective life phase) * 100	Supplement State Capital Stuttgart 2021
Urban physical activity spaces	(Sport areas accessible to all in square metres) / (Total number of residents) * 100	Supplement State Capital Stuttgart 2021
Promotion of physical activity in nursery schools	Number of Physical Activity Passport nursery schools and certified specialists for the Physical Activity Passport	Supplement State Capital Stuttgart 2021
Suicide mortality	(Number of suicides of men) / (Number of residents) * 100,000	Supplemental indicator proposal, SDG indicators for municipalities
	(Number of suicides of women) / (Number of residents) * 100,000	
SDG 3.6: By 2020, halve the number of global deaths and injuries from road traffic accidents		
Traffic casualties	*See SDG 11*	
SDG 3.8: Achieve universal health coverage, including financial risk protection, access to quality essential health care services and access to safe, effective, quality and affordable essential medicines and vaccines for all		
Premature mortality	(Number of fatalities among persons under 65) / (Number of residents) * 1,000	Key indicator, SDG indicators for municipalities
Medical care	(Number of general practitioners, physicians without a specialisation) / (Number of residents) * 100,000	Key indicator, SDG indicators for municipalities
Primary care close to home – GP practice	Linear distance to the nearest GP practice according to residents	SDG indicators for municipalities 2020
Primary care close to home – Pharmacy	Linear distance to the nearest pharmacy rated according to residents	SDG indicators for municipalities 2020

Indicator	Calculation	Source of the Indicator
Places in nursing homes	(Number of places available in nursing homes) / (Number of residents 65 years and older) * 1,000	Supplemental indicator proposal, SDG indicators for municipalities
SDG 3.9: By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination		
Air quality	Nitrogen dioxide pollution: Annual medium NO_2 > 40µg / m³	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2019)
	Particulate matter pollution: Number of days per year with a legal limit of PM10 > 50 µg / m³	Key indicator, SDG indicators for municipalities (modified)
Modal Split	*See SDG 11*	
Greenhouse gas emissions	*See SDG 13*	
Noise pollution	Day / evening / night noise index over 24 hours: (Number of residents with road traffic noise exposure above 65 db(A) over 24 hours) / (Number of residents) * 100	Supplement State Capital Stuttgart 2019
	Night-time noise index: (Number of residents with night-time road traffic noise exposure above 55 dB(A)) / (Number of residents) * 100	Supplement State Capital Stuttgart 2019
Contaminated sites	*See SDG 15*	

SDG 4: Quality Education (Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all)

Indicator	Calculation	Source of the Indicator
SDG 4.1: By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes		
Transition rate from primary school to secondary school	(Number of transitions to the respective type of school) / (Number of primary school children in final year) * 100	Supplement State Capital Stuttgart 2021
SDG 4.2: By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education		
Childcare: Childcare for under 3-year-olds	(Number of children under 3 in day-care centres) / (Number of children under 3) * 100	Key indicator, SDG indicators for municipalities

Indicator	Calculation	Source of the Indicator
Childcare: Childcare rate for under 3-year-olds	(Number of places for children under 3) / (Number of children under 3) * 100	Supplement State Capital Stuttgart 2021
Childcare: Childcare for 3 to 6 years old children	(Number of 3 to 6 years old children in day-care centres) / (Number of 3 to 6 years old children) * 100	Key indicator, SDG indicators for municipalities
Childcare: Childcare rate of 3 to 6 years old children	(Number of places for 3 to 6 years old children) / (Number of 3 to 6 years old children (3 years + 27% of the 6 to 7 years old children at 98%)) * 100	Supplement State Capital Stuttgart 2021
Children with speech impediments	(Number of children with a conspicuous language screening according to HASE) / (Number of all children examined in an enrolment year) * 100	Supplement State Capital Stuttgart 2021
Gross motor skills among children	*See SDG 3*	
Promotion of physical activity in nursery schools	*See SDG 3*	
SDG 4.3: By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university		
School leavers from general education schools by school-leaving qualifications	(Number of school leavers by school-leaving qualifications) / (Number of school leavers in total) * 100 (further differentiated by gender)	Supplement State Capital Stuttgart 2021
SDG 4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent work and entrepreneurship		
School leavers without a qualification	*See indicator "School leavers by school-leaving qualifications"*	
SDG 4.5: By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations		
Proportion of all-day primary schools	(Number of public all-day primary schools) / (Total number of primary schools) * 100	Supplement City of Stuttgart 2021
SDG 4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.		

Indicator	Calculation	Source of the Indicator
Educational programmes with ecological sustainability relevance	Number of schools participating in at least one eco-school programme, holding environmental certificates or involved in ESD projects) / (Total number of schools) * 100 (further differentiated by programmes)	Supplemental indicator proposal, SDG indicators for municipalities (modified State Capital Stuttgart 2021)
Loans from the Library of Stuttgart	(Number of loans) / (Number of residents)	Supplement City of Stuttgart 2021
Culture budget	(Cultural budget in Euro) / (Number of residents)	Supplement City of Stuttgart 2021
Informal citizen participation	*See SDG 16*	
Participatory budgeting	*See SDG 16*	
Participation of adolescents	*See SDG 16*	

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

Indicator	Calculation	Source of the Indicator
SDG 5.1: End all forms of discrimination against all women and girls everywhere		
Employment rates: Full-time employment rate of women and men	((Number of women subject to social security contributions at the place of residence between 15 and 64 years) / (Number of women between 15 and 64 years in total) * 100) / ((Number of men subject to social security contributions at the place of residence between 15 and 64 years) / (Number of men between 15 and 64 in total) * 100)) * 100	Key indicator, SDG indicators for municipalities
Employment rates: Part-time employment rates of women and men	(Number of women subject to social security contributions between 15 and 64 years at the place of residence in part-time employment) / (Number of women subject to social security contributions between 15 and 64 years at the place of residence in total) * 100 (Number of men subject to social security contributions between 15 and 64 years at the place of residence in part-time employment) / (Number of men subject to social security contributions at the place of residence in total) * 100	Supplement City of Stuttgart 2021

Indicator	Calculation	Source of the Indicator
Relative poverty among women	((Number of female benefit recipients pursuant to SGB II and SGB XII) / (Number of women)) / ((Number of male benefit recipients pursuant to SGB II and SGB XII) / (Number of men)) * 100	Supplement City of Stuttgart 2019
Poverty among single parents	*See SDG 1*	
SDG 5.5: Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life		
Women in the Stuttgart Municipal Council	(Number of women with a seat in the Municipal Council) / (Seats in the Municipal Council in total) * 100	Key indicator, SDG indicators for municipalities
Women in management positions at the State Capital Stuttgart	(Number of women in management positions) / (Number of employees in management positions) * 100	Supplement City of Stuttgart 2021

SDG 6: Clean Water and Sanitation (Ensure availability and sustainable management of water and sanitation for all)

Indicator	Calculation	Source of the Indicator
SDG 6.3: By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally		
Wastewater treatment	(Wastewater volume treated by denitrification and the elimination of phosphorus) / (Wastewater volume in total) * 100	Key indicator, SDG indicators for municipalities
Quality of running water	(Watercourses with at least class II in km) / (Total watercourses in km) * 100	Key indicator, SDG indicators for municipalities
Renaturation measures of watercourses	*See SDG 15*	
SDG 6.6: By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers aquifers and lakes		
Consumption of drinking water	*See SDG 12*	

SDG 7: Affordable and Clean Energy (Ensure access to affordable, reliable, sustainable and modern energy for all)

Indicator	Calculation	Source of the Indicator
SDG 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix		
Proportion of renewable energy in gross final energy consumption	(Energy supply by renewable energy) / (Gross final energy consumption (climatically adjusted)) * 100	Key indicator, SDG indicators for municipalities (modified)
Power from photovoltaics	(Installed photovoltaic power) / (Number of residents)	Supplement City of Stuttgart 2021
Heat and power generation from renewable energy in the city area	Annual heat and power generation from renewable energy (GWh / a)	Supplement City of Stuttgart 2019
Final energy consumption: Consumption of final energy by industry, commerce, trade and services	(Consumption of final energy by industry, commerce, trade, and services (climatically adjusted)) / (Number of employees subject to social security contributions)	Supplement City of Stuttgart 2019
Final energy consumption: Final energy consumption by traffic	(Consumption of final energy by traffic (climatically adjusted)) / (Number of residents)	Supplement City of Stuttgart 2019
Final energy consumption: Final energy consumption by private households	(Consumption of final energy by private households (climatically adjusted)) / (Number of residents)	Supplement City of Stuttgart 2019
Final energy consumption: City as a whole	Consumption of final energy by the city as a whole (climatically adjusted)	Supplement City of Stuttgart 2019
Completed residential buildings with renewable heating energy	*See SDG 11*	
SDG 7.3: By 2030, double the global rate of improvement in energy efficiency		
Energy productivity	(Gross domestic product) / (Primary energy consumption)	Supplemental indicator proposal SDG indicators for municipalities
Passenger cars with electric drive	*See SDG 11*	

SDG 8: Decent Work and Economic Growth (Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all)		
Indicator	**Calculation**	**Source of the Indicator**
SDG 8.1: Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 percent gross domestic product growth per annum in the least developed countries		
Gross domestic product	(Gross domestic product) / (Number of residents)	Key indicator, SDG indicators for municipalities
SDG 8.2: Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value added and labour-intensive sectors		
Highly qualified people	*See SDG 9*	
Start-ups	*See SDG 9*	
Energy productivity	*See SDG 7*	
Final energy consumption	*See SDG 7*	
Digital municipality	*See SDG 16*	
SDG 8.4: Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-Year Framework of Programmes on Sustainable Consumption and Production, with developed countries taking the lead		
EMAS-certified sites	*See SDG 12*	
Amount of waste	*See SDG 12*	
Consumption of drinking water	*See SDG 12*	
Sustainable procurement: Proportion of sustainable procurement measures	*See SDG 12*	
Sustainable procurement: Index Sustainable Procurement	*See SDG 12*	
SDG 8.5: By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value		
Unemployment: Unemployment in total	(Unemployed people) / ((The entire civilian labour force) + (Unemployed people)) * 100	Supplemental indicator proposal SDG indicators for municipalities
Unemployment among adolescents and young adults	(Unemployed people under 25) / ((The entire civilian labour force under 25) + (Unemployed people under 25)) * 100	Supplemental indicator proposal SDG indicators for municipalities

Indicator	Calculation	Source of the Indicator
School leavers by school-leaving qualifications	*See SDG 4*	
Long-term unemployment in total	(Unemployed people with duration of unemployment of > 1 year) / ((The entire civilian labour force) + (Unemployed people)) * 100	Key indicator, SDG indicators for municipalities
Employment rate	(Number of employees subject to social security contributions between 15 and 64 years at the place of residence) / (Number of residents between 15 and 64 years) * 100	Key indicator, SDG indicators for municipalities
Employment rates of women and men	*See SDG 5*	
"People increasing earnings"	(Number of recipients of unemployment benefits II in employment) / (Total number of recipients of unemployment benefits II) * 100	Key indicator, SDG indicators for municipalities
Trade tax rate	(Trade tax revenue minus trade tax levy) / (Ordinary income) * 100	Supplement City of Stuttgart 2021

SDG 9: Industry, Innovation and Infrastructure (Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation)

Indicator	Calculation	Source of the Indicator
SDG 9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities		
Energy productivity	*See SDG 7*	
Digital municipality	*See SDG 16*	
Modal Split	*See SDG 11*	
Bicycle traffic	*See SDG 11*	
Passenger cars with electric drive	*See SDG 11*	
SDG 9.5: Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending		

Indicator	Calculation	Source of the Indicator
Start-ups: Start-ups in total	(Number of new establishment of commercial enterprises) / (Number of residents) * 1,000	Key indicator, SDG indicators for municipalities
Start-ups: Start-ups by women	(Number of new establishment of commercial enterprises by women) / (Number of new establishment of commercial enterprises in total) * 100	Supplemental indicator proposal SDG indicators for municipalities
Highly-qualified people	(Number of employees with an academic degree subject to social security contributions at the place of work) / (Total number of employees subject to social security contributions at the place of work) * 100	Key indicator, SDG indicators for municipalities
SDG 9.c: Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020		
Broadband coverage – Private households	(Number of households with broadband coverage (≥ 50 Mbit / s)) / (Number of all households) * 100	SDG indicators for municipalities
Mobile working	*See SDG 16*	

SDG 10: Less Inequalities (Reduce inequality within and among countries)

Indicator	Calculation	Source of the Indicator
SDG 10.2: By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.[53]		
Recipients of minimum social security benefits	*See SDG 1*	
Poverty – Child poverty	*See SDG 1*	
Poverty – Poverty among adolescents / young adults	*See SDG 1*	
Poverty – Poverty of the elderly	*See SDG 1*	
Poverty – Poverty of single parents	*See SDG 1*	
Relative poverty rate among foreigners	((Number of benefit recipients pursuant to SGB II and SGB XII without German citizenship) / (Total foreigners)) / ((Number of benefit recipients pursuant to SGB II and SGB XII with German citizenship) / (Total German citizens))	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2021)

Indicator	Calculation	Source of the Indicator
Relative employment rate of foreigners	((Number of foreign employees subject to social security contributions at the place of residence between 15 and 64 years) / (Total number of foreigners between 15 and 64 years)) / ((Total number of employees subject to social security contributions at the place of residence between 15 and 64 years) / (Total number of residents between 15 and 64 years)) * 100	Supplemental indicator proposal SDG indicators for municipalities
Employment rates of women and men	*See SDG 5*	
School leavers by school-leaving qualifications	*See SDG 4*	
Meeting points for citizens	(Number of meeting points for the elderly, district community centres, district and family centres) / (Number of residents) * 1,000	Supplemental indicator proposal SDG indicators for municipalities (SDG 16; modified State Capital Stuttgart 2021)
Income distribution: Households with low income	(Number of households with a total net income of less than 25,000 Euro per year) / (Total number of households) * 100	Key indicator, SDG indicators for municipalities
Income distribution: Households with medium income	(Number of households with a total net income between 25,000 and 50,000 Euro per year) / (Total number of households) * 100	Key indicator, SDG indicators for municipalities
Income distribution: Households with high income	(Number of households with a total net income of more than 50,000 Euro per year) / (Total number of households) * 100	Key indicator, SDG indicators for municipalities

SDG 11: Sustainable Cities and Communities (Make cities and settlements inclusive, safe, resilient and sustainable)

Indicator	Calculation	Source of the Indicator
SDG 11.1: By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums		
Rents	Asking market rents (net cold) per sqm for initial letting and re-letting	Key indicator, SDG indicators for municipalities
Accommodation service for social housing	Accommodation service for social housing: (Number of households placed) / (Total number of households registered in the municipal planning file) * 100 Waiting list: Average time in the planning file for an apartment – itemised by household size and citizenship	Supplement City of Stuttgart 2019

Indicator	Calculation	Source of the Indicator
SDG 11.b: By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels		
Completed residential buildings with renewable heating energy	(Number of completed residential buildings with renewable primary heating energy) / (Number of completed buildings) * 100	SDG indicators for municipalities 2020
SDG 11.2: By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons		
Modal split (choice of transport)	(Number of road users who go to work / training place on foot, by bicycle, e-bike or public transport) / (Total number of road users on their way to work or training place) * 100	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2021)
Bicycle traffic	(Number of cyclists counted) / (Number of residents) * 100	Supplement City of Stuttgart 2021
Rental bikes and pedelecs	(Number of rental bikes, pedelecs and cargo pedelecs) / (Number of residents) * 10,000	Supplement City of Stuttgart 2021
Passenger cars with electric drive	(Number of registered passenger cars with electric drive) / (Number of registered passenger cars) * 100	SDG indicators for municipalities 2020
Accessibility of public transport: Number of stops equipped for the disabled	(Number of barrier-free bus stops) / (Total number of bus stops) * 100	Supplemental indicator proposal SDG indicators for municipalities (modified State Capital Stuttgart 2021)
Traffic casualties	(Number of persons injured or killed through traffic accidents) / (Number of residents) * 1,000	Key indicator, SDG indicators for municipalities
SDG 11.3: By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries		
Land use	Annual land use: Area used for settlements and transport in ha – area used for settlements and transport in ha of the previous year	Key indicator, SDG indicators for municipalities
Recreational areas	(Green areas and leisure space) / (Number of residents)	Key indicator, SDG indicators for municipalities
Urban physical activity spaces	*See SDG 3*	
Loans from the Library of Stuttgart	*See SDG 4*	

Indicator	Calculation	Source of the Indicator
Culture budget	*See SDG 4*	
Energy productivity	*See SDG 7*	
Biodiversity	*See SDG 15*	
Cash surplus / requirement for permanent fulfilment of tasks	*See SDG 16*	
Digital municipality	*See SDG 16*	
Mobile working	*See SDG 16*	
SDG 11.6: By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management		
Air quality	*See SDG 3*	
Noise pollution	*See SDG 3*	
Amount of waste	*See SDG 12*	
Greenhouse gas emission Industry, commerce trade and services, transport and private households	*See SDG 13*	
SDG 11.7: By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities		
Crimes	*See SDG 16*	

SDG 12: Responsible Consumption and Production (Ensure sustainable consumption and production patterns)

Indicator	Calculation	Source of the Indicator
SDG 12.2: By 2030, achieve the sustainable management and efficient use of natural resources		
Consumption of drinking water	(Annual consumption of drinking water (households and small business)) / (Number of residents) * (days per year)	Key indicator, SDG indicators for municipalities
Amount of waste: in total	(Total amount of waste in kg) / (Number of residents)	Key indicator, SDG indicators for municipalities

Indicator	Calculation	Source of the Indicator
Amount of waste: Proportion of recyclable material	(Amount of recyclable material and green and organic waste in kg) / (Total amount of waste in kg) * 100	Supplement City of Stuttgart 2019
Wastewater treatment	*See SDG 6*	
Final energy consumption	*See SDG 7*	
Energy productivity	*See SDG 7*	
Power from photovoltaics	*See SDG 7*	
Heat and power generation from renewable energy in the city area	*See SDG 7*	
Completed residential buildings with renewable heating energy	*See SDG 11*	
SDG 12.5: By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse		
Amount of waste	*See SDG 12*	
SDG 12.6: Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle		
EMAS-certified sites	Number of EMAS-certified sites	Key indicator, SDG indicators for municipalities
SDG 12.7: Promote public procurement practices that are sustainable, in accordance with national policies and priorities		
Sustainable procurement: Proportion of sustainable procurement measures	(Number of sustainable procurement procedures) / (Number of procurement procedures) * 100	SDG indicators for municipalities 2020
Sustainable procurement: Index Sustainable Procurement	Summated index of ten dichotomous variables based on a standardised questionnaire.	SDG indicators for municipalities 2020
SDG 12.8: By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature		
Educational programmes with ecological sustainability relevance	*See SDG 4*	

SDG 13: Climate Action (Take urgent action to combat climate change and its impacts)		
Indicator	**Calculation**	**Source of the Indicator**
SDG 13.1: Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries		
Forest area	(Forest area) / (Total area) * 100	Supplemental indicator proposal, SDG indicators for municipalities
Trees in public spaces	(Number of trees in public spaces) / (Total public space)	Supplement of the City of Stuttgart 2019
Land use	*See SDG 11*	
Recreational areas	*See SDG 11*	
SDG 13.2: Integrate climate change measures into national policies, strategies and planning		
Greenhouse gas emissions: Industry, commerce trade and services	(Emission of CO_2 equivalents from industry, commerce, trade and services) / (Employees subject to social security contributions in industry, commerce, trade and services)	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2019)
Greenhouse gas emissions: Transport	(Emission of CO_2 equivalents from transport) / (Number of residents)	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2019)
Greenhouse gas emission: Private households	(Emission of CO_2 equivalents from private households) / (Number of residents)	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2019)
Greenhouse gas emissions: Entire city	Emission of CO_2 equivalents from all sectors	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2019)
Share of renewable energy in the final energy consumption	*See SDG 7*	
Energy productivity	*See SDG 7*	
Final energy consumption industry, commerce, trade and services traffic and private households	*See SDG 7*	

Indicator	Calculation	Source of the Indicator
Completed residential buildings with renewable heating energy	*See SDG 11*	
Bicycle traffic	*See SDG 11*	
Rental bicycles and pedelecs	*See SDG 11*	
Passenger cars with electric drive	*See SDG 11*	

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

Indicator	Calculation	Source of the Indicator
SDG 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains, and drylands, in line with obligations under international agreements		
Soil index	(Soil area) * (Quality level)	Supplement of the City of Stuttgart 2019
Contaminated sites	Number of contaminated sites with need for action	Supplement of the City of Stuttgart 2019
Renaturation measures of watercourses	(Length of renaturalised watercourses) / (Length of originally technically shored and drained watercourses) * 100	Supplement of the City of Stuttgart 2019
Nitrogen surplus	*See SDG 2*	
Quality of running water	*See SDG 6*	
Land use	*See SDG 11*	
SDG 15.2: By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally		
Forest area	*See SDG 13*	
Certified forest area	*See SDG 13*	

Indicator	Calculation	Source of the Indicator
SDG 15.5: Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species		
Biodiversity	Biodiversity A: Wild bee species according to endangerment status according to the Red List Baden-Württemberg	Key indicator, SDG indicators for municipalities (modified State Capital Stuttgart 2019)
	Biodiversity B: Locust species according to endangerment status according to the Red List Baden-Württemberg	
	Biodiversity C: Amphibian species according to endangerment status according to the Red List Baden-Württemberg	

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		
Indicator	**Calculation**	**Source of the Indicator**
SDG 16.1: Significantly reduce all forms of violence and related death rates everywhere		
Crimes	(Number of crimes reported to the police) / (Number of residents) * 1,000	Key indicator, SDG indicators for municipalities
SDG 16.6: Develop effective, accountable and transparent institutions at all levels		
Total municipal debt	(Debt of municipality in all partial budgets) / (Number of residents)	Key indicator, SDG indicators for municipalities
Trade tax rate	*See SDG 8*	
Cash surplus / requirement	Balance of incoming and outgoing payments from current administrative activities	Supplement of the City of Stuttgart 2021
Net social expense ratio	*See SDG 1*	
Digital municipality	Summated index of 16 variables, based on a standardised questionnaire.	SDG indicators for municipalities 2020, indicator catalogue New Urban Agenda (NUA)
Mobile working	(Mobile terminals with VPN at the State Capital Stuttgart) / (Number of employees with e-mail address) * 100	Supplement of the City of Stuttgart 2021

Indicator	Calculation	Source of the Indicator
SDG 16.7: Ensure responsive, inclusive, participatory and representative decision-making at all levels		
Participation of adolescents	Boroughs with youth councils: (Number of boroughs with a youth council) / (Total number of boroughs) * 100	Key indicator, SDG indicators for municipalities (modified)
	Participation in youth council elections: (Number of voters in the youth council election) / (Total number of eligible voters in the youth council election) * 100	
Informal citizen participation: Registered users at www.stuttgart-meine-stadt.de	Number of registered users at www.stuttgart-meine-stadt.de	Supplement of the City of Stuttgart 2021
Participatory budgeting: Participants	(Number of participants in Stuttgart's participatory budgeting) / (Number of residents) * 1,000	Supplement of the City of Stuttgart 2021
Degree of organisation in Sports	*See SDG 3*	
Women in Stuttgart's Municipal Council	*See SDG 5*	
Women in management positions	*See SDG 5*	
Meeting points for citizens	*See SDG 10*	

SDG 17: Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development

Indicator	Calculation	Source of the Indicator
SDG 17.16: Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilise and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries		
Sustainable procurement: Share of sustainable procurement programmes	*See SDG 12*	

Indicator	Calculation	Source of the Indicator
Sustainable procurement: Sustainable procurement index	*See SDG 12*	
SDG 17.17: Encourage and promote effective public, public-private and civil society partnerships, building on experience and resourcing strategies for partnerships		
Twin towns in the Global South	(Funds for cooperation with twin towns in the Global South) / (Free project funds of the International Relations Department) * 100	Supplement State Capital Stuttgart 2019
Projects and advisory services	Number of advisory and supporting services in the core areas of the International Relations Department	Supplement State Capital Stuttgart 2021

Annex III – Catalogue of additional indicator proposals

In the context of updating the 2021 SDG VLR, additional indicators were proposed and discussed by the participants that were not included in the present VLR. They are listed below according to SDGs and, in addition to the proposals from the 2019 VLR, are intended to provide further suggestions for reflecting the SDGs for future VLRs of the State Capital, as well as the further development of the SDG indicators for municipalities as a whole.

SDG	Target	Discussed indicator
SDG 1: End poverty in all its forms and everywhere	**1.3**	Deprivation index
SDG 2: End hunger, achieve food security and improved nutrition and promote sustainable agriculture	**2.2**	Deprivation index
SDG 3: Ensure healthy lives and promote well-being for all at all ages	**3.8**	Deprivation index
SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	**4.3**	Early School Leavers
	4.7	Children in young people's homes
	4.2	Children with parenting support
	4.3	Adult education
	4.a	Number of accessible school buildings in the total number of school buildings (accessible school buildings, including learning environment)
	4.a	Number of fully-networked municipal school buildings related to the total number of all municipal school buildings
	4.a	Number of school buildings with voice alarm systems in relation to the total number of municipal school buildings (safe school buildings)

	4.5	Number of digital terminals in municipal schools compared to the total number of pupils in municipal schools
	4.5	Number of inclusively educated pupils in relation to pupils with special educational needs (equal access for children with disabilities to education)
SDG 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	**8.5**	Adult education
SDG 10: Reduce inequality within and among countries	**10.2**	Deprivation index
	10.2	Adult education
	10.2	Projects with migrant organisations
	10.2	People with a migration background in the city, municipal or county council
	10.2	Children in young people's homes
SDG 11: Make cities and human settlements inclusive, safe, resilient and sustainable	**11.b**	Quota of energy refurbishment of buildings
	11.b	Heating renovation programme (number of heating systems funded in the context of the programme)
	11.2	Digital public transport services
	11.2	Car sharing passenger cars
	11.2	Publicly accessible charging stations for e-vehicles
	11.2	Company charging points
	11.2	Private charging points for e-vehicles
	11.2	Total length of footpath network (Length of dedicated footpath network)
	11.2	Main pedestrian routes (number and length)

	11.6	Ventilation and greening of neighbourhoods
	11.7	Playgrounds and physical activity spaces for children, adolescents and families (by number of residents in the age groups / number of families)
	11.7	Recreation and meeting facilities for children, adolescents and families (by number of residents in the age groups / number of families)
SDG 12: Ensure sustainable consumption and production patterns	**12.5**	Recycling quota
	12.6	Locations with accounting by welfare economics
SDG 13: Climate Action (Take urgent action to combat climate change and its impacts)	**13.1**	Public green spaces
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**	Reserves (Nature reserves, fauna-flora habitats and bird sanctuaries, protected habitats)
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	**16.7**	Children in young people's homes
	16.7	Indicator People with a migration background in the city, municipal or county council
SDG 17: Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development	**17.16** **17.17**	Indicator Projects with migrant organisations

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