Waste prevention country profile

Germany

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European Environment Agency

Country profile: Germany

General information

Name of the country/ region	Germany
Coverage of the waste prevention programme (national/ regional)	National
Type of programme (stand alone or integrated into waste management plan)	Stand-alone programme
Title of programme and link to programme	"Wertschätzen statt wegwerfen - Abfallvermeidungsprogramm des Bundes und der Länder. Fortschreibung" (valuing instead of discarding - waste prevention programme by the federal government and the federal states) https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Abfallwirtschaft/fortschreibung_abfallvermeidungsprogramm_bund_laender_bf.pdf
Duration of programme	2021 until 2027
Language	German
Contact person in the country/region	Dr. Andreas Jaron, BMUV; Andreas.Jaron@bmuv.bund.de
Development process of the programme/ revision	The revision of the programme has been based on a scientific research project initiated by the German Environment Agency (UBA) and the German Federal Ministry for the Environment (BMUV). The review and evaluation of the implementation of the WPP took place within the scope of the project. Based on the analysis results for the implementation of the WPP at federal, state and municipal level and an assessment of existing prevention potentials, concrete proposals for a possible further development and updating of the program on prioritized waste streams and corresponding priority prevention approaches were developed. In addition, structural adjustment and change needs of the WPP were worked out and further research was shown. For further information see Wilts et al. 2020[1]. The work on the evaluation of the revised programme will begin at the end of the year and is expected to be completed in 2026.

[1] https://www.umweltbundesamt.de/publikationen/updating-the-waste-prevention-programme-preparing

Foreseen budget for implementation of the project	No specific budget for the implementation of the programme is included in the programme.

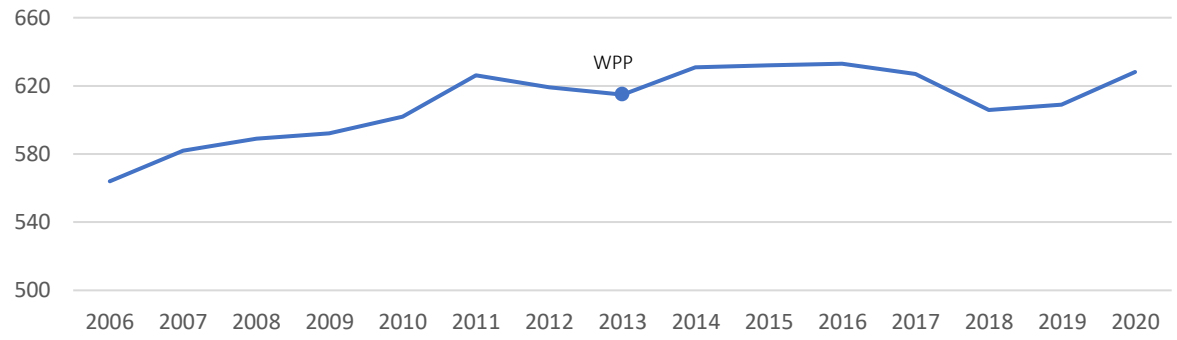
WASTE GENERATION

The following figures illustrate the progress towards waste prevention and decoupling of waste generation from economic growth in Germany:

Municipal Solid Waste (MSW)

- The generation of municipal waste per capita (see Figure 1) increased almost steadily from 564 kg per capita in 2006 and reached its maximum in 2016 with 633 kg per capita. The trend stagnated between 2011 and 2013 and stabilized on a higher level after 2014. In addition, a decreasing trend can be seen since 2016, which reached a level of 606 kg per capita in 2018. It has since increased to 628 kg in 2020, which is above the EU average of 517 kg[2] per capita in the same year.
- The first WPP of Germany came into force in 2013, though it is unclear whether this has influenced municipal waste generation trends as this is influenced by many factors (population, household expenditure).

Figure 1: Municipal waste generation in Germany (kg per capita), 2006-2020



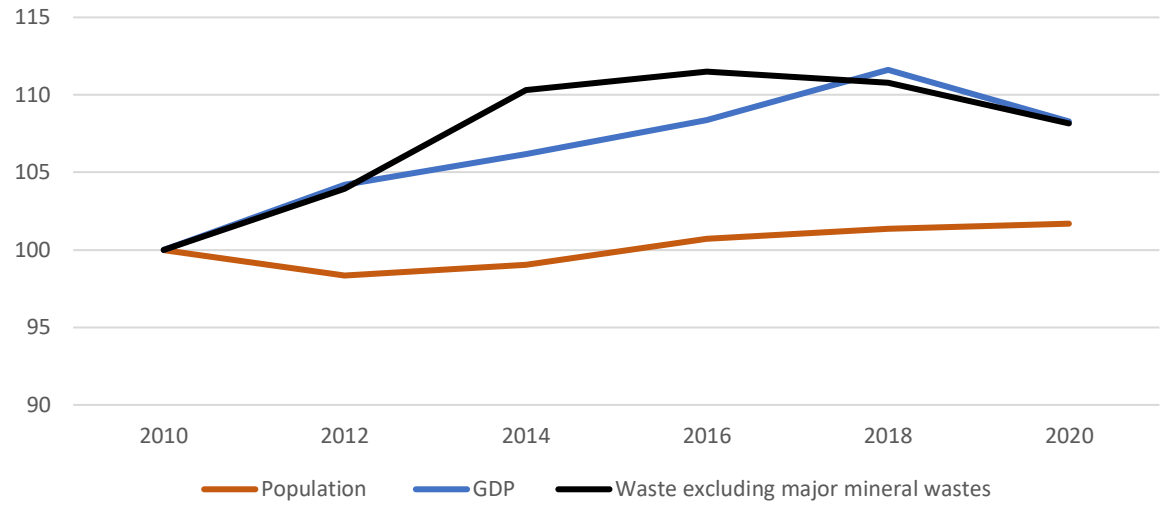
Source: Eurostat [ENV_WASMUN]

Total waste

- Germany´s waste generation (excluding major mineral wastes) increased significantly from 2010 (1 713 kg/capita) to 2014 (1 908 kg/capita) and remained steady for the years after, before falling back down in 2020 (1 822 kg/capita) (see Figure 2). A similar trend can be observed for Germany´s GDP in that it increased until 2016 before declining until 2020.
- Decoupling total waste (excluding major mineral wastes) generation from economic growth cannot be observed.
- A link between waste generation and population growth, which had its peak in 2015, also cannot be observed.

Figure 2: Growth rate of waste (excluding major mineral wastes), GDP (main GDP aggregates, chain linked), and population, 2010-2020, (2010=100).

[2] Based on data collected from Eurostat in September 2022.



Source: Eurostat [ENV_WASGEN, NAMA_10_PC, DEMO_GIND]

WASTE PREVENTION PROGRAMME

Objectives and priorities

1.	Waste prevention objectives of the Programme - quantitative objectives (waste reduction) - qualitative objectives (reduction of hazardous substances/ environmental impacts)	Decoupling of economic wellbeing from waste generation and related burdens to the environment.
2.	Sectors covered	• construction and infrastructure; • manufacturing & industry; • retail; • households; • service activities; • hospitality; • public services (including procurement).
3.	Priority waste types	• Food/organic; • construction and demolition waste; • hazardous waste; detergents • household/municipal waste; • packaging; • textiles • waste electrical and electronic equipment /batteries; • manufacturing waste; • bulky waste; • other miscellaneous wastes.
4.	Target groups	In addition to the first waste prevention programme that focussed on measures by public institutions, the new programme focuses on possible measures by the industry, households and other civil society actors.

Targets, indicators and monitoring

1.	Indicators proposed	The German waste prevention programme includes several indicators for the reduction of specific waste streams, based on the SDGs and other national legislations: • food waste generation • reuse of specific product groups (indicator to be developed based on the guidance by the European Commission) • municipal solid waste intensity Otherwise, it is stated that "Based on research results and EU activities, selected indicators have been and are being developed for certain waste streams, such as food waste and reuse. Other indicators require further investigation."[3]
2.	Quantitative targets	• 70 % reusable beverage containers, based on the German packaging law • By 2030, halve per capita food waste at the retail and consumer levels and reduce food losses along production and supply chains, based on the SDG 12.3 • continued decrease of municipal solid waste intensity at a comparable rate like in the past (2004-2018) •
3.	Monitoring of programme	• waste intensity will be monitored based on annual reports by the German statistical office • share of reusable packaging is monitored by annual reports due to the German packaging law
4.	Evaluation of the programme	The implementation of the programme will be evaluated after six years. Based on the annual monitoring of the above outlined indicators, additional measures might be introduced in order to fulfil the indicated targets.

[3] See waste prevention programme, p. 23.

Prevention measures

Implemented prevention measures according to Art. 9 Waste Framework Directive (WFD)	The German waste prevention programme focuses on measures that aim to prevent waste and related environmental burdens. Already implemented measures have been recorded and analysed in a specific research project initiated by UBA and BMUV.[4]

Table 1: Specific waste prevention measures structured according to Art. 9 WFD

Promote and support sustainable consumption models	• It will be analysed if a national online platform for leasing and sharing offers can be developed. • Public procurement will include also products as a service. • Support "Repair" programmes • Research Projects to support the diffusion of sustainable consumption models • Organising the Competence Centre sustainable consumption (KNK) and the National Network for sustainable Consumption • Implementation and further development of the National programme for sustainable Consumption (NPNK)
Encourage the design, manufacturing and use of products that are resource-efficient, durable (including in terms of life span and absence of planned obsolence), repairable, re-usable and upgradable.	• Public procurement will focus on durable, repairable and "low waste products", based e.g. on the German eco-label „Blauer Engel". • Further development of "Blauer Engel", including new product groups • Organizing annual "Bundespreis Ecodesign"
Target products containing critical raw materials to prevent that those materials become waste.	• Germany will support the development of reuse and prevention regulations for batteries on the EU level. • Two research projects (RePro and ReStra) have identified products containing critical as well as specifically resource intensive raw materials.
Encourage the re-use of products and the setting up of systems promoting repair and re-use activities, including in particular for electrical and electronic equipment, textiles and furniture, as well as packaging and construction materials and products.	• Analysis on whether a reduced VAT rate for repair activities und second hand products can be implemented. • The goverment will continue informing about options and benefits of reuse. • Donations for reuse will be deductable for tax purposes. • Collection of electronic products will be improved in order to support reuse; also, cooperations with local reuse networks. • In cooperation with the federal states, analysis on how reuse and waste prevention could be financed via waste fees.

[4] https://www.umweltbundesamt.de/publikationen/updating-the-waste-prevention-programme-preparing

Encourage, as appropriate and without prejudice to intellectual property rights, the availability of spare parts, instruction manuals, technical information, or other instruments, equipment or software enabling the repair and re-use of products without compromising their quality and safety.	• Quality standards for second hand products as well as legal liabilities will be harmonized. • Germany will support a stringent and ambitious implementation and further development of the eco-design directive on EU level.
Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques.	• Public authorities will support the increased implementation of cost accounting systems for waste generation in companies in order to set economic incentives for resource efficient production processes. • The label „Nachhaltiges Bauen“ (sustainable construction) will be supported in order to set incentives for prevention of construction and demolition waste. • The online platform ENOB will inform architects and construction companies about financing options for resource efficient construction. • Exchange platforms for construction elements and materials will be financially supported. • A specific obligation to explore prevention potentials in construction projects will be evaluated.
Reduce the generation of food waste in primary production, in processing and manufacturing, in retail and other distribution of food, in restaurants and food services as well as in households as a contribution to the United Nations Sustainable Development Goal to reduce by 50 % per capita global food waste at the retail and consumer levels and to reduce food losses along production and supply chains by 2030.	• The national strategy on food waste prevention will be implemented and further developed. • Successful awareness raising campaigns like „Zu gut für die Tonne“ (too good for the bin) will be continued and further developed.
Encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and the reprocessing into non-food products.	• Options to support food donations will be developed in a specific working group with the federal states • A study on legal options to support food donations will be prepared. • Legal risks and liabilities for food donations will be minimized wherever possible.

Promote the reduction of the content of hazardous substances in materials and products, without prejudice to harmonised legal requirements concerning those materials and products laid down at Union level, and ensure that any supplier of an article as defined in point 33 of Article 3 of Regulation (EC) No. 1907/2006 of the European Parliament and of the Council provides the information pursuant to article 33(1) of that regulation to the European Chemicals Agency as from 5 January 2021.	• The German Environment Agency (UBA) has launched the EU LIFE project AskREACH in collaboration with 19 project partners from 13 EU Member States. The project focuses on the following objectives: ○ raising awareness about SVHCs in articles, enabling consumers to make responsible purchasing decisions, ○ raising article supplier awareness on compliance with REACH information duties, ○ improving the information flow on SVHCs between consumers and suppliers, ○ improving supply chain communication processes that ultimately aim at substituting SVHCs in articles. A smartphone app (Scan4Chem) was developed for consumers to be able to scan the barcodes of articles.[5]
Reduce the generation of waste, in particular waste that is not suitable for preparing for re-use or recycling.	• The German waste management law introduces an obligation for companies to report on returned products as well as for overproduction.
Identify products that are the main sources of littering, notably in natural and marine environments, and take appropriate measures to prevent and reduce litter from such products, where Member States decide to implement this obligation through market restrictions, they shall ensure that such restrictions are proportionate and non-discriminatory.	• The Ministry of Environment in cooperation with the German EPA have initiated a study that inter alia identified the main sources of littering and analysed options for reductions. • The EU Single Use Plastics Directive will be implemented.
Aim to halt the generation of marine litter as a contribution towards the United Nations Sustainable Development Goal to prevent and significantly reduce marine pollution of all kinds.	• Public authorities will ban single-use plastic items in their offices as well during public events. • Specific single use plastic products will be banned. • Analysis on how reusable cup systems can be supported by regulatory measures. • The population will be informed about environmental benefits of textile waste prevention.
Develop and support information campaigns to raise awareness about waste prevention and littering.	• Public authorities will specifically inform about environmental burdens linked to online-shopping and sending back of products. • It will be analysed how waste prevention can be integrated into curricula in schools and universities • Awareness raising activities will be conducted especially for avoiding single use plastic

[5] Chemicals in articles: EU LIFE Project AskREACH | Umweltbundesamt

	products, e.g. by informing about social and environmental costs of littering. • Additional campaigns will be initiated focusing on food waste prevention. • The revision of the waste prevention programme was accompanied by waste prevention dialogues on the four key topics textiles, packaging, events and education/intercultural communication.

Additional implemented prevention measures, not covered by Article 9	The programme does include a list of research projects that have analysed waste prevention potentials of specific measures or for specific waste streams. Those results have been integrated into the selection and design of planned measures, see below. The programme does also include a variety of measures and actions that could be taken by industry, households and other stakeholders. The programme is structured based on specific waste prevention concepts (reuse, economic incentives etc.) and specific waste streams (single use plastics, food waste etc.).

FOOD WASTE PREVENTION

Food waste generation

In 2020, the total amount of food waste generated in Germany reached almost 10,9 million tons, with primary production accounting for 2 % (0,2 million tons); processing 15 % (1,6 million tons); trade 7 % (0,8 million tons) and out-of-home catering for 17 % (1,9 million tons). More than half (6,5 million tons) was generated by private households, which is equivalent to about 78 kg per person.

Measures to prevent food waste

The German government undertakes various measures to prevent the generation of food waste. For instance, it provides around 16 million € for research programmes that investigate resource efficiency, food processing operations and the way consumers throw away food. In March 2020, a voluntary agreement has been signed between the Federal Ministry of Food and Agriculture (BMEL) and associations from food industry, agriculture as well as gastronomy aiming to reduce food waste.

Furthermore, in early 2019, the Federal Cabinet adopted the National Strategy for Food Waste Reduction.[6] The strategy identifies potential drivers of food waste and pinpoints challenges and spheres of activities in order to reduce food waste along the entire food supply chain.

The strategy represents the reduction of food waste as a task for society as a whole for which stakeholders from civil society, entrepreneurs as well as scientists are called upon to contribute

- This is to be achieved through participation in **sectoral dialogue fora**: Through this cooperation between these sectors, specific measures for the reduction of food waste are to be established and sector-specific targets laid down.
- Representatives of the sectoral dialogue fora will participate in one **overarching national dialogue forum** to exchange experiences and views across sectors and assess the measures and progress resulting from the dialogue fora.
- The **joint body of the Federal Government and the Laender** is a key component in the implementation process. It undertakes the tasks of an inter-ministerial, cross-Land governance instrument, monitors the evaluation process and identifies further fields of action.

REUSE OF PRODUCTS

Data

With regard to the Commission Implementing Decision[7] (), this section will be updated by the EEA accordingly.

Measures to support ReUse

Various measures to support reuse are already included in the German waste prevention programme, e. g. the support for local reuse centres or guidelines for public procurement based on second-hand products.

The UBAinitiated a research project that aimed to collect data from reuse facilities to determine the quantities of reused products in Germany. This referred, on the one hand, to the direct reuse of second-hand products and, on the other hand, to waste products which have passed through the process of preparation for reuse (end of waste) and were subsequently available for reuse. In addition,

[6] https://www.bmel.de/EN/topics/food-and-nutrition/food-waste/national-strategy-for-food-waste-reduction.html
[7] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.010.01.0001.01.ENG&toc=OJ%3AL%3A2021%3A010%3ATOC

the quantities of used products processed via internet-based platforms were estimated and a comprehensive online survey of almost 400 reuse facilities in Germany conducted. Thereby, online offers were recorded at the auction platform eBay.de over a period of one month in a total of five regions. As a result, the total quantities for the considered product groups (electrical and electronic equipment, furniture, textiles) that are already being reused or prepared for reuse in Germany have been estimated to be between 286,366 and 297,201 tonnes per year. Comparing the quantities via reuse facilities with the quantities via eBay, the importance of internet-based platforms in the electronic sector has been shown. Conversely, re-use facilities appear to have particular prerequisites in the field of textiles and, in particular, furniture. A follow-up project is planned, which will develop a specific procedure towards an annual collection of data on reuse and its provision to the European Commission. Hence, a database on specific measures will be established by public authorities to support reuse.

Best practice examples

More best practice examples are mentioned in the waste prevention programme. Below are a few select examples.

Berlin: Model city for green procurement

Studies show that environmentally compatible procurement can achieve high climate gas savings, but also relevant cost savings. In order for the state of Berlin to focus on procurement that promotes and requires environmentally compatible services and products on a binding basis, the "Administrative Regulation on Procurement and the Environment" came into force back on January 1, 2013 (last updated at the beginning of 2019). This applies to all public procurement agencies in Berlin. With performance sheets, concrete ecological requirement criteria are made binding for the procurement of various products, construction and services. Calculation tools for calculating life cycle costs are also included. In the area of waste prevention, the procurement of beverages in disposable packaging, disposable tableware and cutlery in canteens and refectories and at large events, as well as products whose cardboard transport packaging does not contain at least 70 percent recycled material, are not permitted. In the case of products for IT equipment, among other things, the availability of spare parts and the possibility of repairing them or expanding their performance with replaceable components and expansion interfaces must be guaranteed even several years after production has ceased. Larger construction projects must be built in accordance with the BNB system for sustainable construction; the use of recycled concrete is required, as is a recycling concept for the process in the event of future dismantling of the building. The next update of the administrative regulation is to include, among other things, the use of recycled plastic packaging.

Kiel on its way to become a Zero.Waste.City.

The state capital Kiel is currently on its way to becoming a Zero.Waste.City. Kiel is the first city in Germany to join the international Zero Waste Europe network and is thus pursuing the goal of avoiding waste at all levels, conserving resources and thus further reducing greenhouse gas emissions. Funded by the BMU and supported by the Wuppertal Institute, the state capital is drawing up a long-term Zero Waste concept in 2020 in which potentials are assessed, targets defined and measures identified in order to significantly reduce the amount of waste in the Kiel city area over the next decades. The basis of the zero-waste concept is the five-stage waste hierarchy, in which avoidance is the top priority. In order to reduce waste across the board and in all sectors, the city administration is involving the general public in a wide-ranging participation process as early as the concept development stage. As soon as the concept is completed, it will be submitted to the city council for approval and the active implementation phase will begin. With this decision, Kiel strives for official certification as a "Zero.Waste.City".

Links to circular economy

Waste prevention is an integral part of the comprehensive transformation towards a circular economy. It reduces the input of natural resources into the economy as well as the necessary efforts to collect and recycle waste.

Approaches for improving circularity are often highly interlinked with successful waste prevention. The following table shows which circular strategies are explicitly integrated into the German waste prevention programme.

Topic	Addressed in the programme	Comments
Eco-design	Yes	Inter alia by supporting EU eco-design regulation
Repair, refurbishment and remanufacture	Yes	Several initiatives that focus on extending the use phase of products.
Recycling	No	Recycling is covered in the German waste management law.
Economic incentives and finance	Yes	Inter alia by assessing how waste prevention can be included in eco-modulated packaging fees.
Circular business models	Yes	E. g. national platform for sharing/ leasing.
Eco-innovation	Yes	E. g. support for the Scan4Chem app.
Governance, skills and knowledge	Yes	E. g. by integrating waste prevention into curricula.