

# Circular Vienna

The Strategy to Save Resources in our City



**Short  
version**







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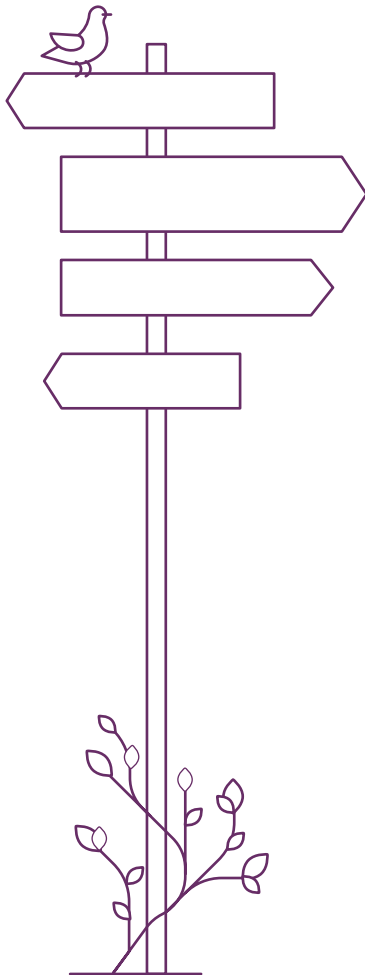
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# Vienna in the Spirit of Resource Transition

Vienna is one of the most liveable cities in the world. To ensure that it stays that way, the city is tackling the major challenges of our time. The climate crisis, species extinction and unstable commodity prices are all symptoms of a broader resource crisis that has become one of the key challenges of the 21st century.

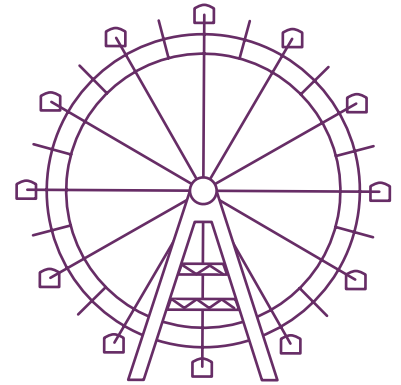
Change is essential to ensure a good life on Earth. The City of Vienna is doing its part: many levers for conserving resources lie within the city's control and can strengthen environmental protection and the security of supply at the regional level. Vienna is also taking responsibility at the global level to reduce the negative impact of human activity on the planet.

Vienna offers favourable conditions for enabling a resource-efficient life for everyone. These include high urban density, vibrant neighbourhoods, a well-maintained drinking water supply, public transport and affordable housing. These examples show that Vienna has long valued communal use and the preservation of existing resources. New tools and strategic guidelines are now needed to carry forward these traditional Viennese values and achievements in the face of current challenges.

"Circular Vienna: The Strategy to save Resources in our City" aims to drive Vienna's transformation into a "circular city". Its focal points describe the potential for resource conservation and the circular economy, as well as the key levers available to the City of Vienna. It builds on the city's existing work and experience, while also highlighting gaps and areas where further action is needed.

# Vienna's approach to resource conservation and circular economy

Our consumption of resources has far-reaching effects on the environment and climate. Organising Vienna without waste not only strengthens us in the face of the climate crisis but also increases our security of supply and creates long-term quality of life.



## Resource consumption as a driver of the climate and biodiversity crises

The concept of planetary boundaries describes the limits of our planet within which humanity can safely exist – including the climate crisis, biodiversity loss, land-use change and freshwater use. If these boundaries are permanently exceeded, the risk of irreversible environmental change that threatens life on Earth increases. Several of these planetary boundaries have already been significantly exceeded, with increasingly noticeable consequences for people, nature and the economy.

One important reason why the Earth is reaching its limits is that we are consuming ever more natural resources. This is mainly due to our growth-oriented, linear economic system. We still assume that nature offers an infinite supply of raw materials and can absorb unlimited amounts of waste. We often extract raw materials without considering the consequences for the environment or for people. We then transform them into energy or products and goods of all kinds, which we usually only use for a short time.

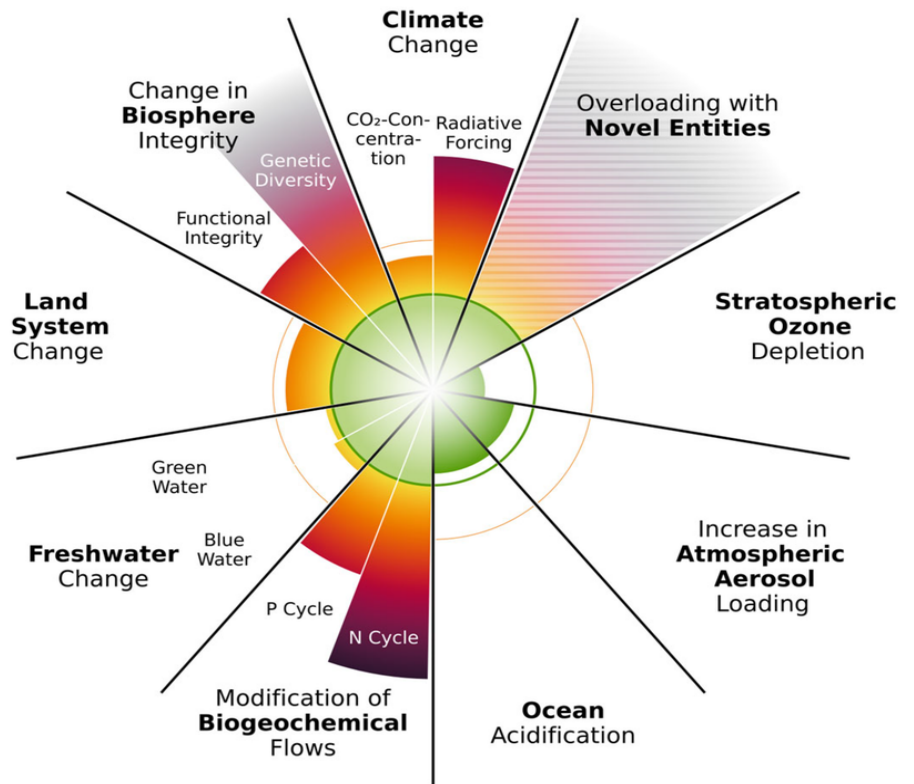


Figure 1: Planetary boundaries and their transgression in 2024.  
 Source: Planetary Health Check Report 2024, Potsdam Institute for Climate Impact Research.



## From linear to circular

In order to achieve climate and environmental goals and ensure sustainable development, we must fundamentally transform our linear economic system — its processes, objectives and our social behaviors — and create the necessary framework for a circular economy. Resource consumption currently plays a subordinate role in corporate key figures and prices. Even when handled carefully, economic growth is always linked to the consumption of resources. The resulting costs — such as those associated with restoring vital ecosystems or with risks in global supply chains — are hardly ever factored into prices.

### What does circular economy mean?

The aim of the circular economy is to design and use products and materials in such a way that waste is avoided as much as possible. Attention is paid to durability, reparability, reusability and recyclability right from the manufacturing stage. At the end of their service life, the raw materials and other components contained in the products should be returned as completely as possible to technical or biological cycles. An example of a technical cycle would be the recycling of packaging, while composting would be an example of a natural cycle. Shared use and related services, such as car sharing, also contribute to these goals. What used to be considered waste is now becoming a valuable resource in the cycle — and a key to resource conservation, climate protection and supply security.

## Resource consumption and emissions

Usually, only those greenhouse gas emissions that actually occur within the territorial boundaries of a city are recorded – for example, from traffic or heating. These are known as production-based emissions. However, many of the environmental impacts associated with our lifestyle do not occur within the city itself, but along the entire production and supply chains — for example, during the extraction of raw materials, or the manufacture and transport of goods. The consumption-based perspective therefore complements the production-based view and considers the total resource consumption and greenhouse gas emissions resulting from consumption within the city — regardless of where they occur.

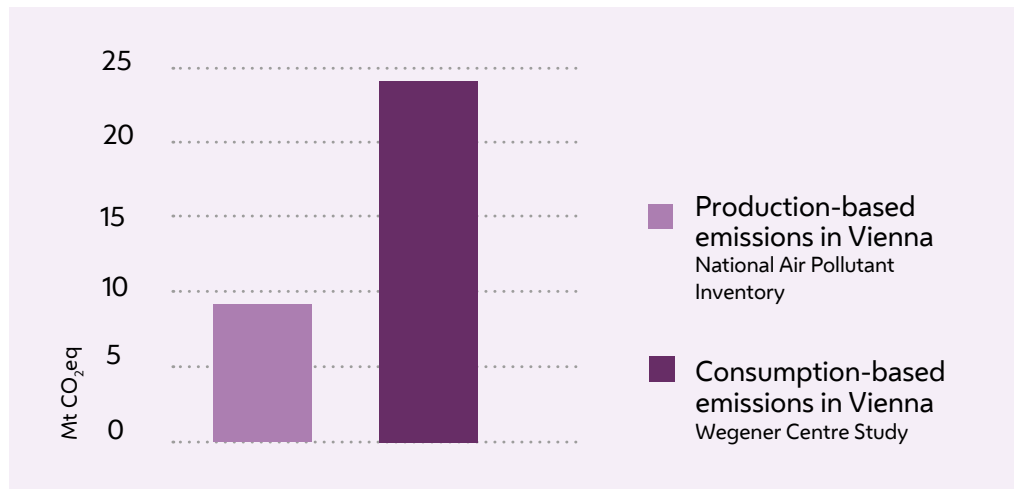
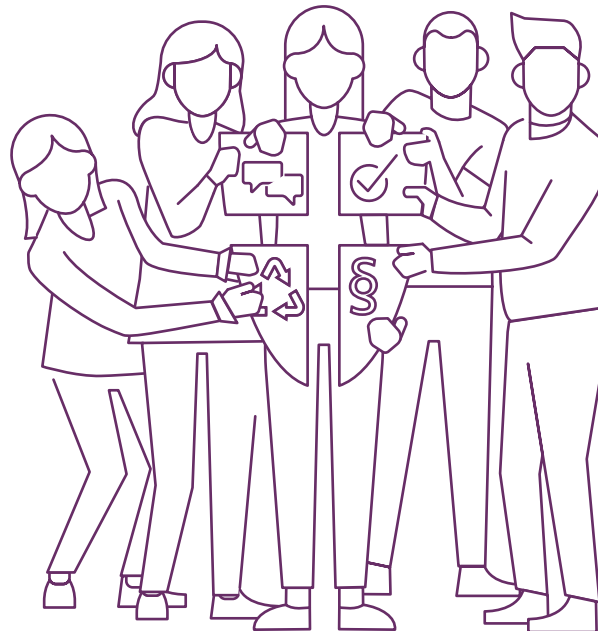


Figure 2: Greenhouse gas emissions of the City of Vienna in 2019 (in Mt CO<sub>2</sub>eq.) Sources: Vienna Climate Guide 2022; Wegener Centre for Climate and Global Change, University of Graz 2025

Vienna's material footprint is an indicator of the global material consumption caused by Viennese consumption. The construction of infrastructure and the consumption of goods, products, food and services require materials that are often sourced from global supply chains. Similar to consumption-based emissions, the material footprint summarises all materials consumed to meet Viennese demand.

Vienna has set itself the ambitious goal of achieving climate neutrality by 2040, reducing production-based greenhouse gas emissions — such as local production, power-plant operation, mobility, heating and waste incineration — to net zero.

In addition, it is important to broaden our perspective and design medium-term measures in such a way that they contribute to reducing the material footprint and consumption-based greenhouse gas emissions. If demand decreases and the processing, use and disposal behaviour of people in Vienna changes, this can have a positive impact on the consumption-based share of greenhouse gas emissions and environmental risks.



# Vienna's central objectives

The objectives for a circular Vienna of the future are based on guidelines already adopted by the City of Vienna.

- **Reducing the consumption-based material footprint:** Vienna will reduce its per capita material footprint by 30 per cent by 2030, 40 per cent by 2040 and 50 per cent by 2050, compared to the base year 2019. (Smart Climate City Strategy Vienna)
- **Circular planning and construction in the building sector** will become standard from 2030 onwards. (Smart Climate City Strategy Vienna)
- **Utilisation of unavoidable waste:** By 2050, 100 per cent of unavoidable waste in Vienna will be utilised. (Smart Climate City Strategy Vienna)
- **Strengthening the circular economy:** One of the objectives of the Vienna Climate Act is to strengthen the circular economy. (Vienna Climate Act)
- **Procurement programme:** In order to achieve the objectives of the Climate Act – contributing to climate protection, adapting to climate change and strengthening the circular economy – the municipal authorities must establish and implement a programme for the sustainable procurement of supplies, construction works and services. (Vienna Climate Act)
- **Increase of material efficiency:** The material efficiency of Vienna's economy will increase by 30 per cent by 2030 and by 40 per cent by 2040. (Smart Climate City Strategy Vienna, VIENNA 2030 — Economy & Innovation)
- **Focus on existing urban areas and compact urban structures:** Urban development will be even more strongly geared towards climate protection, soil conservation and resource conservation. (Vienna Plan – Urban Development Plan 2035)

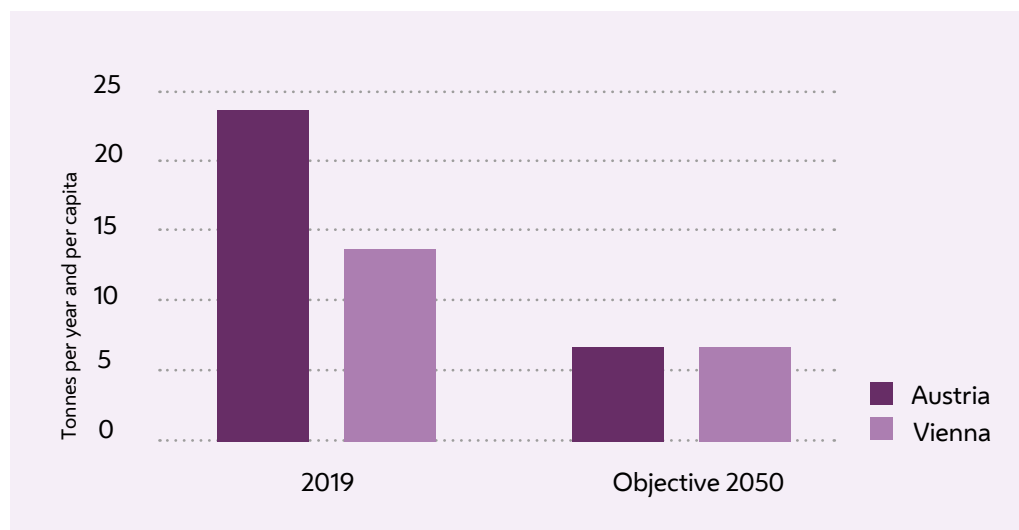


Figure 3: Material footprint nationwide and in the City of Vienna in tonnes per year and per capita. The federal government's absolute target for 2050 is in line with the city of Vienna's reduction target of 50 per cent (based on the average between the minimum and maximum values of the calculations for 2019, without population projections). Sources: MOCAM Study 2022, Progress Report on the Federal Circular Economy Strategy 2024, Smart Climate City Strategy 2022

# Five principles of Vienna's circular economy



**Vienna is fair: implementing a circular economy means living up to (global) responsibility.**

In the interests of climate justice, Vienna is doing its part to ensure the fair distribution of limited resources and to reduce negative impacts on people and the environment along the entire value chain of products and services. Therefore, Vienna is reducing its consumption-based material and greenhouse gas footprint and, as a city with 2 million inhabitants, is also taking responsibility beyond its own city borders.



**Vienna operates sustainably: a strong city is innovative and circular.**

Vienna is strengthening regional and local structures. This makes the city less dependent on global supply chains and increases its resilience. Reuse is creating new forms of work and bringing about a renaissance in craftsmanship. The use of innovative technologies supports efficient recycling. For Viennese companies, the circular transformation offers competitive advantages through new business models. The City of Vienna is using its strong position in the market as a purchaser and is providing important impetus for sustainable product development based on circular criteria. The city also supports the testing of new ideas and the scaling up of successful solutions.



**Vienna provides structure and security: everything's in motion — but we keep the bigger picture in view.**

A well-regulated and predictable transition to a circular economy is one of the great challenges of this century. To keep the bigger picture in view, clear guidelines, long-term planning and legal certainty are essential. The new approach to resources requires the further development of processes and standards. These must take into account the entire life cycle of a product and its environmental impact along the entire value chain. The City of Vienna is developing practical guidelines, procedures and structures for planning, procurement and implementation within its sphere of influence. It is also enhancing existing tools, creating new applications and ensuring they are easily accessible.



### **Vienna cooperates: saving resources requires many hands and minds.**

The circular economy is not an isolated discipline — its development, testing and implementation depend on broad, cross-sector collaboration. Changing established lifestyles and economic practices calls for the combined expertise of all stakeholders. Systemic thinking is becoming a key competence. Cooperation along the entire value chain is growing in importance — from research and business to politics, governance and the wider public. Vienna closely links resource conservation with climate protection and climate adaptation, managing and implementing them across all sectors.



### **And here we come full circle: Vienna puts people first.**

The common good and the preservation of planetary boundaries are not at odds with economic success — they are its very foundation. Resource conservation and the circular economy create win-win situations: they promote social participation, facilitate access to sustainable products and services, and make them suitable for everyday use, affordable and accessible. Changing consumption patterns does not necessarily mean sacrifice, but rather the opening up new opportunities for living together and sharing.

# How can we achieve the resource transition?

Nine priority areas and a total of 33 levers define Vienna's approach to resource conservation and the circular economy, structured into three major thematic blocks. The concretisation and implementation of this transformation by 2050 will be carried out through short- and medium-term action planning within the framework of the city's programmes and projects. There are various opportunities for the people of Vienna to get involved and participate.



## The circular economy as a tool for saving resources

The cross-cutting issues for the transition to a circular economy in Vienna include the

- Markets, companies and cooperation in the circular economy
- Innovations for the circular economy
- Awareness raising and skills for the circular economy



## Saving resources in everyday life in Vienna

Resource conservation directly affects people in Vienna in their private and professional lives:

- Resource-saving consumption
- Resource-saving food production, catering and nutrition
- Saving resources in Vienna's health, care and social services sectors



## Conserving resources in the built environment

As a particularly resource-intensive sector, construction has great potential for circular solutions:

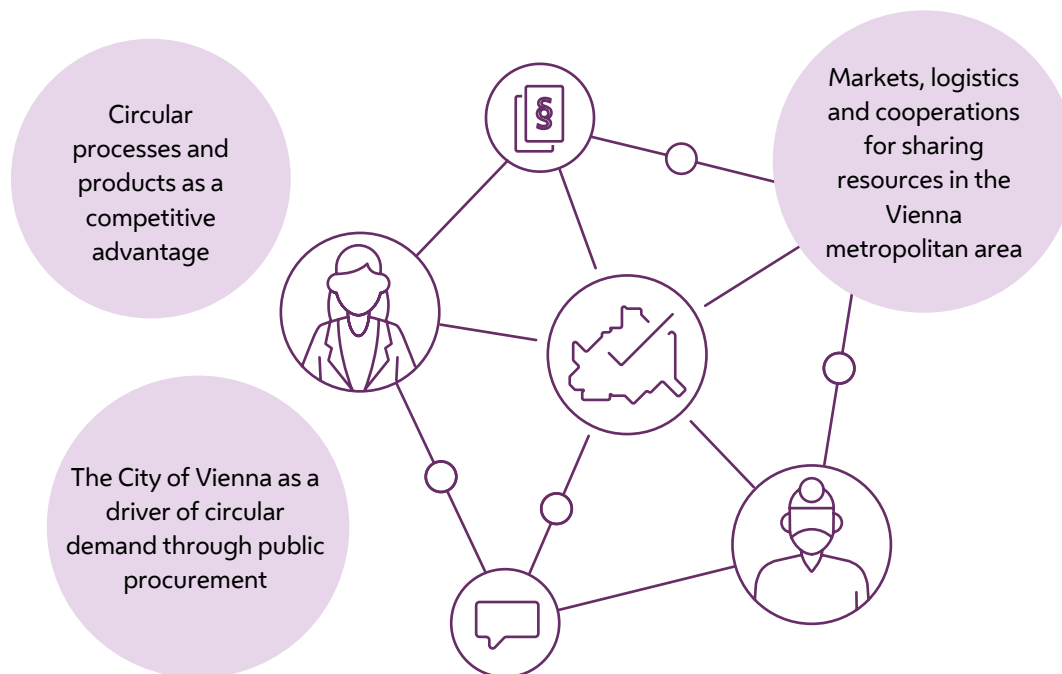
- Structural foundations for resource-efficient civil and structural engineering
- Saving resources in urban development
- Resource-saving infrastructure for public services

# The circular economy as a tool for saving resources

The path to a circular economy requires changes in the way we produce, consume and use resources. Vienna is building on its strengths in this area: a diverse economic structure, skilled workers, a high level of innovation and a culture of cooperation. This is how the circular urban economy of the future will succeed.

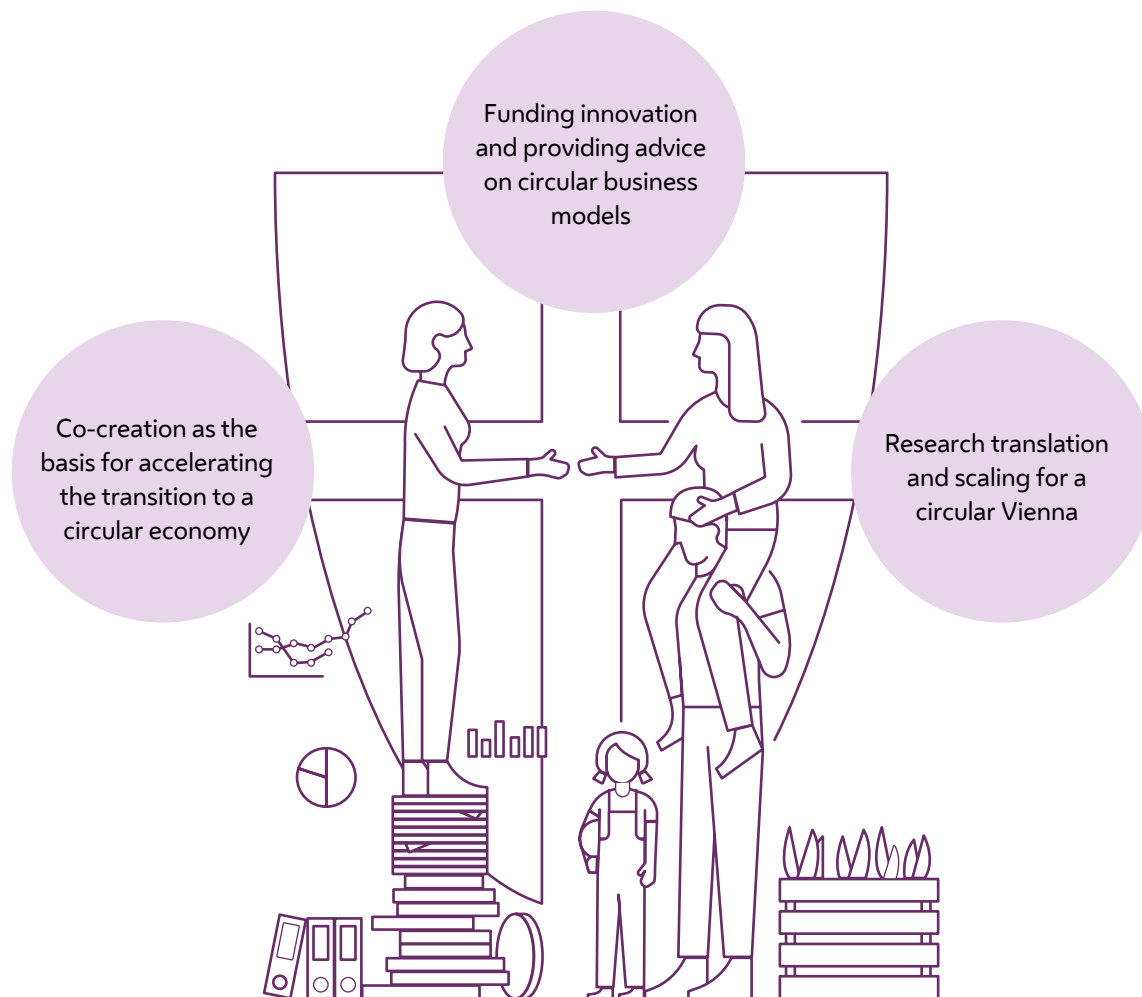
## Markets, companies and partnerships

To lead the economy towards a resource-efficient future, the City is focusing on targeted public procurement, funding and consultancy for the greening of production processes and paving the way for new business models ([viennabusinessagency.at/report-circular-economy](http://viennabusinessagency.at/report-circular-economy)). For joint success, it is crucial that the metropolitan region works together and that Vienna contributes to the planning and design of logistical solutions.



# Innovations for the circular economy

Working hand in hand with a strong city administration and high-performing companies, leading players from research and industry are driving forward innovations towards a circular economy. Co-creation and participation are supporting the practical development and implementation of new technical solutions. The themes of resource conservation and the circular economy complement existing instruments for promoting innovation in Vienna. Together with federal funding programmes, these efforts are further expanding the city's innovation potential in the circular economy.



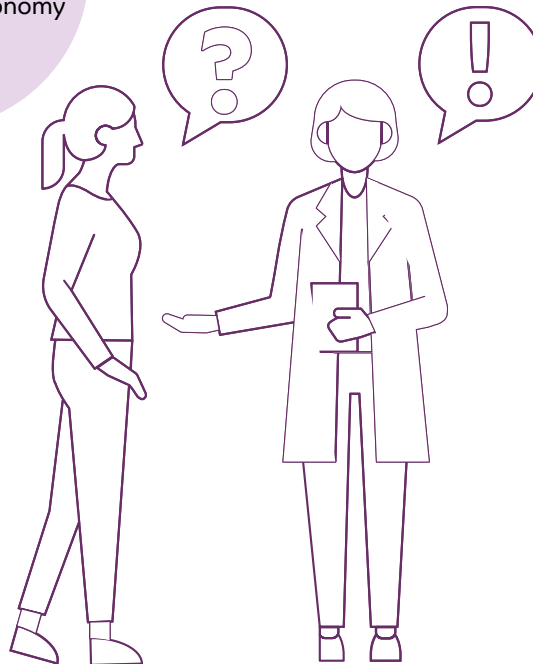
# Awareness raising and skills for the circular economy

Creative means of information, communication and outreach convey the importance and appeal of the circular economy in a broad and target group-specific way. The City of Vienna is developing comprehensive learning and training programmes on all aspects of circular action. A wide range of programmes address broad sections of society as well as specialised training areas and professional groups.

Qualifications and skills for resource conservation and the circular economy

Information and communication for resource conservation and the circular economy

Vienna's creative industries under the banner of the circular economy

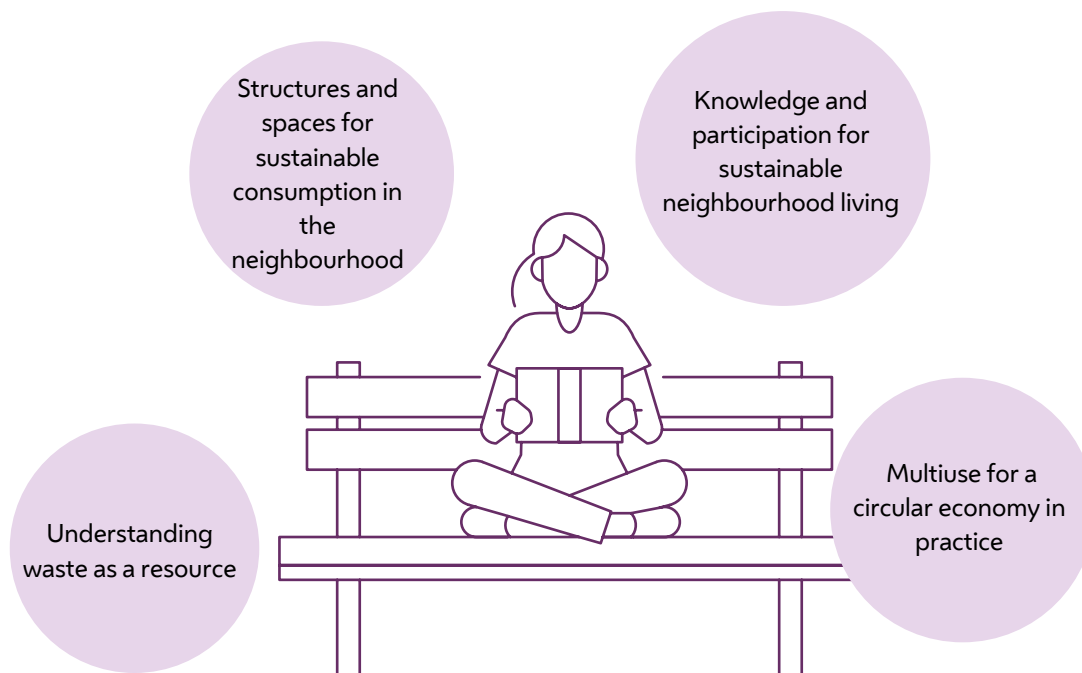


# Saving resources in everyday life in Vienna

Collaborative design, use and sharing are becoming part of the new mainstream. Numerous services available in local neighbourhoods make it easy to exchange, repair and reuse products in everyday life. The people of Vienna value the high quality of their food and healthcare.

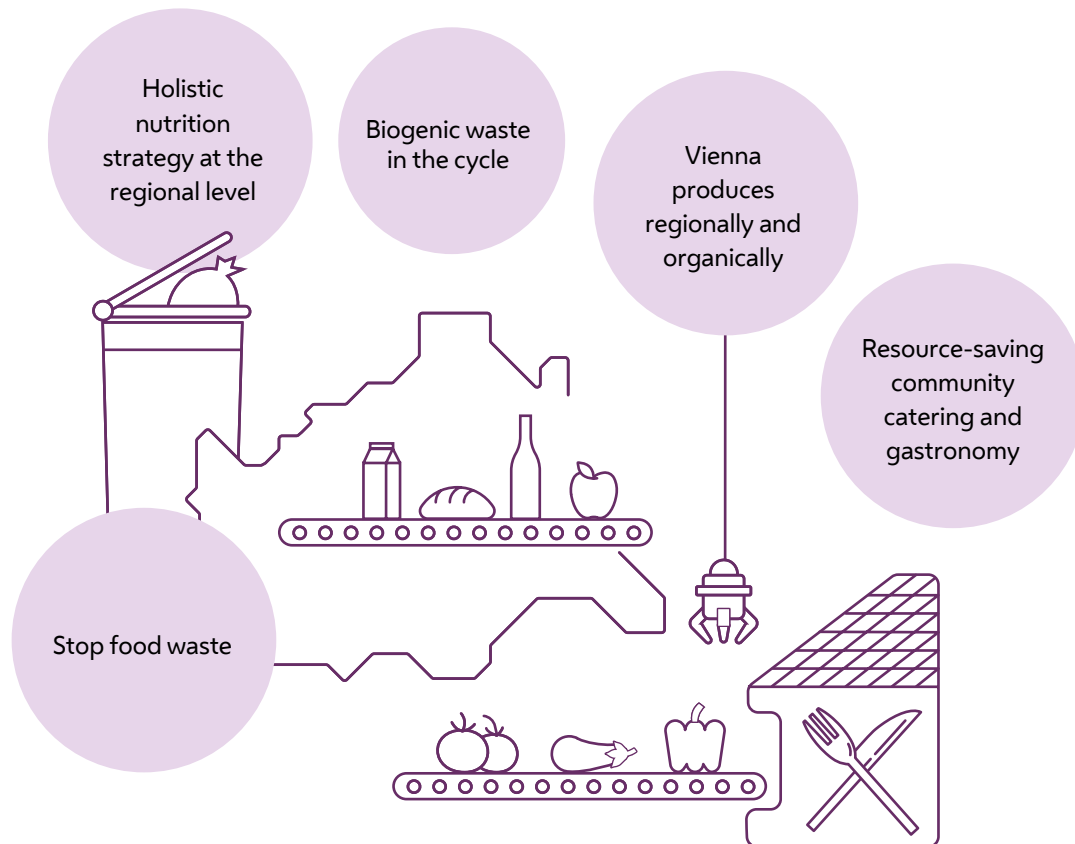
## Resource-saving consumption

Structures for the circular economy in everyday life, together with various waste prevention measures, help reduce the material footprint of consumer goods. Framework conditions that make purchasing, repair, return, collection and disposal easy in people's immediate living and working environments support resource-saving and circular consumption. To this end, Vienna is creating services, infrastructure and spaces, and promoting communication and awareness-raising.



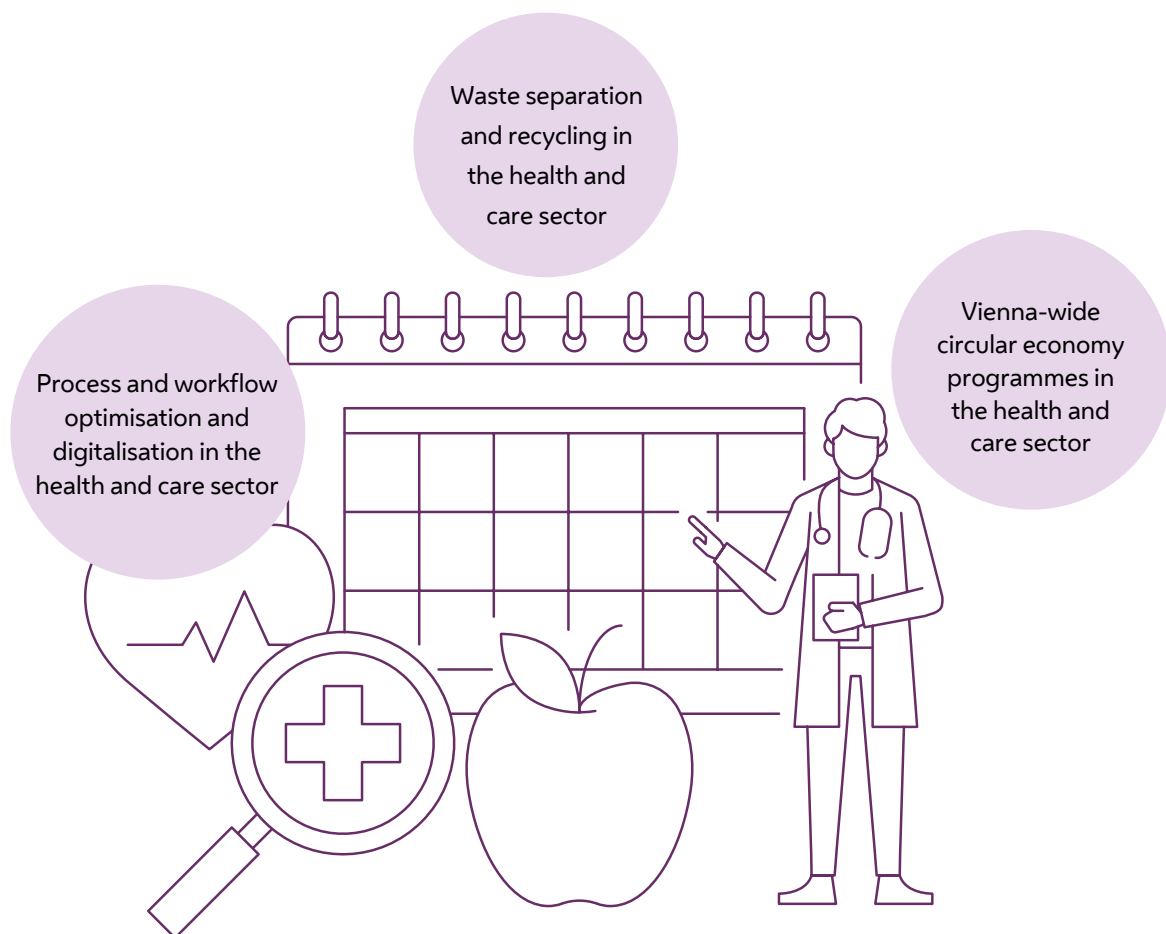
# Resource-saving food production, catering and nutrition

Vienna promotes local and organic food production, reduces food waste and strengthens the nutritional literacy of its residents. The City focuses on the great potential along the entire food value chain. Some of this potential lies within its direct sphere of influence — for example, in schools. In addition, Vienna is raising awareness of resource-efficient private consumption. The cornerstones — which are also reflected in the following levers — are defined in Vienna's food action plan "Wien isst G.U.T." ("Vienna eats W.E.L.L." — wholesome, ethical, local and low-impact).



# Saving resources in Vienna's health, care and social services sector

A large number of institutions provide the people of Vienna with daily services in the fields of health, care and social welfare. These services also require significant resources. That is why the City of Vienna is placing a special focus on this area: the health and care sector is of great social importance and therefore demands careful consideration of resource efficiency. Medical and non-clinical catering and nutrition products are particularly relevant in this context.



# Saving resources in the built environment

Vienna builds with foresight to conserve resources and continue to ensure a high quality of life for all. Materials circulate, buildings are flexible in use and the city grows sustainably. It is building for the future using the tools of the circular economy. Vienna is building on Vienna.

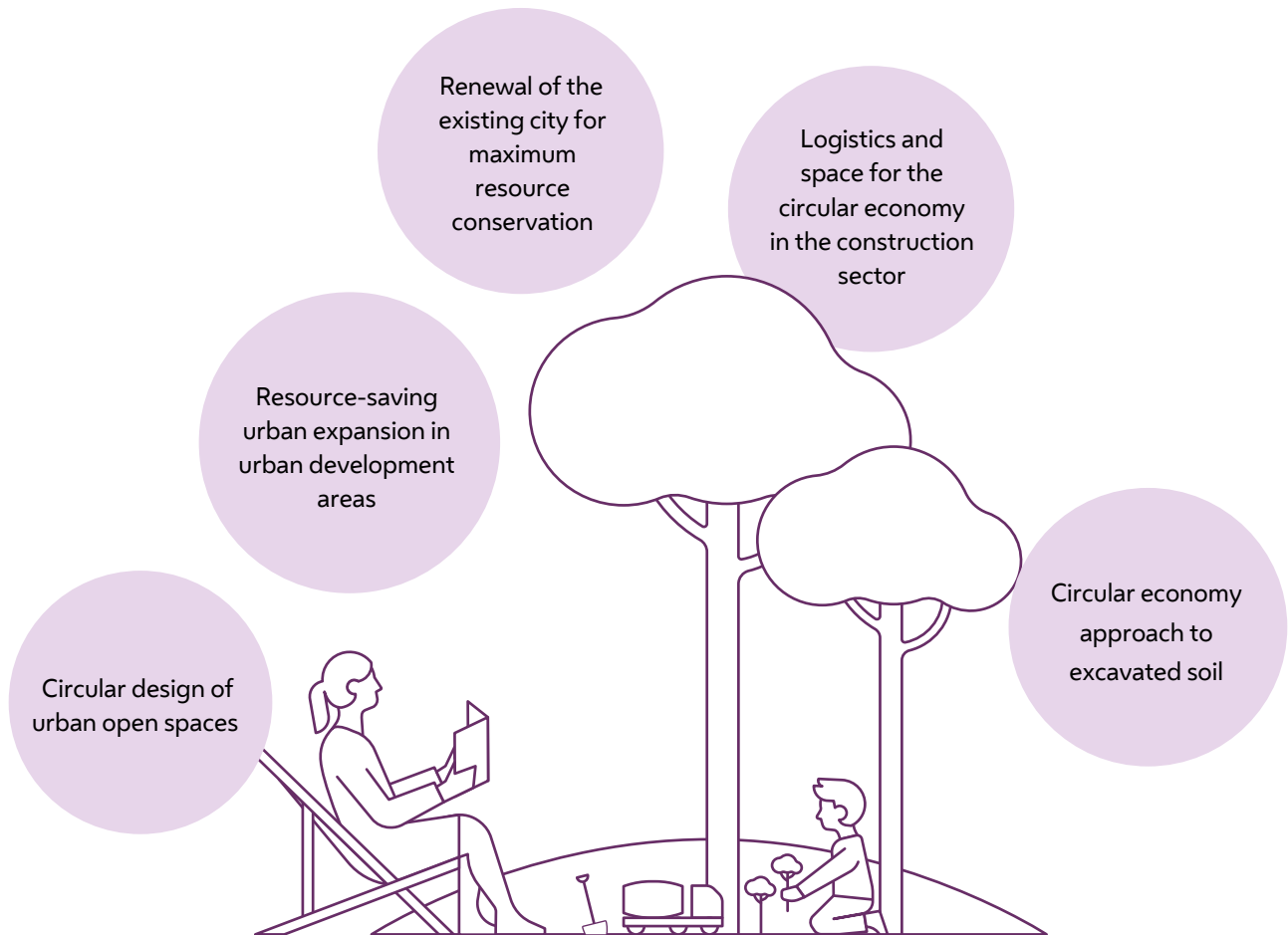
## Structural foundtions for resource-saving civil and structural engineering

The City of Vienna is developing practical principles and methods for resource-saving and circular construction and gradually incorporating them into planning and decision-making processes. Vienna has many opportunities to refine its practices in the areas of procurement, funding, quality assurance and regulatory frameworks. Through new producers, standards and digitalisation, the City is systemically advancing the circular economy in planning and construction. Its "DoTank Circular City Vienna 2020-2030" programme is already carrying out comprehensive and valuable work in this area ([viecycle.wien.gv.at](http://viecycle.wien.gv.at)).



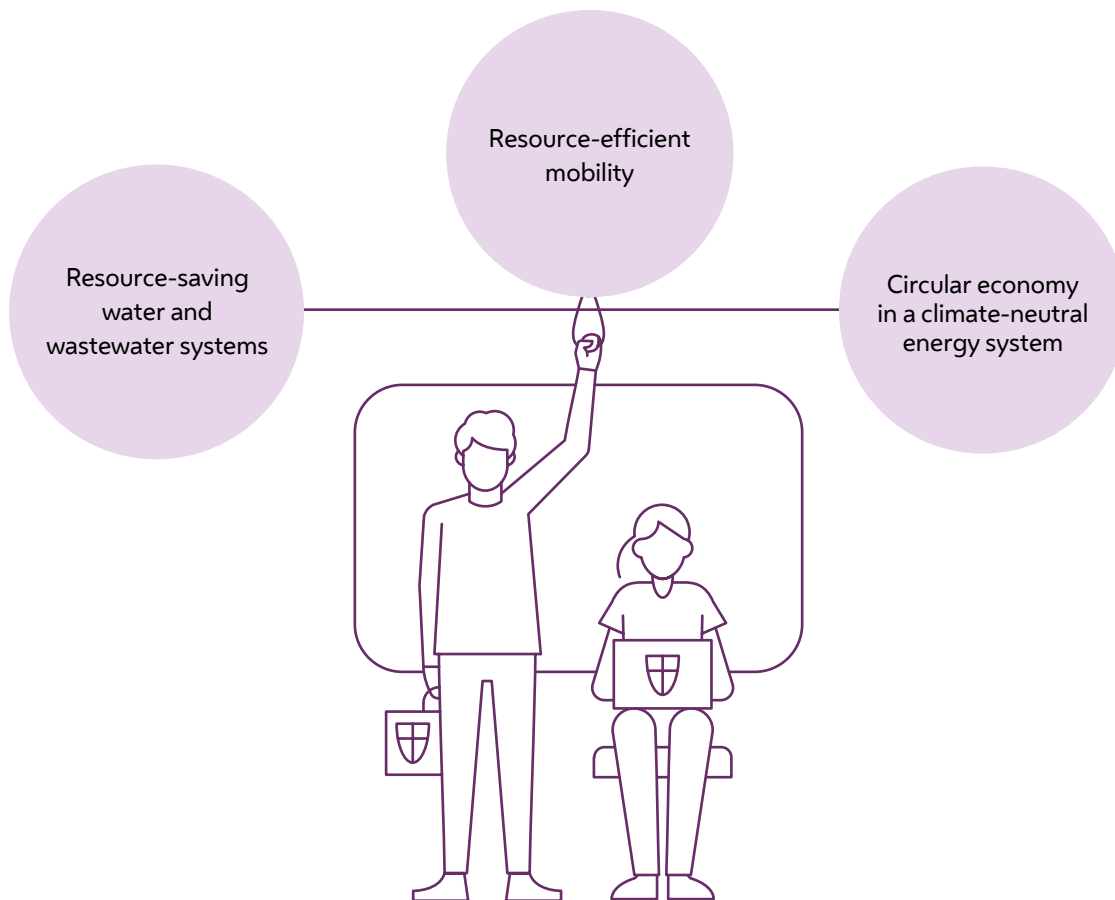
# Saving resources in urban development

Cities offer many solutions to climate and resource challenges. Urban development sets the course for the sustainable use of resources. Key factors in this regard include urban density, mixed use, long-term flexibility of use and careful management of land resources. Soil protection, land utilisation and resource efficiency are inextricably linked.



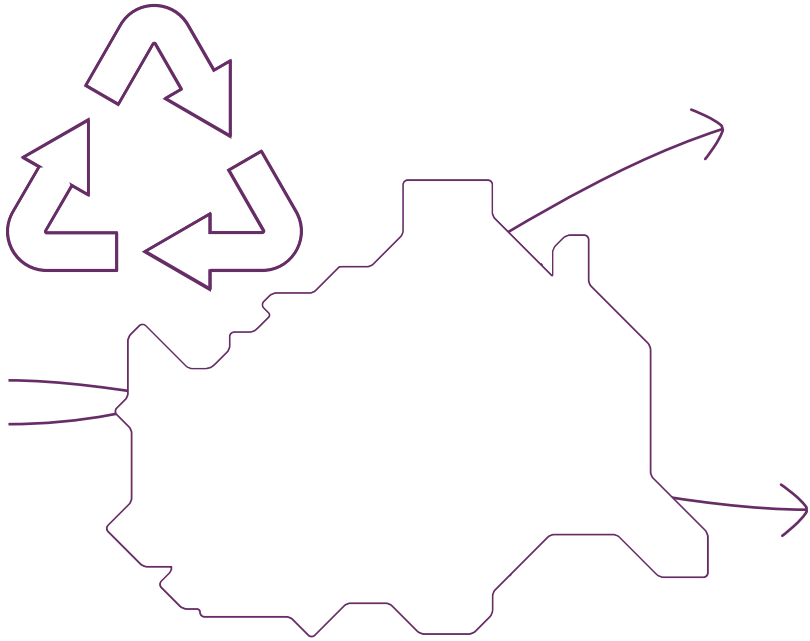
# Resource-saving infrastructure for public services

The City of Vienna differs from many other major European cities in one key aspect: it owns a large part of the essential urban infrastructure. The city and its public companies use their sphere of influence to save resources by ensuring the sustainable supply of water, energy and mobility.



# Vienna is becoming circular!

Vienna uses the circular economy as a tool for creating innovative places, resource-efficient everyday life and sustainable construction. This protects the climate and environment beyond the city limits, makes us more resilient and strengthens cooperation. A city without waste — the circular city — is a well-rounded concept for maintaining the quality of life in Vienna!



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