

Republic of Austria Green Investor Report 2024

June 2025

- Federal Ministry Finance Republic of Austria
- Federal Ministry Agriculture and Forestry, Climate and Environmental Protection, Regions and Water Management Republic of Austria







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1 Preamble

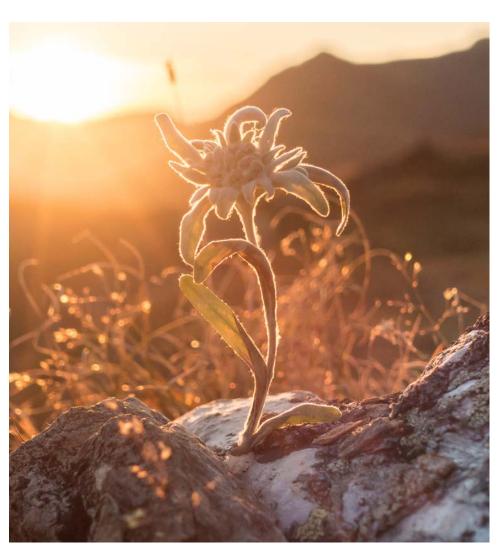
This document is the third Green Investor Report of the Republic of Austria, which is being published in accordance with our commitments under the Green Framework (April 2022) and to comply with the principles of transparency laid out in the Green Bond Principles 2021 as published by the International Capital Market Association (ICMA), as well as the Green Loan Principles 2023, published by the Loan Market Association (LMA).

In the calendar year 2024, the Republic of Austria issued new Green Financing Instruments under the above-mentioned framework of EUR 6.23 bn. It is intended to precisely define the allocation of these funds and to identify their sustainable impact on the environment. This emphasises our commitment towards transparency and demonstrates a proactive approach for reporting based on the internal processes established for the framework.

This report was reviewed by the external verification provider ISS Corporate Solutions (ISS-Corporate). Particular attention was paid to the alignment with the Green Framework, market standards and the appropriate choice of impact metrics.

The Republic of Austria is striving to constantly improve its Green Investor Report. In 2024, the Government's Green Budgeting Methodology has been integrated into the initial screening process of Green Expenditures for the first time, further harmonisation on the impact of climate- and environmental-related expenditures of the governmental budget will be gradually implemented. To enhance the convenience for investors in analysing the allocation and impact metrics, we have set-up a Green Investor Spreadsheet including all relevant data in machine-readable format.

We believe our approach results in the best outcome for investors and other stakeholders, as well as for reaching the environmental goals. We are applying a conservative approach in our assessments and details on our impact measurement methodology are outlined in the annex of this report. As sustainable finance continues to evolve, we will be providing future updates to meet investor expectations, best market practices and regulatory developments.



The edelweiss is a mountain flower that prefers rocky limestone places at about 1,800–3,000 metres altitude. The edelweiss is used as a symbol for alpinism, for rugged beauty and purity associated with the Alps and is also a national symbol of Austria.

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2 Introduction

Environmental protection and the value of nature have a long history in Austria and represent an integral part of the national identity. The Austrian government is committed to achieve climate neutrality by 2040, ahead of the EU's 2050 target. It intends to guarantee a clean environment by, among other things, embracing a digital and green transformation, promoting modern technologies and decarbonising the building sector. It considers policies to ensure a clean and safe environment as a prerequisite to provide prosperity to subsequent generations and guarantee both a future-oriented and attractive business location.

On the international level, Austria's climate change policies and targets are embedded in the Paris Agreement of 2015, in which the international community commits to limit global warming to well below two degrees Celsius and pursue efforts to limit the temperature increase to 1.5 degrees Celsius, compared to pre-industrial levels. The Austrian climate policy is also strongly influenced by the European Union which seeks to become climate neutral by 2050 and to cut greenhouse gas (GHG) emissions by at least 55% by 2030 compared to 1990. At the beginning of 2020, the federal government announced its commitment for Austria to be climate-neutral as early as 2040.

GHG emissions in Austria fell by 6.5% from 2022 to 2023². This corresponds to a reduction of 4.8 mn tonnes of CO_2 equivalents. Key drivers for this development were the decrease in the consumption of fossil gas as well as lower diesel oil sales in the transport sector. The analysis of the Environment Agency Austria shows that the decline is only to a small extent attributable to economic factors, while most of the decrease in emissions is due to mitigation measures and the shift to renewable energy. Preliminary data for 2024 show a further decrease in GHG emissions of 2.7%, which corresponds to a reduction of 1.9 mn tonnes CO_2 equivalents compared to 2023³. Assuming this forecast is confirmed, this will be the lowest level of emissions since 1990.

The objectives of Austria's climate and environmental policy are, among others, to reduce its GHG emissions in order to mitigate climate change and to prepare for its adverse effects, to reduce emissions of air and water pollutants, to preserve and improve biodiversity and ecosystems, to foster the sustainable use of natural resources and to reduce waste. To govern respective action on the national level, Austria has developed several detailed road maps and strategies.

These include, for example:

- The National Energy and Climate Plan defines Austria's climate and energy targets for 2030 and outlines the roadmap to achieving those targets. Austria submitted its updated plan⁴ to the European Commission in accordance with Article 14 of Regulation (EU) 2018/1999 (EUR-Lex). The Integrated Austrian Network Infrastructure Plan represents a strategic planning instrument that enables a comprehensive consideration of the infrastructure needs of the future energy system.
- The Austrian Photovoltaic Strategy 5 sets out objectives and fields of action for how photovoltaics can continue to make its contribution to the energy transition.
- The Hydrogen Strategy for Austria⁶ outlines out how Austria intends to use hydrogen to decarbonise the energy system.
- The Strategy for Electricity Supply Security⁷ defines action plans and measures to ensure resilience of Austria's electricity network.
- The Austrian Carbon Management Strategy (CMS)⁸ is an elementary milestone in the first
 phase of dealing with the topic of "carbon management" and is primarily concerned with
 analysing the status quo and identifying the necessary reform steps and (legal) framework
 conditions.

¹ Austrian Federal Chancellery, <u>Government Programme 2020 – 2024</u>, January 2020, and <u>Government Programme 2025 – 2029</u>, March 2025

² Environment Agency Austria, Austria's Annual Greenhouse Gas Inventory 1990–2023, January 2025

³ Environment Agency Austria, Greenhouse Gas Emissions in Austria: Forecast 2024, February 2025

⁴ European Commission, <u>Updated National Energy and Climate Plan 2021 - 2023 for Austria</u>, December 2024

⁵ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, <u>Österreichische Photovoltaik-Strategie</u> (only available in German), June 2024

⁶ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, <u>Wasserstoffstrategie für Österreich</u> (only available in German), June 2022, <u>Executive Summary in English</u>, June 2022

⁷ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Elektrizitäts-Versorgungssicherheitsstrategie (only available in German), November 2024

⁸ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, <u>Carbon Management Strategie</u>





- The 2030 Mobility Master Plan⁹ has identified ways to avoid, shift and improve traffic and transport and significantly increase the share of eco-mobility in total transport.
- The Sharing Strategy for Personal Mobility¹⁰ aims to promote shared mobility helping to achieve climate neutrality in the mobility sector.
- The SAF-Roadmap¹¹ aims to create suitable framework conditions for the introduction and market ramp-up of Sustainable Aviation Fuels.
- The Austrian Strategy for Adaptation to Climate Change¹² contains a detailed catalogue of recommendations for 14 sector-specific areas of action.
- The *Bioeconomy Strategy*¹³ seeks to replace fossil resources (raw materials and energy sources) with renewable raw materials in as many areas and applications as possible.
- The national Circular Economy Strategy¹⁴ helps to preserve the value of products, materials
 and resources within the economy for as long as possible to reduce waste and negative environmental impacts.
- The *Biodiversity Strategy Austria 2030+*¹⁵ intends to contribute to a comprehensive transformative change in our society.
- The strategy for Research, Technology and Innovation (RTI Strategy 2030)¹⁶ intends to strengthen research, which addresses the influencing factors, effects and mitigation of the climate crisis, as well as research in the areas of climate adaptation and resource efficiency.

The issuance of sovereign Green Debt Instruments is one of the measures of the Austrian *Green Finance Agenda* (GFA). This strategy paves the way for future-proof financial market policies. It sets out the building blocks for a climate-friendly and environmentally sustainable financial system and identifies strategic measures and action areas with potential to scale up sustainable financial instruments for climate-friendly investments.

In 2024, the Green Budgeting Methodology¹⁷ has been applied for the initial screening of Green Expenditures for the first time. Therefore, green items identified in the Climate and Environment Supplement to the Budget 2024 have been taken as a basis and were further evaluated on their eligibility for Green Financing Instruments by the Green Bond Board Management (GBBM). A recurring assessment including information on the EU Taxonomy will be carried out, incorporating recommendations on the recently published spending review on the topic¹⁸.

⁹ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Austria's 2030 Mobility Master Plan, July 2021

¹⁰ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Sharing Strategy for Personal Mobility (only available in German), November 2023

[&]quot;Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, <u>SAF Roadmap</u>, June 2024

¹² Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, <u>Austrian Strategy for Adaptation to Climate Change</u> (only available in German), April 2024; <u>Executive Summary in English</u>, October 2024

¹³ Federal Ministry for Sustainability and Tourism, Federal Ministry of Education, Science and Research, and Federal Ministry for Transport, Innovation and Technology, <u>Bioeconomy – A Strategy for Austria</u>, March 2019 ¹⁴ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, <u>Circular Economy Strategy</u>, December 2022

¹⁵ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, <u>Biodiversity Strategy 2030+</u> (only available in German), November 2022

¹⁶ Federal Government Republic of Austria, <u>RTI Strategy 2030</u>, January 2021

¹⁷ Federal Ministry of Finance, Green Budgeting

¹⁸ Federal Ministry of Finance, Modul 3: Umsetzung der EU-Taxonomie auf nationaler Ebene, March 2025





3 Republic of Austria's Green Financing

The Austrian Government is committed to a socially balanced and comprehensive climate protection policy in line with the 17 UN Sustainable Development Goals. However, financing the transition and achieving the climate targets and climate neutrality requires significant investments. Public households in Austria have already made considerable progress in greening their budgets. Funds provided by the public sector are crucial to catalyse private investments and to achieve the levels of investment required to decarbonise the economy and ensure environmental sustainability. In this context, the issuance of Green Financing Instruments has the potential to make a significant contribution to the Green Transition of the Republic of Austria.

Rationale for issuing Green Financing Instruments

The Green Framework sets the basis for the issuance of a broad range of financing instruments, including Green Austrian Government Bonds (RAGB) or Notes (EMTN-Format), Green Austrian Treasury Bills, Green Austrian Commercial Papers and Green Bundesschatz (retail product) as well as Green Loans or Deposits (all hereafter referred to as "Green Financing Instruments").

The rationale for Austria's Green Issuance Programme includes:

- The Green Financing Instruments issued by the Austrian Treasury are allocated to government expenditures that contribute to GHG emission reductions, climate change adaptation and environmental goals, provide investors an opportunity to diversify their investment portfolios towards sustainable assets and further promote and develop the domestic and international sustainable finance markets.
- The implementation of this Green Issuance Programme promotes and highlights Austria's
 environmental agenda. In addition to investment expenditures, Austria also provides subsidies and grants helping to mobilise private capital required to decarbonise the economy
 and ensure environmental sustainability.

- Funding for the transition to net zero GHG emissions and achieving the Austrian climate goals will be supported by this Green Issuance Programme. Green Financing Instruments will also contribute to the national strategies for environmental sustainability and encourage the development of the wider sustainable finance sector.
- Austria's federal budget already contains a high proportion of Green Expenditures. Vast
 demand was registered for Green Financing Instruments both from short-term as well as
 longer-term oriented investors. With the Green Issuance Programme, Austria provides an
 attractive Green Investment offering for domestic and international investors with tenors
 ranging from one week to currently 24 years (May 2049).
- Austria is a leader in terms of sustainability which is underscored by its outstanding sustainability rankings provided by ESG rating providers¹⁹. Issuing Green Financing Instruments further expands and diversifies Austria's broad investor base and helps to increase the demand for Austrian debt instruments overall.
- The Green Investor Report considerably enhances transparency and traceability of Green Expenditures by providing insights on the allocation of proceeds and the environmental and climate-related impact. This provides an important link to national environmental strategies and initiatives and contributes to achieving Austria's climate targets.

¹⁹ Austrian Treasury, Sustainability Rankings Republic of Austria





3.1 Milestones in Austria's Green Funding

| June 2021 | Republic of Austria's Federal Minister of Finance announced the intention to issue a Sovereign Green Bond in the first half of 2022 |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| May 2022 | Republic of Austria published – as the first sovereign issuer worldwide – a Green Framework allowing for Green Short-term Debt Instruments (publication together with associated Second Party Opinion) Republic of Austria issued its inaugural Green Bond (Green RAGB 1.85% May 2049) |
| October 2022 | First Green Loan issued by the Republic of Austria Inaugural Austrian Treasury Bill (ATB) in Green Format issued |
| March 2023 | Inaugural Austrian Commercial Paper (ACP) in Green Format issued Introduction of Green Deposits as additional short-term funding instrument |
| April 2023 | Republic of Austria issued its second Green Bond (Green RAGB 2.90% May 2029) |
| June 2023 | Publication of Austria's first Green Investor Report (combined Allocation and Impact Report) including Second Party Opinion |
| December 2023 | Inaugural Euro Medium Term Note (EMTN) in Green Format issued |
| January 2024 | Successful tap of outstanding Green RAGB May 2029 and Green RAGB May 2049 by EUR 1.25 bn each (as part of a triple-tranche transaction, the first one worldwide including two Green Bonds) |
| April 2024 | With the launch of the online retail savings product Green Bundesschatz, Austria became the first sovereign worldwide to offer a Green Money Market Product for retail investors |
| June 2024 | Publication of Austria's second Green Investor Report (combined Allocation and Impact Report) including Second Party Opinion |
| January 2025 | The Republic of Austria successfully issued the first syndicated Sovereign Green Bond in the CHF market |

Austria is a leader in various activities to promote sustainability, which is underlined by a high proportion of Green Expenditures in its federal budget. Starting in 2022, the Republic of Austria successfully built-up a second pillar in its funding strategy. The introduction of Green Financing

Instruments on a broad scale, which have been implemented in all relevant programmes and as the first sovereign worldwide, includes Green Short-term Debt Instruments. This further diversifies the investor base and perfectly complements the traditional funding pillar.

In 2024, the Green Pillar of the financing strategy was further expanded by new Green Issuances and the implementation of a new Green Financing Instrument – the retail savings product "Green Bundesschatz".

On January 18, 2024, the Republic of Austria successfully priced a new EUR 7.0 bn triple-tranche transaction comprising a new EUR 4.5 bn 10-year conventional benchmark due February 2034, a EUR 1.25 bn tap of the Green RAGB 2.90% May 2029 and a EUR 1.25 bn tap of the Green RAGB 1.85% May 2049. This is the third triple-tranche syndication of the Republic of Austria and the first one worldwide including two Green Bonds. This shows once again Austria's innovative and responsive approach to capital markets. Austria's recognised credit quality, paired with its strong Green Funding Pillar, ensured the transaction was met with a very robust investor response from the beginning with strong demand in all tranches. The strong investor demand for both Green Taps (12-times oversubscription of the 2029 and 24-times of the 2049 tap) is yet another strong sign of support for Austria's Green Funding Programme.

In April 2024, the new retail savings product Bundesschatz (www.bundesschatz.at) was launched, which is also available in Green format with tenors of 6 months and 4 years. Austria thus became the first sovereign worldwide offering a Green Money Market Product for retail investors.

On July 9, 2024, the Republic of Austria successfully tapped its outstanding Green RAGB 2.90% May 2029 via auction, increasing the outstanding volume by EUR 952.8 mn.

The Green ATB, issued for the first time in 2022, was rolled over and tapped on four auction dates in 2024. The Green ATBs, which saw very high demand, have found a loyal investor base with around 50% of investors who rolled over existing positions in the Green ATB auctions.



A number of Green ACP, Green Loans and Green EMTN were newly issued, or existing ones were rolled over during the course of the year 2024 (for details see the table "Green Funding 2024" in Chapter 4 Allocation Report).

On January 29, 2025, the Republic of Austria issued the first syndicated Green Government Bond in CHF. The new 10-year Green Bond (EMTN format) was issued with a volume of CHF 350 mn and priced with a coupon of 0.6825% p.a.

New Green Funding in 2025 will be over EUR 6.0 bn, with a balanced split between Green Federal Budgetary Expenditures made in 2024 and 2025. With regard to the split of Green Financing Instruments into medium/long-term and short-term categories in 2025, the objective is to allocate up to 20% to short-term instruments. While on the bond side the Republic of Austria focuses on building up a Green Curve or tapping existing Green Bond(s), up to 20% of the total eligible Green Expenditures shall be reserved for Green ATBs and Green ACP or Green Deposits. Given the large share of long-term projects in the Republic of Austria's eligible Green Expenditures, Green Short-term Instruments are intended to be rolled on a regular basis.

Going forward, the Republic of Austria will continue to be a regular and reliable issuer of Green Financing Instruments on the capital and money markets.

Financing Instruments Republic of Austria

- Government Bonds (RAGB)
- Debt issuance programme (DIP 144A)
- EMTN-Programme (Euro Medium Term Notes)
- Australian Dollar MTN-Programme "Kangaroo Programme"
- Loans (short- and long-term) and "Schuldschein"-Format
- Austrian Treasury Bills (ATB-Programme)
- 🔹 Austrian Commercial Paper (ACP-Programme) 💋
- Retail savings product "Bundesschatz"



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3.2 Republic of Austria Green Bond Framework

The Republic of Austria's Green Framework is aligned with the 2021 Green Bond Principles (GBP), as published by the International Capital Market Association (ICMA). The most important aspects can be found in the following overview.



- Austria intends to allocate an amount equal to the net proceeds from the issuance
 of Green Financing Instruments to exclusively finance and/or to refinance, in
 whole or in part, central government expenditures that meet the environmental
 eligibility criteria
- Eight Eligible Green Expenditure categories have been defined: (1) Clean transportation; (2) Renewable energy; (3) Energy efficiency; (4) Pollution prevention and control; (5) Environmentally sustainable management of living natural resources and land use; (6) Terrestrial and aquatic biodiversity; (7) Sustainable water and wastewater management; (8) Climate change adaptation
- The scope of Eligible Green Expenditures includes (but is not limited to) subsidies, tax expenditures, operational expenditures and investment expenditures



- The Republic of Austria has set up a Green Bond Board managing the evaluation and selection of Eligible Green Expenditures
- The Green Bond Board closely cooperates with further relevant federal ministries and associated entities whenever expenditures from their respective area of responsibility are discussed and additional expertise is needed
- Potential environmental and social risks of eligible expenditures are identified and managed through Austria's general, comprehensive laws and control procedures.
- Austria has defined explicit exclusion to prevent certain expenditures (e.g. fossil fuels) from becoming eligible



- Tracking the allocation of the proceeds from the issuance of Green Financing Instruments will be done by the Green Bond Board
- Eligible Green Expenditures occurred no earlier than one calendar (i.e. budget) year prior to issuance and the budget year of issuance
- The Austrian Treasury aims to distribute the allocation of the net proceeds in a balanced manner between "Past Expenditures" and "Current Expenditures"
- The total volume of Eligible Green Expenditures in Austria's Green Portfolio will always be at least as high as the volume of total net proceeds from all outstanding Green Financing Instruments



- The Republic of Austria is committed to provide two levels of reporting:
- The management and allocation of bond proceeds
- The assessment of environmental impact of allocated Green Expenditures



• To underpin Austria's commitment to full transparency, independent external reviews will be conducted on key documents and reports



Federal Ministry Republic of Austria Finance

■ Federal Ministry Republic of Austria Climate Action, Environment, Energy, Mobility, Innovation and Technology



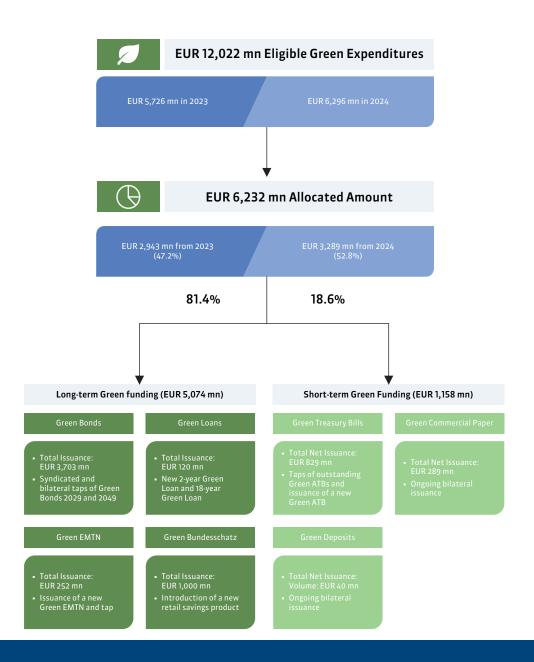
4 Allocation Report

This section of the report provides an overview on the allocation of net proceeds raised from Green Financing Instruments to Green Expenditures. The government of the Republic of Austria recognises the importance of a common definition of sustainable economic activities that enhances transparency and thereby supports the further development of the Green Debt Market.

An equivalent amount of the net proceeds raised from the issuance of Green Financing Instruments newly issued in the financial year 2024 were allocated to the Green Expenditures of the federal budgets of 2023 and 2024. The total eligible expenditures from the federal budget years of 2023 and 2024 add up to EUR 12.02 bn, whereby EUR 6.23 bn were selected for the allocation for the Green Financing Instruments issued in 2024.

In the accounting system of the Republic of Austria, all transaction entries (transactions are always entered using a four-eye-principle) are clearly marked with regard to the Green Framework and the allocation of Green Expenditures to the respective year. This ensures that all data required for the allocation report is taken directly from the accounting system. This diligent approach also ensures the avoidance of any double counting in the allocation process.

For the avoidance of doubt, all information on allocation and impact presented in this report only refers to Green Issuances until December 31, 2024.







Green Funding 2024

Following the approach from the past Green Investor Reports, the equivalent value of Green Financing newly issued in the financial year 2024 was allocated to the Green Expenditures of the federal budgets of 2023 (which had not been assigned to previous financings; thereafter referred to as 2023 II) and the first part of Green Expenditures 2024 (thereafter referred to as 2024 I), accordingly.

The table below shows all issuance activities related to new Green Funding in the year 2024. Note that Green Short-term Instruments also include rollovers and intra-year issuances. Instruments, which have matured intra-year, are shown in the Appendix "Overview of Short-term Green Financing Instruments issued in 2024". All Green Financing Instruments have been allocated to Green Expenditures during the lifetime of the instrument.

| Green Financing Instrument | Name | Value date | Maturity date | Maturity in years | Issuance volume in EUR | Issuance volume in foreign currency Form of issue | Outstanding at the end of the year |
|----------------------------|-----------------------------------|-------------|---------------|----------------------|------------------------|---------------------------------------------------|------------------------------------|
| | 1,85%-RAGB 2022-2049/3 (G) | 25-Jan-2024 | 23-May-2049 | 25.3 | 1,250,000,000.00 | Syndicate | Yes |
| | 2,90%-RAGB 2023-2029/2 (G) | 25-Jan-2024 | 23-May-2029 | 5.3 | 1,250,000,000.00 | Syndicate | Yes |
| Green Bonds | 2,90%-RAGB 2023-2029/2 (G) | 11-Jul-2024 | 23-May-2029 | 4.9 | 952,824,000.00 | Auction | Yes |
| Green Bonds | 2,90%-RAGB 2023-2029/2 (G) | 12-Nov-2024 | 23-May-2029 | 4.5 | 100,000,000.00 | Bilateral | Yes |
| | 1,85% RAGB 2022-2049/3 (G) | 09-Dec-2024 | 23-May-2049 | 24.5 | 150,000,000.00 | Bilateral | Yes |
| | Total | | | | 3,702,824,000.00 | | |
| | 0% Zero Coupon Note 2024-2025 (G) | 07-May-2024 | 07-May-2025 | 1.0 | 46,104,000.00 | Bilateral | Yes |
| Green EMTN | 0% Zero Coupon Note 2024-2025 (G) | 28-Jun-2024 | 07-May-2025 | 0.9 | 205,398,000.00 | Bilateral | Yes |
| | Total | | | | 251,502,000.00 | | |
| | Loan 2024/1 (G) | 07-Mar-2024 | 07-Mar-2042 | 18.0 | 70,000,000.00 | Bilateral | Yes |
| Green Loans | Loan 2024/4 (G) | 06-May-2024 | 06-May-2026 | 2.0 | 50,000,000.00 | Bilateral | Yes |
| | Total | | | | 120,000,000.00 | | |
| | Bundesschatzscheine 2024-2054 (G) | 03-Apr-2024 | 03-Apr-2054 | 30.0 | 50,000,000.00 | Own Quota | Yes |
| | Bundesschatzscheine 2024-2054 (G) | 24-Apr-2024 | 03-Apr-2054 | 29.9 | 50,000,000.00 | Own Quota | Yes |
| Green Bundesschatz | Bundesschatzscheine 2024-2054 (G) | 02-May-2024 | 03-Apr-2054 | 29.9 | 50,000,000.00 | Own Quota | Yes |
| Green Bundesschatz | Bundesschatzscheine 2024-2054 (G) | 10-May-2024 | 03-Apr-2054 | 29.9 | 100,000,000.00 | Own Quota | Yes |
| | Bundesschatzscheine 2024-2054 (G) | 06-Jun-2024 | 03-Apr-2054 | 29.8 | 100,000,000.00 | Own Quota | Yes |
| | Bundesschatzscheine 2024-2054 (G) | 11-Jul-2024 | 03-Apr-2054 | 29.7 | 100,000,000.00 | Own Quota | Yes |





| Green Financing Instrument | Name | Value date | Maturity date | Maturity in years | Issuance volume in EUR | Issuance volume in foreign currency | Form of issue | Outstanding at the end of the year |
|----------------------------|--------------------------------------------|-------------|---------------|----------------------|------------------------|-------------------------------------|---------------|------------------------------------|
| | Bundesschatzscheine 2024-2054 (G) | 16-Aug-2024 | 03-Apr-2054 | 29.6 | 100,000,000.00 | | Own Quota | Yes |
| | Bundesschatzscheine 2024-2054 (G) | 19-Sep-2024 | 03-Apr-2054 | 29.5 | 100,000,000.00 | | Own Quota | Yes |
| | Bundesschatzscheine 2024-2054 (G) | 16-Oct-2024 | 03-Apr-2054 | 29.5 | 150,000,000.00 | | Own Quota | Yes |
| | Bundesschatzscheine 2024-2054 (G) | 21-Nov-2024 | 03-Apr-2054 | 29.4 | 200,000,000.00 | | Own Quota | Yes |
| | Total | | | | 1,000,000,000.00 | | | |
| Long-Term Green Financing | Instruments | | | | 5,074,326,000.00 | | | |
| | Austrian Treasury Bill 2025-02-27 (G) | 28-Nov-2024 | 27-Feb-2025 | 0.3 | 279,242,000.00 | | Auction | Yes |
| C ATD | Austrian Treasury Bill 2025-03-27 (G) | 12-Dec-2024 | 27-Mar-2025 | 0.3 | 15,000,000.00 | | Bilateral | Yes |
| Green ATB | Austrian Treasury Bill 2025-03-27 (G) | 13-Dec-2024 | 27-Mar-2025 | 0.3 | 535,000,000.00 | | Own Quota | Yes |
| | Total | | | | 829,242,000.00 | | | |
| | EUR Austrian Commercial Paper 2024/227 (G) | 02-Oct-2024 | 07-Jan-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/231 (G) | 07-Oct-2024 | 07-Jan-2025 | 0.3 | 60,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/259 (G) | 23-0ct-2024 | 23-Jan-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/273 (G) | 25-Oct-2024 | 27-Jan-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/284 (G) | 30-Oct-2024 | 30-Jan-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/293 (G) | 08-Nov-2024 | 10-Feb-2025 | 0.3 | 20,000,000.00 | | Bilateral | Yes |
| Green ACP | EUR Austrian Commercial Paper 2024/295 (G) | 11-Nov-2024 | 11-Feb-2025 | 0.3 | 15,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/302 (G) | 18-Nov-2024 | 18-Feb-2025 | 0.3 | 100,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/310 (G) | 28-Nov-2024 | 28-Feb-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/314 (G) | 02-Dec-2024 | 03-Mar-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/319 (G) | 16-Dec-2024 | 17-Mar-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | USD Austrian Commercial Paper 2024/105 (G) | 20-Dec-2024 | 15-Jan-2025 | 0.1 | 23,825,407.41 | 25,000,000.00 | Bilateral | Yes |
| | Total | | | | 288,825,407.41 | | | |





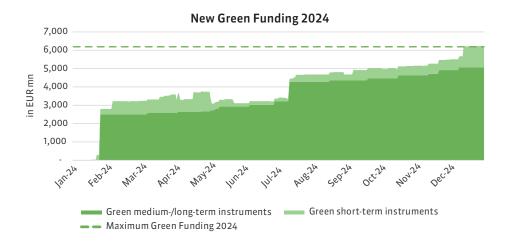
| Green Financing Instrument | Name | Value date | Maturity date | Maturity in years | Issuance volume in EUR | Issuance volume in foreign currency | Form of issue | Outstanding at the end of the year |
|-----------------------------------|---------------------------------------|-------------|---------------|----------------------|------------------------|-------------------------------------|---------------|------------------------------------|
| | Deposit 2024/7 (G) | 07-0ct-2024 | 07-Jan-2025 | 0.3 | 6,000,000.00 | | Bilateral | Yes |
| | Deposit 2024/11 (G) | 15-Oct-2024 | 15-Jan-2025 | 0.3 | 5,000,000.00 | | Bilateral | Yes |
| | Deposit 2024/15 (G) | 22-Nov-2024 | 21-Feb-2025 | 0.3 | 5,000,000.00 | | Bilateral | Yes |
| Green Denosits | Deposit 2024/24 (G) | 05-Dec-2024 | 07-Jan-2025 | 0.1 | 6,000,000.00 | | Bilateral | Yes |
| Green Deposits | Deposit 2024/27 (G) | 10-Dec-2024 | 10-Jan-2025 | 0.1 | 4,900,000.00 | | Bilateral | Yes |
| | Deposit 2024/31 (G) | 12-Dec-2024 | 13-Jan-2025 | 0.1 | 5,000,000.00 | | Bilateral | Yes |
| | Deposit 2024/38 (G) | 23-Dec-2024 | 23-Jan-2025 | 0.1 | 8,000,000.00 | | Bilateral | Yes |
| | Total | | | | 39,900,000.00 | | | |
| Short-Term Green Financing | hort-Term Green Financing Instruments | | | | | | | |
| Total new Green Net Issuance 2024 | | | | | 6,232,293,407.41 | | | |





New Green Net Issuance, which is relevant for the allocation of proceeds in the reporting period and for this Green Investor Report, amounted to EUR 6.23 bn in 2024. Total Green Gross Issuance amounted to EUR 9.26 bn as Green Short-term Instruments also include rollovers and intra-year issuances, which amounted to EUR 3.03 bn. Further details are provided in the section "Short-Term Green Funding 2024" and the Appendix 8 "Overview of Short-term Green financing instruments issued in 2024".

The sections below provide an overview of the issuances and outstanding amounts of New Green Net Issuance in 2024 by instrument, grouped into Medium-/Long-term Green Funding and Short-term Green Funding.



Medium-/Long-term Green Funding 2024

In 2024, Green Bonds were issued in four transactions with a total amount of EUR 3.70 bn. On January 18, the Republic of Austria successfully priced a new EUR 7.00 bn triple-tranche transaction comprising a new EUR 4.50 bn 10-year conventional benchmark due February 2034, a EUR 1.25 bn tap of the Green RAGB 2.90% May 2029 and a EUR 1.25 bn tap of the Green RAGB 1.85% May 2049. In July, the Green RAGB 2.90% May 2029 was tapped by EUR 952.8 mn via auction and in November

by EUR 100.0 mn via a bilateral tap. The Green RAGB 1.85% May 2049 was tapped bilaterally by EUR 150.0 mn in December.

Green Loan issuance reached a total amount of EUR 120.0 mn during the year 2024. In May and June, the Green 0% Zero Coupon Note 2024-2025 was tapped by a total of EUR 251.5 mn via bilateral transactions.

The total volume of Green Bundesschatz issued in 2024 amounted to EUR 1.00 bn. Green Bundesschatz is an Austrian government security with final maturity in April 2054 ("Bundesschatzscheine 2024-2054 (G)" in the table on pages 11-13). The retail product Bundesschatz is in essence a floating debt instrument as interest rates are re-set at each interest date according to the prevailing market yield level at that time. It includes the optionality for retail investors to sell back at par to the Republic of Austria on the respective next interest date. Green Bundesschatz is offered in tenors of 6 months and 4 years.

Short-term Green Funding 2024

In 2024, existing Green ATBs were rolled over at four different auctions (in February, May, August and November) and the volume has been increased to EUR 2.06 bn as of December 31, 2024 (ATB 2025-02-27 (G)). In addition to increases via auctions, the outstanding amount of the Green ATBs has also been enlarged via bilateral taps. Rollovers are possible for Short-term Green Financing Instruments, which are defined by a maximum term to maturity of up to one year. To establish a new 6-month Green line, a new Green ATB (ATB 2025-03-27 (G)) with a volume of EUR 550 mn has been issued in December 2024, which will be regularly rolled over and increased in ATB auctions, thus providing Green money market investors an additional investment opportunity.

A number of Green ACP and Green Loans were newly issued, or existing ones were rolled over during the course of the year 2024. As of December 31, 2024 the total outstanding volume of Green ACP issuance 2024 (with maturities up to 12 months) amounted to EUR 288.8 mn and the total outstanding volume of Green Deposits (bilateral; short-term loans with maturities of up to 12 months) amounted to EUR 39.9 mn.





Given the nature of Green ACP and Green Deposits, which are issued bilaterally, a roll over of these Green Financing Instruments is not always possible, as individual investor demand is driving the issuance. Therefore, for the determination of the maximum issue amount of Green Short-term Financing Instruments throughout the calendar year a high-watermark principle is applied. The total amount of Green Expenditures allocated is determined by the highest outstanding amount of Short-term Green Financing Instruments in a calendar year. Green Expenditures may be allocated to multiple instruments during a given year as long as the instruments are not outstanding at the same time. This ensures that double counting is avoided. For 2024, the total amount of Green Expenditures of EUR 1.16 bn allocated to Short-term Green Financing Instrument was reached on December 23, 2024.

The graph below shows the new issuances and outstanding amounts of Green Short-term Financing Instruments during the year 2024.





Styrian Eisenwurzen Nature and Geopark © Martin Stenitzer





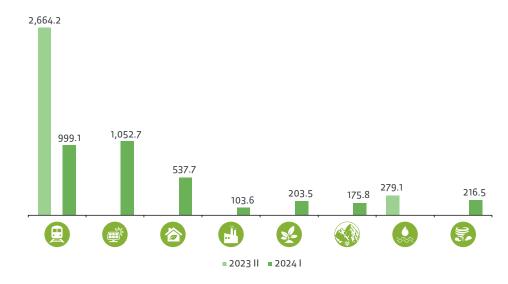
Allocation of Proceeds

The net proceeds raised in 2024 have been aligned with eight different categories of Green Expenditures, listed in the Green Framework published in April 2022. Furthermore, the Republic of Austria's Green Framework has been aligned with the 2021 version of the Green Bond Principles (GBP) published by the International Capital Market Association (ICMA).

Eligible Green Expenditures are related to a large number of assets, support Austria's environmental policy and target different beneficiaries: citizens, households, companies, local authorities, public agencies and universities. An overview of the Eligible Green Categories covered by the Green Government Security issuances can be found in the following table.



The bar chart below shows the allocated amounts (in EUR mn) per category in 2023 II and 2024 I.



Out of the available eligible amounts of the federal budgets of 2023 and 2024, EUR 6.23bn were allocated to Green Financing Instruments issued in 2024:

EUR 3,663.3 mn, accounting for 58.8% of the total allocation, were assigned to the Clean transportation category, with EUR 2,664.2 mn stemming from eligible Green Expenditures of 2023 and EUR 999.1 mn from 2024. The second largest share (16.9%) was allocated to the Renewable energy category (EUR 1,052.7 mn). Energy efficiency represents the category with the third largest allocation (8.6%), with a total of EUR 537.7 mn. This is followed by the categories Sustainable water and wastewater management at EUR 279.1 mn (4.5%), Climate change adaptation at EUR 216.5 mn (3.5%), Environmentally sustainable management of living natural resources and land use at EUR 203.5 mn (3.3%), Terrestrial and aquatic biodiversity at EUR 175.8 mn (2.8%) and Pollution prevention and control at EUR 103.6 mn (1.7%).





Allocation detail on Green project category level (in EUR mn)

| | | | | Eligible Amounts Allocated Amounts | | | | | Remaining eligible amounts | | |
|----------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|---------|----------------|---------|---------|----------------------------------|-------------------|-----------------|
| GBP pr | oject category | Key EU Environmental Objectives | UN SDG Mapping | 2023 | 2024 | Total Eligible | 2023 II | 2024 I | Total Allocated | % total allocated | Balance 2024 |
| B | Clean transportation | Climate change mitigation Pollution prevention and control | 7 mm 9 mm 13 mm 13 mm 13 mm 14 mm 14 mm 15 | 3,926.5 | 3,716.7 | 7,643.2 | 2,664.2 | 999.1 | 3,663.3 | 58.8% | 2,717.6 |
| | Renewable energy | Climate change mitigation | 7 13 500 | 694.9 | 1,052.7 | 1,747.5 | | 1,052.7 | 1,052.7 | 16.9% | |
| | Energy efficiency | Climate Change mitigation | 13 == | 191.8 | 537.7 | 729.5 | | 537.7 | 537.7 | 8.6% | |
| | Pollution prevention and control | Pollution prevention and control | 3 menoses. | 96.2 | 103.6 | 199.8 | | 103.6 | 103.6 | 1.7% | |
| | Environmentally sustainable management of living natural resources and land use | Pollution prevention and control Transition to a circular economy | 12 streets as the street stree | 206.0 | 203.5 | 409.5 | | 203.5 | 203.5 | 3.3% | |
| | Terrestrial and aquatic biodiversity | Protection and restoration of biodiversity and ecosystems | 14 | 155.7 | 175.8 | 331.5 | | 175.8 | 175.8 | 2.8% | |
| | Sustainable water and wastewater management | Sustainable use and protection of water and marine resources Pollution prevention and control | 3 manua. ———————————————————————————————————— | 279.1 | 289.2 | 568.3 | 279.1 | | 279.1 | 4.5% | 289.2 |
| | Climate change adaptation | Climate change adaptation | 13 == | 175.7 | 216.5 | 392.2 | | 216.5 | 216.5 | 3.5% | |
| | | | | 5,725.9 | 6,295.7 | 12,021.5 | 2,943.3 | 3,288.9 | 6,232.3 | 100.0% | 3,006.7 |





Allocation detail on Green Financing Instruments issued in 2024 (in EUR mn)

| | | | | | | N | edium-/Long | g term | | | Sho | rt-term | |
|----------|-----------------------------------------------------------------------------------------|---------|---------|-----------------|---------|-------|-------------|-------------|---------|-------|-------|----------|---------|
| GBP pr | oject category | 2023 II | 2024 l | Total Allocated | Bonds | Loans | EMTN | Bundeschatz | Total | ATB | ACP | Deposits | Total |
| | Clean transportation | 2,664.2 | 999.1 | 3,663.3 | 2,176.5 | 70.5 | 147.8 | 587.8 | 2,982.7 | 487.4 | 169.8 | 23.5 | 680.7 |
| | Renewable energy | | 1,052.7 | 1,052.7 | 625.4 | 20.3 | 42.5 | 168.9 | 857.1 | 140.1 | 48.8 | 6.7 | 195.6 |
| | Energy efficiency | | 537.7 | 537.7 | 319.5 | 10.4 | 21.7 | 86.3 | 437.8 | 71.5 | 24.9 | 3.4 | 99.9 |
| | Pollution prevention and control | | 103.6 | 103.6 | 61.6 | 2.0 | 4.2 | 16.6 | 84.4 | 13.8 | 4.8 | 0.7 | 19.3 |
| A | Environmentally sustainable manage- ment of living natural resources and land use | | 203.5 | 203.5 | 120.9 | 3.9 | 8.2 | 32.6 | 165.7 | 27.1 | 9.4 | 1.3 | 37.8 |
| | Terrestrial and aquatic biodiversity | | 175.8 | 175.8 | 104.4 | 3.4 | 7.1 | 28.2 | 143.1 | 23.4 | 8.1 | 1.1 | 32.7 |
| | Sustainable water and wastewater management | 279.1 | 0.0 | 279.1 | 165.8 | 5.4 | 11.3 | 44.8 | 227.3 | 37.1 | 12.9 | 1.8 | 51.9 |
| 9, | Climate change adaptation | | 216.5 | 216.5 | 128.6 | 4.2 | 8.7 | 34.7 | 176.3 | 28.8 | 10.0 | 1.4 | 40.2 |
| | | 2,943.4 | 3,288.9 | 6,232.3 | 3,702.8 | 120.0 | 251.5 | 1,000.0 | 5,074.3 | 829.2 | 288.8 | 39.9 | 1,158.0 |



5 Impact Report

The total eligible Green Expenditures from the federal budget in 2023 and 2024 add up to EUR 12.02 bn, whereby EUR 6.23 bn were allocated to Green Financing Instruments issued in 2024. For 96.6% of this allocated amount, information on environmental performance and/or impact is presented in this chapter. A detailed overview on allocated amounts per Use of Proceeds (UoP) category covered by the impact reporting is presented in the tables below. For 2023, the impact report includes information for EUR 2.74 bn (or 92.9% of allocated amounts), whereas in 2024, EUR 3.29 bn (or almost 100% of allocated amounts) are covered.

The indicators relate to the total volumes of supported projects and infrastructure investments and therefore represent leveraged effects²⁰. The impact analysis and the methodological approach were prepared by the Environment Agency Austria (Umweltbundesamt)²¹ specifically for the purpose of the Green Investor Report and are not directly comparable to those of other publications addressing the respective funding instruments due to the different scope. Several projects and infrastructure investments are eligible to receive funding and grants from more than one funding body. In order to prevent overstatement of impact, performance and impact metrics for such activities are presented only with regard to one funding instrument.

Highlights

• In total, the expenditures for projects and infrastructure financed under the Green Framework and allocated to Green Financing Instruments issued in 2024 are leveraging annual GHG emissions reduction/avoidance of 3.36 mn tonnes CO₂e. Thereof, 2.08 mn tonnes were facilitated by expenditures made in 2023, which represents around 3% of Austria's total GHG emissions in 2023 according to a recent report by the Environment Agency Austria²². For the part of the 2024 expenditures allocated to Green Financing Instruments issued in 2024, an additional 1.28 mn tonnes of CO₂e of annual GHG emission reduction/avoidance

are enabled. The major part of CO_2 e-reductions covered by this reporting (2.76 mn tonnes) is attributable to investments in the construction, modernisation and maintenance of rail infrastructure and to the funding of railway operations. In total, a broad set of 16 sub-categories²³, including funding programmes facilitating the transition towards a zero-emission mobility by promoting active mobility, mobility management and zero emission vehicles as well as renewable energy and energy efficiency are contributing to this result.

- Federal government financing in the area "Terrestrial and aquatic biodiversity" (Austrian Agri-environmental Programme) enabled a total number of over 89,100 farm subsidies and funding of more than 1.8 mn hectares of agricultural land in 2024. The total area of highly biodiversity-relevant areas on agricultural land increased to 235,530 hectares in 2024. Also, starting with the application year 2024, the premiums in the agri-environmental program were increased by 8% to further expand participation.
- Federal government financing in the area "Environmentally sustainable management of living natural resources and land use" (*Austrian compensatory allowance for less-favored areas*) enabled more than 79,000 farm subsidies and funding of around 1.45 mn hectares of agricultural land in 2024.
- In 2023, public funding in the area of drinking water supply enabled more than 19,700 people to be additionally connected to drinking water supply and 510 km of water pipes were renovated or constructed.
- Flood protection measures of the Federal Water Engineering Administration financed under the Green Framework amounted to EUR 116.1 mn in 2024 and have enabled more than 10,000 citizens to be protected from flood events.
- In 2024, projects and infrastructure funded in the areas "Renewable energy" and "Energy efficiency" led to annual energy savings of 981,635 MWh and an annual renewable energy generation/use of 1,632,347 MWh.

Details on the abovementioned effects and further impact and performance indicators are presented in the following chapters.

²⁰ Allocated amounts shown in the tables in this chapter refer to the share where impact information is available (which in some cases is not equal to the total allocated amount referred to in chapter 4)

²¹For the calculation of performance and impact metrics input from the responsible bodies outlined in the sub-chapters has been used. Further sources are listed in chapter 9.

²² Umweltbundesamt, <u>Austria's Annual Greenhouse Gas Inventory 1990-2023</u>, January 2025.

²³ Under the UoP categories "Clean Transportation", "Renewable Energy" and "Energy Efficiency" presented in the following chapters, in total 16 sub-categories are listed that contribute to the reduction/avoidance of GHG emissions.





Allocated amounts covered by the impact reporting

| | | | 2023 II | | | 2024 l | | | Total (2023 II + 20 | 24 I) |
|---------------------------------------------------------------------------------|--------------------------------|---------------------------------|-------------------------------------------------------------------------|---------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|---------------------------------------------------|---------------------------------|-------------------------------------------------------------------------|---------------------------------------------------|
| GBP project category | UN SDG Mapping | Allocated amount (EUR mn) | Allocated amount covered by the impact repor- ting (EUR mn) | Impact coverage in % of allocated amount | Allocated amount (EUR mn) | Allocated amount covered by the impact repor- ting (EUR mn) | Impact coverage in % of allocated amount | Allocated amount (EUR mn) | Allocated amount covered by the impact repor- ting (EUR mn) | Impact coverage in % of allocated amount |
| Clean transportation | 7 9 11 13 13 13 13 14 1 | 2,664.2 | 2,456.0 | 92.2% | 999.1 | 999.1 | 100.0% | 3,663.3 | 3,455.1 | 94.3% |
| Renewable energy | 7 ===== 13 == | | | | 1,052.7 | 1,052.6 | 100.0% | 1,052.7 | 1,052.6 | 100.0% |
| Energy efficiency | 7 == 13 == 🚱 | | | | 537.7 | 537.6 | 100.0% | 537.7 | 537.6 | 100.0% |
| Terrestrial and aquatic biodiversity | 3 interior | | | | 175.8 | 175.8 | 100.0% | 175.8 | 175.8 | 100.0% |
| Environmentally sustainable management of living natural resources and land use | 12 15 % | | | | 203.5 | 203.5 | 100.0% | 203.5 | 203.5 | 100.0% |
| Sustainable water and wastewater management | 15 m | 279.1 | 279.1 | 100.0% | 0.0 | 0.0 | | 279.1 | 279.1 | 100.0% |
| Pollution prevention and control | 3 manua. 6 manua. | | | | 103.6 | 103.5 | 99.9% | 103.6 | 103.5 | 99.9% |
| Climate change adaptation | 13 == | | | | 216.5 | 215.7 | 99.6% | 216.5 | 215.7 | 99.6% |
| Total | | 2,943.4 | 2,735.1 | 92.9% | 3,288.9 | 3,287.8 | 100.0% | 6,232.3 | 6,023.0 | 96.6% |





5.1 Clean transportation

The transport sector represents one of the main sources of GHG emissions in Austria. The highest share of emissions in this sector can be attributed to road traffic and in particular to passenger car traffic. In the last two years, total GHG emissions from the transport sector have decreased by around 4% per year²⁴. Despite this positive development, further efforts are required to reach Austrian's goal of climate neutrality by 2040. These efforts are necessary, as Austria's GHG inventory shows an increase in per capita GHG emissions for the transport sector since 1990. Creating incentives to switch to sustainable modes of transport is therefore crucial for reducing greenhouse gas emissions in Austria. This includes investments in infrastructure for public transport, walking and cycling, in public transport services and in support and consulting programs.

In order to maintain and further improve the quality of the public transport network, Austria steadily invests in its maintenance, modernisation and extension. For the railway network this is regulated in a special framework plan (further information available in sub-chapter "Federal subsidies to ÖBB-Infrastruktur AG" on page 22 et seq.). To create an additional incentive to use public transport, Austria introduced the so-called Climate Ticket (KlimaTicket) in 2021, which allows the use of all means of public transport in Austria with only one annual ticket (further information available in sub-chapter "Climate Ticket Austria (KlimaTicket)" on page 28).

In the course of the reporting period, a total of EUR 2,456.0 mn with reported impact was allocated to projects dedicated to clean transportation in 2023 and EUR 999.1 mn in 2024. The projects selected for the impact reporting are described in further detail in the next chapters. This section is comprised of five sub-sections, including clean transportation infrastructure and services, public transport, funding programmes for a transition to zero emission mobility, consulting for enabling a transition to zero emission mobility and research, development and innovation.

| | 2023 II | | 20241 | | | | | |
|----------------------------------------------------------------|------------------------------------------------|-------------------------------------------------------------------|-----------------|------------------------------------------------|-------------------------------------------------------------------|-----------------------------------------------------------------------------|--|--|
| Clean transportation | Allocated amount with reported impact (EUR mn) | Annual GHG emissions reduced / avoided (tonnes CO ₂ e) | Number of users | Allocated amount with reported impact (EUR mn) | Annual GHG emissions reduced / avoided (tonnes CO ₂ e) | Number of projects (x) / trained personnel (*) / new programme partners (°) | | |
| Clean transportation infrastructure and services | 2,058.7 | 2,080,000 ²⁵ | | 847.2 | 676,000 | | | |
| Public transport - Climate Ticket Austria | 397.3 | | 266,000 | | | | | |
| Funding programmes for a transition to zero emission mobility | | | | 123.8 | 1,130 | 3,284 (x) | | |
| Consulting for enabling a transition to zero emission mobility | | | | 8.1 | | 234(*) / 20 (°) | | |
| Research, development and innovation | | | | 20.0 | | 202 (x) | | |
| Total | 2,456.0 | | | 999.1 | | | | |

Table 1: Clean transportation – overview of indicators. Sums in the table may not add up due to rounding differences.

Monetary figures refer to public funding spent on clean transportation infrastructure or projects and allocated to Green Financing Instruments. Impact and performance indicators refer to the enabled effects, i.e. effects leveraged by the public funding, with regard to the investment volumes of the supported projects and infrastructure. The figures in Table 1 present the respective share of the budget assigned to Clean transportation projects and infrastructure that are allocated to Green Financing Instruments. When interpreting the data, it should be noted that the figures only represent a portion of the total assigned expenditures. More information on the category "Research, development & innovation" can be found in chapter 5.9.

²⁴ Environment Agency Austria (Umweltbundesamt), Greenhouse Gas Emissions 2023, <u>Facts and Figures</u>

²⁵ Thereof 75,000 t CO₂e will be avoided annualy once the extension of the Vienna underground line network is fully operational.





5.1.1 Clean transportation infrastructure and services

In order to guarantee the provision of rail passenger and freight transport and public transport in general, investments in infrastructure are necessary. Depending on the type and category of investment, there are legal obligations or agreements that regulate the federal government's share of investment.

Railway, in particular, is a very popular means of transportation. Austria is regularly among the top three European countries regarding the number of passenger kilometres travelled per inhabitant and year, in 2023 Austria ranked on second place²⁶. In 2023, 328 million passengers travelling by rail were recorded for Austria, a plus of 11% compared to 2022²⁷. The increasing number of passengers reflects the rising popularity of travelling by rail.

For the purpose of the impact assessment, investments in rail infrastructure and investments in rail passenger and freight transport services are considered together, as rail transportation infrastructure is an enabler for rail passenger and freight transport services and cannot be assessed separately. The avoided GHG-emissions reported thus reflect the overall enabled effect of these different investments in the rail infrastructure and services. The detailed methodology for determining the avoided GHG-emissions is described in chapter 7.1.

Federal subsidies to ÖBB-Infrastruktur AG

Objective

The operation of rail infrastructure and its provision as well as maintenance, planning and construction of rail infrastructure for the general enhancement of the attractiveness of rail transport.

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Beneficiaries

- Direct beneficiary: ÖBB-Infrastruktur AG
- Indirect beneficiaries: all users of the ÖBB rail network

Description of Financing

According to §31 of the Austrian Federal Railways Act (Bundesbahngesetz), ÖBB-Infrastruktur AG is obliged to make its rail infrastructure available to rail transport companies operating on the Austrian rail network. The Austrian railway framework plan (ÖBB framework plan) provides for investments in the network of ÖBB-Infrastruktur AG. The legal basis for this is set in §42 of the Federal Railways Act²⁸.

The Austrian railway framework plan includes planned projects and their investments over a 6-year period as well as expenses foreseen for the maintenance of the rail network. This forms the basis for the subsidies of the BMK provided to ÖBB-Infrastruktur AG, which are subsequently contractually agreed upon (subsidy contracts).

The main focus of the current Austrian railway framework plan is as follows:

- In rail passenger transport, the Austrian railway framework plan will significantly reduce
 the travel time on important axes, enabled by large infrastructure projects (Brenner base
 tunnel, Semmering base tunnel, Koralm tunnel) and investments in electrification, automation and digitalisation. Further, renovations of railway stations, improved customer services and better connections will make travelling by rail more attractive.
- In rail freight transport, the Austrian railways framework plan has the objective to increase the transport capacity within the railway network. The framework plan includes large infrastructure projects along important trans-European network axes (TEN-T), like the Brenner base tunnel on the Scandinavian-Mediterranean corridor and the Semmering base tunnel on the Baltic-Adriatic corridor, investments in intermodal terminals and cargo centres (Villach, Graz, Wels, Vienna), as well as electrification and ongoing investments in automation and digitalisation.

²⁶ IRG-rail, 13th Annual Market Monitoring Working Dokument, March 2025

²⁷ Schienen-Control, Annual Report 2023

²⁸ Bundesbahngesetz (last amended version)





In 2023²⁹, 165.9 mn train kilometres were travelled on the ÖBB railway network, 149.9 mn train kilometres of which with electric traction^{30,31}.

- 117.9 mn train kilometres were attributable to public service passenger transport (89% electric)
- 40.1 mn train kilometres were attributable to freight transport (95% electric)

In 2024²⁹, 172.8 mn train kilometres were travelled on the ÖBB railway network, 155.5 mn train kilometres of which with electric traction ^{30,31}.

- 124.3 mn train kilometres were attributable to public service passenger transport (89% electric)
- 40.1 mn train kilometres were attributable to freight transport (96% electric)

Environmental Impact

The enabled effect of the funding is presented in Table 1 by the following indicator:

Avoided GHG-emissions 2023 and 2024³²

Co-financing of rail infrastructure investments by private railway companies and contributions to the provision of rail infrastructure

Objective

The operation of rail infrastructure and its provision as well as maintenance, planning and construction of rail infrastructure for the general enhancement of the attractiveness of rail transport.

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Beneficiaries

- Direct beneficiaries: Private Railroads (Neusiedler Seebahn GmbH, Raaberbahn AG, NÖVOG, Wiener Lokalbahnen GmbH, Linzer Lokalbahn AG, Lokalbahn Gmunden - Vorchdorf AG, Lokalbahn Lambach - Vorchdorf AG, Lokalbahn Vöcklamarkt - Attersee AG, Salzburg AG, Pinzgauer Lokalbahn, Cargo Centre Graz, GKB³³, Steiermärkische Landesbahnen, IVB, Zillertaler Verkehrsbetriebe AG, Montafonerbahn AG, Schiene OÖ)
- Indirect beneficiaries: all users of the rail network of private railway companies

Description of Financing

In accordance with Section 4 of the Private Railways Act 2004, the infrastructure of private railroads in Austria is financed via so-called "Medium-term Investment Programmes", which are concluded between the federal government, the relevant regional authorities and the respective private railroad company for a period of five years. The current 9th Medium-term Investment Programme (9th MIP) covers the financing period 2021-2025.

Under the 9th MIP, 23 private railway lines in eight Federal States will be co-financed by the federal government from 2021-2025. The federal funds earmarked for this purpose amount to EUR 480.7 mn over the entire financing period. This is 277% more than the investments in the 8th MIP. The prerequisite for funding under the Private Railways Act is that the private railroads are open to the public with regular year-round traffic. As a rule, the financing of private railways under the Private Railways Act is divided into 50% state and 50% federal funding.

Investments are focussed on electrification, infrastructure improvements and safety. Detailed information on all funded projects can be found in the report on the 9th Medium-term Investment Programme²⁴.

In addition to maintaining the existing stock, the investment programme aims at making the existing lines more attractive. The impact and effectiveness of the investments can be illustrated by the number of train kilometres and users. Private railroads that are open to the public with regular year-round traffic are supported by the federal government in order to ensure a basic service in rail passenger transport (see also chapter Ordering of non-commercial services in rail passenger transport).

²⁹ Data provided by ÖBB

³⁰ Transport services provided by electric locomotives or electric railcars, excluding diesel vehicles.

³¹ The delta between total kilometres and train kilometres in passenger and freight transport are service and locomotive trains which were not included in the impact calculation.

³² Presented cumulatively for rail infrastructure and services in Table 1 above

³³ only 2023

³⁴ See project-specific information on the website of the responsibly Ministry (only available in German)





Environmental Impact

The enabled effect of the funding is presented in Table 1 by the following indicator:

Avoided GHG-emissions 2023 and 2024³⁵

Ordering of non-commercial services in rail passenger transport

Objective

The offering of a basic service in rail passenger transport.

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Beneficiaries

- Direct beneficiaries: ÖBB-Personenverkehr AG (ÖBB-PV AG) and private railway companies
- Indirect beneficiaries: all rail passengers

Description of Financing

The federal contributions to ensure a basic service in rail passenger transport. These offerings in rail passenger transport are services (or service components) whose provision is in the public interest, but where cost coverage by fare revenues alone is not possible (in most cases, ticket revenues only cover around one-third of the incurred costs). As such, these services would not be offered on the market; their provision requires co-financing by the public sector.

Environmental Impact

The enabled effect of the funding is presented in Table 1 by the following indicator:

Avoided GHG-emissions 2023 and 2024³⁶

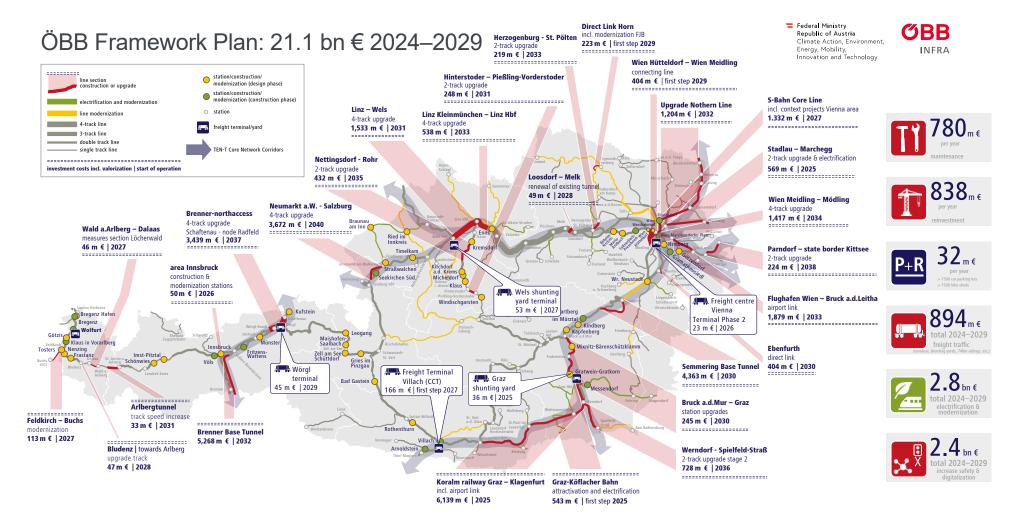


Salzkammergut railway route © Adobe Stock

³⁵ Presented cumulatively for rail infrastructure and services in Table 1 above 36 Presented cumulatively for rail infrastructure and services in Table 1 above







Design phase: Kufstein - Schaftenau, Tiroler Oberland, Pass Lueg, Schwarzach-St. Veit - Bad Gastein, Kirchdorf - Micheldorf, Bosruck Tunnel, Tulln - Tullnerfeld, northaccess lines S-Bahn Vienna, innere Aspangbahn

Figure 1: Austrian Railway Framework Plan 2024-2029³⁷

³⁷ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology & ÖBB INFRA: Rahmenplan 2024-2029, October 2023
The Austrian railway framework plan is adopted by the federal government. The figure shows the most recent Austrian railway framework plan, including the main projects planned for the period 2024-2029.





Rail freight funding plus (Schienengüterverkehrsförderung Plus)

Objective

The provision of rail freight transport services in the form of single-wagon transport, unaccompanied intermodal transport or rolling road (piggyback transportation of road trucks by rail).

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Beneficiaries

Railroad companies providing rail freight transport services in the form of single-wagon transport, unaccompanied intermodal-transport or rolling road.

Description of Financing

The financing is provided in the form of a non-repayable grant. For this purpose, contracts are concluded in each case between the BMK and the railroad companies providing the rail freight transport service. In 2023, 60% of tonne-kilometres transported by rail in Austria were supported by rail freight funding³⁸.

In addition, since 2023 it has been possible to apply for a subsidy for the track access charge payable to the infrastructure operator. This subsidy can be combined with the rail freight transport grant.

Environmental Impact

The enabled effect of the funding is presented in Table 1 by the following indicator:

Avoided GHG-emissions 2023³⁹

Co-financing of the federal government in the investment costs for the expansion of the Vienna subway system

Objective

In order to react to the changing urban structure and to relieve busy lines, Wiener Linien is building a new underground line and new underground interchanges in Vienna. The first stage of the new U5 line will connect Frankhplatz and the university district with Karlsplatz and several underground interchanges. The first phase is already under construction. In the second expansion stage, the U5 will be extended to Hernals and the existing U2 underground line will be extended to Wienerberg. The second expansion stage is in the detailed planning phase⁴⁰.



© Wiener Linien

Responsible Bodies

- Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)
- City of Vienna

Beneficiaries

- Direct beneficiary: Wiener Linien
- Indirect beneficiaries: all users of the public transport in the city of Vienna

Description of Financing

The financing of the Vienna subway is governed by a federal-state agreement pursuant to Article 15a B-VG (Federal Constitutional Law). The financing key for the subway was fixed at 50% Federal Government and 50% City of Vienna, with an annual installment of the Federal Government of EUR 78 mn.

³⁸ According to the annual evaluation of the funding progamme by the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK); 2024 data not yet available

³⁹ Presented cumulatively for rail infrastructure and services in Table 1 above

⁴⁰ Further information available on the project's webpage





The new U2xU5 intersection will bring many advantages for Vienna's public transport network. The positive environmental impact of the new underground lines includes environmentally friendly urban planning and additional green space in the city. New direct connections make the underground network an efficient and environmentally friendly means of travel within the city. U2xU5 creates four new underground intersections and two new connections to Vienna's regional rail services.

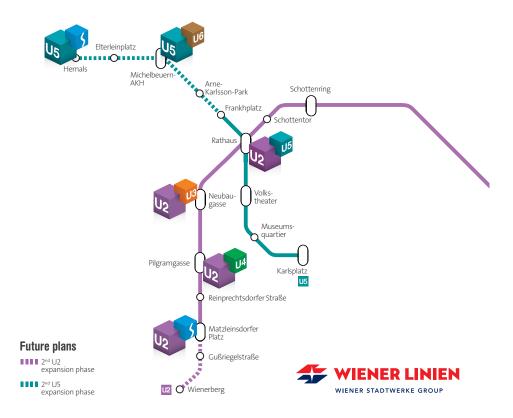
The operator (Wiener Linien) reports that, once fully operational, the number of passengers using the Viennese public transport could be increased by more than 300 million additional public transport users per year, enabling annual CO_2e savings of up to 75,000 tonnes. A comparison of this value with the CO_2e -storage capacity of trees shows that the annual absorption of 75,000 tonnes of CO_2e corresponds to the absorption and storage capacity of 6 million individual trees or 9,400 hectares of forest⁴¹.

The construction of a new section of the Vienna underground system has to be considered as an enabling activity, as it is a prerequisite for shifting transport from motorised individual transport to public transport and thus paves the way for a low carbon mobility.

Environmental Impact

The enabled effect of the funding is presented in Table 1 by the following indicator:

Avoided GHG-emissions⁴²



Plan for the expansion of the Vienna subway system © Wiener Linien

⁴¹ For details on the calculation see Chapter 7.1.1

⁴² The emissions will be avoided once the new underground line is fully operational.



5.1.2 Public Transport

Public transport in Austria is financed through a multi-layered system of financing mechanisms in which financial allocations from the federal government, state governments, local governments as well as revenues from single ticket sales and season ticket sales all contribute to the system. Due to public transfers and subsidies, it is possible to guarantee public transport in areas where the operation of public transport would not be economically feasible otherwise. On 26 October 2021 the Climate Ticket Austria (KlimaTicket Ö) was introduced. For the first time in Austria, it is now possible to use all public transport services with just one card. The price for the Climate Ticket Austria in 2023 was EUR 1,095 per year (EUR 3 per day)⁴³.

Climate Ticket Austria (KlimaTicket)

Objective

The easy and convenient use of public transport services with an annual ticket. The ticket is available as Climate Ticket Austria (one annual ticket for all means of public transport in Austria) and as Regional Climate Ticket (annual ticket for one region).

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Beneficiaries

- Direct beneficiaries: public transport providers
- Indirect beneficiaries: all holders of the Climate Ticket (regular users of public transport)

Description of Financing

The Climate Ticket Austria is financed by financial contributions from the federal government and revenues from ticket sales.

The introduction of the Climate Ticket in 2021 is to be considered as an enabling activity, as affordable and easy to use public transport services are crucial for the shift to a low carbon mobility.

43 Since January 2025: EUR 1,179.30 per year

In 2023, there were 266,000 ticket holders of the Climate Ticket Austria and 1,218,402 ticket holders of the Regional Climate Tickets⁴⁴.



According to the KlimaTicket-Report 2023⁴⁵, 22% of Climate Ticket users

state that they would have travelled by car instead of public transport without the Climate Ticket. Taking into account the uncertainties of surveys, CO_2e -savings in 2023 of 105.900 t CO_2e^{46} were calculated in the KlimaTicket-Report. Further, 17% of the Climate Ticket users who live in a household with one or more cars, disposed of one car and further 14% are planning to do it.

Environmental Impact

The enabled effect of the funding is presented in Table 1 by the following indicator:

Number of users 2023

5.1.3 Funding Programmes for a Transition to Zero Emission Mobility

The transition to zero emission mobility is supported by several funding programmes that focus on promoting e-mobility, active mobility (cycling and walking), mobility management and public transport. Depending on the funding programme, private individuals, companies, municipalities and associations are supported.

Objective

National funding programmes aim at facilitating the transition towards a zero-emission mobility by promoting active mobility, mobility management and zero emission vehicles. Moreover, transport- and energy-related research projects and measures to bring climate-friendly energy technologies to market are supported.

⁴⁴ The Regional Climate Ticket is co-financed by the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

⁴⁵ KlimaTicket-Report

⁴⁶ Since the introduction of the ClimateTicket, the number of rail passengers has increased significantly. In order to avoid possible double counting with the CO₂e savings from investments in rail infrastructure and services, the CO₂e savings cited are therefore not included in Table 1.





Responsible Bodies

- Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)
- Federal Ministry of Labour and Economy (BMAW)
- Federal Ministry of Finance (BMF)

Beneficiaries

Cities, municipalities and regions, administrations, businesses, tourism operators, schools, associations, youth initiatives and citizens

Description of Financing

The funding is provided from several sources: The Climate and Energy Fund Act (Klima- und Energiefondsgesetz), the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023) and the Investment Bonus Act (Investitionsprämiengesetz). The funding is provided as a non-repayable investment grant. Funding is available for

- Cycling: cycling infrastructure (e.g. cycling paths), bike&ride, bicycle parking facilities, signposting, related planning services
- Walking: redesign of public space for pedestrians (e.g. pedestrian zones, improvements of sidewalks), improvements in the accessibility by foot of public transport, schools or similar infrastructure, related planning services
- E-Mobility: e-vehicles, e-bikes, charging stations (proof is required that only electricity from renewable sources is used)
- Mobility management: sharing, demand orientated mobility solutions, rationalisation of mobility, awareness-raising campaigns
- Public transport: e-vehicles (including tramways), new construction or renovation of existing public transport stations (e.g. bus stops)

Active mobility and mobility management

Active mobility (including e-bikes) and mobility management is mainly supported by the klimaaktiv mobil funding programme (see chapter 5.1.4).

The Climate and Energy Fund, endowed with funds from the BMK, is the programme owner of the *klimaaktiv mobil funding programme*.

Environmental Impact

The enabled effect of the funding is presented in Table 1 by the following indicators:

- Avoided GHG-emissions 2024
- Number of projects 2024

5.1.4 Consulting for Enabling a Transition to Zero Emission Mobility

Promotion of a climate-friendly mobility transition (klimaaktiv mobil)

Objective

The initiative klimaaktiv mobil promotes a climate-friendly mobility transition towards active mobility, electric mobility, intelligent mobility management and innovative mobility services. The portfolio of klimaaktiv mobil includes the *extensive financial support programme* (see chapter 5.1.3.), consulting services and awareness raising programmes, partnerships and networks, as well as trainings and certification schemes. It was founded in 2004. Since then it has been advising cities, municipalities and regions, administrations, businesses, fleet operators, tourism operators, schools, youth initiatives and citizens on funding opportunities for active mobility, e-mobility and mobility management.

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Beneficiaries

Cities, municipalities and regions, administrations, businesses, fleet operators, tourism operators, schools, youth initiatives and citizens



Description of Financing

The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK) finances consulting services⁴⁷ to ensure the targeted and economical use of funding, as well as Austria-wide dissemination of information and awareness-raising to promote the funding to the the target groups and to encourage also the implementation of non-funded projects. In this context, further education programs for e-mobility and cycling are an important lever in order to develop and implement projects at a higher level, which can also include partial cost coverage and appropriate public relations work.

The enabled effects of the klimaaktiv mobil initiative can be measured in avoided GHG emissions (see chapter 5.1.3), the number of certified personnel that has been trained and the development of long-term partnerships. In 2024, the following personnel was trained

- 73 cycling instructors and 18 master cycling instructors
- 85 certified driving instructors for fuel-saving driving (in 2024 for the first time also driving instructors for fuel-saving driving with rail vehicles were certified)
- 40 certified driving instructors for e-mobility and 18 graduates of an e-mobility training programme
- 7 municipal cycling officers

The partnerships and networks are an important lever of klimaaktiv mobil. They serve to jointly implement activities for climate-friendly mobility. Performance and impact can be measured by the number of newly acquired long-term programme partners – these are companies or associations that enter into a long-term, general, contractual cooperation with klimaaktiv mobil. In 2024, 20 new long-term programme partners joined klimaaktiv mobil.

The enabled effects are presented in Table 1 by the following indicators:

- Supporting activity, the enabled effects of the klimaaktiv mobil funding programme 2024 are included in chapter 5.1.3
- Number of trained personnel 2024
- Number of new long-term programme partners 2024



Cargo bike (c) iStock

Environmental Impact

⁴⁷ They are listed on the <u>website of klimaaktiv in the section "mobility"</u> (only available in German)





5.2 Renewable energy

The transition from fossil fuel related energy sources to renewable energy sources has been an important element of Austria's climate protection policy for a considerable time. All major climate and energy policy strategies of the recent past reflect this effort. Austria considers the increase of the share of renewable energy sources not only important for climate change mitigation, but also for the increase of security of supply and domestic value added. Several programmes contribute to the increase of renewable energy utilisation⁴⁸.

This section is split up into the sub-sections: biomass, photovoltaic (PV) and power storage, heat pumps, solar thermal, geothermal, energy communities, consulting, guidance, and other renewable energy measures. Research, development and innovation is covered in section 5.9.

| 2 | 0 | 2 | 4 | Į |
|---|---|---|---|---|
| | | | | |

| Renewable energy | Allocated amount with reported impact (EUR mn) | Number of projects supported | Annual renewable energy generation/use (MWh) | Annual energy savings (MWh) | Annual GHG emissions reduced/ avoided (tonnes CO₂e) |
|---------------------------------------------|------------------------------------------------|------------------------------|-------------------------------------------------|-----------------------------|--------------------------------------------------------|
| Biomass | 367.0 | 21,289 | 761,293 | 191,551 | 234,461 |
| Photovoltaic | 124.1 | 10,989 | 131,141 | 19,700 | 32,678 |
| Power storage | 39.9 | 6,070 | 133,810 | 7,268 | 41,208 |
| Heat pumps | 383.7 | 21,869 | 484,114 | 196,213 | 157,927 |
| Geothermal | 13.5 | 6 | | | |
| Solar thermal | 7.6 | 35 | 11,509 | 13,675 | 1,719 |
| Energy communities, consulting, guidance | 9.8 | 253 | | | |
| Other renewable energy systems and measures | 81.2 | 4,858 | 101,785 | 38,743 | 34,043 |
| Research, development and innovation | 25.9 | 130 | | | |
| Total | 1,052.6 | | | | |

Table 2: Renewable energy - overview of indicators. Sums in the table may not add up due to rounding differences.

Monetary figures refer to public funding spent on renewable energy projects allocated to Green Financing Instruments. Impact and performance indicators refer to the enabled effects, i.e. effects leveraged by the public funding, with regard to the overall investment volumes of the supported projects. Estimates for performance/impact indicators are based on data for approved projects in the respective year.

Explanatory notes:

- Some renewable energy measures result both in renewable energy generation/use and in energy savings due to higher energy efficiency of the technology. Examples are biomass, used for district heating, and heat pumps. The programmes are classified either under "Energy efficiency" or "Renewable energy" subject to the respective main purpose.
- The figures in Table 2 present the respective share of the budget that was assigned to renewable energy projects and allocated to Green Financing Instruments⁴⁹.
- More information on the category "Research, development & innovation" can be found in chapter 5.9.

⁴⁸ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, <u>Umweltinvestitionen des Bundes</u> (only available in German), 2024
49 The analyses and the methodological approach were prepared specifically for the purpose of the Green Investor Report and cannot be directly applied to other publications addressing the respective funding vehicles due to the different scope.





5.2.1 Biomass

Objective

Usage of biomass as a renewable energy source to substitute fossil fuels.

48% of Austria's territory is covered by forests. Due to reforestation efforts wood is growing back faster than it is being harvested. In the last 10 years, forest area has increased by 6 hectares per day. The harvested area is smaller and corresponds to only 89% of the regrown area. Additionally, an increase in broadleaf and mixed forests and biodiversity is recorded50. The importance of the Austrian forests for biomass use is shown by the fact that more than 80% of the energetic biomass consumption is based on wood fuels.

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry for Labour and Economy (BMAW), Federal Ministry of Finance (BMF)

Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz), the Investment Bonus Act (Investitionsprämiengesetz) and the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023) capital expenditures are subsidised. Supported activities include:

- Individual biomass heating systems in buildings
- Utilisation of heat from biomass in district heating or micro grids: installation of biomass firing systems and connection of additional buildings to the heat grid
- Combined heat and power generation from biomass
- Energy generation from biogenic waste

Beneficiaries

Individuals, companies, municipalities

Environmental Impact

Reduction of the use of fossil fuels, especially in heating, enabling reduced/avoided CO_2e emissions (see Table 2)

5.2.2 Photovoltaic and power storage

Objective

Increase renewable power generation by photovoltaics (PV) and power storage.

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry of Finance (BMF), Federal Ministry for Labour and Economy (BMAW)

Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz), the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023), the Climate and Energy Fund Act (Klima- und Energiefondsgesetz) and the Investment Bonus Act (Investitionsprämiengesetz), capital expenditures are subsidised. Supported activities include:

- Installation of PV systems at small and large scale
- "Lighthouse projects": projects with innovative PV application
- Installation of power storage systems at small and large scale

Beneficiaries

Individuals, companies, municipalities

Environmental Impact

Renewable power generation and power storage enabling reduced/avoided CO₂e emissions (see Table 2)

5.2.3 Heat pumps, geothermal, solar thermal

Objective

Usage of further renewable energy sources to substitute fossil fuels by installing additional capacity.

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry of Finance (BMF), Federal Ministry for Labour and Economy (BMAW)

⁵⁰ Federal Ministry for Agriculture, Forestry, Regions and Water Management, <u>Austrian Forest Report, 2023</u> (only available in German)





Description of Financing:

Under the Environmental Subsidy Act (Umweltförderungsgesetz), the Investment Bonus Act (Investitionsprämiengesetz) and the Climate and Energy Fund Act (Klima- und Energiefondsgesetz) capital expenditures are subsidised. Supported activities include:

- Installation of heat pumps
- Large-scale and individual housing solar thermal systems
- Use of solar thermal systems in climate and energy model regions
- Use of geothermal energy in district heating systems⁵¹

Beneficiaries

Individuals, companies, municipalities

Environmental Impact

Renewable heat generation, use of residual heat from companies enabling reduced/avoided CO₂e emissions (see Table 2)

5.2.4 Energy communities, consulting, guidance and other renewable energy systems and measures

Objective

Usage and development of further renewable energy sources to substitute fossil fuels by installing additional capacity or sharing of capacity. The facilitation of renewable power and heat use by providing power and heat grid infrastructure, as well as consulting and guidance services.

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry for Labour and Economy (BMAW)

Description of Financing

This category contains individual subsidies that include renewable energy measures, which contribute to more than one renewable energy subcategory.

In addition, this category includes expenditures for enabling measures to support the implementation of the renewable energy targets and goals as set out in the EU Renewable Energy Directive. Furthermore, private associations and research institutes that support the implementation of national climate and energy targets are supported with funding.

Under the Environmental Subsidy Act (Umweltförderungsgesetz), the Investment Bonus Act (Investitionsprämiengesetz) and the Climate and Energy Fund Act (Klima- und Energiefondsgesetz) capital expenditures are subsidised. Supported activities include:

- Hydrogen, produced by power from renewable sources, and other renewable gases, e.g. biomethane
- Innovative heat network design
- Heat grids for transport and heat grids for distribution of residual heat from companies
- Generation of process energy from renewable sources
- Energy communities, consulting and guidance
- Climate and energy model regions to promote the cooperation of municipalities concerning
 the use of natural resources, energy saving potentials and sustainable economy also contributing to energy efficiency etc.
- Mixed renewables programmes which cannot be attributed to a single sub-category

Beneficiaries

Individuals, companies, associations, research institutes, municipalities

Environmental Impact

Renewable heat generation, switch to renewable energy supply in energy-intensive industry, use of residual heat from companies enabling reduced/avoided CO₂e emissions (see Table 2); enabling renewable generation/use through energy communities, consulting and guidance

⁵¹ Geothermal projects allocated to Green Financing Instruments issued in 2024 are especially targeting the early project phases and carrying out enabling activities such as feasibility studies, site investigations, exploration and pilot drillings. Further targeted activities in the field of geothermal energy can be expected through the implementation of the government programme.





5.3 Energy efficiency

Programmes for energy saving measures in production processes, other energy efficiency measures in businesses, reuse of residual heat by companies and from industrial processes, building renovation, energy efficient heating/cooling systems and lighting are the focus areas. The target groups are companies, municipalities, residential buildings owners and for some programmes also associations and confessional institutions.

2024 I

| Energy efficiency | Allocated amount with reported impact (EUR mn) | Number of projects supported | Annual renewable energy generation/use (MWh) | Annual energy savings (MWh) | Annual GHG emissions reduced/ avoided (tonnes CO ₂ e) |
|---------------------------------------------------------|------------------------------------------------|------------------------------|-------------------------------------------------|-----------------------------|---------------------------------------------------------------------|
| Processes | 8.9 | 134 | | 71,917 | 19,291 |
| Heat reuse | 11.2 | 413 | 8,180 | 63,161 | 11,037 |
| Lighting | 26.8 | 1,185 | 212 | 29,451 | 6,717 |
| Building renovation | 416.2 | 16,186 | 156 | 332,014 | 62,072 |
| New buildings | 2.4 | 42 | | 1,789 | 558 |
| Cooling | 5.9 | 435 | | 10,009 | 2,589 |
| Heating systems and control | 1.2 | 223 | | 4,383 | 32 |
| Energy and resource management, consulting and guidance | 15.0 | | | | |
| Other energy efficiency measures | 6.7 | 2,759 | 147 | 1,762 | 421 |
| Research, development and innovation | 43.3 | 376 | | | |
| Total | 537.6 | | | | |

Table 3: Energy efficiency - overview of indicators. Sums in the table may not add up due to rounding differences.

Monetary figures refer to public funding spent on energy efficiency projects allocated to Green Financing Instruments. Impact and performance indicators refer to the enabled effects, i.e. effects leveraged by the public funding, with regard to the overall investment volumes of the supported projects and infrastructure. Estimates for performance/impact indicators are based on data for approved projects in the respective year.

Explanatory notes:

- Some energy efficiency measures result both in energy savings and in renewable energy generation/use. This is the case when the new system with higher energy efficiency is based on renewables instead of fossil fuels. Examples are new heating systems in buildings, or reuse of heat generated from renewable sources. The programmes are classified either under "Energy efficiency" or "Renewable energy" depending on the respective main purpose.
- The figures in Table 3 present the respective share of the budget that was assigned to energy efficiency projects and allocated to Green Financing Instruments⁵².
- More information on the category "Research, Development and Innovation" can be found in chapter 5.9.

⁵² The analyses and the methodological approach were prepared specifically for the purpose of the Green Investor Report and cannot be directly applied to other publications addressing the respective funding vehicles due to the different scope.





5.3.1 Processes

Objective

The implementation of energy efficiency measures in production processes

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz) and the Climate and Energy Fund Act (Klima- und Energiefondsgesetz) capital expenditures are subsidised. Supported activities include:

- Heat recovery from refrigeration and ventilation systems with a heat exchanger or recirculation systems
- Heat recovery or utilisation of previously unused heat flows as well as heat pumps for tapping low-temperature waste heat
- Optimising heating systems in existing buildings
- Optimisation of fossil process heat generators (if conversion to renewable energy sources is not possible)
- Efficiency improvements in industrial processes and plants with a significant technological and ecological improvement compared to the existing plant

Beneficiaries

Companies

Environmental Impact

Reduction of energy consumption for production, enabling reduced/avoided CO₂e emissions (see Table 3)

5.3.2 Heat reuse

Objective

The utilisation of otherwise unused waste heat, externally e.g. for district heating or internally in the company

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry of Labour and Economy (BMAW), Federal Ministry of Finance (BMF)

Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz), the Climate and Energy Fund Act (Klima- und Energiefondsgesetz), the Investment Bonus Act (Investitionsprämiengesetz) and the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023), capital expenditures are subsidised. Supported activities include:

- Heat extraction from industrial and commercial processes, feed-in to distribution networks and installation of internal distribution networks for waste heat utilisation
- Efficient energy centres for the internal supply of heat and cooling that contain a combination of particularly innovative and energy-efficient measures
- Optimisation of energy supply/distribution
- State-of-the-art control and regulation technology

Beneficiaries

Companies, municipalities

Environmental Impact

Reduction of energy consumption, enabling reduced/avoided CO₂e emissions (see Table 3)





5.3.3 Lighting

Objective

The switch to energy efficient lighting systems indoors and outdoors

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry of Finance (BMF)

Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz), the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023) and the Climate and Energy Fund Act (Klima- und Energiefondsgesetz), subsidies for capital expenditure are provided for lighting optimisation, in particular by switching to LED systems, including:

- street and outdoor lighting installations
- outdoor sports facilities (floodlighting systems)
- indoor lighting

Beneficiaries

Companies, municipalities, associations and confessional institutions

Environmental Impact

Reduction of power consumption, enabling reduced/avoided CO₂e emissions (see Table 3)

5.3.4 Building renovation

Objective

The reduction of energy consumption, especially for heating, with building renovation

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry of Finance (BMF)

Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz), the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023) and the Climate and Energy Fund Act (Klima- und Energiefondsgesetz), capital expenditures are subsidised. Supported activities include:

- Building renovation to improve energy performance⁵³
- Exemplary renovation projects demonstrating best practice

Beneficiaries

Individuals, companies, municipalities, associations and confessional institutions

Environmental Impact

Reduction of energy consumption in buildings, including housing, enabling reduced/avoided CO₂e emissions (see Table 3)

⁵³ Depending on funding programme, there are requirements of e.g. achieved building standard, minimum savings of energy consumption etc., see e.g. https://www.umweltfoerderung.at/fileadmin/user_upload/umweltfoerderung/betriebe/SUN_Betriebe/UFL_Standardfall_Infoblatt_GEBSAN.pdf





5.3.5 New buildings

Objective

Improving the energy performance of new commercial buildings

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz) capital expenditures are subsidised. Supported activities include new construction of buildings used predominantly for business purposes in energy-efficient design that have significantly better energy performance than the legal requirement (legal implementation of the Austrian OIB guideline)⁵⁴.

Beneficiaries

Companies

Environmental Impact

Reduction of energy consumption in buildings, enabling reduced/avoided CO₂e emissions (see Table 3)

5.3.6 Cooling

Objective

The usage of energy-efficient systems for air-conditioning and for process cooling

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry of Labour and Economy (BMAW), Federal Ministry of Finance (BMF)

Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz), the Investment Bonus Act (Investitionsprämiengesetz) and the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023), capital expenditures are subsidised. Supported activities include:

- Air-conditioning of buildings used for business purposes and systems for the provision of process cooling:
 - Adsorption and absorption chillers with drive energy from renewable energy sources
 (e.g. biomass, solar thermal energy) or from industrial waste heat
 - Free cooling systems (e.g. based on groundwater, river water or well water)
- Process cooling depending on the refrigerant used:
 - Use of alternative/natural refrigerants (e.g. CO₂, ammonia, propane) as well as refrigerants with a Global Warming Potential (GWP)⁵⁵ of less than 150 in (new) procurement and optimisation

Beneficiaries

Companies, associations and confessional institutions, municipalities

Environmental Impact

Reduction of energy consumption for cooling, enabling reduced/avoided CO₂e emissions (see Table 3)

5.3.7 Heating systems and control

Objective

Usage of energy-efficient systems for heating, including their control

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry of Finance (BMF)

⁵⁴ Austrian Institute of Construction Engineering (Österreichisches Institut für Bautechnik – OIB), <u>Guideline 6 on</u> Energy savings and thermal insulation, April 2019

⁵⁵ The global warming potential (GWP) is an index measuring the radiative forcing following an emission of a unit mass of a given substance, accumulated over a chosen time horizon, relative to that of the reference substance, carbon dioxide (CO₂). The GWP thus represents the combined effect of the differing times these substances remain in the atmosphere and their effectiveness in causing radiative forcing.





Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz) and the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023), capital expenditures are subsidised. Supported activities include:

- Replacing existing heating systems (and their control) by heating system using renewable energy
- Consulting services as well as investment measures for the preparation of hydronic balancing (heating optimisation) incl. digitalisation measures.

Beneficiaries

Individuals, municipalities, companies, associations and confessional institutions

Environmental Impact

Reduction of energy consumption for heating, enabling reduced/avoided CO₂e emissions (see Table 3)

5.3.8 Energy and resource management, consulting and guidance

Objective

The launch and promotion of high-quality climate friendly technologies and services by klimaaktiv – the Austrian climate protection initiative

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Description of Financing

Under the Environmental Subsidy Act (Umweltförderungsgesetz) the following activities, supporting the transformation to a climate neutral Austria, are funded via contract:

Energy efficiency in companies: Development of guidelines and analytical tools for efficiency technologies in companies; training of energy consultants, voluntary agreements with

- companies. In 2024, klimaaktiv Pakt companies (voluntary agreement) ensured a reduction of around 100,000 tonnes of CO_2 e per year.
- Retrofitting Buildings: By now, more than 1,900 buildings in Austria fulfilling the quality criteria are presented online. In 2024, a total of 338 buildings with a gross floor area of 1,077,667 m² were declared as sustainable, compliant with the klimaaktiv quality criteria, and plausibility checked⁵⁶.
- Further education: Training of energy professionals and social workers in cooperation with training organisations. In 2024, around 10,500 people took part in training and further education courses initiated or improved by klimaaktiv in the areas of construction & renovation, energy & building, building technologies, energy saving, energy management & consulting or climate communication.

Beneficiaries

Companies, municipalities, associations and confessional institutions, individuals

Environmental Impact

Enabling reduction of energy consumption through consulting, guidance, visibility programmes, e.g. for heating/cooling or lighting, indirectly resulting in reduced/avoided CO₂e emissions

5.3.9 Other energy efficiency measures

Objective

The use of energy-efficient devices and energy management systems and the implementation of national climate and energy targets.

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry of Finance (BMF), Federal Ministry for Labour and Economy (BMAW)

⁵⁶ For a case study on the klimaaktiv building standard and quality criteria, see the <u>Green Investor Report 2023</u>





Description of Financing

This category contains individual subsidies that include energy efficiency measures, which contribute to more than one energy efficiency subcategory.

In addition, this category also includes expenditures for enabling measures to support the implementation of the energy efficiency targets and goals as set out in the EU Energy Efficiency Directive like funding of the implementation of energy management systems in SMEs.

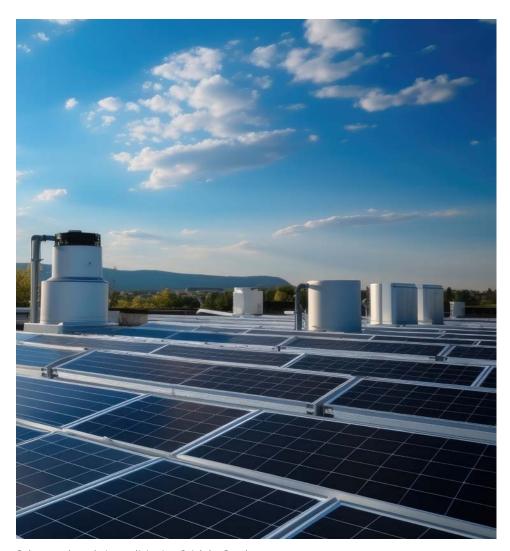
Furthermore, private associations and research institutes that support the implementation of national climate and energy targets are supported with funding.

Beneficiaries

Individuals, municipalities, companies, associations, research institutes, operators of sports facilities and rescue organisations

Environmental Impact

Reduction of energy consumption through energy efficiency measures and by helping to implement national climate and energy targets, enabling reduced/avoided CO₂e emissions (see Table 3)



Solar panels and air conditioning © Adobe Stock





5.4 Terrestrial and aquatic biodiversity

Biodiversity is the vital component of functioning ecosystems and thereby for the services these ecosystems provide, like clean water, clean air and pollination of many of our food crops. Like in most other places globally, the status of biodiversity in Austria is not of sufficient quality. Therefore, targeted funding of measures that conserve species and landscapes and contribute to sustainable land-use are of high importance. With the *Austrian Agri-environmental programme*, the funding of the Austrian National Parks and targeted research projects, public spending is directed towards these activities.

This section is split up into three sub-sections including the Austrian Agri-environmental Programme, Austrian National Parks and Other.

2024 I

| Terrestrial and aquatic biodiversity | Allocated amount with reported impact (EUR mn) | Number of farms that received funding | % of total farms in Austria | Area funded (ha) | % of total agricultural land | Number of projects supported / beneficiaries |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------|--------------------------------|------------------|---------------------------------|----------------------------------------------|
| Austrian Agri-environmental Programme | 152.7 | 89,186 | 85.9 | 1,843,506 | 72.0 | |
| Environmentally sound and Biodiversity promoting management | 33.7 | 46,530 | 44.8 | 999,216 | 39.0 | |
| Nature protection + Result based nature protection | 21.8 | 21,837 | 21.0 | 99,315 | 3.7 | |
| Organic/biological farming | 45.2 | 22,578 | 21.8 | 514,822 | 20.1 | |
| Overall highly biodiversity-relevant area on agricultural land | | | | 235,530 | 9.2 | |
| Austrian National Parks | 14.3 | | | 239,284 | | |
| Other (incl. Austrian Biodiversity Strategy, Biodiversity measures in economy, Biodiversity measures in the Austrian Forest Fund) | 2.5 | | | | | 117 |
| Research, development and innovation | 6.3 | | | | | 9 |
| Total | 175.8 | | | | | |

Table 4: Terrestrial and aquatic biodiversity - overview of indicators 57.58. Sums in the table may not add up due to rounding differences.

⁵⁷ The number of farms and size of area shown represent 100% of the beneficiaries of the programmes, whereas federal funding accounts for approximately 30% of total funding.

Only selected measures of the *Austrian Agri-environmental programme* are shown in the table. Allocated amounts, beneficiaries and therefore number of farms overlap between these measures. Summing up the number of farms is therefore not possible.

⁵⁸ The overall biodiversity-relevant area on agricultural land is part of the funded areas of the three sub-categories of the Austrian Agri-environmental programme shown in the table. It is presented separately to clarify the contribution of the programme to the conservation of biodiversity. Only areas with payments for these measures are shown, while nature protection areas on alpine pastures are not included.





Explanatory notes:

- The Austrian Agri-environmental Programme was assigned to project category "Terrestrial
 and aquatic biodiversity" as it contains measures that have a quantifiable positive impact
 on species diversity. The programme also contributes positively to water protection, soil
 health, climate change mitigation and animal welfare.
- Starting with the application year 2024, the premiums in the agri-environmental program were increased by 8% in order to secure or further expand participation in the measures and to increase the environmental impact.
- A single farm can participate in the Austrian Agri-environmental Programme as well as receive Austrian compensatory allowance for less-favoured areas at the same time. However, the impact outlined in the chapters 5.4 and 5.5 refers to Agri-environmental Programme and the compensatory allowance programme respectively. The Austrian compensatory allowance for less-favoured areas was assigned to project category "Environmentally sustainable management of living natural resources and land use" as it is foremost a measure to support ongoing cultivation of challenging terrains across Austria. The programme also contributes positively to the preservation of biodiversity.
- More information on the category "Research, Development and Innovation" can be found in chapter 5.9.
- Monetary figures refer to public funding spent on measures that contribute to the protection and restoration of biodiversity and ecosystems and allocated to Green Financing Instruments.
- Impact and performance indicators refer to the enabled effects, i.e. effects leveraged by the public funding, with regard to the overall investment volumes of the supported projects and infrastructure.
- Estimates for performance/impact indicators are based on data for approved projects in the respective year.



Nationalpark-Neusiedler-See-Seewinkel © Österreich Werbung/Julius Silver





5.4.1 Austrian Agri-environmental programme

Objective

The Austrian Agri-environmental Programme (ÖPUL) is one of the main funding sources on the federal level to support environmentally sound agriculture practices.

Responsible Body

Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML)

Description of Financing

The current ÖPUL program 2023-27 includes 25 measures, 21 of them are co-funded from the national budget, four of them are funded only by EU-budgets. Federal funding accounts for about 30% of the total budget of these co-funded measures⁵⁹. In the following chapter, the focus is set on three measures that have a significant positive impact on agrobiodiversity: 1. Environmentally sound and biodiversity promoting management; 2. Nature protection; 3. Ongoing organic/biological farming.

Beneficiaries

Austrian agricultural sector

Environmental impact⁶⁰

The impact is shown on the basis of the number of farms and the area funded under the different biodiversity promoting measures of the programme (see Table 4). The number of participating farms can overlap between the different measures, adding up the numbers to a total amount is therefore not meaningful.

The broad range of measures generate additional positive impacts with respect to water protection, soil health, climate change mitigation and animal welfare.

Environmentally sound and biodiversity promoting management

To be eligible for funding under this measure the applicant must fulfil the following criteria:

- · Maintaining the extent of grassland
- Crop diversification (max. 55% of one crop, max. 75% cereals/maize)
- Creating at least 7% biodiversity areas on cultivated land and mowed grassland
- Taking part in further education on environmental topics
- Additional payments for additional environmental services like maintaining landscape elements (e.g. trees, bushes), enhancing agro-biodiversity by additional biodiversity areas, increasing carbon storage in the soil by growing field-fodder or mowing of steep slopes.

The impact on local biodiversity of this measure is mostly driven by the obligatory creation of biodiversity areas on 7% of the total area of cultivated arable land and mowed grassland with delayed mowing, as well as the enhanced conservation of landscape elements or growing crops with an environmental benefit (e.g. field-fodder, blooming or nitrogen-independent crops).

In terms of bird diversity, biodiversity areas and fallows on cultivated land have a positive impact on the farmland bird index⁶¹. This is shown for example in the monitoring of the Great Gray Shrike (Lanius excubitor), a top indicator species for diverse cultural landscapes threatened with local extinction, showing a higher degree of breeding on cultivated land with larger extent of biodiversity areas.

Concerning the monitoring of grasshoppers and butterflies, especially fallows show a significant impact on diversity with three to four times more species than on reference plots of agricultural land. The conservation of landscape elements also has a significant positive impact on species diversity in those two taxa.

Republic of Austria - Green Investor Report 2024

⁵⁹ Only co-financing provided by the Austrian Central Government is eligible under the Green Framework, co-financing provided by other parties such as the federal provinces and the EU is not eligible for allocation towards Green Financing Instruments.

⁶⁰ The following descriptions of the impact for the different measures are based on the results of the overall evaluation of the *ÖPUL-programme* from the year 2019 (with the exemption of number of farms and total area funded), as it contains the most recent available data. An updated evaluation of the programme and the accompanying measures can be expected in 2025/26.

⁶¹ Birdlife Austria, Monitoring der Brutvögel Österreichs (only available in German), July 2023





Nature protection

To be eligible for funding under this measure the applicant must fulfil the following criteria:

Project confirmation from the competent nature protection authority at state level, including a conservation plan and management measures to maintain or reach the nature-conservation target on the area. There is also a "result-based-approach" which does not define strict management requirements, but rather sets management targets and indicators that must be met.

"Nature protection" has significant positive impacts on biodiversity. Typical nature conservation farmland areas are extensively used grassland like dry meadows, wetland meadows, mountain meadows, orchard meadows with fruit trees as valuable landscape elements, or fallow arable land. As part of the "Nature protection" measure, farmers receive financial compensation for additional work and costs and/or reduced yields resulting from project obligations for the extensive management. Especially the higher degree in connectivity between plots under the measure, as well as the higher share of area under extensive use, lead to much higher shares of plots classified as "high nature value farmland" (of around 60% in comparison to 10% in areas not participating in the measure).

In terms of animal diversity (birds, grasshoppers & butterflies), the picture is more diversified. Effects are present in regions with a high share of areas under the measure "Nature protection". In grasslands, the measure can mitigate the loss of bird species. Farmland areas that have breeding grounds of the above-mentioned Great Gray Shrike fall under the measure "Nature protection" with a mean coverage of 31.1% of area, compared to 9.1% in regions were the bird was not breeding.

Due to the geographical specificity of the measure "Nature protection" it shows the highest degree of diversity of grasshoppers and butterfly species that are important for conservation compared to all other measures of the *Austrian Agri-environmental programme*.

These results can also be expected for the measure "Result oriented management", which is also included in the number of farms and the area funded.

Organic/biological farming

To be eligible for funding under this measure the applicant must fulfil the following criteria:

- Fulfilment of EU and national regulation on organic production
- Certification as an organic farm from the competent local authority
- Fulfilment of all requirements for farms under the "Environmentally sound and Biodiversity promoting management" measure

The impact of this measure is comparable with the measure "Environmentally sound and biodiversity promoting management", additionally a higher usage-diversity of cultivated areas (i.e. for the cultivation of different plant species, rare plant species or threatened livestock breeds) and the renouncement of chemical-synthetic fertilisers and plant protection products is necessary to obtain funding. These measures lead to a higher biodiversity, especially on arable land. In grasslands a higher share of extensively used grassland and a lower nitrogen input support diversity of cultivated plant species. A positive impact on diversity of soil species is expected.

Additional positive impacts of this measure are predominantly found in the categories water protection, soil health, mitigation of climate change and animal welfare. The prohibition of chemical/synthetic pesticides and mineral fertilisers has positive impacts on ground water and reduces GHG emissions.

Overall highly biodiversity-relevant area on agricultural land

The sum of the highly biodiversity-promoting areas established within the specific sub-measures of the *Austrian Agri-environmental programme* (biodiversity-areas and nature conservation areas) presents a complete picture of the actual biodiversity-relevant area on agricultural land across Austria.

The total area of highly biodiversity-relevant areas on agricultural land significantly increased in the year 2023 due to the increased requirement to establish 7% biodiversity-areas (instead of 5%) and the introduction of the requirement for organic farms. There was also an increase in the year 2024, leading to a share of around 10% of agricultural used areas (without alpine pastures). The areas in the "Nature protection" measure were strengthened by higher premiums since 2023, therefore the participation increased significantly since then.

⁶² European Environment Agency, <u>High nature value (HNV) farmland</u>, February 2023





5.4.2 Austrian National Parks

Objective

The six Austrian National Parks as places of outstanding biological diversity are natural jewels and thus part of the Austrian identity. Combined they cover a total area of 239,284 ha. A National Park strategy was adopted in 2020⁶³ to ensure further coordinated development.

In 2023 and 2024 two of the six National Parks were extended by a total of 261 ha. The area of 148 ha for the national park Neusiedler See – Seewinkel means better protection for Europe's westernmost steppe lake. An additional 113 ha for the National Park Gesäuse ensures better connectivity of the ecosystems within the National Park.

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Description of Financing

The Austrian National Parks are financed 50% each by the respective federal provinces and the federal government. This participation system is the solid basis for the positive development of the Austrian National Parks.

Beneficiaries

Austrian National Parks

Environmental Impact

The central goals are to increase options for development with no influence from humans in accordance with the IUCN specifications⁶⁴, the conservation of biodiversity, research and monitoring, education, the use of synergies between the National Parks and the public presentation under the umbrella brand "National Parks Austria". For further details see also Table 4.

5.4.3 Other measures and initiatives beneficial to biodiversity and ecosystems

Biodiversity Strategy Austria 2030+

The Biodiversity Strategy Austria 2030+ defines "biodiversity" as a common task and formulates over 300 concrete measures. It incorporates the objectives and measures for the conservation of biodiversity formulated by the European Union and at international level. A ten-point programme provides quantitative and qualitative national targets and the necessary preconditions for the conservation of biodiversity in all habitats in Austria. The industry sectors relevant to biodiversity as well as the necessary framework conditions are addressed. These targets and the corresponding measures aim at protecting biodiversity in Austria, actively addressing the threats and thus preventing further losses and also creating the appropriate framework conditions to achieve the formulated goals. The implementation of the Biodiversity Strategy Austria 2030+ is also intended to contribute to a comprehensive transformative change in society.

Biodiversity measures in the Austrian Forest Fund

In addition to the sustainable use and management of forests and their products, the Austrian Forest Fund also contributes to the protection and restoration of forest biodiversity throughout Austria. One of the funded measures of the Fund explicitly pursues this goal. See chapter 5.5.2 for more information.

Corporate biodiversity measures

Under the Investment Bonus Act (Investitionsprämiengesetz) coporate measures aimed at protecting biodiversity are subsidised. Supported activities include:

- new biodiversity or insect-promoting structures or redesign of existing green areas on company premises with an area of at least 10% of the company premises or at least 100 m²
- biodiversity-promoting green facades and roofs
- renaturation and restoration of abandoned industrial and commercial areas into green spaces, including unsealing of premises

⁶³ National Parks Austria, National Park Strategy Austria, 2020

⁶⁴ International Union for Conservation of Nature provides various resources like guidelines and tools on the management of protected areas





5.5 Environmentally sustainable management of living natural resources and land use

Public funding of cultural landscapes that preserve farming in the mountainous regions of Austria is not only important to uphold cultural practices and ways of life that have existed for centuries, it also helps to maintain diverse habitats for plants and animals. Austria is also active in other areas to ensure the best possible management of living natural resources. For example, a comprehensive circular economy strategy⁶⁵ was passed by the government at the end of 2022.

This section will be split up into three sub-sections including the Austrian compensatory allowance for less-favoured areas, the Austrian Forest Fund and other measures (comprising e.g. the Austrian Circular Economy Strategy and the Electronic data management of environmental data).

| 2024 I | | | | | | | | | |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------|---------------------------------------|--------------------------------|---------------------|------------------------------|---------------------------------------------------|--|--|--|
| Environmentally sustainable management of living natural resources and land use | Allocated amount with reported impact (EUR mn) | Number of farms that received funding | % of total farms in Austria | Area funded (ha) | % of total agricultural land | Number of projects sup- ported / beneficiaries | | | |
| Austrian compensatory allowance for less-favoured areas | 42.4 | 79,450 | 74.7 | 1,448,264 | 56.6 | | | | |
| Austrian Forest Fund | 32.0 | | | | | 3,382 | | | |
| Other (incl. Circular Economy, Digitalisation, Green Chemistry, national co-funding for EU funded measures) | 37.1 | | | | | | | | |
| Research, development and innovation | 92.0 | | | | | 362 | | | |
| Total | 203.5 | | | | | | | | |

Table 5: Environmentally sustainable management of living natural resources and land use - overview of indicators of . Sums in the table may not add up due to rounding differences.

Explanatory notes:

- It is possible for a single farm to participate in the *Austrian Agri-environmental Programme* as well as to receive *Austrian compensatory allowance for less-favoured areas* at the same time. However, the impact outlined in the chapters 5.4 and 5.5 refers to Agri-environmental Programme and the compensatory allowance programme respectively.
- The Austrian compensatory allowance for less-favoured areas was assigned to project category "Environmentally sustainable management of living natural resources and land use" as it is foremost a measure to support ongoing cultivation of challenging terrains across Austria. The programme also contributes positively to the preservation of biodiversity. Starting with the application year 2024, the premiums in the Austrian compensatory allowance for less-favoured areas were increased by 8% (14% for farms with very high constraints) in order to better secure the cultivation of heavy to use areas (eg. steep slope grassland).

⁶⁵ BMK, The Austrian Circular Economy Strategy, 2020

⁶⁶ The number of farms and size of area shown represent 100% of the beneficiaries of the programmes, whereas federal funding accounts for approximately 26% of total funding.





- In the last few years, the Austrian government has launched several landmark initiatives (e.g. Green Chemistry, Digitalisation, Circular Economy Strategy) aimed at making a substantial contribution to the environmentally sustainable management of living natural resources. Due to the piloting character of these initiatives, quantitative impact and performance indicators can only be provided at a later stage. Qualitative information on the Austrian Biodiversity Strategy is provided in chapter 5.4.3.
- Due to the topical diversity of projects, the funds of the Austrian Forest Fund are split between the categories "Environmentally sustainable management of living natural resources and land use", "Terrestrial and aquatic biodiversity" and "Climate change adaption".
- More information on the category "Research, Development and Innovation" can be found in chapter 5.9.
- Monetary figures refer to public funding spent on measures that contribute to the sustainable management of natural resources and land use and allocated to Green Financing Instruments.
- Impact and performance indicators refer to the enabled effects, i.e. effects leveraged by the public funding, with regard to the overall investment volumes of the supported projects and infrastructure.
- Estimates for performance/impact indicators are based on data for approved projects in the respective year

5.5.1 Austrian compensatory allowance for less-favoured areas

Objective

The Austrian compensatory allowance for less-favoured areas supports the continued management of agricultural land in areas with natural or other area-specific constraints, mostly situated in mountainous regions. As the intervention aims at maintaining the management of less productive or difficult-to-manage agricultural areas it forms an important basis for a diverse, species-rich cultural landscape in the montane zone with its high proportion of "high nature value farmland".

Responsible Body

Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML)

Description of Financing

The Austrian compensatory allowance for less-favoured areas is funded via EU, federal and federal provinces budgets whereas federal funding accounts for approximately 26% of total funding.

Beneficiaries

Austrian farms located in less-favoured areas

Environmental Impact

The impact is shown on the basis of the number of farms and the area funded under the programme. Around 75% of the farms that receive funding via this measure are located in mountainous regions where extensive use of cultivated land and grassland is becoming more important in response to challenging geographical conditions. Funding to secure the continuous management of those areas is especially relevant as they show the highest degrees of "high nature value farmland"⁶⁷.

Cultivated grassland in mountainous regions is comprised of unique ecosystems that contain various ecological niches for plant and animal species, which depend on agricultural management of these areas. At the same time, these culture landscapes fall out of use frequently due to their lower productive capacities. The discontinued usage of these grasslands can lead to a loss of plant diversity and the cultural landscape would soon be overgrown by forest. Also, in terms of grasshopper and butterfly diversity, cultivated grasslands in mountainous regions show higher species diversity than uncultivated ones.

⁶⁷ European Environment Agency, <u>High nature value (HNV) farmland</u>, February 2023





5.5.2 Austrian Forest Fund

Objective

The Forest Fund Act was adopted in the Austrian National Council on July 7, 2020. The measures of the Forest Fund aim at the development of climate-fit forests, the promotion of biodiversity in forests and the increased use of the resource of wood as an active contribution to climate change mitigation. The funded measures include⁶⁸:

- Re-afforestation and tending measures after damage events
- Development of climate-fit forests forest tending
- Establishment of deposits for damaged wood
- Mechanical debarking as a forest protection measure
- Measures to prevent forest fire
- Research priority and research facility for the production of wood gas and biofuels
- Research priority "Climate-fit forests"
- Measures to increase the use of wood as a raw material
- Strengthening, preserving and promoting biodiversity in forests

Responsible Body

Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML)

Description of Financing

Due to the topical diversity of projects, the funds of the Austrian Forest Fund are split between the categories "Environmentally sustainable management of living natural resources and land use", "Terrestrial and aquatic biodiversity" and "Climate change adaption".

Beneficiaries

Austrian forest owners, research institutions

Environmental Impact

For summary on impact indicators see Table 5.

Selected projects funded via the programme:

Project "Salamander"

This project aims towards a systematic recording, communication and promotion of the biological diversity of Austrian forests and serves to preserve and protect endangered species in forest ecosystems.

It is dedicated to the systematic recording of the second level of biodiversity, the diversity of species -more precisely, the inventory of species of all taxonomic groups. At the same time, management measures for protection and promotion of species diversity are formulated together with forest managers and their application is evaluated in practice.

Project "FORESITE II"

To develop the ecological basis for dynamic forest typification in Upper Austria, Lower Austria and Burgenland, the aim of this research project is to derive tree species suitability and silviculturally appropriate tree species mixtures for each forest location in the three federal states.

The applied model is based on a wide range of site factors, climate data and climate change scenarios that enable forest management adapted to climate change.

5.5.3 Other measures and initiatives contributing to the sustainable management of natural resources and land use

Austrian Circular Economy Strategy

The vision of Austria's national circular economy strategy, which was adopted in December 2022, is the transformation of Austria's economy and society into a climate-neutral, sustainable circular economy until 2050. The quantitative targets of the strategy are:

- Reduction of resource consumption
 - Domestic material consumption (DMC): maximum 14 tonnes per capita/year (2030)
 - Material footprint (MF): maximum 7 tonnes per capita/year (2050)

⁶⁸ Federal Ministry of Agriculture, Forestry, Regions and Water Management, <u>10 measures for Austria's forests</u>, July 2020





- Increase resource productivity by 50 per cent (2030)
- Increase circularity rate to 18 per cent (2030)
- Reduce private household consumption by 10 per cent (2030)

In 2024 the first progress report on the circular economy strategy was published⁶⁹. It presents the progress on the quantitative targets of the strategy listed above.

It further describes measures taken in the central areas of intervention:

- 1. Legal and regulatory framework conditions
- 2. Smart market incentives
- 3. Financing and funding
- 4. Research, technology development and innovation (RTI)
- 5. Digitalisation
- 6. Information, knowledge and cooperation

As well as on the seven transformation focal points (sectors):

- 1. Construction industry and infrastructure
- 2. Mobility
- 3. Plastics and packaging
- 4. Textile industry
- 5. Electrical and electronic devices, information and communications technologies
- 6. Biomass
- 7. Waste and secondary resources

One concrete example of implementation is the deposit system for disposable plastic drinks bottles and cans, which has been introduced in Austria from the start of 2025. This is intended to significantly increase the separate collection of empty containers and, as a result, the recycling rate of packaging, particularly plastic packaging.

Electronic Data Management

Electronic Data Management (EDM) is a networked system of applications to support environmental protection-related documentation, notification and reporting obligations. The EDM offers companies a legally secure basis for fulfilling their obligations. For authorities at all administrative levels, the comprehensible presentation of results enables the efficient enforcement of individual legal provisions.

In line with the precautionary principle and sustainability and in order to avoid harmful effects on humans, animals and plants, their livelihoods and their natural environment, a corresponding legal framework was enacted. The basic regulations originate from the European Union (EU) and in some cases must be applied directly or implemented in Austrian law. These regulations include requirements for authorisation procedures, technical requirements, for example filter equipment, emission limits, requirements for waste prevention, collection, recycling or disposal and monitoring requirements as well as reporting obligations of operators and member states to the EU.

National co-funding for EU funded measures

The European Agricultural Fund for Rural Development (EAFRD) promotes the sustainable development of rural areas and pursues the following strategic objectives:

- increasing the competitiveness of agriculture and forestry,
- ensuring sustainable management of natural resources and climate protection,
- balanced development of the rural economy and rural communities.

⁶⁹ Federal Ministry of Agriculture, Forestry, Regions and Water Management: <u>The Austrian Circular Economy Strategy</u> - <u>Austria on the path to a sustainable and circular society</u>. <u>First progress report</u>. June 2024.





5.6 Sustainable water and wastewater management

The sustainable safeguarding of the valuable resource of water is one of the core tasks of the Austrian government. The Federal Ministry of Agriculture, Forestry, Regions and Water Management has set the framework conditions for the protection of water, in particular for drinking water supply, for a resource-saving utilisation and infrastructure for wastewater treatment and sewerage as well as for the ecological restoration of aquatic habitats. Austria has sufficient drinking water of excellent quality. The daily per capita consumption of drinking water by Austrian households is around 130 litres⁷⁰. The total demand for drinking water is covered from ground water and spring water. Austria has also taken enormous efforts for decades in order to encourage citizens and industry to use this precious resource carefully and has invested considerably, with an amount of EUR 16.8 bn⁷¹, in drinking water supply infrastructure⁷². In the reporting period, about 93% of the population profited from one of the more than 5,500 central drinking water suppliers^{73,74}. Moreover, more than 96% of the population is connected to a public sewer network and municipal sewage treatment plants, operated by approxiametly 2,300 municipal wastewater disposal service providers^{75,76}. Overall, Austria has invested more than EUR 53.2 bn⁷⁷ in the area of municipal wastewater management, thus making a significant contribution to the sustainable use of water resources. Furthermore, the objectives of the EU Water Framework Directive are supported through investments of EUR 545.9 mn into water ecology projects⁷⁸.

This section will be split up into three sub-sections including the drinking water supply, wastewater treatment and sewerage and water ecology.

2023 II

| Sustainable water and wastewater management | Allocated amount with reported im- pact [mn EUR] | Number of inhabitants additionally connected to water supply* | Constructed and renovated water pipelines (kilometres) | New volume of water re- servoirs (cubic metres) | Number of inhabitants additionally connected to wastewater treat- ment plants* | Constructed and renovated was- tewater sewers (kilometres) | Number of transverse structures made passable for fish | River courses mor- phologically impro- ved and renaturali- sed (kilometres) | Number of projects supported |
|---------------------------------------------|-----------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------|
| Drinking water supply | 43.4 | 19,784 | 510 | 28,933 | | | | | 493 |
| Wastewater treatment and sewerage | 222.9 | | | | 420,282 | 1,458 | | | 2,681 |
| Water ecology | 9.4 | | | | | | 7 | 10 | 432 |
| Research, development and innovation | 3.4 | | | | | | | | 8 |
| Total | 279.1 | | | | | | | | |

^{*} including individual installations

Table 6: Sustainable water and wastewater management - overview of indicators. Sums in the table may not add up due to rounding differences.

⁷⁰ Federal Ministry for Agriculture, Forestry, Regions and Water Management, Facts and Figures 2024

Investments in drinking water supply infrastructure 1959-2024, valorised to the current price level according to the construction price index.

⁷² Federal Ministry for Agriculture, Forestry, Regions and Water Management, Public sewer and water pipeline inventory (only available in German)

⁷³ Federal Ministry for Agriculture, Forestry, Regions and Water Management, <u>Drinking Water Security Plan</u> (only available in German)

⁷⁴ Federal Ministry for Agriculture, Forestry, Regions and Water Management, Facts and Figures 2024

⁷⁵ Federal Ministry for Agriculture, Forestry, Regions and Water Management, <u>Facts and Figures 2024</u>

⁷⁶ Federal Ministry for Finance, <u>Spending Review "Finanzierung der Siedlungswasserwirtschaft" 2019</u> (only avaible in German)

Investments in municipal wastewater management 1959-2024, valorised to the current price level according to the construction price index; Public sewer and water pipeline inventory (only available in German)

⁷⁸ Investments in water ecology 2009-2024





Monetary figures refer to public funding spent on sustainable water projects and allocated to Green Financing Instruments. Impact and performance indicators refer to the enabled effects, i.e. effects leveraged by the public funding, with regard to the overall investment volumes of the supported projects. Estimates for performance/impact indicators are based on data for approved projects in the respective year.

Explanatory notes:

The figures in Table 6 present the respective share of the budget that was assigned to sustainable water projects and allocated to Green Financing Instruments⁷⁹.



Mountain stream (Debantbach) © Adobe Stock

5.6.1 Drinking water supply

Objective

The aim of the funding of measures for water protection and water supply is the sustainable use of surface and underground water and to supply the population with safe drinking water. In this context, the careful use of water as a valuable resource has to be ensured and the volume of wastewater has to be limited to an unavoidable extent. Moreover, interference with the natural water balance has to be minimised and water supply facilities have to be operated in an energy-saving and resource-efficient manner.

Responsible Bodies

Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML), Federal Ministry of Finance (BMF)

Description of Financing

According to the Environmental Subsidy Act (Umweltförderungsgesetz) and the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023), capital expenditures are subsidised. Supported activities include, among others,

- construction/renovation of water supply facilities or emergency water supply facilities,
- measures of inter-municipal cooperation in the field of water supply that lead to efficiency improvements,
- the creation of a digital pipe information system for water supply or wastewater discharge facilities with leakage control and
- measures to reduce GHG emissions from water supply facilities.

Beneficiaries

Municipalities, water cooperatives, municipal companies, associations and cooperation of municipalities, private individuals and legal entities

Environmental Impact

The enabled effect of the funding is presented in Table 6 by the following indicators:

⁷⁹ Performance and impact indicators are calculated on the basis of data available for projects approved in the years covered by the reporting. Based on this, the performance and impact figures are extrapolated for expenses related to comparable types of projects and infrastructure. The analyses and the methodological approach were prepared specifically for the purpose of the Green Investor Report and cannot be applied one-to-one to other publications addressing the respective funding vehicles due to the different scope.





- Number of inhabitants additionally connected to water supply (including individual installations)
- Length of constructed and renovated public water pipelines (kilometres)
- New volume of water reservoirs (cubic metres)
- Number of projects supported

5.6.2 Wastewater treatment and sewerage

Objective

The aim of the funding of measures for wastewater disposal, sludge treatment and sewerage is, in particular, to protect surface and ground water from contamination as well as to minimise environmental impacts on air or soil. The pollution of wastewater with substances that are not biologically degradable or are only degradable with difficulty shall be minimised. Production wastewater has to be avoided as far as possible, recycled internally or pre-treated. An energy-saving and resource-efficient operation of wastewater disposal or sludge treatment facilities has to be ensured.

Responsible Bodies

Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML), Federal Ministry of Finance (BMF)

Description of Financing

According to the Environmental Subsidy Act (Umweltförderungsgesetz) and the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023), capital expenditures are subsidised. Supported activities include, among others,

- the construction or renovation of wastewater disposal facilities,
- the construction or renovation of specific sludge treatment equipment,
- environmental investments in local stormwater management measures,
- measures of inter-municipal cooperation in the field of wastewater disposal, or sludge treatment that lead to efficiency improvements,
- measures for the implementation of circular wastewater systems,
- construction of operational buildings for wastewater treatment plants,

- the creation of a digital pipe information system for wastewater discharge facilities with leakage
- and condition control and measures to reduce GHG emissions from wastewater disposal or sludge treatment facilities.

Funding is aimed at achieving the greatest possible effect on water protection and the conservation of water resources.

Beneficiaries

Municipalities, wastewater cooperatives, municipal companies and cooperation of municipalities, private individuals and legal entities

Environmental Impact

The enabled effect of the funding is presented in Table 6 by the following indicators:

- Number of inhabitants additionally connected to wastewater treatment plants including individual plants
- Length of constructed and renovated wastewater sewers (kilometres)
- Number of projects supported

5.6.3 Water ecology

Objective

The objective of funding measures to improve the ecological status of waters pursuant to Article 17a of the Austrian Environmental Subsidy Act (Umweltförderungsgesetz) is to reduce hydro-morphological pressures in order to achieve the environmental objectives for water bodies stipulated in the Austrian Water Act 1959 (as amended) and in the EU Water Framework Directive.

Responsible Bodies

Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML) and Federal Ministry for Labour and Economy (BMAW)





Description of Financing

According to the Environmental Subsidy Act (Umweltförderungsgesetz), and the Investment Bonus Act (Investitionsprämiengesetz) capital expenditures for measures contributing to the improvement of the ecological status of water bodies are subsidised.

The supported activities include, among others, measures

- to improve river continuity and fish passability,
- to restructure morphologically modified river stretches,
- to mitigate the impacts of backwater, discharges and hydropeaking
- to save water and clean polluted water
- and basic concepts, investigations, studies, general planning, awareness raising and expert opinions, in connection with the physical measures.

Beneficiaries

Municipalities, associations of municipalities and enterprises.

Environmental Impact

The enabled effect of the funding is presented in Table 6 by the following indicators:

- Number of transverse structures made passable for fish
- River courses morphologically improved and re-naturalised (kilometres)
- Number of projects supported



Fish migration aid Altenwörth © Verbund





5.7 Pollution prevention and control

While public expenses assigned to the category Pollution prevention and control generally cover a wide range of activities, including, among others, remediation, waste prevention, reduction, recycling and sustainable waste management as well as measures supporting the reduction of GHG and air emissions, the impact reporting focuses on the remediation of contaminated sites. As of December 31, 2024, 2,396 sites are under investigation, 353 severely contaminated sites are known, 194 of which have been remediated and remediation measures are ongoing for another 63 contaminated sites. In general, at least 85% of the available funds are used for remediating contaminated sites, and up to 15% of the available funds can be used for site investigation.

| 2024 | | | | | | | | | | |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------------------|-----------------------------------|------------------------------------|----------------------------------------------------------------------|-------------------------------|
| Pollution prevention and control | Allocated amount with repor- ted impact [mn EUR] | Contaminated soil or landfill bodies reme- diated [cubic metres] | Contaminated area remediated [square metres] | Heavily contaminated soil or landfill body excava- ted and subsequent- ly treated [cubic metres] | | Landfill gas or contaminated soil air extrac- ted and treated [cubic metres /yr] | Number of preliminary assessments | Number of risk assess- ments | Hazardous** waste from contaminated sites cleared & treated [tonnes] | Number of projects* supported |
| Remediation of contaminated sites - Funding according to the Environmental Subsidy Act | 8.7 | 23,605,817 | 1,615,135 | 1,864 | 2,174,220 | 24,848,228 | | | | 14 |
| Remediation of contaminated sites: Initial & supplementary investigations, analysis, risk assessment, enforcement and processing | 10.4 | | | | | | 989 | 114 | | |
| Remediation of contaminated sites processing according to § 18 ALSAG | 36.2 | | | | 648,215 | | | | 116,950 | 13 |
| Project finance | 31.8 | | | | | | | | | 3,184 |
| Research, Development and Innovation | 16.5 | | | | | | | | | 165 |
| Total | 103.5 | | | | | | | | | |

^{*} Remediation of contaminated sites projects usually run for several years, thus there is an intersection of the indicated number of projects per year

Table 7: Pollution prevention and control – overview of indicators. Sums in the table may not add up due to rounding differences.

Monetary figures refer to public funding spent on projects contributing to the objective of pollution prevention and control and allocated to Green Financing Instruments. Impact and performance indicators refer to the enabled effects, i.e. effects leveraged by the public funding, with regard to the overall investment volumes of the supported projects. Estimates for performance/impact indicators based on data for approved projects in the respective year.

Explanatory notes:

The monetary figures in Table 7 present the respective share of the budget that was assigned to pollution prevention and control projects and allocated to Green Financing Instruments. More details on Research, Development and Innovation can be found in chapter 5.9.

^{**} All waste from contaminated sites is hazardous waste per definition

⁸⁰ Environment Agency Austria (Umweltbundesamt), Register of Suspected Contaminated Sites and Contaminated Sites Atlas (only available in German, including English summary), January 2025





5.7.1 Remediation of contaminated sites

Objective

The management of contaminated sites aims to reduce the risks and the impacts of historical contamination for the environment and human health. The objective of the funding is to achieve the greatest possible ecological benefit at economically justifiable costs. Technical methods may involve decontamination, confinement and monitoring.

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Description of Financing

According to the Act on the Remediation of Contaminated Sites (Altlastensanierungsgesetz, ALSAG) and to the Environmental Subsidy Act (Umweltförderungsgesetz-UFG), financing is available for all measures directly related to the remediation of contaminated sites, e.g. for

- Preparatory work (exploration, planning)
- Risk assessment and evaluation of investigation results
- Construction and implementation measures
- Ongoing remediation measures (operating costs) for a maximum of five years
- Compensation and fees for restrictions of existing uses
- Restoration measures
- Measures for the preservation of evidence, e.g. groundwater investigation
- Construction, expansion and improvement of waste treatment facilities to the extent required for remediation of contaminated sites
- Required intangible services ("ancillary services") such as construction supervision and chemical analyses
- Immediate measures that are urgently required to prevent hazards to human life or health
 arising from contaminated sites, insofar as these measures are not ordered in a timely manner from the party causing these hazards, or cannot be carried out in a timely manner, in
 particular for economic reasons.
- Evaluation of remediation results

Beneficiaries

Owners or persons authorised to dispose of a contaminated site and persons or companies obliged to clean up under the Austrian Water Act, the Austrian Waste Management Act or the Industrial Code (Gewerbeordnung); in addition, regardless of their legal relations to the contaminated site, municipalities, associations of municipalities, waste associations and federal provinces

Environmental Impact

The enabled effect of the funding is presented in Table 7 by the following indicators:

- Contaminated soil or landfill bodies remediated (cubic metres)
- Contaminated area remediated (square metres)
- Heavily contaminated soil or landfill body excavated and subsequently treated (cubic metres)
- Contaminated groundwater or landfill leachate pumped out and purified (cubic metres per year)
- Landfill gas or contaminated soil air extracted and treated (cubic metres per year)
- Number of preliminary assessments
- Number of risk assessments
- Hazardous⁸¹ waste from contaminated sites cleared and treated (tonnes)
- Number of projects supported

5.7.2 Project finance

Objective

Measures aim at preventing or reducing pollutants and thus protecting citizens as well as the environment. Project financing focuses on the source of emissions and is aimed at the reduction and sustainable management of (hazardous) waste as well as the reduction of the emission of pollutants.

Responsible Bodies

Federal Ministry for Labour and Economy (BMAW), Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

⁸¹ All waste from contaminated sites is hazardous waste per definition





Description of Financing

Under the Investment Bonus Act (Investitionsprämiengesetz) capital expenditures are subsidised.

Supported activities include, among others, investment in:

- Air pollution control:
 Measures to prevent or reduce (by at least 10%) particulate matter, NOx, NH₃, CO, SO₂ or CxHy emissions in existing installations or emission sources or in commercially used buildings that go beyond regulatory requirements
- Sustainable management of raw materials and hazardous and non-hazardous waste:
 Measures to reduce raw material consumption, to improve recyclate quality by at least 10%
 by removal of contaminants, plants for the recovery of critical raw materials and recycling
 plants etc.

Furthermore, funding is provided to bodies that implement international conventions and to national research institutes that support the implementation of pollution prevention and control targets.

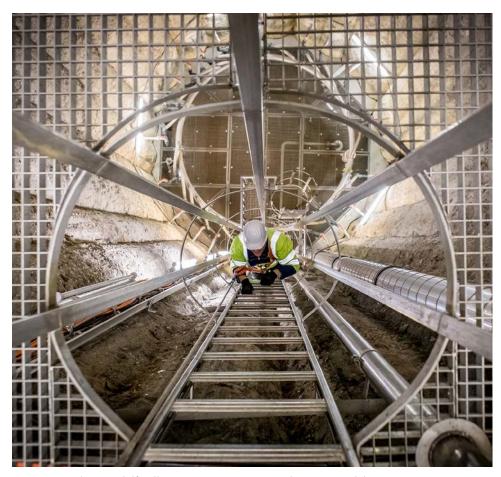
Beneficiaries

Companies, research institutes and (inter)national bodies

Environmental Impact

The enabled effect of the funding is presented in Table 7 by the following indicators:

Number of projects supported: As the projects in this category are very heterogeneous and
include numerous smaller measures, the impact of which cannot be systematically assessed at present, the number of funded projects is presented.



Contaminated site Rudolf-Zeller-Gasse, Vienna © WGM/Christian Houdek





5.8 Climate change adaptation

Austria has been a pioneer in climate change adaptation, being one of the first EU Member States to adopt a strategic approach alongside a comprehensive Action Plan in 2012. The Austrian Adaptation Strategy⁸² consists of a strategic part (Context) and an Action Plan covering 14 fields of activity, from agriculture and forestry, through infrastructure and urban resilience. In April 2024, the Council of Ministers⁸³ adopted a revised version of the strategy, reinforcing Austria's guiding framework for climate change adaptation. Given the long-term impact of measures in areas like flood risk management, decisions need to be informed by up-to-date climate research. The Federal Government continues to support cutting-edge climate research, ensuring a strong scientific foundation for decision-making and an effective implementation of the Austrian Strategy for Adaptation to Climate Change.

This section is divided into two sub-sections: "Climate Change Adaptation Model Regions" and "Flood protection, torrent and avalanche control". This section is split into the sub-sections "flood protection, torrent and avalanche control", shown as three "areas" in the table below, namely "torrent and avalanche control", "flood protection: Federal Water Engineering Administration" and "flood protection: Federal Waterways". Additionally, several projects funded by the Austrian Forest Fund contribute to climate change adaptation by conserving and restoring protective forests, including countering bark beetle infestations. Beyond that, investments in research, development and innovation, such as the Austrian Climate Research Programme (ACRP) and the Austrian Climate Research Programme Implementation (ACRPi) managed by the Austrian Climate and Energy Fund, support climate change adaptation efforts in Austria. Details on the Austrian Forest Fund can be found in chapter 5.5, while information on research, development and innovation is available in chapter 5.9.

| | | | | 2024 l | | | | | | |
|---------------------------------------------------------------|------------------------------------------------|----------------------------------------------------------|----------------------------------|-------------------------------------|----------------------------------|-----------------------------------|----------------------------------|-------------------------------------|------------------------------------|---------------------------------------------------------|
| Climate change adaptation | Allocated amount with reported impact [mn EUR] | Number of Climate Change Adaptation Model Regions* | Number of municipalities covered | Number of inhabitants [mn citizens] | Area covered [square kilometres] | Number of pro- tected citizens | Number of pro- tected objects | Area treated protective forest (ha) | Number of projects supported | Number of enter- prises supported (approved 2024) |
| Climate Change Adaptation Model Regions (KLAR!)* | 4.7 | 91 | 770 | 2.27 | 38,340 | | | | | |
| Torrent and Avalanche Control (WLV) | 62.7 | | 708 | | | | 2,687 | 25,398 | 990 | |
| Flood protection: Federal Water Engineering Administration | 116.1 | | | | | 10,817 | 2,757 | | 1,013 | |
| Flood protection: Federal Waterways | 8.9 | | | | | | | | 3 | |
| Austrian Forest Fund | 2.3 | | | | | | | | | 13 |
| Research, Development & Innovation | 21.0 | | | | | | | | 105 | |
| Total | 215.7 | | | | | | | | | |

^{*} For example, in case of KLAR!, the allocated sum only corresponds to around half of the total budget, with further support provided in-kind by participating municipalities.

Table 8: Climate change adaptation – overview of indicators. Sums in the table may not add up due to rounding differences. Monetary figures refer to public funding spent on measures contributing to climate change adaptation and allocated to Green Financing Instruments. Impact and performance indicators refer to the enabled effects, i.e. effects leveraged by the public funding, with regard to the overall investment volumes of the supported projects.

Explanatory notes: The figures in Table 8 present a share of the budget that was assigned to projects supporting climate change adaptation and allocated to Green Financing Instruments84.

⁸² Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, https://www.bmk.gv.at/themen/klima_umwelt/klimaschutz/anpassungsstrategie/publikationen/oe_strategie.html (only available in German), April 2024; Information in English, April 2024

⁸³ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Austrian Strategy for Adaptation to Climate Change - speech to the Council of Ministers (only available in German), April 2024

⁸⁴ Performance and impact indicators are calculated on the data available for approved and/or financed projects in the period covered by the reporting. Based on this, the performance and impact figures are assessed for expenses related to comparable types of projects and infrastructures. The analyses and the methodological documentation were prepared specifically for the purpose of the Green Investor Report and cannot be applied one-to-one to other publications addressing the respective funding vehicles due to the different scope





5.8.1 Climate Change Adaptation Model Regions

Objective

The Austrian Adaptation Strategy emphasises the growing significance of addressing climate change at regional and local levels, aiming to provide tailord support to communities. In 2016, Austria launched the *Climate Change Adaptation Model Regions Programme*⁸⁵ (KLAR! Programme).

Responsible Body

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK)

Description of Financing

Each participating region appoints a climate adaptation manager responsible for creating a comprehensive regional adaptation concept. The concept should outline at least 10 specific adaptation measures, targeting both local and regional levels. The programme, managed by the Austrian Climate and Energy Fund, provides financial support for personnel, awareness-raising initiatives and regional coordination efforts, with municipalities required to contribute 25% of co-financing of the associated costs.

Beneficiaries

The funding disbursed through the KLAR! Programme is designed to support Austrian regions and municipalities in their efforts to adapt to climate change. As of December 2024, 91 regions are participating in the programme, which has seen continued growth, with 79 regions involved in 2022 and 89 in 2023. Participating regions receive guidance and financial assistance to develop and implement climate change adaptation strategies, addressing a wide array of climate-related risks and sectors. As of 2024, the programme covers 770 municipalities, benefiting approximately 2.27 mn inhabitants across diverse climatic conditions, and most of Austria's federal provinces.

Environmental Impact

The funding supports the implementation of the Austrian Strategy for Adaptation to Climate Change⁸⁶, increases adaptive capacity and strengthens resilience to climate-related risks.

The enabled effect of the funding is presented in Table 8 by the following indicators:

- Number of Climate Change Adaptation Model Regions
- Number of municipalities covered
- Number of inhabitants (million citizens)
- Area covered (square kilometres)

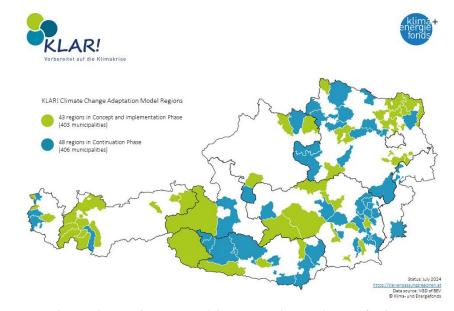


Figure 2: Climate Change Adaptation Model Regions © Klima- und Energiefonds

⁸⁵ KLAR!, https://klar-anpassungsregionen.at (only available in German)

⁸⁶ Federal Ministry Climate Action, Environment, Energy, Mobility, Innovation and Technology, <u>Austrian Strategy for Adaptation to Climate Change</u>



5.8.2 Flood protection, torrent and avalanche control

Objective

Austria is committed to enhancing resilience against natural hazards, which are intensifying due to climate change and are also increasingly affecting previously less exposed regions. To reduce these risks in the Alpine regions, the Austrian Service for Torrent and Avalanche Control implements targeted protective measures against torrents, avalanches, rockfalls, landslides, and mudflows. In addition, flood protection on waterways and other bodies of water are key priorities, with via donau – Austrian Waterways Ltd overseeing the planning, construction, and maintenance of flood protection infrastructure along major rivers, including the Danube and the March. Additionally, the Federal Water Engineering Administration, in collaboration with the federal provinces, focuses on reducing flood risks across all other bodies of water in Austria.

Responsible Bodies

- The Federal Ministry of Agriculture, Forestry, Regions, and Water Management (BML)
- The Federal Ministry for Climate Action (BMK)

Description of Financing

Protection against natural hazards in Austria's alpine regions involves a broad mix of measures, ranging from technical protective infrstructures to awareness raising and and preparedness initiatives for floods, debris flows, avalanches, rockfalls, land- and rockslides, implemented by the Torrent and Avalanche Control (WLV) under the Federal Ministry of Agriculture, Forestry, Regions, and Water Management (BML). Flood protection along the Danube, Morava and sections of the Thaya, Enns, and Traun Rivers, coordinated by via donau - Austrian Waterways Ltd. within BMK, and for other bodies of water in Austria, coordinated by the Federal Water Engineering Administration (BWV), within BML, relies on a combination of strategies. These include the planning, construction and maintenance of flood risk measures such as retention basins, discharge channels (such as Vienna's 'New Danube'), and other protective structures designed to safely manage floodwaters and minimise damage.

Beneficiaries

In 2024, the WLV invested EUR 62.7 mn through 990 projects in 708 municipalities and treated an area of 25,398 ha of protected forest. The WLV's protection measures, approved in 2024, will protect 2,687 objects against floods, torrents, avalanches, rockfall, landslides and rockslides.

The BMK invested EUR 8.9 mn through 3 projects disbursed in 2024.

The BWV provided EUR 116 mn, protecting 10,817 citizens and 2,757 objects and supporting 1,013 projects.

Environmental Impact

The enabled effect of the funding is presented in Table 8 by the following indicators:

- Number of projects supported
- Number of municipalities covered
- Area treated protective forest in ha
- Number of protected citizens
- Number of protected objects

Construction expenses of the Service in Torrent and Avalanche Control in Austria`s municipalities in 2024

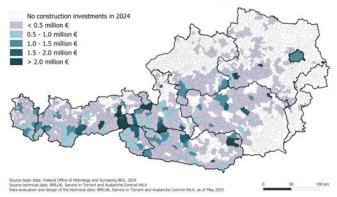


Figure 3: WLV Investments across Austrian municipalities in 2024 © BML





5.9 Research, development & innovation

Research, development and innovation (RDI) activities are crucial for the sustainable transition of economy and society and for achieving the objectives of the European Green Deal and Austria's climate neutrality by 2040. Accordingly, strengthening research addressing the climate crisis, including mitigation and adaptation, resource efficiency, circular economy and the development of key technologies for the transition of energy systems, industrial processes and mobility are among the priority areas of the Strategy for Research, Technology and Innovation 2030⁸⁷ of the Austrian Federal Government. According to the most recent figures published by Statistics Austria⁸⁸, in 2023 Austria's total research and development expenditures accounted for 3.23% of GDP and for 2024 the R&D intensity was 3.35%. Europe-wide figures for 2023 show that Austria ranks third in the EU.

The Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology⁸⁹ has been the largest public funder of applied research in Austria. As part of the RTI Pact (2024 to 2026), the Ministry is providing EUR 1.85 bn for research, technology and innovation⁹⁰, which corresponds to an increase of almost 7% compared to the previous RTI pact. Figures published by the Austrian Patent Office show that Green Tech Patent Applications have tripled in Austria over the last 20 years⁹¹ and Austria is one of the six European countries with the highest specialisation advantage in clean and sustainable technologies⁹². In the field of sustainable water and wastewater management Austria ranks third while in the field of buildings Austria ranks first in Europe and also worldwide^{91,92}.

As research, development and innovation is a cross-cutting issue, but no separate UoP category according to the Austrian Green Bond Framework, this chapter presents an aggregated overview of the allocated RDI expenditures as well as supplementary information. The figures for the allocated amounts shown in Table 9 are also included under the respective UoP categories in the previous chapters in the last line of the tables.

| Year of | | | RDI proje | ct funding | Global budget for research infrastructure & fundamental |
|-------------------------|---------------------------------------------------------------------------------|---------------------------------------------------|--------------------------|---------------------------|---------------------------------------------------------|
| green ex- penditures | Research, development and innovation | Allocated amount with reported impact [EUR mn] | Split amount [EUR mn] | Number of projects funded | research Split amount [EUR mn] |
| 2024 l | Clean transportation | 20.0 | 19.5 | 202 | 0.5 |
| 2024 l | Renewable energy | 25.9 | 23.6 | 130 | 2.4 |
| 2024 l | Energy efficiency | 43.3 | 42.5 | 376 | 0.8 |
| 2024 l | Terrestrial and aquatic biodiversity | 6.3 | 0.7 | 9 | 5.6 |
| 2024 | Environmentally sustainable management of living natural resources and land use | 92.0 | 52.7 | 362 | 39.3 |
| 2023 II ⁹² | Sustainable water and wastewater management | 3.4 | 1.2 | 8 | 2.2 |
| 2024 l | Pollution prevention and control | 16.5 | 15.2 | 165 | 1.2 |
| 2024 l | Climate change adaptation | 21.0 | 15.3 | 105 | 5.7 |
| | Total | 228.4 | 170.6 | 1,357 | 57.8 |

Table 9: Overview of research, development and innovation expenditures allocated to Green Financing Instruments in 2024. Sums in the table may not add up due o rounding differences.

⁸⁷ Federal Chancellery Republic of Austria, RTI Strategy 2030

⁸⁸ Statistics Austria, R&D global estimate (only available in German), April 2025

⁸⁹ From 1.4.2025: Federal Ministry for Innovation, Mobility and Infrastructure

⁹º Federal Ministry Climate Action, Environment, Energy, Mobility, Innovation and Technology, Research quota rises to record level in Austria (only available in German), April 2024

⁹¹ Austrian Patent Office, New analysis on green technologies (only available in German), November 2024

⁹² Austrian Patent Office, Green patents: Austria in first place for buildings (only available in German), April 2024

³³ As for the category "Sustainable water and wastewater management" public funding of the year 2023 was allocated to the Green Financing Instruments covered by this report, for this category the figures of 2023 (part II) are presented in Table 9.





Explanatory notes:

- The figures in Table 9 present the respective share of the budget that was assigned to research, development and innovation projects and infrastructure and allocated to Green Financing Instruments.
- Estimates for performance indicators are based on data for approved projects in the respective year and refer to the enabled effects with regard to the overall investment volumes of the supported projects.

5.9.1 RDI project funding

Objective

The objective of RDI project funding is to promote the development of key technologies to facilitate the transition to an environmentally sustainable and resilient economy and society, as well as to intensify cross-sectoral and international collaboration and the implementation of integrated solutions.

Responsible Bodies

Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), Federal Ministry for Labour and Economy (BMAW), Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML)

Description of Financing

Based on the Austrian Research Financing Act (Forschungsfinanzierungsgesetz) and the RTI Pact 2024–2026, the Climate and Economic Stimulus Package (Klima- und Konjunkturpaket), the Austrian Forest Fund (Waldfonds) and the Environmental Subsidies Act (Umweltförderungsgesetz), subsidies are provided for research, development and innovation activities, among others in the fields of:

- Climate and energy transition as well as climate change adaptation and resilience for cities, regions and companies
- Mobility transition, including alternative fuels for air transport, batteries, hydrogen etc.

- Resource efficiency, renewable raw materials, circular economy and clean production
- Digitalised services and solutions for the sustainable transition of the industry
- Forest and wood related RDI activities, including on wood gas and biofuels, climate resilient forests and the increased usage of the resource wood

The allocated research activities include a wide range of funding programmes from large-scale cooperative research⁹⁴ to small-scale individual innovation projects. A growing number of "Tranformative Innovation Policy (TIP)" intiatives is providing clear signals and opportunities for companies, research organisations and further relevant stakeholders to conduct RDI focussing on sustainability. Two examples of TIP initiatives are given below:

With the RTI flagship initiative "Energy research - utilising potential & shaping the future", the Ministry for Climate Action (BMK) and the Climate and Energy Fund are addressing energy innovations from Austria that serve both the energy transition in domestic and export markets and make a substantial contribution to climate neutrality. Measures are bundled across topics and instruments in order to provide the best possible support for the low carbon transition. One of the five priority topics is "Hydrogen and Carbon Capture, Utilisation and Storage". The innovation goals defined provide orientation for the 2024-2026 funding period and include the following areas:

- Increasing efficiency and reducing costs in the production of renewable hydrogen
- Increasing efficiency and reducing costs in hydrogen storage and distribution
- Improvement of technology components for the use of renewable hydrogen
- Integration of hydrogen in the renewable and circular energy system
- Creating evidence-based findings for market design, regulation, norms and standards

The Austrian research programme "AI for Green" 95 is aimed at harnessing artificial intelligence (AI) to tackle climate change and the ecological crisis. It supports the development of interdisciplinary research-intensive AI technologies focussing, among others, on solutions for the energy transiti-

⁹⁴ FFG, COMET - Competence Centers for Excellent Technologies

⁹⁵ FFG, Al for Green – call for application (only available in German)





on, circular economy and production technologies, mobility transition and climate-neutral cities. The projects, innovations and prototypes from applied research funded under "AI for Green" address both objectives simultaneously: (1) AI technologies are newly developed or further developed and (2) the application of those AI technologies makes a substantial contribution to the climate and environmental objectives set out in Article 9 of the EU Taxonomy Regulation⁹⁶. Furthermore, projects submitted for funding must include an assessment of the impact of using AI to achieve the climate objectives, take into account the EU's Artificial Intelligence Act to achieve trustworthy AI and ensure gender equality and diversity. "AI for Green" also aims at bringing together skills from different disciplines and promoting networking between AI and climate/environmental research communities. The "AI for Green" call for tenders was funded with EUR 9.3 mn in 2023 and EUR 3.8 mn in 2024, as part of the broader national strategy for digital and key enabling technologies (2023-2026).

Beneficiaries

Companies, universities, research and technology organisations (RTO), research consortia consisting of industrial companies and research institutions, other RDI conducting actors

Environmental Impact

The enabled effect of the funding is presented in Table 9 above by the following indicators:

 Number of projects supported: As research projects have a key enabling function but do not themselves have a direct environmental impact, the number of funded projects is used as a performance indicator in this category.

To give an impression of the scientific impact, additional indicators for companies receiving public funding from the Austrian Research Promotion Agency FFG are provided below. These figures represent all funded companies (including, but not exclusively in the field of environmental science) and are derived from projects completed 2017-2019, as part of the impact monitoring of FFG funders.

ding⁹⁷. The project impacts of funded companies and research institutes are surveyed four years after project completion.

- Patent activities: On average 11% of small, 19% of medium and 39% of large FFG-funded companies register intellectual property rights (patents, designs, trademarks).
- Scientific production: On average 3.9 scientific publications per FFG-funded project (cooperation public-private).

5.9.2 Global budget for research infrastructure and fundamental research

Objective

Successfully implementing RDI projects requires adequate instruments covering all innovation phases which are combinable with each other. Fundamental research as well as research infrastructure are essential foundations financed by the global budget of universities. The specific objective of the global budget presented in this section is to provide the basis for climate-related and environmental research activities, aimed at enabling the transition to a sustainable economy and society.

Responsible Body

Federal Ministry for Education, Science and Research (BMBWF)

Description of Financing

Under this position, finance for research infrastructures as well as for fundamental research is provided for the BOKU University, Vienna (BOKU), which is among the leading Life Sciences Universities in Europe, distinguished by its holistic approach to research and teaching. During the year 2024, 2,254 scientists⁹⁸, 10,386 students⁹⁹ and 1,299 graduates¹⁰⁰ were researching solutions for important environmental and social issues and for a sustainable future¹⁰¹. The scientific work at

⁹⁶ Regulation (EU) 2020/852 of The European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088

⁹⁷ FFG, <u>Impact monitoring of FFG funding in 2023</u> (only available in German)

⁹⁸ Calendar year 2024

⁹⁹ Winter semester 2024

¹⁰⁰ Academic year 2023/24

¹⁰¹ BOKU University, <u>BOKU Wissensbilanz</u> (only available in German)





BOKU takes place in six areas of competence¹⁰². As of January 2025, BOKU is setting new accents with its organisational structure which comprises six departments aligned with its key areas of expertise¹⁰³:

- Agricultural Sciences
- Biotechnology and Food Science
- Economics and Social Sciences
- Ecosystem Management, Climate and Biodiversity
- · Landscape, Water and Infrastructure
- Natural Sciences and Sustainable Resources

Beneficiary

BOKU University (Vienna)

Environmental Impact

The effect of the funding is reflected in figures on scientific performance, as fundamental research activities and infrastructures have a key enabling function but do not themselves have a direct environmental impact. According to the most recent figures prepared for the "Intellectual Capital Report" of the BOKU University¹⁰¹, the following KPIs are presented:

- 1,123 ongoing research projects
- 165 ongoing education and capacity buildung projects
- 997 Publications in SCI (Science Citation Index) listed journals and SSCI (Social Science Citation Index; both Web of Science Core Collection), 60.6% of which with international co-authors
- 17 patents pending (3 national, 7 EU, 7 in third countries)

Example: Mission Soil and Water¹⁰⁴

The project "Mission Soil & Water: Working together for healthy soil and water" shows how BOKU can contribute to finding transformative solutions for the sustainable use, protection and revitalisation of soils and waters together with society. To this end, BOKU's extensive expertise in the Soil and Waters missions will be linked and made visible internally for an exchange with society and thus positioned externally as a thematic beacon of transformation on a supra-regional level. In order to make the best possible use of BOKU's unique position and expertise in both missions, cross-mission goals that relate to both the Soil and Waters missions are also being pursued. To this end, inter- and transdisciplinary approaches will be applied and the universities' training programmes (doctoral schools) will be integrated into the activities. Principles of inter- and transdisciplinarity, co-creation, co-design and citizen science will be applied to approach the objectives of the missions, such as measures for the protection and remediation of waters and soils as well as measures for the sustainable use of these important natural resources. This supports the implementation of the missions at BOKU itself and in Austrian society.

Coordinator: Institute of Hydrobiology and Aquatic Ecosystem Management, Department of Ecosystem Management, Climate and Biodiversity

¹⁰² BOKU University, BOKU competence areas

¹⁰³ BOKU University, <u>Departments of the BOKU University</u>

 $^{^{104}}$ BOKU University, Mission Soil & Water: Living waters – working together for protection, restoration and sustainable water use



6 Case Studies

6.1 ÖBB: Semmering Base Tunnel

The Semmering Base Tunnel is one of the most important infrastructure projects in the heart of Europe. The project consists of the construction of a new railway line connecting Gloggnitz and Mürzzuschlag, as an identified missing link on the sub-section Wien – Graz of the Baltic-Adriatic Core Network Corridor. Construction of the 27.3 km tunnel means a modern rail link for future generations that also instantly creates a fast and safe connection between Lower Austria and Styria. As part of the Baltic-Adriatic Corridor, the Semmering Base Tunnel is also a major section within international rail networks.

A tunnel for generations

The existing Semmering Railway line between Gloggnitz and Mürzzuschlag is a 170-year-old curvy mountain railway line, with steep gradients, which slows down passenger trains to 60 km/h in this Alpine crossing. Freight transport is hindered considerably as well, because the steep gradients make push-pull locomotive configurations for heavier freight trains necessary, which significantly reduces efficiency. Therefore, this historic railway line is not capable of meeting the requirements of a modern railway line operation. The Semmering Base Tunnel is designed to be built as single-track, two-tube railway tunnel infrastructure, with a curve radius layout allowing maximum permissible speed of up to 230 km/h. For travellers, this means that many destinations can be reached faster and more conveniently by train in the future. As an example, completion of the Semmering Base Tunnel means the travel time between Graz and Vienna Main Station will be reduced by approximately half-an-hour. In specific terms, this means it takes around an hour and fifty minutes to travel from the city centre in Graz to the centre of Vienna by train. Due to its industrial purposes, the tunnel will be built in a flat-bedded style, achieving a continuous longitudinal tilt of 8.4 % to allow the operation of 740 m long trains. Freight transport will be much more efficient, as the steep inclines and narrow curve radii on the historic mountain route are eliminated. The Semmering Base Tunnel will allow long freight trains towed by a single locomotive, thus boosting the rail freight transport on the Baltic-Adriatic Corridor.

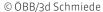
Infrastructure upgrade leads to reduction of greenhouse gas emissions

Together with other upgrades along the new Southern Line between Vienna and Villach, the Semmering Base Tunnel represents an important, sustainable investment in the future. The tunnel project as well as the other sections between Vienna and Villach are part of the ÖBB framework plan and are financed with funds from the Republic of Austria. Due to the infrastructural improvements, passengers and goods will reach their destinations faster and more reliable than today. Furthermore, transport capacity will be increased for both passengers and goods. The projected GHG emission savings over a 40-year period from the start of operation are four million tonnes of CO₂e. The savings result from the modal shift from road to rail due to the improved railway line between Lower Austria and Styria. In November 2024, an important milestone was reached on the construction site: The final breakthrough of the tunnel was achieved. The miners have thus successfully completed their work and made their major contribution to the historic railway project. In the next step, work will be carried out on the tunnel technical equipment and the Semmering Base Tunnel is scheduled to go into operation in 2030.

Source and further information:

ÖBB Infrastruktur AG, Semmering Base Tunnel







© ÖBB/Ebner





6.2 Austrian Forest Fund: Increasing biodiversity in forests and use of wood from sustainable forests as a raw material

The Austrian Forest Fund Act was adopted on July 7, 2020, mainly to support the development of climate-fit and resilient forests, the increased use of the resource wood as an active contribution to climate change mitigation and the promotion of biodiversity in forests.

CO₂ Bonus: Increasing the use of wood as a raw material for buildings

Building with wood from sustainable forestry contributes to the decarbonisation and ecologisation of the building sector. The Wood Initiative as an essential part of the Austrian Forest Fund promotes the systematic and efficient use of wood in the interests of climate protection and a sustainable bioeconomy. The funding programme " CO_2 Bonus" promotes large-volume timber buildings in order to increase the share of wood construction in Austria. The five completed calls have funded 134 large-volume timber construction projects throughout Austria. In the long term, these buildings store about 53,000 tonnes of CO_2 equivalent.



© Nikolaus Richter-Wallmann

connectPLUS: Stepping stone biotopes for promoting biodiversity

The connectPlus project helps to maintain, enhance and restore valuable stepping stone biotopes, which serve as breeding grounds and habitats for protected and other species. The aim of these stepping stone biotopes is to provide the best possible networking effect between otherwise isolated habitats, thereby fostering biodiversity throughout and counteracting the ongoing fragmentation of natural habitats. During an agreed period of time, the forest owner is contractually prohibited from reforestation, extraction or other activities in the stepping stone biotopes.

The connectPlus project serves to foster the knowledge regarding the management and development of small-scale protected areas. It also represents important groundwork for future conservation concepts. The planned establishment of stepping stone biotopes ensures the preservation and improvement of areas with nature conservation value.



© BFW-Oettel

Source and further information (only available in German):

- Projekt connectPLUS, Trittsteinbiotope
- Waldfonds, CO2 Bonus Leuchtturmprojekte



6.3 ScaleUp: Sustainable heat for urban areas

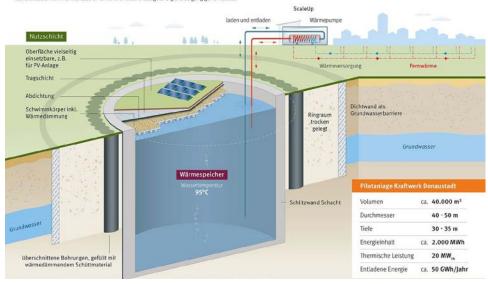
As part of efforts to achieve climate neutrality by 2040, district heating plays a crucial role in reducing carbon emissions and ensuring a sustainable energy future. Currently, heat generation still relies heavily on combined heat and power (CHP) plants, which, while efficient, are primarily based on fossil fuels. Transitioning to renewable energy sources is essential to making district heating more sustainable and resilient. To support this transition, an innovative project funded by the Climate and Energy Fund under the "Vorzeigeregion Energie" 105 initiative is developing large-scale pit thermal energy storage systems to enhance urban renewable heat supply. These innovative storage solutions are designed to collect surplus heat from deep geothermal energy and large-scale heat pumps during the summer and store it for use in the colder winter months when heating demand is at its peak. By balancing seasonal fluctuations in energy production and consumption, these storage systems significantly improve the efficiency and reliability of renewable heating solutions. The initial pilot facility, currently in the planning phase, will have a storage capacity of 40,000 cubic metres. Looking ahead, a larger-scale system with a capacity of up to 100,000 cubic metres could be implemented to further support urban heating infrastructure. In addition to addressing technical challenges, the project also evaluates the economic feasibility and environmental impact of pit thermal energy storage systems in urban areas.

Sources and further information (only available in German):

Klima- und Energiefonds, ScaleUp: Nachhaltige Wärme für Wien, December 2024

ScaleUp Wärmespeicher

Dieser innovativer Speichertyp ermöglicht die **Speicherung** des im Sommer vorhandenen **Wärmeüberschusses** aus emeurebaren Energiequellen, um diese Wärmer für den Winter nutzbar zu machen. Durch diese Methode wird die Fleisbilltät der Fernwafrimentze einhöht und eine zuverlässige Fernspieversorigung gewählleistet.



© Wien Energie

^{105 &}quot;Demonstration Region for Energy"



6.4 maxE: Charging infrastructure for maximum electrification on construction sites

Vehicles and machines with combustion engines are currently predominantly used on construction sites, especially diesel vehicles, while electric drives still make up a small proportion.

It is assumed that construction machinery is responsible for around 1.1% of global CO₂ emissions (2022). Around 90% of these emissions are caused by vehicles with a power output of more than 50 kW. Experts assume that by 2030, the proportion of purely battery-powered construction machinery in the compact sector could be between 15% and 30%, while for larger, more energy-intensive machines with up to 150 kW of power and 10 operating hours it could be just 5% to 15%106,107,108.

Zero-emission technologies offer the opportunity to significantly reduce GHG emissions in transportation and create a sustainable, well-connected mobility system. With its programme "Zero Emission Mobility", the Austrian Climate and Energy Fund supports cooperative R&D projects - innovative projects dealing with e-mobility.

maxE is also supported as part of this program. The project is developing a power supply and storage solution for construction sites with battery electric vehicles called VOLSTATION® from Miba Battery Systems to ensure power quality and grid stability. In addition, a buffer storage solution for high power and a charging infrastructure adapted to the construction site is being developed.

Initial situation

The maxE project is looking for ways to reduce greenhouse gas emissions, noise and dust on construction sites and at the same time place less strain on the electricity grid. The aim is to use more renewable electricity on construction sites in order to integrate the construction sector into a future energy system with renewable resources. This will be achieved through the use of battery storage systems that are charged with renewable electricity. These storage systems ensure that emission-free construction machinery (such as excavators or dumpers) and other electrical devices (such as cranes, pumps or lighting) are permanently supplied with renewable electricity while

reducing negative impacts on the power grid. The battery storage system also ensures that a reliable charging infrastructure is available, even if there is no grid connection on site. This promotes the use of emission-free technologies on construction sites.

E-construction machines save two thirds of GHG emissions.

In the practical test it was found that with electric machines and equipment currently available, around two thirds of GHG emissions are saved. However, although many major construction machinery manufacturers now also offer electric machines, charging on civil engineering sites has been difficult until now because the stability of the power grid has to be guaranteed.

Buffer storage solution

The maxE project is testing a buffer storage solution that is specifically optimised for use on construction sites with high power (low kWh at high kW power) and large energy storage systems (high kWh at low kW power). The adaptation, installation and optimisation of the charging infrastructure will also be based on the practical requirements regarding the organisation and planning of construction sites with stationary or mobile charging infrastructure.

Sources and further information (only available in German):

- Klima- und Energiefonds, maxE Ladeinfrastruktur für maximale Elektrifizierung auf Baustellen, May 2024
- Klima- und Energiefonds, Erste Praxistests für emissionsfreie Baustellen, May 2024





© Klima- und Energiefonds/APA-Fotoservice/Jana Madzigon

 ¹⁰⁶ IDTechEx, Electric Construction Machines Vital for Greener Construction, March 2022
 107 Schaeffler, Sustainable construction machinery of the future, July 2022
 108 Mc Kinsey & Company, Call for action: Seizing the decarbonization opportunity in construction, July 2021



6.5 Remediation of the aluminium slag landfill site near Wiener Neustadt and material recovery

The former aluminium dross landfill site is currently the biggest remediation project in Austria. The Bundesaltlastensanierungsgesellschaft (BALSA) has been commissioned to clear and clean it up.

From 1974 to 1991, waste was deposited at the former landfill site near Wiener Neustadt. Around one million tonnes of waste were dumped into a gravel pit, more than half of which is hazardous industrial waste. The area of the landfill approximates 46,000 square metres.

In consequence of the illegal dumping of hazardous wastes, the site was classified as a historical legacy and legally non-conforming landfill, requiring remediation. 680,000 tonnes of aluminium dross residues make up the largest part of the contaminated site. As these residues contain a considerable amount of aluminium, an innovative process developed in cooperation with the Montanuniversität Leoben enables valuable aluminium components to be extracted for recycling. It is possible to recover a total of around 60,000 to 70,000 tonnes of aluminium granulate from the landfill. Through further processing of the aluminium granulate around 35,000 tonnes of aluminium are expected to be returned to the economic cycle, in line with the circular economy principles. The remediation and recycling processes will also save around 700,000 tonnes of CO₂e until the end of the project.

The remediation project started in 2019 and is scheduled for completion in 2027. Currently the project shows already an overall clearance performance of more than 50%.

Sources and further information (only available in German):

- Umweltbundesamt, Altlast N6: Aluminiumschlackendeponie, Altlastenportal, October 2010
- BALSA, BALSA saniert größte Altlast Österreich, June 2023



Aerial view of the contaminated site (May 2023). © ARGE Sanierung Altlast N6



Insight into the clearance of the landfill site, which is protected from the weather by a semi-mobile roof. \odot BALSA GmbH



6.6 Reconstruction of the Larsen weir and renaturation of the Drau in Assling, East Tyrol

The "Larsen weir" transverse structure built in 1932 on the Drau in Assling is technically intact and in good condition. The structure fulfills its function of stabilising the river bed, but forms a massive barrier to fish migration. To address this issue, a fish-passable ramp was built in front of the weir.

The new ramp has a width of 38 m, a length of 170 m and a longitudinal gradient of 2.5%. A height difference of approximately 4.50 m is overcome. The sides of the ramp are formed from the existing bank protection. For structuring purposes, 8 short groynes and several structural stones are integrated into the ramp body.

Below the former weir and the current ramp, a new branch of the Drau was created over a length of 225 metres, thus creating a new habitat for animals and plants. A biotope with a length of 60 metres and a width of 30 metres, which is fed by groundwater, also provides a new habitat in this area. Furthermore, initial planting was carried out in some places of the gravel body.

The banks are secured with armourstones. Therefore, a total of around 12,000 tons of quarry stone were used. A large proportion was reused since it was already present in the riverbed.

The reconstruction and renaturation not only created continuity for fish migration and additional natural habitats but also increased the flood protection of the municipality of Assling.

The investments in this measure

- made a 2.5 metres high transverse structure passable for fish,
- renaturalised 0.65 km of the river course and
- created or secured approximately 25 green jobs in the region.

Sources and further information (only available in German):

- Federal Ministry of Agriculture and Forestry, Regions and Water Management, Umweltinvestitionen - Maßnahmen der Wasserwirtschaft 2023, April 2024
- Tyrolean Regional Government Office, Assling: Neue Sohlrampe an der Drauf schafft Lebensraum, September 2024



Larsen weir before measures were implemented. Larsen weir after fish-passable reconstruction. © Ing. Georg Hofmann, MBA/ Baubezirksamt Lienz



© Land Tirol



© Ing. Georg Hofmann, MBA/ Baubezirksamt Lienz © Ing. Georg Hofmann, MBA/ Baubezirksamt Lienz







6.7 RHESI: Cross-border flood protection in the Alpine Rhine valley

The densely populated region at the confluence of the Alpine Rhine and the III rivers at the mouth of Lake Constance, situated in the Swiss-Austrian border area, is highly vulnerable to flooding. The RHESI project ("Rhine – recreation and protection"), a collaborative initiative between the Republic of Austria and the Swiss Confederation, exemplifies an integrated, transboundary approach to flood risk management, with both countries contributing equally to the project's estimated costs of EUR 2 bn. Austria's contribution is financed 75% by the federal government and 25% by the state of Vorarlberg.

Building on more than a century of cross-border flood protection

The Alpine Rhine Valley has a long history of coordinated flood protection, dating back to 1892, when Austria and Switzerland first initiated joint efforts following a series of catastrophic floods. Since then, the two countries have signed four state treaties to address flood risks in this shared river basin. The fourth and latest treaty, signed in 2024, marked a key milestone, launching RHESI as both Austria's most significant flood protection investment to date and Europe's largest renaturation initiative. RHESI aims at reducing flood risk by restoring the river ecologically given by the existing laws in both countries. The project will include a wide range of interventions aimed at enhancing the Rhine's discharge capacity, reinforcing flood protection structures, and restoring natural habitats.

A comprehensive redesign of the Alpine Rhine's flood protection infrastructure

At the core of RHESI is a comprehensive redesign of the Alpine Rhine's flood protection infrastructure. The project will enhance the river's discharge capacity by widening the central channel and increasing its flow threshold from 3,100 to 4,300 cubic metres per second. This involves removing restrictive weirs allowing the river to reclaim a more dynamic and natural flow regime. To safeguard against extreme events, flood protection dams along the Rhine will be renewed or strengthened, ensuring robust protection against future floods. Additionally, three strategically placed spillways will redirect excess water exceeding 5,000 cubic metres per second to areas where it will cause minimal harm.

Enabling ecological restoration and community well-being

RHESI will transcend traditional flood protection by blending ecological restoration and community well-being with technical innovation. The renaturation allows to undo decades of canalisation by restoring the Rhine's natural morphology, creating a larger and more dynamic riverbed that supports diverse aquatic and riparian habitats. These restored ecosystems not only enhance biodiversity and the habitats for the fish but also improve water quality and resilience to climate change. For local communities, the restored ecosystems will provide new recreational opportunities by improving public access to the rivers.

Creating a safe Alpine Rhine valley for all

Given the scope of RHESI and its impact on communities in two neighbouring countries, an open dialogue format was established between 2012 and 2024 in order to engage stakeholders in both Austria and Switzerland in creating a shared vision for a safe Alpine Rhine valley. This participatory process involved representatives from municipalities, drinking water suppliers, agricultural sectors, and nature conservation groups, ensuring that all relevant sectors were involved in the planning phase. As a last step, stakeholders were invited to review and provide feedback on approximately 400 reports and plans, fostering transparency and inclusivity. Additionally, a series of meet-and-greet sessions with experts from the International Rhine Regulation (IRR), the project coordinator, provided opportunities for the public to engage directly with technical specialists and gain a better understanding of the project. The Environmental Impact Assessment and approval procedure is planned to start by the end of 2025.

Sources and further information (only available in German):

Internationale Rheinregulierung, <u>Hochwasserschutzprojekt Rhesi</u>





Current status Flood protection dam Central channel weirs Central channel weirs Flood protection dam Flood level HQ 100 Bank protection Bank protection Foreland Dynamic channel width Foreland **RHESI** Flood protection dam: Flood protection dam: renewed or renovated renewed or renovated Gravel Bank Flood level HQ 300 Bank protection Bank protection Dynamic channel width Foreland Foreland © Internationale Rheinregulierung





Fussach





Kriessern – Mäder

Visualisations comparing the current status of the Rhine (left in each image) with its future state under RHESI (right in each image)

© Internationale Rheinregulierung





7 Annex: Impact Measurement Methodology

Quality assurance of the input data and evaluation of the effectiveness of the funding

For projects funded according to the Environmental Subsidies Act or funded by the Climate and Energy Fund, quality assurance is based on a multi-stage approach, where checks are carried out at specific intervals by the responsible institutions:

- In general, the funding process can be divided into the application phase up to the funding contract, the construction phase and the phase of auditing and final invoicing.
 - For complex projects, throughout the entire funding process, several checks are carried out,
 e.g. by the funding processing agency, the Federal Ministries, the governments of the Federal Provinces etc. As an example for this process in the field of municipal water management infrastructure, a detailed flow chart is presented in the Court of Auditors' report¹⁰⁹.
 - For all projects, spot checks are carried out by the agency responsible for processing the funding, in which the projects and information are reviewed in detail (including on site inspections).
- On behalf of the responsible bodies (Federal Ministries), annual audits are carried out by independent auditors in order to check the legal compliance of the agency entrusted with processing the funding.
- Ex-post Evaluation:
 - For projects funded according to the Environmental Subsidies Act an in-depth evaluation is carried out every three years¹¹⁰
 - For projects funded according to the Austrian Climate and Energy Fund ex-ante as well
 as ex-post evaluations are carried out on a regular basis¹¹¹. Moreover, a detailed methodological report of these evaluations was published¹¹².
- In addition, audits are carried out by the Court of Auditors¹¹³ at varying intervals.

7.1 Clean transportation

7.1.1 Clean Transportation Infrastructure and services

Railway

The methodological description provided under this section refers to the following sub-chapters of chapter "5.1.1 Clean transportation infrastructure and services":

- Federal subsidies to ÖBB-Infrastruktur AG
- Co-financing of rail infrastructure investments by private railway companies and contributions to the provision of rail infrastructure
- Ordering of non-commercial services in rail passenger transport
- Rail freight funding (Schienengüterverkehrsförderung)

Methodology for estimating the avoided GHG-emissions

1) Allocation of budget items to passenger and freight transport

The relevant budget items are allocated to the following clusters to enable a differentiated presentation of the GHG savings enabled by investments in rail passenger and freight transport:

- Rail passenger transport: non-commercial services and commercial services
- Rail freight transport: subsidised and non-subsidised

The creation of clusters is necessary because an attractive rail service can only be created through the interaction of rail infrastructure and the transport services provided on it. Rail infrastructure and rail services therefore work together and contribute to shifting transport from road to rail and thus to avoiding GHG emissions.

2) Passenger and freight transport infrastructure

The infrastructure investments are reduced by the share of non-electirified lines and then allocated on a pro rata basis to the above-mentioned clusters. The infrastructure investments include the federal subsidies to ÖBB-Infrastruktur AG and the co-financing of rail infrastructure investments by private railways and contributions to the provision of rail infrastructure. The allocation of subsidies to ÖBB-Infrastruktur AG to the clusters is based on the electrified kilometres travelled by public/private passenger and by freight trains on the ÖBB network (data provided by ÖBB-Infrastruktur AG). The co-financing of rail infrastructure investments by private railways and contribu-

¹⁰⁹ See page 70 of the report <u>Subsidies in municipal water management – Report of the Austrian Court of Auditors</u> (only available in German)

¹¹⁰ As an example of the triennial evaluation reports according to the Environmental Subsidies Act, see

[&]quot;Evalualuation of environmental funding of the Federal Government 2020-2022" (only available in German).

¹¹¹ As an example, see report "<u>Evaluation of the annual programmess 2018 and 2020 of the Climate and Energy</u> <u>Fund</u>" (only available in German)

¹¹² Evaluation report on annual programmes of the Climate and Energy Fund

¹¹³ As an example, see report "<u>Subsidies in municipal water management – Report of the Austrian Court of Auditors</u>" (only available in German)





tions to the provision of rail infrastructure is allocated 100% to the cluster rail passenger transport non-commercial. For the allocation of freight transport to subsidised and non-subsidised freight transport, the subsidised share, according to the annual evaluation of rail freight funding, is used.

3) Passenger and freight transport services

The services are composed of public services in rail passenger transport, private services in rail passenger transport and freight transport services. In each case, only the electric rail transport services, in freight transport also excluding the share of fossil fuel transport (10.5% in 2023 according to Statistics Austria), are considered. Public services in rail passenger transport are financed through the budget for ordering of public services in rail passenger transport, which is allocated 100% to the cluster non-commercial rail passenger transport. Freight transport can be split in subsidised and non-susidised transport. The rail freight funding is allocated 100% to the cluster subsidised rail freight transport. Data on the ordered public services in rail passenger transport as well as on the subsidised freight transport was provided by the responsible funding institution.

The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors).

4) Determination of avoided GHG emissions

To determine the avoided GHG emissions, it is assumed that the transport performance (passenger-kilometres and tonne-kilometres) in passenger and freight transport by rail would otherwise have been covered by car or heavy goods vehicle. A safety discount of 15% for rail passenger and 30% for freight transport is applied, taking into account the uncertainties involved in converting mileage into transport capacity. The avoided GHG emissions can be calculated from the difference between the emissions that would have been produced if the transport service had been carried out by car or heavy goods vehicles and the emissions produced by rail transport. The calculation of emissions is based on the current emission factors per passenger kilometre or tonne-kilometre according to the Environment Agency Austria¹¹⁴.

Outlook Green Investor Report 2025

As the evaluation of rail freight funding is only available with two years lag, investments in rail freight transport and the related GHG-emissions avoided for 2024 will be reported in the Green Investor Report 2025.

Co-financing of the federal government in the investment costs for the expansion of the Vienna underground system¹¹⁵

Methodology for estimating the potential CO₂e savings

In order to be able to quantify the possible CO_2e savings and thus the environmental impact that can be achieved by the U2xU5 interchange, estimates were made by Wiener Linien. The result of this analysis is a CO_2e savings potential of up to 75,000 tonnes per year.

The estimate of the maximum CO_2e savings potential is based on assumptions from 2018, before the outbreak of the COVID-19 pandemic and the resulting impact on mobility behaviour. At that time, no detailed timetable drafts were available, which is why the kilometres travelled on the existing network (from U1 to U4) were extrapolated and converted to the new route length. Taking into account an occupancy rate for the underground, the kilometres travelled by passengers per year (passenger kilometres) were calculated. Finally, the CO_2e emissions that would have been emitted by this number of passenger kilometres if an average car had been used were calculated, which corresponds to the maximum CO_2e savings potential.

In the meantime, the estimated values have been checked for plausibility using other calculation methods for CO₂e savings. This shows that the estimate of the potential is plausible, particularly in the context of the effect on the overall network (up to 300 million additional passengers possible).

Relativisation of the estimated value

The operation of the U2xU5 interchange is estimated to avoid up to 75,000 tonnes of CO_2e emissions from motorised private transport each year. This results from the fact that after the expansion, around 550 million additional passenger kilometres per year can be covered by using Vienna's public transport network. This journey distance is thus eliminated on the part of private motorised

¹¹⁴ Umweltbundesamt, Emissions overview means of transport (only available in German)

¹¹⁵ The methodology was provided by Wiener Linien.





transport and saves the above-mentioned amount of emissions in this area.

For the calculation of car emissions, Wiener Linien used a value of 136 g CO_2 e per passenger kilometre. According to the Umweltbundesamt, 168.3 g CO_2 e per passenger car kilometre (average of petrol and diesel cars) can be calculated. The value for Wiener Linien results from taking into account the car occupancy rate of around 1.2.

Comparison of the potential CO₂e-savings with the CO₂e storage capacity of trees

If a beech tree absorbs an average of 12.5 kilograms of CO_2e per year, 6 million beech trees (older than 30 years) are required to absorb the annual amount of 75,000 tonnes of CO_2e . The forest areas in Vienna's urban area absorb around 8 tonnes of CO_2e per hectare every year, resulting in a total of around 65,000 tonnes of CO_2e per year.

In order to absorb 75,000 tonnes CO_2e per year, an area of mixed beech forest of the quality and composition of Vienna's forests of around 9,400 hectares would be required. This area is 15% larger than the area of forests in Vienna (forest areas in the Vienna municipal area: around 8,160 hectares)¹¹⁶.

Aggregated data were provided by the responsible funding institutions. The quality assurance of these data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/auditor, Parliament, Court of Auditors).

7.1.2 Public transport

Public transport - Climate Ticket Austria

The indicator refers to the enabled effects with regard to the overall investment volumes of the supported projects.

Aggregated data is provided by the responsible funding institutions. The quality assurance of this data is based on a multi-stage approach in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors).

7.1.3 Funding Programmes for a Transition to Zero Emission Mobility

The avoided tonnes of CO₂e per project category were provided by the responsible body and by the institution responsible for the processing. To avoid overstatement of impact (e.g. e-bikes and cycling infrastructure) a safety discount of 50% was applied.

The methodology depends on the funding category. The basis for determining the environmental effects is that the subsidy results in a reduction in diesel/gasoline mileage. As baseline, the average emissions of Diesel/Gasoline cars are used (50:50). The average mileage as well as the emission factors are the values published annually by the Environment Agency Austria¹¹⁷

Indicators refer to the enabled effects with regard to the overall investment volumes of the supported projects.

Basis for the calculation: Standard national methodology applied by the operational agency for the annual reporting for the funding, according to the Environmental Subsidies Act of the Republic of Austria. This (long-standing) methodology was reported to the European Commission in connection with the introduction of the EU "Financing not linked to costs" approach within the framework of the *ERDF programme*.

Since there is a time lag between the funding approved and the funding paid out, the impact of the funding paid out has been estimated based on the reported impact per EUR of funding approved per sub-category. As a consequence, the reporting figures are not directly comparable to other publications addressing the respective funding instruments due to the different scope.

Projects and infrastructure investments are, in general, eligible to receive funding and grants from more than one responsible funding body. In order to avoid an overestimation of impact, performance and impact metrics are presented only with regard to the funding instruments of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK).

¹¹⁶ Magistrat der Stadt Wien, MA 23, <u>Statistisches Jahrbuch 2017</u> (only available in German)

¹¹⁷ Umweltbundesamt, Emissions overview by means of transport (only available in German)





Aggregated data were provided by the responsible funding institutions. The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors)

7.2 Renewable energy

Renewable Energy - biomass, PV, heat pumps, solar thermal, power storage and other renewable energy technologies

Annual renewable energy generation/use (megawatt hours, MWh):

The "annual renewable energy generation/use" corresponds to the energy supplied and/or distributed by the measure ("distributed": heat or electricity from new renewable-based generators, additional distributed energy from renewable generators, consumption of additional connected buildings etc.) and/or used (substituting energy from fossil sources).

The value is calculated individually per subsidised project. For renewable heat generators, the net energy consumption after implementation of the measure is predicted by planned figures, after the measure has been implemented, the operator must keep records of operations to prove the success of the renewable energy measure for review by means of spot checks. The consumption before implementation of the measure is based on energy consumption records of the operator of the heat generator. Photovoltaic (PV) systems are assumed to annually yield a standardised value of 1,000 kWh of electricity per installed kilowatt hour peak (kW_n). For small solar thermal systems and for heat pumps below 100 kilowatts thermal capacity (100 kW,,), the calculation is carried out with standardised values, including the assumption of 1,100 full load hours per year for heat pumps. However, for large-scale solar thermal systems, for "model and lighthouse projects" of PV and solar thermal heat generation and for PV systems in agriculture, individual calculations, for PV using power yield forecasts, are used for calculating the annual renewable energy yield.

Annual GHG emissions reduced/avoided (tonnes CO₂e):

The reduced/avoided CO₂e-emissions are calculated as the difference between emissions before and after the implementation of the measure. The emissions before and after the implementation are calculated by multiplying the energy consumption with the CO₂e emission factor of the respective energy source. The baseline is the energy source used in the individual project before implementation of the funded measure, or for programmes with standardised smaller measures, a standardised baseline is used (Austrian electricity mix; heating oil for heating measures). The applied emission factors are from Guideline 6 on Energy Savings and Thermal Insulation of the Austrian Institute of Construction Engineering¹¹⁸ - only for energy carriers not covered in these Guidelines (e.g. renewable electricity with the Austrian ecolabel) emission factors by the Federal Environment Agency Austria¹¹⁹ are used. For biomass emissions, emission factors by the Federal Environment Agency Austria are used. To normalise the energy consumption in case of a capacity change, a factor to adjust the previous capacity to the changed capacity of the heat generator is used.

Annual energy savings (megawatt hours, MWh):

If the project yields energy savings in addition to renewable energy generation, the savings are calculated as the difference between energy consumption before and after implementation (methodology: see section 7.3).

Additional methodological information:

Impact indicators refer to the enabled effects with regard to the overall investment volumes of the supported projects.

Projects and infrastructure investments are, in general, eligible to receive funding and grants from more than one responsible funding body. In order to avoid an overestimation of the impact, performance and impact metrics are presented only with regard to the funding instruments of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK).

¹¹⁸ OIB, <u>OIB-Richtlinie 6</u>, <u>Energieeinsparung und Wärmeschutz</u>, May 2023 (only avilable in German)
¹¹⁹ Umweltbundesamt, <u>Calculation of GHG emissions of different energy sources</u>, (only available in German)





Basis for the calculation: Standard national methodology applied by the operational agency for the annual reporting for the funding according to the Environmental Subsidies Act of the Republic of Austria. This (long-standing) methodology was reported to the European Commission in connection with the introduction of the EU "Financing not linked to costs" approach within the framework of the *ERDF programme*.

Aggregated data were provided by the responsible funding institutions. The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/auditor, Parliament, Court of Auditors).

Since there is a time lag between the funding approved and the funding paid out, the impact of the funding paid out has been estimated based on the reported impact per EUR of funding approved per sub-category. As a consequence, the reporting figures are not directly comparable to those of other publications addressing the respective funding instruments due to the different scope.

7.3 Energy efficiency

Energy efficiency – processes, heat reuse, lighting, building renovation, new buildings, cooling Annual energy savings (megawatt hours, MWh)

The "annual energy savings" are calculated for every individual project as the difference between energy consumption before and after implementation. The net energy consumption after implementation of the measure is predicted by planned figures. After the measure has been implemented, the operator must keep records of operations to prove the success of the energy efficiency measure and that are reviewed by means of spot checks.

The determination of the energy consumption before implementation of the measure is based on energy consumption records of the operators of the process or facility. The baseline is the energy consumption of the individual project before implementation of the funded measure, or for pro-

grammes with standardised smaller measures, a standardised baseline is used (waste heat recovery below 100 kilowatts thermal capacity (100 kW_{th}), partial building renovations, LED indoor lighting systems below 20 kilowatts of capacity (20 kW) and beverage coolers).

To normalise the energy consumption in case of a capacity change, a factor to adjust the previous capacity to the changed capacity of the facility or the process is used.

Annual GHG emissions reduced/avoided (tonnes CO₂e)

The reduced/avoided CO_2e emissions are calculated as the difference between emissions of the considered process or the facility before and after the implementation of the measure. To normalise the energy consumption in case of a capacity change, a factor to adjust the previous capacity to the changed capacity of the facility or the process is used.

For building renovations, the CO₂e emissions before renovation are determined from the heating demand for the building, as shown in the building energy certificate before renovation, an average value for the annual efficiency of the heat generator and the CO₂ conversion factor for heating oil.

Annual renewable energy generation (megawatt hours, MWh)

If the project yields renewable energy generation in addition to energy savings, the "annual renewable energy generation" is calculated as the renewable energy supplied and/or distributed by the measure (methodology: see section 7.2).

Additional methodological information:

Impact indicators refer to the enabled effects with regard to the overall investment volumes of the supported projects.

Projects and infrastructure investments are, in principle, eligible to receive funding and grants from more than one responsible funding body. In order to avoid an overestimation of the impact, performance and impact metrics are presented only with regard to the funding instruments of the





Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK).

Basis for the calculation: standard national methodology applied by the operational agency for the annual reportings for the funding according to the Environmental Subsidies Act of the Republic of Austria. This (long-standing) methodology was reported to the European Commission in connection with the introduction of the EU "Financing not linked to costs" approach within the framework of the *ERDF programme*.

Aggregated data were provided by the responsible funding institutions. The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, ministry/auditor, parliament, Court of Auditors).

Since there is a time lag between the funding approved and the funding paid out, the impact of the funding paid out has been estimated based on the reported impact per EUR of funding approved per sub-category. As a consequence, the reporting figures are not directly comparable to those of other publications addressing the respective funding instruments due to the different scope.

7.4 Terrestrial and aquatic biodiversity

Austrian Agri-environmental programme

A mix of qualitative and quantitative impact information is presented for the selected measures of the programme.

Indicators available are the number of farms funded as well as the area funded under different sub-measures of the *Agri-environmental programme*. Those indicators were obtained from the Federal Ministry of Agriculture, Forestry, Regions and Water Management. The selection of the impact information (qualitative and quantitative) for reporting was based on the most recent official scientific evaluation of the programme dating back to 2019 (see chapter 9). Measures that showed the most significant positive impact on species diversity were selected.

All data presented in the impact report were derived from external sources (Federal Ministry of Agriculture, Forestry, Regions and Water Management). No individual or internal calculations were conducted. The impact information is derived from the most recent scientific evaluation of the programme. The baseline situation is a scenario in which the funding programme would not have taken place in the area. In the scientific evaluation the benchmark used is agricultural land area that does not fall under the specific measures of the programme. The official evaluation of the funding programme is based on rigorous scientific practices.

The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors).

Austrian National Parks

Impact is presented in a qualitative way, describing the benefits of nature conservation in the Austrian National Parks. All data presented in the impact report was derived from external sources (Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology). No individual or internal calculations were conducted.

Other (including Austrian Biodiversity Strategy, Biodiversity measures in the economy and the Austrian Forest Fund)

Impact is presented in a qualitative way. All data presented in the impact report were derived from external sources (responsible funding institutions). No individual or internal calculations were conducted.

The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors).





7.5 Environmentally sustainable management of living natural resources and land use

Austrian compensatory allowance for less-favoured areas

A mix of qualitative and quantitative impact information is presented for the programme.

The indicators "number of farms funded" as well as "area funded" under the Austrian compensatory allowance for less-favoured areas were obtained from the Federal Ministry of Agriculture, Forestry, Regions and Water Management. The selection of the impact information (qualitative and quantitative) for reporting was based on the most recent official scientific evaluation of the programme dating to 2019 (see chapter 9). Measures with the most significant positive impact on species diversity were selected.

All data presented in the impact report were derived from external sources (Federal Ministry of Agriculture, Forestry, Regions and Water Management). No individual or internal calculations were conducted. The information on impact from the programme is derived from the most recent scientific evaluation of the programme. The baseline situation is a scenario in which the funding programme would not have taken place in the area. In the scientific evaluation the benchmark used is agricultural land area that does not fall under the specific measures of the programme. The official evaluation of the funding programme is based on rigorous scientific practices.

The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors).

Austrian Forest Fund

Impact is presented in a qualitative way.

All data presented in the impact report were derived from external sources (responsible ministry). No individual or internal calculations were conducted.

The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors).

Other (including Circular Economy, Digitalisation, Green Chemistry) National co-funding for EU funded measures

Impact is presented in a qualitative way. All data presented in the impact report was derived from external sources (responsible funding institutions). No individual or internal calculations were conducted.

The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors).

7.6 Sustainable water and wastewater management

Drinking water supply, wastewater treatment and sewerage

The indicators were calculated on the basis of data provided by the responsible bodies and agencies involved in the operational processing of the funding. Moreover, selected data were taken from published reports (see chapter 9).

- A standardised collection of input data is carried out in the course of the project application and evaluation and a standardised national methodology is applied by the operational agency for the annual reportings according to the Environmental Subsidies Act of the Republic of Austria.
- Aggregated data were provided by the agencies responsible for processing the funding and
 by the responsible bodies (Ministries). The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Court of Auditors).





Estimates for indicators are based on real data for approved projects in the respective year. Since there is a time lag between the funding approved and the funding paid out, the impact of the funding paid out has been estimated based on the reported impact per EUR of funding approved for the same or comparable types of projects and infrastructures.

As a consequence of the time lag, the reported figures are not directly comparable to those of other publications addressing the respective funding instruments, in which impacts are usually reported with reference to the year of approval.

For the construction and renovation of water supply and wastewater treatment infrastructure it is, in general, possible to receive subsidies from more than one funding body. Thus, the impact figures are calculated only with regard to one funding instrument (Environmental Subsidy Act).

For funding according to the Municipal Investment Act 2023 (Kommunalinvestitionsgesetz 2023), no additional impact is reported, in order to avoid an overestimation of the impact.

The presented indicators refer to the enabled effects with regard to the overall investment volumes of supported projects.

In the current report, impact figures are only presented for the year 2023 referring to the proceeds allocated in this category.

Water ecology

For water ecology projects, only performance indicators are presented, since the ecological impact of the measures can only be quantified years after the projects' implementation and no robust assessment methodologies are available at the time of the preparation of the impact report.

The indicators were calculated on the basis of data provided by the responsible body and agency involved in the operational processing of the funding. Moreover, selected data were taken from published reports (see chapter 9).

A standardised collection of input data is done in the course of the project application and evaluation by the operational agency for the annual reportings according to the Environmental Subsidies Act of the Republic of Austria.

Aggregated data were provided by the agency responsible for the processing of the funding and by the responsible body (Ministry). The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Court of Auditors).

Estimates for indicators are based on real data for approved projects in the respective year. Since there is a time lag between the funding approved and the funding paid out, the impact of the funding paid out has been estimated based on the reported impact per EUR of funding approved for the same types or comparable types of projects and infrastructures. It is, in general, possible to receive subsidies from more than one funding body. Thus, the impact figures are calculated only with regard to one funding instrument (Environmental Subsidy Act).

As a consequence of the time lag, the reported figures are not directly comparable to other publications addressing the respective funding instruments, in which impacts are usually reported with reference to the year of approval.

The presented indicators refer to the enabled effects with regard to the overall investment volumes of the supported projects.

In the current report, impact figures are only presented for the year 2023, as in the current reporting period only proceeds for 2023 are allocated in this category.





7.7 Pollution prevention and control

Remediation of contaminated sites

Input data and indicators were partly taken from published reports of the Environment Agency Austria (Umweltbundesamt) and the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). Additional data and information were provided by experts of the responsible body and by the agency involved in the operational processing of the funding on an aggregated level.

- For remediation projects funded according to the Environmental Subsidy Act, data relating to the year of disbursement are available and captured by the processing agency.
- For remediation projects according to §18 of the Act on the Remediation of Contaminated Sites (Altlastensanierungsgesetz, ALSAG), data reporting is different up to now, which is the reason why different indicators are presented.

The indicators refer to the enabled effects with regard to the overall investment volumes of the supported projects.

Basis for the calculation:

- For the sub-category "Remediation of contaminated sites funding according to the Environmental Subsidy Act": A standardised collection of input data is done in the course of the project application and evaluation and a standardised national methodology is applied by the operational agency for the annual reportings according to the Environmental Subsidies Act of the Republic of Austria.
- For the sub-category "Remediation of contaminated sites: Initial & supplementary investigations, analysis, risk assessment, enforcement and processing": A standardised collection and calculation of input data is done by the responsible institution for the annual reporting on the status of the remediation of contaminated sites within the framework of the Austrian Act on the Remediation of Contaminated Sites (ALSAG).

For the sub-category "Remediation of contaminated sites – processing according to § 18
 ALSAG": A standardised collection of input data is done by the responsible body (Ministry)
 and by the processing agency.

Estimates are based on real data for approved projects in the respective year. Since there is a time lag between the funding approved and the funding paid out, the impact of the funding paid out has been estimated based on the reported impact per EUR of funding approved for the same types or comparable types of projects and infrastructure.

As a consequence of the time lag, the reported figures are not directly comparable to those of other publications addressing the respective funding instruments, in which impacts are usually reported with reference to the year of approval.

Aggregated data were provided by the agencies responsible for the processing of the funding and by the responsible body (Ministry). The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors).

7.8 Climate change adaptation

Climate Change Adaptation Model Regions

Input data and indicators were partly taken from published information of the Climate and Energy Fund, the Environment Agency Austria (EAA) and the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK). Additional data and information were provided by experts of the above mentioned institutions and by institutions involved in the operational processing of the funding on an aggregated level.

 A standardised collection of input data is done by the operational agency in the course of the project application and evaluation.





- The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/auditor, Parliament, Court of Auditors).
- The presented indicators refer to the enabled effects with regard to the overall investment volumes of the supported projects.

The analyses and the methodological approach were prepared specifically for the purpose of the Green Investor Report and cannot be applied one-to-one to those of other publications addressing the respective funding vehicles due to the different scope. As regards the KLAR! Regions, in 2024 only a part of the total eligible expenditures was allocated. However, the number of KLAR! Regions as well as the figures for municipalities, inhabitants and the area coverd was not scaled down, as the allocated share of the KLAR! subsidies is a key enabler and these regions would not exist without them.

Flood protection, torrent and avalanche control

Input data and indicators were partially sourced from published information by the Torrent and Avalanche Control (WLV) within the Federal Ministry of Agriculture, Forestry, Regions, and Water Management (BML). Further input data and indicators were obtained from published information by the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation, and Technology (BMK), including from the Federal Water Engineering Administration (BWV). Moreover, selected data were drawn from published reports (see Chapter 5.8) and the institutions responsible for the operational processing of funding provided additional aggregated data. The presented indicators are based on real data for approved projects in the respective year.

 A standardised collection of input data is done by the operational agency in the course of the project application and evaluation and a standardised national methodology is applied for the annual reportings for the funding according to the Austrian Water Construction Funding Act (Wasserbautenförderungsgesetz). The quality assurance of this data is based on a multi-stage approach, in which audits are carried out at specific intervals by a number of institutions (responsible funding institution, Ministry/Auditor, Parliament, Court of Auditors).

Estimates for indicators are based on real data for approved projects in the respective year. Since there is a time lag between the funding approved and the funding paid out, the impact of the funding paid out has been estimated based on the reported impact per Euro of funding approved for the same types or comparable types of projects and infrastructure. As a consequence of the time lag, the reported figures are not directly comparable to those of other publications addressing the respective funding instruments, in which impacts are usually reported with reference to the year of approval.

The presented indicators refer to the enabled effects with regard to the overall investment volumes of the supported projects.

7.9 Research, development and innovation

RDI project funding

As RDI projects have a key enabling function but do not have a direct environmental impact themselves, the number of funded projects is used as a performance indicator in this category. According to its main research purpose, each project was assigned to the appropriate UoP category. Input data for the categorisation of the allocated amounts according to the UoP categories of the Austrian Green Bond Framework were provided by the Austrian Research Promotion Agency (FFG) and Austria Wirtschaftsservice Gesellschaft mbH (aws), which are responsible for processing the funding on behalf of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), the Federal Ministry for Labour and Economy (BMAW), the Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML) and the Austrian Climate and Energy Fund and by the operational agency KPC, which in part is also responsible for processing the funding on behalf of the Austrian Climate and Energy Fund.





Since there is a time lag between the funding approved and the funding paid out, the number of projects co-financed by the funding paid out has been estimated based on the funding approved per sub-category. As a consequence, these figures are not directly comparable to those of other publications addressing the respective funding instruments due to the different scope.

Global budget for research infrastructures and fundamental research

Fundamental research activities and research infrastructures have a key enabling function and leveraging effect, but do not themselves have a direct environmental impact. Therefore, selected KPIs as published in the latest available "Intellectual capital report" (Wissensbilanz) are used as representative proxy figures.





8 Annex: Overview of Short-term Green financing instruments issued in 2024

| Green Financing Instrument | Name | Value date | Maturity date | Maturity in years | Issuance volume in EUR | Issuance volume in foreign currency | Form of issue | Outstanding at the end of the year |
|----------------------------|--------------------------------------------|-------------|---------------|----------------------|------------------------|-------------------------------------|---------------|------------------------------------|
| Green ATB | Austrian Treasury Bill 2024-05-23 (G) | 29-Feb-2024 | 23-May-2024 | 0.2 | 30,955,400.00 | | Bilateral | No |
| | Austrian Treasury Bill 2024-05-23 (G) | 18-Mar-2024 | 23-May-2024 | 0.2 | 150,000,000.00 | | Own Quota | No |
| | Austrian Treasury Bill 2024-08-29 (G) | 17-Jul-2024 | 29-Aug-2024 | 0.1 | 150,000,000.00 | | Own Quota | No |
| | Austrian Treasury Bill 2024-11-28 (G) | 29-Aug-2024 | 28-Nov-2024 | 0.3 | 7,822,400.00 | | Bilateral | No |
| | Austrian Treasury Bill 2024-11-28 (G) | 06-Sep-2024 | 28-Nov-2024 | 0.2 | 250,000,000.00 | | Auction | No |
| | Austrian Treasury Bill 2025-02-27 (G) | 28-Nov-2024 | 27-Feb-2025 | 0.3 | 279,242,000.00 | | Auction | Yes |
| | Austrian Treasury Bill 2025-03-27 (G) | 12-Dec-2024 | 27-Mar-2025 | 0.3 | 15,000,000.00 | | Bilateral | Yes |
| | Austrian Treasury Bill 2025-03-27 (G) | 13-Dec-2024 | 27-Mar-2025 | 0.3 | 535,000,000.00 | | Own Quota | Yes |
| | Total | | | | 1,418,019,800.00 | | | |
| | USD Austrian Commercial Paper 2024/7 (G) | 22-Jan-2024 | 05-Feb-2024 | 0.0 | 275,735,294.12 | 300,000,000.00 | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/23 (G) | 25-Jan-2024 | 25-Mar-2024 | 0.2 | 10,000,000.00 | | Bilateral | No |
| | USD Austrian Commercial Paper 2024/10 (G) | 05-Feb-2024 | 02-Apr-2024 | 0.2 | 323,295,769.44 | 350,000,000.00 | Bilateral | No |
| | USD Austrian Commercial Paper 2024/11 (G) | 05-Feb-2024 | 05-Apr-2024 | 0.2 | 277,854,959.71 | 300,000,000.00 | Bilateral | No |
| | USD Austrian Commercial Paper 2024/12 (G) | 05-Feb-2024 | 05-Apr-2024 | 0.2 | 92,635,479.39 | 100,000,000.00 | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/58 (G) | 22-Mar-2024 | 22-May-2024 | 0.2 | 50,000,000.00 | | Bilateral | No |
| Green ACP | EUR Austrian Commercial Paper 2024/59 (G) | 25-Mar-2024 | 25-Jun-2024 | 0.3 | 10,000,000.00 | | Bilateral | No |
| GreenACP | EUR Austrian Commercial Paper 2024/62 (G) | 28-Mar-2024 | 28-Jun-2024 | 0.3 | 60,000,000.00 | | Bilateral | No |
| | USD Austrian Commercial Paper 2024/23 (G) | 03-Apr-2024 | 03-May-2024 | 0.1 | 324,524,802.97 | 350,000,000.00 | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/66 (G) | 05-Apr-2024 | 05-Jul-2024 | 0.3 | 10,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/67 (G) | 09-Apr-2024 | 09-Jul-2024 | 0.3 | 50,000,000.00 | | Bilateral | No |
| | USD Austrian Commercial Paper 2024/27 (G) | 17-Apr-2024 | 02-May-2024 | 0.0 | 375,410,605.35 | 400,000,000.00 | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/90 (G) | 15-May-2024 | 15-Jul-2024 | 0.2 | 50,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/104 (G) | 23-May-2024 | 23-Aug-2024 | 0.3 | 10,000,000.00 | | Bilateral | No |





| Green Financing Instrument | Name | Value date | Maturity date | Maturity in years | Issuance volume in EUR | Issuance volume in foreign currency | Form of issue | Outstanding at the end of the year |
|----------------------------|--------------------------------------------|-------------|---------------|----------------------|------------------------|-------------------------------------|---------------|------------------------------------|
| | EUR Austrian Commercial Paper 2024/130 (G) | 27-Jun-2024 | 27-Sep-2024 | 0.3 | 10,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/137 (G) | 02-Jul-2024 | 02-Oct-2024 | 0.3 | 60,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/143 (G) | 12-Jul-2024 | 14-0ct-2024 | 0.3 | 50,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/145 (G) | 15-Jul-2024 | 16-Sep-2024 | 0.2 | 100,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/147 (G) | 17-Jul-2024 | 17-0ct-2024 | 0.3 | 10,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/155 (G) | 25-Jul-2024 | 25-Oct-2024 | 0.3 | 10,000,000.00 | | Bilateral | No |
| | USD Austrian Commercial Paper 2024/63 (G) | 19-Aug-2024 | 13-Sep-2024 | 0.1 | 22,677,793.90 | 25,000,000.00 | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/188 (G) | 28-Aug-2024 | 28-Nov-2024 | 0.3 | 10,000,000.00 | | Bilateral | No |
| Green ACP | EUR Austrian Commercial Paper 2024/211 (G) | 12-Sep-2024 | 12-Dec-2024 | 0.3 | 15,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/217 (G) | 16-Sep-2024 | 18-Nov-2024 | 0.2 | 100,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/221 (G) | 19-Sep-2024 | 19-Dec-2024 | 0.3 | 15,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/264 (G) | 24-0ct-2024 | 07-Nov-2024 | 0.0 | 10,000,000.00 | | Bilateral | No |
| | EUR Austrian Commercial Paper 2024/227 (G) | 02-0ct-2024 | 07-Jan-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/231 (G) | 07-0ct-2024 | 07-Jan-2025 | 0.3 | 60,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/259 (G) | 23-0ct-2024 | 23-Jan-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/273 (G) | 25-0ct-2024 | 27-Jan-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/284 (G) | 30-0ct-2024 | 30-Jan-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/293 (G) | 08-Nov-2024 | 10-Feb-2025 | 0.3 | 20,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/295 (G) | 11-Nov-2024 | 11-Feb-2025 | 0.3 | 15,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/302 (G) | 18-Nov-2024 | 18-Feb-2025 | 0.3 | 100,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/310 (G) | 28-Nov-2024 | 28-Feb-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/314 (G) | 02-Dec-2024 | 03-Mar-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | EUR Austrian Commercial Paper 2024/319 (G) | 16-Dec-2024 | 17-Mar-2025 | 0.3 | 10,000,000.00 | | Bilateral | Yes |
| | USD Austrian Commercial Paper 2024/105 (G) | 20-Dec-2024 | 15-Jan-2025 | 0.1 | 23,825,407.41 | 25,000,000.00 | Bilateral | Yes |
| | Total | | | | 2,620,960,112.29 | | | |





| Green Financing Instrument | Name | Value date | Maturity date | Maturity in years | ssuance volume in EUR Issuance volume foreign currence | | Outstanding at the end of the year |
|---------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------|---------------|-------------------|----------------------------------------------------------|-----------|------------------------------------|
| Green Deposits | Deposit (G) | 18-Jan-2024 | 19-Feb-2024 | 0.1 | 8,000,000.00 | Bilateral | No |
| | Deposit (G) | 21-Feb-2024 | 20-Mar-2024 | 0.1 | 8,000,000.00 | Bilateral | No |
| | Deposit (G) | 20-Mar-2024 | 20-Jun-2024 | 0.3 | 2,000,000.00 | Bilateral | No |
| | Deposit (G) | 22-Mar-2024 | 19-Apr-2024 | 0.1 | 8,000,000.00 | Bilateral | No |
| | Deposit (G) | 26-Mar-2024 | 26-Apr-2024 | 0.1 | 20,000,000.00 | Bilateral | No |
| | Deposit (G) | 09-Apr-2024 | 09-Jul-2024 | 0.3 | 1,000,000.00 | Bilateral | No |
| | Deposit (G) | 02-May-2024 | 02-Aug-2024 | 0.3 | 4,000,000.00 | Bilateral | No |
| | Deposit (G) | 10-May-2024 | 12-Aug-2024 | 0.3 | 2,000,000.00 | Bilateral | No |
| | Deposit (G) | 09-Aug-2024 | 09-Sep-2024 | 0.1 | 12,000,000.00 | Bilateral | No |
| | Deposit (G) | 13-Aug-2024 | 13-Sep-2024 | 0.1 | 2,000,000.00 | Bilateral | No |
| | Deposit (G) | 20-Aug-2024 | 20-Sep-2024 | 0.1 | 3,000,000.00 | Bilateral | No |
| | Deposit (G) | 22-Aug-2024 | 23-Sep-2024 | 0.1 | 4,000,000.00 | Bilateral | No |
| | Deposit (G) | 05-Sep-2024 | 04-0ct-2024 | 0.1 | 6,000,000.00 | Bilateral | No |
| | Deposit (G) | 10-Sep-2024 | 11-Oct-2024 | 0.1 | 3,000,000.00 | Bilateral | No |
| | Deposit (G) | 12-Sep-2024 | 14-Oct-2024 | 0.1 | 5,000,000.00 | Bilateral | No |
| | Deposit (G) | 12-Sep-2024 | 14-Oct-2024 | 0.1 | 5,000,000.00 | Bilateral | No |
| | Deposit (G) | 24-Sep-2024 | 20-Dec-2024 | 0.2 | 7,000,000.00 | Bilateral | No |
| | Deposit 2024/7 (G) | 07-0ct-2024 | 07-Jan-2025 | 0.3 | 6,000,000.00 | Bilateral | Yes |
| | Deposit 2024/11 (G) | 15-Oct-2024 | 15-Jan-2025 | 0.3 | 5,000,000.00 | Bilateral | Yes |
| | Deposit (G) | 15-Oct-2024 | 15-Nov-2024 | 0.1 | 5,000,000.00 | Bilateral | No |
| | Deposit 2024/15 (G) | 22-Nov-2024 | 21-Feb-2025 | 0.3 | 5,000,000.00 | Bilateral | Yes |
| | Deposit 2024/24 (G) | 05-Dec-2024 | 07-Jan-2025 | 0.1 | 6,000,000.00 | Bilateral | Yes |
| | Deposit 2024/27 (G) | 10-Dec-2024 | 10-Jan-2025 | 0.1 | 4,900,000.00 | Bilateral | Yes |
| | Deposit 2024/31 (G) | 12-Dec-2024 | 13-Jan-2025 | 0.1 | 5,000,000.00 | Bilateral | Yes |
| | Deposit 2024/38 (G) | 23-Dec-2024 | 23-Jan-2025 | 0.1 | 8,000,000.00 | Bilateral | Yes |
| | Total | | | | 144,900,000.00 | | |
| otal Short-term Green Financing Instruments issued (incl. rollovers and intra-year funding) | | | | | 4,183,879,912.29 | | |
| hereof rollovers and intra-year funding | | | | | 3,025,912,504.88 | | |
| Net new issuance of Short- | et new issuance of Short-term Green Financing Instruments | | | | 1,157,967,407.41 | | |





9 Annex: Literature on Impact Reporting

The following sources were used for the compilation of the section 5.1 Clean transportation:

- Umweltbundesamt (2024): Klimaschutzbericht 2024
- Federal Railway Act. Federal Law Gazette Nr. 825/1992
- ÖBB Holding AG (2024): Geschäftsbericht 2024. https://bericht.oebb.at/de/download
- ÖBB Holding AG (2023): Geschäftsbericht 2023
- BMK (2022): <u>Investitionsoffensive Privatbahninfrastruktur 9. MIP</u>.
 Eine Umsetzungsstrategie des Mobilitätsmasterplans 2030 für den Ausbau des ÖV.
- Schienen-Control (2018, 2023): Jahresbericht 2018 / 2023.
 https://www.schienencontrol.gv.at/de/publikationen.html
- Infas (2025): KlimaTicket-Report 2023 (not yet published)
- Klima- und Energiefonds (2024): Leitfaden klimaaktiv mobil 2024
- IRG-Rail (2025). 13th MM Report Working Document
- Magistatsabteilung 23 (2017): <u>Statistisches Jahrbuch der Stadt Wien 2017</u>

The following sources were used for the compilation of the section 5.2 Renewable energy:

- BMK (2024). Umweltinvestitionen des Bundes 2023
- BML (2023): Österreichischer Waldbericht 2023
- BMF (2023): Adapted Implementation Rules for the Municipal Investment Act 2023 (Adaptierte Durchführungsbestimmungen zum Kommunalinvestitionsgesetz 2023).
- BMK (2022): Investment Guidelines 2022 for Domestic Environmental Subsidies under the Environmental Subsidy Act (<u>Investitionsförderungsrichtlinien 2022 für die Umweltförderung im Inland nach Umweltförderungsgesetz</u>).
- BMK (2023): <u>Guidelines for subsidies under the Climate and Energy Fund Act</u>
- BMAW (2021): Subsidy Guideline for the COVID-19 Investment Bonus for Companies (Förderungsrichtlinie "COVID-19-Investitionsprämie für Unternehmen")

The following sources were used for the compilation of the section 5.3 Energy efficiency:

- BMK (2024): Federal Environmental Investments. Climate and Emvironmental Protection,
 Measures 2023
- BMF (2020): Implementation Rules for the Municipal Investment Act (Durchführungsbestimmungen zum KIG 2020)
- BMF (2023): Adapted Implementation Rules for the Municipal Investment Act 2023 (Adaptierte Durchführungsbestimmungen zum Kommunalinvestitionsgesetz 2023)
- BMK (2022): Investment Guidelines 2022 for Domestic Environmental Subsidies under the Environmental Subsidy Act (<u>Investitionsförderungsrichtlinien 2022 für die Umweltförderung im Inland nach Umweltförderungsgesetz</u>)
- BMK (2022): Supplement to the Investment Guidelines 2022 for Domestic Environmental Subsidies under the Environmental Subsidy Act (<u>Zusatz zu den Investitionsförderungs-richtlinien 2022 für die Umweltförderung im Inland nach Umweltförderungsgesetz</u>)
- BMK (2023): <u>Guidelines for subsidies under the Climate and Energy Fund Act</u> (Klima- und Energiefondsgesetz)
- BMAW (2021): Subsidy Guideline for the COVID-19 Investment Bonus for Companies (Förderungsrichtlinie "COVID-19-Investitionsprämie für Unternehmen")

The following sources were used for the compilation of the section 5.4 Terrestrial and aquatic biodiversity:

- Sonderrichtlinie für das Österreichische Programm zur Förderung einer umweltgerechten, extensiven und den natürlichen Lebensraum schützenden Landwirtschaft (ÖPUL 2015); 2022-0.061.025 (BMLRT/Agrarumweltprogramm (ÖPUL) 2015)
- Sonderrichtlinie für das Österreichische Programm zur Förderung einer umweltgerechten, extensiven und den natürlichen Lebensraum schützenden Landwirtschaft (Ö P U L 2023); 2024-0.489.174 (BML/Agrarumweltprogramm (ÖPUL)
- Sonderrichtlinie des Bundesministers für Land- und Forstwirtschaft, Regionen und Wasserwirtschaft zur Gewährung von Zahlungen für aus naturbedingten oder anderen spezifischen Gründen benachteiligte Gebiete; 2023-0.547.939 (BML/Ausgleichszulage (AZ) 2023)





- BAB (2019), Evaluierung des Osterreichischen Agrar-Umweltprogramms ÖPUL Nationaler
 Detailbericht 2019
- Umweltbundesamt Environment Agency Austria (2019), Zusammenfassende Bewertung der Auswirkungen des Programms LE 14-20 auf die Querschnittsthemen Umwelt und Klima, Endbericht 2019
- Holzer et al (2019), Bewertung der Wirkung relevanter LE Maßnahmen auf Heuschrecken und Tagfalter als Indikatorarten für Biodiversität

The following sources were used for the compilation of the section 5.5 Environmentally sustainable management of living natural resources and land use:

- Sonderrichtlinie für das Österreichische Programm zur Förderung einer umweltgerechten, extensiven und den natürlichen Lebensraum schützenden Landwirtschaft (ÖPUL 2023); 2022-0.061.025 (BMLRT/Agrarumweltprogramm (ÖPUL) 2015)
- Sonderrichtlinie des Bundesministers für Land- und Forstwirtschaft, Regionen und Wasserwirtschaft zur Gewährung von Zahlungen für aus naturbedingten oder anderen spezifischen Gründen benachteiligte Gebiete; 2023-0.547.939 (BML/Ausgleichszulage (AZ) 2023)
- BAB (2019), Evaluierung des Österreichischen Agrar-Umweltprogramms ÖPUL Nationaler Detailbericht 2019
- Umweltbundesamt (2019): Zusammenfassende Bewertung der Auswirkungen des Programms LE 14-20 auf die Querschnittsthemen Umwelt und Klima, Endbericht 2019
- Holzer et al (2019), Bewertung der Wirkung relevanter LE Maßnahmen auf Heuschrecken und Tagfalter als Indikatorarten für Biodiversität
- BMK (2024): <u>The Austrian Circular Economy Strategy Austria on the path to a sustainab-</u> le and circular society. <u>First progress report</u>
- BMK (2022): <u>Austria on the Path to a Sustainable and Circular Society The Austrian</u>
 <u>Circular Economy Strategy</u>
- BMK (2022), Biodiversitäts-Strategie Österreich 2030+

- Websites:
 - https://info.bml.gv.at/themen/wald/waldfonds.html
 - https://www.waldfonds.at/
 - https://www.bmk.gv.at/themen/klima_umwelt/abfall/Kreislaufwirtschaft/strategie.
 html
 - https://www.bmk.gv.at/themen/klima_umwelt/abfall/edm.html

The following sources were used for the compilation of the section 5.6 Sustainable water and wastewater management:

- BML Federal Ministry for Agriculture, Forestry, Regions and Water Management (2024):
 Facts and Figures 2024
- BML Federal Ministry for Agriculture, Forestry, Regions and Water Management (2023):
 Trinkwassersicherungsplan
- BML Federal Ministry for Agriculture, Forestry, Regions and Water Management (2024):
 <u>Umweltinvestitionen des Bundes Maßnahmen der Wasserwirtschaft 2023</u> [Federal environmental investments Water management measures 2023]
- Federal Ministry for Agriculture, Forestry, Regions and Water Management (2024):
 <u>Public sewer and water pipeline inventory</u> (only available in German)

The following sources were used for the compilation of the section 5.7 Pollution prevention and control:

- BMK (2024): <u>Federal Environmental Investment 2023</u>
 (Umweltinvestitionen des Bundes 2023)
- BMK (2023): <u>Förderungsrichtlinien 2016 für die Altlastensanierung oder sicherung</u>, in der Fassung von 2023
- Umweltbundesamt Environment Agency Austria (2025): <u>Verdachtsflächenkataster und</u> <u>Altlastenatlas</u>. ISBN 978-3-99004-803-0
- Umweltbundesamt Environment Agency Austria (2024): <u>Verdachtsflächenkataster und</u>
 <u>Altlastenatlas</u>. ISBN 978-3-99004-742-2





The following sources were used for the compilation of the section 5.8 Climate change adaptation:

- BMK (2024): <u>Hochwasserschutz</u> (Flood protection)
- BMK (2024): <u>The Austrian strategy for adaptation to climate change Part 1</u>; <u>Executive</u>
 <u>Summary in English</u>
- BMK (2024): <u>The Austrian strategy for adaptation to climate change Part 2</u>
- BML (2024): Wildbach- und Lawinenverbauung in Österreich [Torrent and Avalanche Control]. https://info.bml.gv.at/dam/jcr:c18b2bbe-cafd-4b21-970f-b4f8fc749c16/WLV_Wildbach_Broschuere_A4_BF.pdf
- BML (2024): <u>Umweltinvestitionen des Bundes Maßnahmen der Wasserwirtschaft 2023</u>
 [Federal environmental investments Water management measures 2023]
- BML (2018): Flood Risk Management in Austria Objectives Measures Good practice
- Klima- und Energiefonds (2024): <u>KLAR! Climate Change Adaptation Model Regions for</u> Austria!
- Klima- und Energiefonds (2024): Österreichischer Staatspreis für Klimawandelanpassung
 [Austrian State Prize for Climate Change Adaptation]
- Viadonau (2024): <u>Donauhochwasserschutz-Konkurrenz</u> [Danube Flood Protection]

The following sources were used for the compilation of the section 5.9 Research, development & innovation:

- Austrian Patent Office (2024): <u>Clean and sustainable investments from Austria. An Intellectual Property Perspective</u>
- Austrian Patent Office (2024): Grüne Patente: Österreich auf Platz 1 im Bereich Gebäude
- BOKU Univiersity (2025): Wissensbilanz 2024.
- Federal Government of the Republic of Austria (2022): RTI Pact 2024-2026
- FFG website, AI for Green call for application 2023
- Statistik Austria, Press Release (2025): Research intensity 2024





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