



The Austrian Circular Economy Strategy

Austria on the path to a sustainable and circular society

First progress report – June 2024

Legal notice

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Table of Contents

The most important points at a glance	7
Measures for the implementation of the circular economy strategy	8
1 From strategy to implementation	10
1.1 Principles of the circular economy	10
1.2 Quantitative targets	11
Target 1.1: Reduce material footprint to 7 tonnes per capita and year by 2050	11
Target 1.2: Reduce domestic material consumption to 14 tonnes per capita and	
year by 2030	12
Target 2: Increasing domestic resource productivity by 50 % by 2030	13
Target 3: Increasing the circularity rate to 18 % by 2030	13
Target 4: Reduction of the material consumption in private households by 10 $\%$	
by 2030	14
1.3 Fields of action	15
2 Governance	17
2.1 Planned projects according to the circular economy strategy	17
2.2 Previous implementation	17
2.2.1 Public governance	17
3 Monitoring	20
3.1 Planned projects pursuant to the circular economy strategy	20
3.2 Previous implementation	20
3.2.1 Progress report	20
3.2.2 Regular monitoring of the consumption-based material flows	20
3.2.3 Development of additional suitable indicators, consumption-based material	
footprint	21
3.2.4 Statistical entropy as an indicator for assessing material systems	22
4 Legal and regulatory framework conditions	23
4.1 Planned projects pursuant to the circular economy strategy	23
Removing legal obstacles	23
Creating space for experimentation	23
Further develop waste legislation	23
Co-design the Ecodesign legislative framework	
Develop norms and standards for the circular economy	24
Design a legal framework for the "sharing economy"	
Increase the use of secondary raw materials	24

4.2 Pre	vious implementation	25
4.2.1	Further develop waste legislation	25
4.2.2	P. Helping to shape the EU legal framework for the circular economy	26
4.2.3	B Develop norms and standards for the circular economy	29
4.2.4	Increase the use of secondary raw materials	29
5 Smar	t market incentives	30
5.1 Plar	nned projects pursuant to the circular economy strategy	30
Usin	g fiscal instruments	30
Expa	nding circular procurement	30
Exte	nded producer responsibility	31
5.2 Pre	vious implementation	31
5.2.1	Using fiscal instruments	31
5.2.2	2 Expand circular procurement	31
5.2.3	B Extended producer responsibility	32
6 Finan	cing and funding	33
6.1 Plar	nned projects pursuant to the circular economy strategy	33
Usin	g funds for the circular economy	33
Bala	nce market distortions	33
Strei	ngthening socioeconomic businesses in the circular economy	33
Expa	nd private financing	34
6.2 Pre	vious implementation	34
6.2.1	Using funds for the circular economy	34
6.2.2	Balance market distortions	36
6.2.3	Strengthening socioeconomic businesses in the circular economy	36
6.2.4	Expand private financing	36
7 Resea	arch, technology development and innovation	38
7.1 Plar	nned projects pursuant to the circular economy strategy	38
Appl	ied research – RTI focal point circular economy	38
Pron	notion of social science research and social investment	39
7.2 Pre	vious implementation	39
7.2.1	RTI focal point circular economy	39
7.2.2	RTI Initiative Circular Economy	40
7.2.3	Anchoring circular economy themes in existing theme-specific RTI initiatives	40
7.2.4	Establishment of the circular economy as interdisciplinary material	41
7.2.5	Initiating model projects, pilot and demonstration projects	41
7.2.6	Use of European funding programmes	42
7.2.7	Initiation of dissemination and networking activities	42

8 Digit	alisation	43
8.1 Pla	nned projects pursuant to the circular economy strategy	43
Dev	elop areas of application and design digitalisation to be circular	43
8.2 Pre	evious implementation	43
9 Infor	mation, knowledge and cooperation	45
	nned projects pursuant to the circular economy strategy	
	ngthen business competency	
	blishing the Circularity Lab Austria	
	nulating private demand	
	ermine the need for qualifications	
	grating the circular economy into the education system	
	noting cooperation	
	evious implementation	
	1 Strengthen business competency	
9.2.		
9.2.		
9.2.		
9.2.		
10	Transformation focal points	
	struction industry and infrastructure	
_	ificant starting points	
	s to concrete implementation activities	
	ility	
_	ificant starting points	
	s to concrete implementation activities	
	ics and packaging	
	ificant starting points	
	s to concrete implementation activities	
	ile industry	
_	ificant starting points	
	s to concrete implementation activities	
	rics/electronics, ICT	
	ificant starting points	
	s to concrete implementation activities	
	nass	
	ificant starting points	
Link	s to concrete implementation activities	62

7. Waste and secondary resources		
Signif	icant starting points	64
_	to concrete implementation activities	
11	Annex	66
11.1	Additional implementation activities in the central areas of intervention	66
Shapi	ng the transformation	66
Table of	Figures	69

The most important points at a glance

- The Austrian Circular Economy Strategy was developed under the management of the BMK and adopted by the Austrian Federal Government in December 2022. It forms the basis for the development and implementation of concrete actions for the transformation of the economy and society into a circular economy.
- The circular economy strategy focuses on six cross-sector and cross-industry, central areas of intervention and describes respective fields of activity and the next steps of implementation.
- In addition, seven transformation focal points are set forth: 1. Construction industry and infrastructure, 2. Mobility, 3. Plastics and packaging, 4. Textile industry, 5. ICT and electrical and electronic devices, 6. Biomass and 7. Waste and secondary resources.
- This first progress report describes the state of implementation of the projects named in the circular economy strategy based on available and provisioned information from the actors. In particular, the implementation activities in the seven transformation focal points do not claim to be exhaustive, but provide an example of the relevant guidelines, projects, initiatives and studies.
- The circular economy strategy defines four quantified medium and long-term targets to reduce consumption of resources. The timely development of the indicators overwhelmingly shows a positive development.
- For regular monitoring of the consumption-based material flows in Austria, Statistik
 Austria and Eurostat regularly measure indicators that also serve to manage the implementation of the circular economy strategy.

Measures for the implementation of the circular economy strategy

- As part of public governance, Federal Minster Gewessler and Federal Minister Kocher set up the Task Force Circular Economy, which is intended to support the implementation of the circular economy strategy as well as to develop a first proposal for recommended actions and setting of priorities for policy and administration.
- With the amendment to the Waste Management Act in December 2021, the EU
 Circular Economy Package 2018 and the EU Single-Use Plastics (SUP) Directive were
 transposed into national law. Through the increased use of end-of-waste regulations,
 easier access to secondary raw materials is to be created. The new version of the
 Waste Incineration Regulation commits to phosphorous recovery from communal
 wastewater and sewage sludge.
- The responsible ministries have cooperated actively in the ambitious design of the EU legal framework for the circular economy Numerous important regulations and directives for the implementation of the action plan for the circular economy have been adopted by the EU institutions in recent months.
- Since January 2021, repair services for bicycles, shoes, leather goods, clothing or household linen are subject to a discounted value added tax rate of 10 percent.
- On 23 June 2021, the Federal Government adopted the updated "Austrian Action Plan for Sustainable Public Procurement" (naBe action plan). There is currently work on integrating the requirements of the circular economy into the existing naBe criteria for structural and civil engineering, as well as into new criteria for servers and computing centres.
- For single-use beverage bottles made of plastic and cans, a deposit system will be introduced in Austria from 2025. This is intended to significantly increase the separate collection of empty containers and subsequently the recycling rate of packaging, particularly packaging made of plastic.
- To achieve a re-use quota of 25 % in 2025 and 30 % by 2030, the range of beverages in reusable packaging has gradually increased in food retailing since January 2024.
- With the amendment to the Environmental Subsidy Act, a distinct funding area for the circular economy was set up. In 2024, 41 million euros are available in defined areas for the four product categories of circular design and production processes, collection, re-use and refurbishment of textiles and recycling facilities.

- In April 2022, the Austria-wide repair bonus was introduced for electrical and electronic devices. More than 1 million vouchers have already been redeemed to date. Currently, over 3,900 partner companies are participating in the repair bonus programme. The budget for this will be a total of 130 million euros from the EU Recovery and Resilience Plan by 2026. To continue this, 74 million euros will be made available in the circular economy funding area from national resources.
- To date, there are 36.5 million euros available for three tenders for the RTI Initiative
 Circular Economy, launched in 2021. With this, 48 projects to improve existing
 technologies, systems and processes are being funded along the entire value creation
 cycle. The RTI initiative will be continued in 2024 with the call for tender on circular
 economy and production technologies.
- In spring 2023, the focus on "Circularity in the Climate Lab" was set up in the Climate Lab Vienna on behalf of the BMK as a networking and innovation site for the circular economy in Austria. Focus themes in recent months were circular mattresses, furniture and textiles, construction management and secondary raw materials.
- In February 2024, the "Circular Economy Help Desk" was set up at the Environment Agency Austria as the national contact point for enquiries related to the circular economy.
- The Circular Economy Forum Austria, founded in 2020 as a platform to promote the circular economy, supports companies, in particular, in the transformation into a circular economy and networks important actors.
- The five-day International Week of Resource Transition took place in Salzburg in May 2023. The central topic of "reduction of resource consumption through the circular economy and resource efficiency" was highlighted in many ways. The Fifth National Resource Forum on the subject of "Vision 2050. How we manage the resource transition" took place in parallel.
- On behalf of the BMK, the Environment Agency Austria organised three progress dialogues in the autumn of 2023 for the implementation of the circular economy with representatives from industry, federal states, regions and cities and NGOs

1 From strategy to implementation

The vision of the Federal Government is the transformation of the Austrian economy and society into a climate-neutral, sustainable circular economy by 2050.

In order to put this vision into practice and to put Austria on the path to a sustainable and circular society, the Austrian Circular Economy Strategy was developed, and adopted by the Austrian Federal Government in December 2022 under the leadership of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (BMK), together with numerous actors from industry, science, administration and civil society the Austrian Circular Economy Strategy¹ was developed and adopted by the Austrian Federal Government in December 2022.

In this, the following strategic targets have been defined:

- the comprehensive reduction of resource consumption and use of resources (sparing resources)
- the prevention of waste (zero waste)
- the prevention of environmental pollution by harmful substances (zero pollution)
- the reduction of greenhouse gas emissions (climate protection)

1.1 Principles of the circular economy

We need another way to handle our resources to reach these targets. To achieve this, the Austrian Circular Economy Strategy is based on the 10 principles of the circular economy (R-principles), which are ranked based on their importance for the circular economy. They are guiding principles in the definition of projects to implement the strategy.

¹ The Austrian Circular Economy Strategy is available here to download: bmk.gv.at/themen/klima umwelt/abfall/Kreislaufwirtschaft/strategie.html

Figure 1: The R-principles of the circular economy, ranked by priority

R1	Refuse	Make it superfluous
R2	Rethink	Rethinking and circular design
R3	Reduce	Reduce
R4	Reuse	Reuse
R5	Repair	Repair
R6	Refurbish	Improve, renew
R7	Remanufacture	Reprocess
R8	Repurpose	Use in a different way
R9	Recycle	Process and utilise materially
R10	Recover	Thermal recovery

1.2 Quantitative targets

In order to make the strategic targets measurable, the following quantitative targets have been set, which will be measured using the indicators available at the time:

Target 1.1: Reduce material footprint to 7 tonnes per capita and year by 2050

The material footprint (MF) is the consumption of domestic and imported primary raw materials minus the exports (= Domestic Material Consumption DMC) and the raw material requirement for the imported semi-finished and finished goods minus the respective exports (= Raw Material Consumption RMC) in Austria.

The base value indicated in the circular economy strategy for 2017 in Austria of 33 tonnes per capita originates from the UN IRP MFA Database. The material footprint for Austria is now calculated using a national tool, which was developed by BOKU (the University of Natural Resources and Life Sciences, Vienna)/SEC (Institute of Social Ecology). Using this, a base value of 23.6 tonnes per capita and year was calculated for 2017. The MF values from Statistik Austria are used for further target monitoring of the circular economy strategy, as shown here. No calculations or estimations are available yet for 2021 and 2022.

23,4 23,7 23,6 24,0 23,6 22,3

2020

Figure 2: Material footprint of Austria in tonnes per capita and year²

2017 2018 2019

2016

Target 1.2: Reduce domestic material consumption to 14 tonnes per capita and year by 2030.

Domestic material consumption is the consumption of domestic and imported primary raw materials minus the exports (= Domestic Material Consumption DMC).

In 2022, domestic material consumption was around 154 million tonnes in total within the fluctuation margin of recent years of plus/minus five percent. For 2022, material consumption per capita is around 17 tonnes per year, or 47 kilogrammes per day.

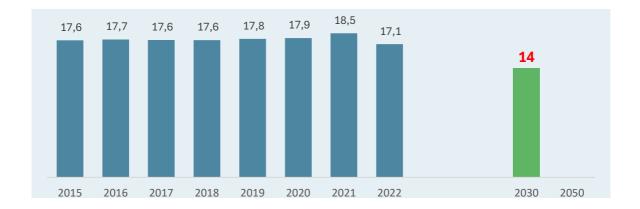


Figure 3: Domestic material consumption in tonnes per capita and year³

Page 12 of 72

 $^{^2\,} Source: \underline{statistik.at/statistiken/energie-und-umwelt/umwelt/materialflussrechnung}$

³ statistik.at/statistiken/energie-und-umwelt/umwelt/materialflussrechnung preliminary data for 2022

Target 2: Increasing domestic resource productivity by 50 % by 2030

Domestic resource productivity RP is the economic performance in euros measured by the gross domestic product (GDP) divided by the total material usage (DMC) in Austria. The reference year is 2015.

Resource productivity was 2,267 euros per tonne in the reference year 2015 and rose to 2,355 euros per tonne in 2019. In 2020, RP fell significantly to 2,184 euros per tonne, and the COVID-19 pandemic played a significant role in this. Even in 2022, resource productivity reached a new peak value of 2,464 euros per tonne.

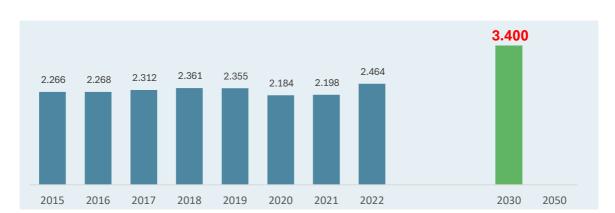


Figure 4: Domestic Resource Productivity in euros per tonne of material usage.⁴

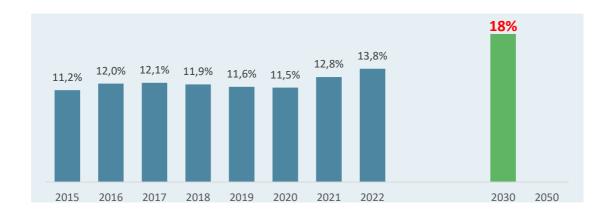
Target 3: Increasing the circularity rate to 18 % by 2030

The indicator for the circularity rate is the proportion of the recycled material in the entire material usage in Austria (Circular Material Use Rate, CMU).

The circularity rate based on the data from Eurostat indicates a value for Austria that has been rising since 2020. In 2022 it was (still estimated to be) 13.8 percent and thus significantly above the EU average of 11.5 percent. The front-runner is the Netherlands with 27.5 percent.

 $^{^4\ \}underline{statistik.at/statistiken/energie-und-umwelt/umwelt/materialflussrechnung}$

Figure 5: Circular usage rate of recyclable materials (CMU) in percentage of total material usage⁵



Target 4: Reduction of the material consumption in private households by 10 % by 2030

The material use caused by private consumption cannot currently be measured directly. The current indicator is the quantity of municipal waste in Austria divided by the total population.

The quantity of municipal waste rose significantly in 2020 statistically through a recent change in the definition of the term, so here there is a break in the time series. As a result, Austria has the highest quantity of municipal waste in the EU⁶. This break in the time series is also seen in the significant increase in recycling quantities. In 2022, Austria was at the forefront in Europe with 516 kg per capita (EU average 249 kg per capita)⁷. The recycling rate rose from 58 to 62 percent, putting Austria in second place behind Germany (2021). The EU average is almost 50 percent.⁸

Because the reference year for target 4 is defined as 2020, the reduction target is minus 10 percent, thus a new absolute target value for 2030 of 750 kg per capita per year.

⁵ ec.europa.eu/eurostat/databrowser/view/env ac cur/default/table, preliminary values for 2021 and 2022

⁶ ec.europa.eu/eurostat/web/products-eurostat-news/w/ddn-20240208-2

⁷ ec.europa.eu/eurostat/databrowser/view/env wasmun custom 9635096/default/table

⁸ de.euronews.com/green/2023/10/18/europa-welches-land-ist-recycling-meister

Figure 6: Quantity of municipal waste in kg per capita and year⁹.

The strong rise from 2019 to 2020 results from a changed definition of the term.



1.3 Fields of action

The fields of action in the Austrian Circular Economy Strategy are divided into:

- Governance
- Monitoring

six overarching, 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

and seven transformation focal points:

- 1. Construction industry and infrastructure
- 2. Mobility
- 3. Plastics and packaging

⁹ <u>ec.europa.eu/eurostat/databrowser/view/cei</u> <u>pc031/default/table?lang=de</u>

- 4. Textile industry
- 5. Electrical and electronic devices, information and communications technologies
- 6. Biomass
- 7. Waste and secondary resources

The relevant subject areas and implementation activities are described for all of these fields of action. This **progress report** is geared to the structure and content of the circular economy strategy. The activities listed there, and "next steps" are prepended to the individual chapters ("Planned projects pursuant to the circular economy strategy") and the activities and actions of the various actors assigned to it ("Previous implementation") if the respective information was available.

This progress report is not an evaluation of the implementation activities but shows the progress of implementation in 2023. The evaluation is first planned for 2027.

2 Governance

2.1 Planned projects according to the circular economy strategy

- Suitable public governance structures and processes for politics and administration should be quickly developed and implemented. The necessary cooperation of all regional authorities should be secured through appropriate task assignment.
- Establish "network governance" structures. For this, we need to network social actors who are active in the circular economy and combine forces. Consider various interests and priorities, enable consensus in respective processes.

2.2 Previous implementation

2.2.1 Public governance

The Task Force Circular Economy was set up in July 2023 by Federal Minister Leonore Gewessler and Federal Minister Martin Kocher in accordance with section 8 of the Federal Ministries Act. This advisory council will provide long-term support of the implementation of the circular economy strategy and drive it forward through recommendations for action and setting priorities for politics and administration.

Members of the task force are representatives from science (BOKU, MU Leoben, TU Wien, WU Wien), industry (VOEST, Greiner, Brantner, Rhomberg Bau), civil society (Re-Use Austria, Landjugend Österreich) and the ministries (BMK, BMAW, BML, BMBWF, BMSGPK). The chairperson of the task force is Karin Huber-Heim, Circular Economy Forum Austria.

The task force office (<u>taskforce.ce@bmk.gv.at</u>) is located at the BMK. There have been four prior meetings of the task force.

The task force recommends the following priorities and actions for implementation of the circular economy and bioeconomy strategy.

A. Legal framework

- Implementation of the EU Ecodesign Directive with the cooperation of industry, science and administration to accelerate the development of circular designed products optimised for return (Circular Design Principles).
- Increased use of end-of-waste directives and the enabling of cross-border use of secondary materials in production processes through increased European cooperation.

B. Smart market incentives

- Introduction of circular criteria for selected procurement groups
- Integration of circular economy criteria into relevant tenders from public clients and increased use of the possibilities of sections 20 and 23 of the Federal Procurement Act 2018 within the existing legal framework.
- Reviewing the introduction of expanded return systems for products (EPR) with ecomodulation to create targeted incentives for upstream design changes and optimising collection, sorting and logistics for reuse and recycling.

C. Financing and funding

- Support for circular technologies and the development of innovative value creation cycles as well as the transformation of linear to circular business models based on the 2023 amendment to the Environmental Protection Act.
- Reviewing the expansion of the nationwide repair bonus to further product groups in addition to electrical and electronic devices.
- Promotion of public-private partnerships for circular economy projects, in particular for investments in the area of the circular management of critical raw materials.
- Development and expansion of waste material exchanges to promote and accelerate
 the development of a market for secondary raw materials and products from reuse,
 refurbishing and remanufacturing.

D. Information, knowledge and cooperation

- Integration of circular economy topics in curricula at all educational levels.
- Promotion of vocational training and further education and adaptation of existing programmes for qualification for "circular & green jobs".

- Communication of the advantages and the necessity of a circular economy for the population and companies, and state commendation for companies who implement the exemplary, innovative circular economy practices.
- Strengthening of organisations and knowledge and competency networks for information design, transfer of knowledge, exchange of experience and cooperation to form new alliances, partnerships and cooperation for the circular economy and to realise circular innovation projects.

E. Monitoring and scientific principles

- Establishment of progress monitoring of the circular economy and bioeconomy within the framework of a data platform
- Continuing the Resource Use report for Austria and ascertainment of the availability of biogenic and secondary mineral raw materials.

Figure 7: The Task Force Circular Economy at the appointment by Federal Minister Leonore Gewessler and Federal Minister Martin Kocher



3 Monitoring

3.1 Planned projects pursuant to the circular economy strategy

- A suitable monitoring system should be developed and implemented as a central tool for governance.
- Determination of the evaluation and monitoring process (procedure, parties involved, time frame, resources) and its embedding in a suitable management loop for the implementation of the circular economy strategy.
- Comprehensive evaluation of the circular economy strategy every five years. Progress report on implementation every two years.
- Regular monitoring of the consumption-based material flows. Integrate "Resource Use in Austria" here.
- Development of additional suitable indicators, based on the "EU monitoring framework for the circular economy".
- Consumption-based material footprint (MF): Make further development of methodology and international database a priority.
- Develop and implement effect monitoring of the actions for the transformation focal points.
- Further develop the entropy indicator methodically and review applicability for the circular economy.

3.2 Previous implementation

3.2.1 Progress report

This report is the first progress report on the implementation of the circular economy strategy. A first comprehensive evaluation is planned for 2027.

3.2.2 Regular monitoring of the consumption-based material flows

The new report "Resource Use in Austria" under the leadership of the Institute of Social Ecology at BOKU will be published in June 2024, and provide a database, updated after

four years, based on a comprehensive literature search and the figures from Statistik Austria.

Statistik Austria regularly identifies indicators MF, DMC and RP and reports these to Eurostat. The data on waste quantities in Austria is collected by the Environment Agency Austria and documented no later than every six years in the Federal Waste Management Plan according to the Waste Management Act.¹⁰

Work is currently being carried out at the BMK on the further procedure with regard to the regular monitoring of the circular economy (indicator selection, processes, actors). Common monitoring for the implementation of the circular economy strategy and the bioeconomy strategy is planned for the future. A set of 10 to 15 suitable indicators will be designated in 2024, together with selected experts.

The website funded by the BMK materialflows.net is the official visualisation portal for the Global Material Flows Database of the UN International Resource Panel. The website provides access to international data on raw materials usage, explains the methods of material flow analysis and the use of indicators. In the "Circularity Viewer", the various indicators are explained using a schematic representation of the material flows of a country. The indicators can be viewed, depending on data availability, with a simple, interactive visualisation tool.

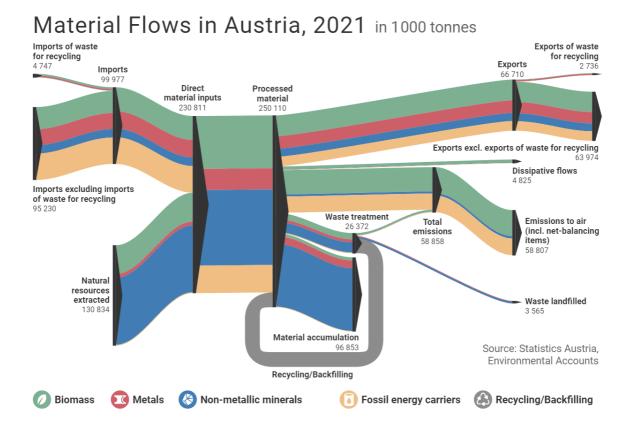
3.2.3 Development of additional suitable indicators, consumption-based material footprint

In a project co-financed by Eurostat¹¹, the material flows through Austria's economy were mapped (see Figure 8). This diagram provides the basis for the calculation of the "circular material use rate", an indicator of the EU monitoring framework for the circular economy and helps in the further development of the material footprint.

¹⁰ bmk.gv.at/themen/klima umwelt/abfall/aws/bundes awp/bawp2023.html

¹¹ kreislaufwirtschaft.statistik.at

Figure 8: Material flows through Austria's economy 2021 in 1000 tonnes



3.2.4 Statistical entropy as an indicator for assessing material systems

In the last two years, statistical entropy (SE) has continually been further developed, so that in addition to the consideration of a material (e.g. SE of the Austrian phosphorus balance), multiple material systems can now be mapped (e.g. SE of the substance and material distributions in a smartphone or building¹²). Statistical entropy analysis (SEA) can thus be used for the description of the material balance of an economy.

Page 22 of 72

¹² Roithner, C.; Cencic, O.; Honic, M.; Rechberger, H. Recyclability assessment at the building design stage based on statistical entropy: A case study on timber and concrete building", Resources, Conservation and Recycling, 184, 2022, 106407-106416, doi.org/10.1016/j.resconrec.2022.106407

4 Legal and regulatory framework conditions

4.1 Planned projects pursuant to the circular economy strategy

Removing legal obstacles

 Identification of potential barriers for the circular economy in the existing legal framework, demonstrating target conflicts between regulatory goals and development of organisational proposals in cooperation with politicians, authorities and companies.

Creating space for experimentation

 Identification and creation of necessary legal framework conditions that enable real testing of circular innovations and solutions within a defined framework ("regulatory sandboxes").

Further develop waste legislation

- Set criteria for end-of-waste.
- Further development of waste legislation to promote the use of secondary raw materials, nationally and across Europe. Strive for the reinforcement of the circular economy, perhaps within the framework of the planned review of the Waste Framework Directive.
- Development of a decision-making tool with which one can evaluate whether recycling or disposal is the better option in individual cases.

Co-design the Ecodesign legislative framework

Austria supports the legislative initiative on sustainable product policy, which was
presented by the Commission in 2022, and with other like-minded member states, will
advocate that the future regulation supports the transformation to the circular
economy with ambitious specifications.

Develop norms and standards for the circular economy

- Promotion of standardisation of the circular economy at national and international levels and using it for designing the framework conditions.
- Identification of present standards and technical rules in all segments that prevent circular solutions and relevant revision.
- Use of the standardisation to create uniform quality standards, including across sectors, for substances and materials.
- Develop recommendations for the implementation of the circular economy within the framework of the EMAS Regulation and other management system standards

Design a legal framework for the "sharing economy"

- Evaluation and, if necessary, revision of relevant legal provisions with regard to the establishment of the "sharing economy".
- Evaluation of previous experience, and positive and negative effects in sharing models.

Increase the use of secondary raw materials

- Development of quality criteria for secondary raw materials and their provisioning processes as well as clear requirements (for example: obligatory recycled content in the products) and regulations on their use.
- Establishment of target agreements for the amount of renewable or secondary raw
 materials in new products within the framework of industry agreements. If this cannot
 be achieved at a sufficient speed, these can also be legally stipulated in consideration
 of the respective European regulations.
- Improvement of the data situation on the future availability of secondary raw
 materials from local mining remains, biogenic residual materials and waste streams,
 as well as increased use of the information on the potential of secondary raw
 materials from electronic data management (EDM).
- Creation of guidelines for circular raw material management.

4.2 Previous implementation

4.2.1 Further develop waste legislation

Legal changes in Austrian waste legislation that are intended to support the circular economy have already been implemented, even before the adoption of the circular economy strategy.

With the **Waste Management Act amendment "Circular Economy Package"** ¹³ from December 2021, the EU Circular Economy Package 2018 and the EU Single-Use Plastics (SUP) Directive were published and transposed into national law. It includes recycling targets for municipal waste, obligatory re-use quotas for beverage packaging and the separate collection of textile waste from 2025.

In 2021, the Austrian Federal Government adopted the introduction of a deposit on singleuse beverage bottles made of plastic and cans with a filling volume between 0.1 and 3 litres in the amount of 25 cents, which will come into force on 01.01.2025.

Since January 2024, all final distributors of beverages in food retail are obligated to offer drinks in reuseable packaging in the categories of beer, water, juice, non-alcoholic soft drinks and milk. The goal is to achieve a re-use quota of 25 % in 2025 and 30 % by 2030. The involvement of all points of sale from a certain size will occur gradually by 2026.

The **Landfill Ordinance** was amended on 01.04.2021. It contains landfill prohibitions for certain waste flows (e.g. for the separately collected paper, metal, plastic, glass, organic and textile waste, for plaster, technical bulk material that can be recycled for use in concrete demolition and railway ballast).

Through the increased use of **end-of-waste regulations**, easier access to secondary raw materials is to be created. The End-of-waste Regulation for Excavated Soil which is currently being developed, is intended to facilitate the use of excavated soil. The regulation regarding end-of-waste of fire-resistant waste¹⁴ has already come into force.

¹³ ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20002086

¹⁴ ris.bka.gv.at/Dokumente/Begut/BEGUT E19A777F 670F 4870 8F06 A0C9A3BBBCE6/BEGUT E19A777F 670F 4870 8F06 A0C9A3BBBCE6.pdf

The regulation on the treatment of plaster waste and the manufacture and end-of-waste of recycling plaster is currently under public assessment (Recycling Plaster Regulation).

The new version of the Waste Incineration Regulation contains a fundamental obligation for the incineration of communal sewage sludge from wastewater treatment plants from 20,000 inhabitants and an obligation to recover phosphorous. The draft is currently in the final political review and should be decided upon in this legislative period.

The future sewage sludge management, with the goal of obligatory phosphorous recovery from communal wastewater and sewage sludge with extensive destruction or creation of reliable recesses for the harmful substances in the sewage sludge is regulated in the new version of the AVV (waste combustion regulation). ¹⁵ The recovery of phosphorous is important because phosphorous is a critical raw material. Overall, the new version of the Waste Incineration Regulation is intended to ensure that the status of thermal treatment of waste is an essential, integral part of the circular economy.

4.2.2 Helping to shape the EU legal framework for the circular economy

In the implementation of the Green Deal and the Circular Economy Action Plan, the European Commission has introduced a number of important legislative initiatives in this term of office that define the legal framework for the transformation to the circular economy. A significant part has already been adopted, some negotiations are completed and are awaiting final resolution until the EU elections in June.

Together with other EU member states, Austria has advocated for an ambitious design of the legal framework. Among the national concerns are that there must still be national design leeway, such as for measures related to energy and climate targets or for public procurement. In addition, in the creation of the ecodesign requirements, it must be particularly taken into consideration that the Austrian environmental seal can continue to be applied to products and future ecodesign labels must provide easy-to-understand information.

¹⁵ BMK (2023): Federal Waste Management Plan 2023.

The new version of the Ecodesign Regulation¹⁶ (Ecodesign for Sustainable Products Regulation – ESPR) defines the legal framework to design and produce products more sustainably. A preliminary political agreement about the final text was achieved in trialogue in December 2023. The formal resolution will be passed by the European Parliament and the European Council in April and May 2024. It comes into force after publication and will take effect after two years. The product group-specific implementation of the regulation will be carried out in the future mostly via delegated legal acts by the European Commission.

While the new Ecodesign Regulation targets product development and manufacture, the Right to Repair Directive¹⁷ addresses the post-sale phase and defines new obligations for the repair of products outside of the seller's warranty. The formal adoption of the resolution by the European Parliament took place in April 2024, and in May 2024 the Council voted it in.

The Directive on empowering consumers has already been adopted and became effective on 26.03.2024. It standardises comprehensive information obligations for sellers (e.g. warranty periods, shelf life, ability to be repaired, duration of software updates) that enable consumers to make sustainable purchasing decisions. Generalised, unproven environmental statements should be prohibited.

The environmental claims Directive (Green Claims Directive) sets out conditions for the admissibility of environmental claims on products and companies. The formal resolution by the European Parliament was passed in March 2024; the Council adopted a general direction on this on 17 June 2024.

With the Regulation on waste shipments the recycling and reuse of waste as a secondary material will simultaneously be facilitated and, at the same time, the export of hazardous waste, in particular, to third countries will be prohibited. It came into effect on 20 May 2024.

data.consilium.europa.eu/doc/document/ST-6461-2024-INIT/en/pdf

¹⁶ Trialogue compromise text 19.12.2023: consilium.europa.eu/media/69109/st16723-en23.pdf

¹⁷ Trialogue compromise text 14.02.2024:

The European Commission presented a proposal to amend the EU Waste Framework Directive¹⁸ on 5 July 2023. It contains comprehensive measures to implement the "EU Strategy for Sustainable and Circular Textiles", in particular for separate collection and reuse or recycling. In the area of food, the proposal concentrates on the prevention of food waste and the reduction of food wastes and standardises reduction targets by 2030. A recent joint proposal by Denmark, Sweden and France for an export ban on textile waste to third countries is supported by Austria.

In the course of the delegated legal act on the environment ("taxo4") ¹⁹ of the Taxonomy Regulation, technical criteria for the circular economy were defined at the end of 2023: of the total of 35 new activities in 8 sectors, 21 activities in 5 sectors involve the circular economy. For the integration of the new activities, the delegated legal act was adapted for disclosure, which obligates companies to disclose figures relevant to taxonomy.

Additional important EU legislative initiatives and amendments relevant to the circular economy are:

- EU Regulation on critical raw materials (Critical Raw Materials Act): adopted
- EU Supply Chain Act (Corporate Sustainability Due Diligence Directive, CSDDD), adopted
- EU Directive on sustainability reporting EU Corporate Sustainability Reporting
 Directive, CSRD, and delegated legal act, adopted
- EU Battery Regulation, adopted
- Net Zero Industry Act adopted
- EU Packaging and Packaging Waste Directive new version, trialogue agreement to follow
- EU Construction Products Regulation, CPR, adopted by the European Parliament, Council decision outstanding
- Regulation restricting synthetic polymer microparticles "microplastics" (REACH), 5
 new "Substances of Very High Concern (SVHCs)" added
- PFAS restriction proposal, in negotiation

¹⁸ Proposal for a Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste. COM (2023) 420 final. Brussels, 5.7.2023

¹⁹ <u>eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX:32023R2486</u>; queried on January 12, 2024.

4.2.3 Develop norms and standards for the circular economy

At the level of the International Organization for Standardization ISO, a new series of standards ISO 59000 is being developed for the circular economy. In Austria, the development of the standards is being accompanied by the ON Committee 157 Waste management of Austrian Standards. The ISO 59000 series is expected to comprise a total of seven standards that should be complete by autumn 2024. The following are already complete:

- ISO 59004 Vocabulary, principles and guidance for implementation
- ISO 59010 Guidance on the transition of business models and value networks
- ISO 59020 Measuring and assessing circularity performance
- ISO/TR 59032 Review of existing value networks

The OEGUT is currently working on an investigation of missing and inhibitory standards and on the identification of target conflicts for the area of electrical, electronic and ICT equipment.

4.2.4 Increase the use of secondary raw materials

In 2023, the technical preparation for the revision of the criteria of the National Action Plan for Sustainable Public Procurement (naBe) in structural and civil engineering was performed. With these criteria, the use of secondary raw materials in construction is to be increased (see also chapter 5.2.2).

5 Smart market incentives

5.1 Planned projects pursuant to the circular economy strategy

Using fiscal instruments

- Identification of market incentives for the promotion of the circular economy, in particular through the analysis of the effects of the existing system of taxes, charges and subsidies and the possibilities for restructuring.
- Review of the transferability of fiscal measures from climate protection to the circular economy.
- Use of the design possibilities within the framework of the EU VAT Directive (for example, for the relief of repair services or second-hand products).
- Identification and, where possible, removal of subsidies that counteract the transformation to a circular economy.

Expanding circular procurement

- The most complete data collection possible and evaluation of the quantitative development (such as purchase volume in relation to total volume, total, sector-specific) of the sustainable public procurement promoting innovation.
- Circularity-oriented evaluation and expansion of the naBe criteria in cooperation with comparable regional initiatives such as Ökokauf Vienna, NÖ timetable sustainable procurement and the eco-procurement service (ÖBS) of the Vorarlberg municipal association.
- Forced implementation of the Action Plan for Sustainable Public Procurement (naBe) in the Federal Government and, if possible, in all regional authorities, in particular in construction and infrastructure projects, residential construction and textiles.
- Explicit anchoring of the sustainability principle critical to the circular economy in an amendment to the Federal Procurement Act.
- Prioritising recycling materials and establishment of due diligence obligations in the procurement of raw materials.
- Initiation and support of initiatives for sustainable, circular procurement by companies.

- Expansion of the range of information and further education in the procurement sector in cooperation with training providers (e.g. Academy of Public Administration, WIFI/WKO, Vienna Vocational Training Institute/bfi).
- Strengthening the dialogue with innovative companies to increase the range of circular products and services.

Extended producer responsibility

- Testing the possibilities to strengthen, create and expand the extended producer responsibility (EPR), in particular the variable fee structure, new elements (e.g. limitation of content materials, recycling specifications, information obligations) and new types of products and waste.
- Austria supports a harmonisation of the EPR criteria at the EU level ("general minimum requirements").

5.2 Previous implementation

5.2.1 Using fiscal instruments

The design possibilities within the framework of the EU VAT Directive were used to reduce the value added tax on selected repair services. Since 1 January 2021, repair services (including improvement and changes) for bicycles, shoes, leather goods, clothing or household linen are subject to a discounted tax rate of 10 percent.²⁰ The effect of the measure has not yet been evaluated. The repair bonus is a complementary measure (see page 36).

5.2.2 Expand circular procurement

In June 2021, the Federal Government adopted the updated "Austrian Action Plan for Sustainable Public Procurement (naBe Action Plan), including naBe core criteria. It is binding for the Federal Administration, and recommended that state administrations,

The Austrian Circular Economy Strategy

²⁰ <u>bmf.gv.at/themen/steuern/fuer-unternehmen/umsatzsteuer/informationen/FAQ- %E2 %80 %93- %C3 %84nderung-der-Umsatzsteuers %C3 %A4tze-ab-1.1.2021-aufgrund-des-COVID-19-Steuerma %C3 %9Fnahmengesetzes.html</u>

cities and municipalities implement it within the framework of sustainable public procurement.

In 2023, the review process began to integrate the requirements of the circular economy into the existing naBe criteria for structural and civil engineering as well as into new criteria for servers and computing centres.

5.2.3 Extended producer responsibility

There is a market incentive in extended producer responsibility (such as for importers and commerce) for the environmental effects over the entire life cycle of the product and thus also the return, recycling and disposal of the product (extended producer responsibility, EPR).

Packaging has been subject to extended producer responsibility in Europe for many years, thus also in Austria. Companies must register with a licensed packaging collection and recycling system provider and pay licence fees for the recycling or disposal of the packaging. In the new version of the Packaging Regulation, which came into force on 1 January 2023, the EPR obligation was expanded.

A deposit system will be introduced in Austria from 2025 for single-use beverage bottles and cans. This is intended to significantly increase the separate collection of empty containers and subsequently the recycling rate of beverage containers, particularly those made of plastic.

Additional EPR systems currently exist in the EU for electrical and electronic devices, lamps, batteries and accumulators, vehicles and tyres. The proposal for the revision of the EU Waste Framework Directive provides for **extended producer responsibility for textiles**.

6 Financing and funding

6.1 Planned projects pursuant to the circular economy strategy

Using funds for the circular economy

- Development and implementation of a distinct funding area for the circular economy in the Environmental Subsidy Act. Expansion to non-facility related investments (product design, consultation programmes, awareness raising, etc., among others). No limitation of companies as funding recipients.
- Integration of the funding offers regarding the circular economy from the Recovery and Resilience Facility (RRF) or possible subsequent instruments in the circular economy funding area.
- Alignment of the funding offers of the Federal Government and states.
- Integration of specifications for the circular economy into other relevant funding (e.g. circular construction in housing subsidies).
- European analysis as to how resources from the European Structural and Investment
 Funds can be used to a greater extent for circular investments of Austrian companies
 and public authorities.

Balance market distortions

• Identification of funding options for bridging economic disadvantages in the market for circular products and business models.

Strengthening socioeconomic businesses in the circular economy

- Analysis of the current financing situation of socioeconomic businesses and the need for funding.
- Development of suitable funding models to expand business fields in the circular economy in socioeconomic businesses.

Expand private financing

- Broad involvement of the commercial banks in the financing of circular-oriented projects of their business customers (information, advice on investment plans, loans, etc.).
- Establishment of a working group "Circular Economy and Finance" to expand the knowledge of financial products and risk management in light of the circular economy with the financial service providers.
- Support of private investments in sustainable, circular business activities according to the EU Sustainable Finance Action Plan.
- Testing impact investment for circular projects.
- Expansion of the Green Finance Initiative to the circular economy.

6.2 Previous implementation

6.2.1 Using funds for the circular economy

The **Funding Compass Circular Economy** offers a current overview of funding offers for financing initiatives and actions to implement the circular economy. All information on regional, national and transnational funding, also in the areas of management consulting, training, business creation and financing of infrastructure projects can be found in the database. The data is updated once a year.²¹

With the amendment, which came into effect in December 2023, a distinct funding area for the circular economy was set up in the Environmental Subsidy Act (UFG). The first call for tender of concrete funding focal points in 2024 provides for the following 4 funding areas:

 Project category 1: Circular design: Investments within the context of the development and implementation of sustainable design and the configuration of production processes, products and product use in connection with the circular economy are funded.

²¹ nachhaltigwirtschaften.at/de/themen/kreislaufwirtschaft/foerderdatenbank

- Project category 2: Textiles and mattresses: Investments in connection with sustainable design, sustainable production, re-use and recycling of textiles, including mattresses, are funded.
- Project category 3: Facilities for material reclamation or recycling of plaster waste, mineral wool waste, wood ash, carbon fibres and fibreglass reinforced plastics are funded.
- Project category 4: Socioeconomic businesses (SOB): Reuse and repair projects are funded.

A total of 41 million euros of funds are available. Submissions are possible until 15 July 2024. Only implementation projects in Austria are eligible for funding.

Additional information: umweltfoerderung.at/betriebe/188

Across Austria, the subsidy scheme for land recycling is running from 2022 to 2025, which will also be integrated into the circular economy funding area. The target group for the funding is municipalities, in particular, but also private individuals and companies that strive for reuse of inactive areas in local areas. To date, 49 projects have been approved for a total funding amount of 2.24 million euros.

Since 4 April 2022, applications for funding of filling facilities for reusable beverage packaging, empty container return machines and sorting facilities can be made to the Kommunalkredit bank. The funding is part of the implementation of the Austrian Recovery and Resilience Plan 2020-2026 within the framework of NextGenerationEU and runs until 2026. A total of 170 million euros are available for this.²²

The collection and recycling systems that have been and are being developed within the ERP programmes are obligated to make available a share of the dispensation fees for the funding of waste prevention projects. Information on the current areas of funding and implemented projects are made available by the packaging coordination office²³ and the used electrical devices coordination office²⁴.

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²² bmk.gv.at/themen/klima umwelt/abfall/Kreislaufwirtschaft/foerderungen.html, queried on December 15, 2023. umweltfoerderung.at/betriebe

²³ vks-gmbh.at/abfallvermeidungs-foerderung/

²⁴ eak-austria.at/services/foerderprojekte

6.2.2 Balance market distortions

Repair is unattractive in a linear economy because it is usually very expensive compared to new purchases. As compensation, in April 2022 the Austria-wide repair bonus for electrical and electronic devices was introduced. The funding amount is 50 percent of the repair costs up to a maximum of 200 euros or 30 euros per cost estimate for private persons. Since its introduction, more than 1 million vouchers have already been redeemed, most of them for mobile phones, followed by dishwashers and washing machines. Currently, over 3,900 partner companies are participating in the repair bonus programme. The budget for this will be a total of 130 million euros from the EU Recovery and Resilience Plan by 2026. To continue this, 74 million euros will be made available in the circular economy funding area from national resources.²⁵

Cities and federal states have already funded repairs in the past, Graz from 2017, Upper Austria from 2018, Styria from 2019. Vienna introduced the Vienna repair voucher in October 2023 for items that are not included in the Austria-wide repair bonus, such as for furniture or bicycles. ²⁶

6.2.3 Strengthening socioeconomic businesses in the circular economy

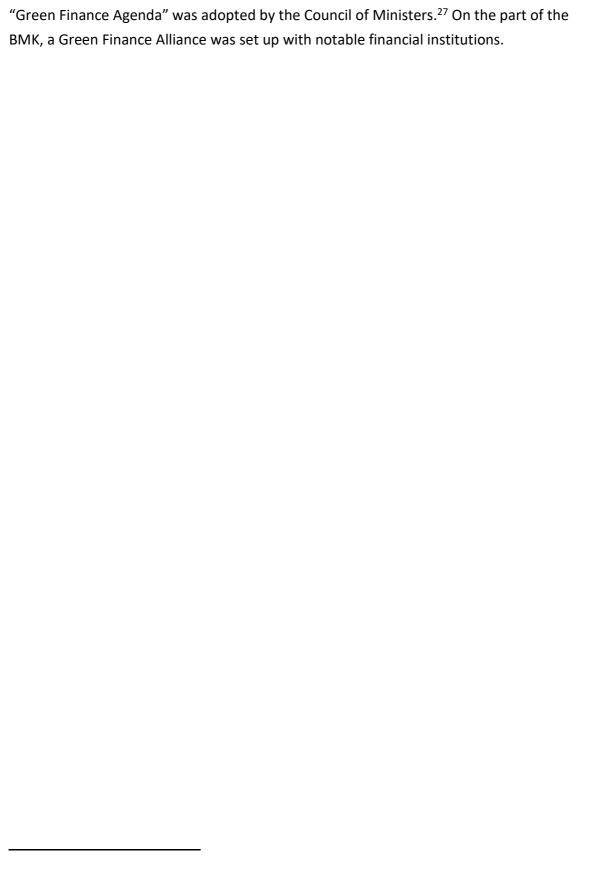
Socioeconomic businesses have an important function, especially in the areas of separate collection and sorting of special waste fractions (such as textiles). In the first funding call of the tender of the funding area circular economy in the Environmental Subsidy Act, the initiatives of the socioeconomic businesses were therefore especially supported.

6.2.4 Expand private financing

The Green Finance Agenda of the Republic of Austria therefore strives to attract private capital to climate-friendly and environmentally friendly investments. In addition to the achievement of the climate goals, this supports the transition to a sustainable, circular-based economy. The agenda includes proposed measures and recommended actions to redirect financial resource flows to achieve the climate goals. On 6 September 2023, the

²⁵ infothek.bmk.gv.at/reparaturbonus-seit-einfuehrung-bereits-840-000-bons-eingeloest/; accessed on 4 January 2024.

²⁶ wien.gv.at/umweltschutz/wienerreparaturbon.html, accessed on 9 April 2024.



²⁷ <u>bundeskanzleramt.gv.at/medien/ministerraete/ministerraete-seit-dezember-2021/68-mr-6-sept.html;</u> accessed on 15 December 2023

7 Research, technology development and innovation

7.1 Planned projects pursuant to the circular economy strategy

Applied research – RTI focal point circular economy

- Continuing the previously started RTI Initiative Circular Economy, which enables the
 innovative, application-oriented and cooperative research and development plans in
 interdisciplinary alignment through annual theme-specific calls for tender on central
 questions along the entire value creation cycle.
- Mobilisation, networking and inclusion of stakeholders and experts for the further development of the RTI focal point circular economy.
- Anchoring circular economy topics in existing theme-specific RTI initiatives, such as on production technologies, digital technologies, mobility and space technologies or the climate-neutral city.
- Establishment of the circular economy as interdisciplinary material in all RTI-relevant activities of the Federal Government, starting with internships to promote new talent to small and corporate projects to public procurement that promotes innovation.
- Initiation of model projects such as pilot and demonstration projects on particularly relevant topics (e.g. innovative use of CO2 captured from industrial processes as a secondary raw material (carbon capture and utilisation).
- Broader use of European RTI funding for the circular economy and bioeconomy through the provision of information on European funding programmes (such as Horizon Europe, Circular Bio-based Europe Joint Undertaking) and support of Austrian actors in project development and participation in European consortia.
- Initiation of dissemination and networking activities to create a comprehensive actor network and informing the interested public of current RTI activities.

Promotion of social science research and social investment

- Identification of the need for social science research in the area of the circular economy, and development and endowment of a corresponding research programme.
- Increased consideration of social innovations in promotion of investment.

7.2 Previous implementation

7.2.1 RTI focal point circular economy

Transformative innovation policy is first priority in the RTI focal point circular economy. The green and digital transformation to a circular-oriented society using research projects is supported over a range of topics and is impact-oriented.

Within the framework of a financing agreement between the Ministry for Climate Action (BMK) and the Austrian Research Promotion Agency (FFG), and also with resources from the stimulus package made available for research activities in the area of the circular economy.

Almost 19 million eurosfrom this agreement were distributed based on theme via the fundamentally open-theme (bottom-up) FFG General Programme, to then create an impetus for further projects relevant to the circular economy. This has led to additional projects with a funding amount of approximately 26 million euros (in addition to the theme-based 68.2 million EUR).

Nearly 50 million euros from the agreement were used in theme-focused (top-down) measures. In addition to the "RTI Initiative Circular Economy" as the central measure, some aspects of the circular economy are also anchored in other measures, such as a target in the call for tender on "Production and Material 2023", which has led to 11 projects with respective relevance.

Based on the RTI package 2024-2026 and using the revised Research Financing Act, an additional financing agreement 2024-2026 was concluded between the BMK and the FFG. For that period, approximately 92 million euros are available for RTI measures relevant to the circular economy, including for the national calls for tender on the circular economy and production technologies.

7.2.2 RTI Initiative Circular Economy

The RTI Initiative Circular Economy was begun in the spring of 2021 and addressed central questions along the entire value creation cycle in annual calls for tender. The development of new and the improvement of existing technologies, systems and processes of the technology readiness levels (TRL) 2-7 are funded. Within the framework of three calls for tender, up to and including 2023, a total of 36.5 million euros of funding was available. A total of 48 projects were financed.

From 2024, the topics of "circular economy" and "production and material" are consolidated. Thus, the national call for tender "Circular Economy and Production Technologies" becomes a central measure of the RTI focal point. A total of 19.8 million euros of funds are available in 2024.

7.2.3 Anchoring circular economy themes in existing theme-specific RTI initiatives

In the financing agreement in the RTI focal point circular economy, as described above, theme-focused (top-down) measures were set forth. In addition to the "RTI Initiative Circular Economy" as a central measure, aspects of the circular economy were also anchored in other measures.

For example, in the call for tender for Production and Material in 2023, aspects of the circular economy (in particular, a reduced use of resources) were explicitly promoted in the operative targets, which has led to 11 projects with respective relevance.

The Technologies and Innovations for Climate Neutral Cities tender in 2023 also displays a relation to the circular economy in the tender objectives (e.g. increasing the resource, material and energy efficiency, increase in the share of renewable energy sources and materials) as well as in the themes of the tender (such as circular construction resources and materials, circular construction in accommodation, reuse of components).

The Mobility and Aviation call for tender in 2023 is dedicated to the circular transformation in the mobility sector. With the title "Circular economy – Application of the principles of the circular economy and ecodesign in the mobility industries", 4.6 million euros were made available to cooperative research projects and innovation laboratories.

7.2.4 Establishment of the circular economy as interdisciplinary material

Within the framework of the RTI Initiative Circular Economy, with the "Green Chemistry" educational initiative, a cooperative R&D project with multiple dissertations was funded in 2023 in the amount of 1.5 million euros, which contribute to the strategic and operational targets of the tender as well as to the goals of the "Green Chemistry" educational initiative (providers: TU Wien, Uni Wien & BOKU).

In addition, in 2022 and 2023, a total of 1.5 million euros of funding for summer internships was made available to school pupils in pertinent companies, as well as 700,000 euros for the support of students for industry-related dissertations (at the interface between science and business as well as in cooperation with a company or an extramural research institution).

7.2.5 Initiating model projects, pilot and demonstration projects

The following projects have been initiated as model projects on particularly relevant topics of the circular economy to date:

- "circPLAST-mr²⁸" runs within the framework of the RTI Initiative Circular Economy and focuses on mechanical recycling of plastics to extract high-quality recyclates in line with specifications from waste plastics (launched: 2022).
- "KIRAMET²⁹: Al-based recycling of metal composite waste" is a model project at the intersection of "Production & Material", "Circular Economy" and "Al for Green" (launched: 2023).
- "Cycle management of construction materials and building components with AI support" took place as a joint tender of the "RTI Initiative Circular Economy" "AI for Green" and "Technologies and innovations for the climate-neutral city".
- The theme "Data Service Ecosystems for the Digital Product Passport" was tendered
 at the beginning of 2024. Within the framework of the project, the technical and
 organisational foundations for the Digital Product Passport will be developed in at
 least 2 use cases. The broadest implementation possible of the data exchange over
 the entire value-added chain is to be shown and missing services and new business
 models identified.

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²⁸ fti-ressou<u>rcenwende.at/de/projekte/kreislaufwirtschaft/circplast-mr-recycling-kunststoffe.php</u>

²⁹ projekte.ffg.at/projekt/4664131

7.2.6 Use of European funding programmes

In the ninth European research framework programme Horizon Europe, a total of 7.1 % of the projects were related to the circular economy since the start of the programme in 2021. This value is 10.1 % for projects with Austrian involvement. In this area, funds in the amount of 94 million euros for Austria were gained.

7.2.7 Initiation of dissemination and networking activities

All RTI activities are accessible to the interested public at <u>fti-ressourcenwende.at</u>. There you can find numerous reports on completed research projects and other publications, such as the brochures on the circular economy and production technologies³⁰.

Networking activities occur in particular within the framework of subject-specific public events. Announcements and reviews are also found at fti-ressourcenwende.at. Current information on this is distributed through the regular newsletter³¹.

For direct exchange, the group <u>Forschungsnetzwerk Ressourcenwende</u> was established on the social network <u>linkedIn.com</u>. It offers the possibility of sharing interesting and relevant information.

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 $^{^{30} \ \}underline{nachhaltigwirtschaften.at/de/publikationen/kreislaufwirtschaft-produktionstechnologien-2023.php}$

³¹ fti-ressourcenwende.at/de/newsletter/

8 Digitalisation

8.1 Planned projects pursuant to the circular economy strategy

Develop areas of application and design digitalisation to be circular

- Development of digital product passports for sustainable products that fall under the new Ecodesign Regulation. Implementation of pilot projects under consideration of the EU specifications in cooperation with the affected industries and companies.
- Development of guidelines for the circular, sustainable design of digitalisation and digital technologies.
- Identification and detailed assessment of digital key technologies and areas of application for the circular economy.

8.2 Previous implementation

In the study funded by the RTI Initiative Circular Economy "Digital key technologies for circular production", these were analysed, and described and classified via technology profiles. Building on this, the recommended actions for the public domain were derived, which drive forward the use of digital technologies for the circular economy.³²

The platform Industry 4.0 created the expert group "Circular-oriented production" in 2021. The focus of the meetings of the expert group is the dedicated exchange and discussion about the interface of Industry 4.0 and sustainability.

At the "Digital Product Passport – Framework, Use Cases and Challenges: event on 22 November 2023 that the Industry 4.0 platform held on behalf of the BMKin cooperation with the IEEE there was a comprehensive view of the digital product passport from various angles.

 $^{^{32} \ \}underline{nachhaltigwirtschaften.at/de/projekte/kreislaufwirtschaft/digitech4ce-digitale-schluesseltechnologien.php}$

The report published in October 2023 "DPP4ALL – A Digital Product Passport for All"³³ examines the technical, legal and organisational conditions for the realisation of a digital product passport (DPP) spanning products, industries and stakeholders. The goal was to derive knowledge and research questions to advance the subject and to give the BMK empirically based recommendations for the development of a publicly funded project tender.

SECONTRADE operates a B2B online commerce platform on which the secondary raw materials can be traded simply and transparently regionally, across Austria and in Europe. Since the end of 2022, biogenic residual materials, wood waste and construction waste have been available on the platform. Supply and demand of secondary raw materials are united digitally and in real time on the marketplace to convey raw materials where they are required and to promote rapid reuse of these resources. ³⁴

33 bmk.gv.at/en/topics/innovation/publications/A-Digital-Product-Passport.html

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³⁴ <u>secontrade.com/start</u>; accessed on 3 January 2024.

9 Information, knowledge and cooperation

9.1 Planned projects pursuant to the circular economy strategy

Strengthen business competency

- Implementation of a broad campaign for Austrian companies that provides information about the circular economy and motivates them to act, in cooperation with the federal states and social partners.
- Development of training and further education programmes for companies that impart circular knowledge, abilities and competencies, in particular seminars and workshops about ecodesign to support the development of new circular products, services and business models.
- Cooperation with existing national initiatives in the development and implementation of information, training and consultation offers for companies.
- Provision of consultation and support offers, in particular for SMEs and start-ups (such as using a consultation check), that want to take the next steps regarding the circular economy.
- Establishment of forums and "communities of practice" for exchange of knowledge
 and experience and to learn from each other in the company to gain new, practicerelevant knowledge of the circular economy and to share this with other companies.

Establishing the Circularity Lab Austria

Stimulating private demand

 Development and implementation of measures that promote sustainable consumer behaviour, based on behavioural economic approaches (such as nudging), expanding the range of information with circular aspects for consumers, (e.g. Austrian environmental seal, topprodukte.at, product testing by consumer organisations, digital product passports). Information campaign for mobilisation of unused consumer goods either for use by third parties or for recycling.

Determine the need for qualifications

• Analysis of the implications of the circular economy for the employment market and the need for qualifications to accelerate the transformation to the circular economy.

Integrating the circular economy into the education system

- Creation of an Austrian knowledge map for the circular economy.
- Provision of training for teachers in primary and secondary education.
- Thematisation of the circular economy in universities of applied sciences and universities, for example within the framework of the Alliance of Sustainable Universities and the Alliance of Sustainable Institutions of Higher Education.
- Establishment of a course of study on "Green Chemistry" by the University of Vienna,
 Vienna University of Technology and the University of Natural Resources and Life
 Sciences, Vienna, for the qualification for R&D for sustainable products, energy and
 technologies through (bio)chemical processes within the context of the circular
 economy.

Promoting cooperation

- Networking the relevant actors (persons and institutions) and establishing a "circular economy coalition" as a network of the circular designers for the support and further development of the Austrian Circular Economy Strategy.
- Increased integration of the circular economy in the waste management plans of the states and municipalities.
- Promotion of local and regional ecosystems of the circular economy.
- Creation and further development of flexible, creative forms of cooperation and institutions in which a variety of various actors work together (public-private partnership).
- Active use of existing international cooperation forums and development of national provision for international cooperation.
- Creation of a Central European cooperation area with the surrounding countries for systematic and strategic market development for circular products and services.

9.2 Previous implementation

9.2.1 Strengthen business competency

The Circular Economy Forum Austria was established in 2020 as a platform to promote the circular economy. The association supports companies, in particular, in the transformation into a circular economy and connects significant stakeholders. The forum initiates and promotes exchange and further development of knowledge, ideas and implementation possibilities among companies, politicians, science, research and design. As a part of a large international network, not only in Austria, but throughout Europe.

In February 2024, the "Circular Economy Help Desk"³⁵ was set up at the Environment Agency Austria as the national contact point for enquiries related to the circular economy. The target groups are citizens and entrepreneurs, local authorities, federal states and NGOs. In addition, the help desk will function as a platform to connect the actors.

In order to support municipalities regarding the circular economy, Resource Forum Austria developed a resource check for the circular economy in the municipality³⁶. It provides a low-threshold first set-up for the municipality and also provides information on the circular economy, good practice examples and recommended actions.

The Global Chemical Leasing Award³⁷ was presented for the fifth time in 2021 to support flagship projects and to improve the visibility of chemical leasing. Chemical leasing is a "product-as-a-service" model in which the chemicals (e.g. a solvent) are not sold, but rather offered as a service (e.g. cleaning services). The supplier assumes responsibility for the preparation or disposal of the chemicals used.

³⁶ ressourcenforum.at/gemeindecheck/

³⁵ kreislaufwirtschaft-helpdesk.at/

³⁷ <u>chemicalleasing.com/global-award-about-the-award/</u>

9.2.2 Establishing the Circularity Lab Austria

In spring 2023, the Climate Lab in Vienna was mandated by the BMK to establish the focal point "Circularity in the Climate Lab". The "Circularity Lab" uses the structures created in the Climate Lab as a networking and innovation site for the circular economy in Austria. It also represents the close link between the circular economy and climate neutrality.

In recent months, the focus has been on circular mattresses, furniture and textiles, as well as the construction industry and secondary raw materials. There have also been events in various formats to provide information, discussion as well as the links between stakeholders. A concrete result of this is the establishment of the "Austrian Mattress Alliance". The working focal point is also documented in the results report "Circular Mattresses". Fast fashion and textile recycling were the focus of the Textile Dialogues in 2023. They are being continued in 2024. In the construction industry, multi-stakeholder projects were initiated for training in the building sector (innovation programme "Anchoring the circular economy in training and further education in the building industry"), for circular construction materials and the reuse of excavation material and quarrying materials, as are created in tunnel construction, for example. A new area is circular office furniture.

9.2.3 Determine the need for qualifications

Within the scope of the "Just Transition Process" of the BMK, in January 2023 the Just Transition "Action plan for training and further education" was presented with concrete actions to promote green jobs in the heating and energy industries and to make acquiring new skills easier.³⁸

9.2.4 Integrating the circular economy into the education system

The **Austrian universities and extramural research institutions** are already conducting a number of projects on the subject of the circular economy. A collection of links on selected projects is found in the report "Research and development in environmental technology – actors and themes at Austria's universities and extramural research institutions" (see Figure 9, page 50).³⁹

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³⁸ bmk.gv.at/themen/klima umwelt/nachhaltigkeit/green jobs/just-transition.html

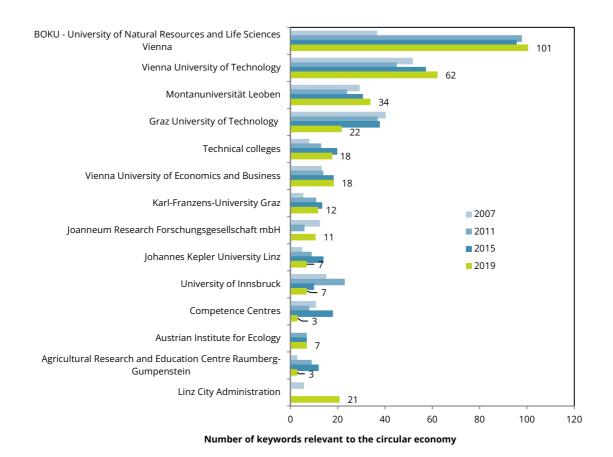
³⁹ <u>umweltbundesamt.at/fileadmin/site/publikationen/rep0825.pdf</u>; accessed on 2 January 2024

The trilateral master's programme "Green Chemistry" was developed from the "Green Chemistry" platform founded in 2020 in cooperation between the Vienna University of Technology, the University of Natural Resources and Life Sciences, Vienna, and the University of Vienna. The course in English has been offered since the winter semester of 2022.

9.2.5 Promoting cooperation

Bioeconomy Austria is a growing network made up of regions, clusters and platforms, the economy, research, politics and society. The goals are: exchange of knowledge, utilising synergies, creating circular flows as well as developing and implementing common projects along the value-added chains. The first focus is on wood as a raw material. In the next step, the network will be expanded to all renewable sources of raw materials in the bioeconomy. Bioeconomy Austria is a flagship project of the national bioeconomy strategy and is funded by the Austrian Forest Fund. bioeconomy-austria.at

Figure 9: Research institutions addressing environmental technology with a focus on the circular economy



The many cluster and network initiatives of the federal states⁴⁰ have taken up the circular economy as part of their focus, network the regional actors, organise events and initiate and support projects.

Re-Use Austria is the voluntary interest group of over 40 socioeconomic Re-Use operations with 175 Re-Use shops, the two regional repair networks with over 200 commercial repair service providers in Vienna and Graz and the over 100 civil repair initiatives with a total of over 200 repair café locations all over Austria.

Page 50 of 72

⁴⁰ bmaw.gv.at/Themen/Wirtschaftsstandort-Oesterreich/ClusterplattformOesterreich/ClusterNetzwerkeOesterreich/Cluster--und-NetzwerkInitiativen.html

On behalf of the BMK, the Environment Agency Austria organised three progress dialogues in the autumn of 2023 for the implementation of the circular economy with representatives from industry, federal states, regions and cities and NGOs. In this, the participants were informed about current legislative and strategic developments, implementation activities were brought to light, and there were discussions about opportunities, potentials, hindrances and hurdles on the path to the circular economy. Central interests of the participants are, for example, clear legal framework conditions, raising awareness at all levels and Austria-wide integration of all relevant actors along the value-added chain.

The five-day International Week of Resource Transition⁴¹ took place in Salzburg in May 2023. Questions of future nutrition, consumption and production patterns, lifestyles and residential styles and the employment market of the future were addressed by pioneers in lectures, discussions and presentations on the central topic "Reduction of resource consumption through the circular economy and resource efficiency". The Fifth National Resource Forum on the topic of "Vision 2050. How we manage the resource transition" also took place during that week.

The Brownfield Dialogue was begun by the BMK at the beginning of 2022. The goal of this initiative is to bring as many brownfield sites as possible back into use through various activities, to contribute to the reduction of demands on land area and to retain biologically active land.

brachflaechen-dialog.at

⁴¹ ressourcenwende.eu

10 Transformation focal points

The EU action plan for the circular economy, in place since 2020, focuses on nine key sectors that have the highest use of resources and a high potential for the circular economy: electronics and ICT, batteries and used batteries, packaging, plastics, textiles, the construction industry and buildings, waste reduction, secondary raw materials and shipments of waste.

Starting with these, the following seven transformation focal points are derived as relevant to Austria:

- 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

Links to diverse implementation activities in the individual transformation focal points are listed below, whereby there is no claim to completeness, but rather example guidelines, pilot projects, initiatives or studies are presented which are pioneering for the progress of the circular economy. Additions are welcome.

1. Construction industry and infrastructure

Significant starting points

- Preferred promotion of resource-conserving and circular construction methods
- Sustainable procurement in structural and civil engineering
- Extension of the duration of use of buildings and construction products
- Increase reuse, recycling and recovery

Projects and ActivitiesS	Link
naBe criteria for structural and civil engineering	nabe.gv.at/
Amendment to the Vienna Building Code (13 December 2023)	ris.bka.gv.at/Dokumente/LgblAuth/LGBLA WI 202 31213 37/LGBLA WI 20231213 37.html
"Salzburg Wohnbau" cooperative is working on a research project to "Increase the recycling quota of demolition material"	salzburg-wohnbau.at/zweites-leben-fuer-beton/
Study "Circular Building Industry"	bmk.gv.at/themen/klima_umwelt/abfall/Kreislauf wirtschaft/publikationen/bauen.html
Sample texts for service specifications of social urban mining by BauKarussell	baukarussell.at/services/
Innovation programme "Anchoring the circular economy in training and further education in the building industry"	climatelab.at/bericht-circularity-in-aus-und- weiterbildung-im-bausektor/
Vorarlberg Architecture Institute (VAI)	Vorarlberg Architecture Institute (v-a-i.at)
Wood Competence Centre: Wood K plus	Wood K plus (wood-kplus.at) wood-kplus.at/de
Christian Doppler Laboratory: Construction material from residual and waste materials	New CD Lab: Construction material from residual and waste materials (tugraz.at)
Database of free business premises in Graz	Home – Freie Lokale Graz (freielokale-graz.at)
Project Circular economy in the building industry in Vienna	viecycle.wien.gv.at/team
Saint Gobain Austria, Porr, Saubermacher: Plaster recycling	Circular economy on the advance – go-ahead for the first plaster-to-plaster recycling plant in Austria Saint-Gobain Austria

Projects and ActivitiesS	Link
EPS recycling: Project "EPSolutely" (recycling polystyrene)	EPSolutely – Epsolutely
Porr: Circular planning; sustainable building; timber construction; mineral fibre recycling, reuse of excavated soil	PORR Österreich – Building on the pulse of the times – porr.at
Tile recycling > roof substrates growing media	porr.at/medien/presseinformationen/presseinform ationen/presseinformation/news/schritt-fuer- schritt-zur-kreislaufwirtschaft/
Project: "'UP!crete " concrete recycling	UP!crete TU Wien
Austrotherm: XPS recycling service + EPS recycling	Austrotherm supports project for EPS & XPS recycling Austrotherm – Insulation materials, XPS, building slabs
Alchemia-Nova: Construction projects in Vienna with circular economy measures	alchemia-nova Institute for innovative phytochemistry & closed loop processes
Wopfinger: Recycled concrete from Vienna/for Vienna through increased reprocessing of construction waste	ECOCONCRETE-R - Wopfinger Transport Concrete
Carinthia Business Lunch: Sustainable building	respACT Carinthia Business Lunch
C&E Talk: Sustainability in the building industry	respACT Talk Climate & Energy: Sustainable building

2. Mobility

Significant starting points

- Efficient use of transport infrastructure and vehicles
- Increase resource efficiency and circularity of batteries
- Promoting mobility industries on the path to the circular economy

Projects and Activities	Link
Sharing strategy in the personal mobility industry	bmk.gv.at/themen/mobilitaet/alternative verkehrs konzepte/sharing strategie.html
Budget increase to implement the Mobility Master Plan, Cycling Master Plan" and the "Walking 2030" using klimaaktiv mobil	klimaaktivmobil.at
Electromobility funding for the purchase of electric vehicles	umweltfoerderung.at/e-mobilitaetsfoerderungen- 2024
EBIN funding programmes for emission-free buses	ffg.at/EBIN
and infrastructure and ENIN for emission-free commercial vehicles and infrastructure	ffg.at/ENIN
LADIN funding programme for charging infrastructure	ffg.at/LADIN
Evaluation of the ASFINAG road construction programme	bmk.gv.at/themen/verkehr/strasse/infrastruktur/projekte/evaluierung.html
Shifting waste transports from the road to the rails	bmk.gv.at/themen/klima umwelt/abfall/digitale- abfrageplattform.html
Austrian Automotive Transformation Platform (AATP)	aatp.at/
Database: Data Hub Tyrol	datahub.tirol Your regional data marketplace
Lightweight construction platform	Network of the networks for lightweight construction (biz-up.at)
Future Mobility Region Upper Austria	Future Mobility Region (automobil-cluster.at)
Saubermacher: Electric waste collection vehicles	First e-truck deployed at Saubermacher – Saubermacher
Saubermacher: Pilot project for digital solutions in collection logistics	Start of the "digi-Cycle" pilot project – Saubermacher

Projects and Activities	Link
AVL: Digital product passports; raw materials & recycling technologies	avl.com/de-at
Project: "Mobility in the 7-tonne future" by AG Rohstoffe	AG Rohstoffe – Fair and circular (ag-rohstoffe.at)
18th CSR DAY: Energy, mobility, sustainable construction	respACT – csrDAY

3. Plastics and packaging

Significant starting points

- Reduce volume of packaging and increase the proportion that is reusable
- Accelerate sustainable product design of plastic products and packaging
- Expand separate collection, modernise and adapt infrastructure for sorting and recycling of plastics and packaging
- Increase recycling and secondary raw material utilisation

Projects and Activities	Link
Road map for a model region for the plastic circular economy for the plastics cluster of Upper Austria	kunststoff-cluster.at
Research and test facility at the Digital Waste Research Lab of the University of Leoben	hitech.at/digitalisierung-bringt-turbo-fur-die- abfallwirtschaft/
circPLAST-mr research project	jku.at/linz-institute-of-technology/das- lit/mechanisches-recycling-von-kunststoffen- circplast-mr/
Introduction of deposits on single-use beverage bottles	bmk.gv.at/service/presse/gewessler/2022/202209 08 einwegpfand.html
Project Flex4loop: Commercial packaging	flex4loop (kunststoff-cluster.at)
Project EPSolutely: EPS recycling	EPSolutely – Epsolutely
Project Circ-Plast: Mechanical plastic recycling	Mechanical plastic recycling (circPLAST-mr) Linz Institute of Technology (jku.at)
Research factory: LIT Factory Linz Institute of Technology	LIT Factory JKU Linz
INTERREG Project: Circular Academy (Austria/Bavaria)	<u>Circular Academy</u>
Technology Road Map: Sustainable Plastics Solution	Sustainable Plastics Solutions – Technology Road Map – Final Report (cleantech-cluster.at)
Project Pack2theLoop	Pack2theLoop – FH Campus Vienna (fhcampuswien.ac.at) "fhcampuswien.ac.at/forschung/projekte-undaktivitaeten/pack2theloop.html"

Projects and Activities	Link
Borealis: Integrated recycling hub	Borealis advances the plastic circular economy with the first commercial Borcycle™ M facility for advanced mechanical recycling – Borealis (borealisgroup.com)
Borealis: Plastics from emissions	On presents the first shoe produced with CO emissions – Borealis (borealisgroup.com)
Borealis: Development of plastics that support monolayer packaging	Borealis and Borouge deliver monomaterial solutions for the most demanding consumer packaging uses – Borealis (borealisgroup.com)
Project STOP in Indonesia> Model for low-cost waste management as a raw material for recycling (ocean-bound plastic)	Project STOP Stop Waste. Go Circular. (stopoceanplastics.com)
Saubermacher: Renovation/adaptation of sorting facility	Home – Saubermacher Sustainable resource management
Reclay Group: Circulate easy: free determination of recyclability of packaging; cooperation with the plastics industry	Recyclability and packaging optimisation – Reclay Group (reclay-group.com)
RecycleMich: Incentivised collection of packaging with APP solutions	RecycleMich Together we can improve the recycling of plastic packaging, PET bottles and cans throughout Austria
Open Circularity Platform	Open Circularity Platform – About us K- Businesscom"k-business.com/ueber-uns/open- circularity-platform"
OÖ Initiative Circle	Circular Region Upper Austria (respact.at)

4. Textile industry

Significant starting points

- Sustainable production
- Sustainable consumption
- Public sustainable textile procurement
- Collection, sorting and textile recycling

Projects and Activities	Link
Textile dialogues on the subjects of: "Textile recycling - Closing the textile loop: simultaneous challenge and opportunity" and "From fast fashion to circular fashion" textile dialogue: EPR for textiles	climatelab.at/event/textildialog-des- klimaschutzministeriums/;climatelab.at/event/texti ldialog-des-klimaschutzministeriums-2/
	climatelab.at/textilkreislauf-finanzieren-mit-epr/
Josef Ressel Centre for recycling strategies for textiles (ReSTex) at the Biotech Campus Tulln	cdg.ac.at/forschungseinheiten/labor/verwertungss trategien-fuer-textilien
"Circular Mattresses" innovation programme	climatelab.at/ergebnisbericht-zirkulaere- matratzen/
Textile recycling pilot project of Lenzing, ARA, Salesianer Miettex, Caritas and Södra	textile-network.de/de/Technische- Textilien/Fasern-Garne/EU-Life-Foerderung-fuer- Projekt-von-Soedra-und-Lenzing
Carla Vorarlberg: Collection, sorting and recycling of textiles from one source	carla-vorarlberg.at: Carla Vorarlberg
Interreg project: Cradle-ALP	<u>Cradle-ALP – Alpine Space Programme (alpine-space.eu)"alpine-space.eu/project/cradle-alp/"</u>
Christian Doppler Laboratory for the recycling- based circular economy	CD-Lab Circular Economy TU Wien
Project: Seasonal rental model	Thinkubator Sustainability
Project Trendy: Reclamation of old textiles from kindergartens	International initiatives & projects – Reclay Austria (reclay-group.com)
biobase: Recycling workwear	Innovation platform for the bioeconomy circular economy (biobase.at)
Study: Sustainable fashion consumption in Austria (2023)	Studie Modekonsum in Oesterreich.pdf (arbeiterkammer.at)

5. Electrics/electronics, ICT

Significant starting points

- Extending product life
- Further development of consumption and business models
- Improve collection and recycling
- Creating citizen awareness

Projects and Activities	Link
Some 1.46 million repairs at Re-Use Austria	repanet.at/projekte-2/reparaturcafes initiativen/
Repair cafés and repair initiatives	repanet.at/projekte-2/reparaturcafes initiativen/
naBe: Proposal for new requirements for servers and computing centres	nabe.gv.at/
Increased repairs of electrical and electronic devices through repair bonus	umweltberatung.at/referenz-massnahmen-pro- reparatur
	form-faktor.at/pilotprojekt-refurbished- waschmaschinen-der-bsh
	elektro.at/2023/01/25/neu-bei-refurbed- runderneuerte-haushaltsgeraete/
	ots.at/presseaussendung/OTS_20230503_OTS0085 /refurbed-praesentiert-fraunhofer-studie-zum- fussabdruck-von-elektronikartikeln-anhaenge
	derstandard.at/story/3000000216937/zweites- leben-wie-viel-co2-bei-smartphone-und-co- eingespart-werden-kann
Interreg Central Europe: Circotronic	Increasing circularity in electronics production (interreg-central.eu)"interreg-central.eu/projects/circotronic/"
Refurbed: Commitment to regulatory changes	Refurbed Regulatory Update October – Part I"refurbed.at/a/regulatory-update-october/"
UFH: Marketing of own ReUse devices	<u>UFH – Number one in the disposal of electrical</u> <u>devices</u>

Projects and Activities	Link
Project: CE Strategist: Tool for business models	publik_282927.pdf (tuwien.ac.at)
Nespresso: Coffee machine reprocessing	Send back used coffee machines and receive a voucher (nespresso.com)
Study: Sustainability information on smartphones (Chamber of Labour & University of Natural Resources and Life Sciences, Vienna)	wien.arbeiterkammer.at/

6. Biomass

Significant starting points

- Create a data basis regarding the availability of biomass
- Pushing options for cascading use
- Avoid and reduce waste volumes
- Optimise logistics of raw and residual material supply

Projects and Activities	Link
BioBASE Compass of the innovation laboratory BioBASE GmbH	biobase.at/biobase-kompass/
Action programme "Food is precious!"	bmk.gv.at/themen/klima umwelt/abfall/abfallver meidung/publikationen/aktionsprogramm.html
"Food waste" explicitly included in the new curricula of primary and secondary schools	info.bml.gv.at/im- fokus/bildung/wissensangebote/Lebensmittel/kost bare lebensm.html
Travelling exhibition: "GewissensBISS" (Qualms of Conscience)	boku.ac.at/wau/abf/schwerpunktthemen/lebensmi ttel-im-abfall/gewissensbiss
Production and use of vegetable carbon for feed and as an auxiliary material	Regional production and diverse uses of vegetable carbon – Vulkanland
Food waste prevention in out-of-home catering: United Against Waste – "Nothing left to waste" action days	bmk.gv.at/themen/klima umwelt/abfall/abfallver meidung/lebensmittel/partner/aktionstage.html
Vienna: Activities to curb food waste	Food use and waste – 48th Waste Consulting of the City of Vienna
Project: Symbiorem	Symbiorem (cleantech-cluster.at)
Bioeconomy cluster	Bioeconomy Austria (bioeconomy-austria.at)
Model region for the bioeconomy & CE Styrian Vulkanland: Using subsidiary flows from food preparation regionally; exchange for renewable raw materials; regional protein supply	Model region for the bioeconomy & circular economy Styrian Vulkanland – Vulkanland
Pongau regional programme: A circular bioeconomy	KEM bioeconomy (pongau.org)
biobase: Material recycling of ashes from biomass combustion	Innovation platform for bioeconomy circular economy (biobase.at)

Projects and Activities	Link
Project: Mapping Food Streams and Identifying Potentials to Close the Food Cycle (CEFoodCycle, FH Salzburg + PLUS)	CEFoodCycle: Mapping Food Streams and Identifying Potentials to Close the Food Cycle Research in the department FH Salzburg (fhsalzburg.ac.at)
Austrian Forest Fund – Wood Initiative (M7, M9)	The Forest Fund – an initiative of the Federal Ministry of Agriculture, Forestry, Regions and Water Management

7. Waste and secondary resources

Significant starting points

- Increase supply and demand of reusable products, product parts and secondary raw materials
- Expand and modernise sorting and recycling facilities
- Support the exchange of information along the value-added chain of materials

Projects and Activities	Link
Guidelines for municipalities for the creation of regional waste prevention concepts	umweltbundesamt.at/fileadmin/site/publikationen/rep0838.pdf
AskREACH	askreach.eu/ scan4chem.at/
Plaster-to-plaster recycling facility	saint- gobain.at/presseaussendung/kreislaufwirtschaft- im-vormarsch-startschuss-fuer-das-erste-gips-zu- gips-recyclingwerk-oesterreich
Large-scale facility for thermal metal recovery	tbs.bernegger.at/wp- content/uploads/2022/03/20220304_Euwid_Berne gger-investiert-60-Mio-E-in-thermische-Anlage- fuer-Reste-aus-SLF-Aufbereitung.pdf
Voestalpine: Material recycling of material flows from production	Circular Economy – Sustainability @ voestalpine High Performance Metals
Saint Gobain Austria, Porr, Saubermacher: Plaster recycling	Circular economy on the advance – go-ahead for the first plaster-to-plaster recycling plant in Austria Saint-Gobain Austria
Baumit: Green gas from waste materials and residual materials	<u>Baumit</u>
Nespresso: Furniture in shops with coffee grounds	Machines, coffee capsules & accessories Nespresso online
Neuman Aluminium: "Saving" secondary aluminium from the waste bin	Neuman Aluminium website – Neuman Aluminium
Secontrade: Platform for secondary raw materials	Secontrade – Twice as good
Project: CEFoodCycle: Food recycling flow and Al	Optimisation of the circular economy through artificial intelligence – Paris Lodron University of Salzburg (plus.ac.at)

Projects and Activities	Link
PHOENIX 2024: Waste management prize for contributions to a future circular economy.	oewav.at/phoenix2024

11 Annex

11.1Additional implementation activities in the central areas of intervention

Shaping the transformation

Projects and Activities	Link
Kufstein University of Applied Sciences: Further education on the circular economy and bioeconomy	Environmental Services & Bioeconomy (elective)* – Business and Management (fh-kufstein.ac.at)
Circular Design Week Tyrol	<u>Circular Design Week Tyrol 2023 Standortagentur</u> <u>Tirol (standort-tirol.at)</u>
Climate, Energy, Circular Economy Platform Tyrol	CEC – Climate, Energy, Circular Economy Standortagentur Tirol (standort-tirol.at)
Vienna Tandler	Home – 48th Tandler (wien.gv.at)
Changemaker course Tyrol 2050	<u>Changemakers for Tyrol 2050 – TYROL 2050 energy</u> <u>autonomy</u>
Circular Hub Tyrol	<u>Circular Hub Tyrol Standortagentur Tirol</u> (standort-tirol.at)
Sustainable in Graz	Sustainable in Graz (nachhaltig-in-graz.at)
Workshop series in Tyrol: Transformation support on the circular economy for companies	<u>Transformation support Standortagentur Tirol</u> (standort-tirol.at)
UAR – Upper Austrian Research	Homepage – UAR Upper Austrian Research GmbH
datahub.tirol Use Case Circular Economy	datahub.tirol Your regional data marketplace
Marketplace for used articles: widado	WIDADO marketplace
Promotion of sustainability assistants of the State of Tyrol	Sustainability assistant State of Tyrol
Interreg project: Cheers4EU Circular Hubs for EU	About us – Hubs4Circularity (h4c-community.eu)
Alpenhanf 360° Recultivation of hemp in the Alpine region	standort-tirol.at/cluster/internationale- projekte/alpenhanf360
Tech to be (Tech2B) start-up incubator	tech2b The Incubator in Upper Austria – tech2b Inkubator GmbH

Innergy living laboratory: Innovation laboratory + lead projects for the energy transition in the Inn Valley	INNERGY – Living laboratory in the central Inn Valley for climate-neutral semi-urban areas – city of the future (nachhaltigwirtschaften.at)
Circular Economy Vorarlberg	Circular Economy Vorarlberg (CEV) – business location Vorarlberg (wisto.at)
Thinkubator: "Scherbenlos"> Circular wine bottle	Thinkubator Sustainability
Voestalpine: Sustainable Sourcing (tracing the supply chain and targeted supplier selection); certified CO2 footprint for products; reuse of scrap	Sustainable Sourcing @ voestalpine High Performance Metals
Alchemia-Nova: Project DIRECT HUBS: Circular economy hubs for secondary resource conversion in Vienna	DIRECT HUBS alchemia-nova
Circular Economy Forum: Circular Maturity Check; circular economy webinars; subject-based trips, etc.	Circular Economy Forum Austria – The forum for Austrian companies on the path to a regenerative circular economy
Borealis: Contribution to the United Nations Plastics Treaty	Borealis seizes the unique opportunity in the fight against plastic pollution – Borealis (borealisgroup.com)
TRIGOS award for responsible companies	Home – TRIGOS
OEGUT Environmental Award: Category for "World Without Waste"; category for "With RTI to the Circular Economy"	OEGUT Environmental Award (verwaltungspreis.gv.at)
Position papers and opinions on Green Claims Regulation, Ecodesign Regulation, supply chains, waste, CSRD and other EU processes; media and committee work	Achieving sustainability with the EU circular economy? Vienna Chamber of Labour
Study: Fashion consumption in Austria	Study: Modekonsum in Oesterreich.pdf (arbeiterkammer.at)
Circular Economy Forum: Workshops for companies for potential analysis + Circular Venture	Circular Economy Forum Austria – The forum for Austrian companies on the path to a regenerative circular economy
Circular Economy Forum Austria: Transfer of knowledge via online webinars & roundtables; deep dives for companies; travel of the future; publication of Circular Insider magazine; training and further education programmes with Standortagentur Tirol and Vienna	Circular Economy Forum Austria – The forum for Austrian companies on the path to a regenerative circular economy
Circular Economy Forum: Digital ecosystem mapping for the circular economy & Circular Economy Compass for SMEs (with RFA and TU Wien)	Circular Economy Forum Austria – The forum for Austrian companies on the path to a regenerative circular economy

Study: Circular Design Rules	<u>Design Revolution Now! – Circular Economy Forum</u> <u>Austria</u>
respACT: Workshops; webinars; factsheets on the circular economy & on sustainability reports; respACT Talk: Sustainable supply chain management	respACT – Austria's leading corporate platform for CSR
respACT & CEFA: Circular Jobs events	respACT Circular Jobs events (respact.at)
Environmental Umbrella Association: Dialogue on the circular economy in connection with the Green Deal (focus: textile fibres; construction sector; packaging; policy)	<u>Dialogue on the circular economy in connection</u> <u>with the Green Deal (umweltdachverband.at)</u>
Association: Growth in Transition	Growth in Transition (wiwoe.at)
Global 2000: European Supply Chain Act	Supply Chain Act GLOBAL 2000
Resource Forum Austria: Resource check for the circular economy and resource efficiency in municipalities	Municipality Check – Resource Forum Austria
Resource Forum Austria: National resource forum (inter) national conference on the topics of the circular economy and resource efficiency	ressourcenforum.at/nachbericht-fuenftes- nationales-ressourcenforum/
Project: RessourcenRegionEUREGIO+: Webinar series on the range of topics of resources and the circular economy for municipalities	ressourcenforum.at/ressourcenregioneuregio/
Project: Re-Use: Re-gional 2.0: Network and platform development to increase awareness of regional reuse	ressourcenforum.at/projekt-re-usere-gional-2-0/

Table of Figures

Figure 1: The R-principles of the circular economy, ranked by priority	11
Figure 2: Material footprint of Austria in tonnes per capita and year	12
Figure 3: Domestic material consumption in tonnes per capita and year	12
Figure 4: Domestic Resource Productivity in euros per tonne of material usage	13
Figure 5: Circular usage rate of recyclable materials (CMU) in percentage of total	
material usage	14
Figure 6: Quantity of municipal waste in kg per capita and year. The strong rise from 2	2019
to 2020 results from a changed definition of the term.	15
Figure 7: The Task Force Circular Economy at the appointment by Federal Minister	
Leonore Gewessler and Federal Minister Martin Kocher	19
Figure 8: Material flows through Austria's economy 2021 in 1000 tonnes	22
Figure 9: Research institutions addressing environmental technology with a focus on t	:he
circular economy	50

