

2011 Survey of resource efficiency policies in EEA member and cooperating countries

COUNTRY PROFILE:

Austria



Country information on resource efficiency policies,
instruments, objectives, targets and indicators,
institutional setup and information needs

May 2011

This country profile is based on the information provided by Mr. Hubert Reisinger from the Austrian Eionet National Reference Centre for SCP including resource use. The information is current as of April 2011.

This country profile was prepared as part of the EEA-ETC/SCP 2011 survey of resource efficiency policies, which aims to collect, analyze and disseminate information about national experience in the development and implementation of resource efficiency policies in EEA member and collaborating countries. The work resulted in the following outcomes:

- **Short 'country profiles' (this document)** - self assessments prepared by countries, describing the current status of resource efficiency policies, including key strategies and action plans, policy objectives, instruments, targets and indicators used, institutional setup and information needs.
- **Summary report** - prepared by the EEA and ETC/SCP, the report reflects on trends, similarities and differences in policy responses, showcases selected policy initiatives from member countries and identifies information needs and knowledge gaps
- A session on resource efficiency policies during the 2011 EIONET workshop to discuss further needs and to facilitate information sharing and experience exchange among EIONET members.

More information about resource efficiency policies, including an analytical report "Resource efficiency in Europe" and thirty one country profiles, can be found at:

<http://www.eea.europa.eu/resource-efficiency>

1. Resource use in Austria – facts and figures

1.1 General facts and figures about the country



Source:
<https://www.cia.gov/library/publications/the-world-factbook/index.html>

Population (projected inhabitants for 2010) [1]	8,375,290
➤ Percent of total EEA-32	1.43%
Surface area (km ²) [2]	83,879
➤ Percent of total EEA-32	1.48%
GDP at market prices – Purchasing Power Standard – Current Prices (Million Euro, 2009) [3]	244,656
➤ Percent of total EEA-32 (minus Liechtenstein)	1.88%
GDP per capita in Purchasing Power Standards (PPS) [4] EU27=100 (2009)	124
Urban population (rate of pop., 2009) [5]	67.4%
Main economic sectors and their share in total GDP (2009 est.) [2]	
Agriculture	1.5%
Industry	29.4%
Services	69.1%
EU accession date [6]	1.1.1995

Additional relevant background information on Austria (and on 37 other EEA member and cooperating countries) can be found at the SOER2010 website:

<http://www.eea.europa.eu/soer/countries/at>

Factsheet on national waste policies for Austria is available at:

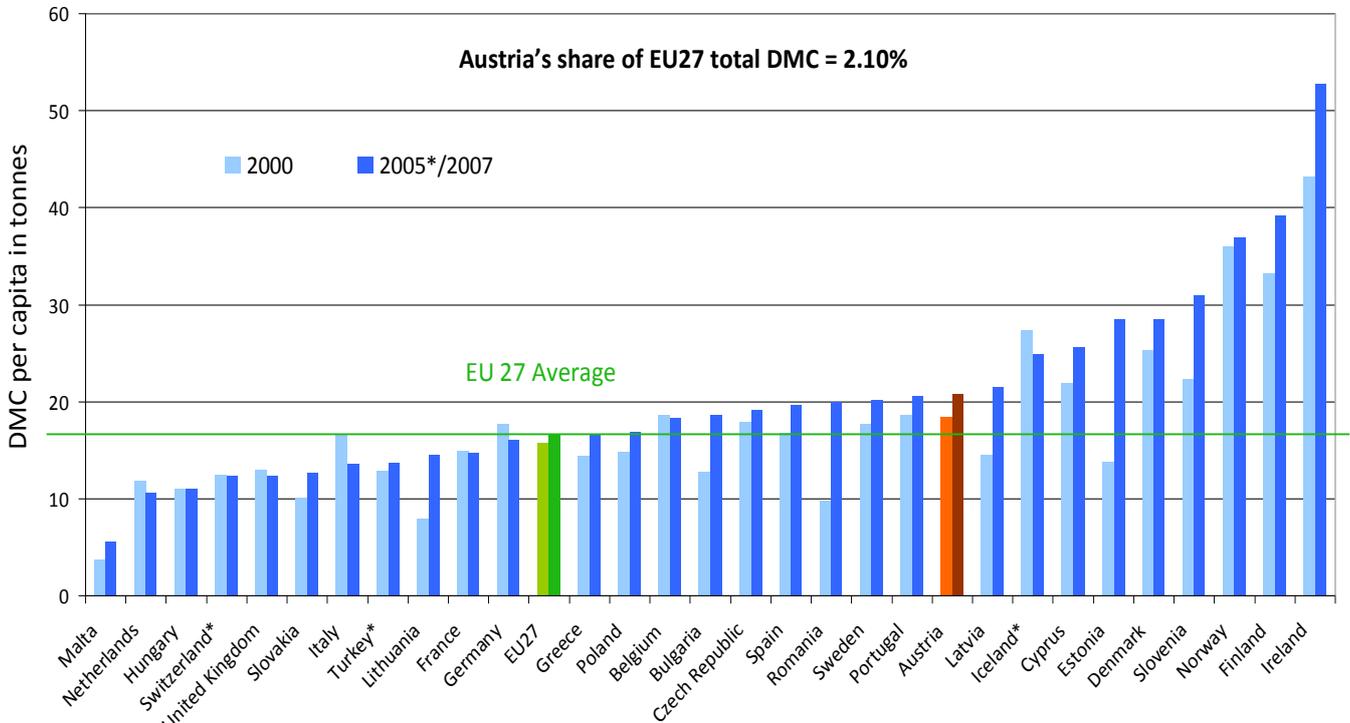
http://scp.eionet.europa.eu/facts/factsheets_waste/2009_edition/factsheet?country=AT

Factsheet on national sustainable consumption and production policies for Austria is available at:

http://scp.eionet.europa.eu/facts/factsheets_scp/austria

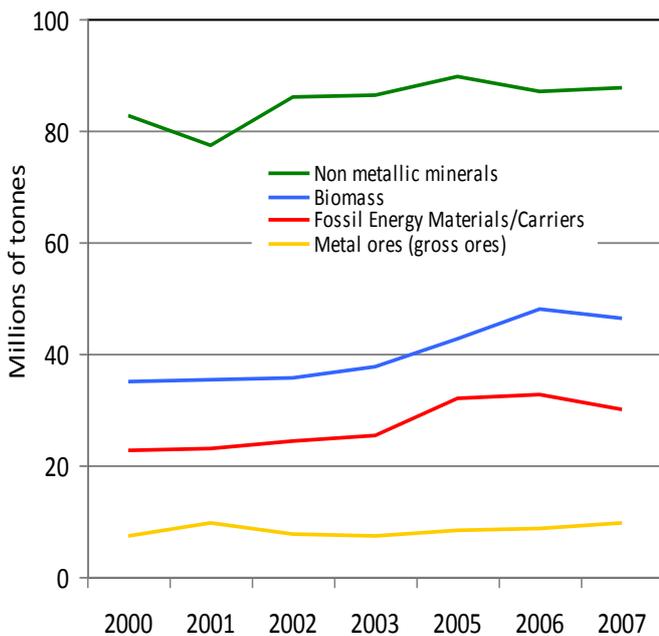
1.2 Facts and figures on resource efficiency for Austria

Use of resources per capita 2000 and 2007 [tonnes DMC/capita]



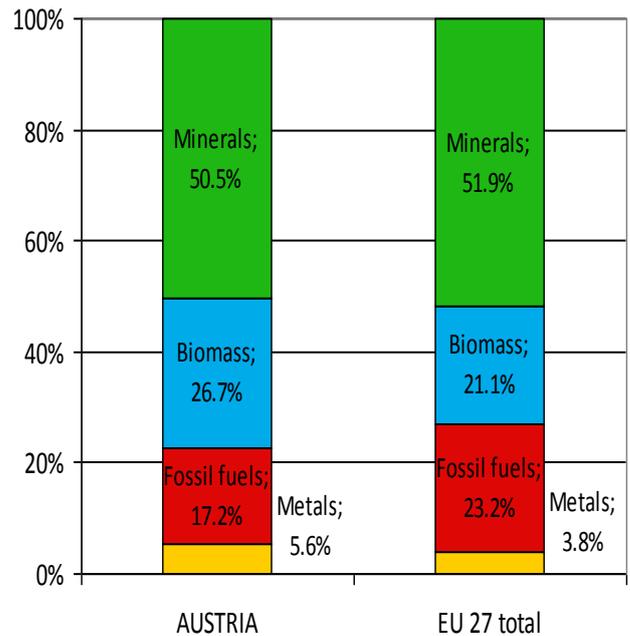
Source: Eurostat, OECD and Total Economy Database [7] * = For these countries data is for 2000 and 2005.

Domestic Material Consumption by category over time, Austria



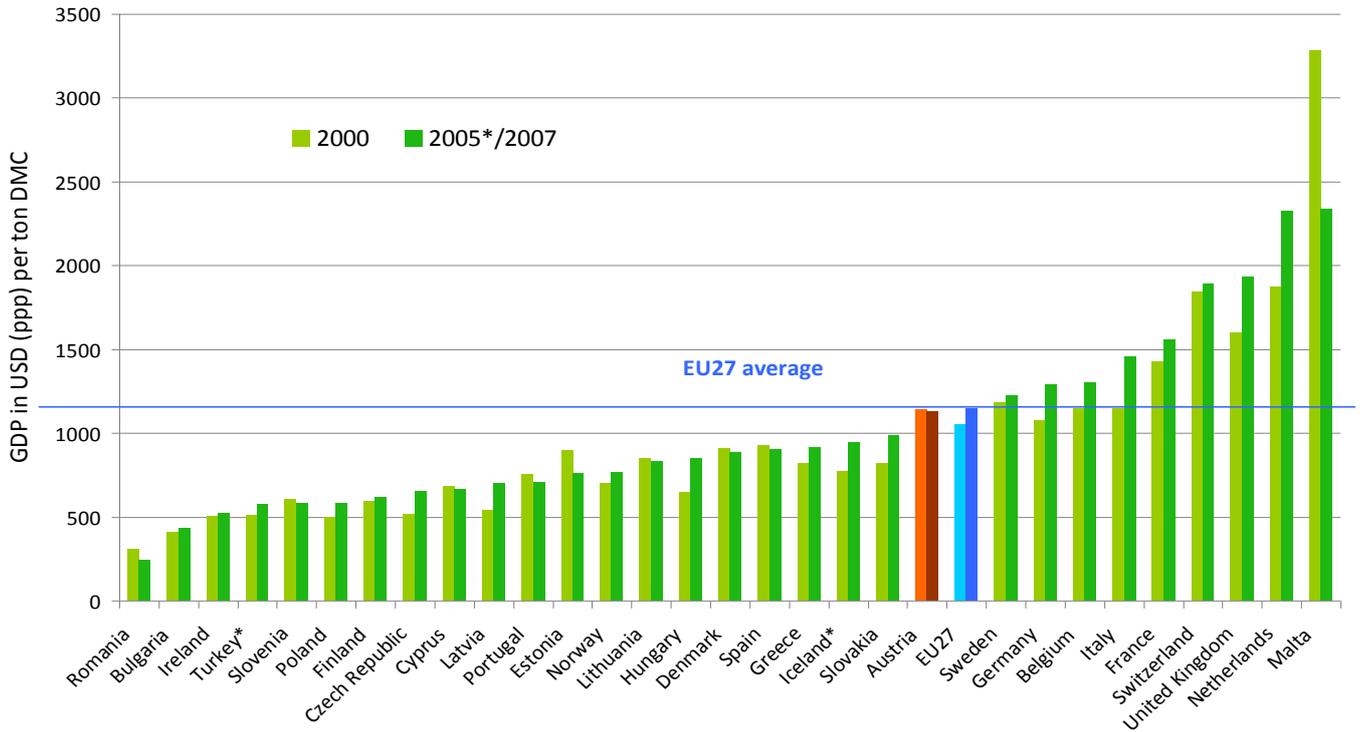
Source: Eurostat [8]

Breakdown of DMC by type of materials (2007)



Source: Eurostat [8]

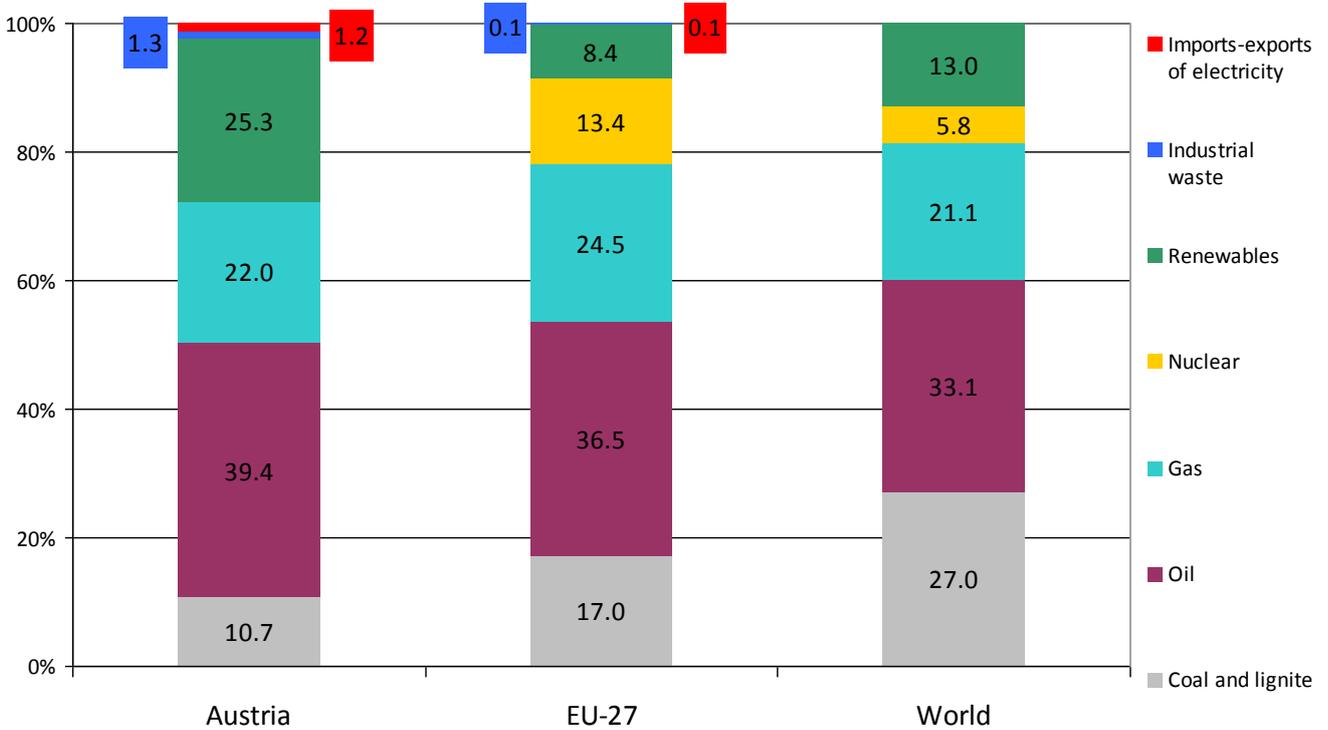
Material productivity 2000 and 2007 [USD ppp/ton DMC]



Source: The Conference Board, Total Economy Database, Eurostat [9]

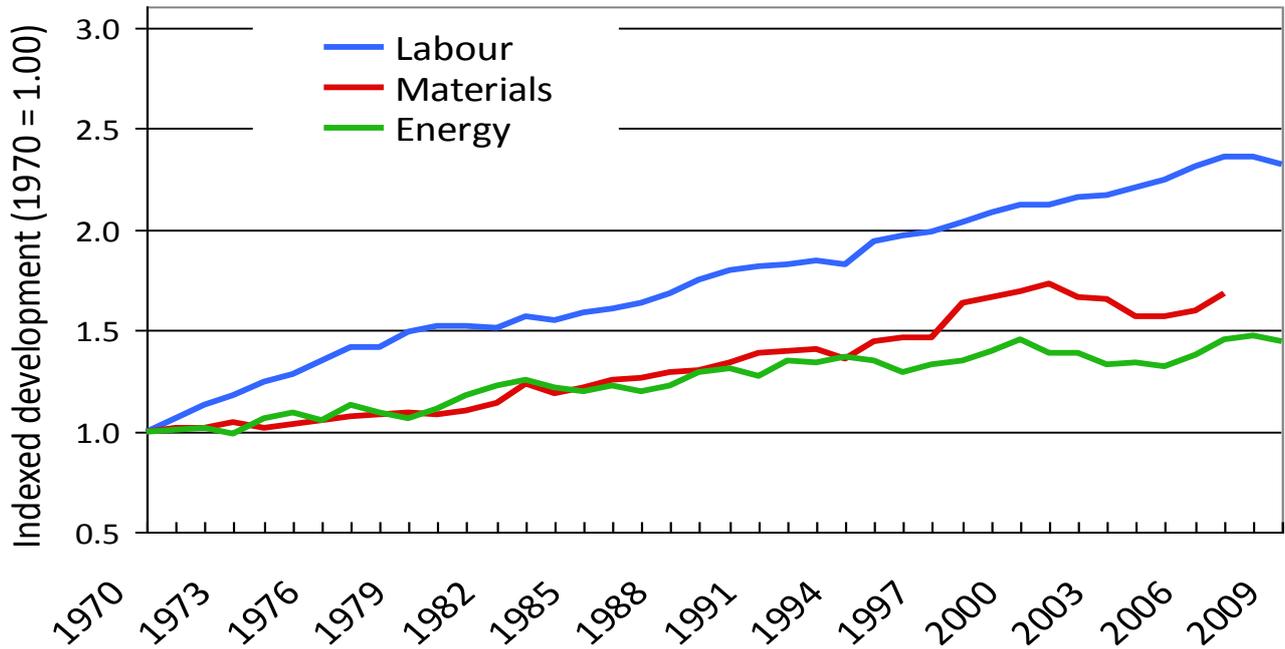
* = For these countries data is for 2000 and 2005.

Primary energy consumption



Source: Eurostat [10]

Trends in labour, materials and energy productivity, 1970-2009



Source: Total Economy Database, IFF Database, WI Database, Eurostat, OECD, IEA Database [11]

2. Evolution and main drivers for the development of resource efficiency policies

Crude oil price hikes starting in the 1970s, concerns on the limits of growth imposed by limits of resource availability and concerns on environmental and health degradations are the original drivers of resource efficiency policies in Austria. Based on such concerns, environmental policies and more specifically waste management policies and first factor four initiatives were introduced in Austria throughout the 1990s.

The origins of the current Austrian resource efficiency policy lie in the [Austrian Sustainable Development Strategy](#) from 2002, the EU Thematic Strategy on the Sustainable Use of Natural Resources from 2005 and to some extent the EU Action Plan on Sustainable Consumption and Production as well as the EU Raw Materials Initiative from 2008. The main document of the upcoming resource efficiency policy is the [Resource Efficiency Action Plan](#) (REAP), which is also a national response to the Europe 2020 strategy and its Flagship Initiative “A resource efficient Europe”.

Additional drivers are the increased price volatility of non-renewable raw-materials and concerns on the limits of growth for renewable materials. Also climate change and limits in energy supply or security play a key role. As a result of the Kyoto 1997 agreement, further spurred by rising energy prices, and by the initiatives derived from the Austrian 2002 Sustainable Development Strategy, many climate change and energy efficiency related initiatives were started under the 2007 Austrian Climate Strategy and the Energy Efficiency Action Plan.

3. Overall Policy Approach for Resource Efficiency

The preparation of the **Austrian Resource Efficiency Action Plan** (REAP) started in the second half of 2009 and the document is expected to be adopted by the government in mid 2011. The development of the REAP is required by the Austrian National Strategy on Sustainable Development and mentioned in the coalition agreement of the Austrian Government.

The upcoming Resource Efficiency Action Plan will provide a framework and impetus for resource efficiency. The draft outline defines 5 core strategies:

- Raise awareness on resource efficiency
- Increase resource efficiency in production and product design
- Public procurement – the state as role model and driving force
- Further develop secondary material and closed loop economy
- Create and use synergies in cooperation of stakeholders

In REAP, under the term “resources” mostly “materials” such as metals, minerals, biomass and fossil based materials are addressed. However, there are also links to energy efficiency and the

efficient use of “other natural resources” such as water or area, which are covered and also addressed by the Austrian Energy Strategy.

REAP is accompanied by other strategies aimed at improving resource efficiency, e.g.:

- The **Austrian Raw Materials Plan**
- The Austrian Strategy on Research, Technology and Innovation (FTI Strategie)
- The Austrian Energy Strategy
- The Austrian Masterplan Green Jobs
- The Masterplan Environmental Technologies ([Masterplan Umwelttechnik](#))
- The [National Action Plan for Sustainable Public Procurement](#)
- The upcoming Waste Prevention Programme 2011

In 2010 a [new Austrian Sustainable Development Strategy](#) (SDS) was adopted, combining a regional and national strategy with a main focus on the promotion of sustainable consumption and production patterns. Other priorities addressed in the SDS include climate change mitigation, clean energy, sustainable traffic, conservation of natural resources, health, social integration and meeting global challenges. A working programme for the period 2011-2015 is under preparation.

4. Strategies or action plans to improve resource efficiency for individual economic sectors, products or product groups

The 2007 [Energy Efficiency Action Plan](#) covers energy efficiency measures in private households, public and private services as well as production, agricultural and transport sectors. It also includes cross-sectoral measures. The action plan includes a number of detailed initiatives.

In mid 2010 the **Austrian Raw Materials Plan** was presented as a survey of domestic raw material deposits and as a plan for setting aside certain areas for keeping these deposits accessible for future generations. Due to concerns about possible real estate speculation, some of the specifics of the plan are kept confidential.

In addition to the sectors and resources to be addressed under REAP, the upcoming **Waste Prevention Programme 2011** will be [published](#) as part of the Federal Waste Management Plan 2011 in July 2011. Prepared by the Ministry of Environment as part of the Austrian waste management plan, it will target:

- the construction sector
- industries and households in general
- the food sectors (notably food industries, retail, large scale catering establishments , households)
- the re-use sector (including repair networks)

Action will focus mainly on providing best practice examples, dissemination of supporting information, establishing networks and removing legislative barriers.

The 2010 [National Action Plan for Sustainable Public Procurement](#) of the Austrian government specifies environmental criteria for public purchasing. Among other issues, it introduces the principle of Total Cost Ownership as requirement to achieve minimum life span costs (instead of minimum investment costs) or sets a minimum 5 % share of recycled construction materials.

The Masterplan Environmental Technologies ([Masterplan Umwelttechnik](#)) prepared by the Ministry of Environment aims at increasing the market share of efficient, environmentally friendly and environment protecting technologies.

Sustainable consumption means meeting the needs with a minimum of resource consumption. The [Austrian Strategy for the Education for sustainable development](#), a cooperation agreement between the Ministries of Education, Environment and Economy, and the Austrian federal regions aims at strengthening information on such consumption patterns in the educational programmes.

5. Individual types of resources identified as priority for national or sector-specific resource efficiency policies

The upcoming Resource Efficiency Action Plan deals with all material types including (critical) metals, minerals, biomass and fossil materials.

The upcoming Waste Prevention Programme 2011 focuses on:

- Construction materials
- Food
- Products with high pollutant and critical material contents.

6. Strategic objectives, targets and indicators on resource efficiency

The 2002 Sustainable Development Strategy set as one of its objectives that *“in the short term the resource throughput shall stay at the same level, in the long term the total resource consumption shall decrease absolutely and the resource productivity shall increase by factor 4”*

Indicators used in the indicator reports of the SDS are: Domestic extraction (DE); Direct Material Input (DMI) and Domestic Material Consumption (DMC) and DMI/GDP. The most relevant of these indicators for resource efficiency is DMI/GDP.

Relevant strategic objectives or targets set out in other documents include:

- Economical use of natural resources (2008 [Austrian Programme on Technologies for Sustainable Development](#), Vienna; 2008 [Act on Ecological Electricity](#))
- Minimal use of primary minerals (The Austrian Raw Materials Plan)
- Resource conservation and increasing efficiency of resource use (2006 [Federal Waste Management Plan](#)).

- Extension of life span of buildings and increase of recycling rate for construction and demolition waste (2006 Federal Waste Management Plan)
- Increase of total energy efficiency in industry (2007 [Austrian Climate Strategy](#))
- Increase of total energy efficiency in buildings (2007 Austrian Climate Strategy)
- Push for low energy and passive house standards with new buildings (2007 Energy Efficiency Action Plan)
- 2 % reduction of final energy consumption by 2010, and 16 % by 2016 (2007 Energy Efficiency Action Plan)
- Improvement of energy intensity by at least 5 % until 2010 and at least 20 % until 2020 (as compared to the average of 2001-2005) (2007 Energy Efficiency Action Plan)
- Thermal rehabilitation of all 1950-1980 buildings by 2020 (Energy Efficiency Action Plan)
- Introduction of more resource and energy efficient transport technologies (2002 SDS)
- The share of organic farmed areas on all agricultures used areas should have increased to 20 % by the year 2010 ([Action Programme Ecological Agriculture](#) 2008-2010)

In REAP, targets are still under discussion, with an expected combination of quantitative and qualitative targets. Quantitative targets may include absolute decoupling and factor four (doubling the quality of life while halving resource consumption) or factor 10 as long term visions. Qualitative targets may include “stabilisation and reduction of resource consumption”, or “drastic increase in resource efficiency.”

Direct Material Input (DMI) and Domestic Material Consumption (DMC) are the main indicators. First estimations of Raw Material Equivalents (RME) may also be considered.

In the Waste Prevention Programme 2011, the generation of targeted waste streams will be used as indicators.

7. The institutional set-up for the development and implementation of resource efficiency policies

The development of the Austrian environmental policy is characterised by a separation of responsibilities between the federal, the regional and the local level. These separated responsibilities have led to relatively complex structures of environmental law but also to a large variety of environmental and resource management initiatives at all different levels.

The development of REAP is coordinated by the Federal Ministry of Agriculture, Forestry, Environment and Water Management, taking into account

- recommendations of the resource efficiency network containing experts/stakeholders from other federal ministries, notably from the Ministry of Economy and the Ministry of Transport, Innovation and Technology, the national and regional chambers of commerce and other professional associations and stakeholders
- the results of 3 workshops (with scientific experts, representative from industries and interested parties).

REAP will be adopted by the Council of Ministers in due course.

In resource-efficiency related initiatives also the Ministries of Economy (Raw Materials Plan) and the Ministry of Transport, Innovation and Technology play an important role.

8. Selected policy instruments or initiatives on resource efficiency presented in more detail

The Austrian Programme on Technologies for Sustainable Development was initiated in 2005 by the Austrian Federal Ministry of Transport, Innovation and Technology (BMVIT). One of its objectives is achieving 'economic use of natural resources'. Three key sectors are buildings, energy systems and factories. The programme provides support by financing/funding research and development projects and by the implementation of pilot projects. The programme line "Building of Tomorrow" aims at using environmentally friendly and renewable materials in construction", the programme line "Factory of Tomorrow" aims at zero-waste, zero-emission production, and produces", and the programme line "Energy system of tomorrow" aims at developing efficient, decentralised and renewables-based energy technologies and energy systems. Link: <http://www.nachhaltigwirtschaften.at/english/>

The initiative "Sustainable Weeks" (Nachhaltige Wochen) is organised by the Ministry of Agriculture and Forestry, Environment and Water Management in cooperation with trade and retailers. During one month per year advertising and promotion of participating retailers and shops are focused on specific sustainable products which comply with the following five guidelines:

1. Organic production and treatment/management
2. Fair trade
3. Energy efficiency/ preservation of resources
4. Environmentally compatible treatment (e.g. reusable bottles)
5. Regional production and treatment.

Link: <http://www.bewusstkaufen.at/news/11/nachhaltige-wochen-2010.html>

Within the framework of the **Waste Prevention and Recycling Strategy** 2006 issued by the Ministry of Environment

- A system for the ecologic evaluation of buildings as a basis for a material based building pass was developed;
- Pilot projects on urban mining, that is on material exploration within existing buildings, selective demolition and recycling were performed;
- An ordinance on obligations for treating construction and demolition waste before its recycling as secondary construction material and on setting the end of waste is under preparation;
- An ordinance on criteria for using waste as fuel is about to be issued;
- A study on product related substance flow analysis revealed the necessity to renew information/motivation campaigns on the separate collection of waste from electric equipment.

- A study on product service systems led to the recommendation to start pilot projects on plant protection services and to spread good local practices/experiences with repair and re-use-network to the whole country.

All these measures may contribute to a reduction of primary material consumption and thus to resource efficiency. Link: <http://www.bundesabfallwirtschaftsplan.at/article/archive/16762>

A good Austrian example on improving resource efficiency on the regional and local level is the **Waste Prevention Vienna programme “Naturally less waste”**, running since 1998. The different initiatives of the programme target efficient production, as well as efficient public and private consumption. Among these initiatives are:

- Resource efficiency in Industries:
 - Financial support for investments in efficient processes
 - EcoBusinessPlan: for each branch and company size a tailored cleaner production auditing module is provided. Up to now 740 enterprises reduced their costs by 56 million €
- Packaging:
 - Reusable drinking cups are provided for public events
 - Studies, workshops, folders on multi-trip packaging
 - Promotion of the use of tap-water instead of bottled water
- Repair, Re-Use
 - Establishment of the repair-network Vienna
 - Brochure on repair institutions
 - Organisation on (webbased) flea-markets
- Green Events:
 - Multi-use tableware can be rented for 200 to 2000 person events (Geschirrmobil)
 - Support in planning waste prevention for public events
 - Information and counselling (hotline, folders, list of organic caterers)
- Food:
 - Information on Organic (bio) food, food labelling, storing food; efficiently buying food (shopping list)
 - Cook-book on left overs
- EcoBuy Vienna:
 - To promote eco-friendly methods in public procurement and tendering, lists of environmental criteria have been drawn up for the various goods, products and services needed by the Vienna City Administration and its affiliated organisations. These criteria provide practical decision support for all staff involved in public purchasing – a convenient tool for assessing the environmental compatibility of purchased goods and services without causing substantial extra work.
- Miscellaneous
 - information event „Best Practices“ in hospitals
 - Motivation for the separate collection of waste types as basis for material recycling
 - Distribution of cloth shopping bags.

Links: <http://wenigermist.natuerlichwien.at/>; <http://www.oekobusinessplan.wien.at/>;
<http://www.oekokauf.wien.at/>.

9. Topics of interest and information needs for follow up work

- Influence of life styles, changes in the meeting of needs on the material flows and environmental impacts of the whole material system (including the life cycle phases abroad).
- Extend of our environmental impacts outside EU (related to our import material and products).
- Is zero growth possible? What would be the consequences of low or no growth?
- Taking into account the rebound effect and the shift of our environmental burdens abroad, is absolute decoupling possible?
- How to address the rebound effect?

10. References

10.1 Facts and figures about the country

[1] Eurostat, 2011 [demo_pjan]

http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en

[2] CIA World Factbook (2009 est.)

<https://www.cia.gov/library/publications/the-world-factbook/index.html>

[3] Eurostat, 2011 [nama_gdp_c]

<http://appsso.eurostat.ec.europa.eu/nui/show.do>

[4] Eurostat 2011 [tsieb010]

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tsieb010&plugin=0>

[5] World Bank, Migration and Remittances Factbook 2011

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21352016~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

[6] European Commission 2008

http://europa.eu/abc/12lessons/key_dates/index_en.htm visited December 15, 2008

[7] Eurostat, OECD and Total Economy Database

DMC data from Eurostat Database, Material Flow Accounts, and OECD, Population data from Eurostat Database, Population, and The Conference Board — Total Economy Database, September 2010. www.conference-board.org/data/economydatabase/

[8] Eurostat

Material flow accounts, env_ac_mfa, uploaded June 2010

[9] The Conference Board, Total Economy Database, Eurostat

GDP data from The Conference Board — Total Economy Database, September 2010, www.conference-board.org/data/economydatabase/; DMC data from Eurostat Database on Environmental Accounts, and OECD.

[10] Eurostat

Energy statistics, uploaded Oct 2010

<http://epp.eurostat.ec.europa.eu/portal/page/portal/energy/data/database>

[11] Total Economy Database, IFF Database. WI Database, Eurostat, OECD, IEA Database

GDP data and Labour data from The Conference Board — Total Economy Database, September 2010, www.conferenceboard.org/data/economydatabase/; DMC data for 1970–1999 (EU-15): IFF database; DMC data for 1992–1999 (EU-12): WI database; DMC data for 2000–2007: Eurostat Database on Material Flow Accounts except Turkey: OECD database; TPES data from IEA Database.

10.2 Resource Efficiency Policy References

Austrian Strategy on Research, Technology and Innovation

http://bmwf.gv.at/fileadmin/user_upload/Broschuere_zur_FTI-Strategie_01.pdf

Austrian Energy Strategy

http://www.energiestrategie.at/images/stories/pdf/longversion/energiestrategie_oesterreich.pdf

Austrian Masterplan Green Jobs

<http://www.lebensministerium.at/article/articleview/84760/?SectionIDOverride=110>

Masterplan Environmental Technologies

http://www.act-center.at/de/images/0704_MUT---Masterplan-Umwelttechnologie_dt.pdf

National Action Plan for Sustainable Public Procurement

<http://www.nachhaltigebeschaffung.at/sites/default/files/NAP%20nachhaltige%20Beschaffung%20Teil%20I.pdf>

Austrian Sustainable Development Strategy

<http://www.nachhaltigkeit.at/article/articleview/84404/1/25541/>

Resource Efficiency Action Plan (REAP)

<http://www.nachhaltigkeit.at/article/articleview/82975/1/25540>

Energy Efficiency Action Plan

http://ec.europa.eu/energy/demand/legislation/doc/neeap/austria_neeap_de.pdf

Waste Prevention Programme 2011

<http://www.bundesabfallwirtschaftsplan.at/>

Austrian Programme on Technologies for Sustainable Development

<http://www.nachhaltigwirtschaften.at/english/>

Act on Ecological Electricity

<http://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20002168>

Federal Waste Management Plan

<http://www.bundesabfallwirtschaftsplan.at/article/articleview/52746/1/13192/>

Austrian Climate Strategy

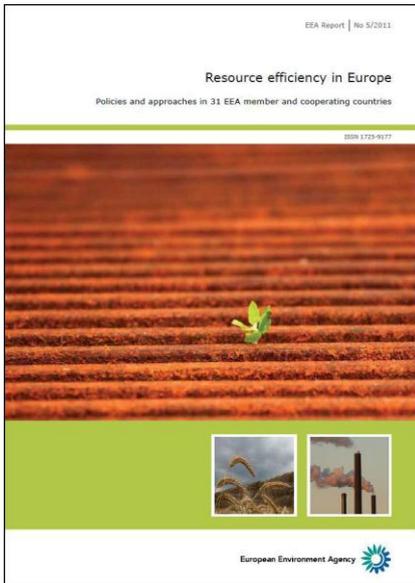
<http://umwelt.lebensministerium.at/article/articleview/71847/1/7781>

Action Programme Ecological Agriculture

<http://www.lebensmittelnet.at/filemanager/download/29717/>

Waste Prevention and Recycling Strategy

<http://www.bundesabfallwirtschaftsplan.at/article/archive/16762>



Resource efficiency in Europe

Policies and approaches in 31 EEA member and cooperating countries

Further information about resource efficiency policies, including the analytical report and thirty-one detailed country profiles, are available on the EEA website:

<http://www.eea.europa.eu/resource-efficiency>

Selected examples of resource efficiency policies, instruments or targets presented in the thirty one detailed country profiles

