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**ETAP Roadmap 2005**  
**submitted by the Austrian Federal Ministry of Agriculture, Forestry,**  
**Environment and Water Management**

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## I. Introduction to the “Environmental Technologies Action Plan” (ETAP), the development of the Austrian environmental technology and the ETAP Roadmap

Already at the beginning of 2004 the European Commission adopted the “Environmental Technologies Action Plan” (ETAP), to improve the development and to widen the use of environmental technologies. The report by the High Level Group, chaired by Wim Kok, on the Lisbon-Strategy for growth and employment “Facing the Challenge” in November 2004 provides additional momentum for the implementation of ETAP, and stresses the fact that the effort towards sustainable development should promote the European Union to take over a leading international position and the key role as regards eco-efficient innovations and environmental technologies. *“Europe can gain a first mover advantage by focusing on resource-efficient technologies that other countries will eventually need to adopt. Promoting eco-efficient innovations is clearly a win-win opportunity that should be fully exploited for the purpose of reaching the Lisbon goals. Innovations – that lead to less pollution, less resource-intensive products and more efficient innovations - support both growth and development while at the same time offering opportunities to decouple economic growth from resource use and pollution.”* This report has led to a new start for the Lisbon Strategy in 2005, the strategy that will heavily influence the development of the European and the Austrian environmental technology in the coming ten years. Austria fully supports the new start for the Lisbon Strategy in 2005 with the aim of achieving more and better jobs in a more dynamic, innovative and attractive Europe, while respecting at the same time the objective of sustainable development and the commitment to a policy of environmental conservation. The realisation of a knowledge society, based upon human capital, education, research, sustainability and innovation policy, is the key to boosting our growth potential and to paving the way for the future.



Photo: © BMLFUW/Michalski  
“Austria is a classical environmental technology country”. Environment Minister Josef Pröll at a panel discussion held within the framework of a GFSE-5 evening event on 11 May 2005<sup>1</sup>.

In Austria, environmental technology has become a field of employment which is of importance for the country’s economy as a whole. In 2003 totally 17,200 persons were working in the Austrian environmental technology industry, that is, 3.3 percent of the physical-assets branch. The sales volume has more than doubled since the year 1993, so that Austria’s companies were able to sell environmental technology worth € 3.78 billion in the year 2003.

Approximately 65 percent thereof are exported. Austria’s environmental technology industry (ET) is growing more strongly than the remaining production of physical goods (sales volume plus 7.3 percent, physical assets: plus 3.5 percent; persons employed: ET plus 2.3 percent, physical assets: minus 0.3 percent). On the markets in Western Europe, increasingly in Eastern and Southern Europe, as well as – with a growth potential – also in Latin America,

<sup>1</sup> Global Forum on Sustainable Energy

Asia and Africa, environmental technology “Made in Austria” has proved to be strongly growing, dynamic, innovative, and technologically highly developed.<sup>2</sup> Domestic environmental technology companies have a wide-reaching experience in environmental technology with an excellent range of environmental system approaches, services and products, particularly in energy, waste and sewage management and in the field of renewable sources of energy (biomass, water power, solar energy, photovoltaics, etc.).



Photos: © Hopi Media

The Austrian products and systems that are supplied abroad are presented in the framework of the Austrian export offensive for environmental technologies.

As much as one quarter of the total power consumption is covered with renewable energy sources in Austria, of which water power and energy from biomass account for about half of this quantity of energy each. In the field of solar collectors newly installed in households Austria, according to recent studies, ranks third in the European Union. It can be realistically expected that also the so-called “Cleaner Production” approaches and the environmental technologies which decouple economic growth, resource consumption and environmental pollution for the purposes of the Lisbon Strategy will gain significance in Austria.

Austria submitted an explicit mapping of activities relevant to ETAP, which offers a practical basis for the exchange of knowledge, experience and good practice within the European Union. The implementation of the measures proposed in ETAP (as following described) will constitute an important component of the Austrian policy also in the future.

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<sup>2</sup> See joint press information of the Federal Ministry of Agriculture, Forestry, Environment and Water Management and the Austrian Federal Economic Chamber of 19 October 2005 and the WIFO-study “Analysis of Austria’s environmental technology industry”, 2005.

## II. Overview of the Austrian Roadmap and ETAP Actions

	Action	Who	Status	Remarks
<b>From research to markets</b>				
1	Austrian Programme on Technologies for Sustainable Development Building of Tomorrow Energy Systems of Tomorrow Factory of Tomorrow	Federal Ministry for Transport, Innovation and Technology Federal Ministry for Transport, Innovation and Technology Federal Ministry for Transport, Innovation and Technology Federal Ministry for Transport, Innovation and Technology	ongoing ongoing ongoing ongoing	see page: 5 see page: 6 see page: 7 see page: 8
2	Establishing technology platform "Kompetenznetzwerk Wasser"	Federal Ministry of Economics and Labour	ongoing	see page: 9
4	Develop an EU catalogue of existing directories and databases on env. t <sup>3</sup>	Federal Ministry of Economics and Labour	planned	see page: 10
<b>Improving the market conditions</b>				
6	Performance targets in production processes	Federal Environment Agency	ongoing	see page: 11
7	National Investment Guarantee Programme	aws Austria Wirtschaftsservice GmbH	ongoing	see page: 12
8	Expert Group for environmental technologies	Federal Ministry of Agriculture, Forestry, Environment and Water Management	ongoing	see page: 13
10	New initiatives in the environmental funding scheme	Federal Ministry of Agriculture, Forestry, Environment and Water Management and Federal Ministry for Transport, Innovation and Technology	ongoing	see page: 14
11	Analysis of Austria's environmental technology industry Information on eco-industries and potential export markets Export initiative environmental technologies Creation of an eco-industries umbrella organization	Austrian Institute of Economic Research Federal Chamber of Commerce Federal Ministry of Agriculture, Forestry, Environment and Water Management Federal Chamber of Commerce	ongoing ongoing ongoing finished	see page: 15 see page: 17 see page: 18 see page: 19
18	Conference on green procurement and on performance targets	Federal Ministry of Agriculture, Forestry, Environment and Water Management	planned	see page: 20
22,23	klima:aktiv Analysis of business-to-business relations along production chains	Federal Ministry of Agriculture, Forestry, Environment and Water Management Federal Environment Agency	ongoing ongoing	see page: 21 see page: 23
<b>Acting globally and moving forward</b>				
25	Supporting the development of competitive eco-industries	Federal Chamber of Commerce	ongoing	see page: 24

<sup>3</sup> Environmental technologies.

ETAP Action	From research to markets					Improving market conditions													Acting globally and moving forward									
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Austrian Programme on Technologies for SD <sup>4</sup>	x																											
Building of Tomorrow	x																											
Energy Systems of Tomorrow	x																											
Factory of Tomorrow	x																											
Establishing technology platform		x																										
Develop an EU catalogue				x																								
Performance targets in production processes						x																						
Conference on GP and PT						x												x										
Analysis of Business-to-business relations						x															x							
National Investment Guarantee Programme	x						x																					
Expert Group for environmental technologies								x																				
New initiatives in the environmental funding scheme										x												x						
Analysis of Austria's env. t <sup>r</sup> industry											x																	
Information on eco-industries/potential export markets												x																
Export initiative environmental technologies												x												x		x		
Creation of an eco-industries umbrella organization												x																
klima:aktiv										x	x											x	x					
Supporting the dev. of competitive eco-industries <sup>5</sup>											x													x		x		

<sup>4</sup> Sustainable development.

<sup>5</sup> Development

### **III. Austria's actions regarding "From research to markets" (ETAP Actions: 1-5)**

#### **III.1 ETAP Action 1: Austrian Programme on Technologies for Sustainable Development**

*Duration: start 1999 - ongoing*

*Description:*

The Austrian Programme on Technologies for Sustainable Development aims at enhancing the competitiveness of Austrian industry and research while at the same time improving the quality of life and the environment. Research and development of future oriented technologies and solutions foster new opportunities for an eco-efficient economy, create jobs in the advanced technology sectors and lead to more efficient use of natural resources. Yet substantial progress in innovation and technologies will be necessary to achieve these goals. This is why the programme was divided into three sub-programmes covering the domains of

- innovative construction (sub-programme "Building of Tomorrow")
- energy (sub-programme "Energy Systems of Tomorrow") and
- industry (sub-programme "Factory of Tomorrow")

with clear goals and a strategy of several years for each of them. Exemplary pilot and demonstration cases ("beacons of innovation") are being developed through chains of projects, each one building on the results of the previous. Basic research studies, cooperative research involving both companies and researchers and finally the development of components and technologies form the basis for these demonstration cases. Relevant topics are being put out to tender and the best projects are selected for funding by an international jury. Support is offered by a thematic programme management ("umbrella management") both for proposals and the projects resulting from the tenders. In addition specific accompanying measures will be used such as project competitions, networking events and qualification and training programmes.

*Major achievements:*

The main achievement of this programme is the improved cooperative research in the field of environmental technology leading to demonstration projects. The share of projects submitted by companies in financed projects increased substantially over the past years.

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### **III.2 ETAP Action 1: Building of Tomorrow**

*Duration: 1999 – 2007 - ongoing*

*Description:*

The programme "Building of Tomorrow" aims to reduce the energy consumption in buildings by using renewable raw materials and alternative sources of energy such as solar energy while not increasing construction costs compared to traditional building designs. "Building of Tomorrow" supports passive house and low energy solar building technologies, the two being the most important current concepts of solar and energy efficient building. Additional attention is given to ecological, economic and social concerns.

*Example: Façade-integrated solar collectors*

The integration of solar thermal collectors into facades opens up a new market segment for the solar thermal industry. Directly integrated solar panels serve as thermal insulation, as design elements and protection from weathering and contribute to reducing the system costs. Within only three years GREENoneTEC and AKS DOMA, in co-operation with the researchers of AEE INTEC, were able to complete all the steps from basic research to a successful launch of this product. The demonstration project was a scouts home in St. Martin in Ludesch (Vorarlberg) that is being heated 100% by solar energy through 40 m<sup>2</sup> of façade integrated solar collectors. At present, 5% of the annual production of thermal solar collectors are façade integrated solar collectors and their share is rapidly growing.

*Major achievements:*

Due to the introduction of this programme, the high level of project cooperation, a strong participation of enterprises as well as an improvement of the scientific initial situation in Austria could be achieved. With the help of the "Building of Tomorrow" programme, Austria has reached a European top position in passive house technology as well as solar energy.

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### **III.3 ETAP Action 1: Energy Systems of Tomorrow**

*Duration: 2003 – 2009, ongoing*

Description:

“Energy Systems of Tomorrow” focuses on the development of new technologies and concepts for a flexible and efficient energy system based on renewable energy sources. The intention is to realise demonstration projects (e.g. model systems and model regions) that improve sustainable development and increase the quality of life and economic prosperity. The main topics of “Energy Systems of Tomorrow” are energy efficiency, the use of renewable energy sources and systems innovations and strategies.

*Example: Sustainable energy supply of supermarkets and adjacent energy consumers*

The Austrian grocery chain SPAR took up the idea that particular branch stores could become local energy suppliers, by providing energy based on renewable sources for the store itself as well as for nearby energy consumers (e.g. business enterprises, private households or public buildings). In general, the area-wide branch network of food store chains bears an interesting potential concerning technical and economic possibilities when establishing multi-functional energy centres. Experts of Arsenal Research and the Technical University of Graz as well as providers of different energy technologies are currently trying to develop a technically and economically workable concept. This concept comprises an alternative electricity supply as well as a thermal and cooling energy supply, all based on the sun and biomass as their energy sources. An asset and drawback analysis of the current energy management and how to best use and further develop the already existing technologies will be conducted. Future demonstration projects will be realised based on the findings of this project.

Major achievements:

Because of the recent start of the programme, no major achievements can be reported yet. Nevertheless, 124 projects have been submitted, of which 51 are financed by the programme. An important item is the high level of cooperation with an average of four partners per project.

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### **III.4 ETAP Action 1: Factory of Tomorrow**

*Duration: 2000 – 2008, Status: ongoing*

Description:

“Factory of Tomorrow” aims at acquainting trade and industry with a new quality of innovation, driven by the future-oriented concept of sustainability. Through the development of advanced resource-efficient and environmentally-friendly techniques in companies the sub-programme addresses technologies and innovative approaches in manufacturing processes, the use of renewable raw materials, sustainable products and services as well as non-technical aspects such as management methods, sustainable entrepreneurship and the integration of health and safety.

*Example: COLOURS & DYES – The “factory of tomorrow”*

Two major Austrian textile industries, Wolford and Schöller Bregenz, are moving towards the use of natural dyes and their application in industrial textile production. Together with experts of the Austrian Institute of Ecology and the University of Innsbruck new dyes and dyeing processes were developed and optimised in terms of technical, ecological and economic parameters. The aim of the project is to set the stage for the operational use of natural dyes and to assure nationwide structures for the supply with raw materials. There are bright prospects for industrial implementation.

Major achievements:

According to the programme strategy, chains of projects are developed where new projects build up on the findings of former projects. In that way several topics could be well researched. The aspired integration of the industry could be achieved and the success is measured by the increasing number of projects submitted by enterprises.

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### **III.5 ETAP Action 2: Establishing technology platform “Kompetenznetzwerk Wasser”**

*Duration: 2005, ongoing*

#### Description:

The Austrian "Kompetenznetzwerk Wasser", guided by Joanneum Research Graz, Prof. Hans Zoyer, represents upon request of the Federal Ministry of Economics and Labour and the Federal Ministry for Agriculture and Forestry, Prevention of Water Pollution and Environmental Affairs Austria in the EU Water Initiative. The Austrian "Kompetenznetzwerk Wasser" participated on April 12th 2005 at a meeting in Brussels and brought in a draft vision report a wide range of topics in order to reinforce the socio-political dimension related to water problems in this EU initiative. On June 20th 2005 the last meeting of the "Mirror Group" as a MSMG-Meeting took place in Brussels. During this meeting the Austrian proposals were included and the Vision Report with scenarios up to 2030 finalized. During Discussions about the "Strategic Research Agenda" (SRA) it was criticized that the suggestions were to strongly aligned to flat countries Mountainous regions as the alpine or the dinaric space are barely included.

#### Major achievements:

Due to these critics which were shared by the EU DG Research Austrian proposals which have already been presented at an earlier stage, were included:

- 1) Artificial groundwater recharge as a tool for proper groundwater management in semiarid regions
- 2) Disaster management of floods and droughts in Alpine regions
- 3) Transboundary groundwater utilisation
- 4) Water management as a result of quality demands of the individual end users

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### ***III.6 ETAP Action 4: Develop an EU catalogue of existing directories and databases on environmental technologies***

*Duration: planned*

#### Description:

In 1997 the web-site [www.umwelttechnik.co.at](http://www.umwelttechnik.co.at) was started. It has succeeded in making Austrian products, processes and system solutions of the environmental technology available world-wide via the internet. The Austrian environmental technology companies are given the opportunity to present their developments to a broad international range of customers. This website offers information about concerns and initiatives in the field of environment technology in general. It is our primary aim to provide topical and exact information. The performance of Austrian companies in the field of environment management is published in the world wide web since the beginning of 2000 - [www.umweltmanagement.at](http://www.umweltmanagement.at). The information given is completed by a survey of activities of Austrian research institutes and consulting companies. Austria has pioneered the presentation of Austrian top performance in environment management. The experiences with the "Environmental Technology Database" and the "Eco-Management Network" transformed to the idea to create a co-operation named "Platform Eco-Industry". This cooperation between the Austrian Federal Ministry of Economic and Labour and the "Austrian-Environment Cluster Management" is to help to promote Austrian products, processes and system solutions in the field of environmental technology via the internet world-wide. One of the first steps was the creating of a new website [www.austrian-environment.at](http://www.austrian-environment.at) in 2002.

#### *The way forward:*

The actual website <http://technologies.ewindows.eu.org> is sponsored by EEA and contains a large variety of information about the environment. The Federal Ministry of Economics and Labour assumes that in the area of EU about 200 - 300 websites with integrated databases in relation to environmental technologies exist which can be a base for an EU-wide meta-database on environmental technologies. The Federal Ministry of Economics and Labour underlines the great interest of all participants in creating a meta-database on environmental technologies, as it has been done for the Austrian market in the network [www.umwelttechnik.co.at](http://www.umwelttechnik.co.at) or for the world market in the Green Pages [www.eco-web.com](http://www.eco-web.com).

#### Major achievements:

The EU meta-catalogue of data could be adapted to an EU meta-database, which would ensure comparable research results. The inputs of the above-mentioned 200 - 300 websites should be examined and with the results of this examination information which constitutes indispensable elements for the EU meta-database could be defined. In the course of a project the conditions are to be defined, how with a single tracing file in several languages uniform results are reached.

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#### **IV. Austria's actions regarding "Improving market conditions" (ETAP Actions: 6-23)**

##### ***IV.1 ETAP Action 6: Performance targets in production processes***

*Duration: 10 months, ongoing*

(on behalf of the IPTS (Institute for Prospective Technological Studies) via ITA (Institute of Technology Assessment) in a consortium with ITA, TNO (Netherlands Organization for Applied Scientific Research) and GVM/IVL (Center for Environment and Sustainability-Göteborg University and Chalmers))

##### Description:

The project aims to contribute to the conceptual analysis of the development and implementation of performance targets for different types of production processes through the following activities:

- Definition and identification of PTs
- Identification and definition of possible links between PTs and current legislation covering production processes as well as possible ways of coordination
- Definition and analysis of options to implement PTs
- Identification of tools for PT implementation and monitoring in production processes.

Defined performance targets (PTs) for production processes should set a clear signal to developers and users of processes. The focus of PTs is the future and generation of market for innovative processes with a higher environmental performance than available technologies. In other terms performance targets are indicators for an innovation paradigm which favours the improvement of the environmental performance of production processes. Setting, implementing and measuring of performance targets is therefore linked directly to the implementation of the Environmental Technologies Action Plan (ETAP) and the innovation policy for environmental technologies.

The targets will be developed for different cases such as homogenous, large scale production processes, heterogeneous processes for Small and Medium size Enterprises (SMEs as users of environmental technologies in the industries such as coating industry, greenhouse farming, fisheries, etc.). Differences between interactions of users and developers of different production processes and sectors will be considered, too. Another

research issue is the mechanisms for integration of innovative SMEs, technical universities and other small and medium innovation centres in the process of target setting.

Major achievements:

After two months an update report has been submitted and after five months an interim report. Major achievements so far have been the survey of current legislation concerning performance targets. Four branches (iron and steel, cement, pulp and paper, textile industry) have been selected for a deeper in-case study out of ten pre-selected industrial sectors.

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#### **IV.2 ETAP Action 7: National Investment Guarantee Programme**

*Duration:* started in 1998 based on the existing Investment Guarantee Programme, ongoing

Description:

The Austrian federal guarantee instrument “Austria Wirtschaftsservice; AWS” provides loan and equity guarantees. These are financial instruments which transfer part or all of the risk of investment from investors to the state owned provider of the guarantees. The most basic justification for guarantees is a market failure in the sense that environmental projects with favourable risk-return profiles are unable to obtain external financing from banks for reasonable conditions. Many investors have difficulties in assessing technology risk and potential future returns from environmental and R&D investments and therefore do not make the investment.

Major achievements:

So far, AWS has mobilized investments in the environment sector of approximately EUR 200 million, with the focus being on renewable energies and energy efficiency.

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### **IV.3 ETAP Action 8: Expert Group for environmental technologies**

*Duration: 2005, ongoing*

*Description:*

To support the implementation activities of ETAP in Austria, the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) among other things has established an Expert Group for environmental technologies as a consulting body, which is composed of experts from the fields of the environment, technology and innovation and representatives of various Austrian environmental technologies and politics. The meetings are organised by the Ministry of Life together with the Institute of Technology Assessment (ITA). The Expert Group for environmental technologies is to offer advice to the Ministry of Life in issues concerning the implementation of ETAP, with the goal of furthering environmental technologies in Austria. The tasks of the Expert Group include, in particular:

- the information about current developments on ETAP as well as about tenders in connection with the implementation of ETAP and/or other national and international research programmes;
- the development of joint statements on the implementation of ETAP;
- the provision of advice to the Ministry of Life with respect to the implementation of ETAP;
- the furthering of environmental technologies in Austria.

*Major achievements:*

With this initiative the national implementation measures on ETAP are coordinated and integrated, and strategies for the promotion of environmental technologies in Austria are developed in cooperation with all stakeholders.

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#### **IV.4 ETAP Action 11: New initiatives in the environmental funding scheme**

*Duration: since 2005, ongoing*

##### Description:

Subsidising private companies for environmental technology improvements has a long tradition in Austria. The aim of the funding scheme is to protect the environment by preventing or reducing air pollution, noise exposure and waste accumulation.

##### *Recent developments:*

According to the European state aid rules two principal approaches of funding may be applied: either providing state aid under the provisions of the R & D regime or using the environmental state aid rules. Deriving from this separation on EU level instruments, guidelines, ministries and competences are divided along this mark. Gaps (and overlaps) between the instruments are the consequence. These gaps and the unclear situation how to promote innovative technologies, build a major barrier for entrepreneurs. Since the publication of the ETAP, the two responsible ministries (Ministry of Environment and Ministry of Technology) agreed on a common approach for solving this problem. Both financing instruments work together in project identification, appraisal and share the requested co-financing of "Demonstration projects". "Demonstration projects" became an issue in both instruments and is mainly financed by the environmental aid scheme. New environmental technologies can therefore be financed more effectively and easily. Research and development companies find better access to the market and can build their own demonstration project.

The Ministry of Environment realized that mainly those applicants benefit from this scheme who have already recognised the value of sustainable ecological solutions. However, motivation and consultancy programmes have to be fostered in order to raise awareness among other decision makers for the advantages of environmental technologies. Target groups for this kind of funding are primarily companies and independent public utilities. Through the funding of consultancy services – in the course of which entrepreneurs often for the first time recognise the necessity and profitability of technological measures – also the effectiveness and efficiency of investments in facilities should be increased. The design of the regional programmes – which are divided into target-group specific modules like EMAS, ECOPROFIT or the Eco-label tourism - differs from one province to another.

##### Major achievements:

In order to guarantee the quality of this instrument, it is evaluated on a regular basis by external experts from different institutions. The evaluations focus on the efficiency and success of the grants. Of special interest are measures for climate protection and their cost efficiency whereupon conclusions on costs of technology are possible. During the period from 2002 to 2004 2,467 projects were funded through this scheme by a total sum of EUR 140.7 million which induced an investment volume for environmental actions of EUR 679.4 million. By means of these subsidies CO<sub>2</sub> emissions were reduced by 1,936,000 tonnes a year during the period of 2002 to 2004.

The recent cooperation with funding institutions other than the R & D schemes provides following advantages:

- “Demonstration projects” are the topic of both funding schemes.
- They can be co-financed in an optimized way, due to the extension of the scope of the state aid scheme for the particular projects.
- Marketable projects and demonstration become matters of the research community.
- Common PR for new technologies.

The conjunction of the federal subsidies for environmental actions with the regional programmes for company environmental protection contributes to the dissemination and quality improvement of the programmes as well as to a more efficient handling of the applications for funding. Since the introduction of these programmes the number of applications rose to the double.

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#### ***IV.5 ETAP Action 11: Analysis of Austria’s environmental technology industry***

*Duration: December 2004 – December 2005, ongoing*

##### Description:

The importance of environmental technologies as an economic factor for Austria was analysed in detail by WIFO in 1995 and 2000 in a study commissioned by the Austrian Federal Ministry of Economics and Labour. The current study commissioned by the Federal Ministry of Agriculture, Forestry, Environment and Water Management and the Chamber of Commerce examines the situation of the industry in the first years of the new millennium and identifies the changes that have occurred since that first inventory. The Federal Ministry of Economics and Labour is sponsoring an executive summary which will be presented during the Austrian EU Presidency. Technological innovations for the environment as well as the

use and supply of environmental technologies have an economic as well as ecological dimension: They help limit environmental problems, and environmental technologies as such can grow into a highly competitive industry. Environmental technologies need to be broken down into several categories, divided basically into end-of-pipe and clean technologies. For an analysis of the range of environmental technologies on offer in Austria it was necessary to establish a typology. Technologies were categorised, on the one hand, by the type of protection (end-of-pipe technologies, clean technologies, environmental monitoring, instrumentation & analysis (EMA)) and, on the other hand, by the environmental medium concerned (air, water, waste, energy, soil, noise, traffic, others).

Considering that this is a sector characterised by great inhomogeneity which does not even constitute a separate unit in economic statistics and which has no overall representation at all, a written survey of providers of environmental technologies was used to develop a database on the supply of Austrian environmental technologies. The questionnaire followed more or less the same structure as in former studies in order to be able to follow the development of this sector since 1993.

Major achievements:

For those companies that offer environmental technologies in Austria but did not answer the questionnaire we had to estimate their revenues, employment and exports it was assumed that the remaining 118 providers of environmental technologies earn revenues equal to those of an average responding company and that their employment and export figures are similarly those of the average responding company. Based on these assumptions, we counted revenues within the environment industry of 3.78 billion €, and altogether 17,200 jobs. Exports are estimated to total 2.45 billion €. 331 companies are producing eco-technologies in Austria. Compared to former projections the environment industry shows a positive trend in all three economic indicators. Within the eco-technology industry there are some changes as concerns the importance of different production segments, of which the most pronounced is the rising importance of clean energy technologies. The complete analysis will be finished by the end of 2005 and offers detailed information on the structure and performance of the Austrian eco-technology supply.

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## **IV.6 ETAP Action 11: Information on eco-industries and potential export markets**

*Duration: 2001 - ongoing*

### Description:

In order to highlight the growing importance of eco-industries the Environmental Policy department of the Austrian Federal Economic Chamber (together with the Ministry of Economics and Labour and the Ministry of Agriculture, Forestry, Environment and Water Management) has commissioned studies by the renowned Austrian Institute of Economic Research (WIFO). The first edition, detailing among others the number of companies active in the field of environmental technologies, sales figures, related employment and exports, was published in 1995, with an update in 2000 and another one about to be released in spring 2006. The political changes in Eastern European countries and the subsequent establishment of ties with the EU raised expectations that these countries could become markets for environmental technologies. To give Austrian companies a head start, the Federal Economic Chamber (together with several Austrian ministries and banks) commissioned studies which should enable a more informed approach to market entry.

**Report 1** (June 2001): Environmental Policies CEE I - Environmental situation, prospective environmental measures needed and their costs as well as the chances for Austrian companies, focused on the Czech Republic, Slovakia, Hungary, Slovenia, Poland and Estonia.

**Report 2** (September 2002): Environmental Policies CEE II - Environmental policies, strategies and programmes of the EU accession countries - Czech Republic, Slovakia, Hungary, Slovenia, and Poland.

**Report 3** (February 2004): Part 1: Environmental markets in the countries of south-eastern Europe - Bulgaria, Romania, Croatia, and Serbia & Montenegro; Part 2: Environmental markets in the EU accession countries of Central and Eastern Europe - Czech Republic, Slovakia, Hungary, Slovenia, and Poland (update of Report 2).

**Report 4** (May 2005): Part 1: Update of Report 3/Part 1 plus Bosnia & Herzegovina, FYROM, and Albania; Part 2: Market potential in the Czech Republic, Slovakia, Poland, Slovenia, Hungary, Bulgaria, and Romania resulting from the application of EU environmental legislation.

### Major achievements:

Created awareness of importance to competitive eco-industries and provided valuable and timely information for environmental technology companies preparing market entry in countries in Eastern and South-Eastern Europe.

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#### **IV.7 ETAP Action 11 : Export initiative environmental technologies**

*Duration: 2005 – ongoing*

##### Description:

The joint environmental-technologies export initiative of Environment Minister Josef Pröll and the Austrian Federal Economic Chamber is a vital contribution to global environmental protection and makes it easier for Austrian enterprises active in the environmental technology sector to market Austrian environmental technologies. Moreover, it helps to further diminish remaining information deficits concerning the possibilities for use and the economic and ecological benefits of environmental technologies from Austrian environmental technology industry on these international markets. The information events abroad present the offers and problem-solving capacities of Austrian environmental technology and service providers. In addition to the opportunity of participating in various seminars on the target markets, participants present their environmental-technology products right on the spot. The goods and services offered by the enterprises selling environmental technologies are presented also in joint catalogues and business guides. The export initiative is permanently accompanied by a touring exhibition which informs about on the capacity of Austrian environmental technologies. As the major part of Austria's environmental-technology providers are small- and medium-sized enterprises, such a measure will particularly boost the competitive strength of these companies. The export initiative 2005, led by Environment Minister Josef Pröll and the Vice-President of the Federal Economic Chamber, Mr Richard Schenz, respectively the Vice-President of the Economic Chamber of Upper Austria, Mrs Rabmer-Koller, and accompanied by large economic delegations of Austrian environmental technology enterprises and numerous representatives of the press and television had stays at the following places: Zagreb (Croatia) in April 2005, Moscow (Russia) in June 2005, and Bucharest (Romania) in October 2005. The following schedule is planned for 2006: Kiev (Ukraine) in April 2006, Belgrade (Serbia) in June 2006, and Warsaw (Poland) in autumn 2006.

##### Major achievements:

The initiative avails new sales, cooperation, and investment opportunities for Austrian suppliers of environmental technologies, in particular also for small- and medium-sized enterprises, on the different target markets.

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#### **IV.8 ETAP Action 11: Creation of an eco-industries umbrella organization within the Austrian Federal Economic Chamber**

*Duration: 2003 – Umbrella organization continues to operate successfully, finished*

##### Description:

In order to be able to better respond to the needs of companies producing installations for the renewable energy sector, such as small hydro-power plants, biomass-, biodiesel-, and biogas-plants, heat pumps and photovoltaic systems, the new Umbrella Organisation Energy-Climate Protection (“Dachverband Energie-Klima”) was set up in 2003 within the framework of the Austrian Federal Economic Chamber. (Background information: As the term “eco-industries” comprises companies with a large diversity of activities, partly closely connected with traditional industries and partly completely new, it had been a challenge for some time, to reflect the eco-industries adequately in the structure of the Federal Economic Chamber. For example, many environmental technology companies were grouped within the Association of the Austrian Machinery and Metalware Industries, others in the building sector, or within the representation of the consulting engineers).

The Umbrella Organisation is active in the following areas:

- Compiling statistics about the sector as a basis for PR and lobbying activities
- Commissioning and participating in studies about the renewable energy sector
- Publishing brochures to showcase Austrian environmental technologies and firms, as a means to support export.
- Lobbying with respect to the Kyoto Strategy
  - Providing opinions on national and international draft legislation
  - Working towards a harmonised regulatory framework
  - Supporting and promoting technologies with maximum Austrian added value

##### Major achievements:

Creation of a unified representation and contact point to serve the needs of producers of systems harnessing renewable energies.

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#### **IV.9 ETAP Action 19: Conference on green procurement and on performance targets with the European Commission**

*Duration: 2006, planned*

Description:

The topics of the conference on green procurement and performance targets, which is planned for spring 2006 and will be organised and conducted in cooperation with the European Commission, will be “best-practice” examples, the ETAP, the formulation of the targets for the environmental performance, and green procurement. The conference will also focus on strategies and examples for the implementation of green procurement in administrations and enterprises which further the development of sustainable consumption patterns and the introduction and penetration of the market for environmentally compatible products, services and technologies in Europe. The main topics of the conference will be the final report of the study of the European Commission on green public procurement as well as the development of harmonized environmental data sheets for the procurement. The promotion of the procurement of environmental technologies and the formulation of targets for the environmental performance in various business sectors will be summed up and outlined in different workshops.

Major achievements:

The idea of the event is to raise international awareness on the advantages of green public procurement and to demonstrate how to conduct green procurement procedures. The main aim is to promote green public procurement by explaining its functioning in clear and simple terms and demonstrating its positive impact by way of many best/good practice examples.

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#### **IV.10 ETAP Action 22: klima:aktiv**

*Duration: 2004-2012, ongoing*

##### Description:

In 2004 the Austrian Ministry of Agriculture, Forestry, Environment and Water Management ("Ministry of Life") launched an eight-year initiative programme for active climate protection. klima:aktiv is an innovative add-on to common instruments of the Austrian Climate Strategy, introducing target-group oriented programmes in the areas construction and living, transport and mobility, company policies, electricity saving, and renewable energy sources. Within these fields 15 thematic programmes have already been, or will be, launched by the end of 2005. The klima:aktiv programme combines various market-constituent measures and effectuates target-oriented implementation, by providing easier access to target groups and resources for attaining the commonly set targets, by enhanced know-how-transfer with support in vocational training and networking of important actors, by the organisation and development of quality assurance and standards as well as by target group-specific information and marketing.

klima:aktiv provides targeted support for e.g. further education and vocational training of key-players, for quality management or for target-group specific information, motivation and marketing. The single klima:aktiv thematic programmes set targeted impulses and therewith help to transform the market. Furthermore, the sheer number of programmes gives the whole initiative quite some awareness and makes "the whole more than the sum of its parts".

klima:aktiv stands as a "brand", a corporate design. Under the umbrella of klima:aktiv several programmes, actions and services are combined. No thematic programme will appear with own logos or "sub-logos", except "klima:aktiv mobil", combining the transport-relevant activities and thematic programmes. The logo and brand klima:aktiv is only to be used under specific conditions and in activities carried out within or closely linked to the programme.

klima:aktiv stands for an active and successful contribution to climate protection with measurable results. The aim is to abolish the apparent contradiction between the economy and ecology. klima:aktiv wants to talk a modern, "life stylish" language. klima:aktiv does not want to moralise or "teach" but show the advantages of climate protecting action and products.

##### Major achievements:

klima:aktiv is has been running for one year. In the following, the main objectives are presented:

The overall objective is to reduce energy consumption and to enforce CO<sub>2</sub>-neutral usage of energy. klima:aktiv is determined to affect a breakthrough in the use of climate-friendly technologies and services for increased energy-efficiency and of renewable energy sources, as well as to accrue market. The initiative is aimed at enhancing quality and accelerate the introduction of climate-friendly technologies and services, which shall become the self-evident alternatives for companies and for private end-users as soon as possible. By

activating all relevant actors through networking the business location of Austria will be strengthened in a sustainable and innovative way. At the moment 15 klima:aktiv programmes are running or are on the way to start by the end of 2005. In total, more than 25 programmes will be worked on for klima:aktiv. klima:aktiv is an initiative of the Austrian Ministry of Agriculture, Forestry, Environment and Water Management. The Austrian Energy Agency is responsible for the operational implementation of klima:aktiv. The individual climate protection programmes are carried out by various programme managers.

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#### ***IV.11 ETAP Action 22: Analysis of business-to-business relations along production chains***

*Duration: 2006, planned*

*Description:*

By regarding barriers and drivers for the uptake and diffusion of environmental technologies business-to-business relations and their nature seem to have a significant importance.

Objective of this study is to analyse and describe business-to-business relations along production chains in the context of usage of resources, procurement, product value chains, respectively product life cycles and performance targets related to this actions. In Austria mainly the automotive sector, construction of engines, the wood value chain, the food and drink sector and the construction sector are concerned, whose business-to-business relations are very different thoroughly. The aim is to find out, who is to be addressed efficiently in order to enforce the use of environmental technologies, environmental friendly processes and products and to break down non-technical barriers that hinder their diffusion. The second aim to determine the current role of performance targets in industry to industry relationships and a possible future role with focus on environmental friendly processes and products.

*Major achievements:*

To analyze and strengthen the role of Environmental Technologies via industry to industry relationships along production chains

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**V. Austria's actions regarding "Acting globally and moving forward" (ETAP Actions: 24-28)**

**V.1 ETAP Action 25: Supporting the development of competitive eco-industries**

*Duration: Mid 2004 - end 2006, ongoing.*

Description:

The eco-industries have been designated as one of nine "promising sectors" within the framework of the "go-international" campaign of the Austrian Ministry for Economics and Labour and the Federal Economic Chamber. In order to help Austrian companies to make use of the chances that promising export markets for environmental technology - namely Bosnia and Herzegovina, Croatia, Japan, Poland, Serbia and Montenegro and Ukraine - offer, the following five elements of support are available.

- 1) **Reports** on framework conditions of each of the markets, chances for projects, planned major investments into the environment infrastructure.
- 2) **Seminars** where the above reports are being presented, and where experts from the target markets are available for Q+A in Austria.
- 3) **Special events** organized in the target market, so-called "Austria Showcases", where Austrian companies can present their products/services to potential customers and trade experts in their specific field.
- 4) For the time of the "go-international" campaign, **Key-Account-managers** are available in the target markets to support Austrian eco-firms and provide them with information and contacts.
- 5) A **catalogue** featuring the wide variety of Austrian environmental technology firms, products, and services has been printed in English and German and is being distributed via the Austrian trade offices abroad.

Major achievements:

Contributed to improving competitiveness of eco-industries by providing information and facilitating access to export markets.

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