

EMAS - Newsletter

The European Eco-Management and Audit Scheme

Improving your environmental
and business performance

<http://ec.europa.eu/environment/emas>

Editorial

This newsletter focuses on EMAS in the education sector, which affects about 92 million pupils and students, over 20% of the EU population. EMAS increasingly finds its way into schools, universities and other educational institutions where a wide implementation allows for environmental education, efficient resource use and ecological optimisation. In terms of sustainable development, early familiarisation for children and young adults is important to guarantee improved environmental behaviour at home and in professional life. EMAS contributes to keeping high-quality education systems affordable while providing for sustainable maintenance of our habitat.

In this edition we feature innovative institutions such as the University of Macedonia in Greece, that strives to impart EMAS principles from generation to generation and the Italian school Liceo Cornao that uses original pedagogical approaches and all members of its community as a driving force to achieve environmental objectives. EMAS is also helping the Politenich Institute Jesús Obrero in Spain, which has 15 years of environmental excellence and the University of Lüneburg, Germany, which is still improving environmental performance six years after EMAS registration. Finally, there is an insight into the DIR-EMAS in schools project which created a network between schools in Germany, Austria, Finland, Sweden and Romania.

The EMAS Team, Environment Directorate General, Unit G2, European Commission.



European Commission

EMAS in Education

Report

First EMAS registered University in Greece

As a result of an ambitious project with the Municipality of Thessalonica, the University of Macedonia registered under EMAS in December 2005. Since then, the University has not only constantly improved its own environmental performance but has been striving to become a focal point for dissemination of information on environmental management in Greece with an aim to ensure sustainable transfer of environmental education.

The University of Macedonia, Economic and Social Sciences, is one of the newest Institutions of Higher Education in Greece. It was established in 1990 as a spin-off of the Graduate Industrial School of Thessalonica founded in 1957. In addition to publication of various promotional and information materials for EMAS implementation in Academic



Several Volunteer Support Groups, consisting of personnel and students, ensure an active involvement of all the project's beneficiaries.

Institutes, a team of the University's environmental students have created an ecological centre, at the Municipal Park at Nea Elvetia, financed by the Municipality of Thessalonica. At this so-called "environmental educational kiosk" students conduct study visits for primary school children. The aim is to impart practical environmentally-friendly attitudes at a young age. The two-hour activity programme

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EMAS

Performance, Credibility, Transparency

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includes introductory video clips, discussions on ecological problems on the planet and environmentally friendly behaviour in our everyday life, interactive environmental games and "treasure-hunting" in the park. University students act as guides for school pupils to show them the bioclimatic architecture of the ecological centre, which was constructed from ecological materials and in a way to maximise energy savings. Furthermore, pupils are given a demonstration and explanation of recycling machines as an introduction to the idea and

value of re-use, and can make craft projects from recycled materials. The project deepens students' studies as they have to transfer their knowledge to a younger group. The overall project aims at increasing the sensitivity to ecological problems with students and pupils learning that sustainable solutions involve changing behaviour.

Best practice

Liceo Scientifico Alvisè Cornaro in Italy uses EMAS as a tool for Environmental Education

The *Liceo Scientifico Alvisè Cornaro* (Pádova, Italy) has found EMAS a fitting tool to educate its 900 pupils on the environmental impacts caused by human activity while understanding the relevance of sustainable development. Every member of the school is a driver for the success of the scheme. Teachers, administrative staff, students and parents are part of an Environmental Committee which, since 2001, has steered the process and takes care of the different steps and actions. The environmental management system is run using innovative activities that involve both teachers and students. For example, the data necessary to measure water and energy consumption or waste production are collected by students accompanied by a teacher. Afterwards, students participate in the treatment of the data, learning informatics techniques. The figures are then used in different modules where students can follow the achievement of different objectives, which so far has been even higher than initially expected. For example, between October 2004 and May 2005 as a result of the improvement and better control and use of installations, water consumption decreased by 22%, gas consumption was reduced by 19.7% and electricity consumption was cut by 6.4%, the initial reduction targets being 0.6%, 3% and 0.5%, respectively. Furthermore,

significant results have been achieved in waste management by increasing the separate collection of items such as cans, plastics, paper, batteries and toners.

With this original approach the Environmental Committee is using the indicators not only as evidence of the impact that the school has on the environment but, equally importantly, as an opportunity for the school community to look at how the environmental management system can improve the environmental performance of their school. In this way, EMAS serves as an instrument to facilitate an environmental sensitivity and way of thinking that students will bring to their future professional fields and social activities, such as family and leisure time. Given the importance placed on environmental education in the organisation, teachers are striving to use a cross-sectoral approach by introducing several activities in all subjects from Physics to History and Latin to Mathematics. Moreover, a team of 70 environmental volunteers, two per class, and a team of 10 students responsible for waste separate collection, have been set up. They play a very special role as they are responsible for promoting good practice among their colleagues. Finally, parents and suppliers are targeted through meetings and training, with purchase



At the Liceo Alvisè Cornaro EMAS is proving that everyday life of all members of the school community has a central role in promoting the culture of sustainability among the present generation, transforming the school into a participative and active place working towards sustainable development, the central objective of Agenda 21.

of ecological and fair products also on the school agenda.

Being the first EMAS registered school in Italy, this innovative organisation leads the way through active participation in different school projects such as the "Agenda 21 a scuola" promoted by the City of Padova. They proudly received an award in Turin during the European EMAS Award gala held by the European Commission and the Italian Competent Body at the end of 2005.

All this and much more is to be found in the school EMAS website: www.liceocornaro.com



Interview

The DIR - EMAS in schools - joining forces in the education sector

"DIR-EMAS" was a Comenius School Project promoting trans-national co-operation between schools. Pupils from all schools participated in project activities.



On the initiative of Christiane Bodammer-Gausepohl, vocational school BBS Osterholz-Scharmbeck in Germany and Dr. Herbert Wieninger, Vienna Rahlgasse grammar school in Austria, the DIR - EMAS in schools project has been running from 2003 to 2006. The other key partners are schools from Finland, Sweden and Romania. All five schools were already engaged in environmental activities, however, only the Austrian school had implemented EMAS. Project Coordinator Ms. Bodammer-Gausepohl, interviewed below, outlines the project and future plans, as well as the benefits and challenges of EMAS in the education sector.

What exactly was the content of DIR-EMAS in schools and how did the project come into being?

The abbreviation "DIR" stands for Developing, Implementing and Running EMAS in schools. The Rahlgasse grammar school had registered under EMAS in 2000 and our (who is speaking?) school in Germany was involved in environmental activities. However, aiming at a rather holistic approach we decided, together with our Austrian partner, to create a network of schools and to implement EMAS in each of the five schools as a systematised way to perform environmental management. Our new partners were the "Colegiul

National - Emil Racovita" in Romania, the "Nils Ericsons Gymnasiet" in Sweden and the "SYKLI Suomen ympäristöopisto" in Finland. Through annual conferences with representatives of all schools and regular exchange of information, all network partners benefited from this cooperation and shared experience.

Why do you consider EMAS appropriate for the education sector and what methodology do you apply to impart the EMAS principles to your students?

EMAS in the education sector allows for a significant increase in the sustainability of the results achieved. The participation of all instructors and students in the implementation of the scheme ensures not only a better environmental atmosphere in the organisation itself but also an improved environmental culture and team spirit as each person gets personally involved. Consequently students will also introduce this environmentally favourable conduct in their future work environment. Methodologies vary depending on the pupils' and students' age. For example, competitions on environmental behaviour for pupils in grammar schools are held to make them acquainted with the EMAS principles and to impart environmental responsibility in a fun way. At student level activities may involve assessment, for example, looking at the environmental performance in EMAS registered organisations or researching the actual value of environmental measures such as recycling paper, defending their findings and concluding proposals in panel discussions.

What are the results and challenges of the DIR-EMAS Project you would particularly consider of interest for other educational institutions?

In 2003, when not many educational institutions had registered under EMAS, the

Barriers to the successful introduction of EMAS in small organisations have mainly been related to administrative procedures and the external costs of consulting and certification. These are gradually being removed through innovative approaches, using the simple, visually-based Ecomapping and very lean information systems to make EMAS implementation easier.

main challenge was the application of the EMAS concept and applying the wording to the educational sector. Given the fact that all network partners were new to the system, we coped with this challenge together. The most important results are that EMAS gives a significant impetus as a result of which environmental education enters all subjects and instructors take on board more and more environmental initiatives. In addition, the systematic approach of EMAS ensures continuous improvements and automatically brings a road map that finally forms the environmental management system. Our school in Germany is going to be registered soon and the schools in Finland, Sweden, and Romania are actively working on EMAS implementation.

What are your future aspirations upon registration and completion of the project?

We intend to further enlarge the network and to merge it with another network with which the Rahlgasse grammar school is involved. The second network also includes educational institutions in Italy, France, Belgium and Germany. We are striving to unite this network with ours and to affiliate further institutions, preferably from the Baltic countries and Turkey. Our aim is to focus on promotion of EMAS in regions with less experience of the implementation procedures. We propose to offer our assistance not only in conferences but also in bilateral meetings with newcomers. Our objective is to encourage as many educational institutions as possible to get started on environmental protection with EMAS as this is the best opportunity for a systematic and consistent approach towards a tailor-made sustainable EMS.



EMAS in figures

The number of sites, 5,140 on December 15th, is at an all-time high. The number of organisations has reached 3,470, which is also the highest number ever registered since EMAS II. EMAS registrations have grown steadily in 2005 and 2006. The statistics are now collected for both registered organisations and registered sites.

Registered

	organisations	and sites
Austria	252	358
Belgium	39	334
Cyprus	0	0
Czech Republic	21	22
Denmark	117	284
Estonia	2	2
Finland	42	50
France	17	17
Germany	1,487	1,936
Greece	51	54
Hungary	8	11
Ireland	8	8
Italy	529	699
Latvia	0	0
Lithuania	0	0
Malta	1	1
Luxembourg	1	1
Netherlands	15	19
Norway	25	25
Poland	2	2
Portugal	53	58
Slovak Republic	3	3
Slovenia	1	1
Spain	653	811
Sweden	84	85
United Kingdom	59	359
TOTAL	3,470	5,140

Leading industrial sectors:

Sectors	Registrations
• Chemicals	265
• Food and beverages	261
• Sewage and refuse disposal	241
• Fabricated metal products, except machinery and equipment	224
• Electricity, gas, steam and hot water supply	178

Leading service sectors:

Sectors	Registrations
• Hotels and restaurants	217
• Public authorities	185
• Other business activities	149
• Education	148
• Health and social work	113

News

The Politenich Institute **Jesús Obrero** in Vitoria (Spain) sets an example for EMAS in secondary and vocational schools

Jesús Obrero has been in the environmental vanguard for more than 15 years achieving ambitious goals for environmental training and best practice. In January 2006 its efforts were recognised and the institute became the first EMAS registered school in the Basque Country. Nowadays, they value EMAS as a system of excellence to spread environmental principles among students, teachers and parents by setting an example with concrete but innovative actions which are part of daily life at the institute. As a result, all members of the school community are ensuring high levels of separate collection and correct disposal of hazardous waste. Energy management is also given a special priority, and, in addition to awareness-raising, other actions are on the menu: boiler fumes are used to heat water, informatics systems ensure the right temperature in rooms and efficient light bulbs, motion detectors and solar panels have been installed. Moreover, students are used to all kind of environmental workshops, from re-use of materials or sustainable mobility to responsible consumerism and recycling. For the institute, it is important that society acknowledges their students' exemplary environmental behaviour and that this knowledge is taken on into their professional lives.

Please read the environmental statement of *Jesús Obrero* at: http://ec.europa.eu/environment/emas/es_library/library_en.htm

Innovation at the University of Lüneburg in Germany

The University of Lüneburg in Germany looks back on six years of EMAS registration and numerous innovative projects. The Institute was one of the pioneer Universities in Europe that registered under EMAS in 2000. Sustainability and environmental protection through EMAS are part of research and training in all its diverse faculties, as well as in the Institute's daily business. Exemplary projects include the installation of a photovoltaic system in 2005. It produces 6,000 kWh per year and is at the same time used for training purposes. In addition to continuous reduction in energy and water consumption, the University participated in the competition for the "European Energy Trophy" and saved 12% heat energy and 7% electricity within one year. A further 58,500 kWh heat energy per year were saved through targeted measures between Christmas and New Year. This also reduced the power station's emission of carbon dioxide by 6.8%. Since 2005 the Institute has held the UNESCO chair "University Education for Sustainable Development" for the promotion of sustainable development through cooperation with other Universities at an international level. "Our success encourages us to set ambitious targets for the future to further improve our performance in view of environmental protection and sustainability", says Prof. Dr Schaltegger, Vice-President for Research and Projects.

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Upcoming events

21>24 March 2007
Seville, Spain
Fifth European Conference on Sustainable Cities & Towns - Sevilla 2007 "Taking the Commitments to the Streets"

For further information please visit: www.sevilla2007.org

07>10 May 2007
Umweltinstitut Offenbach, Germany
Seminar for environmental auditors, verifiers and consultants on EMAS and ISO 14001

More information is available here: www.umweltschutz-news.de/136artikel902.html

26>27 March 2007
Leoben, Austria
Sustainability Management for Industries

Detailed information is available here: wbw.unileoben.ac.at/nw/smi07/smi07_start.html

14 March 2007
Vienna, Austria
Final Workshop of the series "With EMAS towards ecologically active local authorities"

Further information can be found here: http://kan.at/OEWAV.aspx?target=91408&l=2&act=1&select=23#show_91408

February>April 2007
Madrid, Spain
Training course on Environmental Management (ISO 14001 and EMAS)

For more information visit: <http://www.mastermas.com/masters/master-gestion-medioambiental-segun-norma-iso-14001-2004-y-emas-182592.html>

26 February 2007>09 July 2007
Palermo, Italy
Training course - EMAS and the Ecolabel in Agriculture

More information is available on: http://www.orsanet.it/index.php?option=com_content&task=view&id=356

February>March 2007
Vienna, Austria
Seminar on EMAS III

Please download the registration form at: <http://www.eta.at/download/seminaruebersicht.pdf>

01>28 February 2007
Badajoz, Spain
First Iberian Congress of Quality, Sustainability and Safety in the enterprises

For further information please visit: <http://www.qas-empresa.eu>

25 January 2007
Milan, Italy
Convention "Promotion of EMAS in Lombardia"

For further information please contact Arpa Lombardia:

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