

# EMAS - Newsletter

## The European Eco-Management and Audit Scheme

Improving your environmental  
and business performance

<http://www.europa.eu.int/comm/environment/emas>

### Editorial

This newsletter focuses on the health sector, where EMAS registrations have been growing steadily since 2001.

The European Commission Environment and Health Action Plan (2004-2010) proposes an integrated approach between the areas of health, environment and research, which makes it easier to assess the environmental impact on human health. In this context EMAS is starting to prove a valuable tool to provide systematic information and benchmarking of environmental data to health sector institutions.

Organisations using EMAS have achieved considerable reductions in resource consumption and waste production. In this edition we highlight the Hospital Virgen de las Nieves, Granada, which has cut energy costs by 28.7%, saving € 7,000 pa, and the Regional Hospital Murzzuschlag, Austria, which has reduced chemical use by 35%, saving € 1,200 pa, after installing a digital X-ray machine. Managing environmental aspects has also been shown to benefit patients directly, for example by addressing the side-effects of less environmentally-friendly products.

Over 100 hospitals and other social services are already registered under EMAS in Europe. It is hoped that discussion on the use of Environmental Management Systems to improve a hospital's environmental performance at the CleanMed Europe 2006 conference in Stockholm, May 29-31, will attract many more.

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



European Commission

## EMAS in the health sector

### Best practice

### The IEM network

A truly European approach shares development costs and enables benchmarking of EMAS in the health sector

**The Integrated Environmental Management network (IEM) consists of four EMAS-registered hospitals in Italy, France, Austria and Germany. In a cooperative approach, they developed an innovative methodology: the systematic involvement of personnel and an e-learning solution.**

The four hospitals that created the IEM network – Unità Sanitaria Locale 7 in Siena, Italy; Institute Paoli Calmettes, Marseille, France; Sanatorium Hera, Vienna, Austria; and Asklepios Harzkliniken, Goslar, Germany – saw their efforts crowned with success when selected as one of the best projects co-funded by the European Union Life environment programme. All four hospitals achieved EMAS registration, with the Italian and the French partners being a frontrunner in the sector in their respective countries.

In nearly all areas of a hospital it is possible to reduce environmental impacts through



sound management, without neglecting medical standards. A reduction in energy, water and other material consumption, and waste and waste water production, was

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seen as key to the development of an eco-friendly hospital, with awareness-raising and staff involvement being critical to achieve these aims.

At a European level the IEM project was the first comprehensive approach to a participatory quality and environmental management system that puts the staff at the centre of activities and includes an all-encompassing environmental education system.

Innovations introduced by the project include:

- **A new management approach:** the systematic involvement of personnel and the use of a modern, easy-to-use e-learning solution. The software is a learning system for operational environmental protection which is available free-of-charge.
- **A trans-national approach and environmental distance consulting** during the whole project which enabled evaluation and comparison of the hospitals' ecological success. Trans-nationally comparable data allowed benchmarking and a corresponding basis for improvement. External consultancy was minimised through training in-house staff, the so-called 'environmental multipliers'.
- **Training and qualification:** the environmental multipliers learned how to lead their hospitals to environmental certification under EMAS in 15 steps. They carried out the training themselves, so that it could be developed exactly according to individual organisations' needs. Compared with 'traditional' consulting services, the cost for consulting and coaching were reduced by about one third.

## Report

# The Hospital Virgin de las Nieves achieves EMAS registration

**The university hospital "Virgin de las Nieves" (VDLN) in Granada, Spain registered with EMAS in August 2005, having achieved spectacular cost savings through energy efficiency, better waste management and sensible use of water, in particular during the warm summer months.**

With 4,500 staff and 1,072 beds, the VDLN is the focal hospital in the region of Andalusia for neurosurgery and epilepsy. The hospital consists of 10 sites including administration, paediatrics, surgery and rehabilitation ward, first aid unit, dialysis and the San Juan de Dios Hospital.

In this complex organisation, EMAS provides a systematic tool to handle the data of the different sites and provides for continual improvement of the environmental performance. Faced with the decision to renew communication, technical and IT facilities, the hospital management seized the occasion to take the impact of waste, building maintenance, treatment, intensive care and procurement into account at a very early stage.

The management introduced environmental considerations as early as 2000 and thus achieved substantial

improvements: The installation of heat and cooling cogeneration resulted in a reduction of electricity use by 28.7% between 2000 and 2003, from 18.8 to 13.4 KWh / patient. Switching boilers from fuel to natural gas improved the CO<sub>2</sub> balance and resulted in cost savings of up to 8,600 MWh per year. The replacement of light bulbs led to a reduction in consumption of 30.5% to 38,300 Watts, and the annual savings of € 7,000 even exceeded the investment costs.

Raising the awareness of all staff played a major role in the process, for example, leaflets next to taps remind staff of the sensible use of water. In addition, the definition of indicators for all taps and pipes meant that the leaks in each building could be identified and remedied. Within only two years the water consumption per patient was reduced by 30% to 0.329 m<sup>3</sup>.

For more information see the hospital's website at: [www.hospitalvirgendelasnieves.org/index.php](http://www.hospitalvirgendelasnieves.org/index.php)



*"The implementation of EMAS will assist in reaching a higher level of sensitivity, responsibility and knowledge about the activities to be taken to protect the environment through everyday routine", explains Martín G. Blanco García, Director of the General Services of the hospital VDLN. The installation of heat and cooling cogeneration resulted in a reduction of electricity use by 28.7%.*



- **Integration and participation of staff:** Staff from different sectors was encouraged to work together on environmental issues which has resulted in mutual benefit to their different areas of work. For example, Quality Management benefited from use of the intranet, from internal training, and from suggestion systems and better communication.

Every partner contributed to the overall success of the network with specific innovations. For example, the environmental multipliers from Vienna elaborated and tested 'made-to-measure' training units for energy saving, whereas the cancer institute of Paoli Calmettes developed individual units for improved safety with X-rays and radiation. In the Asklepios Harzklinden hospital, an ordering system for patients'

meals was developed and tested with regard to ecological aspects. As measures are more easily implemented if a positive cost effect can be demonstrated, measuring stations for certain material flows were introduced by the Italian partner. On the basis of these it was possible, for the first time, to identify and introduce cost-saving measures.



The organisational structure, environmental management representatives, internal training approach for staff and an easier filing of documents have all contributed to a deep penetration and high acceptance of environmental management in the organisations involved.

For more information visit [www.iem-life.de](http://www.iem-life.de)

## Best practice Regional Hospital Mürzzuschlag (Austria) extends "prevention" from medical treatment to the environment

**EMAS was seen as an appropriate tool to answer the needs of a small hospital concerned with its environmental impact, and to provide for continual improvement of environmental performance.**

Founded in 1891, the small regional hospital of Mürzzuschlag provides surgery, anaesthesiology and intensive care, with 120 beds for about 17,000 patients per year.

"The integrated management system was started in 2002 in order to extend the idea of "prevention" from medical treatment to the environment", says Director Josef Wedl. The hospital registered under EMAS in 2004 with a vision to extend its credential, "people help people", to the impact of the facility on the environment.

The hospital has already reduced non-hazardous medical waste by 3.7 tons per year, a 9% reduction, through staff training. It also saves over 3 tons of developing liquids per year after installing a digital X-ray machine. This saves € 1,200 per year and reduces the use of chemicals by 35%. In addition, medical products are scanned for PVC after the scientific community has called for a phasing-out of softener DEHP in PVC products.

The hospital regional operator publishes an environmental report for 26 hospitals in the region. It shows that



The Health, Safety and Environment handbook of the hospital Mürzzuschlag is considered as a best practice example in a handbook for Integrated Management Systems including EMAS by the Austrian Ministry for Environment. It is available for download at <http://www.emas.gv.at/filemanager/download/10038>

Mürzzuschlag produces 3.24 kg of waste per patient per day, 34% less than the regional average of 4.9 kg.

Future environmental targets include:

- reduced transportation of dairy supplies;
- further reduction of detergents through change of quality and supplies;
- introduction of re-usable nappies and covers for mattresses.

This example shows that EMAS can help make a real improvement, even in a small structure, with the involvement of staff, and the help of benchmark data available at a regional level.

The Mürzzuschlag Environmental statement is available on the European EMAS website: <http://www.europa.eu.int/comm/environment/emas>

## EMAS website

<http://www.europa.eu.int/comm/environment/emas>



## EMAS in figures

The number of sites, 4,662 on February 15<sup>th</sup>, is at an all-time high. The number of organisations has reached 3,225, which is also the highest number ever registered since EMAS II. EMAS registrations have grown steadily in 2004 and 2005. The statistics are now collected for both registered organisations and registered sites.

### Registered organisations and sites

Austria	261	349
Belgium	35	229
Cyprus	0	0
Czech Republic	18	20
Denmark	121	289
Estonia	1	1
Finland	43	48
France	17	17
Germany	1,499	1,967
Greece	27	27
Hungary	2	2
Ireland	8	8
Italy	412	485
Latvia	0	0
Lithuania	0	0
Malta	1	1
Luxembourg	1	1
Netherlands	22	26
Norway	18	18
Poland	1	1
Portugal	43	48
Slovak Republic	2	2
Slovenia	1	1
Spain	528	669
Sweden	100	115
United Kingdom	64	338
<b>TOTAL</b>	<b>3,225</b>	<b>4,662</b>

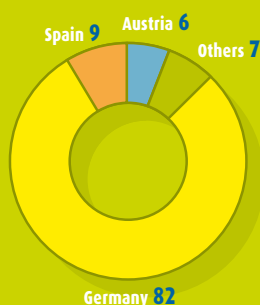
### Leading industrial sectors:

Sectors	Registrations
• Food and beverages	261
• Chemicals	260
• Sewage and refuse disposal	224
• Fabricated metal products, except machinery and equipment	222
• Electricity, gas, steam and hot water	175

### Leading service sectors:

Sectors	Registrations
• Hotels and restaurants	217
• Public authorities	162
• Education	126
• Other business activities	122
• Transport	112

### Health and social work organisations registered with EMAS



## Upcoming events

28 > 29 April 2006  
**Imperial Palace, Vienna, Austria**  
**International Conference on Environmental Management and Innovation**

For more information please check:  
[www.emasconference2006.at](http://www.emasconference2006.at)

27 April 2006  
**Vienna, Austria**  
**Schools and EMAS**

For more information please check:  
[www.emasconference2006.at](http://www.emasconference2006.at)

4 > 6 July 2006  
**Malta Enterprise, San Gwann**  
**EMAS Verifiers Training Course**

Find more information on  
[www.m-ems.com/program.htm](http://www.m-ems.com/program.htm)

29 > 31 May 2006  
**Stockholm City Conference Centre**  
**CleanMed Europe 2006**

Find more information on  
[www.cleanmed.org/europe/2006/home.htm](http://www.cleanmed.org/europe/2006/home.htm)

22 > 23 March 2006  
**Osnabrück, Germany**  
**"The Health hospital of the Future"**

For further information, please visit  
[www.greeninghealthcare.de/modules.php?op=modload&name=News&file=article&sid=94](http://www.greeninghealthcare.de/modules.php?op=modload&name=News&file=article&sid=94)

## News

### First Hospital in the Aegean area applies EMAS

The General Hospital Asklepion in Voula (Greece) launched a LIFE Environment Project in 2004. As a pioneer among the hospitals in Greece the management largely developed its environmental policy and administrative structures on the basis of the EMAS regulation by means of an efficient data management system. At present the project is focusing on the disposal of contaminated waste, the promotion of energy efficiency, green purchasing and other sustainable environmental practices. Through the implementation of EMAS best practices and environmental awareness are promoted throughout the whole region.

You can find more by visiting:  
[http://europa.eu.int/comm/environment/life/project/compilation\\_2004.pdf](http://europa.eu.int/comm/environment/life/project/compilation_2004.pdf)

### LEONARDO Programme encourages medical staff to become environmental managers

For the promotion of EMS in hospitals the website [www.greeninghealthcare.net](http://www.greeninghealthcare.net) offers an efficient e-learning tool and a database providing expert knowledge on environmental hospital management with respect to the corresponding management systems EMAS and ISO 14001. As the EU Programme LEONARDO provides funding for the practical training of professionals, trainees are particularly encouraged to subscribe for the courses covering basic environmental management, the organisation of environmental projects in hospitals and the communication of environmental aspects.

For more information, case studies and access to the e-learning course on greening hospitals visit:  
<http://www.greeninghealthcare.net>

### CleanMed Europe 2006, Stockholm City Conference Centre, May 29<sup>th</sup> to May 31<sup>st</sup> 2006

The 2nd CleanMed Europe - the premier environmental conference for leaders and staff within healthcare - is going to take place from May 29 to May 31 in Stockholm, Sweden. On this occasion 500 professionals dedicated to greening the healthcare sector will gather to debate steps towards ecologically sustainable healthcare systems. Central topics will include the implementation of Environmental Management Systems such as EMAS to improve a hospital's environmental performance significantly, environmental risks associated with drugs and drug residues, best practices on waste management and hospital and clinical waste.

For more information visit: <http://www.cleanmed.org/europe/2006/home.html>

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