Eco-Management and Audit Scheme (EMAS) for the Grammar School GRG6, Rahlgasse, Vienna

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Abstract

The grammar school GRG6, Rahlgasse in Vienna has introduced an environmental management system and audit scheme (EMAS regulation (EC) No 761/2001). The goals are to improve the environmental impacts of the location, like saving energy by using IT, reduction of waste, a change to ecological cleanses and detergents, and to improve the ecological and environmental knowledge by teaching environmental topics as part of the regular lectures, implementing a special lecture called „environmental management systems and profession finding„, and installing an environmental league for training environmental awareness. The success of EMAS since it has been installed is a high acceptance of the environmental targets by students and teachers, reduction of costs and environmental impacts and a higher transparency of the management.

1. The school site

The GRG6, Rahlgasse is a grammar school in the centre of Vienna, Austria. It is a small school with approximately 550 students and 65 teachers. Because of its location near the centre of the city there is no school yard, and the space for class rooms is limited.

According to the teaching principle for environmental education every school year a great number of environmental projects are performed. In the last years two major projects have affected the whole school:

1. introduction of an energy management system, using the saving potential by changing the user's behaviour
2. introduction of a garbage separation system to reduce waste.

Projects like these are accompanied by the disadvantage that after the project has ended the benefits get lost very soon. Therefore the idea to introduce a management system was born. This system has been established to control the lasting efficiency of

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changed user behaviour (to save energy and to prevent and separate waste). After comparing we found that the best available management system for this purpose is the one regulated by the EU, the EMAS.

2. Installing an EMAS

The main goal of EMAS is to improve the already existing environmental protection actions, like waste separation and reduction and energy-saving, and to improve the overall environmental performance of the whole school management. The improvement of the environmental consciousness of the students and the teachers is also an important aspect.

First of all the 'environment team' was established. Then the members got trained in the main topics of an EMAS. Considering the whole number of environmental aspects and impacts the environmental management programme leads to the main objectives and targets. They can be divided into two groups:

1. Improving the impact of the location
   - saving energy by using IT,
   - reduction of waste,
   - a change to ecological cleanses and detergents,
   - reduction of the amount of used paper and change to recycling paper,
   - enforcing healthy food and fair trade products at the school buffet.

2. Improving the ecological and environmental knowledge by
   - teaching environmental topics as part of the regular lectures,
   - implementing a special lecture called ,environmental management systems and profession finding,
   - installing an environmental league for training environmental awareness.

3. The targets defined within EMAS

1. Reducing waste by
   - separating biological wastes by placing a separate container at the buffet,
   - reducing metal wastes by 50% (in reference to the amount of 1999) by substituting the cans of the soft drinks with a refilling system,
   - and starting an information campaign for the students and parents about the environmental impacts of the different materials of softdrinks containers,
   - spreading the waste separation system over the whole school building. The information about the usage and advantages should be trained with the environmental league (how students use and empty the containers).

2. Reduce the amount of materials used in the office by
a 20% reduction of copy paper due to less copying and double-side copying, usage of recycling paper for copies and usage of ecological office material by ecological procurement and inform the parents about the contents of an ecological school bag.

3. Reduction of the energy demand by 21% compared to 1998.

Conclude an energy-contracting and taking measures, like reducing the average room temperature, improving the heating and ventilation system control, reducing the use of not necessary lights and avoiding electronic devices in the „stand-by“ status.

To increase the acceptance of this target an on-line internet information system has been installed (www.grg6.asn-wien.ac.at/energie) to provide information about the energy use at any time (see picture 1).

Information about the usage and the advantages of the energy management are trained with the environmental league.

4. A change to ecological cleanses and detergents by reducing the amount of cleanses by 5%, the rough cleaning done by the students with a sweeper in every classroom, covering the tables with wrapping paper, to avoid the tables getting painted (this saves the usage of a very poisonous detergent to clean the tables), training of the usage and advantages of ecological clean-
ing techniques through the environmental league (when and how to use sweepers, keep the classroom clean...).

5. Healthy food in the canteen will be achieved by increasing the offer of biological grown food and drinks and starting an information campaign about healthy food and wellness.

6. Teaching environmental topics as a part of the regular lectures. Every class should have a minimum of three environmental topics every year. In the following subjects teachers have worked out environmental curricula: Languages (French, Italian, Latin), Science (Mathematics, Physics, Biology) and Psychology.

7. A special lecture called „environmental management systems and profession assessment„, has been implemented. The complete lecture consists of three modules (each one lasts one year) and started first in 2001:
   - Module 1: Ecology and environmental protection
   - Module 2: Ecomanagement and economics
   - Module 3: Practical work and a project case

8. A discussion board for environmental items has been implemented. A blackboard has been fixed in the open area for information and discussion. It is run by students. A web-site will has been created with basic information (www.grg6.asn-wien.ac.at/umwelt) and a chat room will be offered soon within our existing website.

4. The environmental league

The environmental league for training and improving environmental awareness is a contest with the following rules:

1. each class plays against the others,
2. each class gets points for special environmental behaviour,
3. there are nine criterias reaching from energy saving, waste reduction to classroom cleaning,
4. the class with the highest amount of points is the winner,
5. each classroom will be checked once or twice a week by a member of the environmental team,
6. the league starts in October and ends in April (this includes the heating period),
7. there is a monthly computation, and a monthly winner class, and a total computation and winner class at the end of the year.
The monthly winner gets chocolate from a fair trade shop, the total winner gets a cheque, sponsored by the energy-contracting partner (see picture 3). Through these measures the participants will learn responsibility for their local environment.

The success is as following:
- high acceptance of the environmental targets by students and teachers,
- energy saving,
- waste separation and reduction,
- less garbage and dust in the classrooms.

The GRG 6, Rahlgasse won the EcoBusinessPlan-Award 2002-Communication for this environmental league!

Fig. 2: The winner class 2002

**Bibliography**
