



# Join us for the energy revolution!

A guide for actors  
in schools and local communities



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Join us for the energy revolution! A guide for actors in schools and local communities

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## The project is over – let's start working!

The EGS project lasted over 30 months – from September 2008 until February 2011. We started with the aim to strengthen the schools role in the energy revolution. It was our aim to improve the capacities of schools. Schools – so our idea – should participate in the process of improving energy efficiency in their local community; even more, they should play a key role here. Last but not least, we started to inform as many people as possible on energy efficiency and on renewable energy sources and, thus, to fill them with enthusiasm for the energy revolution.

Under the guidance of the scientific high school “N. Tron”, 23 partners from 10 European countries worked powerfully to achieve these goals.

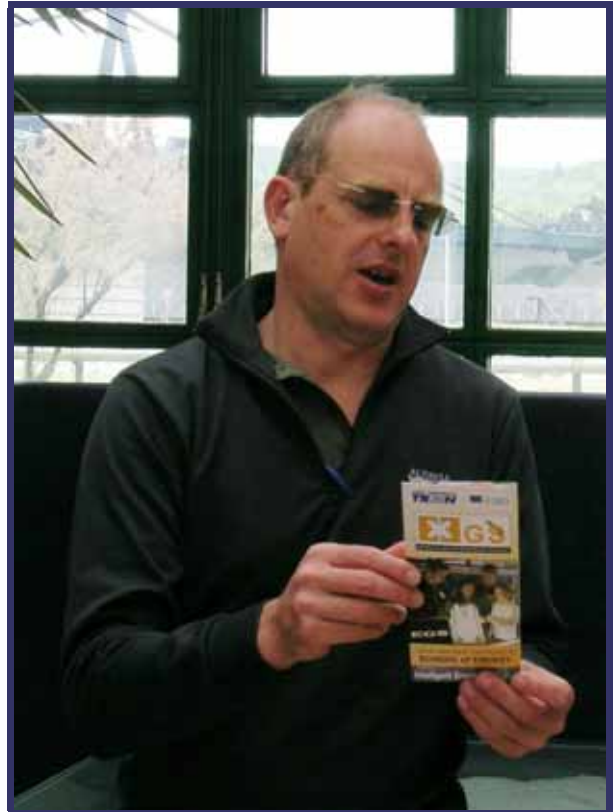
This pamphlet shall report on our work. For detailed information, please have a look at our website.

The EGS project is finished. What should happen now? Should we be satisfied, say “goodbye” to each other and go home?

No! From the very beginning, the EGS project was not planned like this! The 30 months project period (friendly support by the EACI) is only one step on our way – this is valid for the whole project community as well as for every single partner.

In the EGS project, we developed classroom lessons, presentations and tools for the environmental management in schools. We will use them also now after the end of the EGS project as a basis for further success.

Our local forums methodology enables schools to participate to the energy revolution at local level. Many communities in Europe are elaborating climate protection concepts now – our local forums methodology could be applied there, too.



In the local forums, we developed many powerful project ideas, which we desire to put into practice in the future.

We gained experience and improved our skills, and we will apply them in further projects.

We could involve partners at local, national and international level, which will go forward with us to an energy efficient world.

The project is over – let's start working! This is the leading idea of this pamphlet. We invite you to a short look back. But most of all, we would like to introduce to you the tools and material, we have developed. We would like to encourage you to join the energy revolution and to use our outcomes and our expertise.

### **The project is over – let's start working! Will you join us?!**

Follow us online:

- at our website [www.egs-project.eu](http://www.egs-project.eu); please, sign the Manifesto for energy efficiency there and subscribe for our newsletter
- and at facebook under [www.facebook.com/pages/EnergyEducationGovernanceSchools-EGS/138360922890169](https://www.facebook.com/pages/EnergyEducationGovernanceSchools-EGS/138360922890169).

**Don't hesitate to contact the EGS coordinators or your national partners, which you can find at our website or at page 6 in this pamphlet!**



# EGS: Concept and facts

## EGS: Energy – Education – Governance – Schools

### Energy

Energy is necessary for maintaining people's health, their well-being, their lifestyles, and their economy. Our society needs individuals with the knowledge, skills and attitudes that will allow them to use energy resources wisely.

### Education

Energy literacy is critical to Europe's economic and environmental future, and energy must be an integral part of the school curriculum to produce energy literate citizens.

### Governance

Energy should be a common good and EGS was born from the need to involve local communities in tackling energy issues and improving energy efficiency through a participated process.

### Schools

Schools are the main actors that can contribute to involve the whole community and at the same time train the younger generations.

#### EGS Facts

23 partners from 10 european countries  
from Sept. 2008 to Feb. 2011

Supported by the EACI:  
Project No. IEE/07/710/S12.499412

total costs: 992.791,00 €

funding: 744.593,25 € (75%)

Project coordination:  
Liceo Scientifico Statale "N. Tron",  
Schio, Vicenza – Italien



## The strategic objective

To enhance the key role of high schools in the involvement of local stakeholders (students, families, small and medium enterprises, local authorities, other schools) in the process of improving the energy efficiency and literacy of their communities.

## Project Activities

23 partners from 10 European countries collaborated on implementing the EGS Project.

We determined the current state of energy efficiency in schools and identified examples of good practice.

We prepared and implemented teaching units for school students as well as continuing education for teaching staff.

Our partner schools developed Energy Management Systems.

Starting from the partner schools, "Local Forums" were organised in order to integrate local actors into the education and renewal process. The results of this approach using Local Agenda 21-inspired Forums were action plans for increasing energy efficiency and pilot projects.

### EGS results

- energy manifesto for schools
- state of the art report
- trainings for teachers and school staff
- energy lessons and projects for pupils
- energy management systems in schools
- local forums for energy efficiency, action plans, pilot actions
- collection of local forum action plans
- improvement of the energetic performance of the schools involved
- networking





## EGS Partners

The following Partners from 10 European countries took part in the EGS project:

- 'N. Tron' scientific high school - Schio - IT - [www.tron.vi.it](http://www.tron.vi.it)
- Sogesca s.r.l. - IT - [www.sogesca.it](http://www.sogesca.it)
- Fondazione 'G. Rumor' - CPV - IT - [www.cpv.vi.it](http://www.cpv.vi.it)
- Eliante coop. sociale onlus - IT - [www.eliante.it](http://www.eliante.it)
- ISIS Gallarate - IT - [www.isisgallarate.it](http://www.isisgallarate.it)
- Mountain Community 'Trasimeno-Medio Tevere' - IT - [www.montitrasimeno.umbria.it](http://www.montitrasimeno.umbria.it)
- Province of MANTOVA - IT - [www.provincia.mantova.it](http://www.provincia.mantova.it)
- IEBA Centre of Entrepreneurial Initiatives Beira Aguieira - PT - [www.ieba.org.pt](http://www.ieba.org.pt)
- ROC Nijmegen - NL - [www.roc-nijmegen.nl](http://www.roc-nijmegen.nl)
- Klub Kon-Tiki - SK - [www.klubkontiki.sk](http://www.klubkontiki.sk)
- IUFM-ROUEN - Post-graduate teacher training institute - F - [www.rouen.iufm.fr](http://www.rouen.iufm.fr)
- AREHN - Regional Agency for Environment of Haute-Normandie - F - [www.arehn.asso.fr](http://www.arehn.asso.fr)
- Eco-One - FI - [www.kolumbus.fi/eco-one](http://www.kolumbus.fi/eco-one)
- First Private Mathematical Gymnasium - Sofia - BG - [www.parvamatematicheska.com](http://www.parvamatematicheska.com)
- ECQ - European Center for Quality Ltd. - BG - [www.ecq-bg.com](http://www.ecq-bg.com)
- Environmental Office North - Umweltbüro Nord e.V. - DE - [www.umweltschulen.de](http://www.umweltschulen.de)
- ZIEL 21 - Zentrum Innovative Energien im Landkreis Fürstentfeldbruck - DE - [www.ziel21.de](http://www.ziel21.de)
- Western University 'Vasile Goldis' Arad - RO - [www.uvvg.ro](http://www.uvvg.ro)
- Liceo Economico di Arad - RO - [www.leconomic.home.ro](http://www.leconomic.home.ro)
- Chamber of Commerce, Industry and Agriculture of the Arad County - RO - [www.ccia-arad.ro](http://www.ccia-arad.ro)
- Versuchsreferat Steiermark - AT - [www.versuchsreferat.com](http://www.versuchsreferat.com)
- MERIG - Multidisziplinäres Institut für Europa-Forschung Graz - AT - [www.merig.org](http://www.merig.org)



# Get Your School Ready for the Energy Revolution!

## Ideas and Facts

Increasing energy efficiency and switching from fossil fuels to renewable sources of energy are among the greatest challenges of the 21<sup>st</sup> Century. In facing this challenge, schools should take on a key role. They can powerfully save energy in their own buildings. They can provide their students with knowledge and inspire enthusiasm in them, and develop the skills that we need for Energy Revolution.

In the EGS Project, we first investigated what status the schools in Europe had achieved in this respect. In the 13 schools directly involved in the Project, we then implemented the best available practices or developed existing practices further still. We provided teachers with additional training and introduced practical instructional units. We evaluated instructional materials on the market and developed our own materials. And we thought long and hard about how schools can manage responsible energy use in their own facilities.

**Profit from our experience, tools and materials that we present in these next pages!**

### EGS in Schools

13 schools in 10 countries as partners involved

12.023 students directly involved

32.769 students indirectly involved

680 teachers directly involved

3.489 teachers indirectly involved

at least 873.758 kWh Energy saved\*

at least 516 t of CO<sub>2</sub> saved\*

\* final balance is still missing



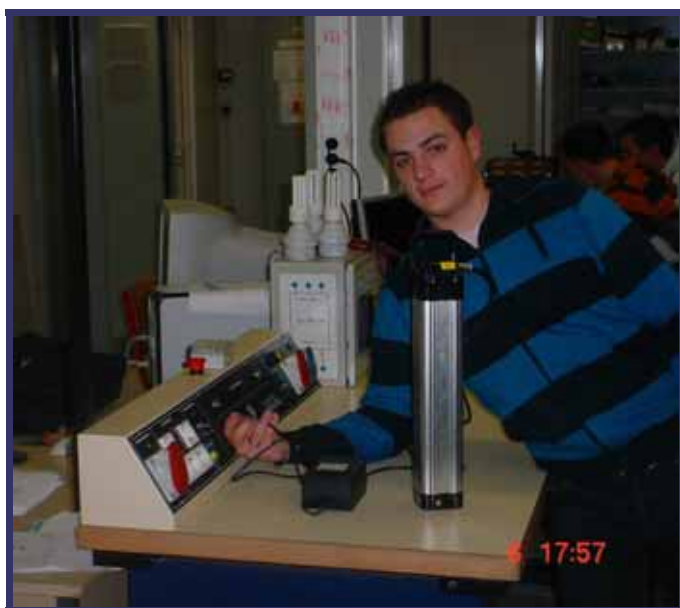
## Benchmark Your School Against the European Standard!

### Status Report

One of first activities in the EGS Project consisted of investigating the status of energy efficiency and the corresponding educational activities in European schools.

#### Status Report: Energy Efficiency in Schools

Survey at 34 schools from 10 countries  
primary, secondary and vocational schools



We were able to determine, for example, that:

- nearly  $\frac{3}{4}$  of school buildings are older than 20 years old;
- older school buildings consume more heating energy as rule;
- there are many practicable options for reducing energy consumption in schools;
- more than 80% of schools have integrated the topic “Energy” into their curriculum – and as a rule in more than one subject; and
- more than 70% of schools cooperate with external partners in order to increase their energy efficiency and/or offer their students practical learning.

We published the “State of the Art Report” with extensive supporting documentation and the original questionnaire on our website.

**Use the results to benchmark your school against the European state of the art!**

#### Read more:

[www.egs-project.eu](http://www.egs-project.eu) > Make your school fit for the energy revolution!

## Database of Good Practice

In the course of the EGS Project, we also collected examples of good educational practices and made them accessible for you in a database. You can search this treasure house of information by country and topic, *inter alia*.

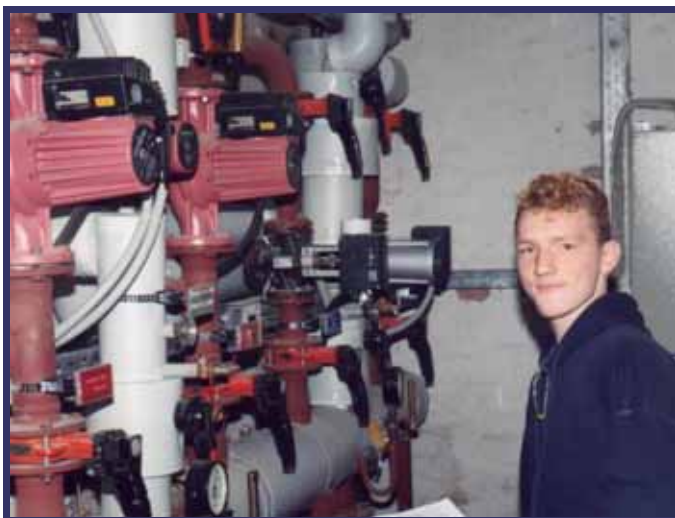
The data base already obtains 100 examples from 8 countries, which cover the following topics:

- energy saving
- renewable energy sources
- climate protection
- management
- education
- PR-work
- networking.

Among them are e.g.:

- Eco-food
- the climate balloon
- national energy awareness week in schools
- virtual environmental school
- climate detectives in the school
- energy saving video clips
- energy chats.

**Use these examples for your own teaching practice and/or enter your own good examples in the database!**





## Train your Teachers!

Knowledge in environmental protection and related fields such as energy technology is developing at an astonishing pace. For that reason, it is vitally important to provide ongoing training to teachers and technical employees in schools and make them powerful multipliers for the Energy Revolution.

The need for additional training was identified in the EGS Project, a training plan was drafted and on this basis teacher training programs were designed and executed. In this matter, we placed the same demands on ourselves that we have placed on classroom lessons: The training events were practice-focused and methodologically diverse. We drew on external teaching locations and/or turned the school – and its energy consumption – into the subject of the training unit.

### EGS Teacher Training in Italy...

Our Italian partners Comunità Montana “Associazione dei Comuni Trasimeno – Medio Tevere” and Liceo Scientifico Statale “Nicolò Tron” organised multi-day teacher training events and published the Trainings Plans (in English) along with the individual presentations (in Italian) on the EGS Homepage.

#### EGS Teacher Training Events

A uniform training plan was developed.

In 10 European countries, training events were carried out.

These events reached approximately 680 participants.

Training plans, overviews and presentations were published in several European languages on the EGS website.



### ...in Romania

The Colegiul Economic Arad trained teaching staff and co-workers in the following topics, *inter alia*:

- sustainable development
- energy efficiency
- environmental problems in the energy economy
- recycling
- European environmental standards.



### ... in Austria ...

A one-day seminar on energy issues was integrated into the accredited program “teacher education in the holidays”. The seminar covered different aspects and approaches as well as good practice examples.



### ... and in Germany

The EGS Partner ZIEL 21 held an “Energy-focused Education in Secondary Schools” workshop for teachers and gave a presentation on “Jobs with a Future in the Energy Revolution” in the framework of the professional development days at the Viscardi-Gymnasium in Fürstenfeldbruck, a presentation that was very interesting to both the students and their teachers.

**Use the materials we’ve developed for your own training events! Contact us if you need partners and/or speakers!**



**Read more:**

[www.egs-project.eu](http://www.egs-project.eu) > Make your school fit for the energy revolution!

## Energize your lessons!

Energy is not just a physical phenomenon, but also a precondition for all plant, animal and human life. Energy is a cost driver and economic factor. Environmentally friendly energy production and just access to energy resources are among the major challenges facing the 21<sup>st</sup> Century. Teaching on the subject should be as diverse as the role of energy itself is.

### EGS Instruction in Bulgaria...

The 1st Mathematic Gymnasium Sofia has developed a teaching series called "Ecofriends". Students learn the 3R strategy for environmental protection at an age-



appropriate level: "Reduce – Reuse – Recycle", that is, reducing consumption of resources, re-using items or taking them for recycling. They use the energy concept in everyday situations and become acquainted with environmentally friendly energy sources as well as the European label for energy efficiency.

### ...in Germany

The Environmental Office North in the Hansa-Gymnasium Stralsund performs the simulation "triCO<sub>2</sub>lor"; this encouraged students to think about strategies for an environmentally friendly and profitable energy economy in a playful way.

The Environmental Office North also maintains an environmental library and was thus able to contribute recommendations for good teaching materials on the topic areas of energy and climate protection to the EGS Project.





### ...in Slovakia

Together with the EGS Partner Club Kon-TiKi from Bratislava, students built a model of a passive-house.

### ...and in Austria

The Versuchsreferat Steiermark trains farmers and teaches them about the efficient use of energy in their profession. Gas-saving operation of agricultural machines stands in the foreground. Under the title of “Eco-Driving”, a youth-appropriate learning arrangement was developed that challenges the athletic ambitions of the trainees.

### Energy & Environmental Protection in all Subjects

The Environmental Office North has analysed master plans for the German education system for grades 5–10. It was able to demonstrate that nearly all subjects can contribute to “Energy Education”.

[www.umweltschulen.de/klima/fachunterricht.html](http://www.umweltschulen.de/klima/fachunterricht.html)

**Use the lesson plans and recommended materials from our website!**

Students can learn from building energy consultants, chimney sweeps or in an automotive workshop, how energy can be efficiently used in everyday life, and how we can all profit from efficiency.

**Let our samples encourage you and integrate practising partners into your instruction!**



**Read more:**

[www.egs-project.eu](http://www.egs-project.eu) > Make your school fit for the energy revolution!

## Check the Energy Consumption in your School!

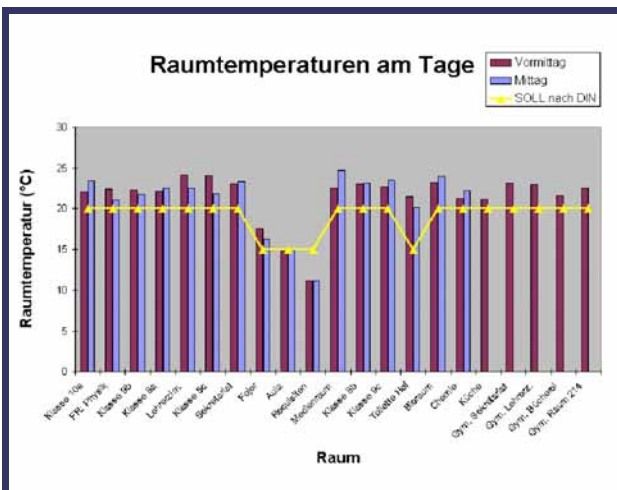
If you want to save energy, you should first show an interest in how much energy your school consumes in which areas of school operations. Maybe you're thinking about the copier in the secretarial office or the coffee maker in the teachers' lounge, both of which are in use all day long? But it's not always the devices that we see in front of us that are the most important energy consumers!

Only a thorough energy check can enable you to realistically assess the situation and then turn your attention to the really problematic energy consumers.



**Check your room temperatures! Check your energy bills! Of the electrical devices, examine those that are present in large numbers first of all, along with those that are in operation for long times or have high electrical power! You can also integrate traffic – the daily routes to school for students and teachers.**

If you use appropriate teaching aids and distribute age-appropriate assignments, your students can carry out this energy check and thus apply and deepen the knowledge they've obtained in subjects like physics, mathematics or engineering in a practical, relevant context. **Use our "Students' exercises!"**



## Energy and Environmental Protection

Schools are among the most important energy consumers in the public sector. Saving energy in schools is therefore an important contribution to communal environmental protection.

With its brochure “Climate Detective in School”, published at the end of 2009, the German partner Environmental Office North e.V. provided a teaching aid that supports students and teachers in grades 5–10 in performing an energy and environmental check in their school.

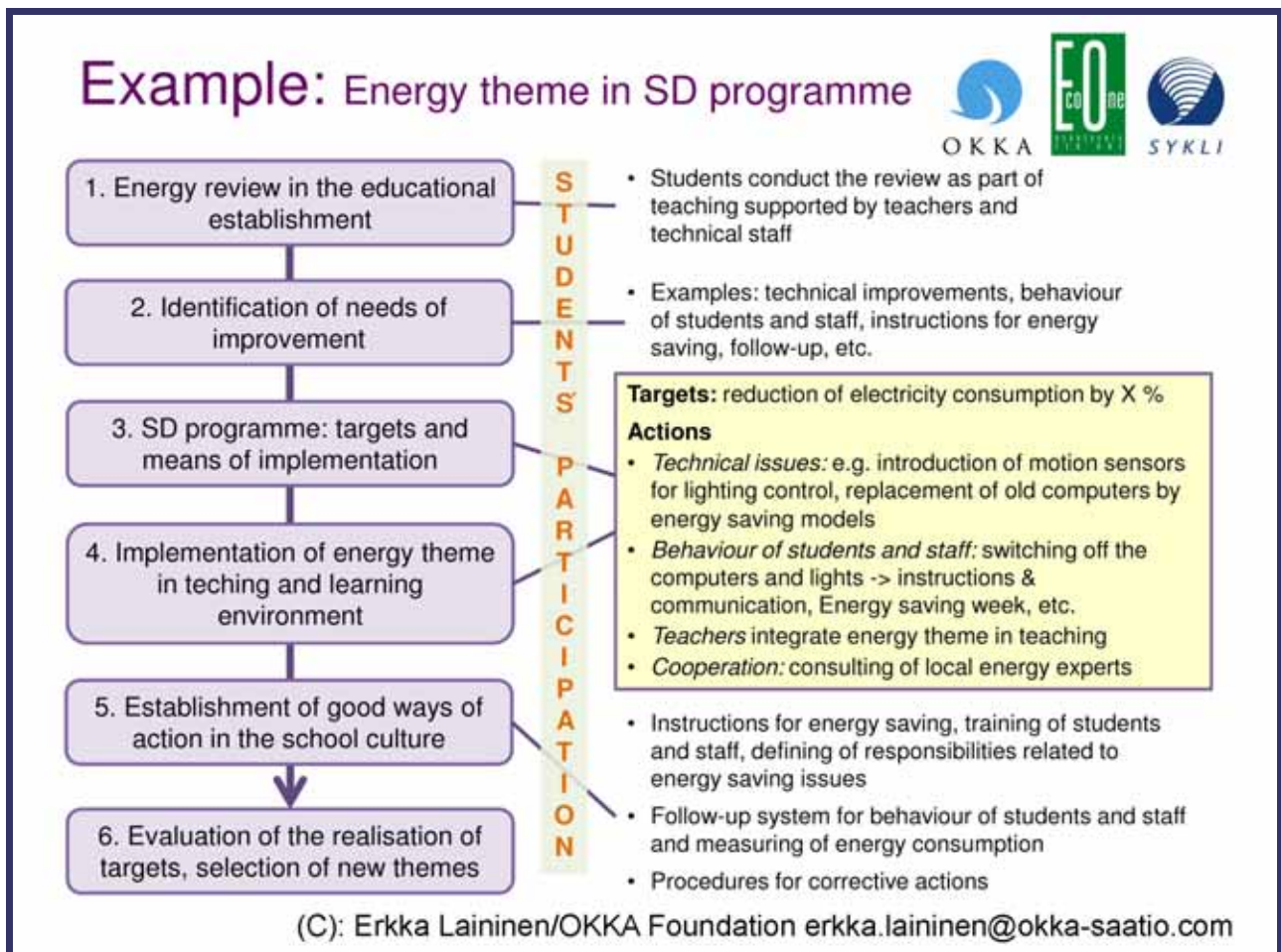
[www.umweltschulen.de/klima/climatedetectives.html](http://www.umweltschulen.de/klima/climatedetectives.html)



## Energy and Education for Sustainable Development

In Finland, all schools have been called on to set-up programmes for sustainable development. Subsequently they can obtain a corresponding certificate.

Energy consumption is an important ecological criterion in this. Schools should optimise their energy consumption and actively integrate their students into this development process.





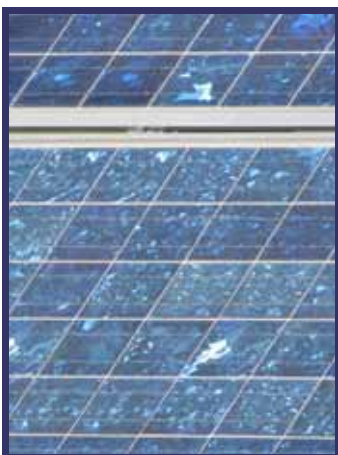
## Improve the Energy Performance of your School!

The EGS energy check encompasses four areas of school life with a total of nine energy-related aspects. We have developed appropriate “student exercises” for investigating each aspect, so that they can integrate these exercises into the lessons and get their students involved as a driving force.

Energetic performance of the school			
Activity	Energy Aspect	Activity	Energy Aspect
School building use	Heating energy consumption	School activities - training	Energy efficiency
	Lighting Electricity consumption		Renewable energies
	Equipment electricity consumption		Sustainable transport
	Production and use from renewable sources	Purchase of equipment and materials (suppliers)	Energy consumption
Home-school transport	Transport energy consumption		

We have also developed five criteria on the basis of which you can assess these energy-related aspects. **Identify the most important aspects and begin the necessary changes there!**

Often it is not easy to put changes recognised as necessary into action. Here you have to proceed systematically! Make sure that your school issues an “Energy Policy” in which the guiding ideas concerning energy efficiency are formulated. Make sure that responsible parties are designated for all planned tasks, that implementation is monitored and that successes and failures are communicated in the school! **Anchor energy efficiency firmly in your school operations!**



## Energy Management in the KEUDA Vocational School

Vocational schools are often large institutions in which lots of people teach and learn and perform many various tasks. Identifying all activities that consume energy is already challenging, and it is harder still to win over those many people who will be affected for the cause of improving energy efficiency.

The KEUDA Vocational School in Finland drafted an “Energy Guide” to that end. Here, tips on energy efficiency are given for 13 areas. Specific aspects of individual professional areas – e.g., cooking and washing – are given due consideration, so that the core concept of energy efficiency can be integrated into the individual training courses and the graduates can also apply what they have learned in their future professional life.

KEUDA participated in the national Energy saving week 2010 with the following activities:

- Tuesday 5.10: well-being day: local food, healthy breakfast, working in the garden, picking rubbish, no-smoking info, music, art.
- Monday 11.10: Car-free day - the best group wins the prize.
- Thursday 14.10: lectures about energy, introduction into the energy guide, posters, articles, measure the energy consumption of cooking,...

### Keuda Vocational College Järvenpää / Finland

Keuda Vocational College operates in 10 establishments and represents a wide variety of secondary vocational education, e.g.

- Services
- Technology and transport
- Restaurant and catering
- Business and administration
- Agriculture, Horticulture and Floristry
- Welfare
- Culture

The establishments contain 6 000 students in vocational education. The staff amounts to 550 persons.

[www.keuda.fi/portal/briefly\\_in\\_english/](http://www.keuda.fi/portal/briefly_in_english/)



### Energy Awareness Week in Finland

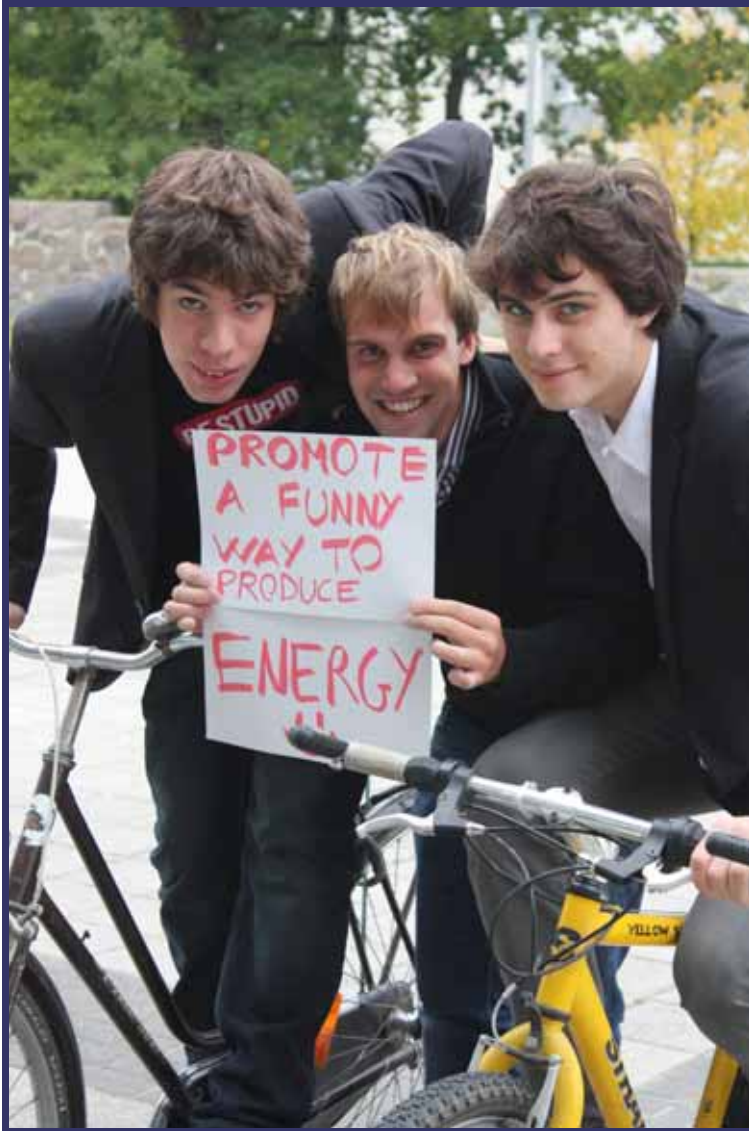
Energy Awareness Week in Finland is an annual theme week in October during which schools, companies, other organisations and private persons concentrate on promoting energy efficiency – voluntarily. Motiva has coordinated the theme week since 1997. In 2010 the theme week gathered some 500 participants.

[www.motiva.fi/energyawarenessweek](http://www.motiva.fi/energyawarenessweek)

## Conclusions

If schools want to prepare their students for life as adults, they must also appropriately broach the issue of the future responsibility of energy efficiency!

It does not really serve the purpose to view this as more and onerous work – on the contrary: schools that meet this challenge in an appropriate way can profit in many areas.



They offer practical learning arrangements in which students can bring together knowledge and skills from various subject areas, apply it and deepen it. They can save energy, reduce environmental impact and release funds that are urgently needed for other aspects of school quality. They gain the knowledge, motivation and ideas coming from students, teachers and possibly parents, too, as driving forces for sustainable development.

Teacher training, integration of partners external to the school and school-based environmental management are essential factors in success on this path.

In the EGS Project, we have developed appropriate tools and acquired good experiences. **Use these and contact us if you need additional support!**



# Get your Community Involved!

## Ideas and Facts

Schools can't actively save energy in their own facilities alone! They can also involve local actors – e.g., the families of their students, small- and medium-sized companies and community administration – in their development and so become hotbeds of the Energy Revolution on the local level.

Such local cooperation is a give and take. On the one hand, schools can make their facilities available for meetings and bring their skills to the organisation of learning processes. On the other hand, you can gain partners who make professional practices real to your students or help them to identify and apply good solutions for improving energy efficiency.

In this sense, we have called on schools that are involved in the EGS Project to organise “Local Forums”, to develop measures for improving energy efficiency together with local partners and implement the best measures. We developed a methodology for this that is based on the Local Agenda 21 and environmental management.

**Use the methodology we developed and profit from our experience!** We will present it in the following pages.

### Integration of Community Actors

Local forums were carried out on a trial basis in 10 European countries.

As rule, a local forum lasts over some months, and three sessions take place.

Lots of project ideas were developed, action plans were drafted. Some of the measures have already been implemented.

The methodology, action plans and reports from the Local Forums were published on the EGS website.



## Gain Partners Through Local Forums!

With these Local Forums, learning and development processes should be initiated that lead to increasing energy efficiency and integrate many actors in the process.

A Local Forum is a structured discussion process, which aims for effective changes. In this process

- the **problems** are identified first;
- **goals** for overcoming them are formulated;
- **action options** (priorities) are established;
- **responsibilities** for each case are defined; and
- the individual **activities** are planned.

### EGS Methodology

Our methodology for Local Forums defines *inter alia*:

- the purpose and concerns of the Local Forums;
- a “map” for the whole process and for each individual forum;
- the selection and role of the participants;
- rules for the participants; and
- public relations.

PROBLEMS	OBJECTIVES	PRIORITIES	RESPO-SIBILITIES	ACTIONS
1. I am hungry	1.1 – ...	1.1.A – ...	...	...
	1.2 – Eat something	1.2.A – Prepare dinner	me	Go to supermarket, buy food, cook
		1.2.B – Go to restaurant	me	Reserve table, go to restaurant, order meal
		1.2.C – Go to grandmother's house and have dinner there	me, grandmother	Call grandmother, buy flower, etc.

Since the actors develop their projects themselves they can involve all of their knowledge and enthusiasm and they are highly motivated to implement the projects together. **Use the process for your internal development processes, too, in your school, institution or company!**

Read more:

[www.egs-project.eu](http://www.egs-project.eu) > Involve your local community!

## Local Forums in France...

In France, the local forums were organised by the Agence Régionale de l'Environnement de Haute-Normandie (AREHN). The forums took place in the high school Les Fontenelles in Louviers. Each forum was dedicated to a specific thematic in order to define problems, objectives, priorities and actions during the same forum:

- 18/12/2009 = Energy and teaching actions
- 18/01/2010 = Energy and cooperation with local economic actors
- 23/02/2010 = Energy and daily life of the school

Different stakeholders (interested persons, environmental agency, local energy agency, parents, students, teachers, school administration and authorities) were involved in the forums and discussions about possible projects/actions have been launched.

Thanks to the strong implication of the high school Les Fontenelles and the participation of the staff school, the forums were successful.

A lot of stakeholders participated but it was especially hard to associate local authorities.

At least, different target groups at local level were involved and 10 actions were proposed. Each forum mobilizes more than 15 participants.

## ...and in Portugal

The forum "Energy efficiency and renewable energies" was organized by IEBA Centre of Entrepreneurial Initiatives Beira Aguieira. The forum had three components – seminar, discussion and photo exhibition. The seminar was conducted in two panels

1. National Policies for Energy Efficiency: Why the focus on renewable energies?
2. Mortágua the route of Renewable Energy: Hydropower, Biomass, Wind Power, Geothermal, Solar Power.

207 students, 25 teachers and 10 technicians and stakeholders took part in the forum.



**Workshop**  
Exposição

**Eficiência energética e as energias renováveis**

25 Feb<sup>2010</sup> (14:00 - 17:30)  
Centro Animação Cultural de Mortágua  
inscrições gratuitas por telefone ou email  
231 927470 | ieba@ieba.org.pt

Políticas nacionais para a Eficiência Energética  
- A eficiência energética nas escolas portuguesas - ADENE (Agência para a Energia)\*  
- Projecto Enerescolas - ISA (Intelligent Sensing Anywhere)

Mortágua na rota das Energias Renováveis  
- Energia Hidroeléctrica – EDP Energias de Portugal S.A.  
- Energia da Biomassa – EDP Produção Bioeléctrica S.A.  
- Energia Eólica – Iberdrola S.A.\*  
- Energia Geotérmica – Chama S.A.  
- Energia Solar - Zantia S.A.

Intelligent Energy Europe  



## Develop Energy Projects and Set Priorities!


In the Local Forums, a large number of action options and activities are thought out first. In the subsequent course, these are developed further and reviewed for their feasibility, since ultimately the best and most promising measures shall be implemented.

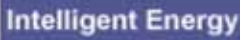
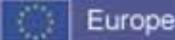
In the coming pages, we would like to show you how multi-faceted project ideas are generated. We regard this as an encouragement and proof that the shift in energy can be achieved locally through cooperation of individuals and organisations.

**Let them inspire you!**

### EGS Methodology – Tools for Project management

1. Action plan template
2. Local project template
3. Priority check for projects
4. Check lists for project monitoring



### Priority Check Template

Done by/Name:  Place/Date:

Priority title:

Main aims and goals: (max 4 lines)

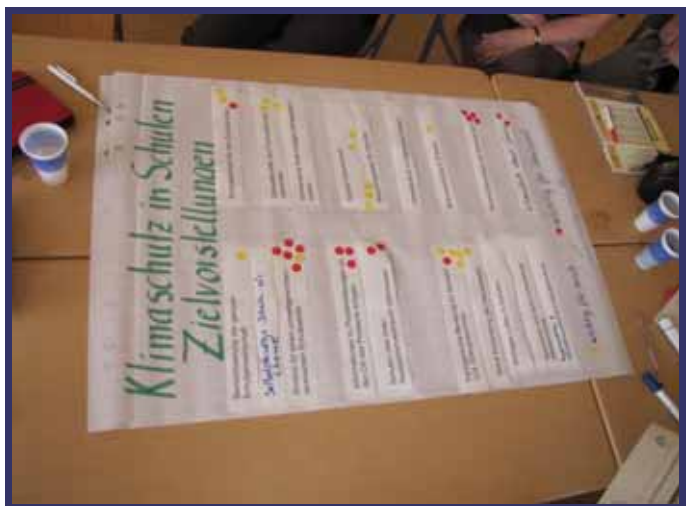
Main benefits for the schools or/and other stakeholders: (max 4 lines)

**Indicators**

	2	1	0
Potential to initiate change Short note:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reproducibility Short note:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transferability Short note:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Efficiency Short note:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Publicity Short note:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Ideas for Energy Projects

- The Ideal classroom in energy sense
- Training building managers to be “Energy Savings Managers”
- Cool paper project – recycling paper is energy saving
- Energy efficiency guide to increase commitment of staff and students
- “Copying” into the mind instead of copying on paper.
- To integrate Energy efficiency aspects into curricula, into education and into on the job learning
- Measurement of used energy (catering machines) in practical education in a vocational school
- Travel sensibly – save energy and environment
- About energy in seven days
- Let's talk about energy – annual exhibition
- A week on energy saving
- Green electricity for schools and public buildings
- Citizens solar power plants on school roofs
- Wind energy for the school.



Read more:

[www.egs-project.eu](http://www.egs-project.eu) > Involve your local community!

## Review and Improve your Ideas!

Oftentimes there are several conceivable variants for implementing a project. Which variant is the best? These questions were also intensively discussed by the actors in the Local Forums. In their discussion, they could draw on the EGS methodology.

### Romania: Green School

The Economic College of Arad undertook to reduce its energy costs by 20%. In the framework of a feasibility study, up to three different technical measures were examined:

- Installation of thermostat valves on radiators.
- Installation of solar cells to capture heat on the roofs.
- Installation of energy-saving light bulbs in the hallways.

The third measure obtained the highest number of points, and should be implemented with priority starting at the end of 2011.

Since the three measures are not mutually exclusive, the other two can be realised at a later time.

#### Assessing Project Feasibility

Every proposed measure will be reviewed on the basis of the following criteria: potential for change, reproducibility, transferability, efficiency, impacts on target groups, publicity, achievability within the EGS Project, active involvement, Coherence with policies, and independence from external resources.

Up to 10 points can be assigned for each criterion. The “value” of the measure is then determined on the basis of weighting factors – efficiency is by far the most important criterion!

In combination with an economic assessment, the best measure can be identified in this way.





## Austria: The Clever Driving Contest

In the Versuchsreferat Steiermark and in the Agricultural Vocational College of Schlierbach, agriculture students were also trained in petrol-saving operation of heavy agricultural equipment during their regular training. The practical section of this training was organised as a content in order to stir the students' competitive impulses.

In a feasibility study carried out in cooperation with the multi-disciplinary Institute for European Research in Graz, we investigated in what dimension such a content should take place. Three options were considered:

- an internal event only at the LFS [Agricultural College of Schlierbach] Grottenhof Hardt;
- a regional contest for all Styria;
- a national contest for all Austria.

In this, the second and third options included the respective preceding options, but required additional activities at the same time. The best students were to compete in a region contest, but this assumes a prior elimination stage at the school level. In the interest of equal opportunity, teachers at all participating schools had to receive additional training so that they could train their students just as well as those at LFS Grottenhof Hardt are trained. The required time and effort thus increased considerably, at the same time considerably higher value was expected.

As a result of the feasibility study, the partners from Austria decided to implement Option 3 – including Options 1 and 2.

The projects were carried out in 2009–2010.



**Read more:**

[www.egs-project.eu](http://www.egs-project.eu) > Involve your local community!

## Move from Planning to Action!

The procedures described up to this point have only one goal: to facilitate effective action. Our wish is to implement the energy products we developed together!

Admittedly, one needs to be realistic: in the framework of the 30-month EGS Project, we first developed the methodology for the Local Forums, then carried out the Local Forums and as a result brought some projects to practical application. Through to the end of the EGS Project, there is therefore not much time left to implement the projects.

For that reason, we wanted at least one Energy Project to be implemented in every Local Forum by February 2011. Additionally, actors on site should be supported so that they would continue to work together and then take on additional projects step by step.

### Local Forums – Outcomes

- Local forums methodology
- Feasibility studies for local energy projects
- Local forums action plans
- Collection of action plans
- Reports on pilot actions

## EGS Local Projects in the Netherlands...

The pilot project “Lent mark 1” aims to construct a 18 meter high watch tower with used materials. The tower will be build by at least 10 unemployed youngsters who are enabled to develop their occupational competences in the construction area, specific in working with and techniques for used materials.

The pilot project is connected to the elaboration of the city of Nijmegen with some 15.000 new houses to be built between 2010 and 2025. It is lead by the EGS partner ROC Nijmegen.

## ...in Bulgaria...

The project “Travel Sensibly – Save Energy and Environment” is carried out by the EGS partner FPMG in Sofia.

Sofia is a big city with heavy traffic. Only a small part of the students and employees travel by public transport because there is only one public bus line passing by the school building. Thus the usual way of travelling is by car.

The project aims at reducing the carbon footprint and fuel consumption.

Three school buses were bought and now travel in three different directions, gathering the students. Parents decided to take carpooling, and now three or four kids living nearby are driven to school by one parent. Some other students decided to travel by public transport and only a few of the older students now come to school by bikes.

### ...in France...

The French pilot project „A week on energy saving“ took place in the secondary school Les Fontenelles / Louviers, 15<sup>th</sup> -19<sup>th</sup> November 2010, by the EGS partners AREHN and IUFM.

A lot of actions were leaded during this week, *inter alia*:

- presentation of an exhibition on energy created by AREHN; more than 500 visitors
- conferences „Energy and sustainable development“, for 60 pupils and 3 teachers
- greenhouse gases evaluation at school, for 80 pupils and 4 teachers
- thermographic analysis in the city of Louviers, for 70 pupils
- photography workshop „My message, our energy“, 60 volunteers were photographed over one day, finally, 20 posters will be produced to be exposed.



### ...in Portugal

The Portuguese pilot project “Open Day for Energy” took place on the 25<sup>th</sup> - 27<sup>th</sup> May 2010.

It aimed at the sensibilization of students and teachers for the importance of the renewable energy resources. The EGS partner IEBA organized several visits for the students to hot spots a sustainable of energy production.



The EGS partner IEBA organized several visits for the students to hot spots a sustainable of energy production.

To increase students responsibility as future decision makers, during the day was developed a campaign of exchanging lamps to reduce energy cost at students places.

**Read more:**

[www.egs-project.eu](http://www.egs-project.eu) > Involve your local community!



## Conclusions

Many people think and worry about how we are going to produce and use energy in the future. If one talks to people who are being affected, one can come up with a great many good ideas for a safe, eco-friendly and just energy economy. Why, then, does the Energy Revolution just creep so slowly forward?



One reason for this certainly is that the outdated fossil fuel economy still has people who profit from it, and who defend the structures and power relationships that serve their interests with all their power.

Another reason is that our treasure house of ideas is not carefully stewarded. It is exactly here that the EGS Project starts out. Using the EGS Methodology, people and organisations can be drawn into the Energy Revolution locally and their ideas can be developed into mature projects ready for practical application.



People who favour action can get the impression that the steps that are especially described in the second part of this chapter are tedious and time consuming. However, well-intentioned, poorly executed projects waste even more time and energy and that can be avoided using the EGS Methodology.

We hope to see a broad application of the EGS Methodology for Local Forums

and we look forward to building an energy economy with a future together with you!

**Use the materials that we have published on our website or contact us if you have any questions!**

# Go Public!

## Ideas and Facts

With EGS we wanted to inform as many people as possible about energy efficiency and renewable energy sources and win them over for the Energy Revolution – to that end we *needed* to appeal to the public.

Every other project can also profit from professional public relations.

And finally the IEE considers public relations a “return on investment”: as a consideration for its support, it expects that the projects will contribute to the education of the European populace about the development of a sustainable energy economy for the future.

This is why we are presenting our public relations work here and inviting you to take on our good ideas for your work.

## Centralised vs. De-centralised

Today's public relations require informational media such as prospectuses, a website or a newsletter to attract and engage interested parties. Media of this kind are drafted in the English language in the EGS Project as **centralised actions** (CA).

In order to have a presence across the whole breadth of Europe, however, the various national languages must still be used. To that end, the most important informational materials were translated by the EGS Partners into the languages of all 10 participating countries.

Finally, the 23 partners involved in the Project are capital that should be used. With **de-centralised actions** (DA) – e.g., with articles in the local press or with participation in regional events – all of our partners have contributed to spreading our message.

### EGS Dissemination Facts

- 1 centralised website
- de-centralised websites in almost all participating countries
- 8 press releases (centralised)
- at least 35 press articles (de-centralised)
- 1 Flyer (in different languages)
- 6 issues of the newsletter
- 2 TV-reports
- 1 videoclip
- a couple of local forums and other public actions



## Explore our Website!

The central element of our public relations is the website [www.egs-project.eu](http://www.egs-project.eu). Here we publish all results of work from the Project.

From the very beginning, we decided to make the website action-focused. We didn't want to deliver long-winded reports about what we had done – but we wanted to provide you with information and tools for your work locally!

On our website, you can, among other things:

- sign or download the European Manifesto on Energy Efficiency in Schools;
- discover teaching aids and examples of good practice for environmental education on the topic of energy efficiency in schools;
- publish your own good examples.

Additionally you will find information about our EGS Partner, our methodology for executing Local Forums for energy efficiency and much more.

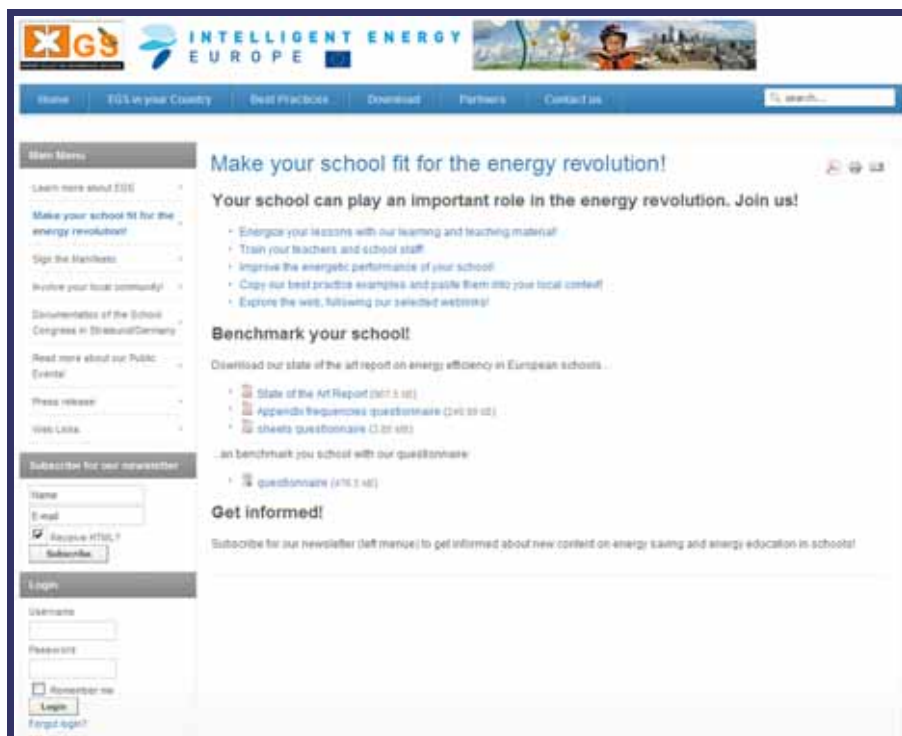
On our website you will find information in

### [www.egs-project.eu](http://www.egs-project.eu)

The website provides information about energy efficiency in school in 14 languages. Most information is available in the English language.

The website includes approximately 180 articles, which have been downloaded approximately 100,000 times. Around 200 documents are available for download.

Most of this material is public, but along with it the website also includes an internal area for EGS Partners.



- Bulgarian,
- Danish,
- German,
- English,
- Finnish,
- French,
- Italian,
- Dutch,
- Norwegian,
- Polish,
- Portuguese,
- Romanian,
- Swedish and
- Slovakian.



## National Websites

Most of the partners have implemented EGS at their individual websites, too. By doing so, they demonstrate their stakeholders, that they are involved in an attractive European project, and they contribute to the dissemination of EGS in the European regions.



Visit our national websites and, thus, come in touch with our partners!

Please, visit us, *inter alia*, at:

- <http://ecq-bg.com/egs.php>
- [www.rouen.iufm.fr/spip.php?article91](http://www.rouen.iufm.fr/spip.php?article91)
- [www.umweltschulen.de/egs/](http://www.umweltschulen.de/egs/)
- [www.grottenhof.com/joomla/index.php?option=com\\_content&view=article&id=75&Itemid=81](http://www.grottenhof.com/joomla/index.php?option=com_content&view=article&id=75&Itemid=81)
- [www.egs-progetto.it/](http://www.egs-progetto.it/)
- [www.ieba.org.pt/ieba\\_pt/projectos/ficha\\_projecto.php?Id=14](http://www.ieba.org.pt/ieba_pt/projectos/ficha_projecto.php?Id=14)
- [www.montitrasimeno.umbria.it/it/notizia/progetti\\_europei\\_dedicati\\_alla\\_sostenibilit\\_energetica](http://www.montitrasimeno.umbria.it/it/notizia/progetti_europei_dedicati_alla_sostenibilit_energetica)



## Sign the Manifesto!

There are ups and downs on the journey toward energy efficiency – just like on any other journey. Experience shows that it is always necessary to renew our motivation and provide the actors with new drive.

A public expression of a voluntary commitment can be very helpful in this. It reminds the actors of the shared goals and shared task.

With this background, we drafted the EGS Manifesto. We call on all schools in Europe to sign this Manifesto and register as signatories on our website.

Prior to signing, the Manifesto should be discussed in the school community in order to obtain the highest possible consensus and bring everyone along – with their actions but also with their questions and objections.

### European Manifesto for Improving Energy Efficiency in Schools

Available in 12 languages.

More than 100 signatories from a total of 14 EU countries.

Signatories can be seen on the EGS website as a list and/or on a map.

The Manifesto is primarily aimed at schools; there are specific versions for other organisations, such as corporations.



Every school can also use their signing for their own local public relations in that they make the signing into an event and invite parents, local politicians and the press.

Since the signatories are public on our website, you can also look for potential partners and establish contact with them.

Read more:

[www.egs-project.eu](http://www.egs-project.eu) > Sign the Manifesto!



# manifesto

for improving energy efficiency in schools



By signing this Manifesto, we make a commitment to increasing energy efficiency in our local communities and regions.

**With the present Manifesto we recognize that:**

- improving energy saving and energy efficiency is one of the quickest, greenest, and most cost-effective ways to address energy security, global energy justice and climate protection, and ensure sustainable economic growth in the long run;
- measures to increase energy efficiency and use of renewable energy sources allow a reduction in environmental pollution;
- it is important and valuable to exchange and share information, experience and best practices which are the most effective means for promoting energy efficiency and renewable energy sources;
- schools need to play an important role in accelerating the dissemination and transfer of best practices and efficient technologies, which will contribute to the improvement of energy efficiency locally and worldwide;
- educating and making individuals and stakeholders of local communities more aware about energy efficiency is a priority and must be reinforced.

*The aim of this Manifesto is to facilitate and encourage actions that provide high energy efficiency gains.*

**The scope of the current Manifesto encompasses activities in the following areas:**

- engaging students through curriculum programs so as to explore energy issues and make changes to their own behaviour in the school;
- development of methodologies for energy measurement and other tools to achieve optimal energy efficiency control and performance;
- developing a school-wide energy-efficiency policy;
- promptly exchanging measures, best practices and technologies that could significantly improve energy efficiency in schools and in local communities;
- supporting governments and local authorities to promote energy efficiency and renewable energy sources.

*In conclusion, we acknowledge that energy efficiency and renewable energy sources are important basis for sustainable development because they contribute to environment and climate protection, to local job creation and economic growth, to security of energy supply, to independence from energy price fluctuations as well as social cohesion and innovation.*

**Make your adhesion to the manifesto public! Visit our homepage [www.egs-project.eu](http://www.egs-project.eu) and add your school/business to the list of signatures!**

Supported by

**Intelligent Energy**



Europe



## Benefit from our International Forums!



The EGS Partners have worked together to present their work to the specialised public for discussion at three International Forums.

Download the presentations from our website and get an interesting look into the various ways to promote energy efficiency in Europe's Schools! You can also learn how we were able to carry out the International School Congress "Energy Efficiency in Schools" in a largely climate neutral fashion!

### I. International Forum

Schio / Italy, 9.10.2009

Topic: Schools and Other Local Actors working Together for the Energy Revolution

Speakers from Italy, Austria, Finland

Approximately 80 participants from 10 countries

Organisation: Liceo Scientifico Statale "Nicolò Tron"



### II. International Forum

Järvenpää / Finland, 9.3.2010

Topic: Education, School and Energy Efficiency and Cooperation with the Local Community

Speakers from Italy, Finland, Germany, Austria and Romania

Approximately 50 participants from 10 countries

Organisation: Eco-One



**Read more:**

[www.egs-project.eu](http://www.egs-project.eu) > Read more about our public events!

## International School Congress „Energy Efficiency in Schools“

The Congress was simultaneously the final event for the EGS Project. It was intended to inspire enthusiasm for a sustainable energy economy among students and teachers. Aside from a few lectures, interactive events were the primary focus of the programme: workshops, a market of opportunities as well as excursions to large projects related to the energy economy such as the nuclear fusion experiment "Wendelstein 7" in Greifswald.

Particular high points were the plenary lectures by students. In their opening lecture, Louise Willneff and Nico Angerstein demonstrated how dramatically climate change is already changing the lives of people in the Polar Regions. Both students took part in an arctic expedition organised by the British Council; since then they campaign for protection of the environment as "Climate Champions". Matteo Manfron and Davide Stocco from the ISIS Andrea Ponti Gallarate (Italy) reported how their school was destroyed in April 2009 during the earthquake in Abruzzo and how it has since been re-built as a zero-energy house – with technical assistance from the students.

In some workshops, students also appeared as speakers.

A particular desire of the organiser was to make the Congress as environmentally compatible as possible, e.g. by serving organic respective fair trade food, using recycled paper and calculating the carbon footprint.

### International School Congress „Energy Efficiency in Schools“

7.-8. 10. 2010 Stralsund / Germany

130 Participants from 12 European countries, including around 60 students

5 Plenary lectures, 11 workshops, 20 posters, 5 excursions

400m<sup>2</sup> of forest planted to compensate for CO<sub>2</sub> generated by travel

Accompanying programme with city tour and social event

Organisation: Environmental Office North

Partners: Norddeutsche Stiftung für Umwelt und Entwicklung (NUE), University of Applied Science Stralsund, British Council, Teaching facility for nature protection and sustainable development, Mecklenburg-West Pomerania and ANU M-V e.V.



### Read more:

[www.egs-project.eu](http://www.egs-project.eu) > School Congress

<http://vimeo.com/17137544>

## Copy our Dissemination Strategy!

For 30 months, we worked on public relations for the Energy Revolution in a large European project. Allow us to summarise and present some key points of our strategy – copying is expressly permitted!

## Focus on the Utility of our Target Groups!

Only a small portion of people are interested in what you have done. But many have a justifiable interest in the information, materials and tools with which they can solve their own problems and more professionally organise their work.

**If you offer these solutions, you will find a grateful audience!**

## Organise a Presence in your Area!

Some materials such as the website or this brochure were developed as central actions; a few EGS Partners invested a lot of work here. But EGS could only be successful because 23 partners in 10 European countries have presented their shared concern in such a way that is locally fitting and necessary: in the national language, in the existing networks and with the action formats appropriate to the partner in question.

**The same principle can be used if you work on a smaller scale!**



If you work at the regional level: install a contact person and/or organise a Day of Action in every important city!

If you want to turn your school "green": find an "Environmental Representative" and complete at least one small environmental project in each class!



## Offer the Editorial Staff Interesting Material!

The EGS Partner Versuchsreferat Steiermark (VRST) trains agriculture students and also teaches them how they can drive agricultural equipment so that it saves petrol. This is sensible – but not very spectacular. But when the VRST announced the “Clever Driving” petrol-saving competition for the region of Styria and eight agriculture and/or forestry schools took part, media interest was huge – the press and television both reported on it.

**Take a look at your project through the eyes of an editor who wants to sell interesting news: What aspect would be worth a headline to you?**

## Carefully Plan your Media Production!

At an early point in the EGS Project, the idea of producing a video clip that communicated the entire diversity and liveliness of the Project and thereby involved the largest possible number of actors. So that the camera team didn't have to drive over half of Europe, we shot the video at our International School Congress (c.f. page 35). The need for appealing images of people in action for the video was already taken into account in planning this congress – that actions of a suitable kind would need to *happen*.

**Transfer these ideas to media formats that are of interest to you!** If you want to publish a blog, recruit your comrades as authors. If you want to create a brochure like this one, then start collecting images and information early. And when you have determined that you cannot realise a particular media format, then immediately start looking for one that better suits you.



## Keep on Networking!

In February 2011, 30 months of intensive and close collaboration will end for us. We have achieved a lot. We've come to know and esteem one another.

The Energy Revolution is by no means concluded. We will be glad to be at your service as a contact – or collaborator – in the future!

**European Center for Quality** is a partner in numerous projects aiming to enhance the key role of local high schools, political and administrative bodies in guiding their communities towards development of sustainable energy strategies and improving their energy efficiency. <http://ecq-bg.com/>

The **Mountain Community 'Trasimeno-Medio Tevere'** is a Public body which works for sustainable development of their area of responsibility, in particular, is involved with initiatives and projects dedicated to climate change, and to increase of good practice in environmental and energy. [www.montitrasimeno.umbria.it](http://www.montitrasimeno.umbria.it)

**SOGESCA** is committed to finding new opportunities for schools interested in energy efficiency to valorise the EGS network and Manifesto (e.g. the "SHEEP - aplusplus" project is just started on energy efficiency of products). [www.sogesca.it/](http://www.sogesca.it/)

The **Environmental Office North e.V.** campaigns for environmental protection in schools and publishes, among other things, teaching materials in German and English: [www.umweltschulen.de/klima/climatedetectives.html](http://www.umweltschulen.de/klima/climatedetectives.html)



**Eco-One** co-operates with OKKA foundation, which supports Sustainable Development Certification (energy aspects integrated) to schools. [www.koulujaymparisto.fi](http://www.koulujaymparisto.fi)

Eco-One co-operates with Motiva, which supports energy and material efficiency in schools, e.g. by publishing teaching and learning material in Finnish and English. [www.motiva.fi/en/public\\_sector/schools\\_and\\_colleges](http://www.motiva.fi/en/public_sector/schools_and_colleges)

Eco-One also co-operates with SYKLI Environmental School of Finland, which is Finland's biggest teachers training organization area of Sustainable Development and energy management in Schools. [www.sykli.fi/](http://www.sykli.fi/)

For more contact information, please have a look at page 6.



**Together, let's work to save energy, build solar plants, plant trees ... and much more to save the environment!**



## Conclusions

Public relations were an integral component of the EGS Project. We have taken on this task with commitment and with good organisation and have implemented it successfully.

From the very beginning, we clearly established the responsibility for public relations and created the most important materials as centralised actions.

We used our project structure with 23 partners in 10 EU countries in order to have a presence locally and spread our concern in all participating languages in many regional and/or local networks.

We created the media formats that fit us and our target groups, e.g., websites, press releases, presentations and a video clip.



We have developed products through the whole EGS Project that are focused on the utility to our target group and which we will be able to continue using and/or promote after the end of the project.

We finally organised many high points through our regional events and the three International Forums that motivated many people – and ourselves not least of all.

In conclusion, we were able to make our concern known in Europe and develop tips for you on using public relations in your project.

**Contact us if you have any questions or if you want to work with us to recruit for the Energy Revolution in the future!**





[www.egs-project.eu](http://www.egs-project.eu)