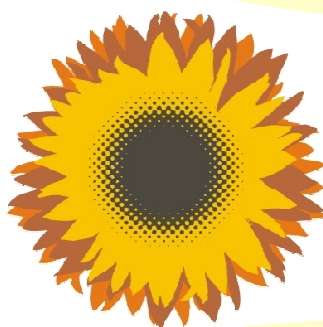


Introducing the



sunflower

energy | innovation | development

Project Newsletter

Issue 1

Introductory Issue

November 2009

Working Towards Sustainable Energy Communities
Throughout Europe

With the Support of

A project coordinated by Câmara Municipal de Moura (Alentejo Region, Portugal)

Intelligent Energy



Europe

The Sunflower Project is a European network of 8 partners. The aims of the project are the promotion, dissemination and implementation of good practice examples of Renewable Energy Sources and their contribution to Local Sustainable Development. Increase the ratio of popular involvement in the project and thus start a long and durable community energy vision in line with European energy climate targets.

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RES Training



In March 2007, the European Council endorsed ambitious objectives of reducing Europe's greenhouse gas emissions by 20%, improving Europe's energy efficiency by 20% and increasing the share of renewable energy to 20% by 2020. To achieve those goals, competitiveness is now needed.

The Objective of the training is to encourage the creation of Renewable Energy Companies across Europe.

Training sessions are targeted at employers, entrepreneurs and higher education students. A scientific or technical background is recommended.

The 1st training session will last for 5 days, from February 22nd to February 26th 2010, and will be held at Moura (Portugal). A second one will be organized in Sliven (5th to 9th of July 2010)

The training will cover:

- Technologies used in Renewable Energies Sources (RES), their current and future uses;
- Focus on RES in Europe: Which types of energy according to region? Which perspectives?
- Needs of this market: studies, councils, components/systems, fabrication, maintenance
- Case studies examining the needs of the cities in SUNFLOWER project
- Market study
- Financial study: provisional balance sheet, grant aid funding plan, financial aids
- Juridical Study: choice of legal status, administrative formalities
- Negotiations: suppliers, banks, recruitment, clients, assistance
- Difficulties, barriers
- Recommendations

Participation in the training is totally free of charge. Travel and accommodation which will be arranged by the organizers will require a 25% contribution from attendees. (Some countries will not require a contribution.)

Further details on the sunflower website: www.sunflowerproject.eu

To apply please complete the application form available by sending a request to sunflowerproject.eu@googlemail.com and send it with your CV and a letter of motivation to your national contact point (contacts available in the website) before November 15th 2009.

MUNICIPALITY OF MOURA PORTUGAL



The Municipality of Moura, is the local Administrative centre and aims to meet the interests and common needs of its population. The Municipality is organised to contribute to the integrated development of the area and aims to improve the living conditions of the community. Its powers and duties are laid down in legislation.

The Municipality of Moura, in its capacity as local authority and in order to promote quality of life of the population and guarantee access to essential goods has, in recent years, lead the fight for better conditions in the use of equipment and services.

Among the actions that have been developed by the local authority with a view to promoting economic prosperity, we highlighted the development of partnerships at regional, national and international level; the implementation of economic events; infrastructure improvements in the industrial area of Moura, the creation of the Technological Park of Moura and the encouragement of partnerships at national and international level.

With regard to the Integrated Development of the County, the Municipality of Moura has several projects currently being implementation, and some already implemented. These include the preparatory work for the development of the Photovoltaic Park of Moura, the creation of the Professional School of Moura; the establishment of the Institute for Advanced Studies in Natural Resources, (a project for the development of the Contenda's Forestry Area) and an Intervention Project for Moura's Castle. In this context the creation of Lógica is still important – (This is the Society for Technological Park of Moura Management with special focus to the areas of micro generation, education and training, R & D on renewable energy).

IDMEC/IST PORTUGAL



IDMEC is a private non-profit association of science, technology and training whose funding members are Instituto Superior Técnico (IST) and Faculdade de Engenharia da Universidade do Porto (FEUP). The activity of IDMEC is oriented towards five key strategic objectives; (i) to promote R&D actions, (ii) to promote technology transfer, (iii) to develop advanced training programmes, (iv) to evaluate and audit new entrepreneurial processes and (v) to develop integrated management programmes in energetic, logistic and technical areas. The Research Group on Energy and Sustainable Development is a research unit of IDMEC/IST, founded in 1985, and initially, dedicated its activities to the development of tools to simulate and to optimize the design, operation and control of full-scale energy equipment. In the last years the research group has intensified part of its research efforts towards energy and environment issues, so important to face today's challenges resulting from high energy demand and high standards for environmental protection and resource conservation.

MUNICIPALITY OF SLIVEN BULGARIA



The territory of Sliven Municipality is 1366sq. Km. and comprises 49 towns and villages—the towns of Sliven and Kermen and 47 villages with a total number of 147, 975 inhabitants. The landscape of Sliven is divided into two regions—semi-mountainous and mountainous to the North, and flat to the South.

Sliven is situated at the foot of the Southern slopes and hilly spurs of the Sliven Mountain (1181 m), which is the beginning of the Eastern Stara Mountains. To the South and South-east the town is open to the Valley of Sliven. Its altitude ranges between 180 and 300 m. Throughout the year the north-westerly and northerly winds prevail with windy weather during 56% of the year.

The region is characterized with good annual duration of sunshine of 2223 hours compared to the standard duration of 1550—1600 hours, which favours the use of sun as a renewable energy source.

The first wind generators in the country have been installed in Sliven. 57 permits for placing wind generators and 10 for photovoltaic stations have been issued so far. The largest investment in this respect is about to become fact. The Japanese company Mitsubishi Corporation has concluded an agreement with a local company for building of a wind park in the area of the village of Byala, Sliven Municipality, with a capacity of 100mW.

HEALTHY CITIES CZECH REPUBLIC



Healthy Cities of the Czech Republic (HCCZ) is a national association of active cities, towns and regions in the Czech Republic that are implementing the WHO Healthy Cities Project, an international initiative under the auspices of the World Health Organization (WHO).

At the moment (October 2009), 92 municipalities participate in the project, which includes cities and towns as well as regions and microregions. HCCZ presently covers 33% of Czech population.

HCCZ is presently the only association of Czech municipalities that stipulates in its statutes to consistently work towards sustainable development, health, and the quality of living in cities, municipalities and regions of the Czech Republic.

Since 1998, HCCZ member cities, towns and regions have proceeded according to a HCCZ Methodology, co-operating with a wide range of HCCZ's expert partners, particularly Charles University, Prague. Methodology was awarded as a Worldwide Project EXPO 2000 in Hanover. In 2006 HCCZ has been pre-selected among the finalists of the United Nations Public Service Awards.

Within a brief period of time, the HCCZ methodology has stimulated a boom of activities in the member cities, municipalities and regions to promote strategic development of the municipalities with citizen participation, including local Agendas 21, applications of Health 21, and Local Environmental and Health Action Plans (LEHAPs).

EIGSI FRANCE



EIGSI's activities are developed on three ways, education, research and professional training. EIGSI is a multi-disciplinary private school which awards a 5-year university level master degree to its graduates. Created according to European educational standards, EIGSI's curriculum addresses the modern engineer's professional needs. Each year, more than 150 students are qualified as engineers. 60 employees including 30 research scientists from complementary backgrounds provide the basis for the large scope of the engineers training.

Research and innovation activities are developed along 4 main axes:

- Design and Eco Design; research activities deal with environmental marine protection and with global water management.
- Industrial logistics and organization; works in that field deal mainly with innovative transport vehicles, urban logistics systems' organizations, urban mobility
- Test and Experimentations on components of electrical or hybrid vehicles such as batteries, motors, power trains as well as on road experimentation of such vehicles
- Renewable and Alternative Clean Energies; research works consider the optimization of control of energy conversion systems.

ENVIRONMENT PARK ITALY



Environment Park, founded in 1996, through an initiative of the Piedmont Region, the Province of Torino, the City of Torino and the European Union, represents an original experiment in the field of European Scientific and Technological Parks as it successfully combines technological innovation and eco-efficiency. The Park's **mission** is to provide small and medium-sized enterprises with advanced solutions and innovative technologies in the fields of energy and the environment, through partnerships, special projects, specific training activities and the organization of thematic events.

The Park is now addressing its activity in order to foster the creation of R&D driven clusters on innovative promising technologies, such as the coordinator of Regional R&D cluster on Hydrogen and Sustainable Building .

BILBAO TECHNOLOGY PARK SPAIN



Pioneer in Spain, Bilbao Technology Park was set up in 1985 by the public institutions of the Basque Country with a mission to promote diversification in industry and the transfer and diffusion of technology and innovation. It gathers together up to 7.150 highly qualified employees, more than 210 companies, and seven internationally recognised Technology and Research Centres.

Being the first Park settled in Spain, and a model of success, it comprises 227 Hectares of privileged natural environment where a great deal of high added value Companies, belonging to sectors as TICs, Biotechnology, Energy and Environment, R&D, and Engineering among others, are located; as well as significant Industrial Clusters.

Being very near policies, initiatives, agencies and companies related to energy, the Park has an outstanding representation of companies and Research Centres related to Energy, namely Gamesa Eolica/Gamesa Energia, Guascor Foton, Guascor Solar, Tecnalia, amongst others. Furthermore, Bilbao Technology Park has been the coordinator of the Ecopadev R&D Project related to implementing sustainability in Technology Parks.

NORTH YORK MOORS NATIONAL PARK AUTHORITY UK



The North York Moors is the first National Park to set up a Community Renewable Energy Project. The project was launched in June 2004 and now supports local communities in Appleton-le-Moors, Spaunton, Castleton, Danby, Comondale, Westerdale, Bransdale and Botton. The project is supported by the National Park Authority and Yorkshire Forward (the Regional Development Agency). The project aims to assist local communities to reduce their carbon dioxide emissions and reliance on fossil fuels in order to help create more sustainable communities.

The project has helped support a range of initiatives and activities including training of local energy champions, reducing the energy requirements of individual homes and organising public events about renewable energy technologies. The project has recently secured capital funding which will enable significant renewable energy projects to be undertaken.

PHOTO REPORT FROM JHLAVA - CZECH REP PROJECT VISIT APRIL 2009



Presentation to Stakeholders



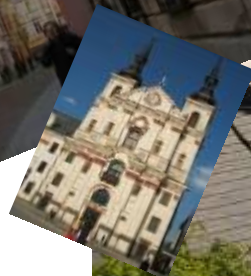
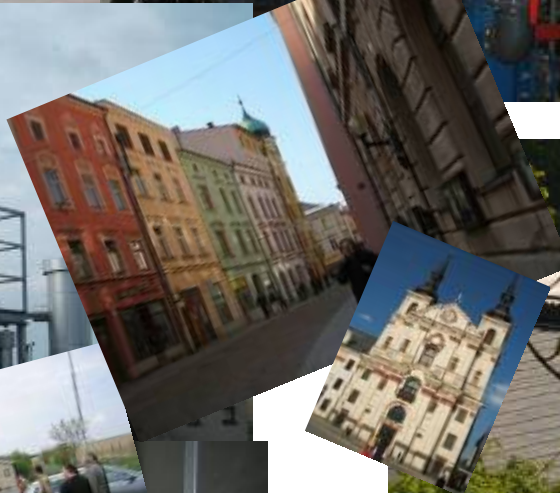
Solar panel mat on roof of swimming pool buildings



Swimming pool plant room



Bio-digester on farm



REPORT ON TURIN ITALY STUDY TOURS AND STAKEHOLDERS MEETING OCTOBER 2009

ENVIRONMENT
PARK

DAY ONE - MORNING



THE INTRODUCTION TO ENVIPARK

The Italian exchange of information and interests was organised and guided by Massimo Da Vià Project Manager of Environment Park SpA.

The Environment Park project started in 1996 costing €32 million, 72% was EU funded the remaining 28% was funded by public shareholders. It is part of Italy's largest urban transformation of heavy polluting industries.

ENVIPARK RENEWABLE AND SUSTAINABLE ENERGIES

EnviPark is almost completely fed by renewable energies which are developed on site. The Hydro power plant incorporated an existing drainage culvert from 18th Century to feed the new Hydro plant, glacial water from the Alps, achieves a 6m level drop allowing a flow rate of 13 cubic metres per second. Approx 85% of the thermal energy in EP is produced by wood-chip boilers.



DAY ONE - AFTERNOON

CO-GENERATION PLANT Polo Ecologico, ACEA.

On the site is the district heating co-generation plant, which collects waste from over 800,000 people. This district heating facility uses four different treatment plants: Anaerobic digestion (series of processes in which micro-organisms break down biodegradable material); composting plant; wastewater treatment plant and a landfill site.

The facility also produces bio-gas and compost. Waste material which arrives on the facility is approximately 50,000 tons/year. The annual turnover is €4,500,000 (€95 per ton for the treatment of waste is paid for by the municipality).



**REPORT ON TURIN ITALY
STUDY TOURS AND
STAKEHOLDERS MEETING
OCTOBER 2009**



DAY TWO - MORNING

SUNFLOWER STAKEHOLDERS MEETING WITHIN THE UNIAMO LE ENERGIE EVENT



ITEM 1 - SUNFLOWER

The first to take the microphone was Antonio Martins, Moura Municipality, Portugal highlighting the objectives of the Sunflower group.

ITEM 2 – ROLE OF AGRO-ENERGIES IN A SUSTAINABLE AGRO-INDUSTRIAL CHAIN SYSTEM.

Next to take the microphone was Professor Alessandro Aioli from the University of Eastern Piedmont, who is a Scientific Consultant of Tecnogrande SpA. Tecnogrande mainly targets agri-food, responding to a call from enterprises within the Piedmont region.

ITEM 3 – LAGO MAGGIORE TECHNOLOGY PARK AND THE INNOVATION CLUSTER ON “PROCESS PLANT ENGINEERING, SYSTEMS AND COMPONENTS FOR RENEWABLE ENERGIES”

Andrea Cappelletto (General Manager of Tecnoparco, Verbania) took the stage.

Tecnoparco is located 130km (81 miles) from Turin, near the Swiss border.

Tecnoparco's sectors of activity are as follows:

Mini/micro hydro electric applications.

Bio-mass

Energy efficiency in paper production.

Energy efficiency in greenhouses.

Energy efficiency in buildings

Green cars (Electric Mobility)

ITEM 4 – INNOVATIVE AGRO-ENERGETIC CONSERVATION AND THIRD GENERATION PHOTOVOLTAICS: DEVELOPING A NEW REGIONAL NETWORK OF ENTERPRISES

Bruno Bellone, from the Science and Technology Park of Tortona took the microphone. This organisation is involved in 2nd generation Bio- ethanol capabilities with a turnover of €22 million.

More detailed reports will soon be available on the website www.sunflowerproject.eu

Further details about the Sunflower project can be found on the Sunflower Website

www.sunflowerproject.eu