

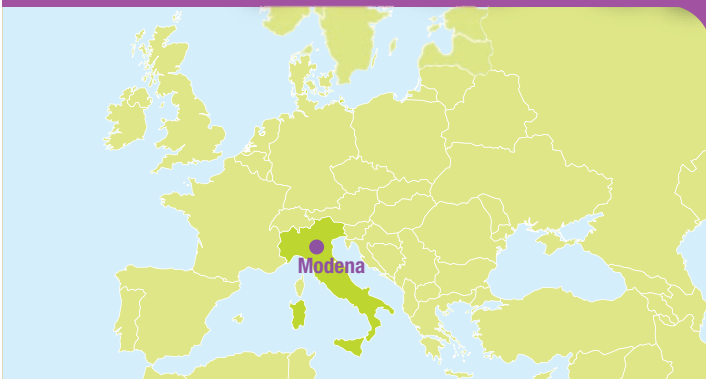
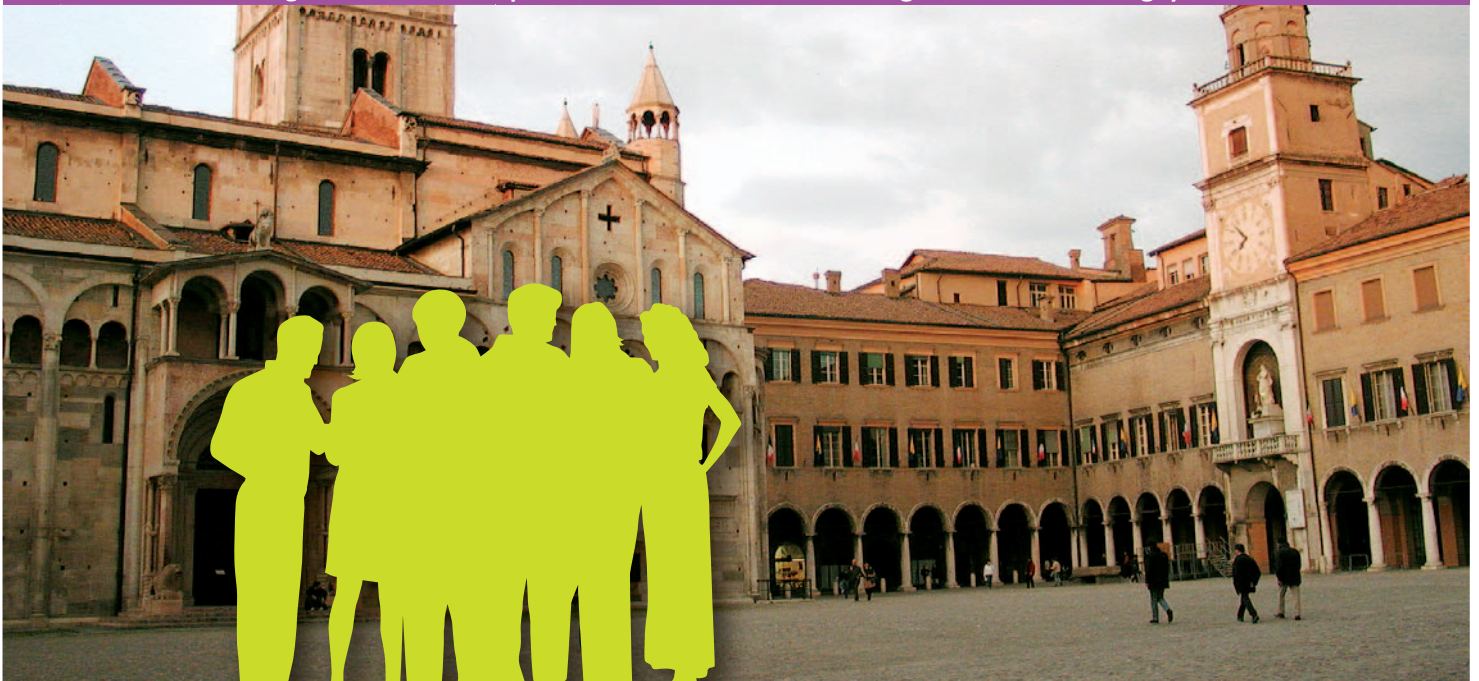


MODENA

shining example



Building in Europe Local Intelligent Energy Forums



» The City of Modena with 180,000 inhabitants lies in a prime geographical position in the centre of the Po valley. It is one of the greenest cities in Italy with 38 m² of green space per inhabitant and more than 73 km of natural trails. The province of Modena is one of the richest and most developed in Italy, and has one of the lowest unemployment rates as well as one of the highest per capita levels of income. There is very high car ownership with 650 cars for every 1,000 inhabitants and there are approx. 982 inhabitants/km².

Abstract

The City of Modena adopted an Energy and Environment Strategy over 20 years ago. The document has given particular attention to energy planning, for instance via the City Energy Plan 2002, now under revision, and since 1996 to the control and reduction of greenhouse gas emissions. A greenhouse gas balance sheet for the Modena area has been prepared and work has been carried out on reducing energy consumption and the environmental impact of fuels.

Implementing energy policy in Modena has involved various projects designed to improve energy saving and raise awareness on energy issues and related problems in all the main City Departments.

Policies on energy saving and renewable energy induced the municipality to joined Climate Alliance, taking on the commitment to reduce CO₂ emissions by 50% before 2010 from a 1987 baseline. The city received the Climate Star 2002 Award, a European award for climate protection activities. Modena also got the first prize for energy saving and climate protection policies at Eurosolar 2003.

Modena wants to use the BELIEF project to create 3-4 permanent Forums and so increase the range of its own action and policies, thus creating a new energy culture based on energy saving.

OUR FORUM

MODENA'S BELIEF FORUM project wants to fit the sustainable energy community concept to the local scale and is particularly concerned with the countryside in the hinterland beyond the economic and business centre located in the Modena urban area.

Particular care is being taken in MODENA'S BELIEF FORUM project to create working groups that will debate the most important technical responses designed to maintain sustainability and so to promote development in the urban area that is both productive and socially acceptable. These should work in cooperation with the local authority closest to the citizen to finally create a common social structure.

Basic facts

MODENA'S BELIEF FORUM project wants to compare different concepts of social reality to reach a joint idea of what constitutes a sustainable energy society.

The project is made up of 6 different Forums and workshops, which will create a technical debate on the main problems related to sustainability. They will operate in different ways:

- » Workshop 1 Local and Urban Strategy: a common vision of local institutions and public administrations based on a working hypothesis of collaboration and interplay in the projects
- » Workshop 2 University and Research contribution: studies, degree work, secondments and research on the themes of energy saving, renewable energy, environmental sustainability, technological responses to the urban waste cycle, Bio-climatic architecture and integrated planning and "Eco-profit" programmes
- » Workshop 3 Local Agenda 21 will promote exchanges and communication between local Agenda 21 stakeholders, environmental associations, consumer organisations, major distribution companies, associations of traders, schools, social housing, etc.
- » Workshop 4 Energy Saving and Technological Innovation: will try to open a discussion between energy and multi-utility operators, ESCOs, etc.

- » Workshop 5 Professional Operators. The professional world will participate in a cultural and scientific debate between professionals, engineering companies, educational laboratories
- » Workshop 6 Economic operators. Providers of products and services will propose practical projects targeted at specific sectors

Working method

MODENA'S BELIEF FORUM target is going to be achieved by:

- » The organisation of the 6 regular workshops, described above, to reach the targets. Meetings will be held at least every 3 or 4 months
- » The distribution of materials, information, ideas, projects and anything else that comes out from the debate
- » A process of summarising and rationalization of different suggestions, ideas, efforts and reminders coming from all the 6 workshops and other activities

The Forum will be led by the Coordination Group. This coordination will be led by the Environment Department and in particular by the Energy Service (Alessandro Pelligra, Head of Service and Beatrice Bruzzone, Energy Manager). All the organisation and also some lead management work is going to be carried out in collaboration with other important participants such as the Local Agenda 21 expert and another expert.

The Forum's objectives and all items on the meeting agenda are discussed and agreed in close cooperation with local interests and local stakeholders and will be announced on the MODENA'S BELIEF FORUM website that is currently under construction. Both politicians and officers are involved in the definition of tasks.

Benefits for members

MODENA'S BELIEF FORUM project wants to create a sustainable energy action plan at the end of a period of 30 months. This will be based on the results of the discussion and the ideas and other suggestions coming out from all the workshops. The plan has to be built up by all the participants in the Forum and shared by all of them. All this programme will help suggest projects, ideas and solutions for better sustainable energy development and energy saving to the municipality.

Moreover we hope to create some independent workshops coming out from individual participants in the Forum, and to use this to create a long term integration of skills at local level, especially between financial, social and professional operators.

All members of the Forum will participate voluntarily, which means that they expect a certain kind of benefit from the Forum. These benefits could be either economic or non material (image, know-how, benefits from using new technologies). In a successful Forum, the whole local community profits through higher incomes, increased wealth, less CO₂ pollution, increasing use of renewable energy sources and energy saving and – last but not least – a sustainable environment.



OUR SUSTAINABLE ENERGY ACTION PLAN



Objectives

The main objectives are included in a more developed municipal culture and policy, for instance through:

- » Editing and reassessing the Local Energy Plan to adapt it to incorporate sustainable ideas and sustainable development of particular areas. This should be done in order to promote the necessary processes of building and infrastructure, industrial and economic development
- » Setting up and updating the control system for emissions and pollutants like CO₂, NO_x, PM10, acoustic and electromagnetic pollution, implementation by guidelines and balances
- » Carrying out activities designed to reduce and manage energy consumption
- » Increasing use of renewable energy
- » Promotion and implementation of feasibility plans/integrated projects in the following areas:
 - Public and/or Private Social Housing
 - Industrial and Commercial Area planning
 - Schools and Education
 - Public and/or Private Social House building
 - New development and regeneration plans

Activities

Identifying one or more projects/areas where developing technologies and management techniques relating to bio-climatic architecture, co/tri-generation, teledistribution, heating, waste recycling programmes, etc. in all the fields mentioned in 2.1 Objectives.

Financial aspects

Modena municipality is promoting some significant renewable energy developments through its investment plan:

- » 2006 – A 300 m², 32 kWp Photovoltaic project of great architectural value at Modena Business park, € 438.000
- » 2007 – PV and solar thermal projects on public buildings (schools, sport buildings), € 200.000
- » 2008 – Solar thermal, cogeneration and geothermal projects on public buildings, € 300.000

There are going to be more projects using the renewable energy sources especially using national financial incentives.



Achievements

PV AND SOLAR THERMAL POWER

The City of Modena and in particular the Municipality has adopted a special policy on Renewable Energy, in particular photovoltaic and solar thermal resources. In the past couple of years special projects were designed especially for school buildings where there are likely to be 8 kWp of photovoltaics already installed and 9 kWp to be installed in 7 different schools over the next few months. Another city district where the photovoltaic programme is working is the central business district where about 32 kWp in all is being installed.

With regards to solar thermal, sports buildings and in particular swimming pools are the structures where the municipality has carried out the most significant projects:

- » 66.2 m² + 300 m² on Dogali swimming pool building
- » 15 m² on the baseball field
- » 50 m² on Pergolesi swimming pool

Using MODENA'S BELIEF FORUM we want to increase the number of kWp especially on new private and public projects and want to increase the technical and professional knowledge especially in renewable energy design.

BIOMASS

Modena Province and its municipalities, with the help of the Emilia-Romagna region, are already studying the technical potential of this important "new" energy source.

Following a study of the potential of wood biomass, a feasibility study and research work was carried out on the production of biogas from energy maize and its injection into the gas grid.

MODENA'S BELIEF FORUM wants to promote the biomass project over all the Modena Province using university and research studies and through new technical working groups.

CO₂ EMISSIONS

A considerable reduction in CO₂ emissions can be achieved by working on the efficiency of heating municipal buildings. This has been demonstrated by the more than the 25% reduction in CO₂ emissions achieved between 1992 and 2002. However a slight increase in overall CO₂ emissions was noted over the whole of the urban area, in particular over the last two years. This is the result of increased emissions from traffic and urban mobility.

MODENA'S BELIEF FORUM wants to promote different targets for reducing CO₂ emissions than those identified in the Modena's Energy Plan.

Activity programme	
Setting-up of the Coordination Group & definition of the general strategy	Months 1-5/2006
LAUNCH CONFERENCE	31 May 2006
Local action project and Forum planning	Month 6-9/2006
Local Energy Plan Proposal	November 2006
Workshops	10/2006 – 4/2008
Registration of Forum Proposals	
Ongoing monitoring of results	From 6/2006 to 6/2008
Integration of workshop proposals	
Summary of the work of the Forum	11/2006 and 11/2007
Communication and dissemination activities	From 6/2006 to 6/2008
Events and Conference participations (Week of the Bio-architecture)	10/2006 and 10/2007
Final Conference and documents	May – June 2008

RECOMMENDATIONS

» In this first part of the project we consider that the organisation of the Coordination Group has been especially successful. The BELIEF launch conference and, in particular, **the cooperation between the municipality and a selected marketing and design staff worked very well and achieved good visibility.**

» We consider it important to **find major events or meetings** (e.g. exhibitions, national meetings, conventions, etc.) which **address a larger than local sphere** and there **to promote a local launch conference and highlight the start of the local Forum.** This will have a much wider visibility in all professional, financial, social, etc. circles.



Further information


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