"A strategy for the sustainable use of wood and its implementation as base for legislative measures on regional level"

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Overview of to ASTWOOD related ongoing projects in Europe

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Project ASTWOOD.-"A strategy for the sustainable use of wood and its implementation as base for legislative measures on regional level"

WP3.- Concept Development

D3.1.- Overview of similar running projects in Europe

Full name and address of author for all correspondence.-

Ms. Angelika Rubick
ofi – Austrian Research Institute for Chemistry and Technology
Brehmstraβe 14a
1110 Vienna
Austria
Phone: +43(1)798 16 01-590 – Fax: +43(1)798 16 01-480
angelika.rubick@ofi.co.at
www.ofi.co.at

Full name and address of each co-author.-

Mr. Martin Englisch
ofi – Austrian Research Institute for Chemistry and Technology
Brehmstraβe 14a
1110 Vienna
Austria
Phone: +43(1)798 16 01-490 – Fax: +43(1)798 16 01-480
martin.englisch@ofi.co.at
www.ofi.co.at

This summary gives an overview over ongoing or and recently finished IEEA projects, which are related to the ASTWOOD project - A Strategy for the sustainable use of wood and its implementation as base for legislative measures on regional level.

SMALL SCALE RENEWABLE APPLICATIONS

ACCESS

Coordinator: Dr. Lulin Radulov
Black Sea Regional Energy Centre (BSREC)
Webpage: http://www.access-ret.net/info/access.htm
Duration: 12-2007

The ACCESS project addresses small-scale technologies that utilise biomass and solar energy for heating and hot water supply in dwellings with individual and local heating systems in Bulgaria, Czech Republic, Hungary,Romania, and Slovakia.

1) development of a virtual market network;
2) systematization of the biomass energy potential and perspectives for its increase
3) development of a method for the identification of optimal combined scheme
4) promotion of standards for both the concerned technologies and biomass products
5) training courses
6) elaboration of optimal financing schemes

Lessons learned

Renewable energy technology markets have only recently started developing in the participating countries.
Governments can substantially accelerate this process by:

- providing more information to both market actors and end users;
- supporting local technology production and technology transfer from the EU
- developing and promoting standards for biomass fuels and biomass and solar technologies.

AGRIFORENERGY

Coordinator: Dr. Horst Jauschnegg
Landeskammer für Land- und Forstwirtschaft Steiermark, Austria
Webpage: www.agriforenergy.com
Duration: 02-2008

Short description

This project aims at promoting the use of biomass from agricultural and forestry sector for energy purposes. It addresses the barriers lack of co-operation, information and training within the agricultural and forestry sector and lack of public awareness among decision makers. The main target groups are farmers and forest owners, forest entrepreneurs, advisory and service organisations for farmers and forest owners and decision makers from policy, administration and residential housing organisations in Austria, Italy, Romania, Slovak Republic and Slovenia. The most important objectives are:

- To mobilise the large biomass potential from fragmented private owned forests and from agricultural land by
- increasing the co-operation among farmers and forest owners.
- To stimulate local and trans-national exchange of experiences and know-how transfer.
- To integrate the agricultural and forestry sector into the energy market as raw material supplier (e.g. woodchips), but also as supplier of energy services (e.g. bioheat).

Lessons learned

- In Austria different successful models and best practice examples exist how to integrate farmers and forest owners in the energy market not only as raw material suppliers, but also as suppliers of energy services.
- These models can only be transferred to other countries, if they are evaluated and adjusted to special conditions in the respective country.
- Favourable conditions (e.g. legal framework, supporting schemes) are necessary to develop the model "The farmer as energy seller".

ASTWOOD

Coordinator: Ignacio Marquez Acedo
Mancomunidad Municipios Sierra de Gata (MMSG), Spain

Webpage: www.astwood.info
Duration: 12/2008

Short description
Specific Objectives:

- To elaborate a Strategy Development Guide which could serve as a base for the public administrations forenhancing the use of locally available wood pellets and chips for domestic heating.
- To create an Implementation Model which is transferable to any other European region Work Programme:
- Market Study, to study the availability of wood as a raw material in the three regions and current or potential buyers or consumers.
- Concept development, based on existing models from other regions. Integration of the concept development and the methodology analysis to establish the strategy paper. Implementation model ("decision tree).
- Strategy development guide. To define a guide for municipalities for creating a legal framework for the promotion of wood pellets and chips. Software tool.
- Implementation of the strategy development on regional policies with pilot initiatives in the three regions
- Dissemination plan including visits to the demonstration units installed in the three regions.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

BEST RESULT

Coordinator: Mrs Carla Zanovello
Centro Regionale di Assistenza per la Cooperazione Artigiana (CRACA) Soc. Coop. Italy
Webpage: http://www.bestresult-iee.com/default.htm
Duration: 12-2008

Short description
The BEST RESULT project was developed by actors already involved in training and dissemination activities related to renewable energy sources technologies. Its aim is to raise awareness and to enhance skills and knowhow related to renewable energies among suppliers

in the building and energy sector (installers, technicians, professionals, architects, planners, retailers etc.).
This will be achieved through a range of training and information measures (specialization courses, info-desks, workshops, website, etc.) at regional levels. At the same time, the project will boost the demand for small scale renewable applications in buildings (e.g. by means of guidelines, seminars, publications, website, etc.) and will also address the general public. The project will be based on a thorough analysis of barriers to the deployment of smallscale renewables appliances (e.g. surveys and studies). The project partners are sharing a common methodology, which however is adapted to the specific regional/local needs and conditions.

Lessons learned
It was very important for the project development to share experiences among Partners during the meetings as well as through the dedicated platform. Especially this instrument is very useful in order to coordinate such a big Consortium and monitor the whole project running.
There is a very strong interest in specialized training on RES. Every event has received a lot of subscriptions by technicians, professionals and all workers in the energy field.
Energy market, in some Countries, is not increasing as fast as foreseen, especially in East Europe Countries, so more actions have to be taken in order to stimulate the market growth.

BIOHOUSING

Coordinator: Mr. Markku Paananen
Jyväskylä Innovation Ltd / BENET Bioenergy Network, Finland
Webpage: http://www.biohousing.eu.com
Duration: 12-2008

Short description
Lack of knowledge, disregarding requirements of biomass heating and absence of standard technical systems are the greatest barriers in promoting biomass based energy in private houses.
BioHousing aims to remove the barriers via designing of standard and commercial technical systems and by producing tools and information material for sustainable biomass heating. Project encourages energy maintenance service entrepreneurship and train energy actors to increase their professional skills to advice house builders and decision-makers. Use of stoves as auxiliary or main heating system is common in Europe. Selection of stove and firewood storage and good firing practices are essential to avoid emissions, to get efficient combustion and comfortable heat.

Lessons learned
- A prefabricated boiler room enables the house builder to choose freely the heating system which pleases him most. Afterwards the change of heating system is possible in a profitable way because large modifications are not needed. It helps to change oil heating to solid biomass heating and therefore the use of the heating oil decreases.
- Training actions are aimed to the target groups, which are energy advisors and trainers of potential end users or decision-makers. Well-trained advisors disseminate widely information of solid biomass heating system as a well-working, reliable and cost-effective alternative and remove suspicions of house builders towards solid biomass heating. Increased knowledge raises demand and sale of solid biomass heating systems.
- Project emphasizes the objectives and policies e.g. to limit CO2 emissions, to reduce dependency on imported energy, to ensure security of supply and to raise regional employment.

BIOPROFARM

Coordinator: Jean Schummer
L.E.E. sarl, Luxembourg
Webpage: www.bioprofarm.eu
Duration: 12/2007

Short description

The idea of the project is to increase the valuing of the agricultural biomass to generate energy. Addressed to relevant stakeholders like farmers, entrepreneurs, investors and public decision makers, BIOPROFARM will try to eliminate the existing barriers in regional context and promote the technology to create an added value for the region. By organizing seminars, participation on exhibitions and organising awareness campaigns we will achieve the main goal of the project which is evaluation and support pre-feasibility studies of a number of realistic development projects and the establishment of technical, financial and administrative recommendations adapted region by region.

Lessons learned

This project has just started. It is therefore too early to draw lessons.

ICOSAW

Coordinator: Dr. Angela Himsel
Chamber of Crafts Trier, Germany
Webpage: -
Duration: 02/2008

Short description

In northern and central Europe, combining solar panels and the use of firewood is a promising way of heating smaller buildings in reliable ways. Within the ICOSAW project, partners with crafts background from Germany, Poland, Sweden and Slovakia have joined forces to promote the necessary technologies.
The results of the project will be concepts for advanced training, marketing, network creation and public relations, which are to be tested by the project partners in their target regions Trier, Rheinhessen, Västerås, Slupsk and Zvolen, and which can be adapted to other countries throughout the European Union.
A further result will be a number of targeted activities and materials for the information of craftsmen, architects, planners, engineers and the general public.
An final direct outcomes of the project will be an increase the number of integrated small scale solar and biomass installations and development of new local small businesses dealing with these technologies in the pilot regions.

Lessons learned

This project has just started. It is therefore too early to draw lessons.

RESINBUIL

Coordinator: Ricardo Pizarro Villanueva
Asociación Agencia Provincial para el Control de la Energía de Burgos, Spain
Webpage: www.resinbuil.com
Duration: 02/2008

Short description
The RESINBUIL project encourages the use of small scale renewable energy appliances in buildings in four provinces of Spain, Italy, Slovenia and Romania. Its main target groups are local authorities, business associations, constructors, professional associations and the general public. The project partners will analyse the current development rates and market barriers before implementing a threefold strategy consisting of:

- Development of new local markets through regulatory shifts (including local tax cuts) as well as commercial agreements between installers and local banks with Energy Agencies as intermediates
- Promotion through permanent appliance exhibitions in Spain, Slovenia and Italy, and through a 4-month awareness-raising campaign using radio messages, local TV spots, posters etc.
- Training courses on renewable energy sources in buildings at the University of Burgos (Master's level) and online courses for architects and engineers in the other participating countries

Lessons learned
Although the project has not been completed it is possible to draw the following preliminary conclusions:

- Increasing interest in new generations of architects and engineers. These groups have accepted very well the project, participating actively in all the actions executed.
- The construction sector (promoter and constructors) is reticent to install RES in buildings, arguing that it would increase the cost of dwellings. Partners have notice a lack of interest in this group.
- General public is the best tool to promote RE in buildings. This is the reason why the majority of the actions performed by the Consortium have been aimed to citizens in general.

RURASU

Coordinator: Konstantinos Zapounidis
Pieriki Anaptixiaki S.A. (Pieriki), Greece
Webpage: http://www.rurasu.info
Duration: 06/2007

Short description
RURASU focuses on energy problems of each involved area (Pieria in Greece, Allgäu in Germany, Ayr in United Kingdom, Cordillera Subetica in Spain), aiming to support dispersed local actors like engineers, buildings designers, public authorities and consumers on the use of renewable energy sources and energy efficiency measures in the building stock. The support is continuous, throughout the project duration, and is achieved through the setting-up (in United Kingdom and Spain) and further development (in Greece and Germany) of Rural Design and Advice Support Units (DASUs).

The continuous support provided to local actors will result in the broader use and implementation of renewable energy sources and energy efficiency techniques. Important elements are

- The development of educational materials (Information Acquisition Tool, leaflets etc.)
- Analysis, training and consultations regarding the European Buildings Directive (2002/91/EC)
- Networking and training of the involved professionals and support of local energy management in general.

Lessons learned
Although the project has not been completed it is possible to draw the following preliminary conclusions:

- The level of awareness for renewable energy and energy efficiency in each involved region is different, leading to adoption of different methodologies in order to achieve expected results.
- Events, wide dissemination and coalition with local media, actions already started, are important elements for successful media and PR strategy.
- Formulation of action agendas for DASU set up in rural areas along with completed reports on experience and development of DASUs, consist important methodology tools for other areas in E.U.

NEW PROJECTS SMALL SCALE RENEWABLE APPLICATIONS

ENERBUILDING

Contact Details : Mr Pieraldo Isolani
ADICONSUM - Associazione Difesa Consumatori e Ambiente
Tel.: +39 06 44 24 39 80
Mail: pieraldo.isolani@adiconsum.it

Short description
The project aims to overcome non technological barriers obstructing investments for the development of RES applications and technologies for an efficient use of energy in buildings through dissemination of information and assistance addressing end users (households, local administrators, young students). Awareness of end users is significant for the development of investments.
Technical solutions refer to specific climatic conditions and to the characteristics of buildings in the Mediterranean Area. Therefore the project regards Italy, France, Spain and Portugal.
The main activities concern:

- information and assistance to end users (call centers, practical guides, website, radio and TV broadcasting, seminars etc) to increase their awareness of the economic advantage of making energetic investments;
- support to local administrators for an efficient energy management in public buildings (schools, swimming-pool, centers for old people, etc.)
- meetings with young students to make them aware of the importance of energy saving and safeguarding the environment.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

REBECEE

Contact Details: Mr Peter-M. Friemert
Zentrum für Energie, Bauen Architektur und Umwelt ZEBAU GmbH (ZEBAU)
Tel.: +49403803840
Mail: peter.friemert@zebau.de

Short description

REBECEE aims to the adjustment of Eastern European countries to western European standards relating to energy-efficient refurbishing and new building with a high supply rate by RES. 50 types of new built and redeveloped low-energy houses with more than 300 units with integrated RE-components can be inspected in the frame of 5 RE Building Exhibitions at Kiel (DE), Ljubljana (SL), Ålingsas/Gotenburg (SE), Tallinn (EE), Graz (AT). 3 Observer cities Sofia (BG), Vilnius (LT) and Brno (CZ) take part and will be enabled to realise comparable RE-projects in their regions.
Ten-thousands of customers, experts, multiplier, investors, politicians will be motivated by the P.R. campaigns to visit the RE exhibitions.
Cross border market opening between Western and Eastern Europe for SME´s, industry, planner and know-how transfer will improve the marketability and acceptability of RES. The project is based on the positive experiences with the ALTENER-project 4.1030/02-030 EU Sol Exhibitions.

Lessons learned

This project has just started. It is therefore too early to draw lessons.

HEAT FROM RENEWABLE ENERGY SOURCES

5Eures

Coordinator: Asko Ojaniemi
Jyväskylä Science Park, Finland
Webpage: http://www.5eures.eu.com
Duration: 12/2007

Short description

The project target is to develop functional bioenergy market for each area. The market shall preferably include several fuel suppliers and several heat producers. The means to achieve this target are training, feasibility studies and business development assistance.

- The first phase was to train the basics to some key persons from each area in order to be able to discuss all relevant matters with common terms and with common understanding.
- Next phase was general feasibility study for the areas. In the study the bioenergy potential is identified as well as existing and potential actors in the market. The study result is few identified project sites in each area for more detailed study.
- The work will continue by detailed case studies, training and assistance of identified actors at each area and identification of possible business opportunities and preparation of business plans together with local actors.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- Feasibility studies completed show that the bioenergy market is possible at each areas
- The public awareness and general interest among municipalities have already risen and different initiatives are born.
- Expert support made possible by the project will help to develop these initiatives correctly

BIO-SOUTH

Coordinator: Inés Echeverria Goñi
National Renewable Energy Centre - CENER, Spain
Webpage: http://www.bio-south.com
Duration: 02/2007

Short description

Contrary to the north of Europe and some central European countries, where the use of solid bio-fuels for heating is common, southern European countries make little use of this application and bio-fuel markets are underdeveloped despite important potentials in some regions. The BIO-SOUTH project aims to develop these potentials by transferring technologies, methods and experiences from more advanced countries and by adapting to the local market conditions in Southern Europe.
The project partners assess technical and economical aspects of the whole bio-fuel utilisation cycle, from collection to heat production, in the Spanish region of Navarre and the Italian region of Tuscany, both with an important potential for forest bio-fuels. The project will identify key barriers to bio-heat development in these two regions and – taking into account experiences

from more advanced regions - define measures to address them and help build up thriving markets.

Lessons learned
Although the project has not been completed it is possible to draw the following preliminary conclusions:

- In Navarre, it can be highlighted that although the forest residue potential is about 480.000 ton/year, only a share of them can be collected in a mechanical way to do the process economically feasible, 100.000 Ton/ha (on a 30% moisture content basis). This corresponds to 1.11% on the primary energy consumption.
- In Tuscany, the data obtained is that the total forest residues potential biomass reclaimable can covers about the 1.56% of total energy consumption in Tuscany (579.455 Tons of forest residues), that is an important part of the necessary energy.
- Currently, in the regions under study, due the forest characteristics, the forest biomass harvesting operations could be quite expensive. Therefore, to overcome this barrier, nowadays the Bio-South project it is focus on the development methodology for this kind of forest, in which the forest residue collection has to be optimized.

BIOMASS PARTNERSHIPS

Coordinator: Sonja Ewerstein
Swedish Energy Agency (STEM)
Webpage: http://www.biomasspartner.info
Duration: 02/2007

Short description
In order to expand the market for RES heating it is necessary to increase the supply and to stimulate the demand.
This project will strive to support these issues by creating 9 partnerships, one in every partner's home country, for delivery of heat from biomass and interact with national agencies to deliver policy objectives with respect to reductions in greenhouse gas emissions through the commercial use of biomass fuel sources. In order to succeed in the project it is of vital importance to work with a bottom-up approach, i.e. have the practical market actors involved at the local/regional level at the same time as it is important to work with a top-down approach, i.e. policy makers, municipalities and regional decision makers. The establishment of the regional partnerships will work with these two approaches

Lessons learned
Although the project has not been completed, it is possible to draw the following preliminary conclusions:

- We have already by now noticed a great interest from market actors as well as policy makers to promote the building up of partnership establishments. 20 feasibility studies have been accomplished in Sweden only.
- There must be a lot of genuine interested farmers before the networks can be fully established. In Sweden, the steering committee initially decided to start the project with recruiting farmers to come around this barrier. It is also important that the farmers groups mentally work with more than one possible plant, if the first one isn't successful.
- It was important that the Federation of Swedish Farmers in west Sweden, LRF, joined the Biomass Partner project. Because of the Biomass Partnerships LRF got additional 82 000€ from the county council. Most of the money was designed to feasibility studies.

BioProm

Coordinator: Markus Siehr
Stuttgart Region Economic Development Corporation, Germany (WRS)
Webpage: http://www.bioprom.net
Duration: 06/2007

Short description

The mission is to identify and to overcome non-technical barriers for the implementation of bioenergy facilities in urban areas. The project includes a survey and an analysis into five European regions with special focus on interregional knowledge transfer and exchange of experiences (best-practise-models). The overall aims are:

- Initiation of ten bioenergy projects – two per region
- External workshops to train farmers and public bodies in realizing bioenergy projects
- Communication of best-practise-examples, case studies and success factors, in order to stimulate a network and to accelerate the process and the development of renewable energy technologies, supported by the German Legislation (EEG-Gesetz) and the European Commission.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- The location of biomass facilities is a much more important barrier than expected.
- □he information deficits are higher than expected, and there is a need for more objective information, especially in Austria, where the survey showed, that information deficits are considered the strongest barrier.
- The series of lectures at the University Stuttgart will be continued and they have to be complemented by an annual congress on biomass facilities in urban areas and by transferring the existing trade fair to a more suitable location.

BOOSTING BIO

Coordinator: Jossart Jean-Marc
European Biomass Association – AEBIOM, Belgium
Webpage: http://www.aebiom.org/article.php3?id_article=34
Duration: 12/2006

Short description

During 2005 a strategy was worked out with detailed objectives for EU for the markets for heat, electricity and liquid biofuels, using outstanding sources of information. Objectives were compared with the potential. At a national level a detailed analysis of the national objectives and trends was realised for Austria, Belgium, Bulgaria, Germany, Finland, France and Sweden, using national sources of information. Financial steering instruments were compared among countries and especially detailed for the countries listed above. The strategy is available as a printed brochure of the executive summary and a pdf version for the strategy report (available on project web site).
In 2006 this strategy will be confronted through interviews with the views from national decision makers and market actors, allowing to evaluate this strategy. This work also intends to initiate a debate on how to boost bioenergy in the considered countries.

The European Biomass Days have been organised in September 2005 and are planned for September 2006. It is mainly consisting of open doors to biomass plants and companies working in the biomass sector. A web site is available for registration (www.biomassdays.org).

Lessons learned
Although the project has not been completed it is possible to draw the following preliminary conclusions:

- Work out a clear vision for bioenergy is a challenging but very interesting exercise. Often existing national objectives are absent or unclear (mixing for example the biomass as primary energy source with the final energy after conversion). Also the best financial steering instruments to reach the objectives are difficult to identify as they are manifold, complicate and closely intertwined.

EARTH

Coordinator: Rolf Oldach
IT Power
Webpage: http://www.earth-net.info
Duration: 12/2006

Short description
The EARTH project is developing training courses and training infrastructure for installers of three renewable energy technologies for heat production: solar water heating, ground-source heat pumps, and biomass energy.
In order for these technologies to be successfully implemented, appropriate installer training must be available to develop a qualified, skilled workforce. In many countries, such training opportunities are currently very limited, which is a factor inhibiting the use of these technologies across Europe. Under EARTH, suitable training programmes are being created to disseminate the skills required to install simple biomass, ground-source heat pumps and solar water heating systems.
The work commenced with a survey and review of relevant training programmes and frameworks in participating countries. Training programmes are being developed within the existing national vocational training frameworks in the relevant countries. Pilot courses will be implemented to test the training programmes. Assistance will be provided to training organisations, including training of trainers. Pilot courses will be audited to defined quality standards.

Lessons learned
Although the project has not been completed it is possible to draw the following preliminary conclusions:

- Any training programme should consider the needs of the industry, of consumers (e.g. high quality installations), but also the needs of the installers themselves (e.g. duration of training course).
- Training courses should become part of the national training infrastructure, to ensure that they continue on an ongoing basis beyond the lifetime of the project.

ECOHEATCOOL

Coordinator: Norela Constantinescu
Euroheat & Power, Belgium
Webpage: http://www.ecoheatcool.org
Duration: 12/2006

Short description

ECOHEATCOOL describes and analyses the European heating and cooling markets and demands. Furthermore it provides a tool for policy makers to assess different heating and cooling supply options. Possibilities for more district heating and cooling in Europe are evaluated. Available potentials for various heat and cooling generation
sources (including renewables) as well as deriving benefits in terms of energy efficiency, energy savings are assessed.
Recommendations for strategies on how to further develop sustainable and cost effective heat and cooling supply options and how to improve the use of local sources are provided.
It's the fist action of its kind. It uses a demand side approach and enables a quality check of data in the international statistics in these sectors. It provides an aggregate and comprehensive picture of the heating and cooling markets and of the district heating and cooling sectors in Europe 32.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- International heat and cooling statistics can be improved
- Heat dominates the energy end use and Europe wastes more heat in transforming energy than it consumes; huge heat losses are to be retrieved
- Cooling demand grows much faster than earlier indications

ELVA

Coordinator: Hans Jacob Mydske
NEW ENERGY PERFORMANCE AS (NEPAS), NORWAY

Webpage: http://www.ieeprojects.net
Duration: 06/2007

Short description

This project contributes to the development of local value chains for heat from renewable energy sources by transferring the extensive know-how of Austria in this field to Norway, Ireland, England, Scotland, Portugal, Greece, and Slovenia, which have less experience.
The target countries lack appropriate tools and know-how for developing the often, interlinked value chains at local level which requires in-depth theoretical knowledge and practical experience with economics and local politics. This project aims to study existing, successful experiences and design an optimised market model. Furthermore the project will use the model in concrete feasibility studies in pilot markets with the aim of a public-business-citizen partnership in the partner countries. Both local authorities – which play a key role in this effort – and energy advisors - in charge of developing the technical side of heating projects using renewables - will be trained directly by Austrian experts.

Lessons learned
Although the project has not been completed it is possible to draw the following preliminary conclusions:

- Stimulating business opportunities and job creation seem to be the major driving force for the development of heating with renewable energy sources at local level
- Further legislative initiatives on local energy planning could enhance the development of heating with renewable energy sources.
- Local value chains within different categories (technology-driven, product-driven and service-driven) are often closely interlinked, and significant synergies can be found.

EUBIONET

Coordinator: Eija Alakangas
VTT, Finland
Webpage: www.eubionet.net
Duration: 12/2007

Short description
EUBIONET II gives a clear outlook on the current and future biomass fuel market trends, collects feedback on the CEN 335 biofuel standards from different market actors and analyses techno-economic potential of the biomass fuel volumes until 2010. Co-operation is done with forest industry stakeholders to find proper balance between industrial raw material and bioenergy use. 30 different solid biofuel supply chains will be analysed, and the most suitable trading and business models for small- and large-scale biofuel supply chains for heat and power production will be selected by taking into account the environmental aspects and sustainability. Implementation of EU Directives in the member states, analysis on legislative differences and the major driving forces related to biomass markets is analysed in EU25. Target groups are biomass fuel traders and users, fuel producers and suppliers of different scales, policy makers. Key associations, i.e. AEBIOM and CEPI, are participating in the project and disseminating information to various groups.

Lessons learned
It seems to be clear that the international biomass trade will increase in the future, especially with pellets, for which the traded volumes are estimated to be 10 million tons in 2010. Current pellet production is about 4 million tons. The greatest potentials lies in increased use of forest residues (potential 24–32 Mtoe/a), but for economical reasons they are typically utilised locally, unless refined in to more compact form.
EUBIONET study shows that 50% of the annual techno-economical potential (143 Mtoe) is already in use. It is important to create rules for sustainable and fair trade in international biomass business. For this purpose, technical specifications for solid biofuels have been created within the framework of CEN TC335 standardisation. These specifications include e.g. quality requirements, fuels specifications and classes, quality assurance, as well as determination of physical, mechanical and chemical properties. To ensure the use of these standards, lot of information dissemination and training is needed. Increased use of biomass fuels may lead to competition with forest industry, because of the restricted availability of raw material in some regions.
It is important, that the energy production would first concentrate on those wood fuel fractions which cannot be used to produce industrial products with higher added value. This necessitates research and development to improve the techno-economical efficiency of the production chains. In the near future it may become feasible to produce liquid biofuels from wood and wet biomass

that is currently used to generate heat and electricity or pellets. In that case even greater competition will emerge between biofuel policies and bioenergy policies.
Biomass is an important topic for European energy, climate and waste policy. The recently published European Biomass Action Plan and EU energy policy promotes the use of biomass for heat and power generation and biofuels for transport. As for climate policy, generating useful energy from biomass limits the greenhouse gas emissions associated with fossil fuel use. In addition, municipal waste contains a varying fraction of biogenic products and can also be considered a source of bioenergy.
EUBIONET II has analysed current European trends in bioenergy policies as they relate to electricity and heat production. The focus is on European legislation and its implementation in the Member States. European legislation and biomass use with regard to European legislation, the Renewable Energy Sources (RES) Directive and the Landfill Directive are currently giving a significant incentive to bioenergy projects across the EU. Under the RES directive most Member States have adopted policies supporting bioenergy generation. The nature and level of this support varies among Member States from 0 to 21.5 € ct/kWhe and there has consequently been similarly wide variation in the growth of biomass use. In Germany, with the highest support tariffs, bioenergy use doubled between 2000 and 2004, while in certain other countries there was no increase at all.
Because of these policy differences, within Europe today there is subsidy-driven biomass transport to countries with relatively generous support systems. In the future, two other directives may have an increasing impact on the use of biomass: the CO2 Emission Trading Scheme (ETS) Directive and the Biofuels Directive. The first of these directives encourages generation of bioenergy in installations covered by the ETS. Bioenergy policy gives rise to policy competition among Member States, one result of which may be higher biomass prices, which would have a negative impact on the cost-efficiency of bioenergy policy.
Member States should therefore coordinate their bioenergy support regimes. It is not necessary to introduce a uniform system of supports throughout the EU, for each country can take its natural endowments into due consideration when designing an appropriate support regime. However, it is necessary to avoid wasting subsidies.

Green Energy Clusters

Coordinator: Mats Rydehell
KanEnergi Sweden AB, Sweden
Webpage: http://www.greenenergycluster.info
Duration: 02/2007

Short description

Most actors in the markets for heating from renewable energy sources are small. This project organises several SMEs in regional clusters and joins their efforts to increase their visibility and enhance the knowledge transfer and co-operation between the companies involved. Each cluster sets its own strategy and action plan for the deployment of green energy in its region and market, including

- Training in entrepreneurship, management, marketing, export activities etc.
- Development of information tools, e.g. websites, brochures and seminars.
- Facilitate the exchange of experience and knowledge through cluster workshops and joint resources for marketing, business development, export activities etc.
- Facilitate new business contacts and co-operation between the SMEs through bi- or multi lateral partnering meetings.

- Production of a booklet on regional green energy cluster initiatives to support the formation of similar clusters within other European regions.

Lessons learned
Although the project has not been completed it is possible to draw the following preliminary conclusions:

- Most actors in the markets for heating from renewable energy sources are small SMEs with limited resources for marketing, business development and capacity building. Although interested in participating in the clusters, they experience difficulties in allocating sufficient time and resources to do that.
- Clustering is a long process that requires a lot of human resources in the initial stages to gain trust and to achieve the first actual outcomes and results. Cluster coordinators have to have a good knowledge of the market and technologies. Continuous communication and animation of the cluster members is a must. Thus public bodies and/or funding are a necessity in the initial stage. Involvement of one or a few larger companies that has resources also facilitates the cluster development.
- When the cluster has been initiated lot of opportunities for cost effective activities are identified and competition between the cluster members is less prominent.

K4RES-H
Coordinator: Uwe Brechlin
European Solar Thermal Industry Federation (ESTIF), Belgium
Webpage: http://www.erec-renewables.org/projects/proj_K4_RES-H_homepage.htm
Duration: 01/2005-06/2007

Short description
Renewable energies for heating and cooling must play a key role in any future oriented energy policy in Europe. For the short to medium term, support policies will remain vital to the development of strong RES-H markets, but policy makers often struggle with identifying effective policies. The K4RES-H project analyses 5 Key Issues, in order to develop clear and practical guidelines, which can be used to implement best practice RES-H support policies on local, regional and European level.
The current political discussion of a European Directive to promote Renewable Heating and Cooling highlights the need for the answers developed within the K4RES-H project. Member States will be able to use the results to implement the future Directive.

Lessons learned
The project is currently evaluating the analyses performed so far: Detailed guidelines for the Key Issues “Innovative RES-H applications” and “Financial incentive schemes” will be published in summer 2006, guidelines on the remaining three Key Issues in autumn of 2006.

PREHEAT

Coordinator: Marco Bakker
ECN, Energy Research Centre of the Netherlands
Webpage: www.preheat.org
Duration: 06/2008

Short description

Without heat storage, renewable heating would not be possible. Although heat storage itself is rather invisible, its impact on the amount of renewable energy generated in your house, city, and country is huge. By improving the effectiveness of heat storage, we can improve the effectiveness of all renewable energy technologies that use heat storage.
Because of the large diversity in heat storage technologies and systems, development is fragmented and there are no possibilities for long-term investments. And because it is difficult to express heat storage in terms of policy goals, there is currently no long-term European strategy. To effectively develop and improve heat storage technologies, a coordinated and programmed international approach is required.
By analysing the decision making process and describing the technology, markets and potential of heat storage, PREHEAT will help European industry and decision makers to maximise the environmental, commercial and economic benefits of heat storage.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- A compact and efficient heat storage is essential for a very broad range of renewable energy systems.
- There is a strong need for more information on heat storage technologies, including market potential and best practices.
- Although there are European and national programmes to promote renewable energy, heat storage is not supported explicitly. A strategic and programmed approach would greatly stimulate the development and implementation of improved heat storage, and thereby the effectiveness of renewable energy generation.

PROPELLETS

Coordinator: Francisco Puente Salve
ESCAN, Spain
Webpage: http://www.escansa.com/propellets.htm
Duration: 01/2008

Short description

The PROPELLETS project promotes automatic pellet heating systems, within different regional scenarios from the European Market, through both the demonstration of the technical-economic feasibility of pilot heating facilities and the integration of acquired experiences.
The regions selected to implement the project are Asturias (Spain), Central Finland, Upper Austria, Southwest England and the Province of Florence (Italy). These regions have a strong tradition on forest processing and/or an increasing interest in biomass related business. Every region has created its own working group, integrating interested end-users, local and regional organisms, boilers and biomass suppliers, biomass related associations and engineering firms, providing the adequate focus to the initiatives to reach the objectives.

The specific objectives are: market stimulation by means of assessing and disseminating best practices to targeted groups; involving and increasing the actors' experience through the demonstration of pilot heating unit's feasibility; stimulating European technology transfer to other markets.

Lessons learned
Although the project has not been completed it is possible to draw the following preliminary conclusions:

- Since the start of the PROPELLETS project there is a clear demand coming from target groups in the use of pellets heating systems and boilers for the substitution of traditional coal, oil and electric heating systems. The project has provided a working framework to key actors creating working groups, but also awareness and confidence.
- Main barriers found are the need of information and advising for the installation of biomass heating systems, and sometimes the lack of subsidies and financial incentives. Also transfer of technology seems to be necessary among countries, and information systems for market (updated prizes) may help its development.
- There are several ways of using a biomass heating system different than managing everything by the own enduser, avoiding worries. In some cases, Energy Services Companies (ESCOs) could be a good choice if it is wanted to avoid initial investment costs, as they could finance the installation of the biomass heating system. In some other cases, Energy Entrepreneurships could provide the pellets and the system maintenance, so the end-user only has to buy the system by him/her-self.

QUALITY WOOD

Coordinator: Dr Arvo Leinonen
VTT, Finland
Webpage: www.firewood.info
Duration: 04/2009

Short description
The main objective of the project is to enhance a significant increase of the use firewood in the EU by promoting better fuel quality management, to improve firewood production and supply chains and to promote the use of more efficient combustion appliances with less environmental impacts. Targets of the project is to improve firewood quality by promoting sophisticated fuel production and logistics systems, to enhance the possibilities for professional firewood production and trade, to provide firewood producers with knowledge on how to improve their production chains to meet the customers' quality requirements, to disseminate information on the means of firewood heating with higher efficiency and lower emissions – not only with modern appliances, but also by using the right heating methods, to provide an expert assessment about the current status and future trends of the firewood market situation (quality and volumes), as well as the technical level of firewood production and combustion equipment. The firewood use will be improved by enhancing co-operation, information and dissemination within the different market actors in the whole firewood chain.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

QUOVADIS

Coordinator: Giovanni Ciceri
CESI RICERCA, Italy
Webpage: http://QUOVADIS.cesi.it
Duration: 01/2005 – 12/2007

Short description

Solid Recovered Fuels (SRF) are prepared from non-hazardous waste. Their use is regulated under EU legislation and implies specifications for commercial or regulatory purposes. SRFs are seen as important contribution to a sustainable EU waste management. Directive 2001/77/EC includes in its scope the production of electricity from biomass, being defined as the biodegradable fraction of products, waste and residues from agriculture, forestry and related industries, as well as the biodegradable fraction of industrial and municipal waste.
In this context the European Commission gave a mandate to the European standardisation body CEN to develop and validate Technical Specifications (TS) concerning SRF for energy recovery and to transform these into European Standards. To meet these requests, QUOVADIS adopts a holistic validation programme covering quality management and the validation exercises for the pre-standards of CEN TC 343.
Results dissemination and knowledge exchange in the enlarged EU is also taken in due account by collecting data on production and potential of SRF.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- SRF seems to be a valid way for a proper and environmental acceptable use of non hazardous waste, mainly for waste fraction difficult to be recycled; this is particularly evident in small Countries where relatively low waste streams are produced
- A common classification system of SRF thoroughly Europe is essential to improve the market giving the same rules in all the EU Member States.
- The availability of common EN standard for the SRF characterisation and the development of an agreed Quality Management System can contribute to the Public acceptance of SRF for energy production.

REGBIE+

Coordinator: Andreas Steege
target GmbH
Webpage: www.regbieplus.eu
Duration: 06/2009

Short description

The groundwork for REGBIE+ is the fact that the most important and prevalent renewable energy source used for heating in the EU is biomass in its various forms. Nevertheless, regional market structures are developed quite unbalanced throughout Europe and involved stakeholders are unevenly experienced. REGBIE+ involves 14 partners from 12 EU countries and aims at forwarding regional initiatives bundling measures like marketing, information, training and overall awareness.
REGBIE+ will implement an online exchange platform for various relevant tools and instruments. All partners will join in the implementation of the European Pellet Day, a series of opening doors of biomass heating sites to the interested public regionally as well as creative school

competitions involving children and important potential investors alike. Further measures include Regional Biomass Actions Plans as well as training and consultation instruments. A compilation and publication of best practice will conclude the project implementation.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

ThERRA

Coordinator: Lex Bosselaar
SenterNovem, Netherlands

Webpage: www.therra.info
Duration: 12/2008

Short description
The definition of, and the methodology to measure, “renewable heat” are currently subject to debate. For instance, should heat pumps be included into the renewable heat statistics, and is heat from biomass and solar collectors properly accounted for? How should heat from waste be treated? Each country approaches these issues of definition and measurement differently, and methods to collect renewable heat statistics differ widely.
The overall picture on the use of renewable heat in Europe is therefore unclear. This makes it impossible to know to what extent renewable heat contributes to an EU target according to which 12% of the total energy used in 2010 should be from renewables. It is also disturbs plans to create a European Directive on renewable heat.
In order to overcome this situation, the ThERRA partners will develop and disseminate a method to monitor the amount of renewable heat used in the EU. The project team will test this method in 7 representative EU countries with the aim of creating an approach which key actors from across Europe will agree to.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

NEW PROJECTS HEAT FROM RENEWABLE ENERGY SOURCES

PELLETS@LAS

Contact Details: Mr Rainer Janssen
WIP - KG (WIP)
Tel.: +49 89 720 12743
Mail: rainer.janssen@wip-munich.de

Short description
The project PELLETS@LAS will contribute to the development of a transparent European pellets market through the creation of a real-time European Pellets Atlas. This will be achieved by the direct involvement of major stakeholders such as pellets associations as well as pellets producers, traders and consumers.
The core of the proposed action is a data and information collection in all EU 25+4 countries for wood and mixed biomass pellets (MBP) and the identification of international pellets trade opportunities. The data are up-dated quarterly and will include regional prices, available qualities

and quantities, the locations of stakeholders as well as a detailed description of logistics systems.
The permanent provision of reliable pellet market data to all pellet actors in Europe will contribute largely to overcome current market barriers. Moreover, it will contribute to the implementation of future European legislation in the heat sector which according to the Commission's Biomass Action Plan is currently hindered by lack of market confidence and transparency rather than costs.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

PHYDADES

Contact Details: Mr Hubert Veringa
Energy research Centre of the Netherlands / Energieonderzoek Centrum Nederland (ECN)
Tel.:+31-224-564884
Mail: veringa@ecn.nl

Short description
Rapid growth of biomass as a sustainable fuel requires standardized analysis methods of fuels and ashes. Reliable information is vital for key players in biomass trade, such as biomass producers, traders, users, equipment manufacturers and legislative bodies. The Project will make this kind of information available by means of a public database and education in the use of standards. For the new database, based on the existing PHYLLIS database, partners will collect and screen data of biomass fuels and ashes. A lot of information exists at various locations, but it is dispersed and not directly comparable. The database and simple calculation tools will be accessible through the Internet. The education will be provided as workshops for target groups and as on-job training for laboratory staff. The workshops will be held in regions where it is expected that education is most needed. Partners experienced in standardized analysis (involved in the projects BIONORM) will provide training. The overall result will be faster penetration in the use of standardized methods for biomass analysis, also in new member states, resulting in a faster growth of the EU biomass market.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

BIOBUSINESS

Contact Details: Mr Juan Carlos Martinez Barrio
Asociacion para la Gestion de CEI-Burgos (CEEI-Burgos)
Tel.: +34 947244332
Mail: jcmartinez@ceeiburgos.es

Short description
Analysis of the business and market opportunities within biomass sector, specially aiming at entrepreneurs and SMEs. BIOBUSINESS will focus on the creation and growth of biomass related enterprises as the basis for economic regeneration of the regions concerned, including its most depressed rural areas. Partners of the project, regional industrial development agencies, energy management agencies and Public Administrations will work also alongside existing renewable energy related SMEs to develop scenarios for creating a critical mass of new enterprise. In parallel an inventory of biomass resources, a study of trends in biomass related

enterprises, a technology transfer and market opportunities investigation, and a state-of-the-art investigation on legal frameworks, will assess the situation for a recommendation paper to be done. The project outcome should be a replicable methodology for the deployment of biomass as one of the most important renewable energies, as well as a blueprint for biomass-related industrial development in other European areas.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

RENEWED

Contact Details: Mr Nicola Stanzani
C.R.P.V. (Centro Ricerche Produzioni Vegetali) Società Cooperativa
Tel.: +39 0547.347164
Mail: stanzani@crpv.it

Short description
The main barriers to wide scale biomass energy production are the difficulties to guarantee the economic sustainability of the energy chain and a fair distribution of the value added along the chain. These barriers will be addressed and aimed to be removed within RENEWED, which will establish a European network of at least 7 bioenergy districts. Three organisational levels are foreseen: Bioenergy Districts at sub-provincial level; Coordinated Directions at regional level, European Network at central level, conceived in such a way that the “higher” levels support the “lower” ones. The project foresees a common methodological approach to the identification of bioenergy districts, the involvement of all concerned actors, the realisation of in depth feasibility studies and the definition of development projects at local level. Furthermore, support actions will include a survey on bioenergy knowledge, setting up of bio-energy chain Framework Agreements, financial and certification schemes.
The regions involved are: Emilia-Romagna (IT), Burgenland (AT), Tolna (HU), Central Macedonia (GR) and Comunidad de Madrid (ES).

Lessons learned
This project has just started. It is therefore too early to draw lessons.

RES-HEAT/COOL-TOOL

Contact Details: Mr Søren Hermansen
Samsø Energi- og Miljøkontor (SEM)
Tel.: +45 86592322
Mail: semk@veo.dk

Short derscription
The overall objective is to develop, test and demonstrate the RES-HEAT/COOL-TOOL-kit, which as a key element has early stakeholder involvement, knowing that the lack of stakeholder involvement is a barrier for implementation.
The tool-kit comprises: 1)18 new regional case stories on successful implementation of RES-heating/cooling systems in small-medium sized towns and villages using the tool-kit in Poland, Slovakia, Hungary, Slovenia and Bulgaria 2)Technical-economic key figures 3)Organisational guidelines 4)Information and promotion programmes for using the tool-kit 5)Education programmes for using the tool-kit. The tool-kit will focus on the Baltic Sea, the Central European and South European Regions including RES-technologies as: Biomass (straw, wood

pellets/chips, biogas, bio-fuels) and solar heating for district heating/individual buildings, heat pumps and passive heating and cooling.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

Quality Wood II

Contact Details: Mr Arvo Leinonen
Technical Researc Centre of Finland (VTT)
Tel.: +358 40 582 9477
Mail: arvo.leinonen@vtt.fi

Short description
In domestic use firewood heating plays a major role in fulfilling the EU targets of increased share of renewables in the Community's energy balance. Difficulties in firewood utilization are the management of the firewood quality, undeveloped production technologies, market structures and supply chains, as well as differing national standards of combustion emissions. Objective of the project is to enhance a significant increase of the actual energy produced from firewood in the EU by promoting better fuel quality management, to improve firewood production and supply chains and to promote the use of more efficient combustion appliances with less environmental impacts. Work will be done in co-operation by 8 partners from 6 Member States and Norway. The expected results include analysis and understanding on firewood resources and quality, markets, production and combustion equipment, firewood, and the status of standards in the firewood market.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

REGBIE + II

Contact Details: Mr Bodo Grimmig
Target GmbH
Tel.:+49 (0)5119096883
Mail: grimmig@targetgmbh.de

Short description
The main renewable energy source used for heating in the EU is biomass in its various forms.
The objectives of REGBIE+ are to:

- support the targets of the EU Biomass Action Plan
- support regional initiatives to increasing the share of biomass heating
- remove technical and non-technical market barriers
- stimulate regional market development
- raise the general awareness on biomass opportunities

REGBIE+ strengthen the regional level and clearly focuses the uptake of biomass heating technologies, small scaled heating plants fired by pellets, heating plants from 150kW up fired by wood-chips, sawing by-products, biomass-based CHP.
Related to the technology approach and the wp`s the activities are addressed at:

- policy, investors and key market actors on the regional level
- installing business and fuel suppliers

- general public, private households, schools
- The partnership covers twelve EU countries and represents some of the most ambitious regions for the implementation of bioenergy in Europe.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

REFUND +II

Contact Details: Mr Yves-Bruno CIVEL
Observatoire des énergies renouvelables (Observ'ER)
Tel.: 00 33 1 44 18 00 80
Mail: yves-bruno.civel@energies-renouvelables.org

Short description:
The main obstacle to the development of RES heating systems in private households is related to the high investment cost of these installations. Direct tax measures (income tax credits, income tax reductions and tax allowances) are being used today by four Member States to reduce this initial outlay: Austria, Belgium, France, and Portugal. The effects of these measures are not well known. REFUND + will evaluate the four on-going experiences through a bottom-up economic investigation of impacts and a qualitative study among consumers and installers of concerned technologies. Overall cross-country analysis will determine best practises, success or failure factors. Implementation of such instruments will be simulated in two case studies on Lithuania and Poland. The consortium will devise operational recommendations directed to policy makers so as to enable them to optimize their tax policies and to facilitate adoption of such support policies in the countries where such do not exist.
Findings will be disseminated through four national workshops, two regional conferences in CEECs, presentations to the IEA and Council of Europe and a closing conference.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

EDUCATION

KITH

Coordinator: Dr Rayner Mayer
Sciotech Projects, GB
Webpage: www.kyotoinhome.info
Duration: 12/2008

Short description

The project argues that EU Kyoto target for greenhouse gas reductions can be met if families realise that they can reduce the emissions associated with energy usage. The project's global aim is to inform and educate teachers, students and their families to realise the need and to assess the potential for energy efficiency measures and renewable energy sources in the home.
A KITH handbook for schools is being produced that will include information on the sustainable use of energy, energy efficiency in the home and describe the various renewable energy technologies suitable for domestic application. A project website will include information for householders on how to assess the suitability of renewable energy for their homes.
Partner collaboration will

- develop the master resources for translation and adaptation for local use and trialling
- develop methodologies for training teachers and students
- identify ways of informing and motivating the student's families

The partners will work with local stakeholders and contact will be established with those responsible for social housing to help their resident familie. Stakeholder workshops will be linked with project meetings to develop the dialogue on both a local and pan-European scale.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- he project aims are generating interest and support from professionals involved with both teacher training and teaching students
- The project material fits within the scope of sustainable development initiatives in schools
- There is recognition that micro-generation of heat and electricity is an efficient way of reducing environmental pollution

SErENADE

Coordinator: Catrin Maby
Severn Wye Energy Agency, UK
Webpage: http://www.energy-advice.org
Duration: 26 months (Commenced 1.1.2006)

Short description

Good quality energy advice is essential to the achievement of sustainable energy objectives, to motivate and enable consumers to install energy efficiency measures, purchase energy efficient products, and change behaviour. However, earlier work has indicated that, while good examples exist, the provision of energy advice may be variable and inconsistent across the European Community.
The SErENADE project brings together several experienced advice providers to:

- Study and review existing advice provision in Europe
- Make know-how on delivering advice easily available through an online energy advice toolkit and forum for exchange of knowledge and experience between skilled practitioners and new providers.
- Deliver a pro-active dissemination programme to promote the benefits of advice and the resources available

In terms of advice subject matter, the project is concerned with energy efficiency, renewable energy and sustainable transportation/mobility. Three client groups are considered: households, small and medium enterprises and local authorities.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- The awareness and understanding of what advice consists of in practice varies a great deal. At one extreme providers consider that issuing an information leaflet is sufficient, while at the other end of the scale there are quality controlled services with set standards of service, defined targets to reach and planned marketing and outreach programmes.
- Interesting issues arising include the difference advice methodologies used, the different approaches to reaching the client group, targeted marketing approaches, the variation in the numbers reached with advice as a proportion of population, the estimated cost of providing advice using different approaches, and the split between single topic (such as just domestic energy efficiency) as opposed to more holistic (such as an environment helpline) advice services.

SUSTAINABLE ENERGY COMMUNITIES

3-NITY

Coordinator: Hans Jacob Mydske
New Energy Performance AS (NEPAS), Norway
Webpage: http://www.ieeprojects.net
Duration: 06/2008

Short description

The 3-fold initiative will develop, test and demonstrate a comprehensive set of tools, quality systems and sustainable best practices for local energy planning and implementation. Local stakeholders will be encouraged to apply this methodology for continuous improvement which covers 3 main areas:

- Sustainable Planning
  This area will develop a modern planning and investment decision tool for local energy planning at several levels in the local community, i.e. politicians, planners, energy market actors as well as the citizens.
- Sustainable Measures and Activities
  This area will stimulate politicians, planners, energy actors and citizens to actively participate in local sustainable energy planning and implementation through a series of events, initiatives and methodologies.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- The review of relevant experiences in Sustainable energy planning indicates that local communities that have had success in achieving their high ambitions with respect to a sustainable, local energy development have started off with a comprehensive energy plan. However, the main driving forces behind the planning process can very well be other than the traditional energy aspects. Typical driving forces seem to be job-creation, general community development, or other related important sectors for the community such as tourism, forestry and agriculture.
- . The 3-NITY project aims to engage citizens in the energy planning processes, and the first attempts to do so are quite encouraging. There seems to be a great interest among citizens and other stakeholders to contribute in such processes, mainly for the following reasons:
- To learn how they, as citizens and business stakeholders can act more sustainable in their daily lives and businesses.
- Citizens seem to create a general enthusiasm by being invited to take a part in the local community processes of this kind.

ASPIRE

Coordinator: Brian Shipman
Cornwall County Council
Webpage: www.aspire-project.eu
Duration: 03/2009

Short description
The partners in the ASPIRE project represent communities located in peripheral regions of Europe. These
communities are peripheral in geographic terms as well as in relation to national energy networks and supplies.
In addition to the co-ordinator there are 6 'core partners' (who aim to establish a Sustainable Energy Community by the end of the project) and 4 'level 3 partners' (who learn from the experience of the core partners).
Peripheral communities face very different issues to those faced by large, urban areas, or areas that have good access to national energy supplies. Through a process of sustainable energy action planning, ASPIRE aims to identify the key opportunities that exist in these communities for exploiting renewable energy resources and increasing rational use of energy. The results and lessons learnt within this project will be disseminated across the EU and will be shared with the European Commission to ensure that they inform future EU energy policies.

Lessons learned
This project has just started. It is therefore too early to draw lessons.

BELIEF

Coordinator: Jean-Pierre VALLAR
Energie-Cités
Webpage: www.belief-europe.org
Duration: 06/2008

Short description
BELIEF will promote Sustainable Energy Communities at European scale by

- setting up Local Intelligent Energy Forums in 20 European communities;
- formalising methodologies and preparing tools;
- improving capacity building of the 20 BELIEF communities involved;
- disseminating information, shining examples, results, methodologies and tools towards European local authorities focussing on New Member States and Candidate Countries.

Lessons learned
At this stage of the project, it is too early to draw conclusions.
Nevertheless, the BELIEF launch Conference (March 2006) and the first BELIEF workshop (June 2006) allowed the partners to come to important agreements and conclusions especially regarding three main questions: How to define a Forum? How to create and run a Forum? How to evaluate the work and results of a Forum? These are reported on the BELIEF website www.belief-europe.org

ECHO Action

Coordinator: AGIRE, Agenzia veneziana per l'Energia
Via delle Industrie 17/A, Venezia, Italy
Webpage: www.echoaction.net
Duration: 07/2009

Short description

Difficulty in family lifestyle changes is one of the strongest barriers that Local Authorities have to overcome in order to promote and develop sustainability issues in their territories. ECHO ACTION aims at creating a model of active and voluntary involvement of families, local economic actors and financial institutes, co-ordinated by the local energy agency, for the contribution to the carrying out of local energy plans. This goal will be achieved by dividing families into working groups. The project runs on a double track. On one side it addresses families, i.e. final users, in order to direct "demand side" towards more responsible energy use. On the other it addresses technology providers, as well as financial institutes. A first level of actions will regard a critical revision of lifestyles and a revision of consumptions, a second one will focus on the implementation of low cost solutions and a third one will help those families who intend to realise more complex and expensive actions.

Lessons learned

This project has just started. It is therefore too early to draw lessons.

ENSRC

Coordinator: Waterford County Council, Civic Offices, Dungarvan, County Waterford, Ireland
Webpage: Not yet available
Duration: 03/2008

Short description

Initially the project begins with the investigation of barriers and incentives to rural self supply and what methods can be employed to overcome the barriers in each of the four participating countries. Technologies and incentives are identified to facilitate the self-supply of renewable energy in rural areas.
Following a comprehensive consultation with farmers and community groups four energy co-operatives will be formed. Technical and administrative support will be provided to the operation of the four co-operatives for 12 months. Energy conservation measures for co-operative members will be examined & it is planed that each cooperative will have some form of renewable energy technology installed.
A number of feasibility studies & development plans will have to be prepared that will assist the co-operatives in their development. A manual will be produced on the steps necessary to form and develop a self-supply energy cooperative that could be utilised by others.

Lessons learned

- Communities and farmers can be slow to embrace new ideas & however ever communities contain innovative persons who given the chance can pioneer alternative energy technology development.

NEC

Coordinator: AEA Energy and Environmental Agency of Province of Perugia, S.p.A. Italy
Webpage: www.necproject.info
Duration: 12/ 2007

Short description

NEC project wants to create Sustainable Energy Communities in Foligno (IT), Brasov(RO) and Rousse (BG)using pilot actions to spread a new sensibility towards the culture SEC sinking through:

- energy certification of the buildings;
- rational and efficient use of the electric energy;
- educational lessons in the primary schools;
- urban mobility: to stimulate the use of the public transport and the use of bio-combustible or methane gas.

The project foresees the attainment of its mission through the following initiatives:

- studies and analysis;
- demonstrative actions;
- promoting campaigns and workshops;
- awareness of citizens;
- international conference;
- informative and training courses.

One of the points of strength of the project NEC consists in his flawibility and adaptability to the specific demands of the single Countries, allowing so a reply and export of the benefits envoys in light from the Project also in other Countries currently involved not.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- . Even if the boiler is a tool that the citizens uses always many of them are unware of the importance of boiler inspection
- Citiziens don't know what Energy Certification is and they are very reclutant to open their home to be inspected
- Citiziens don't know and the National and European Laws on energetic aspect.

RERINA

Coordinator: Dr Theocharis Tsoutsos
Technical University of Crete (ENV/TUC), Greece
Webpage: www.rerina.net
Duration: 12/2007

Short description

Integrated approaches to develop Sustainable Energy Communities in islands and ecologically sensitive areas help implement European policies on energy, environment and sustainable development. The RERINA project develops and applies "Sustainable Energy Plans" to achieve this objective, notably by examining suitable renewable energy technologies, best-practices for the development of Sustainable Energy Communities and of awareness and training campaigns, and existing and potential barriers. Inland transport issues will be be included in the energy/transport interface.

Lessons learned
It is too early to draw conclusions at the current stage of the project.

SEC-Tools

Coordinator: Nils Daugaard
Energy Consulting Network, Denmark
Webpage: http://www.sec-tools.net
Duration: 12/2008

Short description
The SEC-Tools action is dedicated to meeting the large need for energy efficiency improvement and further use of renewable energy in communities of New Member States and Accession Countries. A core part of the action concerns elaboration of generic tools with a view to encourage qualified sustainable energy thinking and practice. The key target group is communities of 3,000-30,000 inhabitants; e.g. smaller communities. The tools will be tested in nine communities in respectively Latvia, Poland, Czech Republic and Bulgaria and the project will result in a 'Toolbox' on energy planning, activation of the energy market and mobilisation of end-users at local level. The action includes a broad set of dissemination activities to help ensure the spread of the developed tools and lessons
learnt at broad scale.

Lessons learned
The project team has learnt that there are the following key considerations to take into consideration in the development and dissemination of SEC practice:

- WHY is it important for communities to become engaged in sustainable energy? Communities have many other responsibilities and thus a key question is to attract their attention and showing the potential benefits in form of saved energy costs, job creation etc.
- If attracted, HOW can the community best be guided through the process of creating sustainable energy practice? The targeted communities are small and thus have often limited capacity. The project is to produce tools that can be easily integrated in the communities' daily reality.

SECURE

Coordinator: Roland Zinkernagel
City of Malmö, Sweden
Webpage: www.secureproject.org
Duration: 12/2008

Short description
A number of cities in Europe have implemented holistic projects in order to transform city districts to ecological sustainability. Actions have e.g. been carried out to increase the share of renewable energy, make the use of energy more efficient and reduce impact from traffic. Actions to increase ecological sustainability have often been implemented simultaneously with actions to increase social and economic sustainability in the area.
The evaluation of the ecological transformation projects are often insufficient with the consequence that dissemination fails. Demonstration projects tend to be isolated cases not putting any stamps on the prevalent ways of working.

The SECURE project wants therefore to remove the barriers of mainstreaming results from successful demonstration projects and other far reaching concepts for sustainable development in order to make it possible to scale up the methods and concepts.

Lessons learned

- The implementations of the new energy standards in buildings have been slow and there are still ambiguous directives how it will be implemented in practice. The project will continue to address this issue and try to facilitate experience sharing across countries.
- It is hard to compare different 'sustainable' areas in the benchmarking study, since measurements and calculations made are often based on different standards and assumptions in different areas.

WISE PLANS

Coordinator: Dario Furlanetto
Consorzio Parco Lombardo della Valle del Ticino
Webpage: www.wiseplans.eu
Duration: 12/2007

Short description

Four communities from Wales, Italy, Sweden and Spain are working co-operatively towards the objectives of the Europe's Sustainable Development Strategy and its policies for sustainable energy. The aim is to identify requirements to mitigate the impacts of the production and supply of energy, to reduce emissions of CO2 from fossil fuels and reduce dependence on external resources.
WISEPLANS' objective is to create Sustainable Energy Action Plans in each community, taking advantage of cross-referral between all partners in order to derive relevant, common methodologies; this will lead to the production of high-grade, community-scale plans for a more effective use and management of local energy resources. Guidelines for best practices to plan Sustainable Energy Communities will be defined and disseminated to a wider community, at both national and European levels, so that further replications may be implemented more easily and at lower levels of cost.

Lessons learned

Although the project has not been completed it is possible to draw the following preliminary conclusions:

- Stakeholders' engagement is fundamental in order to produce partaken sustainable energy action plans
- Studying the energetic potentialities of an area is very important for a more efficient energy use and consume.
- The dissemination of information and a co-operation between the partners, deploying information gained through each others' knowledge and experience, is essential to grow a sustainability-oriented culture

NEW PROJECTS SUSTAINABLE ENERGY COMMUNITIES

MUSEC

Contact Details: Eriuccio Nora
Coordinamento Agende 21 Locali Italiane
Tel.: +39 059 209434-350
Mail: coordinamento.agenda21@provincia.modena.it

Short description

Many European communities have developed interesting activities to promote energy efficiency and renewable sources. However, although these activities can be considered as best practices, many of them remain isolated cases and haven't been integrated in local energy plans. This project aims to look at these practices and to develop and implement a Sustainable Energy Community strategy for the partner communities, by transforming best practices into "standardized" actions that gather a larger support by several stakeholders. Standardization means learning from best practices the necessary boundary conditions, partnerships and methods that lead to a successful replication. The combination of all the strategic plans with concrete examples of implementation from the partner cities will create the basis for the creation of a Sustainable Energy Communities Blueprint. Emphasis will be given on integration between adequate energy policies, innovative financing mechanisms and communications programs.

Lessons learned

This project has just started. It is therefore too early to draw lessons.

RES PUBLICA

Contact Details: Mr. Dario Miroglio
Provincia di Genova
Tel.: +39 010 5499888
Mail: miroglio@provincia.genova.it

Short description

The RES PUBLICA project starts from the need for a local sustainable development towards a more effective use of RES and RUE. The idea is to create synergies at local level between policy makers, the citizenship and market actors through the methodology of implementation of LAg21. The partnership is made of strong public administrations from 4 different countries with experience in the field and relevant contacts on the territory. The main activities consist in the creation in each partner's area of a local Energy Forum that will involve all relevant stakeholders and lead to the production of a local Sustainable Energy programme focused on RES and RUE and including suggestions for the updating of local planning tools. Feasibility plans for the main priorities and tasks of the local programmes will be produced. Each Forum will work following Common guidelines and methodologies created by the partnership making the results comparable and the activities easily replicable.

Lessons learned

This project has just started. It is therefore too early to draw lessons.

INNOVATIVE THINKING

Contact Details: Mr. Christian Nilsson
Municipality of Dals-Ed (Dals-Eds Kommun)
Tel.: +46 534 19000
Mail: christian.nilsson@dalsed.se

Short description

This project focuses on the process and on making a joint commitment in the community, in order to establish longterm sustainable development of the community towards a energy efficient and renewable energy (including transport) dedicated community striving towards reduced dependence on fossil fuels. Building a sustainable future needs involvement of both politicians and decision-makers, as well as community market actors, utilities, key energy users in the community, consultants etc. Thus involving all these people necessarily needs a focus on the PROCESS and a process like this takes time. The aim of the project is to establish and implement an action plan in each community as a joint agreed document with key community stakeholders, such as utilities, buildings owners, transport companies, the municipal/district council and NGOs, as well as politically accepted in the community. This will include concrete actions, such as investment plans, as well as plans and actions for information and training. It will be based on designed status of RES/RUE (including transport) status and possibilities per community.

Lessons learned

This project has just started. It is therefore too early to draw lessons.

PRACTISE

Contact Details: Mr. Marco Italo Neri
Comune di Alessandria
Tel.: +0390131515461
Mail: marco.neri@comune.alessandria.it

Short description

The Practise Project will take place in 5 countries that present big differences of energetic context in Europe. It aims to demonstrate, evaluate and disseminate territorial community strategies able to develop a sustainable energy action plan well balanced on the territory and regarding energy sources, whatever the geographic or socioeconomic context is.
At local level, it has been our effort to include in the partnerships all the subjects intended to play a relevant role in the proposed actions, in order to warrant a participative involvement. PRACTISE supports, under the principle of subsidiarity, the implementation of policies addressed by the European Union in local communities involved. The ultimate aim of Practise project is to create a package of best practices for the creation and implementation of a Sustainable Energy Community that will be replicable everywhere in Europe. By detecting, networking and training the local actors involved or interested in SE, PRACTISE will permit to the communities to improve their approach to RUE and RES.

Lessons learned

This project has just started. It is therefore too early to draw lessons.

ENERGY 21

Contact Details: Mr. Antonio CÁCERES MORA
Excma. Diputación Provincial de Huelva
Tel.: +34 959 49 47 79
Mail: acaceres@diphuelva.org

Short description

The populations increase together with economic development and industrialization in the world give rise to the increasing of energy worldwide consumption. For this reason the necessity settles down to look at of integral form all the questions relative to the environment and development and thus to reach Sustainable Development in the Earth. As model of sustainable development it establishes the initiative of Agenda 21, settling down changes in the activities of economic development. From European point of view it establishes the reach of an European Sustainable Development by means of national, regional and local strategies with the obligatory to develop A21 on different scales, concentrating itself in the premises, all and each one of the framed municipalities in European Union. For a correct implementation of A21, the approach settles down therefore "bottom-up".
The main aim of ENERGY 21 is settling to reach the energy sustainability and the strengthening of the development of A21. The Elaboration and Definition of a Plan of Performance that will fortify the process of Local Agenda 21 in the section of Energy and Consumption will be the main result of the project.

Lessons learned

This project has just started. It is therefore too early to draw lessons.