

## EHPA NEWS

### European Heat Pump Association 2001

*Chair's report*

The EHPA's activities have concentrated on three specific issues of importance for the emerging European heat pump industry, i.e. information, labelling & climate change. These issues are of vital importance if the market for heat pump heating and heating/cooling systems is to expand.

**Information exchange** between members has helped those trying to establish markets - most notably in Finland, the Czech Republic, France and the UK. The success of various initiatives has been discussed at EHPA meetings and described in our newsletter or web site. The growth of markets is generally determined by intervention and the following factors are important:

- financial incentives to reduce the initial or running costs for utilities or governments;
- information to enable a comparison to be made of different types of heating systems;
- trained installers.

**Labelling** The EU is committed to labelling all appliances and products that consume energy. So far the scheme has focussed on white kitchen goods, with lighting; water heaters and room air conditioners to follow. The EU label has successfully transformed the market for energy efficient appliances by supplying unbiased information to consumers, retailers and installers.

Other products currently have voluntary labels and these include the energy star for office equipment and the GEA label for consumer electronics. The EU has no immediate plans to label heat pumps.

**Climate change** The EHPA has been active in developing the EU's climate change programme. An initial success has been the acceptance of heat pumps as a renewable energy source within the context of the Building Energy Performance Directive currently being discussed by the European Parliament. The next item to focus on should be the proposed directive on the production of heat from renewable sources, where the

contribution of heat pumps needs to be clearly recognised.

In a parallel initiative member states are introducing incentives for renewable energy sources that will help market growth. Heat pump sales have benefited from tax credits in France, from accelerated depreciation allowances in the UK and from subsidies on initial costs in the Czech Republic. Some utilities like SSE and the Czech Energy Company are also offering favourable tariffs for operating heat pumps.

### Membership

The steady growth in membership is reassuring and a special welcome is extended to the newly-formed Estonian Heat Pump Association. Increased membership will strengthen our committees as well as help our finances.

### Executive committee

The growth of EHPA membership means that an Executive Committee, as laid down in the constitution, should now be formed. It will have a coordinating and executive role, which has so far been assumed by the four monthly meetings of the Association.

### Thematic network

Axel Lehmann has suggested that the EHPA should set up a thematic network, or network of excellence as it will be referred to, within the EU's Framework 6 programme. The great advantage of this scheme is that it will allow us to widen the scope of our work in developing the market for heat pump systems and bring EU funds into the Association and its associated partners. Much of the work we are already doing falls within the scope of this network, and now that the EHPA has an active membership and a track record the application will probably be successful.

I believe that the EHPA should formally adopt such a proposal, register its interest with the appropriate officer in DG Research and start the process of identifying suitable partners.

### Challenges for the next few years

These include the following:

- voluntary labelling of heat pumps
- developing criteria for accrediting training courses at a European level
- working with government agencies, the EU and utilities to ensure recognition of the energy saving potential of heat pump systems
- helping to transfer knowledge to countries where acceptance of the technology is still low

We have made a good start, but the work of transforming the market has only just begun.

*Rayner M Mayer*  
Chairman EHPA

## GENERAL

### Quality mark for drilling companies: First award!

Switzerland - March 2001 saw the publication of conditions and requirements for a quality mark for companies that drill holes for vertical heat exchangers.

On 9 November 2001 the first four quality marks were awarded at Bern, Switzerland. The "Gütesiegel für Erdwärmesonden-Bohrfirmen" ensures high standards of construction and use of vertical heat exchangers for heat pumps. The certified companies must provide:

- high customer satisfaction and an excellent consulting service;
- an environmentally acceptable drilling process;
- the application of the best available technology for the drilling process;
- the use of high quality tubing material;
- the best possible security on the site.

The qualification is awarded in accordance with rules drawn up under the aegis of the



FWS (Swiss association for the promotion of heat pumps). A special independent commission will verify all requests and monitor compliance with the conditions.

*Dr. Hansueli Bruderer  
Swiss EHPA Delegate of FWS*



## Heat Pumps – Better by nature

*19 – 22 May 2002, Beijing, China*

**China** – The 7th International Energy Agency Heat Pump Conference 2002 will be held in Beijing from 19 – 22 May 2002 at the Beijing International Convention Center (adjacent to Beijing Continental Grand Hotel). It is the continuation of a series of conferences held in Graz (1984), Orlando (1987), Tokyo (1990), Maastricht (1993), Toronto (1996) and Berlin (1999).

Due to the fact that Beijing is hosting the 2008 Olympic games, Beijing City Council will pay even more attention to energy utilisation and environmental protection. The 7th IEA Heat Pump Conference is sure to arouse great interest in China and will further the cause of energy efficient technology there and throughout the world.

## Objective

The conference aims to promote the worldwide implementation and development of heat pump technology by the exchange of information about technology, marketing, policies and standards relating to the environmental and energy-conserving benefits of the technology.

## Registration fee

(includes 4 evening social events)

From outside China:

Normal registration USD 600

Early Registration (before 20 March) USD 540

Accompanying Persons USD 150

Students are entitled to a 40% discount.

Deadline for hotel registration is 20 March. After this date no guarantee can be given for your hotel reservation and rate.

## Exhibition

Exhibition space is available in the conference foyer for an exhibition of heat pump hardware (manufacturers), R&D products and information kiosks.

The cost will be USD 100/m<sup>2</sup> incl. VAT.

## Visas

Please note that visas are required for visiting China. Prospective attendees must contact the authorities in their country to ascertain visa application requirements.

## More information

Full information, programmes and registration forms can be obtained from Ms Francien Somers, TSSU co-ordinator IEA Heat Pump Programme, (NOVEM); phone: + 31 46 4202 244 or e-mail: [f.somers@novem.nl](mailto:f.somers@novem.nl)

Detailed information can also be downloaded (3.4 MB) from [www.heatpumpcentre.org](http://www.heatpumpcentre.org)

*Francien Somers*

*IEA Heat Pump Programme*

## Renewed enthusiasm on Austrian heat pump day

*Mr Hubert Fechner, Arsenal Research, reports on the Austrian heat pump day:*

The Austrian “Heat Pump Day” took place on 7 February 2002 at the Austrian Chamber of Commerce in Vienna. The event was organised by Arsenal research, one of the institutes of the Federal Austrian Research Centres.

About 100 participants mainly from industry listened to lectures about innovative products and systems, as well as new strategies for wider dissemination to be implemented by the national Heat Pump Association “Leistungsgemeinschaft Wärmepumpe”.

After some years of stagnation, the heat pump market in Austria is taking off again. Everybody expects a dramatic increase in sales, driven by new tendencies in low energy and passive houses, increased opportunities for retrofitting, a growing demand for cooling and continuing high environmental awareness.

Environmentally benign refrigerants, higher COPs and the possibility of using green electricity as a driving source for the heat pump compressor mean that the heat pump is one of the most valuable renewable energy technologies. Presentations about CO<sub>2</sub> as a refrigerant, absorption heat pumps, and innovative monitoring systems demonstrated the enthusiasm for innovation in Austria. A new heat pump quality assurance system has been introduced nation-wide, with the award of the first certificates to eight “Certified Heat Pump installers” after successful completion of the 12-day training period. Heat Pump Day 2003 is scheduled for January 2003 at Linz/Upper Austria.

*Hubert Fechner*

*Arsenal Research, Austria*

## Conference schedule

Date	Time	For participants
19 May 2002	14:00 – 17:00	Registration
	17:00 – 19:00	Welcome reception
20 May 2002	08:00 – 09:00	Registration
	09:00 – 10:45	Opening of plenary session
	10:45 – 11:00	Opening of plenary presentations
	12:30 – 14:00	Lunch
	14:00 – 17:45	Session 2 – Energy and environment Session 3 – Technology (Components)
	17:45 18:30	End of 1st day Conference Banquet
21 May 2002	08:30 – 12:15	Session 4 – Applications Session 5 – Technology (Systems)
	12:15 – 13:15	Lunch
	13:15	Departure for technical excursions
	14:00 – 18:00	Technical excursion
	18:30	Social programme (SE-2)
22 May 2002	08:30 – 12:30	Session 6 – Working fluids Session 7 – Ground-source heat pumps
	12:15 – 13:45	Lunch
	13:45 – 17:30	Session 8 – Technical and market developments in China
	17:30 – 18:00	Conference summary and closing session
	18:00 – 21:00	Social Programme

## Norwegian Heat Pump Activities

The Norwegian certification system for heat pump suppliers and installers (VP-Ordningen) has been in operation for nearly two years. Two hundred and thirty people have already received certificates and this level of activity will probably be maintained over the next few years.

The aim of the certification system is to contribute to:

- satisfactory agreement between the calculated real energy savings and operating costs;
- good system design and proper installation work;
- high quality and efficiency of all heat pump system parts and components.

The certificate is obtained after a course of three days and a written examination. Roughly 120 persons will attend courses and pass the examination each year. Around 5% will probably have to try again. The certification system was initiated jointly by the Norwegian energy authorities and NOVAP, the Norwegian Heat Pump Association, which is chairing the board of the system.

The Norwegian Holding Bank (Husbanken), which has co-financed the building of small and medium sized family houses for many years, has also been giving financial support to energy efficiency measures and installations in houses co-financed by the bank. The bank has now launched a new system promoting the installation of hydronic heat distribution in combination with heat pumps in new houses. It also supports simpler heat pump systems and heating systems based on other renewable energy sources. The bank offers house builders an extra loan (over 25-30 years) of up to NOK 140,000.- (€ 17,500.-) and a subsidy of NOK 10,000.- (€ 1,250.-) if they install the systems.

Last years heat pump sales in Norway were probably more than 15% higher than sales in 2000. Full figures will be published later.

Roar Rose, NOVAP

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## News from the German Heat Pump Association

### Heat pump activities in Germany

Since 1993, the Bundesverband Wärmepumpe e. V. (German Heat Pump Association), former Initiativkreis WärmePumpe (Heat Pump Action Group), has successfully promoted the widespread use of heat pumps through marketing and advertising measures, as well as political initiatives.

The brochures, diagrams and advertising media, provided by the BWP are tailored to the needs of building owners, heating engineers, architects and planners. For instance:

- BWP started its information campaign using a brochure for consumers. More than 500,000 copies were delivered.
- In 1994, after a 20-year break, a planning file (220 pages) on heat pump technology was published.

The BWP hotline is an important source of information for building owners and heating engineers. The office deals with questions about prices, development programmes, technology or use of heat pumps. It refers engineering problems to utility companies, manufacturers or heating engineers. The numerous inquiries from the Internet are answered immediately and competently.

### Successful public relations

The BWP is established as an institute. Journalists, editors of special interest magazines and newspapers, institutions and authorities, heating engineers and electricians are able request information, articles, pictures and graphics.

### On the road to success

In 2000 BWP's marketing strategy achieved an increase in heat pump sales from a few hundred to about 6000, even though the number of new buildings has fallen by a third in Germany over the last three years. The upward trend in heat pump sales continued in 2001 with growth rates of more than 50 percent in the third quarter.

### Congresses and conferences

Besides the political work and the public relations and advertising measures, the BWP organized the successful SOLARTEC congresses in 1995, 1996 and 1997. Exhibitions formed part of the events. In 1994, 1996 and 1999 electrical-heat pump conferences took place. Special emphasis was placed on the sharing of experiences by utility company staff.

## Heat Pump-EXPO

The BWP organized the heat pump-EXPO in June 2001 at the SolarEnergy trade fair in Berlin. The heat pump-EXPO is the sole event in Europe that attracts manufacturers and suppliers, trade and decision-makers from the energy sector as well as building owners. The heat pump-EXPO 2002 will take place from June 13 to 15 in Berlin with an opening conference, lectures and exhibition stands.

### Competence under a new name

On January 1st 2002 the Initiativkreis WärmePumpe (IWP) changed its name to Bundesverband Wärmepumpe (BWP). This reflects the increasing importance of the topic. The BWP is the German lobbyist for environmental friendly heating and domestic hot water production. It aims to press ahead with the use of heat pumps and to look after the interests of its members in Germany. More than 90 percent of heat pump manufacturers are members of the BWP.

During 2002 Professor Ulrich Wagner of the Institute for Energy Technology and Utilization at Munich University of Technology will continue as chairman of the BWP.

## Internet



Visit our website at [www.waermepumpe-bwp.de](http://www.waermepumpe-bwp.de) for detailed information about technology, future trends and heat pump costs, as well as a list of members.

In 2002 a special database will be installed enabling direct access to more than 300 enterprises and their services. All members get a personal code for direct access to graphics, diagrams and the logo of the BWP for their own advertising.

### Objective for 2002

The objective for 2002 is to develop the market for retrofit rather than concentrating on new residences as in the past. The modernisation of heating systems will suffer if acceptance in this area is not forthcoming.

Joachim Ogerek, BWP

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## Market

The Spanish heat pump market has increased considerably in the past few years. Sales increased by 250% between 1997 and 2000 and about 2,000,000 heat pumps are installed at present. This growth rate is expected to continue for the next few years.

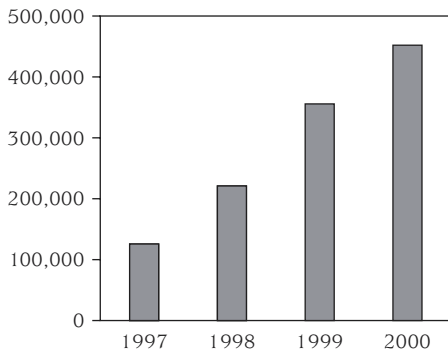


Figure 1: Annual heat pump sales in Spain 1997-2000

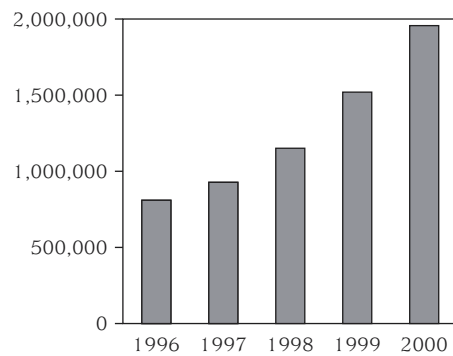


Figure 2: Number of heat pumps in operation in Spain 1996-2000

The air-to-air heat pump is the most successful type in Spain, especially in mild climate zones. The most common heat pump used is the electrically-driven reversible compression unit, but gas companies are strenuously promoting gas-driven heat pumps.

Heat Pumps have been installed in all sectors, but market penetration has been different in each one. The residential sector has the greatest number of installed heat pumps, followed by the commercial sector, with the industrial sector having the smallest number of sales.

One of the most important barriers that must be overcome by the heat pump is the confusion in the minds of users. Most of them perceive the heat pump as air conditioning

because equipment sold in Spain is normally reversible. In addition, the Spanish are not used to heating by air and prefer heating systems such as radiators. Heat pumps are normally installed as refrigerating equipment and a complementary heating system.

Nevertheless current promotional campaigns are focussing on public information and people are becoming increasingly interested in new heating systems, such as under-floor or ceiling heating.

## ENEBC

The Spanish National Heat Pump Team (ENEBC) was created by the State Energy Planning Office on 1st April 1996, at the request of the Ministry of Industry and Energy, with the aim of researching, developing and disseminating heat pump technologies.

The ENEBC partners are fifteen public and private entities concerned with researching into and promoting heat pump technologies. It is a non-profit making association with its own legal status. Its main activities as shown in its Annual Plan can be summarized as follows:

- Publications:
  - National Strategic Plan on Heat Pumps
  - Heat Pump Technical Document
  - Industrial Applications of Heat Pumps
  - Heat Pump and Renewable Energy Sources
- Spanish representation in the European Heat Pump Association
- Quarterly news bulletin
- Website ([www.enebc.org](http://www.enebc.org))
- Organization of technological events and meetings
- Assistance at international conferences
- Participation in trade fairs
- Spanish Heat Pump Information Centre

## National Strategic Plan for Heat Pumps

The National Strategic Plan for Heat Pumps prepared by ENEBC was published last year by IDAE (Institute for Energy Diversification and Savings). The document is divided into two main sections, 'Current Status' and 'Strategic Plan'. The Current Status section summarises the position of heat pumps in the domestic, residential and commercial sector from three points of view, research and

training, marketing and public institutions. Analysis of the information, allows barriers to a wider introduction of heat pumps in the Spanish market to be determined.

The Strategic Plan provides some initiatives to overcome the barriers previously detected. This section is also divided into three different strategic plans: research and training, marketing and institutional.

The presentation of the Strategic Plan took place during the International Trade Fair Climatización (March 2000). Since then, several actions have been carried out to start the recommended initiatives gathered together in the Plan.

## Heat pumps and renewable energy

If the yield of the heat pump increases due to the evolution of the market for fossil fuels then renewable energy can be the source that provides the heat or electricity for heat pumps, which will further diminish dependency on traditional fossil fuels.

"Heat pumps and renewable energies" is the most recent book published by IDAE in collaboration with ENEBC. It portrays the many opportunities available for the integration of technologies based on the Heat Pump with renewable energy sources.

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