13th IEA Heat Pump Conference
April 26-29, 2021 Jeju, Korea

From smarties, ice-cream and flowers

Thomas Nowak[a], Eirini Litina[b]

[a] Secretary General, European Heat Pump Association AISBL, Rue d'Arlon 63-67, 1040 Brussels, Belgium
[b] Communication manager, European Heat Pump Association AISBL, Rue d'Arlon 63-67, 1040 Brussels, Belgium

Abstract

For the longest time, heat pump technology has been presented based on its technical merits. Good for the environment (renewable heat), energy efficient, low CO2 emissions and sometimes even cost savings. But are these really the keywords that have triggered a change in opinion? The presentation will explain a different approach as charted and deployed by the European Heat Pump Association. Aiming at a positive emotional perception of the technology while trying to achieve a high level of recognition, the association has shaped a communications campaign that re-coded the benefits of heat pump technology in colours: green for renewable energy, orange for energy efficiency, blue for GHG emission reduction, red for security of supply, yellow for smart grids and purple for employment. These were then produced as chocolate candies (m&m) and packed together with a mug that said "I love HP". The backside of the mug listed the term "heat pump" in the 24 official languages of the EU plus Japanese, Mandarin and Russian. A pack of candies and a mug were sent to each member of the relevant committees in the European Parliament and to the European Commission. The paper will explain the underlying reasoning and execution of this communication campaign over the last four years and aims at encouraging new approaches of heat pump lobbying.
.
Keywords: Public affairs; communication; emotional approach; heat pumps; energy transition

1. From facts to fiction: a new narrative for heat pump related communication

Over the past 20 years, heat pump technology has arrived in the marketplace in Europe. Positioning was not equally successful in the different member states. Obstacles that had to be overcome ranged and range from general understanding, terminology, connectivity of information to the knowledge level of the target groups to doubts and outrights rejection of technical details.

Corresponding author: Thomas Nowak. Tel.: +49 17663201140 ; fax: +32 24001018.

Table 1 Heat pump-myth levels to be overcome by communication

General	Conceptual	Technical
What is a heat pump?	Heat pumps are not using renewable energy. They are just an energy efficiency technology.	Which temperature levels can a heat pump provide?
How does a heat pump work?	Heat pumps are not increasing energy efficiency. Certainly not on a primary energy basis!	Can heat pumps efficiently be employed in the build environment?
Why is it called heat pump if it can also cool?	Heat pumps are only a marketing tool to push for higher electricity sales!	Can heat pumps provide the high temperature levels needed in industrial applications?
How can a heat pump work at temperatures below 0°C?	Heat pumps compete with district heating!	Heat pumps cannot provide the high temperatures and capacities needed in district heating.
Electricity is too valuable to be used for heating!	Can a heat pump really provide heating and cooling? Why is it called a heat pump then?	
Will large heat pump deployment not lead to black outs?		
Heat pumps are too expensive. They are not affordable, in particular for low-income households.		

Around the year 2000, heat pumps were a niche technology in the European heating market hardly recognized by policy makers. Even though a 1997 white paper by the European Commission [1] considers contributions from biomass, hydro power, wind energy, solar thermal, photovoltaics, passive solar and geothermal and geothermal heat pumps to be relevant, the authors expected a number of 180 000 units to be installed in the EU-15 countries by 2010. Using energy from ambient air and water resources was not considered renewable. The reality surpassed the study with 800 000 heat pump units installed in 2010, 116 000 of which using geothermal energy.[2]

In this first phase of communication the main focus was on

a. explaining the working principle of the technology
b. application examples – which were mainly showcasing the use of heat pumps in new buildings
c. highlighting the fact that heat pumps could also use air, water and (later) waste-water.
d. Highlighting that heat pumps provide heating and cooling at the same time.

The main target group where the European Commission, members of the European Parliament and representatives of the Council. Convincing them was not easy, as scepticism against the technology was widespread, often based on national perceptions and the respective political orientation. Members of the Green party, particularly those from Germany, rejected heat pumps as a tool to increase electrification of heat and thus to facilitate new nuclear power generation facilities.

A second line of argument was focussing on the difference between primary and final energy. While the energy efficiency and energy services directive [3] suggested a conversion factor of 2,5 (an average efficiency of thermal powerplants of 40%), this value was often questioned as being too low. In combination with the doubt of the true efficiency of heat pumps the technology was deemed less efficient than the direct combustion of fossil energy. Rejection of heat pump technology was based on the argument, that the technology would have to be added to the existing load of the grid and would thus result in switching additional generation capacity, usually dirty, hard and brown coal (pollution from marginal emissions).

A third argument applied on the technical feasibility of heat pumps in providing heat and hot water to the build environment. It was argued, that the supply temperatures of heat pumps were not sufficient to heat buildings efficiently and thus a heat pump was just a direct electric heater in disguise. This argument was originally applied to all heat pumps. Later it was modified by accepting geothermal heat pumps in new buildings and it took until 2009 for policy makers to agree to and decide that all heat pumps are in principle

feasible to heat buildings. Even today, after more than 10 years of fast track technology development and despite many successful examples it is still questioned whether heat pump technology can be deployed in the existing building stock or in industrial processes.

As a latest area of scepticism, it is now argued, that the electric grid is not fit to accommodate a much larger share of heat pumps and their deployment will endanger black-outs.

From 2007 to 2009 communication efforts were entirely based on facts focusing on a change of perspective with regards to these arguments. It was continuously argued that the heat pump technology worked, often using the example of developed markets like Sweden, Norway and Switzerland and in which not only air was successfully used as energy source, but also these markets had a significant share of heat pump deployment in renovation and in multi-family buildings.

Eventually the so-called Renewables Directive [4] acknowledged aerothermal, hydrothermal and geothermal energy in its definitions (article 2), to be used by heat pump technology. Besides officially stating that heat pump technology uses renewable energy sources, it also set down the need for educated installers and prescribed a calculation method for renewable energy generation by heat pumps. The Directive was a huge leap forward, as it established a legal basis and a reference point for policy makers and administrators.

In the following years, communication efforts focussed on the technical details of

- The energy performance of buildings [5],
- Improving energy efficiency of the whole energy system [6]
- Implementing measures of the Ecodesign Directive [7] and the energy label [8] for boilers
- The regulation on the use of fluorinated gases. [9]

The underlying discussions where mainly led by experts and where often backed by scientific justification of the different claims and by studies elaborating on the impact of each measure on the market. From an industry perspective a typical communication would start by highlighting the benefit of the technology towards the aims followed by the different pieces of legislation and the targets put forward.

EHPA established such fact-based communication by connecting claims to its statistics and enhancing sales numbers by calculating the renewables contribution of all heat pumps, the energy savings of their deployment and the related CO_2-reduction.

After the implementation of the Ecodesign requirements on boilers and the energy label the association realised that the communication needed to change – in order to achieve a more widespread impact, decision makers would need to consider heat pump technology as a solution that they needed to recognize in order to shape a favourable legislative framework.

2. A stakeholders heart is through its stomach

While the early years of heat pump related communication focused on the technical facts stressing its contribution potential towards Europe's climate and energy targets, they were not able to overcome a "feeling based" and sometimes deep-rooted scepticism against the technology. Stating the obvious seemed never to be good enough.

Thus, inside the association, new communications approaches were deemed necessary to create a fundamentally positive perception of the technology even with hesitating stakeholders. Likewise, it was clear that a shift was needed from fact based to more emotional communication. As the association did not want to risk its reputation as a reliable source of information, all considerations circled around "saying the same, just different" [9].

A multi-annual campaign was crafted based on this new approach. It used an emotional approach wrapping the factual benefits of heat pump technologies into a layer of emotion and executing this approach from different angles, using the effects of repetition and recognition to create anchor points for positive acknowledgement.

As the campaign consisted of different phases, a cut-off would have been possible between the different phases in case of failure.

Table 2 Facts presented and emotional layer used to change the perception of heat pump technology

Campaign phase	Fact layer	Emotional layer	Main target group
Chocolate and coffee	Renewables Energy efficiency CO_2 emission reduction	Tastiness of chocolate and coffee	Members of the European Parliament and the Commission active in the field of energy / heating.
It's cool to like heat pumps	Supply security Smart grids	Tastiness and comfort of ice-cream	Larger group of stakeholders in the energy transition
Plan(t) for the future	Local employment	Planning for a nice, flowery garden	Cities mayors and energy consultants

The different campaign phases addressed a range of stakeholders starting with members of the European Parliament (MEPs), continuing via a wider audience interested in EU sustainable energy issues (Sustainable Energy Week), concluding with a focus on EU mayors. Representatives of the EU Commission and the Council were also targeted in the action. Our goal was to make heat pumps appealing on the emotional level, to make them easy to like, and their advantages to be remembered.

This approach was executed via

- chocolate and coffee,
- ice cream, and
- flowers.

The main contribution of heat pumps to the EU climate and energy targets were colour coded and repeated in all campaign phases.

These six advantages of heat pump technologies were highlighted and promoted:

- GHG emission reduction (blue as in "blue skies")
- Renewable Energy (green)
- Energy Efficiency (orange)
- Energy Security (red)
- Creation of local jobs (purple)
- Smart grids (yellow)

Starting in 2014 every year a different communication angle was chosen. The message was transported via chocolate candies presented together with the "I love HP"-coffee mug (2014), via ice cream flavours (2015, 2017 and 2018) eventually via tulip bulbs (2017).

2.1. Chocolate candies and "I love HP"-mug

In 2014 we created the basic concept of the campaign and its first phase. The decision on the initial colour coding of heat pump technology benefits was taken. They were applied in white type to chocolate lentils (similar to the well-known M&M brand (Mars Inc)) and packed into a transparent box.



Fig. 1. Benefits of heat pumps presented via chocolate candies

How often have you asked people to discuss something "over a coffee/tea"? Connecting heat pump benefits to the prevailing habit of having a hot drink and some sweets resulted in the creation of a mug that stated "I love HP*" similar to the "I love NY" meme, adding an asterisk (*) explaining that "HP stands for heat pump". On the back of that mug we printed the word heat pump in several European languages to enable an easy recognition for members of the target group from different language background.



Fig. 2. "I love HP"-mug

As support and explanation, we asked our designers to design a postcard that pictured the six candy colours in a very reduced visual design explained each benefit in a few words. The motto of the postcard was "It's easy to like heat pumps". But the postcard not only explained the technologies, but also

a) asked recipients for testimonials on their own experience with heat pumps,
b) offered recipients to request more information,
c) invited them to contact us by email, to follow us on twitter or to participate in our annual Forum

Finally, we packaged 1) a box of candies, 2) the postcard and 3) the mug and sent it to all members of the ITRE and ENVI Committees of the European Parliament. In order to avoid any conflict of interest, the recipients were informed about the value of the package (less than 10 €).[10]

In a second communication round, we sent the postcard as PDF by mail to all MEPs and informed them, that those that would return the mail, would receive a mug and a box of candies in the mail as well.

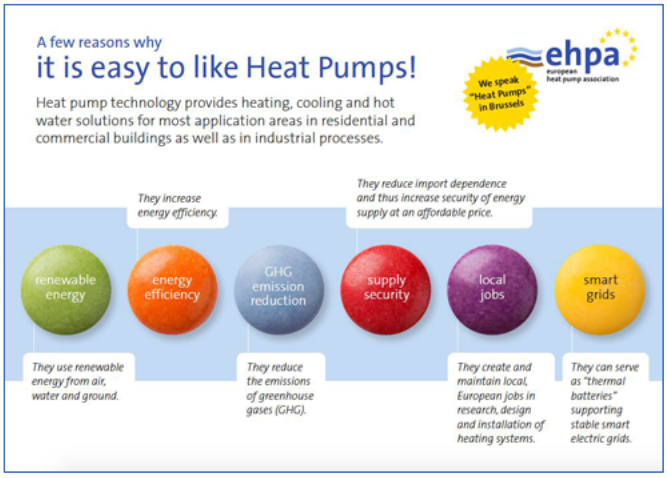


Fig. 3. “It’s easy to like heat pumps”-postcard

Evaluation:

This first campaign phase proved very successful. On the one hand we received very positive feedback in writing, on the other hand MEPs that we visited and talked to throughout the year remembered the mug and the chocolate. Many of them had the mug still on the tables in their offices. Even today can we point to this activity and people recognize us as “the heat pump guys that sent the nice mug and the smarties”.

2.2. Adding cooling: from energy stakeholders to EU policy makers at EUSEW

Based on the successful first phase, it was decided not only to continue to phase II, but also to change the target group. Looking for a different angle, we decided to stress the dual provision of heating and cooling via a heat pump and as it was summer and one of our events took place during the European Sustainable Energy Week (EUSEW) [11], **ice cream** was chosen as the transport medium of the message.

Looking at the first phase of the campaign, we decided to stick with the explanatory format and asked our designers to design a postcard that would picture six ice cream scoops in different colours, again showing each benefit in different colours.

We searched for and found an ice cream company that not only agreed to manufacture the ice cream for us, but also to come with a typical sales booth and to hand out the ice cream. Due to production limitations, we had to adjust the selected colours slightly:

- Vanilla = smart grids
- Pistachio = renewable energy
- Chocolate = GHG emissions
- Red fruit sorbet = energy security
- Lemon sorbet = energy efficiency
- Blueberry = local jobs



Fig. 4. Explanatory postcard: "It's tasty to like heat pumps"

Participants were then invited to use these titles when ordering an ice cream. This created a lot of laughter, when ie. the Director of the General Directorate for energy (DG ENER ordered) "one scoop of renewables and one scoop of smart grid".



Fig. 5. The ice cream booth at EUSEW 2017

In the second and third year, we slightly modified the text on the postcard. Cooling had entered the political agenda and we thought it to be a smart idea to enhance the focus of the campaign from "heating" to "cooling", continuously highlighting the fact that heat pumps provide heating and cooling at the same time.

Evaluation

This idea is still remembered in Brussels lobby circles. The impact was of such a nature, that the organizers of EUSEW asked us to repeat the activity in the years 2017, 2018 and 2019 as it was reported to them as a great success by participants and session organizers. From 2017 onwards, the booth was set up prominently in the lunch area of the Residence Palace (one of the two central event locations of EUSEW) and we handed out more than 600 scoops of ice-cream in each year, with even more people recognizing the activity.

2.3. Flower Campaign: Plan(t) now for the future!" – targeting EU Mayors

At the end of 2015 we started the preparation for the 3rd phase of the campaign. As we had identified cities as important actors of the energy transition, we did some brainstorming on what measure would resonate with city majors. We agreed, that a main characteristic of a city government is long term perspective, in particular for spatial planning and that this resonated well with planting. But how could we connect this idea to our colour scheme? We considered different plants and vegetables but either the execution was too complicated, too costly or the plant would not be available in the colours that we wanted. In fact, this proofed to be the most stringent restriction. And then we turned to tulips and came up with the idea to package 6 tulip bulbs in a nicely designed box and to send them to Mayors of EU capital cities as well as cities that have been using green solutions in transport, energy, etc.

While preparing the third phase of the campaign took longer than expected, we received very positive feedback for the ice cream idea and were invited back to the Sustainable Energy Week to offer the ice cream both to a wider audience in a more prominent location.



Fig. 6. The box with 6 tulip bulbs

In order to finalise the visuals, we asked our graphic designers to illustrate and to explain the campaign with a postcard using the headline "Plan(t) now for the future!". On the backside of the postcard we invited mayors to contact us if they required more information on what heat pumps could contribute to sustainable cities and to send us pictures of the tulips as soon as they bloomed.

Evaluation

In fall 2017, we sent batch of 50 boxes of tulips to the majors of the capitals of Europe and some additional cities that we had been pointed to as particularly active and ambitious in the attempt to green their cities. Not only did we receive 4 invitations to have meetings with the energy departments (London, Madrid, Riga, Budapest), but after 6 months we also received photos of blooming tulips. One package was given to Park Won Soon, Mayor of Seoul and then also president of ICLEI, who later sent his appreciation to the idea by mail.

The idea of the campaign was multiplied by some of our national heat pump associations who translated the postcard and sent the tulips to cities in their own country.

3. Impact of the campaign on the association and its lobbying strategy

The European Heat Pump Association considers the campaign a full success. It increased the recognition of heat pump technology and of the association with the designated stakeholders. It was perceived as innovative and fun, opening a communication channel to also talk about the details of technology.

While each phase could have stood by itself, the connection via the colour coding and their slight modification each year have resulted in very positive recognition and continuity reducing the effort needed to execute.

From a cost perspective, the investment in the campaign was comparatively small, costing less than 10 000 € over the first four years but the material is still used at various occasions helping us to illustrate the benefits of heat pumps in a creative and colourful way in the ongoing discussions with different stakeholders.

The overall result is even better than expected:

- Several Members of the European Parliament (MEPs) confirmed that they have been using the "I Love Heat Pump" mugs and we receive this feedback even today, after 5 years. Just recently, a member of the Commission stated, that the Mug had been "stolen" from him and he would appreciate a new one.
- The idea of the mug is so well received, that now a Chinese, German, Finnish and Slovak versions exist; done by the national heat pump associations respectively. For the next version on the EU level, we will add the term heat pump also in Kyrilic as well as Chinese and Japanese Kangxi. The ice cream campaign at EUSEW is now a classic and participants enjoy ice cream while getting to know the benefits of heat pumps, also understanding that heat pumps provide heating and cooling. For the next edition, an extension to two days is planned.
- The flower campaign has been picked up by 3 National Heat Pump Associations (Austrian, Finnish and Slovak) which approached their target groups with the same concept and motto. In addition, we managed to book 4 meetings with 4 mayors and their energy experts who wanted to discuss further about heat pump applications in cities.
- EHPA is recognized as an association that does not only do lobbying but does it with a fresh approach. This has resonated very well with existing members but has also attracted new members.
- The campaigns have helped the secretariat of the association to establish itself as a creative, forward thinking group of people using innovative yet very cost-efficient approaches to promote the interest of its members.

In 2019 the association was awarded the European associations award in gold in the category "Best associations communications campaign". [12]

The campaign has added a new dimension to heat pump lobbying. Using an emotion-based communication approach it combines technical advantages of the technology with human attributes creating a positive technology perception on a personal level. Attributes like "tasty" and "cozy" (see chocolate, coffee, flowers) were connected to heat pump technology making it easier to remember its benefits (see our selected motto in the postcard "it's easy to like heat pumps"). The importance of planning for the future in the context of creating a decarbonized society was stressed via the flower campaign.

The campaign proved that emotional-based communication does not contradict fact-based communication. Instead it strengthens the argument by using a human dimension to transmit complicated facts.

As a result, the association uses the new approach to deliver its messages to its target groups. We have moved to employing more advanced techniques to raise further awareness of the technology and it's multiple benefits.

Most recently we have deployed the "party heat pump", a device making the cooling and heating dimension of carnot-cycle technology directly tangible. Using the cold part to cool drinks and the hot part to heat sausages (vegetarian and meat based) allowed the discussion on the functioning principle in a comfortable and relaxed atmosphere.

Acknowledgements

The five years of work on this campaign were a real team effort. We would like to express many thanks to Pieter-Jan Cluyse, who helped to bring the original idea to life in a conference room in Stockholm, our design agency Ebmeyer and Ebmeyer from Munich (http://www.2-se.de), who brought our ideas to life and delivered

clear and direct communication tools, the team at EHPA under guidance of Eirini Litina who executed the campaigns with a meticulous eye for detail as well as the rest of the EHPA team and the different communications interns that helped us spread the word. Last, we would like to thank the board of the association for giving us the freedom to experiment with new formats and develop ideas like the ones presented here.

References

[1] European Commission (1997): Communication from the Commission Energy for the future: Renewable sources of energy (COM(97)599 final (26/11/1997). Download at: https://europa.eu/documents/comm/white_papers/pdf/com97_599_en.pdf
[2] European Heat Pump Association (2019):
[3] European Commisison (2006): Directive 2006/32/EC on energy end-use efficiency and energy services and repealing Council Direcitve 93/76/EEC. OJ L 114 p. 64-85 of 27.4.2006. Download at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32006L0032&from=EN
[4] European Commission (2009): Directive 2009/28/EC on the promotion of the use of energy from renewable sources. OJ L 140, p. 16-62 of 5.6.2009
[5] European Commission (2010): Directive 2010/31/EU on the energy performance of buildings. OJ L 153, p. 13-35 of 18.6.2010.
[6] European Commission (2012): Directive 2012/27/EU on energy efficiency. OJ L 315, p. 1-56 of 14.11.2012.
[7] European Commission (2009): Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products (recast). OJ L 285, p. 10-35 of 31.10.2009.
[8] European Commission (2010): Directive 2010/30/EU on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products OJ L153, p. 1-21 of 18.6.2010.
[9] European Commission (2014): Regulation 517/2014 on fluorinated greenhouse gases and repealing Regulation (EC) No 842/2006F-gas. OJ L 150, p 195 – 230 of 20.5.2014.
[10] This idea was inspired by the campaign “the power of words” by UK based agency purplefeather ltd. https://youtu.be/Hzgzim5m7oU. Downloaded 20.11.2019.
[11] The “code of conduct for Members of the European Parliament with respect to financial interests and conflicts of interest” finds a gift value of less than 150€ to be not compromising the independence of a Member of the Parliament: https://www.europarl.europa.eu/pdf/meps/201305_Code_of_conduct_EN.pdf. The same limit is set by the European Commission in article 6 (4) of the commission decision of 31.1.2018 on a Code of conduct for the members of the European Commission (2018/C 65/06). Download at https://ec.europa.eu/info/about-european-commission/service-standards-and-principles/ethics-and-good-administration/commissioners-and-ethics/code-conduct-members-european-commission_en on 20.11.2019.
[12] https://eusew.eu/
[13] https://europeanassociationawards.com/winners/