

The platform for European research & innovation in District Heating, District Cooling and kindred technologies

Progressing research & innovation for sustainable energy solutions

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Interview with Paul Voss, new Managing Director at Euroheat & Power

Paul, congratulations to your new position as Managing Director of Euroheat & Power. What makes this position interesting for you?

Since I got involved in the sector through Danfoss, I have felt a growing sense that this technology is (a) a particularly neat fit with contemporary energy challenges, but also (b) consistently misunderstood and (c) significantly undervalued. The opportunity to play a major role in getting our message across in Brussels and worldwide was too good to turn down. I was really attracted by the opportunity to work more closely with the many talented people I already know, both from EHP and from associations and member companies around. It's so important to me to feel like I'm doing something that matters when I go to work every day. This new role absolutely ticks that box.

You take over in quite interesting times, Horizon2020 kicks off, policies on climate change are ongoing, the sector has to take position. What is your vision for the future of our industry?

In five years, I hope and expect that we will have moved much closer to the centre of the EU energy policy debate. Today, I see us serving as a kind of protest voice, constantly needing to remind decision-makers that heat in general is an aspect of energy policy that needs far greater attention and that DHC is



Picture: Paul Voss

an under-exploited technology that can help achieve broader energy and environmental objectives. Our ultimate ambition must be to go further. I want us to reach the tipping point where these basic beliefs become widely acknowledged and understood so that we can focus on the more gratifying work of translating them into concrete policies with a direct impact on the market. DHC can and will become an important feature of the EU's strategy for managing the energy transition. It will take some heavy-lifting by EHP and our members, not least in Research & Innovation, but it can be done and I'm looking forward to celebrating our shared success.

How can the DHC+ Technology Platform contribute to this?

On one hand, DHC's inherently local nature tends to impose a certain fragmentation on our market. On the other, actors in the field face a wide range of common challenges and objectives. Cooperation and knowledge-sharing in key areas such as Research & Innovation are necessary and highly effective means of addressing both of these realities.

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Interview with Paul Voss continued

In DHC+ we have a framework in which our industry's best and brightest can combine their collective wisdom to drive the sector forward and secure our collective future. It also helps DHC operators to avoid duplication and repeating of mistakes by allowing everyone to learn from and with everyone else. In short, DHC+ serves as a living demonstration of the potential of the whole to be greater than the sum of its parts.

2013 was a successful year for DHC+'s Education & Training programme. The summer school attracted participants from all across the continent and so did the student awards. What is your key message for students and young professionals interested (or not) in joining our sector?

One thing that really strikes me is the tendency to make personal values an important factor when considering what type of career students and young professionals are looking for. A stable paycheck isn't enough to make them feel passionate but there should also be some sense of meaning and higher purpose.

From that point of view, the DHC sector is a very appealing option. This is certainly why I decided to get involved. First of all, there's the obvious potential for DHC to deliver societal benefits such as energy savings and CO₂ reductions. Second (and this excites me most), there's so much untapped potential. We are only scratching the surface of the contribution that DHC can make. The technology itself, too often dismissed as "mature", is in a constant state of evolution, with components and system configuration being ceaselessly refined. Moreover, the use of heating and cooling networks to optimize the broader system (e.g. by providing balancing services to the electricity grid) is beginning to generate increasing interest and excitement amongst energy experts and policy-makers.

With this in mind, my message to talented young people is simple: Come and join us! There is so much fun and meaningful work to be done in DHC.

Trans-European research projects are an integral part of DHC+'s work. In these projects we deal with a variety of stakeholders from our sector but also from the outside. What do you think DHC can bring to other sectors and what can they bring to the DHC sector?

As mentioned above, the potential of DHC to help optimise the performance of other technologies (electricity, waste management, renewables etc.) and the energy system as a whole is a source of tremendous excitement.

I am encouraged to see the proliferation of cross-sectoral cooperation because the scale of Europe's environmental and energy challenges makes the 'silo' approach entirely inadequate. The sustainable energy model of tomorrow will be one in which resources are mobilised with optimum efficiency and where different technologies are united in synergy rather than separated by artificial barriers. This is the spirit behind the often-used phrase 'do more with less'. I think that DHC is perfectly placed to play a central role in turning this vision into a reality.

Thank you very much for your time. Is there anything you would like to share as a last point?

I would just like to thank everyone involved in turning DHC+ into such a successful initiative. Research & Innovation are the lifeblood of any industry. I am proud of our shared commitment to progress and the strong sense of solidarity and cooperation that DHC+ symbolises. With our work in this field, we send a strong message to policy-makers, to consumers and to each other that DHC is an industry committed to designing its own future. Let's keep up the great work! ■

Investing in Education & Training

1st International DHC+ Summer School 'DHC and the Smart City' a striking success

The 1st International DHC+ Summer School took place on 25-30 August 2013 in the premises of Vattenfall in Berlin. 24 students and young professionals from all across Europe and beyond came together to learn about the role of DHC in a smart city.

During the week participants dealt with DHC basics, a smart approach to consumer issues, smart production and smart networks. The lectures combined theoretical presentations with practical applications in order to give the participants the chance to directly use their new knowledge. Additionally, the programme included numerous site visits including the CHP Mitte, a large-scale CHP in Berlin's heart.

Following all these experiences the participants were asked to prepare a research project aiming at a smart DHC city. The drafted projects were very ambitious as they were innovative and showed the high level of knowledge and expertise the students had brought with them and had absorbed during the week.



The attending experts, like Yves Delaby, Chair of the DHC+ Technology Platform, were impressed by the presented ideas. Due to the positive feedbacks received from organisers, lecturers and participants for this first edition of the DHC+ Summer School, the DHC+ Secretariat is building on this striking success and is already preparing the 2014 edition!

For more information on the DHC+ Summer School or the DHC+ Education & Training programme in general please visit the DHC+ website www.dhcplus.eu or contact dhcplus@euroheat.org ■

Open call for applications for the 2nd International DHC+ Student Awards – closing date 18 April 2014

DHC+ Technology Platform and its members are looking to support and promote outstanding research efforts by students in the field of District Heating and Cooling (DHC). After the successful first edition, we are calling for applicants for the 2nd International DHC+ Student Awards.

The DHC+ Student Awards recognise committed students of extraordinary potential who undertake research on DHC, including technological, environmental, social and legal aspects related to the field. The research shall contribute to improvement, growth and better efficiency of District Heating and Cooling on a local, national or international level. The granting of the Award will be based upon an outstanding achievement in, or scientific contribution to, the science and technology of DHC related research.

The call for applications is open as of 6 November 2013. Closing date for submissions is 18 April 2014. Eligibility and evaluation criteria for submissions can be found on the dedicated webpage via the DHC+ website www.dhcplus.eu.

The first place winner will receive a financial contribution of €1.000. Three winners will be invited to present their findings at the one of our major research events in autumn 2014, which will be an ideal opportunity for them to meet a wide range of stakeholders active in the field, to broaden their network of professional contacts and to share their innovative ideas and projects. All winning contributions will be published in the International EuroHeat & Power magazine.

For more information mail to dhcplus@euroheat.org ■

Driving Research in Innovation

Everything started in 1994 when Marstal Fjervarme A.m.b.a. (Marstal), a cooperative company, decided to heat the municipal swimming-pool with solar energy. Due to the success of this first experience, Marstal extended this application to the District Heating system by implementing 8,000 m² of solar panels. But one of the biggest problems, when talking about solar heat and renewable energy sources in general, is storage technologies.

SUNSTORE4 in a nutshell

- 15,000 m² of solar thermal collectors
- CHP system with low emission 4 MW wood chip thermal boiler and a 750 kW_{el} ORC
- 75,000 m³ pit heat storage
- 1.5 MW heat pump with CO₂ as refrigerant

In this context, the SUNSTORE2 project was implemented. This project consisted of an enlargement of the solar collectors with approximately 10,000 m² and a pit heat storage of 10,000 m³. Then the solar collector plant should be able to cover 30% of the yearly energy consumption.

SUNSTORE4

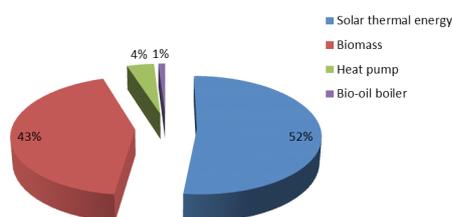
This is how the SUNSTORE4 project appeared as a logical continuation of the previous works. The used new production plant – in operation since summer 2012 – is a showcase of a synergic integration among several different renewable heat sources, namely solar thermal, biomass and heat pumps. A tailored large seasonal storage completes the framework.

SUNSTORE[®]4

100% renewable district heating

Solar thermal and biomass play a crucial role, when the heat pump increases the temperature level in the seasonal storage. The heat pump enables the solar panels to operate at a lower temperature range. This combined use of these renewables allows us to minimise the expensive operation of the existing bio-boiler and gives the opportunity for a flexible plant management.

The SUNSTORE4 plant is a pilot case with a 100% renewable District Heating. The large seasonal storage has a water volume of 75,000 m³ for storing the summer surplus heat produced by the solar thermal collectors which is then discharged during the winter period. It is foreseen that all the biomass for feeding the boiler will be produced locally on the island, with a need of about 300 hectares of land.



Co-funded by the Intelligent Energy Europe Programme of the European Union

Get more information

If you want to know more about this project, visit the www.sunstore4.eu website or contact the Secretariat at dhcplus@euroheat.org

There, you will be able to find more details about this 100% renewable DH concept, schemes, pictures, its technical description, a feasibility evaluation tool, results of previous feasibility studies and much more. Use the project results and become a part of our industry network! ■

The unique about the SUNSTORE concept is its flexibility

The concept makes it possible

- to use all types of renewable heat and waste heat, because of the storage and the heat pump (solar thermal, geothermal, biomass, waste heat from incineration, excess heat from industries).
- to provide consumers with district heat from 100% RES, also without use of biomass.
- to consume and to produce electricity when needed in the electricity system and thus to integrate fluctuating electricity production from wind and solar.
- the concept can be built up gradually

Successful kick-off of the CEN Workshop on Eco-Efficient Substations

In September 2013, more than 20 organisations from 10 EU countries participated to the kick-off meeting of the CEN Workshop on Eco-efficient Substations. The objective of this Workshop is to agree on a set of recommendations focusing on technical specifications, environmental aspects and testing procedures of District Heating substations within District Heating systems. The deliverable will be a CEN Workshop Agreement on internationally accepted rules on manufacturing District Heating substations, in accordance with the state of the art and based on the actual operation and future prospects. Background information as well as description of the work developed during this Workshop are detailed in the Business Plan that you can find on the CEN website (www.cen.eu) - CEN Workshop 73. It is foreseen that the Workshop will last for 20 months.

Registration to the Workshop is still open so if you are interested in participating, send us an e-mail to dhcplus@euroheat.org and let's make this project a success... together! ■



Picture:
Birger Lauersen (left)
accepts the Global
District Energy Award
for Sunstore4 from
Rob Thornton

www.districtenergyaward.org

DHC+ broadens network

One of the aims of the DHC+ Technology Platform is to create an inter-sectorial network in order to build strong ties with neighbouring sectors and platforms. Over the last months the DHC+ Secretariat intensified these efforts and engaged with representatives of various associations in order to define common ground and to prepare possible cooperations in the future.

Amongst others DHC+ met with CLIB2021 (Cluster Industrial Biotechnology) in Dusseldorf as well as with Cefic (European Chemical Industry Council) and ECCLA (European Cold Storage and Logistics Association) in Brussels. The meetings were very fruitful and there will be more. In the course of this engagement with external partners DHC+ also decided to join Knowledge4Innovation as from 2014 on.

For more information please contact the Secretariat at dhcplus@euroheat.org ■

SET PLAN Integrated Roadmap – DHC+ part of the Coordination Group

On 17 September 2013, the European Commission launched its SET Plan Integrated Roadmap process. This initiative will be a key document to drive Research & Innovation in the next year. The Integrated Roadmap will prioritise the development of innovative holistic solutions, which will respond to the needs of the European energy system by 2020, 2030 and beyond. In this frame, the Roadmap will address the entire energy system in an integrated way.

Specifically, the Integrated Roadmap will put forward key Research & Innovation actions to be undertaken in the next six years. It will be the basis for EU, national and multi-Member State activities and can serve as well as a basis for private investments in energy Research & Innovation. It is foreseen to finalise this process early 2014.

The DHC+ Technology Platform takes an active and important role in the created Coordination Group which supports the Commission in drafting of the Integrated Roadmap and ensuring its overall coherence.

More information can be found at <http://setis.ec.europa.eu/> or by contacting the DHC+ Secretariat at dhcplus@euroheat.org ■



You want to become a member of DHC+?

Founded in 2009, DHC+ is a strong group of more than 35 entities from academia, research, business and industry who want to foster Research & Innovation in DHC.

Join a circle of highly committed stakeholders, playing an active role in driving Research & Innovation in DHC and supporting the development of young researchers by engaging in Education & Training measures.

Contact us under dhcplus@euroheat.org

UPCOMING

CEN Workshop on Eco-efficient Substations

On 26 February 2014, the second plenary meeting of the CEN Workshop on Eco-efficient Substations will take place in Brussels. Results of the Technical group will be discussed and works for the Testing group will be launched. Registration is still open!

For more information contact dhcplus@euroheat.org

DHC+ Student Awards

DHC+ is calling for contributions to its 2nd DHC+ Student Awards. Deadline for submissions is 18 April 2014.

For more information contact dhcplus@euroheat.org

Next Committee Meetings

The next DHC+ Technology Platform Steering Committee meetings will be held in Turin (Italy) on 20-21 January and Brussels in June 2014.

For more information or if you are interested in participating contact us at dhcplus@euroheat.org

Euroheat & Power Annual Conference & 60th Anniversary

Managing the European Energy Transition

In 2014, the energy policy world will start to move forward, with a push towards new climate and energy targets prompting a renewed discussion on the value of energy in Europe.

The District Heating and Cooling, along with the Combined Heat and Power sector needs to be ready to highlight and reassert its importance and demonstrate its huge societal and economic benefits in order to be included in the European strategies.

Check the conference website www.euroheat.org/2014EHPac

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EUROHEAT & POWER

2014 Annual Conference
60 years of HOT and COOL stories

28-29 April 2014, Brussels, Belgium