DHC+ TECHNOLOGY PLATFORM

Newsletter Spring 2015

The platform for European Research & Innovation in District Heating, District Cooling and kindred technologies

Progressing Research & Innovation for sustainable energy solutions

This Issue

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EUROHEAT & POWER

Interview with Alessandro Provaggi, new Head of the DHC+ Technology Platform

Congratulations on your new position as Head of the DHC+ Technology Platform. What makes this position interesting for you?
It's important for me to work on something that has a positive impact, for a technology I believe in and for a sector with brilliant future perspectives. This role definitely ticks all these boxes. We are living in an exciting period of transformation for the whole energy system and I am confident that District Heating and Cooling will play an increasing role in this monumental change. I realised DHC's enormous potential in meeting Europe's environmental, economic and strategic challenges through my previous job at EUREC as coordinator of the European Technology Platform on Renewable Heating and Cooling. On top of that, I already knew the DHC+ Technology Platform and Euroheat & Power and I was looking forward to working with this outstanding team as well as with the members.

Picture:
Alessandro Provaggi

You joined Euroheat & Power and DHC+ in exciting times…
Absolutely. The heating sector has traditionally received little attention in the broader EU climate and energy debate. However, this is finally history. Among decision-makers there is a rising awareness that the heating and cooling sector in general - and District Heating and Cooling in particular - has a key role in the European energy transformation. It is not by chance that the European Commission at the end of February hosted the first series of high level events exclusively dedicated to heating and cooling.

You took over from Nicolas Février at around the same time as Bertrand Guillemot from Dalkia was elected new Chairperson of the DHC+ Technology Platform. It seems that 2015 is a year of change for DHC+.
Nicolas did an amazing job in managing the Platform and coordinating its activities. I am really thankful to him. I see that there is a general sense of satisfaction with what has

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been achieved by the Secretariat and how the Platform has been performing until now. This is the merit of Nicolas Février, Aksana Krasatsenka and Ingo Wagner. It is also a result of the guidance and constant support from Paul Voss, Managing Director at Euroheat & Power. It put us in the best possible place to move the DHC+ Technology Platform forward. I am also very glad that Bertrand was elected Chairperson. The Platform will greatly benefit from his energy and his know-how. We met a few times but I can already say that we have many shared ideas for the future and a strong willingness and ambition to make the DHC+ Technology Platform even more successful. At the same time, we can count on the great experience and continuous dedication of the Vice-chairpersons Ralf-Roman Schmidt and Stefan Holler. I couldn't have hoped for a better combination of people and capabilities.

What are your ideas about the future of the DHC+ Technology Platform?

I am really excited about what the Platform could achieve. It's fundamental to continue communicating about the DHC's potential. We bring together a fantastic group of research centres, universities, associations, utilities and manufacturers. We are in a leading position to promote and drive European Research & Innovation in DHC. I expect that the DHC+ Technology Platform will get even stronger in engaging with policy-makers and stakeholders, and providing a bigger network of interested actors. We also work hard to foster our members' participation in European projects. They enjoy the fact that they can easily join forces with like-minded people across Europe. Last but not least, the Platform will continue to focus on education. Every year there is an increasing demand by students, researchers and industry players to acquire more know-how in DHC. The Platform has a historical experience in promoting education and we will continue to do it.

DHC+ focuses on Research & Innovation. Why are these key?

While I was living in the Silicon Valley and in China I was surprised by how much importance people were giving to innovation and technology development. In their conversations, it really stood out as fundamental to survive and bring about a meaningful change. I would like to get that feeling in Brussels more often. Concrete technology transfer of Research & Innovation into market and society is what will allow Europe to maintain high living standards. We have to be serious about it. And that means investing more, particularly in promising technologies like DHC. Each year, almost 50% of the total energy consumed in Europe is used for heat. However, historically, its share of public expenditure in the R&D energy sector has been nowhere near as high.

And what can R&D do for the DHC sector?

R&D is the essential tool to unlock DHC's potential. We need to be ambitious to solve the climate and energy problems faced by Europe. These challenges will remain if we don't move quickly to a more modern, efficient and technologically advanced energy system. Continuous R&D will enable DHC to be at the core of future smart energy systems where electricity grids and thermal grids will be better combined and integrated. It will enable further integration of renewable sources into the network and make the whole system more efficient. Innovation in DHC networks will increasingly empower consumers, cities and communities to participate directly in the market. In short, the DHC+ Technology Platform is sending a clear message: we are committed to shape the future of the energy system!

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Investing in Education & Training

3rd International DHC+ Student Awards: See you in Copenhagen!

For the third consecutive year, the DHC+ Technology Platform launched its Student Awards competition to give students of extraordinary potential the opportunity to make their research known and benefit from a wide range of prizes. In order to be recognised, the research shall contribute to the development, growth and improved efficiency of District Heating and Cooling on a local, national or international level.

The submissions are now closed and the jury - composed of eight international DHC experts and presided by the Chairman of the DHC+ Education & Training Working Group - is busy with evaluating the research papers that come from all over the world. Following winners announcement end of June, the awards will be presented at the Awards ceremony during the **International Conference on Smart Energy Systems and 4th Generation District Heating** in Copenhagen (25-26 August 2015).

All this would not be possible without the help of our sponsors : **the International Energy Agency Implementing Agreement of DHC CHP** and **EnergyVille**, the top Flemish Institute in innovative energy research.

Please check **http://studentawards.dhcplus.eu/** later this year for the Awards results and future calls.

IEA DHC|CHP International Energy Agency Implementing Agreement of District Heating and Cooling, including the integration of CHP

EnergyVille

3rd DHC+ Summer School goes to Torino!

Another very important activity of the Platform in the field of Education & Training is the International DHC+ Summer School. Its first edition took place in August 2013 in Berlin and was supported by Vattenfall, while the second edition in 2014 was hosted in Helsinki by Aalto University, Helen, Fortum and Finnish Energy Industries.

The Platform is proud to have members committed to promote Education & Training on District Heating and Cooling on board, that are ready to join forces in order to host the 3rd edition of the Summer School. This time, the initiative comes from **Politecnico di Torino** and **ISMB**, both members of the DHC+ Technology Platform. They will be supported by local energy companies **IREN** and **EGEA**, which will not only organise site visits to their facilities, but also contribute as sponsors and lecturers on DH network design.

The programme promises to be very interesting and, due to the involvement of ISMB, will particularly focus on the **interaction between DHC and ICT technologies**. For the first time, the participants of the Summer School will have the opportunity to learn more about Horizon 2020 and work on a project proposal.

The core of the DHC+ Summer School will remain the same: lectures on DHC basics, production processes, integration of renewables, consumer issues and smart networks. Moreover, since it's in Italy, participants will be invited to wine and pizza experience!

The registration has already started. Only 30 places are available on a first-come, first-served basis. Hurry up and register at
http://summerschool.dhcplus.eu/

Business Opportunities for Solar District Heating - the SDHplus Project

Solar District Heating (SDH) plants consist of large fields of solar thermal collectors feeding their produced solar heat into District Heating networks. The solar collector fields are either installed on free ground or integrated into building roofs. Today, the plant capacities range up to 50 MWth for the largest systems installed. Typical shares of solar thermal production are up to 20 % of the total heat supplied by the District Heating system. With large heat storages, used also for CHP optimisation and Power to Heat applications, solar thermal shares of up to 50% are possible. Nowadays, competitive heat prices lower than 50 €/MWh can be reached.

Solar thermal energy can be integrated in many types of District Heating systems adapted to different urban contexts. In Germany, Austria, Denmark and Sweden, District Heating systems are frequently used to supply heat to small cities and communities in rural areas. There, the combination of a large scale solar thermal plant and a biomass heating plant is an economically interesting concept to supply local nets with renewable heat: solar thermal plants cover the energy demand during summer in order to avoid partial load operation of biomass plant and bring a stable component to the cost calculation.

In renovated or new urban quarters, local heating networks are an appropriate option for heat supply. They are often operated at low temperatures, which is favourable for solar thermal plants. This type of plant has been implemented in Sweden and Germany. Moreover, urban quarters that are connected to a larger District Heating system offer the possibility of decentral integration of solar thermal energy, where the solar collectors are placed at suitable locations and connected directly to the District Heating net.

Large urban District Heating systems are usually operated with heat from combined heat and power plants, heating only plants or industrial waste heat. The decentral integration of large-scale solar thermal plants is one possibility to increase the share of renewable energy sources in such District Heating systems. Plants of this type have so far been realised in the Austrian cities Graz and Wels.

SDH
solar district heating

The SDHplus project aims at developing the cooperation between the District Heating and solar thermal sectors, finding new business models and opportunities for SDH in order to establish solar thermal energy as a heat source in District Heating nets. Eighteen partners from twelve European countries developed a strong cooperation working towards market development and implementation of show cases.

The project's impact on the market is certainly positive in several European countries: besides the real boom of the technology in Denmark, first plants have been built in France and Italy. In Austria, numerous SDH plants have been funded by the national Klimafonds programme and in Germany two regional governments started regional initiatives on SDH. Important cooperation with District Heating operators has been established for performing case studies all over Europe. Many successful events are organised at national and international level, gathering experts and market actors. Finally, a positive sign of the market development is the growing number of industrial suppliers of large collector modules for District Heating applications.

The next opportunity to get information on the latest developments in the sector and to network with international experts and market actors will be the 3rd International SDH Conference taking place on 17-18 June in Toulouse. This 2015 edition will focus on sharing international experiences on the realisation and operation of Solar District Heating projects. Moreover, participants will have the opportunity to visit the first French SDH plant in the eco-district of Balma, Toulouse.

More information:
www.solar-district-heating.eu

By Dipl.-Ing. Laure Deschaintre and Dipl.-Ing. Thomas Pauschinger, Solites

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

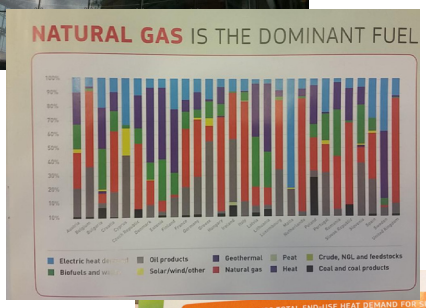
Stratego

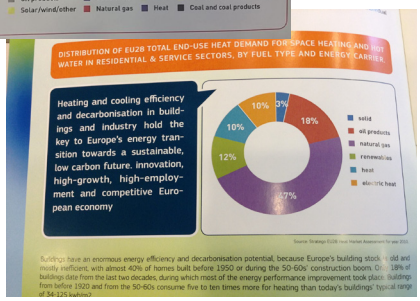
and the EU Energy debate

The STRATEGO project preliminary results have already fed into the European Commission Stress Tests Communication (COM(2014) 654 final) issued at the end of 2014.

STRATEGO continues to contribute to the EU energy policy discussion, by providing input to official publications and events at EU level, such as the Conference "Heating and Cooling in the European Energy Transition" organised by the European Commission in Brussels on 26-27 February 2015. Brian Vad Mathiesen from Aalborg University spoke there about the importance of heat modelling and confirmed that first Member State Heat Strategies developed in the framework of STRATEGO will be out in June.
Check the progress at **www.stratego-project.eu**

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





New Horizon 2020 Energy Work Programme under preparation

The European Commission is in the process of preparing its Horizon 2020 Work Programme for 2016-2017. The part on 'Secure, Clean and Efficient Energy' includes among others calls on Energy Efficiency (EE), Low-Carbon Energy (LCE) and Smart Cities and Communities (CCS), and in particular on heating & cooling, buildings, industry and renewables. The programme is expected to be published in September.

DHC+ actively engages in ensuring that the programme reflects the needs and the potential of the sector.

For more information please contact the DHC+ Secretariat at **dhcplus@euroheat.org**

DHC+ joins Management Board of Knowledge4Innovation

DHC+ has been member of Knowledge4Innovation since late 2013. K4I is a forum for thought leaders in innovation in Europe and brings them together with a political forum of Members of the European Parliament. Together the members promote R&D in Europe, engage in the drafting of policies and open the discussion for the broad audience.

DHC+ decided to become more involved in this forum and to take on more responsibilities. Therefore, Ingo Wagner, Policy & Project Officer at DHC+, has been elected as member of the Management Board of K4I. DHC+ is looking forward to three interesting years.

Website: **www.knowledge4innovation.eu**

knowledge 4 innovation

Become a member!

Set up under the umbrella of Euroheat & Power, the DHC+ Technology Platform is today a strong group of stakeholders from academia, research, business and industry. DHC+ is a unique networking platform as well as the perfect place to disseminate work results, develop new projects and get informed about EU trends and opportunities.
Contact us at **dhcplus@euroheat.org** and become part of DHC+!

Stay connected on social media!

Follow us on Twitter **@DHCPlus**
Visit our Facebook page **www.facebook.com/DHCPlus**
Share your ideas and news with us!

UPCOMING EVENTS

Next Steering Committee Meetings

Next DHC+ Technology Platform Steering Committee meetings will be held on 10 June and 7 October 2015 in Brussels.

On 7 October, the meeting will be combined with a **networking event on EU-funding opportunities for DHC**.

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

3rd International Solar District Heating Conference
17-18 June 2015, Toulouse, France
SDH solar district heating
www.solar-district-heating.eu

DHC+ Student Awards Ceremony

and presentations by the winners will take place at the International Conference on Smart Energy Systems and 4th Generation District Heating. Don't miss it!
http://studentawards.dhcplus.eu/

International Conference on
Smart Energy Systems and 4th Generation District Heating
25-26 August 2015 · Copenhagen
AALBORG UNIVERSITY DENMARK

Registration until end of May

Due to the limited number of places, it is likely to sell out by end of May 2015.
Reserve your place now at
http://summerschool.dhcplus.eu/