

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

Progressing research & innovation for sustainable energy solutions

District Heating and Cooling in the Spotlight: An Interview with Edoardo Calia from ISMB

ISMB is an applied research center operating in the ICT sector located within the Politecnico di Torino Campus in Italy. With 130 researchers, it covers most of modern ICT technologies, including the domains: Smart City, Smart Energy and e-Health. In the specific sector of DHC and microgrid, ISMB is involved in the design of ICT-based planning and simulation tools for heterogeneous complex and modular energy systems. Specific issues covered include data visualization and user friendly interfaces for the different interested communities.



Tell us a little about District Heating and Cooling (DHC) and related R&D in Italy?

DHC is very well developed in Italy. In the past, many cities developed DH networks thanks in part to supportive regulation and government grants. The city of Turin is among the most advanced for DH implementation, and it is also leveraging relevant local knowledge to carry out R&D projects (four of which started at the beginning of 2012 with a recent agreement signed between IREN, the local DH provider, and Politecnico di Torino).

What are the main challenges and opportunities you see for DHC in Italy?

The main opportunities for DHC in Italy come from the increasing diffusion of cogeneration plants (many of which are based on renewable energy sources (RES)), for which several projects exist in our country. Some of these plants were recently built in the city of Turin and Vicenza. Interesting also is the trend followed by several small municipi-

palities to build small, modern, local plants.

Some challenges exist related to the investments required and the lack of financial resources. New financial models need to be introduced and adopted, supported by financial institutions and governments as appropriate.

Despite these challenges, ICT is sure to play a key role in DHC in the near future, leading to the implementation of Smart Thermal Grids. Up to now, energy (and DHC in particular) and ICT have been two separate worlds, with little cross-fertilization. The introduction of uncertainty and complexity in energy networks (mainly due to the connection of RES and the need to improve efficiency) requires more sophisticated tools for both planning and managing complex heterogeneous systems. ICT can be beneficial both in the architectural extension of energy networks (i.e. embedded smart meters) and for the development of tools for planning, simulation, decision making and consensus creation (involvement of communities) ■

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Wanted: Cooperation Partners in Education and Training

In 2012 DHC+ will add a new activity to its portfolio: Without any doubt, education and training are key to ensuring innovation and making District Heating and Cooling future-proof. Today, most activities in this area have a purely national orientation, offering limited attractiveness to a new generation of global workers. Therefore, the platform decided to conceive new international initiatives to foster the cooperation among universities and research institutes.

The aim is to provide students and professionals with added value for job perspectives and larger networking opportunities based on innovative learning tools. Among the first projects are the setting up of an international summer school and the launch of international student awards.

The next meeting of the responsible Working Group will take place on 18 and 19 June 2012 in Brussels. Universities, research institutes and other parties interested in joining this activity are invited to contact christopher.gallasch@euroheat.org ■

Get Ready for the 1st International Student Awards

Are you a student or young professional in DHC and eager to present your research results to a larger expert audience? Then get ready for the 1st edition of the International DHC Student Awards. Winners will be invited as speakers to a special awards session at Euroheat & Power's 36th International Congress on 27-28 May 2013 in Vienna, Austria, travel and accommodation being offered by the organizers. More information on conditions and the call for abstracts will be published on our website at www.dhcplus.eu in June.

The Awards will also provide outstanding possibilities for companies to enhance their profile as industrial leaders by involving themselves as sponsors. For more information contact christopher.gallasch@euroheat.org ■



Go Swedish - Summer PhD Course in DHC

DHC+ member Halmstad University is organizing an international PhD course in English focused on District Heating and Cooling systems. The course will be held during the last two weeks of August 2012. The main target group for the course is European PhD students having research topics related to District Heating and Cooling. In addition to lectures, the course will contain working exercises and study visits. Lecturers Prof. Sven Frederiksen from Lund University and Prof. Sven Werner from Halmstad University are also the authors of a forthcoming DHC textbook in English on which the course will be based. Course participation is free and daily lunches are included, with the number of participants being limited to 30. For a smaller group of applicants, the accommodation is also covered. A supplementary opportunity to learn more about current research in DHC is to combine participation with participation in the 13th International Symposium on DHC on 3-4 September in Copenhagen (only 200 km south of Halmstad).

For more information and/or to apply, contact sv.werner@hh.se stating your name, affiliation and main DHC research interest in a maximum of 10 text lines ■

Have You Heard About the

Ecoheat4cities Green Label ?



The Ecoheat4cities project is one of the portfolios of projects currently being implemented by the DHC+ Technology Platform. Supported by the Intelligent Energy Europe programme, it aims to promote awareness and knowledge-based acceptance of District Heating and Cooling systems. Now in its last stage of development, the project is finalising the establishment of a voluntary green energy label for heating and cooling, which will provide useful information on key energy related parameters of DHC systems to all interested stakeholders. The three labelling criteria: Renewability, CO₂-emissions and Primary Energy Indicator, reflect the aims of the EU 2020-targets and will thus enable citizens, municipalities, DHC companies, and interested investors from all over Europe to see and show

how District Heating can contribute to reaching the EU's energy targets.

First label designs and labelling guidelines are currently under discussion. The intermediate guideline, the basis for the final test-labelling phase, includes all details concerning the calculation methods and other important aspects, and will be available on the Ecoheat4cities website at the beginning of the 2nd quarter of 2012, together with other useful information, such as a tool enabling cities and municipal planners to compare different heating and cooling options, and a guide for city planners and politicians to better understand the labelling process. The guide will also offer insight into how the label can provide added value and a green image.

Studies on best available and best not available technologies have already been prepared and are providing the basis for future guidelines to DHC system operators and city planners. These studies, together with a baseline study providing insight into current and past DHC sector performance are available on the Ecoheat4cities website at www.ecoheat4cities.eu.

Work on the design and technical setup of a label and a certificate has already begun and will include both a European and national dimension, allowing for flexible approaches based on available and verified local knowledge and resources. The governance structure was discussed at a recent working group meeting, held in Brussels on 23 March.

If your organisation would like to know more about the green label, governance structure of the labelling scheme, and/or participate either in the steering committee or become a labelling body, please contact Euroheat & Power or its national partners. And be sure to check the Ecoheat4cities website regularly for more information. DHC companies and cities are actively invited to provide additional guidance and feedback about the ongoing work by contacting us ■



New Initiatives on the Horizon

Don't miss the next opportunity to contribute to progressing research & innovation for sustainable energy solutions in District Heating and Cooling. Calls for proposals for the current and next programming periods, under the FP 7, IEE programme and Horizon 2020 are just around the corner. Contact us with your enthusiasm and ideas, so that we can prepare the way for the District Heating and Cooling needs of tomorrow.

See our website at www.dhcplus.eu for more information about our projects, and learn more about upcoming initiatives, including one on eco-efficient substations.

Upcoming Events

Next Committee Meeting

The next DHC+ Technology Platform Steering Committee meeting will be held on 18-19 June 2012. Contact us at dhcplus@euroheat.org if you are interested in participating.

Solar District Heating on Display During the EU Sustainable Energy Week

Held in Brussels and throughout Europe between 18 and 22 June, the EUSEW will include events and activities that promote energy efficiency and renewable energy sources. This year we will hold a SDHtake-off event on 19 June, focused on Solar District Heating. See www.solar-district-heating.eu for more info, and find out more about EUSEW at www.eusew.eu

Annual Euroheat & Power Conference (26-27 April 2012)

The 2012 Annual Conference on Renewable Heating and Cooling, which is organised by Euroheat & Power and the RHC-Platform will take place on the 26-27 April 2012. For more information see the website at www.conference2012.eu

DHC+ Autumn Conference (9-10 October 2012)

This conference will highlight DHC+ projects in particular, and provide other information on DHC in general. For more information keep an eye on our website or contact us at dhcplus@euroheat.org

