Thermal energy systems of the future

– hot trends and cool solutions for cities –

Day 1: Thursday October 17, 2019

Venue: BIP Brussels, Rue Royale 2-4

Moderator for the day: **Donna Gartland** from Codema

09:30	**Registration coffee**
10:00	**Welcome ceremony:** A European vision and support for cities in their energy transition **Hans van Steen,** Acting Director for Renewables, Research and Innovation, Energy Efficiency at DF Energy*
10:40	**Keynote speech** **Raffaele Barbato,** Project Coordinator at UIA
11:00	**Coffee pause**
11:30	**Fossil-free Energy Districts: a dream come true!** - Purpose, goals, background, how & result **Claes Sommansson & Stina Rydberg**, Project Coordinators at Johanneberg Science Park
12:00	**Lunch**
13:00	**Panel debate** - Challenges and solutions addressed by the FED project - developing new business opportunities - making old systems compatible with the future - replication and scaling ***Moderator*: Karin Weijdegård**, Communications officer at Johanneberg Science Park **Carina Nowak** from Business Region Gothenburg **Magnus Brolin** from RISE **Per Löveryd** from Akademiska Hus
14:00	**Keynote Speech – "wake-up call"**
14:30	**Panel debate** – keeping it cool - Residual cooling sources and innovative cooling solutions ***Moderator:* Jakob Bjerregaard**, Partner at Devcco **Iren Aanonsen**, Business Developer at Fortum Oslo Varme AS And other representatives from cities and/or city owned operators. **
15:15	**Coffee pause**
15:45	**Panel debate** – adapting to a uncertain future with sector integration - Complementarity of the systems: thermal energy is easy to store but difficult to transport and electricity is easy to transport but difficult to store. - Balancing volatility from renewable sources

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	Moderator: **Morten Duedahl**, *Danish Board for District Heating* **Herman Eijdems,** Innovation Manager at MijnWater And other representatives from cities and/or city owned operators. **
16:30	**Conclusions**
17:00	**Networking cocktail**
18:00	**End of the Day**

*To be confirmed

**If you are a city representative or city owned utility company representative and would like to share your perspective on sustainable cooling systems or system integration please contact emilia.pisani@johannebergsciencepark.com.

Day 2: Friday October 18, 2019

Venue: EIT House, Rue Guimard 7

08:30	**Registration & welcoming coffee** *Participants can select which workshops they will attend when they sign-in.*
9:00	**Workshop round 1** - Business models and risk analysis for infrastructure development* - Sustainable Cooling solutions - Facilitating replication and scaling of demonstrators - Master Energy Planning: HotMaps energy planning tool
10:15	**Coffee pause**
10:45	**Workshop round 2** - Business models and risk analysis for infrastructure development* - Sustainable cooling solutions - Facilitating replication and scaling of demonstrators - Thermos project energy planning tool
12:00	**Conclusions from workshops**
12:30	**Lunch**
13:30	**End of the Day**

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Workshop descriptions

Sustainable Cooling Solutions

Animated by: Jakob Bjerregaard from Devcco

This workshop will focus on how to get started from nothing with a lean execution model. The model allows for keeping expenses low, while de-risking the project and preparing a business and financial model. Cities can use this model to either establish their own "district cooling utility company" or to attract private developer and investors. It has already been used on multiple cities across Europe.

Facilitating the replication and scaling of demonstrators

Animated by: **Lena Holmberg** from IMCG

In order to achieve a positive sustainable impact on the society, it is vital that promising demonstration projects get funding for all the steps needed until replication and scaling are completed. In this workshop we explore how to facilitate the dialogue between funding agencies, cities and technology providers. We also look into how to design projects and applications that provide the answers needed to understand the risks and opportunities with different solutions, covering topics such as policy and regulation development, community acceptance and market growth, team composition and business models.

Master Energy Planning: HotMaps energy planning tool

Animated by: **Lukas Kranzl** and **Mostafa Fallahnejad** from TU Viena

The **HotMaps project** develops a toolbox that supports local, regional and national **heating and cooling planning** processes. The Toolbox is:

- user-driven (developed, demonstrated and validated in close collaboration with 7 European pilot areas),
- open source (the software and all related modules run without requiring any other commercial tool
- EU-28 compatible (the software can be used in all 28 EU Member States thanks to a default open data set).

During this workshop, you will learn how the HotMaps toolbox can help you to answer the following questions (and more):

- What is the heating and cooling demand in your specific area?
- Are the surrounding renewable and waste heat resources enough to cover the demand?
- What are the costs of different technological solutions?

The presentation will include a short training on how to use the toolbox. Please bring your laptop in order to start **identifying, mapping, modelling and analysing resources and solutions** to supply energy needs within your territory of responsibility in a resource and cost-efficient way.