



**NORDIC  
HEAT**

  
THE SMART CITY ALLIANCE

**INVITATION**

NORDIC HEAT MASTER CLASSES

## DRIVING DOWN COSTS OF HEAT NETWORKS

IDENTIFYING OPPORTUNITIES FOR COST SAVINGS THROUGH  
BENCHMARKING WITH NORDIC COUNTRIES AND BY APPLYING NEW  
INNOVATIVE TECHNOLOGIES AND PRACTICES.

GENEVA

5 JULY 2018 – 08.30 – 16.00

YOU ARE INVITED to a Nordic Heat Master Class in Geneva, focusing on the opportunities to reduce costs for projecting, procuring, installing and operating heat networks. We will do so by benchmarking key performance indicators and methods applied in Switzerland with those in the Nordic countries. We will also highlight some new innovative technologies and practices offering significant opportunities of reducing the total life cycle costs. Senior staff in design and procurement from EWB, Bern, and SIG, Geneva, will attend the master class.

THE OBJECTIVE is to identify opportunities for reducing costs of procuring, installing and operating systems and services related to distribution and connect & control of district energy.

FOCUS – The master class will in particular focus on the high impact areas on the overall costs of installing and operating heat networks

- Distribution system – design, standardization, planning, installation, leak detection and operations/ maintenance
- Heat Interface Units – design, standardization, installation and operations
- Control systems – digital solutions to improve performance, reliability and end-user benefits
- Metering systems – available technologies, IT security, metering as a service

### REGISTRATION & QUESTIONS

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## AGENDA

**08.30**            **REGISTRATION & COFFEE**

**09.00**            **INTRODUCTION**

- Background, Scope and Objectives

### **THE HEATING SECTOR IN SWITZERLAND**

- Facts & Stakeholders
- Future Requirements & Available Solutions
- Objectives, focus and plans of SIG and EWB

### **DISTRIBUTION SYSTEMS**

- KPIs and overall design - benchmarking vs. Nordic region
- Pipe systems – standardisation and costs
- Leak detection – extending life time of systems
- Projecting & Installation – new digital solutions

### **HEAT INTERFACE UNITS**

- KPIs and overall design - benchmarking vs. Nordic region
- HIU systems – standardisation and costs
- Improving system efficiency – new digital solutions

### **SMART METERING**

- KPIs and overall design - benchmarking vs. Nordic region
- Available technologies – standardisation and costs
- IT security
- Metering as a service

**15.00**            **CONCLUSIONS & NEXT STEP**

- Key Account Strategies
- Bundled solutions
- Digital technologies
- Ability to offer local services in CH

## VENUE

### **Services Industriels de Genève (SIG)**

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1219 Le Lignon

Case postale 2777

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[www.sig-ge.ch](http://www.sig-ge.ch)



## PARTICIPANTS

Organisation	Name	Title
<b>GENEVE - SIG</b>	Marcel Ruegg	Directeur, relations académiques et institutionnelles
	Sophie Durandeux	Head of DHC development team
	Michel Monnard	DHC director
	Gilles Garazi	Energy transition executive director
	Stuart Johnston	Direction Services Partagés
	Stuart Johnston	Head of Automation and industrial computing
	Laurent Rami	Head of Engeneer team
	Jane Söderblom	Automation and industrial computing
Gregory Vassal	Automation and industrial computing	
David Crochet	DHC development team	
<b>BERN - EWB</b>	Martin Jutzeler	Head of Innovation
	Bernard Galli	Head of Procurement
	Daniel Fischbach	
	Daniela Ivanova	
	Christian Schmid	
<b>Office Cantonal de l'energie</b>	Cedric Petitjean	Director
<b>3DTD</b>	Craig Groberty	
<b>NODA</b>	Mart Kivikas	
<b>AF Consulting</b>	Dario Bersiga	
<b>CETETHERM</b>	Johan De Cuyper	
	Jarmo Rissanen	
<b>KAMSTRUP</b>	Jens Ebbesen	
<b>STOCKHOLM COOLING</b>	Tobias Friedman	
<b>VEXVE</b>	Magdalena Lamasz-Kowalska	
<b>VENTRADEX AG</b>	Fabian Hesse	
<b>LOGSTOR</b>	Alain Routier	
<b>WIDECO</b>	Catherine Tynes Kjellbergh	
<b>SOGECA</b>	Alain Lintz	
<b>NORDIC HEAT</b>	Peter Anderberg	

## SPECIFIC QUESTIONS TO ADDRESS

### **NODA**

We're interested to learn more about the solution to develop a thermal smart grid. What are the fundamental principles of the solution, what automation and communications infrastructure is required, what communications performance & bandwidth between the installations is required? Concerning the management of heat or cooling production sites, is NODA compatible with Termis? And how about adding geothermal ATEs storage to the system ?

### **WIDECO**

We're simply interested to learn more about this to compare the technical implementation details with say Logstor.

### **KAMSTRUP – Smart Meters**

What solutions are envisaged in order to achieve a multi-fluid metering solution (thermal, water, electricity) ? What communications methods are used (between the meters, concentrator and up-stream) Which Advanced Metering platform is used ?

### **ALL**

- Pipe supplier : Quality control procedure, flushing and cleaning procedure before filling up with water, treatment recommendation for water
- Pipe supplier : new solutions for leak detection
- Smart solution for substation in order to decrease return temperature of District heating
- Smart solution in order to store heat in DH network
- Heat storage solution : geothermal or tank
- Heat pump high temperature production : new products
- Heat pump for heat recovery on exhaust gaz
- Specific products (pumps, heat exchangers) for geothermal application
- Typical standard PID diagram for heat production with both Heat pump + gaz boiler

## BACKGROUND

NORDIC HEAT is an independent peer-to-peer training and advisory service aiming to support the development of District Energy, Energy Efficiency, Energy from Waste (EfW), Waste Management, and other energy related Smart City infrastructure in Europe and beyond.

The activity was founded in 2014 by a group of municipality owned energy operators in Sweden, all with more than 50 years of experience in installing and operating profitable district energy schemes in a deregulated energy market.

## MISSION

- The role of Nordic Heat is to assist project teams in securing the swift implementation of high performing, reliable and competitive district energy and waste management solutions while minimising investment levels, operational costs and risks. A wider objective is to optimising the commercial, social, environmental and political benefits of investments in sustainable energy.
- Also to actively facilitate the efficient exchange of competences, experiences and new innovative technologies and practices, thereby strengthening the overall competitiveness of the sector.
- Nordic Heat also aims to help energy operators secure access to the best available professional and technical staff while reducing the cost of man-power.

## SERVICES

### ACADEMY

TRAINING SERVICES IN IN COOPERATION  
WITH LOCAL COLLEGES

MASTER CLASSES

STUDY VISITS/ WORKSHOPS

VOCATIONAL TRAINING

EXCHANGE PROGRAMMES

>3000 participants in 12 markets since 2014

### ADVISORY

PEER-TO-PEER CRITICAL FRIEND SERVICES  
AND EXCHANGE OF BEST PRACTICE

CRITICAL FRIEND REVIEWS

PROCUREMENT

SUPPORT & PLANNING

REINFORCEMENTS

Active assignments across Europe and beyond



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