



Preliminary programme and related activities (technical tours and social events) :

Preliminary conference programme

| Date/Day | Morning | Afternoon | Evening |
|-------------------|--------------------------------------|---|---|
| Sunday June 24 | | | Welcome reception |
| Monday June 25 | Plenary session Parallel sessions | Parallel sessions | Cocktail party / free evening |
| Tuesday June 26 | Plenary session Parallel sessions | Parallel sessions Technical tours (optional) | Conference dinner - all delegates and partners |
| Wednesday June 27 | Plenary session Parallel sessions | Parallel sessions | Conference ending reception |

Notes:

This programme is tentative - a final programme will be concluded shortly after the abstracts deadline.

The morning session will include plenary sessions to promote networking and interaction between conference delegates.

Prospective technical tours and social events:

- Prospective technical tours :
 - tour to an industrial ammonia refrigeration plant;
 - tour to supermarket-systems with natural refrigerants like ice slurry and/or CO₂ ;
 - tour to the energy systems of a flower distribution centre;
 - tour to a combined low temperature/high temperature energy system (e.g. swimming pool/ice rink refrigeration plant);
 - tour to a low energy heat pump based greenhouse.
- Partners tours - shopping, places of interest tours of Delft, Leyden and Amsterdam - over three days, simultaneous with the conference sessions. Walking tours of Delft and neighbouring Leyden, which includes the Museum Boerhaave, an important collection from the Dutch Noble Prize winner and founder of the KNVvK, Prof. Dr. Heike Kamerlingh Onnes.

Plans to promote the event (to participants and speakers/authors):

Below is a list of advertising avenues for promoting the event to speakers/authors and participants.

- Local and international governments
- Industry associations
- Website (dedicated URL)
- Industry journals

Other things to consider

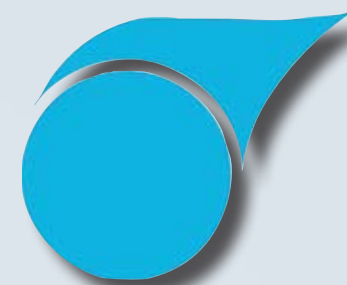
Web site

A dedicated website for the Gustav Lorentzen conference will be operational in summer 2010.

The website from the KNVvK [www.knvvk.nl] will support the conference with a special section outlining the conference and its ongoing organisation.

Publishing

In agreement with the IIR conference organising procedures, technical papers will be published on a CD-ROM prior to the conference.



The 10th Gustav Lorentzen Conference on Natural Refrigerants

Delft, The Netherlands
June 25-27, 2012



Conference organisers

- KNVvK (Royal Dutch Association of Refrigeration)
- TU Delft - Delft University of Technology



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Location

TU Delft,
The Netherlands

Date

June 25-27, 2012



10th IIR Gustav Lorentzen Conference 2012

10th IIR Gustav Lorentzen Conference 2012

25 - 27 June 2012 | Delft, The Netherlands

natural refrigerants - real alternatives

Foundation Gustav Lorentzen conference 2012

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About Delft, The Netherlands

Delft is one of the world's most beautiful university towns. Close to Amsterdam, Delft's perfectly preserved historical quarter offers visitors spectacular stately mansions, pubs, grand cafes and galleries alongside interconnecting canals. Surrounding the city are flower and bulb fields and the North Sea with long beaches and relaxing locals. Delft has an extensive program of summer festivals, memorable art and cultural activities, first class restaurants and excellent shopping. Delft's temperate climate makes it an ideal destination whatever the season - the mean summer daily temperature is 25°C.

Conference information

This conference will present an invaluable program of international speakers appealing to both the local refrigeration and heat pump community and international delegates.

With the HCFC phase out taking place between 2010 and 2015, and the Kyoto and Copenhagen agreements in mind, the conference will be an excellent opportunity to convince the Netherlands refrigeration market of the opportunities and benefits that natural refrigerants and renewable cooling holds in reducing carbon emissions. The Gustav Lorentzen biennial conference will be a unique opportunity to approach and network with the Netherlands refrigeration market in one assembly.

Objectives of the conference

Substances as ammonia, hydrocarbons, water, air and carbon dioxide are all naturally present in the biosphere. The process of replacing CFC, HCFC and HFC chemicals with natural refrigerants is increasingly adopted by the refrigeration, air conditioning and heat pump industries.

The main objective of the conference will be to discuss the latest research results and advances related to the use of natural working fluids in different types of systems and application areas.

Areas due to be discussed are as follows:

- *Natural primary refrigerants*
- *Secondary coolants and (ice) slurries*
- *Low emission and low charge systems*
- *Sorption systems*
- *Non-conventional refrigeration systems*
- *Heat transfer and fluid flow*
- *Evaporative cooling*
- *Energy efficiency in relation with used refrigerants*
- *Using low GWP-refrigerants*
- *Cogeneration - Combined Heat and Power (CHP)*
- *Recovering heating and cooling energy in soil and buildings*
- *Energy neutral systems*

A detailed technical overview will be completed by the Scientific Committee.

Previous Gustav Lorentzen events took place mostly in Europe, and the KNVvK anticipates a conference in The Netherlands will attract a host of local participants, and international delegates. The event will also be a unique opportunity for international delegates to learn where the Netherlands currently stands on the research into and application of natural refrigerants.

Conference organising committees:

Structure of the IIR conference committee

Gustav Lorentzen - 2012 committee - The committee is based on the participation of members from the KNVvK working together with the FKL (Federation of Refrigeration and Air-conditioning) and the Delft University of Technology.

Format of the conference:

- The major part of the conference will follow strict guidelines of Scientific IIR conferences.
- Papers that contribute to introducing new technologies for natural refrigerants or demonstrate the use and management of natural refrigerants, including legislation and market trends, will be presented.

This format will enable the KNVvK to promote the conference to a wider group of people involved in the use of natural fluids in refrigeration and heat pump applications.

It will also allow the scientific community to network with the varied parts of the natural refrigerants industry.

International scientific committee:

The Organizing Committee will invite the Presidents and Vice-Presidents of IIR commissions **B1** (*Thermodynamics and transfer processes*), **B2** (*Refrigerating equipment*), **E1** (*Air conditioning*) and **E2** (*Heat pumps, energy recovery*) to participate in the International Scientific Committee of the Conference.

Partners and prospective sponsors:

- Ministry of Environment
- IIAR
- Local and international manufacturers
- Engineering contractor associations
- Governments

