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Draft proposal for the establishment of ”International Information Centre for Sustainable Refrigeration and Heat Pump Technology” (ICST)

Contents

Introduction

This document contains a draft proposal for the establishment of ”International Information Centre for Sustainable Refrigeration and Heat Pump Technology”, ”Information Centre for Sustainable Technology” or abbreviated simply ”ICST”.

Mission and objective

The main idea is that ICST shall represent an international neutral technological un-political and transparent platform for everybody, who deals with all types of refrigerant applications such as refrigeration systems, heat pumps, Air Conditioning at a political, scientific and practical level.

ICST shall work towards the establishment of a global alliance for “the right selection of refrigerant for the application” with regard to environmental, financial, technical and social aspects, including the promotion of environmentally friendly refrigerants with minimum influence on the ozone layer and with minimum

global warming, meaning natural refrigerants such as HC, NH_3, CO_2, etc. Synthetic refrigerants such as CFC, HCFC, HFC or HFO could also be "the right selection of refrigerant for the application", but the aim is to reduce the amount of applications, where natural refrigerants cannot be used, to a minimum.

Political level

ICST shall work to ensure that persons who participate in and have influence on national and international decision-making processes have access to and support from a neutral impartial scientifically sound and undisputed basis of knowledge so decisions to highest possible degree support and do not counteract the aim to minimise harmful effects on the global environment.

Scientific level

ICST will work for "networking" for the purpose of supporting international exchange of state-of-the-art knowledge and experience.

Practical level

ICST shall work for international exchange of knowledge and experience and among other things support "exchange programmes" for posting people of different nationalities. The practical level comprises all "executors" including, consultants, project planners, installers, skilled workers etc.

The primary tool to meet the mission and objective is to give everybody worldwide access to updated network and knowledge on a international web-portal – in English language.

Background

The background for the work with ICST is the global climate problem that has been handled at international, political level with regulations via the Montreal, Kyoto and COP15 protocols with phase-out of ozone-depleting substances and refrigerants with global effects.

The idea to establish ICST originated in the Danish "Information Centre for HFC free Cooling" where it is regarded as a continuous development and internationalisation of the Danish concept. The idea has been developed and further strengthened and inspired by the "Forum discussion" concerning the "Montreal Protocol and uptake of natural refrigerants" at the 9th IIR Gustav Lorentzen Conference in Sydney in April 2010.

Interested parties

All authorities, organisations, companies and persons dealing with all refrigerant applications for refrigeration systems, heat pumps, A/C (stationary and mobile) could be interested in and benefit from the establishment of ICST.

International and national authorities

For instance: The European Commission, The Danish Environmental Protection Agency (Information Centre for HFC free Cooling).

International organisations

For instance: United Nations Environment Programme (UNEP), the United Nations Framework Convention on Climate Change (UNFCCC Secretariat), the United Nations Development Programme (UNDP), the World Bank, Intergovernmental Panel on Climate Change (IPCC), Ozone Secretariat, TEAP (under United Nations Environment Programme, Ozone Secretariat) with the sub-group Refrigeration, Air-Conditioning and Heat Pumps Technical Options Committee (RTOC), Multilateral Fund, and United Nations Industrial Development Organization UNIDO.

International technical organisations

For instance: International Institute of Refrigeration (IIR), International Institute of Ammonia Refrigeration (IIAR), ASHRAE, Air-conditioning and Refrigeration European Association (AREA).

Universities and Scientific Technological Centres

For instance: SINTEF, Kungliga Tekniska Högskolan KTH, Danish Technological Institute DTI.

Companies and persons

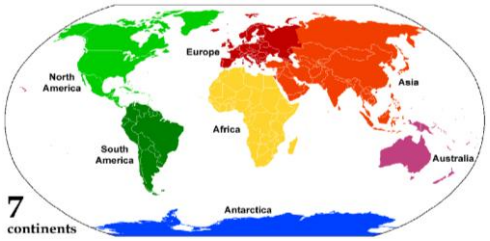
For instance: Danfoss, Carlsberg, IKEA, McDonalds, Coca Cola

Non-Governmental Organisations (NGO´s) and Environmental Non Governmental Organizations (ENGO´s)

For instance: Refrigerants, Naturally!, Green Cooling Association Inc., Greenpeace, R744.com, Ammonia21.com, Hydrocarbon21.com, International Energy Agency (IEA) and European Partnership for Energy and the Environment (EPEE), Environmental Investigation Agency IEA, Institute for Governance and Sustainable Development IGSD, BeyondHFCs, Noé21.

Organisation

During the start-up phase, the initiative was taken and the proposal was prepared by a small working group with participants from Denmark and Australia. After the establishment of ICST the plan is to let a secretariat carry out operations with substantial assistance from all participating authorities, organisations, companies and persons world-wide subdivided into the countries in the world's 6-7 continents.



Financing and resources

Establishment/start-up

Hopefully, a large part of the initial expenses can be financed by selected international organisations. Mainly resources for the establishment of the secretariat, start-up of the homepage and the operation of the initial operating period are in question.

Operation after establishment/start-up

We hope that daily operation and keeping up to date of the international part will be partly financed by international organisations and national authorities and that the rest can be covered by membership fees from individual participants. At national level, each participant will have to find local funds.

Activities and tasks

During the start-up phase, the main ICST activities could as a starting point be:

Political level

Establishment of an international network of persons who participate in and have influence on national and international decision-making processes.

Scientific level

Establishment of international network of persons who work with state-of-the-art knowledge and experience within the field of refrigerants.

Practical level

Establishment of international network of parties who aim at exchange programmes for posting of persons with different nationalities with regard to international exchange of knowledge and experience.

Establishment of the secretariat and homepage of ICST

Establishment of the secretariat of ICST at Danish Technological Institute.

Establishment of the international web-site www.refrigerantfactbook.com. As a starting point the homepage could be constructed according to the following sitemap suggestion:

The Refrigerant Factbook

For Network & Knowledge

Welcome

- Objective
- Organisation
- Working Groups
- Members
- Activities
- Contact

Refrigerants

- CFC and HCFC
  HFC and HFO
  HC, NH_3 and CO_2 Natural Refrigerants

The world

- Political level
  - Global status report (worldwide legislation and other regulation within the field of refrigerants
    Global contacts (international "authorities", organisations, etc.)

  Scientific level
  - Global status report (international technological stage, education, etc.)
    Global contacts (international organisations, etc.)

  Practical level
  - Global status report (education, matrix with applications and refrigerants, etc.)
    Global contacts (international organisations, etc.)

The world's 6 main continents in alphabetical order

- Africa
  - Political level
    - Continental status report (legislation and other regulation within the field of refrigeration)
      Continental contacts (authorities, organisations, etc.)

    Scientific level
    - Continental status report (technological stage, education, etc.)
      Continental contacts (organisations, etc.)

    Practical level
    - Continental status report (education, matrix with applications and refrigerant, etc.)
      Continental contacts (organisations, etc.)
- ~~Antarktika (Antarctica)~~
- Asia
  … all continents with same sub-levels as Africa as the first continent
- Australia
- Europe
- North America
- South America

All countries in the world in alphabetical order

- Afghanistan
  - Political level
    - National status report (legislation and other regulation within refrigerants)
      National contacts (relevant authorities, organisations etc.)

    Scientific level
    - National status report (R&D activities, technological stage, education, etc.)
      National contacts (organisations, universities, knowledge centres, places of study, etc.)

    Practical level
    - National status report (matrix with applications and refrigerants, etc.)

National contacts (organisations, places of study, matrix with applications and refrigerants, etc.)

- Akrotiri? (Akrotiri)

… all countries with the same sub-levels as in the first country

Calendar

List of relevant larger arrangements (globally, continentally and nationally)

Publications

- Newsletters

Presentations, reports, papers and articles

Note: Perhaps i.a. the part of IIR´s FRIDOC that is related to refrigerants

Position statements

Guidelines, best practice

Links

Outline of global, continental and national links.

Proposers

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The Danish “Information Center for HFC Free Cooling” is financed by the Danish Environmental Protection Agency (EPA) and was founded in 2005 on initiative from 4 Danish refrigeration associations. The mission is to minimize the use of HFC´s for refrigeration. The objectives are to create a basis for quick introduction to HFC free cooling, to spread information and know-how about HFC free refrigeration systems to installers, consultants, contractors, customers …, and to give advice and provide technical assistance free of charge to a certain extent. The Centre is still in operation. ICST can partly be seen as a development of the Danish concept into a worldwide international set-up.

The Danish Technological Institute DTI is a self-owned and non-profit institution. The Institute develops, apply and disseminate research- and technologically-based knowledge for the Danish and International business sectors. As such the Institute participates in development projects which are of use to society in close collaboration with leading research and educational institutions both in Denmark and abroad.