



Wednesday, 10 October, 12 noon to 5 pm

## Future trends in sustainable cooling

In the tropics and sub-tropics the development of refrigeration and air conditioning nowadays has the same status as heating in the North. Air conditioning units and refrigerators already consume 20% of the electrical energy world-wide. The International Energy Agency (IEA) calculates that by the year 2030 the energy consumption for air conditioning in developing countries and emerging nations will be four times what it is today.

Climate-friendly solutions in air conditioning are already available and starting to enter the fast-growing market. In this event, experts from industry, government and international cooperation will discuss their experience with innovative products for stationary air conditioning using hydrocarbon refrigerants.

The Federal Environment Agency (UBA) provides scientific support to the federal government regarding environmental questions, amongst them general topics such as energy efficiency and more particular ones such as the use of climate friendly refrigerants. Recently, the report "Avoiding fluorinated greenhouse gases – prospects for phasing out" was published which highlights the readiness and high potential of natural refrigerants to replace hydrofluorocarbons (HFCs) in products and appliances.

Commissioned by the German federal government, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH implements sustainable solutions for refrigeration, air conditioning and insulation world-wide with its programme Proklima. In this event, Proklima will present success stories from cooperation projects regarding stationary air conditioning with natural refrigerants that have been implemented under the International Climate Initiative of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU).

Among these cooperation partners is the Indian manufacturing company Godrej & Boyce that has developed an energy-saving R290 split-type air conditioner and recently introduced it in the Indian market.

### Programme (preliminary)

- 12.00 **Lunch**
- 13.00 **Welcome**
- 13.15 **Demonstration projects worldwide: Proklima projects under the International Climate Initiative**  
Bernhard Siegele, GIZ Proklima
- 13:45 **Panel discussion on cooling needs, trends and technology cooperations**  
Dilip Rajadhyaksha, Godrej, India, on R290 air-conditioner  
Jens Schuberth, UBA on energy efficiency, cooling agents and eco-design  
Nina Masson, shecco, on market trends for technology based on natural refrigerants  
Barbara Gschrey, Ökorecherche on scenarios for stationary air conditioning in Germany  
Bernhard Siegele, GIZ Proklima on cooling, growth, climate change
- 15.00 **Coffee break**
- 15.30 **Climate-friendly cooling with hydrocarbon chillers, tbc.**
- 16.00 **Practical experiences in the design of room air conditioners with hydrocarbon refrigerants**  
Daniel Colbourne and Rolf Hühren, Proklima

### Venue:

Chillventa 2012, room location to be announced

### Contact and registration:

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An event hosted by:

**giz** Deutsche Gesellschaft  
für Internationale  
Zusammenarbeit (GIZ) GmbH

**Umwelt  
Bundes  
Amt**  
for our Environment

On behalf of

 Federal Ministry for the  
Environment, Nature Conservation  
and Nuclear Safety

of the Federal Republic of Germany