

Training more trainers

GIZ Proklima actively supports the spread of knowledge and know-how on RAC systems based on natural refrigerants. *Cool Training* allows RAC experts and trainers from developing countries and emerging economies to advance their expertise towards a sustainable path and act as local multipliers in their countries and regions.

- The training is held up to four times a year.
- A two-week training for RAC experts and technicians as well as a one-week training for policymakers in the field of ozone and climate protection are available.
- Regional replications of the training are set to take place in 2016.
- The organizing body is open for nominations of participants.



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Proklima

Proklima is a programme of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. Proklima provides technical assistance for developing countries since 1996, commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) to implement provisions of the Montreal Protocol on substances that deplete the Ozone Layer. Since 2008, Proklima has also been working successfully on behalf of the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) under its International Climate Initiative (IKI) to promote ozone- and climate friendly technologies.

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Cool Training

A series of trainings for international refrigeration
and air conditioning experts.

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Background

With the ever-growing demand for cooling, only natural refrigerants are truly sustainable and friendly to the ozone layer and the climate. Therefore, GIZ Proklima promotes the sustainable transformation of the refrigeration and air-conditioning (RAC) sector towards the use of natural refrigerants and foam blowing agents. This is not only essential in avoiding harmful emissions, it is also a key instrument in achieving higher energy efficiency. Promoting the benefits and know-how of RAC systems with natural substances is especially crucial in developing countries and emerging economies. GIZ Proklima promotes technology transfer and capacity development towards ozone layer and climate protection worldwide. With the experience and expertise gained from over 280 projects worldwide, GIZ Proklima has launched *Cool Training* – a series of international trainings on the safe use of natural refrigerants in RAC appliances.

About Cool Training

The trainings are carried out in cooperation with the Bundesfachschule Kälte-Klima-Technik (BFS), an international provider of vocational and advanced trainings in the area of RAC technology. The aim is to provide comprehensive knowledge and capacity for the operation and maintenance of cooling technology using natural refrigerants. These trainings are designed for specialized RAC experts and technicians that are active in developing countries and emerging economies.

GIZ Proklima also supports these RAC experts to act as knowledge multipliers in their home countries and regions. Additionally, a one-week *Cool Training* has also been developed for policymakers and stakeholders working on the topic of natural refrigerants and ozone layer and climate protection. These trainings include policy sessions on current developments in the RAC sector such as international standards, regulations, and policies.



“The training was an amazing opportunity, especially with the use of real equipment in the workshops.”

Wilberth Alvarado Marin
Cool Training Alumnus June 2014
RAC expert trainer from Costa Rica



The online alumni network serves as a platform for exchange among former participants as well as a point for receiving updates and technical publications.

See: www.green-cooling-initiative.org/cool-training/

Curriculum

The training is composed of 30% theory and 70% practical work, addressing the application of natural refrigerants for commercial refrigeration systems with focus on propane (R290) and carbon dioxide (R744). Ammonia (R717) is also addressed in the training.

The specific contents covered in theory and practice are:

- Refrigeration systems and heat pumps – safety and environmental requirements according to DIN EN 378 1-4
- Refrigerant circuit pipes joining and installation methods
- Brazer examination according to DIN EN ISO 13585
- Leak finding and tightness test activities in practice
- Application of propane (R290) as a refrigerant
- Application of carbon dioxide (R744) as a refrigerant

The training also involves excursions to innovative enterprises in Germany such as a refrigerant companies, RAC components manufacturers, and refrigeration plants that use natural substances.

The participant is awarded a certificate of completion after successfully finishing the training and the written examination.

Cool Training today:

Since the first training in June 2014, six *Cool Trainings* took place at BFS Vocational Center in Maintal. As of October 2015, around 90 trainers, lecturers, and representatives of National Ozone Units (NOU) and implementing agencies have officially been *cool-trained*. The *Cool Training* alumni represent 38 countries from all over the world.

