GUIDE to Natural Refrigerants Training

ATMOsphere America
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Alvaro de Oña

Group COO, shecco

GLOBAL MARKET ACCELERATOR FOR NATURAL REFRIGERANT BASED TECHNOLOGIES

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CONTENT – OVERVIEW

1. Guide to natural refrigerants training: project rationale
2. Guide to natural refrigerants training in Europe 2017: Main findings
3. Guide to natural refrigerants training in North America 2017: Preview

GUIDE TO NATURAL REFRIGERANTS TRAINING: PROJECT RATIONALE

01

PROJECT RATIONALE

A perceived lack of training among technicians and installers is often cited as a barrier to wider uptake of natural refrigerants-based HVAC&R technologies.

Reasons for lack of awareness for available training

- there is not a single body coordinating the training activities on natural refrigerants.
- EU legislation does not mandate the training providers to report about their activities on natural refrigerant training and number of people trained
- National authorities do not get a good picture about the availability of natural refrigerant training in their countries.

PROJECT GOALS

- To show that natural refrigerant training is in fact readily available for those who need it
- To provide an overview of the current market situation of training for natural refrigerants and its future outlook
- To consolidate a list/database of institutions that offer training

GUIDE TO NATURAL REFRIGERANTS TRAINING IN EUROPE 2017: MAIN FINDINGS

02

NEW REPORT SHEDS LIGHT ON NATURAL REFRIGERANT TRAINING

The Guide demonstrates that training is readily available.

Analyses survey responses and opinions from over 340 participants on a range of topics:

- Major trends in training on CO_2, HC & NH_3 in Europe.
- Figures for participation in training courses and growth prospects.
- Analysis of barriers and drivers of natural refrigerants training in Europe.
- Comparative analysis of supply and demand for training in Europe.

Provides a Directory of natural refrigerants training currently on offer in Europe.

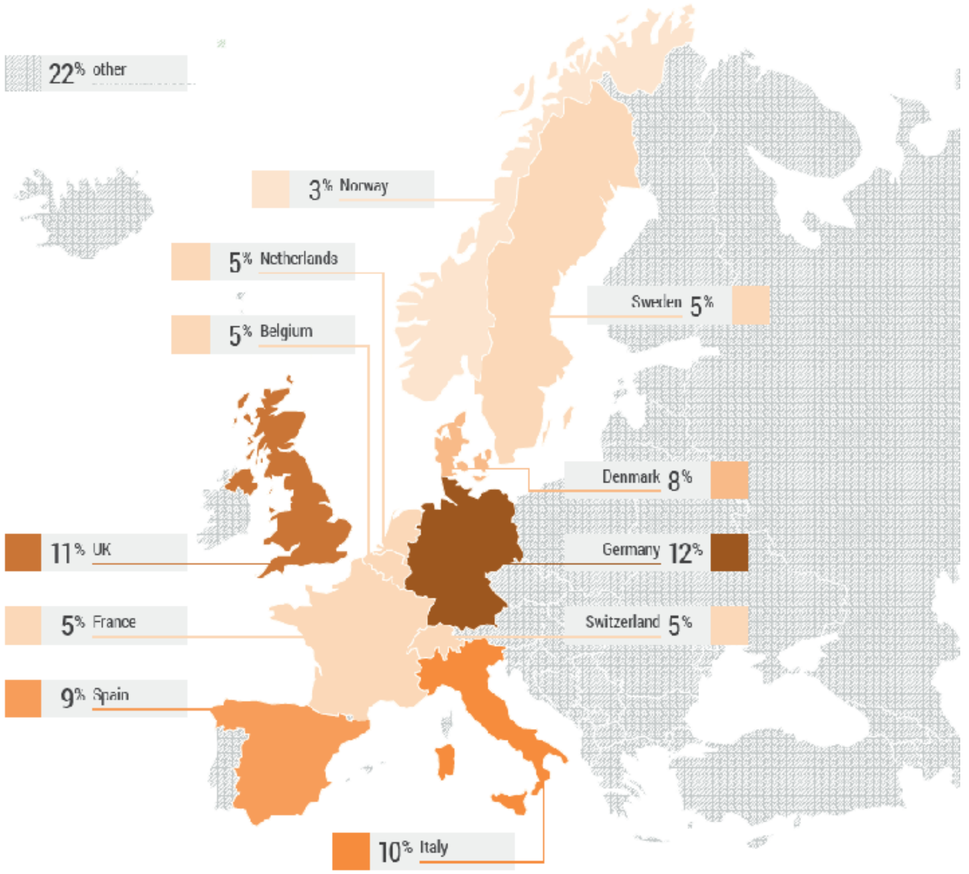
- List of almost 200 training providers located throughout Europe, according to needs.

http://publication.shecco.com/publications/view/guide-natural-refrigerants-training-europe-2017

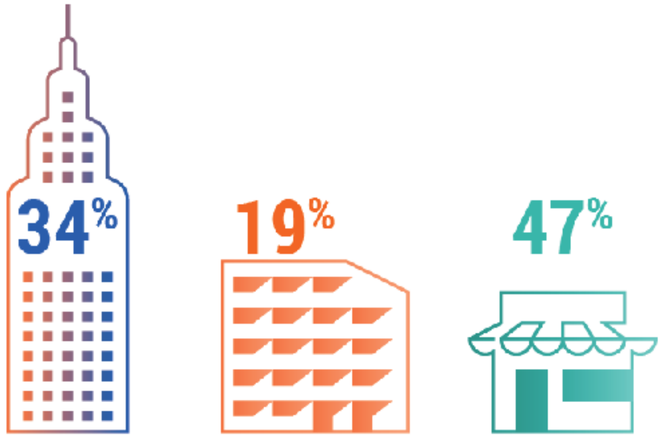
SURVEY REPRESENTATION PER COUNTRY

The location of the organisations that responded to the survey was predominantly in Western Europe

Fair share of representatives from Souther Europe



SURVEY REPRESENTATION PER COMPANY CHARACTERISTICS



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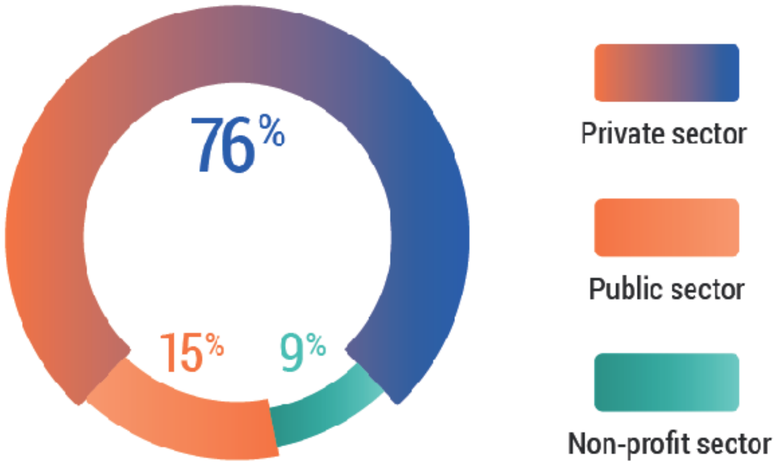

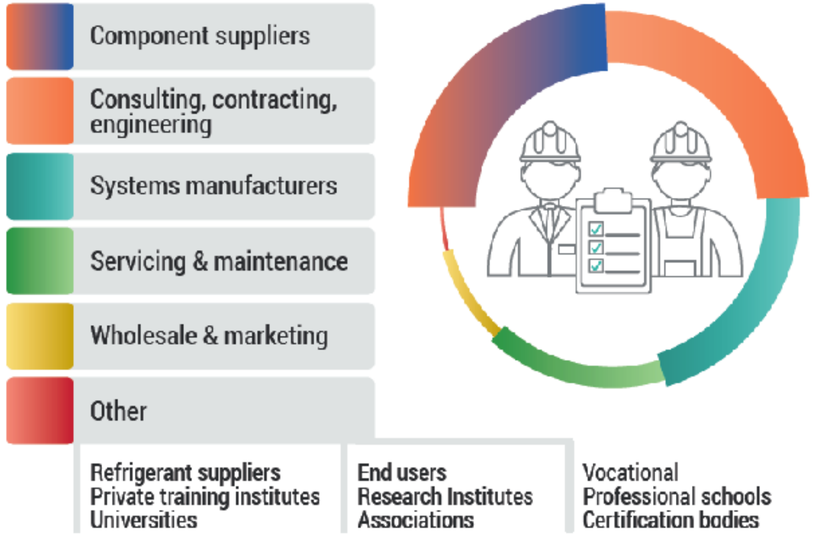

MAIN FINDINGS: NUMBER OF PEOPLE TRAINED

The location of the organisations that responded to the survey was predominantly in Western Europe

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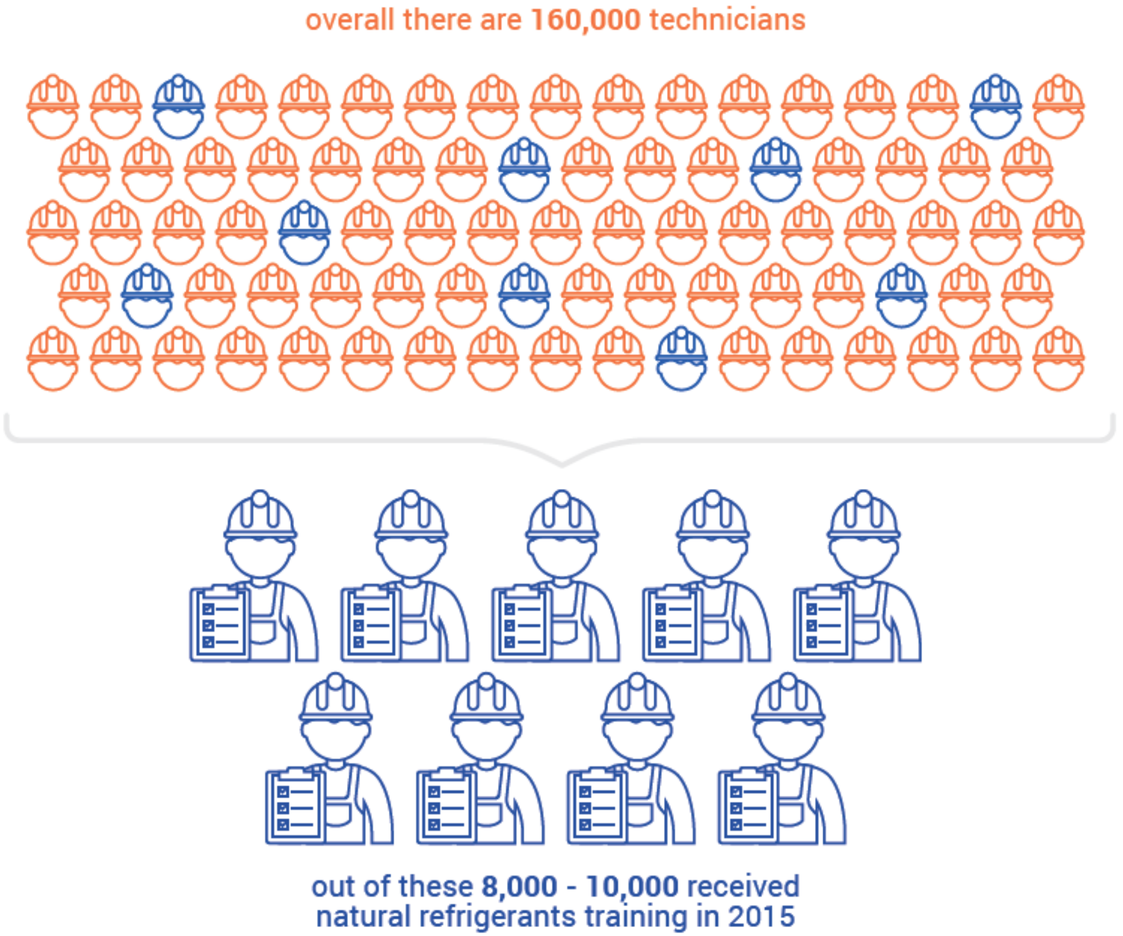
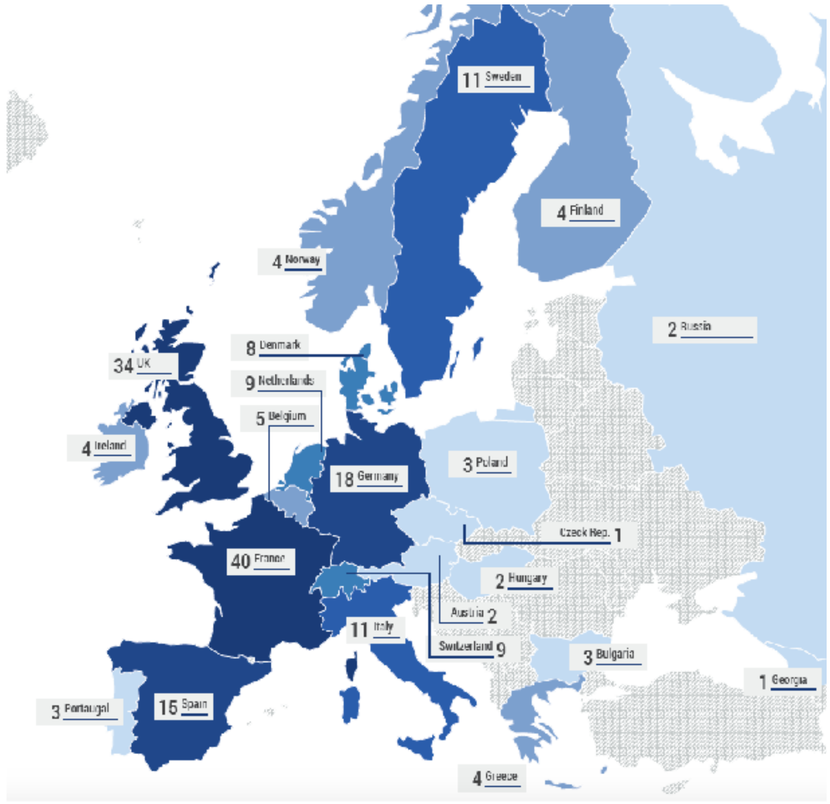


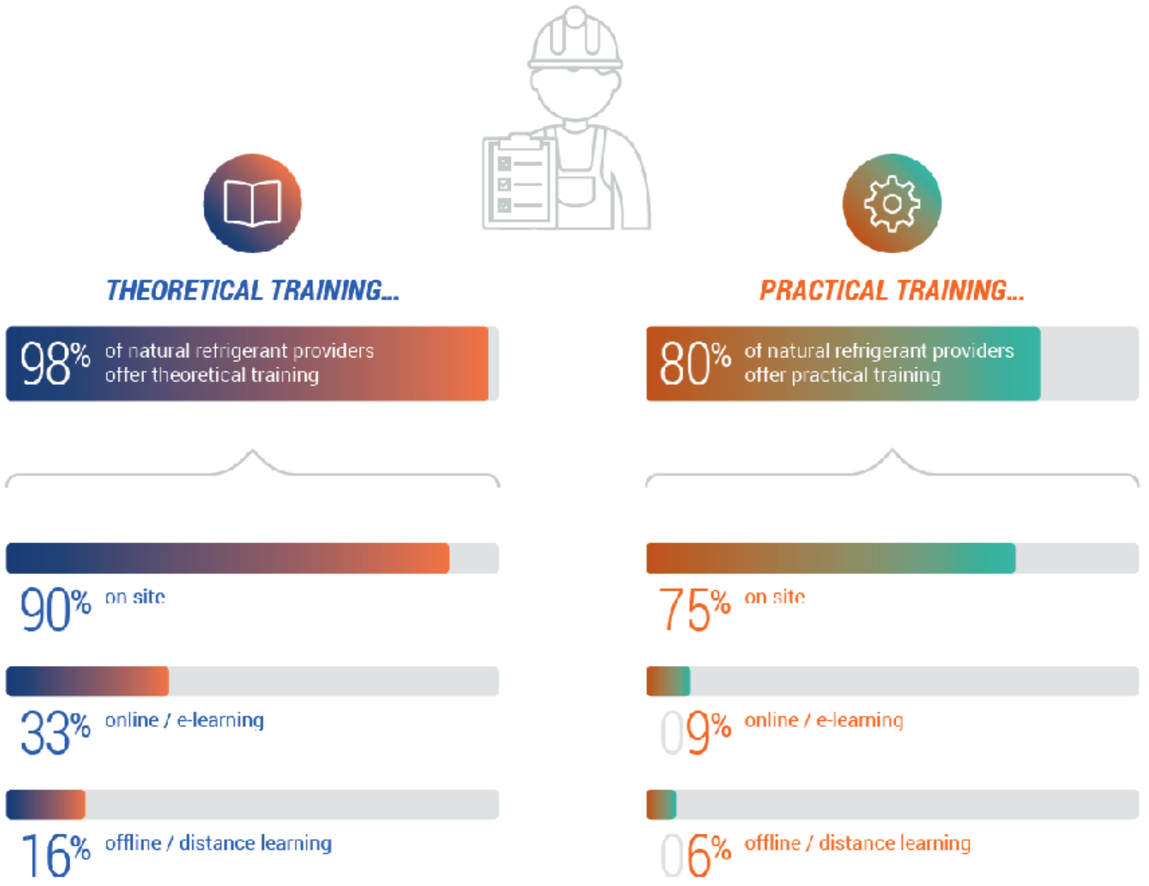
MAIN FINDINGS: TRAINING PROVIDERS

Close to 200 companies provide natural refrigerants training in Europe



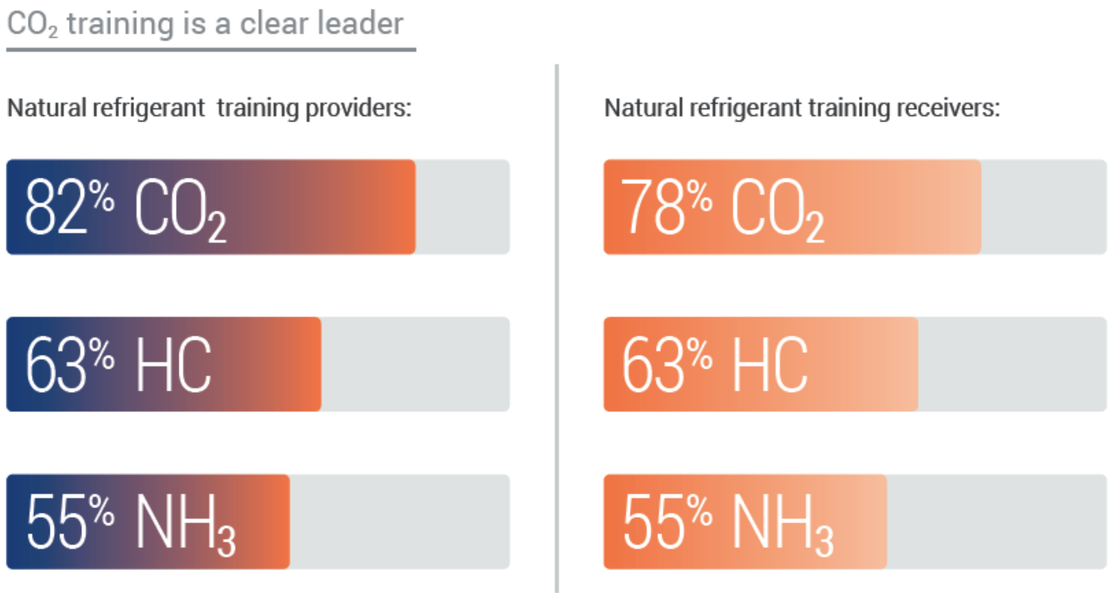
MAIN FINDINGS: TYPE OF TRAINING

80% of natural refrigerant training providers offer practical training either on-site or long-distance



MAIN FINDINGS: TYPE OF TRAINING DEMAND AND SUPPLY

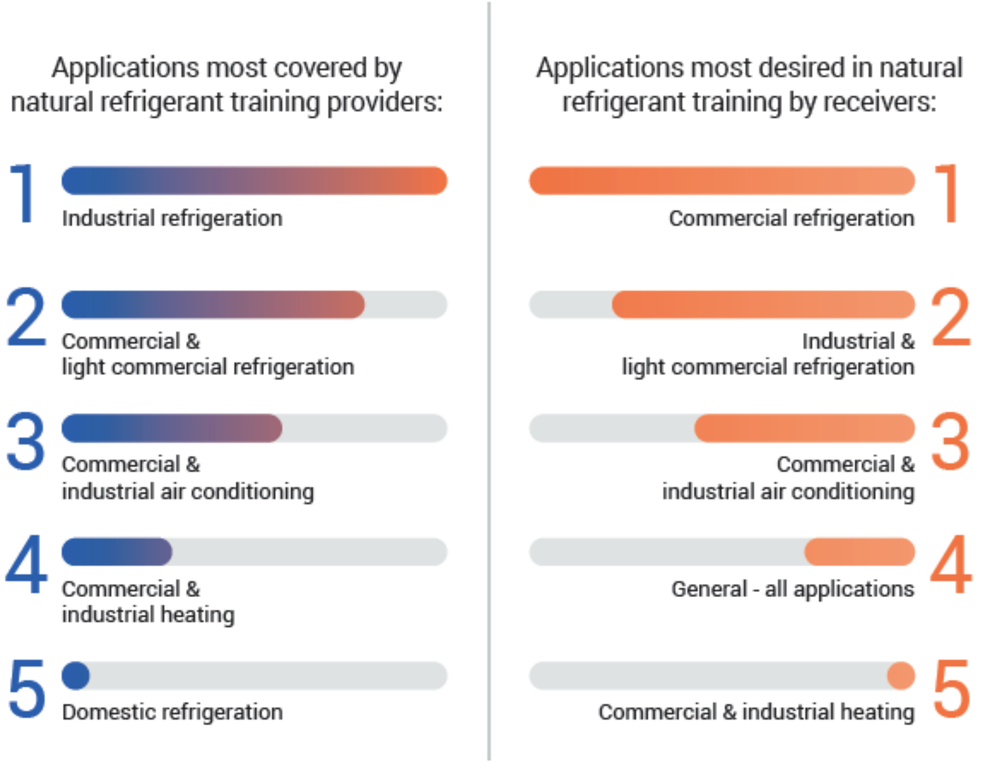
There is a good correlation between training natural refrigerant providers and receivers when it comes to the type of natural refrigerant for which they either receive or provide training.



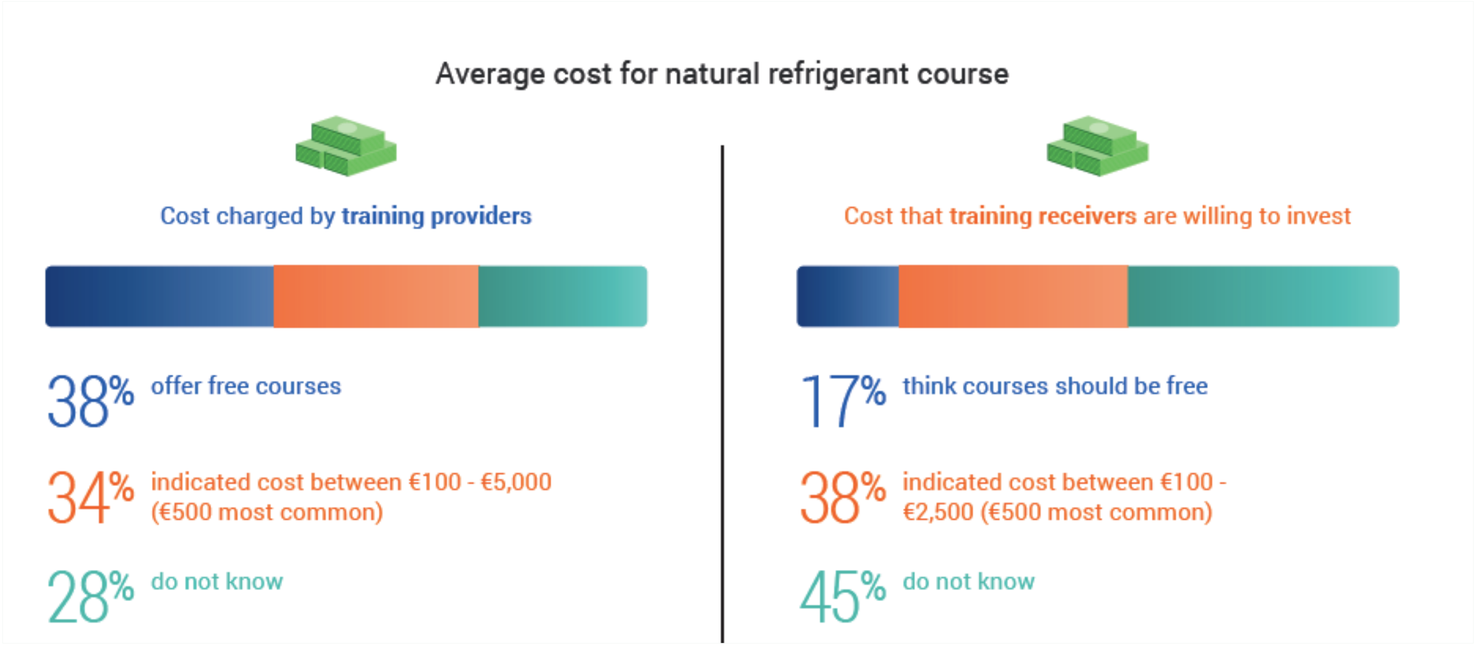
MAIN FINDINGS: APPLICATIONS DEMAND AND SUPPLY

Commercial, industrial and light commercial refrigeration rank the highest for both groups of respondents

This is in clear correlation with the market uptake of natural refrigerants in these sectors.



MAIN FINDINGS: COST OF TRAINING



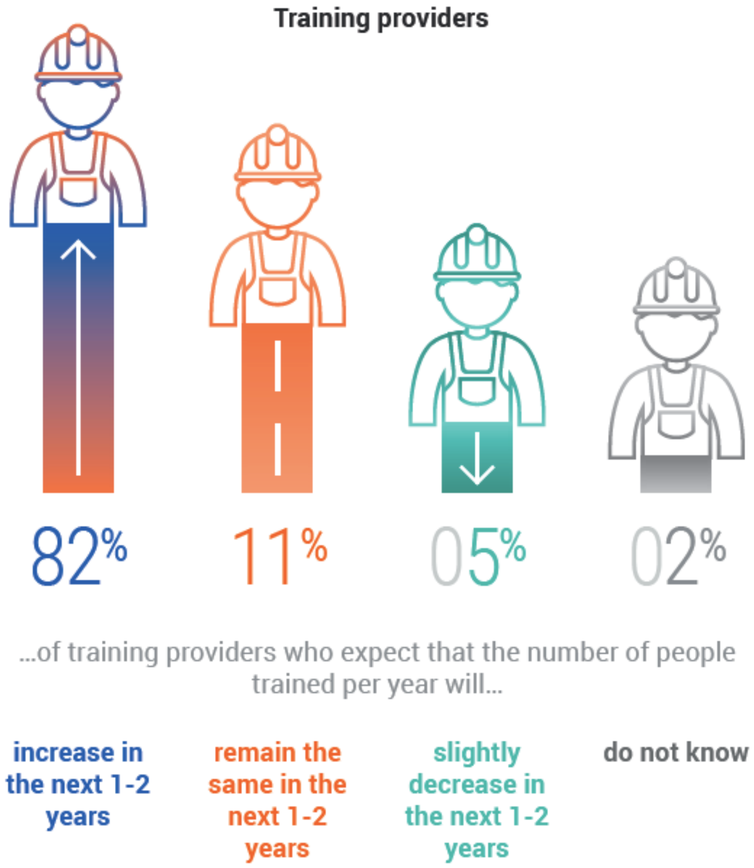
Over a third of the training providers said they offer their courses free of charge.

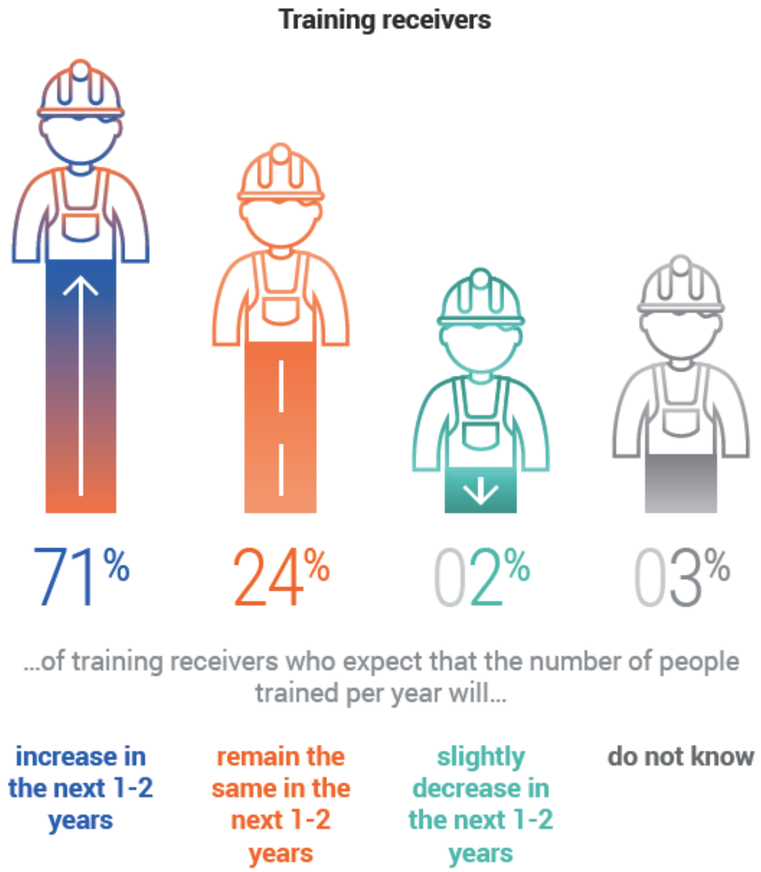
Less than one fifth of training receivers responded that they think courses should be free.

→ Lack of awareness !!!

Better communication about the availability of free training courses, key step to improve knowledge of natural refrigerants, and their position in the market

MAIN FINDINGS: EXPECTATIONS FOR NUMBER OF PEOPLE TRAINED



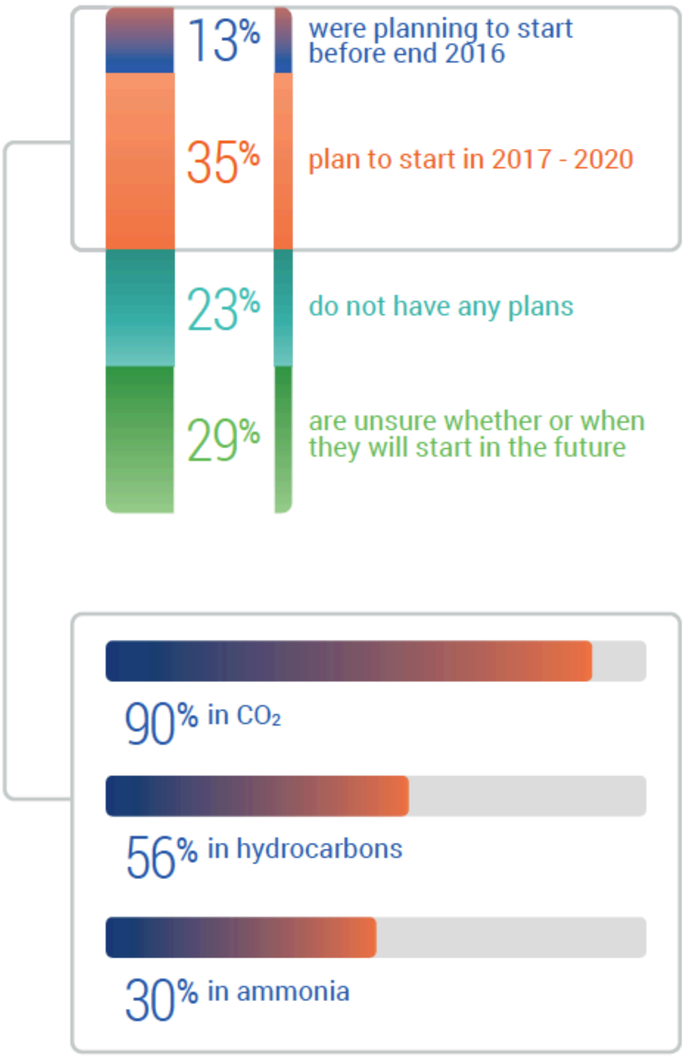


Industry highly optimistic about the uptake of natural refrigerant training in the next 1-2 years

MAIN FINDINGS: FUTURE PLANS OF PEOPLE NOT INVOLVED WITH TRAINING

Out of the respondents that do not offer / receive natural refrigerants training today…

Half of survey respondents who currently do not provide or receive training on natural refrigerants said that they plan to do so in 2016-2020



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03

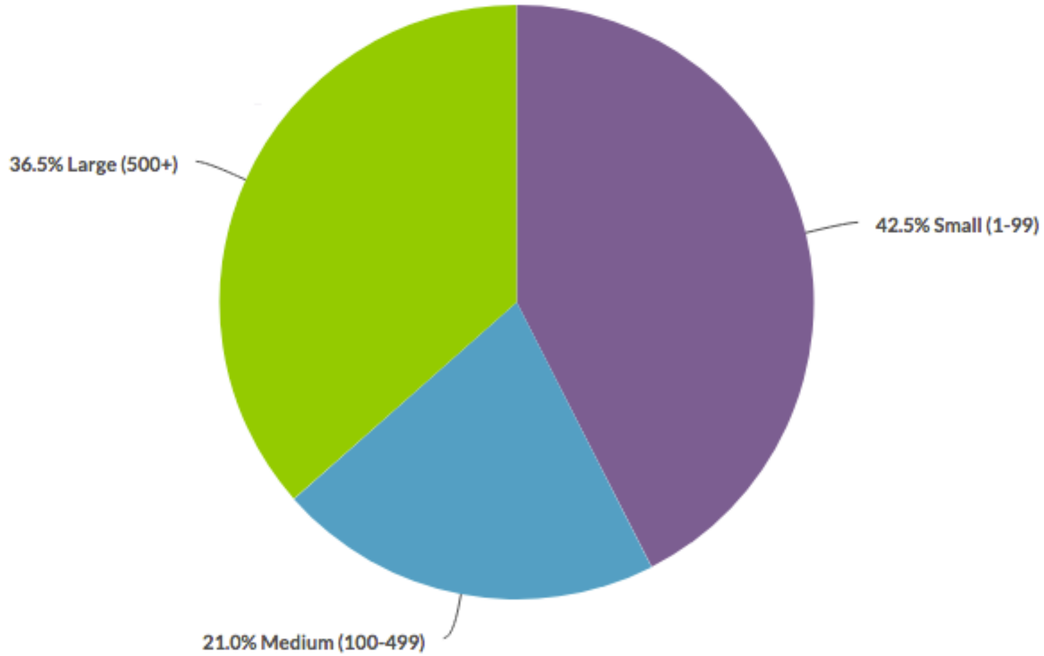
MAIN TRENDS: SURVEY REPRESENTATION

181 answers out of which 40% are training providers

Majority of respondents are located in the US

42.5% of respondents are from small companies

Almost 80% of training providers are system manufacturers or contracting engineering companies

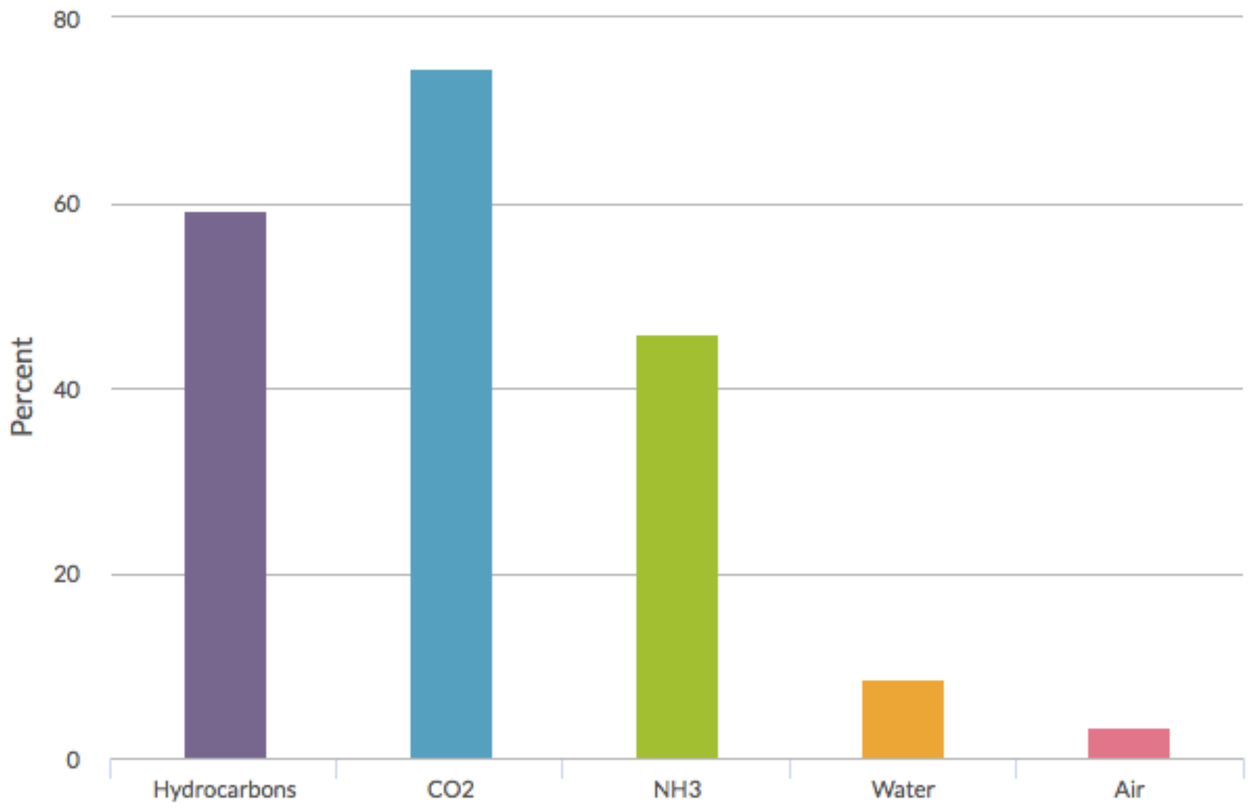


MAIN TRENDS: TRAINING PROVIDED PER NATURAL REFRIGERANT

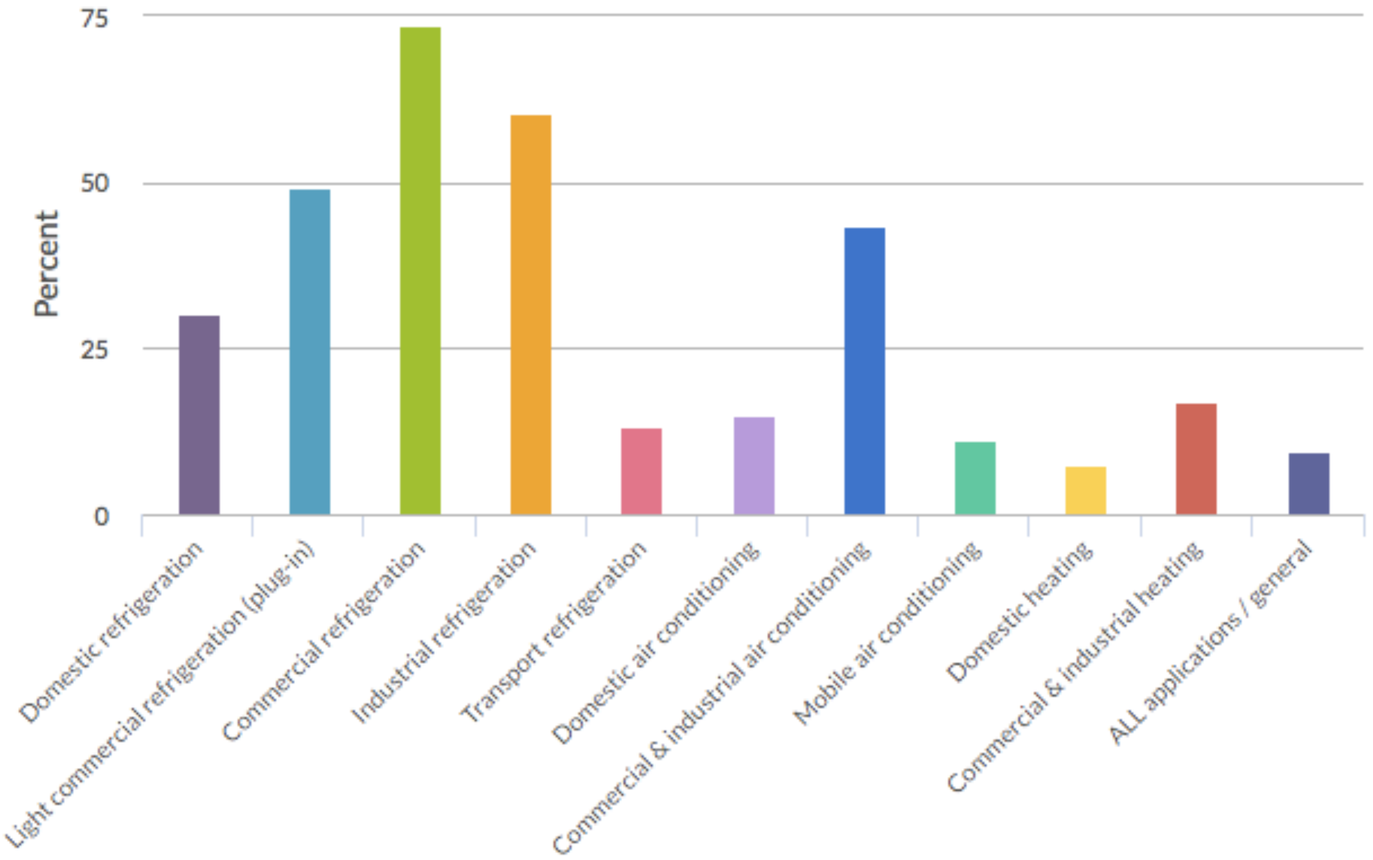
75% of providers offer tr

60% offer training for hy

46% offer training for an

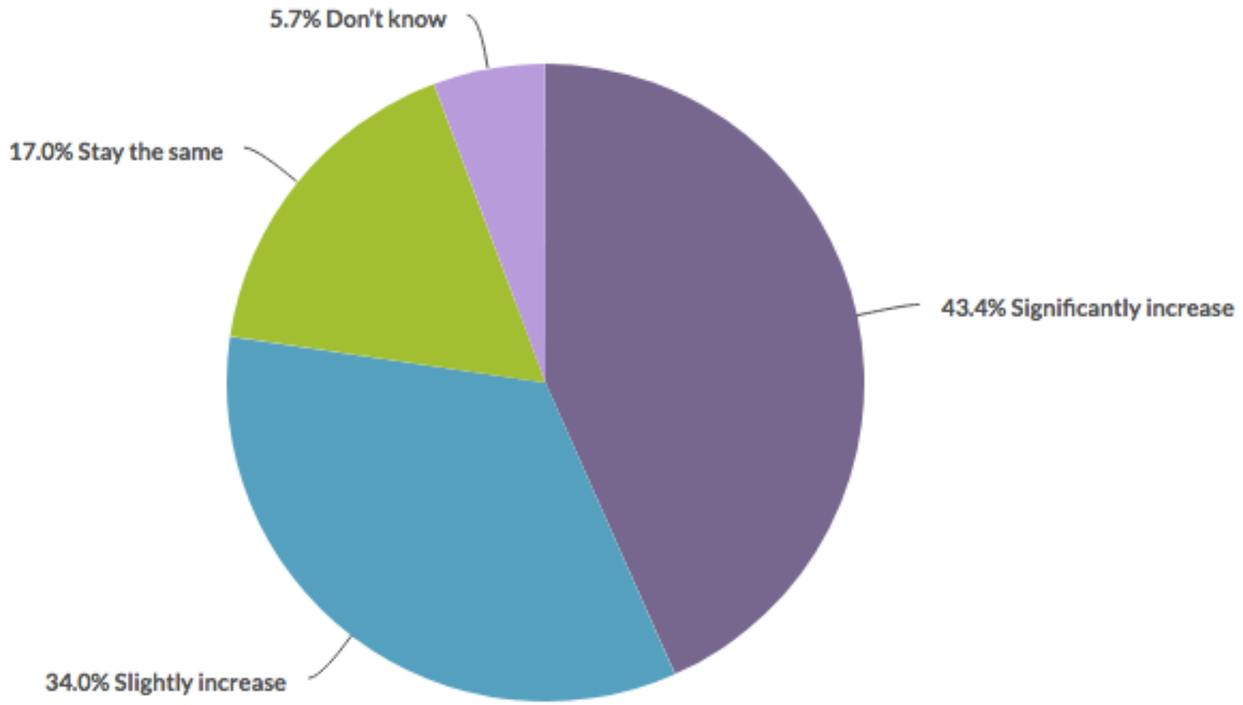


MAIN TRENDS: TRAINING PROVIDED PER APPLICATION



Refrigeration is the type of training most providers offer with commercial leading the group at 74% and industrial following at 60%

MAIN TRENDS: EXPECTATIONS FROM PROVIDERS OVER THE NEXT 1-2 YEARS



More than 75% of training providers expect that the number of people trained in the next 1-2 years will increase, with 43% saying it will significantly increase

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Industry Platforms:

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www.R744.com

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