

Refrigerants, Naturally! for LIFE

ACTION C4:

REFRIGERATION, AIR CONDITIONING AND HEAT PUMPS (RACHP) SCHOOL WITH MASSIVE OPEN ONLINE COURSES (MOOC) ON RACHP TECHNOLOGY, POLICY & MARKET

RACHP School MOOC platform Concept

Course for small food retail shop owners

Course overview	This course introduces the topic of climate change and the role of the food retail sector. It provides an overview of climate-friendly cooling alternatives and shows approaches towards sustainable stores. The course is part of the Refrigerants, Naturally! for LIFE project and is complemented by a parallel course for RACHP contracting and servicing companies and technicians.
Objectives	The overall objective of this course is to inform owners of small food retail shops on climate change, the related political framework, and the role supermarkets play in order to achieve climate targets. It informs on climate friendly technical solutions already available on the market, provides an overview on criteria for choosing the right equipment for small food retail shops as well as guidance on how to become a sustainability leader in the small food retail-sector.
Target audience	This course is meant for owners of small food retail shops (sales area < 1,000 m ²) who would like to better understand how their business is linked to climate change and what they can do to not only reduce their electricity bills and achieve legal requirements but also to actively reduce emissions and become a sustainability leader in their sector. Are you aware of the importance and impact of RACHP equipment in your shop? Do you want to make sure you are up-to-date with legal requirements that are relevant for you as a shop owner? Are you in the process of renewing your store equipment such as cooling appliances for food preservation, shop air conditioning and heating? Are you thinking of your own sustainability strategy or do you want to make sure your RACHP equipment is adequately covered in your existing strategy? Are you looking for best practice in terms of energy-efficiency and climate-friendly cooling? Then this is the right course for you!
Course structure	This course is divided into 5 modules. Each module contains two to four lessons using multimedia presentations, texts and quizzes. The completion of each module requires about 15- 30 minutes. Additional time can be spent on case studies, more extensive guidance documents and other material that complement the content of each lesson.



	The learning experience is more rewarding if the lessons are spread out over several days or weeks, therefore, an optimal learners' schedule will be suggested. All modules are independent from each other and can be done in accordance with the learners' interest and knowledge. There is no need to work on the modules one after another, but different entry points to the course can be chosen.
	 Introduction / Overview Module overview 1.1 Scope and objective of online course 1.2 Current situation of RACHP equipment in the European food retail sector Climate target and what they mean for shop retailers Options for GHG mitigation: Overall carbon footprint, options for lowering the energy consumption and the carbon footprint Energy and refrigerant consumption of RACHP equipment, overview of system types and energy efficient cooling technologies for the food retail sector End of module quiz
Module 2	 Climate change / global warming / energy efficiency Module overview 2.1 Climate change (and the role of supermarkets) 2.2 GHG footprint of the store GHG protocol corporate standard: Scope 1,2 and 3 emissions Direct and indirect emissions Calculating Scope 1 and 2 emissions Calculating the Total Equivalent Warming Impact (TEWI) Climate impact of RACHP equipment in the store 2.3 Energy Efficiency Understanding energy performance coefficients and calculating methods Rating and Labelling Relevance of servicing and consumer behavior for Energy Efficiency End of module quiz
Module 3	 Legal requirements of relevance Module overview 3.1 Montreal Protocol, Kigali Amendment 3.2 Paris Agreement 3.3 European Green Deal 3.4 EU F-Gas Regulation 3.5 Relevant EU Directives (with a focus on the building directive) 3.6 National laws 3.7. Financial support schemes End of module quiz
Module 4	 How to choose low carbon RACHP units Module overview 4.1 Guideline on choosing best-practice RACHP technology selection 4.3 Costs and adequate dimensioning of systems 4.4 Case studies



	End of module quiz
Module 5	 Towards a sustainable store Module overview 5.1 How to track emissions from RACHP equipment 5.2 Sustainability strategy 5.3 Choosing Low Carbon supermarket labels 5.3 Marketing / communication with customers 5.4. Further recommendations on energy efficiency (light, heating, building isolation) 5.5 Refrigerants, Naturally! Initiative: How to become a Refrigerants, Naturally! leader End of module quiz
Further Readings	Module x: List with links Other recommended online courses
Course credits	This course has been developed under the EU Refrigerants, Naturally! for LIFE Project in partnership with shecco, AgroBio, BNN, SEAE, BIV, KNVvK and STEK, led by HEAT.
Contact us	http://www.refrigerantsnaturally.com/service/contact/
Course requirements	This course will be delivered entirely online on an educational platform (www.chamilo.org) In order to access online lessons, course materials, and resources an Internet connection (DSL, LAN, or cable connection desirable) is required.
	The activities will consist of video lectures, quizzes, discussion forums, texts and additional resources (videos, documents, audio, interactive websites).
	No pre-knowledge is required.

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