

EU project and training Real Alternatives become international

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REAL Alternatives for LIFE

Real Alternatives for LIFE

Refrigerant Emissions Alternatives and Leakage – blended learning for natural refrigerants

Objectives

1. Increase knowledge amongst technicians in partner and stakeholder countries.
2. Address inconsistencies in skills across the whole of the EU
3. Overcome equipment operator and distributor concerns over safety, reliability, containment, efficiency and standards restrictions
4. Support implementation of F Gas Regs and transition to alternative refrigerants
 - Project start date 15th June 2017
 - Project end date 14th June 2020



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The LIFE programme is the EU's funding instrument for the environment and climate action.

Implementation, updating and development of EU environmental and climate policy and legislation by co-financing projects

The European Commission ([DG Environment](#) and [DG Climate Action](#)) manages the LIFE programme.

LIFE Climate Governance and Information projects:

- information, awareness and dissemination on climate matters
- generating public and stakeholder support of Union policy
- knowledge on sustainable development
- knowledge sharing on successful climate solutions and practice
- cooperation platforms among stakeholders and training
- promote effective compliance with climate legislation



<http://ec.europa.eu/environment/life/about/index.htm>



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Key Project information

- Project co-ordinator - IOR (UK)
- Management Team – includes original REAL Alternatives project (2016)
- Stakeholders group of seven new organisations
- 13 languages for the final outputs
- 9 Modules (8 existing ones revised plus 1 new)
- Train the Trainer resources, Licences and Certification
- Study visits (5 in training centres Belgium, Germany, UK, Poland, Italy)
- Train the Trainer events (5 in stakeholder locations – 20 people at each)
- Project presence at conferences, trade shows and exhibition, international governmental meetings, policy makers
- Generating regular articles/newsletters/social media
- Together we have the potential to reach 228,0000 employers, 26,000 RACHP installation businesses and 100 suppliers across Europe (and after internationally)

! Fgas Certified
Technicians in EU:
nearly 500.000 !



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Project Management team

8 organisations – 6 Languages

Associazione Tecnici del
Freddo, Italy



Institute of
Refrigeration, UK



London South Bank
University, UK



Foundation for
the Protection of the
Ozone Layer, Poland



European
Association for Refrigeration,
Air Conditioning and Heat
Pumps (AREA)



Limburg Catholic University
College, Belgium



Informationszentrum für Kälte-
Klima- und Energietechnik,
Germany



With the co-operation of the
International Institute of
Refrigeration



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REAL Alternatives for LIFE – 1st Project Meeting – 20-21 June 2017



Stakeholder

Country

APIRAC - Portuguese Association for RAC Industry	Portugal
CNI – National Confederation of RAC Installers	Spain
SCHKT – Czech RAC Technical Group	Czech Republic
SZCHKT – Slovakian RAC Technical Group	Slovakian Republic
AGFR – Romania General Association of Refrigeration	Romania
HRKT – Croatian Refrigeration air conditioning & heat pump assoc	Croatia
SOSIAD – Turkish refrigeration and air conditioning	Turkey



Business Case for
Natural Refrigerants

25-27/09/17-Berlin



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Project stages

1. Survey on training awareness and needs in your countries – Sept/Oct 17

2. Prepare new material on risk and safety for flammables – Sept 17

3. Review existing learning modules in line with market needs findings – July/Sept 17

4. Raise awareness of the project with press releases, articles, talks

OUTCOMES

- Report on EU training needs
- Updated e-learning modules and booklets
- Training the trainers programme: standard lessons plans, practical tests, trainer training events, certification for trainers and technicians



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How will we do it?

5. Translate all materials Apr/Dec2018
and launch in Europe

6. Run Study days at existing training facilities
Sept/Dec 2018

7. Run Train the Trainer events in
stakeholder countries March/June 2019

8. Promote take up within EU through extensive
communications and extend outside of EU in 2020

- Launch elearning and training programmes by end of 2018
- Promote the programme and certification across Europe, encouraging attendance at courses
- Add more EU and non EU partners before and after the end of the project



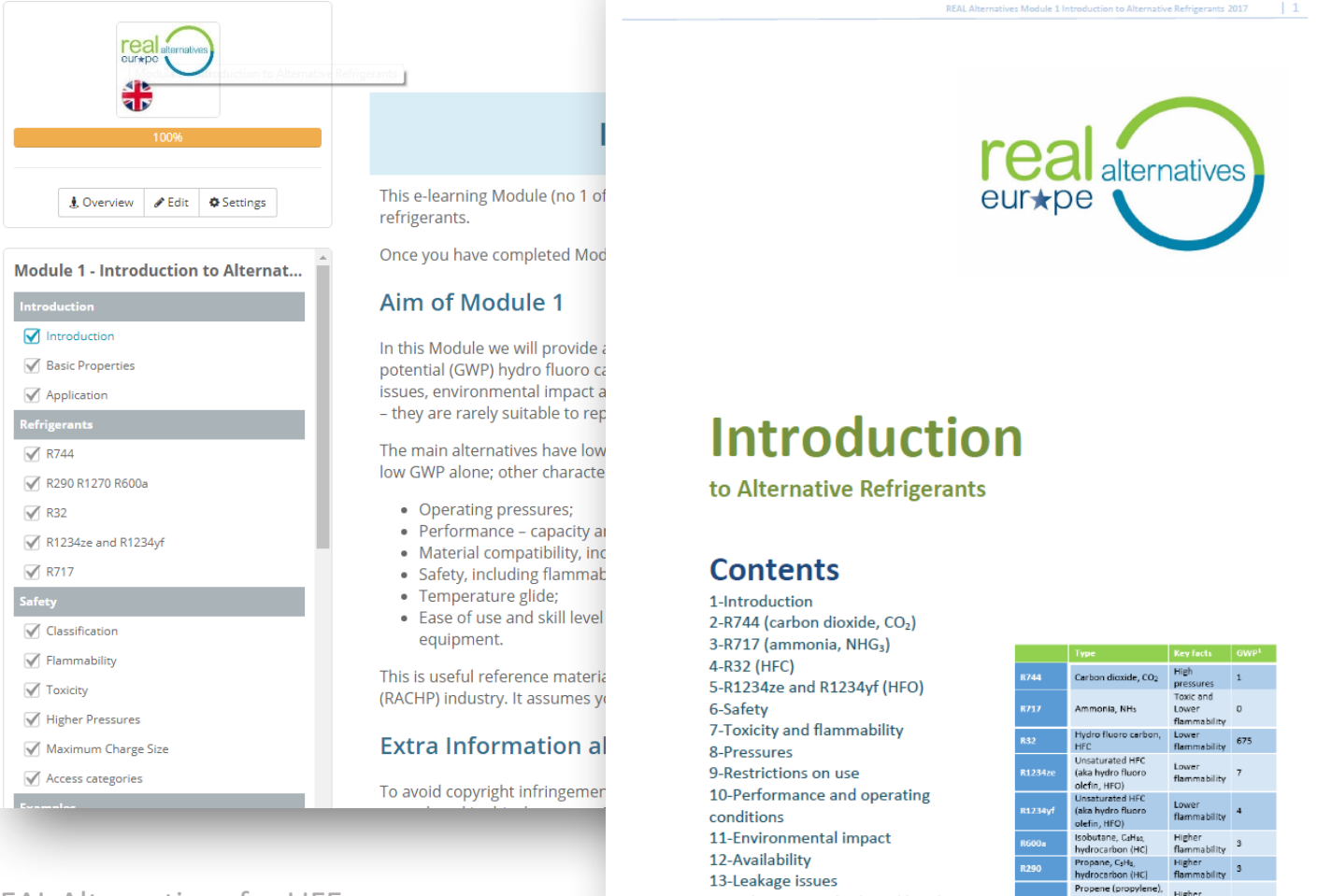
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Elearning and booklets – being updated and extended

Real Alternatives Europe programme modules:

1. Introduction to Alternative Refrigerants - safety, efficiency, reliability and good practice
2. System design using alternative refrigerants
3. Containment and leak detection of alternative refrigerants
4. Maintenance and repair of alternative refrigerant systems
5. Retrofitting existing systems with low GWP alternatives
6. Checklist of legal obligations
7. Measuring the financial and environmental impact of leakage
8. Tools and guidance for conducting site surveys



The screenshot shows the REAL Alternatives e-learning platform. On the left, a sidebar lists the course modules, with 'Module 1 - Introduction to Alternat...' selected. The main content area displays the 'Introduction to Alternative Refrigerants' booklet, which includes sections on the 'Aim of Module 1' and 'Contents'. The 'Contents' section lists 14 topics, including various refrigerants and safety issues. A table at the bottom right of the booklet provides key facts and GWP values for several refrigerants.

	Type	Key facts	GWP ¹
R744	Carbon dioxide, CO ₂	High pressures	1
R717	Ammonia, NH ₃	Toxic and Lower flammability	0
R32	Hydro fluoro carbon, HFC	Lower flammability	675
R1234ze	Unsaturated HFC (aka hydro fluoro olefin, HFO)	Lower flammability	7
R1234yf	Unsaturated HFC (aka hydro fluoro olefin, HFO)	Lower flammability	4
R600a	Isobutane, C ₄ H ₁₀ , hydrocarbon (HC)	Higher flammability	3
R290	Propane, C ₃ H ₈ , hydrocarbon (HC)	Higher flammability	3
R1270	Propene (propylene), C ₃ H ₆ , hydrocarbon	Higher	3

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Project website (multilingual)

The screenshot shows the REAL Alternatives website homepage. At the top left is the logo for 'real alternatives eur★pe'. The main header features the title 'REAL Alternatives' and the subtitle 'BLENDED LEARNING FOR ALTERNATIVE REFRIGERANTS'. A navigation menu includes 'HOME', 'ABOUT REAL ALTERNATIVES', 'REGISTER FOR DOWNLOADS', and 'CONTACT US'. A language dropdown menu is set to 'English (UK)'. A left sidebar contains menu items: 'E-LEARNING', 'E-LIBRARY', 'FREE GUIDES', 'CPD', 'ESPAÑOL', 'SUOMI', 'FIND OUT MORE ABOUT OUR PROGRAMME PARTNERS', and 'REGISTER HERE FOR THE LATEST NEWS AND UPDATES'. The main content area features a laptop displaying an 'E-LIBRARY' search interface. To the right, there is a Twitter feed showing a tweet from @REAL_Alts_EU retweeted by UNIDO, mentioning a workshop on the #KigaliAmendment. Below the laptop, there are sections for 'EVENTS' (Refrigerant Options and the Global Environment), 'NEWS' (Real Alternatives to be expanded across Europe), and a 'LEARNING PLATFORM' for registered users. The footer includes the text 'Co-funded by:' followed by logos for the Lifelong Learning Programme, IOR, IKKE, AREA, ATP, KHLim, PROZON, and London South Bank University.

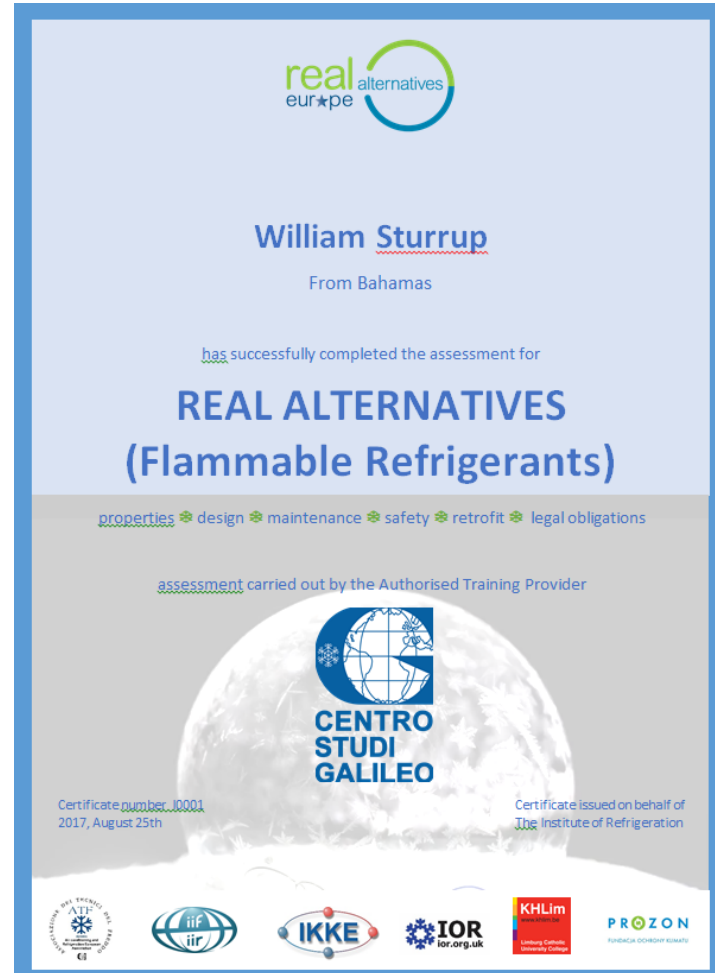
www.realalternatives.eu



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Certification on Natural Refrigerants



Starting from the EU F-gas Certification
(500.000 technicians)
Add modules on the different Natural
Refrigerants through the Real Alternatives
Certification

- Carbon dioxide
- Ammonia
- Hydrocarbon

Addressing safety, efficiency, reliability and
containment aspects of service and
maintenance.

- Higher system pressures
- Flammability
- Toxicity

And the tools to handle those refrigerants



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Training and certification worldwide

- Together with the UN implementing agencies UNEP, UNIDO, UNDP over the past few years AREA has been deeply involved in helping developing countries through **training RSS technicians** to install, repair, maintain and design RAC systems and **numerous Certification Sessions in Africa and Asia.**
- **Pics from top: Rwanda, Former Soviet Union Rep, Benin, Gambia, Caribbean and also in Ghana, Tunisia, Eritrea, Montenegro, Saudi Arabia, Turkey, ... etc..).**



LET'S MOVE TO ALTERNATIVE REFRIGERANTS TOGETHER!

	Option 1 Global Partner	Option 2 National Lead Partner	Option 3 Training Partner	Option 4 Assessing Partner	Option 5 Sponsor Partner	Option 6 Free User
WHO	Institutions, Associations, Government representatives	Training Centres, Associations, Certifying Bodies, Institutions	Companies, Training Centres, Associations, Institutions	Training Centres, Associations, Certifying Bodies, Institutions	Businesses in the HVAC/R&HP sector	Training Centres, Associations, Certifying Bodies, Institutions, Companies
WHAT	Translate the training into national language* and be official representative for your Country	Be the official REAL Alternatives© representative for your Country	Licence trainers to deliver theoretical & practical training in your Country	Can carry out Assessments and issue Certificates to technicians***	Have your Company's logo displayed on websites and newsletters	Disseminate Real Alternatives© free online material and e-learning platform within your network
WHY	Spread knowledge globally, improve consistency of training standards and support training in your Country	Become REAL Alternatives reference point for your Country**, help to implement national legislation, standards, etc.	To ensure consistent standard of technician training using REAL Alternatives© programme materials	Use ready-made REAL Alternatives© assessment and certification standards	Connect with thousands of businesses worldwide and show your active participation	Share the innovative and free online platform of Real Alternatives© to enrich the culture and knowledge on new alternatives
HOW LONG	unlimited	unlimited	3 years	3 years	3 year	unlimited

*Already available languages: English, Italian, French, German, Polish, Spanish, Finnish, Dutch; under development languages: Russian, Portuguese, Czech, Slovakian, Romanian, Croatian, Turkish

**Possible only when training material is already available in the official language of your Country

*** Certificate fee: 30€



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Cooperation with UNEP

Refrigerant Driving License (RDL)

- Initiated by UNEP and AHRI
- Participation of ASHRAE, JRAIA, AREA, EPEE, ABRAVA, UNIDO and GRME
- Currently at Stage-I Assessment, Pilot phase starts end of 2016

Streamlining Training for RSS

- Joint approach for assessing global training programs for RSS
- Includes participation of IAs and RAC associations
- First Stakeholders workshop in April 2016
- Target is to have global Roadmap for RSS training

Specialized Training Program for Future Alternatives

- Cooperation with AREA
- Benefiting of REAL program
- Specialized training packages on future alternative refrigerants
- Programs offered to training institutes in A5 countries



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ATMO
sphere

Thank you very much!

