



The Voice of European Air-Conditioning, Refrigeration and Heat Pumps Contractors

08 September 2015

RE: EU Heating & Cooling Strategy

AREA (www.area-eur.be) is the European organisation of refrigeration, air-conditioning and heat pump (RACHP) contractors. AREA members are key stakeholders in the cooling sector since they are the architects of RACHP systems, which they design, install and maintain.

AREA members presently represent more than 9,000 companies across Europe, a workforce of 125,000 and a turnover approaching € 20 billion. Our members are very small businesses with the average company employing 13 people and generating €2.2 million turnover.

AREA warmly welcomes the preparation of a European strategy on heating and cooling by the end of the year. Heating and cooling should indeed be addressed in their own right and in a comprehensive way rather than scattered as part of other policies. We thank the European Commission for the opportunity to comment.

We would like to re-affirm our general commitment to the objectives of the EU energy and resource efficiency policy. Refrigeration and air conditioning applications are responsible for a significant share of the global energy consumption, meaning that the RACHP sector has a key role to play in the fight against energy waste.

1. Energy efficiency is a key criterion in equipment choice

Energy is often 'the' major cost of the equipment throughout its lifetime. Therefore, energy efficiency has become a top priority for all actors of the RACHP industries, from manufacturers to users and with a central role played by contractors.

Energy efficiency is a key element included in each facet of the RACHP contractor's work:

- *Proper system design* for new installations maximises the overall energy efficiency level of all the installation's components, including the choice of refrigerant;
- *Professional installation* guarantees the efficiency and reliability of the system;
- *Regular maintenance* and servicing enables early leak detection and minimises emissions.

2. Contractors are technology providers at every scale

The Commission's working document (issue paper III on technologies) rightly points out the key role of installers, who are the "*intermediaries bringing together the technology and the user*".

However, AREA strongly opposes further descriptions of installers in this Commission's working document. Installers are indirectly referred to as "*bottlenecks*" due to an alleged lack of training and supposed dislike of 'non-conventional products'. Such an assumption is generic, simplistic and unsubstantiated. As explained further in this paper (section 6), RACHP contractors are well-trained professionals that use and propose every kind of technologies driven by energy efficiency and their customers' requirements.

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3. Contractors are neutral toward technologies

RACHP contractors use every available solution with complete technology neutrality and with the sole aim of ensuring the highest level of reliability, energy efficiency and cost-effectiveness. They provide tailor-made solutions based on users' specific needs. They work at all scales, from household air-conditioning equipment to industrial refrigeration installations.

AREA strongly believes there is a place for all types of cooling technologies, simply because there is no 'miracle technology' that provides a one-size-fits-all solution. In this regard, the Commission's working documents seem to put too much emphasis on district heating and cooling, which raises our concerns since it is not always the most suitable option. Instead, the upcoming heating and cooling strategy should be neutral towards technologies, promoting both large-scale and small-scale solutions depending on the situation. In addition, it should ensure a consistent approach as regards various technologies in the different pieces of legislation regulating the sector, notably the EPBD, EED and RES Directives.

4. Contractors have a key role to play

AREA acknowledges that the Ecodesign and Energy labelling Directives will improve efficiency of ventilation, air-conditioning and refrigerating equipment as well as heat pumps, which we support. However, without proper design of the cooling system, energy savings of efficient equipment can be totally negated.

Indeed, proper system design, effective installation, as well as regular maintenance and servicing are of the utmost importance to ensure that expected energy savings turn into reality.

There are numerous ways and means of improving energy efficiency through the design of RACHP systems. For example, a good system design will avoid over-specification to maximise the overall energy efficiency level of all the installation's components. The use of inverter drives or variable regulated speed motors, capacity controls or other low energy drives can also improve energy efficiency of a system.

Furthermore, the maintenance of a cooling system should not be neglected. It is crucial to ensure that potential energy savings, which are secured by a proper design and effective installation, are not lost during the use phase. In fact, proper and regular maintenance carried out by competent people make it possible to reduce operating costs, thus resulting in energy savings. It is also the occasion to provide advice on further energy savings.

Energy savings associated with inspection, monitoring and performance benchmarking of HVAC systems, particularly in the tertiary sector (office buildings, shopping centers, hospitals, etc.) is highlighted in articles 14 to 16 of the EPBD recast (Directive 2010/31/EU). Some projects (e.g. HARMONAC, iSERV-cmb) have shown the benefits of automatic energy consumption data collection systems on the identification of Energy Conservation Opportunities.

As a conclusion, although the development and deployment of efficient and renewable technologies are indeed key aspects, system design and maintenance should not be neglected so that efficiencies are really acquired and maintained. Therefore, the upcoming heating and cooling strategy should provide a holistic approach of the sector, rather than focusing on individual equipment and technologies. The upcoming review of the EPBD provides an opportunity to emphasize this holistic approach.

5. The role of refrigerant should also be considered

The Commission's working documents tend to focus on technologies only, without considering other aspects, such as refrigerants. In the cooling sector, however, refrigerants directly impact on the energy efficiency of RACHP systems.

This is why energy efficiency remains a key issue in refrigerant policy at EU regulatory level, especially the Regulation on fluorinated greenhouse gases (517/2014/EU). The so-called F-gas Regulation ensures that installation, maintenance, service, leakage checking, commissioning and disassembly of RACHP systems are undertaken by fully competent professionals. This results in better containment of refrigerants and greater energy efficiency of the systems.

Contractors have fully integrated the impact of refrigerants on the energy efficiency of their RACHP systems. This is the case at design stage with the choice of the most appropriate refrigerant and in the use phase with the maintenance of the correct refrigerant charge, for example by minimising leaks.

6. Maintaining contractors' skills and knowledge is vital

The Commission working document (issue paper III on technologies) mentions an alleged lack of awareness and knowledge of new technologies, and too few trained installers bringing these solutions to customers. AREA would like to provide some information on the state of training and competence of RACHP installers in order to avoid unwanted generalisations.

Refrigeration and air conditioning is a very innovative and constantly evolving industry. The high level of technicality of RACHP systems makes it necessary to have a corresponding level of competence from installers. Since 2006, this is ensured through compulsory minimum training & certification requirements embedded in the Fgas Regulation. These are largely based on the work undertaken by our industry in the context of a dedicated project¹.

In 2014, the Fgas Regulation was amended, notably with a phase-down of fluorinated greenhouse gases. This will result in an increased use of alternative, low GWP (global warming potential refrigerants) refrigerants. In the absence of a harmonised framework on competence to handle these refrigerants (requested by AREA but not agreed by the legislator), AREA has issued several guidance documents² to enhance contractors' on minimum knowledge requirements on these new technologies. We are also involved in a project fulfilling the same objective³.

AREA is therefore fully aware that maintaining contractors' skills and knowledge is of utmost necessity to ensure deployment of decarbonised and energy efficient technologies. This is actually embedded in our industry's Vision & Strategy 2020⁴ and represents a substantial share of our association's activities.

We are fully supportive of harmonised initiatives fulfilling the same objective, as long as they are proportionate and coordinated. An EU Heating and Cooling Strategy should ensure such a coordination, taking existing schemes into consideration and avoiding duplicate or divergent requirements.

¹ Refrigeration craftsman : <http://www.area-eur.be/professional-guidance>

² [Guide on low GWP refrigerants](#): sets minimum requirements for contractors' training & certification on low GWP refrigerants

[Guide on certification or equivalent qualification schemes for installers of heat pumps](#): aims to support member states to introduce certification /qualification schemes for installers of small RES systems including heat pumps, as required in the Renewable Energy Sources (RES) Directive.

³ REAL Alternatives (www.realalternatives.eu)

⁴ See <http://www.area-eur.be/system/files/Documents/Manifesto%20AREA%202020%20light.pdf>