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## Eurovent feedback on the roadmap for the F-Gas review

### In a nutshell

**Eurovent is committed to the success of the F-Gas Regulation and appreciates the opportunity to submit feedback on its improvement. The review of the F-Gas Regulation should focus on avoiding circumvention, removing barriers to flammable and reclaimed refrigerants, and retrofitting existing equipment, without compromising energy efficiency, reliability, and safety.**

### Preamble

Eurovent is the European Industry Association for Indoor Climate, Process Cooling, and Food Cold Chain Technologies. Our industry is the primary application domain of HFCs, which are used as refrigerants in RACHP systems which enable life-critical processes like the transportation and storage of pharmaceuticals, air conditioning in hospitals, and the operation of telecommunication infrastructure.

Eurovent is committed to the success of the F-Gas Regulation, which has boosted innovation and caused a shift towards more climate-friendly heating and cooling technologies. The use of low-GWP refrigerants in line with the current F-Gas Regulation, together with energy efficiency, provides a sustainable growth model for the European RACHP sector in support of the European Union's climate-neutrality objective.

### Appraisal of the F-Gas Regulation

#### Circumvention

There is ample evidence of circumvention of the HFC quota system, mostly in the form of illegal imports. The estimates of the amounts of HFCs illegally imported into the EU vary, but the evident non-compliance alone is sufficient cause for concern.

There is also mounting evidence of non-compliance with F-Gas certification requirements, especially with domestic RACHP equipment being sold via online sales channels and without verification that the equipment is installed by a certified installer.

Non-compliance does not only undermine the environmental objectives of the HFC phase-down, it may jeopardise the safety and reliability of the equipment and it leads to unfair competition as well. As companies invest significant resources to align with the Regulation, the costs of non-compliance remain too low by comparison.

#### HFC price fluctuation

HFC prices were expected to go up due to artificial shortages resulting from the quota system. HFC prices fluctuate greatly over short periods. When the price is very low, market players may be tempted to import and stockpile large quantities of HFCs, which they sell with a profit margin when the market price is high. The HFC price fluctuation is used to do business, creating uncertainty for manufacturers. The unpredictability of these fluctuations renders it difficult to focus on the objectives of the F-Gas Regulation.

### Flammable refrigerants

The phase down of HFCs must go together with the promotion of viable alternative refrigerants. A2L, A2, and A3 flammable refrigerants could replace HFCs in different applications but there remain barriers to their uptake (especially in the sectors other than commercial refrigeration).

The Pressure Equipment Directive should differentiate between A2L and A3 refrigerants because the real flammability risk of A2L refrigerants is much lower than A3 refrigerants.

The use of flammable refrigerants is restricted by fire safety regulations, which are often within the remit of national or local authorities and for which there are consequently no common rules across the EU. The European Commission should provide further guidance to the Member States to ensure harmonisation of building codes facilitating the HFC phase-down objectives.

### Circular economy of refrigerants

Supply chains for reclaimed refrigerants are developing based on increased demand from equipment manufacturers and for servicing. Demand for reclaimed HFCs increases the incentives to prevent refrigerant losses at the equipment's end-of-life. However, EU waste legislation creates barriers for the shipment of recovered and/or recycled refrigerants across borders, restricting the economically feasible reclamation.

Only refrigerants that have been properly reclaimed after use are suitable for reuse in the European Market. The recycling of refrigerants without proper regeneration undermines emissions controls and penalises the equipment in which they are used.

Without proper leak checks, recycling refrigerants for servicing existing equipment may be counterproductive to the objectives of the F-Gas Regulation. Old refrigeration systems working with R404A, R22 or R12 are still in operation today and responsible for significant emissions of greenhouse gases.

### Energy efficiency

It may be short-sighted to limit the environmental impact of refrigerants without taking into consideration the indirect greenhouse gas emissions associated with the energy consumption of the RACHP equipment in which the refrigerants are used.

A system which is extremely energy efficient running on a particular HFC refrigerant can result in less emissions over its lifetime than a system which is less energy efficient but with a lower-GWP refrigerant. The correct balance may be different for each application and varies from sector to sector.

The revision of the F-Gas Regulation should not compromise the energy efficiency requirements of the Energy Efficiency Directive, the Energy Performance of Buildings Directive, and the Ecodesign Directive and its Implementing Regulations. These policies should work synergistically and lead to the most optimal RACHP solution over its lifetime.

### Decarbonisation of the heating sector

Heating in buildings and industry accounts for around half of the EU's energy consumption. Most of the thermal energy used for these purposes is still generated using fossil fuels. Decarbonising the heating sector by cutting energy consumption and fossil fuels is absolutely paramount to achieve climate-neutrality by 2050. Heat pumps are the key to achieve this and the F-Gas Regulation should remain compatible with the objectives to widely deploy heat pumps in buildings, in district heating systems

and in industrial heating applications, phasing out legacy heating systems powered by fossil fuels, as outlined in the EU Strategy on Energy System Integration.

### Renovations and retrofits

In both residential and commercial applications, legacy equipment with higher GWP refrigerants is still in operation and leak checks are not always carried out regularly. Strong incentive programmes in the context of the Building Renovation Wave to upgrade RACHP systems can support the transition towards installations with both lower-GWP refrigerants and improved energy efficiency.

### Technology fields

The review of the F-Gas regulation should differentiate between the different sectors and their varying levels of technological readiness. Each sector has its own specific technical and commercial characteristics, with consequences for the ability to transition to lower-GWP refrigerants and must have the freedom of choice to innovate and opt for the best possible refrigerants.

### Stationary air conditioning

In the stationary air conditioning sector, HFCs remain the preferred choice of refrigerant for most applications.

In the EU market for **liquid chilling packages**, the most used refrigerants are R410A, R407C and R134a. A minor shift in refrigerants took place from 2017 to 2019:

|      | HFCs   | HFOs  | Natural refrigerants |
|------|--------|-------|----------------------|
| 2017 | >99,5% | <0,5% | ~0%                  |
| 2018 | <99,5% | ~0,5% | ~0%                  |
| 2019 | >97,5% | ~2%   | ~0%                  |

### Commercial refrigeration

New commercial refrigeration systems placed on the EU market privilege natural refrigerants, including carbon dioxide (R744) and propane (R290). The shift towards natural refrigerants has not compromised energy efficiency improvements or total cost of ownership. Proper (re-)training of installation, maintenance and servicing personnel has been and continues to be a priority to ensure the safe transition to these alternative refrigerants.

### Industrial refrigeration

Industrial refrigeration installations tend to have long life spans. Adaptations to the system that would enable the use of alternative refrigerants require major investments. In most cases, such adaptations are feasible only at the end of the service life of the existing system. Moreover, some industrial refrigeration applications are feasible only with the use of low toxicity, low flammability, and high efficiency HFCs. Industrial refrigeration installations may therefore require case-by-case specific considerations – possible exemptions from requirements or prohibitions may be justified.

### Policy options

The policy options must be in line with the EU ambition to reach climate-neutrality by 2050. Reducing HFC emissions from existing and future equipment without compromising safety, reliability and energy efficiency are key to achieve this.

### Montreal Protocol

The Montreal Protocol and the F-Gas Regulation use different definitions, baselines, and timelines. In assessing whether the EU will be at risk of becoming non-compliant with the Montreal Protocol after

2030, a like-for-like comparison should be made. Although the HFC phase-down schedule under the F-Gas Regulation should be aligned with Montreal Protocol decisions, the schedule should provide clarity and predictability for the industry and measures should be announced sufficiently timely to allow the industry to adapt.

### **Implementation and enforcement**

The success of the current and any future F-Gas Regulation depends on its effective implementation and on market surveillance. The review of the F-Gas Regulation should focus on the enforcement of current requirements.

### **Raising ambitions**

The F-Gas Regulation must be in line with the objectives of the European Green Deal in terms of decarbonisation and the circular economy. Modifications to the Regulation must be announced timely to provide predictability to the industry. Technological neutrality must be ensured when setting new or more ambitious requirements including the total life cycle of equipment and the energy consumption of the product.

## Eurovent and transparency

### When assessing position papers, are you aware whom you are dealing with?

Eurovent's structure rests upon democratic decision-making procedures between its members and their representatives. The more than 1.000 organisations within the Eurovent network count on us to represent their needs in a fair and transparent manner. Accordingly, we can answer policy makers' questions regarding our representativeness and decisions-making processes as follows:

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| <p><b>1. Who receives which number of votes?</b></p> <p>At Eurovent, the number of votes is never determined by organisation sizes, country sizes, or membership fee levels. SMEs and large multinationals receive the same number of votes within our technical working groups: 2 votes if belonging to a national Member Association, 1 vote if not. In our General Assembly and Eurovent Commission ('steering committee'), our national Member Associations receive two votes per country.</p> | <p><b>2. Who has the final decision-making power?</b></p> <p>The Eurovent Commission acts as the association's 'steering committee'. It defines the overall association roadmap, makes decisions on horizontal topics, and mediates in case manufacturers cannot agree within technical working groups. The Commission consists of national Member Associations, receiving two votes per country independent from its size or economic weight.</p> |
| <p><b>3. How European is the association?</b></p> <p>More than 90 per cent of manufacturers within Eurovent manufacture in and come from Europe. They employ around 150.000 people in Europe largely within the secondary sector. Our structure as an umbrella enables us to consolidate manufacturers' positions across the industry, ensuring a broad and credible representation.</p>   | <p><b>4. How representative is the organisation?</b></p> <p>Eurovent represents more than 1.000 companies of all sizes spread widely across 20+ European countries, which are treated equally. As each country receives the same number of votes, there is no 'leading' country. Our national Member Associations ensure a wide-ranging national outreach also to remote locations.</p>  |

Check on us in the [European Union Transparency Register](#) under identification no. 89424237848-89.

### We are Europe's Industry Association for Indoor Climate (HVAC), Process Cooling, and Food Cold Chain Technologies – thinking 'Beyond HVACR'

Eurovent is Europe's Industry Association for Indoor Climate (HVAC), Process Cooling, and Food Cold Chain Technologies. Its members from throughout Europe represent more than 1.000 companies, the majority small and medium-sized manufacturers. Based on objective and verifiable data, these account for a combined annual turnover of more than 30bn EUR, employing around 150.000 people within the association's geographic area. This makes Eurovent one of the largest cross-regional industry committees of its kind. The organisation's activities are based on highly valued democratic decision-making principles, ensuring a level playing field for the entire industry independent from organisation sizes or membership fees.

Eurovent's roots date back to 1958. Over the years, the Brussels-based organisation has become a well-respected and known stakeholder that builds bridges between the manufacturers it represents, associations, legislators and standardisation bodies on a national, regional and international level. While Eurovent strongly supports energy efficient and sustainable technologies, it advocates a holistic approach that also integrates health, life and work quality as well as safety aspects. Eurovent holds in-depth relations with partner associations around the globe. It is a founding member of the ICARHMA network, supporter of REHVA, and contributor to various EU and UN initiatives.