IIR remarks on the following documents:
- report from the Commission (581 final)
- preparatory Study (842/2006)

The Preparatory study for a review of Regulation (EC) No. 842/2006 and the report from the Commission COM (2011) 581 final, are well documented and useful documents for implementing policy on fluorinated gases. However, the International Institute of Refrigeration (IIR), as an intergovernmental organization comprising 60 member countries, including 20 members of the European Union, would like to make a few comments:

1/ Improvement of the current application of the F-gas Regulation:
The implementation of such a regulation takes time, due to the necessary implementation in all member states (“bureaucratic” measures), the need for information to be provided to a lot of SMEs and the need for training. We did not have enough time to really evaluate the regulation: 4 years is too short. This is particularly the case with delays in training and certification (Report from the Commission, 2.3).
The recovery of F-gases is a key issue and should be emphasized to a greater extent (Report from the Commission, 2.5 and 5.2). The cost of F-Gas treatment and destruction is high. Strong policy is needed in order to avoid adverse consequences of the regulation.
The title “reporting requirements generally met” in the Report from the Commission (2.6) seems inadequate. As explained in this section and as recognized in our Member states, reporting is an essential rule but perhaps the least complied with.

2/ Alternative technologies
Alternative technologies exist. In certain cases, they are at least as efficient as fluorinated greenhouse gas technologies. But not in all cases, and this problem is not sufficiently addressed: indirect emissions due to the electricity consumption of refrigerating equipment are in most applications more important than direct emissions (in CO₂ equivalent). Improving the energy efficiency would have a greater impact on climate change and this policy should be linked to policy on fluorinated gases. It should be particularly mentioned in the Introduction of the Report from the Commission.
In addition, the implementation of alternative technologies could incur high design and manufacturing costs when manufacturing new equipment and components that are suitable for the new technologies without positive effects on running costs, with the exception of the cost of the refrigerants if we choose natural refrigerants. This should be taken into account in a holistic approach of European actions regarding climate change versus policies in other regions of the world.

3/ A new policy to be implemented
Good application of the current F-gas Regulation is necessary and some improvements to the regulation itself (pre-charged equipment, limiting of the charge…) could be proposed. However, even though such an approach would reduce F-gas emissions, it would not be sufficient to achieve ambitious goals such as the 80% reduction of greenhouse gas emissions in 2050 or the North American proposal to phase down HFCs within the Montreal Protocol. New measures such as bans or taxes on HFCs should however depend on true application by other countries, particularly North America and emerging countries, of such
new measures. There is currently no certainty of the application of new measures in other countries/regions and we should keep in mind the necessary competitiveness of the European industry.

The preparatory study presents (section 8) several options. Only Options C, D and E should be discussed. Option C would need additional studies on the feasibility sector by sector (role of SMEs) to become precise proposals, even if it should be kept in mind. Sub-option D1: the case of unsaturated HFCs should be more closely examined: firstly, even if it is unlikely that an international HFC agreement will be adopted soon, it is likely that it will be adopted in the future. It would be simpler to start the monitoring and reporting at the beginning of the use of unsaturated HFCs. Moreover, blends of saturated and unsaturated HFCs will most likely be produced and overall reporting would be easier.

Sub-option D2 and b: certainly useful; D2c: as mentioned in the Preparatory Study, attention should be paid to the costs of reporting.

Sub-option D3a: possible, provided that lessons learnt from difficulties to rapidly implement the F-gas regulation on stationary equipment have been taken into account.

D3b: lowering the inferior limit is of course possible, but costly, as mentioned by the authors; in addition, it would take time (training of technicians, certification). The priority should be firstly to implement the existing F-gas Regulation everywhere in Europe (with training, certification...) and secondly to progressively reduce the charge limit. Going directly to a charge limit of 1 kg as suggested would be really difficult to implement. 2 kg could be a good initial compromise.

D3c: OK
D3d: OK with the conclusion of the report: we need further evaluation before implementing leakage rate standards.

D3e: idem

D5: interesting analysis. However, estimations for 2020 or 2030 are questionable. Decisions concerning these sectors should be taken at a later stage.

D6: the report underestimates the problem of controls and black markets. The more complicated the system, the greater the danger of a black market, especially if the European rules and schedules differ from those in other parts of the world (i.e. if international phase down of HFCs is not decided). This option seems to be the best one (section 8.2) but would be difficult to implement efficiently. Following options: no additional comments.

**In conclusion**, we certainly should reinforce the F-gas Regulation and progressively introduce energy efficient technologies with low GWP refrigerants, especially natural refrigerants, at the European level.

The time schedule should be discussed in order to avoid high costs. Certain measures could be implemented soon. The most costly ones should only be decided if an international agreement and actions in other regions take place.