







### **EU F-gas policy: two instruments**

### Directive 2006/40/EC (MAC)

Air conditioning of passenger cars

### Regulation (EC) No 842/2006 (F-gas)

- Stationary refrigeration, air conditioning & heat pumps
- Fire protection
- Switchgear
- •







## EU F-gas policy: two-track approach

#### Avoid use

 Use and marketing restrictions (e.g. MACs, magnesium, novelty aerosols, windows, ...)

## Prevent leakage

 Leakage check schedules, detection systems, labelling, training & certification







## The Review of the F-gas Regulation

## Report\* assessing the

- state of <u>application</u>
- current and projected maximum effect
- mid/long-term <u>adequacy</u> of the F-gas policy in the EU

\*COM(2011) 581 of 26.9.2011







## <u>Application</u> of the F-gas Regulation Experience after 4 years

- Successfully applied use/marketing restrictions
- Satisfactory labelling
- Delayed training & certification
- Inconsistent compliance with containment measures
- Growing potential for recovery
- Reporting requirements well applied
- Delays in penalty rules







### **Effect** of the F-gas Regulation

#### Measuring effectiveness & efficiency

 Regulation's bans already delivering but potential almost exhausted

2010: 3 Mtonnes CO<sub>2</sub>-eq

2050: 4 Mtonnes CO<sub>2</sub>-eq

 Regulation's containment measures yet to deliver but high potential in the mid-term, if fully applied

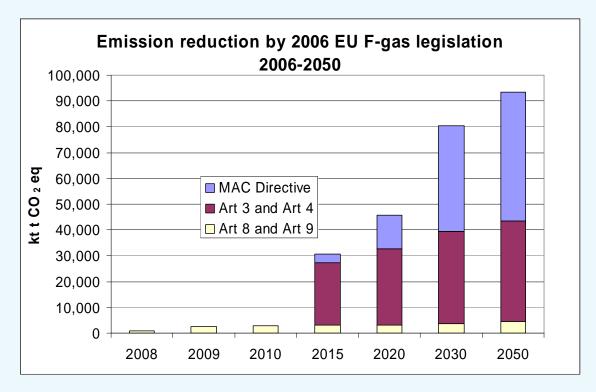
2020: 29 Mtonnes CO<sub>2</sub>-eq

2050: 38 Mtonnes CO<sub>2</sub>-eq

 MAC Directive's ban the most effective measure in the long term

2020: 13 Mtonnes CO<sub>2</sub>-eq

2050: 50 Mtonnes CO<sub>2</sub>-eq



At average cost around 40 € per tonne CO<sub>2</sub>-eq reduced







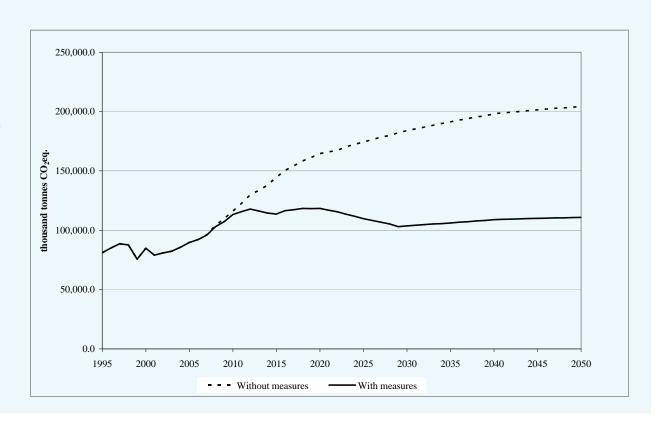
## **Effect** of the F-gas Regulation

Measuring effectiveness & efficiency

F-gas Regulation & MAC Directive may avoid almost half of projected F-gas emissions by 2050

#### **BUT**

without further action EU-27 F-gas emissions will not decrease from today's level









## Adequacy of the F-gas Regulation The need and scope for further EU action

- EU committed to reduce its GHG emissions by 80-95% by 2050
- EU 2050 Roadmap\*: Cost-effective pathway requires reductions of non-CO2 emissions (outside agriculture) by 72-73% by 2030 and by 70-79% by 2050;
- Growing feasibility of replacing F-gases in several sectors with alternatives with less or no climate change impact
- Potentially up to 2/3 of today's F-gas emissions could be eliminated by 2030 in the EU



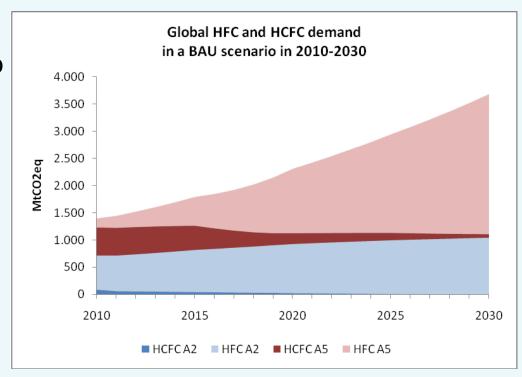
\* COM (2011) 112





HFC demand set to grow rapidly globally and in particular in developing countries

A2: developed countries A5: developing countries



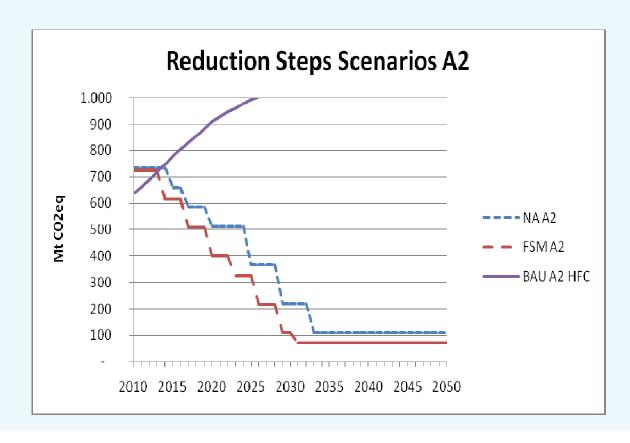






# Adequacy at international level proposals to phase down HFCs under Montreal Protocol

EU supports a global HFC phase down under the Montreal Protocol complementing UNFCCC mitigation efforts









# Review of the F-gas Regulation Objective and main options for further EU action

Objective to contribute cost-effectively to EU 2050 reduction target by reducing F-gas emissions

Options <u>avoiding use</u> and driving transition to greener technologies

- Progressively limiting the supply of F-gases
- Certain use & marketing prohibitions
- Voluntary environmental agreements
- **...**

Options <u>preventing leakage</u> by improving containment/recovery

extend scope of current provisions







# The Review of the F-gas Regulation Next steps

- Assess environmental, economic and social impacts of options for further EU action - with and without global action under the Montreal Protocol
- Stakeholder consultation to feed into impact assessment: your voice, experience, knowledge, costs and benefits (26 September 2011 - 19 December 2011)
- Expect impact assessment to lead to a legislative proposal in 2012







### **Conclusions**

- Application: Some shortcomings
- <u>Effect</u>: EU policy can avoid half of projected F-gas emissions by 2050. Without further action F-gas emissions will not decrease
- Adequacy: A competitive low-carbon EU economy by 2050 requires ambitious action. There is wide scope for further cost-effective Fgas emission reductions, in particular, by avoiding use
- Next step: Stakeholders consultation feed into impact assessment on options and a potential legislative proposal in 2012







#### For more information:

http://ec.europa.eu/clima/policies/f-gas/index\_en.htm

## Thank you for your attention!

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