European Commission

EU action on HFCs and other fluorinated gases

Side event, UNFCCC Warsaw, 12 November 2013

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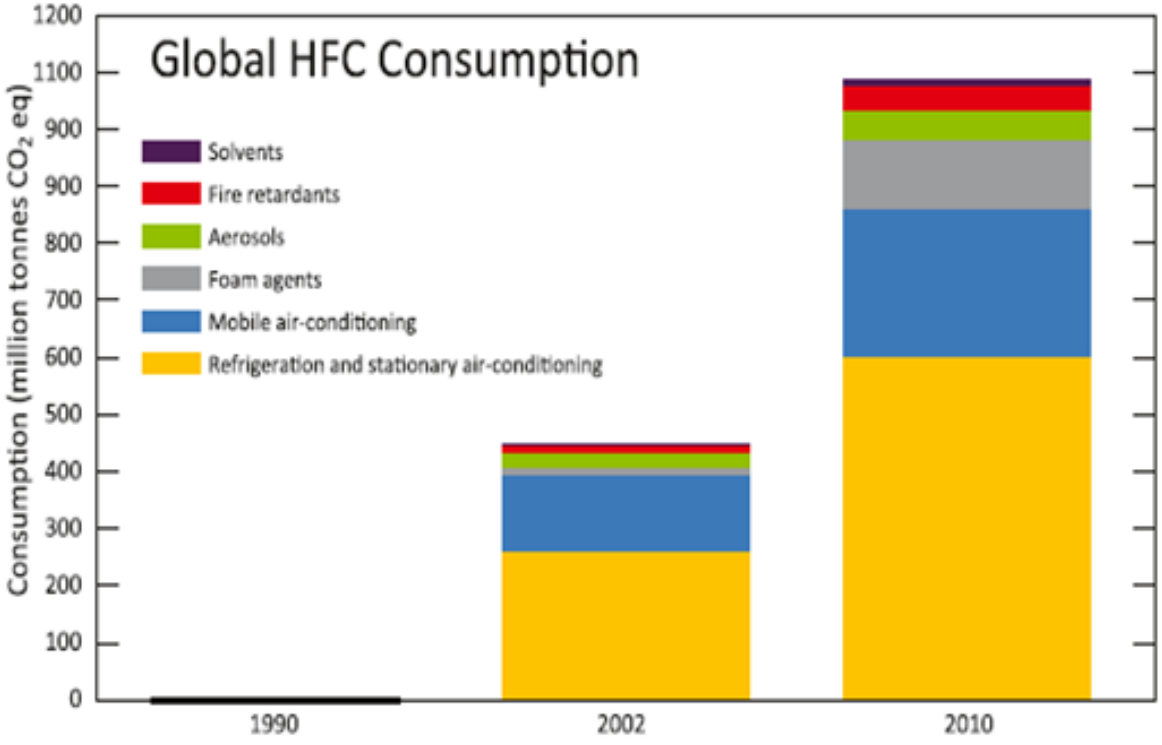
Relevance of fluorinated gases (F-gases)



Source: UNEP, 2011

Gas	GWP (AR 4, 100 year)
CO_2	**1**
Methane	**25**
Nitrous Oxide	**298**
HFC 134a	**1 430**
HFC 404A	**3 922**
HFC 410A	**2 088**
HFC 125	**3 500**
PFC 14	**7 390**
SF6	**22 800**

Possible actions & measures to reduce HFCs and F-gases

- **Voluntary measures: supermarkets**
- **Taxes**
- **Bans/Restrictions on use or sale**
- **"Containment": reducing leakage, training, recording & reporting**
- **Incentive schemes: recovery, producer responsibility**
- **Technology transfer**

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Existing EU F-gas Policy (2006+) for 28 EU Member States

(1) F-Gas Regulation *Focus on "Containment"*

- leak prevention in existing equipment, e.g. leak checks
- training and certification of relevant personnel
- recovery of gases after use
- record keeping and reporting
- some bans

(2) MAC Directive

- bans of HFCs >150 in passengers cars and light trucks

Also policies on ecodesign, ecolabelling, waste,…

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Obligations for operators

of refrigeration, air conditioning, fire protection equipment

Refrigerant charge size [kg] ---→	c ≥ 300	30 ≤ c < 300	3 ≤ c < 30	c < 3
Installation by certified persons	√	√	√	√
Leakage prevention & repair	√	√	√	√
Regular leakage checks	√	√	√	
Leakage detection systems	√			
Record keeping	√	√	√	
Recovery of HFCs before final disposal	√	√	√	√

- *Difference between ≥30kg and <30kg is frequency of checks (6 vs. 12 months)*

Impacts: Existing EU F-gas and MAC legislation since 2006

F-gas Regulation:

F-gas bans

2010: 3 Mt CO_2-eq

2050: 4 Mt CO_2-eq

containment

2020: 29 Mt CO_2-eq

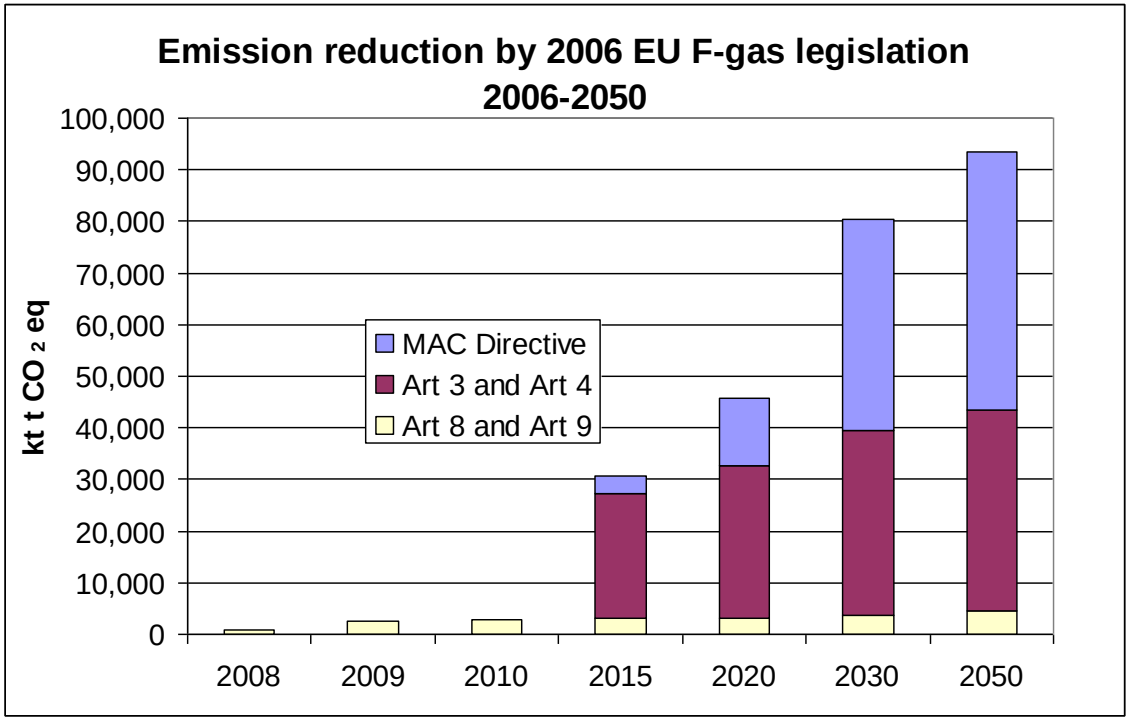
2050: 38 Mt CO_2-eq

Mobile AC Directive:

Ban GWP ≥150

2020: *13 Mt CO_2-eq*

2050: 50 Mt CO_2-eq



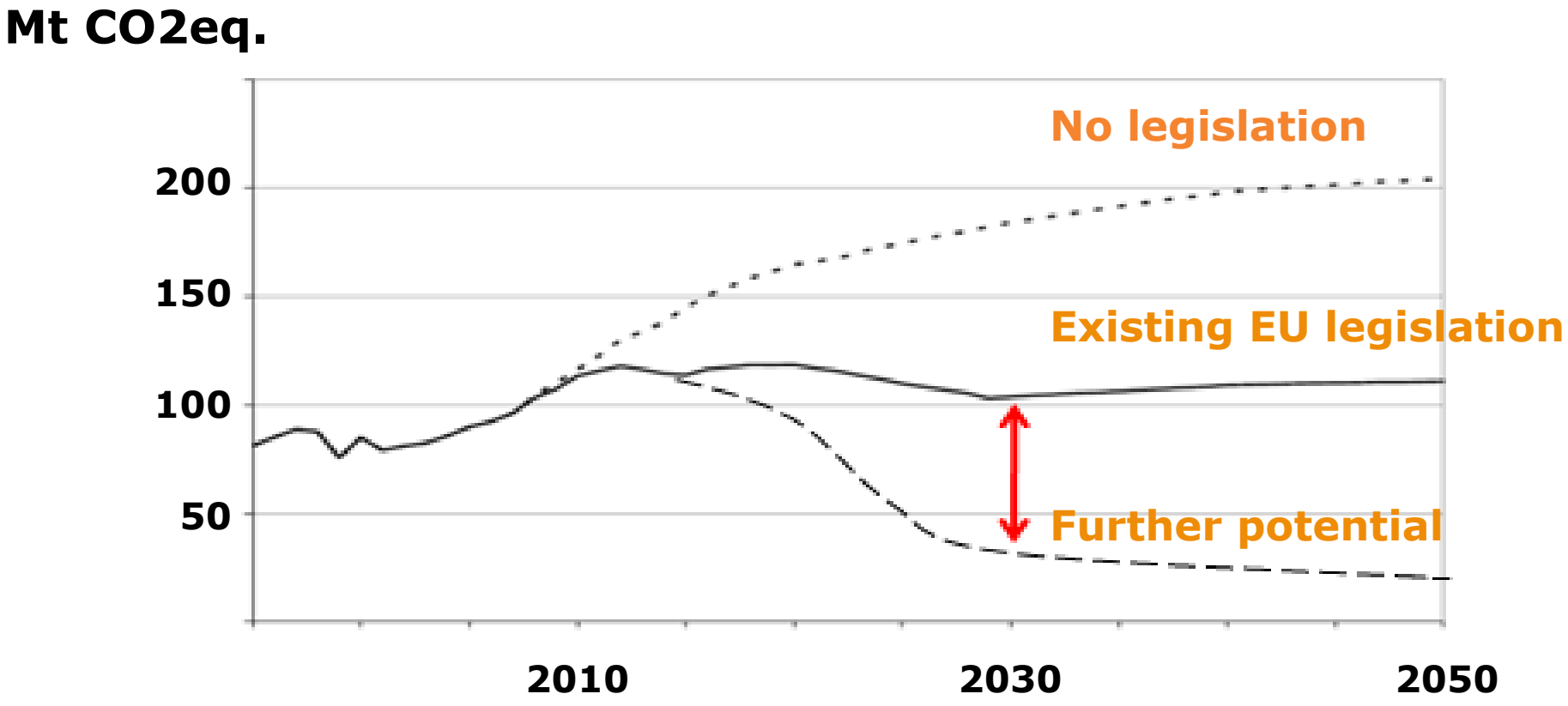
Source: Schwarz et al., 2011

Why strengthening EU F-gas policy further?

- *EU 2050 climate targets is to reduce GHG emissions by 80-95% (1990-level)*
  - → Necessary contribution from F-gas sector is 60% reduction in 2030, based on 2005

- *Several technical studies confirmed that F-gases are low-hanging fruits for mitigation*
  - → Several suitable (safe, energy-efficient, cheap) low GWP alternatives are available for most F-gas applications!
  - → Abatement costs are modest

Projected EU F-gas emissions



New Proposal for a Regulation

7 November 2012

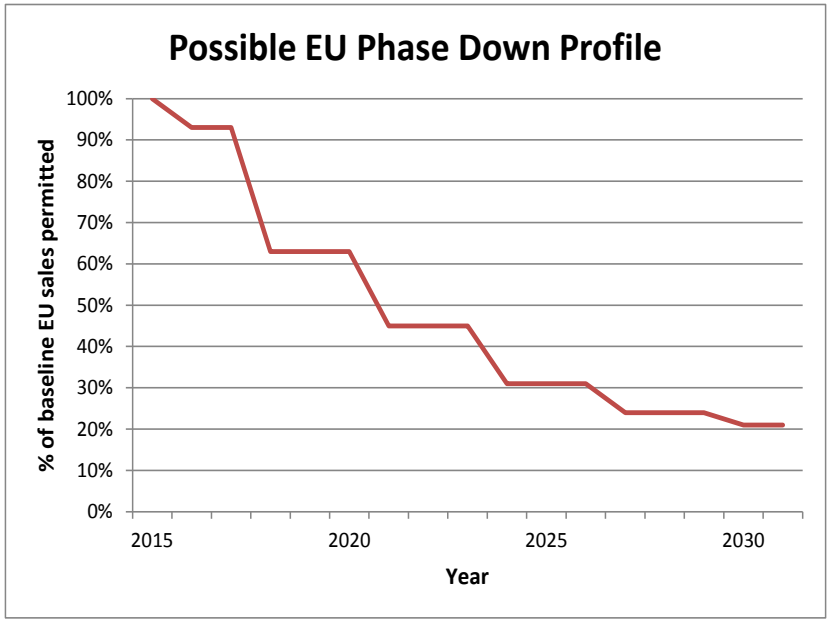
- *Maintain measures to avoid emission prevention*
- *"Phase-Down"*
- *Accompanying Bans*
  - *"Sign-post" the phase-down*

    → Areas: domestic refrigeration; small commercial refrigeration systems; movable AirCon units
  - *Ban on servicing equipment with high GWP HFCs*

New thrust of proposal: Reducing use of high GWP HFCs in new equipment

EU Phase-Down of bulk HFC

- *Reduce current demand of HFCs in 3 year steps to around 20% by 2030*



- *Freeze in 2015, first step in 2016*
- *Tailend for applications where there are no alternatives today*

EU F-gas proposal next step: Adoption

European Parliament

754 Members

directly-elected

Council of the EU

Ministers from all

EU Member States

Proposal in the EU legislative procedure

Timing: Aiming for 2014

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EU actions on F-gases in international context

- *Increased EU demand for alternative technologies*
  - innovation and economies of scale also in other markets
    - hence reducing costs of a global phase-down of HFCs
- *Show leadership in reducing the emissions gap*
- *Looking for international collaboration to achieve faster reductions of HFC consumption*

There is a unique window to save money and effort by acting now, by (i) reducing existing use of HFCs, and (ii) using low-GWP alternatives when replacing ozone depleters

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Our proposed way forward globally:

Phasing Down of HFCs under the Montreal Protocol

- *Profit from existing and well-functioning means of implementation under MP for the same industry sectors*
- *Dealing with consumption under MP and accounting/reporting of emissions under UNFCCC can be fully complementary actions*
- *EU experience highlights the great potential benefit of acting quickly: important cost savings are possible if we avoid that high GWP HFCs are phased in first*

To know more…

http://ec.europa.eu/clima/policies/f-gas/index_en.htm

Thank you for your attention!

Arno Kaschl, Cornelius Rhein, Bente Tranholm-Schwarz
European Commission
DG Climate Action

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