

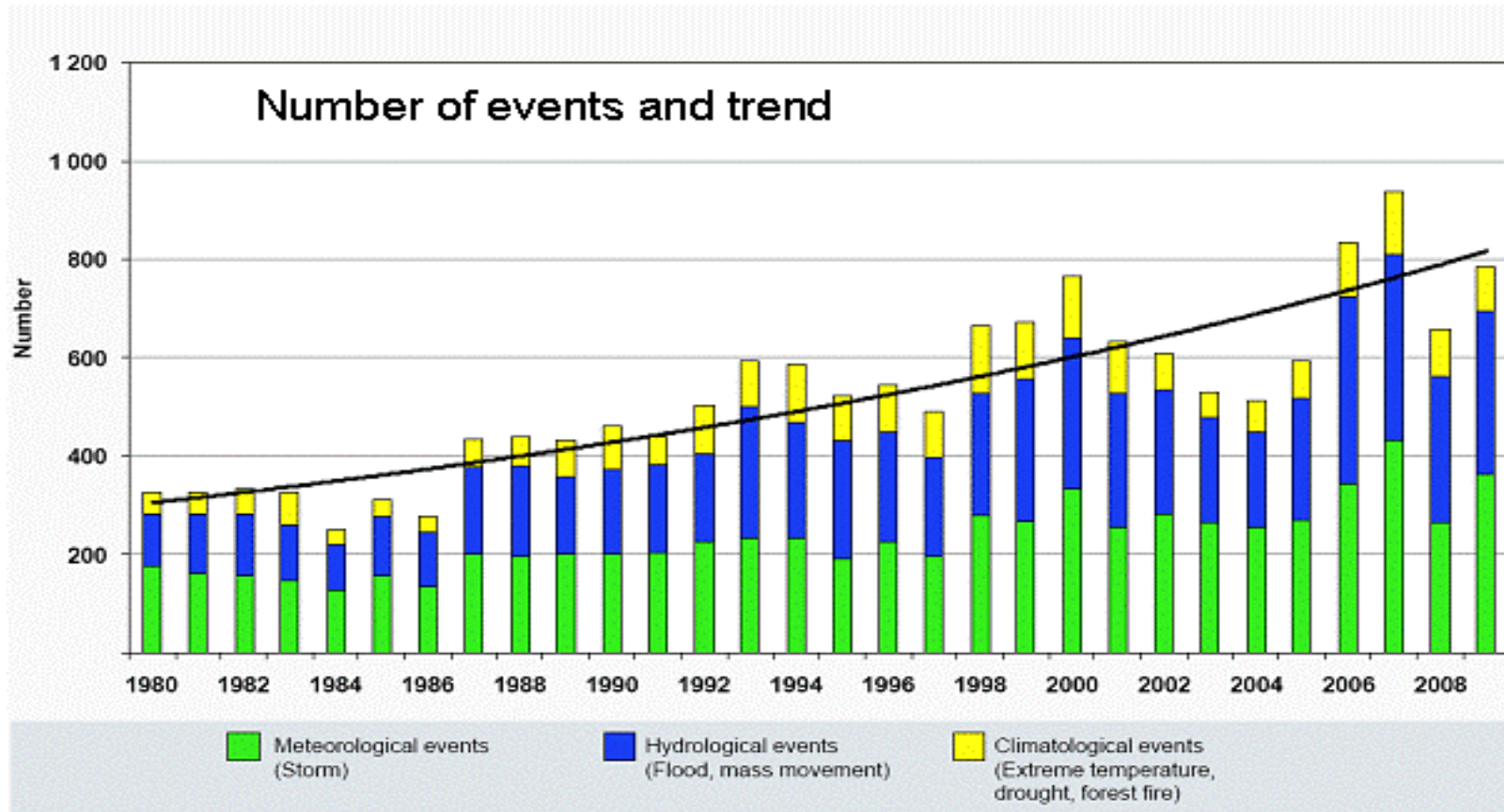


# New EU F-gas Regulation – Commission Proposal



*Bente Tranholm Schwarz, DG Climate Action*

# Stop the change – Take action!

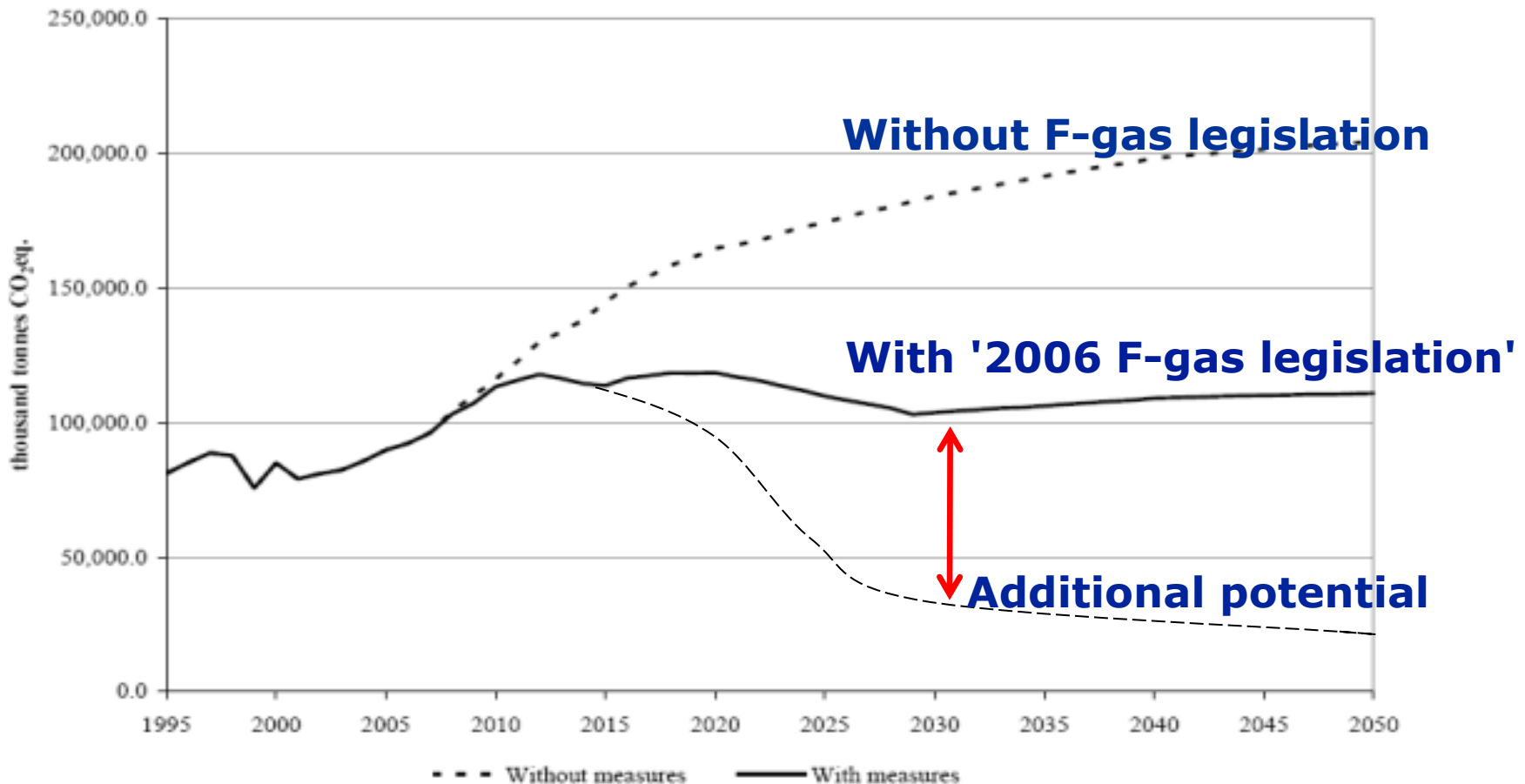


Source: Munich Re

## Why EU action on F-gases?

- *EU committed to reduce GHG emissions by 80-95% by 2050*
- *Commission Low Carbon Economy Roadmap: non-CO<sub>2</sub> emissions (non-agricultural) must decline by 72-73% by 2030 and by 70-79% by 2050*
- *Status quo leads to stabilisation of F-gas emissions only*

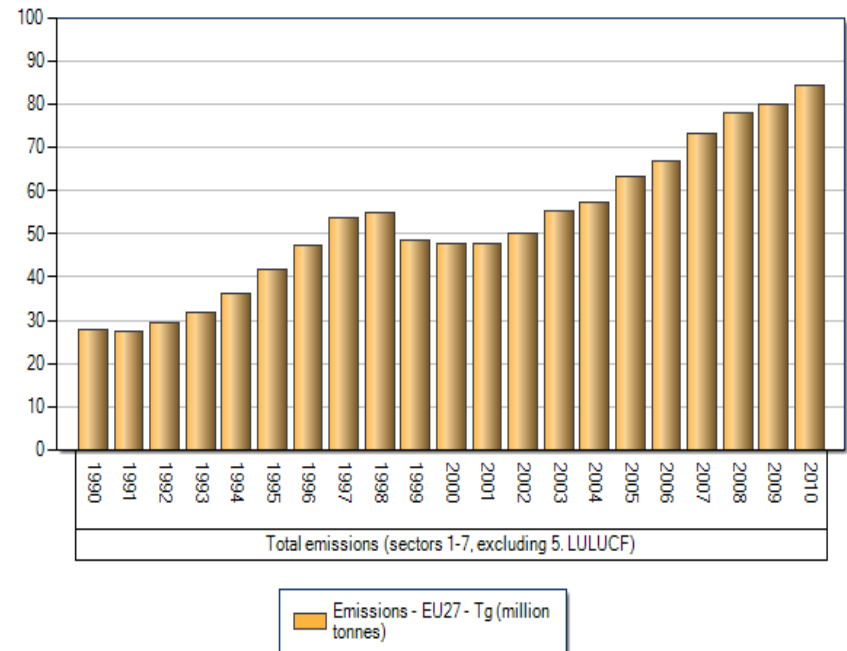
# Scenarios EU F-gas emissions



# EU GHG emissions since 1990

F-gases **↑ 60%**  
 HFCs **↑ 300%**  
 while, all GHG **↓ 18%**

## HFCs EU



# Strategies for reducing F-gas emissions

- *Prevent leakage from (containment)/ ensure proper end of life treatment of products and equipment*
- *Avoid use of highly potent F-gases in products/equipment and production processes*

## Conclusions in recent studies

- *Additional containment measures have low emission reduction potential*
- *Further avoiding use of F-gases can bring large and cheap emission reductions because climate friendly alternatives exist for many products/ equipment*

*Schwarz et al., 2011, SKM Enviros, 2012, SKM Enviros, 2011, Erie/Armines, 2011, Umweltbundesamt (Germany), 2010*

# A climate friendly alternative is ...

- ✓ *technically feasible today*
- ✓ *at least as energy efficient*
- ✓ *safe*
- ✓ *cheaper or at reasonable costs*



## GWP

**<10**

**100  
-1000**

**1000  
-2000**

			<10	100 -1000	1000 -2000
Domestic Refrigeration	Refrigerators	MT	●	●	●
	Freezers	LT	●	●	●
Commercial Refrigeration	Hermetic Units (Medium Temp)	MT	●	●	●
	Hermetic Units (Low Temp)	LT	●	●	●
	Single condensing units (MT)	MT	●	●	●
	Single condensing units (LT)	LT	●	●	●
	Multi-pack centralised systems (MT)	MT	●	●	●
	Multi-pack centralised systems (LT)	LT	●	●	●
Transport Refrigeration	Vans and light trucks	LT & MT	●	●	●
	Large Trucks and Iso-Containers	LT & MT	●	●	●
Industrial Refrigeration	Small DX LT (low temp.)	LT	●	●	●
	Small DX MT (medium temp.)	MT	●	●	●
	Medium DX LT (low temp.)	LT	●	●	●
	Medium DX MT (medium temp.)	MT	●	●	●
	Large DX LT (low temp.)	LT	●	●	●
	Large DX MT (medium temp.)	MT	●	●	●
	Medium-size Industrial Chillers	MT	●	●	●
	Large Industrial Chillers	MT	●	●	●
	Large Flooded LT (low temp.)	LT	●	●	●
	Large Flooded MT (medium temp.)	MT	●	●	●
Stationary Air Conditioning (SAC) and Heat Pumps	Small portable units, cooling only (air-to-air)		●	●	●
	Small split systems, cooling only (air-to-air)		●	●	●
	Small split systems, heating & cooling (air-to-air)		●	●	●
	Medium split systems, cooling only (air-to-air)		●	●	●
	Medium split systems, heating & cooling (air-to-air)		●	●	●
	Large split systems, cooling only (air-to-air)		●	●	●
	Large split systems, heating & cooling (air-to-air)		●	●	●
Packaged systems, cooling only (air-to-air)		●	●	●	

*SKM/Enviros (EPEE) 2012, "Phase-down of HFC consumption in the EU"*

● *Suitable for application*

● *Technically feasible but other options usually preferable (capital cost and/or efficiency)*

● *Not suitable (safety, efficiency)*

## Legislative options for EU regulation

- *Containment measures (existing and new)*
  - *Prohibitions linked to equipment/products with F-gases (existing and new)*
  - *"Phase-down" of HFCs*
- ... and a possible combinations of those options*

# Some possible combinations

*Containment*

+

*Prohibitions*

*Containment*

+

*Phase-down*

*Containment*

+

*Phase-down*

+

*Prohibitions*

## Containment – potential measures

- *Maintain and improve containment measures in the 2006 F-gas Regulation (leakage check schedules, detection systems, labelling, training & certification)*
- *Increase the scope of application*

*... while insisting on correct implementation of existing measures*

## Prohibitions – potential approaches

- *Prohibitions to place on the EU market certain F-gas products/equipment*
- *Prohibitions to service certain equipment with certain gases*
- *Prohibitions to sell certain equipment pre-filled*

*... restrictions should apply regardless of the product origin*

# "Phase-down" – potential elements

- *Declining overall limits over time (in global warming potential)*
  - *Scope in terms of gases and category (bulk/pre-charged in equipment)*
  - *Consumption and/or production of gases*
  - *Allocation of quotas or auctioning*
  - *Level of monitoring and verification*
- ... while safeguarding the environmental integrity, fair competition & trade and a low administrative burden*



European  
Commission



EUROPEAN COMMISSION



Brussels, **XXX**  
[...] (2012) **XXX** draft

Proposal for a

**REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL**

**&**

**on fluorinated greenhouse gases**

(Text with EEA relevance)

**by the Council of the European Union &  
the European Parliament**



**Climate  
Action**



***Thank you for your attention!***