

# Questions for WGSR

1. Ambition level (reduction of risks to health and ecosystems)?
2. Baseline scenario & sensitivity runs?
3. Type of abatement options?

# 1. Ambition level

1. Follow 2020 targets of the Thematic Strategy of the EC ?
2. Follow “BAT” approach for EECCA?

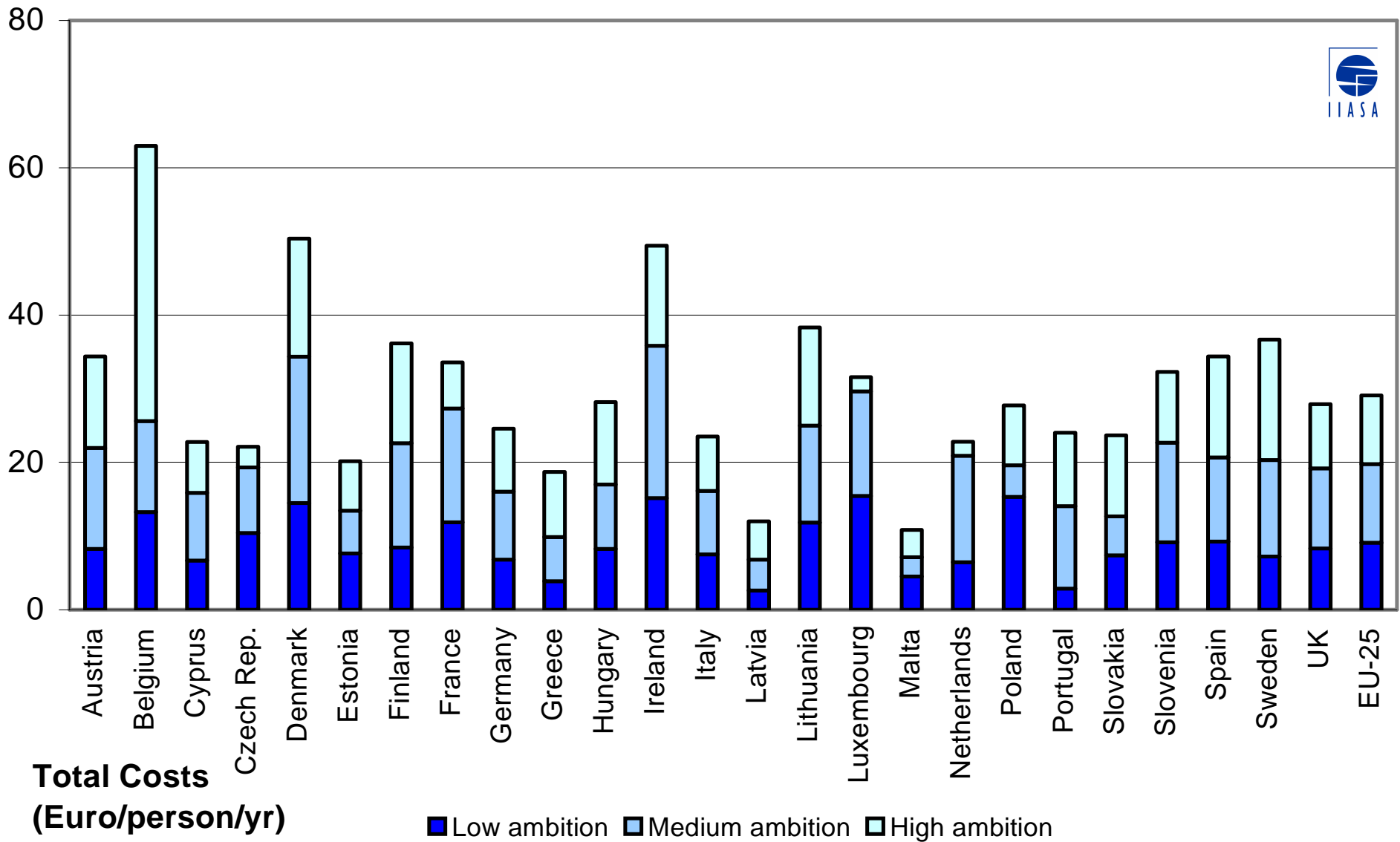
*Ambitions for 2050? Backcasting*

# EU ambition levels: different options

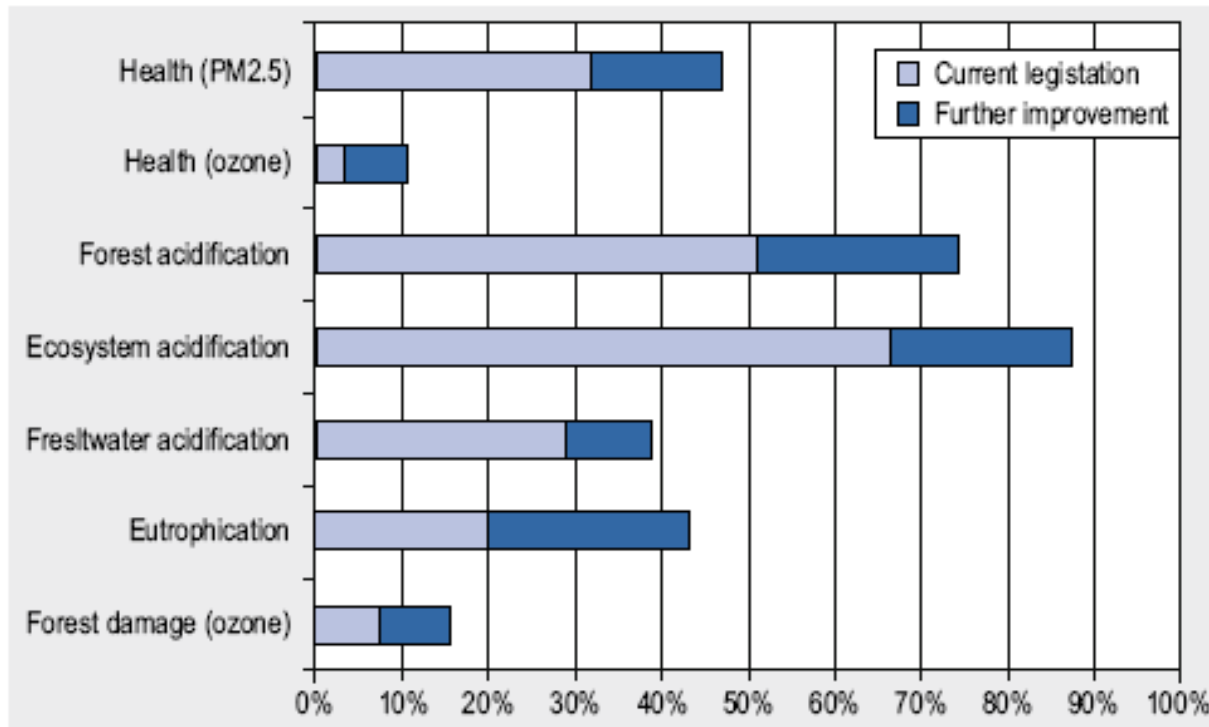
*Alternative environmental ambition levels up to 2020*

Ambition level	Cost of reduction (€bn)	Human health		Natural environment				
		Life Years Lost (million) or <i>Premature deaths</i> (thousands)	Range in monetised health benefits (€bn)	Ecosystem area exceeded acidification (000 km <sup>2</sup> )			Ecosystem area exceeded eutrophication (000 km <sup>2</sup> )	Forest area exceeded ozone (000 km <sup>2</sup> )
				Forests	Semi-natural	Freshwater		
2000	-	3.62 (348)	-	243	24	31	733	827
Base line 2020	-	2.47 (272)	-	119	8	22	590	764
Scenario A	5.9	1.97 (218)	37 - 120	67	4	19	426	699
Scenario B	10.7	1.87 (206)	45 - 146	59	3	18	375	671
Scenario C	14.9	1.81 (200)	49 - 160	55	3	17	347	652
MTFR	39.7	1.72 (190)	56 - 181	36	1	11	193	381

# Ambition level: € 5-15 pp/yr



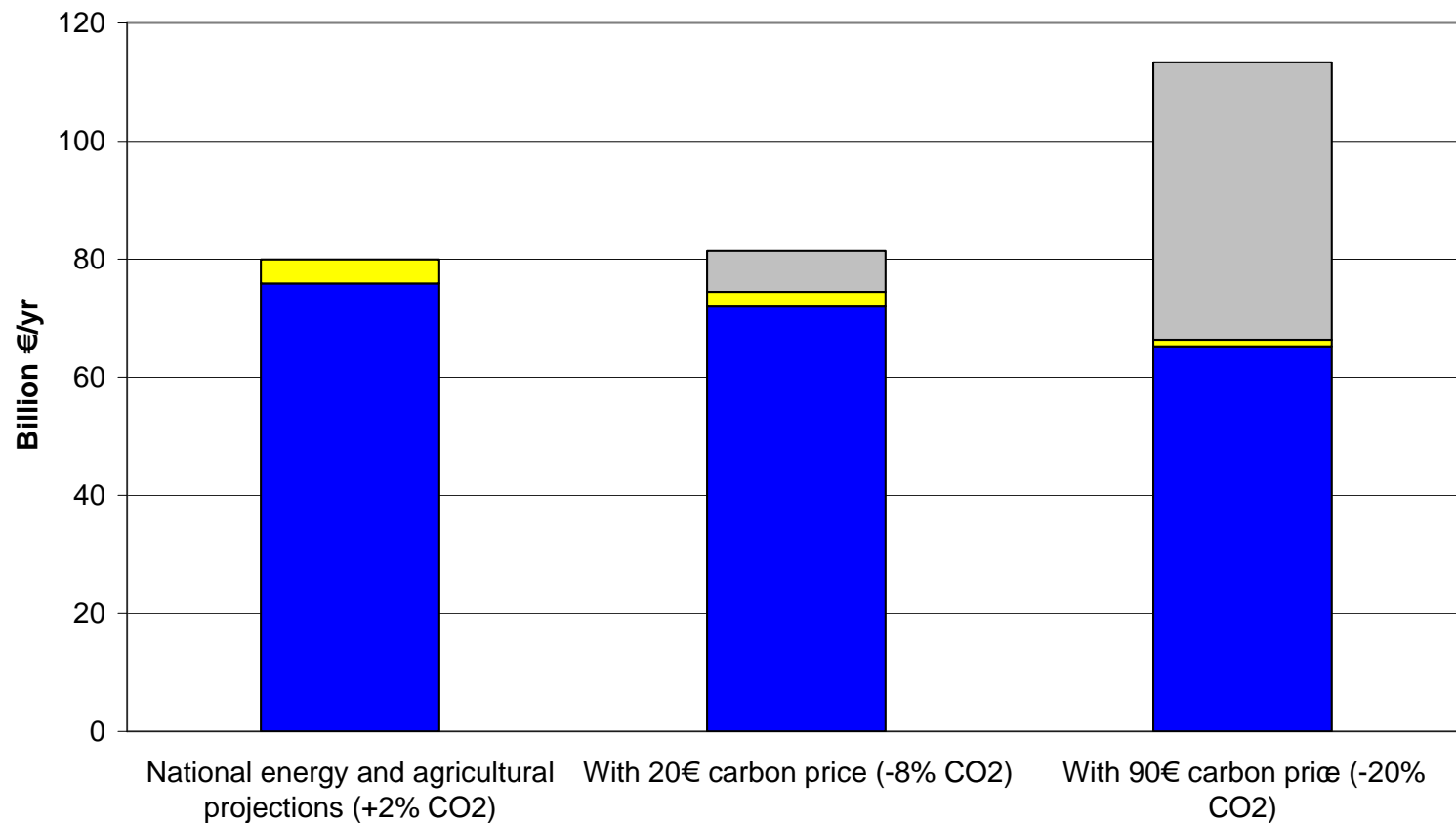
# EC-strategy: % improvement between 2000 and 2020



**Cost estimate (2006): € 7 bn**

**EU parliament: higher ambitions !**

# Additional costs EU air pollution strategy ~ € 1 bn

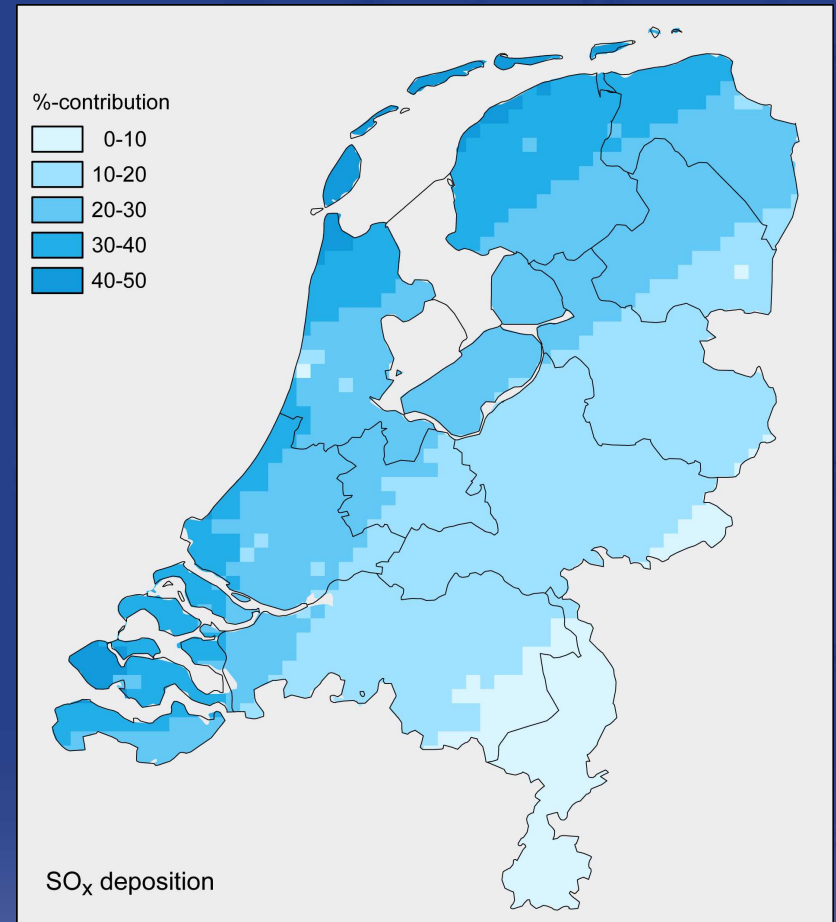
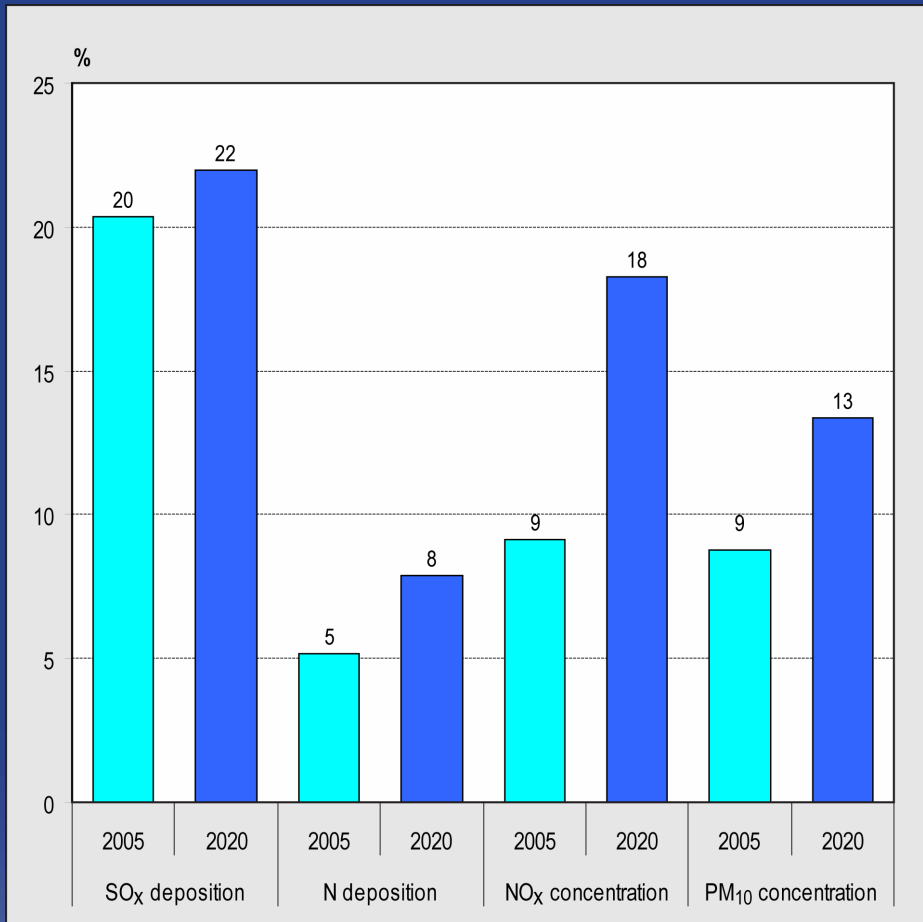


■ Costs for current legislation on air pollution ■ Additional costs for TSAP ■ Additional costs for the CO2 reduction

## **2. Baseline scenario options**

1. Baseline as used for GP-review (mid 2007)
2. Include reduction plans EECCA
3. Include reduction plans IMO
4. Include planned emission reductions due to AQLVs
5. Include nitrogen reductions due to ND
6. Include greenhouse gas policy plans

# Contribution of North Sea emissions

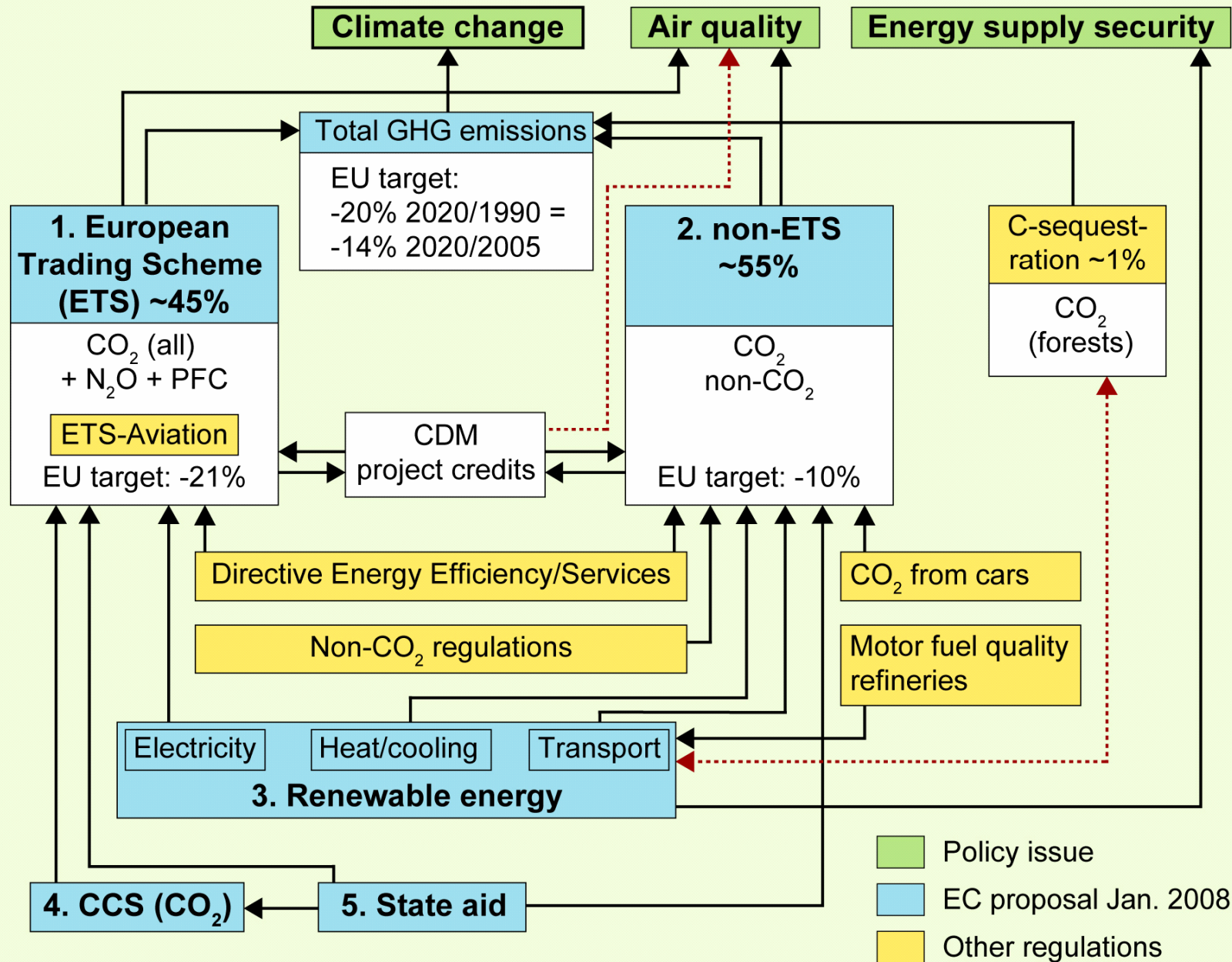




# *Implications*

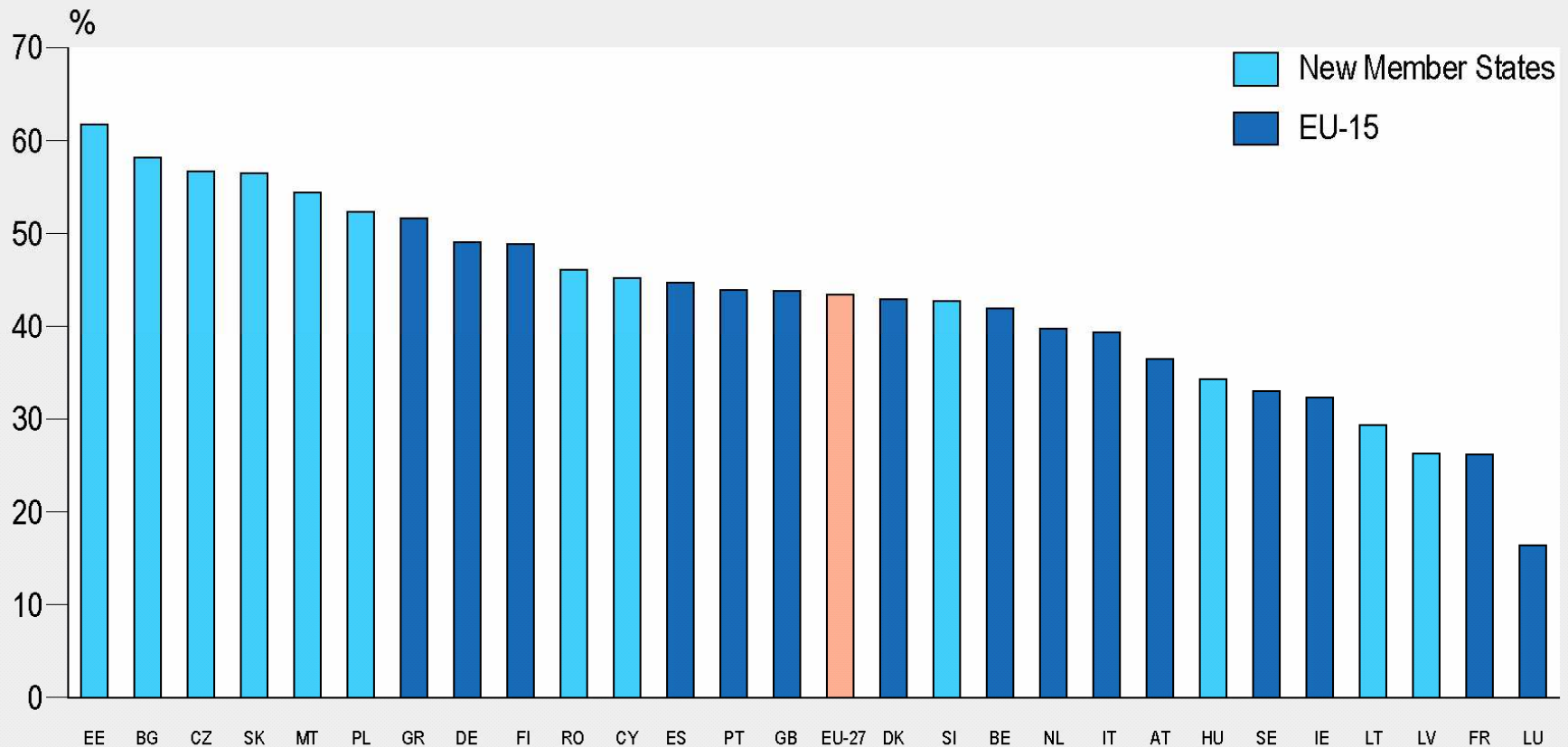
- Given the ambition level more ship emission reductions = higher national emission ceilings
- Inclusion of GHG-policy will lower the costs and drive cost-effective policy from NH<sub>3</sub> towards SO<sub>2</sub> reduction.
- Estimates by EC for international emission trading, renewable certificates trading & use of CDM/JI are not yet available

# Relation between new and existing EU Climate and Energy policies



# When the share of the ETS-sector is larger, emissions of SO<sub>2</sub> or NO<sub>x</sub> will be more sensitive for transboundary emission trading (or v.v.)

Share ETS in national total in 2005 (EU average = 43%)



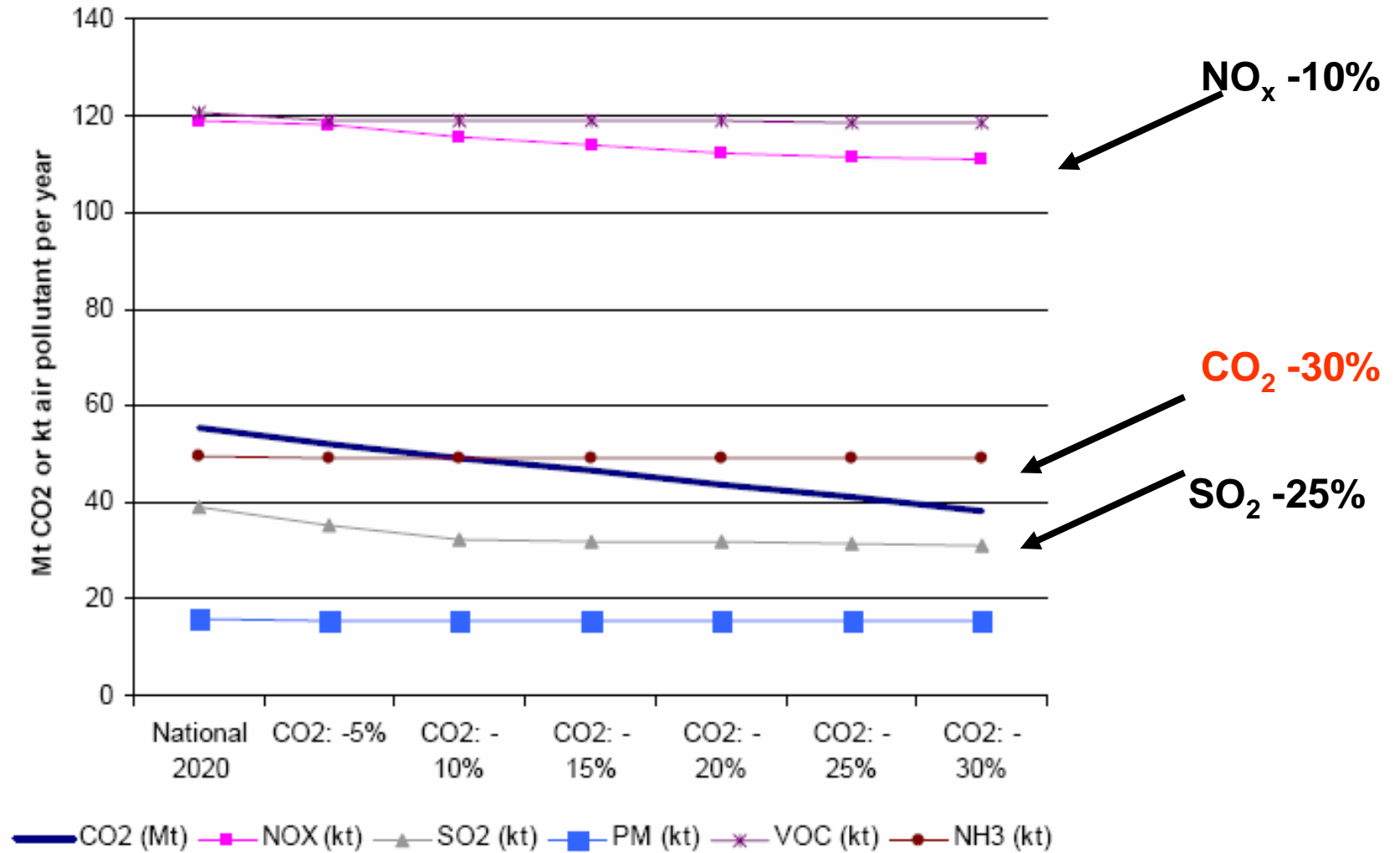
# Planning EU process 2008

**May:** PRIMES baseline available (excl. climate & energy proposal)

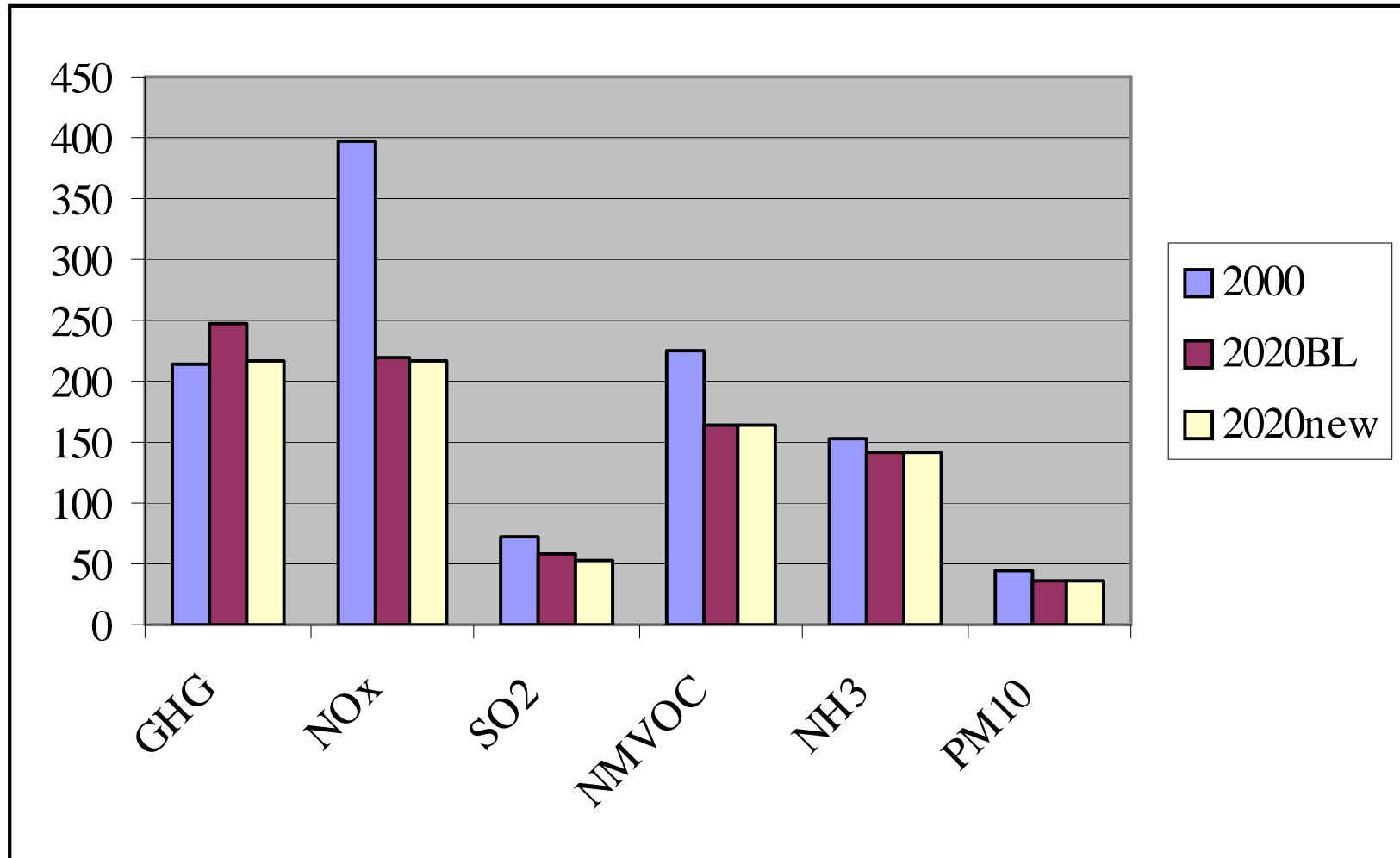
**June:** EC-proposal NEC – directive (based on PRIMES incl. climate & energy proposal and assumptions on trading)

**June - December ?:** Negotiations with Member States & European parliament

# Synergies between GHG reduction and air pollution in Sweden



# Synergies between GHG reduction and air pollution in the Netherlands



# ***Updated national projections***

- Updates available by September 2008
  - Timing possible ?
  - Consistency ?
- Projections based on PRIMES
  - Only for sensitivity analysis ?
  - Harmonization of CLRTAP and CAFE-data ?

# 3. Type of abatement options

1. Traditional (national) 'end-of-pipe' measures
2. Include options for structural changes in energy, transport and agriculture
3. Include (local) economic instruments (behavioural change)



# ***2050 ambitions***

- Full implementation of MFTRs
- Structural changes in energy, transport and agriculture
  - *Increased prices of fossil fuels*
  - *Clean electricity production: CCS ? Hydrogen?*
  - *Private transport ?*
  - *After oil ?*
  - *After meat ?*
- Who contributes? EEA? EGTEI? Parties?

**Workshop with TFEIP/PEP November 2008**