

---

# The Kyoto Protocol and its market mechanisms

**Axel Michaelowa**

michaelowa@perspectives.cc



# Steps of international climate policy

---

“Russian doll” structure of agreements:

**U.N.-Framework Convention on Climate Change (1992)**

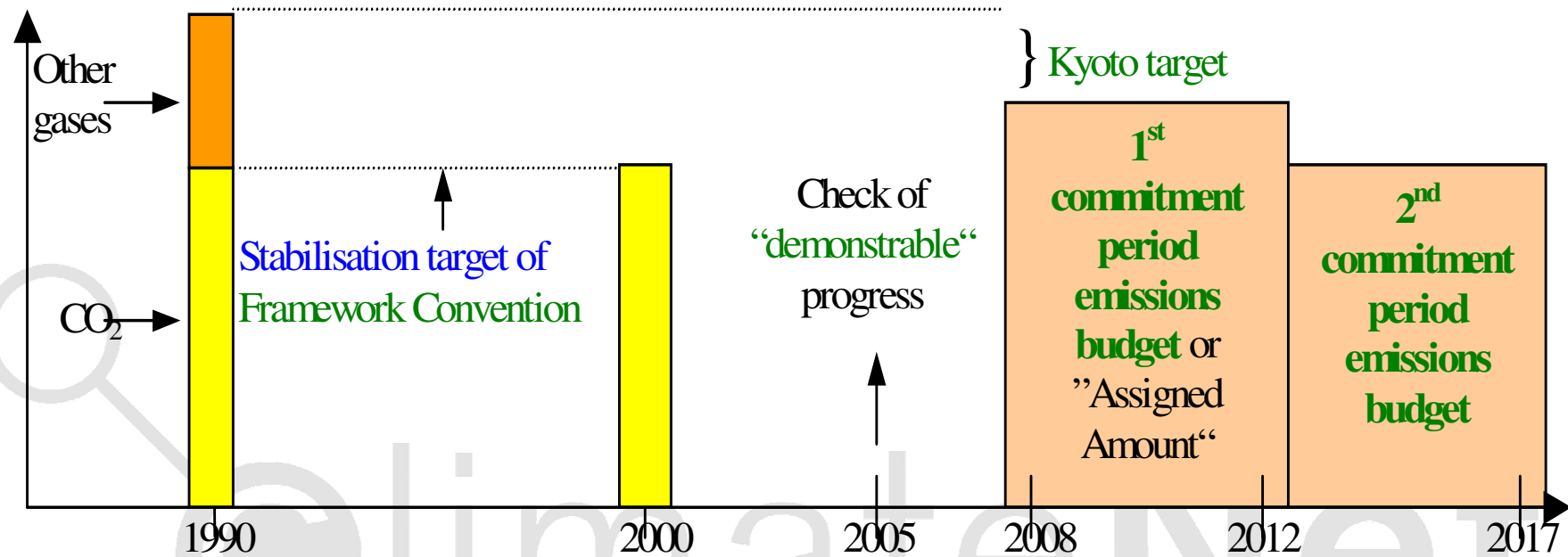
**Kyoto Protocol (1997)**

**Marrakech Accords (2001)**

**Kyoto Mechanism  
rules (2002ff)  
2<sup>nd</sup> Commitment  
Period rules (2005ff)**

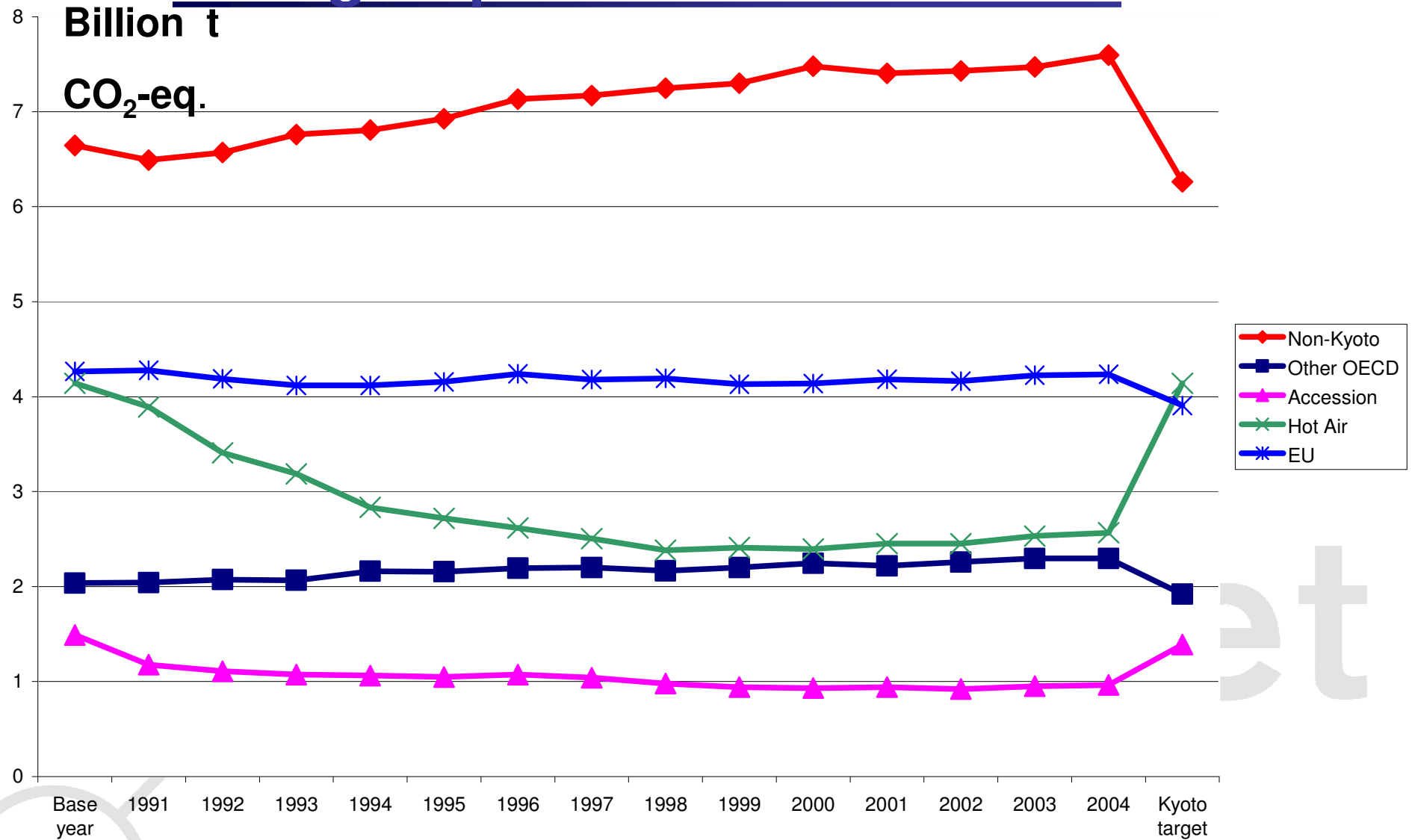
# Emissions targets over time

Emissions



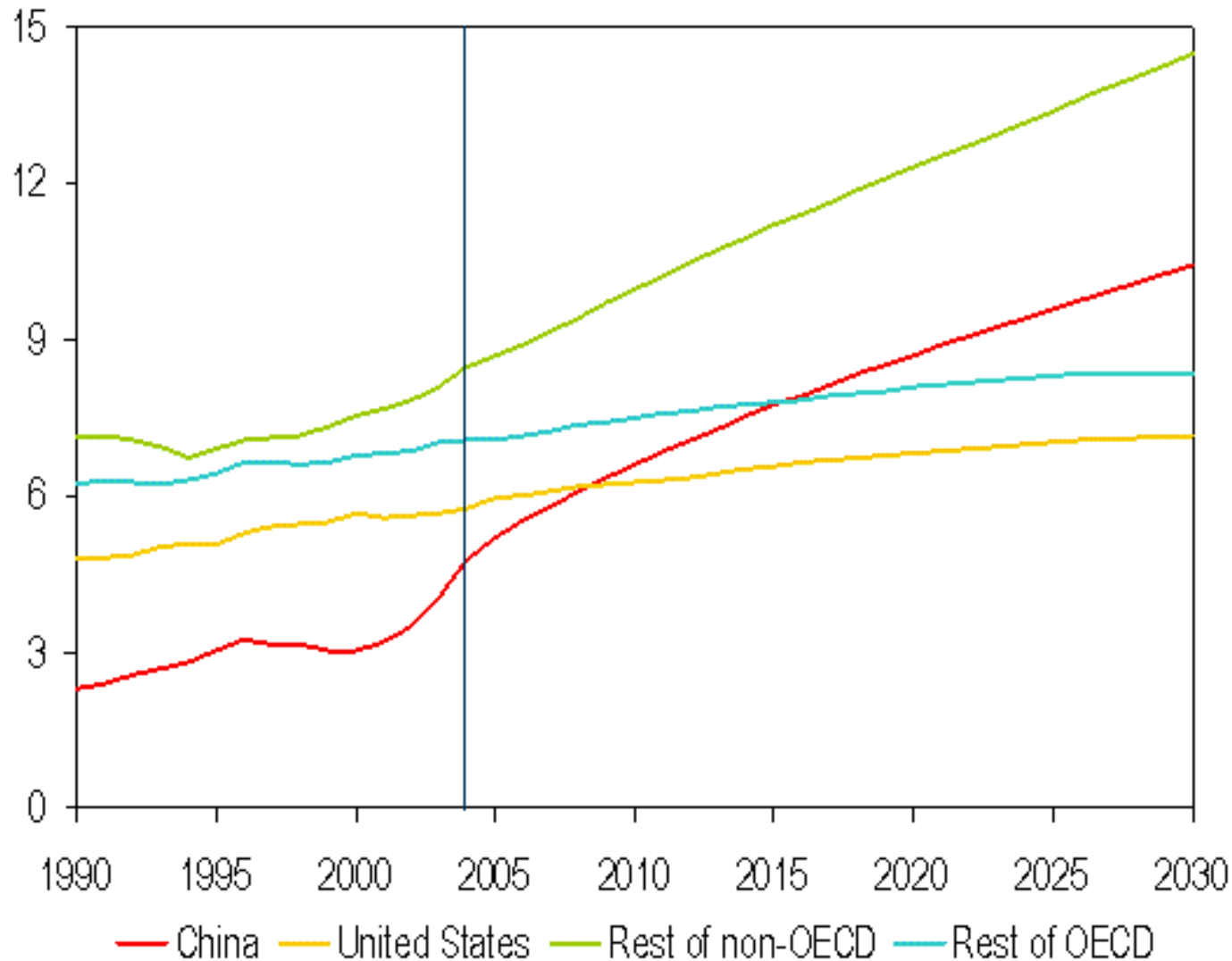
Only reached by **countries in transition, Germany and UK!**

# Emissions of important country groups 1990-2004



# CO<sub>2</sub> emissions trends until 2030

Billion t  
CO<sub>2</sub>



Source:  
WEO  
2006

# Emissions targets under Kyoto

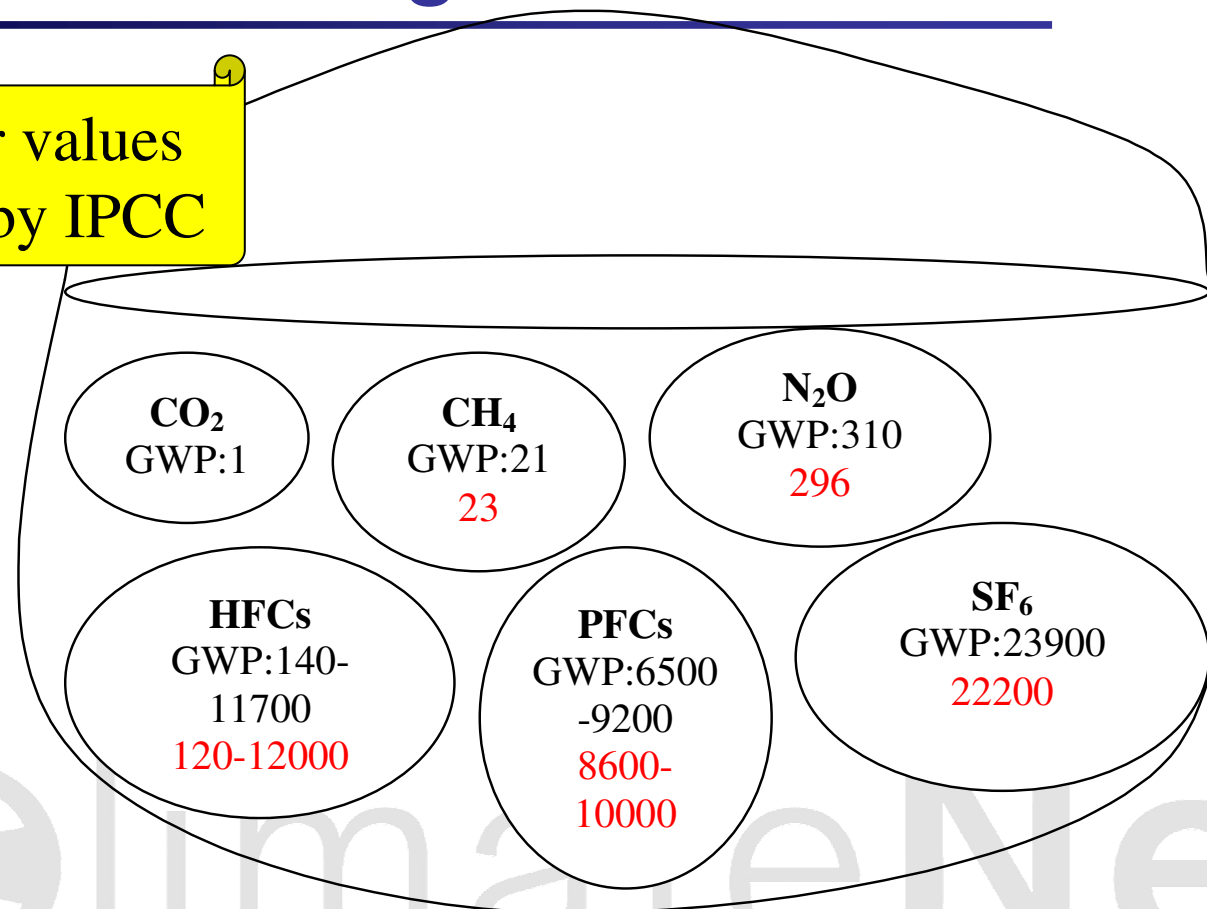
---

Country	Target (compared to base year)
EU, Baltic states, Bulgaria*, Czech Republic, Romania*, Slovakia, Slovenia*, Switzerland	- 8%
USA	- 7%
Canada, Hungary*, Japan, Poland*	- 6%
Croatia	- 5%
New Zealand, Russia, Ukraine	0%
Norway	+ 1%
Australia	+ 8%
Iceland	+10%

- 1995 base year for industrial gases
- Earlier base year for countries in transition (\*)
- Australian land use emissions counted in base year: “gift” of 9%
- Emissions of planned Icelandic aluminium smelter exempt (2/3 of 1990 emissions!) Monaco also plans to use this rule.

# The greenhouse gas basket

100 year values  
defined by IPCC



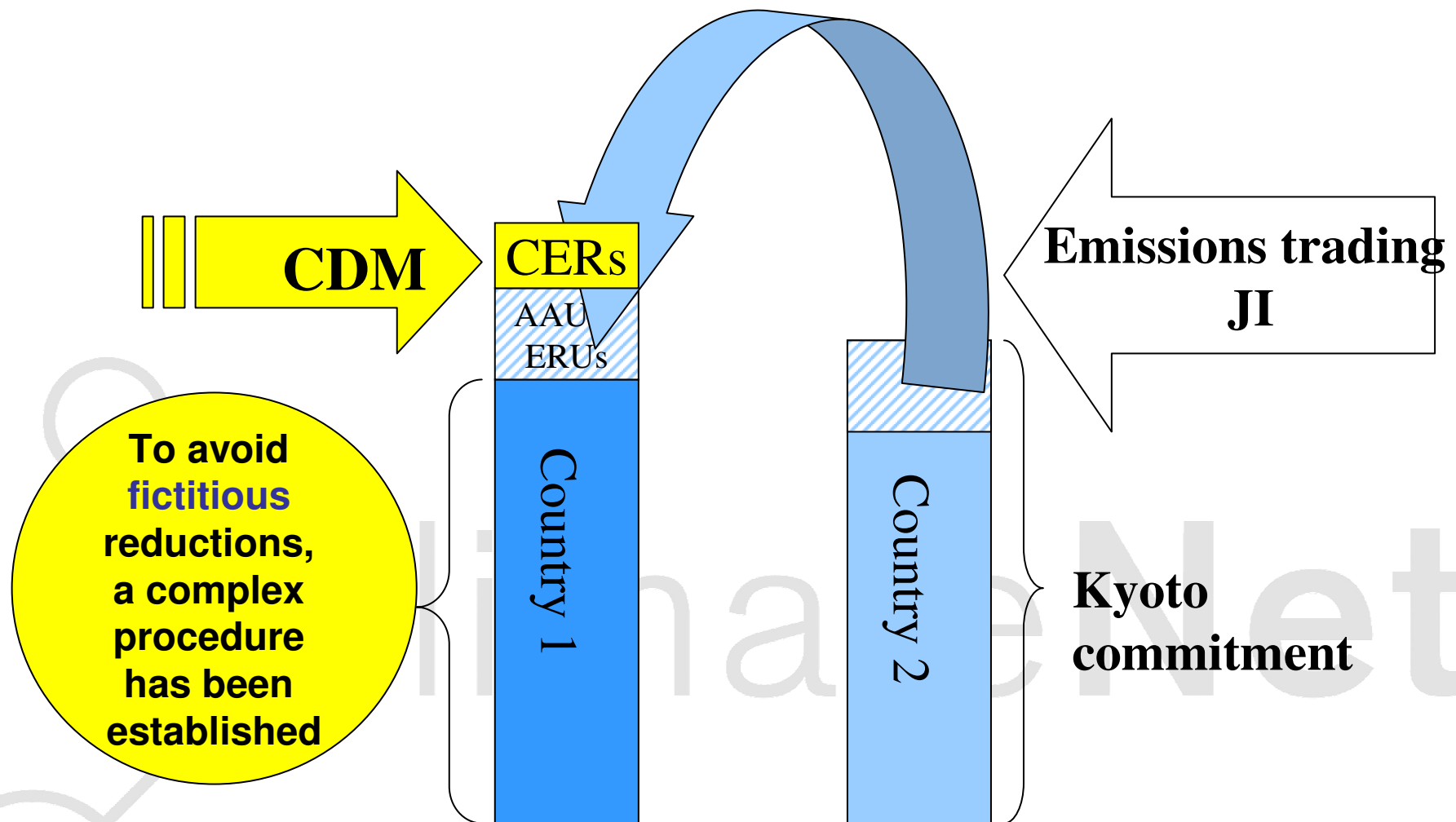
How to deal with updates of GWPs? The Third Assessment Report has already changed some of them considerably (red values). Will this be done for the 2nd Commitment Period?

# The Kyoto Mechanisms I

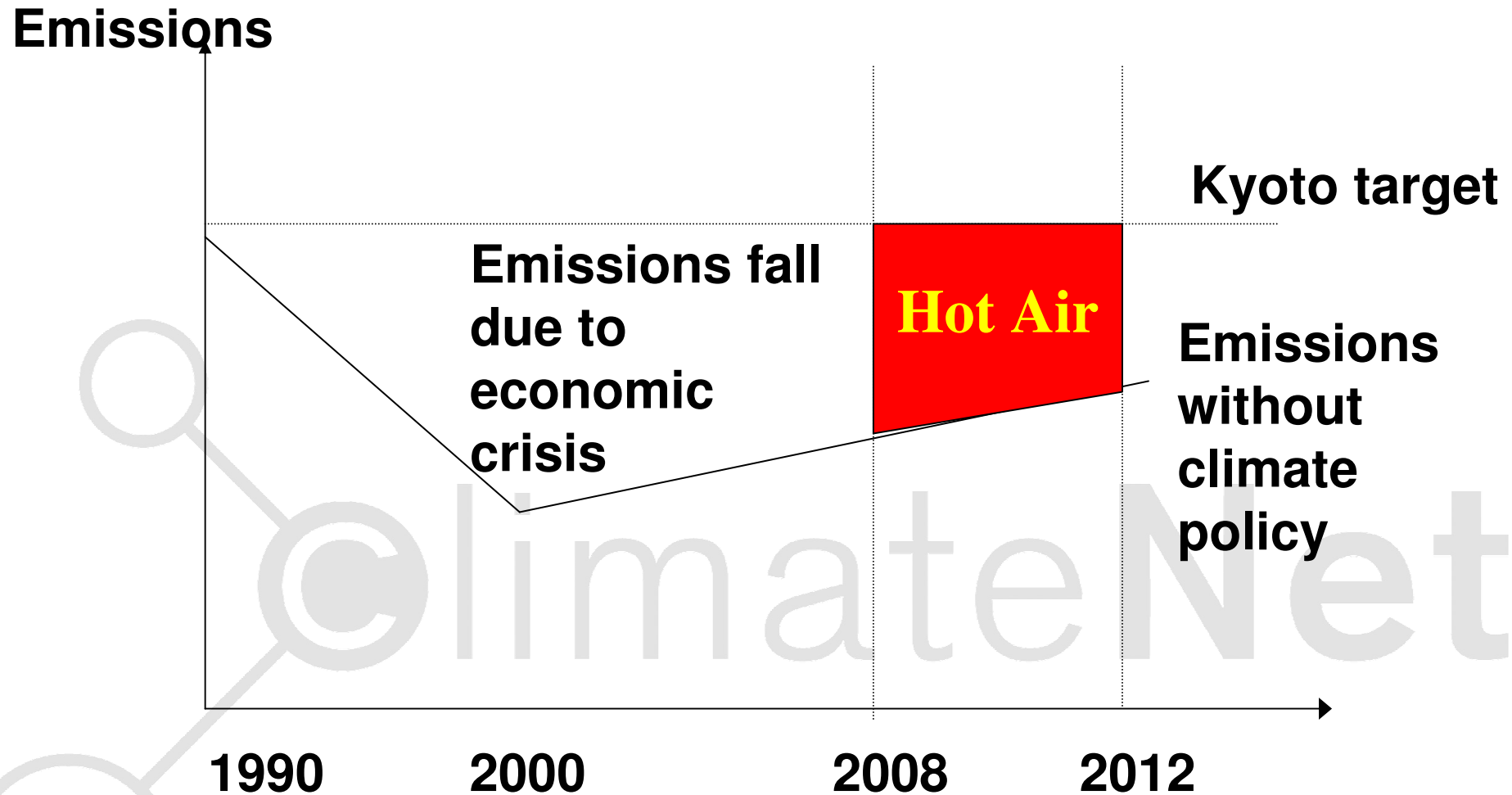
- Art. 4: **Bubble** consisting of a group of industrial countries. The **EU** forms a bubble.
- Art. 6: **Joint Implementation**: credit reductions from **projects** in other **industrial countries**.  
**Two-track system: one free, one CDM-like**
- Art. 12: **Clean Development Mechanism (CDM)**: credit reductions from **projects** in **developing countries**. **Focus: Sustainable Development!**
  - Start already in 2000, advanced furthest
- Art. 17: **Emissions trading between industrial countries**



# The Kyoto Mechanisms II

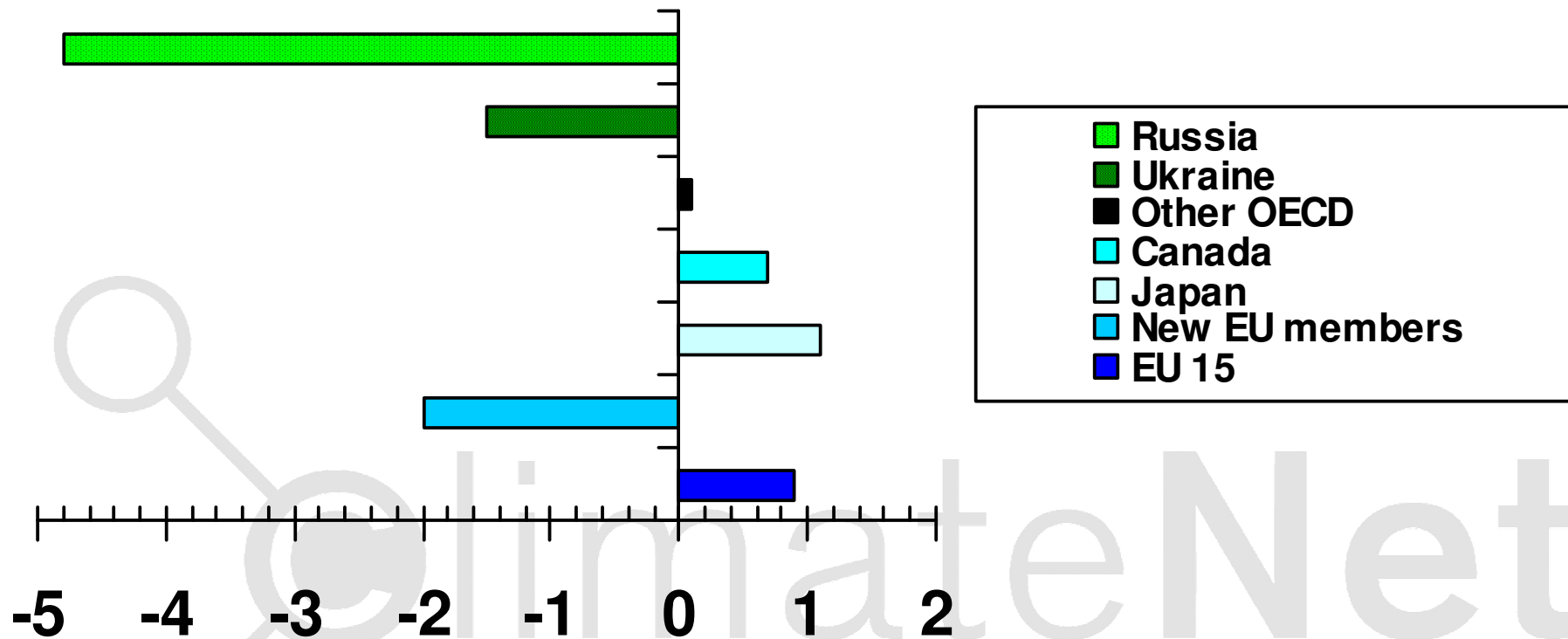


# The problem of "hot air"



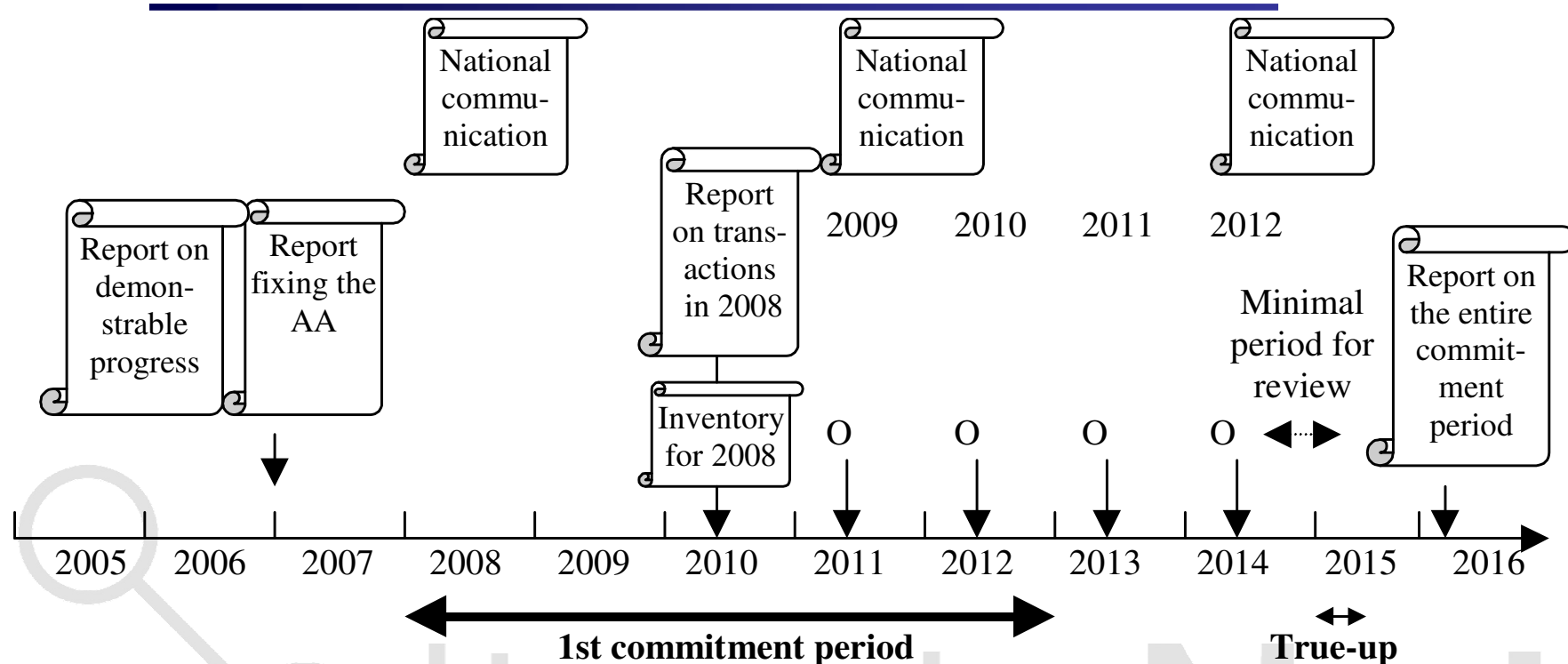
## Supply and demand (billion t 2008-2012)

---



Source: Point Carbon

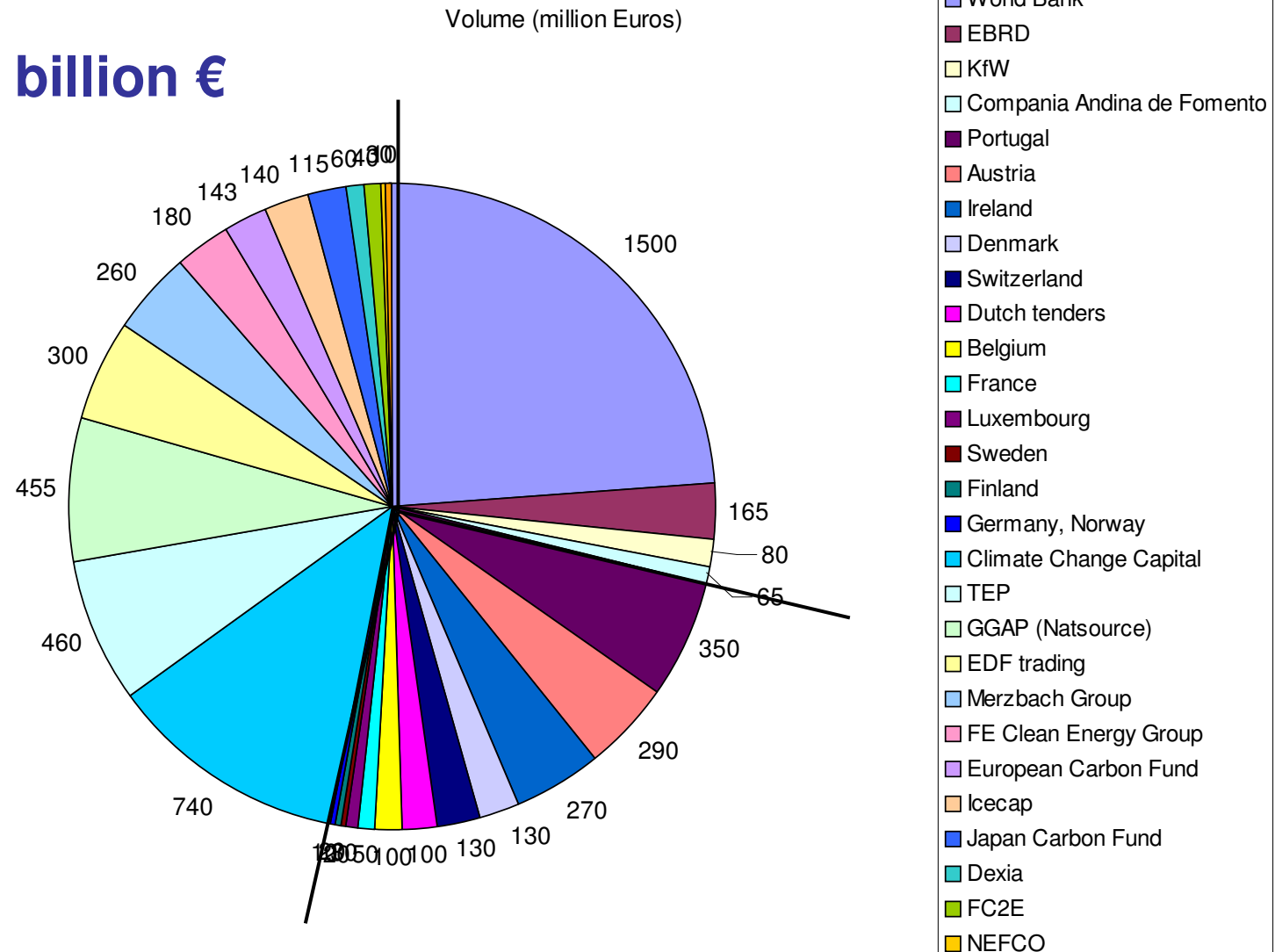
# Detailed reporting requirements



- All reports are reviewed by expert panels that suggest corrections. If correction values surpass certain thresholds, reporting rules are deemed as violated
- Trading and JI 1st track require compliance with reporting rules

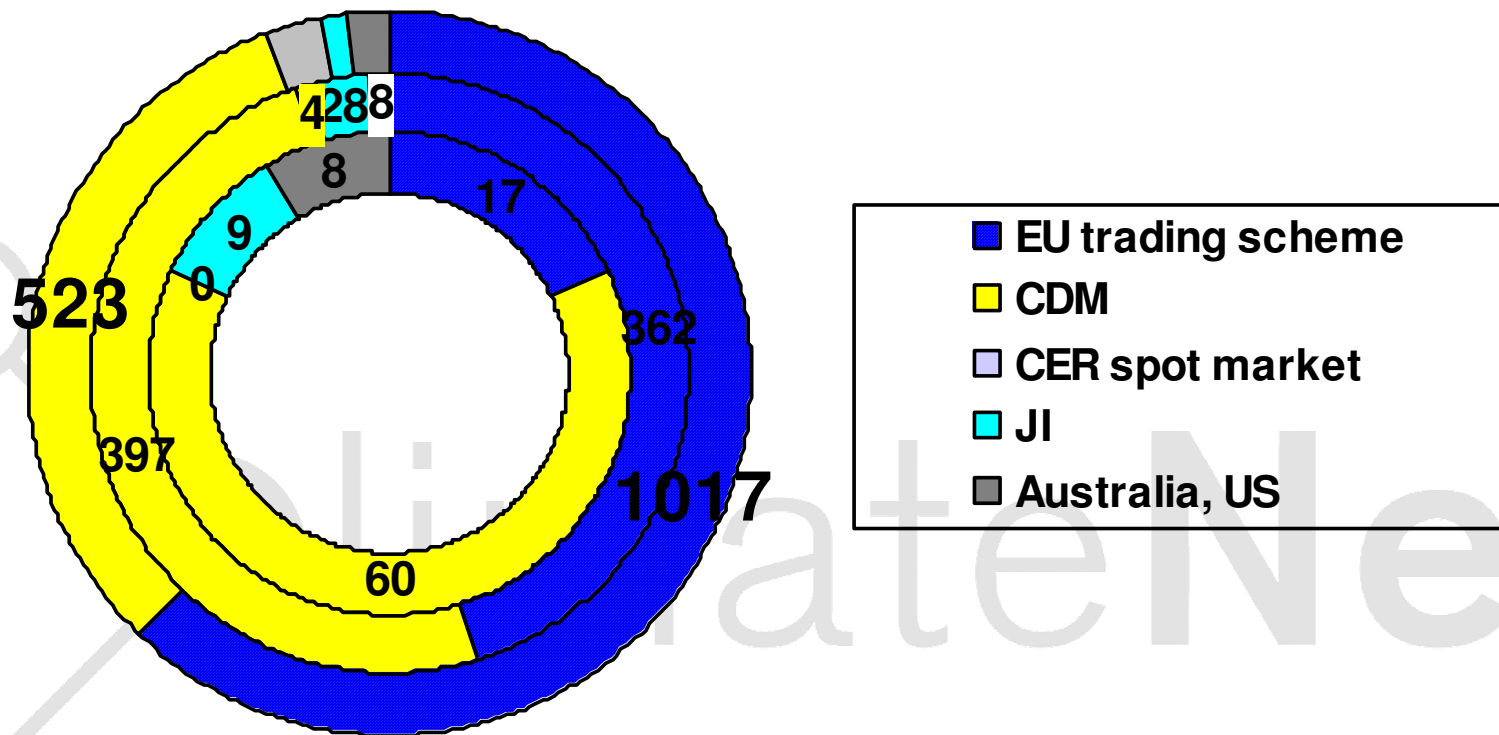
# CER and ERU demand (million €)

Total: > 5 billion €



## Global transactions 2004-6 (million t CO<sub>2</sub>)

Total: 94 million t in 2004, 800 million t in 2005,  
1.6 billion in 2006



Source: Point Carbon

# Two paths for post-2012

