



**EWEA**  
THE EUROPEAN WIND ENERGY ASSOCIATION



# Wind in the post-2012 Climate Regime : Wirkung der Instrumente auf die Verbreitung von Windenergie

**Rémi Gruet**

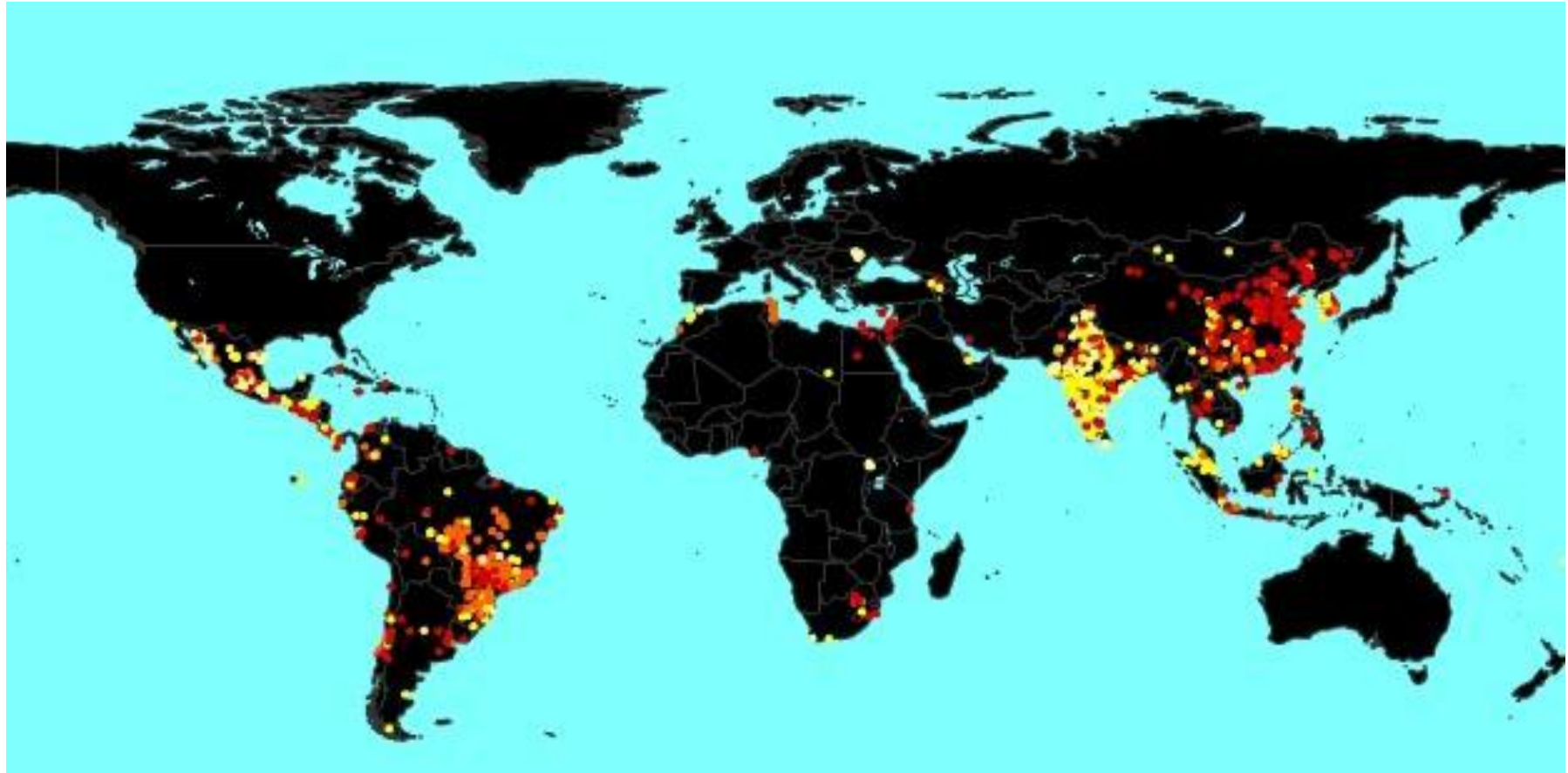
*Climate Change and Environment Adviser  
European Wind Energy Association*

11 June 2009

# Outline of presentation

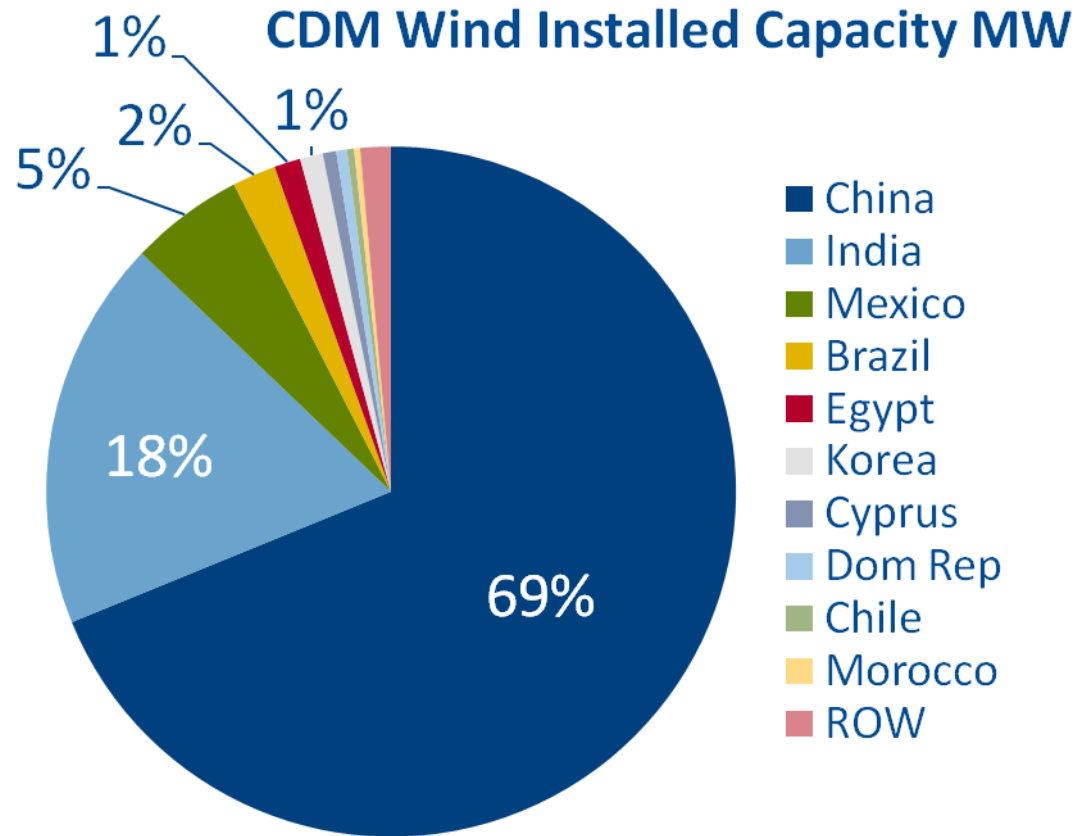
- Wind and CDM – Status and Analysis
- Wind and Voluntary Carbon Markets
- New policy Instruments for COP15
- GWEC's involvement in climate discussion
- Global Wind-avoided CO<sub>2</sub> Vs. needed reductions
- Conclusions

## CDM geographical spread: high concentration in 4 countries



Low and volatile CER prices  $\Rightarrow$  RE projects not attractive enough for investors  
An existing favourable policy framework is main driver, CDM comes on top

## CDM: Status of the pipeline – Nov 2009



Country	MW
China	22,673
India	6,031
Mexico	1,759
Brazil	674
Egypt	406
South Korea	354
Cyprus	207
Dominican Republic	165
Chile	111
Morocco	92
Rest of World	472
<b>Total</b>	<b>32,943</b>

# Is CDM helping wind development ? The Chinese example

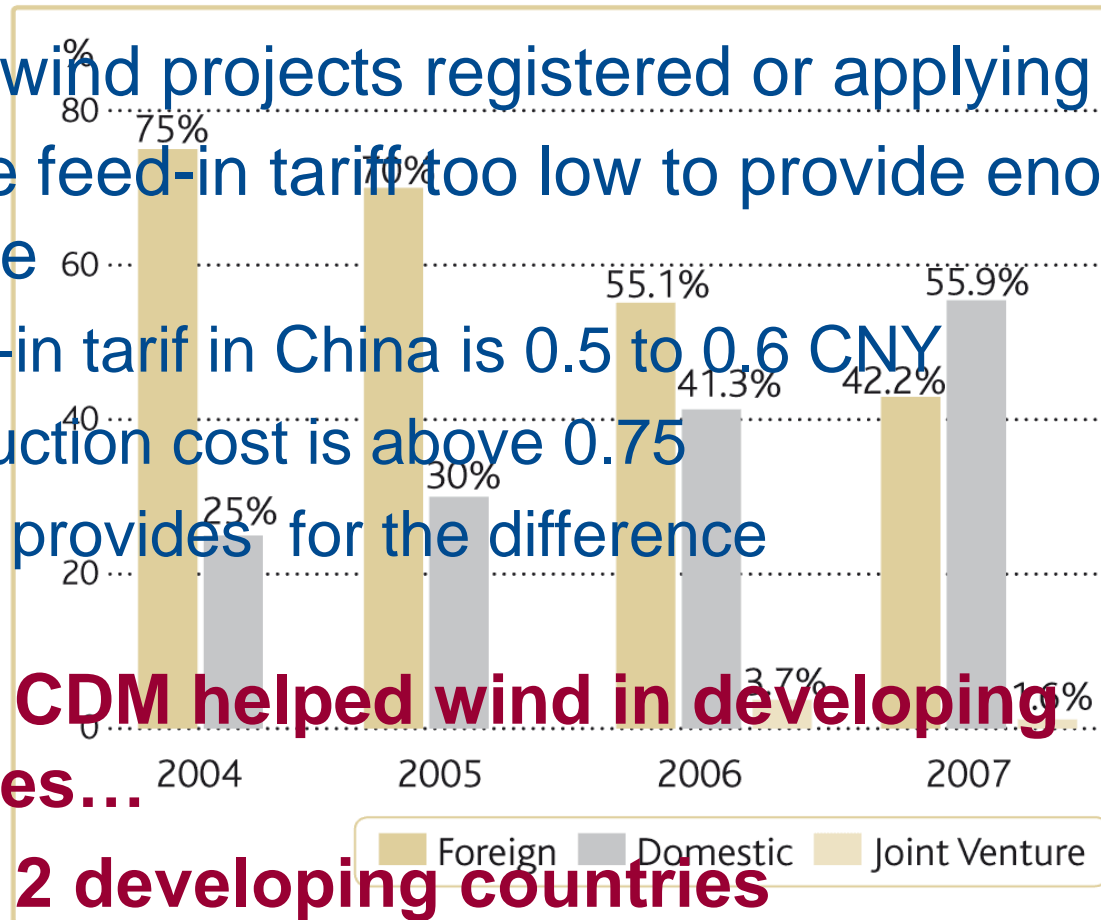
- Boom of Wind in China coincides with start of CDM
- 90% of wind projects registered or applying for CDM
- Chinese feed-in tariff too low to provide enough incentive

- Feed-in tariff in China is 0.5 to 0.6 CNY
- Production cost is above 0.75
- CDM provides for the difference

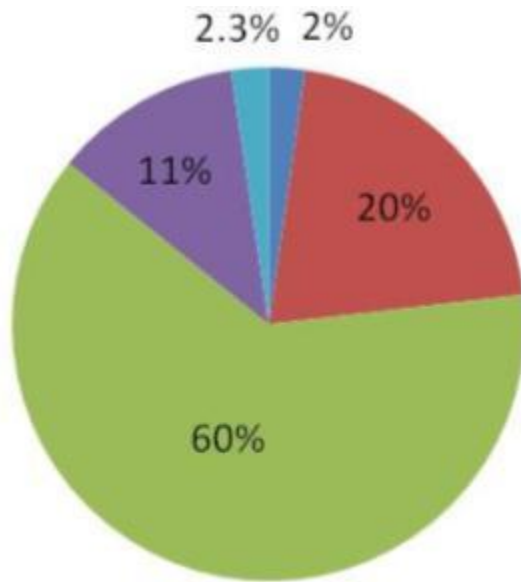
- **→ Yes, CDM helped wind in developing countries...**

**...In 2 developing countries**

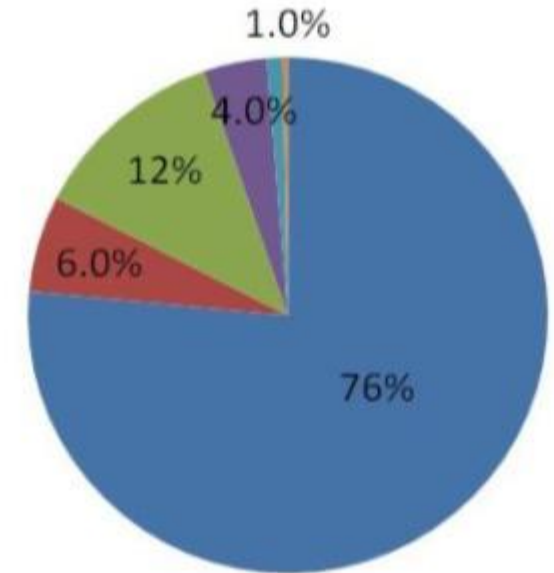
ANNUAL INSTALLED CAPACITY 2004 - 2007



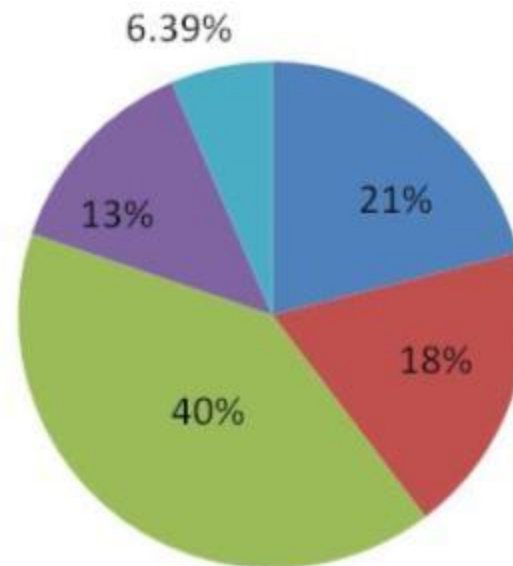
# CDM and Sustainable Development



Number of CDM Projects



CERs Issued



Yearly CERs



## Are wind project additional ? And in China ?

- Additional = not built without help from CDM
- Paradox : countries with an ambitious promotion of emissions reductions could be denied CDM...
- EB does not consider wind projects as automatically additional
- The Chinese case
  - Chinese government progressively reduced the feed-in
  - Fiddling with tariffs to secure CDM additionality ?
  - Or just adapting to falling costs ?

## CDM: identified problems

- Regional distribution
- Lack of sustainable development for non-RES/EE projects
- Administrative burden for project developers
- Length of registration process
- Additionality check
- Lack of transparency of CDM Executive Board

## CDM solutions under discussion

- Regional distribution and sustainable development
  - Quotas for CDM penetration
  - Accounting for co-benefits of projects
  - Reduction of upfront costs (registration fee deducted from first CERs issued) in specific countries
- Additionality + administrative burden + transparency
  - Positive list of technologies
  - Penetration target: wind is additional up to i.e. 20% of mix
  - Moving to standardized multiproject baseline

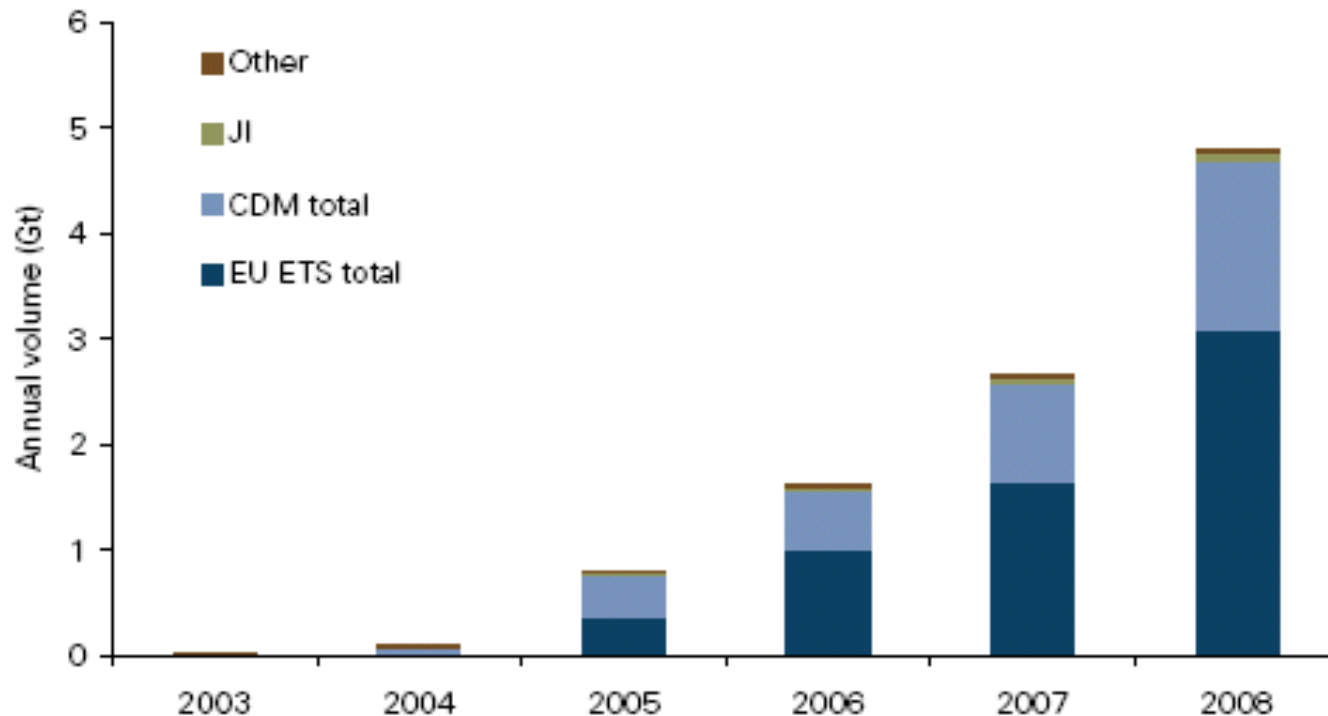
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## Voluntary Carbon Markets: not a market driver

**Figure 2.1: Stairway to 2008**

Reported and estimated contracts 2003-08, Gt CO<sub>2</sub>e



Source: Point Carbon

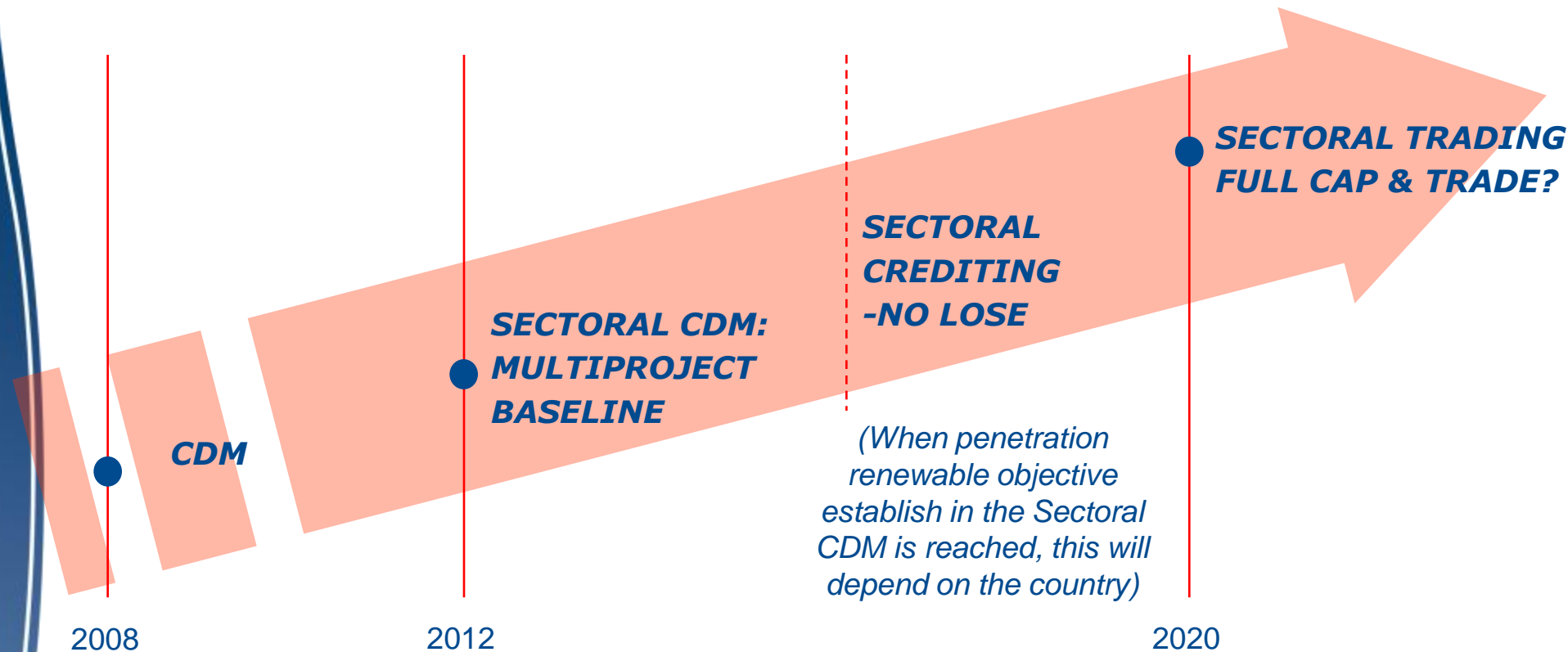
## Voluntary Carbon Markets: not a market driver

- Very small numbers compared to mandatory markets
  - Voluntary = less predictability for investments
    - Not relevant for technology promotion
  - Quality of credits is sometimes dubious
    - Gold Standard and VCS to become unique standards ?
    - Build on these initiatives to ensure quality in the ETS ?
  - Used by companies to greenwash ?
  - Nevertheless, it's one more step towards a CO<sub>2</sub> price
- ➔ EWEA offsets all its flights !

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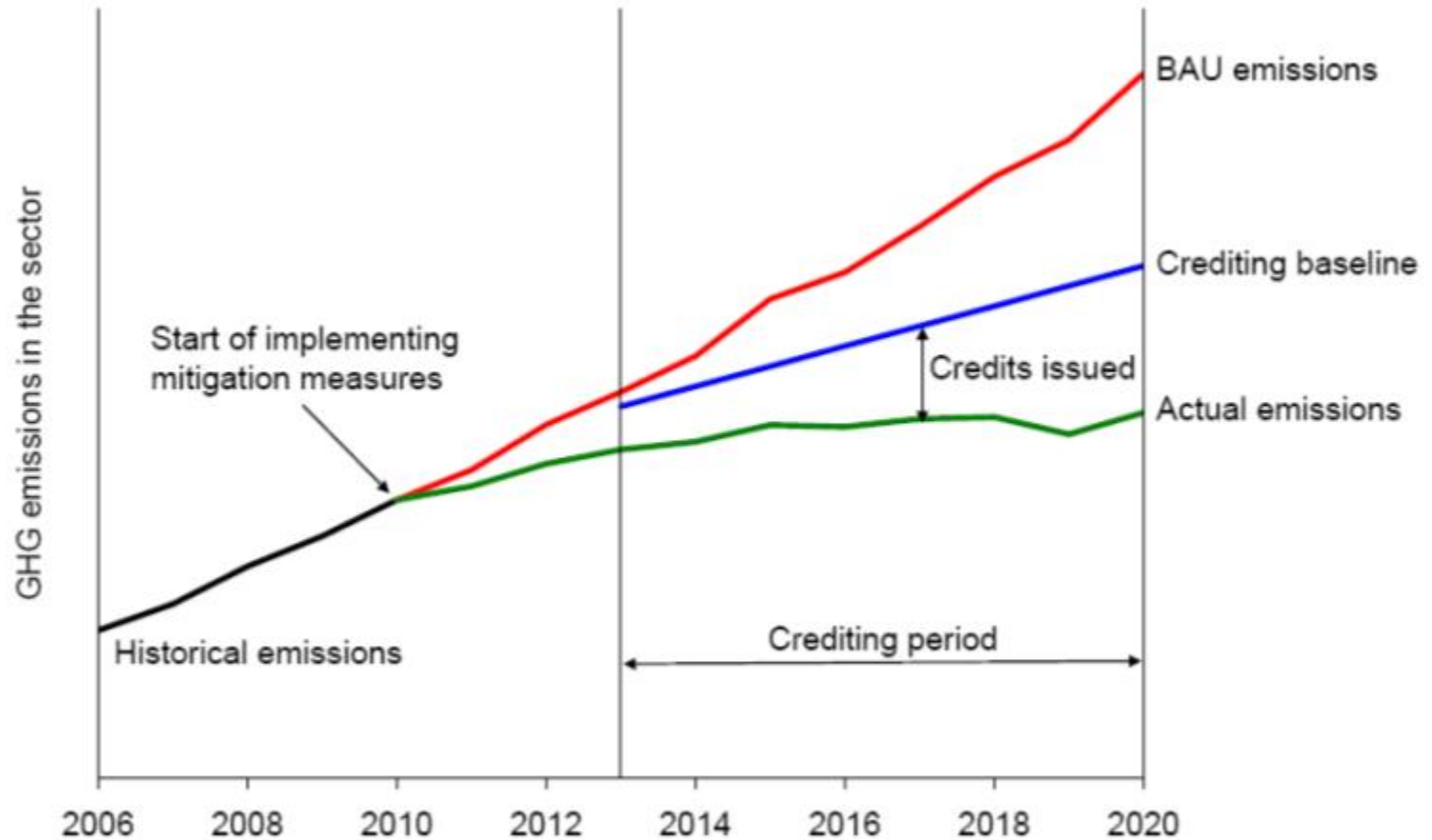
# New Policy Instruments for a post-2012 agreement



Objectives:

- Scale-up reductions and finance
- Streamline decision process (admin burden)
- Committment by advanced developing countries

# Sectoral Crediting - a middle way to cap and trade





## Sectoral crediting – will they promote wind ?

- Main issue for wind: Implementation of the SCM :
  - Period starts and the sector reduces emissions
  - State gets credits for the portion below baseline
  - State needs to distribute the credits to the performers
  - How ?
- Options :
  - National cap and trade
  - Feed-in tarif
  - Policy measures
  - ...

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# What impact would a “Copenhagen protocol” have on Wind ?

- Sends a very strong message
  - Climate change is real and dangerous, we need solutions
  - Most solutions have drawbacks, wind doesn't
  - Environmental costs are real and need to be internalised
- Create a pro-wind policy framework in the world
  - More climate policies devised (RES directive, ETS...)
  - Most of them will promote wind
  - Carbon markets will further develop levelling the playing field in the power sector
  - Finance provided for developing countries to mitigate CC and engage on a sustainable, renewable development path

## Which CC discussions impact wind development?

- Flexibility mechanisms (CDM/JI, Carbon Markets)
  - Putting a price on CO<sub>2</sub>
- Emission reduction targets for Annex I countries
  - The higher the better !
- Mitigation in developing countries
  - NAMAs, sectorals, etc
- Technology Transfer
  - IPR and other barriers

## Preliminary results from Barcelona

- Progress so far on dealbreakers (targets + finance) = 0
- Probability of full legally binding agreement = 0%
- How does the Plan B look like ?
  - Political framework agreement (non-binding)
  - Clear timeline + mandate to finish work by June or COP16
  - 4 Annexes: I Targets for Annex I
  - II Targets for developing countries
  - III 'Prompt-start' funding for 2010-2013
  - IV Cost-sharing formula
  - Decisions on subjects like adaptation, mitigation, capacity building, REDD,
  - Question : legal form of the deal ?
- To do after Copenhagen → everything !

# Outline of presentation

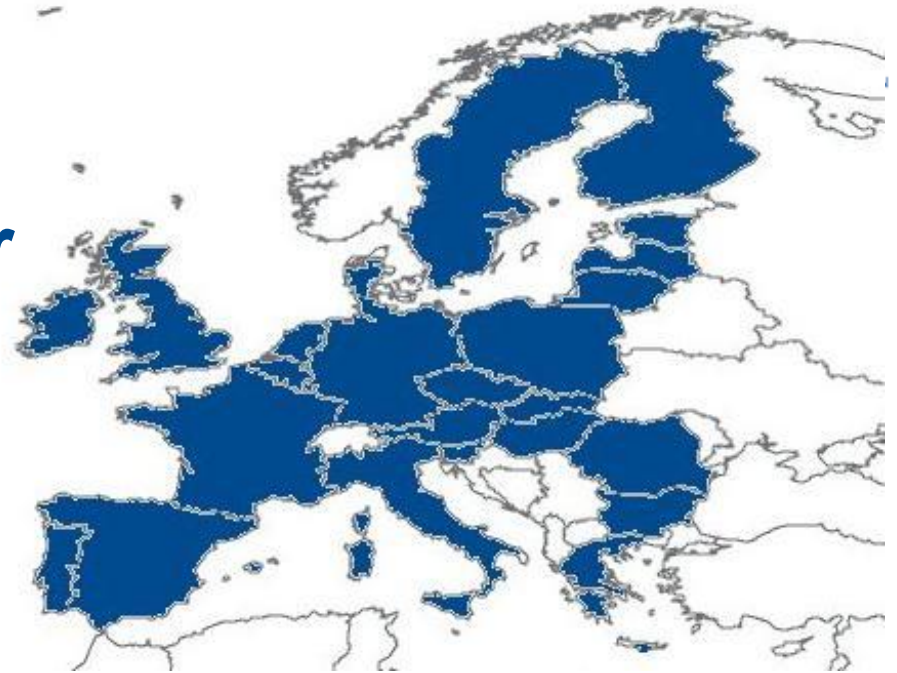
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# How much can Wind contribute to the emission reductions pledged for Copenhagen ?

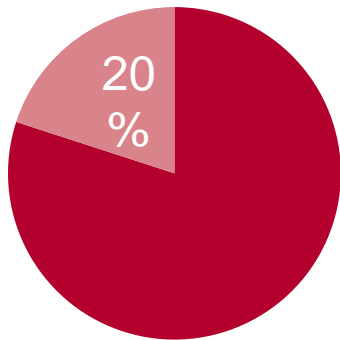
- Idea: compare wind-avoided CO<sub>2</sub> of countries to the emissions reduction required by the country's target
- Annex I countries → Kyoto Target + 2020 pledges
  - EU            KP Target = -7.8%            (450 MtCO<sub>2</sub>)
  - All Annex I KP Target = -5.2%    (974 MtCO<sub>2</sub>)
  - In 2020 : EU climate Package + pledges for Copenhagen
- Developing countries → deviation from BAU
  - China            15%-30%            depends on model used
  - India             15%-30%            depends on model used



# In the EU, Wind power will avoid as much CO<sub>2</sub> as...

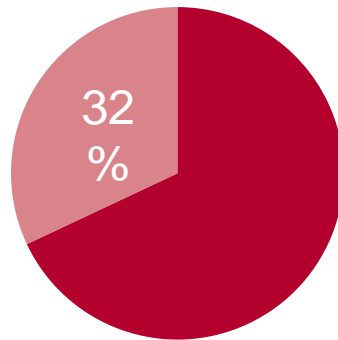


**2008**



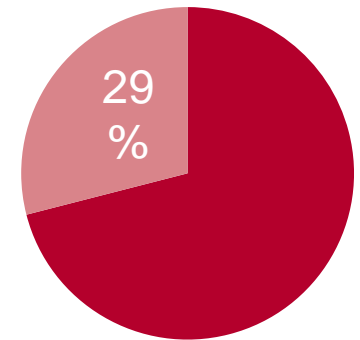
**20% of the EU's  
Kyoto target**

**2012**



**32% of the EU's  
Kyoto target**

**2020**



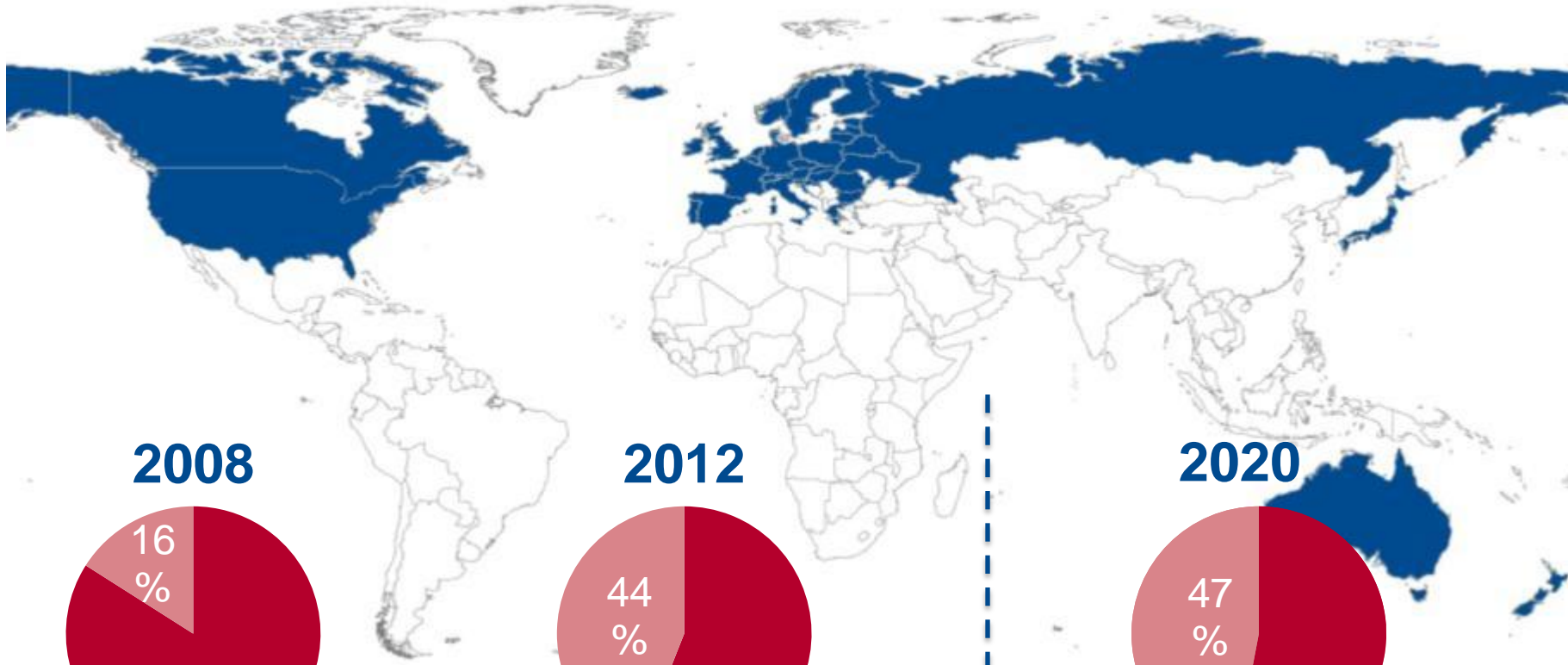
**29% of the EU's  
2020 target (20%)**

# How much can Wind contribute to the emission reductions pledged for Copenhagen ?

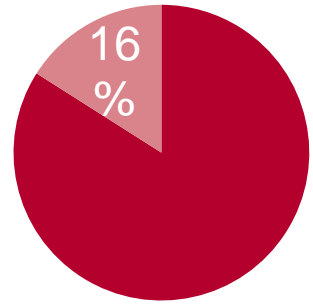
- Current aggregated Annex I pledges:
  - ➔ 11%-18% of 1990 emissions
  
- Global Wind in 2020
  - 1081 GW installed capacity
  - 2650 TWh produced
  - ➔ 1591 Mt CO<sub>2</sub> avoided

Party	Information relating to possible QELROs	
	Range or single value by 2020, percentage	Reference year
Australia	-5% up to -15% or -25%	2000
Belarus	-5% to -10% <sup>5</sup>	1990
Canada	-20%	2006
Croatia <sup>6</sup>	+6%	1990
European Union	-20 to -30%	1990
Iceland	-15%	1990
Japan	-25%	1990
Liechtenstein	-20 to -30%	1990
Monaco	-20%	1990
New Zealand	-10 to -20%	1990
Norway	-30%	1990
Russian Federation	-10 to -15%	1990
Switzerland	-20 to -30%	1990
Ukraine	-20%	1990

# How much of the pledges for Copenhagen can Global Wind Power avoid ?

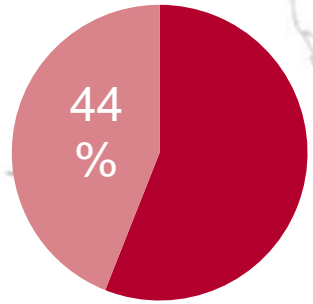


**2008**



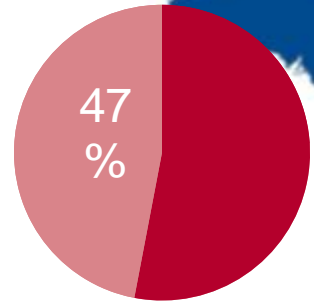
**16% of Annex I  
2008 Kyoto  
target**

**2012**



**44% of Annex I  
2012 Kyoto  
target**

**2020**

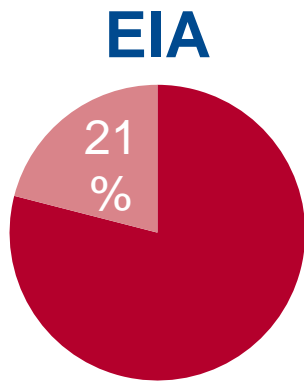
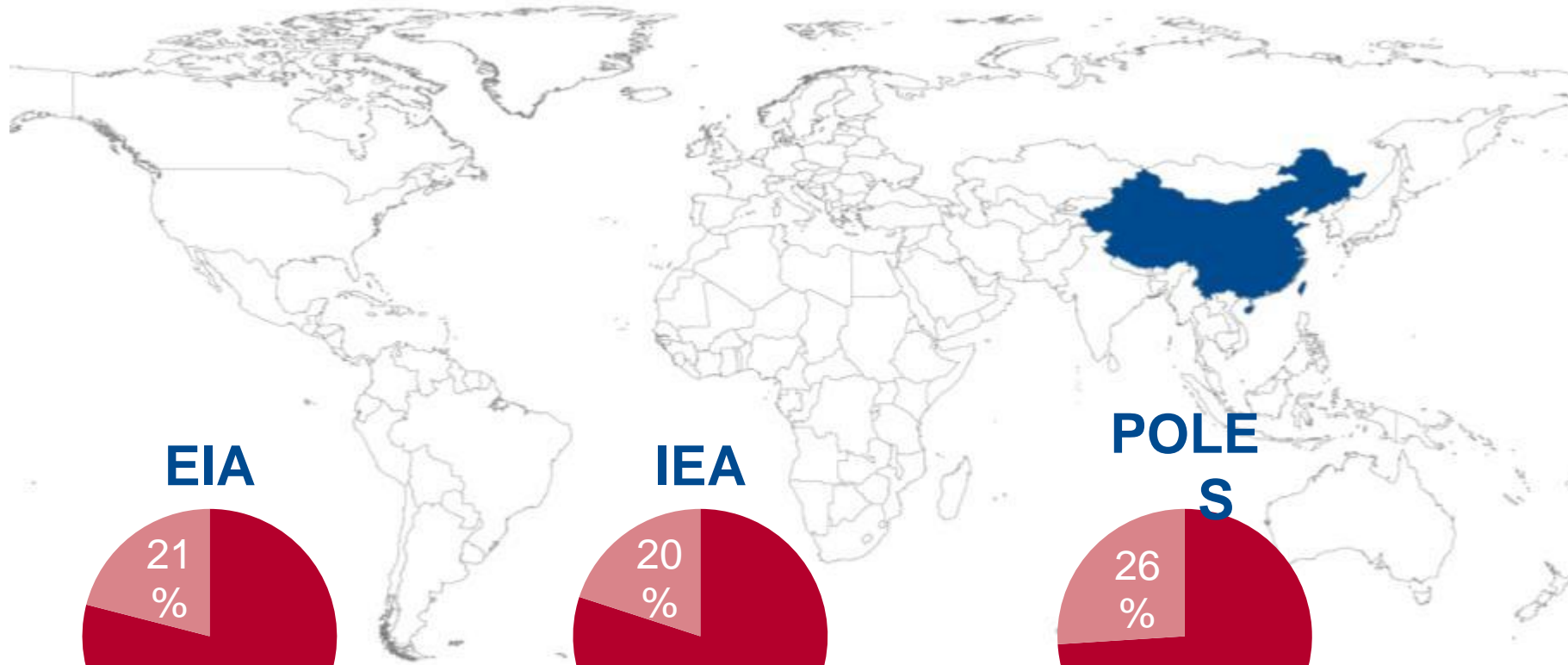


**47% of Annex I  
2020 pledges  
(100%)**

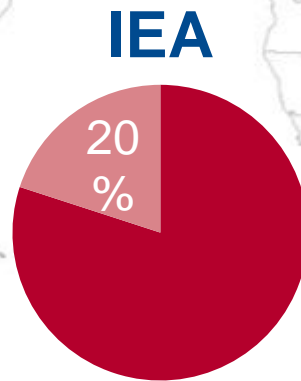
# If China were to reduce emissions by 15% from BAU by 2020, Wind Power in China would avoid



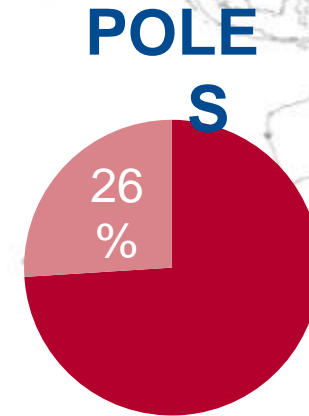
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**21% of China's  
GHG reductions**



**20% of China's  
GHG reductions**

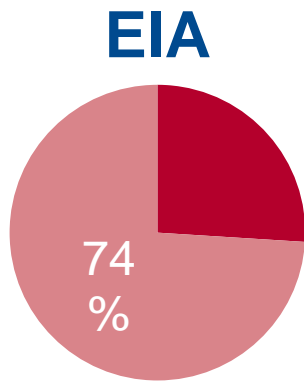
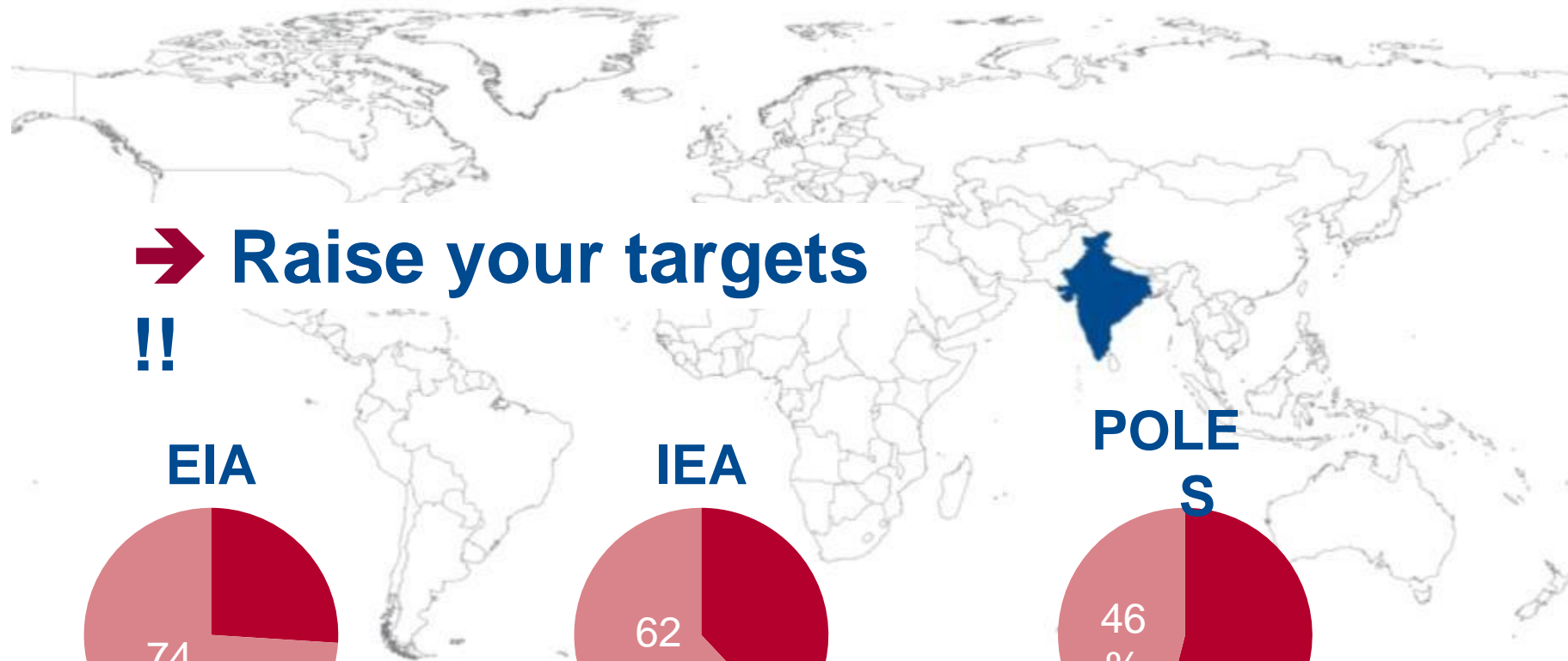


**26% of China's  
GHG reductions**

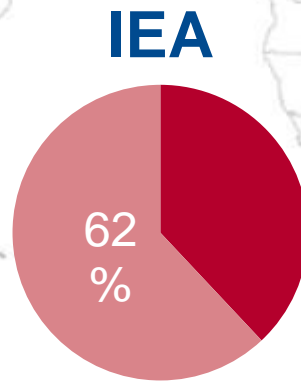
# If India were to reduce emissions by 15% from BAU by 2020, Wind Power in India would avoid



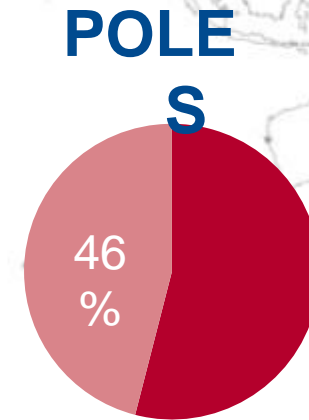
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**74% of India's GHG reductions**



**62% of India's GHG reductions**



**46% of India's GHG reductions**



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Thank you very much for your attention

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