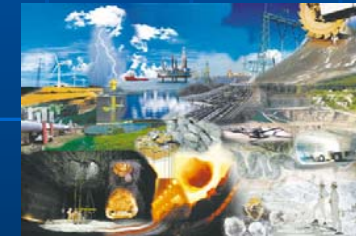
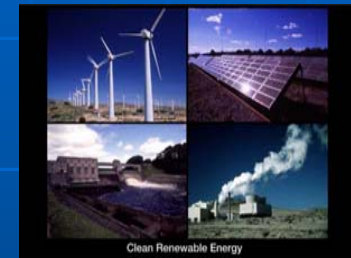


# EU ENERGY & CLIMATE CHANGE POLICY: GOLDMINE OR MINEFIELD?



Klaus Gretschmann

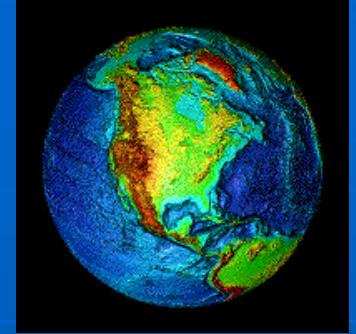


*The Challenges of a Changing International Energy Market*

*Conference by ECS, IEA, BMWA*

*Wien, 8 November 2007*

# Basic Proposition



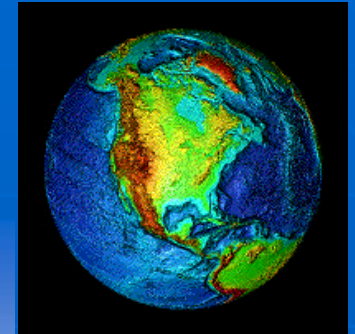
**The global answer to climate change will alter enterprises and entire economies far more deeply and revolutionarily than the Internet.**

**The restructuring and modernising of economies and societies will require investment of an unprecedented scale.**

**In order to activate such investment, business and politics require stable and reliable expectations about the future.**



# Strategic Orientation



- Renewable energy
- Energy efficiency
- Innovation
- Emission trading

ENVIRONMENT

*Integrated  
Energy  
Policy*

COMPETITIVENESS

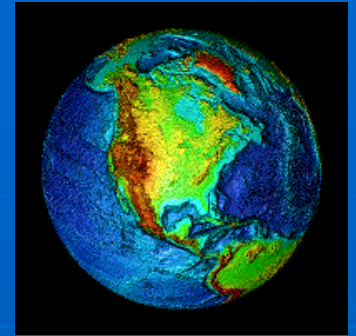
- Internal Market (Unbundling, TSO)
- Interconnections (TENS)
- Research/Innovation SET (clean coal/CCS, alternative fuels, efficiency)

SECURITY OF SUPPLY

- International Dialogue: C2C/C2P
- European stocks (oil/gas)
- Refining capacity
- Diversification: Pipelines/Routes

2020: -20% GHG +20% Renewables +20% Efficiency

# Politics and Markets = Political Markets for Energy and Climate Change?



*substitute for markets*

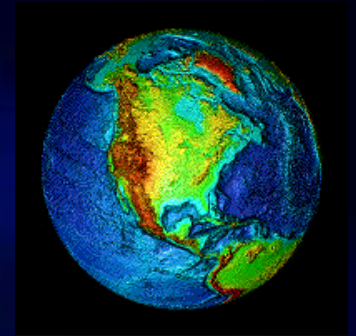
*constitute markets*

**BRINGING THE  
STATE BACK IN:  
NECESSARY TO..**

*complement markets*

*correct markets*

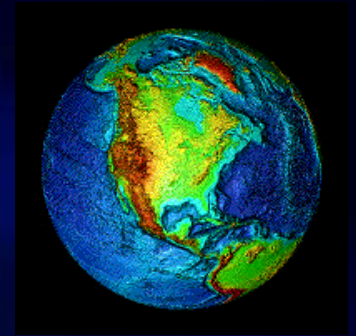
# TRUTH I



## *a simple truth:*

international Energy Markets are  
*Political Markets*, whose volumes,  
structure and demand & supply  
composition  
determine Climate Development

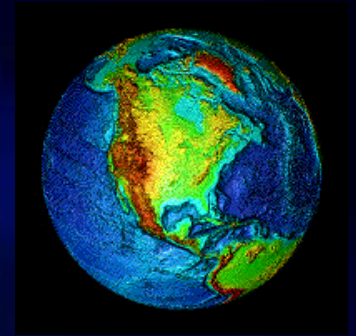
## TRUTH II



*an inconvenient truth:*

Climate Protection is an *international*  
“*Collective Good*” - characterised by  
“non-exclusion” and  
“free rider” attitudes ...

## TRUTH III

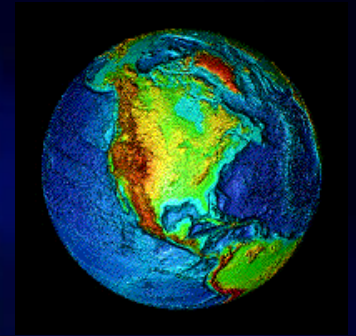


*a complicated truth:*

even if EU succeeds in *reducing demand* for fossil energy and thereby achieves a low carbon & high efficiency economy, the effect on global warming may be insufficient due to *inelastic supply*:

$$D_{EU} \downarrow = P_W \downarrow = D_W \uparrow = CO2_W \uparrow$$

## TRUTH IV

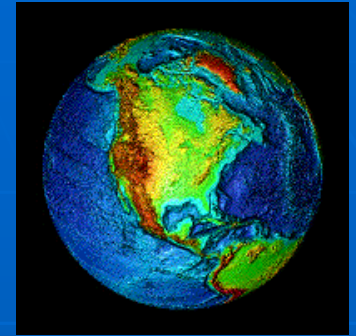


### ***the most inconvenient truth:***

we may NOT be able to stop  
climate change and we may then need  
all available resources for protecting ourselves  
against the consequences of climate change.

***We may indeed have to protect us humans  
FROM climate AND protect  
climate from harmful human  
behaviour***

# In Search of the Right Approach



*Mitigation*



Resources needed

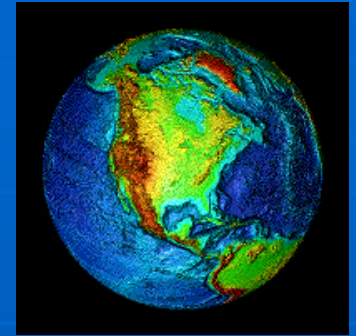


Unknown Factors



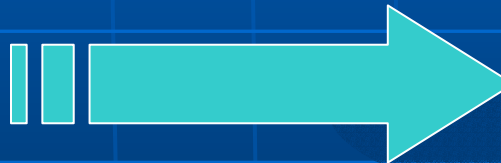
*Adaptation*

# Global markets for environmental goods grow rapidly!



2007

560 bn. Euro

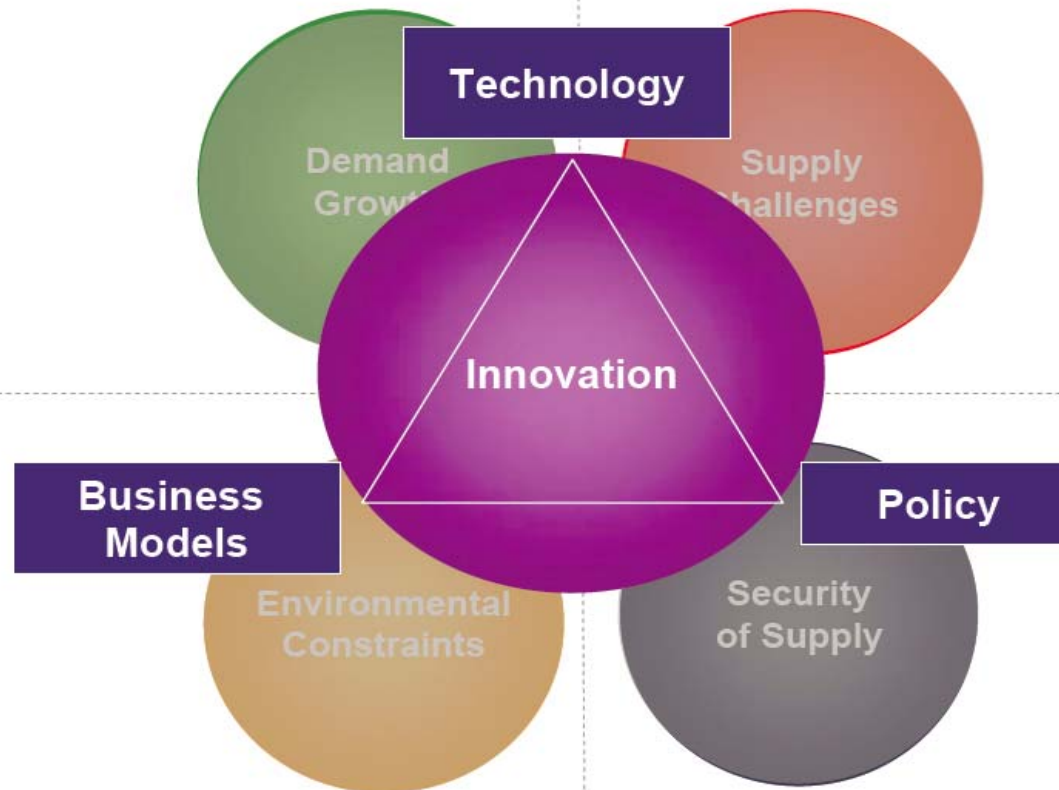
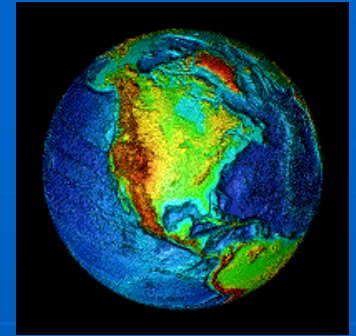


960 bn. Euro

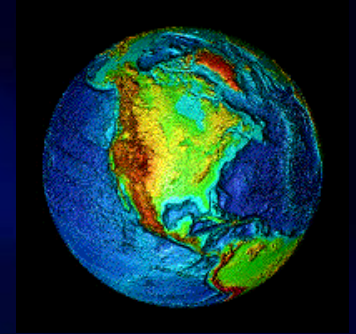
2010



# EFFECTS FROM ENERGY AND CLIMATE CHANGE POLICY



## *Business Surveys ...*



- **51%: climate change is among the three most pressing challenges for business;**
- **87%: climate change involves unprecedented risks;**
  - **55%: climate change affects both business development and operative management;**
- **55%: are ready to positively respond to political measures and decisions in their Business models**
- **51%: are developing a climate strategy for their enterprise**