



Business and the Climate Landscape

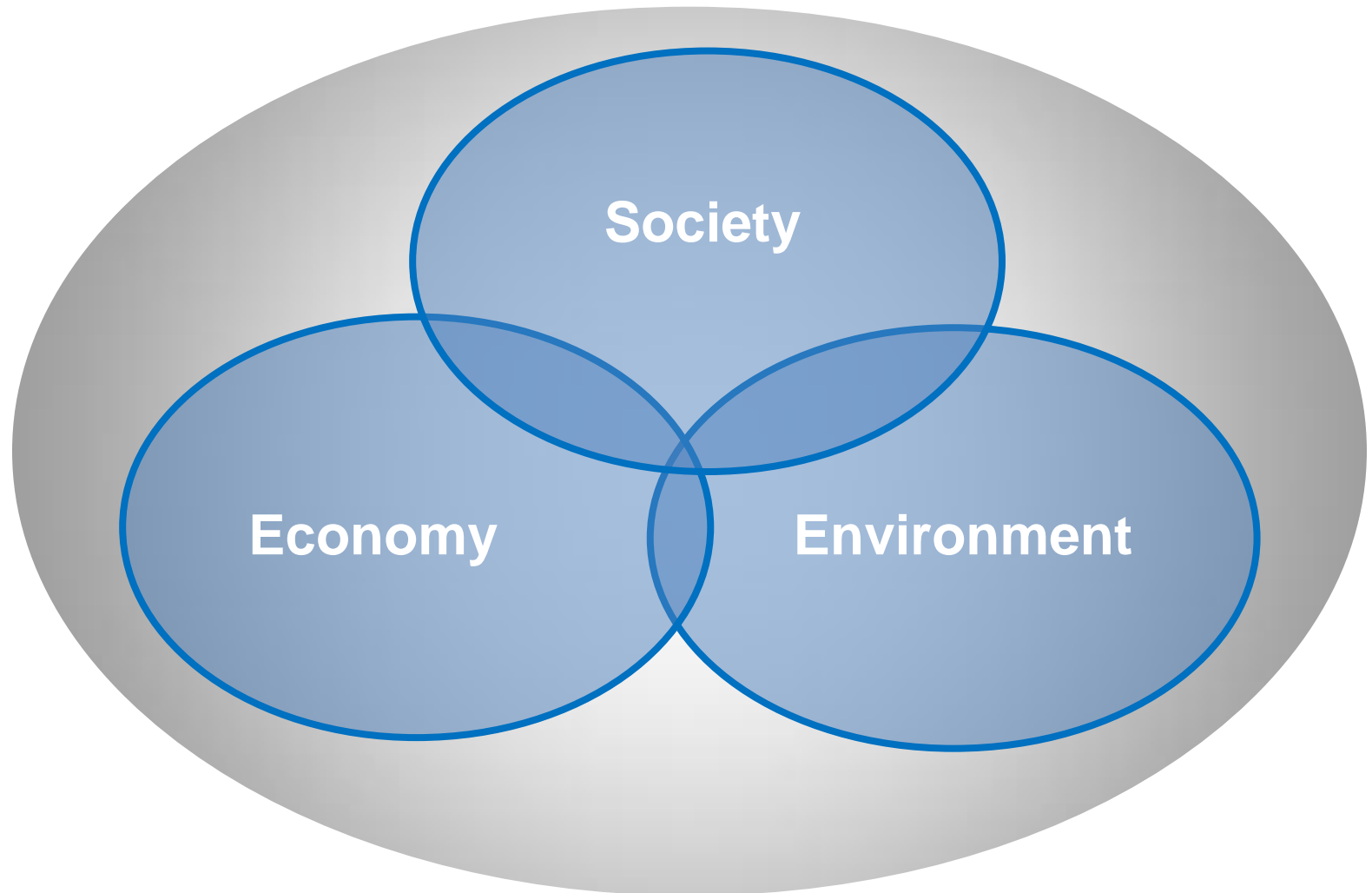
Statkraft seminar at COP 15
Björn Stigson, WBCSD President



World Business Council for
Sustainable Development



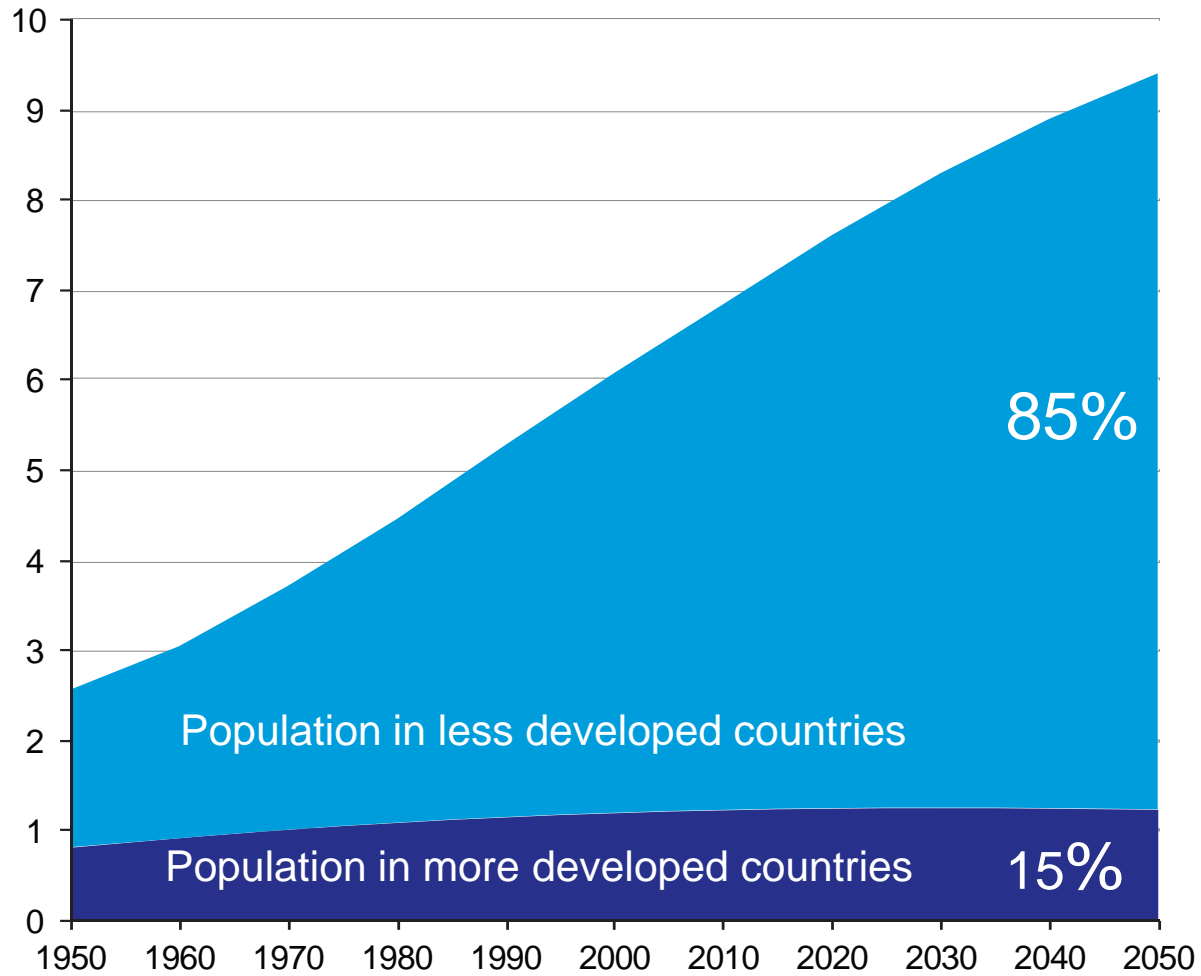
The World in Transition to Sustainability





The Future Society: A Growth Story

World population (in Billions): 1950-2050



Source: United Nations Population Division, World Population Prospects: The 2006 Revision.



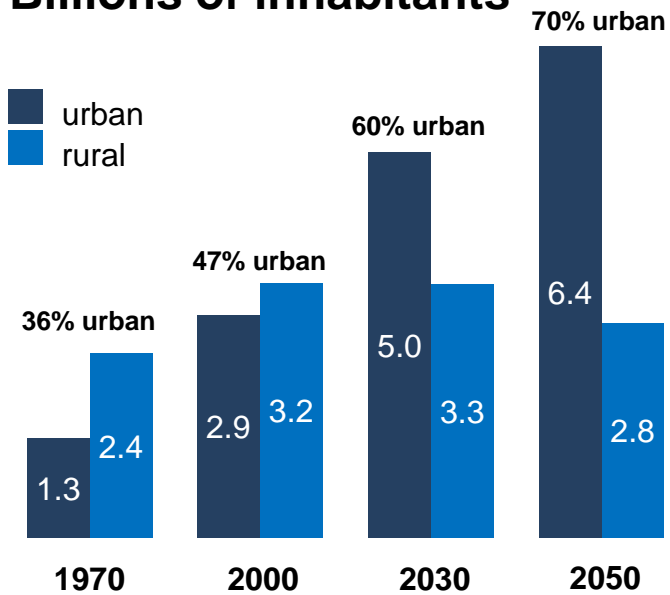
Development: The Poverty Challenge

- **Income poverty:**
Over 2 billion people live on less than \$2/day
- **Energy poverty:**
1.5 billion people today without access to electricity
- **Mobility poverty:**
900 million people without access to transport
- **Water poverty:**
1.8 million deaths per year due to lack of sanitation, poor hygiene and unsafe drinking water.



The Future Society: Urban

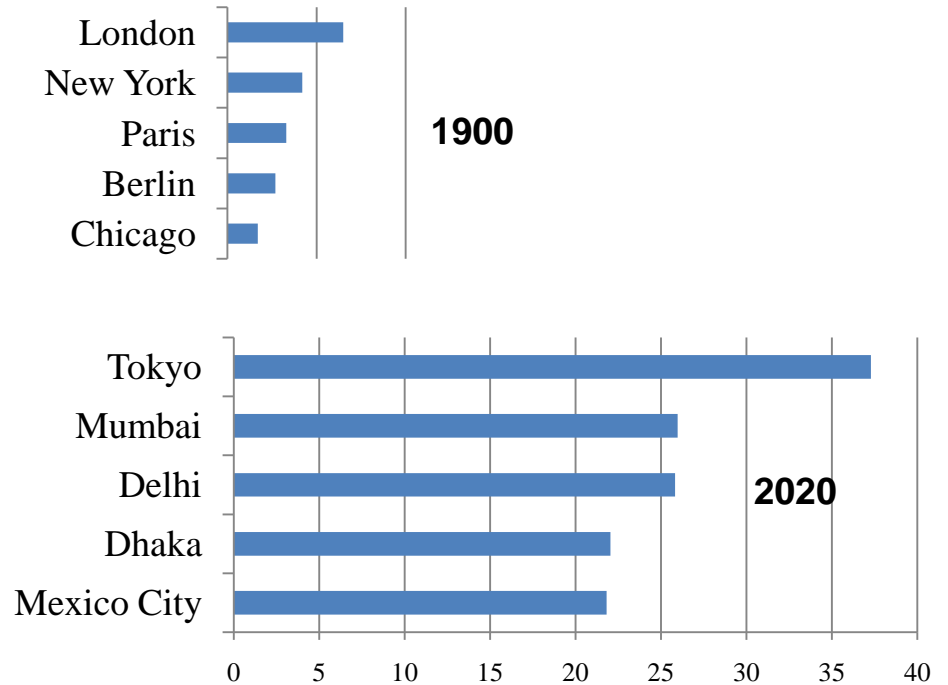
Billions of inhabitants



Source: United Nations, World Urbanization Prospects: The 2007 Revision

70% urban in 2050

Growth of mega-cities

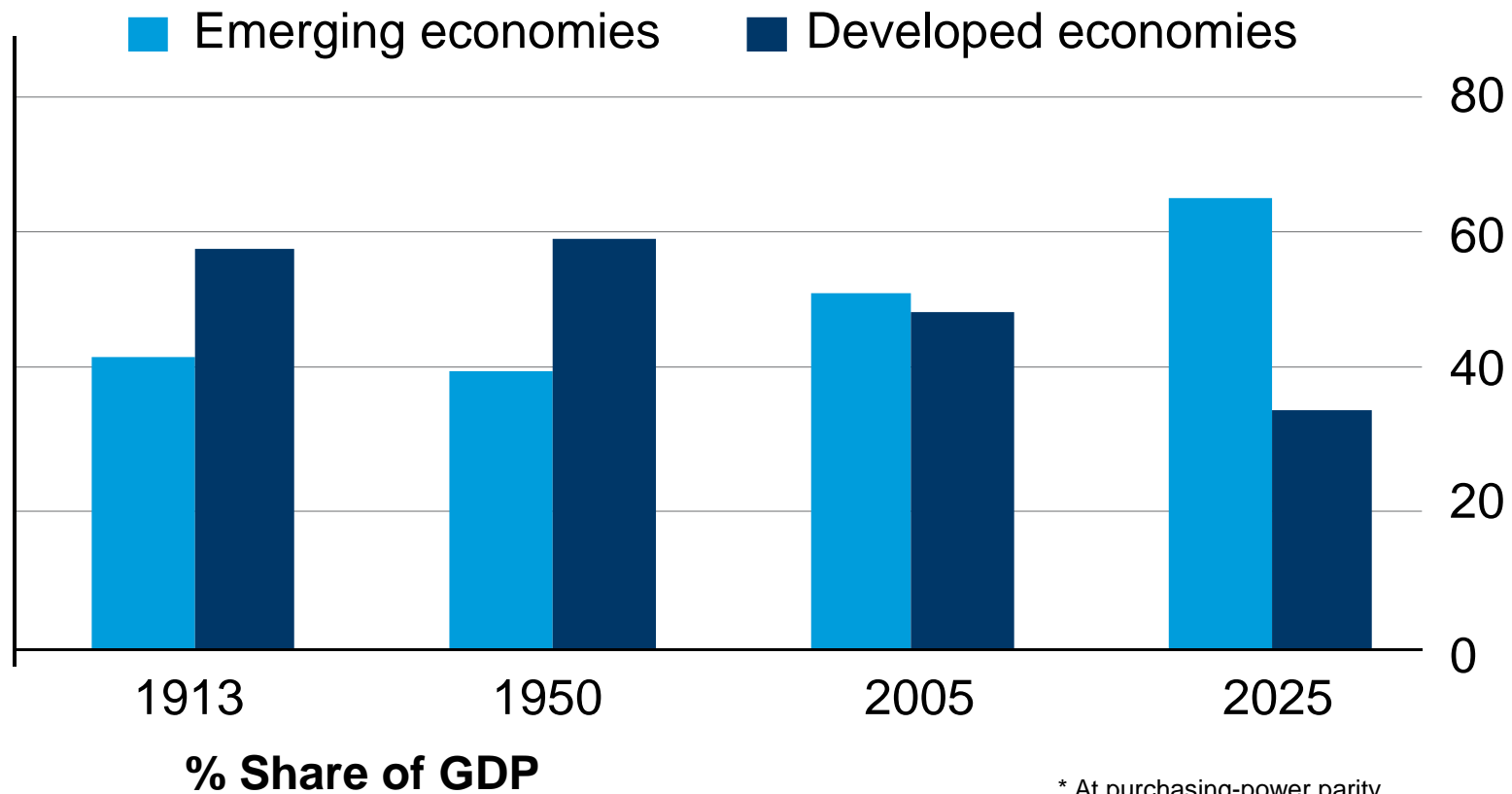


Source: Citymayors statistics, 2008



The Future Society: Shifting Fortunes

**Emerging economies > 50% of global GDP
and trend will continue**

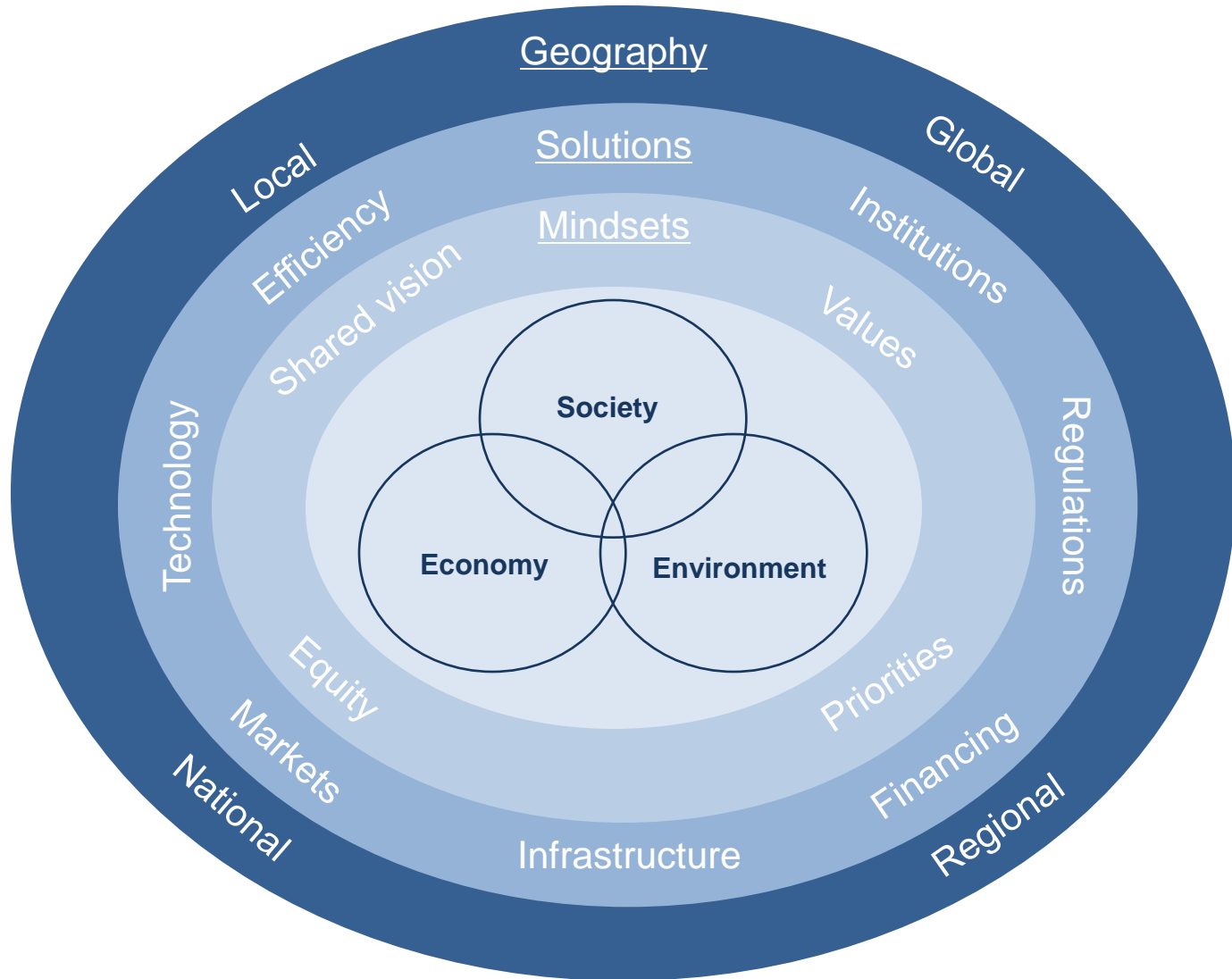


Source: Angus Maddison, OECD, IMF
From The Economist print edition,
"Wrestling for Influence," July 3rd 2008.

* At purchasing-power parity



The World in Transition to Sustainability





The Surrounding World: Short term

- Economic slowdown/ recession
- Massive economic stimulus packages
- Key political concerns:
 - Economic growth
 - Jobs/unemployment
 - 300 million jobs required from now to 2015 to return to pre-crisis levels of unemployment



The World is Turning “Green”

The race is on to transform to low carbon economies and to become the leading supplier of green technologies & solutions

■ Japan:

- Leader on energy efficient solutions

■ EU:

- Leader today / 40% market share
- Just announced 300% increase in R&D for green technologies



The World is Turning “Green”

■ China

- Wants to be the leading exporter of green technologies
- Key component of next 5-Year Plan

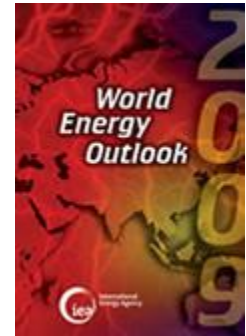
■ US

- The new administration is mobilizing the US innovation capacity to be world leader on green technology



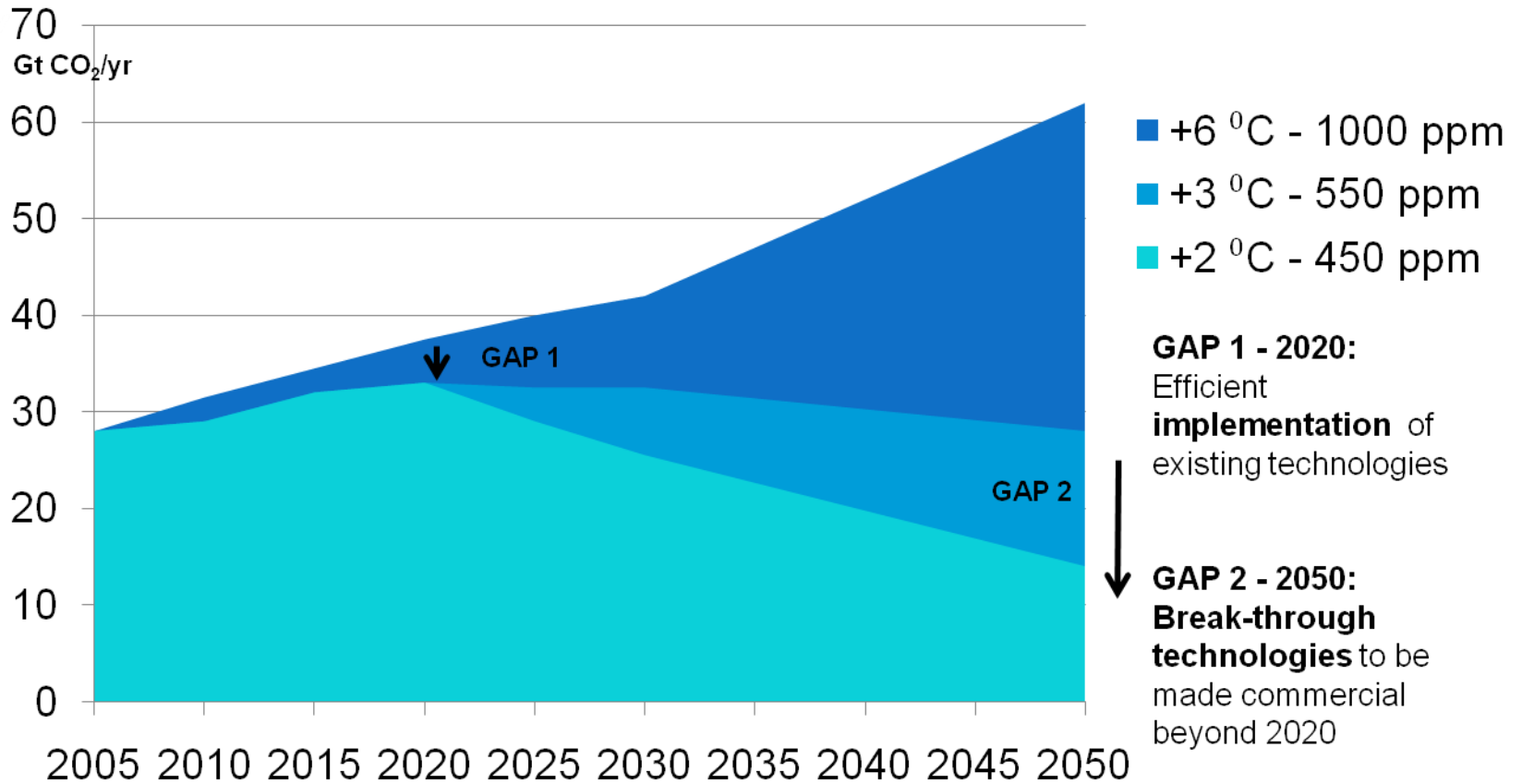
IEA's World Energy Outlook 2009

- Current energy trends are patently unsustainable – socially, environmentally, economically.
- To avoid “abrupt and irreversible” climate change we need a major decarbonization of the world’s energy system.





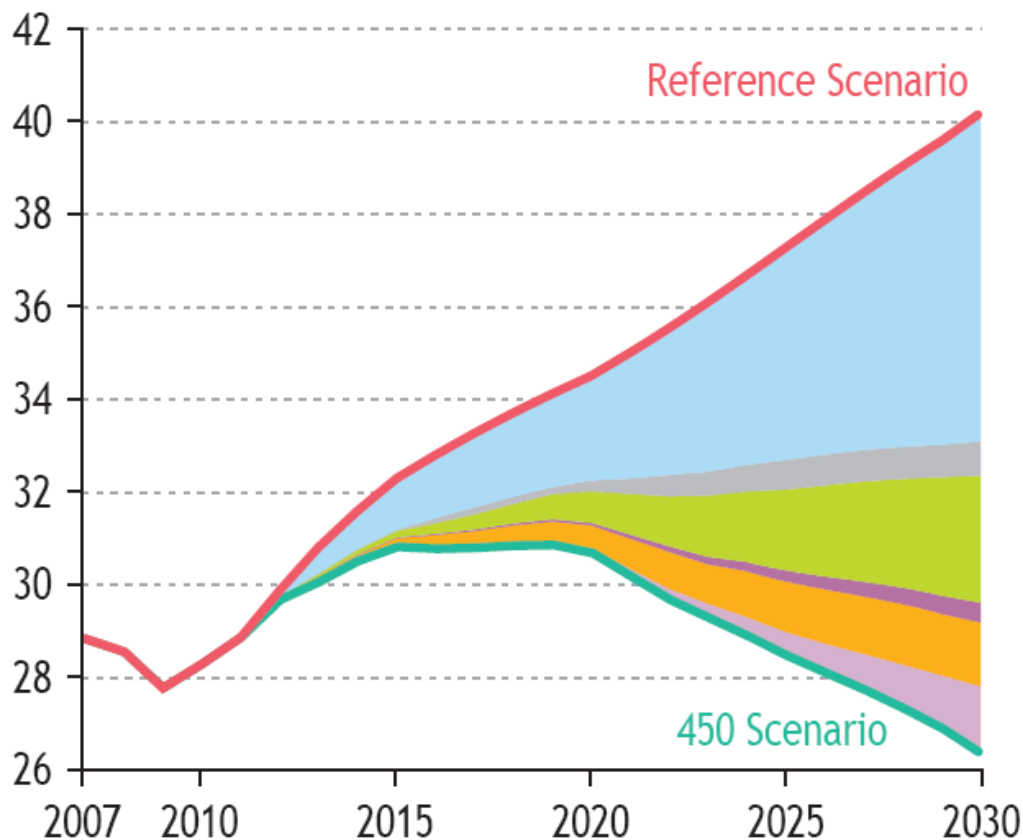
Global Emission Scenarios



Source: IEA, ETP 2008



Reductions in energy-related CO₂ emissions in the climate policy scenarios



	Abatement (Mt CO ₂)		Investment (\$2008 billion)	
	2020	2030	2010-2020	2021-2030
Efficiency	2 517	7 880	1 999	5 586
End-use	2 284	7 145	1 933	5 551
Power plants	233	735	66	35
Renewables	680	2 741	527	2 260
Biofuels	57	429	27	378
Nuclear	493	1 380	125	491
CCS	102	1 410	56	646

SOURCE: IEA WEO 2009



Climate Scorecard

Countries within the Kyoto Protocol	Kyoto target	Emission trend 1990-2007	Countries outside the Kyoto Protocol	Emission trend 1990-2007
Russia	0%	- 33%	USA	+ 16%
Germany	- 15%	- 21%	Mexico	+ 42%
UK	- 15%	- 17%	Brazil	+ 47%
France	- 15%	- 5%	India	+ 78%
Italy	- 15%	+ 7%	China	+ 116%
Japan	- 6%	+ 8%		
Canada	- 6%	+ 26%		



Long-term targets

G-8 l'Aquila 2009

- Limit global warming to 2° C
- -50% emission reductions globally by 2050 versus 1990
- Developed countries should do more >-80%

Country targets 2050:

France: - 75% (1990 level)

Japan: - 60-80% (of current level)

USA: - 83% (2005 level)

UK: - 80%(1990 level)

Germany: no long term target



Mid-term targets (2020) in various countries and regions

	Target	Base year	Purchases of emissions credits from other countries	Comparison with emissions from	
				1990	2005
Japan (old)	-15%	2005	No	-4%	-15%
Japan (new)	-25%	1990	?	-25%	-30%
EU (27)	-20%	1990	Yes	-20%	-13%
USA	-17%	2005	?	-4%	-17%
China	-40-45% carbon intensity	2005	?	In 2020: -12% vs. BAU	
India	-25% carbon intensity	2005	?	In 2020: -9-19% vs. BAU	



WBCSD / WRI GHG Protocol

- 10 years work
- Platform for all major carbon markets/ registries
- MoU with ISO
- Tool for measurement, reporting and verification of Greenhouse Gases (GHG) for
- Additional modules being developed



Country Perspectives



EU

- Mid-term (2020) targets:
 - -20% GHG emissions (vs. 1990 level)
(-30% if international agreement)
 - +20% energy efficiency
 - 20% of energy from renewables
- EU-Emission Trading Scheme: 92 BUSD (2008)
- Energy supply concerns.
 - Relations with Russia?



Country Perspectives



China

- -20% energy intensity target 2006-2010
- -40-45% Carbon intensity target 2005-2020
- A shift “Towards a low carbon economy”
 - Key element in next 5-year plan (2011-2015)
- Advocating for the historical responsibility of industrialized countries for the carbon build up in the atmosphere:
 - *“You created carbon emissions by moving your factories here”*



US Country Perspective



USA

- Climate regulation will happen
 - Congress (preferred)
 - EPA
- Timing
 - Early 2010 probable



US Country Perspective



- Bi-partisan momentum: Kerry-Graham Op-Ed in NY Times, October 10, 2009
 - Climate change is real and a threat to national security
 - Nuclear renaissance required
 - Climate change legislation is an opportunity to reduce foreign oil dependence:
 - Clean coal & offshore drilling
 - Mechanisms to protect business & consumers from increases in energy prices
 - “Price collar” for emissions allowances
 - Secure American jobs
 - Border tax



Country Perspectives



Japan

- Mid- and long-term targets established
- Carbon markets
 - Internationally – yes via CDM
 - Nationally? - Industry is strongly opposed to cap & trade.
- Sectoral bottom-up benchmarking as basis for international emission targets
- Industry trauma over the Government's "sell out" in Kyoto
- Support to developing countries is a strategic political & business development objective.
 - APP (Asia Pacific Partnership) is a tool for this.



Country Perspectives



India

- Focused on poverty alleviation, not climate change
- -25% carbon intensity target 2005-2020
- Base their position on a per capita emissions perspective

EU-15	8.6	India	1.2	} tCO ₂ /capita
Japan	9.6	China	4.6	
US	19	SOURCE: IEA WEO 2009		

- *“Indians have their right to the same per capita emissions as others”*
- Global average = 4.7 tCO₂/capita today
- To reach 50% reduction by 2050 = 2 tCO₂/capita



Country Perspectives



Brazil :

- Unique energy situation:
 - Self-sufficient
 - High degree of renewables (hydro, bio-fuel)

- Forest and land-use change are key issues

- -36-36% emission reduction compared to reference emissions in 2020 & conditional on external financing



Stumbling blocks in the international climate negotiations

1. Climate change is not a short term priority for all countries
2. Who's responsible?
 - Whose carbon is it?
3. What type of commitments are countries willing to accept?
4. Support to developing countries?
5. Competition concerns
 - level playing field

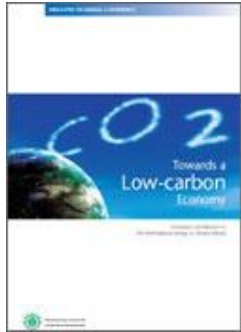


Forests & Climate

- REDD+: Reduced Emissions from Deforestation and Degradation in Developing Countries
- Deforestation represents 20% of global CO₂ emissions (Brazil, Indonesia, DR Congo)
- Outcomes uncertain at this stage because of concerns about:
 - Additionality & permanence of forest carbon sinks/stores
 - Property and tenure right issues
 - Environment NGO's want industrial countries to focus on making deep cuts...not leveraging forest carbon offsets



A global carbon market



- Key objective:
Establish a price for carbon
- Carbon market doubled from 2007 to 2008
 - Total value in 2008: 126 BUSD
 - Allowances and derivatives under EU ETS: 92 BUS
 - Continued strong growth in 2009 (+22%)
- Clean Development Mechanism (CDM)?
 - Re-design or complement with new, dedicated, flexible market mechanisms?
- “Docking station” for various mechanisms within UNFCCC



Sectoral Approaches

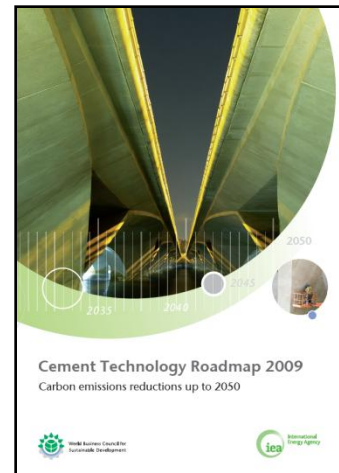
- WBCSD:
 - Cement
 - Forest Products
 - Tires
 - Electricity Utilities
 - Buildings
 - Mobility
- IEA Technology Roadmaps
- Cooperation agreements
 - GeSI, World Steel Association



Cement Sustainability Initiative

- Leading the way on industry sectoral approaches
- Actions:
 - CO₂ measuring and reporting
 - CDM methodology
 - Technology Roadmap together with IEA

Co-Chairs:





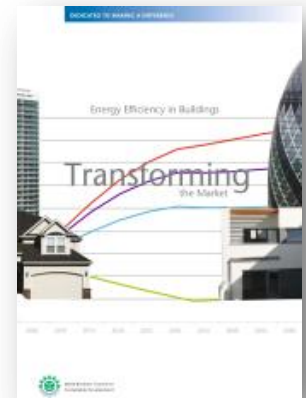
Energy Efficiency in Buildings (EEB)

- Buildings represent 50 % of world energy use
- Report: **“Transforming the Market”**
- Cutting building emissions by 50% globally by 2050 is possible at an average abatement cost of 25USD/tCO₂
- Next Step
 - Manifesto for member companies to improve energy efficiency in their buildings

Co-Chairs:



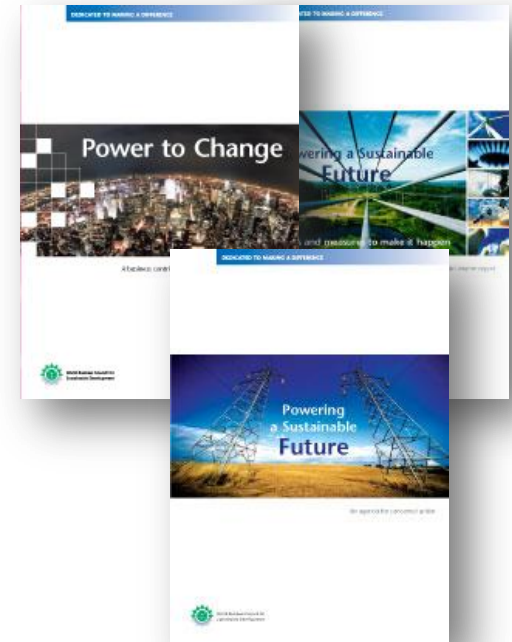
United Technologies





Electricity Utilities

- Trilogy of policy reports
- “Power to Change: A business contribution to a low-carbon electricity future”
- Roadmap of sector specific recommendations and policy roundtable dialogues in South Africa, China and Japan and US
- Scoping new phase



Co-Chairs:



Members:



Statkraft



AMERICAN
ELECTRIC
POWER

CLP 中電

GDF SUEZ



THE
KANSAI
ELECTRIC POWER CO. INC.

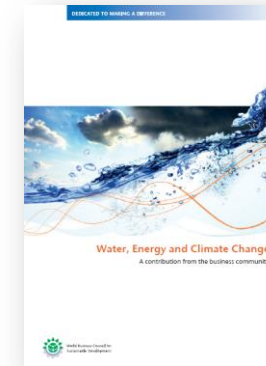




Water

- Report: “Water, Energy and Climate Change”
 - Water & Energy linked
 - Impacts from ecosystems and climate change
- Measuring water use & assessing impacts:
 - WBCSD Global Water Tool
 - CH2MHill
 - Founding partner of Water Footprint Network
 - Development of ISO standard on water footprint

Co-Chairs:



Water Footprint
NETWORK





Climate Change – A transformational challenge for society

- A society that emits 50% less GHG emissions by 2050 will look very different
- Major impacts on lifestyles, consumption patterns and infrastructures are likely
- The transformation will not be easy
There will be winners and losers



A World in Transition to Sustainability

- The world cannot succeed without Business as a committed solution provider to sustainable societies and ecosystems
- Business cannot succeed in a society that fails
- Need to create better functioning cooperation between governments and business



COP 15, Copenhagen, December 2009

- Copenhagen is a milestone, not the finishing post
- Unlikely to deliver framework with details
- Will be worked out over next 2 years, internationally & nationally



www.wbcasd.org