



Our Common Future? Pathways to 2050



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The WBCSD and its members

The Focus Area Energy and Climate work program

- Facts and Trends
- Pathways to 2050
- Policy Directions to 2050

Additional recent activities in the Policy Arena

Government and Business

- What business would like from government

Conclusions



WBCSD Members, Scale – Statistics

Coalition of 190 leading companies

- Total turnover: close to USD 6 billion
- Market capitalization = USD 5,400 billion
- Total member company employees = 12 million
- Global outreach
 - *3 billion consumers per day buy a product or service from a WBCSD member company*

Regional network: 55 partner organizations



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The Energy and Climate Work Program

Policy:

Dialogues & Engagement

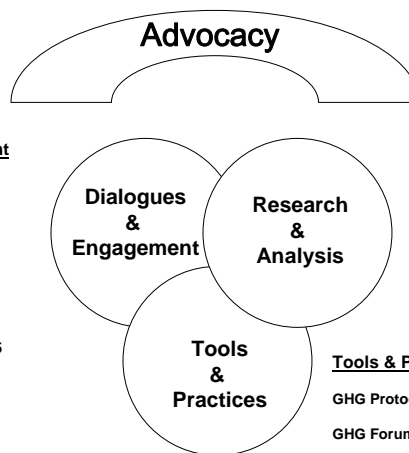
G8 / Gleneagles process
 EU High Level Group
 Asia Pacific Partnership
 Glion II Dialogues
 BAE (Business Action for Energy) for UNCSO 14 and 15

Research & Analysis

Facts and Trends
 Pathways to 2050
 Policy Directions to 2050
 Issue Briefs
 Links with other WBCSD projects

Tools & Practices

GHG Protocols
 GHG Forums
 GHG Pilot Projects (Mexico, Philippines...) with WRI

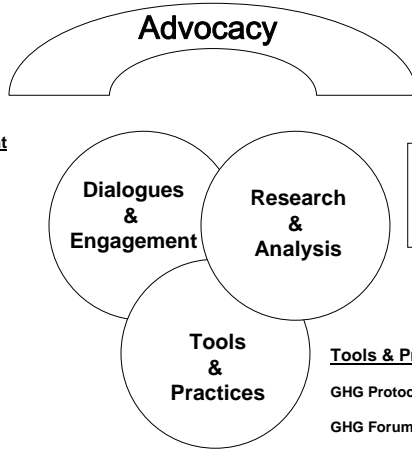


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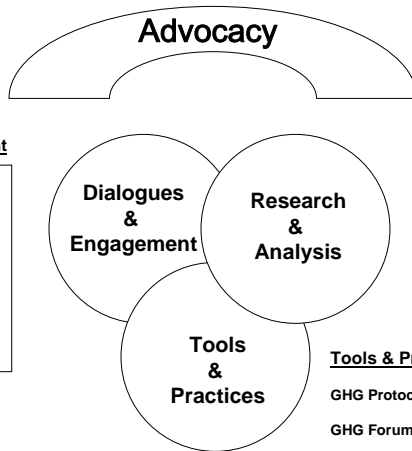
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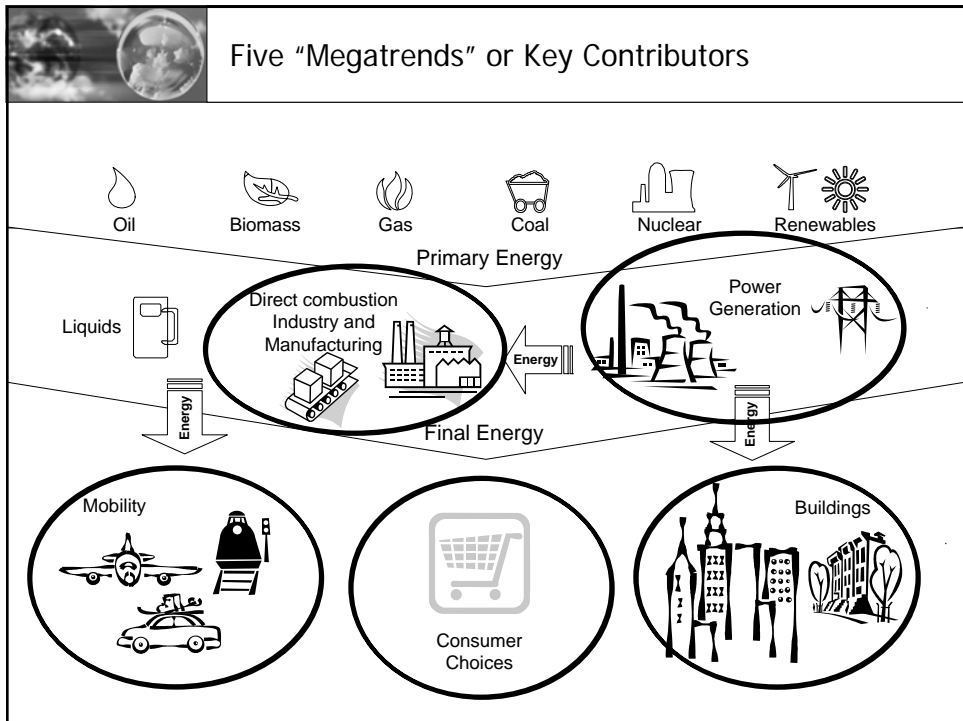
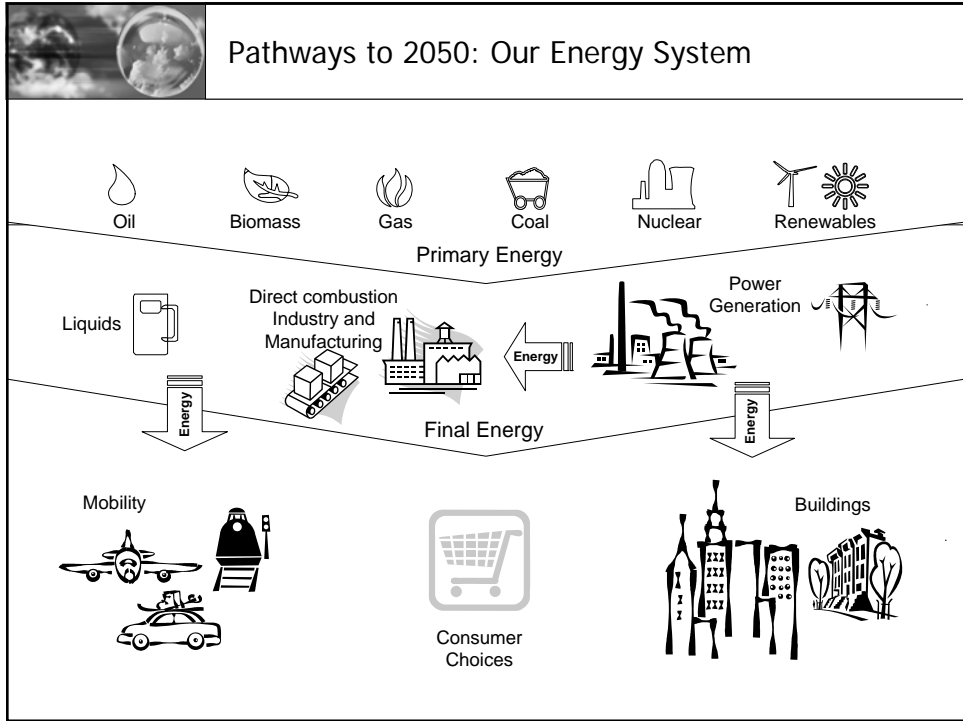
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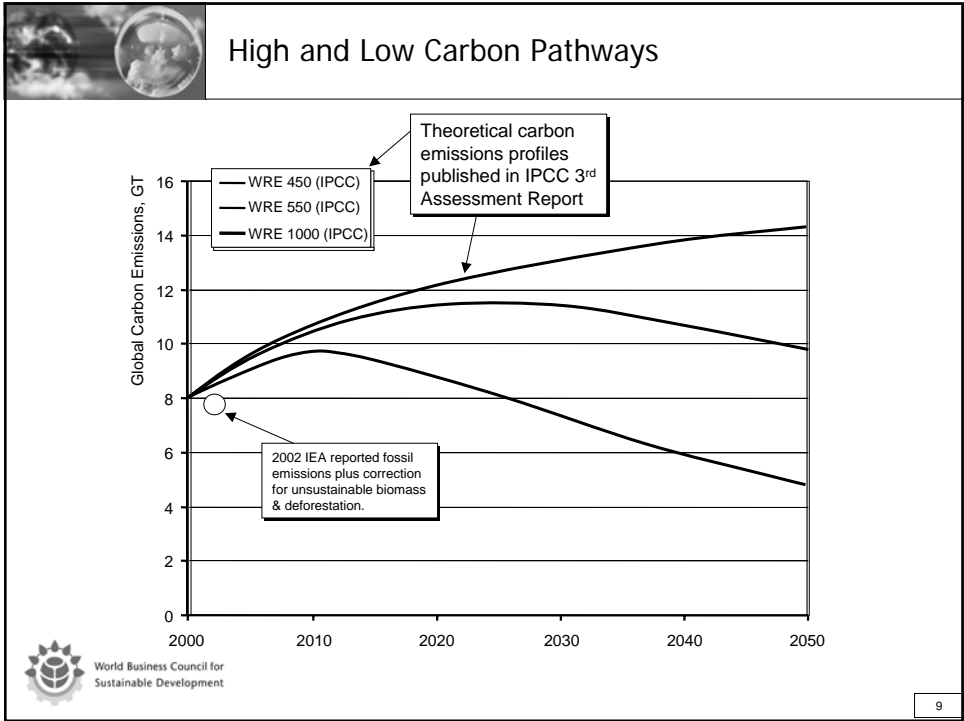
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Heading to a 550 ppm World

Possible pathways (illustrative) from a strong response to climate change:

Short to medium term (2010 – 2025):

- **Carbon markets grow**, potentially covering all developed countries and offering tangible opportunity value in developing countries
- Managing CO₂ becomes a prerequisite for new industrial projects
- Renewable power generation and bio-fuels grow to 15% of the global energy mix
- Strong emphasis on **energy efficiency**
- Oil demand begins to flatten

Long term (2030 - 2050):

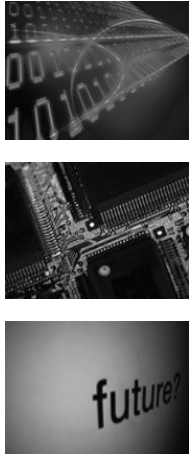
- Primary energy use nearly doubles - **gas** could become the single largest source of energy
- Final energy use could shift strongly to **electricity**, away from liquids today
- Personal mobility doubles, but oil demand declines – **bio-fuels and hydrogen** become important energy carriers for transport
- **Coal** remains a key power generation fuel – but CO₂ is captured and stored

A range of existing technologies, further developed and deployed through a global carbon market can deliver a 550 ppm trajectory,
 **but the scale of change is immense,**
 **and we need to start now!**

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All Change Tomorrow?



Many advocate that a much more rapid change in our energy infrastructure is the only solution to the threat of climate change. However:

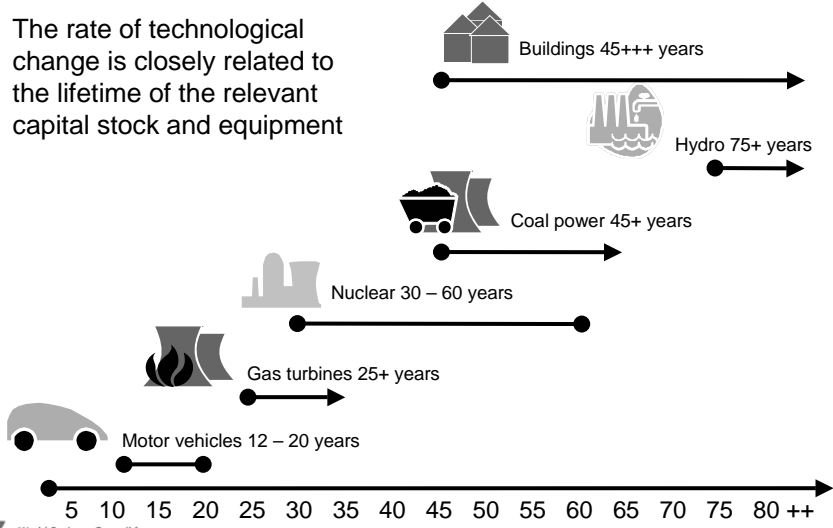
- Major transitions at the global level will take time to implement
- The speed with which new technologies diffuse depends on many factors

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Size and Lifetime Matter

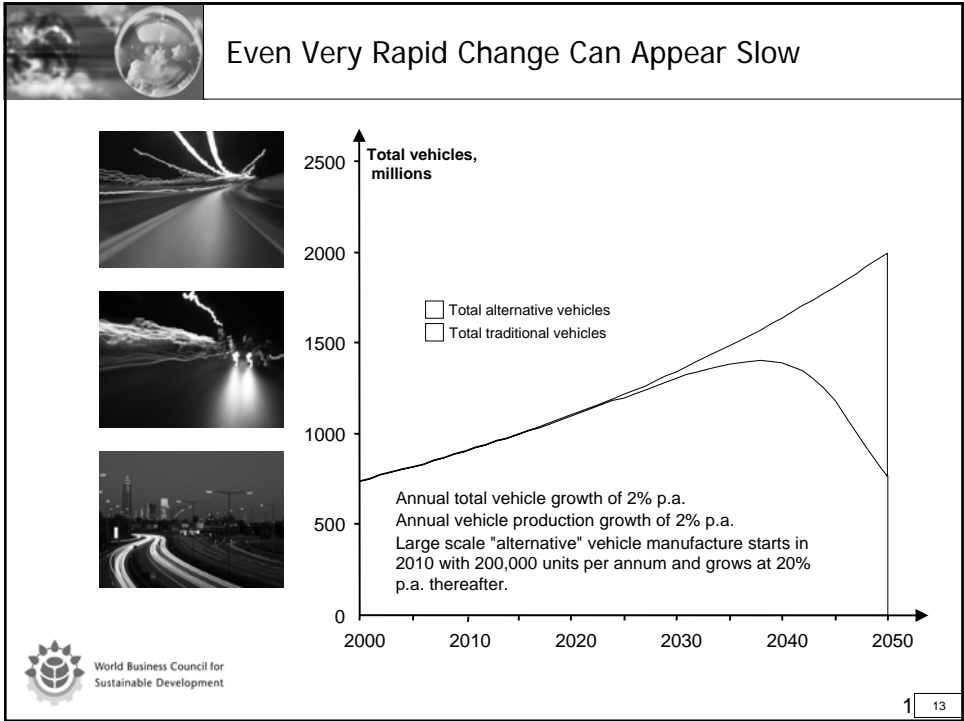
The rate of technological change is closely related to the lifetime of the relevant capital stock and equipment



Asset Type	Lifetime (Years)
Motor vehicles	12 – 20
Gas turbines	25+
Nuclear	30 – 60
Coal power	45+
Hydro	75+
Buildings	45+++

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Policy Directions to 2050 – the Trilogy

Energy policy is set at the national level:
 It is one of the principal responsibilities of government.
 The development of energy policy is responsive to:

- Financial considerations
- Available natural resources
- Security of supply
- Environmental signals

A future framework must recognise the sovereign nature of energy policy decisions, but at the same time provide clarity, context and drive for such decisions.

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A Future Framework – What is Needed?

1. A long-term goal

- ✓ Established by 2010
- ✓ Described in terms of CO₂ emissions*

2. Technology development and deployment framework

- ✓ Expanded support for R&D
- ✓ Global standards
- ✓ Technology transfer driven by standards
- ✓ Risk management

3. Emissions management at national and sectoral level

- ✓ Bottom-up approach aligned with energy policy
- ✓ Sector by sector
- ✓ Expanded project mechanism
- ✓ Progressive inclusion of all countries

4. Linkage framework to encourage international trading



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*All GHGs but as CO₂ equivalent

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Establishing a Long-term Goal by 2010

Describes a global emissions pathway (trajectory) to 2050.

Why do this and why by 2010?

- It provides context for national and sectoral efforts
- Action to address climate change must start now

Why emissions?

- We cannot control global temperature
- We probably can't control atmospheric ppm
- We can control emissions!

Target only what we can control

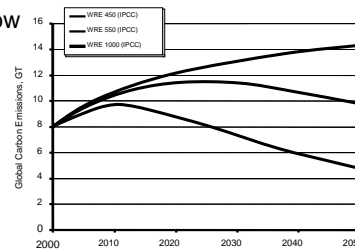
Why a pathway and why to 2050?

- It needs to encourage long-term investments
- It needs to clearly show the task starts now and continues

How is it set?

- Derived from a longer term objective using the latest climate change science and an understanding of impacts, both social and economic

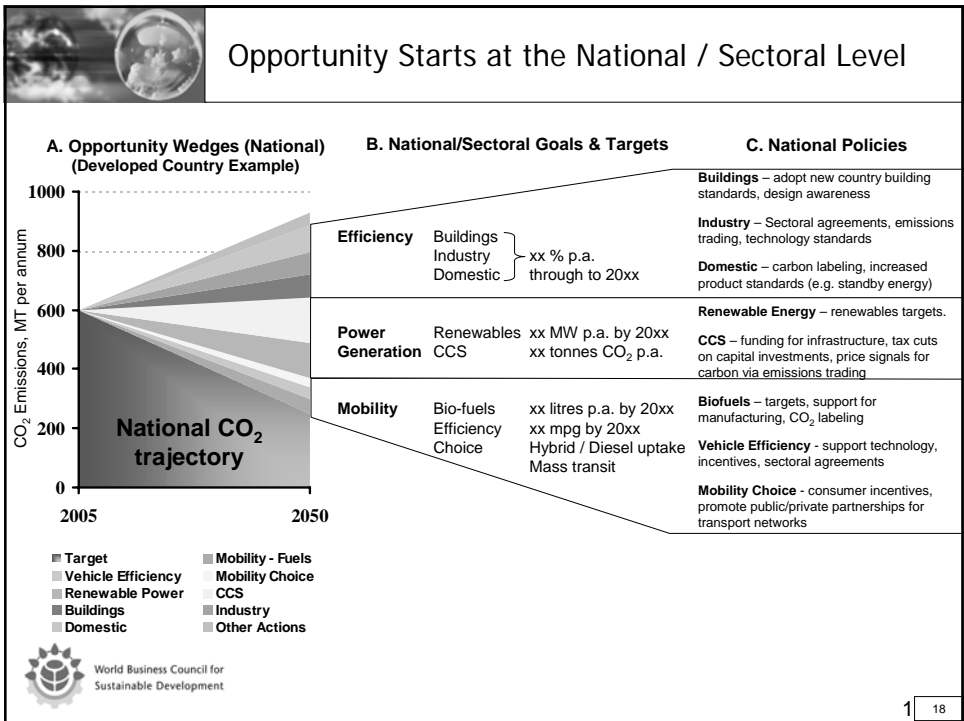
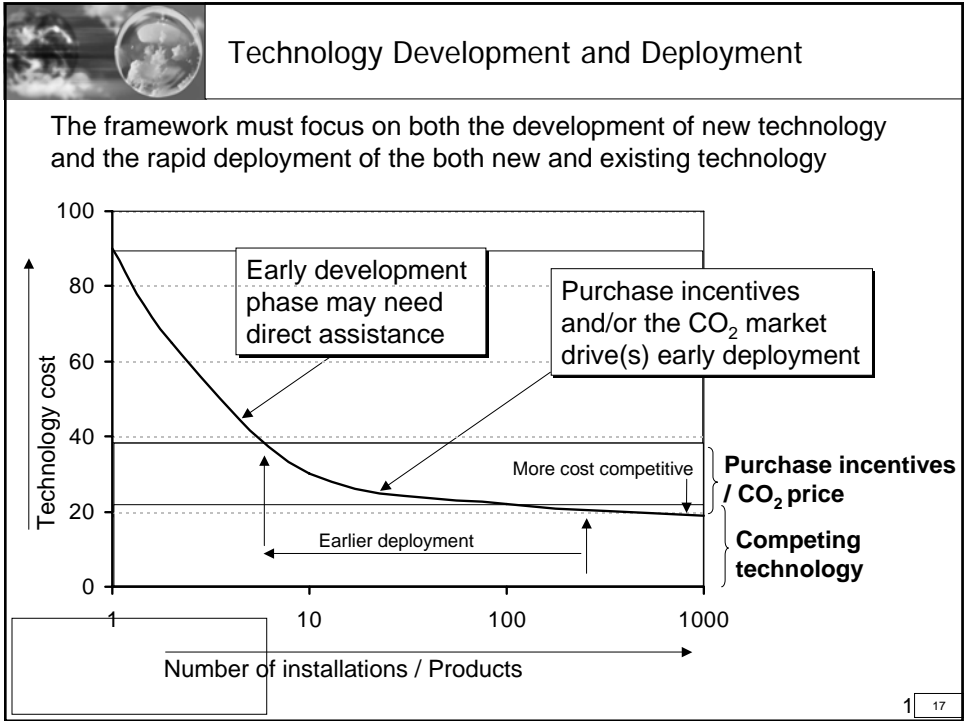
We probably know enough to do this now



Is that it?

- No – it should be reviewed periodically, but no later than 2020-2025

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Clean development partnerships & programs

Clean development partnerships and technology programs based on standards and benchmarking can drive new technology development

Asia-Pacific Partnership on Clean Development & Climate



EUROPEAN HYDROGEN AND FUEL CELL TECHNOLOGY PLATFORM

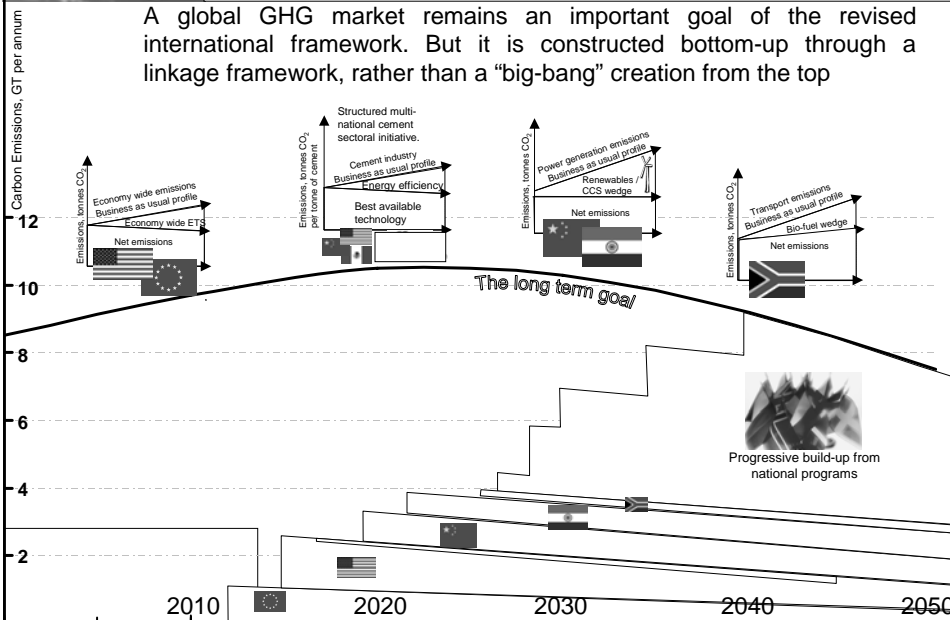


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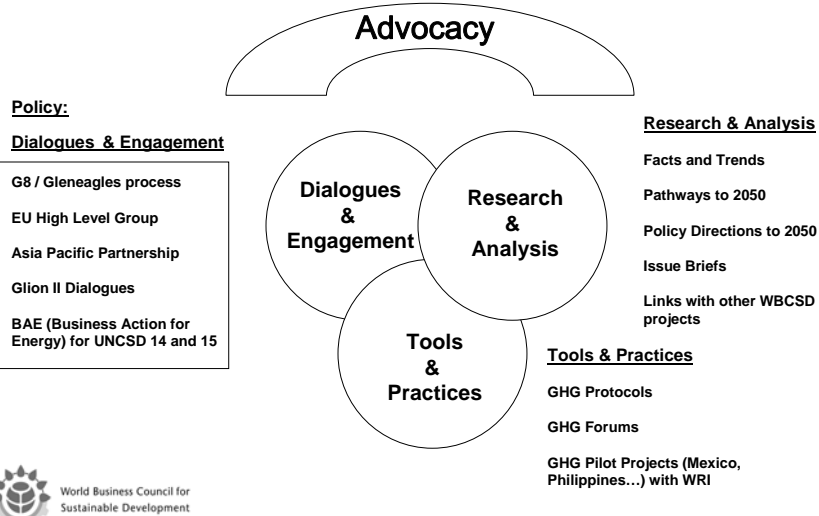
Progressive Build-Up from National Programs

A global GHG market remains an important goal of the revised international framework. But it is constructed bottom-up through a linkage framework, rather than a "big-bang" creation from the top





The Energy and Climate Work Program



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WBCSD International Policy Involvement

Gleneagles and G8

- Business voice into ministerial meetings: Monterrey
- Potential collaboration with World Economic Forum

EU High Level Group

- On competitiveness, energy and the environment
- Next two topics: competitiveness of European energy-intensive industries and environmentally harmful subsidies

Asia Pacific Partnership

- Member company involvement
- Cement Sustainability Initiative

Glion II Dialogues in the Power Sector

- Ongoing multistakeholder roundtables on policy requirements

Business Action for Energy and UNCSD 14 and 15

- ICC, WEC, WBCSD

Nairobi COP12

- Bjorn Stigson at Ministerial luncheon and plenary

Selected Partnerships

- VROM, Mexican Government (GHG Program)

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So What Would Business Like?

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Business Wish List

- **Government and Business work together in a true partnership with a genuine exchange of views**
 - Multistakeholder roundtables / dialogues
- **Seat at the table when public private partnerships are mentioned**
 - Many forthcoming policy events in 2007 and 2008
- **Some kind of certainty**
 - A signal
 - A negotiating mandate by COP 13
 - No gap post 2012

Business is ready to engage, but it needs the possibility



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