



SUSTAINABILITY, CLIMATE CHANGE & WATER

# Transitioning to a low carbon economy

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National Sustainability Forum 2010

ADVISORY

# For discussion today

- **Why are we transitioning to a low carbon economy?**
  - Why is this important?
- **Policy snapshot**
  - International policy snapshot
  - Australian policy snapshot
- **Implications and considerations for business**
  - Lessons learned from other countries
  - Risk vs value creation
  - What you need to do today

# Why are we transitioning to a low carbon economy?

- **Physical impacts** of climate change
- **Government policy** to manage climate change
- Energy price volatility
- **Diminishing supply** and increasing demand of energy resources
- **Population growth**

# Why are we transitioning to a low carbon economy?

- Cost **reduction** and cost **optimization**
- Competitive advantage
- **Risk management**
- While all of these are important, this presentation will focus on:
  - Government policy
  - Population / resource constraints
  - Risk management and value creation

# Why is this important for your business?

The transition to a low carbon economy marks the most significant change to your business in generations

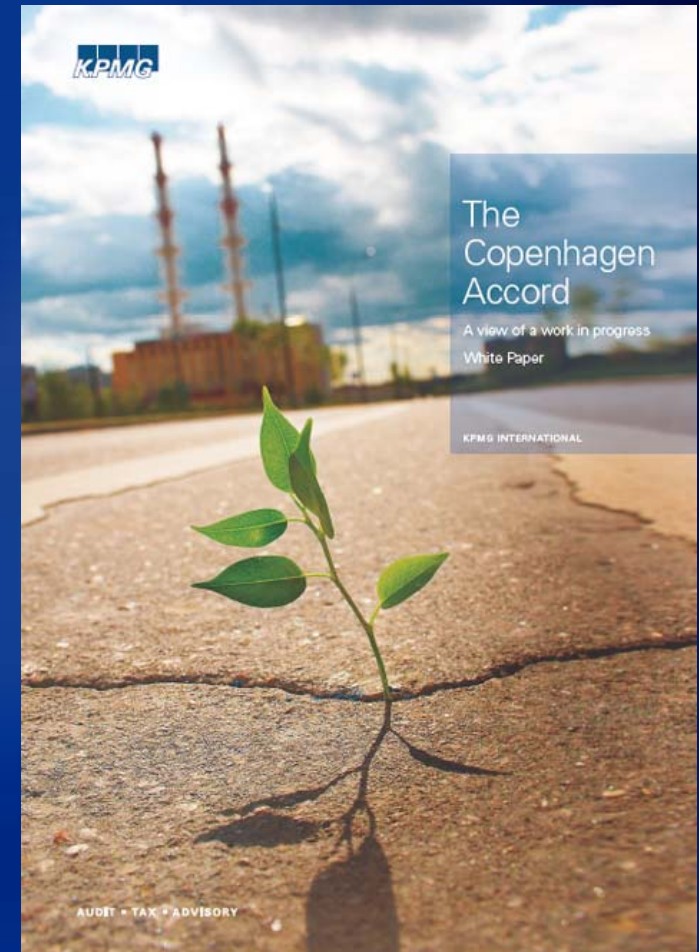
- The world economy has been **carbon intensive** since the industrial revolution
- The transition to a carbon constrained economy has already begun
- Businesses who are **early movers** can manage the risks and **seize the opportunities** in a carbon constrained economy
- Significant cost reduction opportunities
- Developed countries have pledged USD \$100 Billion per year by 2020 for climate change



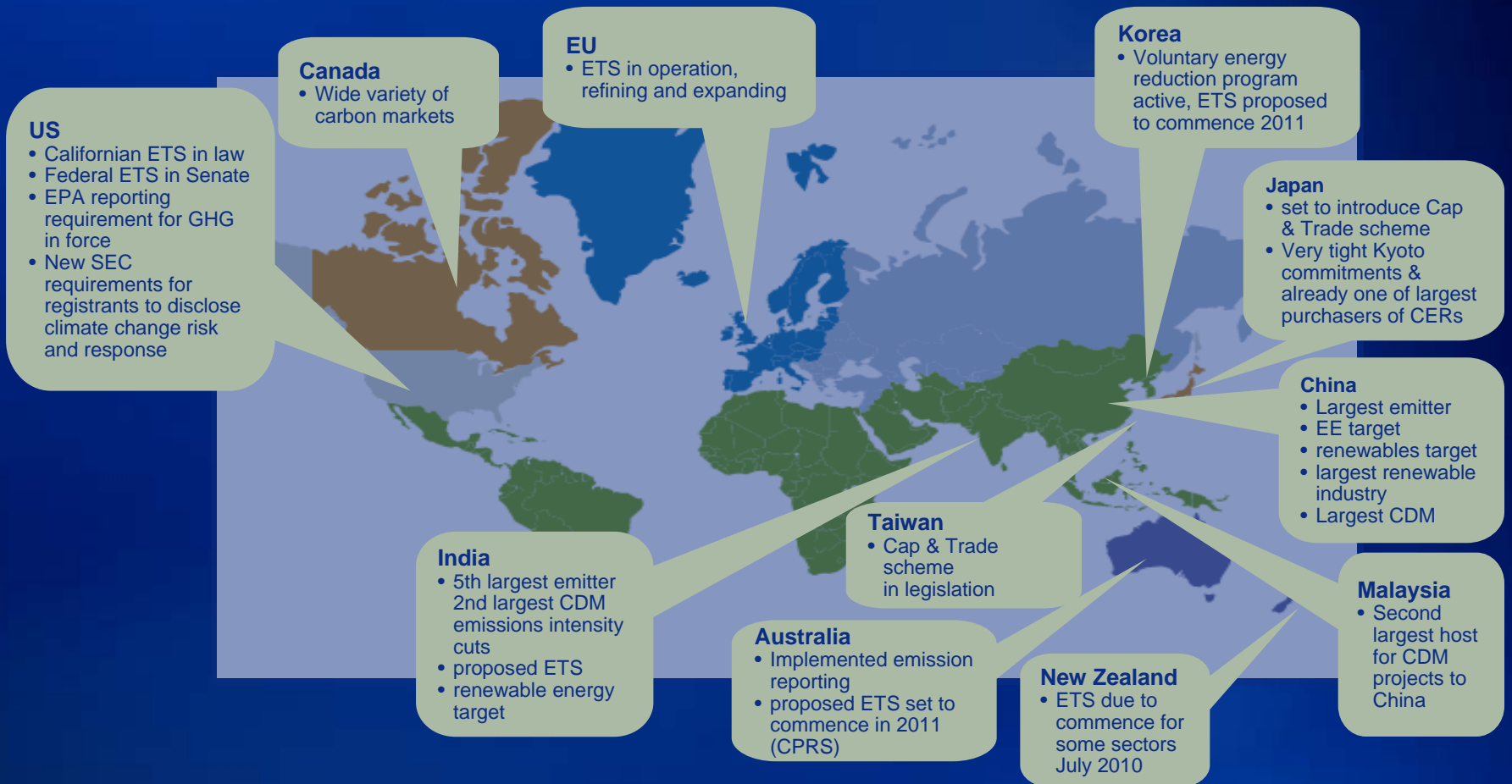
# International climate change policy overview

# Copenhagen Accord: implications and challenges

- The Copenhagen Accord **commits the world** to limiting temperature increases to two degrees Celsius (2°C)
- Countries will have **different emissions reductions targets**
- Countries need to think about adaptation
- What next?
  - COP 16 / Mexico: Dec 2010



# International snapshot



As of 22 April 2010

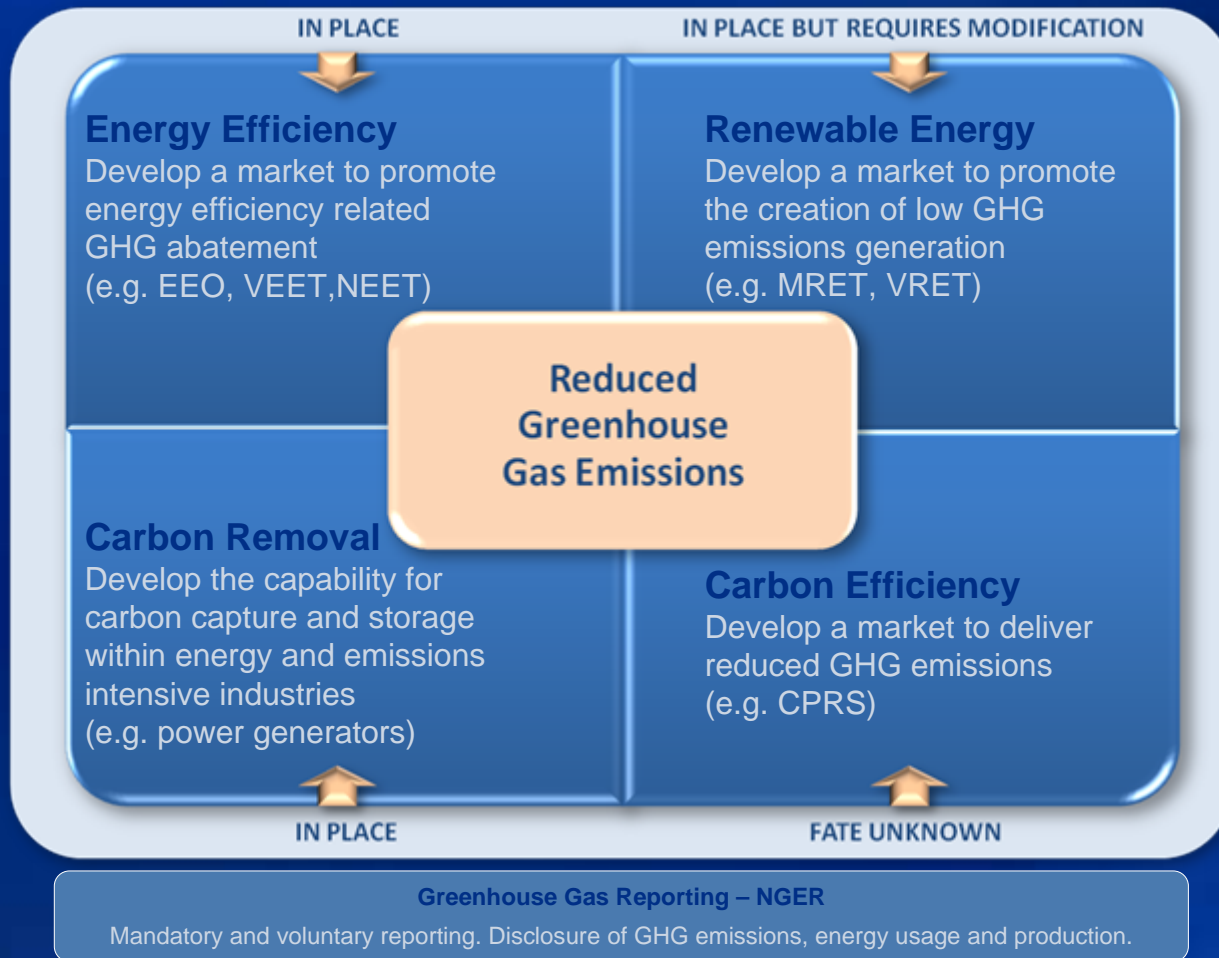
# Where are we going?

- **Fragmented carbon markets**
  - **Regional approaches** and solutions to carbon
  - We will not have an all encompassing global carbon market
- **Carbon border tax adjustments**
  - **Carbon import tax** on products produced in countries without a price on carbon
- **Industry sectors will be impacted differently**
  - Understand how your industry will be impacted in the different geographical regions you operate in



# Australian policy overview

# The Australian policy context



# Status of the Carbon Pollution Reduction Scheme (CPRS)

- Negotiations between the Government and the Liberal party yielded
  - key amendments to **provide more industry support**
  - **delay scheme obligation** until 2011-12
  - a **fixed \$10 price** in year 1
- The Senate voted down the CPRS Package on 2 Dec 2009
- The Government re-introduced the CPRS Package unchanged as part of the recent sitting of parliament

# Status of the Carbon Pollution Reduction Scheme (CPRS)

- The Liberal Party revealed its Climate Change Policy which focuses on
  - abatement through a **baseline and credit approach** rather than a cap and trade system
  - The policy objective is to achieve **5% reduction** in emissions by 2020
  - The **priority areas** are tree planting and increasing the carbon content in agricultural land
- If Senate rejects CPRS Bill No.2 a second time the Government gains a double dissolution trigger

# Renewable energy and energy efficiency

- **Renewable Energy Targets (RET)**

- **Legislation in place** that obliges energy providers (eg. Origin Energy) to surrender renewable certificates to the regulator, the proportion of which against total energy supplied increases each year to 20% in 2020
- **Renewable energy certificates are created** when qualifying renewable energy is generated
- As renewable energy costs more to generate than conventional fossil fuel based energy, the income from the sale of renewable energy certificates is intended to make renewable energy more competitive
- The impact of this legislation will be **higher cost** for energy providers who will pass on these costs to users

# Renewable energy and energy efficiency

- **Energy Efficiency Opportunities (EEO)**

- EEO requires large energy users to formally **appraise energy opportunities** and report publicly on opportunities identified, implemented and rejected
- Reporters must **report** in prescribed format that include disclosures over how energy efficiency is incorporated into strategy, governance and capital and operational investment decision making
- The EEO Act will **require assurance** over reported data

# Australia's population and resource constraints

- **Population is increasing at a high rate**

Australia's population in June 2009 was 21.96 million, an increase of 456,700 people from June 2008 (growth rate of 2.1%)

Source: Australian Bureau of Statistics

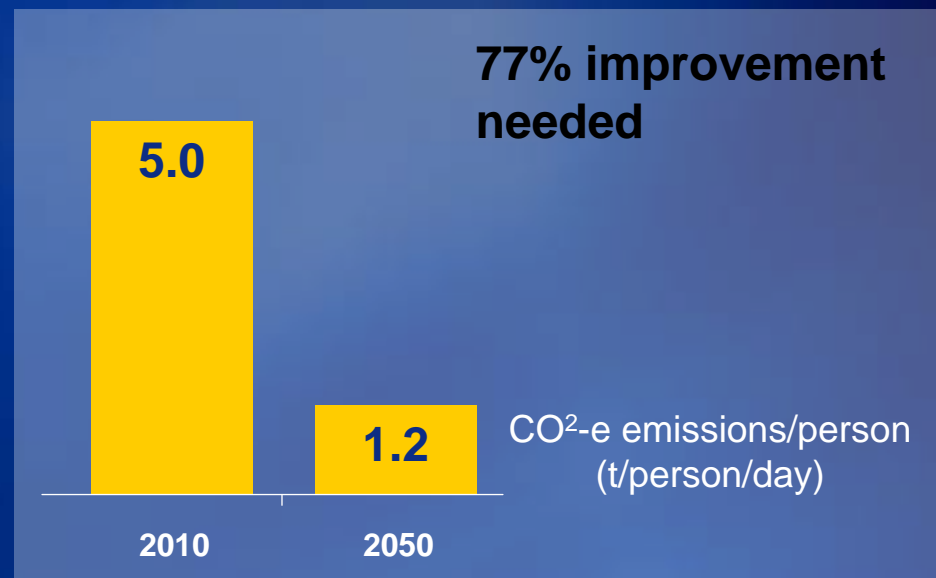
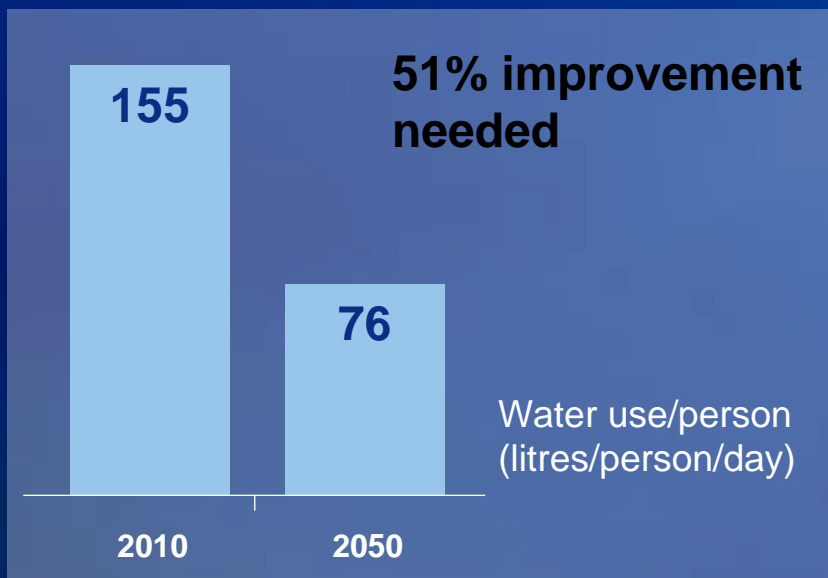
Australia's population is projected to reach 35.9 million in 2050

Source: Intergenerational Report 2010

- **Resources such as fresh water are currently stressed**
- **The economy must become less water and carbon intensive to sustain growth**

# Australian carbon and water intensity targets

- **Reductions needed in carbon and water intensity to support growth**
  - Without water supply augmentation
  - To meet Government's 2050 emissions target



# A key risk identified by business

- **Climate change related risks are of more profound consequence than any other threat facing Australia today**
  - Water scarcity, droughts, heatwaves, bushfires, extreme storms
- **Australian leaders perceive the severity and probability of climate change to Australia to be particularly high – with high social and economic costs**
- **Available on [kpmg.com.au](http://kpmg.com.au)**



*“Of the risks confronting Australia in 2009, those emerging from our natural environment are of the greatest consequence”.* Australia Report 2010 Risks and Opportunities

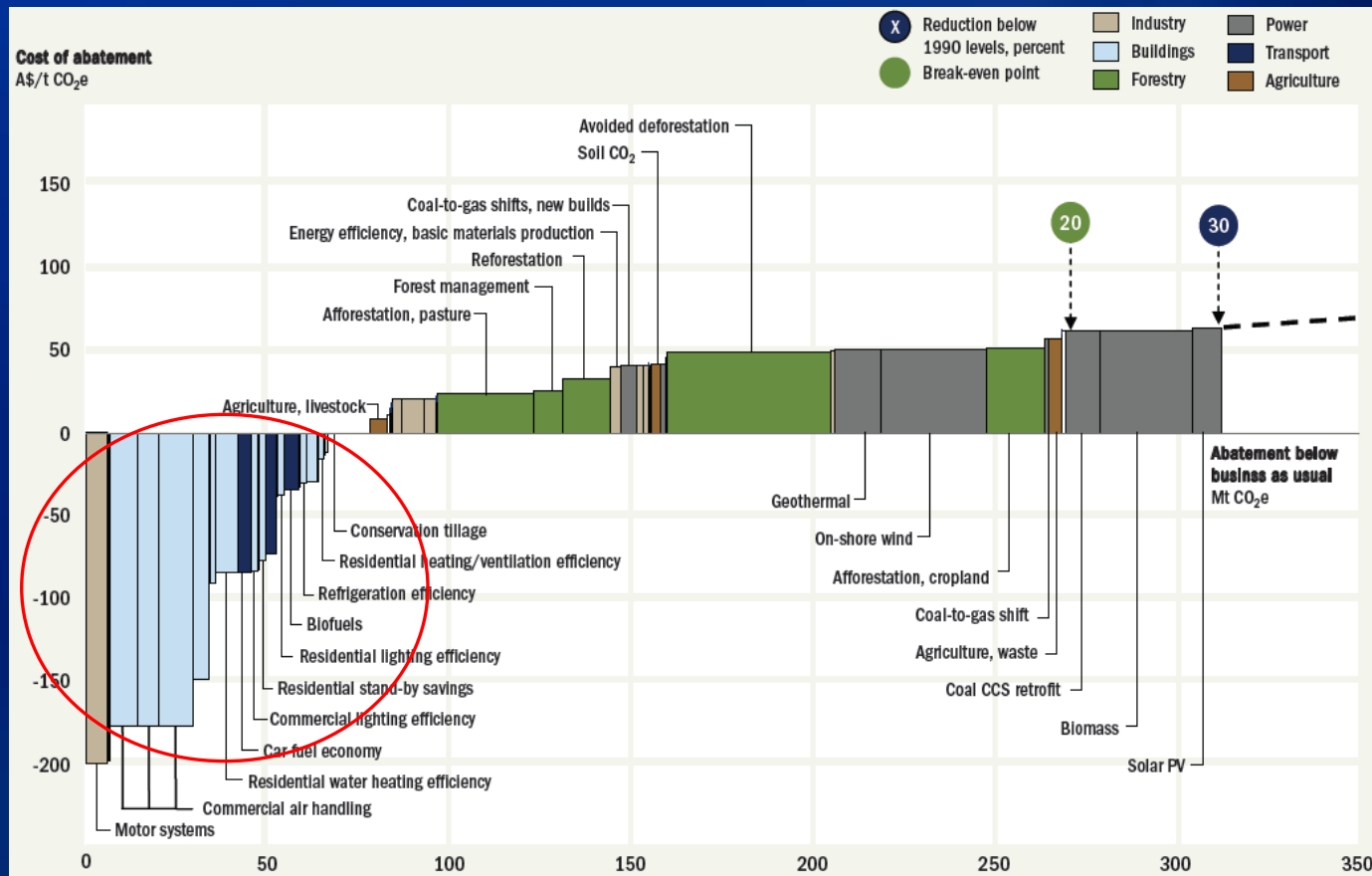
Australian Davos Connection in collaboration with KPMG

# Implications and considerations of the low carbon economy for business

# Lessons learned from other countries

- **Restructuring** of the economy due to carbon constraints
- **Supply chain impacts** due to the price of carbon
- There is an **early mover advantage**
- Many opportunities to **reduce cost now** through energy efficiency even without a price on carbon

# Australian 2020 carbon abatement cost curve



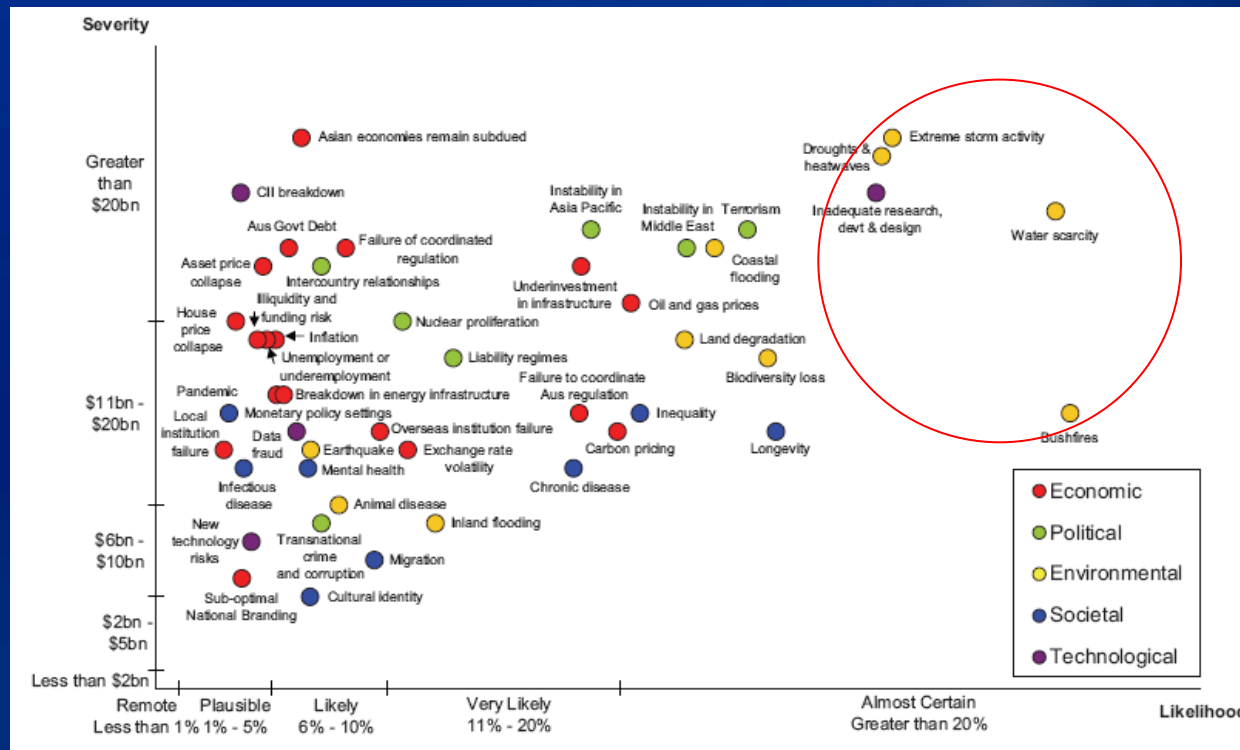
Note: Abatement opportunities are not additive to those of previous years  
 Source: McKinsey Australia Climate Change Initiative

# Risk management

- There is a **real cost** associated with the failure to act
- Major weather events are **impacting business operations** today
- Water is becoming increasingly scarce and expensive in Australia
- **Extreme weather events** are occurring more regularly
- **Environmental risks** have emerged as one of the biggest challenges

# Australia risk landscape

- Environmental risks are the most severe and also the most likely



Source: Australia Report 2010 Risks and Opportunities Australian Davos Connection in collaboration with KPMG

# What should business do?

# Risk vs value creation

- Currently companies are focusing on the risk component of a low carbon economy
- Few companies have plans to **create value** in a low carbon economy
- The transition to a low carbon economy will cause **significant changes** to business and change entire industries
- Businesses that use this transition to create value will be **leaders** in the new low carbon economy
- **New products and services** have been developed and they will continue to evolve as the economy becomes less carbon intensive

# Approach to understanding your risks and opportunities

- **Assess** where you are in the new low carbon world
- **Understand**
  - the **context** of your industry
  - the **government regulations** in the regions you operate in (or may operate in)
  - how the **price of carbon** will **impact** you directly and indirectly (supply chain)
  - what your **competition** is doing and how you compare
  - the **strategic and tactical risks** impacting your industry

# Companies beginning to view the low carbon economy as a competitive advantage

## General Electric

Jeffery Immelt, CEO

(Speech at U.S. Military Academy at West Point on December 9, 2009)

We've made a business decision to focus all the innovative powers of GE to solving the problems of energy use and environmental stewardship. In only four years' time, our revenues from environmentally friendly technology have nearly quadrupled to \$17 billion.

## Wal-Mart

Lee Scott, CEO

(HBR, Why sustainability is now the key driver of innovation, September 2009)

He told more than 1,000 suppliers in China to reduce waste and emissions, cut packaging costs by 5% and increase the energy efficiency of products supplied by 25% in three years.

## Marks and Spencer

(Beyond Copenhagen, UK Department of Energy and Climate Change, March 2010)

"Plan A" was launched by Marks and Spencer in January 2007; a commitment to change 100 things over five years that would make a positive impact on the environment and on Marks and Spencer as a business. By 2010, Plan A has already delivered cost savings of around £50 million and cut CO2 emissions by 40,000 tonnes.

## Harvard Business Review

(HBR, Why sustainability is now the key driver of innovation, September 2009)

In the future, only companies that make sustainability a goal will achieve competitive advantage. This means rethinking business models as well as products, technologies, and processes.

# Actions you can take in 2010

## Assess or refine your carbon exposure

- Capitalise on work already done (NGER, EITE)
- Go beyond direct cost, gain some extra visibility with a value chain approach
- Watch out for lower NGER reporting thresholds

## Data Integrity

- Develop the processes, systems, controls, and governance to manage your emission data
- Emission and environmental data should be treated the same way as financial data

## Keep informed and ready to act

- Interpret what proposed government policy (CPRS and possible alternatives) mean to you and your industry
- Understand your capabilities and gaps
- Test your capability to deal with permit trading and marginal abatement cost

## Get involved

- Rules can still change but won't go away
- Government assistance is still in draft
- Talk to your key suppliers and key clients



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