

19th January 2009

ASrIA Briefing

Measuring and Investing into a Low Carbon Economy



Will Oulton
Director, Responsible Investment, FTSE Group
January, 2010

Introduction to FTSE Group

- Jointly owned by Financial Times and London Stock Exchange
- Independent company
- Provides tools for investment to public pension funds, fund managers and stock exchanges through the calculation and management over 120,000 indices globally
- RI Indices include the FTSE4Good Index Series, Environmental Markets and FTSE/KLD Indices
- Developed the FTSE Environmental Markets Classification System
- \$23 bn linked to FTSE's sustainable and environmental indices



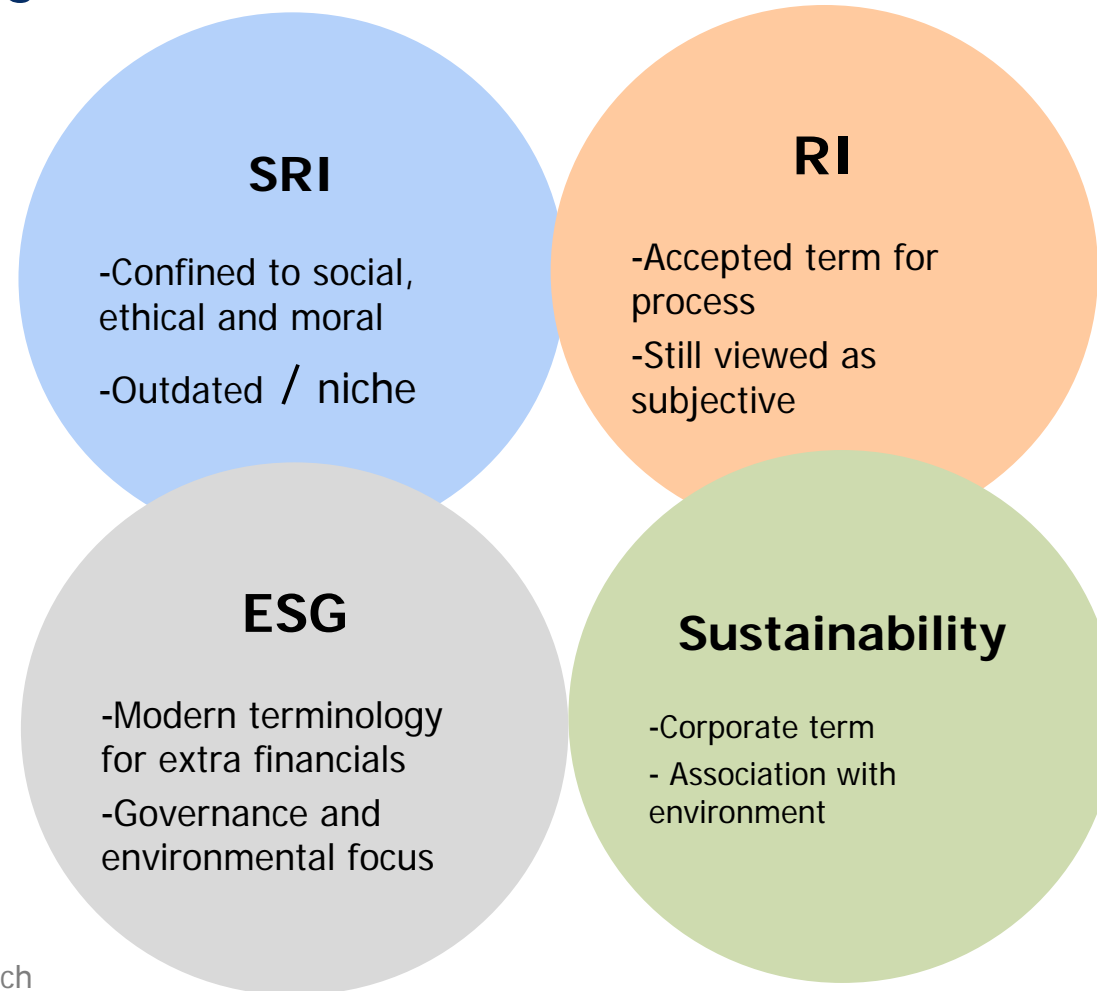
Trends and Drivers of Responsible Investment



Definition of Responsible Investment

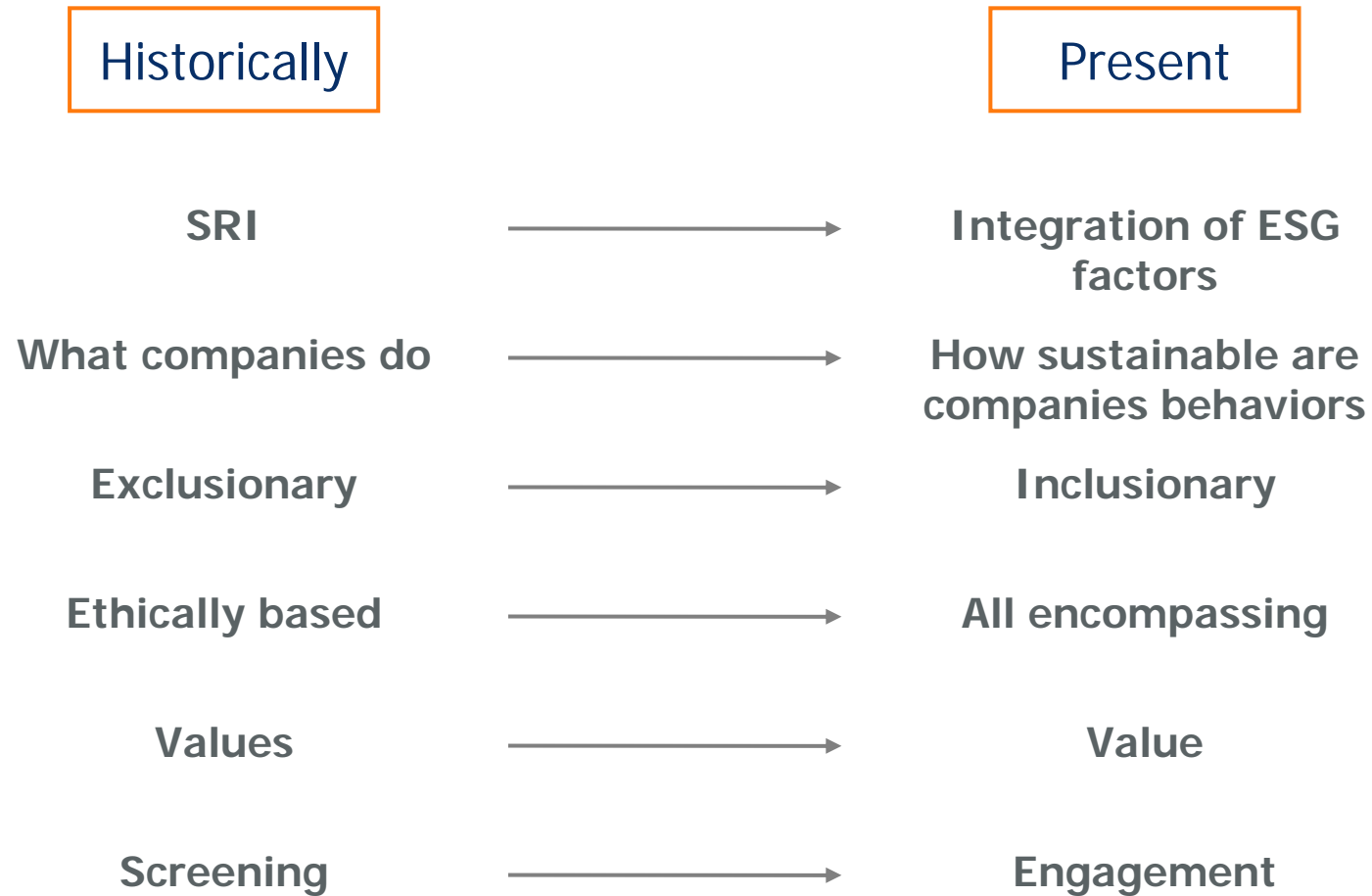
Responsible Investment – is the process of analysis and integration (alongside traditional financial analysis) of environmental, social and corporate governance (ESG / Sustainability) factors in assessing both portfolio risk and performance management.

The variety of terminologies make for a confusing picture and reflect the challenge of ESG narrative in the mainstream investment agenda



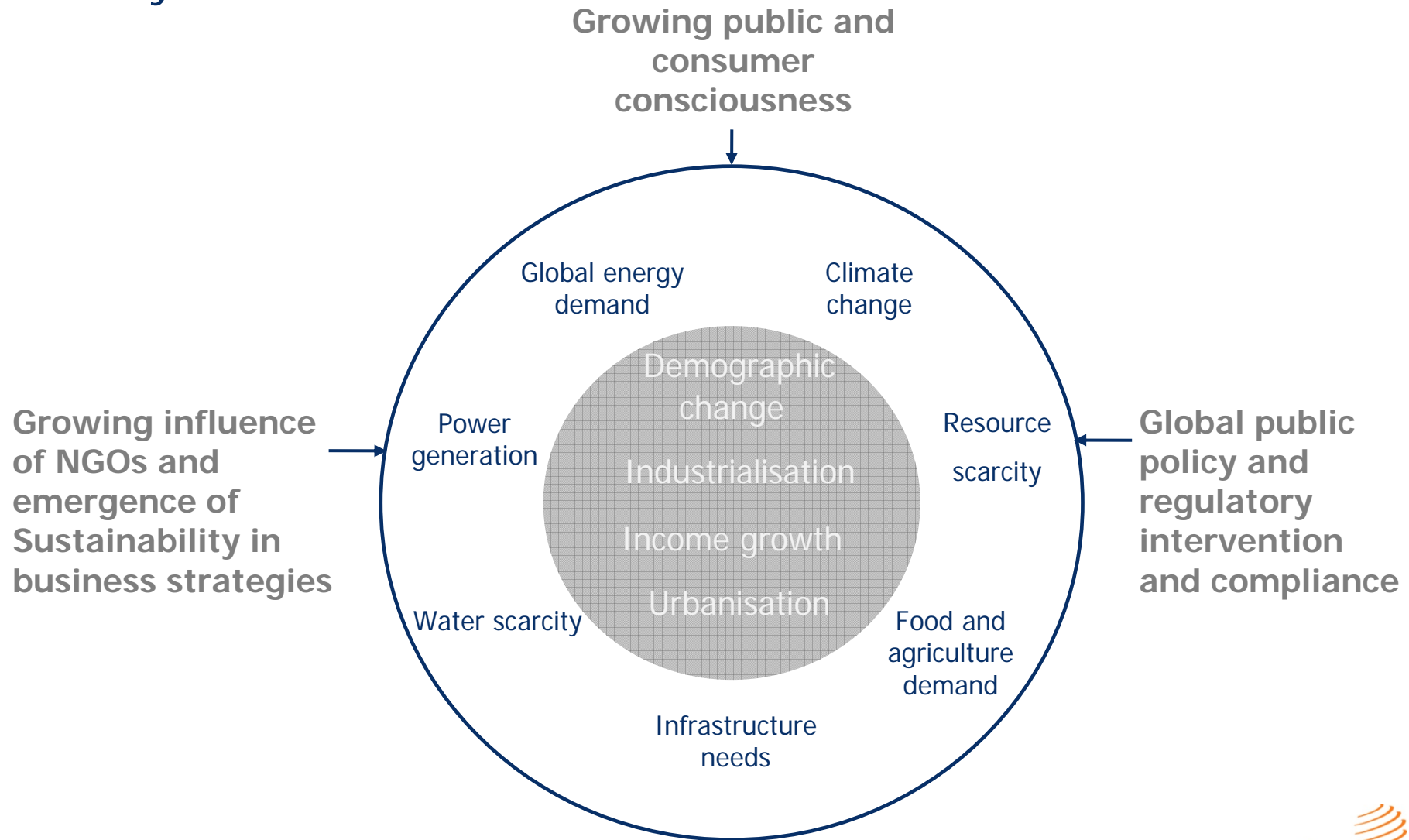
Source: Circle Research

RI: perceptions have changed over the past 10 years



Source: Circle Research

Key future drivers for Responsible Investment come from many sources



PRI AND CDP are key drivers of the €5 trn* global RI market

	RI assets (€ billion)*	CDP signatories	PRI signatories (Owners/ Managers)	Overview
Global	4,963	461	531	Assets growing despite downturn; investor commitments (e.g. PRI) continue to drive growth
Europe	2,665	206	241	Fastest growing ESG agenda, fragmented & many service providers
North America	2,251	125	99	Behind EU recent growth driven by environmental technology
Asia Pacific	47	79	125	Highly fragmented, culturally diverse, Australia is leading market
Emerging Markets	NA	51	66	Environment and governance risk key drivers; difficult to assess ESG practice; China and India key but Brazil and SA are considered leaders

*Source : Eurosif 2008 SRI study

** Source CDP estimates

FTSE and PRI - Collaborative Engagement in HK and Singapore

- FTSE is a founding signatory to the Principles of Responsible Investment
- As one of its functions, the PRI secretariat encourages signatories to implement collaborative engagement through the 'UN PRI Engagement Clearinghouse'
- FTSE initiated a pilot collaborative engagement project to engage with approximately 20 companies in Hong Kong & Singapore to enhance disclosure and activity on their corporate responsibility standards
- With 9 co-signatories to back up the initiative, 50% of the companies entered a two-way dialogue, and 2 companies were included in the FTSE4Good Index Series at the September 2009 review

Defining and investing into Environmental Markets



Growth in Environmental Markets

Climate change is one of the key drivers of interest environmental markets, others include;

- Energy security and supply
- Population growth
- Water scarcity
- Economic development
- Ecosystem degradation, and
- Policy and regulatory initiatives related to CO2 Emissions

"Unmitigated climate change poses a threat to the global economy, but building a low carbon economy creates opportunities for investment in new technologies that promise to transform our society in the same way as the introduction of electricity or railways did in the past."

*Lord Nicholas Stern
New York
September 16, 2009*

The FTSE Environmental Markets Classification System

For investors defining the opportunity set has been problematic.

“Companies that provide products and services offering solutions to environmental problems, or that improve the efficiency of natural resource use.”

- **6 Sectors:**

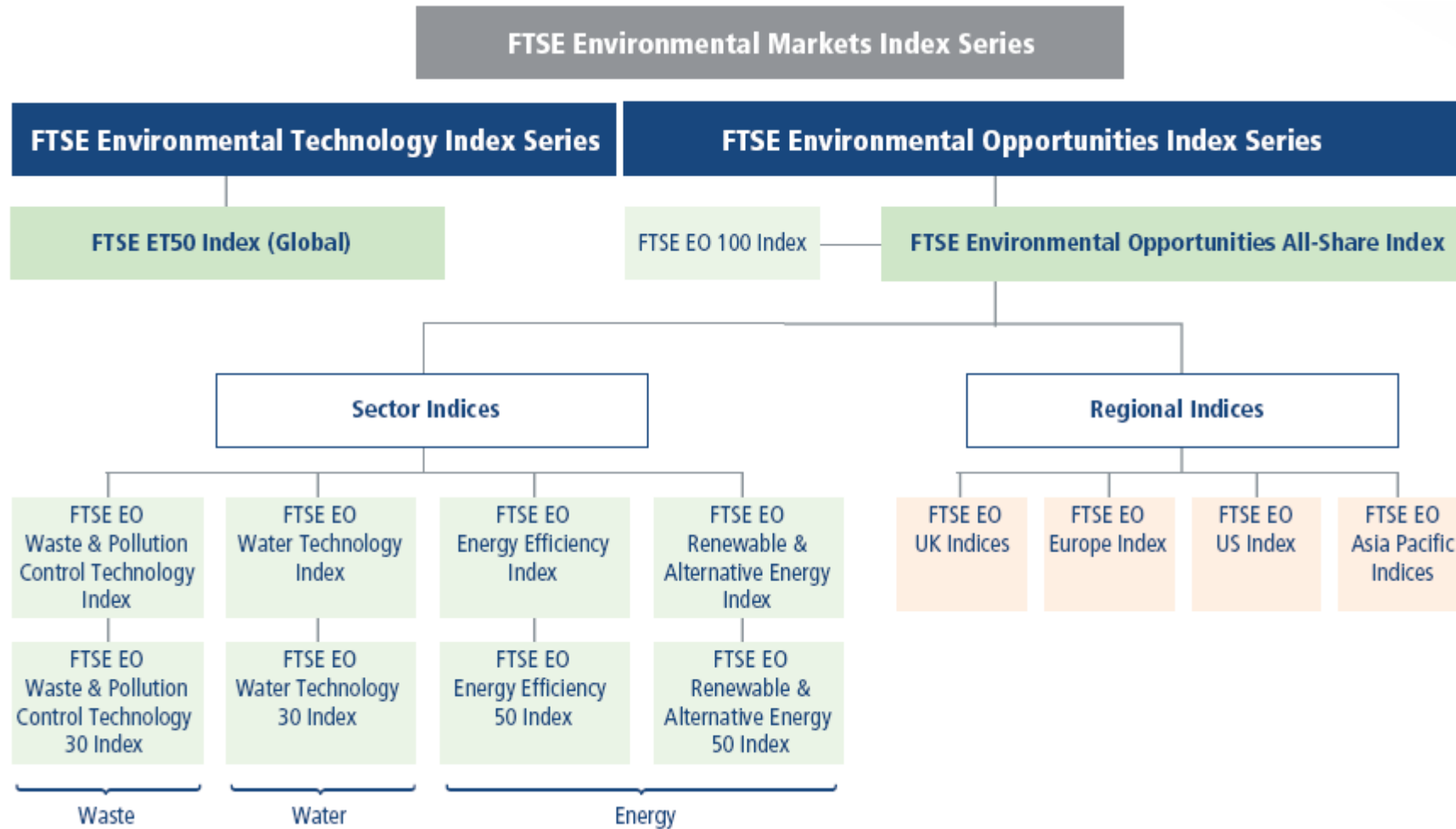
1. Renewable & Alternative Energy
2. Energy Efficiency
3. Water Infrastructure & Technologies
4. Pollution Control
5. Waste Management & Technologies
6. Environmental Support Services

- **25 Sub-Sectors...**

FTSE Environmental Markets Indices

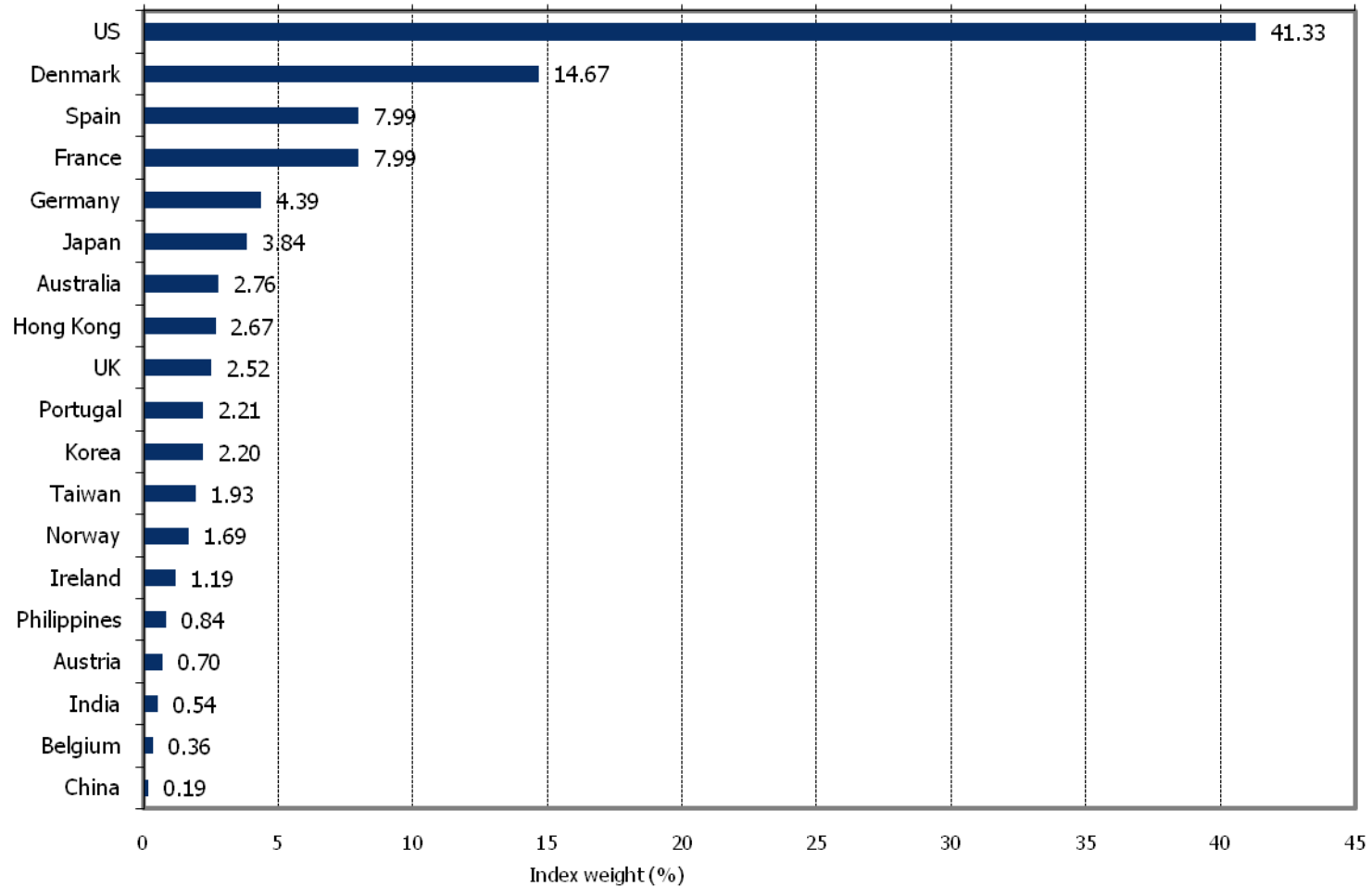
- Developed in association with Impax Asset Management
- Overseen by an independent, practitioner advisory committee
- 2 key approaches – sector specialists (pure play Environmental Technology) and broader Environmental Opportunities
- Revenues drive the selection process – 50% plus – sector pure play specialists; 20% plus - environmental opportunities
- Universe of 1300 companies (developed and emerging country representation)
- 18 indices in the series comprising over 500 companies
- \$3bn AUM

FTSE Environmental Market Index Series

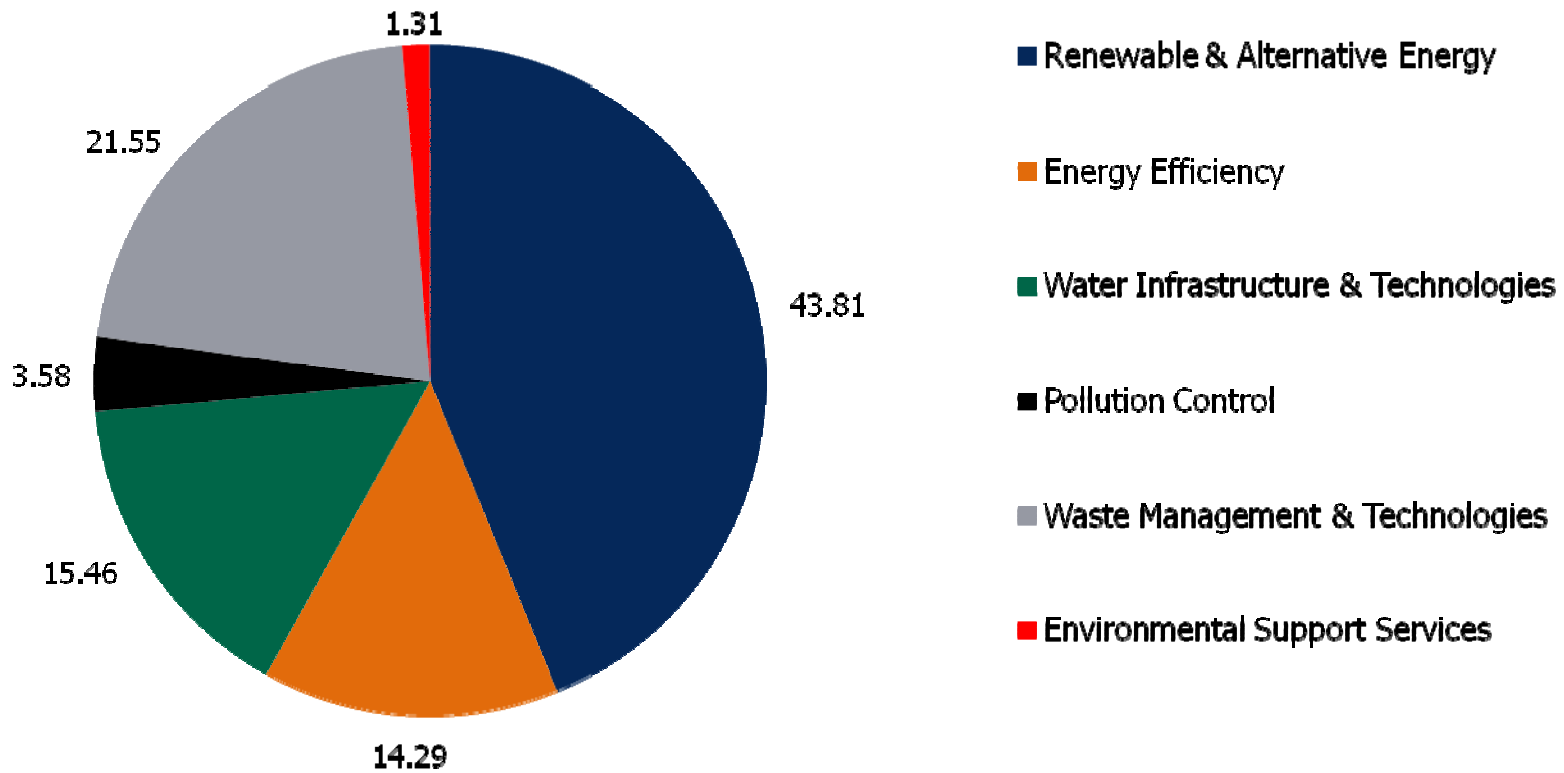


Sector Specialists - FTSE ET 50

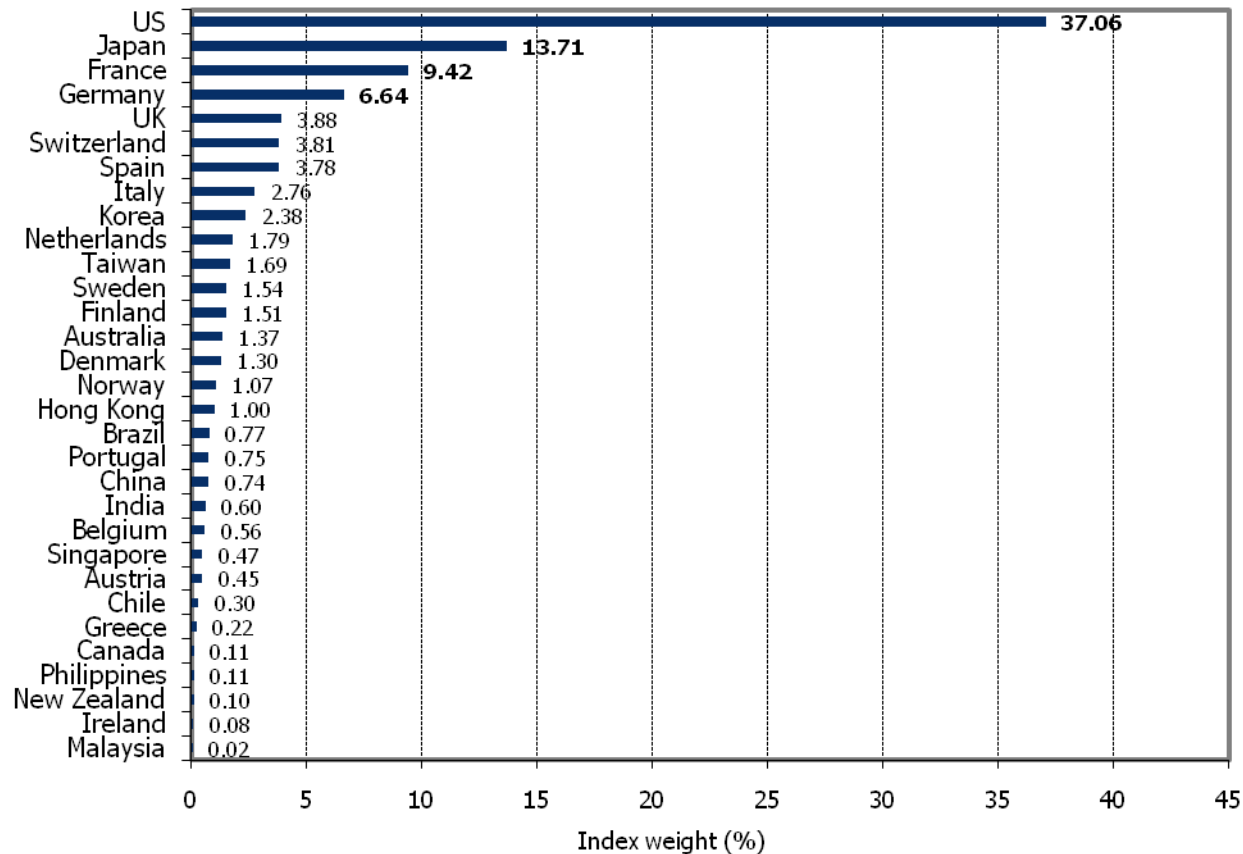
Country Representation



Sector Specialists - FTSE ET 50 Sector Weights (%)



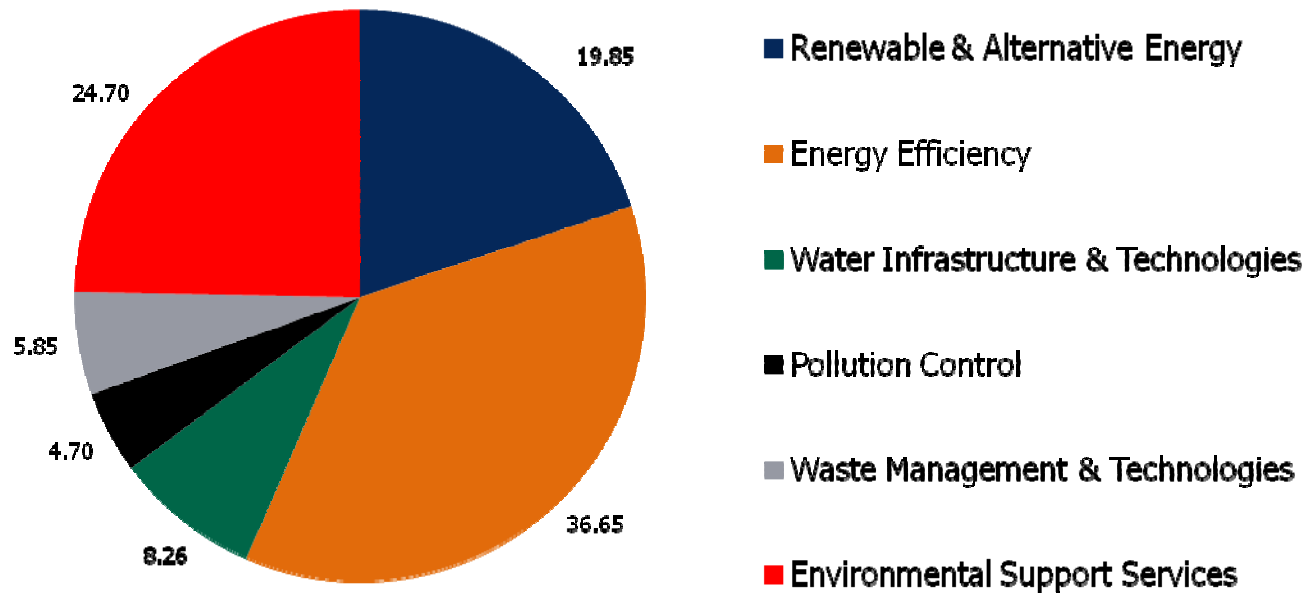
FTSE Environmental Opportunities All Share – Country Weightings by Market Cap



- US and Japan account for 50%

- France, Germany and the UK for the next 20%

FTSE Environmental Opportunities All-Share Index Sector Breakdown (%)




Environmental Opportunities Case Study

Energy Efficient Lighting opportunity driving the direction of the Group

PHILIPS

What is the opportunity – background facts

- Lighting consumes 14% of all electricity within the European Union
- Lighting consumes 19% of all electricity in the world (source IEA)



Lighting 19%
Other electricity uses 81%

Key issues

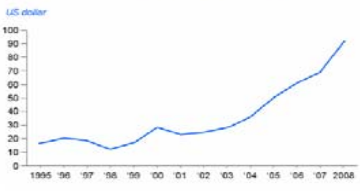
- Rising energy prices
- Global climate change
- Security of energy supply
- Economic growth

Value proposition = Energy efficient lighting

PHILIPS

Lighting trends – rising energy costs, increasing awareness of climate change, product innovation

- Energy costs are rising across the globe, driven by high oil prices
- Increased awareness/legislation around climate change is driving a reduction in CO₂
- Atmosphere-creating and safety-enhancing lighting solutions increasingly become part of individual and community well-being
- Demand for (energy-efficient) lighting in emerging markets continues to grow
- Future LED solutions: application IP and luminaries will be key



Oil at a historical high, yearly average price (US dollar) *

Huge potential for energy saving

Area of lighting	Energy saving	CO ₂ savings per lamp per year
Road lighting	57%	132 kg CO ₂
Shop Lighting	80%	140 kg CO ₂
Office & Industrial Lighting	61%	93 kg CO ₂
Home Lighting	80%	41 kg CO ₂
LEDs	80%	41 kg CO ₂

* Source: OPEC Reference Basket (ORB), www.opec.org

Philips aims for 30% of total revenues to come from Green Products by 2012 – currently 20%

Source: Philips

Asia Pacific Region

- Region has half the worlds population
- Increasing urbanisation and living standards
- Scarce natural resources e.g. water
- Air and water quality poor in industrialised regions
- Limited infrastructure to manage water and waste
- Governments adopted numerous environmental plans and policies e.g. China, South Korea

Developments in Asian environmental policy

China

- Renewable energy 15% of energy mix by 2020 – energy security the main driver
- Wind 100 GW in 2020 (already the largest market worldwide)
- Solar 20 GW in 2020. Feed-in tariff anticipated. Employment a driver
- Reduce energy and water intensity per unit of GDP by 20% in 2010 from a 2005 base line
- Increase the sewage treatment rate from 60% to 70% in 2010
- Economic stimulus package targeted the green economy

Korea

- Renewable energy 11% of energy mix in 2030 from 2% currently
- Early mover in developing smart grid
- Economic stimulus package: 80% green
- Second green stimulus package (June 2009): 2% of GDP for 5 years. Job creation key

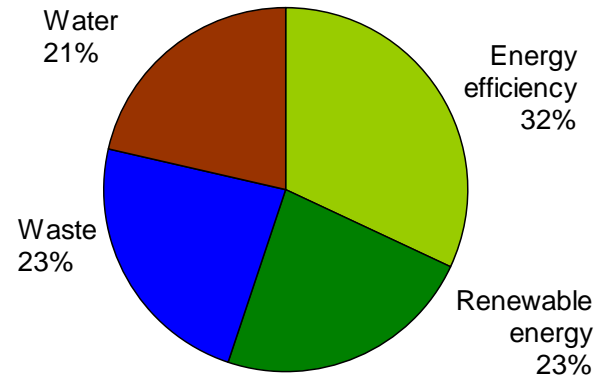
Japan

- Commitment to reduce green house gas emissions by 15% in 2020 from the 2005 baseline
- 0.1 trillion yen to stimulate the use of solar energy
- 0.4 trillion yen allocated to stimulate purchase of environmentally friendly cars.
- 0.3 trillion yen allocated to sales of energy efficient home appliances through the 'eco point'

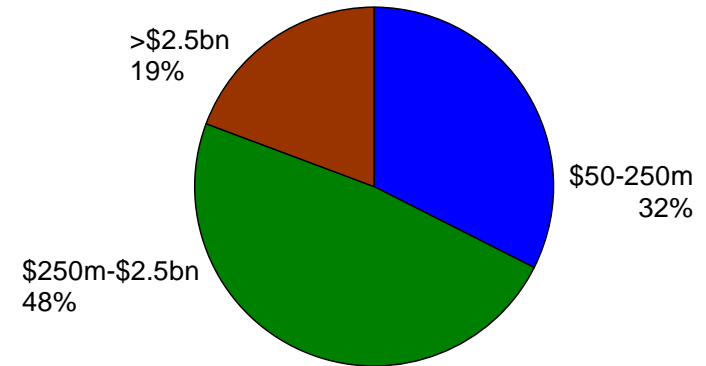
Source: Impax Asset Management, Japanese Ministry of Finance Website

The Asian Environmental Market *

Sector focus



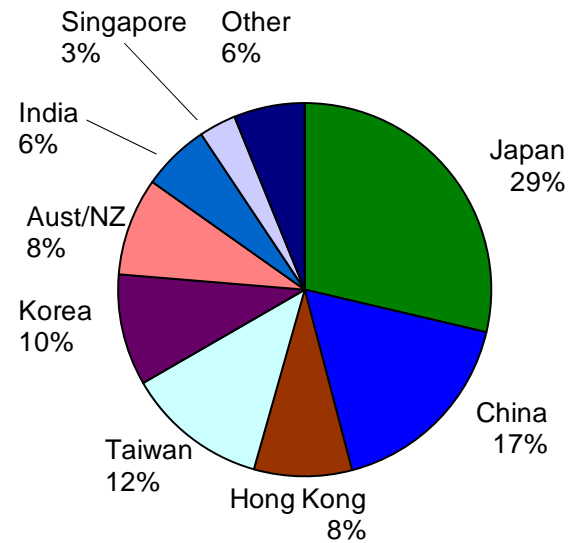
Size of company



Universe:

- 340 stocks*
- US\$660 billion aggregate market cap

Geographic breakdown



* By number of stocks with minimum 20% environmental sector exposure

** Minimum market capitalisation US\$50m

Source: Impax Asset Management

Environmental Opportunities – Asia Pacific

Horizontal,5.66929133858268,5.66929133858268,45,False,True

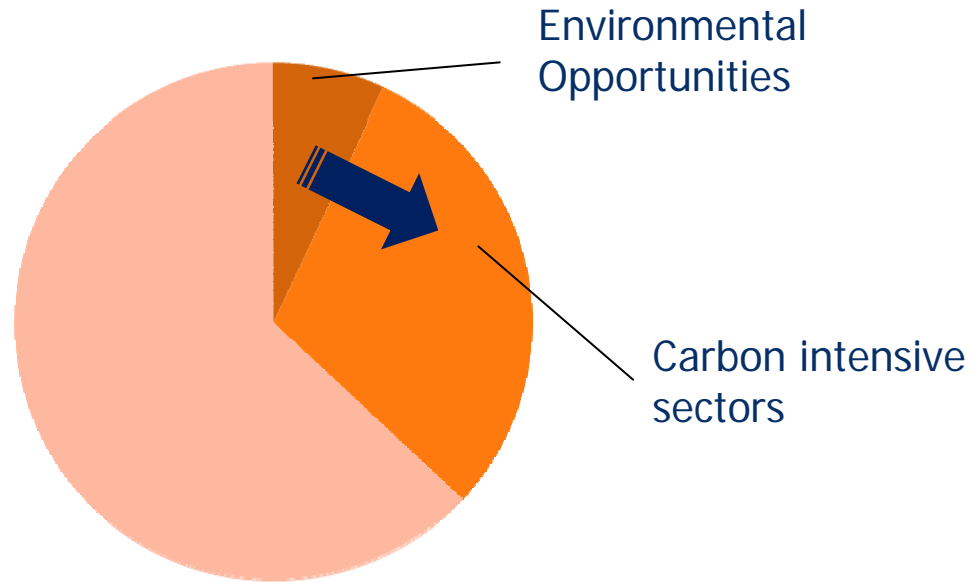


- FTSE Environmental Opportunities Asia-Pacific Index*
- FTSE Environmental Opportunities Japan Index*
- FTSE Environmental Opportunities Asia-Pacific ex-Japan Index*
- FTSE Asia Pacific Index
- FTSE Japan Index

Developed Markets – increasing the wedge

Current value of environmental goods and services estimated at \$500bn growing to \$2trn
By 2020

Source: HSBC



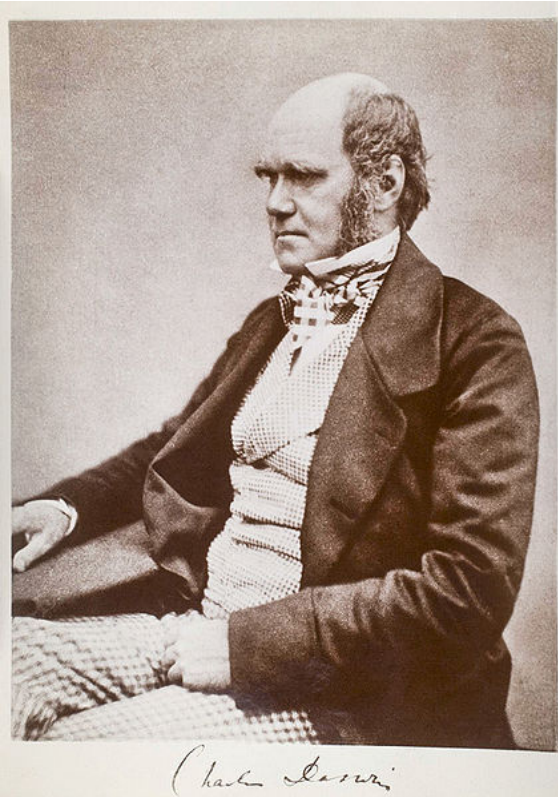
FTSE Developed All Cap	= \$ 25.6 trn
Carbon Intensive Sectors	= \$7.6 trn (30%)
FTSE EO All Share	= \$1.7 trn (7%)

(Note that figures are after free float adjustments)

Source: FTSE

The Environmental Market Opportunity

- Rising populations and living standards are putting unsustainable pressure on natural finite resources and weak infrastructure.
- In 2008, the market for environmental products and services was estimated at \$500bn and is expected to grow at an CAGR of 12-15% over the next 3 to 5 years. (Source: Impax Asset Management)
- Climate science, policy developments and economic stimulus capital flows are creating investment opportunities in low carbon technology and service sectors.
- **Indices provide tools for investment funds (passive, active, ETF's) and other vehicles to facilitate the flow of capital to these sectors.**



"It is not the strongest species that survive, nor the most intelligent; it is the ones most adaptable to change."

Thank you.

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