

# Focus on: Cleantech

## International Business Report 2010 – Sector focus series

The Grant Thornton International Business Report (IBR) 2010 reveals that privately held businesses (PHBs) in the cleantech sector are markedly confident about their economic prospects for the year; a balance<sup>1</sup> of +34 per cent are optimistic this year. Globally, businesses are more optimistic this year (+24 per cent) than they were in 2008 (-16 per cent).

Of the ten sectors considered in the 2010 sector focus series, financial services is the most buoyant at +42 per cent; ahead of technology (+40 per cent), cleantech (+34 per cent), hospitality (+32 per cent), retail (+31 per cent), manufacturing (+25 per cent), construction & real estate (+13 per cent), food & beverage (+7 per cent), transport (+5 per cent) and healthcare (-18 per cent).

### The cleantech sector

Whilst the meeting of world leaders in Copenhagen in late 2009 did not ultimately produce a binding climate change accord, the importance of the cleantech sector to the world economy continues to grow. The effects of the economic downturn did not pass the sector by – total venture investment across North America, Europe, China and India dropped from an estimated US\$8.4 billion in 2008 to US\$5.6 billion in 2009, similar to levels observed in 2007<sup>2</sup> – but the number of completed transactions is expected to have increased significantly from the 567 in 2008.

Both mature and developing economy governments are assigning large proportions of budgets to the sector both to massage public opinion and in the pursuit of economic growth. Meanwhile, in the private sector, a greater proportion of global venture investment capital was invested in cleantech than in any other sector in 2009, with the most popular destinations being solar, transportation and energy efficiency.



<sup>1</sup> the balance is the proportion of companies reporting they are optimistic less those reporting they are pessimistic

<sup>2</sup> source: Cleantech Group:  
<http://cleantech.com/about/pressreleases/20090106.cfm>

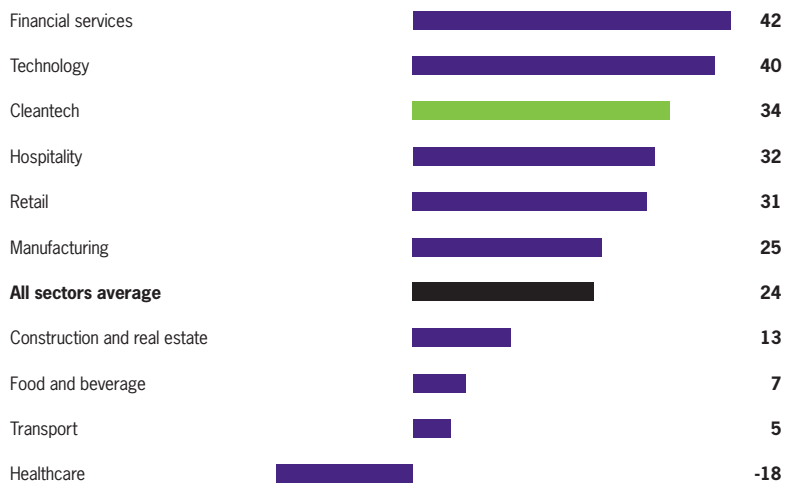
# The state of the sector

## Optimism/pessimism

- a balance of +34 per cent of businesses in the cleantech sector are optimistic about their respective countries' economic outlook this year
- the balance of businesses across all sectors indicating optimism for the year ahead has risen by 40 per cent this year from -16 per cent in 2009 to +24 per cent.

**Figure 1: Outlook for the economy over the next 12 months**

Percentage balance of businesses indicating optimism against those indicating pessimism



Source: Grant Thornton IBR 2010



**Nathan Goode**  
Grant Thornton, United Kingdom

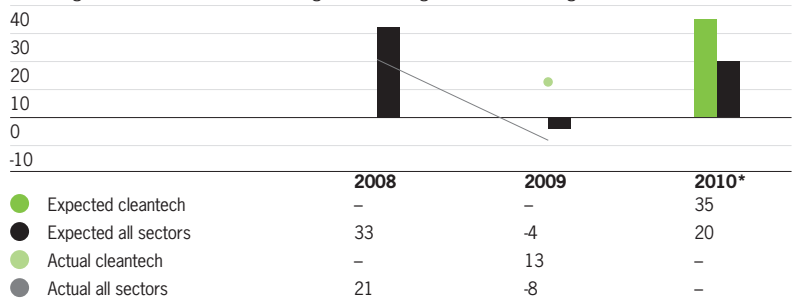
“The new United Kingdom Government has confirmed its support for many renewable energy related measures such as smart grid, smart meters, full establishment of feed-in tariffs, continued support for renewable obligation certificates, a green investment bank and development of marine energy and of carbon capture and storage. All this can be expected to lead to major future development in the sector, in excess of the 15 percentage point growth observed in IBR 2010.”

### Employment

- a balance of +35 per cent of businesses in the cleantech sector expect to expand the size of their workforce in 2010, above the all sectors average of +20 per cent
- actual employment growth reported by businesses across all sectors in 2009 (-8 per cent) was even worse than expected 12 months previously (-4 per cent).

**Figure 2: Employment history: 2008-2010**

Percentage balance of businesses indicating an increase against those indicating a decrease



\*actual 2010 data will be documented in IBR 2011

Note: the cleantech expected data for 2008 and 2009 as well as the actual data for 2008 are not available as this sector has not been covered in the survey previously

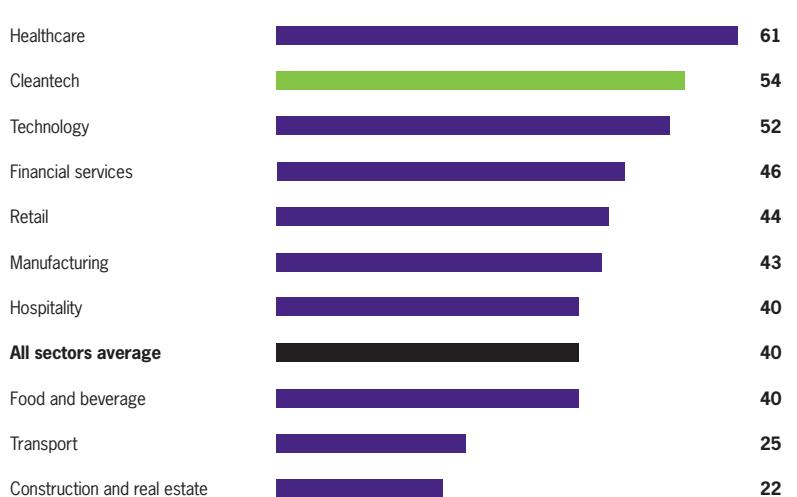
Source: Grant Thornton IBR 2010

### Revenue expectations

- a balance of +54 per cent of businesses in the cleantech sector expect their revenue to increase across 2010
- only businesses in the healthcare sector (+61 per cent) are more optimistic about increasing revenue in 2010
- across all sectors, revenue expectations have rebounded to +40 this year, up from just +11 per cent in 2009.

**Figure 3: Revenue expectations over the next 12 months**

Percentage balance of businesses indicating an increase against those indicating a decrease



Source: Grant Thornton IBR 2010



**Denis Posten**  
Grant Thornton, Canada

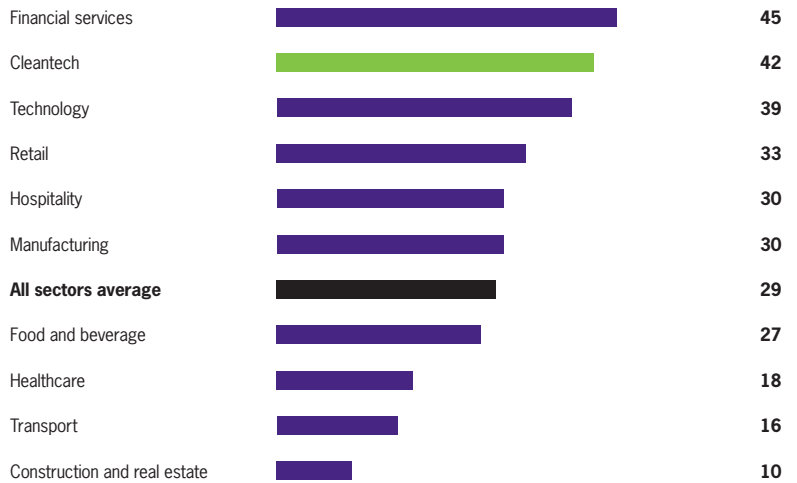
“There is an extremely strong correlation between energy consumption, economic productivity and economic development so businesses need to be taking a hard look at how to get a foothold in the emerging markets, because that’s where the greatest demand for future energy is coming from.”

### Profitability expectations

- the balance of businesses in the cleantech sector expecting to increase profits in 2010 is +42 per cent, behind only financial services (+45 per cent)
- the all sectors average has increased by 34 percentage points, from -5 per cent in 2009 to +29 per cent this year.

**Figure 4: Profitability expectations over the next 12 months**

Percentage balance of businesses indicating an increase against those indicating a decrease



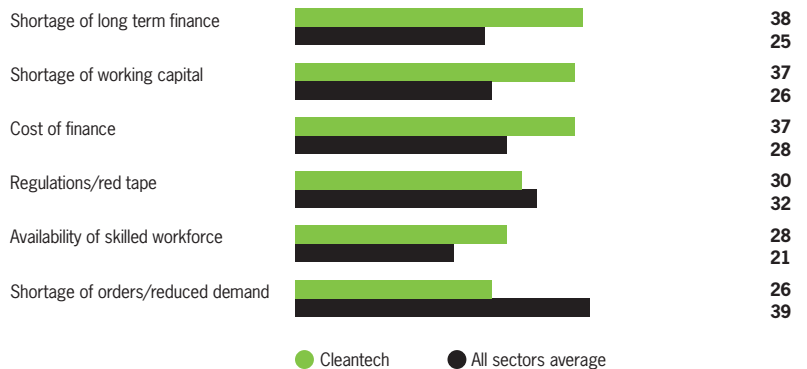
Source: Grant Thornton IBR 2010

### Constraints

- financial constraints are the most pressing concerns for businesses in the cleantech sector; more than one third cite a shortage of long-term finance, a shortage of working capital and the cost of finance as major constraints on expansion
- a shortage of orders/reduced demand is cited as the biggest constraint by businesses in all sectors (39 per cent) but by just 26 per cent of businesses in the cleantech sector.

**Figure 5: Constraints on expansion**

Percentage of businesses rating constraint 4 or 5 on a scale of 1 to 5 where 1 is not a constraint and 5 is a major constraint



Source: Grant Thornton IBR 2010



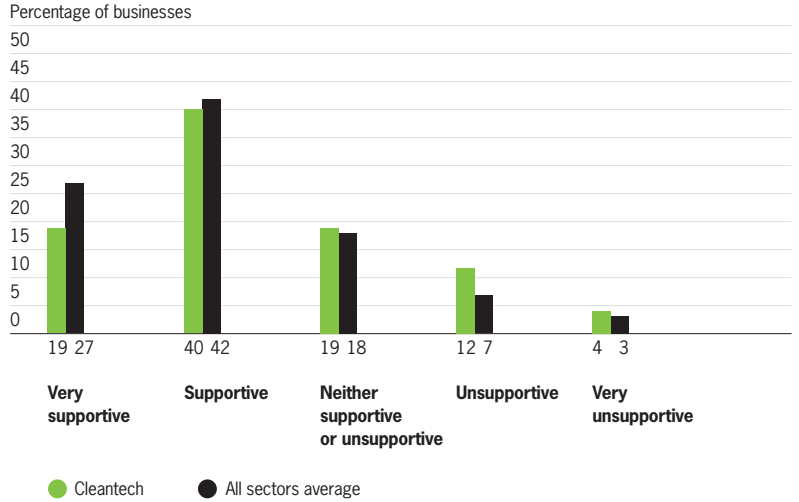
**Boudewijn Tinge**  
Grant Thornton, Netherlands

“Funding is the main issue for start-ups in the sector; especially over the last six months it’s been really difficult. The economic crisis in the Netherlands started six months to a year after the United States and we’re now going through difficult times. We are also expecting a consolidation in the marketplace.”

**Support of lender**

- just 59 per cent of businesses in the cleantech sector are happy with the level of support provided by lenders, compared with 69 per cent of all businesses
- a further 16 per cent of businesses in the sector believe that lenders are unsupportive or very unsupportive of their business, compared to ten per cent across all sectors.

**Figure 6: Level of support provided by lenders**

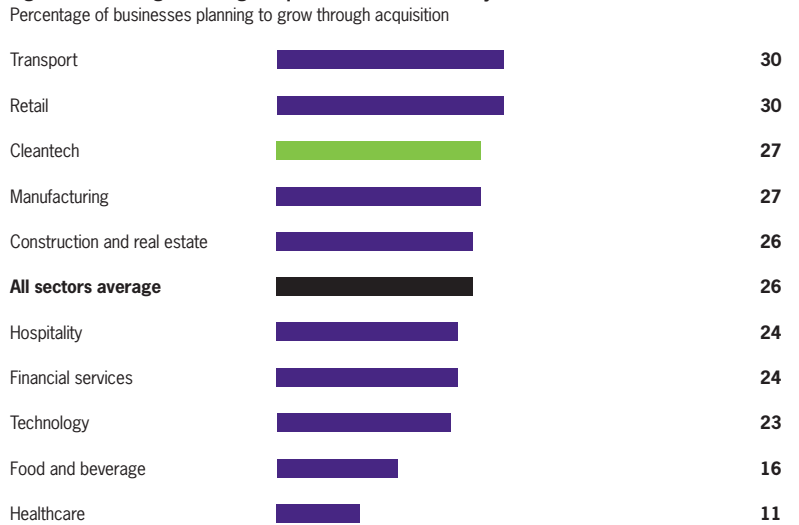


Source: Grant Thornton IBR 2010

**Mergers & acquisitions**

- the proportion of businesses in the cleantech sector planning to grow through acquisition is 27 per cent, behind only transport and retail (both 30 per cent)
- the all sectors average has fallen steadily over the past three years from 44 per cent in 2007 to 26 per cent this year.

**Figure 7: Plans to grow through acquisition in the next three years**



Source: Grant Thornton IBR 2010



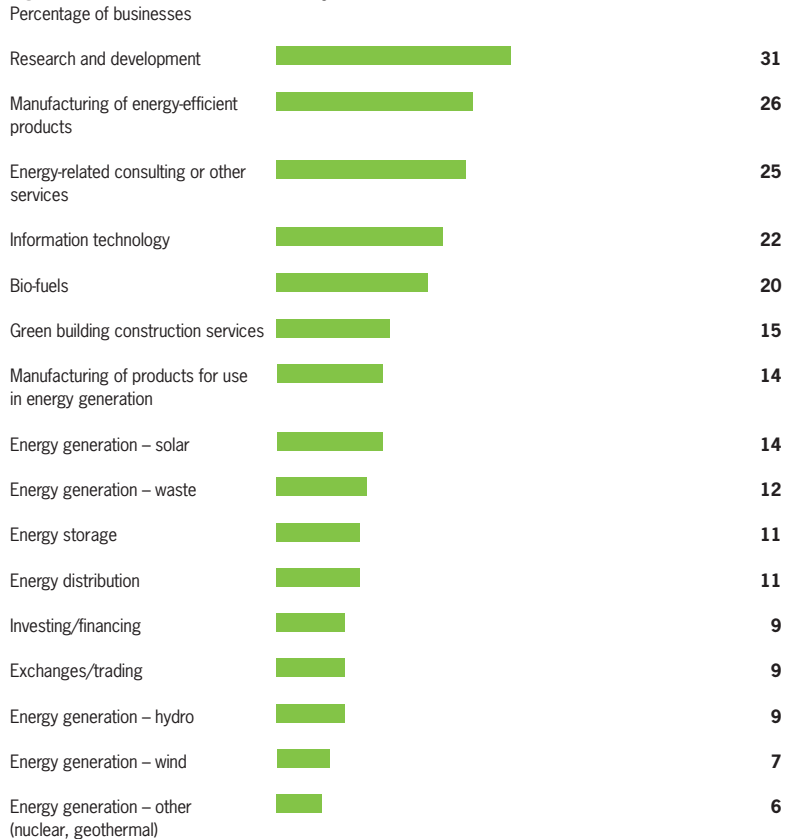
**Kai Bartels**  
Grant Thornton, Germany

“We are seeing a lot of M&A activity, especially in utilities, where traditional energy producers have taken advantage of the economic crisis to buy into solar or wind farms in order also to produce clean power. Their offers now include a certain percentage of clean energy, which they distribute to the consumer in the form of eco-packages.”

### Sector breakdown

- 31 per cent of the cleantech sector respondents work in research & development (R&D), just ahead of manufacturing of energy efficient products (26 per cent) and energy-related consultancy (25 per cent)
- in terms of energy generation, solar (14 per cent) is more prevalent than waste (12 per cent), hydro (nine per cent) and wind (seven per cent).

**Figure 8: Which areas of the sector are you involved in?**

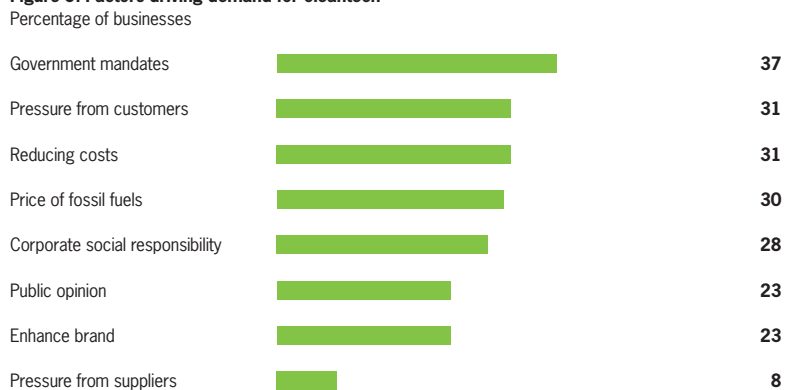


Source: Grant Thornton IBR 2010

### Demand

- 47 per cent of businesses in the sector describe demand for their products or services as either robust or very robust, whilst 26 per cent rate it as limited or very limited
- government mandates (37 per cent) are cited as the most important factor driving business demand for cleantech products and services, just ahead of pressure from customers and reducing costs (both 31 per cent).

**Figure 9: Factors driving demand for cleantech**

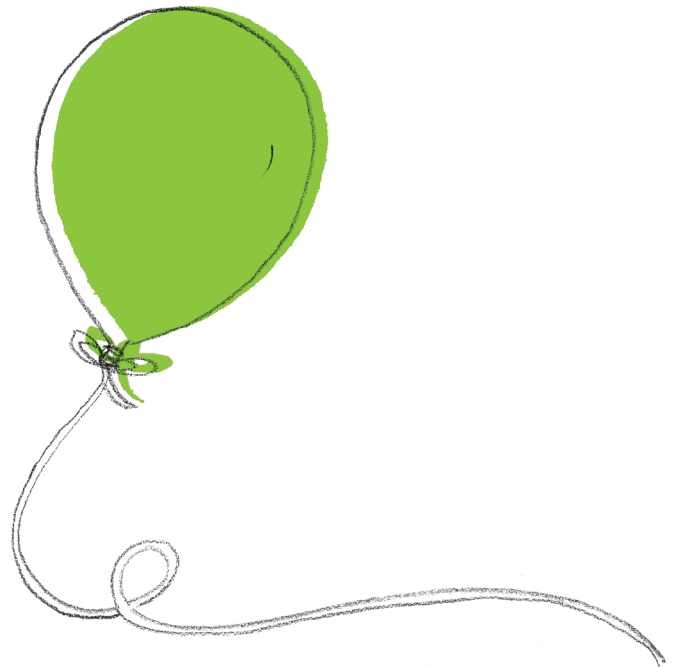


Source: Grant Thornton IBR 2010

# Outlook for the sector

Activity in the cleantech sector in 2010 is expected to outstrip that of 2009 considerably, especially in the emerging markets of China and India – which are expected to significantly increase their share of total venture capital from six per cent and three per cent respectively. The Chinese government recognises the potential in the sector and is seeking to both exploit and support its rapid expansion by making it a world leader in energy generation, whilst the Indian government has recently approved the Nehru National Solar Mission.

In more mature markets, the effects of the downturn are expected to be overturned in 2010, although North America is expected to continue to cede ground at the head of the sector to Europe, and especially the United Kingdom, and Israel. Investment in energy efficiency is expected to eclipse solar in these economies as innovation around efficient use of scarce natural resources, such as water, comes to the fore.



**Calvin Hackeman**  
Grant Thornton, United States

“Cleantech businesses and their investors have learned over the past 12 months that the sector is here to stay; it’s not just something that is a passing flash in the pan. It can be a real business and there is a tremendous amount of support for it, and a lot of interest for it both in the private and the public sectors.”

# Sector's perspective



Zytek is a British automotive engineering company, employing 200-249 staff, which has recently designed, developed and manufactured innovative hybrid and electric drive trains.

## Lessons learned from the downturn

“Talent management has grown in importance over the last 12 months; there is not an abundance of well-qualified engineers so the ability to keep the workforce intact, by moving contract staff onto permanent contracts, has been crucial. Also, as a niche research and development unit – with three or four major customers – the downturn has allowed us to keep a competitive advantage over larger manufacturers who have been more concerned with more traditional product lines.”

## Major risks for the year ahead

“The robustness of our supply chain is a major concern as our ability to gear up to major volumes depends on reliability of a small, highly-specialised number of suppliers. Whilst our partners can generally be relied upon to supply funds, the banks are noticeably more reluctant to lend.”

## Planning for the future

“Improving our cost effectiveness is our major focus; in other words, improving reliability and performance, as well as developing safety aspects. Moreover, the sector is in the media spotlight and we are aware that opportunities exist for businesses to work on high profile public sector projects, and to access funding and grants.”

## Risks to sustainability of strong sector growth rates

“We possess a relatively large, highly-skilled workforce but most of them have been developed in-house so there is a need for universities to produce more engineers to maintain the high growth rates we have seen in recent years. Meanwhile, many businesses have relied on government handouts to fuel R&D activity, but if this is cut to ease the public sector deficit, the level of profits in the industry may not cover necessary investment.”

“The robustness of our supply chain is a major concern as our ability to gear up to major volumes depends on reliability of a small, highly-specialised number of suppliers.”

“The downturn has provided us with an opportunity to consider our staffing levels, an area of efficiency we had not seriously looked into before.”

**A US based energy company with over 500 employees and annual revenue of US\$250-US\$499 million, which focuses on improving energy efficiency in the domestic market.**

**Lessons learned from the downturn**

“We have learnt to manage our inventories better; especially petroleum, and we have cut out excess overheads, becoming a lot leaner as a result. We employed a lot of people that we did not really need and the downturn has provided us with an opportunity to consider our staffing levels; an area of efficiency we had not seriously looked into before.”

**Major risks for the year ahead**

“The price of petroleum products, gasoline and diesel, especially increases, will affect us the most. If the price continues to go up we will have to increase our costs. Also the cost of our risks, namely bad debt expense, could increase which is of particular concern if prices continue to rise.”

**Planning for the future**

“We plan to change our accounts receivables from monthly to weekly to help cash flow. And we have introduced new policies and procedures on inventory levels and location. We are also looking at different areas to which we can outsource. We are beginning to do this with the freight of petroleum products; we used to manage this process ourselves but are looking to outsource it for efficiency.”



# View from Grant Thornton

## Lessons learned from the downturn

- **importance of public sector funding:** a lot of government support is available to fund projects in the sector, meaning reliance on venture capital has necessarily lessened
- **need to demonstrate clear return on investment (ROI):** due to the lack of demand in the current climate, there has to be cost savings attached to output from the sector; for example, businesses have to be able to produce energy at either the same cost as traditional fossil fuel energy, or even better, at lower cost
- **robustness of sector:** despite the economic climate, there has not been an appreciable drop-off in support
- **growing role of traditional power sector:** businesses have used the crisis time to buy into solar farms or wind farms in order to produce clean power, and market as 'eco-packages' to consumers.



## Major risks for the year ahead

- **funding:** a lot of venture capital funding has stuttered over the past 12-18 months, and some businesses may struggle to fund the levels of R&D, sales and marketing needed to continue growing, while start-ups may struggle to get off the ground at all
- **consolidation:** significant consolidation of the industry is necessary before really viable companies can emerge and be positioned for long-term survival
- **technology advances in traditional energy generation:** technology is not standing still in other sectors and the rapid advances in the production of natural gas offer a viable alternative to wind, solar and the like; the price of oil may not drop off, but efficiencies in drilling are rising
- **nuclear energy:** if nuclear is developed as predicted in some countries, that in the longer-term actually causes some risk to the sector, particularly in renewable energies.



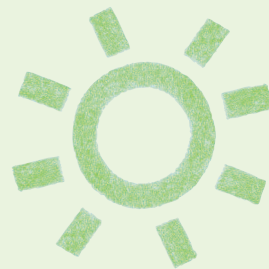
### Planning for the future

- **the developing world:** businesses need to look closely at opportunities in the emerging markets, as that's where the greatest demand for future energy is coming from
- **decreasing dependency:** some countries are hugely dependent on others for their energy generation but the sector can help lower dependency levels
- **commercial viability:** businesses need to work hard to complete R&D and achieve scale in order to become viable on a competitive basis to ensure long-term sustainability
- **accessing funding:** whether from initial public offerings, government financing or combination of the two, how businesses continue to raise the money needed to become profitable is key.



### Sustainability of strong sector growth rates

- **public support:** clear push from government and society towards the cleantech sector, manifested in an increasing amount of market pressure in the form of consumer expectations that is actually driving adoption of cleantech processes in many industries, should help sustain growth rates; the only issue now is cost
- **immature industry:** high growth rates are to be expected from what is a relatively immature industry and could even rise significantly once the upturn kicks in and serious consolidation gets under way
- **political situation:** the strength of the argument for advances in cleantech must be balanced against the need for economies, especially in the developed world, to sustain the recovery which aggressive carbon tax regimes, for example, could impact upon
- **consumer enthusiasm:** the willingness of consumers to buy into cleantech, both literally and in terms of attitude, will ultimately shape the success of the sector.



The Grant Thornton International Business Report (IBR) is an annual survey of the views of senior executives in privately held businesses (PHBs) all over the world. Launched in 1992 in nine European countries the report now surveys over 7,400 PHBs in 36 economies providing insights on the economic and commercial issues affecting a segment often described as the ‘engine’ of the world’s economy. In the cleantech sector, 160 businesses were interviewed, principally from the manufacturing (39 per cent), retail and wholesale (ten per cent), construction & real estate (eight per cent), professional services (six per cent), and utilities (six per cent) sectors. For the purpose of this research the cleantech sector was defined as those businesses for which more than 40 per cent of their activities relate to the research and development, production or distribution of alternative energy/cleantech.

To find out more about IBR and to obtain copies of reports and summaries visit: [www.internationalbusinessreport.com](http://www.internationalbusinessreport.com). The site also allows users to complete the survey and benchmark their results against all other respondents by territory, industry type and size of business.

#### Participating economies

Argentina	Japan
Armenia	Malaysia
Australia	Mexico
Belgium	Netherlands
Botswana	New Zealand
Brazil	Philippines
Canada	Poland
Chile	Russia
Mainland China	Singapore
Denmark	South Africa
Finland	Spain
France	Sweden
Germany	Taiwan
Greece	Thailand
Hong Kong	Turkey
India	United Kingdom
Ireland	United States
Italy	Vietnam



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