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Ireland: Ecocem case study

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About

Case study name:

The greening of industries in the EU

Country:

Ireland

Organisation Size:

0-99

Sectors:

Construction and woodworking

Ecocem is an Irish-owned SME in the construction industry. Ecocem was established in 2001 with the purpose to be 100% green in terms of all jobs created and to produce and promote the use of a single green product (green cement). As the product is both green and high quality value-added, the company appears to have a competitive advantage over rivals in conventional building materials firms. In terms of job quantity and quality, the company has not made any employees compulsorily redundant in the ongoing recession and it seems to score well on various facets of job quality.

Introduction

This study focuses on a green company in the Irish construction industry. A review of Irish construction industry activity for 2009 and 2010 sponsored by the Department of Environment, Heritage and Local Government (DEHLG) makes for very bleak reading. It shows that the contraction in the construction industry that commenced in 2008 continues. Having peaked at around one-quarter of total economic activity in 2006, the crisis in the construction industry led to its share of GNP declining steeply to 9% in 2010, the lowest share on record since 1970 and probably in the history of the state. Likewise, there have been very steep falls in employment in the Irish construction sector during this recessionary period. Quarterly National Household Survey (QNHS) data compiled by the Central Statistics Office (CSO) for Quarter 2 2011 indicates that the construction sector accounted for more than half (51.9%) of the overall employment drop in 2011 and almost two-thirds (65.5%) of the male employment drop. There were a total of 155,400 employees in the construction sector in Q2, 2009, but this dropped dramatically to 105,700 in Q2 2011. This continues a pattern seen since the first annual decline in employment was recorded in Q2 2008, whereby the greatest sectoral decline across the whole economy has been in construction.

Ecocem was selected as a case study because its business strategy focuses on manufacturing a green product and promoting green business and employment practices. The company manufactures a product called Ground Granulated Blastfurnace Slag (GGBS), which is recycled by-product from the steel industry.

Ecocem Materials is an SME employing approximately 60 people in total across three plants in Ireland, Holland and France. Its headquarters are in Dublin Port, Dublin. Ecocem Ireland is a wholly-owned subsidiary of Ecocem Materials Limited, an Irish company set up in 2001 to undertake industrial developments in Europe in the production and use of GGBS.

Drivers and motivations

The main drivers and motivations cited for implementing the green business practice (green cement) at Ecocem were:

- Exploring business opportunities;
- Awareness of general public and/or pressure from government/ consumers/ community/ suppliers/ employees;
- Improving image and reputation.

The primary driver for setting up Ecocem was to produce and promote the use of a single green product (green cement). Production of green cement was seen as a business opportunity. Ecocem was set up as a green company from day one, rather than evolving into a green company over time. There were also a number of external drivers. It was remarked by company interviewees that green products have a preferential image among government and society and capitalising on this as a business opportunity was the main driver when drafting Ecocem's business plan pre start-up. Increasing European environmental regulations and the Kyoto Treaty was another external driver, albeit more indirectly. Provision of external finance was not a driver because there was no such financial support in the initial years – for instance

from government or its development agencies. All finance came from private investment.

Green business practices

As noted above, the green business practice of Ecocem is based on manufacturing a single green product, a green cement known as Ground Granulated Blastfurnace Slag (GGBS). GGBS is made by taking a highly controlled by-product of the steel industry, rapidly quenching it with water and grinding it. Accordingly, the company is not manufacturing extra material but recycling existing by-products – this is referred to as ‘upcycling’.

Ecocem’s mission is to be the leader in the production and use of GGBS as both an economically efficient and environmentally friendly cement in Ireland. The intention is to produce the best quality product at a competitive cost while minimising the impact on the environment of cement production. Ecocem claims that its recycled green cement is both better quality and more environmentally friendly than traditional concrete manufactured by other cement manufacturers. The company suggests that Ecocem green cement is the most sustainable building material in the world, because the life cycle footprint of structures made with Ecocem is significantly reduced as structures made with Ecocem can last over twice as long as those made with traditional cement. Ecocem can also ensure significant reductions in CO₂ and other emissions, it is suggested.

The green business practices of the company were clearly emphasised in interviews with company respondents: ‘everything we do is related to the environment’. This applies to the company offices as well as the manufacture of green cement, as Ecocem only procures the services of office suppliers with green credentials. The company regularly measures the impact of its carbon footprint in all areas of its business activities.

Anticipation and management of the impact of green change on quantity and quality of jobs

Ecocem was a green company from start-up and interview respondents remarked that all jobs at the company can be characterised as green jobs, and everyone is involved in green business practices. The company is not very labour intensive compared to traditional cement manufacturers and production is highly automated. All jobs are geared towards manufacturing and supporting the manufacturing of a single product, green cement. Ecocem currently employs about 60 people and the number of green jobs has gradually expanded since start-up in 2002, as the company has experienced growth in demand for its green product. About 45% of people are employed as mainly semi-skilled production operatives manufacturing green cement, and the remaining 55% are engaged in management and various support activities like marketing, sales, accounting, administration and so forth. The company describes itself as flat and quite ‘lean’ with relatively few managers/layers, and also draws on the services of a handful of highly skilled external consultants. The company recently hired two new university graduates in Ireland for a fixed-term period. Meanwhile, its French plant is expanding and the company is set to hire new recruits there. There have been no compulsory redundancies at the company in the context of the international and domestic financial and economic crisis. Rather, restructuring has been achieved through alternative means, notably ‘natural turnover’ and cost reductions (see below).

In terms of social collaborative approaches, the company is an SME and is not unionised, so it does not have this collaborative employee representative aspect of social dialogue for managing green change as it pertains to the quantity of jobs. Management involves and communicates with its employees directly; largely through informal channels, emails and various meetings. Informal communications also related to the small size of the enterprise. External collaborative relations are detailed below.

The skillset of Ecocem blue-collar employees is not significantly different from the conventional cement industry; although company respondents said they do look for engineering skills when selecting and recruiting certain production employees. Manufacturing operatives and engineers at Ecocem are not required to possess specific green skills as such, and they are not hired for their green skills. Accordingly operative skills would tend to be sector-specific (cement manufacture), and some workers would have general engineering skills. But the company categorises itself as a green company manufacturing a green product using green business practices, and generally promoting a green agenda in the construction industry. A few white-collar staff employed by Ecocem are hired specifically to spend 100% of their time researching and marketing important green issues, and would be experts in this field. The company also uses the services of some specialist ‘green consultants’. These green consultants help to ensure that Ecocem is fully up to speed with environment legislation, for instance, and developments relating to reducing the carbon footprint and CO₂ emissions. Indeed, respondents said that Ecocem has a relatively high research & development investment.

Training comprises a mixture of in-house and external training for both blue-collar and white-collar workers. Various examples of in-house training were provided by company respondents. One example of specific in-house skills training is that all employees are given guidance about CO₂ emissions and energy efficiency. The engineering department trains blue-collar employees in the analysis of alternative energy resources and ways to reduce energy consumption. Production operatives also receive health and safety training, which is important in the cement industry. It was emphasised that in-house training provision tends to be highly informal and ongoing ‘on-the-job’. Staff can also attend external training courses that fit business needs. For instance, there is external training/research collaboration with Trinity College Dublin and University College Dublin (detailed below), and institutes of technology, as well as commercial training courses offered by various private sector training providers (courses in marketing, sales, etc.). Some of these courses would not have a specific green focus but relate to general training in particular functional areas.

Company respondents said Ecocem does not formally benchmark its pay, terms of employment and working conditions, against other cement companies in Ireland: ‘we wouldn’t have reference to other cement companies’. However, there is a view that pay and working conditions compare favourably to other companies generally in Ireland. This is evidenced, company respondents said, by the fact that the company has a very low labour turnover and job churn relative to other companies in the cement industry. A core number of employees have been in place since start-up back in 2002/2003, the rest coming on board as the company grew. Also, there has been no industrial relations conflict along the lines experienced by some of the larger cement firms in Ireland.

In the interviews, respondents remarked that the company is ‘trying to be a good employer in each of its locations and to attract the best people’ (Ireland, France, the Netherlands). It was noted that French employees fare particularly well with regard to issues like staff perks and fringe benefits in line with industry standards. In the Irish context, the gravity of Ireland’s financial and economic crisis has had a particularly negative impact on the construction industry, and many other construction companies have made people redundant or cut wages and other terms and conditions of employment. Yet, Ecocem respondents said that they are one of the few construction companies in Ireland that have not cut wages or made anyone compulsorily redundant since the recession began. Any labour turnover has been voluntary at Ecocem. It is understood that approximately 95% of employees at Ecocem are permanent. Ecocem say that when it commenced operations in 2002/2003 in the midst of Ireland’s construction boom it had to offer recruits wages, pensions, share options and so forth that were ‘better than other companies’. Despite the fact that it does not formally benchmark its pay and working conditions, the interview respondents said that wages and terms and conditions at the company are probably comparatively better than at other companies in the industry.

In terms of work organisation, the company was described in the interviews as being 'a very lean operation with a lean manufacturing process'. Working time for operatives is standard, consisting of a three-shift schedule. The company says it invests a lot of money and resources in new technology. The interview respondents noted that great emphasis is placed on flexible working time and balancing work and personal life: 'there is huge flexibility in working patterns ... some people work from home ... there are no set working times'. New information technologies have meant that there is greater efficiency in work processes and less of a requirement for overtime (thereby reducing labour costs). New technologies have also greatly facilitated working from a distance. Clearly, however, working time is more flexible for non-manufacturing staff than manufacturing employees, who work shifts and have to operate specialist equipment and production processes. In contrast, it is easier for many non-production staff to work away from the plant which, by implication, means work-life balance issues are probably easier to deal with.

The company does not really formally anticipate future green skill needs. Rather, the process is largely organic with an emphasis on ongoing training and skills provision. Employees are also encouraged to upskill themselves through various methods of continuous learning on the job, and by approaching other staff for guidance. Employees would also attend the internal and external training courses outlined above. In this regard, there is no extensive involvement of external actors when anticipating skills development.

Externally, Ecocem is involved in various collaborative relations with external education and research institutions such as Trinity College Dublin and University College Dublin. The company is keen to promote collaborative research agendas with universities, including the processing of waste water. For example, the company has sponsored a PhD at Trinity examining the processing of waste water and is currently sponsoring another PhD on the impact of surface heat absorption on global warming. Additionally, there are various green specific collaborations (including being a founding member of the Green Building Council). The company also engages in collaborative activities with Engineers Ireland (the professional body for engineers in Ireland) – for example by providing training in the use of green cement (GGBS). Ecocem also collaborates with other small firms in the cement industry, mainly for the purpose of sharing knowledge and expertise. These various collaborations have been beneficial for anticipating and managing green change, and for research and skills development.

Obviously, Ecocem has to contend with the availability of more limited resources in the context of Ireland's severe crisis. Like many other companies in the economic downturn Ecocem is reducing its cost base. Yet, by having a competitive advantage in what is seen as a superior and sustainable green product and with green industry likely to become more important for economies in the future, Ecocem is arguably better placed than more traditional construction companies to ride out the storm.

Irish governments are paying more attention to green issues but could do more to support and insist on green products, respondents suggested; for example by trading with green companies and promoting procurement policies whereby it insists on dealing with green organisations that provide green goods and services. This could have a knock-on effect of helping to support green jobs. In this regard, it was noted that the EU Green Procurement Directive 'will do a huge amount to help green businesses and the number of people they will employ'. In relation to this, Ireland's Office of Public Works (OPW) has been requested by the Department of Environment to draw up green procurement guidelines for the construction sector. Ecocem was one of the organisations consulted on green issues, and it is expected that the Irish government's green public procurement policy will be released soon.

In terms of the role of public authorities in facilitating skills development/working conditions, Ecocem respondents said that the government and its agencies could do more to promote general engineering skills. This is because, as noted above, general engineering skills are more prominent in Ecocem than green skill sets per se; although the company recruits engineers who personally believe in, and endorse, green issues.

In terms of possible disadvantages, the company interviewees remarked that the manner in which the EU Emissions Trading Scheme (ETS) was implemented in Ireland by the Irish government actually penalises green cement manufacturers like Ecocem, but subsidises and rewards traditional big competitor cement companies. ETS is one of the policies introduced across the EU to tackle emissions of carbon dioxide and other greenhouse gases, in an effort to combat the threat of climate change. The scheme began on 1 January 2005. The scheme works on a 'Cap and Trade' basis. All 27 EU governments are required to set an emission cap for all installations covered by the scheme. Each installation is allocated allowances for the particular commitment period. Under the Irish ETS system as currently configured, Ecocem respondents said that the company does not qualify for the EU ETS because it does not pollute much and has insufficient CO₂ emissions to qualify. ETS is aimed at encouraging the bigger polluters to reduce emissions (and giving them credits and allowances for achieving this), and Ecocem falls outside its emission benchmarks.

Another disadvantage mentioned in interviews is that traditional large construction companies in Ireland can mobilise substantial powers to lobby government relative to SMEs like Ecocem. In short, the balance of power favours large corporations over SMEs, in terms of level of influence over government policy. There is a perception that this acts as a barrier to green firms trying to enact green change practices in the industry, because the big construction companies still dominate in the corridors of power.

This balance of power and the effect on progression on green change relates, for example, to public procurement policy. In the past, public procurement policy was set only by price (who could offer the best price for a product). Larger cement companies were and often are still in a more favourable position than smaller firms like Ecocem to offer a lower price for a product. However, Ecocem respondents said that public procurement policy should also be based on the whole life cycle of products, rather than just the initial price. Green products might be more expensive on price alone, but the cost and quality of a green product like green cement relative to traditional cement is likely superior over the whole life cycle of the product – green cement invariably lasts longer and generates lower CO₂ emissions and energy usage. Ecocem respondents argued that it would be helpful if the government paid more attention to the importance of the quality and life cycle of green products. If the government were to do so, it was remarked, then this would likely help create more green jobs in Ireland.

Conclusions and recommendations

In terms of lessons learned, the Ecocem interview respondents emphasised the importance of preparation: 'the founder was preparing Ecocem for 10 years'. It was also pointed out that while the green agenda is very important, the product itself had to be efficient, viable and of better quality than other concrete products. In short, it is a combination of having a green product and a high quality product. The fact that Ecocem has developed a product that is both green and of, it argues, a higher quality than conventional construction firms, arguably gives it a competitive advantage. This competitive advantage would seem to have knock-on repercussions on job quantity and quality. Labour turnover is low and, unlike many other construction companies in Ireland, the company has not made any employees compulsorily redundant in response to the economic and financial crisis. Pay levels also appear attractive, especially when compared against other small and medium-sized enterprises. While it has had to reduce its cost base in the recession, Ecocem's business strategy is based on having a value-added quality product and attracting and retaining a quality workforce.

As stated above, the company says it does not really formally anticipate future green skill needs. Rather, the process is largely organic with an emphasis on ongoing adaptive training and skills provision. Employees are also encouraged to upskill themselves through various methods of continuous learning on the job. That said, the company places a heavy emphasis on investing in research and development on

anticipating green change issues: for example investing in the services of external highly skilled green consultants, and collaborating with local universities on important green research issues such as the treatment of waste water (and funding PhD scholarships in relation to this).

Finally, the fact that traditional large construction companies in Ireland still possess considerable power and influence over state policy means that green firms, especially small and medium enterprises, can struggle to ensure their voices are heard by policymakers. Arguably, this may stymie the extent of green change and expansion of job quantity and quality in the sector.

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Ecocem website, <http://www.ecocem.ie/index.php?p=home>

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