



CERAMICX



Ceramicx Turns Up The Heat On Manufacturing Strategy

IfM Education and Consultancy Services (IfM ECS) worked with specialist manufacturer Ceramicx to create a business strategy that is already delivering impressive results.

Ceramicx, based in a beautiful part of rural Ireland, was founded in 1992 by Frank and Gráinne Wilson, and remains a family business today. The company designs and manufactures ceramic infrared heating elements and complete infrared heating systems for sectors such as packaging, automotive and aerospace, and for applications such as thermoforming, preforming, pressure forming, welding, spot heating and numerous other industrial processes.

The firm has grown consistently since 2009, and by the time it engaged IfM ECS in 2013, it had averaged growth levels of 12.5% annually over a six year period. Confident that still more could be achieved with some expert help from IfM ECS's Strategy Review Process, Ceramicx asked for a short initial piece of work in the form of a Prioritisation Diagnostic study. This proved so successful that it led on to a series of Business Strategy workshops and, most recently, a further review of its business strategy.

Diagnostic Process

The Prioritisation Diagnostic was led by IfM ECS's Dr Derek Ford, and had as its objectives:

- identify major strengths and weaknesses in the business
- establish strategic priorities for the medium-term

- align and focus senior management direction

- stimulate a development and improvement programme.

The work identified a number of areas for improvement. Although recent investment in automation and robots had led to improved quality and increased throughput in the factory, it emerged that there was a sub-optimal "right first time" culture at the company, and the firm was reliant on fragmented business systems and processes. In addition, Ceramicx needed to review its pricing for its different offerings. The strategy and innovation workshops enabled the firm to identify potential growth markets, and led to it being less dependent on its core product, moving up the value stream to sell higher value complete solutions.

The parties agreed to go forward to a series of in-depth Business Strategy workshops to explore the options in more detail, and to produce a clear plan of action that the management team could own and implement.

Business Strategy Tool

The IfM ECS Business Strategy template helps SMEs analyse their environment and capabilities, and develop a clear strategy to take advantage of opportunities.

The process consists of a number of workshops, designed to involve the company's management team extensively, yet timed to ensure minimal disruption to the business. Led by IfM ECS's Dr Nicky Athanassopoulou, the strategy workshop for Ceramicx comprised four stages:

- External analysis to review needs of stakeholders, product market opportunities and to consider possible strategic alternatives. For example, a number of possible product / market groups such as Ceramic Elements and Quartz Cassettes were reviewed for opportunities in market share, revenue and growth terms. Requirements for cash investment were considered as well as performance relative to competitors.

- Internal analysis of company capabilities and competencies. A strengths and weaknesses analysis revealed that Ceramicx had key skills in core competencies i.e. in things that made them distinctive and valued by customers, including the quality of their product and their in house tooling expertise. On the other hand, the company's brand perception was hampered by associations with a commodity product at low prices.

- Strategic choices and implications for the next stage. Alternative scenarios were evaluated against the generic strategy approaches of innovation,

IfM ECS

IfM Education and Consultancy Services works with companies of all sizes to help create and capture value, and with national and regional governments to support and grow their industrial sectors.

It does this by transferring the new ideas and approaches developed by researchers at the Institute for Manufacturing (IfM) through a programme of education and consultancy services.

IfM ECS is owned by the University of Cambridge. Its profits are gifted to the University to fund future research activities. For more details on its work visit: www.ifm.eng.cam.ac.uk/services

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Ceramicx has specialised in providing infrared heat systems and process heat transfer for over twenty five years. Today, Ceramicx exports 98% of its goods to 65+ countries focusing on five key markets: UK, USA, Turkey, China and Germany. Blue chip clients include Bombardier, Harman, Corning Glass, Aston Martin, Rolls Royce, HP, GM and GE. For more information, visit: www.ceramicx.co.uk

service and efficiency to identify how these could be maximised by the different product / service offerings. Ceramics and Quartz were thought to be candidates for efficiency improvements, while Applications Engineering offered scope for increased innovation.

➤ Action planning, timings, KPIs, roles and responsibilities. In addition to a renewed focus on efficiency and innovation, Ceramicx decided to reduce the number of countries it focused on, strengthening links with selected countries: UK, USA, Turkey, China and Germany.

Outcomes

The output of the initial workshop helped Ceramicx prioritise the innovation projects that have underpinned the growth agenda of the firm. By shifting the focus of demand from a commodity product to a higher value engineering solution, the company was able to generate higher returns without taking on more cost.

Following the Business Strategy workshops, Ceramicx began to implement an R&D strategy which invests heavily in people and equipment. It is currently recruiting, and plans are well advanced for a major building expansion project to include an additional 2200m² facility comprising laboratories, a clean room environment and advanced office and manufacturing space. This will enable the company to take on larger machine / oven manufacturing projects as well as providing an improved R&D facility, and a sound platform for growth.

Encouraged by its experience of the Business Strategy workshops, the company has most recently asked IfM ECS's Andi Jones to further refine the strategy by leading a 'Strategy Refresh' workshop. As a result, Ceramicx has now reduced the number of product market groups from five to three, intending to focus its efforts on Elements, Solutions and Research. This will enable the firm to draw on its know-how in the Elements business to



generate increased contribution from the other two areas of the business. Financially, returns have dramatically improved. Turnover rose from around €2.7M at the start of the work in 2013 to €3.8M by 2016, with a projection to €7M by 2020. Yet the number of staff employed has been maintained at around 50, showing significant improvements in productivity.

“The holistic wealth orientated approach to company development is the number one attribute of the IfM methodology and conclusions. The academic and practical backgrounds of IfM’s people breaks down barriers to communication which in turn generates results.”

Frank Wilson, Managing Director and Founder, Ceramicx.

➤ For more on IfM ECS's help for smaller businesses, see: www.ifm.eng.cam.ac.uk/services/overview/sme



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